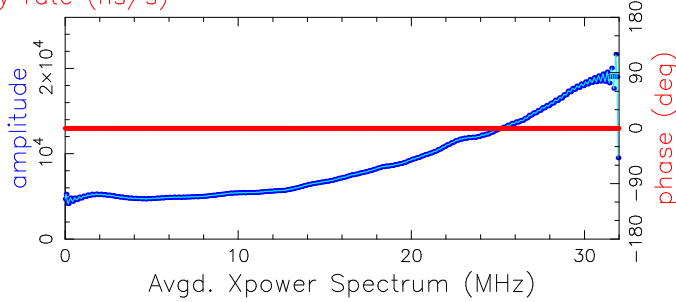
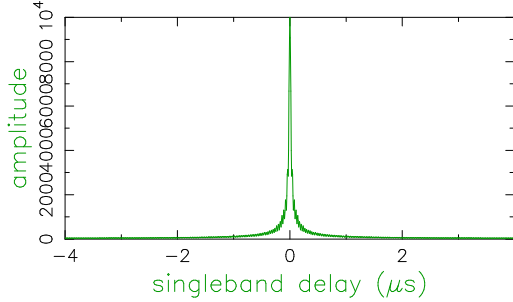


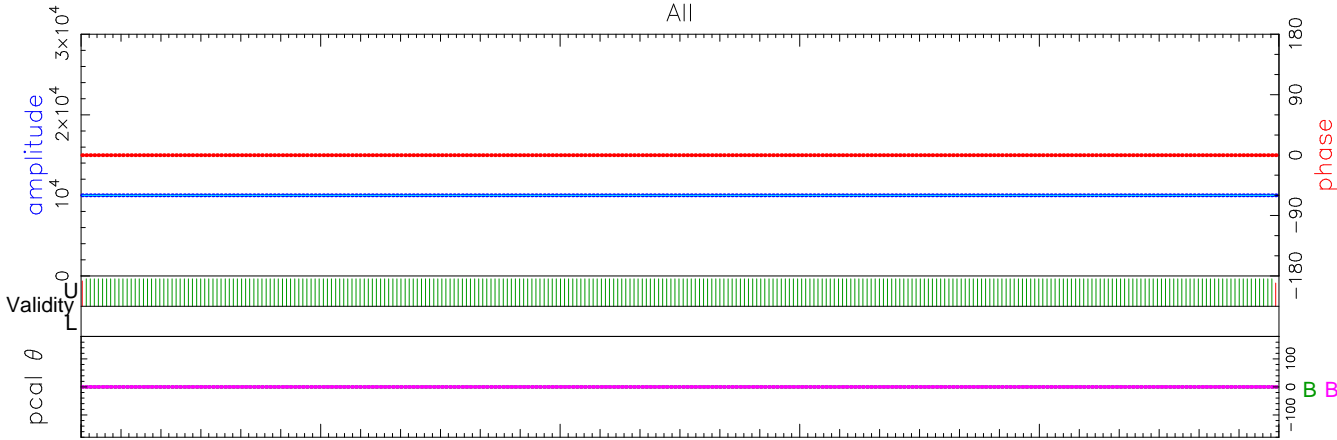
Fringe quality 9

SNR 118372.4  
Int time 299.796  
Amp 10000.000  
Phase -0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000004  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

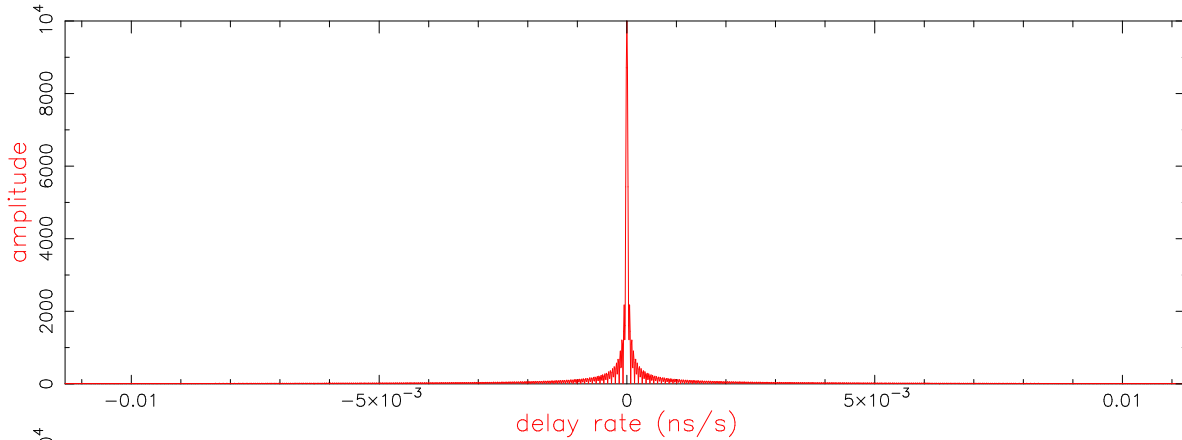


86012.00  
-0.2  
10000.0  
513.0  
U/L 586/0  
B 0  
B 0  
B:B 0:0  
B:B 0:0  
B 1000  
B 1000  
B W00UR  
B W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

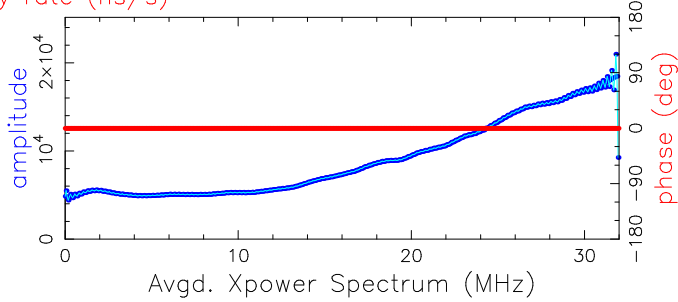
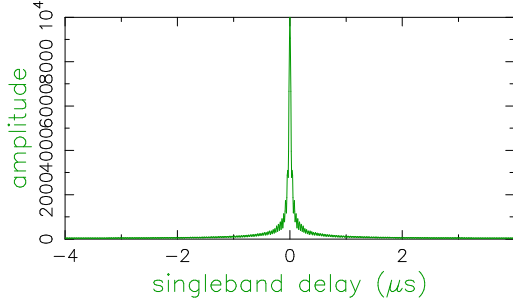
Group delay (usec)(sbd)	-4.36343765986E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.36344E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.67338075115E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.67338E-09	+/-	3.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00



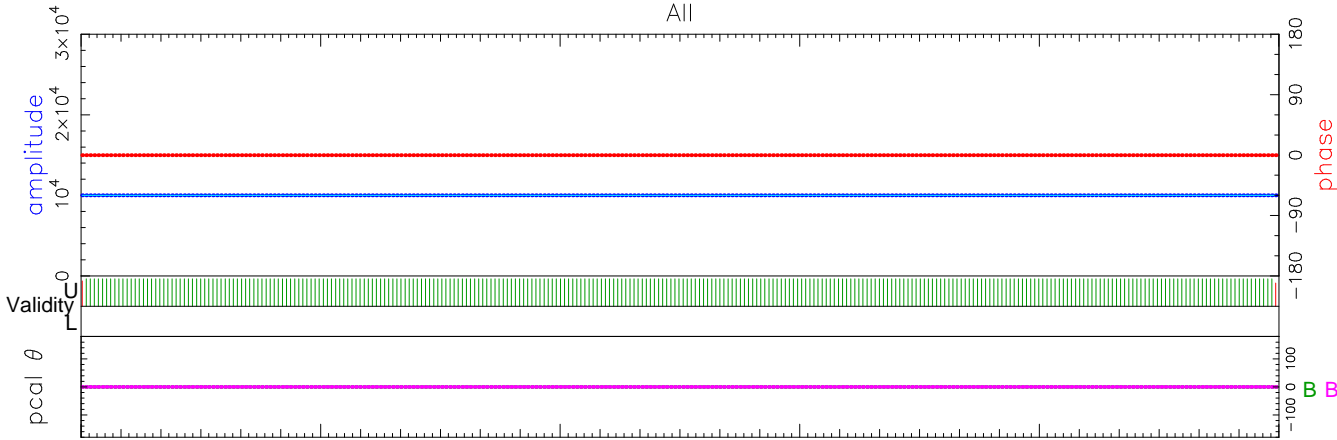
Fringe quality 9

SNR 118372.4  
 Int time 299.796  
 Amp 10000.000  
 Phase -0.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163631  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -0.2  
 10000.0  
 513.0  
 U/L 586/0  
 B 0  
 B 0  
 B:B 0:0  
 B:B 0:0  
 B 1000  
 B 1000  
 B W00UL  
 B W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

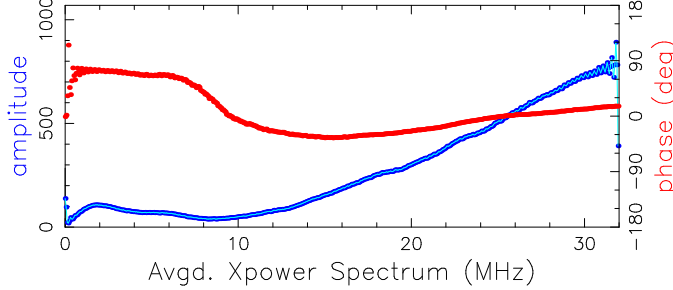
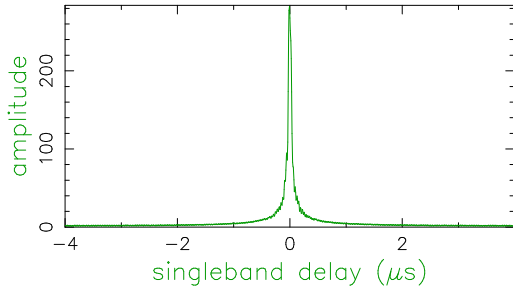
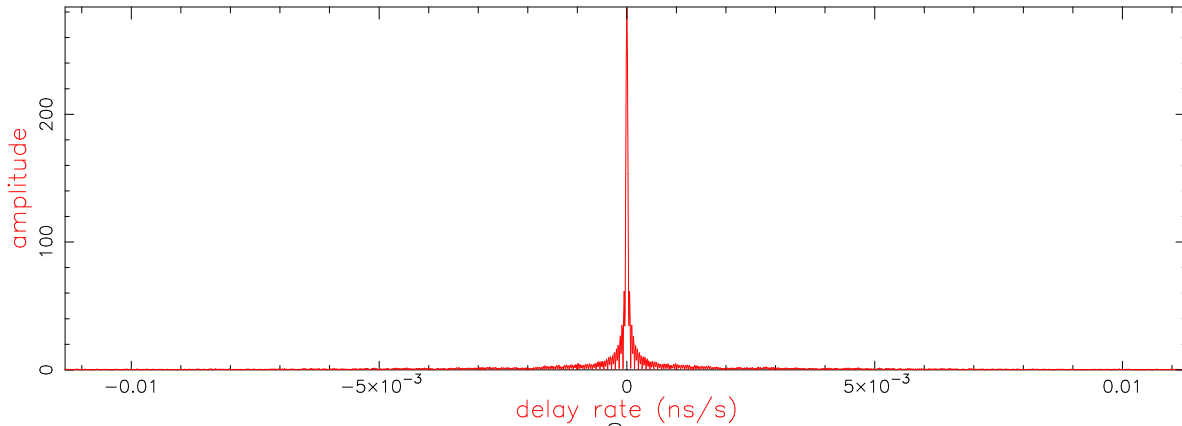
Group delay (usec)(sbd)	-4.39082918663E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.39083E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.70899545974E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.70900E-09	+/-	3.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

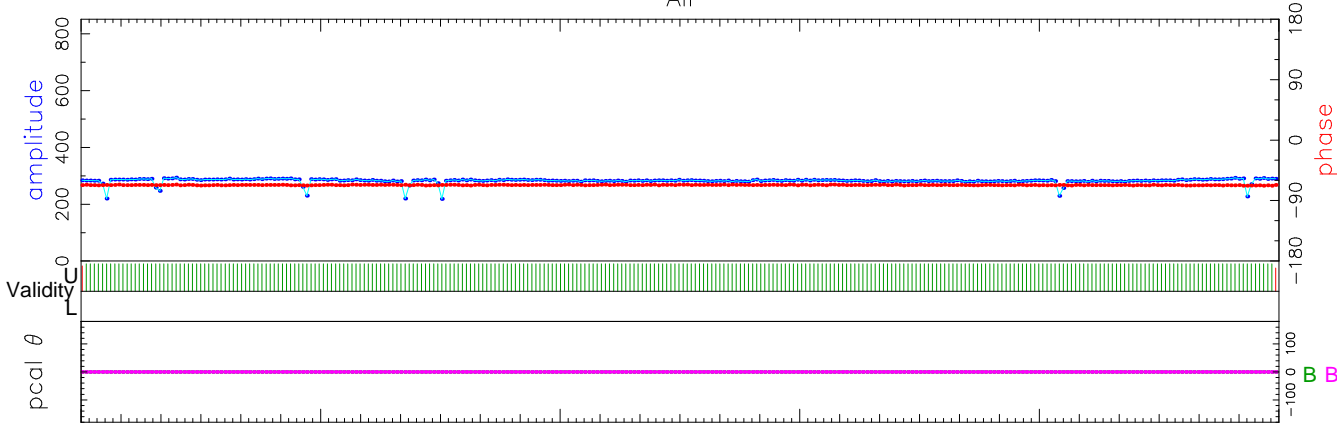
Fringe quality 9

SNR 3361.1  
Int time 299.796  
Amp 283.946  
Phase -181.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.010309  
MBD -0.000006  
Fringe rate (Hz)  
0.000016  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-66.9  
282.7  
511.8  
U/L 586/0  
B 0  
B 0  
B:B 0:0  
B:B 0:0  
B 1000  
B 1000  
B W00UL  
B W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.03067502209E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.86197E-06	+/-	5.1E-06
Sband delay (usec)	-1.03095000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.03095E-02	+/-	5.1E-06
Phase delay (usec)	-2.15679306892E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.15679E-06	+/-	1.1E-09
Delay rate (us/s)	1.83516423472E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.83516E-10	+/-	6.3E-12
Total phase (deg)	-181.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-181.5	+/-	0.0

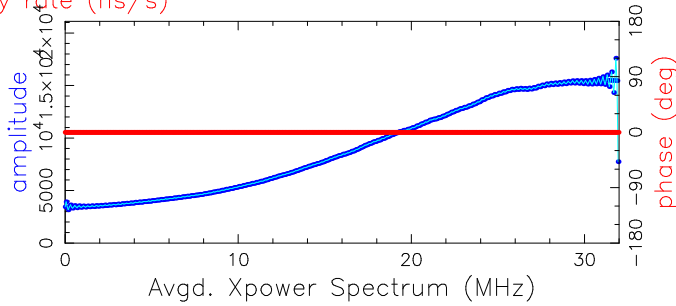
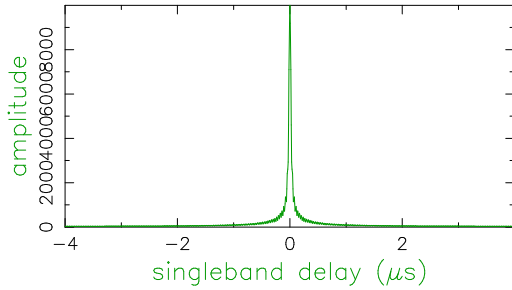
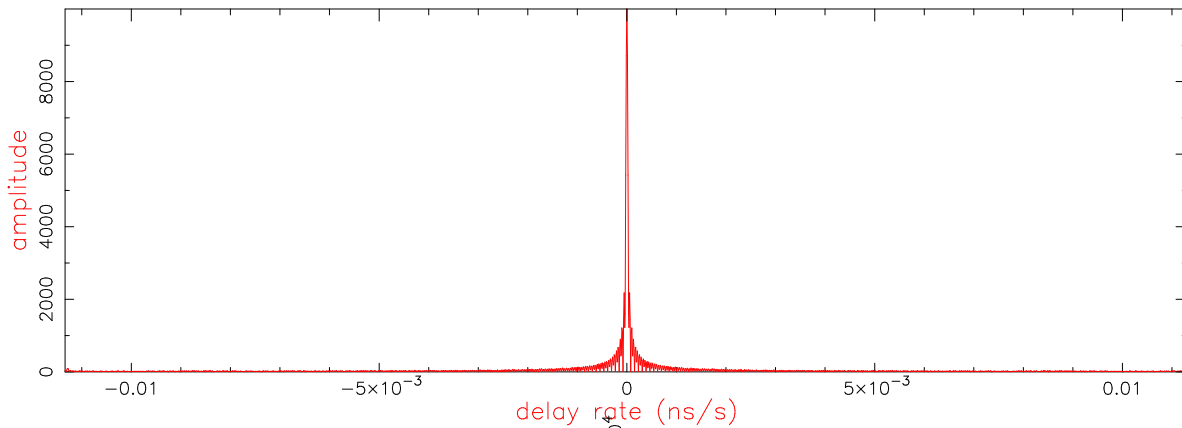
ph/seg (deg)	0.3	Theor.	0.3	Amplitude	283.946 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	3.4		0.5	Search (2048X8)	282.697	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4		0.0	Inc. seg. avg.	282.705	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	282.704	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

B: az 247.2 el 37.9 pa 37.6      B: az 247.2 el 37.9 pa 37.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//BB..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//BB.W.28.0QR0YU

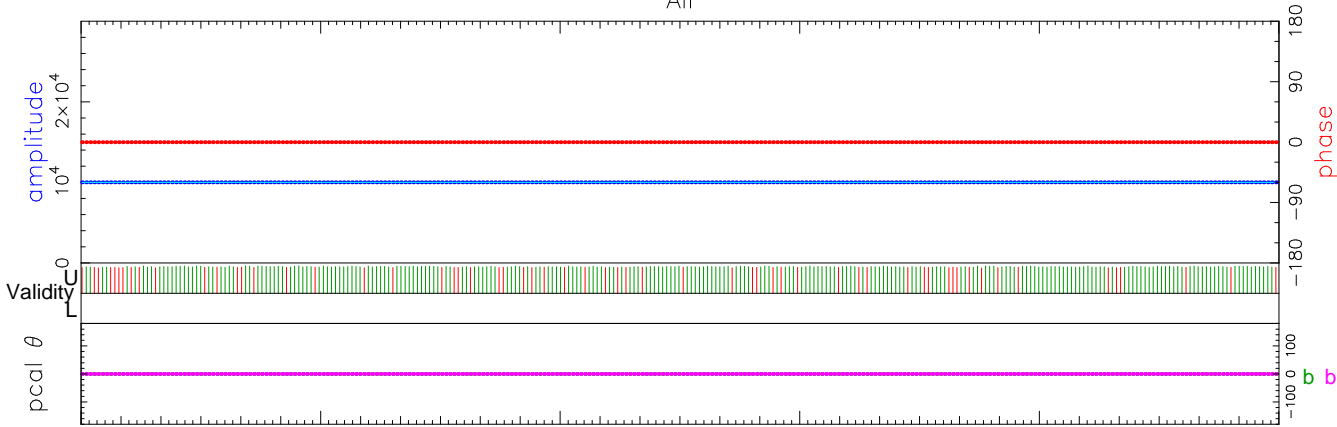
Fringe quality 9

SNR 116217.3  
Int time 288.979  
Amp 9999.999  
Phase -0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000005  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-0.2 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 586/0 APs used  
b 3000 PC freqs  
b 3000 PC freqs  
b:b 0:0 PC phase  
b:b 0:0 Mani PC  
b 1000 PC amp  
b 1000  
b W00UR Chan ids  
b W00UR Chan ids

Group delay (usec)(sbd) -4.72027159001E-06 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -4.72027E-06 +/- 1.5E-07  
Sband delay (usec) 0.00000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-07  
Phase delay (usec) -6.13733942514E-09 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -6.13734E-09 +/- 3.2E-11  
Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.8E-13  
Total phase (deg) -0.2 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -0.2 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 0.0 0.0 Search (2048X8) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

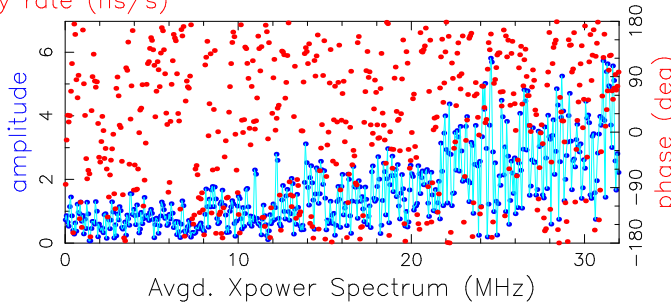
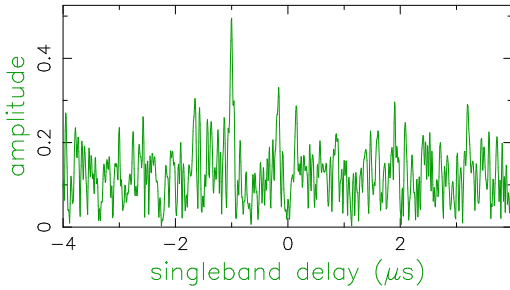
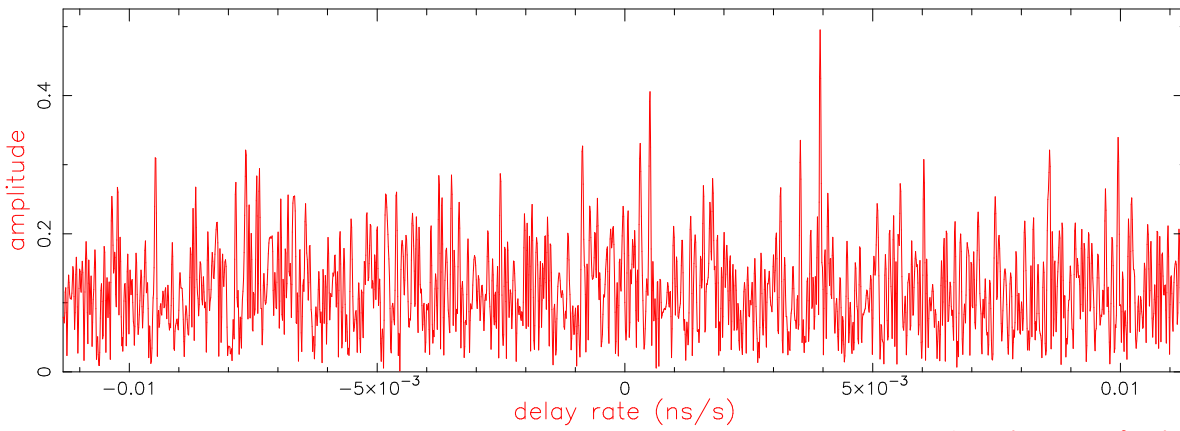
b: az 88.2 el 20.4 pa -44.0 b: az 88.2 el 20.4 pa -44.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bb..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bb.W.30.0QR0YU



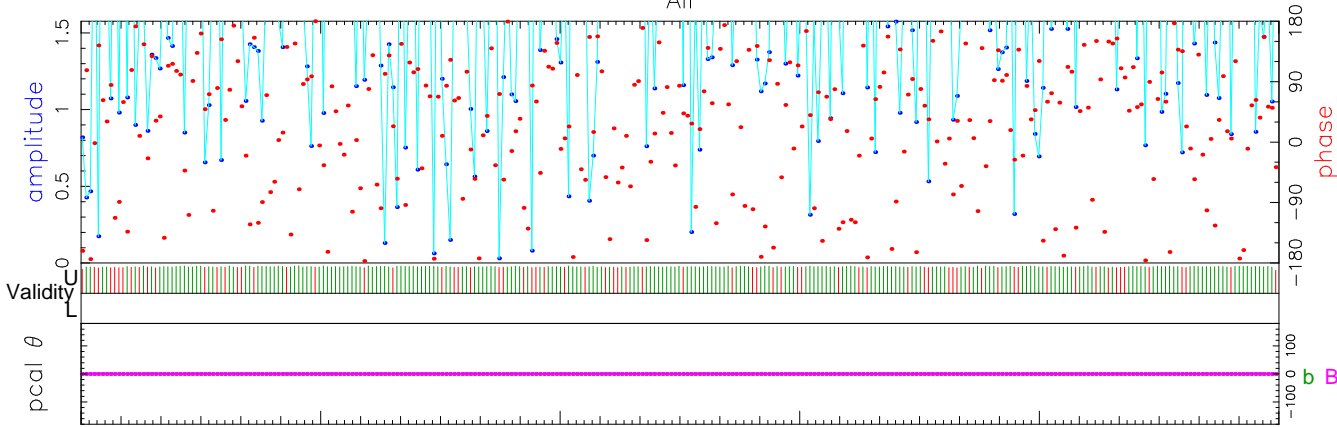
Fringe quality 0

SNR 5.8  
Int time 288.316  
Amp 0.526  
Phase -67.4  
PFD 5.6e-01  
Delays (us)  
SBD -1.003085  
MBD 0.000006  
Fringe rate (Hz)  
0.340253  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



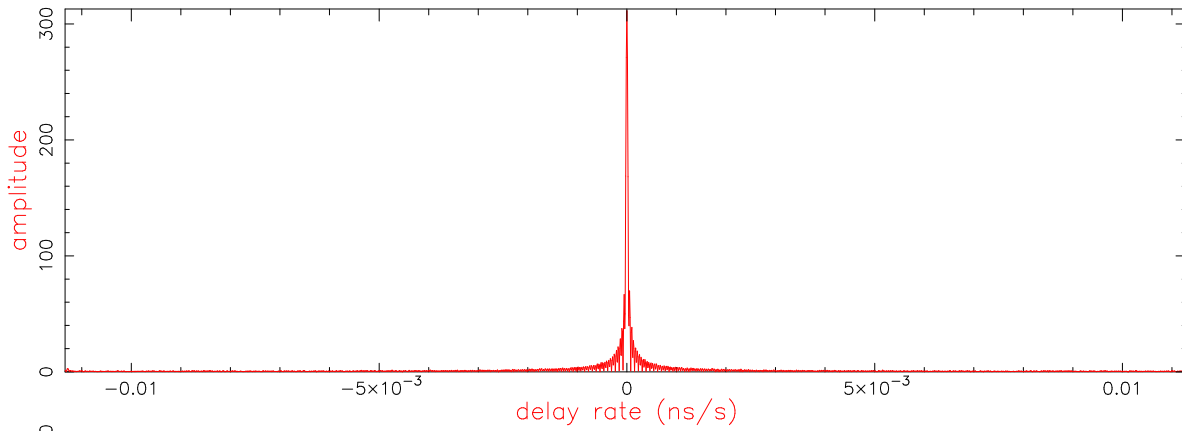
86012.00  
75.1  
0.5  
384.6  
U/L 586/0  
b 3000  
B 0  
b:B 0:0  
b:B 0:0  
b 1000  
B 1000  
b W00UR  
B W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.32084961421E+03	Apriori delay (usec)	-5.31984652750E+03	Resid mbdelay (usec)	5.88085E-06	+/-	3.0E-03
Sband delay (usec)	-5.32084961250E+03	Apriori clock (usec)	-3.9345272E+00	Resid sbdelay (usec)	-1.00309E+00	+/-	3.0E-03
Phase delay (usec)	-5.31984652507E+03	Apriori clockrate (us/s)	4.2699999E-07	Resid phdelay (usec)	2.42323E-06	+/-	6.4E-07
Delay rate (us/s)	1.69623028135E+00	Apriori rate (us/s)	1.69622633136E+00	Resid rate (us/s)	3.95000E-06	+/-	3.7E-09
Total phase (deg)	-23.6	Apriori accel (us/s/s)	2.74053238535E-05	Resid phase (deg)	-67.4	+/-	19.8

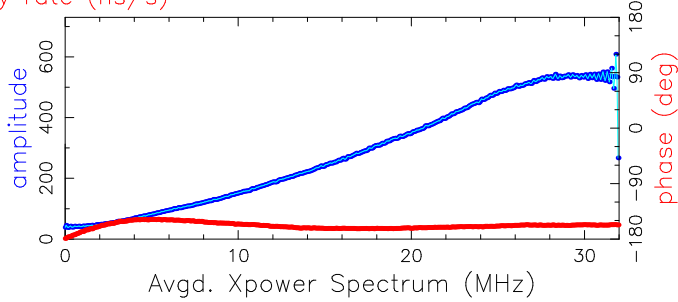
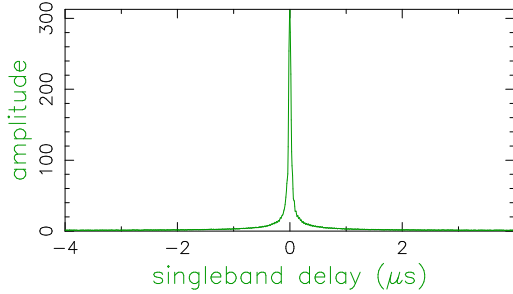
ph/seg (deg)	89.3	Theor.	169.1	Amplitude	0.526 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	360.5	RMS	89.3	Search (2048X8)	0.489	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	9.9	Inc. seg. avg.	0.392	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.9	Inc. frq. avg.	17.2	Inc. frq. avg.	0.513	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate (Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0      B: az 247.2 el 37.9 pa 37.6      u,v (fr/asec) -10082.326 443.938      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bB..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bB.W.34.0QR0YU



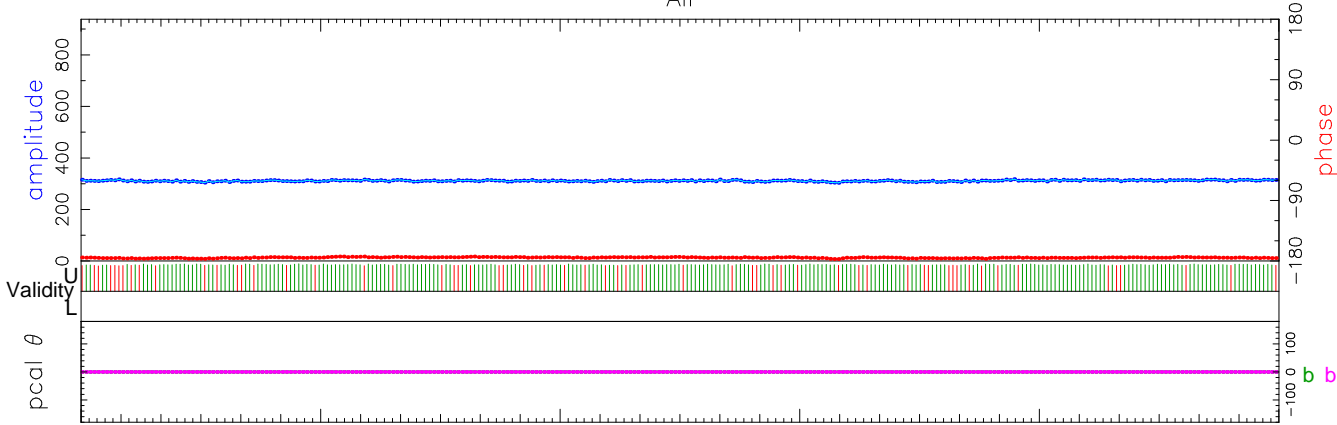
Fringe quality 9

SNR 3636.1  
 Int time 288.979  
 Amp 312.873  
 Phase -270.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002072  
 MBD -0.000007  
 Fringe rate (Hz)  
 -0.000014  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163635  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



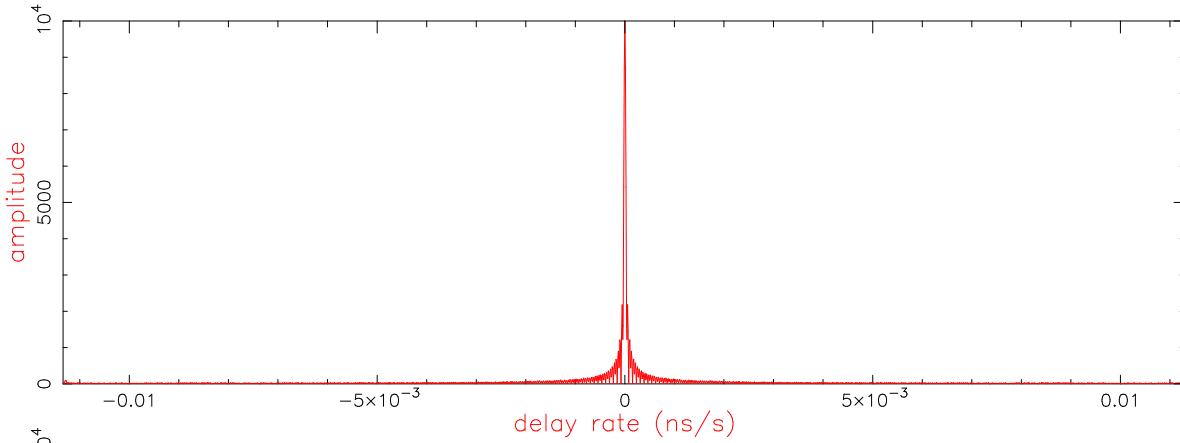
86012.00	Freq (MHz)
-174.9	Phase
311.4	Ampl.
512.7	Sbd box
U/L 586/0	APs used
b 3000	PC freqs
b 3000	PC freqs
b:b 0:0	PC phase
b:b 0:0	Mani PC
b 1000	PC amp
b 1000	
b W00UL	Chan ids
b W00UR	Chan ids

Group delay (usec)(sbd)	-2.07652178766E-03	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-7.04311E-06	+/-	4.7E-06
Sband delay (usec)	-2.07200000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.07200E-03	+/-	4.7E-06
Phase delay (usec)	-5.64077511123E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.64078E-06	+/-	1.0E-09
Delay rate (us/s)	-1.67928155841E-10	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	-1.67928E-10	+/-	5.9E-12
Total phase (deg)	-270.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-270.3	+/-	0.0

ph/seg (deg)	0.7	0.3	Amplitude	312.873 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.9	0.5	Search (2048X8)	311.374	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	0.0	Inc. seg. avg.	311.405	Sample rate(MSamp/s): 64	ion window (TEC)	-0.011 0.011	
			Inc. frq. avg.	311.385	Data rate(Mb/s): 128	nlags: 512 t_cohere infinite	0.00 0.00	

b: az 88.2 el 20.4 pa -44.0      b: az 88.2 el 20.4 pa -44.0      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bb..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bb.W.40.0QR0YU



Fringe quality 9

SNR 116217.2

Int time 288.979

Amp 10000.002

Phase 0.3

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000007

Fringe rate (Hz)

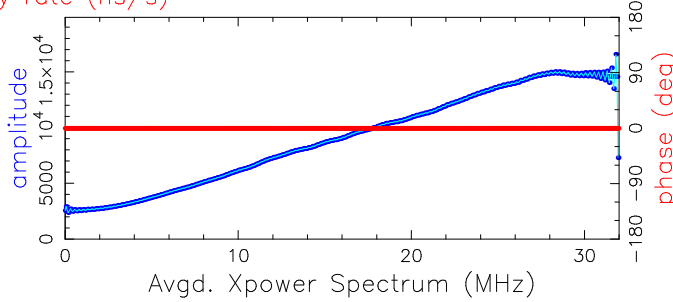
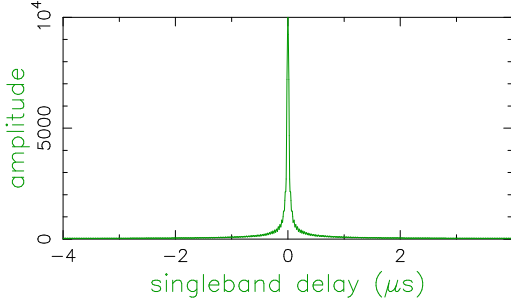
0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163631

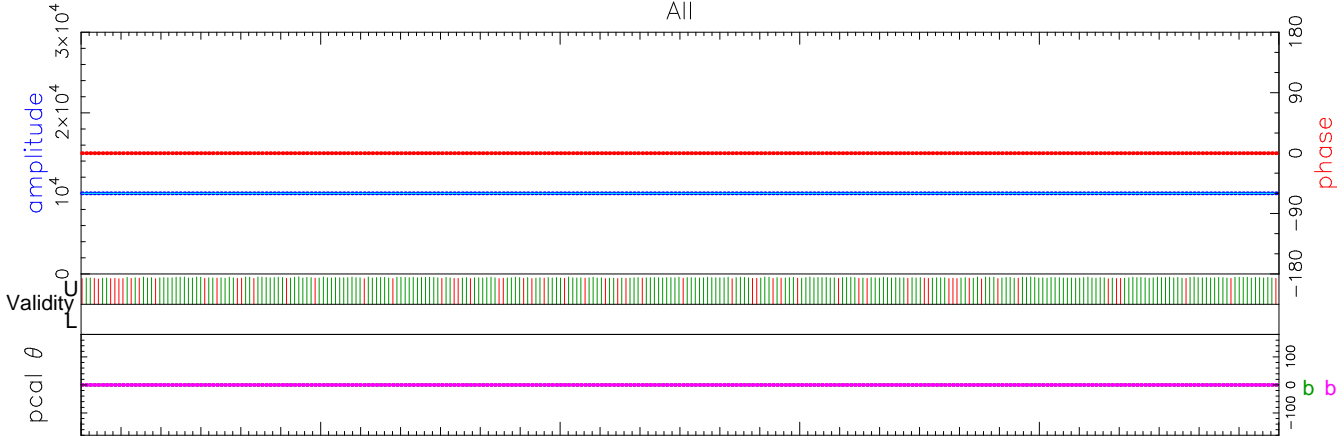
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00	Freq (MHz)
-0.3	Phase
10000.0	Ampl.
513.0	Sbd box
U/L 586/0	APs used
b 3000	PC freqs
b 3000	PC freqs
b:b 0:0	PC phase
b:b 0:0	Mani PC
b 1000	PC amp
b 1000	
b W00UL	Chan ids
b W00UL	Chan ids

Group delay (usec)(sbd)	4.76528856439E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-6.86100E-06	+/- 1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-8.92072867063E-09	Apriori clockrate (us/s)	0.000000E+00	Resid phdelay (usec)	-8.92073E-09	+/- 3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/- 0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.002 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.002	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	10000.002	Data rate(Mb/s): 128	nlags: 512	t_cohere	infinite	

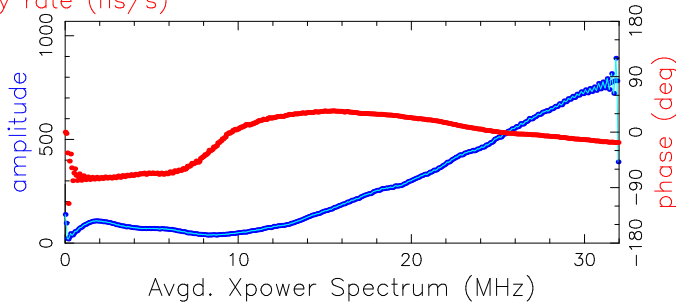
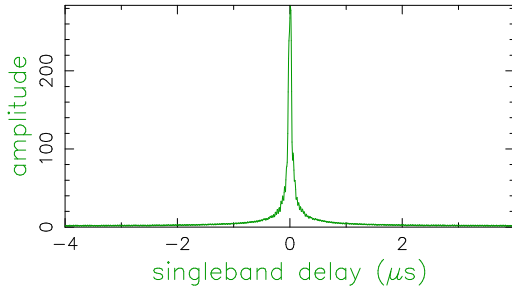
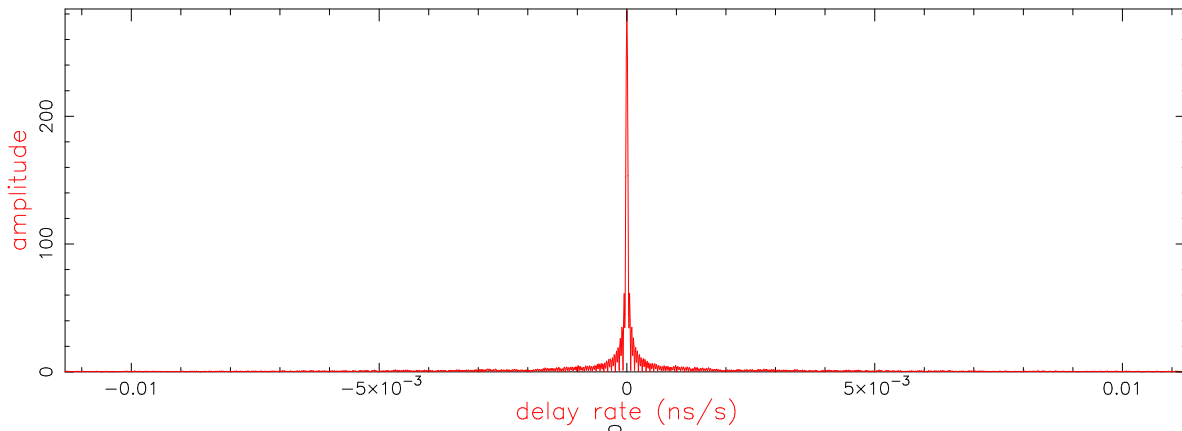
b: az 88.2 el 20.4 pa -44.0      b: az 88.2 el 20.4 pa -44.0      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bb..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bb.W.4.0QR0YU

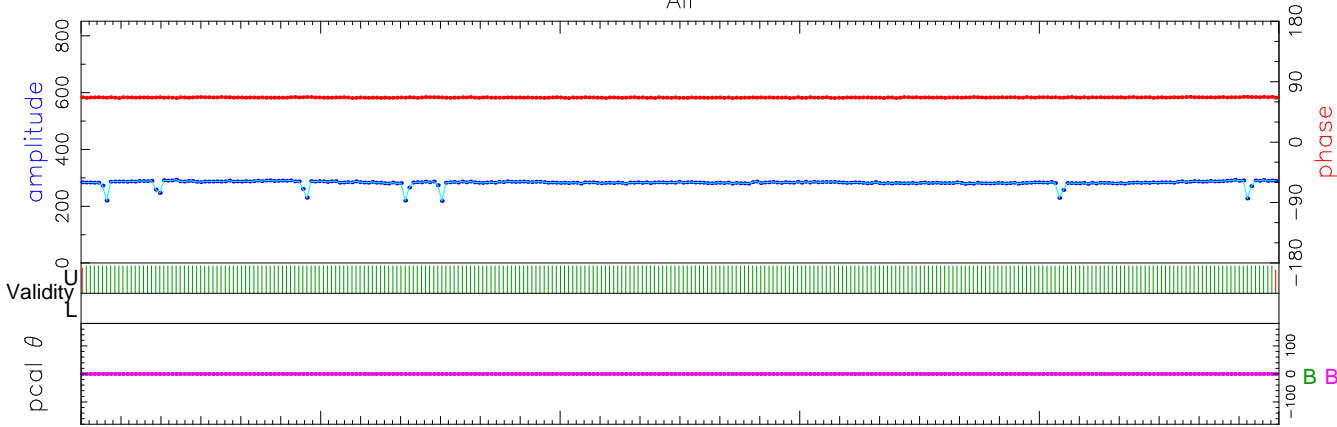
Fringe quality 9

SNR 3361.1  
Int time 299.796  
Amp 283.946  
Phase 181.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.010309  
MBD -0.000007  
Fringe rate (Hz)  
-0.000016  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163635  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



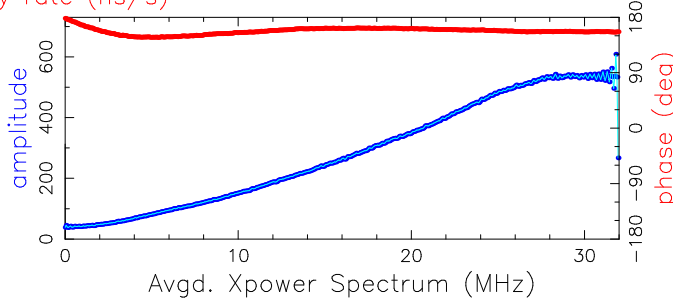
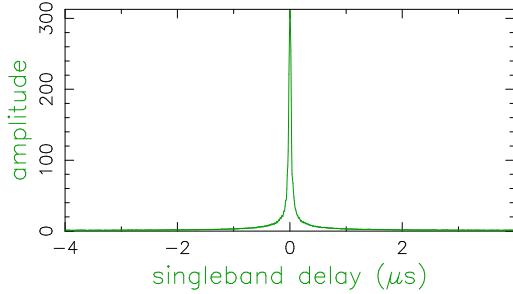
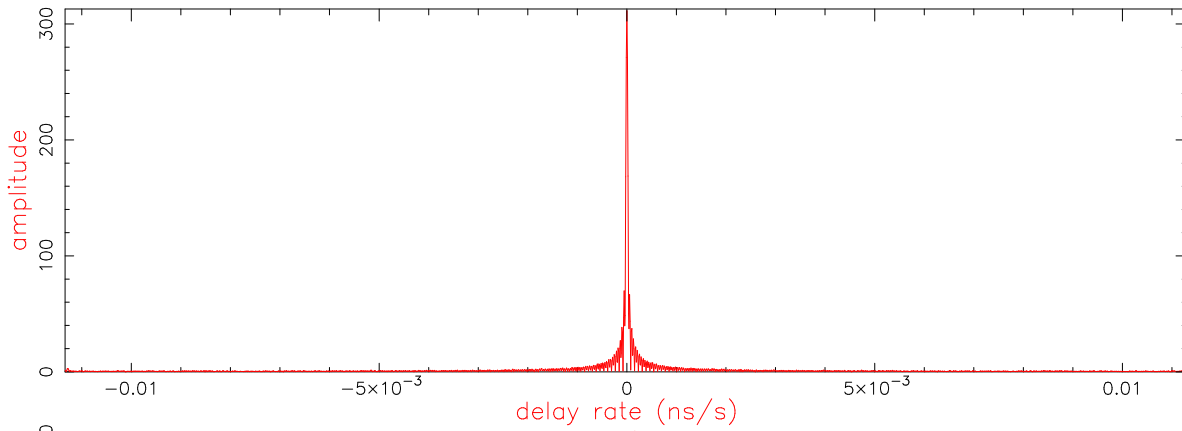
86012.00  
66.4  
282.7  
514.2  
U/L 586/0  
B 0  
B 0  
B:B 0:0  
B:B 0:0  
B 1000  
B 1000  
B W00UR  
B W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.03056661861E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-6.84835E-06	+/-	5.1E-06
Sband delay (usec)	1.03095000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.03095E-02	+/-	5.1E-06
Phase delay (usec)	2.14026699720E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.14027E-06	+/-	1.1E-09
Delay rate (us/s)	-1.83516423472E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.83516E-10	+/-	6.3E-12
Total phase (deg)	181.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	181.6	+/-	0.0

ph/seg (deg)	0.3	Theor.	0.3	Amplitude	283.946 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5						
amp/seg (%)	3.4		0.5	Search (2048X8)	282.697	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000						
ph/frq (deg)	0.0		0.0	Inc. seg. avg.	282.705	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000				
amp/frq (%)	0.4		0.0	Inc. frq. avg.	282.704	Sample rate(MSamp/s):	64	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

B: az 247.2 el 37.9 pa 37.6      B: az 247.2 el 37.9 pa 37.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//BB..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//BB.W.41.0QR0YU



Fringe quality 9

SNR 3636.1

Int time 288.979

Amp 312.872

Phase 270.3

PFD 0.0e+00

Delays (us)

SBD 0.002072

MBD -0.000006

Fringe rate (Hz)

0.000014

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163636

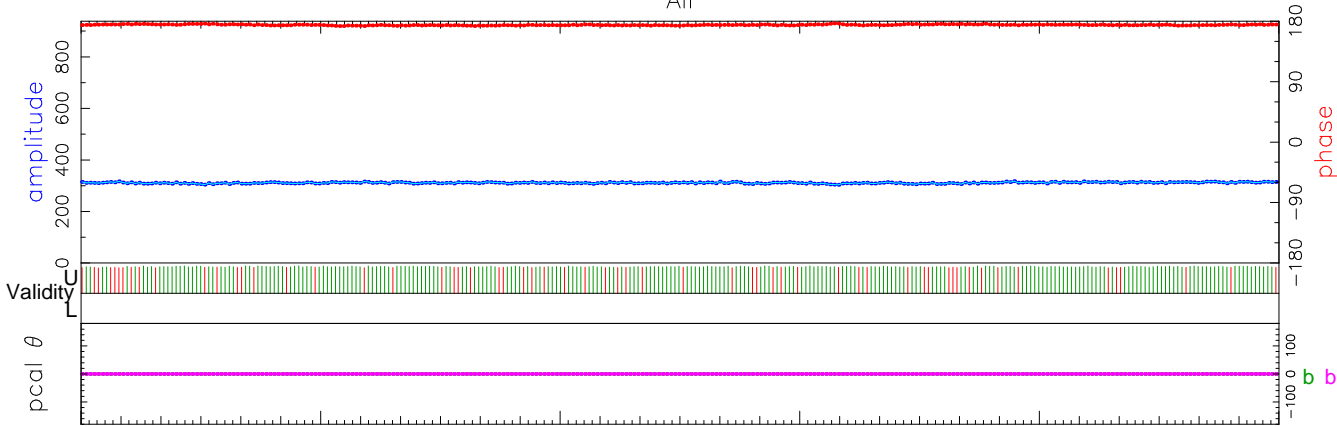
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



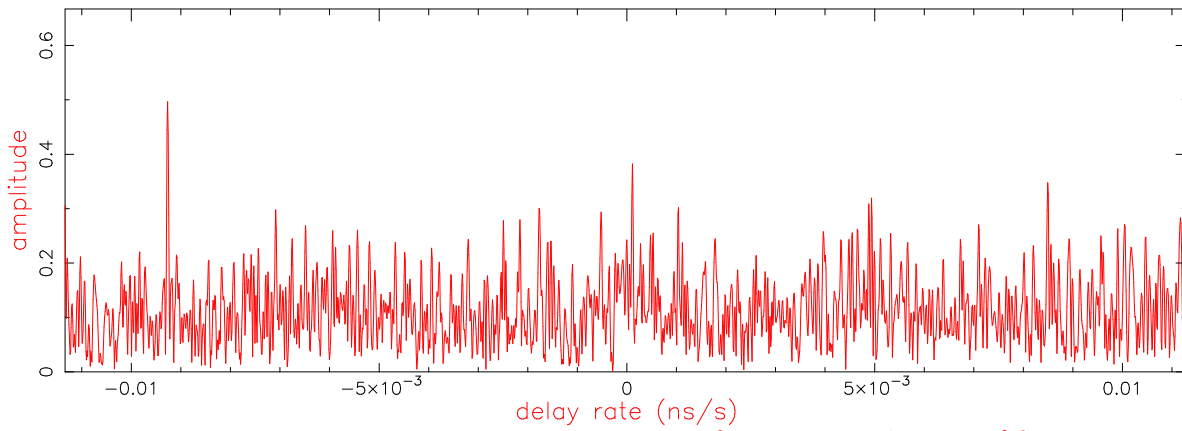
86012.00	Freq (MHz)
174.4	Phase
311.4	Ampl.
513.3	Sbd box
U/L 586/0	APs used
b 3000	PC freqs
b 3000	PC freqs
b:b 0:0	PC phase
b:b 0:0	Mani PC
b 1000	PC amp
b 1000	
b W00UR	Chan ids
b W00UL	Chan ids

Group delay (usec)(sbd)	2.07539738641E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.70758E-06	+/- 4.7E-06
Sband delay (usec)	2.07200000000E-03	Apriori clock (usec)	0.00000000000E+00	Resid sbdelay (usec)	2.07200E-03	+/- 4.7E-06
Phase delay (usec)	5.62419655504E-06	Apriori clockrate (us/s)	0.00000000000E+00	Resid phdelay (usec)	5.62420E-06	+/- 1.0E-09
Delay rate (us/s)	1.67928155841E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.67928E-10	+/- 5.9E-12
Total phase (deg)	270.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	270.3	+/- 0.0

ph/seg (deg)	0.7	0.3	Amplitude	312.872 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.9	0.5	Search (2048X8)	311.374	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	311.405	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.5	0.0	Inc. frq. avg.	311.384	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
					Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

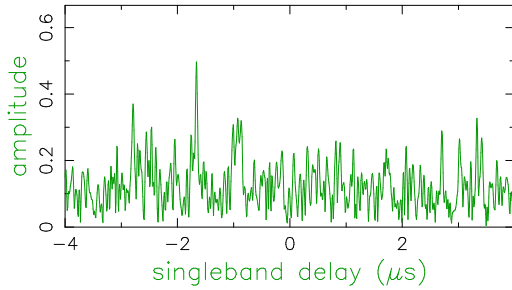
b: az 88.2 el 20.4 pa -44.0      b: az 88.2 el 20.4 pa -44.0      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bb..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bb.W.50.0QR0YU

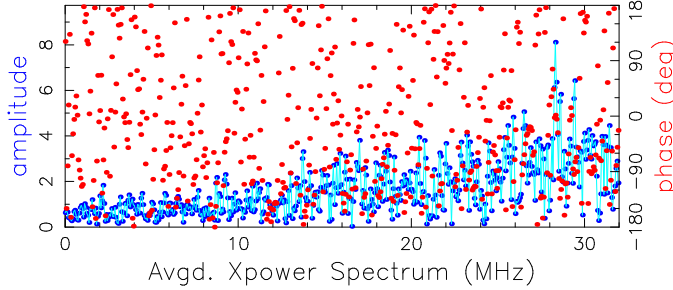


Fringe quality 0

SNR 5.8  
Int time 288.321  
Amp 0.667  
Phase -223.7  
PFD 6.1e-01  
Delays (us)  
SBD -1.662548  
MBD -0.000005  
Fringe rate (Hz)  
-0.799734  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

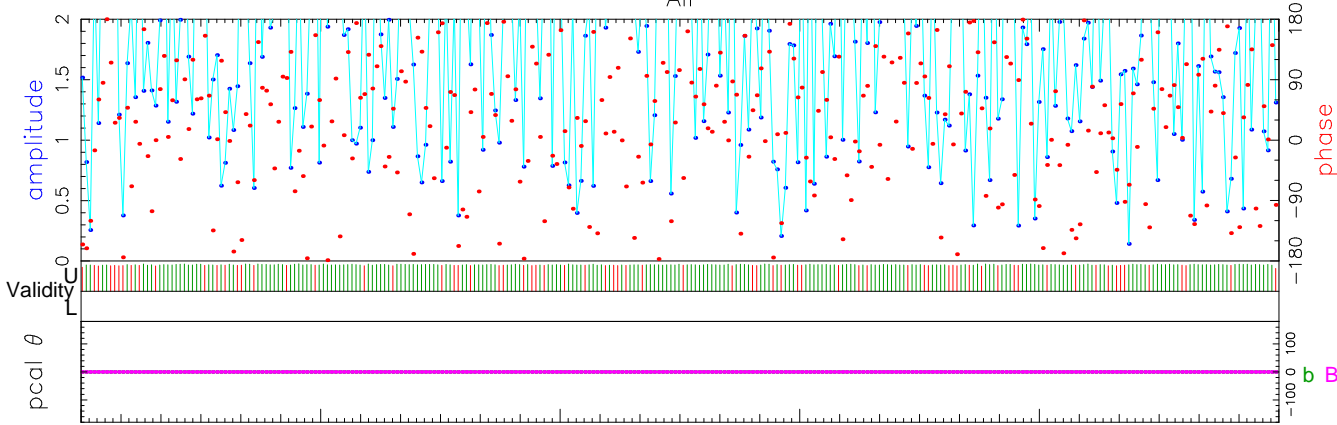


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
66.5  
0.7  
300.2  
U/L 586/0  
b 3000  
B 0  
b:B 0:0  
b:B 0:0  
b 1000  
B 1000  
b W00UL  
B W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.32150907935E+03	Apriori delay (usec)	-5.31984652750E+03	Resid mbdelay (usec)	-4.76910E-06	+/-	3.0E-03
Sband delay (usec)	-5.32150907550E+03	Apriori clock (usec)	-3.9345272E+00	Resid sbdelay (usec)	-1.66255E+00	+/-	3.0E-03
Phase delay (usec)	-5.31984652535E+03	Apriori clockrate (us/s)	4.2699999E-07	Resid phdelay (usec)	2.14481E-06	+/-	6.4E-07
Delay rate (us/s)	1.69621704724E+00	Apriori rate (us/s)	1.69622633136E+00	Resid rate (us/s)	-9.28412E-06	+/-	3.7E-09
Total phase (deg)	-179.9	Apriori accel (us/s/s)	2.74053238535E-05	Resid phase (deg)	-223.7	+/-	19.8

ph/seg (deg)	89.8	Theor.	169.7	Amplitude	0.667 +/- 0.115	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	352.6	Search (2048X8)	0.488	Search	0.488	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.481	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.656	Inc. frq. avg.	0.656	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

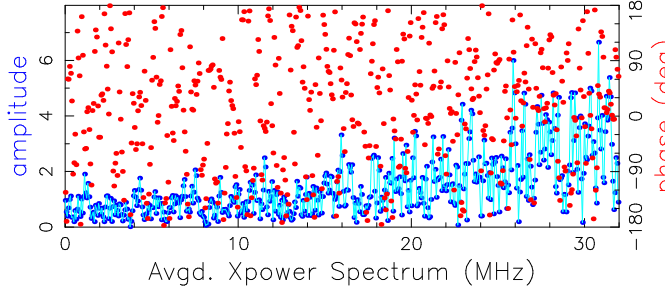
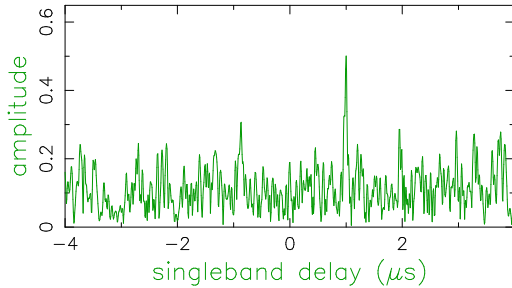
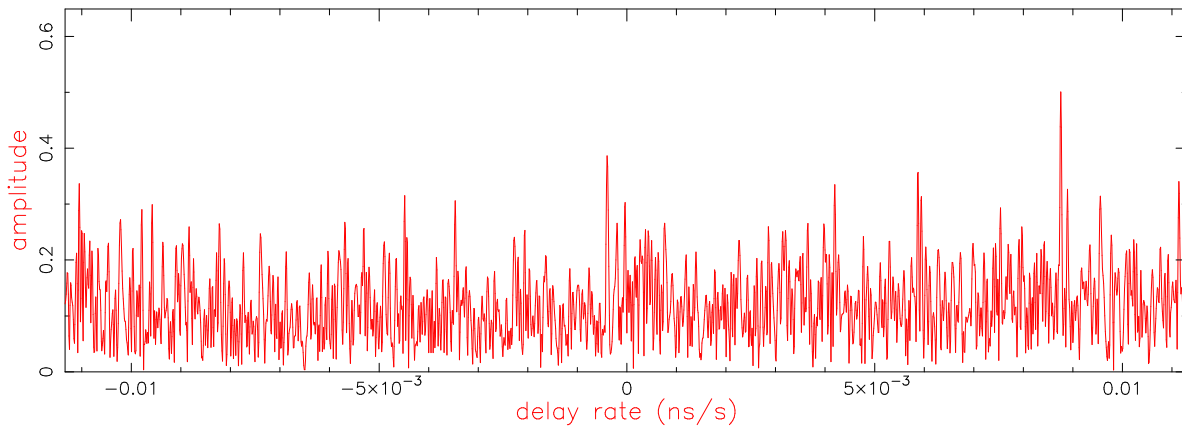
b: az 88.2 el 20.4 pa -44.0    B: az 247.2 el 37.9 pa 37.6    u,v (fr/asec) -10082.326 443.938    simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bB..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bB.W.57.0QR0YU



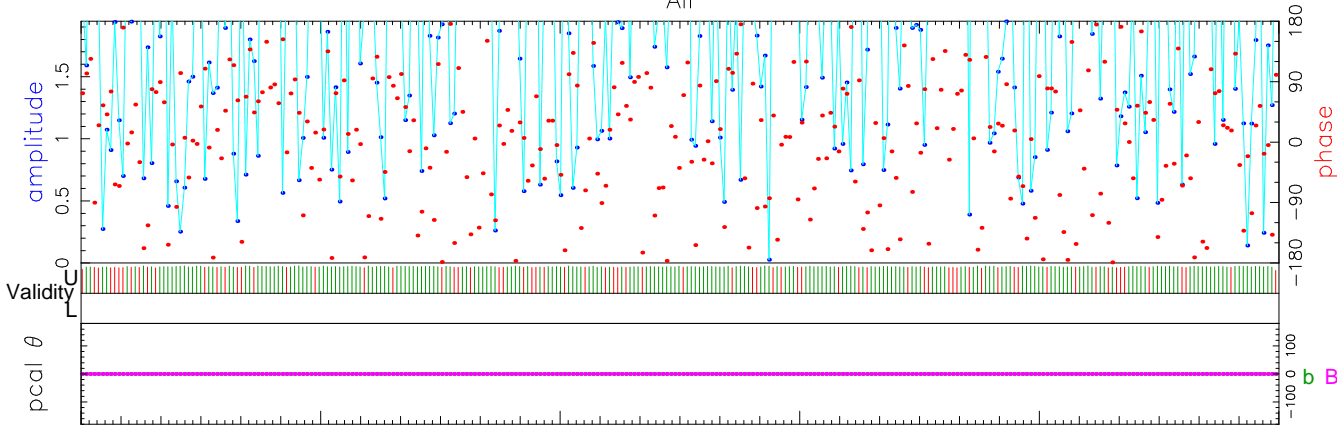
Fringe quality 0

SNR 5.8  
Int time 288.316  
Amp 0.649  
Phase 32.1  
PFD 5.4e-01  
Delays (us)  
SBD 0.999870  
MBD 0.000005  
Fringe rate (Hz)  
0.755565  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
38.5  
0.6  
641.0  
U/L 586/0  
b 3000  
B 0  
b:B 0:0  
b:B 0:0  
b 1000  
B 1000  
b W00UR  
B W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

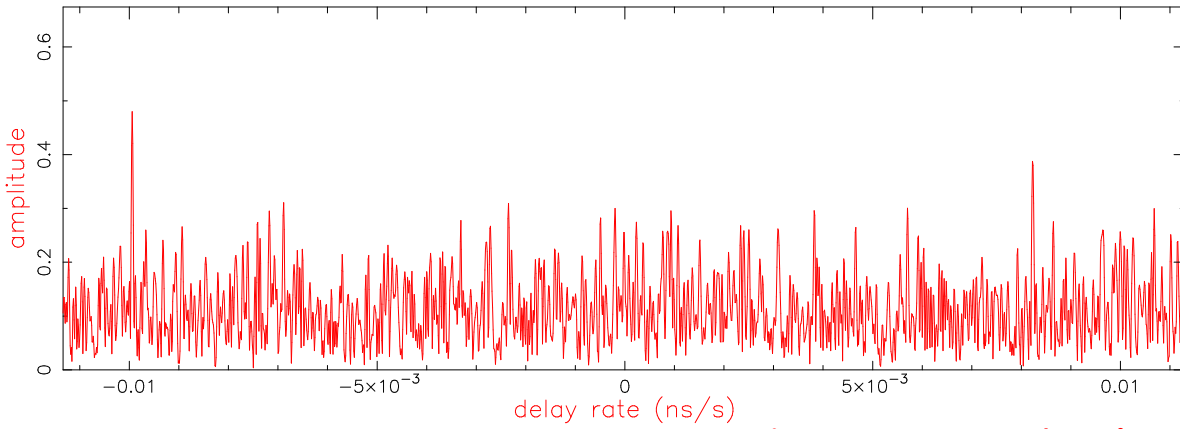
Group delay (usec)(sbd)	-5.31884666166E+03	Apriori delay (usec)	-5.31984652750E+03	Resid mbdelay (usec)	5.35358E-06	+/-	3.0E-03
Sband delay (usec)	-5.31884665800E+03	Apriori clock (usec)	-3.9345272E+00	Resid sbdelay (usec)	9.99870E-01	+/-	3.0E-03
Phase delay (usec)	-5.31984652625E+03	Apriori clockrate (us/s)	4.2699999E-07	Resid phdelay (usec)	1.24221E-06	+/-	6.4E-07
Delay rate (us/s)	1.69623510272E+00	Apriori rate (us/s)	1.69622633136E+00	Resid rate (us/s)	8.77136E-06	+/-	3.7E-09
Total phase (deg)	75.8	Apriori accel (us/s/s)	2.74053238535E-05	Resid phase (deg)	32.1	+/-	19.7

ph/seg (deg)	RMS 91.9	Theor. 168.8	Amplitude 0.649 +/- 0.112	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	396.8	294.5	Search (2048X8) 0.493	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000		
ph/frq (deg)	0.0	9.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000	
amp/frq (%)	0.0	17.2	Inc. seg. avg. 0.516	Sample rate(MSamp/s): 64	nlags: 512	t_cohere infinite	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.640	Data rate(Mb/s): 128		ion window (TEC) 0.00 0.00	

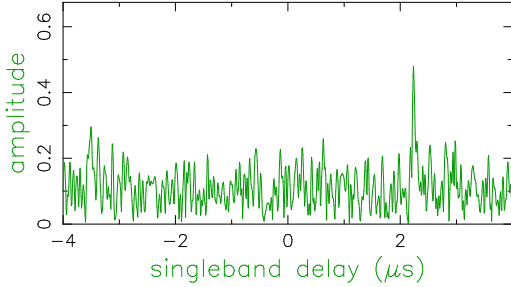
b: az 88.2 el 20.4 pa -44.0    B: az 247.2 el 37.9 pa 37.6    u,v (fr/asec) -10082.326 443.938    simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bB..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bB.W.71.0QR0YU



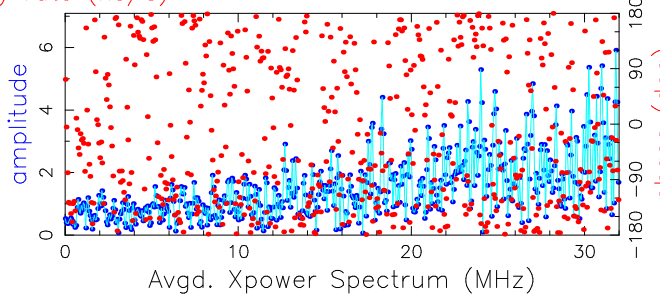
Fringe quality 0



SNR 5.6  
Int time 288.321  
Amp 0.674  
Phase 87.8  
PFD 9.5e-01  
Delays (us)  
SBD 2.233802  
MBD -0.000007  
Fringe rate (Hz)  
-0.857820  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



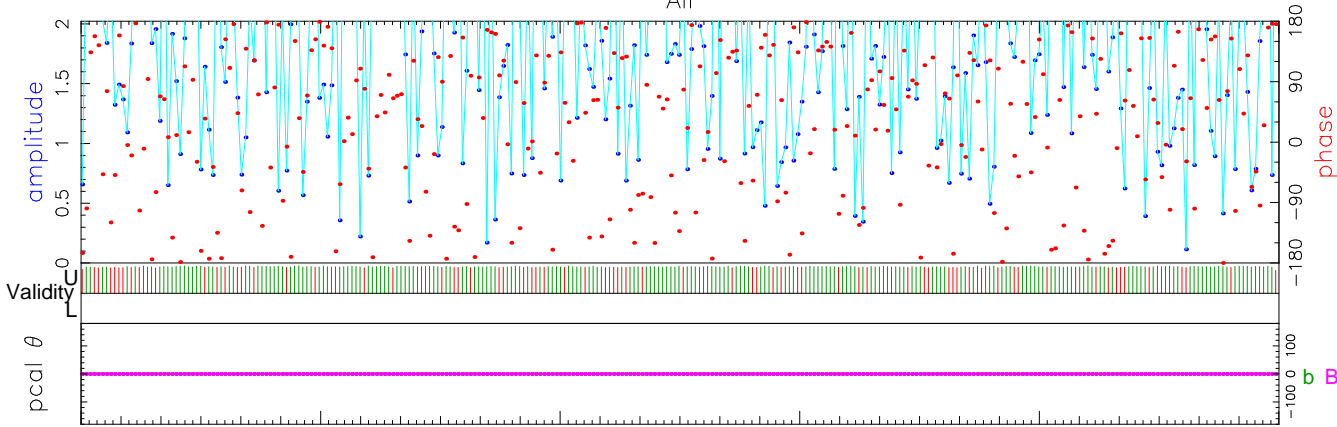
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
114.0  
0.7  
799.0  
U/L 586/0  
b 3000  
B 0  
b:B 0:0  
b:B 0:0  
b 1000  
B 1000  
b W00UL  
B W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.31761272976E+03	Apriori delay (usec)	-5.31984652750E+03	Resid mbdelay (usec)	-6.84584E-06	+/-	3.1E-03
Sband delay (usec)	-5.31761272600E+03	Apriori clock (usec)	-3.9345272E+00	Resid sbdelay (usec)	2.23380E+00	+/-	3.1E-03
Phase delay (usec)	-5.31984652382E+03	Apriori clockrate (us/s)	4.2699999E-07	Resid phdelay (usec)	3.67742E-06	+/-	6.6E-07
Delay rate (us/s)	1.69621637292E+00	Apriori rate (us/s)	1.69622633136E+00	Resid rate (us/s)	-9.95844E-06	+/-	3.8E-09
Total phase (deg)	131.5	Apriori accel (us/s/s)	2.74053238535E-05	Resid phase (deg)	87.8	+/-	20.6

ph/seg (deg)	RMS 91.3	Theor. 176.1	Amplitude 0.674 +/- 0.121	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	383.5	307.3	Search (2048X8) 0.461	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000		
ph/frq (deg)	0.0	10.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000	
amp/frq (%)	0.0	18.0	Inc. seg. avg. 0.492	Sample rate(MSamp/s): 64	ion window (TEC)	-0.011 0.011	
			Inc. frq. avg. 0.663	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	0.00 0.00

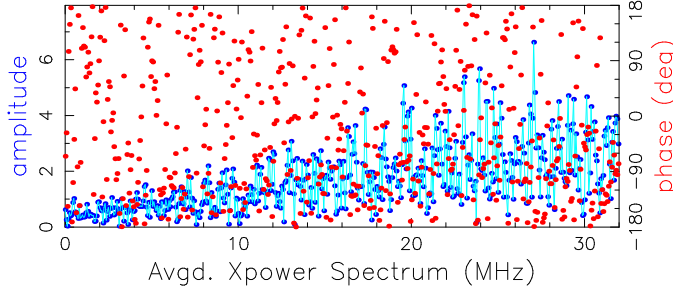
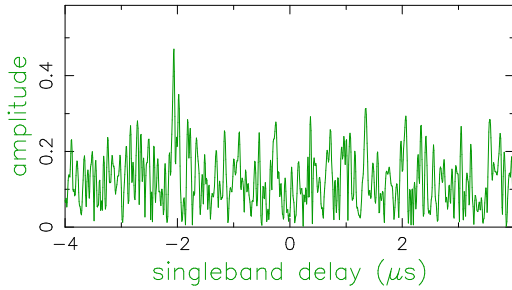
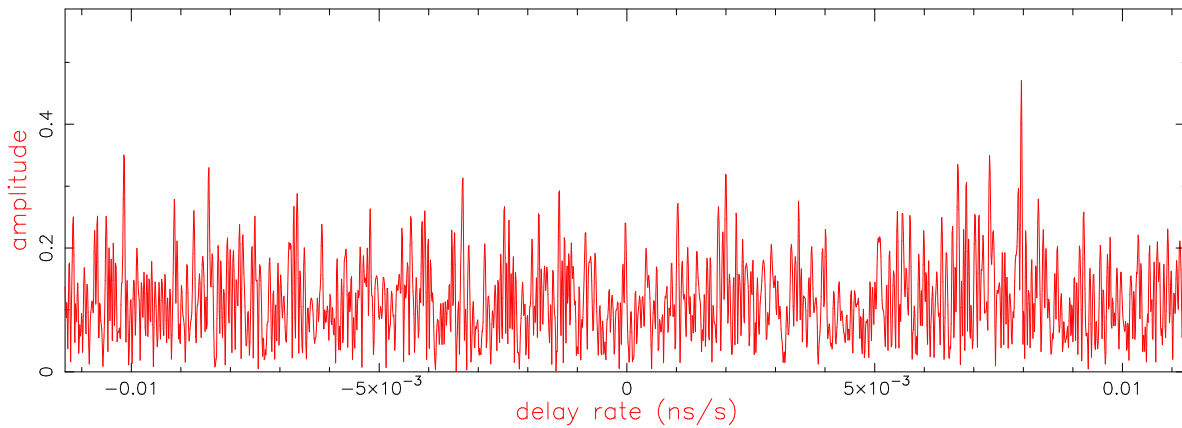
b: az 88.2 el 20.4 pa -44.0 B: az 247.2 el 37.9 pa 37.6 u,v (fr/asec) -10082.326 443.938 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bB..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bB.W.9.0QR0YU

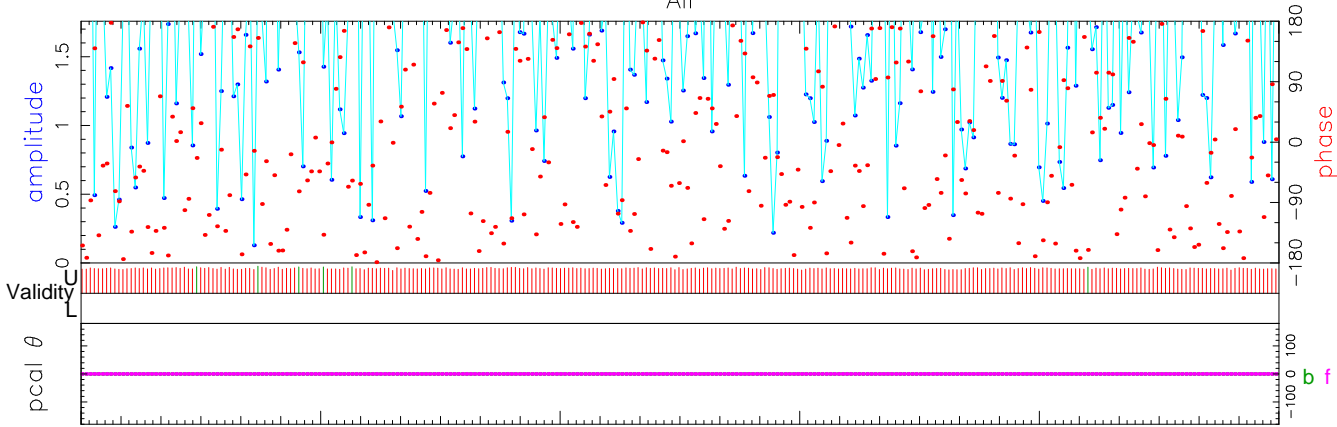
Fringe quality 0

SNR 5.3  
Int time 270.862  
Amp 0.586  
Phase -244.2  
PFD 1.0e+00  
Delays (us)  
SBD -2.064990  
MBD 0.000007  
Fringe rate (Hz)  
0.686521  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



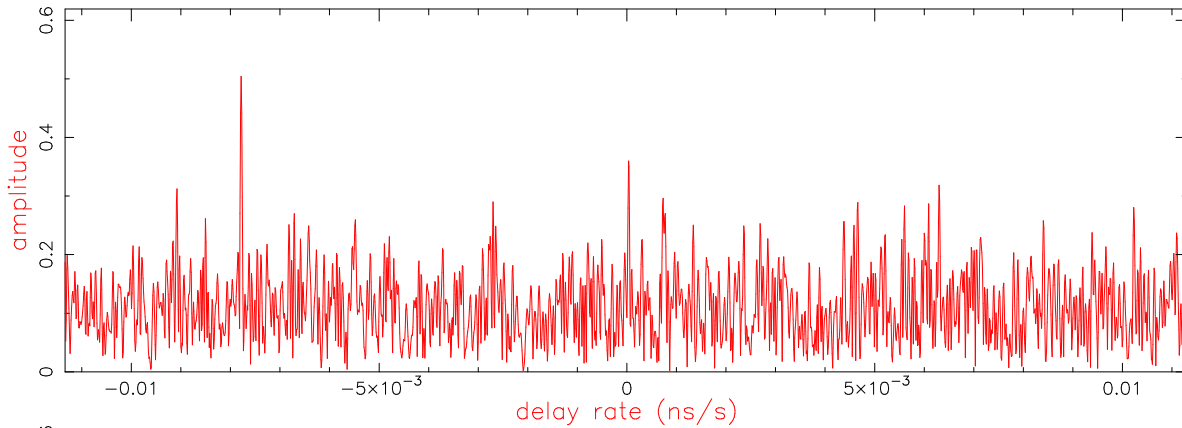
86012.00  
-128.9  
0.6  
248.7  
U/L 586/0  
b 3000  
f 3000  
b:f 0:0  
b:f 0:0  
b 1000  
f 1000  
b W00UL  
f W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.01224569806E+03	Apriori delay (usec)	-4.01018070276E+03	Resid mbdelay (usec)	7.25292E-06	+/-	3.2E-03
Sband delay (usec)	-4.01224569226E+03	Apriori clock (usec)	1.1527827E+00	Resid sbdelay (usec)	-2.06499E+00	+/-	3.2E-03
Phase delay (usec)	-4.01018070691E+03	Apriori clockrate (us/s)	2.2699999E-07	Resid phdelay (usec)	-4.15579E-06	+/-	6.9E-07
Delay rate (us/s)	-1.50895648269E-01	Apriori rate (us/s)	-1.50903618092E-01	Resid rate (us/s)	7.96982E-06	+/-	4.0E-09
Total phase (deg)	-149.0	Apriori accel (us/s/s)	2.87476707763E-05	Resid phase (deg)	-244.2	+/-	21.5

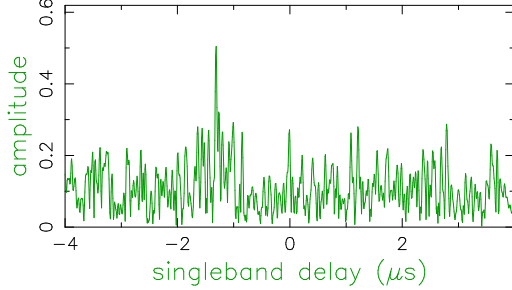
ph/seg (deg)	93.5	Theor.	183.9	Amplitude	0.586 +/- 0.110	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	400.3	Search (2048X8)	0.466	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.409	Inc. seg. avg.	0.409	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.8	Inc. frq. avg.	0.572	Inc. frq. avg.	0.572	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 937.390 2652.689 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bf.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bf.W.13.0QR0YU

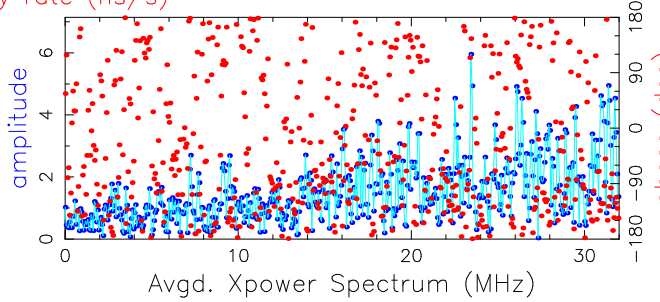


Fringe quality 0

SNR 5.8  
Int time 280.935  
Amp 0.619  
Phase -220.8  
PFD 5.7e-01  
Delays (us)  
SBD -1.314021  
MBD -0.000005  
Fringe rate (Hz)  
-0.671155  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

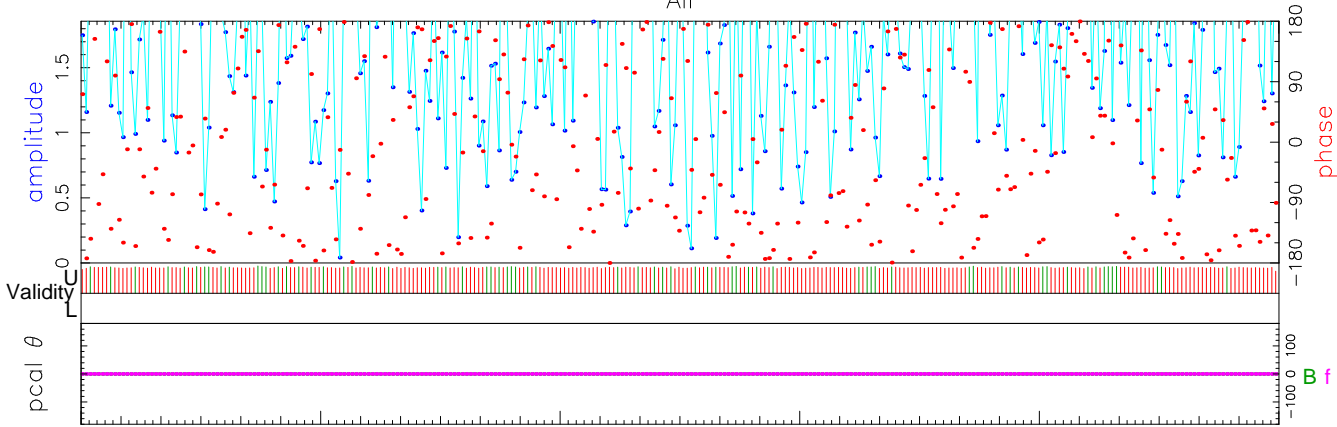


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-151.0  
0.6  
344.8  
U/L 586/0  
B 0  
f 3000  
B:f 0:0  
B:f 0:0  
B 1000  
f 1000  
B W00UR  
f W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

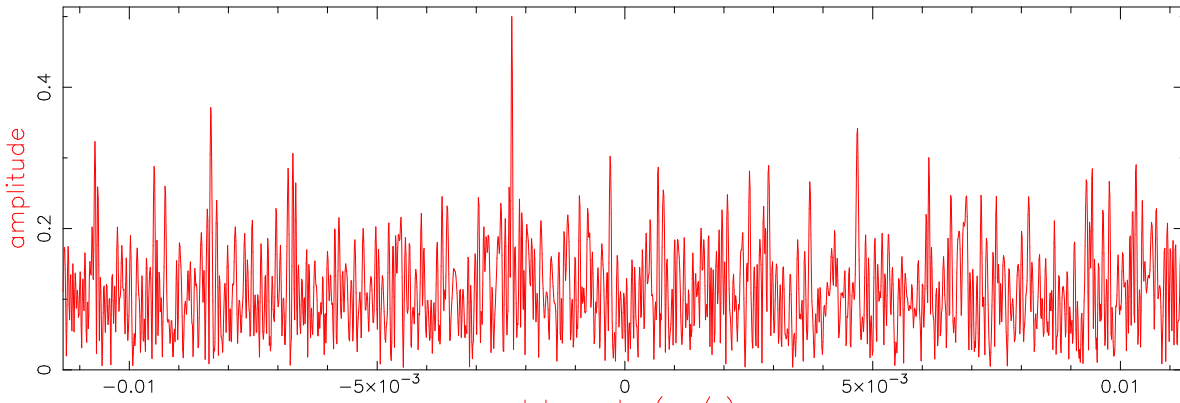
Group delay (usec)(sbd)	1.30835180559E+03	Apriori delay (usec)	1.30966582474E+03	Resid mbdelay (usec)	-4.83049E-06	+/-	3.0E-03
Sband delay (usec)	1.30835180374E+03	Apriori clock (usec)	5.0873098E+00	Resid sbdelay (usec)	-1.31402E+00	+/-	3.0E-03
Phase delay (usec)	1.30966581987E+03	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	-4.86984E-06	+/-	6.4E-07
Delay rate (us/s)	-1.84713774090E+00	Apriori rate (us/s)	-1.84712994945E+00	Resid rate (us/s)	-7.79145E-06	+/-	3.7E-09
Total phase (deg)	-169.3	Apriori accel (us/s/s)	1.34234692284E-06	Resid phase (deg)	-220.8	+/-	19.8

ph/seg (deg)	90.5	Theor.	169.2	Amplitude	0.619 +/- 0.107	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	342.4	Search (2048X8)	0.498	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.433	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.608	Inc. frq. avg.	0.608	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

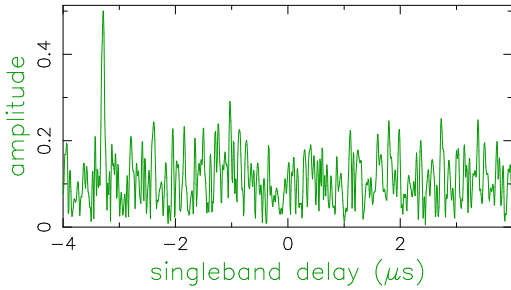
B: az 247.2 el 37.9 pa 37.6 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 11019.716 2208.751 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bf.W.29.0QR0YU

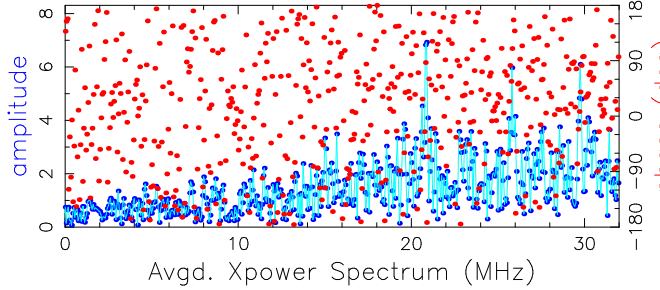
Fringe quality 0



SNR 5.7  
Int time 270.847  
Amp 0.514  
Phase -317.9  
PFD 8.0e-01  
Delays (us)  
SBD -3.284761  
MBD -0.000004  
Fringe rate (Hz)  
-0.196499  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

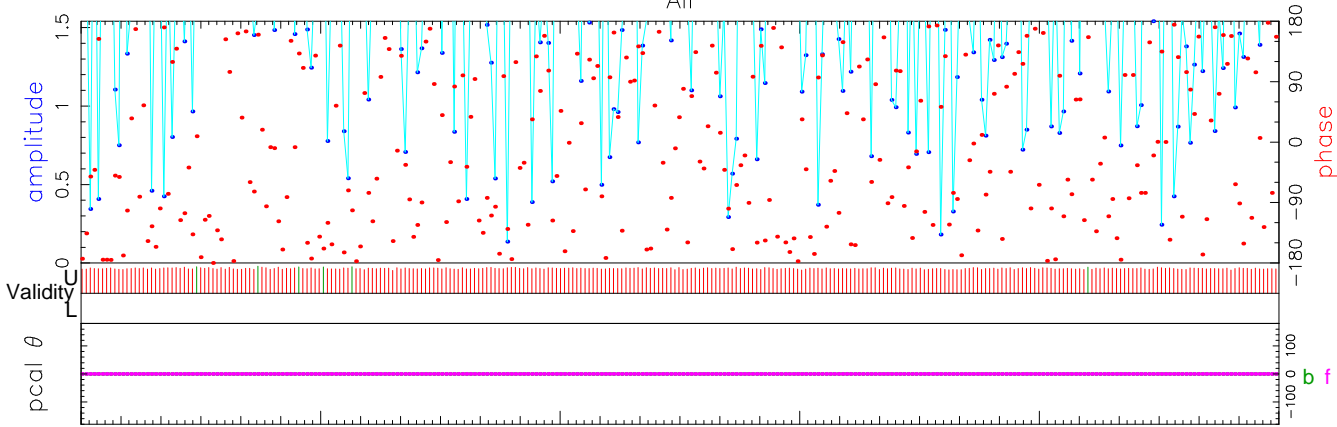


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-156.6  
0.5  
92.5  
U/L 586/0  
b 3000  
f 3000  
b:f 0:0  
b:f 0:0  
b 1000  
f 1000  
b W00UR  
f W00UR

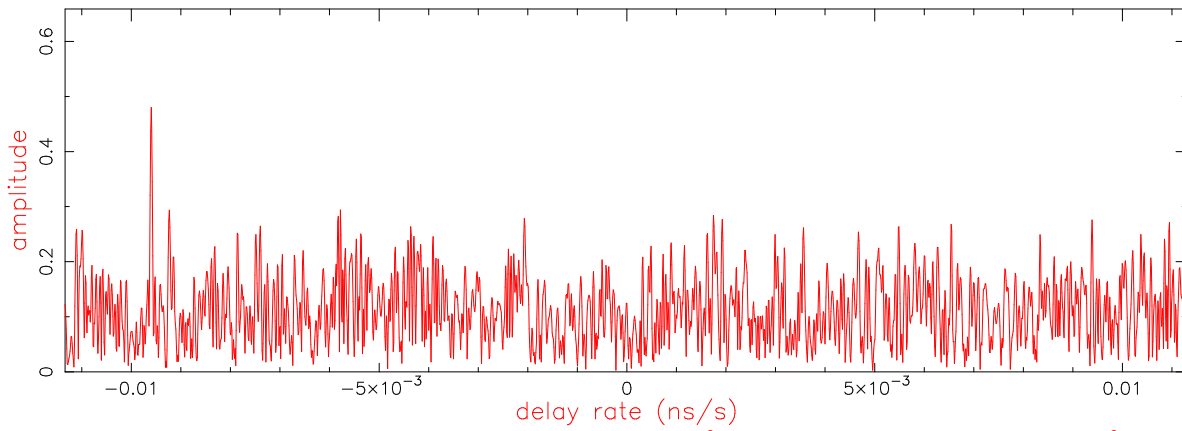
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.01346545814E+03	Apriori delay (usec)	-4.01018070276E+03	Resid mbdelay (usec)	-4.41910E-06	+/-	3.0E-03
Sband delay (usec)	-4.01346546376E+03	Apriori clock (usec)	1.1527827E+00	Resid sbdelay (usec)	-3.28476E+00	+/-	3.0E-03
Phase delay (usec)	-4.01018070781E+03	Apriori clockrate (us/s)	2.2699999E-07	Resid phdelay (usec)	-5.04892E-06	+/-	6.5E-07
Delay rate (us/s)	-1.50905899250E-01	Apriori rate (us/s)	-1.50903618092E-01	Resid rate (us/s)	-2.28116E-06	+/-	3.8E-09
Total phase (deg)	-222.7	Apriori accel (us/s/s)	2.87476707763E-05	Resid phase (deg)	-317.9	+/-	20.2

ph/seg (deg)	88.9	Theor.	172.6	Amplitude	0.514 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	362.9	Search (2048X8)	0.497	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.372	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	1.0	Inc. frq. avg.	0.501	Inc. frq. avg.	0.501	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

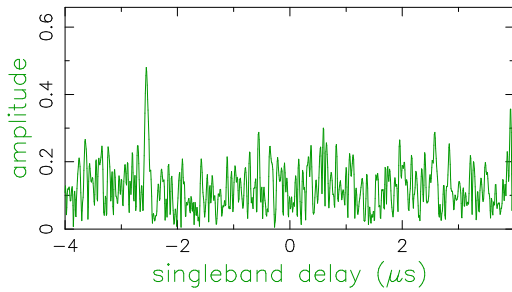
b: az 88.2 el 20.4 pa -44.0 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 937.390 2652.689 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bf.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bf.W.55.0QR0YU

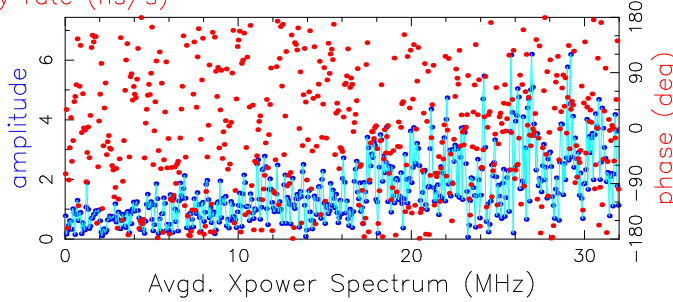


Fringe quality 0

SNR 5.5  
Int time 280.935  
Amp 0.659  
Phase -250.4  
PFD 9.9e-01  
Delays (us)  
SBD -2.553494  
MBD -0.000005  
Fringe rate (Hz)  
-0.828491  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



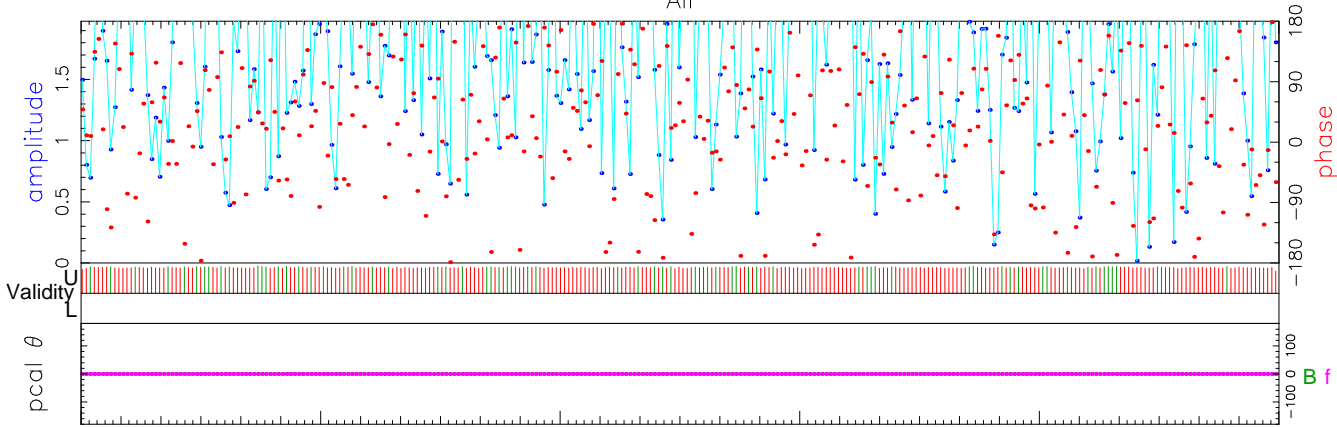
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
54.5  
0.7  
186.2  
U/L 586/0  
B 0  
f 3000  
B:f 0:0  
B:f 0:0  
B 1000  
f 1000  
B W00UL  
f W00UR

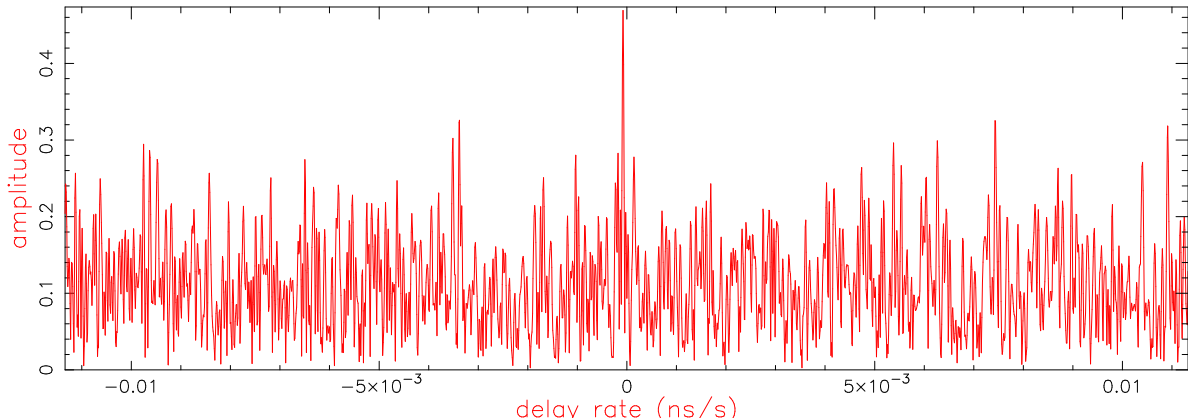
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.30711232750E+03	Apriori delay (usec)	1.30966582474E+03	Resid mbdelay (usec)	-4.70669E-06	+/-	3.1E-03
Sband delay (usec)	1.30711233074E+03	Apriori clock (usec)	5.0873098E+00	Resid sbdelay (usec)	-2.55349E+00	+/-	3.1E-03
Phase delay (usec)	1.30966582650E+03	Apriori clockrate (us/s)	-2.000000E-07	Resid phdelay (usec)	1.75907E-06	+/-	6.7E-07
Delay rate (us/s)	-1.84713956741E+00	Apriori rate (us/s)	-1.84712994945E+00	Resid rate (us/s)	-9.61796E-06	+/-	3.9E-09
Total phase (deg)	-198.9	Apriori accel (us/s/s)	1.34234692284E-06	Resid phase (deg)	-250.4	+/-	20.8

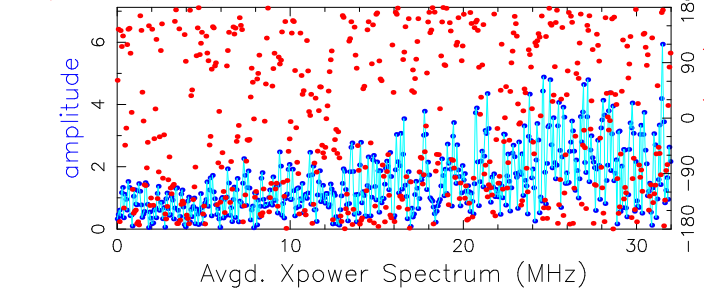
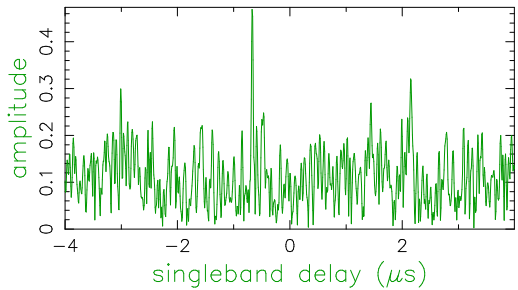
ph/seg (deg)	88.1	Theor.	178.1	Amplitude	0.659 +/- 0.120	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	367.1	Search (2048X8)	0.475	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.457	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.648	Inc. frq. avg.	0.648	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 f: az 89.4 el 32.4 pa -63.6 u.v (fr/asec) 11019.716 2208.751 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bf.W.56.0QR0YU



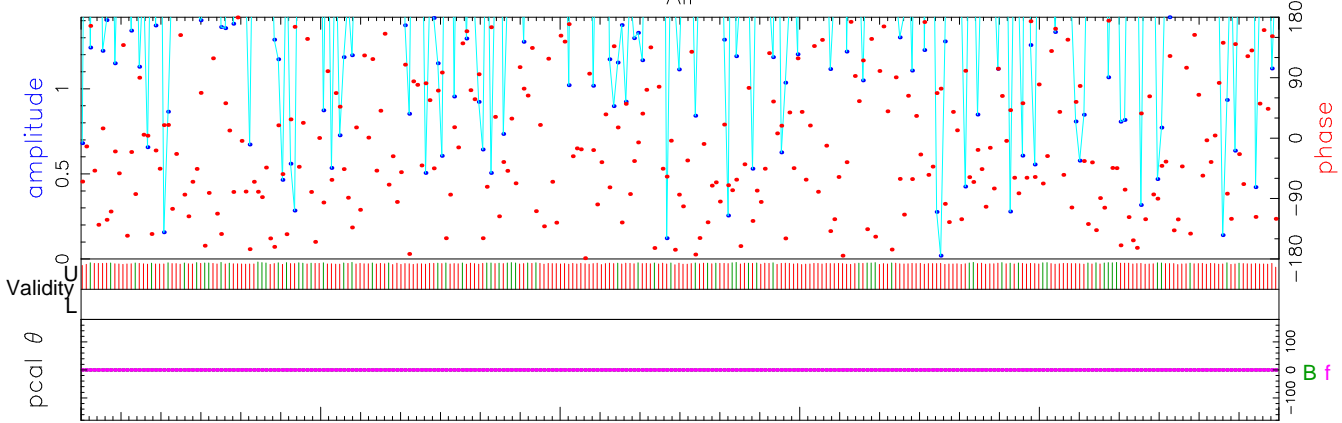


Fringe quality 0  
SNR 5.4  
Int time 280.945  
Amp 0.474  
Phase -307.2  
PFD 1.0e+00  
Delays (us)  
SBD -0.669356  
MBD -0.000007  
Fringe rate (Hz)  
-0.006529  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163631  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



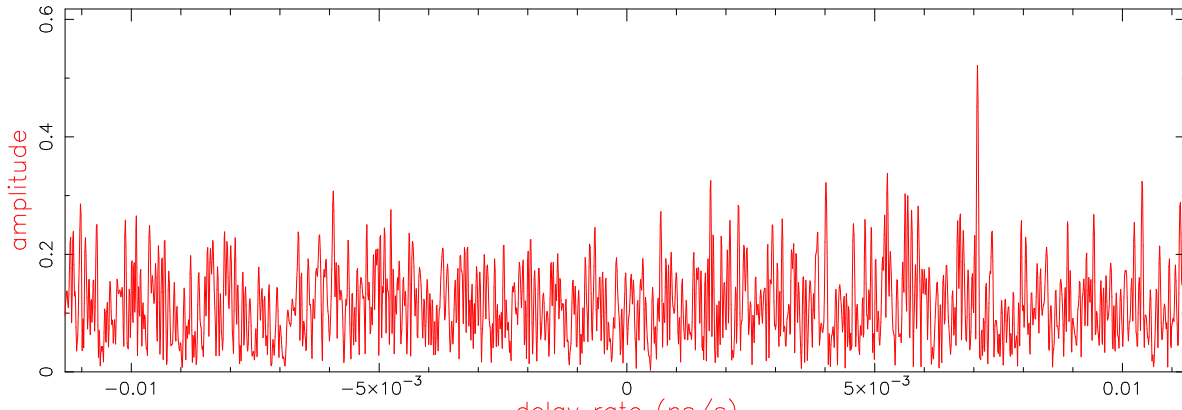
86012.00  
-63.6  
0.5  
427.3  
U/L 586/0  
B 0  
f 3000  
B:f 0:0  
B:f 0:0  
B 1000  
f 1000  
B W00UL  
f W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.30899646920E+03	Apriori delay (usec)	1.30966582474E+03	Resid mbdelay (usec)	-7.07548E-06	+/-	3.2E-03
Sband delay (usec)	1.30899646874E+03	Apriori clock (usec)	5.0873098E+00	Resid sbdelay (usec)	-6.69356E-01	+/-	3.2E-03
Phase delay (usec)	1.30966582269E+03	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	-2.05017E-06	+/-	6.8E-07
Delay rate (us/s)	-1.84713002525E+00	Apriori rate (us/s)	-1.84712994945E+00	Resid rate (us/s)	-7.58001E-08	+/-	3.9E-09
Total phase (deg)	-255.7	Apriori accel (us/s/s)	1.34234692284E-06	Resid phase (deg)	-307.2	+/-	21.1

ph/seg (deg)	93.3	Theor.	180.7	Amplitude	0.474 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	376.2	Search (2048X8)	0.467	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.329	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.461	Inc. frq. avg.	0.461	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

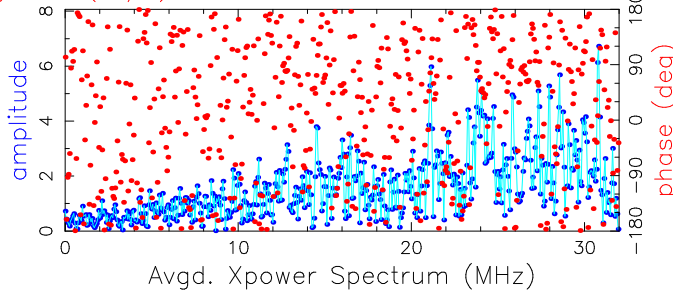
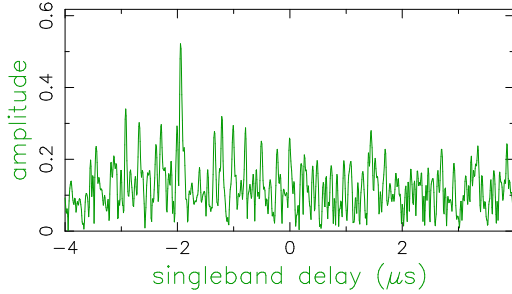
B: az 247.2 el 37.9 pa 37.6 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 11019.716 2208.751 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bf.W.6.0QR0YU



Fringe quality 0

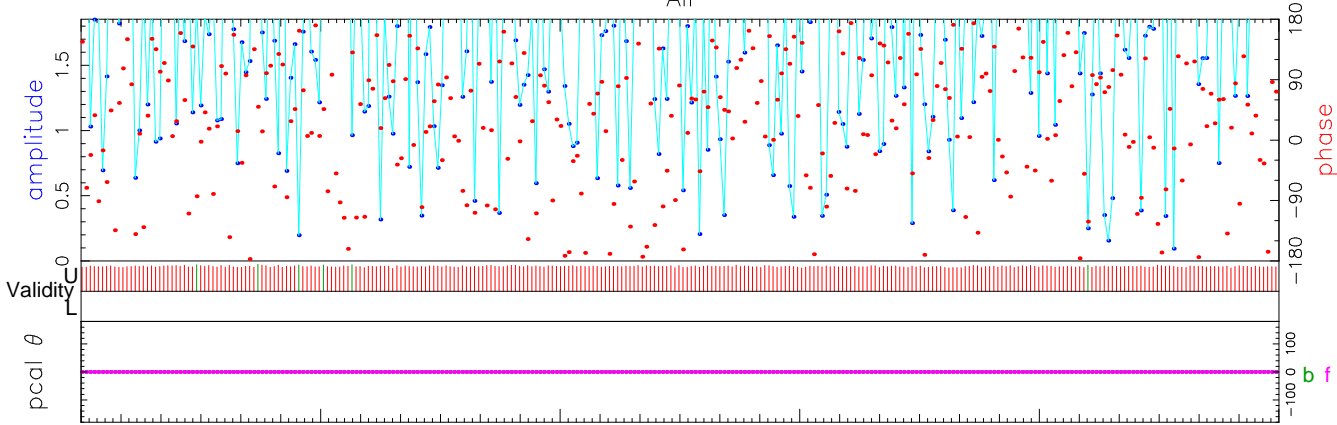
SNR 5.9  
Int time 270.853  
Amp 0.618  
Phase -211.1  
PFD 4.0e-01  
Delays (us)  
SBD -1.943561  
MBD 0.000005  
Fringe rate (Hz)  
0.610704  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
68.4  
0.6  
264.2  
U/L 586/0  
b 3000  
f 3000  
b:f 0:0  
b:f 0:0  
b 1000  
f 1000  
b W00UL  
f W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp

Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.01212426398E+03	Apriori delay (usec)	-4.01018070276E+03	Resid mbdelay (usec)	4.78994E-06	+/-	2.9E-03
Sband delay (usec)	-4.01212426376E+03	Apriori clock (usec)	1.1527827E+00	Resid sbdelay (usec)	-1.94356E+00	+/-	2.9E-03
Phase delay (usec)	-4.01018070055E+03	Apriori clockrate (us/s)	2.26999999E-07	Resid phdelay (usec)	2.20598E-06	+/-	6.3E-07
Delay rate (us/s)	-1.50896528419E-01	Apriori rate (us/s)	-1.50903618092E-01	Resid rate (us/s)	7.08967E-06	+/-	3.6E-09
Total phase (deg)	-115.9	Apriori accel (us/s/s)	2.87476707763E-05	Resid phase (deg)	-211.1	+/-	19.5

ph/seg (deg)	88.2	Theor.	166.7	Amplitude	0.618 +/- 0.105	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	349.3	Search (2048X8)	0.509	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.452	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.3	Inc. frq. avg.	0.607	Inc. frq. avg.	0.607	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00
						nlags:	512	t_cohere	infinite

b: az 88.2 el 20.4 pa -44.0 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 937.390 2652.689 simultaneous interpolator

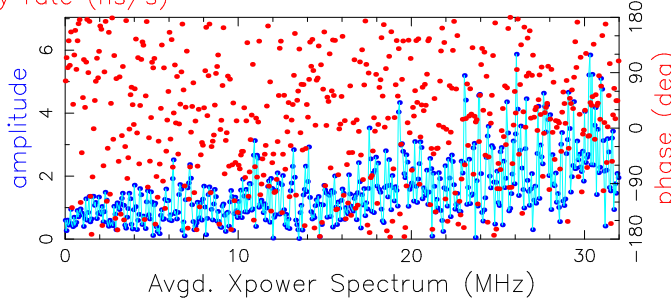
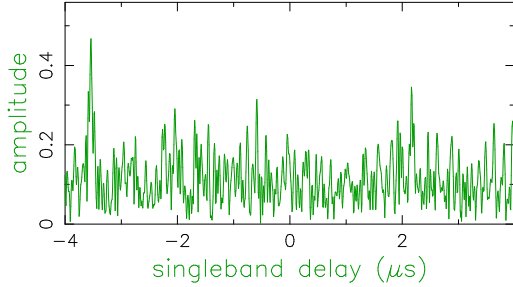
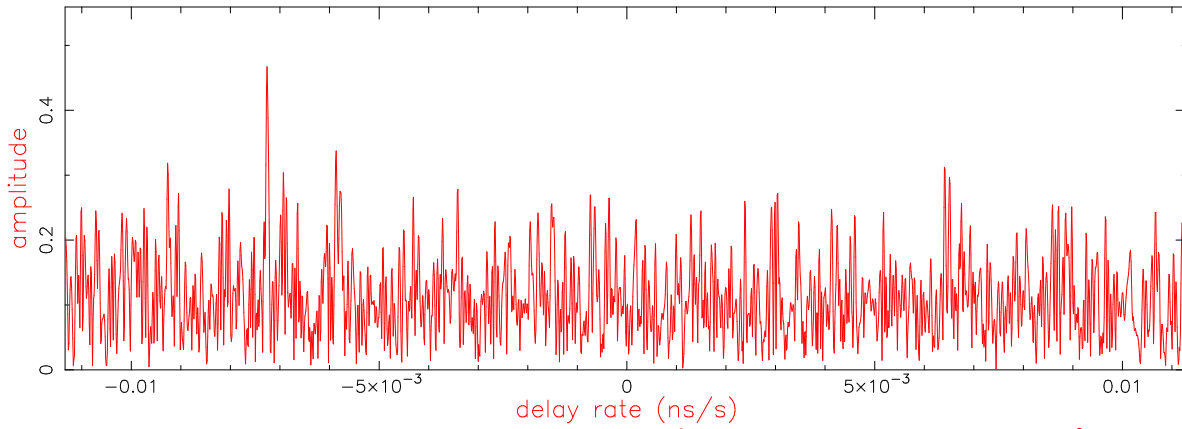
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bf.W.72.0QR0YU



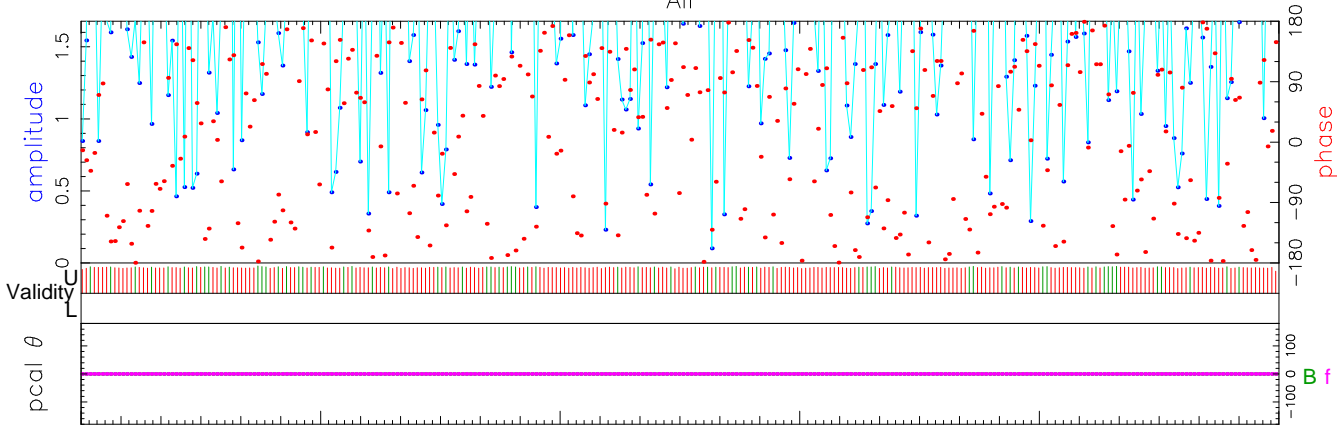
Fringe quality 0

SNR 5.4  
Int time 280.945  
Amp 0.559  
Phase -307.9  
PFD 1.0e+00  
Delays (us)  
SBD -3.541193  
MBD -0.000005  
Fringe rate (Hz)  
-0.626988  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
150.2  
0.6  
59.8  
U/L 586/0  
B 0  
f 3000  
B:f 0:0  
B:f 0:0  
B 1000  
f 1000  
B W00UR  
f W00UL

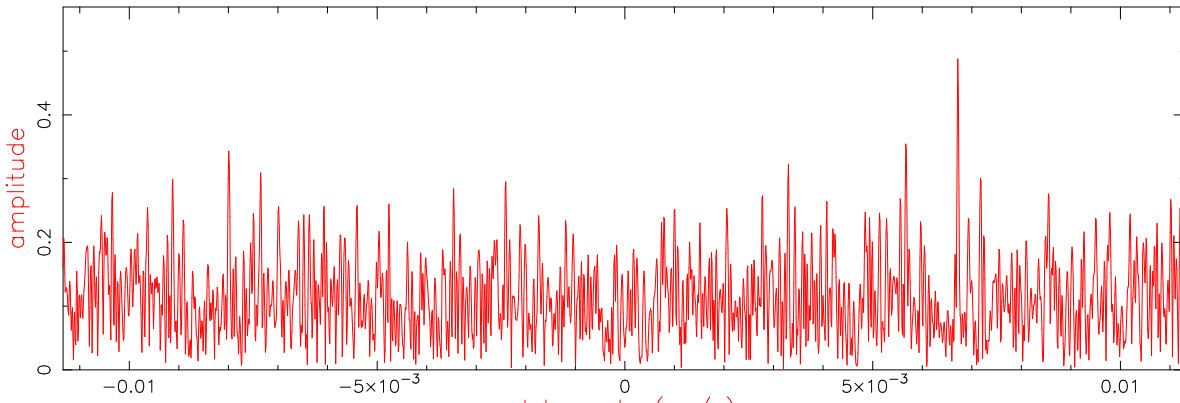
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.30612462805E+03	Apriori delay (usec)	1.30966582474E+03	Resid mbdelay (usec)	-4.76557E-06	+/-	3.2E-03
Sband delay (usec)	1.30612463224E+03	Apriori clock (usec)	5.0873098E+00	Resid sbdelay (usec)	-3.54119E+00	+/-	3.2E-03
Phase delay (usec)	1.30966582958E+03	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	4.84402E-06	+/-	6.9E-07
Delay rate (us/s)	-1.84713722816E+00	Apriori rate (us/s)	-1.84712994945E+00	Resid rate (us/s)	-7.27871E-06	+/-	4.0E-09
Total phase (deg)	-256.4	Apriori accel (us/s/s)	1.34234692284E-06	Resid phase (deg)	-307.9	+/-	21.3

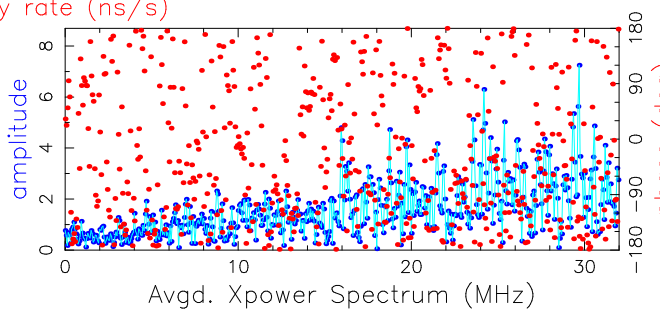
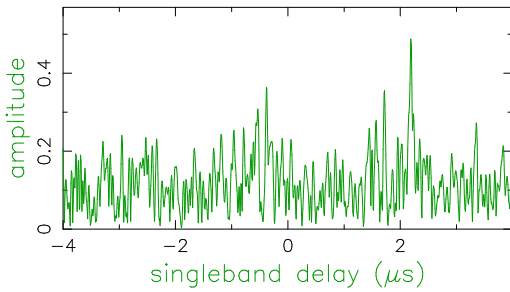
ph/seg (deg)	89.4	Theor.	182.4	Amplitude	0.559 +/- 0.104	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	389.7	Search (2048X8)	0.460	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.392	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.547	Inc. frq. avg.	0.547	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 11019.716 2208.751 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bf.W.74.0QR0YU

Fringe quality 0



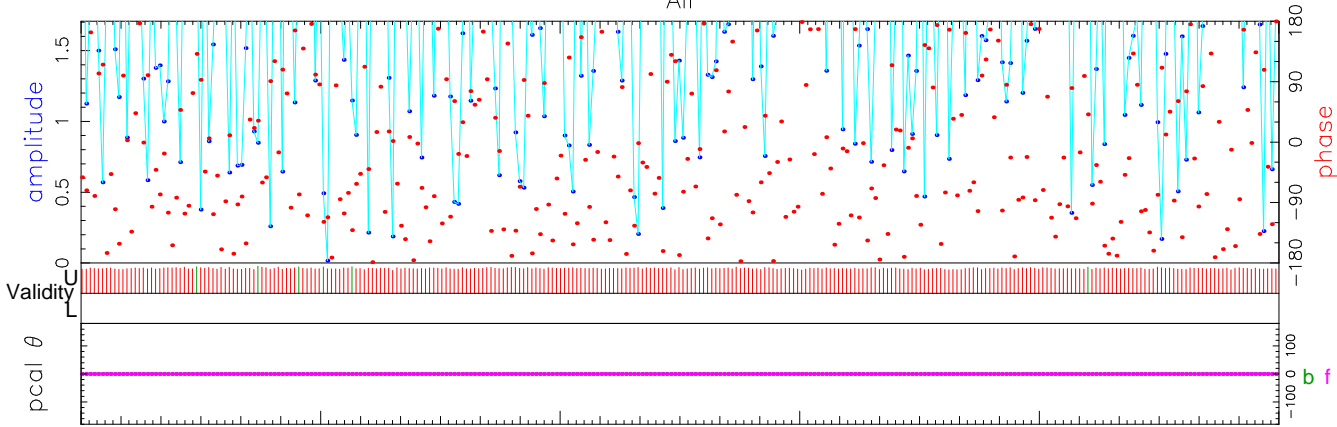
SNR 5.5  
Int time 270.856  
Amp 0.569  
Phase 359.9  
PFD 9.8e-01  
Delays (us)  
SBD 2.189708  
MBD 0.000007  
Fringe rate (Hz)  
0.579892  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163640  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-101.2  
0.6  
793.3  
U/L 586/0  
b 3000  
f 3000  
b:f 0:0  
b:f 0:0  
b 1000  
f 1000  
b W00UR  
f W00UL

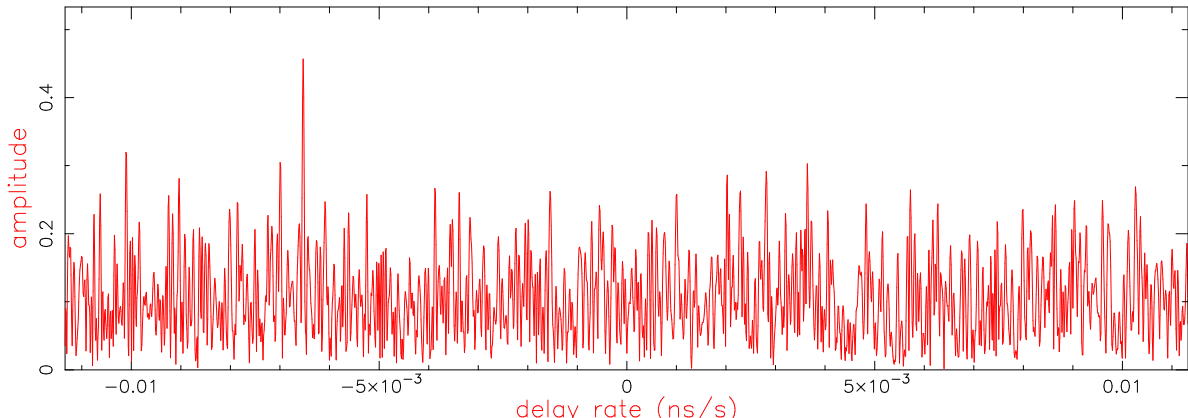
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.00799100103E+03	Apriori delay (usec)	-4.01018070276E+03	Resid mbdelay (usec)	7.26503E-06	+/-	3.1E-03
Sband delay (usec)	-4.00799099526E+03	Apriori clock (usec)	1.1527827E+00	Resid sbdelay (usec)	2.18971E+00	+/-	3.1E-03
Phase delay (usec)	-4.01018070602E+03	Apriori clockrate (us/s)	2.2699999E-07	Resid phdelay (usec)	-3.26297E-06	+/-	6.7E-07
Delay rate (us/s)	-1.50896886120E-01	Apriori rate (us/s)	-1.50903618092E-01	Resid rate (us/s)	6.73197E-06	+/-	3.9E-09
Total phase (deg)	95.2	Apriori accel (us/s/s)	2.87476707763E-05	Resid phase (deg)	359.9	+/-	20.8

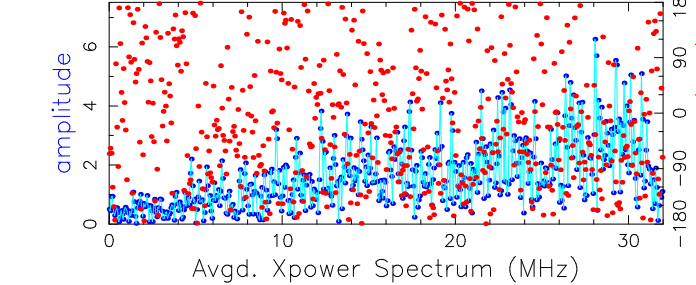
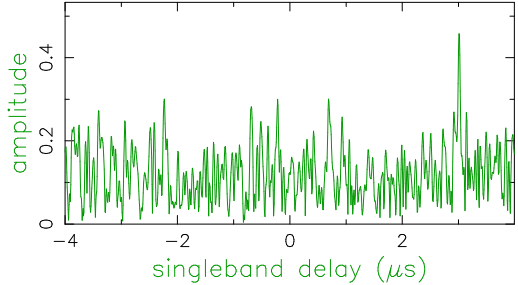
ph/seg (deg)	92.8	Theor.	177.8	Amplitude	0.569 +/- 0.103	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	372.6	Search (2048X8)	0.483	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.402	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	Inc. frq. avg.	0.557	Inc. frq. avg.	0.557	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 937.390 2652.689 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bf..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bf.W.88.0QR0YU

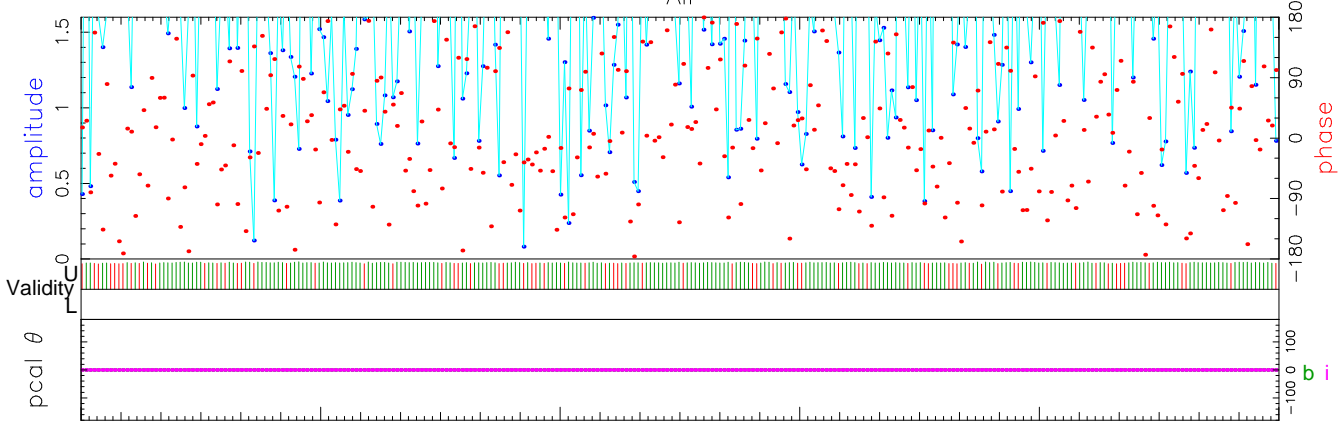


Fringe quality 0  
SNR 5.4  
Int time 288.490  
Amp 0.533  
Phase 171.8  
PFD 1.0e+00  
Delays (us)  
SBD 3.011706  
MBD -0.000004  
Fringe rate (Hz)  
-0.563045  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All

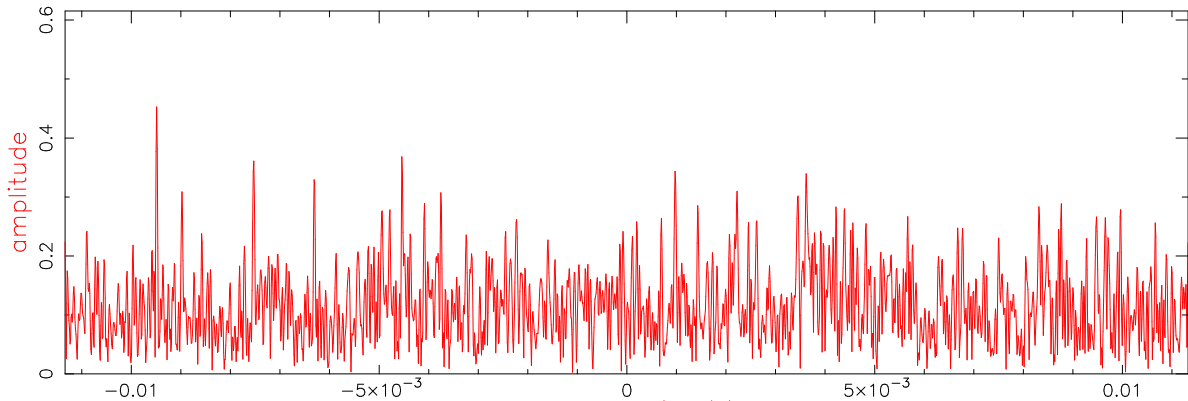


86012.00 Freq (MHz)  
-7.7 Phase  
0.5 Ampl.  
898.5 Sbd box  
U/L 586/0 APs used  
b 3000 PC freqs  
i 0 PC freqs  
b:i 0:0 PC phase  
b:i 0:0 Mani PC  
b 1000 PC amp  
i 1000  
b W00UR Chan ids  
i W00UR Chan ids

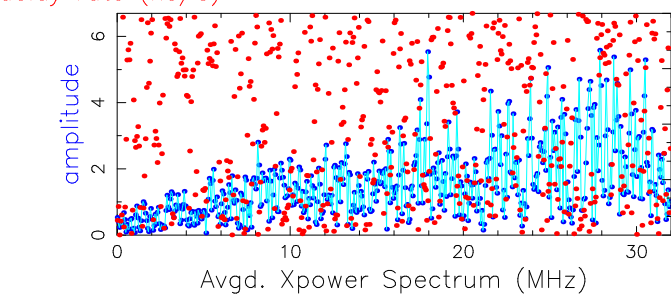
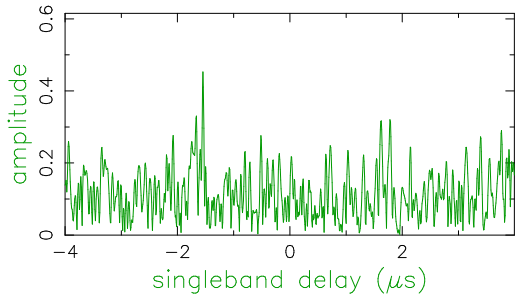
Group delay (usec)(sbd)	-8.4845775228E+03	Apriori delay (usec)	-8.48758927558E+03	Resid mbdelay (usec)	-4.37399E-06	+/-	3.2E-03
Sband delay (usec)	-8.48457756958E+03	Apriori clock (usec)	1.6527655E+01	Resid sbdelay (usec)	3.01171E+00	+/-	3.2E-03
Phase delay (usec)	-8.48758927583E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-2.49619E-07	+/-	6.9E-07
Delay rate (us/s)	1.73065898516E+00	Apriori rate (us/s)	1.73066552155E+00	Resid rate (us/s)	-6.53639E-06	+/-	4.0E-09
Total phase (deg)	100.4	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	171.8	+/-	21.3

ph/seg (deg)	91.7	Theor.	182.3	Amplitude	0.533 +/- 0.099	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	377.9	Search (2048X8)	0.445	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.365	Inc. seg. avg.	0.365	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.4	Inc. frq. avg.	0.517	Inc. frq. avg.	0.517	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bi.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bi.W.12.0QR0YU

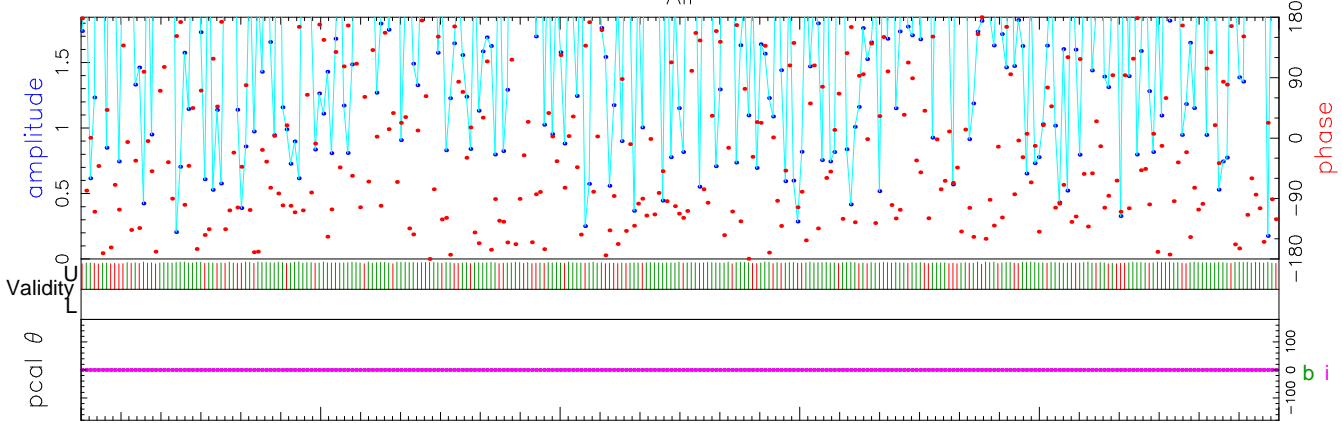


Fringe quality 0  
SNR 5.3  
Int time 288.495  
Amp 0.615  
Phase -89.5  
PFD 1.0e+00  
Delays (us)  
SBD -1.546747  
MBD -0.000004  
Fringe rate (Hz)  
-0.818112  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163631  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-95.8  
0.6  
315.0  
U/L 586/0  
b 3000  
i 0  
b:i 0:0  
b:i 0:0  
b 1000  
i 1000  
b W00UL  
i W00UL

Validity  
pcal  $\theta$

86012.00  
-95.8  
0.6  
315.0  
U/L 586/0  
b 3000  
i 0  
b:i 0:0  
b:i 0:0  
b 1000  
i 1000  
b W00UL  
i W00UL

Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.48913601761E+03	Apriori delay (usec)	-8.48758927558E+03	Resid mbdelay (usec)	-4.37146E-06	+/-	3.3E-03
Sband delay (usec)	-8.48913602308E+03	Apriori clock (usec)	1.6527655E+01	Resid sbdelay (usec)	-1.54675E+00	+/-	3.3E-03
Phase delay (usec)	-8.48758927867E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-3.08975E-06	+/-	7.0E-07
Delay rate (us/s)	1.73065602408E+00	Apriori rate (us/s)	1.73066552155E+00	Resid rate (us/s)	-9.49747E-06	+/-	4.1E-09
Total phase (deg)	-160.9	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	-89.5	+/-	21.8

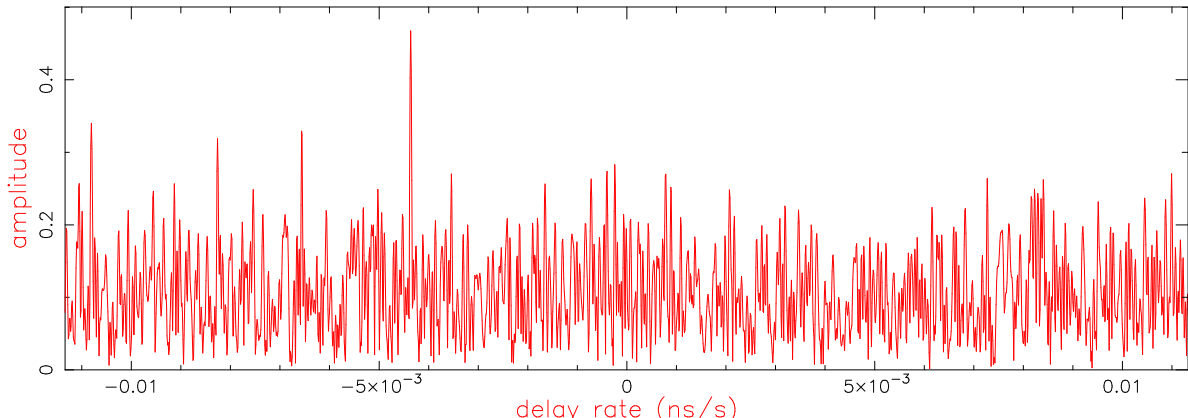
ph/seg (deg) 91.2 186.6  
amp/seg (%) 397.2 325.7  
ph/frq (deg) 0.0 10.9  
amp/frq (%) 0.0 19.0

RMS Theor. Amplitude 0.615 +/- 0.117  
91.2 186.6 Search (2048X8) 0.449  
397.2 325.7 Interp. 0.000  
0.0 10.9 Inc. seg. avg. 0.413  
0.0 19.0 Inc. frq. avg. 0.605

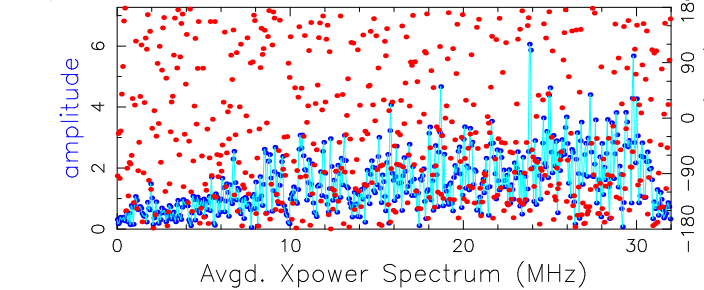
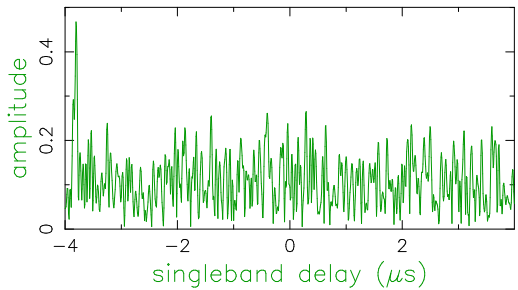
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
Pcal rate: 0.000E+00, 0.000E+00 (us/s)  
Bits/sample: 2x2 SampCntNorm: enabled  
Sample rate(MSamp/s): 64  
Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite

sb window (us) -4.000 4.000  
mb window (us) -0.000 0.000  
dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

b: az 88.2 el 20.4 pa -44.0 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bi.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bi.W.2.0QR0YU



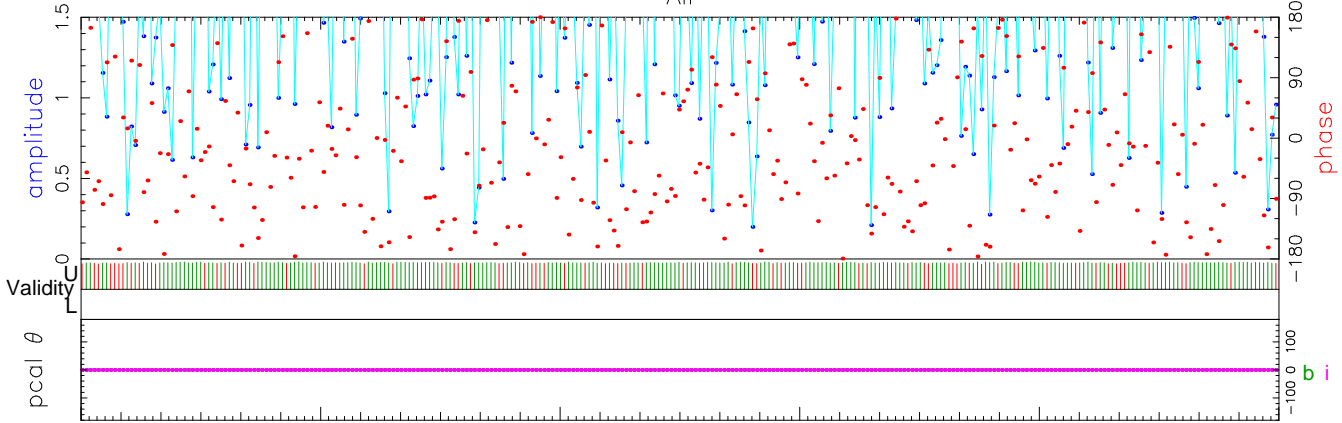
Fringe quality 0  
SNR 5.5  
Int time 288.495  
Amp 0.500  
Phase -302.8  
PFD 1.0e+00  
Delays (us)  
SBD -3.802176  
MBD -0.000005  
Fringe rate (Hz)  
-0.376385  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-58.9  
0.5  
26.3  
U/L 586/0  
b 3000  
i 0  
b:i 0:0  
b:i 0:0  
b 1000  
i 1000  
b W00UL  
i W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

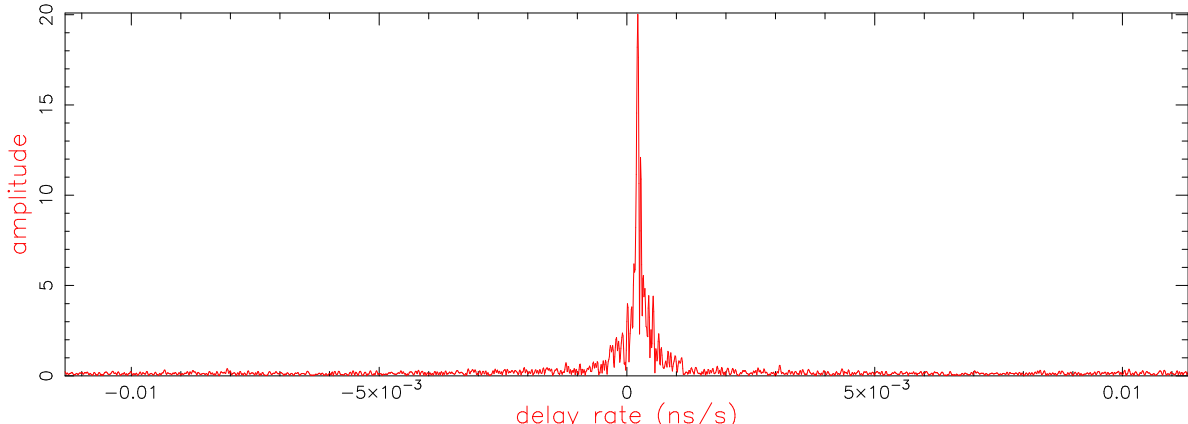
Group delay (usec)(sbd)	-8.49139144765E+03	Apriori delay (usec)	-8.48758927558E+03	Resid mbdelay (usec)	-4.92945E-06	+/-	3.2E-03
Sband delay (usec)	-8.49139145108E+03	Apriori clock (usec)	1.6527655E+01	Resid sbdelay (usec)	-3.80218E+00	+/-	3.2E-03
Phase delay (usec)	-8.48758927748E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-1.90081E-06	+/-	6.8E-07
Delay rate (us/s)	1.73066115210E+00	Apriori rate (us/s)	1.73066552155E+00	Resid rate (us/s)	-4.36945E-06	+/-	3.9E-09
Total phase (deg)	-14.2	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	-302.8	+/-	21.0

ph/seg (deg)	91.8	Theor.	179.5	Amplitude	0.500 +/- 0.092	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	368.5	Search (2048X8)	0.456	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.344	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.489	Inc. frq. avg.	0.489	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bi.W.22.0QR0YU

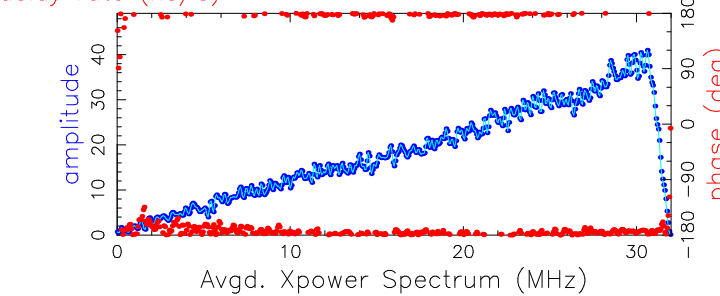
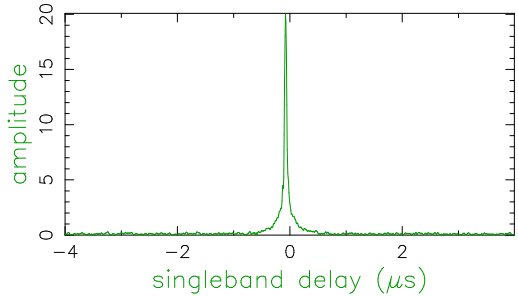




Fringe quality 6

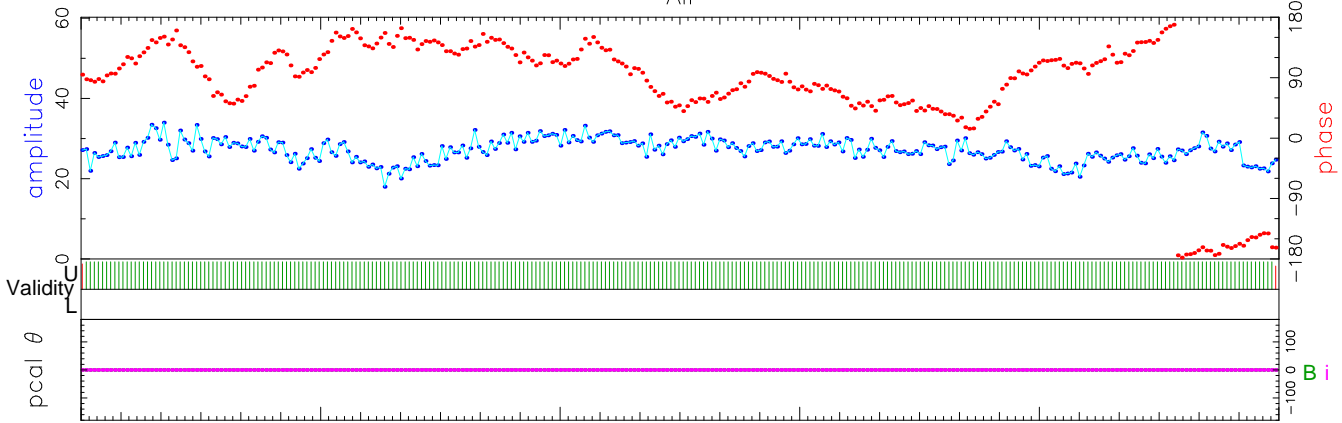
SNR 237.8  
 Int time 299.796  
 Amp 20.091  
 Phase -169.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.076298  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.019203  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163633  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 106.6  
 20.0  
 503.2  
 U/L 586/0  
 B 0  
 i 0  
 B:i 0:0  
 B:i 0:0  
 B 1000  
 i 1000  
 B W00UR  
 i W00UR

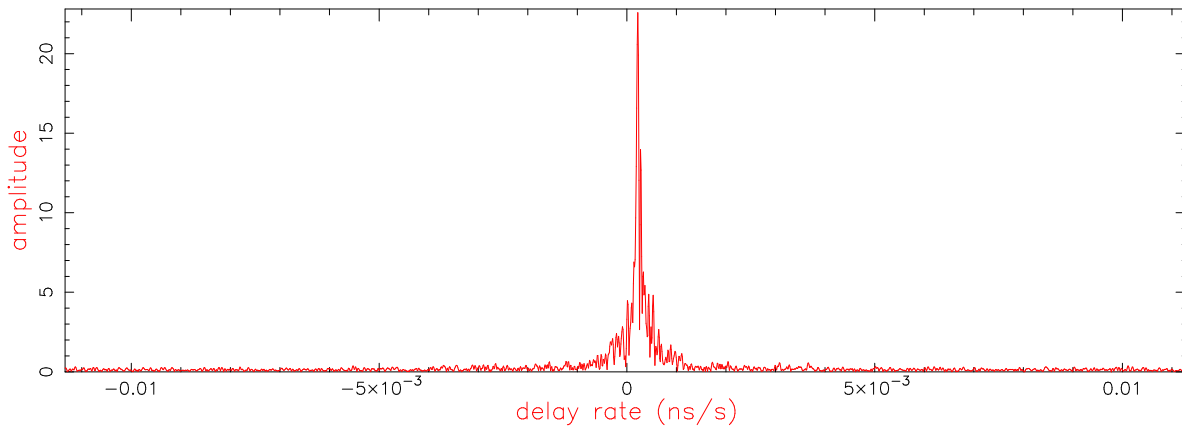
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-3.16781904674E+03	Apriori delay (usec)	-3.16774274808E+03	Resid mbdelay (usec)	4.64847E-06	+/-	7.2E-05
Sband delay (usec)	-3.16781904608E+03	Apriori clock (usec)	2.0462181E+01	Resid sbdelay (usec)	-7.62980E-02	+/-	7.2E-05
Phase delay (usec)	-3.16774274464E+03	Apriori clockrate (us/s)	5.3000000E-08	Resid phdelay (usec)	3.43904E-06	+/-	1.6E-08
Delay rate (us/s)	3.44394131240E-02	Apriori rate (us/s)	3.44391901913E-02	Resid rate (us/s)	2.22933E-07	+/-	9.0E-11
Total phase (deg)	-284.5	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-169.4	+/-	0.5

ph/seg (deg)	44.8	Theor.	4.1	Amplitude	20.091 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	38.0		7.2	Search (2048X8)	19.923	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.4		0.4	Inc. seg. avg.	27.161	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
				Inc. frq. avg.	20.016	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

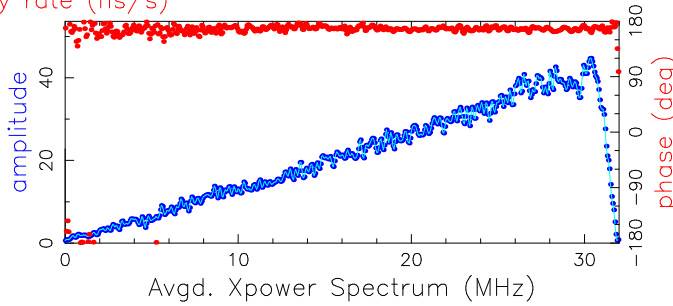
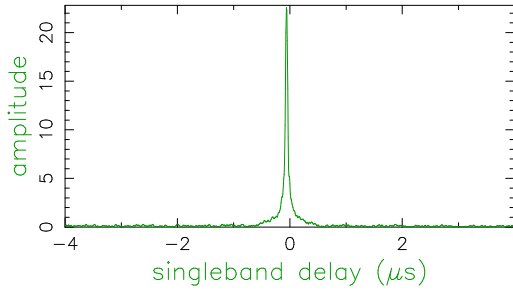
B: az 247.2 el 37.9 pa 37.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bi.W.24.0QR0YU



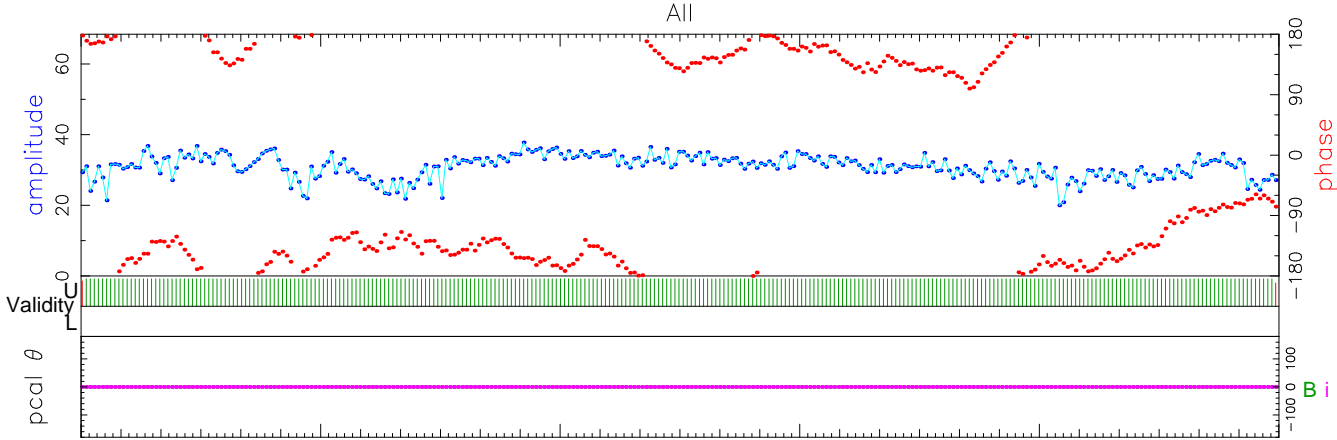
Fringe quality 6

SNR 269.9  
Int time 299.796  
Amp 22.807  
Phase -27.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.059420  
MBD 0.000007  
Fringe rate (Hz)  
0.019164  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163631  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
-168.9  
22.6  
505.4  
U/L 586/0  
B 0  
i 0  
B:i 0:0  
B:i 0:0  
B 1000  
i 1000  
B W00UL  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.16780216324E+03	Apriori delay (usec)	-3.16774274808E+03	Resid mbdelay (usec)	6.78789E-06	+/-	6.4E-05
Sband delay (usec)	-3.16780216808E+03	Apriori clock (usec)	2.0462181E+01	Resid sbdelay (usec)	-5.94200E-02	+/-	6.4E-05
Phase delay (usec)	-3.16774275353E+03	Apriori clockrate (us/s)	5.3000000E-08	Resid phdelay (usec)	-5.44526E-06	+/-	1.4E-08
Delay rate (us/s)	3.44394126635E-02	Apriori rate (us/s)	3.44391901913E-02	Resid rate (us/s)	2.22472E-07	+/-	7.9E-11
Total phase (deg)	-142.1	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-27.0	+/-	0.4

ph/seg (deg)	45.2	Theor.	3.6	Amplitude	22.807 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	38.4		6.3	Search (2048X8)	22.494	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.0		0.4	Inc. seg. avg.	30.868	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	22.576	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

B: az 247.2 el 37.9 pa 37.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

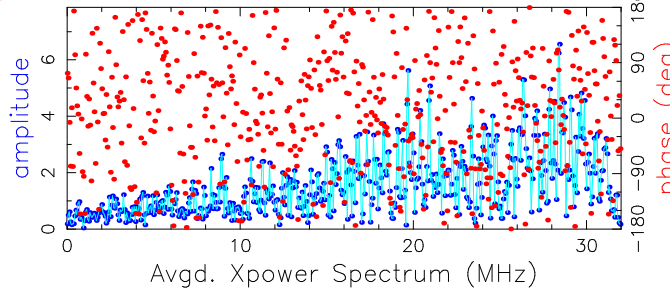
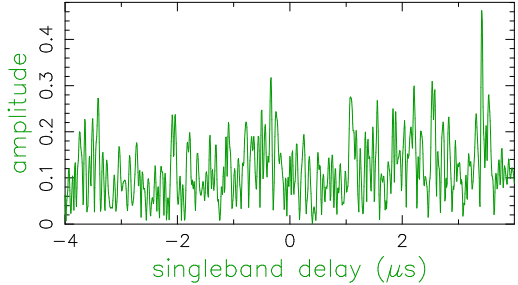
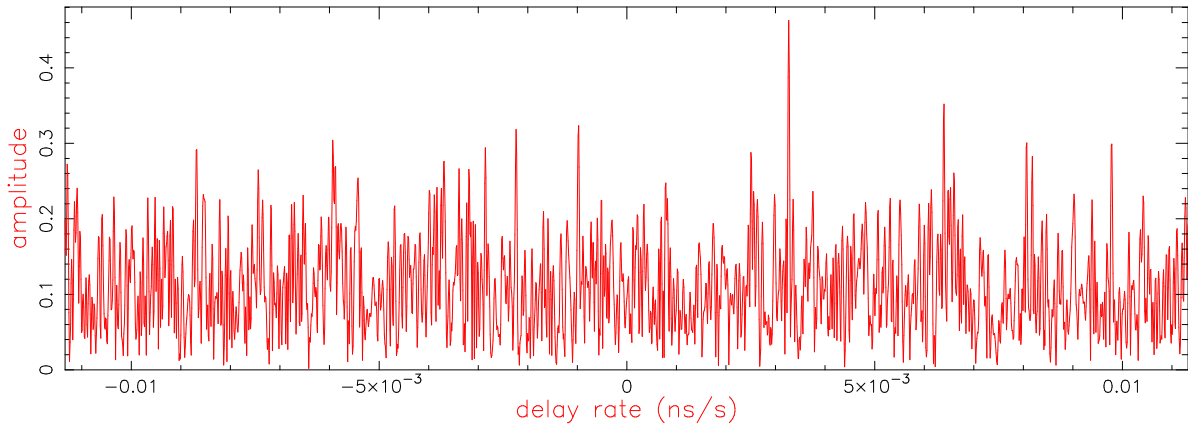
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bi.W.3.0QR0YU



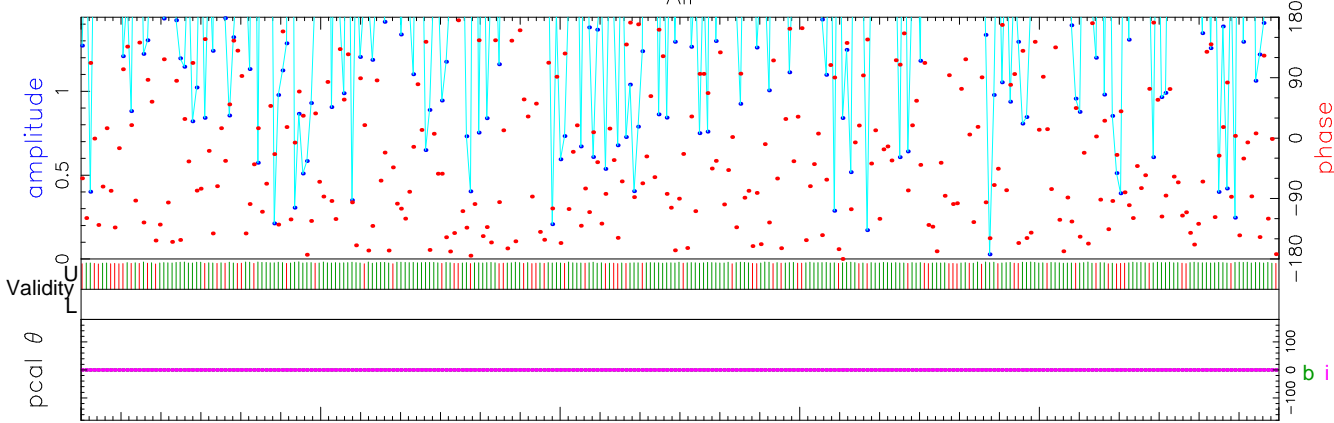
Fringe quality 0

SNR 5.4  
Int time 288.490  
Amp 0.481  
Phase 337.7  
PFD 1.0e+00  
Delays (us)  
SBD 3.415633  
MBD 0.000007  
Fringe rate (Hz)  
0.281489  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



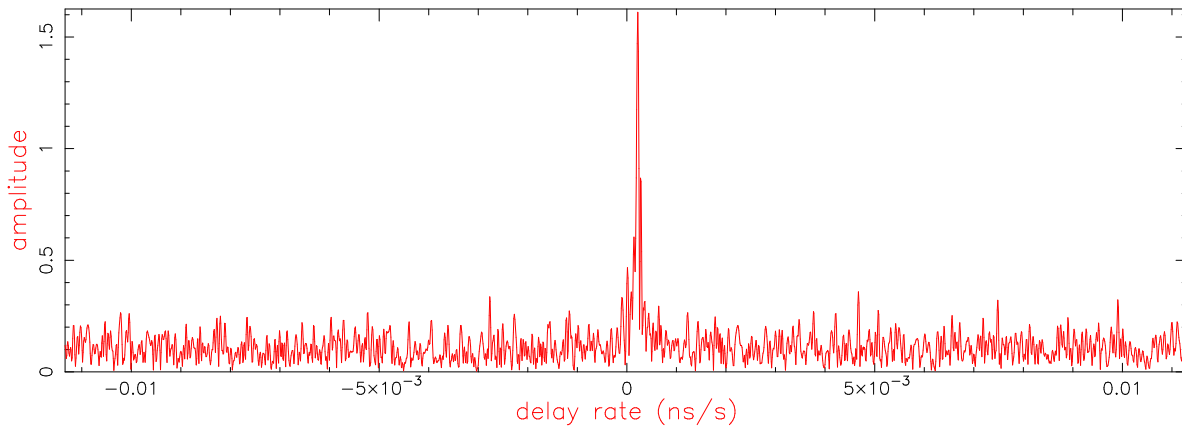
86012.00  
-94.4  
0.5  
950.2  
U/L 586/0  
b 3000  
i 0  
b:i 0:0  
b:i 0:0  
b 1000  
i 1000  
b W00UR  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.48417364029E+03	Apriori delay (usec)	-8.48758927558E+03	Resid mbdelay (usec)	7.23541E-06	+/-	3.2E-03
Sband delay (usec)	-8.48417364258E+03	Apriori clock (usec)	1.6527655E+01	Resid sbdelay (usec)	3.41563E+00	+/-	3.2E-03
Phase delay (usec)	-8.48758927862E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-3.04514E-06	+/-	6.9E-07
Delay rate (us/s)	1.73066878935E+00	Apriori rate (us/s)	1.73066552155E+00	Resid rate (us/s)	3.26780E-06	+/-	4.0E-09
Total phase (deg)	266.3	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	337.7	+/-	21.3

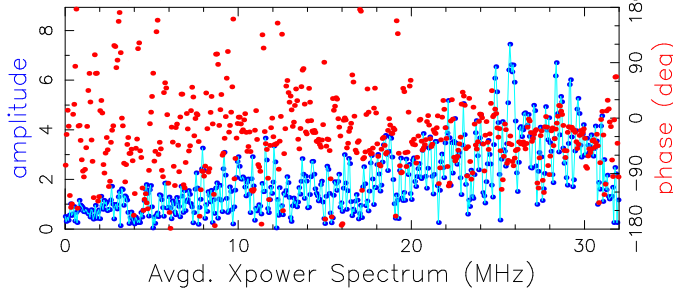
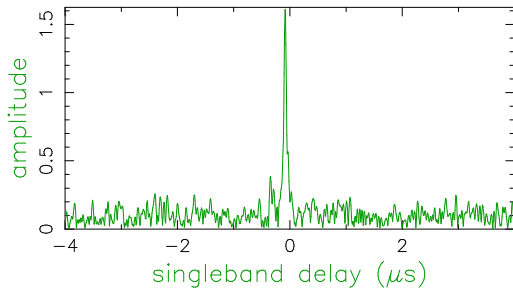
ph/seg (deg)	RMS 92.9	Theor. 181.9	Amplitude 0.481 +/- 0.089	Search (2048X8)	0.457	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	380.3	317.5	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.6	Inc. seg. avg.	0.327		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3	18.5	Inc. frq. avg.	0.471		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

b: az 88.2 el 20.4 pa -44.0 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bi.W.32.0QR0YU



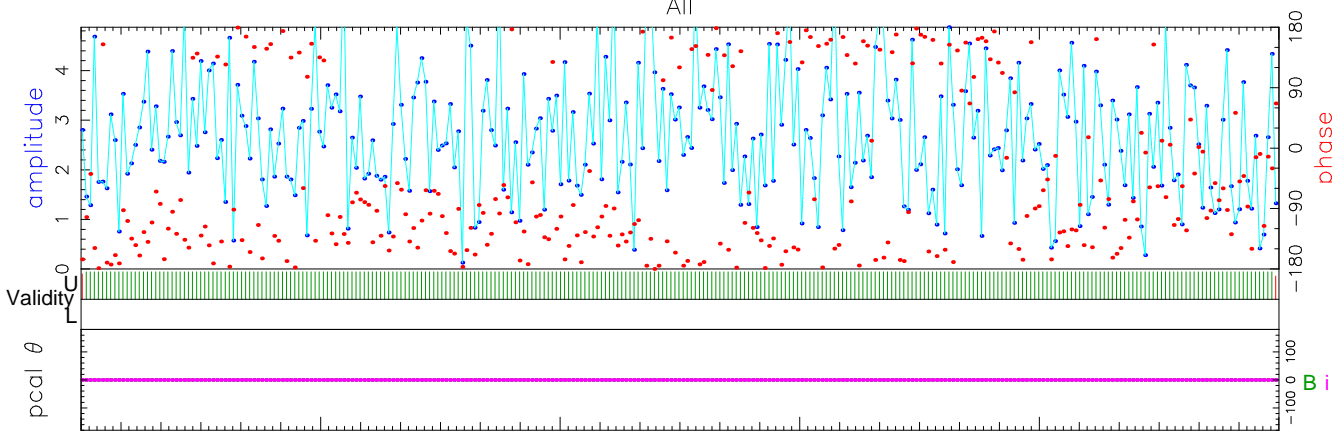
Fringe quality 9

SNR 19.2  
 Int time 299.796  
 Amp 1.626  
 Phase -8.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.083016  
 MBD 0.000006  
 Fringe rate (Hz)  
 0.019152  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163637  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -143.1  
 1.6  
 502.4  
 U/L 586/0  
 B 0  
 i 0  
 B:i 0:0  
 B:i 0:0  
 B 1000  
 i 1000  
 B W00UL  
 i W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

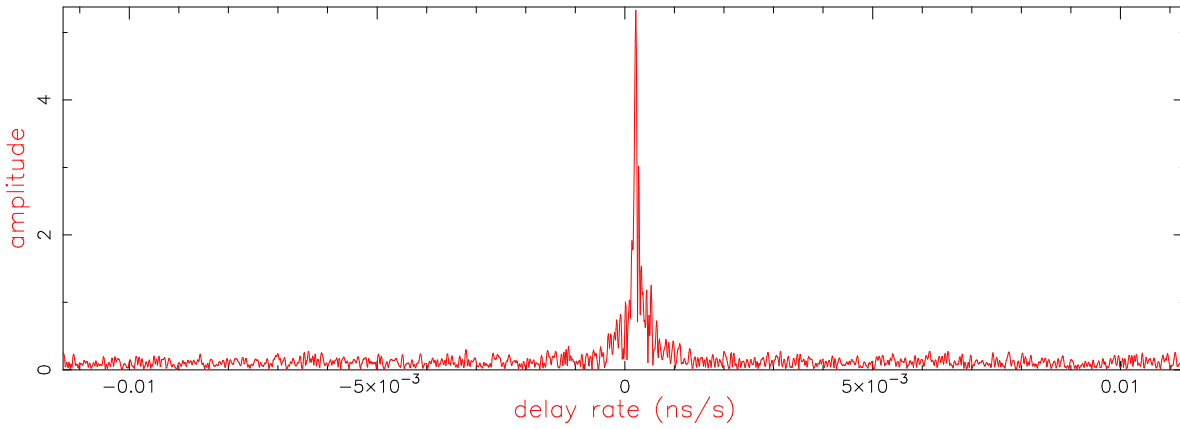
Group delay (usec)(sbd)	-3.16782576532E+03	Apriori delay (usec)	-3.16774274808E+03	Resid mbdelay (usec)	6.05702E-06	+/-	9.0E-04
Sband delay (usec)	-3.16782576458E+03	Apriori clock (usec)	2.0462181E+01	Resid sbdelay (usec)	-8.30165E-02	+/-	9.0E-04
Phase delay (usec)	-3.16774275270E+03	Apriori clockrate (us/s)	5.3000000E-08	Resid phdelay (usec)	-4.61342E-06	+/-	1.9E-07
Delay rate (us/s)	3.44394125260E-02	Apriori rate (us/s)	3.44391901913E-02	Resid rate (us/s)	2.22335E-07	+/-	1.1E-09
Total phase (deg)	-123.9	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-8.8	+/-	6.0

ph/seg (deg)	62.6	Theor.	51.0	Amplitude	1.626 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	101.6	Search (2048X8)	1.605	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000
amp/frq (%)	0.9	Inc. seg. avg.	1.947	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	1.609	Data rate(Mb/s):	128	ion window (TEC)	0.00	0.00		

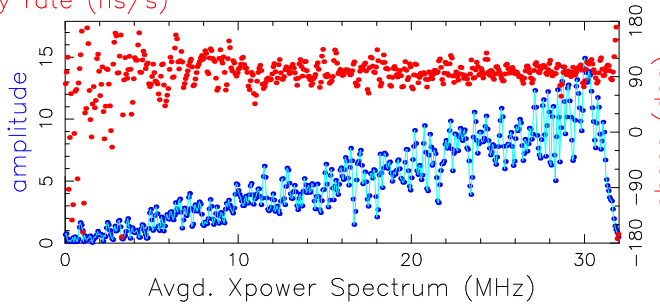
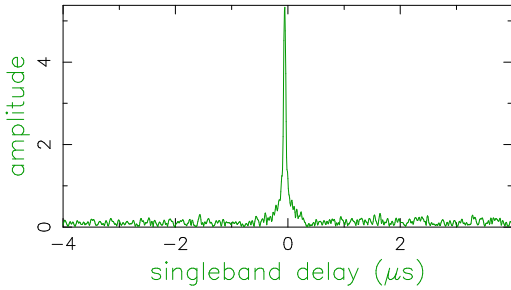
B: az 247.2 el 37.9 pa 37.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bi.W.58.0QR0YU

Fringe quality 9

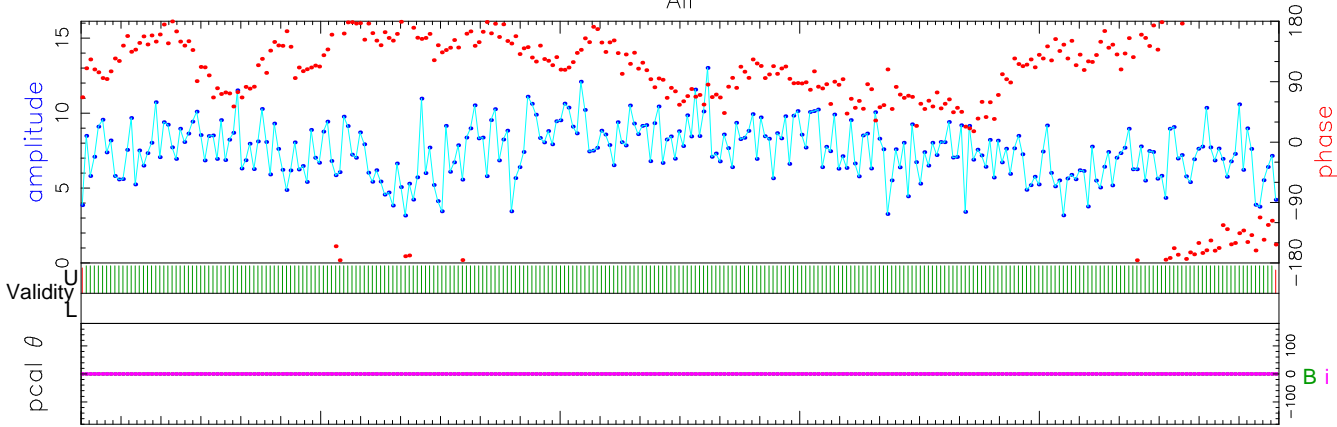


SNR 63.7  
Int time 299.796  
Amp 5.379  
Phase -14.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.057602  
MBD 0.000005  
Fringe rate (Hz)  
0.019115  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
120.6  
5.3  
505.6  
U/L 586/0  
B 0  
i 0  
B:i 0:0  
B:i 0:0  
B 1000  
i 1000  
B W00UR  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

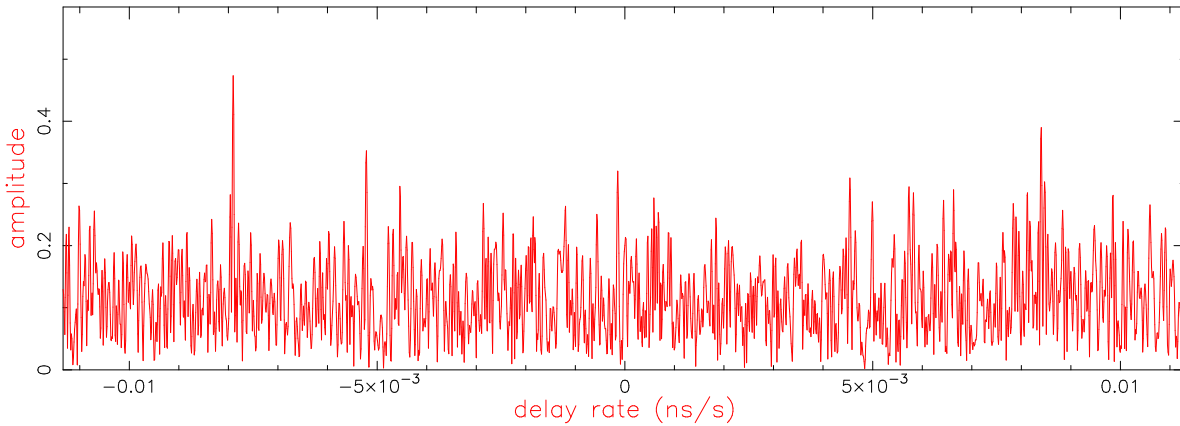
Group delay (usec)(sbd)	-3.16780035161E+03	Apriori delay (usec)	-3.16774274808E+03	Resid mbdelay (usec)	4.70911E-06	+/-	2.7E-04
Sband delay (usec)	-3.16780035058E+03	Apriori clock (usec)	2.0462181E+01	Resid sbdelay (usec)	-5.76025E-02	+/-	2.7E-04
Phase delay (usec)	-3.16774274419E+03	Apriori clockrate (us/s)	5.3000000E-08	Resid phdelay (usec)	3.88917E-06	+/-	5.8E-08
Delay rate (us/s)	3.44394121016E-02	Apriori rate (us/s)	3.44391901913E-02	Resid rate (us/s)	2.21910E-07	+/-	3.4E-10
Total phase (deg)	-129.1	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-14.0	+/-	1.8

ph/seg (deg)	47.7	RMS	15.4	Theor.	15.4	Amplitude	5.379 +/- 0.084	Search (2048X8)	5.316	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	51.5	ph/frq (deg)	0.0	0.9	0.9	Inc. seg. avg.	7.239	Inc. frq. avg.	5.330	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
amp/frq (%)	0.9	amp/frq (%)	0.9	1.6	1.6	Inc. seg. avg.	7.239	Inc. frq. avg.	5.330	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
										Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
										Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		
										nlags:	512	t_cohere	infinite		

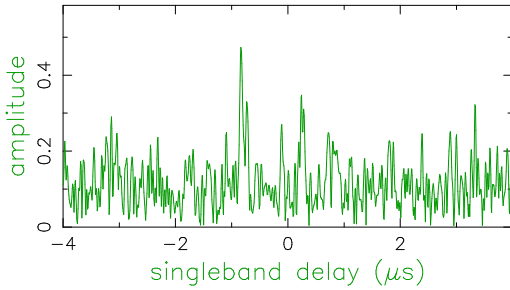
B: az 247.2 el 37.9 pa 37.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bi.W.77.0QR0YU

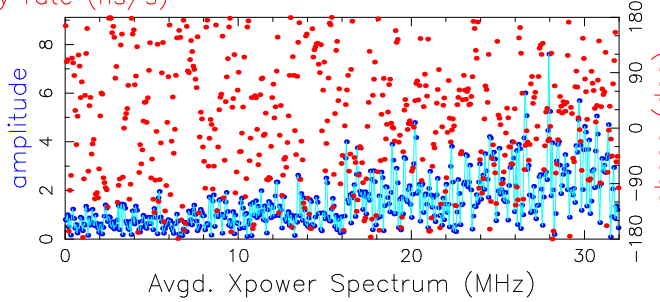
Fringe quality 0



SNR 5.5  
Int time 287.673  
Amp 0.584  
Phase -61.6  
PFD 9.9e-01  
Delays (us)  
SBD -0.834916  
MBD -0.000006  
Fringe rate (Hz)  
-0.682200  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

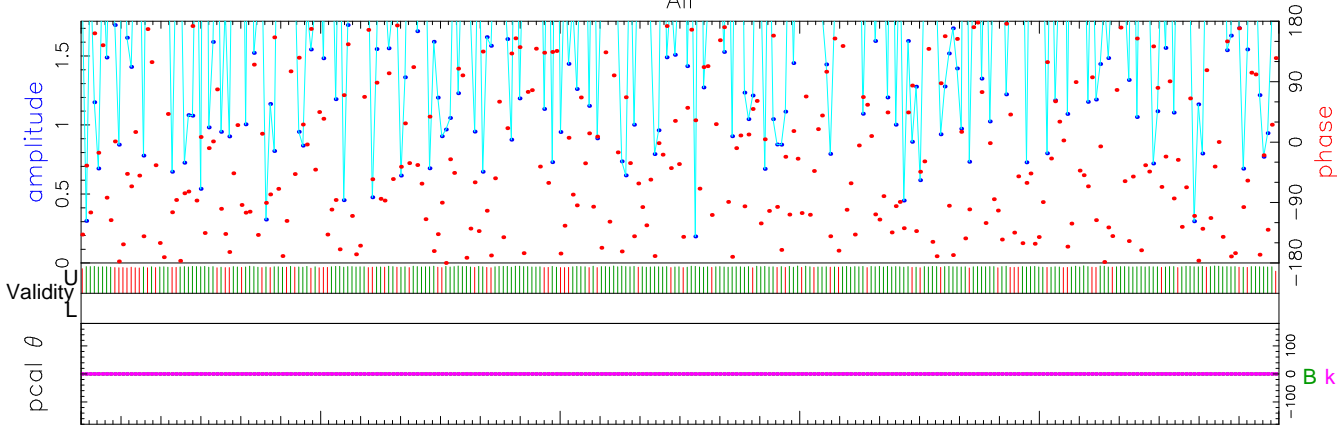


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



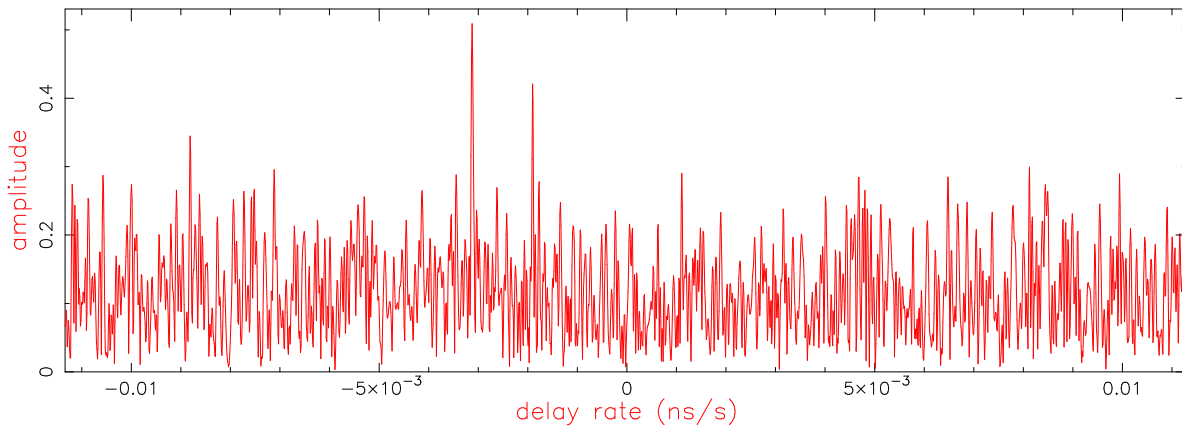
86012.00  
-109.1  
0.6  
406.2  
U/L 586/0  
B 0  
k 3000  
B:k 0:0  
B:k 0:0  
B 1000  
k 1000  
B W00UL  
k W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.39740817696E+03	Apriori delay (usec)	3.39824308969E+03	Resid mbdelay (usec)	-5.97405E-06	+/-	3.1E-03
Sband delay (usec)	3.39740817369E+03	Apriori clock (usec)	-3.6343911E+00	Resid sbdelay (usec)	-8.34916E-01	+/-	3.1E-03
Phase delay (usec)	3.39824308617E+03	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	-3.51805E-06	+/-	6.7E-07
Delay rate (us/s)	-1.90433785622E+00	Apriori rate (us/s)	-1.90432993655E+00	Resid rate (us/s)	-7.91967E-06	+/-	3.9E-09
Total phase (deg)	-153.2	Apriori accel (us/s/s)	-1.04318891833E-05	Resid phase (deg)	-61.6	+/-	20.9

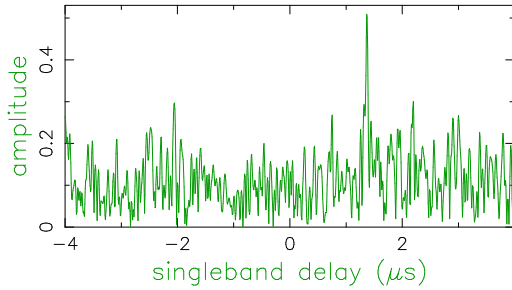
ph/seg (deg)	RMS 91.5	Theor. 178.6	Amplitude 0.584 +/- 0.106	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	390.7	311.6	Search (2048X8) 0.464	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	10.4	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.1	18.2	Inc. seg. avg. 0.428	Sample rate(MSamp/s): 64	ion window (TEC)	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.574	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

B: az 247.2 el 37.9 pa 37.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 11345.932 1769.976 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bk.W.19.0QR0YU

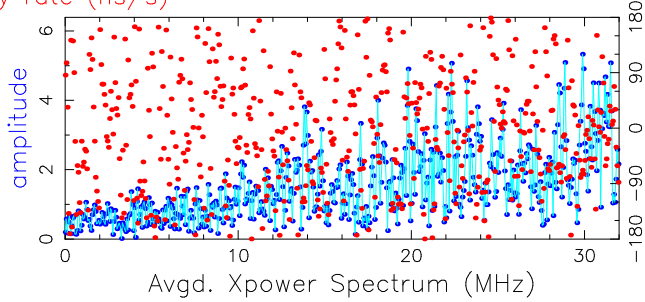


Fringe quality 0

SNR 5.9  
Int time 278.911  
Amp 0.531  
Phase 109.8  
PFD 4.2e-01  
Delays (us)  
SBD 1.370263  
MBD -0.000007  
Fringe rate (Hz)  
-0.269762  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

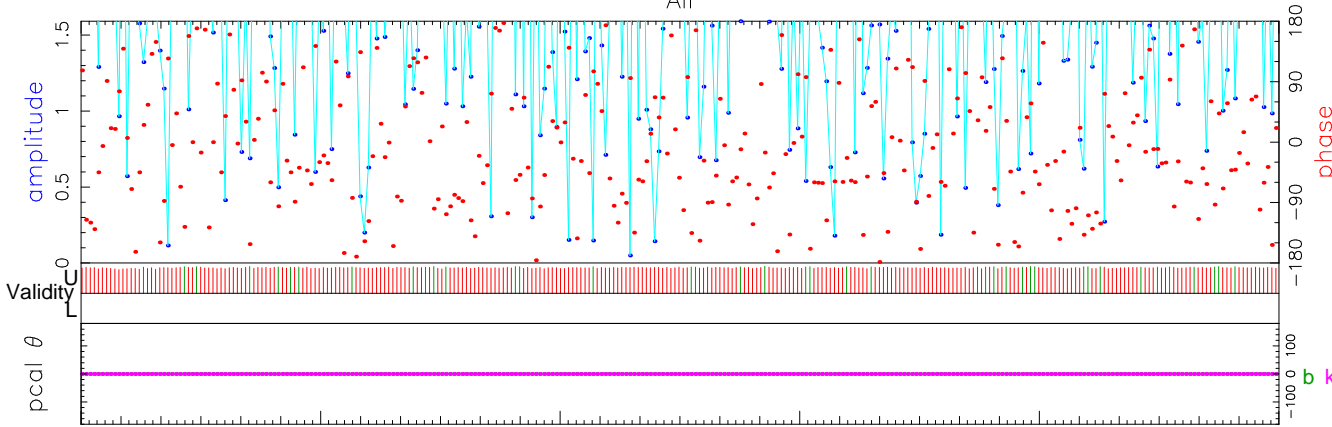


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-32.4  
0.5  
688.4  
U/L 586/0  
b 3000  
k 3000  
b:k 0:0  
b:k 0:0  
b 1000  
k 1000  
b W00UR  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.92023317116E+03	Apriori delay (usec)	-1.92160343781E+03	Resid mbdelay (usec)	-7.26532E-06	+/-	2.9E-03
Sband delay (usec)	-1.92023317481E+03	Apriori clock (usec)	-7.5689182E+00	Resid sbdelay (usec)	1.37026E+00	+/-	2.9E-03
Phase delay (usec)	-1.92160343885E+03	Apriori clockrate (us/s)	3.1365999E-07	Resid phdelay (usec)	-1.04596E-06	+/-	6.3E-07
Delay rate (us/s)	-2.08106736863E-01	Apriori rate (us/s)	-2.08103605189E-01	Resid rate (us/s)	-3.13167E-06	+/-	3.6E-09
Total phase (deg)	62.0	Apriori accel (us/s/s)	1.69734346702E-05	Resid phase (deg)	109.8	+/-	19.5

ph/seg (deg)	89.5	Theor.	167.1	Amplitude	0.531 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	356.7	Search (2048X8)	0.504	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.391	Inc. seg. avg.	0.391	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.518	Inc. frq. avg.	0.518	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

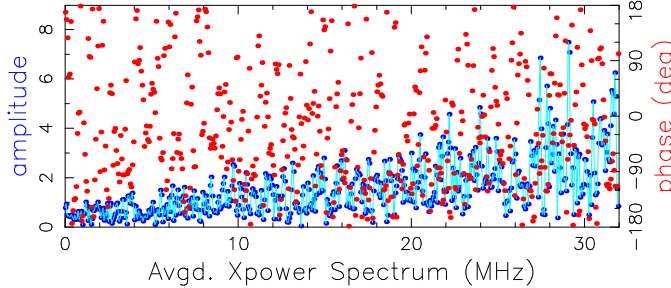
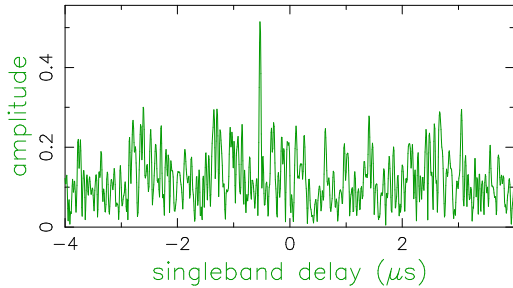
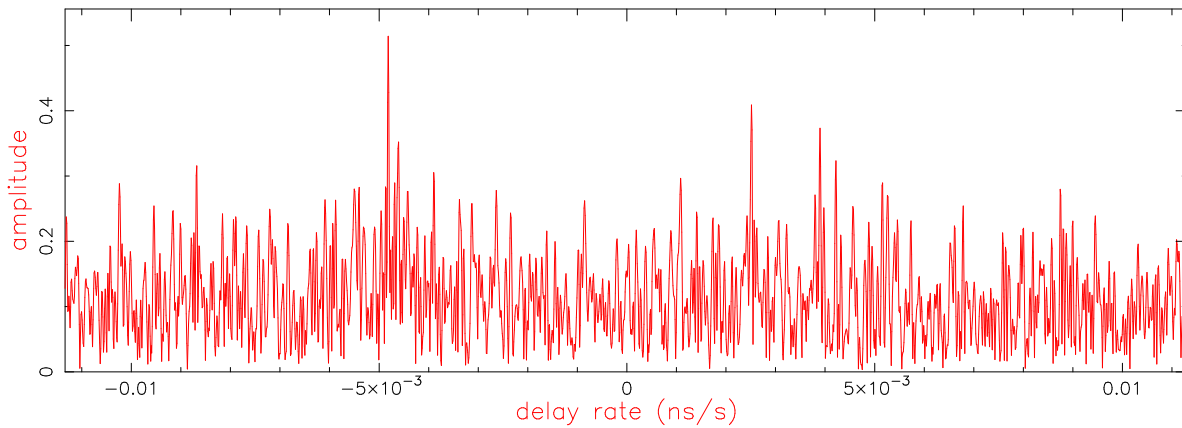
b: az 88.2 el 20.4 pa -44.0 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 1263.606 2213.914 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bk.W.36.0QR0YU



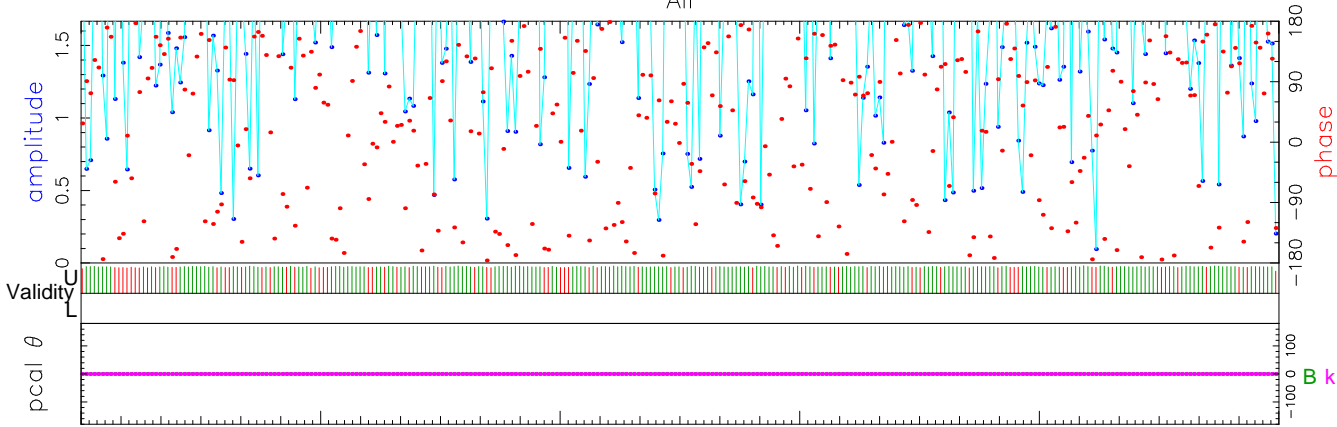
Fringe quality 0

SNR 6.0  
Int time 287.679  
Amp 0.556  
Phase -167.2  
PFD 2.5e-01  
Delays (us)  
SBD -0.529869  
MBD -0.000005  
Fringe rate (Hz)  
-0.415574  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
129.1  
0.6  
445.2  
U/L 586/0  
B 0  
k 3000  
B:k 0:0  
B:k 0:0  
B 1000  
k 1000  
B W00UR  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.39771321680E+03	Apriori delay (usec)	3.39824308969E+03	Resid mbdelay (usec)	-4.96377E-06	+/- 2.9E-03
Sband delay (usec)	3.39771322019E+03	Apriori clock (usec)	-3.6343911E+00	Resid sbdelay (usec)	-5.29869E-01	+/- 2.9E-03
Phase delay (usec)	3.39824309385E+03	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	4.16193E-06	+/- 6.2E-07
Delay rate (us/s)	-1.90433476095E+00	Apriori rate (us/s)	-1.90432993655E+00	Resid rate (us/s)	-4.82440E-06	+/- 3.6E-09
Total phase (deg)	-258.8	Apriori accel (us/s/s)	-1.04318891833E-05	Resid phase (deg)	-167.2	+/- 19.2

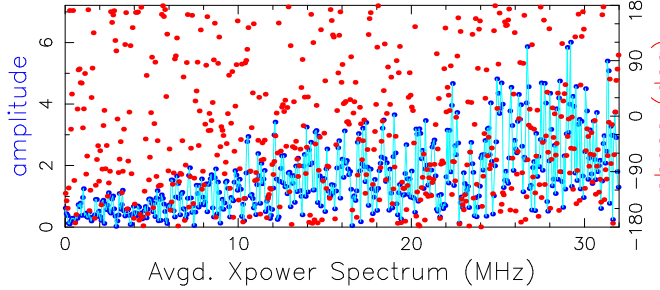
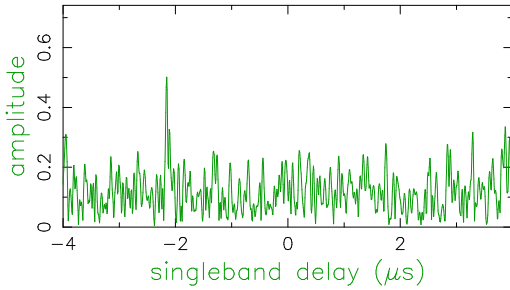
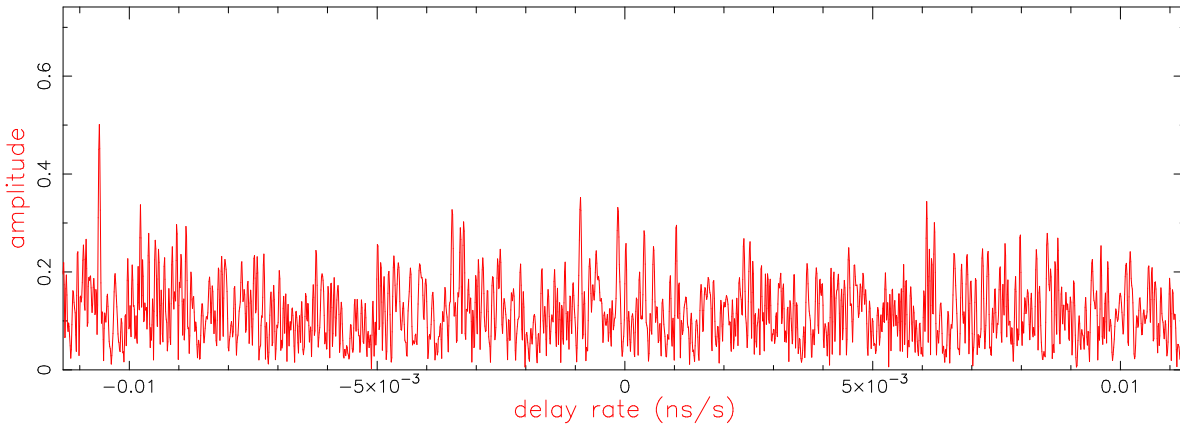
ph/seg (deg)	90.1	Theor.	164.1	Amplitude	0.556 +/- 0.093	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	373.3	Search (2048X8)	0.502	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.443	Inc. seg. avg.	0.443	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.2	Inc. frq. avg.	0.547	Inc. frq. avg.	0.547	Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000

B: az 247.2 el 37.9 pa 37.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 11345.932 1769.976 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bk.W.48.0QR0YU

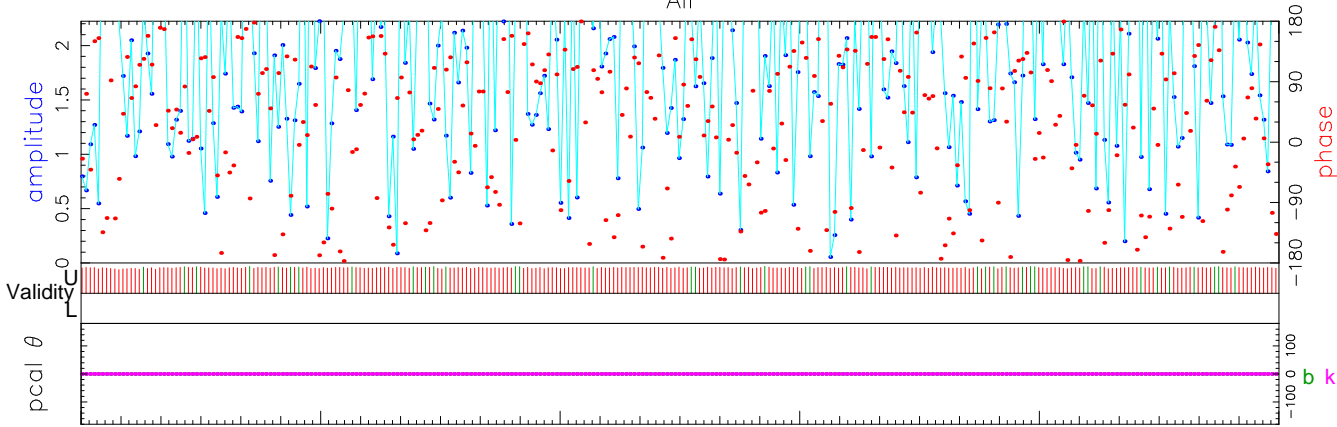
Fringe quality 0

SNR 5.7  
Int time 278.911  
Amp 0.741  
Phase -272.8  
PFD 7.2e-01  
Delays (us)  
SBD -2.156467  
MBD -0.000006  
Fringe rate (Hz)  
-0.914880  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163631  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
97.2  
0.7  
236.9  
U/L 586/0  
b 3000  
k 3000  
b:k 0:0  
b:k 0:0  
b 1000  
k 1000  
b W00UL  
k W00UL

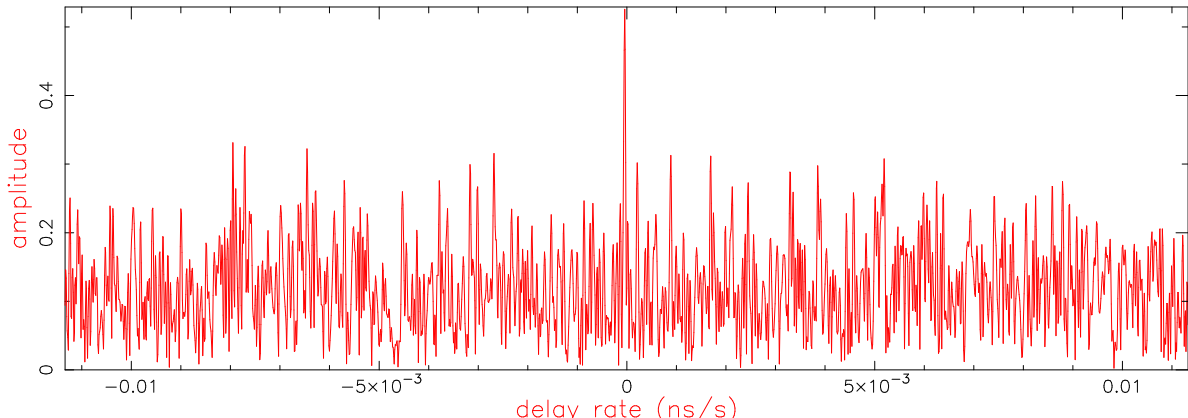
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.92375990999E+03	Apriori delay (usec)	-1.92160343781E+03	Resid mbdelay (usec)	-5.64293E-06	+/-	3.0E-03
Sband delay (usec)	-1.92375990481E+03	Apriori clock (usec)	-7.5689182E+00	Resid sbdelay (usec)	-2.15647E+00	+/-	3.0E-03
Phase delay (usec)	-1.92160343467E+03	Apriori clockrate (us/s)	3.1365999E-07	Resid phdelay (usec)	3.13414E-06	+/-	6.5E-07
Delay rate (us/s)	-2.08114226034E-01	Apriori rate (us/s)	-2.08103605189E-01	Resid rate (us/s)	-1.06208E-05	+/-	3.7E-09
Total phase (deg)	-320.6	Apriori accel (us/s/s)	1.69734346702E-05	Resid phase (deg)	-272.8	+/-	20.0

ph/seg (deg)	90.9	Theor.	171.3	Amplitude	0.741 +/- 0.130	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	377.9	Search (2048X8)	0.493	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000
amp/frq (%)	0.0	Inc. seg. avg.	0.555	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.730	Data rate(Mb/s):	128	ion window (TEC)	0.00	0.00		

b: az 88.2 el 20.4 pa -44.0 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 1263.606 2213.914 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bk.W.5.0QR0YU

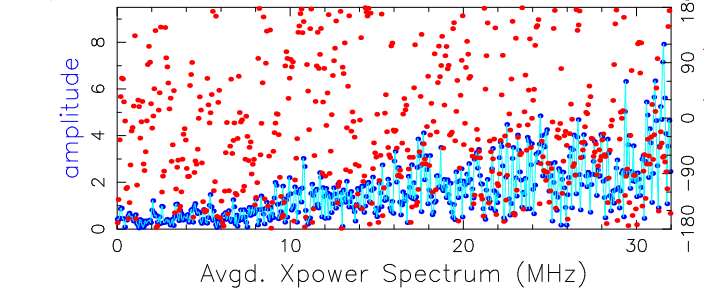
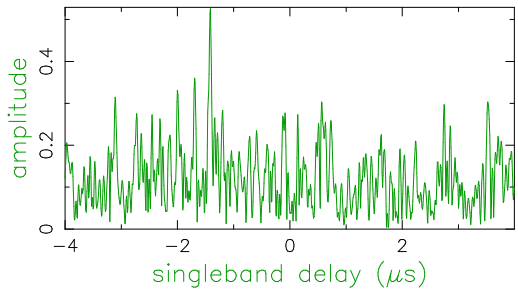




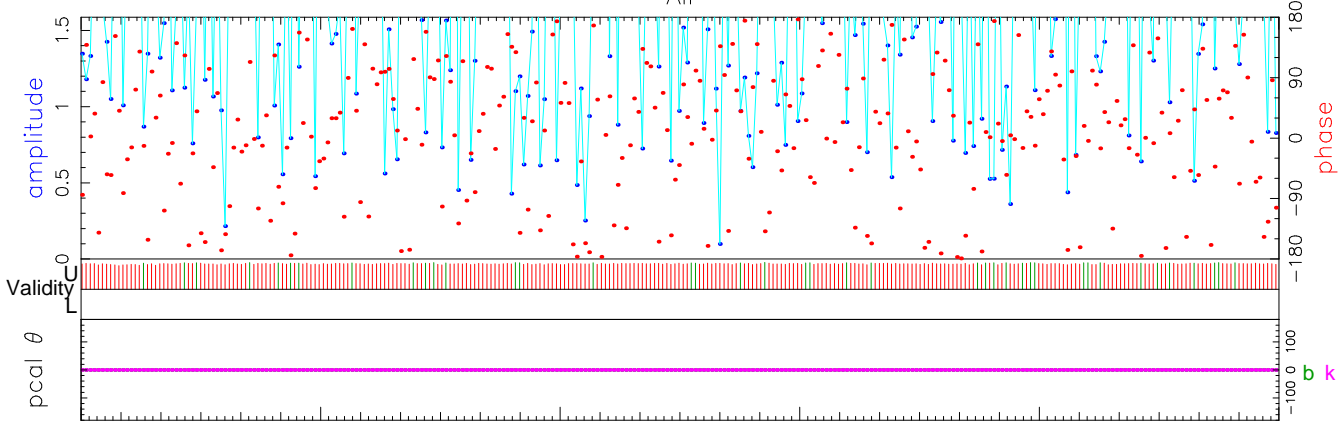
Fringe quality 0

SNR 6.0  
Int time 278.916  
Amp 0.529  
Phase -72.0  
PFD 1.8e-01  
Delays (us)  
SBD -1.416644  
MBD -0.000005  
Fringe rate (Hz)  
-0.004218  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00		Freq (MHz)
46.7		Phase
0.5		Ampl.
331.7		Sbd box
U/L 586/0		APs used
b 3000		PC freqs
k 3000		PC freqs
b:k 0:0		PC phase
b:k 0:0		Manl PC
b 1000		PC amp
k 1000		
b W00UL		Chan ids
b		
k W00UR		Chan ids

Group delay (usec)(sbd)	-1.92302008255E+03	Apriori delay (usec)	-1.92160343781E+03	Resid mbdelay (usec)	-5.19927E-06	+/- 2.9E-03
Sband delay (usec)	-1.92302008131E+03	Apriori clock (usec)	-7.5689182E+00	Resid sbdelay (usec)	-1.41664E+00	+/- 2.9E-03
Phase delay (usec)	-1.92160343630E+03	Apriori clockrate (us/s)	3.1365999E-07	Resid phdelay (usec)	1.50600E-06	+/- 6.1E-07
Delay rate (us/s)	-2.08103654158E-01	Apriori rate (us/s)	-2.08103605189E-01	Resid rate (us/s)	-4.89684E-08	+/- 3.5E-09
Total phase (deg)	-119.9	Apriori accel (us/s/s)	1.69734346702E-05	Resid phase (deg)	-72.0	+/- 19.0

ph/seg (deg)	RMS 92.7	Theor. 162.3	Amplitude 0.529 +/- 0.088	Search (2048X8) 0.516	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	353.6	283.3	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	9.5	Inc. seg. avg. 0.407	0.407	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.7	16.6	Inc. frq. avg. 0.519	0.519	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

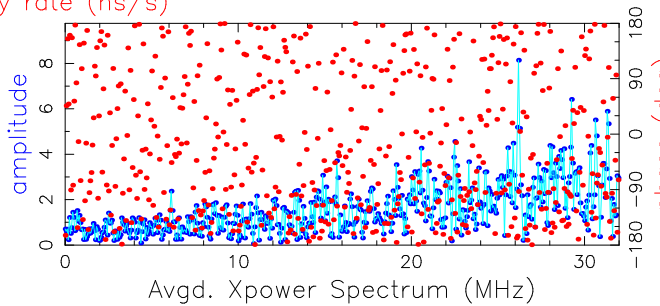
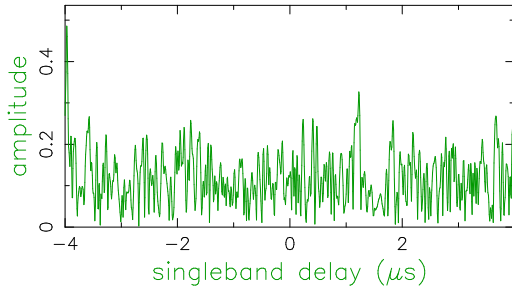
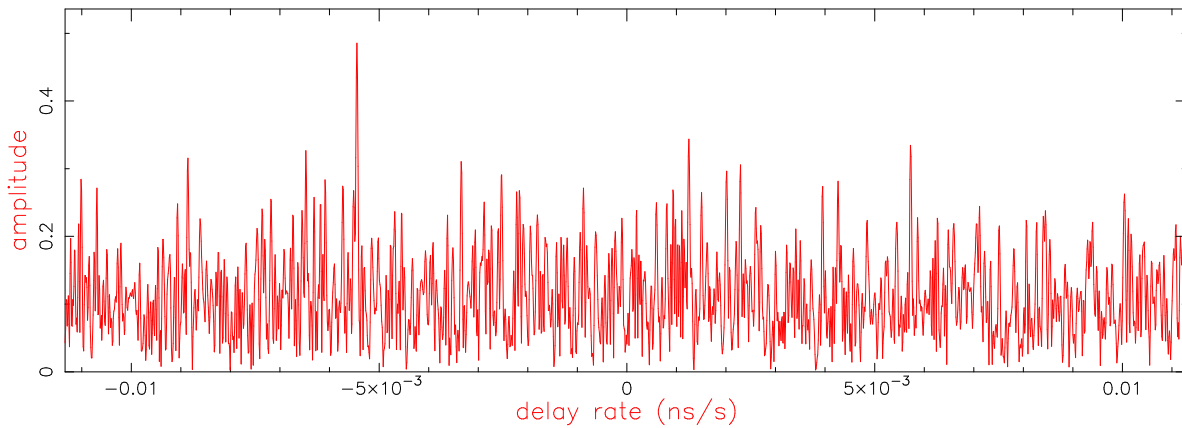
b: az 88.2 el 20.4 pa -44.0 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 1263.606 2213.914 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bk.W.64.0QR0YU

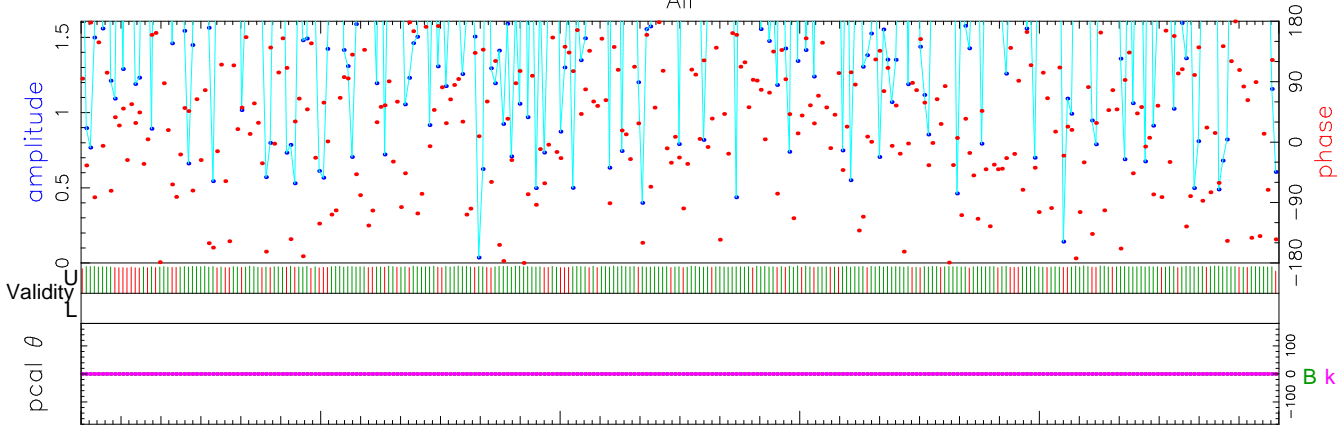
Fringe quality 0

SNR 5.6  
Int time 287.679  
Amp 0.536  
Phase -249.7  
PFD 8.8e-01  
Delays (us)  
SBD -3.967618  
MBD -0.000004  
Fringe rate (Hz)  
-0.470140  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
57.7  
0.5  
5.1  
U/L 586/0  
B 0  
k 3000  
B:k 0:0  
B:k 0:0  
B 1000  
k 1000  
B W00UL  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.39427547616E+03	Apriori delay (usec)	3.39824308969E+03	Resid mbdelay (usec)	-4.36074E-06	+/-	3.1E-03
Sband delay (usec)	3.39427547119E+03	Apriori clock (usec)	-3.6343911E+00	Resid sbdelay (usec)	-3.96762E+00	+/-	3.1E-03
Phase delay (usec)	3.39824309155E+03	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	1.86121E-06	+/-	6.6E-07
Delay rate (us/s)	-1.90433539441E+00	Apriori rate (us/s)	-1.90432993655E+00	Resid rate (us/s)	-5.45786E-06	+/-	3.8E-09
Total phase (deg)	-341.3	Apriori accel (us/s/s)	-1.04318891833E-05	Resid phase (deg)	-249.7	+/-	20.3

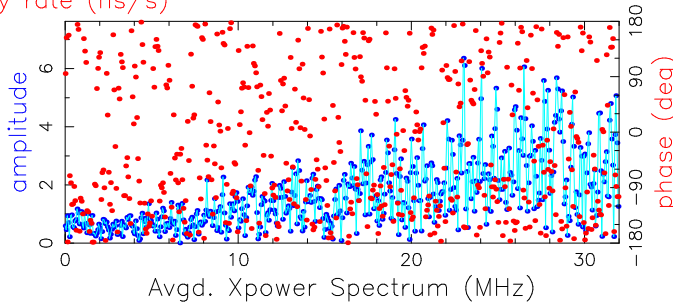
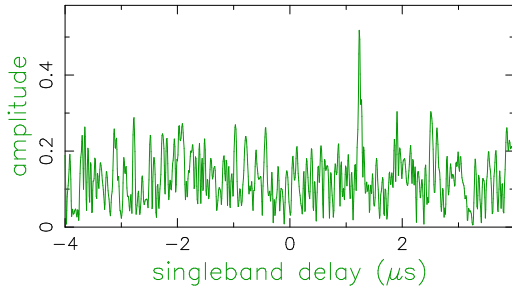
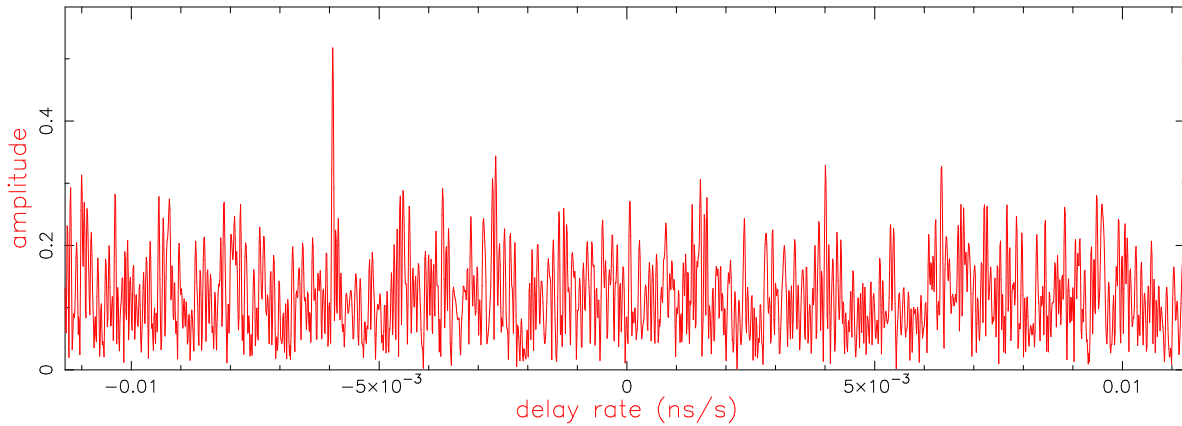
ph/seg (deg)	89.0	Theor.	173.9	Amplitude	0.536 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	378.7	Search (2048X8)	0.485	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.399	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.527	Inc. frq. avg.	0.527	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 11345.932 1769.976 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bk.W.68.0QR0YU

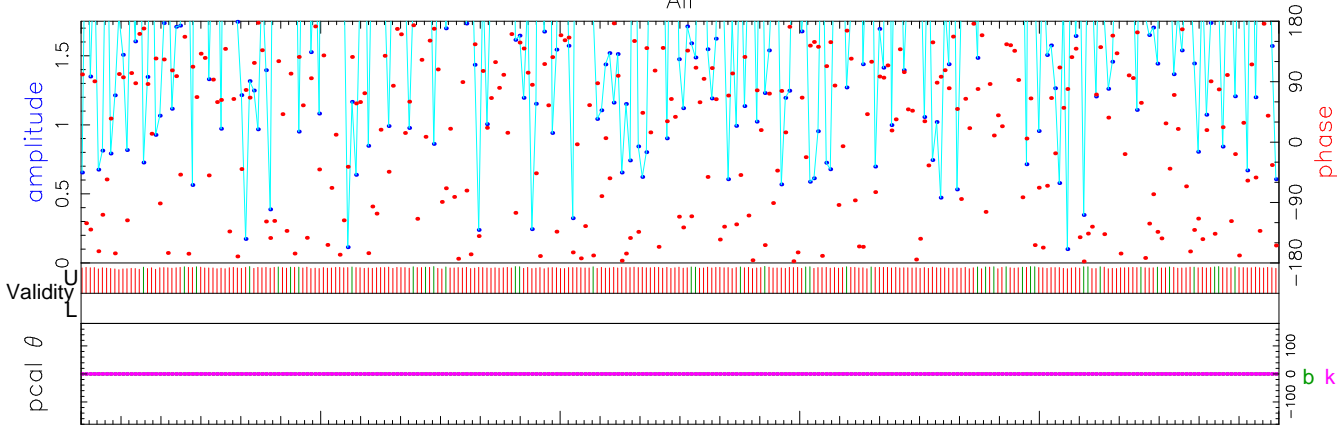
Fringe quality 0

SNR 5.9  
Int time 278.906  
Amp 0.583  
Phase 210.0  
PFD 3.2e-01  
Delays (us)  
SBD 1.236056  
MBD -0.000006  
Fringe rate (Hz)  
-0.511992  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
132.4  
0.6  
671.2  
U/L 586/0  
b 3000  
k 3000  
b:k 0:0  
b:k 0:0  
b 1000  
k 1000  
b W00UR  
k W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.92036738411E+03	Apriori delay (usec)	-1.92160343781E+03	Resid mbdelay (usec)	-6.38264E-06	+/-	2.9E-03
Sband delay (usec)	-1.92036738131E+03	Apriori clock (usec)	-7.5689182E+00	Resid sbdelay (usec)	1.23606E+00	+/-	2.9E-03
Phase delay (usec)	-1.92160343354E+03	Apriori clockrate (us/s)	3.1365999E-07	Resid phdelay (usec)	4.26944E-06	+/-	6.2E-07
Delay rate (us/s)	-2.08109548914E-01	Apriori rate (us/s)	-2.08103605189E-01	Resid rate (us/s)	-5.94372E-06	+/-	3.6E-09
Total phase (deg)	162.2	Apriori accel (us/s/s)	1.69734346702E-05	Resid phase (deg)	210.0	+/-	19.3

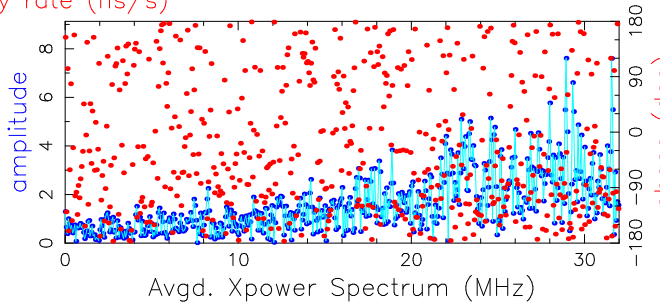
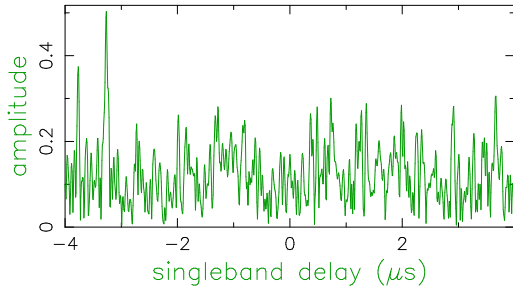
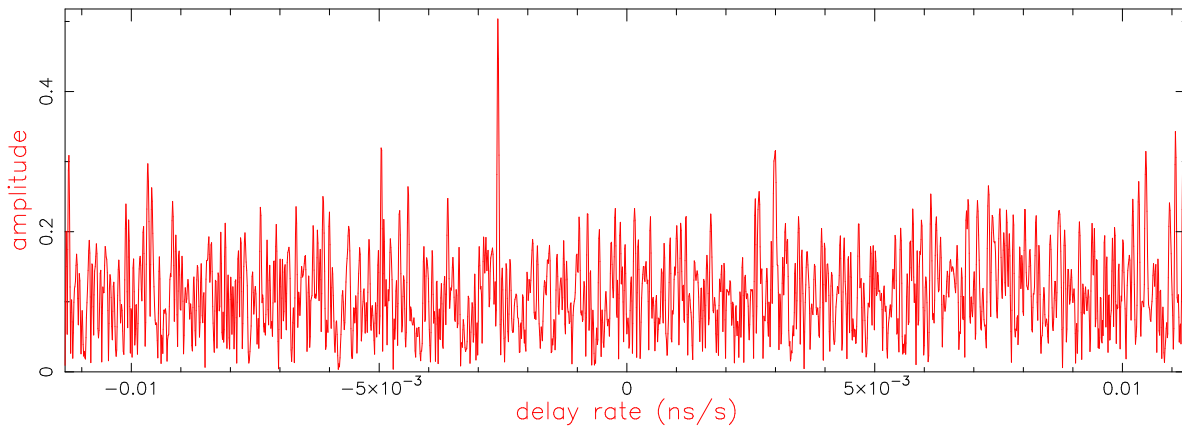
ph/seg (deg)	87.6	Theor.	165.3	Amplitude	0.583 +/- 0.098	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	358.7	RMS	87.6	Search (2048X8)	0.514	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	9.7	Inc. seg. avg.	0.443	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.4	Inc. frq. avg.	16.9	Inc. frq. avg.	0.573	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000

b: az 88.2 el 20.4 pa -44.0 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 1263.606 2213.914 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bk.W.82.0QR0YU

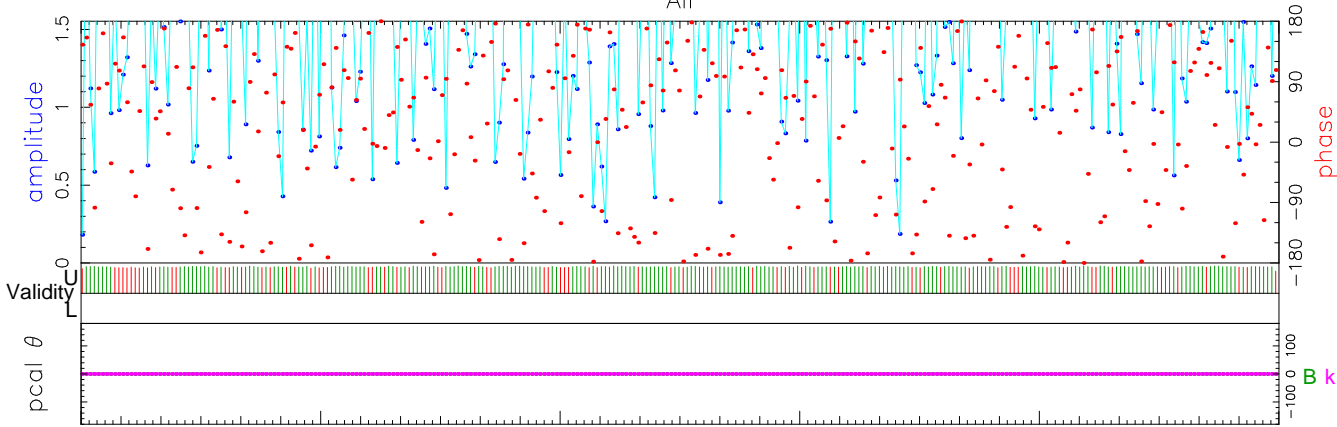
Fringe quality 0

SNR 5.9  
Int time 287.673  
Amp 0.518  
Phase -347.2  
PFD 4.2e-01  
Delays (us)  
SBD -3.267982  
MBD -0.000006  
Fringe rate (Hz)  
-0.224188  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
121.0  
0.5  
94.7  
U/L 586/0  
B 0  
k 3000  
B:k 0:0  
B:k 0:0  
B 1000  
k 1000  
B W00UR  
k W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.39497510930E+03	Apriori delay (usec)	3.39824308969E+03	Resid mbdelay (usec)	-6.15021E-06	+/-	2.9E-03
Sband delay (usec)	3.39497510719E+03	Apriori clock (usec)	-3.6343911E+00	Resid sbdelay (usec)	-3.26798E+00	+/-	2.9E-03
Phase delay (usec)	3.39824309359E+03	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	3.90198E-06	+/-	6.3E-07
Delay rate (us/s)	-1.90433253915E+00	Apriori rate (us/s)	-1.90432993655E+00	Resid rate (us/s)	-2.60260E-06	+/-	3.6E-09
Total phase (deg)	-78.8	Apriori accel (us/s/s)	-1.04318891833E-05	Resid phase (deg)	-347.2	+/-	19.5

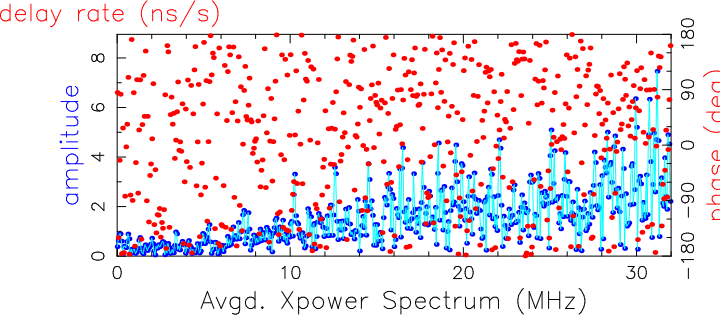
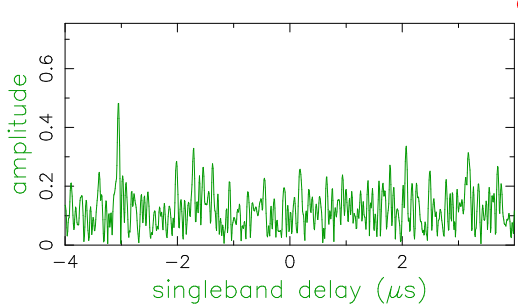
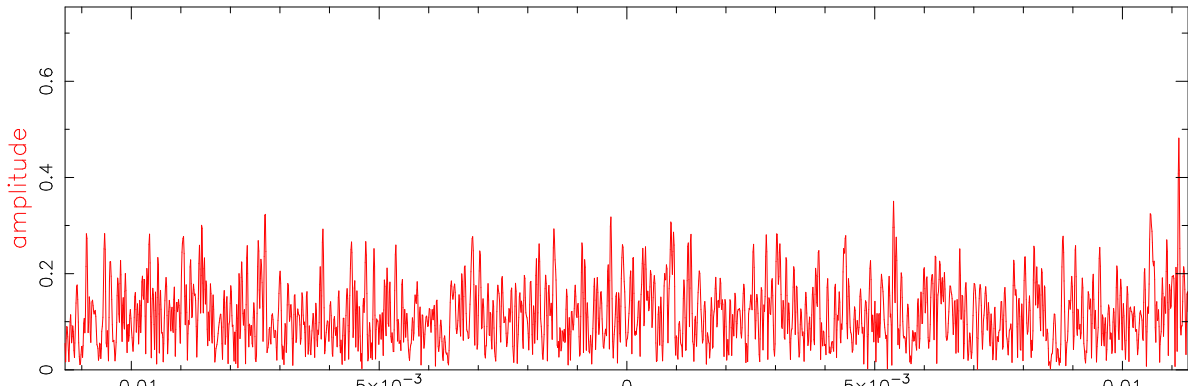
ph/seg (deg)	88.5	Theor.	167.0	Amplitude	0.518 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	329.7	Search (2048X8)	0.500	Search	0.500	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.370	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.507	Inc. frq. avg.	0.507	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 11345.932 1769.976 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bk.W.84.0QR0YU

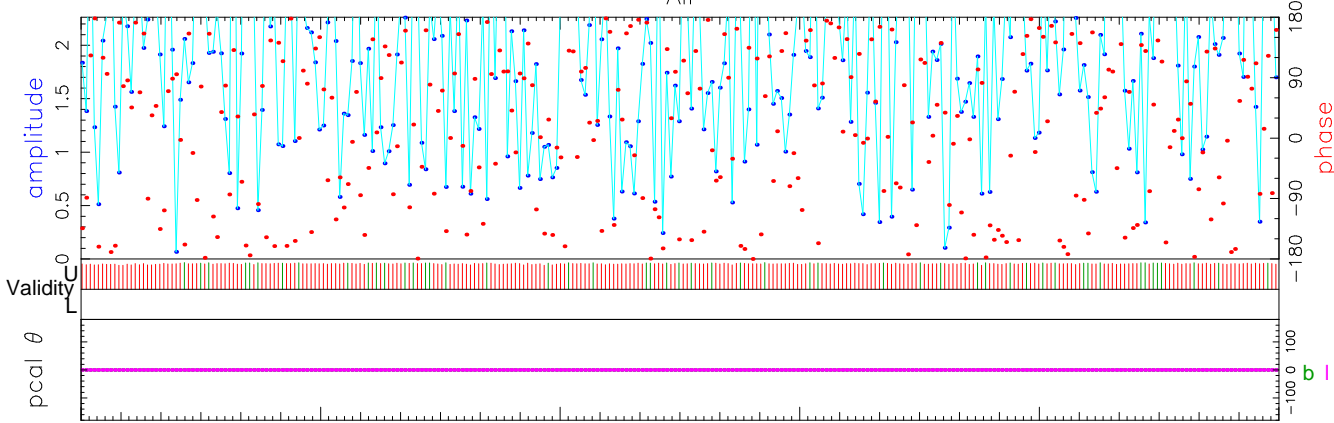
Fringe quality 0

SNR 5.6  
Int time 279.436  
Amp 0.754  
Phase -34.3  
PFD 9.5e-01  
Delays (us)  
SBD -3.050627  
MBD 0.000005  
Fringe rate (Hz)  
0.961137  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



Validity  
pcal θ  
b l

86012.00	Freq (MHz)
138.9	Phase
0.7	Ampl.
122.5	Sbd box
U/L 586/0	APs used
b 3000	PC freqs
l 3000	PC freqs
b:l 0:0	PC phase
b:l 0:0	Manl PC
b 1000	PC amp
l 1000	
b W00UL	Chan ids
l W00UL	Chan ids

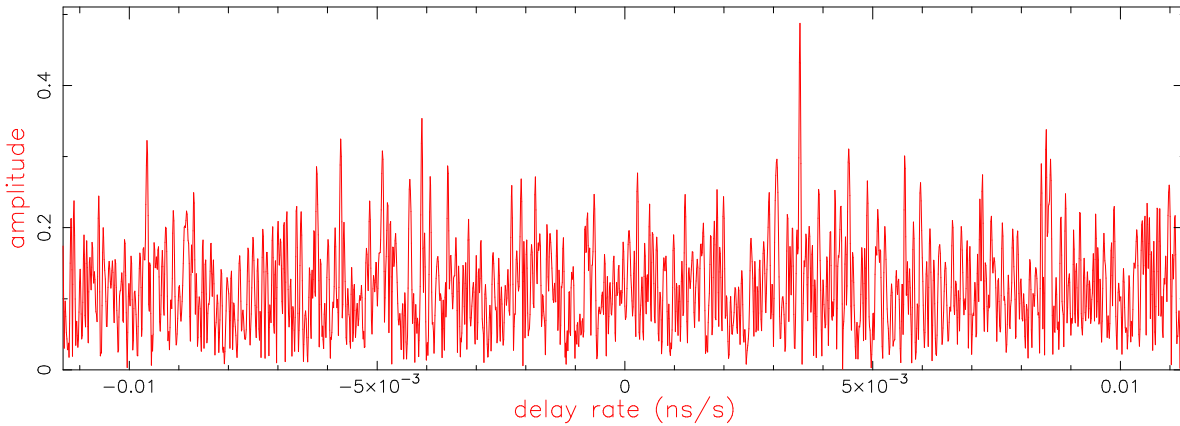
Group delay (usec)(sbd)	-3.38091597037E+03	Apriori delay (usec)	-3.37786534263E+03	Resid mbdelay (usec)	4.72185E-06	+/-	3.1E-03
Sband delay (usec)	-3.38091596913E+03	Apriori clock (usec)	2.7742417E+00	Resid sbdelay (usec)	-3.05063E+00	+/-	3.1E-03
Phase delay (usec)	-3.37786533815E+03	Apriori clockrate (us/s)	3.5999998E-07	Resid phdelay (usec)	4.47833E-06	+/-	6.6E-07
Delay rate (us/s)	-1.10251371869E-01	Apriori rate (us/s)	-1.10262529722E-01	Resid rate (us/s)	1.11579E-05	+/-	3.8E-09
Total phase (deg)	-255.2	Apriori accel (us/s/s)	2.30261254274E-05	Resid phase (deg)	-34.3	+/-	20.6

ph/seg (deg)	91.5	Theor.	175.9	Amplitude	0.754 +/- 0.135	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	376.8	Search (2048X8)	0.480	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.544	Inc. frq. avg.	0.733	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.3	Inc. frq. avg.	0.733			Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
						Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

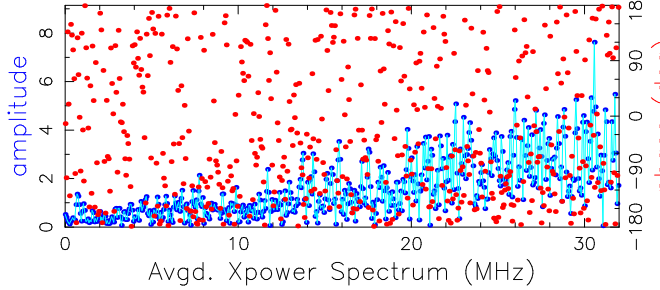
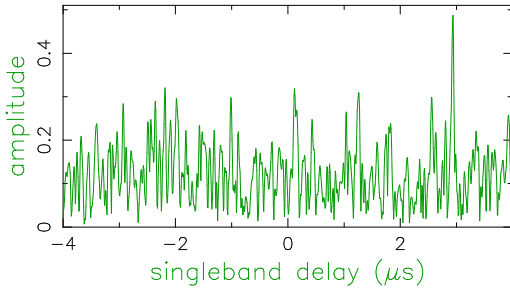
b: az 88.2 el 20.4 pa -44.0 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 687.431 1884.795 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bl.W.14.0QR0YU



Fringe quality 0

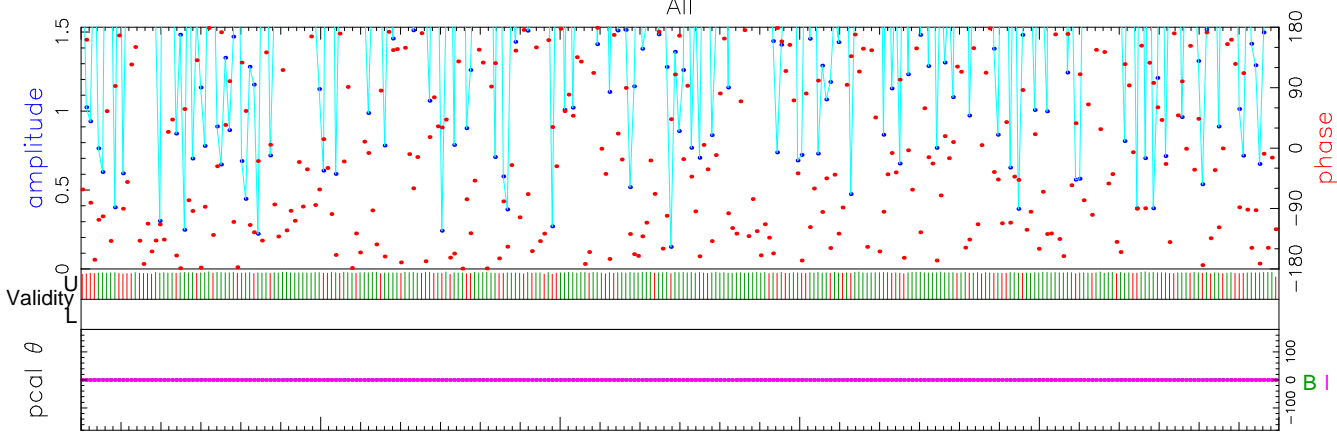


SNR 5.7  
Int time 287.947  
Amp 0.510  
Phase 95.9  
PFD 8.0e-01  
Delays (us)  
SBD 2.935121  
MBD 0.000005  
Fringe rate (Hz)  
0.304607  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
-154.1  
0.5  
888.7  
U/L 586/0  
B 0  
I 3000  
B:I 0:0  
B:I 0:0  
B 1000  
I 1000  
B W00UL  
I W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.94491630337E+03	Apriori delay (usec)	1.94198118487E+03	Resid mbdelay (usec)	4.79003E-06	+/-	3.0E-03
Sband delay (usec)	1.94491630537E+03	Apriori clock (usec)	6.7087688E+00	Resid sbdelay (usec)	2.93512E+00	+/-	3.0E-03
Phase delay (usec)	1.94198117990E+03	Apriori clockrate (us/s)	-6.7000001E-08	Resid phdelay (usec)	-4.97044E-06	+/-	6.5E-07
Delay rate (us/s)	-1.80648532489E+00	Apriori rate (us/s)	-1.80648886108E+00	Resid rate (us/s)	3.53619E-06	+/-	3.8E-09
Total phase (deg)	191.2	Apriori accel (us/s/s)	-4.37919842612E-06	Resid phase (deg)	95.9	+/-	20.1

ph/seg (deg)	RMS 90.9	Theor. 172.4	Amplitude 0.510 +/- 0.090	Search (2048X8) 0.477	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	372.4	301.0	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.1	Inc. seg. avg. 0.376	0.500	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.6	17.6	Inc. frq. avg. 0.500		Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

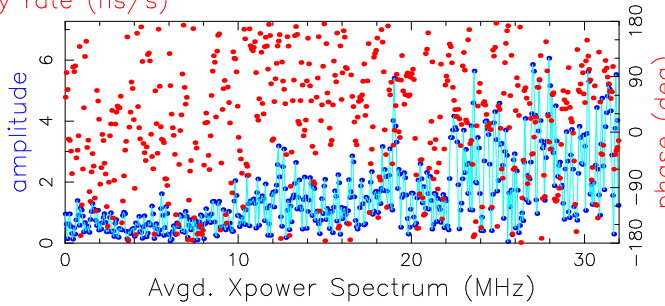
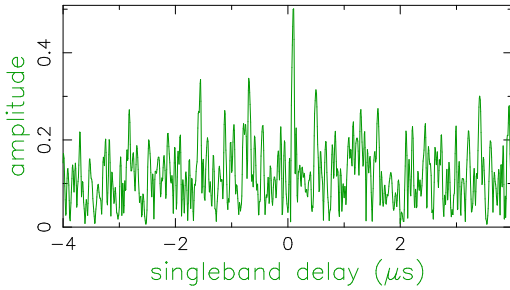
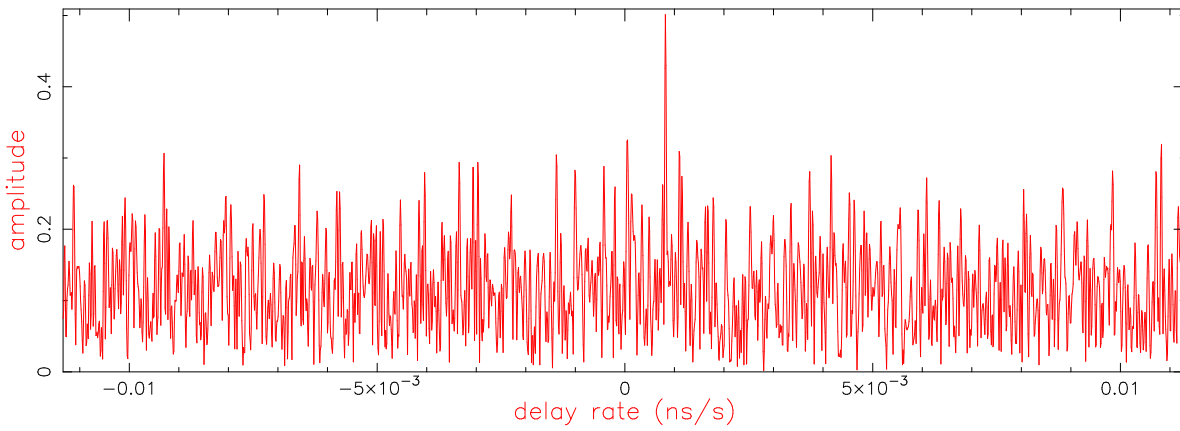
B: az 247.2 el 37.9 pa 37.6 I: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 10769.757 1440.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BI..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BI.W.16.0QR0YU

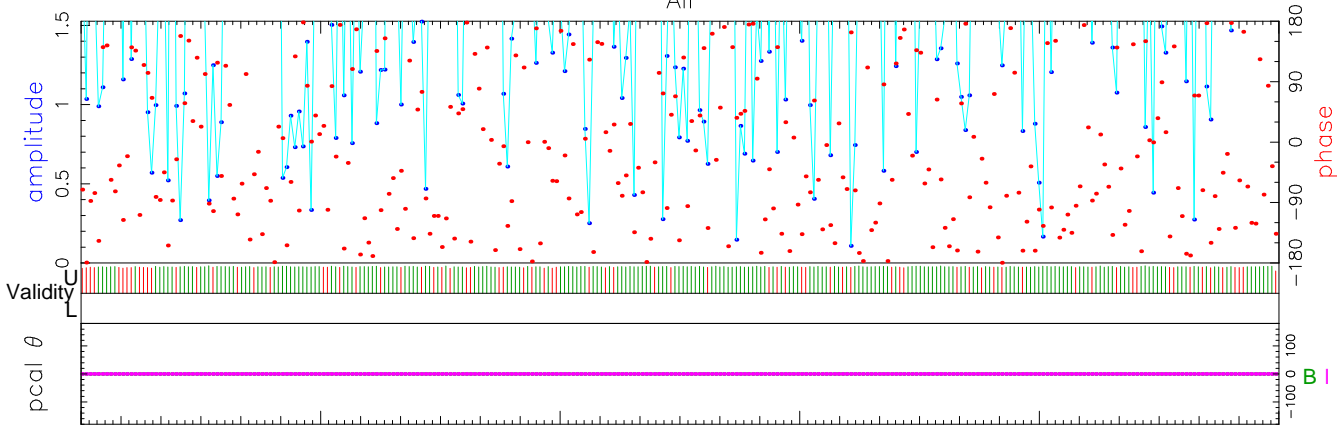
Fringe quality 0

SNR 5.9  
Int time 287.951  
Amp 0.509  
Phase 86.7  
PFD 3.8e-01  
Delays (us)  
SBD 0.098052  
MBD 0.000006  
Fringe rate (Hz)  
0.070549  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-111.2  
0.5  
525.5  
U/L 586/0  
B 0  
I 3000  
B:I 0:0  
B:I 0:0  
B 1000  
I 1000  
B W00UR  
I W00UR

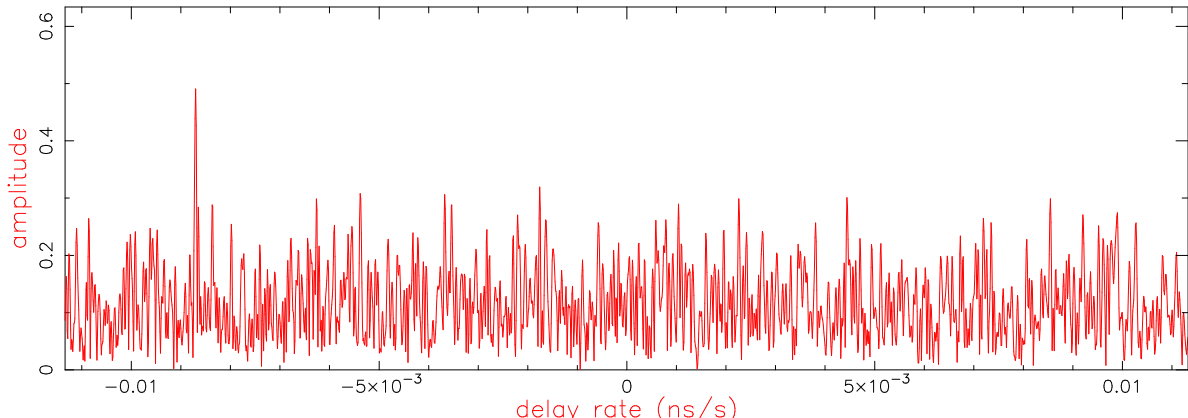
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.94207923580E+03	Apriori delay (usec)	1.94198118487E+03	Resid mbdelay (usec)	6.46812E-06	+/-	2.9E-03
Sband delay (usec)	1.94207923687E+03	Apriori clock (usec)	6.7087688E+00	Resid sbdelay (usec)	9.80520E-02	+/-	2.9E-03
Phase delay (usec)	1.94198118129E+03	Apriori clockrate (us/s)	-6.7000001E-08	Resid phdelay (usec)	-3.58485E-06	+/-	6.3E-07
Delay rate (us/s)	-1.80648804207E+00	Apriori rate (us/s)	-1.80648886108E+00	Resid rate (us/s)	8.19008E-07	+/-	3.6E-09
Total phase (deg)	182.0	Apriori accel (us/s/s)	-4.37919842612E-06	Resid phase (deg)	86.7	+/-	19.4

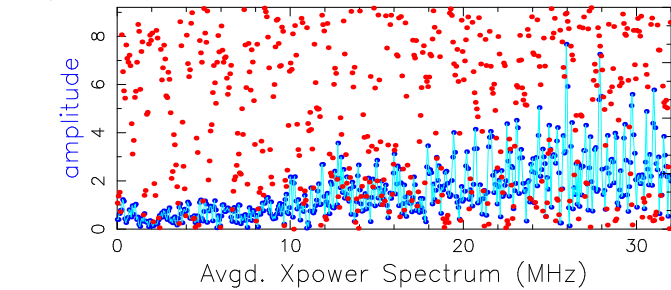
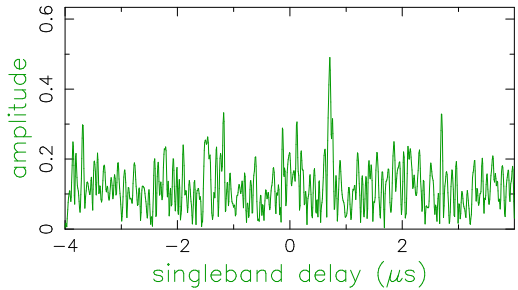
ph/seg (deg)	90.7	Theor.	166.4	Amplitude	0.509 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	376.9	Search (2048X8)	0.496	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.396	Inc. seg. avg.	0.396	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.3	Inc. frq. avg.	0.495	Inc. frq. avg.	0.495	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 I: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 10769.757 1440.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BI..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BI.W.31.0QR0YU

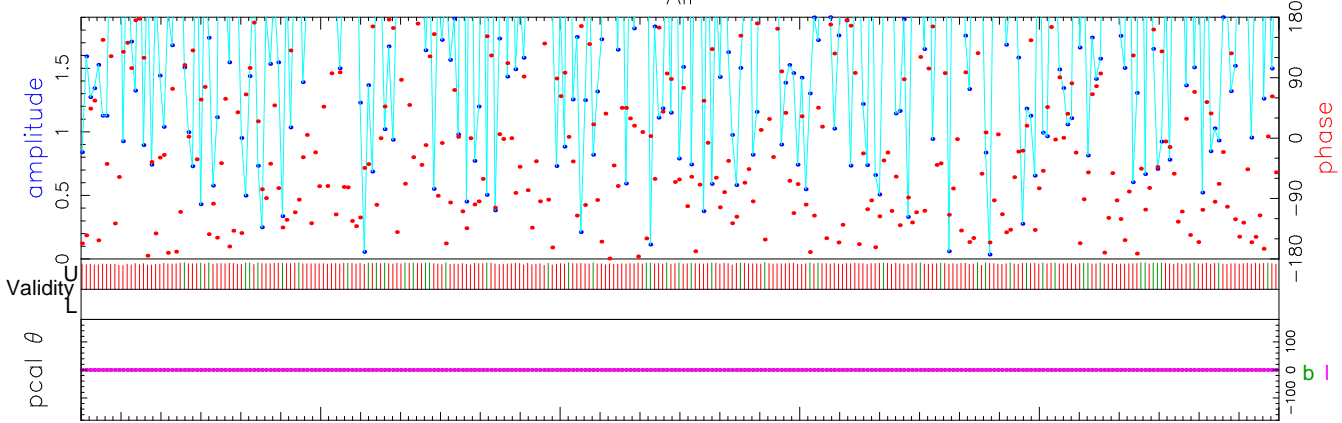


Fringe quality 0  
SNR 5.6  
Int time 279.437  
Amp 0.634  
Phase 252.4  
PFD 9.2e-01  
Delays (us)  
SBD 0.710426  
MBD -0.000007  
Fringe rate (Hz)  
-0.750296  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-84.4 Phase  
0.6 Ampl.  
603.9 Sbd box  
U/L 586/0 APs used  
b 3000 PC freqs  
l 3000 PC freqs  
b:l 0:0 PC phase  
b:l 0:0 Manl PC  
b 1000 PC amp  
l 1000  
b W00UR Chan ids  
l W00UR Chan ids

Group delay (usec)(sbd)	-3.37715491414E+03	Apriori delay (usec)	-3.37786534263E+03	Resid mbdelay (usec)	-7.26529E-06	+/-	3.1E-03
Sband delay (usec)	-3.37715491663E+03	Apriori clock (usec)	2.7742417E+00	Resid sbdelay (usec)	7.10426E-01	+/-	3.1E-03
Phase delay (usec)	-3.37786534535E+03	Apriori clockrate (us/s)	3.5999998E-07	Resid phdelay (usec)	-2.72271E-06	+/-	6.6E-07
Delay rate (us/s)	-1.10271239914E-01	Apriori rate (us/s)	-1.10262529722E-01	Resid rate (us/s)	-8.71019E-06	+/-	3.8E-09
Total phase (deg)	31.5	Apriori accel (us/s/s)	2.30261254274E-05	Resid phase (deg)	252.4	+/-	20.4

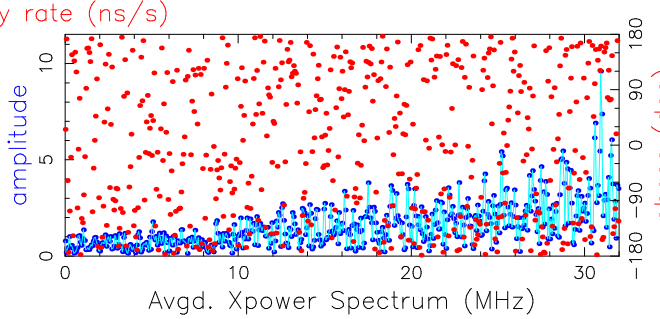
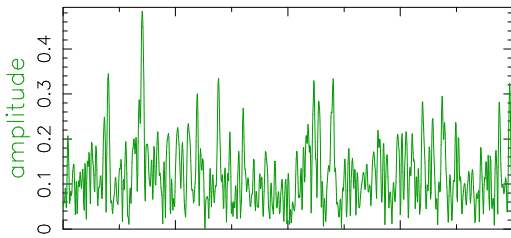
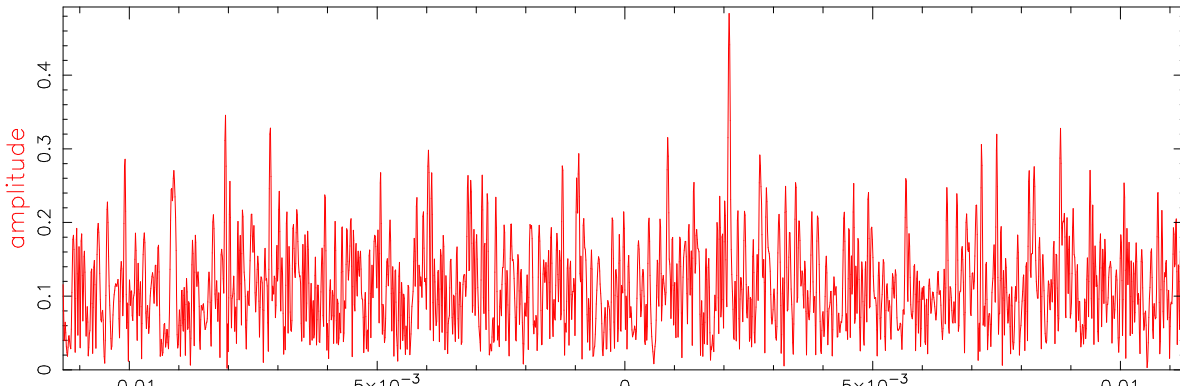
ph/seg (deg)	92.3	Theor.	174.8	Amplitude	0.634 +/- 0.113	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	377.4	Search (2048X8)	0.482	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.452	Inc. seg. avg.	0.452	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.624	Inc. frq. avg.	0.624	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 687.431 1884.795 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bl.W.35.0QR0YU

Fringe quality 0

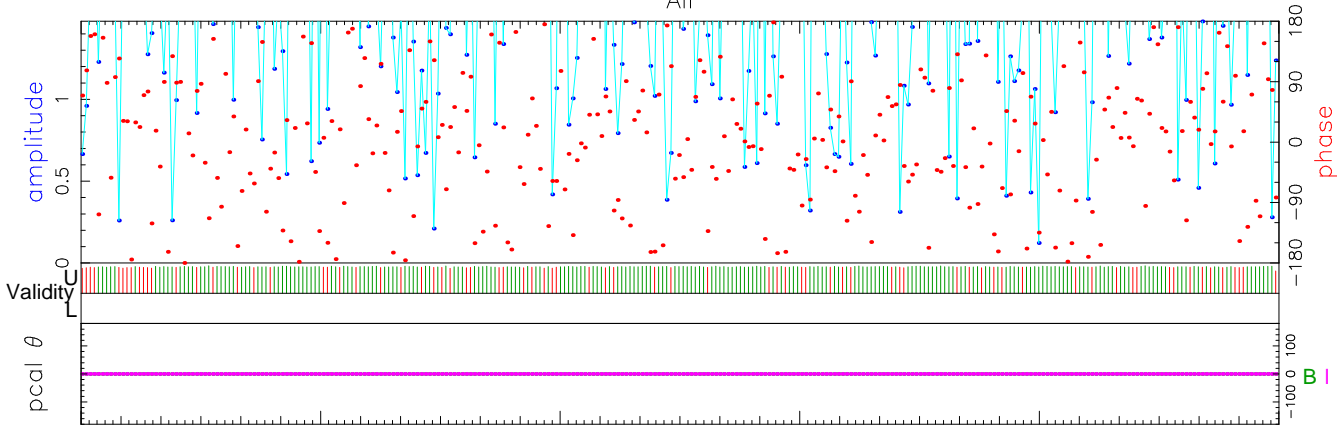
SNR 5.6  
Int time 287.951  
Amp 0.493  
Phase -237.4  
PFD 8.8e-01  
Delays (us)  
SBD -2.591280  
MBD 0.000007  
Fringe rate (Hz)  
0.181842  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163635  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



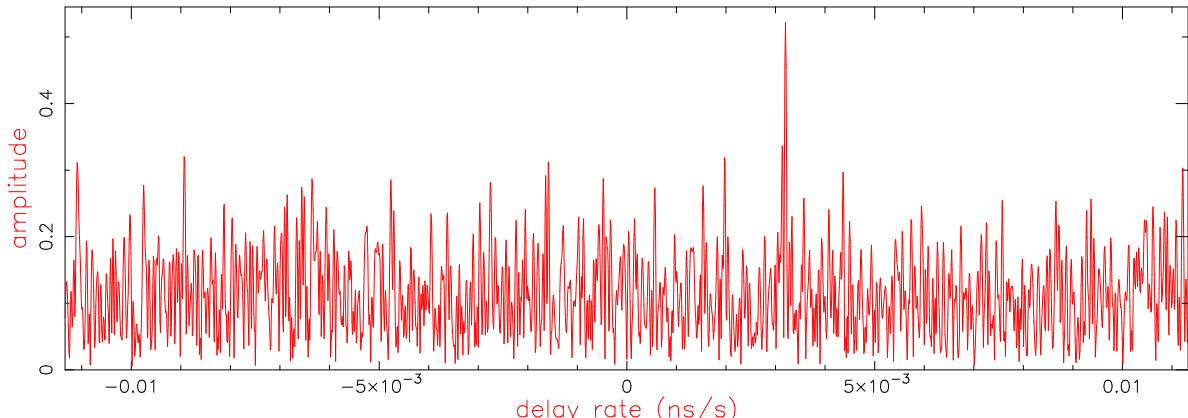
86012.00  
9.3  
0.5  
181.3  
U/L 586/0  
B 0  
I 3000  
B:I 0:0  
B:I 0:0  
B 1000  
I 1000  
B W00UL  
I W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

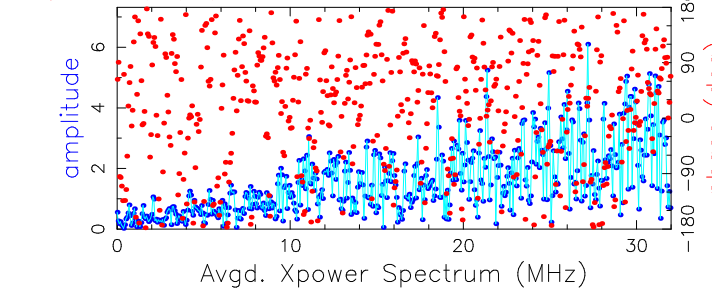
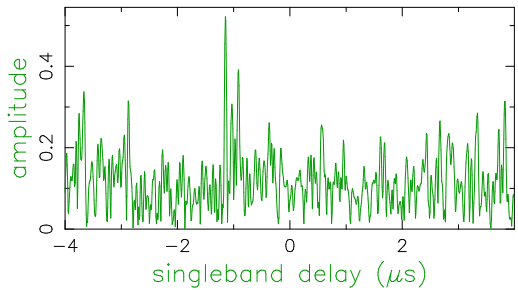
Group delay (usec)(sbd)	1.93938990179E+03	Apriori delay (usec)	1.94198118487E+03	Resid mbdelay (usec)	6.50235E-06	+/-	3.1E-03
Sband delay (usec)	1.93938990437E+03	Apriori clock (usec)	6.7087688E+00	Resid sbdelay (usec)	-2.59128E+00	+/-	3.1E-03
Phase delay (usec)	1.94198118517E+03	Apriori clockrate (us/s)	-6.7000001E-08	Resid phdelay (usec)	2.98946E-07	+/-	6.6E-07
Delay rate (us/s)	-1.80648675007E+00	Apriori rate (us/s)	-1.80648886108E+00	Resid rate (us/s)	2.11101E-06	+/-	3.8E-09
Total phase (deg)	-142.0	Apriori accel (us/s/s)	-4.37919842612E-06	Resid phase (deg)	-237.4	+/-	20.3

ph/seg (deg)	92.8	Theor.	174.1	Amplitude	0.493 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	379.4	Search (2048X8)	0.477	Search (2048X8)	0.477	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.362	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.483	Inc. seg. avg.	0.362	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 I: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 10769.757 1440.857 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BI..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BI.W.42.0QR0YU

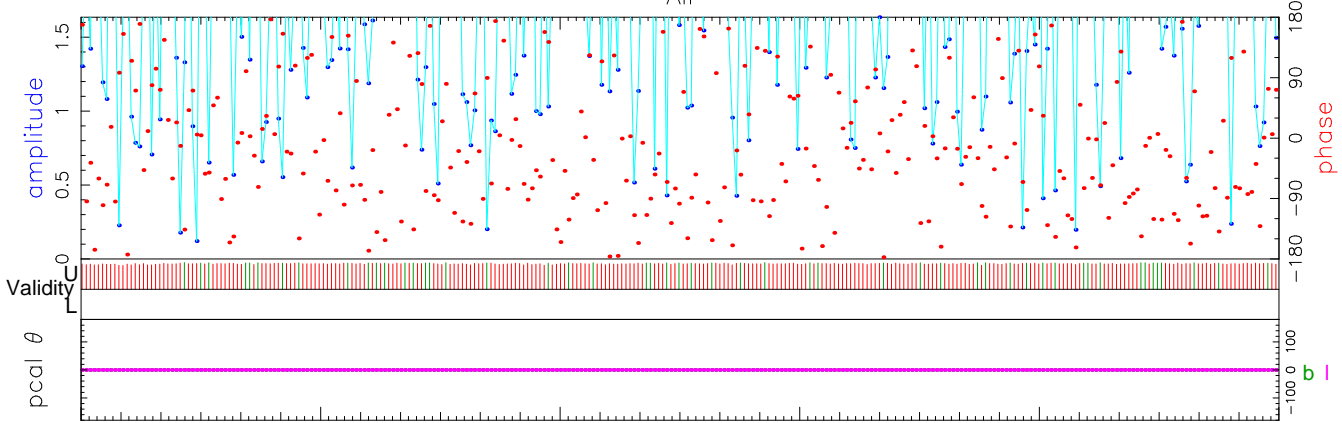


Fringe quality 0  
 SNR 6.0  
 Int time 279.441  
 Amp 0.545  
 Phase -283.6  
 PFD 2.0e-01  
 Delays (us)  
 SBD -1.145497  
 MBD 0.000006  
 Fringe rate (Hz)  
 0.276150  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163636  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All



86012.00	Freq (MHz)
-58.8	Phase
0.5	Ampl.
366.4	Sbd box
U/L 586/0	APs used
b 3000	PC freqs
l 3000	PC freqs
b:l 0:0	PC phase
b:l 0:0	Manl PC
b 1000	PC amp
l 1000	
b W00UL	Chan ids
l W00UR	Chan ids

Group delay (usec)(sbd)	-3.37901083961E+03	Apriori delay (usec)	-3.37786534263E+03	Resid mbdelay (usec)	5.97265E-06	+/-	2.9E-03
Sband delay (usec)	-3.37901083963E+03	Apriori clock (usec)	2.7742417E+00	Resid sbdelay (usec)	-1.14550E+00	+/-	2.9E-03
Phase delay (usec)	-3.37786534452E+03	Apriori clockrate (us/s)	3.5999998E-07	Resid phdelay (usec)	-1.89560E-06	+/-	6.1E-07
Delay rate (us/s)	-1.10259323890E-01	Apriori rate (us/s)	-1.10262529722E-01	Resid rate (us/s)	3.20583E-06	+/-	3.5E-09
Total phase (deg)	-144.5	Apriori accel (us/s/s)	2.30261254274E-05	Resid phase (deg)	-283.6	+/-	19.0

ph/seg (deg)	RMS 91.1	Theor. 162.7	Amplitude 0.545 +/- 0.090	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	332.8	284.0	Search (2048X8) 0.505	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.1	16.6	Inc. seg. avg. 0.406	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.532	Data rate(Mb/s): 128	nlags: 512 t_cohere infinite			

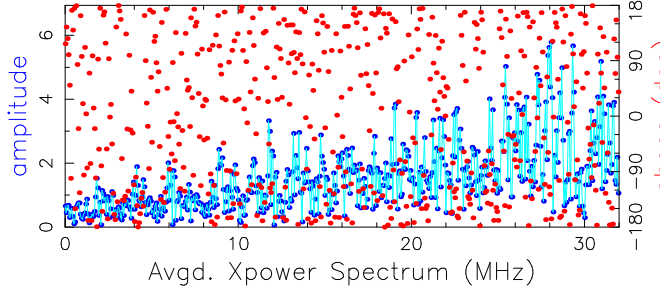
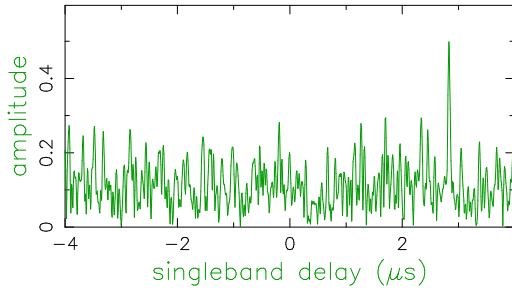
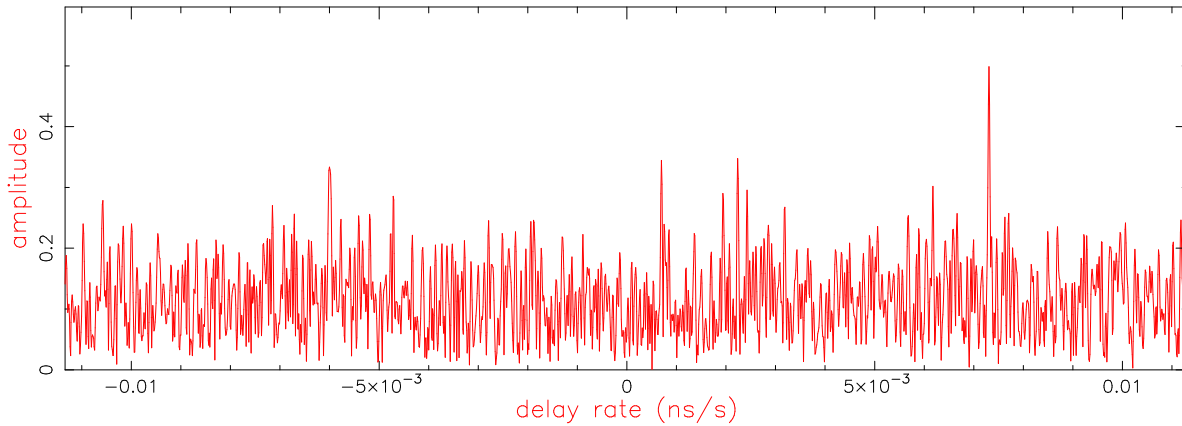
b: az 88.2 el 20.4 pa -44.0 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 687.431 1884.795 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bl.W.46.0QR0YU



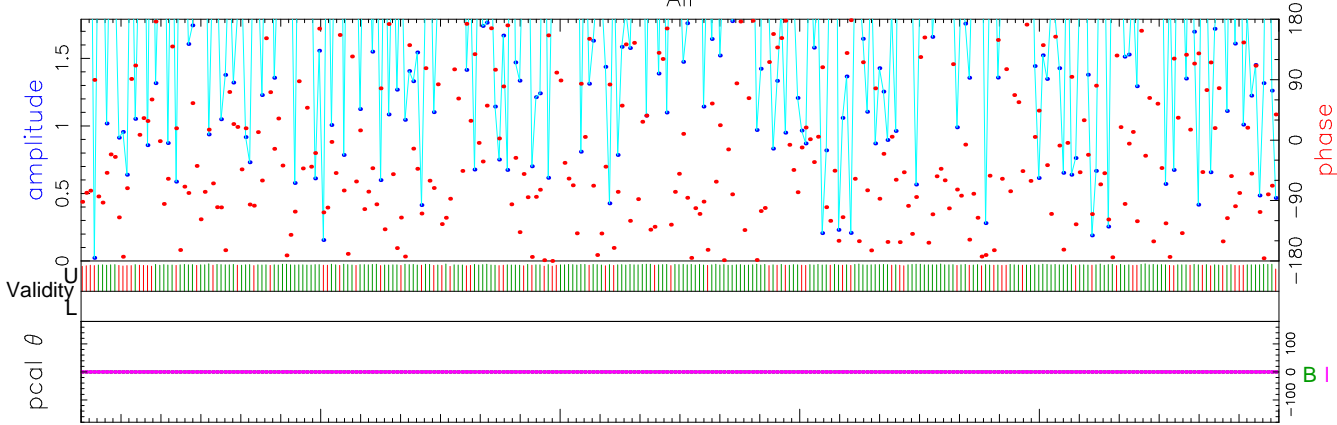
Fringe quality 0

SNR 5.8  
Int time 287.947  
Amp 0.597  
Phase 346.5  
PFD 5.7e-01  
Delays (us)  
SBD 2.829584  
MBD 0.000007  
Fringe rate (Hz)  
0.629982  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-80.6  
0.6  
875.2  
U/L 586/0  
B 0  
I 3000  
B:I 0:0  
B:I 0:0  
B 1000  
I 1000  
B W00UR  
I W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

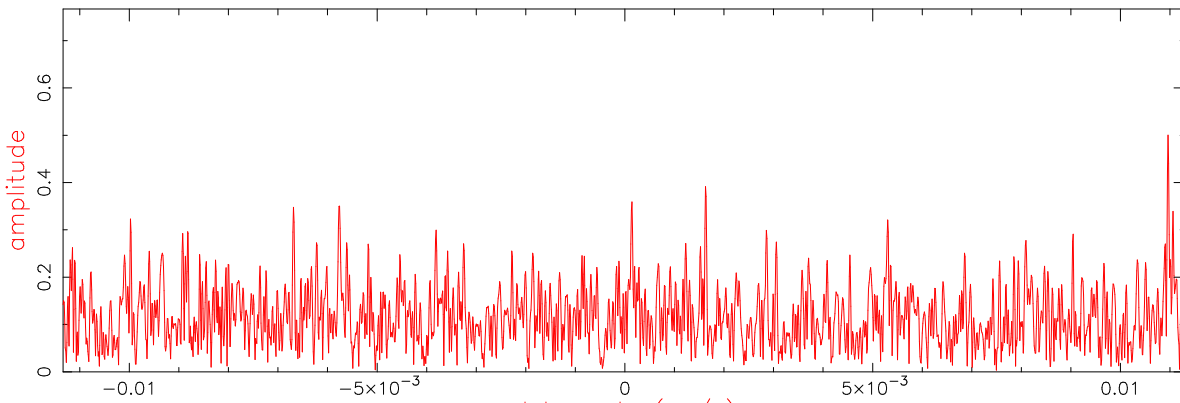
Group delay (usec)(sbd)	1.94481077405E+03	Apriori delay (usec)	1.94198118487E+03	Resid mbdelay (usec)	7.26408E-06	+/-	3.0E-03
Sband delay (usec)	1.94481076887E+03	Apriori clock (usec)	6.7087688E+00	Resid sbdelay (usec)	2.82958E+00	+/-	3.0E-03
Phase delay (usec)	1.94198118227E+03	Apriori clockrate (us/s)	-6.7000001E-08	Resid phdelay (usec)	-2.59999E-06	+/-	6.4E-07
Delay rate (us/s)	-1.80648154762E+00	Apriori rate (us/s)	-1.80648886108E+00	Resid rate (us/s)	7.31346E-06	+/-	3.7E-09
Total phase (deg)	81.8	Apriori accel (us/s/s)	-4.37919842612E-06	Resid phase (deg)	346.5	+/-	19.8

ph/seg (deg)	RMS 91.9	Theor. 169.1	Amplitude 0.597 +/- 0.103	Search (2048X8) 0.487	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	372.5	295.2	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	9.9	Inc. seg. avg. 0.455	0.455	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.2	17.2	Inc. frq. avg. 0.587	0.587	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

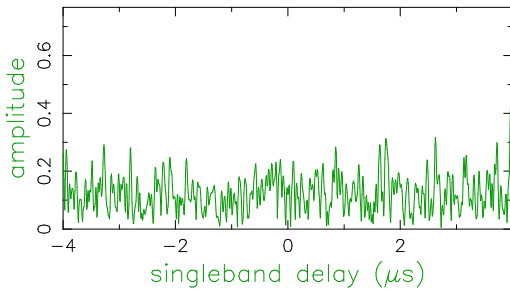
B: az 247.2 el 37.9 pa 37.6 I: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 10769.757 1440.857 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BI..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BI.W.53.0QR0YU

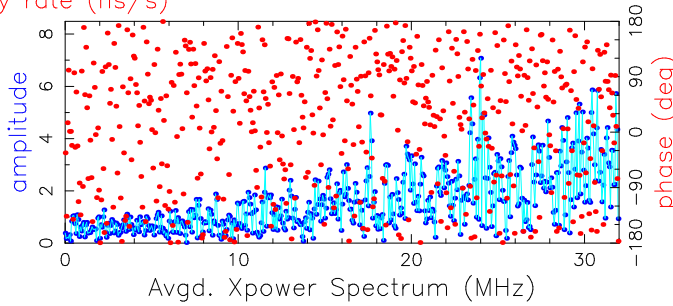
Fringe quality 0



SNR 5.8  
Int time 279.431  
Amp 0.767  
Phase 56.8  
PFD 6.6e-01  
Delays (us)  
SBD 3.971420  
MBD 0.000006  
Fringe rate (Hz)  
0.945165  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



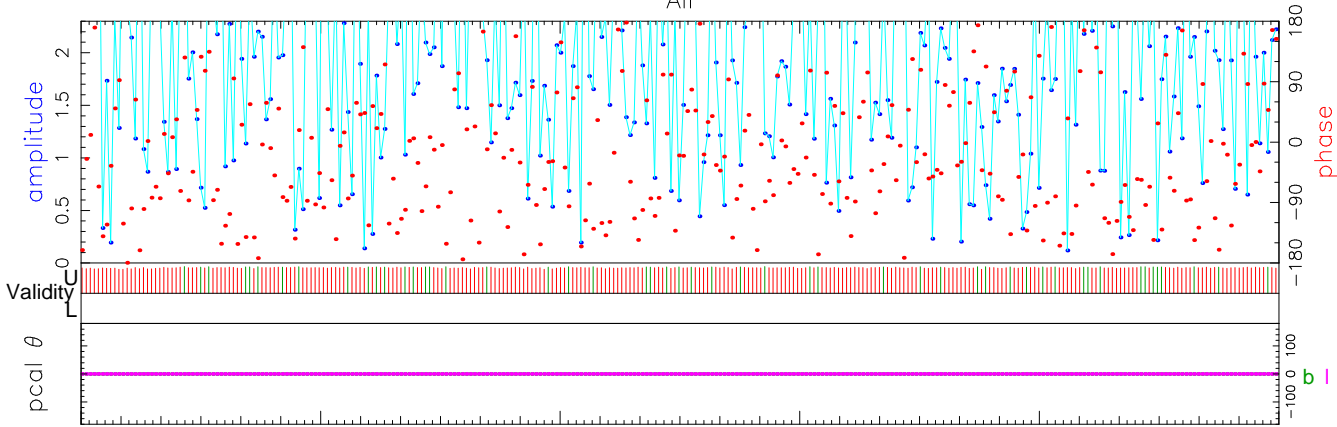
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-65.8  
0.8  
1021.3  
U/L 586/0  
b 3000  
l 3000  
b:l 0:0  
b:l 0:0  
b 1000  
l 1000  
b W00UR  
l W00UL

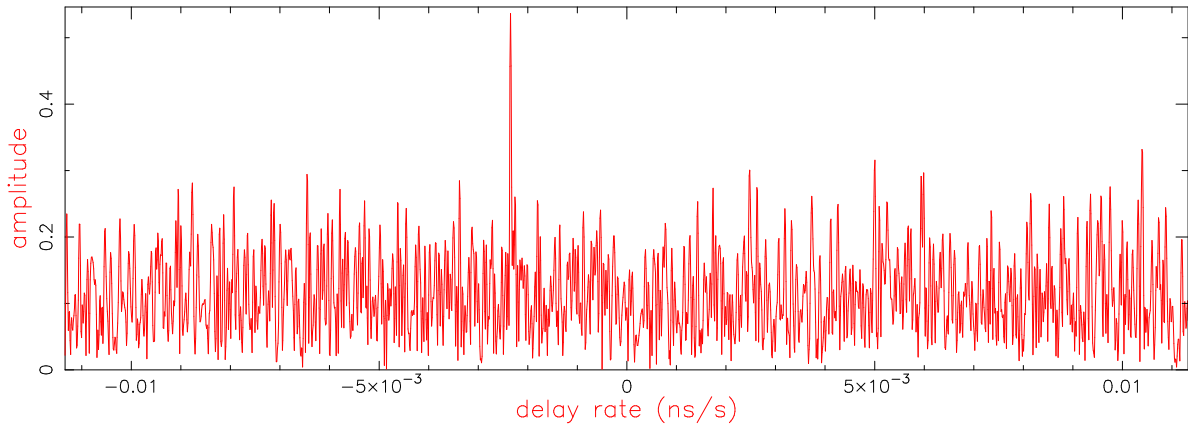
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
  
Chan ids

Group delay (usec)(sbd)	-3.37389392578E+03	Apriori delay (usec)	-3.37786534263E+03	Resid mbdelay (usec)	5.88299E-06	+/-	3.0E-03
Sband delay (usec)	-3.37389392313E+03	Apriori clock (usec)	2.7742417E+00	Resid sbdelay (usec)	3.97142E+00	+/-	3.0E-03
Phase delay (usec)	-3.37786534475E+03	Apriori clockrate (us/s)	3.5999998E-07	Resid phdelay (usec)	-2.12086E-06	+/-	6.4E-07
Delay rate (us/s)	-1.10251557294E-01	Apriori rate (us/s)	-1.10262529722E-01	Resid rate (us/s)	1.09724E-05	+/-	3.7E-09
Total phase (deg)	195.9	Apriori accel (us/s/s)	2.30261254274E-05	Resid phase (deg)	56.8	+/-	19.9

ph/seg (deg)	88.5	Theor.	170.3	Amplitude	0.767 +/- 0.133	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	376.0	RMS	88.5	Search (2048X8)	0.498	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Theor.	10.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.7	RMS	17.4	Inc. seg. avg.	0.574	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
		Theor.	10.0	Inc. frq. avg.	0.750	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
		RMS	0.7			nlags:	512	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 687.431 1884.795 simultaneous interpolator

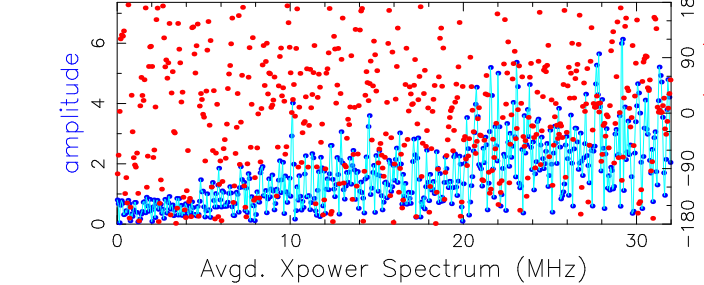
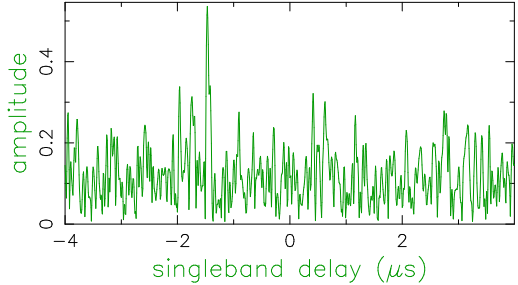
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/bl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/bl.W.59.0QR0YU



Fringe quality 0

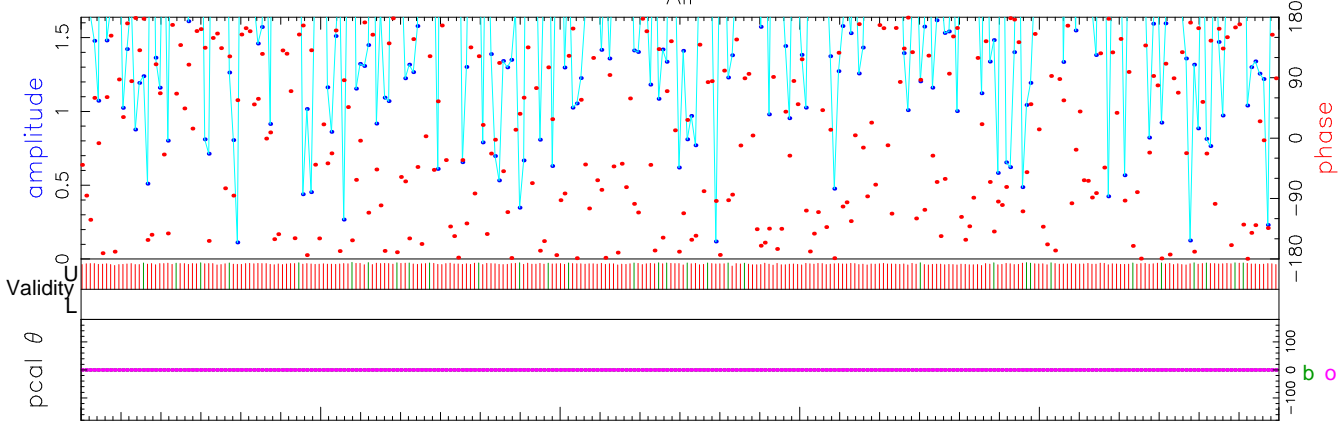
SNR 6.1  
Int time 277.346  
Amp 0.546  
Phase -217.8  
PFD 1.2e-01  
Delays (us)  
SBD -1.469540  
MBD -0.000005  
Fringe rate (Hz)  
-0.202796  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
178.5  
0.5  
324.9  
U/L 586/0  
b 3000  
o 3000  
b:o 0:0  
b:o 0:0  
b 1000  
o 1000  
b W00UL  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.87821960683E+02	Apriori delay (usec)	-1.86352416560E+02	Resid mbdelay (usec)	-4.98889E-06	+/- 2.8E-03
Sband delay (usec)	-1.87821956560E+02	Apriori clock (usec)	-1.3359817E+01	Resid sbdelay (usec)	-1.46954E+00	+/- 2.8E-03
Phase delay (usec)	-1.86352410803E+02	Apriori clockrate (us/s)	-2.3655998E-07	Resid phdelay (usec)	5.75673E-06	+/- 6.0E-07
Delay rate (us/s)	-1.79110597719E-01	Apriori rate (us/s)	-1.79108243462E-01	Resid rate (us/s)	-2.35426E-06	+/- 3.5E-09
Total phase (deg)	-276.3	Apriori accel (us/s/s)	5.32754611354E-06	Resid phase (deg)	-217.8	+/- 18.8

ph/seg (deg)	90.7	Theor.	160.5	Amplitude	0.546 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	330.2	Search (2048X8)	0.523	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.408	Bits/sample: 2x2		SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.0	Inc. frq. avg.	0.539	Sample rate(MSamp/s): 64		Data rate(Mb/s): 128	ion window (TEC)	0.00	0.00	

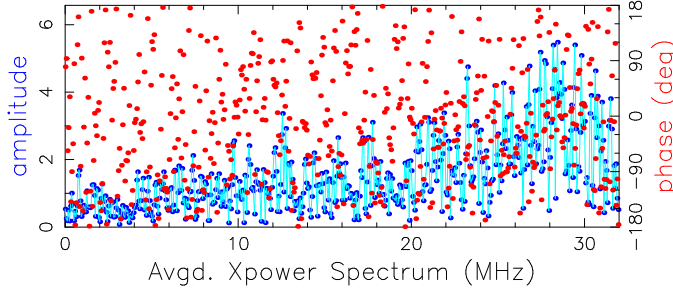
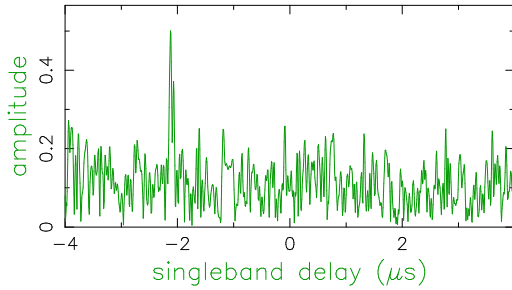
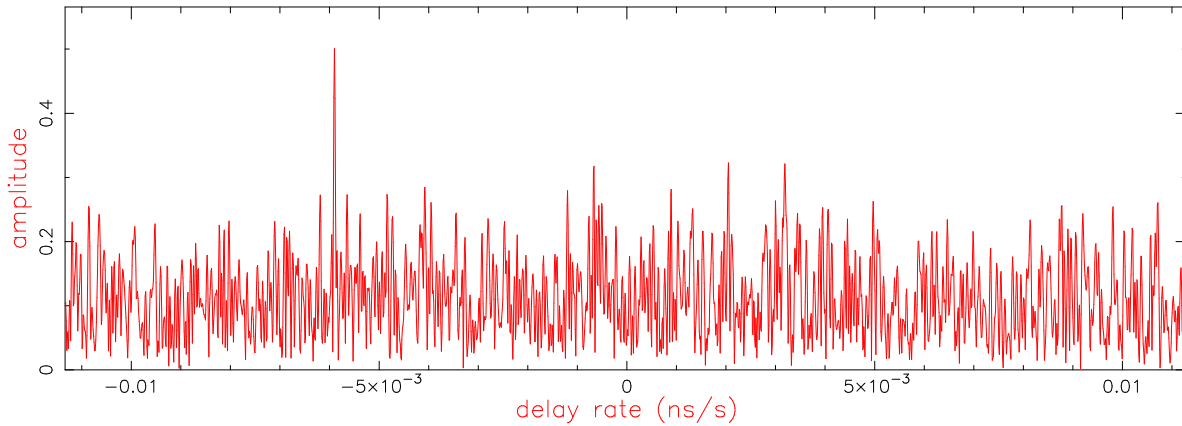
b: az 88.2 el 20.4 pa -44.0 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 1075.621 1304.570 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bo.W.11.0QR0YU

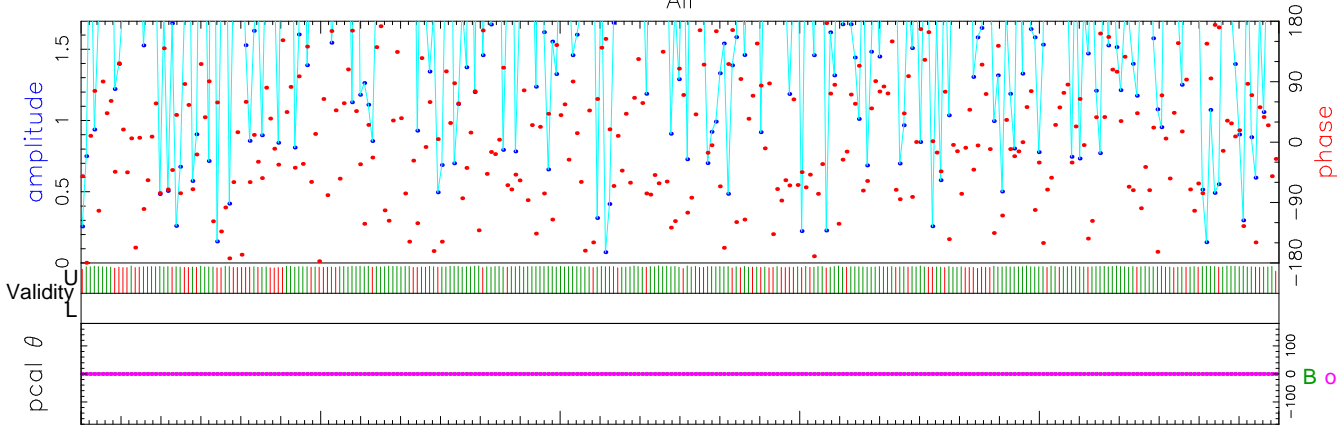
Fringe quality 0

SNR 5.9  
Int time 287.763  
Amp 0.566  
Phase -220.1  
PFD 4.6e-01  
Delays (us)  
SBD -2.122109  
MBD -0.000007  
Fringe rate (Hz)  
-0.509525  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
6.2  
0.6  
241.3  
U/L 586/0  
B 0  
o 3000  
B:o 0:0  
B:o 0:0  
B 1000  
o 1000  
B W00UR  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.13137200478E+03	Apriori delay (usec)	5.13349411094E+03	Resid mbdelay (usec)	-6.91550E-06	+/-	2.9E-03
Sband delay (usec)	5.13137200194E+03	Apriori clock (usec)	-9.4252892E+00	Resid sbdelay (usec)	-2.12211E+00	+/-	2.9E-03
Phase delay (usec)	5.13349411114E+03	Apriori clockrate (us/s)	-6.6355997E-07	Resid phdelay (usec)	1.99562E-07	+/-	6.3E-07
Delay rate (us/s)	-1.87534048991E+00	Apriori rate (us/s)	-1.87533457482E+00	Resid rate (us/s)	-5.91509E-06	+/-	3.6E-09
Total phase (deg)	-322.4	Apriori accel (us/s/s)	-2.2077777399E-05	Resid phase (deg)	-220.1	+/-	19.6

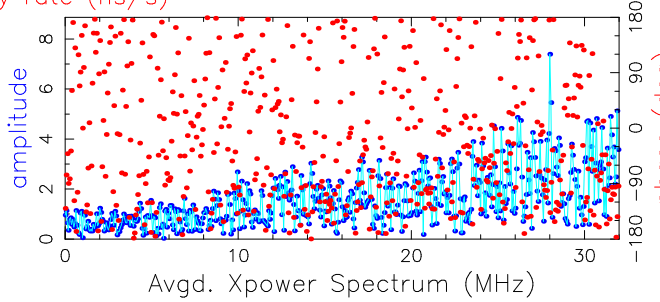
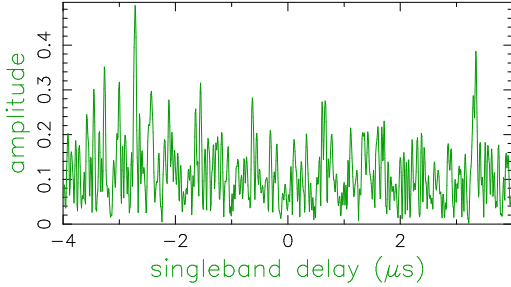
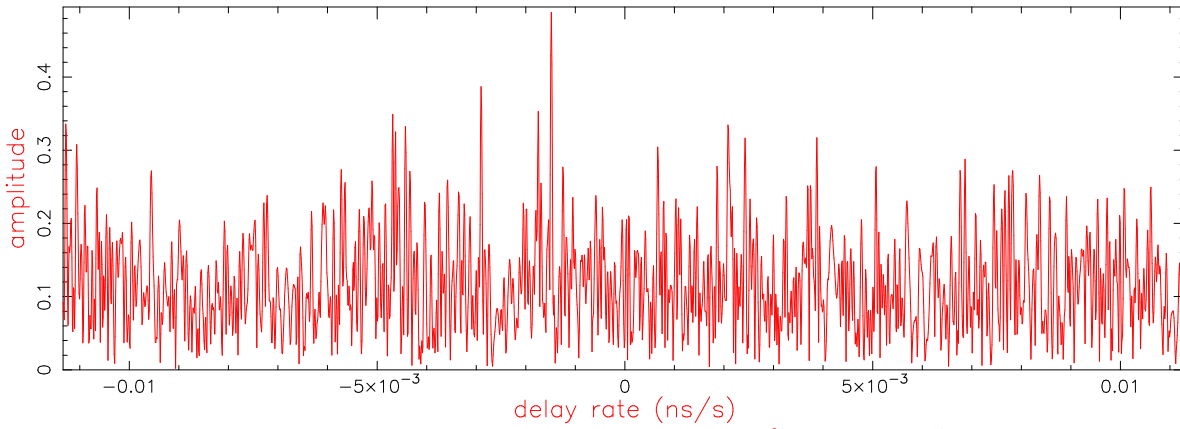
ph/seg (deg)	88.6	Theor.	167.6	Amplitude	0.566 +/- 0.097	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	340.9	Search (2048X8)	0.491	Search	0.491	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.408	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.8	Inc. frq. avg.	0.553	Inc. frq. avg.	0.553	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		
						nlags:	512	t_cohere	infinite		

B: az 247.2 el 37.9 pa 37.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 11157.947 860.633 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bo.W.20.0QR0YU

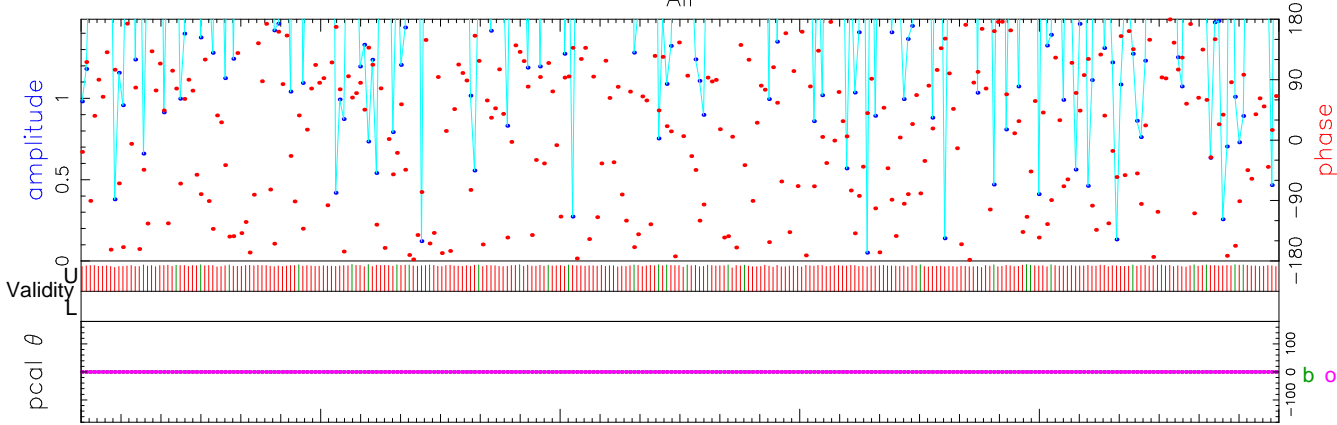
Fringe quality 0

SNR 5.6  
Int time 277.342  
Amp 0.496  
Phase -107.6  
PFD 9.2e-01  
Delays (us)  
SBD -2.715632  
MBD -0.000005  
Fringe rate (Hz)  
-0.128021  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
108.7  
0.5  
165.4  
U/L 586/0  
b 3000  
o 3000  
b:o 0:0  
b:o 0:0  
b 1000  
o 1000  
b W00UR  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.89068054263E+02	Apriori delay (usec)	-1.86352416560E+02	Resid mbdelay (usec)	-5.00070E-06	+/-	3.1E-03
Sband delay (usec)	-1.89068048560E+02	Apriori clock (usec)	-1.3359817E+01	Resid sbdelay (usec)	-2.71563E+00	+/-	3.1E-03
Phase delay (usec)	-1.86352413054E+02	Apriori clockrate (us/s)	-2.3655998E-07	Resid phdelay (usec)	3.50596E-06	+/-	6.6E-07
Delay rate (us/s)	-1.79109729665E-01	Apriori rate (us/s)	-1.79108243462E-01	Resid rate (us/s)	-1.48620E-06	+/-	3.8E-09
Total phase (deg)	-166.1	Apriori accel (us/s/s)	5.32754611354E-06	Resid phase (deg)	-107.6	+/-	20.5

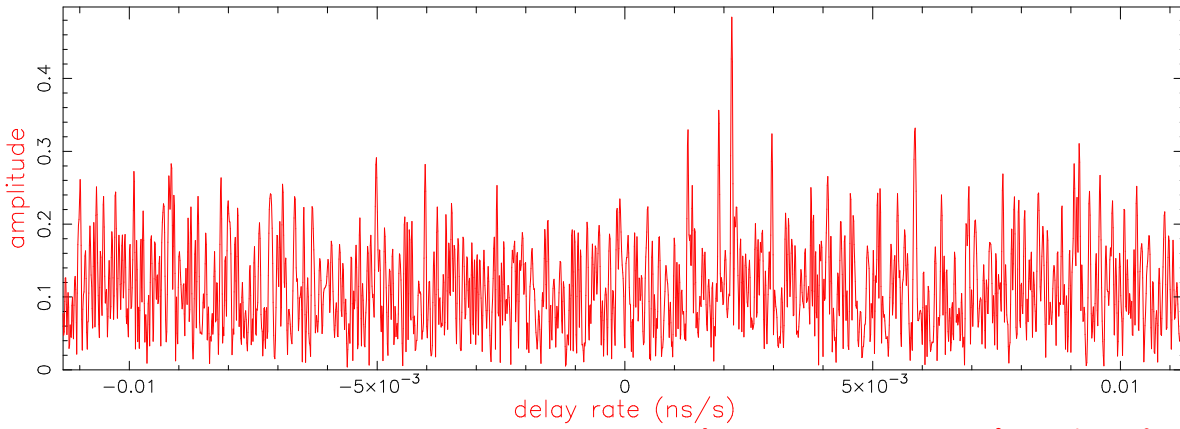
ph/seg (deg)	RMS 94.7	Theor. 175.0	Amplitude 0.496 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	395.5	305.5	Search (2048X8) 0.480	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.8	17.8	Inc. seg. avg. 0.379	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.484	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

b: az 88.2 el 20.4 pa -44.0 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 1075.621 1304.570 simultaneous interpolator

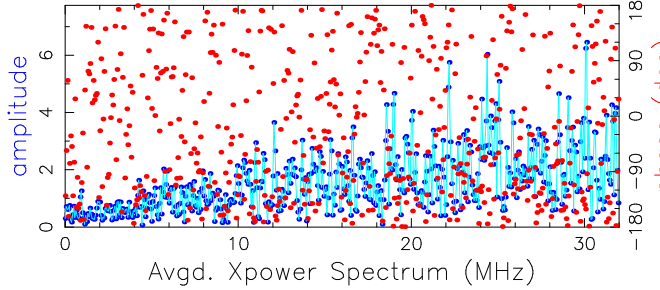
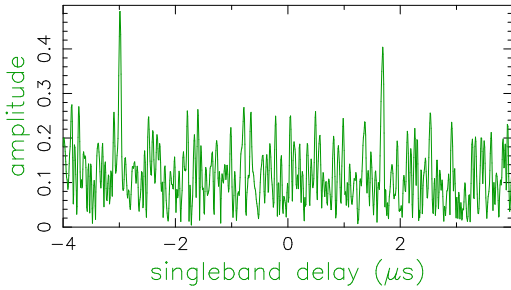
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bo.W.23.0QR0YU



Fringe quality 0



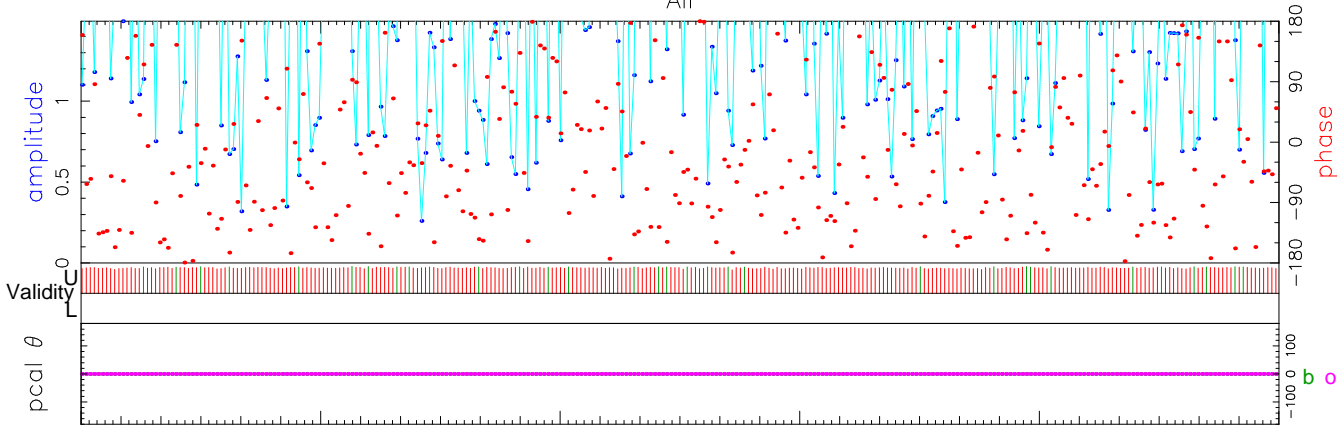
SNR 5.6  
 Int time 277.348  
 Amp 0.498  
 Phase -257.1  
 PFD 9.4e-01  
 Delays (us)  
 SBD -2.988153  
 MBD 0.000007  
 Fringe rate (Hz)  
 0.185905  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163635  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -82.5  
 0.5  
 130.5  
 U/L 586/0  
 b 3000  
 o 3000  
 b:o 0:0  
 b:o 0:0  
 b 1000  
 o 1000  
 b W00UL  
 o W00UR

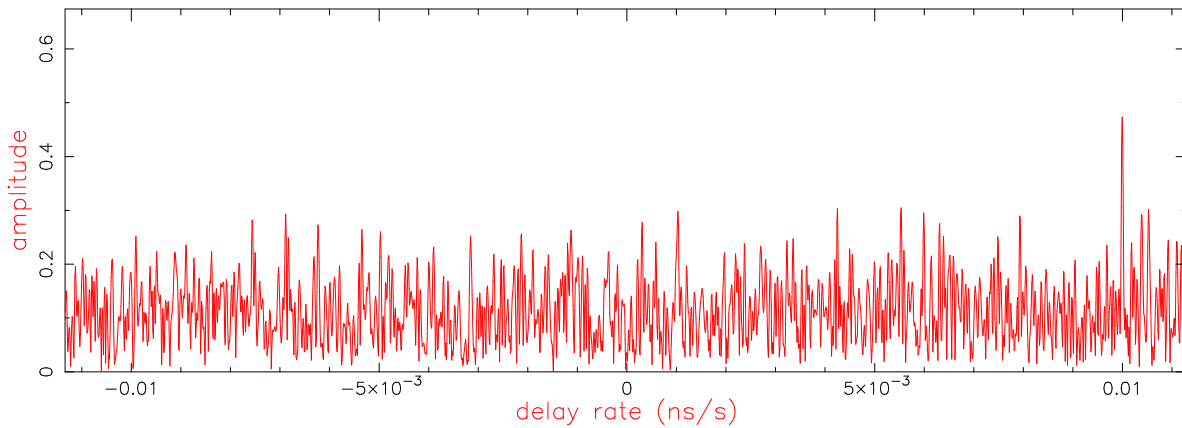
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-1.89340573874E+02	Apriori delay (usec)	-1.86352416560E+02	Resid mbdelay (usec)	7.12812E-06	+/-	3.1E-03
Sband delay (usec)	-1.89340569560E+02	Apriori clock (usec)	-1.3359817E+01	Resid sbdelay (usec)	-2.98815E+00	+/-	3.1E-03
Phase delay (usec)	-1.86352419220E+02	Apriori clockrate (us/s)	-2.3655998E-07	Resid phdelay (usec)	-2.65998E-06	+/-	6.6E-07
Delay rate (us/s)	-1.79106085293E-01	Apriori rate (us/s)	-1.79108243462E-01	Resid rate (us/s)	2.15817E-06	+/-	3.8E-09
Total phase (deg)	-315.6	Apriori accel (us/s/s)	5.32754611354E-06	Resid phase (deg)	-257.1	+/-	20.5

ph/seg (deg)	RMS 90.8	Theor. 175.5	Amplitude 0.498 +/- 0.089	Search (2048X8) 0.482	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	352.1	306.3	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.3	Inc. seg. avg. 0.339	0.484	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.3	17.9	Inc. frq. avg. 0.484		Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

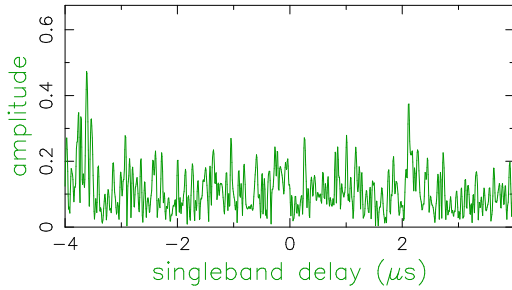
b: az 88.2 el 20.4 pa -44.0 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 1075.621 1304.570 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bo.W.39.0QR0YU

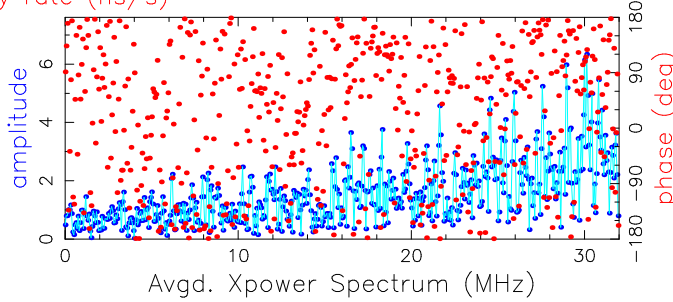


Fringe quality 0

SNR 5.5  
Int time 287.763  
Amp 0.674  
Phase -44.2  
PFD 9.7e-01  
Delays (us)  
SBD -3.614187  
MBD 0.000007  
Fringe rate (Hz)  
0.862549  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

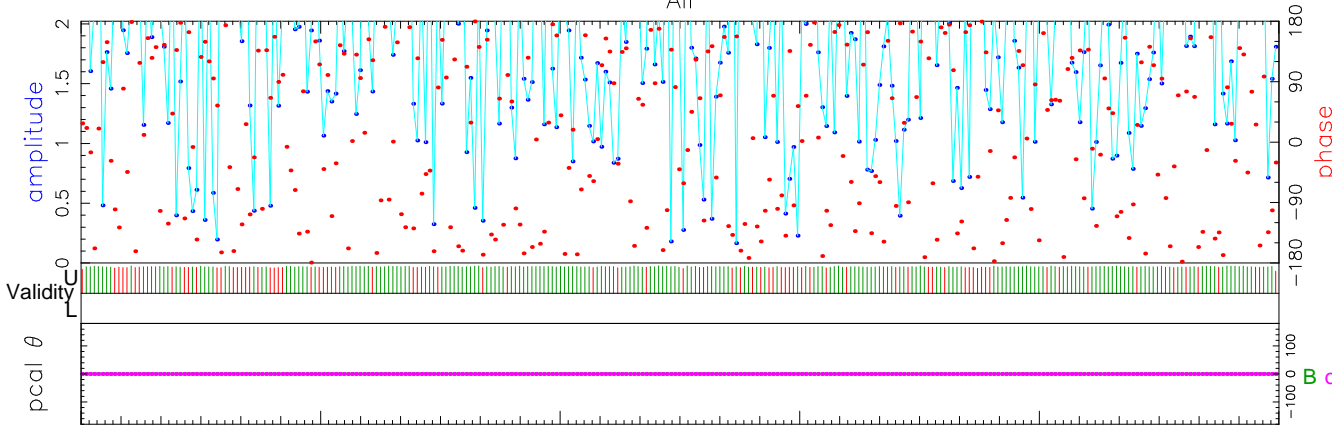


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163635  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
177.8  
0.7  
50.4  
U/L 586/0  
B 0  
o 3000  
B:o 0:0  
B:o 0:0  
B 1000  
o 1000  
B W00UL  
o W00UR

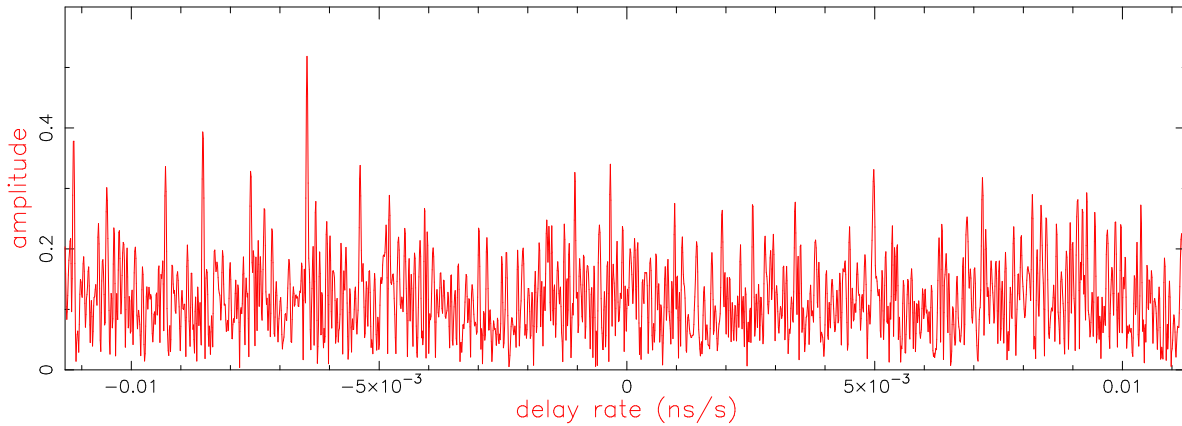
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.12987992423E+03	Apriori delay (usec)	5.13349411094E+03	Resid mbdelay (usec)	6.66595E-06	+/-	3.1E-03
Sband delay (usec)	5.12987992394E+03	Apriori clock (usec)	-9.4252892E+00	Resid sbdelay (usec)	-3.61419E+00	+/-	3.1E-03
Phase delay (usec)	5.13349411667E+03	Apriori clockrate (us/s)	-6.6355997E-07	Resid phdelay (usec)	5.73504E-06	+/-	6.7E-07
Delay rate (us/s)	-1.87532456149E+00	Apriori rate (us/s)	-1.87533457482E+00	Resid rate (us/s)	1.00133E-05	+/-	3.8E-09
Total phase (deg)	-146.4	Apriori accel (us/s/s)	-2.2077777399E-05	Resid phase (deg)	-44.2	+/-	20.7

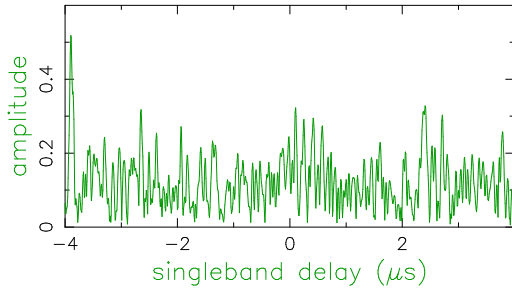
ph/seg (deg)	90.2	Theor.	177.0	Amplitude	0.674 +/- 0.122	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	385.4	Search (2048X8)	0.463	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.493	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.657	Inc. frq. avg.	0.657	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 11157.947 860.633 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bo.W.43.0QR0YU

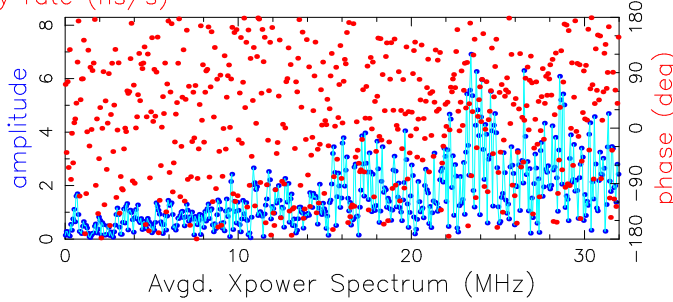
Fringe quality 0



SNR 6.0  
Int time 277.340  
Amp 0.600  
Phase -269.2  
PFD 2.8e-01  
Delays (us)  
SBD -3.895294  
MBD -0.000007  
Fringe rate (Hz)  
-0.556356  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



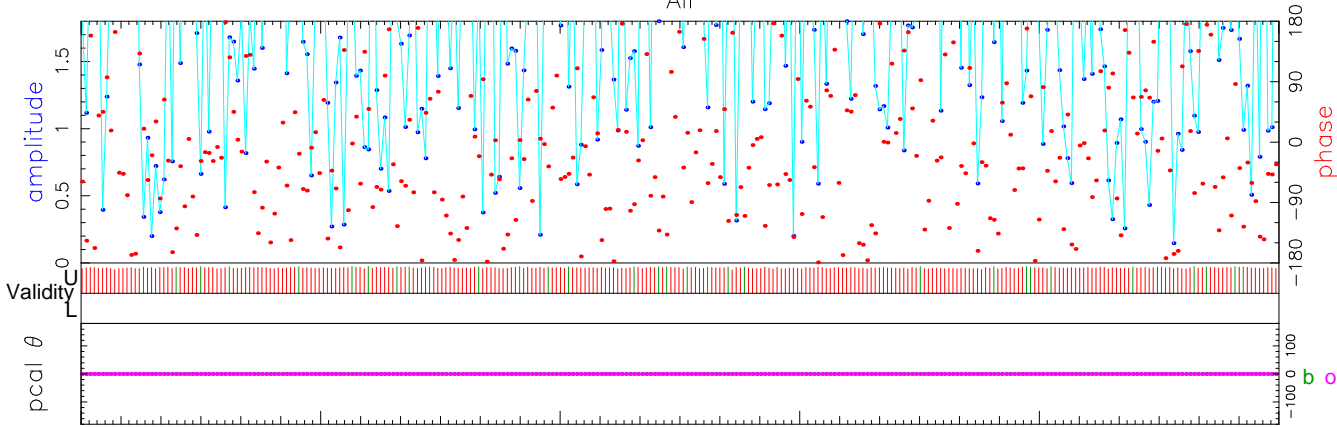
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



Validity

pcal  $\theta$

b o

86012.00  
-54.6  
0.6  
14.4  
U/L 586/0  
b 3000  
o 3000  
b:o 0:0  
b:o 0:0  
b 1000  
o 1000  
b W00UR  
o W00UL

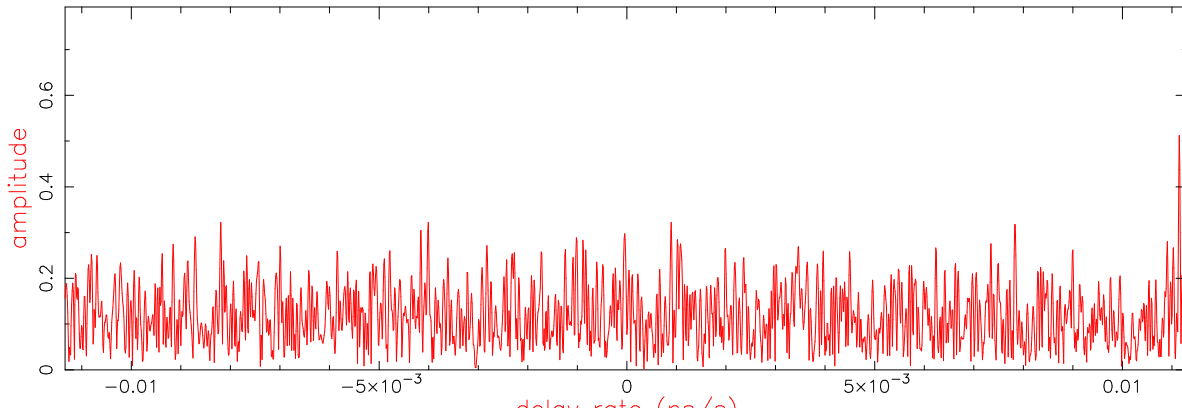
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.90247705877E+02	Apriori delay (usec)	-1.86352416560E+02	Resid mbdelay (usec)	-7.26344E-06	+/-	2.9E-03
Sband delay (usec)	-1.90247711060E+02	Apriori clock (usec)	-1.3359817E+01	Resid sbdelay (usec)	-3.89529E+00	+/-	2.9E-03
Phase delay (usec)	-1.86352418321E+02	Apriori clockrate (us/s)	-2.3655998E-07	Resid phdelay (usec)	-1.76098E-06	+/-	6.2E-07
Delay rate (us/s)	-1.79114702202E-01	Apriori rate (us/s)	-1.79108243462E-01	Resid rate (us/s)	-6.45874E-06	+/-	3.6E-09
Total phase (deg)	-327.7	Apriori accel (us/s/s)	5.32754611354E-06	Resid phase (deg)	-269.2	+/-	19.2

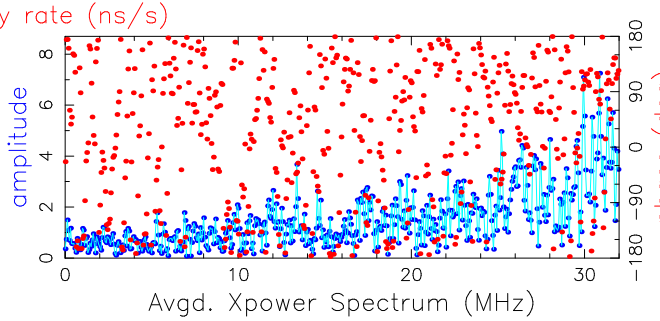
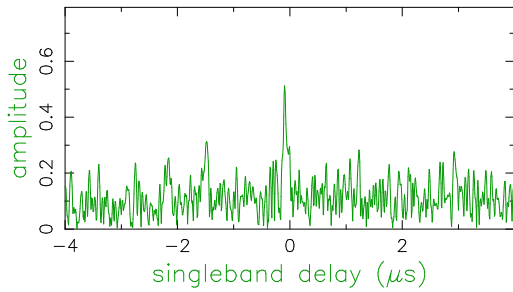
ph/seg (deg)	89.0	Theor.	164.7	Amplitude	0.600 +/- 0.101	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	362.2	Search (2048X8)	0.506	Search (2048X8)	0.506	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.9	Inc. seg. avg.	0.456	Inc. seg. avg.	0.456	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.586	Inc. frq. avg.	0.586	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

b: az 88.2 el 20.4 pa -44.0 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 1075.621 1304.570 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bo.W.63.0QR0YU

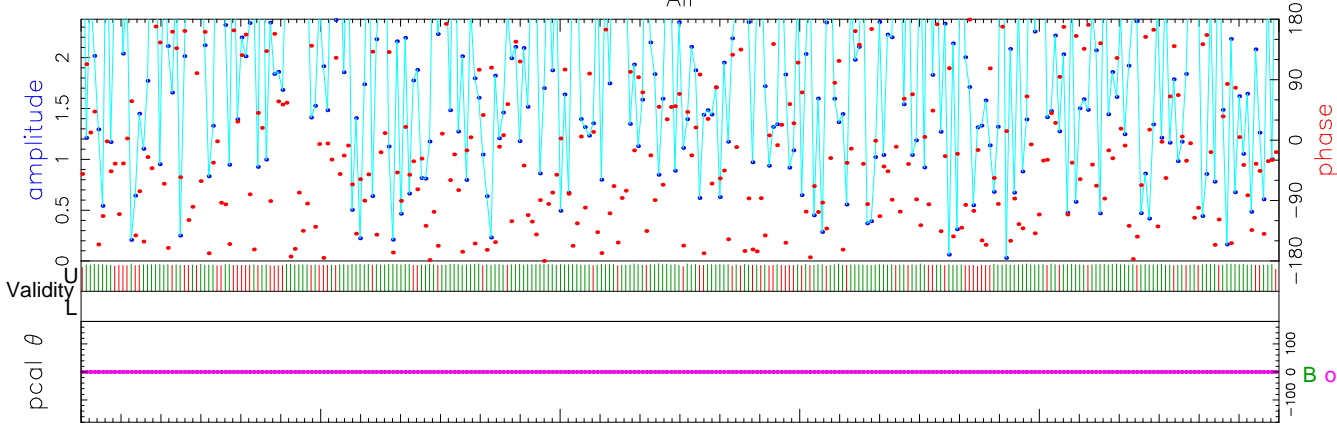


Fringe quality 0  
SNR 5.9  
Int time 287.760  
Amp 0.793  
Phase -63.5  
PFD 3.0e-01  
Delays (us)  
SBD -0.093387  
MBD 0.000006  
Fringe rate (Hz)  
0.962006  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-79.9  
0.8  
501.1  
U/L 586/0  
B 0  
o 3000  
B:o 0:0  
B:o 0:0  
B 1000  
o 1000  
B W00UR  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.13340072271E+03	Apriori delay (usec)	5.13349411094E+03	Resid mbdelay (usec)	5.71827E-06	+/- 2.9E-03
Sband delay (usec)	5.13340072394E+03	Apriori clock (usec)	-9.4252892E+00	Resid sbdelay (usec)	-9.33870E-02	+/- 2.9E-03
Phase delay (usec)	5.13349410836E+03	Apriori clockrate (us/s)	-6.6355997E-07	Resid phdelay (usec)	-2.57648E-06	+/- 6.2E-07
Delay rate (us/s)	-1.87532340688E+00	Apriori rate (us/s)	-1.87533457482E+00	Resid rate (us/s)	1.11679E-05	+/- 3.6E-09
Total phase (deg)	-165.7	Apriori accel (us/s/s)	-2.2077777399E-05	Resid phase (deg)	-63.5	+/- 19.3

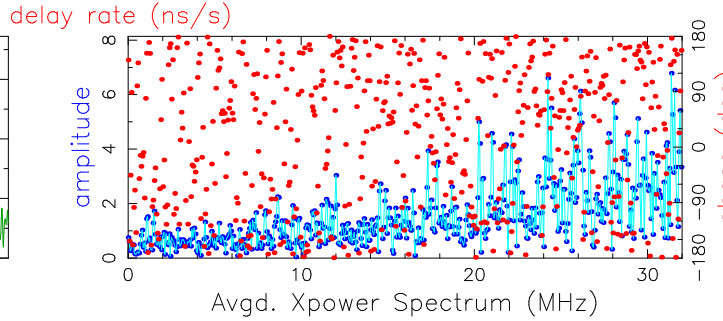
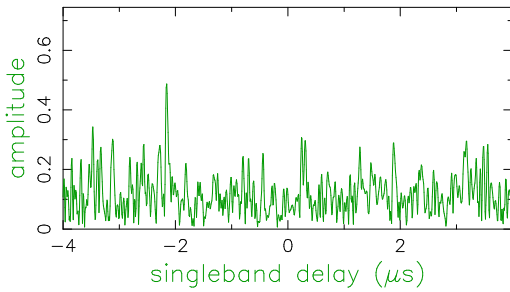
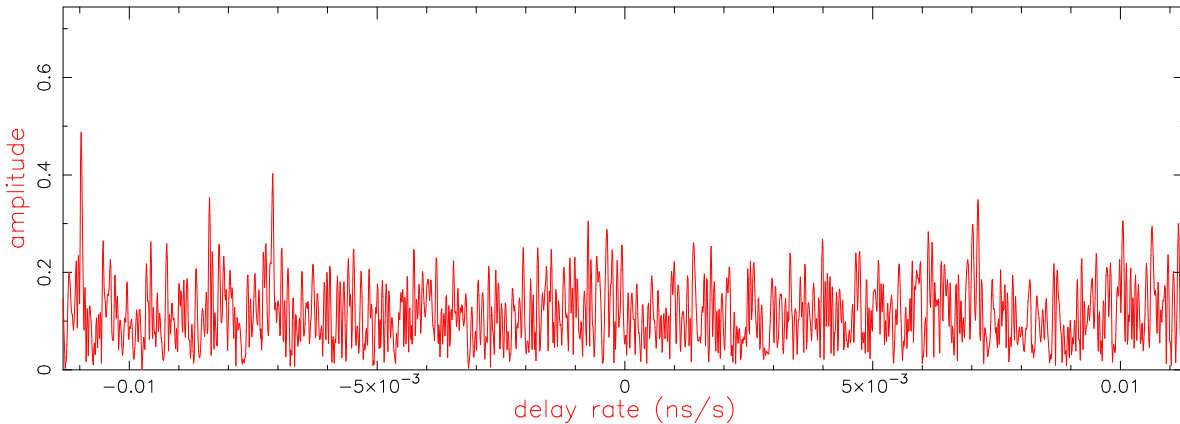
ph/seg (deg)	90.2	Theor.	165.1	Amplitude	0.793 +/- 0.133	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	344.2	Search (2048X8)	0.507	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.580	Inc. frq. avg.	0.782	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.782			Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	
						nlags: 512	t_cohere infinite		

B: az 247.2 el 37.9 pa 37.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 11157.947 860.633 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bo.W.66.0QR0YU

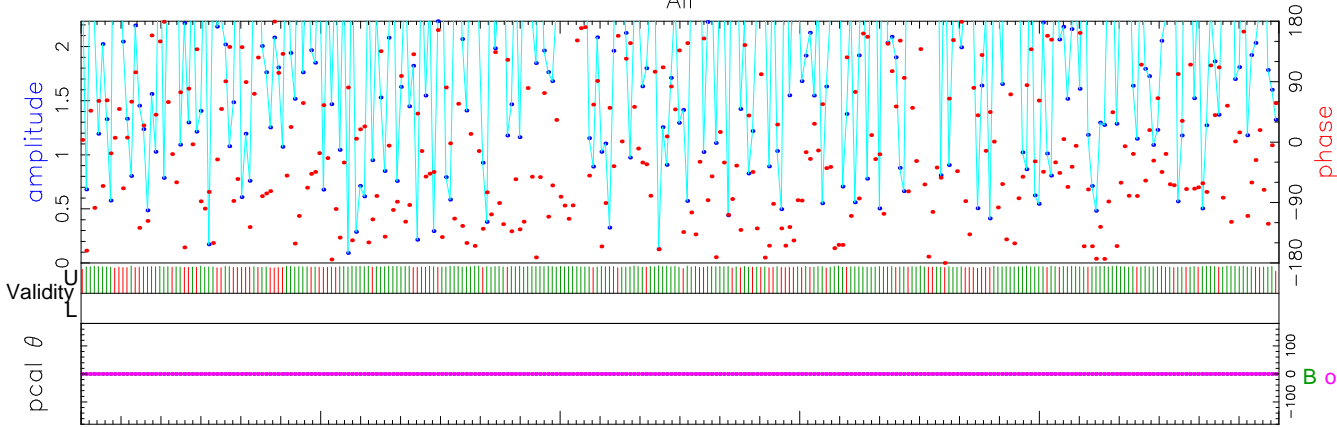
Fringe quality 0

SNR 5.7  
Int time 287.760  
Amp 0.745  
Phase -164.9  
PFD 8.3e-01  
Delays (us)  
SBD -2.158228  
MBD -0.000007  
Fringe rate (Hz)  
-0.946644  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



Validity  
pcal θ  
86012.00  
-74.0  
0.7  
236.8  
U/L 586/0  
B 0  
o 3000  
B:0 0:0  
B:0 0:0  
B 1000  
o 1000  
B W00UL  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

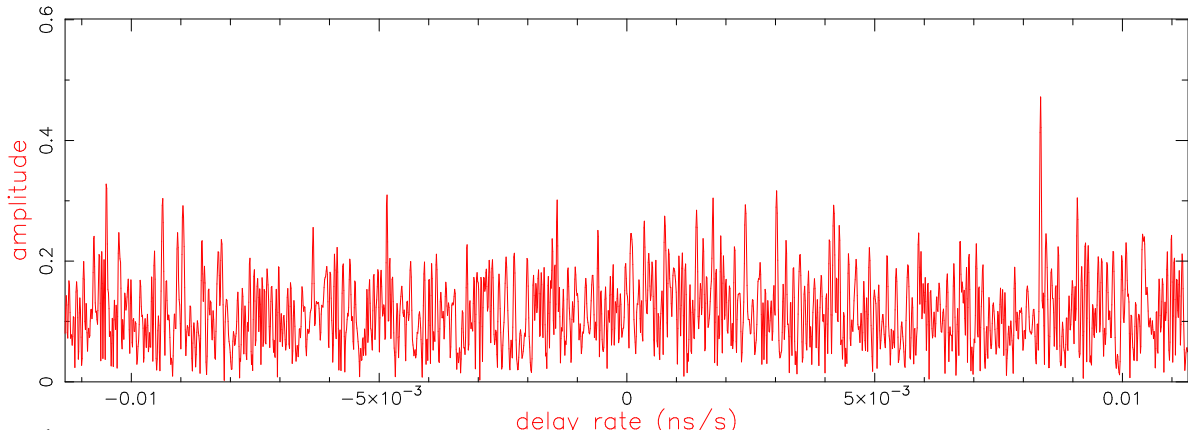
Group delay (usec)(sbd)	5.13133588218E+03	Apriori delay (usec)	5.13349411094E+03	Resid mbdelay (usec)	-6.64438E-06	+/- 3.0E-03
Sband delay (usec)	5.13133588244E+03	Apriori clock (usec)	-9.4252892E+00	Resid sbdelay (usec)	-2.15823E+00	+/- 3.0E-03
Phase delay (usec)	5.13349410855E+03	Apriori clockrate (us/s)	-6.6355997E-07	Resid phdelay (usec)	-2.38618E-06	+/- 6.5E-07
Delay rate (us/s)	-1.87534556442E+00	Apriori rate (us/s)	-1.87533457482E+00	Resid rate (us/s)	-1.09896E-05	+/- 3.8E-09
Total phase (deg)	-267.1	Apriori accel (us/s/s)	-2.20777777399E-05	Resid phase (deg)	-164.9	+/- 20.2

ph/seg (deg)	RMS 93.3	Theor. 173.1	Amplitude 0.745 +/- 0.131	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	390.6	302.1	Search (2048X8) 0.478	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	10.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.3	17.7	Inc. seg. avg. 0.568	Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
			Inc. frq. avg. 0.731	Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
				nlags: 512	t_cohere infinite
					ion window (TEC) 0.00 0.00

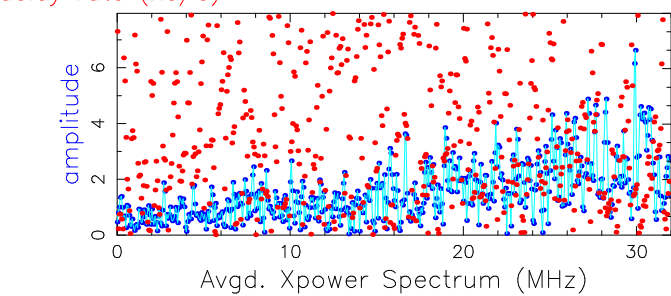
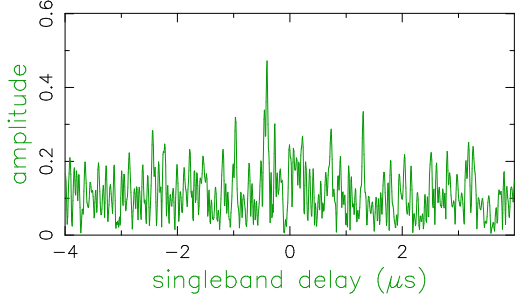
B: az 247.2 el 37.9 pa 37.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 11157.947 860.633 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bo.W.7.0QR0YU





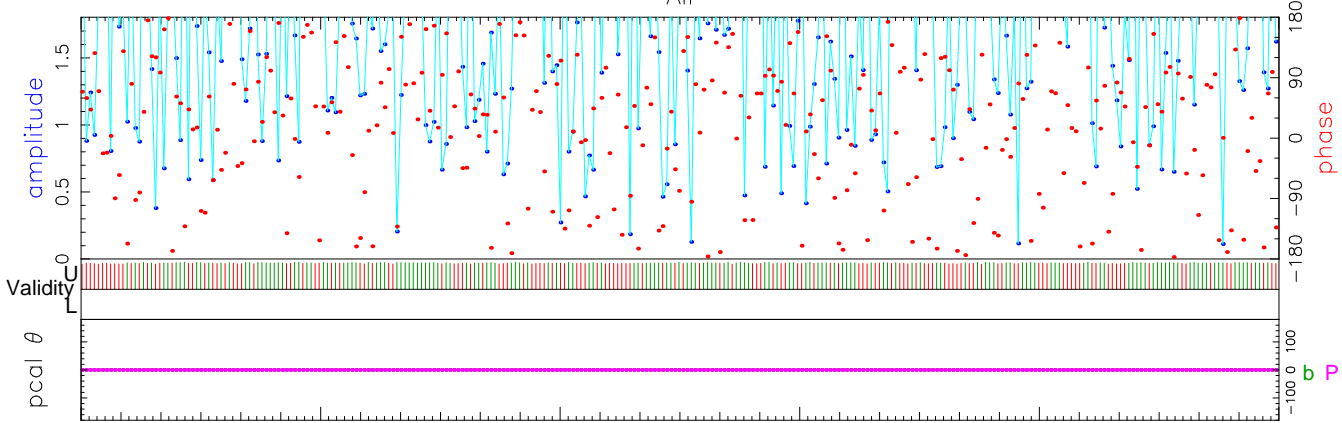
Fringe quality 0  
SNR 5.5  
Int time 285.541  
Amp 0.601  
Phase -27.8  
PFD 9.9e-01  
Delays (us)  
SBD -0.408410  
MBD 0.000005  
Fringe rate (Hz) 0.720319  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00		Freq (MHz)
72.2		Phase
0.6		Ampl.
460.7		Sbd box
U/L 586/0		APs used
b 3000		PC freqs
P 0		PC freqs
b:P 0:0		PC phase
b:P 0:0		Mani PC
b 1000		PC amp
P 1000		
b W00UL		Chan ids
b		
P W00UL		Chan ids
P		

Group delay (usec)(sbd)	-8.48848200082E+03	Apriori delay (usec)	-8.48807358558E+03	Resid mbdelay (usec)	4.50853E-06	+/-	3.1E-03
Sband delay (usec)	-8.48848199608E+03	Apriori clock (usec)	1.6043346E+01	Resid sbdelay (usec)	-4.08410E-01	+/-	3.1E-03
Phase delay (usec)	-8.48807358325E+03	Apriori clockrate (us/s)	6.8000000E-07	Resid phdelay (usec)	2.32746E-06	+/-	6.7E-07
Delay rate (us/s)	1.73067408374E+00	Apriori rate (us/s)	1.73066572155E+00	Resid rate (us/s)	8.36219E-06	+/-	3.9E-09
Total phase (deg)	-266.0	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	-27.8	+/-	20.9

ph/seg (deg)	RMS 91.0	Theor. 178.5	Amplitude 0.601 +/- 0.109	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	373.4	311.6	Search (2048X8) 0.461	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	10.4	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.7	18.2	Inc. seg. avg. 0.419	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.587	Data rate(Mb/s): 128	ion window (TEC) 0.00 0.00

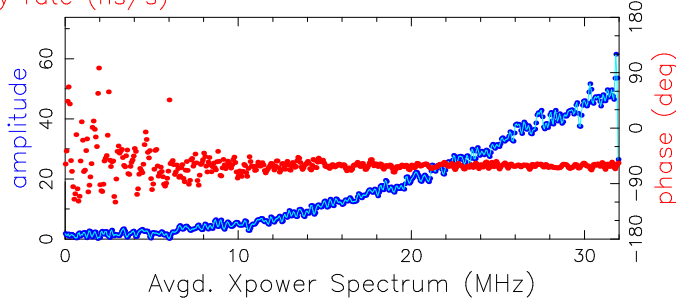
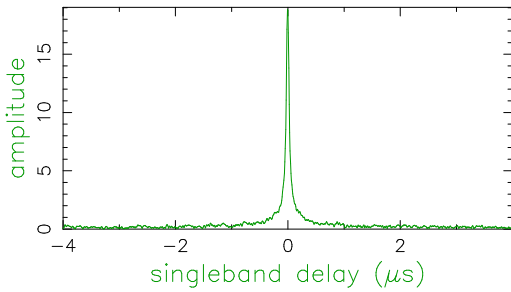
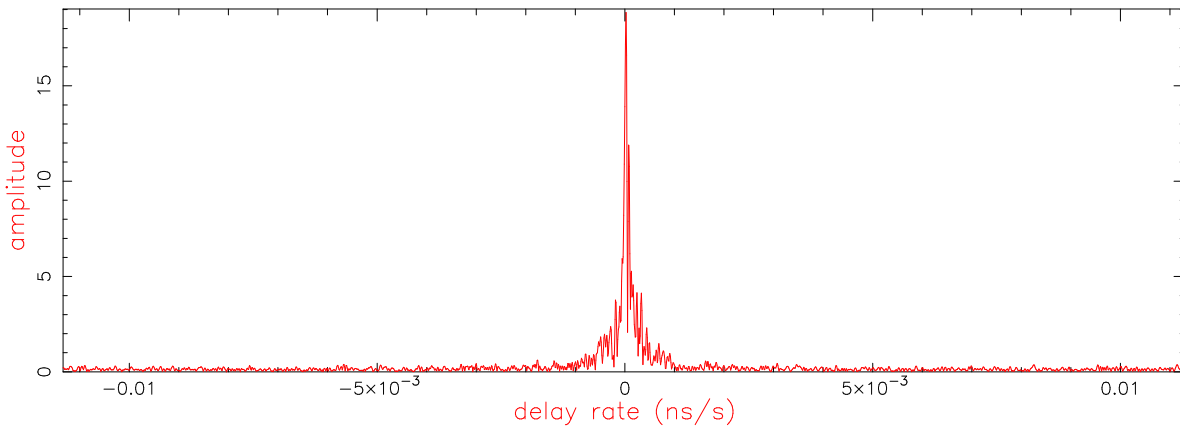
b: az 88.2 el 20.4 pa -44.0 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bP.W.15.0QR0YU

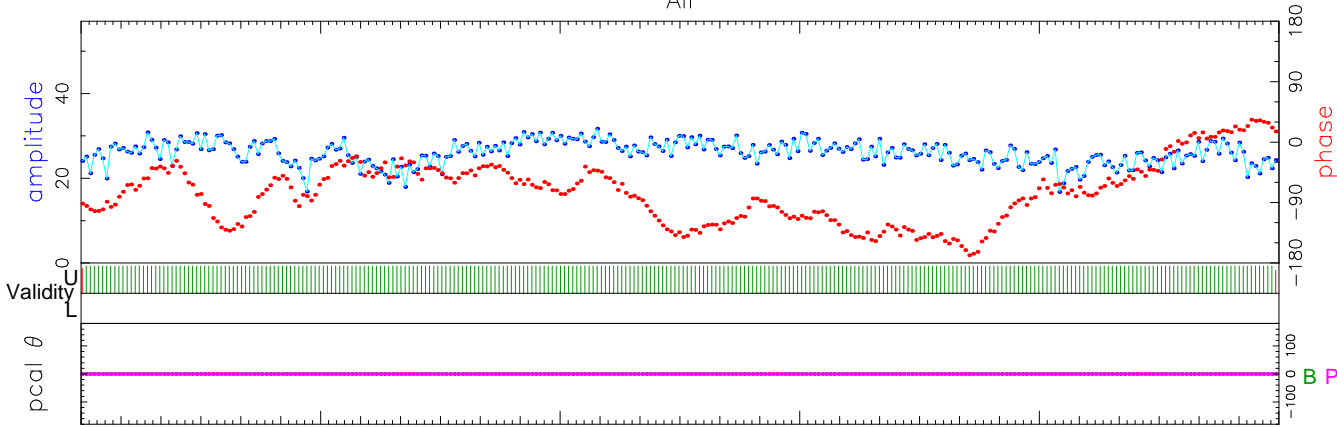
Fringe quality 6

SNR 224.1  
Int time 296.612  
Amp 19.032  
Phase -280.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.004409  
MBD -0.000001  
Fringe rate (Hz)  
0.001988  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-77.0  
18.8  
512.4  
U/L 586/0  
B 0  
P 0  
B:P 0:0  
B:P 0:0  
B 1000  
P 1000  
B W00UL  
P W00UL

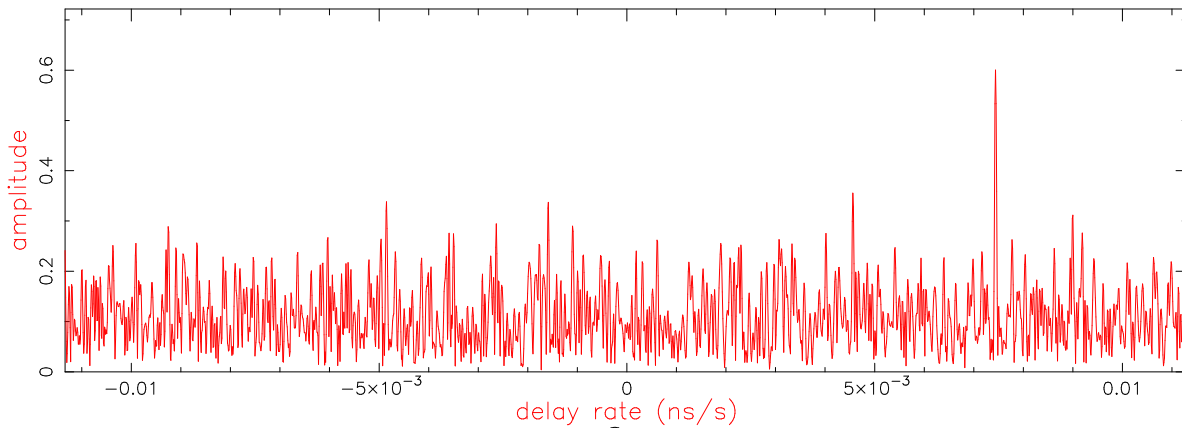
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.16823146556E+03	Apriori delay (usec)	-3.16822705808E+03	Resid mbdelay (usec)	-1.11308E-06	+/-	7.7E-05
Sband delay (usec)	-3.16823146708E+03	Apriori clock (usec)	1.9977873E+01	Resid sbdelay (usec)	-4.40900E-03	+/-	7.7E-05
Phase delay (usec)	-3.16822706056E+03	Apriori clockrate (us/s)	2.5300001E-07	Resid phdelay (usec)	-2.48205E-06	+/-	1.6E-08
Delay rate (us/s)	3.44394132690E-02	Apriori rate (us/s)	3.44393901913E-02	Resid rate (us/s)	2.30777E-08	+/-	9.5E-11
Total phase (deg)	-202.0	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-280.0	+/-	0.5

ph/seg (deg)	45.6	Theor.	4.4	Amplitude	19.032 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	39.4	Search (2048X8)	18.830	Search	18.830	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	25.939	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.0	Inc. frq. avg.	18.849	Inc. frq. avg.	18.849	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

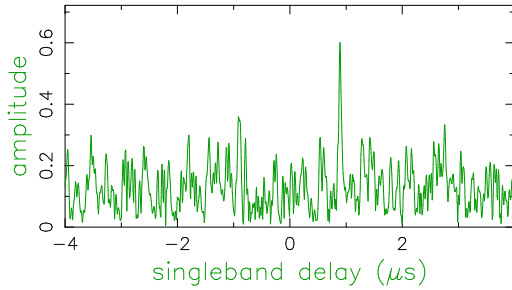
B: az 247.2 el 37.9 pa 37.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BP.W.18.0QR0YU

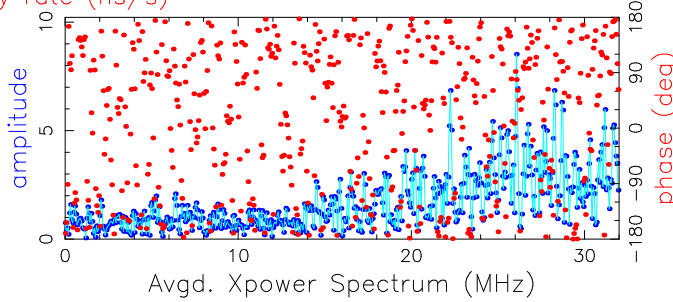


Fringe quality 0

SNR 6.9  
Int time 285.536  
Amp 0.722  
Phase 233.7  
PFD 6.0e-04  
Delays (us)  
SBD 0.890867  
MBD 0.000006  
Fringe rate (Hz)  
0.641545  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

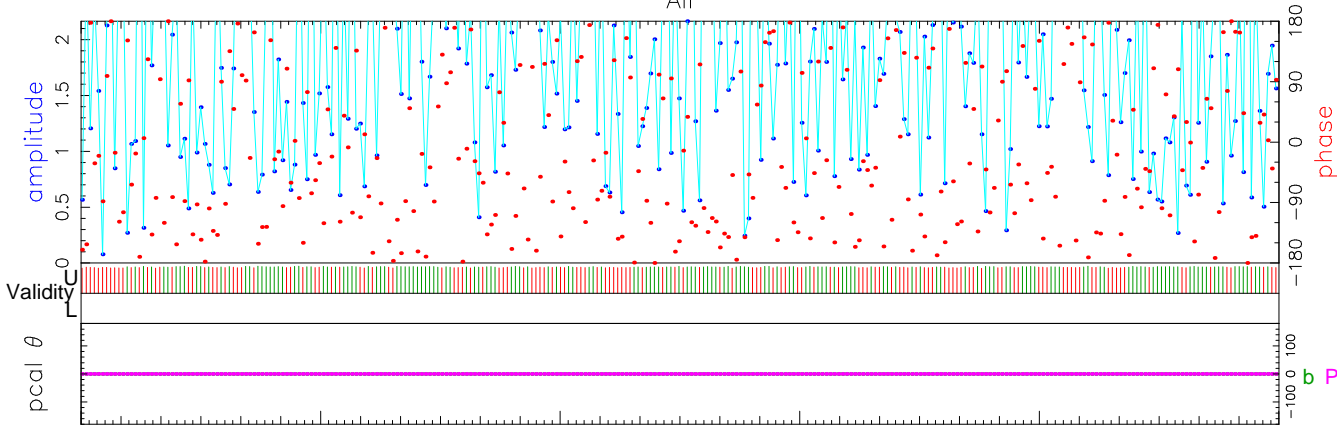


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



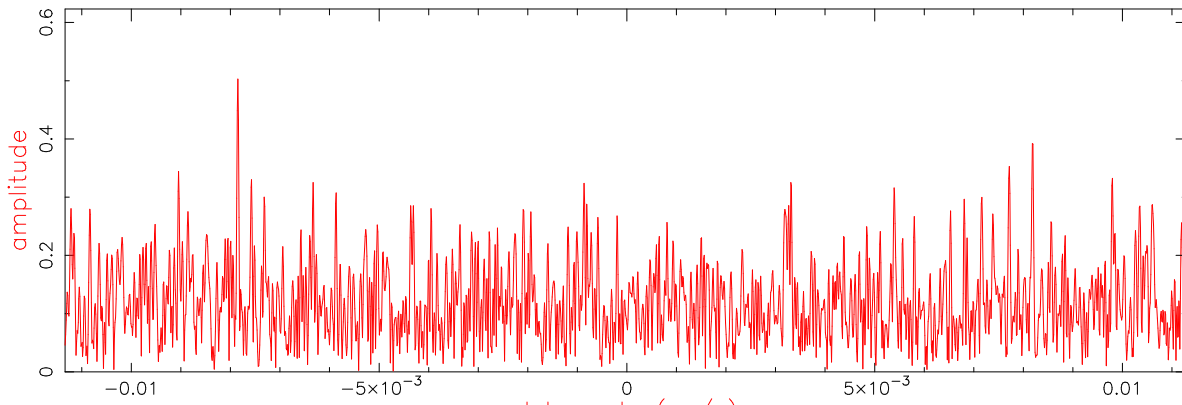
86012.00  
-137.4  
0.7  
627.0  
U/L 586/0  
b 3000  
P 0  
b:P 0:0  
b:P 0:0  
b 1000  
P 1000  
b W00UR  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.48718271582E+03	Apriori delay (usec)	-8.48807358558E+03	Resid mbdelay (usec)	5.69688E-06	+/- 2.5E-03
Sband delay (usec)	-8.48718271808E+03	Apriori clock (usec)	1.6043346E+01	Resid sbdelay (usec)	8.90867E-01	+/- 2.5E-03
Phase delay (usec)	-8.48807359001E+03	Apriori clockrate (us/s)	6.8000000E-07	Resid phdelay (usec)	-4.42948E-06	+/- 5.3E-07
Delay rate (us/s)	1.73067316925E+00	Apriori rate (us/s)	1.73066572155E+00	Resid rate (us/s)	7.44770E-06	+/- 3.1E-09
Total phase (deg)	355.4	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	233.7	+/- 16.5

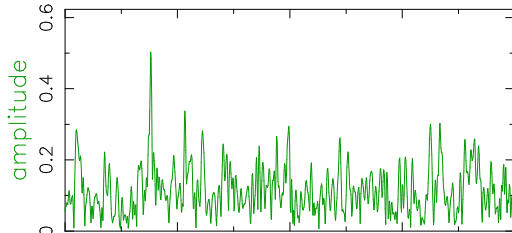
ph/seg (deg)	88.5	Theor.	141.4	Amplitude	0.722 +/- 0.104	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	288.1	Search (2048X8)	0.595	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.585	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.714	Inc. frq. avg.	0.714	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	

b: az 88.2 el 20.4 pa -44.0 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bP.W.25.0QR0YU



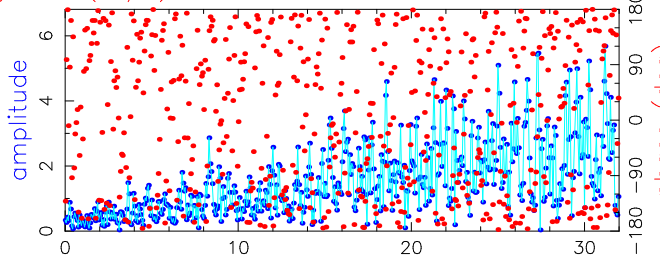
Fringe quality 0

SNR 5.8  
Int time 275.310  
Amp 0.623  
Phase -285.1  
PFD 6.6e-01  
Delays (us)  
SBD -2.474153  
MBD -0.000005  
Fringe rate (Hz)  
-0.677006  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



singleband delay (us)

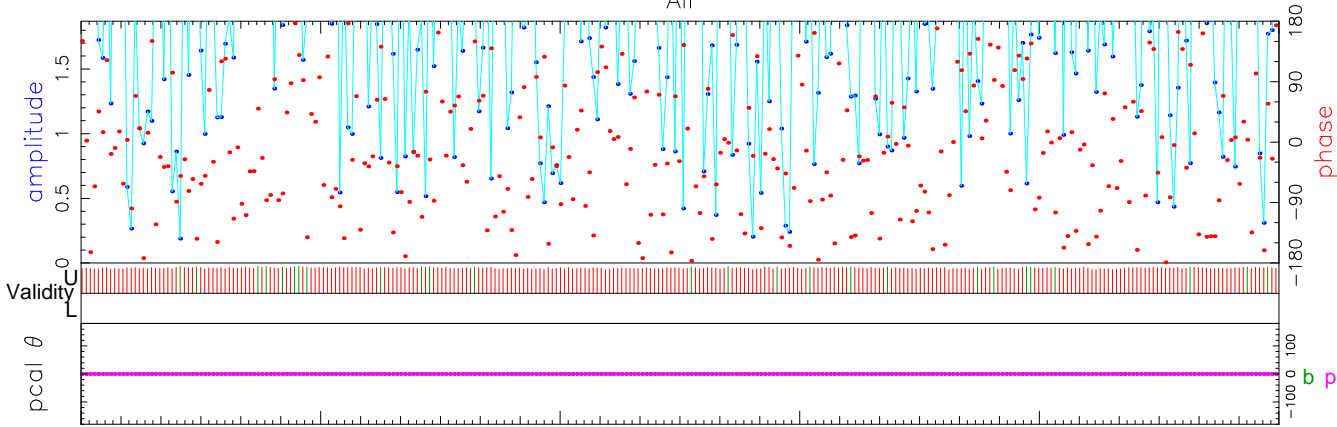
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-36.6  
0.6  
196.3  
U/L 586/0  
b 3000  
p 3000  
b:p 0:0  
b:p 0:0  
b 1000  
p 1000  
b W00UL  
p W00UL

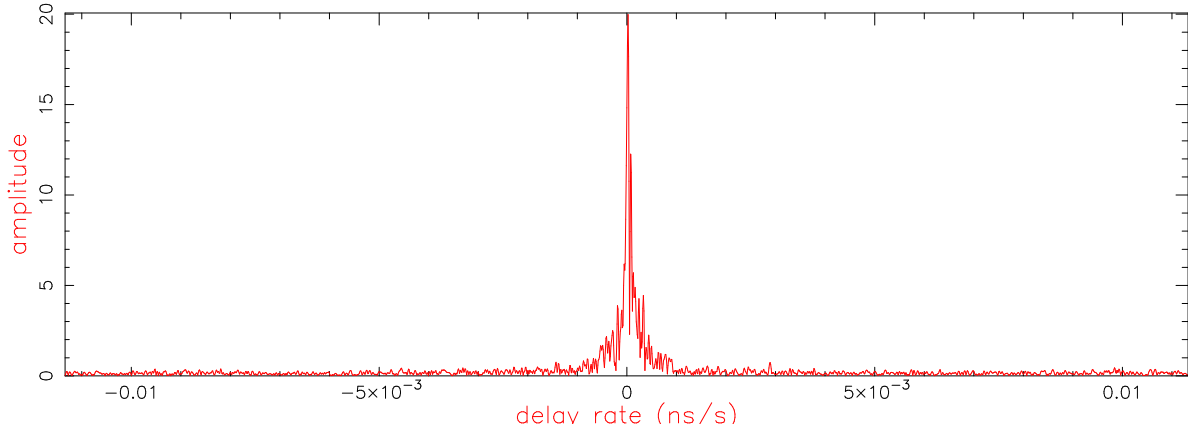
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.91401908286E+03	Apriori delay (usec)	-2.91154493496E+03	Resid mbdelay (usec)	-4.75469E-06	+/-	3.0E-03
Sband delay (usec)	-2.91401908746E+03	Apriori clock (usec)	-1.5339180E+01	Resid sbdelay (usec)	-2.47415E+00	+/-	3.0E-03
Phase delay (usec)	-2.91154493614E+03	Apriori clockrate (us/s)	2.3800000E-07	Resid phdelay (usec)	-1.17945E-06	+/-	6.4E-07
Delay rate (us/s)	-1.47566672901E-01	Apriori rate (us/s)	-1.47558813527E-01	Resid rate (us/s)	-7.85937E-06	+/-	3.7E-09
Total phase (deg)	-176.2	Apriori accel (us/s/s)	2.11137257319E-05	Resid phase (deg)	-285.1	+/-	19.9

ph/seg (deg)	92.5	Theor.	170.5	Amplitude	0.623 +/- 0.108	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	385.2	Search (2048X8)	0.501	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.483	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.8	Inc. frq. avg.	0.609	Inc. frq. avg.	0.609	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 907.562 2018.769 simultaneous interpolator

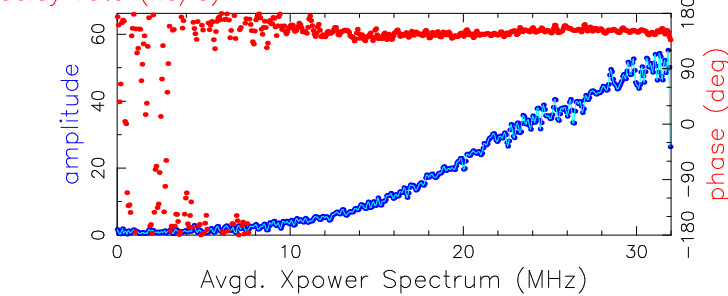
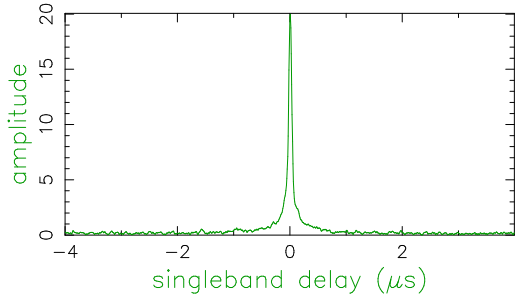
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bp.W.26.0QR0YU



Fringe quality 6

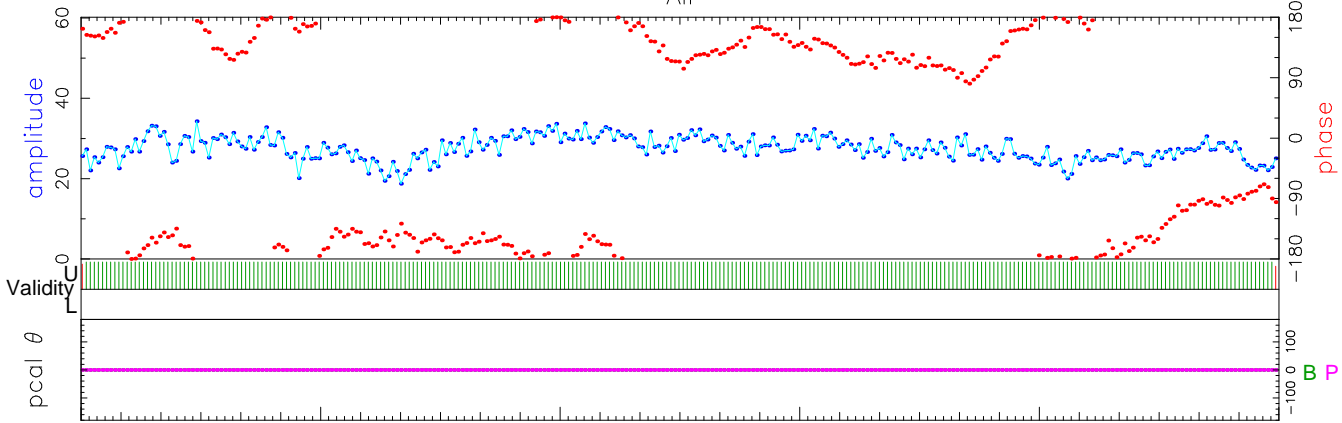
SNR 236.3  
Int time 296.612  
Amp 20.067  
Phase 56.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.005273  
MBD -0.000004  
Fringe rate (Hz)  
0.001990  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163634  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

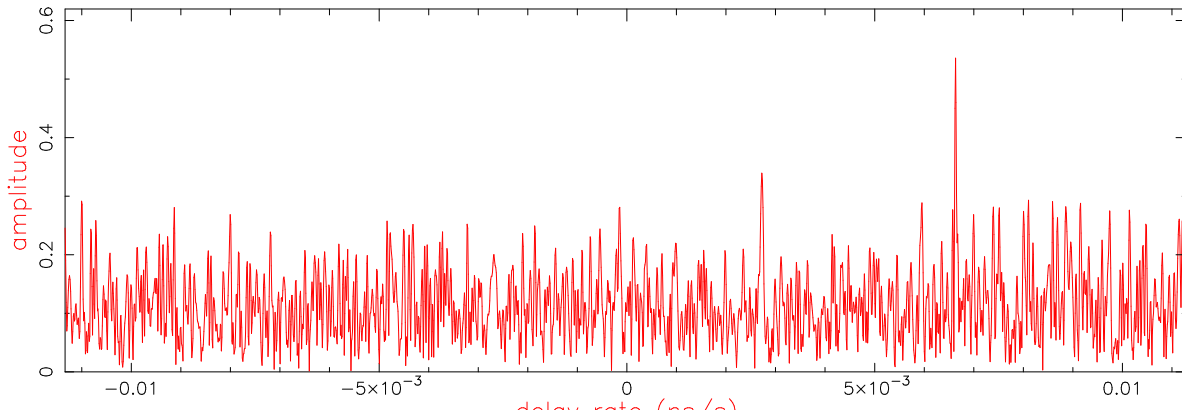
All



86012.00	173.2	20.0	513.7	U/L 586/0	B 0	P 0	B:P 0:0	B:P 0:0	B 1000	P 1000	B W00UR	P W00UR	8612.00	173.2	20.0	513.7	U/L 586/0	B 0	P 0	B:P 0:0	B:P 0:0	B 1000	P 1000	B W00UR	P W00UR	86012.00	173.2	20.0	513.7	U/L 586/0	B 0	P 0	B:P 0:0	B:P 0:0	B 1000	P 1000	B W00UR	P W00UR	
Group delay (usec)(sbd)	-3.16822178369E+03	Apriori delay (usec)	-3.16822705808E+03	Resid mbdelay (usec)	-3.94320E-06	+/-	7.3E-05	Sband delay (usec)	-3.16822178458E+03	Apriori clock (usec)	1.9977873E+01	Resid sbdelay (usec)	5.27350E-03	+/-	7.3E-05	Phase delay (usec)	-3.16822705250E+03	Apriori clockrate (us/s)	2.5300001E-07	Resid phdelay (usec)	5.58560E-06	+/-	1.6E-08	Delay rate (us/s)	3.44394132888E-02	Apriori rate (us/s)	3.44393901913E-02	Resid rate (us/s)	2.30976E-08	+/-	9.0E-11	Total phase (deg)	134.5	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	56.4	+/-	0.5

ph/seg (deg) 46.0 4.2 Search (2048X8) 19.962 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 39.9 7.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
 ph/frq (deg) 0.0 0.2 Inc. seg. avg. 27.464 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
 amp/frq (%) 0.4 0.4 Inc. frq. avg. 19.983 Sample rate(MSamp/s): 64 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 247.2 el 37.9 pa 37.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BP.W.33.0QR0YU





Fringe quality 0

SNR 6.2

Int time 285.666

Amp 0.620

Phase -138.4

PFD 7.6e-02

Delays (us)

SBD -2.444538

MBD 0.000007

Fringe rate (Hz)

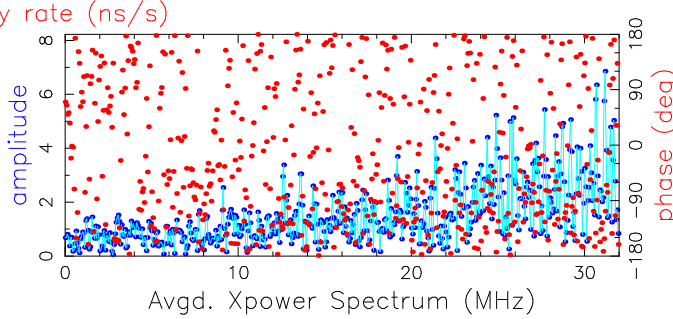
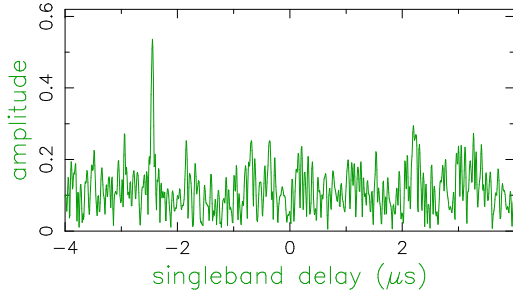
0.571786

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163635

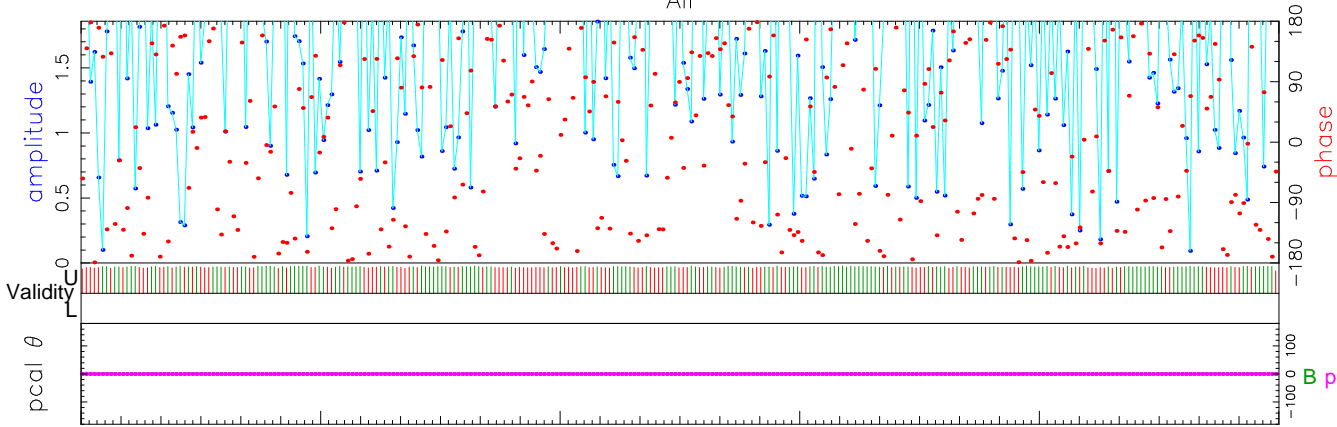
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



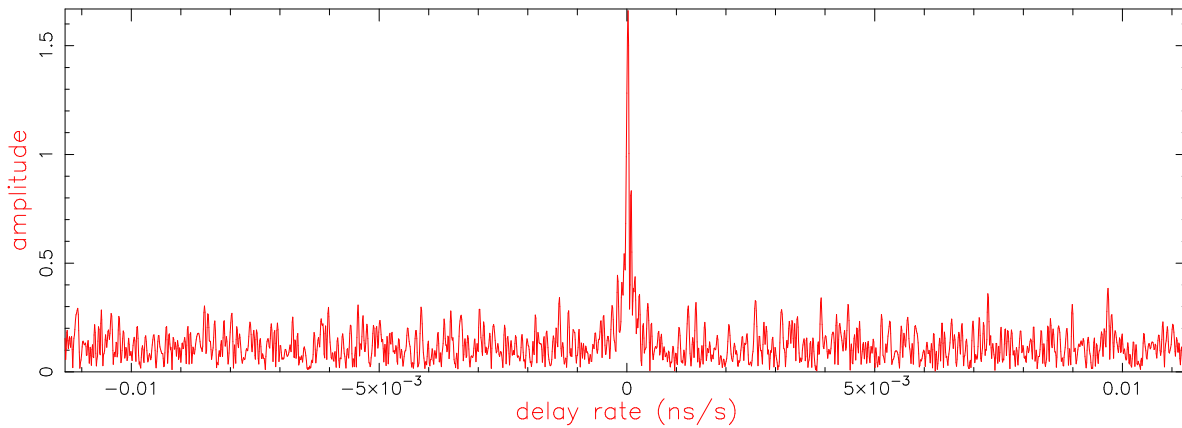
86012.00		Freq (MHz)
-173.9		Phase
0.6		Ampl.
200.0		Sbd box
U/L 586/0		APs used
B 0		PC freqs
p 3000		PC phase
B:p 0:0		Manl PC
B:p 0:0		PC amp
B 1000		
p 1000		
B W00UR		Chan ids
p W00UR		Chan ids

Group delay (usec)(sbd)	2.40585705716E+03	Apriori delay (usec)	2.40830159254E+03	Resid mbdelay (usec)	7.25078E-06	+/- 2.8E-03
Sband delay (usec)	2.40585705454E+03	Apriori clock (usec)	-1.1404653E+01	Resid sbdelay (usec)	-2.44454E+00	+/- 2.8E-03
Phase delay (usec)	2.40830158693E+03	Apriori clockrate (us/s)	-1.8900001E-07	Resid phdelay (usec)	-5.60686E-06	+/- 6.0E-07
Delay rate (us/s)	-1.84377850702E+00	Apriori rate (us/s)	-1.84378514489E+00	Resid rate (us/s)	6.63786E-06	+/- 3.4E-09
Total phase (deg)	-73.2	Apriori accel (us/s/s)	-6.29159812157E-06	Resid phase (deg)	-138.4	+/- 18.5

ph/seg (deg)	RMS 90.6	Theor. 158.4	Amplitude 0.620 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	337.4	276.4	Search (2048X8) 0.515	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	16.1	Inc. seg. avg. 0.480	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.612	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

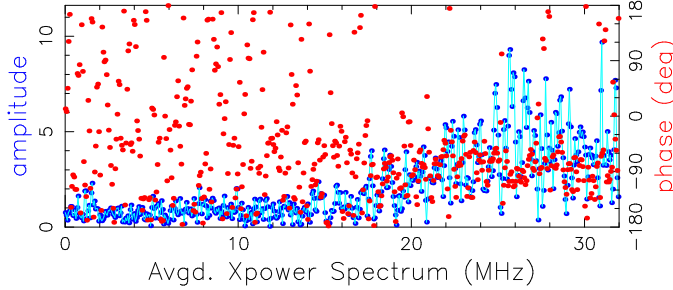
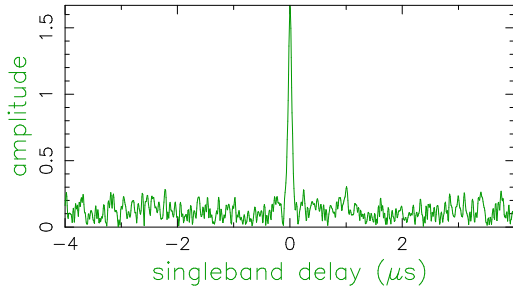
B: az 247.2 el 37.9 pa 37.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10989.888 1574.831 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bp.W.44.0QR0YU



Fringe quality 9

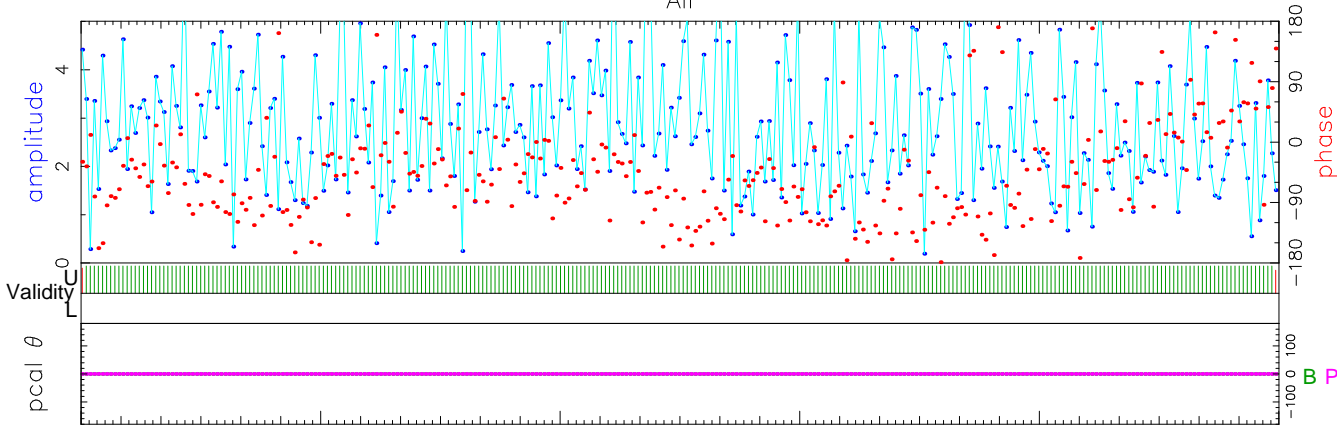
SNR 19.7  
 Int time 296.612  
 Amp 1.669  
 Phase 64.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002722  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.001951  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163635  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -60.4  
 1.7  
 513.3  
 U/L 586/0  
 B 0  
 P 0  
 B:P 0:0  
 B:P 0:0  
 B 1000  
 P 1000  
 B W00UL  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-3.16822434107E+03	Apriori delay (usec)	-3.16822705808E+03	Resid mbdelay (usec)	-3.53377E-06	+/-	8.8E-04
Sband delay (usec)	-3.16822433608E+03	Apriori clock (usec)	1.9977873E+01	Resid sbdelay (usec)	2.72200E-03	+/-	8.8E-04
Phase delay (usec)	-3.16822706003E+03	Apriori clockrate (us/s)	2.5300001E-07	Resid phdelay (usec)	-1.94879E-06	+/-	1.9E-07
Delay rate (us/s)	3.44394128389E-02	Apriori rate (us/s)	3.44393901913E-02	Resid rate (us/s)	2.26476E-08	+/-	1.1E-09
Total phase (deg)	-217.0	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	64.9	+/-	5.8

ph/seg (deg)	65.3	Theor.	49.9	Amplitude	1.669 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	109.8	Search (2048X8)	1.660	Search	1.660	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.088	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.5	Inc. frq. avg.	1.659	Inc. frq. avg.	1.659	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00
						nlags:	512	t_cohere	infinite

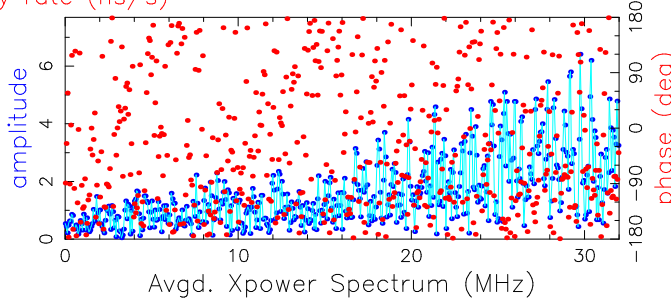
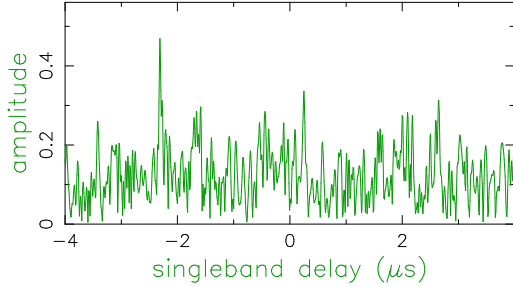
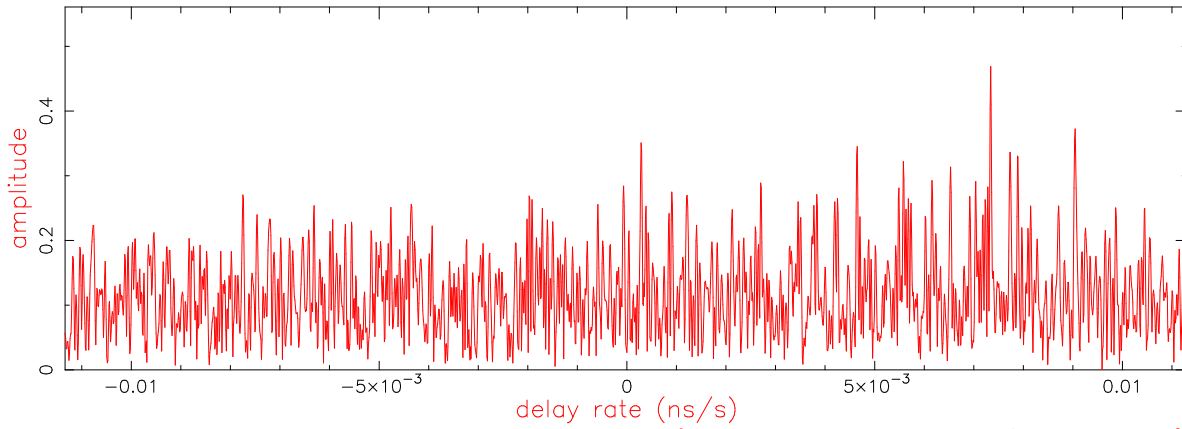
B: az 247.2 el 37.9 pa 37.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BP.W.45.0QR0YU

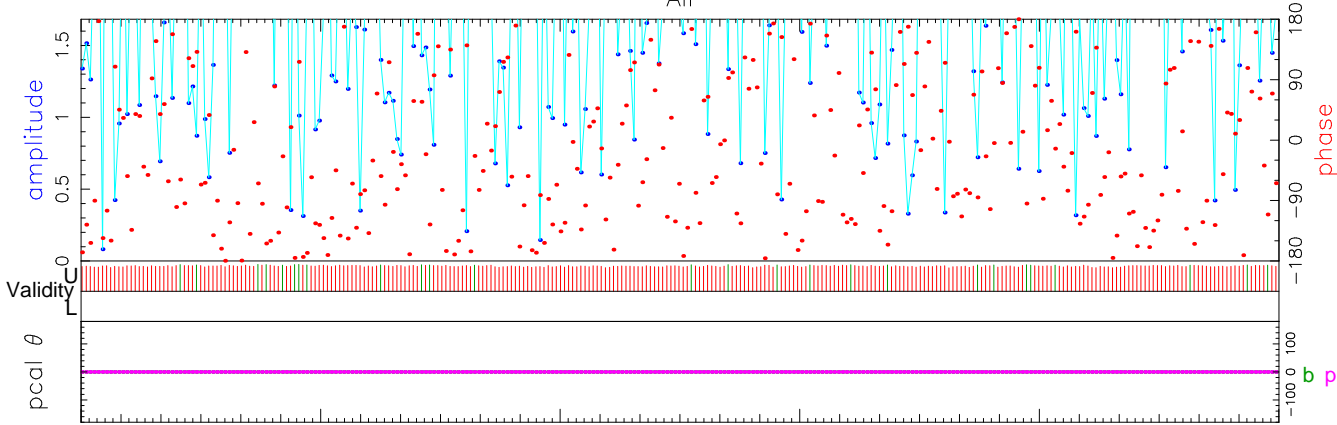
Fringe quality 0

SNR 5.3  
Int time 275.301  
Amp 0.561  
Phase -98.5  
PFD 1.0e+00  
Delays (us)  
SBD -2.312155  
MBD 0.000007  
Fringe rate (Hz)  
0.633172  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-113.9  
0.6  
217.1  
U/L 586/0  
b 3000  
p 3000  
b:p 0:0  
b:p 0:0  
b 1000  
p 1000  
b W00UR  
p W00UR

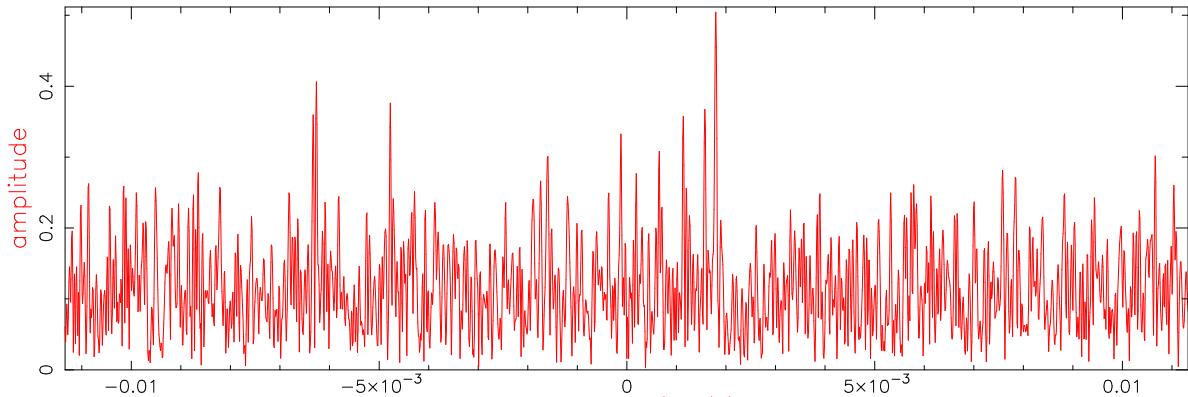
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.91385709384E+03	Apriori delay (usec)	-2.91154493496E+03	Resid mbdelay (usec)	6.86853E-06	+/-	3.2E-03
Sband delay (usec)	-2.91385708996E+03	Apriori clock (usec)	-1.5339180E+01	Resid sbdelay (usec)	-2.31216E+00	+/-	3.2E-03
Phase delay (usec)	-2.91154493863E+03	Apriori clockrate (us/s)	2.3800000E-07	Resid phdelay (usec)	-3.67401E-06	+/-	6.9E-07
Delay rate (us/s)	-1.47551463027E-01	Apriori rate (us/s)	-1.47558813527E-01	Resid rate (us/s)	7.35050E-06	+/-	4.0E-09
Total phase (deg)	-349.6	Apriori accel (us/s/s)	2.11137257319E-05	Resid phase (deg)	-98.5	+/-	21.5

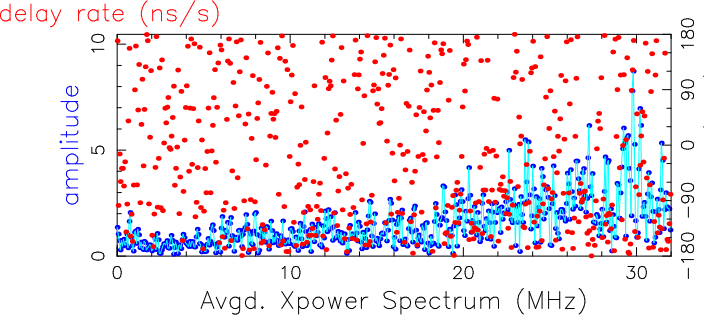
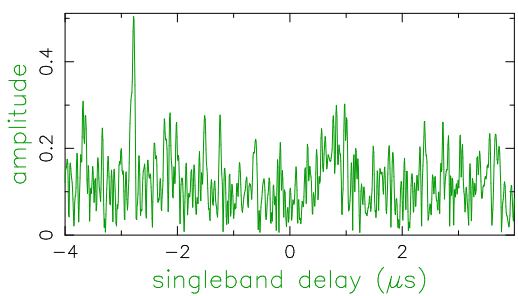
ph/seg (deg)	94.2	Theor.	184.4	Amplitude	0.561 +/- 0.105	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	405.2	Search (2048X8)	0.468	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.400	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0	Inc. frq. avg.	0.551	Inc. frq. avg.	0.551	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 907.562 2018.769 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bp.W.49.0QR0YU



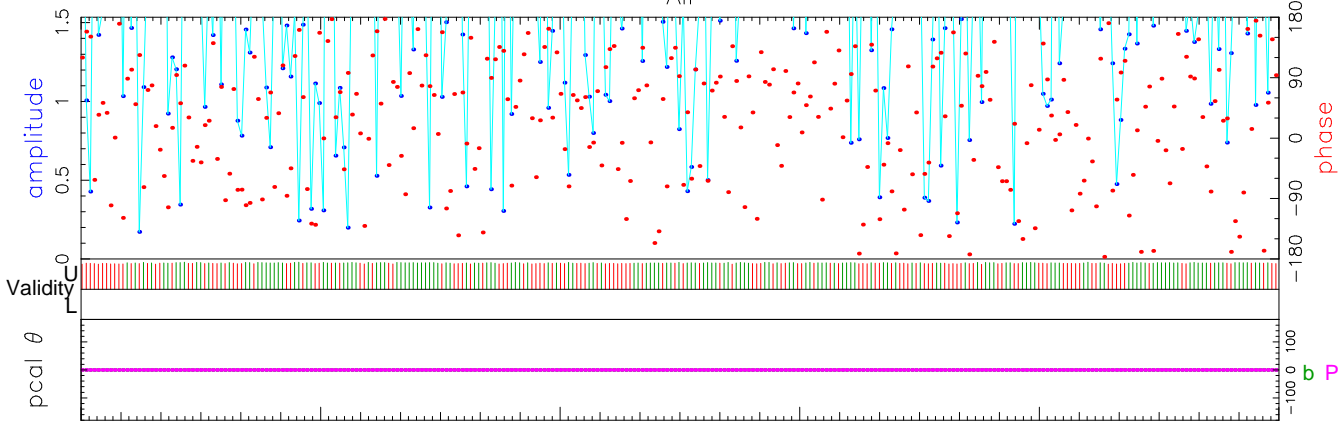
Fringe quality 0  
SNR 5.9  
Int time 285.541  
Amp 0.512  
Phase -196.9  
PFD 4.6e-01  
Delays (us)  
SBD -2.778963  
MBD 0.000007  
Fringe rate (Hz)  
0.154786  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



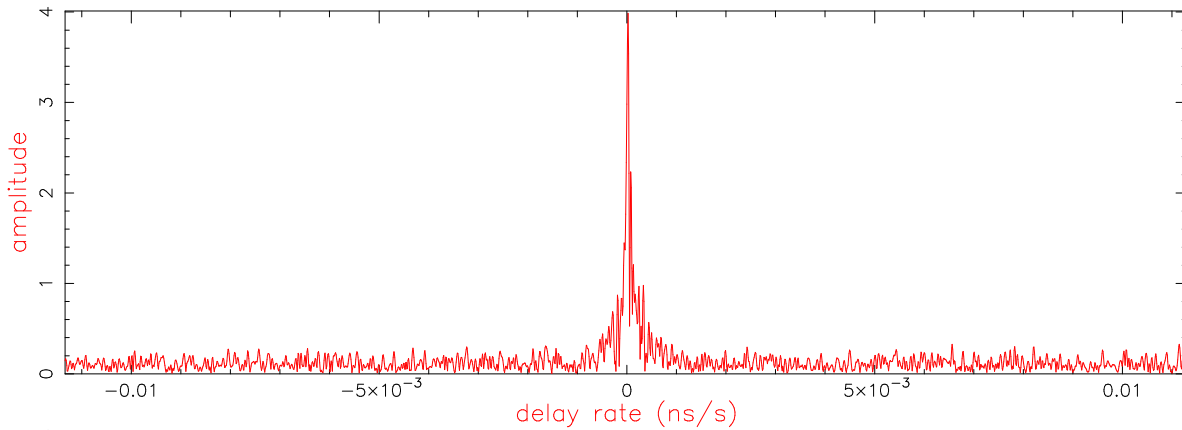
86012.00  
58.2  
0.5  
157.3  
U/L 586/0  
b 3000  
P 0  
b:P 0:0  
b:P 0:0  
b 1000  
P 1000  
b W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.49085255144E+03	Apriori delay (usec)	-4.88807358558E+03	Resid mbdelay (usec)	6.83616E-06	+/-	2.9E-03
Sband delay (usec)	-8.49085254858E+03	Apriori clock (usec)	1.6043346E+01	Resid sbdelay (usec)	-2.77896E+00	+/-	2.9E-03
Phase delay (usec)	-8.48807358370E+03	Apriori clockrate (us/s)	6.8000000E-07	Resid phdelay (usec)	1.87565E-06	+/-	6.3E-07
Delay rate (us/s)	1.73066751847E+00	Apriori rate (us/s)	1.73066572155E+00	Resid rate (us/s)	1.79692E-06	+/-	3.6E-09
Total phase (deg)	-75.1	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	-196.9	+/-	19.6

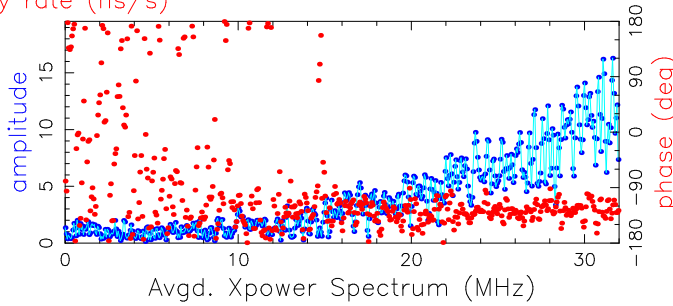
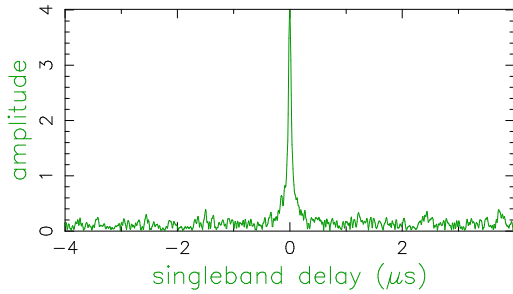
ph/seg (deg)	89.5	Theor.	167.6	Amplitude	0.512 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	366.1	Search (2048X8)	0.498	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.388	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.502	Inc. frq. avg.	0.502	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bP.W.51.0QR0YU



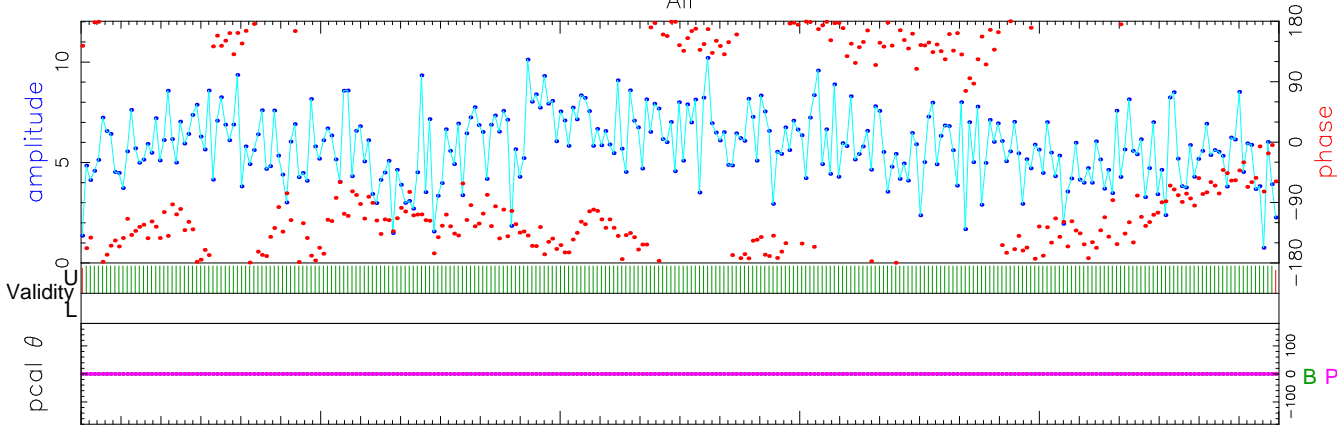
Fringe quality 9

SNR 47.2  
 Int time 296.612  
 Amp 4.012  
 Phase -281.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002824  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.001901  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163637  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -151.4  
 4.0  
 512.6  
 U/L 586/0  
 B 0  
 P 0  
 B:P 0:0  
 B:P 0:0  
 B 1000  
 P 1000  
 B W00UR  
 P W00UL

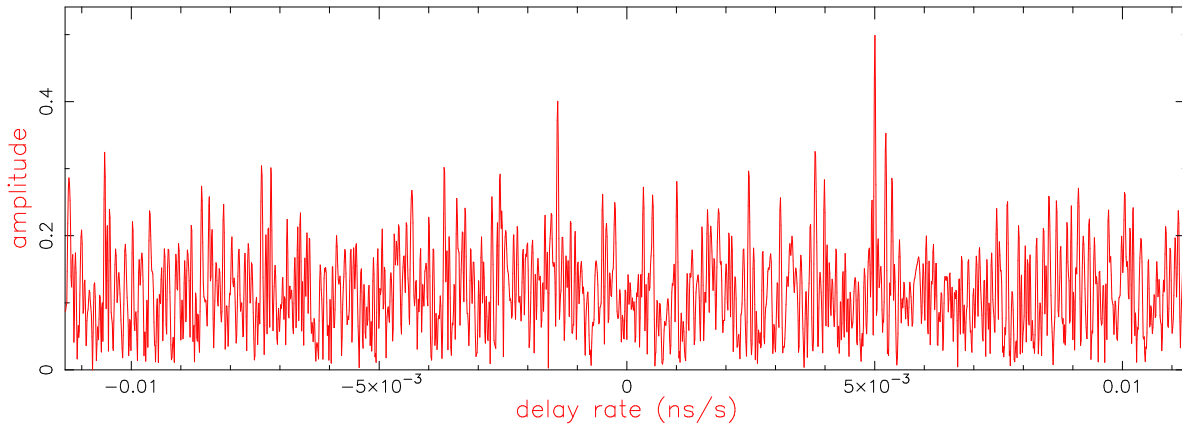
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-3.16822988722E+03	Apriori delay (usec)	-3.16822705808E+03	Resid mbdelay (usec)	-3.94866E-06	+/-	3.6E-04
Sband delay (usec)	-3.16822988258E+03	Apriori clock (usec)	1.9977873E+01	Resid sbdelay (usec)	-2.82450E-03	+/-	3.6E-04
Phase delay (usec)	-3.16822706296E+03	Apriori clockrate (us/s)	2.5300001E-07	Resid phdelay (usec)	-4.88263E-06	+/-	7.8E-08
Delay rate (us/s)	3.44394122600E-02	Apriori rate (us/s)	3.44393901913E-02	Resid rate (us/s)	2.20687E-08	+/-	4.5E-10
Total phase (deg)	-203.5	Apriori accel (us/s/s)	2.22898763986E-05	Resid phase (deg)	-281.6	+/-	2.4

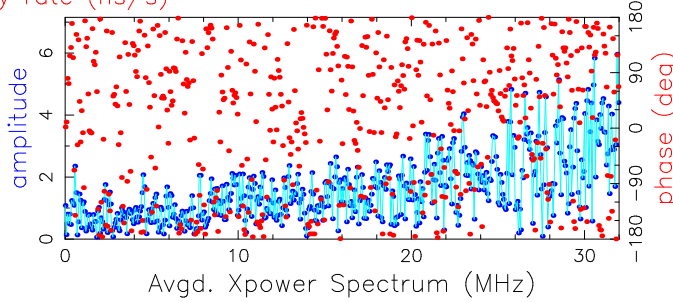
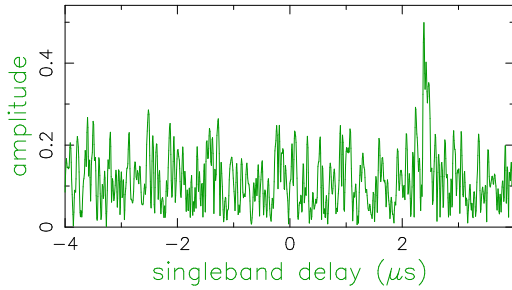
ph/seg (deg)	50.9	Theor.	20.8	Amplitude	4.012 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	61.6	Search (2048X8)	3.984	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	5.447	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.7	Inc. frq. avg.	3.984	Inc. frq. avg.	3.984	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

B: az 247.2 el 37.9 pa 37.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -176.511 1949.312 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BP.W.60.0QR0YU



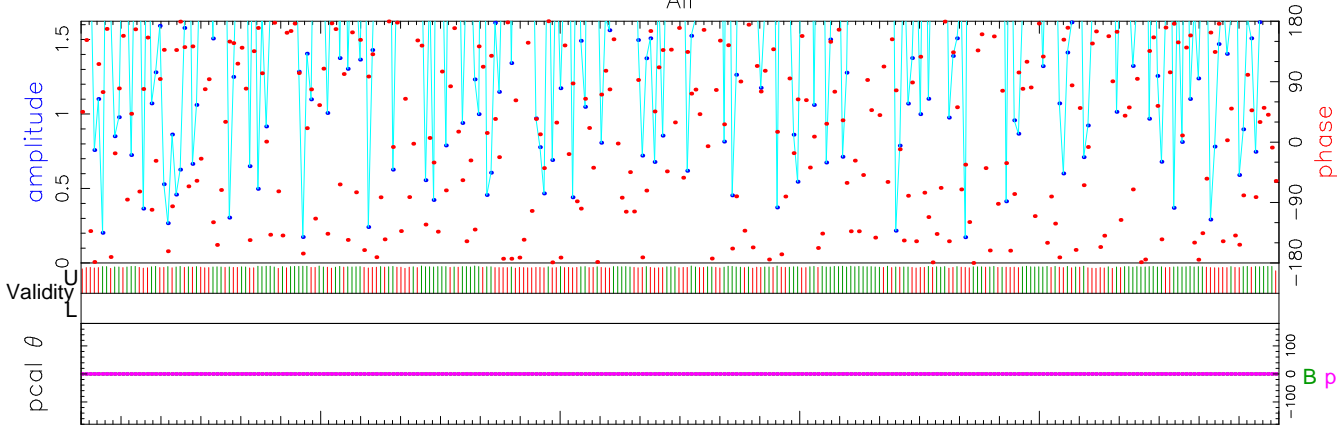


Fringe quality 0  
SNR 5.8  
Int time 285.666  
Amp 0.541  
Phase 173.4  
PFD 6.4e-01  
Delays (us)  
SBD 2.382916  
MBD 0.000007  
Fringe rate (Hz)  
0.431569  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



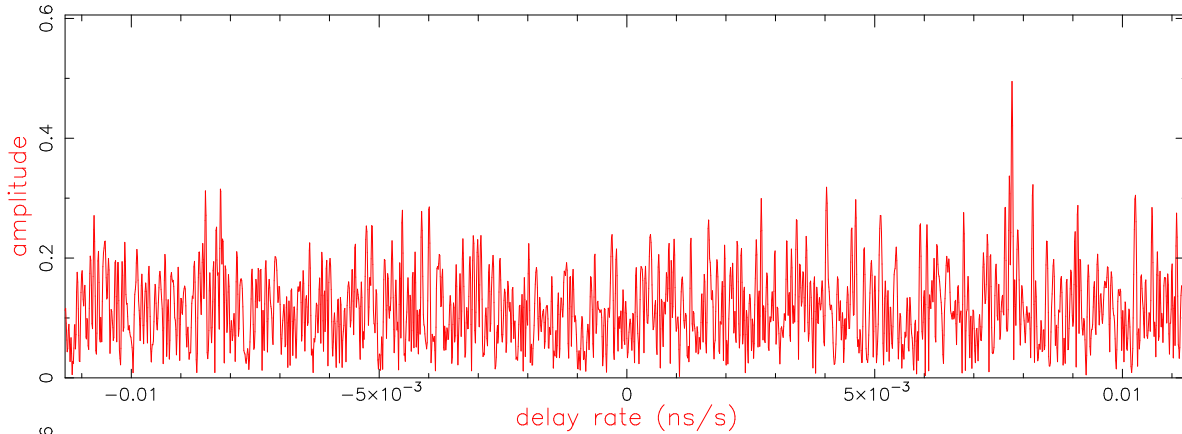
86012.00  
168.8  
0.5  
818.0  
U/L 586/0  
B 0  
p 3000  
B:p 0:0  
B:p 0:0  
B 1000  
p 1000  
B W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.41068451089E+03	Apriori delay (usec)	2.40830159254E+03	Resid mbdelay (usec)	6.67042E-06	+/-	3.0E-03
Sband delay (usec)	2.41068450854E+03	Apriori clock (usec)	-1.1404653E+01	Resid sbdelay (usec)	2.38292E+00	+/-	3.0E-03
Phase delay (usec)	2.40830159798E+03	Apriori clockrate (us/s)	-1.8900001E-07	Resid phdelay (usec)	5.44480E-06	+/-	6.4E-07
Delay rate (us/s)	-1.84378013480E+00	Apriori rate (us/s)	-1.84378514489E+00	Resid rate (us/s)	5.01009E-06	+/-	3.7E-09
Total phase (deg)	238.6	Apriori accel (us/s/s)	-6.29159812157E-06	Resid phase (deg)	173.4	+/-	19.9

ph/seg (deg)	90.3	Theor.	170.2	Amplitude	0.541 +/- 0.094	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	360.4	Search (2048X8)	0.481	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.395	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.533	Inc. frq. avg.	0.533	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

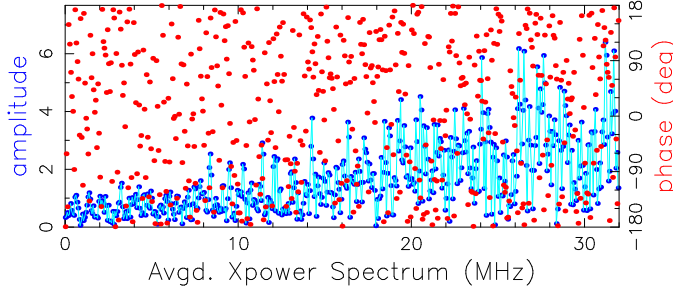
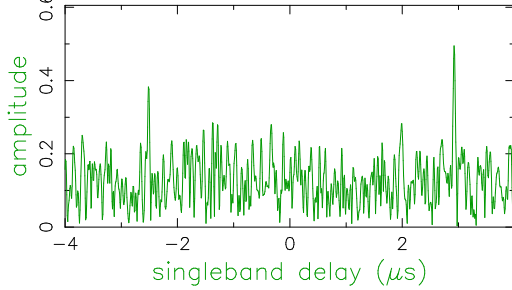
B: az 247.2 el 37.9 pa 37.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10989.888 1574.831 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bp.W.69.0QR0YU



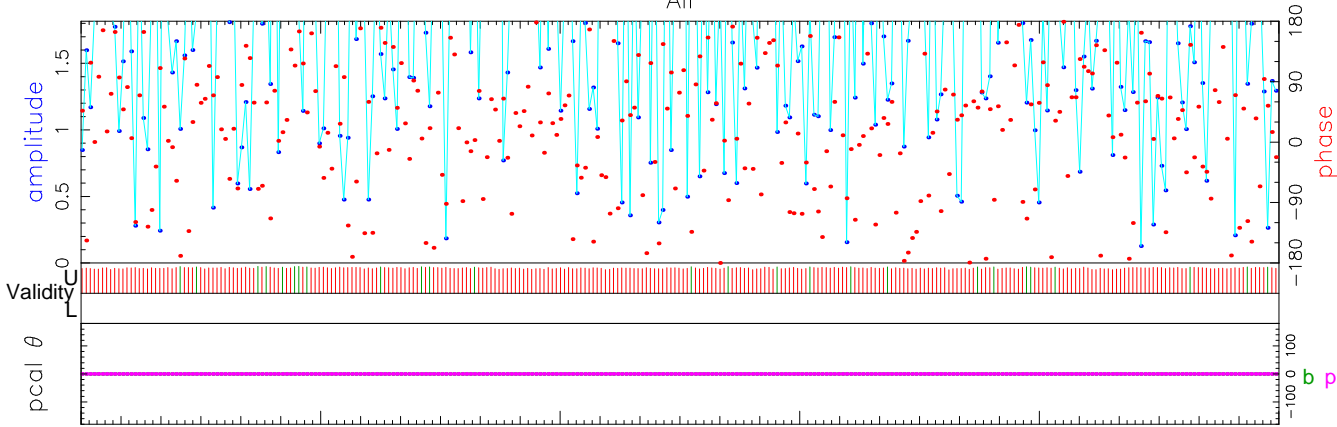
Fringe quality 0

SNR 5.6  
Int time 275.306  
Amp 0.606  
Phase 79.7  
PFD 9.1e-01  
Delays (us)  
SBD 2.922519  
MBD 0.000007  
Fringe rate (Hz) 0.670411  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
50.4  
0.6  
887.1  
U/L 586/0  
b 3000  
p 3000  
b:p 0:0  
b:p 0:0  
b 1000  
p 1000  
b W00UL  
p W00UR

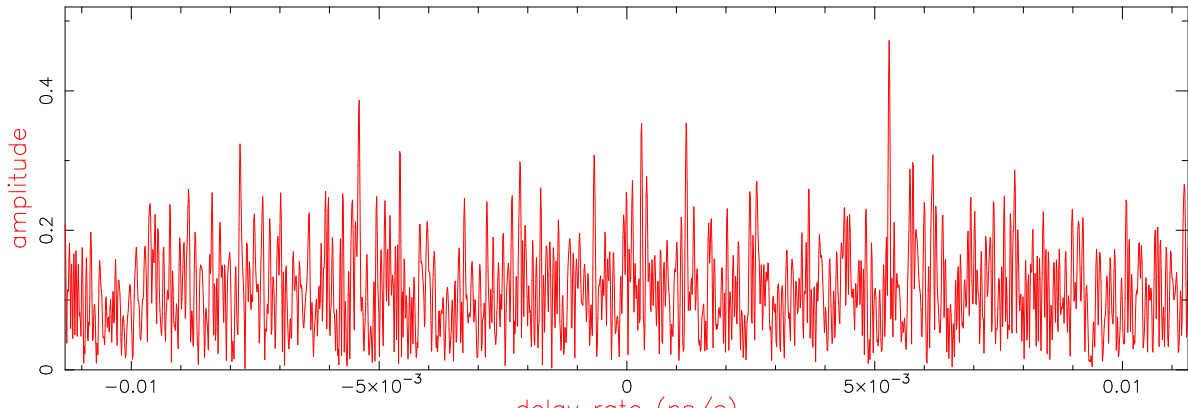
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp

Chan ids  
Chan ids

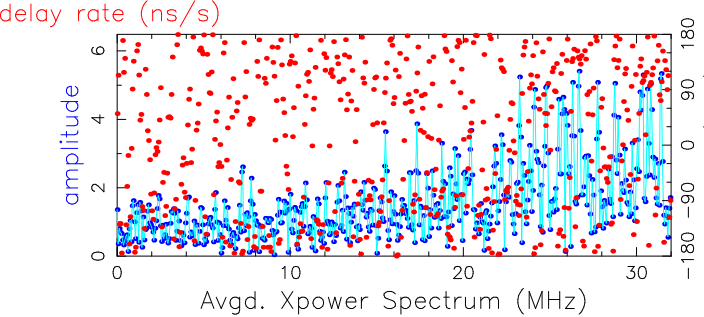
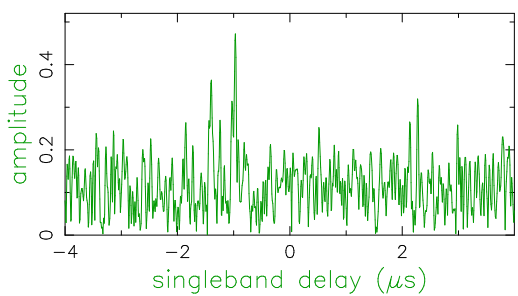
Group delay (usec)(sbd)	-2.90862241689E+03	Apriori delay (usec)	-2.91154493496E+03	Resid mbdelay (usec)	7.25875E-06	+/-	3.1E-03
Sband delay (usec)	-2.90862241546E+03	Apriori clock (usec)	-1.5339180E+01	Resid sbdelay (usec)	2.92252E+00	+/-	3.1E-03
Phase delay (usec)	-2.91154493334E+03	Apriori clockrate (us/s)	2.3800000E-07	Resid phdelay (usec)	1.62402E-06	+/-	6.6E-07
Delay rate (us/s)	-1.47551030717E-01	Apriori rate (us/s)	-1.47558813527E-01	Resid rate (us/s)	7.78281E-06	+/-	3.8E-09
Total phase (deg)	188.6	Apriori accel (us/s/s)	2.11137257319E-05	Resid phase (deg)	79.7	+/-	20.4

ph/seg (deg)	90.0	Theor.	174.7	Amplitude	0.606 +/- 0.108	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	381.7	Search (2048X8)	0.493	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.441	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	Inc. frq. avg.	0.596	Inc. frq. avg.	0.596	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
						Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 907.562 2018.769 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bp.W.70.0QR0YU

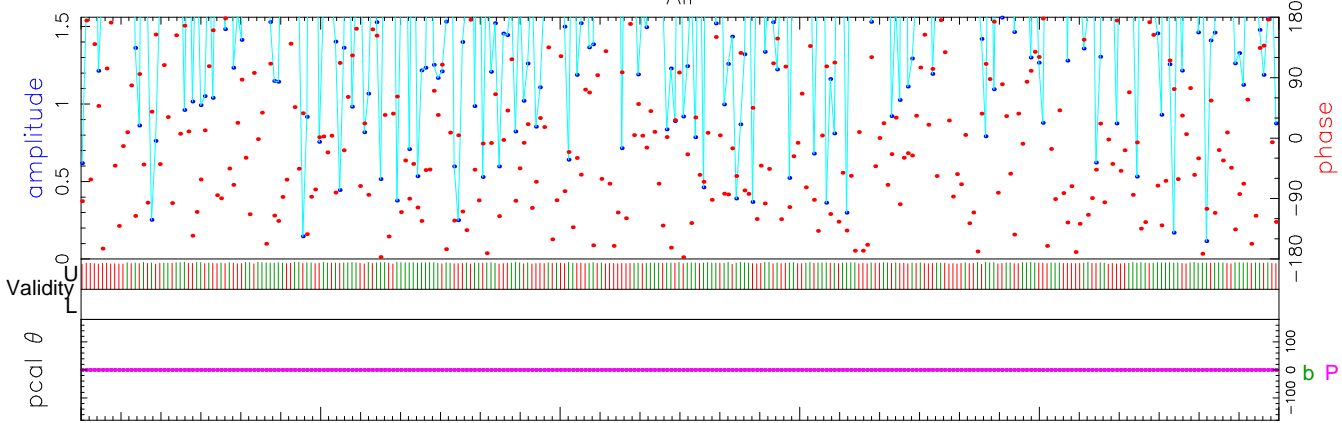


Fringe quality 0  
SNR 5.5  
Int time 285.536  
Amp 0.520  
Phase -151.6  
PFD 9.9e-01  
Delays (us)  
SBD -0.970877  
MBD 0.000004  
Fringe rate (Hz)  
0.456533  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-53.6 Phase  
0.5 Ampl.  
388.7 Sbd box  
U/L 586/0 APs used  
b 3000 PC freqs  
P 0 PC freqs  
b:P 0:0 PC phase  
b:P 0:0 Manl PC  
b 1000 PC amp  
P 1000  
b W00UR Chan ids  
p W00UL Chan ids

Group delay (usec)(sbd)	-8.48904445735E+03	Apriori delay (usec)	-8.48807358558E+03	Resid mbdelay (usec)	4.38332E-06	+/-	3.1E-03
Sband delay (usec)	-8.48904446258E+03	Apriori clock (usec)	1.6043346E+01	Resid sbdelay (usec)	-9.70877E-01	+/-	3.1E-03
Phase delay (usec)	-8.48807358731E+03	Apriori clockrate (us/s)	6.8000000E-07	Resid phdelay (usec)	-1.72827E-06	+/-	6.7E-07
Delay rate (us/s)	1.73067102145E+00	Apriori rate (us/s)	1.73066572155E+00	Resid rate (us/s)	5.29990E-06	+/-	3.9E-09
Total phase (deg)	-29.8	Apriori accel (us/s/s)	4.96952002521E-05	Resid phase (deg)	-151.6	+/-	20.9

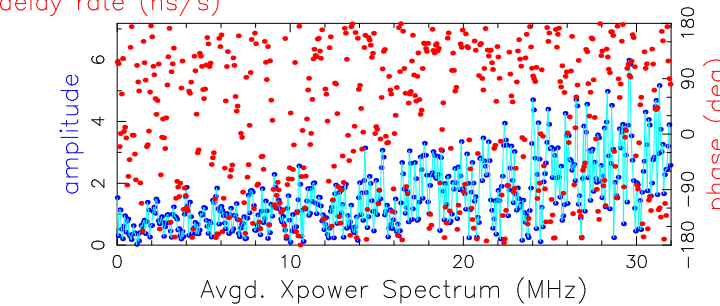
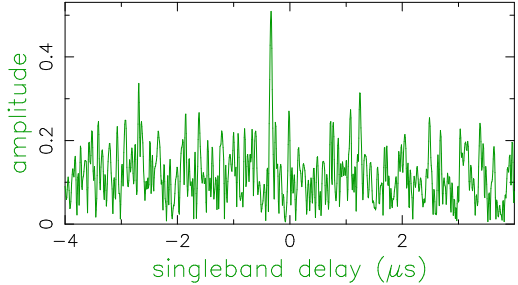
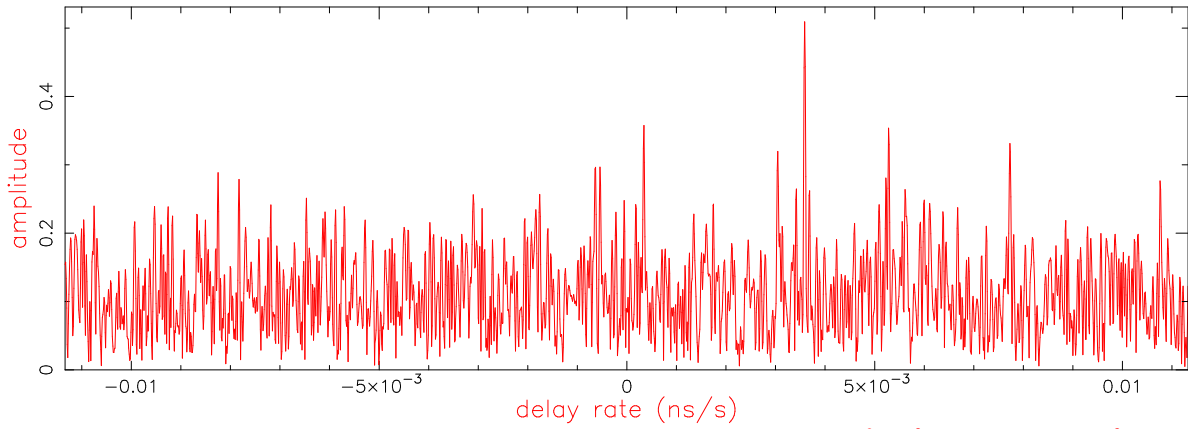
ph/seg (deg)	92.7	Theor.	178.8	Search (2048X8)	0.465	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	383.2		312.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		10.4	Inc. seg. avg.	0.366	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.6		18.2	Inc. frq. avg.	0.509	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

b: az 88.2 el 20.4 pa -44.0 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10258.837 2393.250 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bP.W.73.0QR0YU

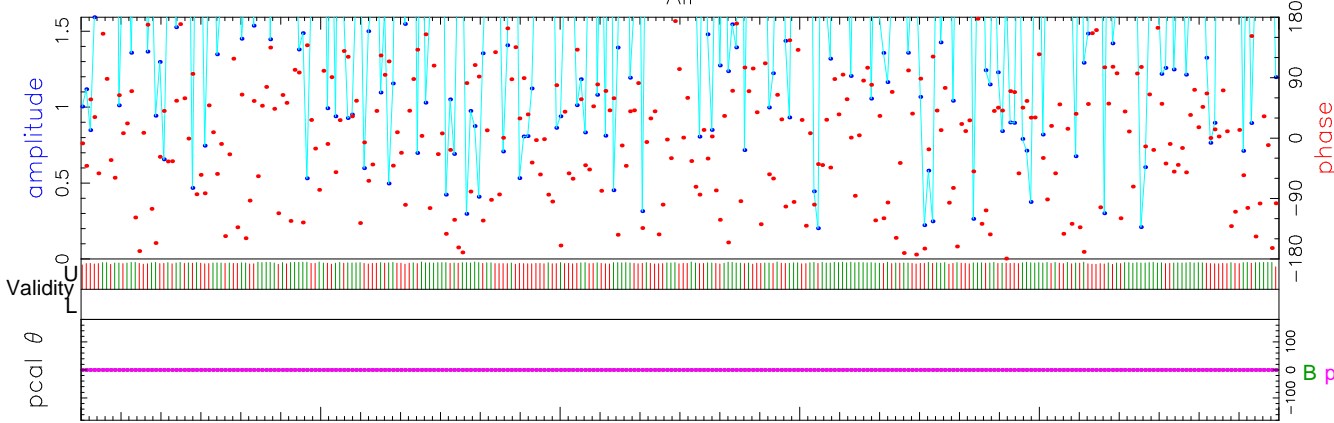
Fringe quality 0

SNR 5.9  
Int time 285.670  
Amp 0.531  
Phase -325.4  
PFD 4.0e-01  
Delays (us)  
SBD -0.335425  
MBD 0.000005  
Fringe rate (Hz)  
0.308982  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163632  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
11.2  
0.5  
470.0  
U/L 586/0  
B 0  
p 3000  
B:p 0:0  
B:p 0:0  
B 1000  
p 1000  
B W00UL  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.40796616740E+03	Apriori delay (usec)	2.40830159254E+03	Resid mbdelay (usec)	4.80119E-06	+/-	2.9E-03
Sband delay (usec)	2.40796616754E+03	Apriori clock (usec)	-1.1404653E+01	Resid sbdelay (usec)	-3.35425E-01	+/-	2.9E-03
Phase delay (usec)	2.40830159290E+03	Apriori clockrate (us/s)	-1.8900001E-07	Resid phdelay (usec)	3.62073E-07	+/-	6.3E-07
Delay rate (us/s)	-1.84378155792E+00	Apriori rate (us/s)	-1.84378514489E+00	Resid rate (us/s)	3.58697E-06	+/-	3.6E-09
Total phase (deg)	-260.2	Apriori accel (us/s/s)	-6.29159812157E-06	Resid phase (deg)	-325.4	+/-	19.5

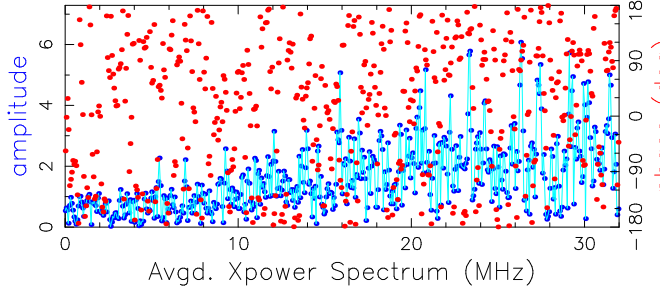
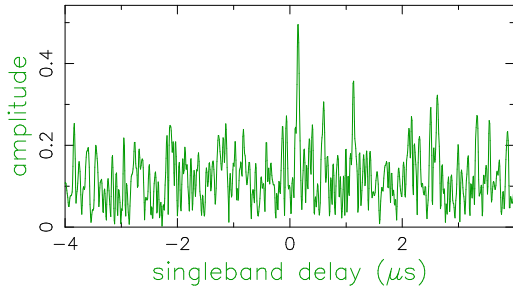
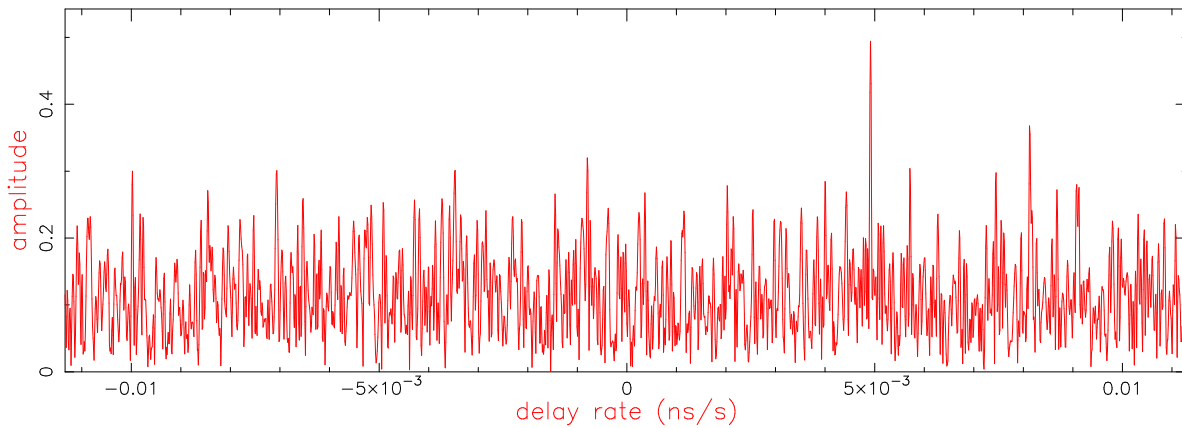
ph/seg (deg)	88.5	Theor.	166.7	Amplitude	0.531 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	345.9	Search (2048X8)	0.508	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.392	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.523	Inc. frq. avg.	0.523	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10989.888 1574.831 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bp.W.8.0QR0YU

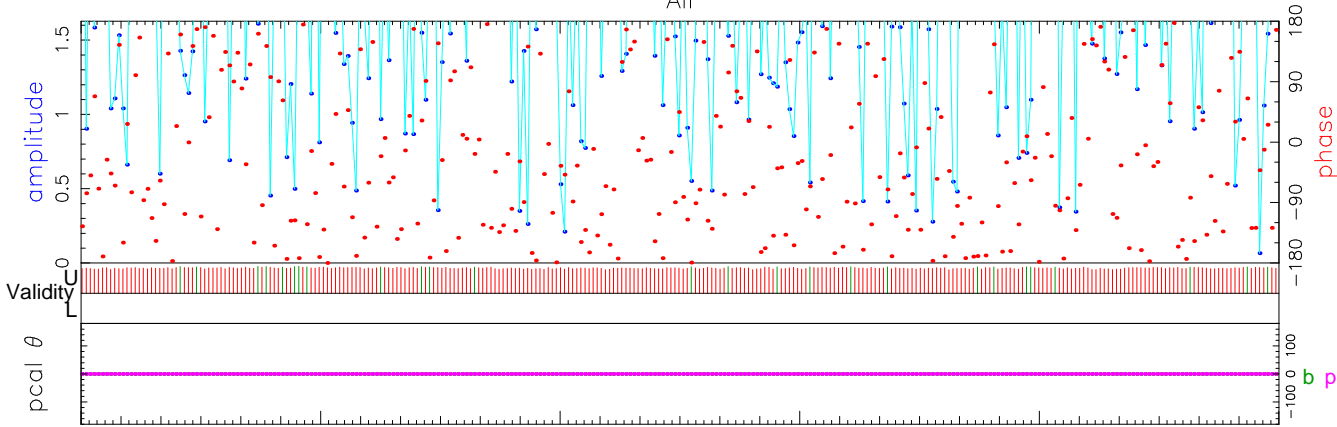
Fringe quality 0

SNR 5.7  
Int time 275.305  
Amp 0.543  
Phase 54.3  
PFD 8.0e-01  
Delays (us)  
SBD 0.144684  
MBD 0.000005  
Fringe rate (Hz)  
0.424176  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-132.5  
0.5  
531.5  
U/L 586/0  
b 3000  
p 3000  
b:p 0:0  
b:p 0:0  
b 1000  
p 1000  
b W00UR  
p W00UL

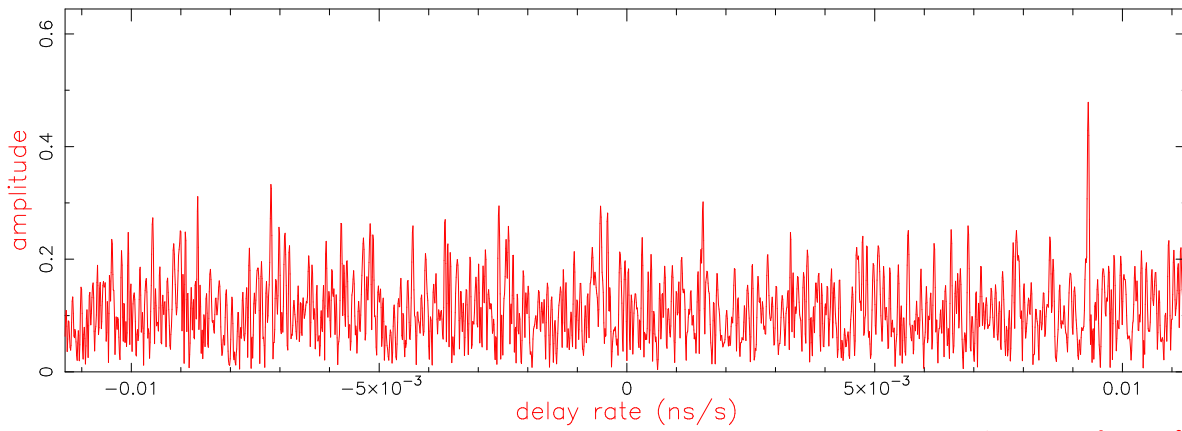
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.91140025252E+03	Apriori delay (usec)	-2.91154493496E+03	Resid mbdelay (usec)	4.95243E-06	+/-	3.0E-03
Sband delay (usec)	-2.91140025046E+03	Apriori clock (usec)	-1.5339180E+01	Resid sbdelay (usec)	1.44684E-01	+/-	3.0E-03
Phase delay (usec)	-2.91154493923E+03	Apriori clockrate (us/s)	2.3800000E-07	Resid phdelay (usec)	-4.27127E-06	+/-	6.5E-07
Delay rate (us/s)	-1.47553889260E-01	Apriori rate (us/s)	-1.47558813527E-01	Resid rate (us/s)	4.92427E-06	+/-	3.8E-09
Total phase (deg)	163.2	Apriori accel (us/s/s)	2.11137257319E-05	Resid phase (deg)	54.3	+/-	20.1

ph/seg (deg)	89.3	Theor.	172.4	Amplitude	0.543 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	361.5	Search (2048X8)	0.488	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.396	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.4	Inc. frq. avg.	0.527	Inc. frq. avg.	0.527	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

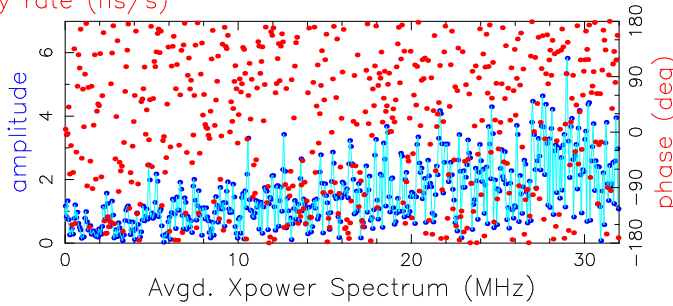
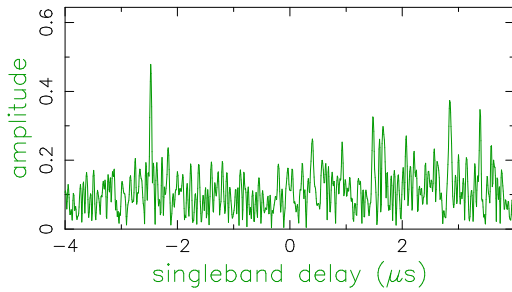
b: az 88.2 el 20.4 pa -44.0 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 907.562 2018.769 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bp.W.83.0QR0YU





Fringe quality 0

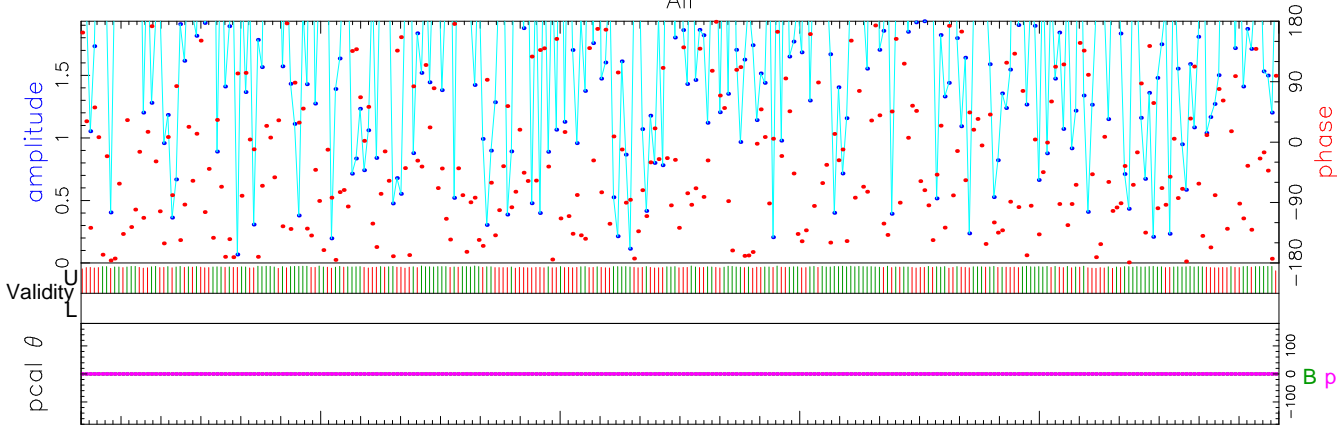
SNR 5.5  
Int time 285.670  
Amp 0.644  
Phase -34.6  
PFD 9.7e-01  
Delays (us)  
SBD -2.475312  
MBD 0.000005  
Fringe rate (Hz)  
0.803123  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163640  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-92.0  
0.6  
196.1  
U/L 586/0  
B 0  
p 3000  
B:p 0:0  
B:p 0:0  
B 1000  
p 1000  
B W00UR  
p W00UL

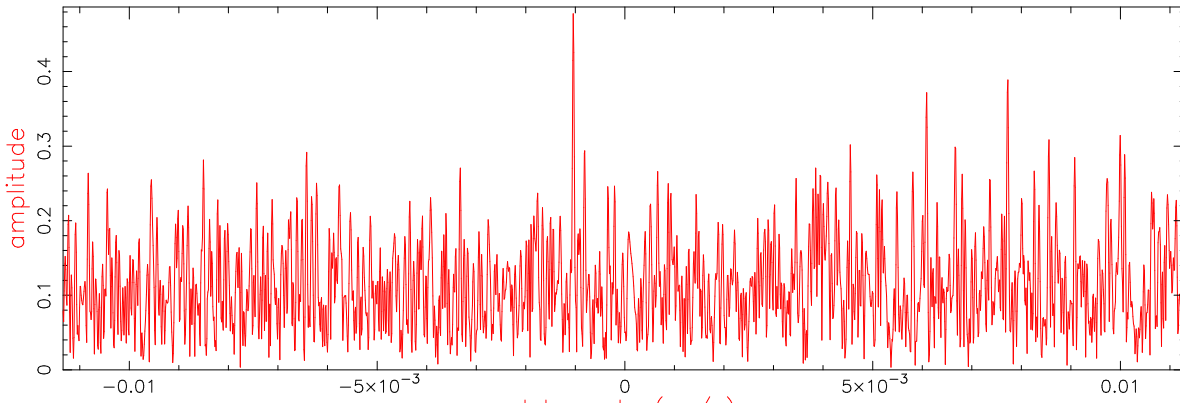
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.40582627990E+03	Apriori delay (usec)	2.40830159254E+03	Resid mbdelay (usec)	4.76529E-06	+/-	3.1E-03
Sband delay (usec)	2.40582628004E+03	Apriori clock (usec)	-1.1404653E+01	Resid sbdelay (usec)	-2.47531E+00	+/-	3.1E-03
Phase delay (usec)	2.40830158957E+03	Apriori clockrate (us/s)	-1.8900001E-07	Resid phdelay (usec)	-2.96603E-06	+/-	6.7E-07
Delay rate (us/s)	-1.84377582142E+00	Apriori rate (us/s)	-1.84378514489E+00	Resid rate (us/s)	9.32346E-06	+/-	3.8E-09
Total phase (deg)	-329.4	Apriori accel (us/s/s)	-6.29159812157E-06	Resid phase (deg)	-34.6	+/-	20.7

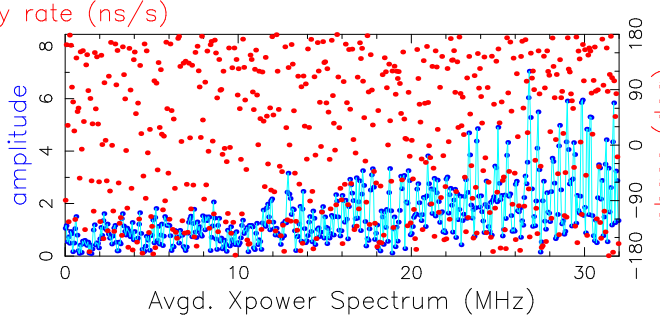
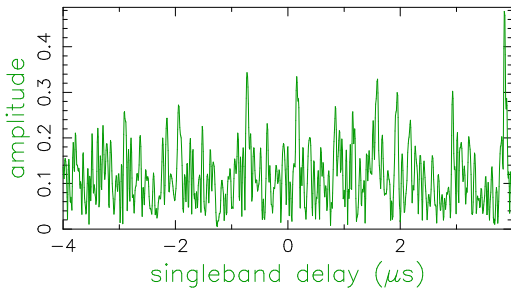
ph/seg (deg)	89.9	Theor.	177.0	Amplitude	0.644 +/- 0.116	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	360.2	Search (2048X8)	0.478	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.442	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.633	Inc. frq. avg.	0.633	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10989.888 1574.831 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Bp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Bp.W.85.0QR0YU

Fringe quality 0



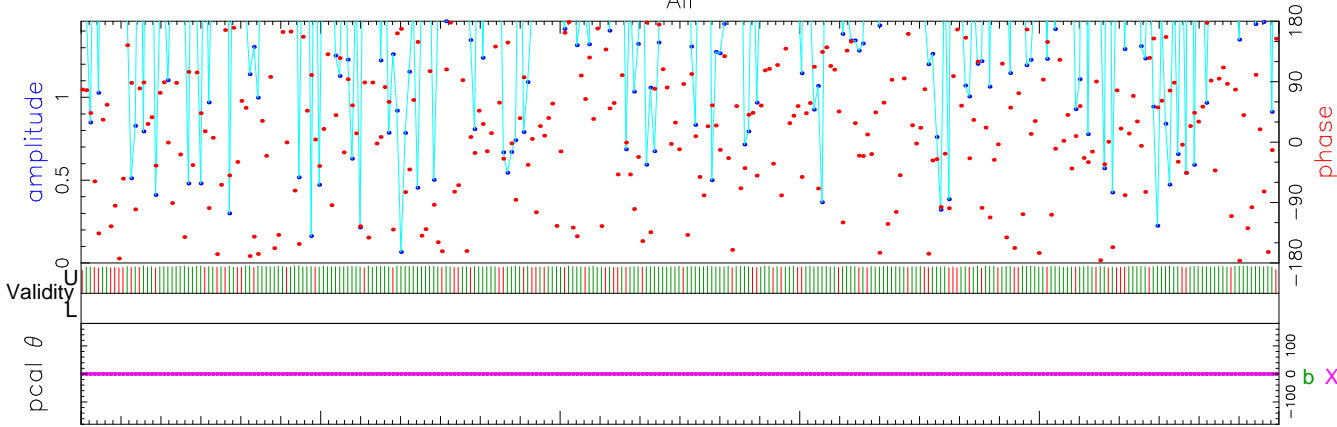
SNR 5.6  
Int time 288.322  
Amp 0.487  
Phase 187.5  
PFD 8.9e-01  
Delays (us)  
SBD 3.854655  
MBD -0.000007  
Fringe rate (Hz)  
-0.089700  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
44.8  
0.5  
1006.4  
U/L 586/0  
b 3000  
X 0  
b:X 0:0  
b:X 0:0  
b 1000  
X 1000  
b W00UL  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

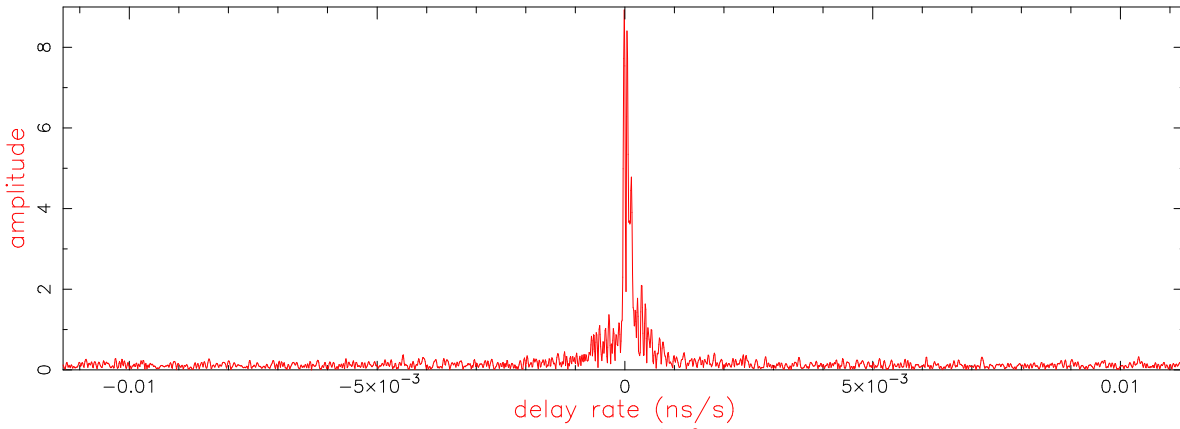
Group delay (usec)(sbd)	-3.69903062509E+03	Apriori delay (usec)	-3.70288527769E+03	Resid mbdelay (usec)	-7.21527E-06	+/-	3.1E-03
Sband delay (usec)	-3.69903062319E+03	Apriori clock (usec)	-9.1023703E+00	Resid sbdelay (usec)	3.85465E+00	+/-	3.1E-03
Phase delay (usec)	-3.70288527625E+03	Apriori clockrate (us/s)	-3.9700001E-07	Resid phdelay (usec)	1.44395E-06	+/-	6.6E-07
Delay rate (us/s)	1.62845249965E+00	Apriori rate (us/s)	1.62845354098E+00	Resid rate (us/s)	-1.04133E-06	+/-	3.8E-09
Total phase (deg)	252.2	Apriori accel (us/s/s)	1.65495705657E-05	Resid phase (deg)	187.5	+/-	20.4

ph/seg (deg)	92.3	Theor.	174.2	Amplitude	0.487 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	378.1	Search (2048X8)	0.473	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.349	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.5	Inc. frq. avg.	0.472	Inc. frq. avg.	0.472	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

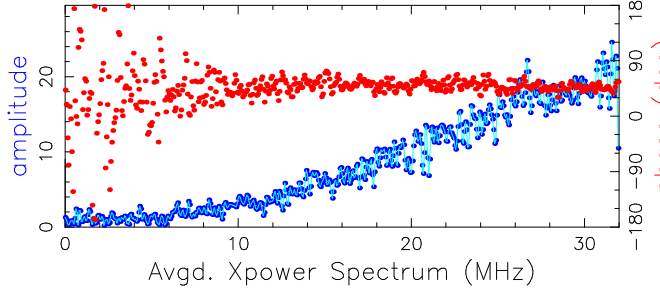
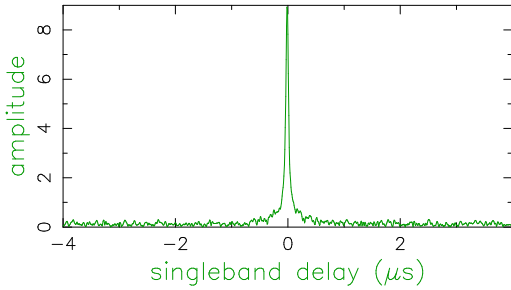
b: az 88.2 el 20.4 pa -44.0 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -9692.132 -407.459 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bX.W.17.0QR0YU

Fringe quality 7



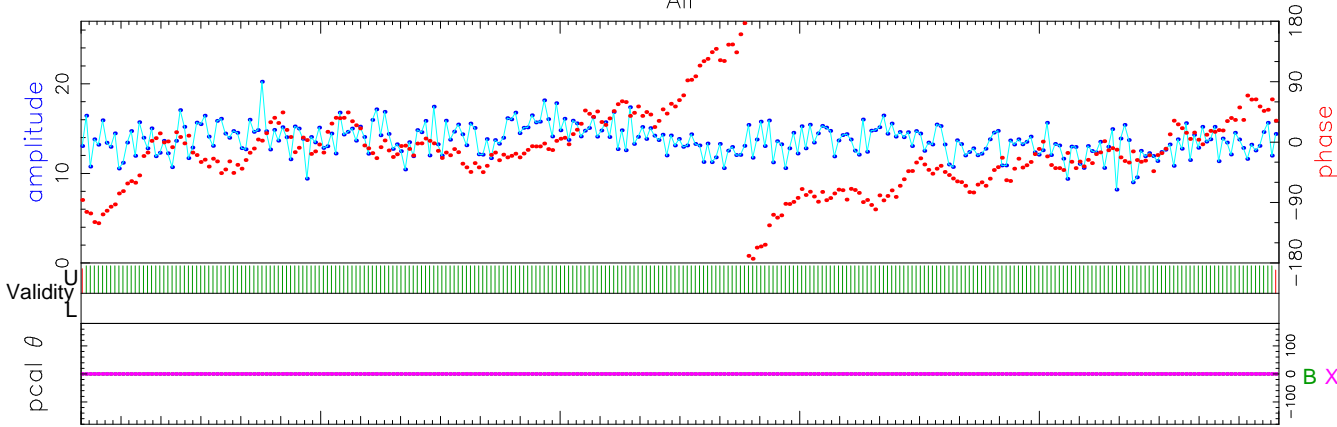
SNR 106.5  
 Int time 299.764  
 Amp 8.998  
 Phase -235.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.012588  
 MBD -0.000007  
 Fringe rate (Hz)  
 -0.000809  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163634  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -16.2  
 8.9  
 511.4  
 U/L 586/0  
 B 0  
 X 0  
 B:X 0:0  
 B:X 0:0  
 B 1000  
 X 1000  
 B W00UL  
 X W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp

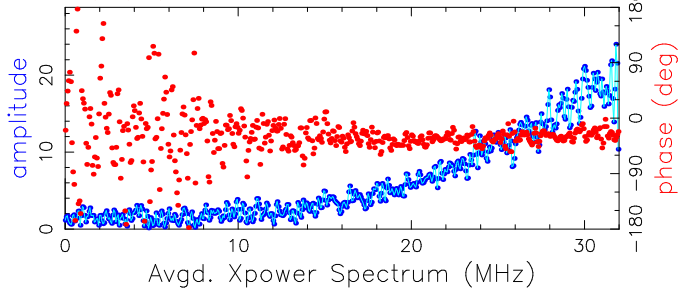
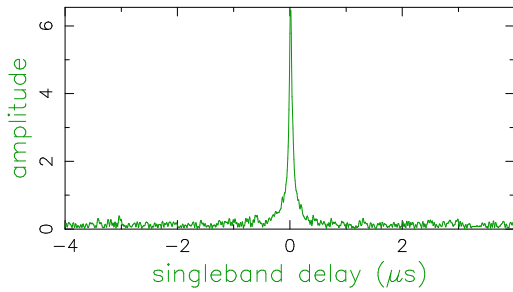
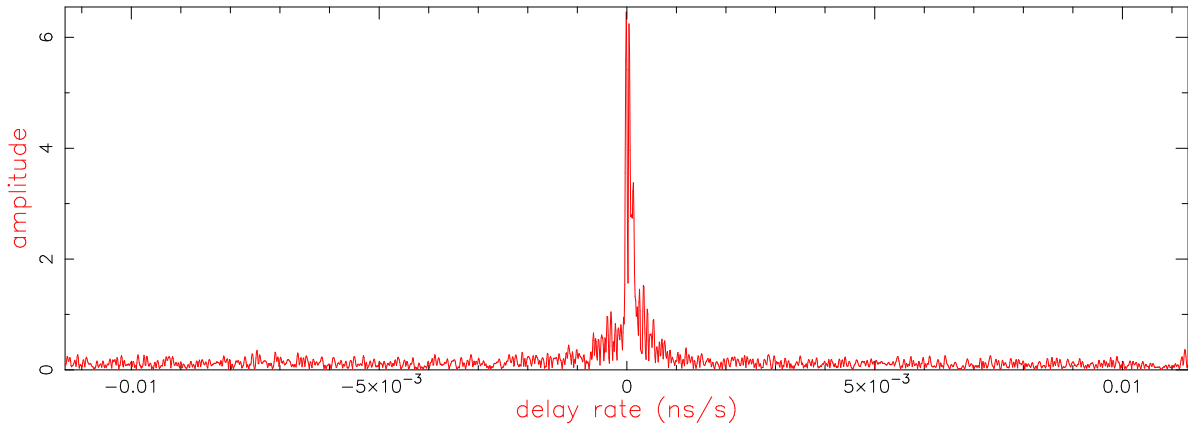
Chan ids  
 Chan ids

Group delay (usec)(sbd)	1.61694866366E+03	Apriori delay (usec)	1.61696124981E+03	Resid mbdelay (usec)	-6.50458E-06	+/- 1.6E-04
Sband delay (usec)	1.61694866181E+03	Apriori clock (usec)	-5.1678429E+00	Resid sbdelay (usec)	-1.25880E-02	+/- 1.6E-04
Phase delay (usec)	1.61696124928E+03	Apriori clockrate (us/s)	-8.2399999E-07	Resid phdelay (usec)	-5.23788E-07	+/- 3.5E-08
Delay rate (us/s)	-6.77727997685E-02	Apriori rate (us/s)	-6.77727903766E-02	Resid rate (us/s)	-9.39193E-09	+/- 2.0E-10
Total phase (deg)	-214.9	Apriori accel (us/s/s)	-1.08557532878E-05	Resid phase (deg)	-235.9	+/- 1.1

ph/seg (deg)	RMS 56.3	Theor. 9.2	Amplitude Search (2048X8) 8.998 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	55.8	16.1	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.5	Inc. seg. avg. 13.546	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.8	0.9	Inc. frq. avg. 8.927	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

B: az 247.2 el 37.9 pa 37.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 390.194 -851.396 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BX.W.27.0QR0YU



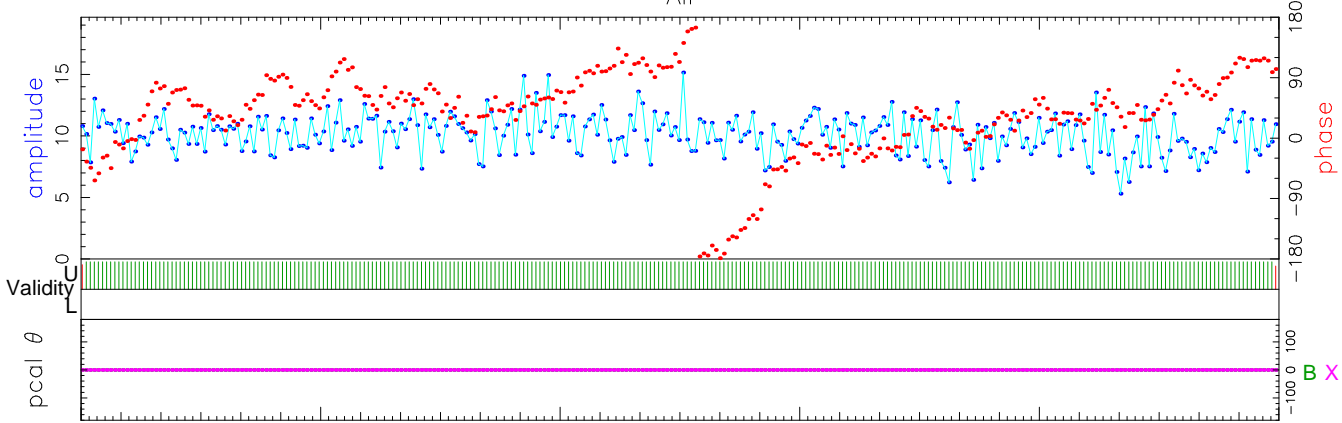
Fringe quality 9

SNR 77.5  
Int time 299.764  
Amp 6.549  
Phase 224.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.011636  
MBD -0.000007  
Fringe rate (Hz)  
-0.000804  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163635  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
48.2  
6.5  
514.5  
U/L 586/0  
B 0  
X 0  
B:X 0:0  
B:X 0:0  
B 1000  
X 1000  
B W00UR  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp

Chan ids  
Chan ids

Group delay (usec)(sbd)	1.61697288055E+03	Apriori delay (usec)	1.61696124981E+03	Resid mbdelay (usec)	-7.16523E-06	+/- 2.2E-04
Sband delay (usec)	1.61697288531E+03	Apriori clock (usec)	-5.1678429E+00	Resid sbdelay (usec)	1.16355E-02	+/- 2.2E-04
Phase delay (usec)	1.61696125136E+03	Apriori clockrate (us/s)	-8.2399999E-07	Resid phdelay (usec)	1.55490E-06	+/- 4.8E-08
Delay rate (us/s)	-6.77727997083E-02	Apriori rate (us/s)	-6.77727903766E-02	Resid rate (us/s)	-9.33170E-09	+/- 2.8E-10
Total phase (deg)	245.5	Apriori accel (us/s/s)	-1.08557532878E-05	Resid phase (deg)	224.5	+/- 1.5

ph/seg (deg)	57.3	Theor.	12.7	Amplitude	6.549 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	59.9			Search (2048X8)	6.437	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0			Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.4			Inc. seg. avg.	9.898	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	6.460	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

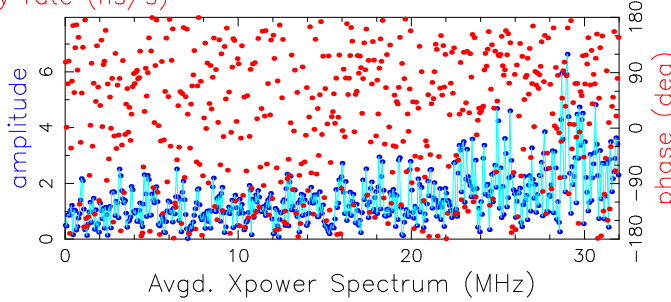
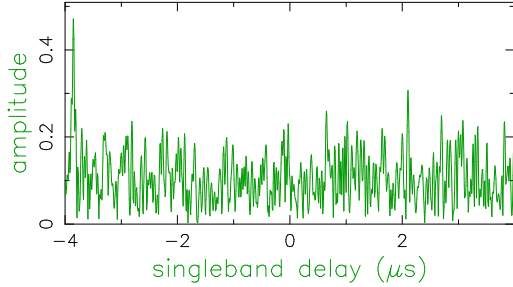
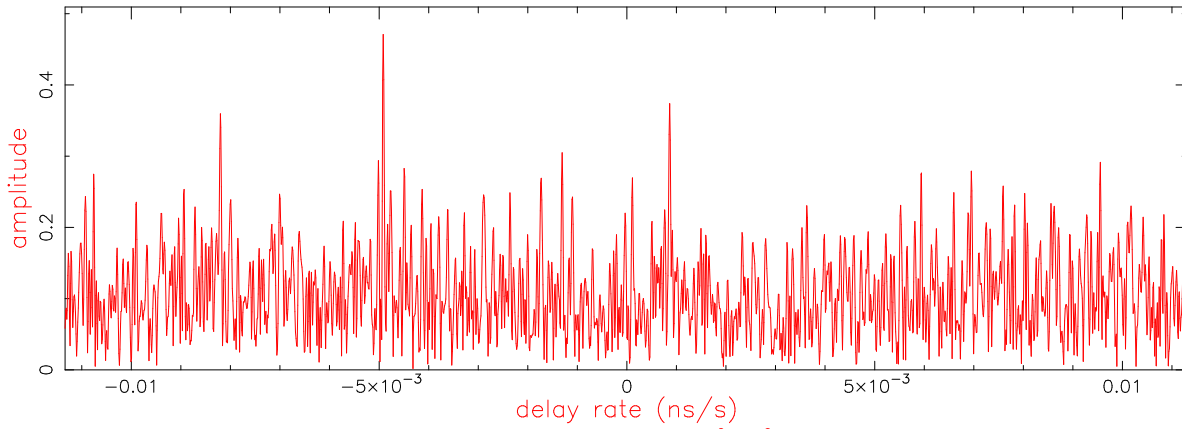
B: az 247.2 el 37.9 pa 37.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 390.194 -851.396 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BX.W.37.0QR0YU

Fringe quality 0

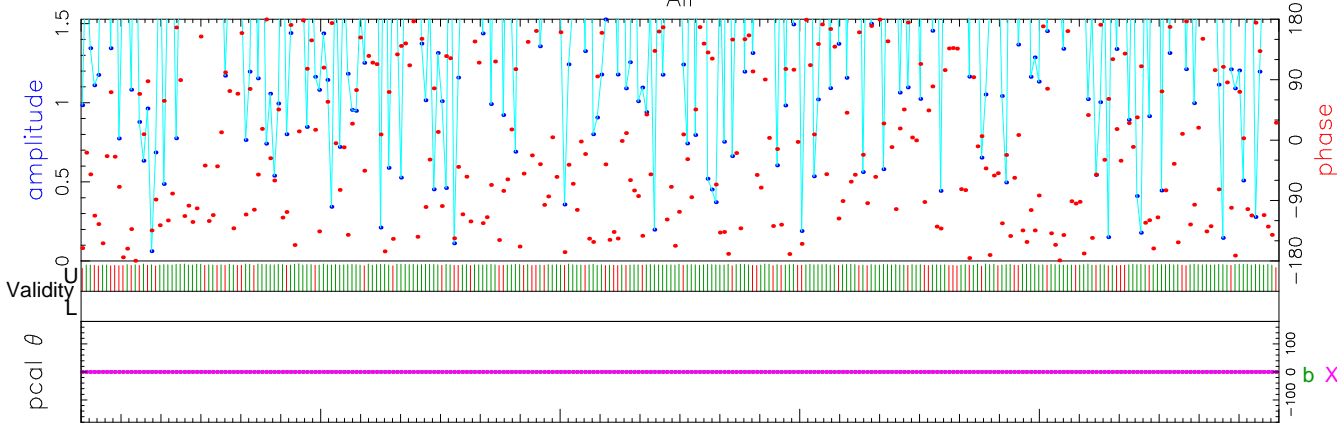
SNR 5.5  
Int time 288.316  
Amp 0.509  
Phase -119.7  
PFD 1.0e+00  
Delays (us)  
SBD -3.851314  
MBD -0.000005  
Fringe rate (Hz)  
-0.424205  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163635  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-131.2  
0.5  
20.0  
U/L 586/0  
b 3000  
X 0  
b:X 0:0  
b:X 0:0  
b 1000  
X 1000  
b W00UR  
X W00UR

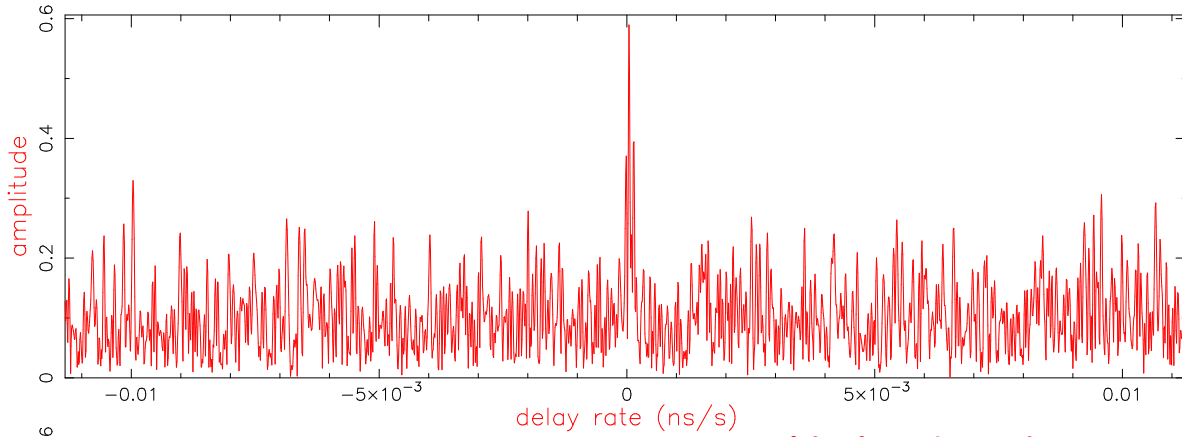
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.70673659387E+03	Apriori delay (usec)	-3.70288527769E+03	Resid mbdelay (usec)	-4.73087E-06	+/-	3.2E-03
Sband delay (usec)	-3.70673659119E+03	Apriori clock (usec)	-9.1023703E+00	Resid sbdelay (usec)	-3.85131E+00	+/-	3.2E-03
Phase delay (usec)	-3.70288528192E+03	Apriori clockrate (us/s)	-3.9700001E-07	Resid phdelay (usec)	-4.23223E-06	+/-	6.8E-07
Delay rate (us/s)	1.62844861638E+00	Apriori rate (us/s)	1.62845354098E+00	Resid rate (us/s)	-4.92460E-06	+/-	3.9E-09
Total phase (deg)	-55.0	Apriori accel (us/s/s)	1.65495705657E-05	Resid phase (deg)	-119.7	+/-	21.0

ph/seg (deg)	91.3	Theor.	179.5	Amplitude	0.509 +/- 0.093	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	370.4	Search (2048X8)	0.464	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.343	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.501	Inc. frq. avg.	0.501	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -9692.132 -407.459 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bX...0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bX.W.38.0QR0YU

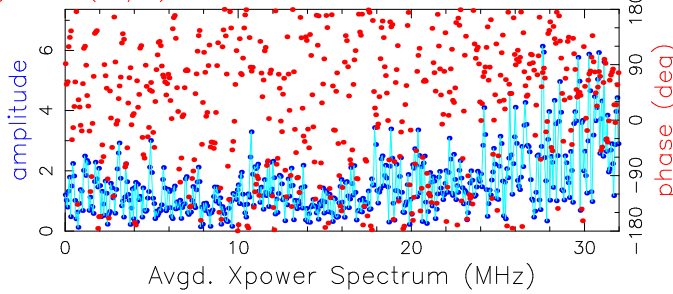
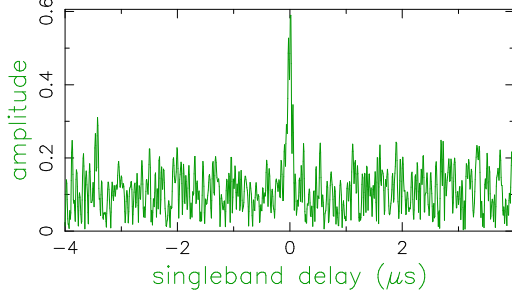




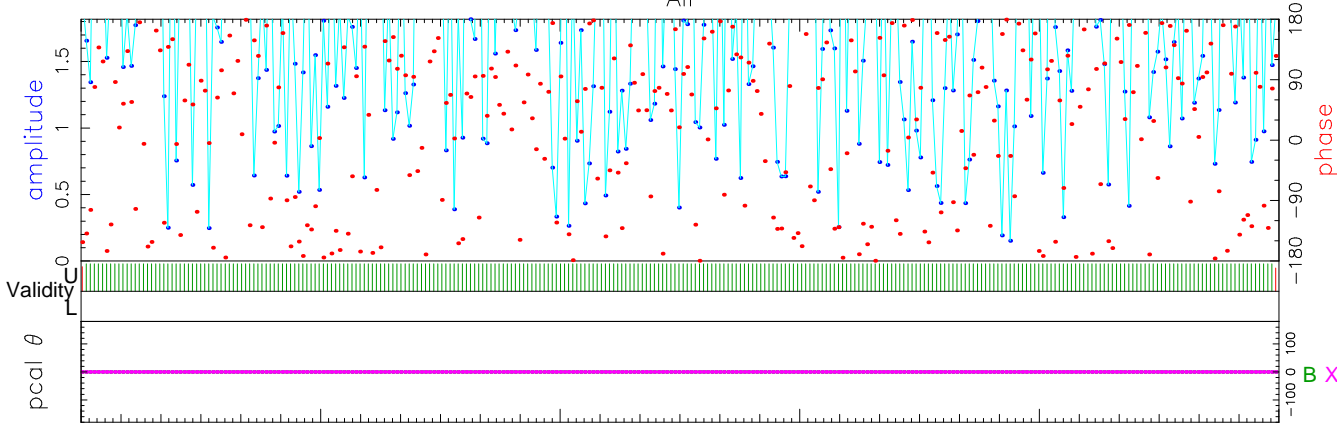
Fringe quality 0

SNR 7.2  
Int time 299.764  
Amp 0.606  
Phase 324.9  
PFD 1.1e-04  
Delays (us)  
SBD 0.011842  
MBD -0.000001  
Fringe rate (Hz) 0.003697  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
138.9  
0.6  
514.5  
U/L 586/0  
B 0  
X 0  
B:X 0:0  
B:X 0:0  
B 1000  
X 1000  
B W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp

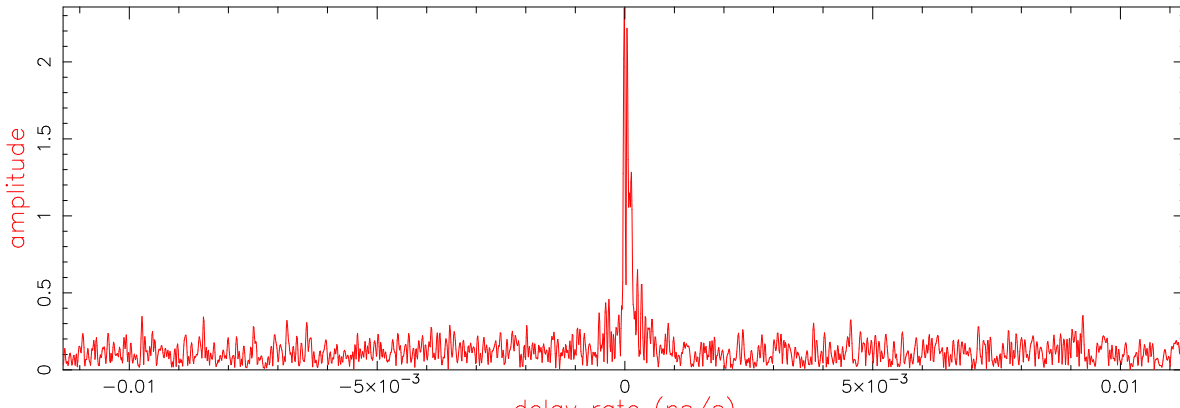
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.61697309638E+03	Apriori delay (usec)	1.61696124981E+03	Resid mbdelay (usec)	-6.12994E-07	+/- 2.4E-03
Sband delay (usec)	1.61697309131E+03	Apriori clock (usec)	-5.1678429E+00	Resid sbdelay (usec)	1.18415E-02	+/- 2.4E-03
Phase delay (usec)	1.61696125429E+03	Apriori clockrate (us/s)	-8.2399999E-07	Resid phdelay (usec)	4.48036E-06	+/- 5.2E-07
Delay rate (us/s)	-6.77727474628E-02	Apriori rate (us/s)	-6.77727903766E-02	Resid rate (us/s)	4.29138E-08	+/- 3.0E-09
Total phase (deg)	345.8	Apriori accel (us/s/s)	-1.08557532878E-05	Resid phase (deg)	324.9	+/- 16.0

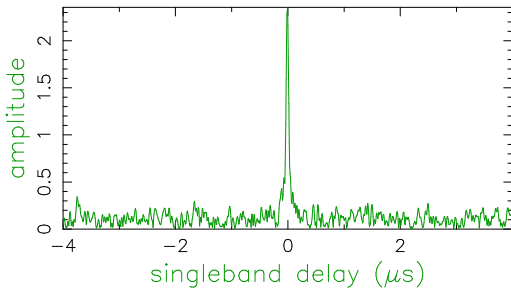
ph/seg (deg)	85.6	Theor.	136.7	Amplitude	0.606 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	259.7	Search (2048X8)	0.587	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-4.000	4.000	
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.000	0.000
amp/frq (%)	2.7	Inc. seg. avg.	0.488	Sample rate(MSamp/s): 64		ion window (TEC)	-0.011	0.011	
		Inc. frq. avg.	0.584	Data rate(Mb/s): 128		nlags: 512	t_cohere	infinite	

B: az 247.2 el 37.9 pa 37.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 390.194 -851.396 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BX.W.47.0QR0YU

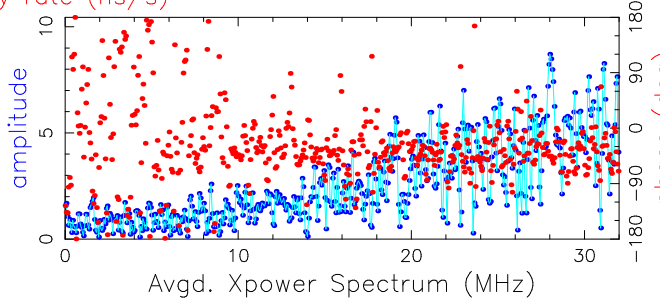
Fringe quality 9



SNR 27.9  
Int time 299.764  
Amp 2.356  
Phase -185.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.009683  
MBD -0.000005  
Fringe rate (Hz)  
-0.000855  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



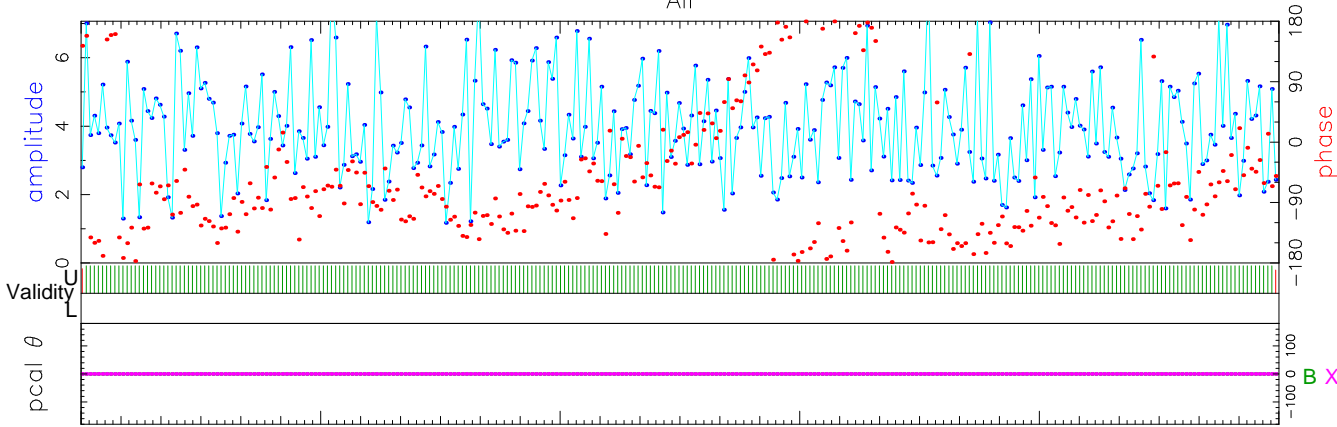
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-100.1  
2.3  
511.8  
U/L 586/0  
B 0  
X 0  
B:X 0:0  
B:X 0:0  
B 1000  
X 1000  
B W00UR  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.61695157174E+03	Apriori delay (usec)	1.61696124981E+03	Resid mbdelay (usec)	-4.99623E-06	+/- 6.2E-04
Sband delay (usec)	1.61695156681E+03	Apriori clock (usec)	-5.1678429E+00	Resid sbdelay (usec)	-9.68300E-03	+/- 6.2E-04
Phase delay (usec)	1.61696124658E+03	Apriori clockrate (us/s)	-8.2399999E-07	Resid phdelay (usec)	-3.22792E-06	+/- 1.3E-07
Delay rate (us/s)	-6.77728003042E-02	Apriori rate (us/s)	-6.77727903766E-02	Resid rate (us/s)	-9.92760E-09	+/- 7.6E-10
Total phase (deg)	-164.9	Apriori accel (us/s/s)	-1.08557532878E-05	Resid phase (deg)	-185.8	+/- 4.1

ph/seg (deg)	61.9	RMS	35.2	Theor.	Amplitude	2.356 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	91.6	61.9	35.2	Search (2048X8)	2.345		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	2.1	3.6	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.3	0.3	3.6	Inc. seg. avg.	3.345		Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
				Inc. frq. avg.	2.348		Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
							nlags: 512	t_cohere infinite
								ion window (TEC) 0.00 0.00

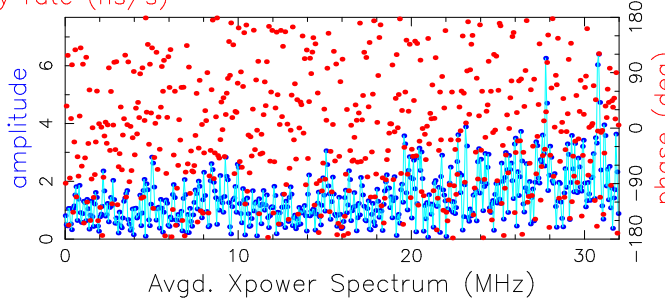
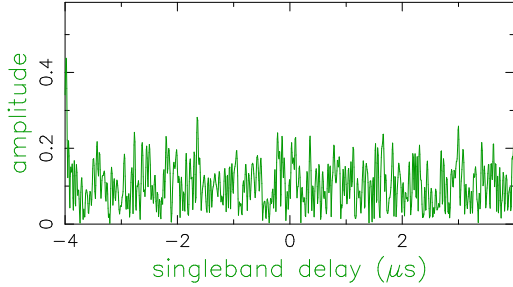
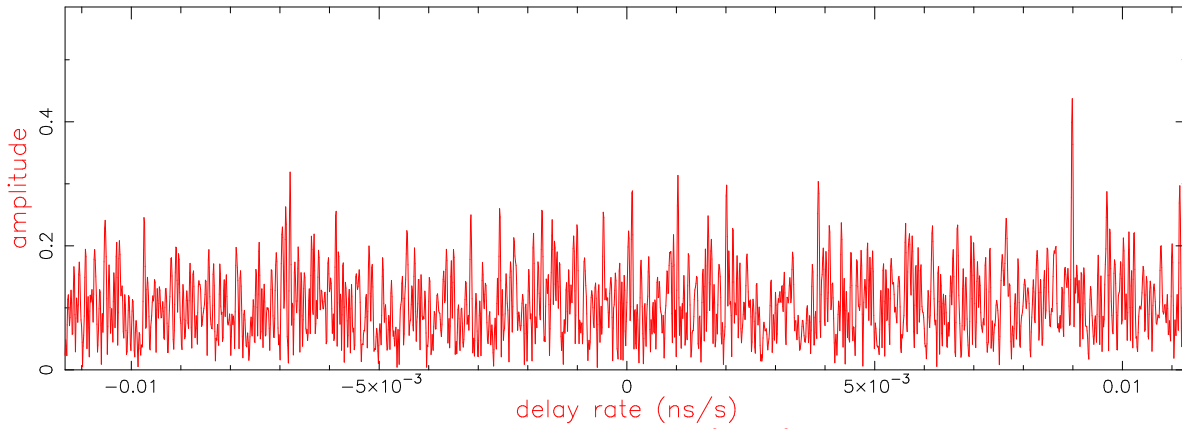
B: az 247.2 el 37.9 pa 37.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 390.194 -851.396 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BX.W.61.0QR0YU

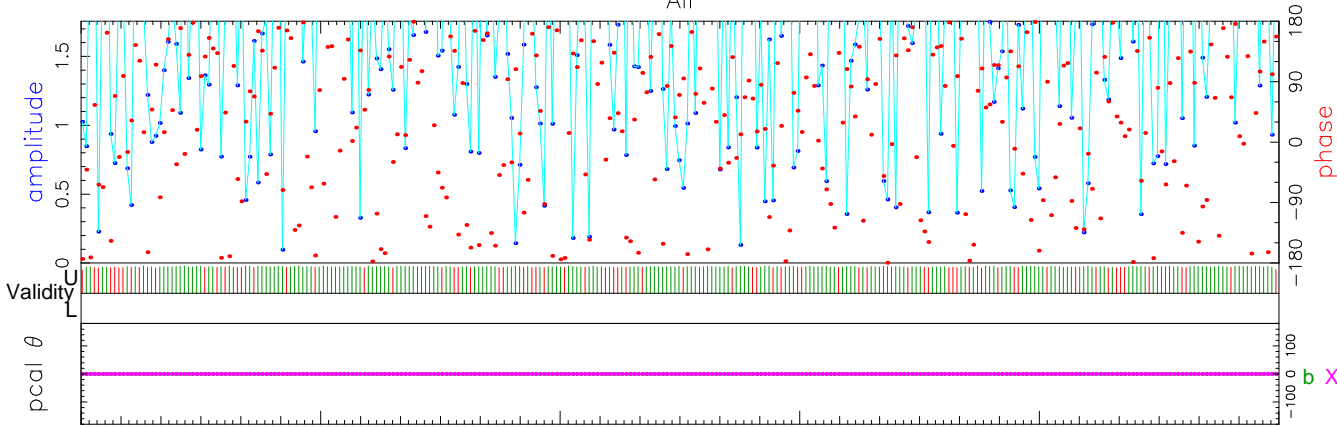
Fringe quality 0

SNR 5.2  
Int time 288.322  
Amp 0.585  
Phase -63.0  
PFD 1.0e+00  
Delays (us)  
SBD -3.980550  
MBD 0.000004  
Fringe rate (Hz)  
0.775718  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163637  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
120.7  
0.6  
3.5  
U/L 586/0  
b 3000  
X 0  
b:X 0:0  
b:X 0:0  
b 1000  
X 1000  
b W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.70686582255E+03	Apriori delay (usec)	-3.70288527769E+03	Resid mbdelay (usec)	4.37079E-06	+/-	3.3E-03
Sband delay (usec)	-3.70686582769E+03	Apriori clock (usec)	-9.1023703E+00	Resid sbdelay (usec)	-3.98055E+00	+/-	3.3E-03
Phase delay (usec)	-3.70288527380E+03	Apriori clockrate (us/s)	-3.9700001E-07	Resid phdelay (usec)	3.89384E-06	+/-	7.2E-07
Delay rate (us/s)	1.62846254630E+00	Apriori rate (us/s)	1.62845354098E+00	Resid rate (us/s)	9.00531E-06	+/-	4.1E-09
Total phase (deg)	-358.2	Apriori accel (us/s/s)	1.65495705657E-05	Resid phase (deg)	-63.0	+/-	22.2

ph/seg (deg)	RMS 91.6	Theor. 189.9	Amplitude 0.585 +/- 0.113	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	387.1	331.5	Search (2048X8) 0.433	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	11.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.6	19.4	Inc. seg. avg. 0.382	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.565	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

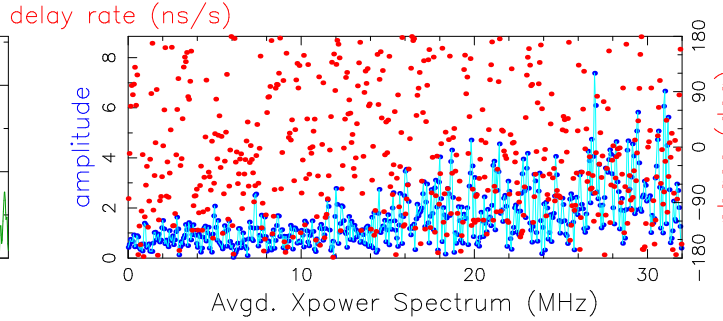
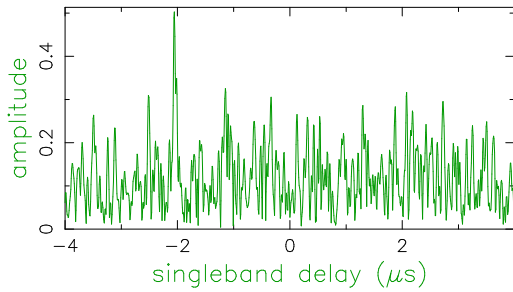
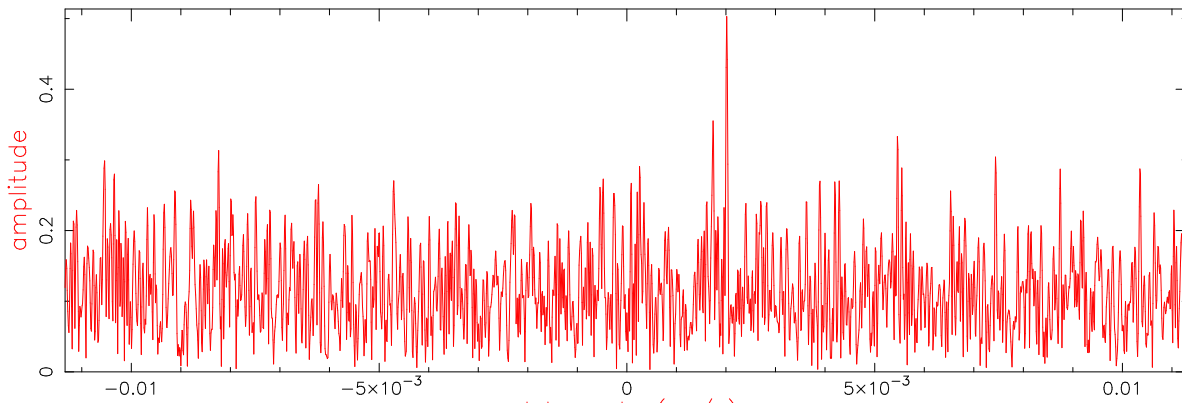
b: az 88.2 el 20.4 pa -44.0 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -9692.132 -407.459 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bX.W.62.0QR0YU

Fringe quality 0

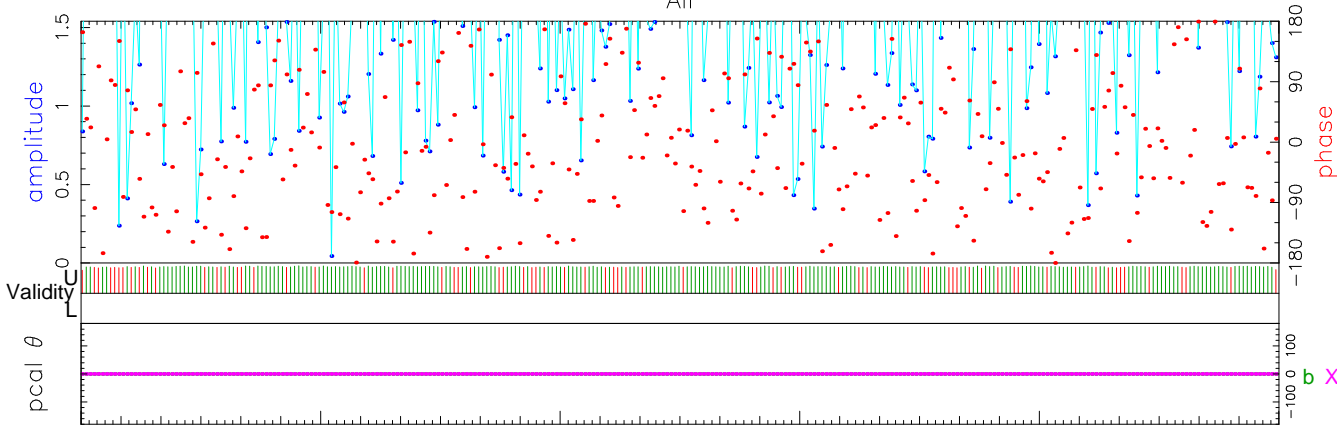
SNR 5.9  
Int time 288.316  
Amp 0.514  
Phase -150.1  
PFD 4.0e-01  
Delays (us)  
SBD -2.057225  
MBD 0.000007  
Fringe rate (Hz)  
0.173792  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-32.6  
0.5  
249.7  
U/L 586/0  
b 3000  
X 0  
b:X 0:0  
b:X 0:0  
b 1000  
X 1000  
b W00UR  
X W00UL

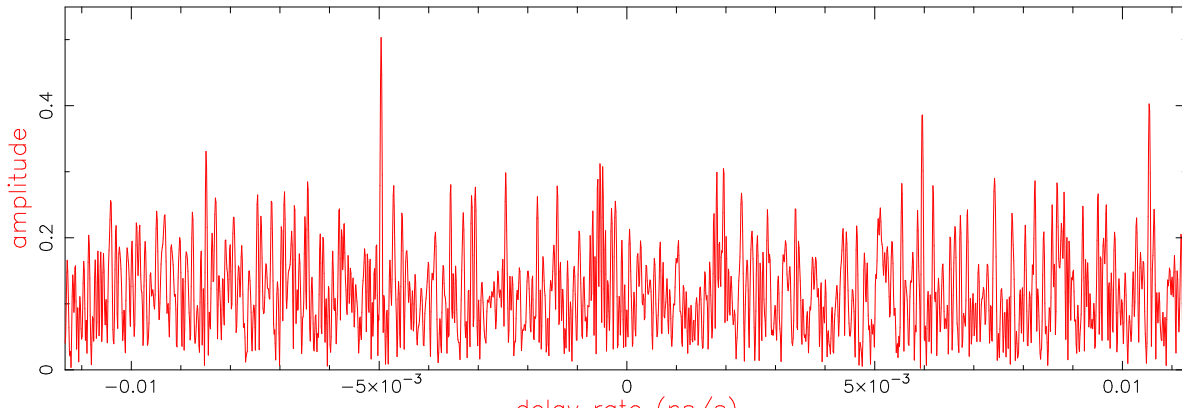
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.70494250722E+03	Apriori delay (usec)	-3.70288527769E+03	Resid mbdelay (usec)	6.67321E-06	+/-	2.9E-03
Sband delay (usec)	-3.70494250219E+03	Apriori clock (usec)	-9.1023703E+00	Resid sbdelay (usec)	-2.05722E+00	+/-	2.9E-03
Phase delay (usec)	-3.70288527874E+03	Apriori clockrate (us/s)	-3.9700001E-07	Resid phdelay (usec)	-1.05150E-06	+/-	6.3E-07
Delay rate (us/s)	1.6284555854E+00	Apriori rate (us/s)	1.62845354098E+00	Resid rate (us/s)	2.01756E-06	+/-	3.6E-09
Total phase (deg)	-85.3	Apriori accel (us/s/s)	1.65495705657E-05	Resid phase (deg)	-150.1	+/-	19.5

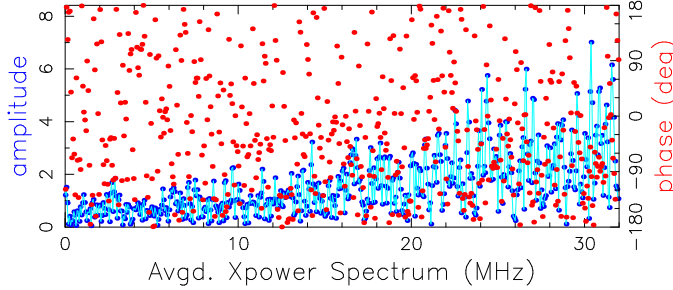
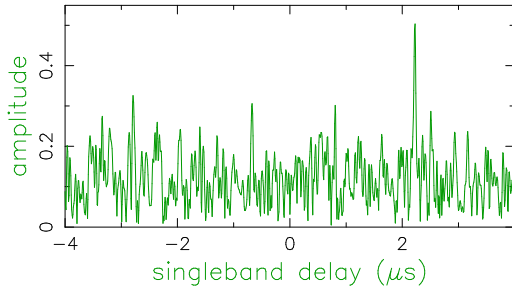
ph/seg (deg)	92.1	Theor.	166.7	Amplitude	0.514 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	357.8	Search (2048X8)	0.497	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.387	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.8	Inc. frq. avg.	0.502	Inc. frq. avg.	0.502	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -9692.132 -407.459 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bX.W.79.0QR0YU



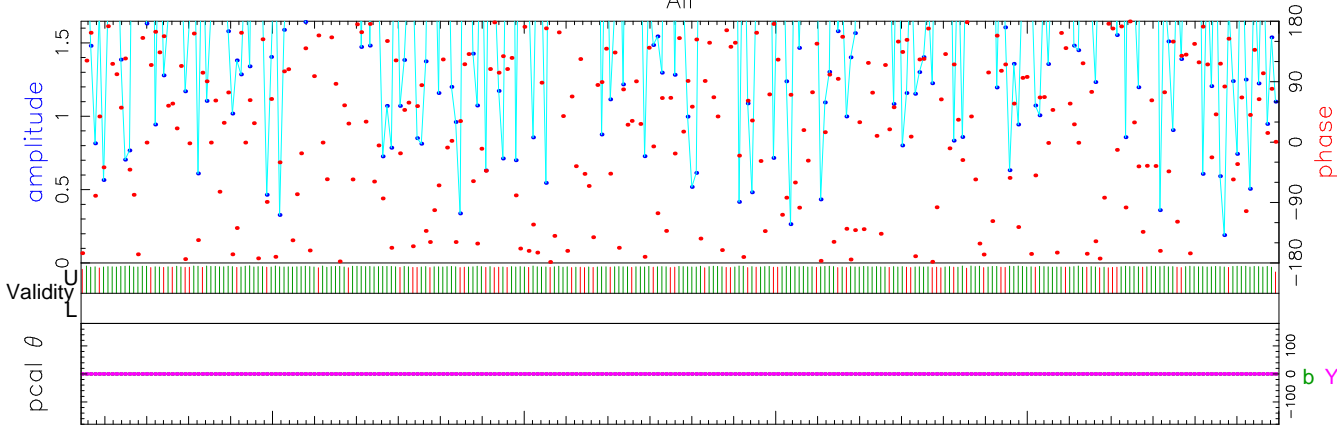
Fringe quality 0  
SNR 5.7  
Int time 274.626  
Amp 0.549  
Phase 13.6  
PFD 6.8e-01  
Delays (us)  
SBD 2.224100  
MBD -0.000004  
Fringe rate (Hz)  
-0.428240  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163633  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
126.7  
0.5  
797.7  
U/L 558/0  
b 3000  
Y 0  
b:Y 0:0  
b:Y 0:0  
b 1000  
Y 1000  
b W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.12230198121E+03	Apriori delay (usec)	-8.12452608509E+03	Resid mbdelay (usec)	-4.38427E-06	+/-	3.0E-03
Sband delay (usec)	-8.12230198509E+03	Apriori clock (usec)	8.9446554E+00	Resid sbdelay (usec)	2.22410E+00	+/-	3.0E-03
Phase delay (usec)	-8.12452608101E+03	Apriori clockrate (us/s)	1.8999998E-07	Resid phdelay (usec)	4.08504E-06	+/-	6.4E-07
Delay rate (us/s)	1.69909726258E+00	Apriori rate (us/s)	1.69910223402E+00	Resid rate (us/s)	-4.97144E-06	+/-	3.9E-09
Total phase (deg)	24.4	Apriori accel (us/s/s)	4.62451310326E-05	Resid phase (deg)	13.6	+/-	20.0

ph/seg (deg)	90.5	Theor.	166.6	Amplitude	0.549 +/- 0.096	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	356.3	Search (2048X8)	0.500	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.418	Inc. frq. avg.	0.537	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7	Inc. frq. avg.	0.537			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

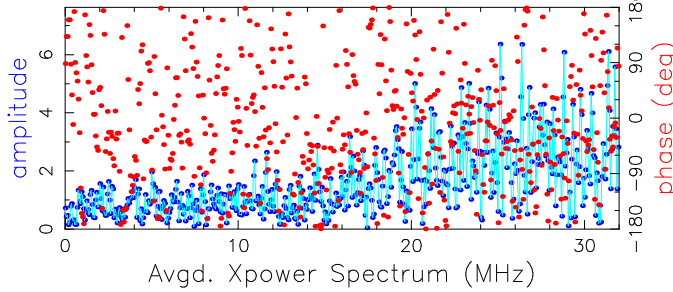
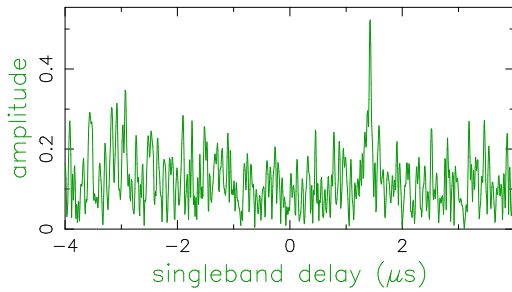
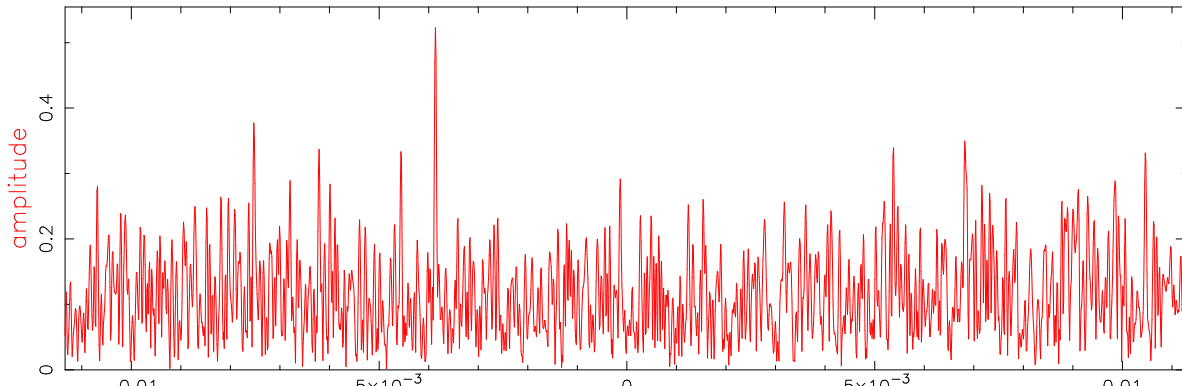
b: az 88.2 el 20.4 pa -44.0 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10075.155 1914.760 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bY.W.21.0QR0YU



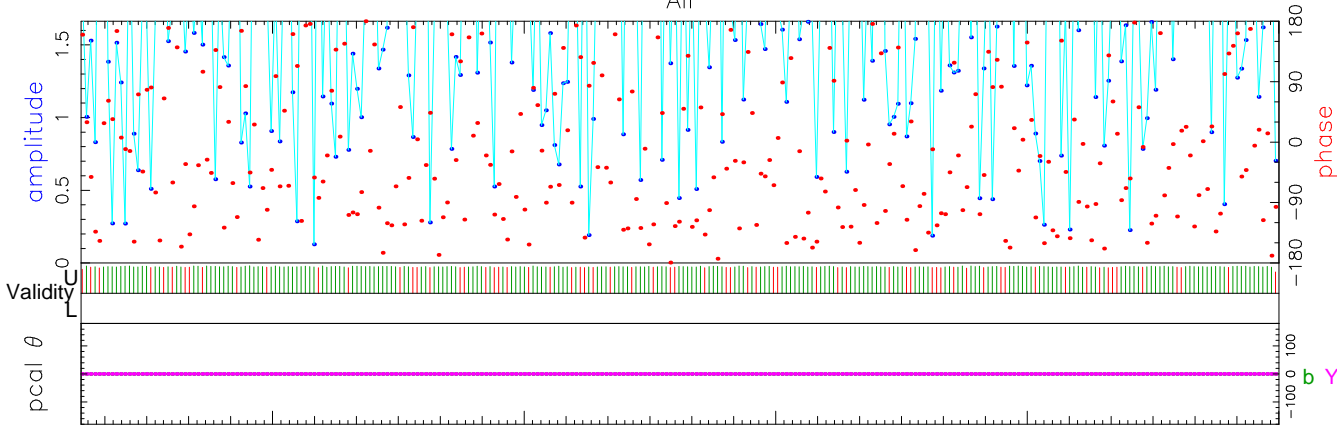
Fringe quality 0

SNR 6.0  
Int time 274.621  
Amp 0.554  
Phase 133.3  
PFD 2.4e-01  
Delays (us)  
SBD 1.426695  
MBD -0.000005  
Fringe rate (Hz)  
-0.333368  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163636  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



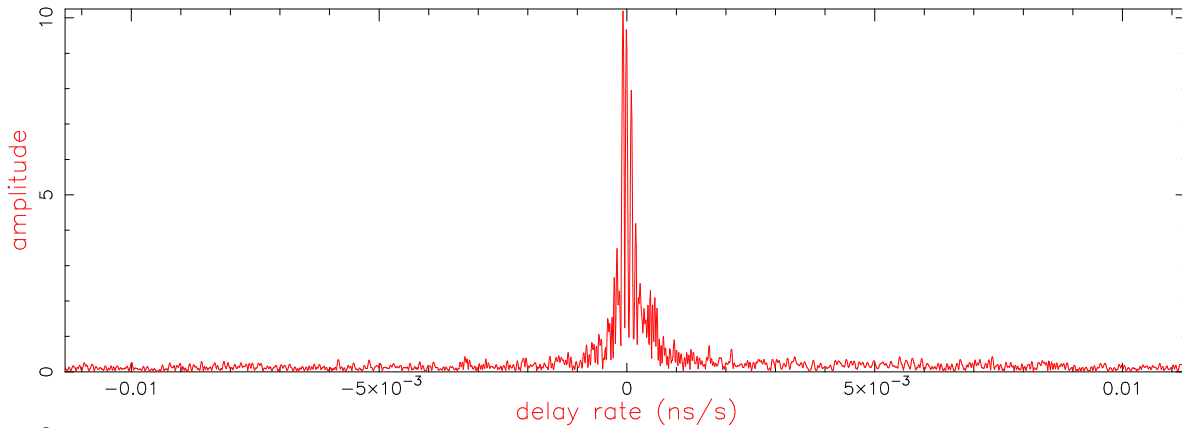
86012.00  
-88.8  
0.5  
695.6  
U/L 558/0  
b 3000  
Y 0  
b:Y 0:0  
b:Y 0:0  
b 1000  
Y 1000  
b W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.12309939360E+03	Apriori delay (usec)	-8.12452608509E+03	Resid mbdelay (usec)	-4.78538E-06	+/-	2.9E-03
Sband delay (usec)	-8.12309938959E+03	Apriori clock (usec)	8.9446554E+00	Resid sbdelay (usec)	1.42670E+00	+/-	2.9E-03
Phase delay (usec)	-8.12452608796E+03	Apriori clockrate (us/s)	1.8999998E-07	Resid phdelay (usec)	-2.86517E-06	+/-	6.2E-07
Delay rate (us/s)	1.69909836395E+00	Apriori rate (us/s)	1.69910223402E+00	Resid rate (us/s)	-3.87008E-06	+/-	3.7E-09
Total phase (deg)	144.1	Apriori accel (us/s/s)	4.62451310326E-05	Resid phase (deg)	133.3	+/-	19.1

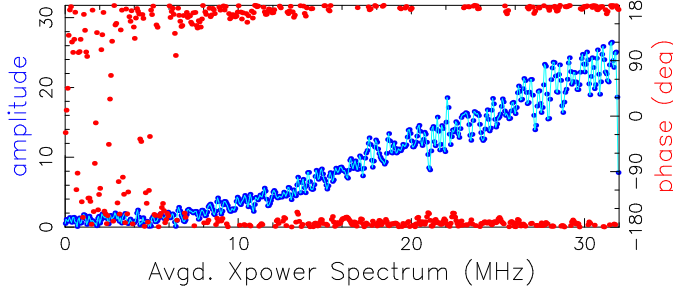
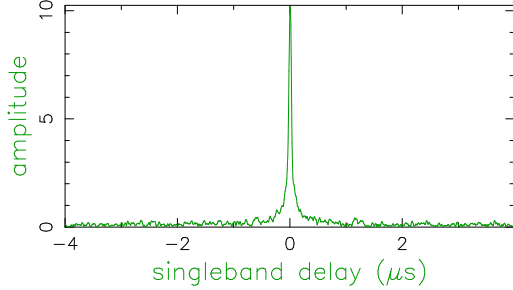
ph/seg (deg)	RMS 89.0	Theor. 159.9	Amplitude 0.554 +/- 0.093	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	329.7	279.1	Search (2048X8) 0.511	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	9.6	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	1.0	16.7	Inc. seg. avg. 0.417	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011	
			Inc. frq. avg. 0.541	Data rate(Mb/s): 128	ion window (TEC) 0.00 0.00	

b: az 88.2 el 20.4 pa -44.0 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10075.155 1914.760 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bY.W.52.0QR0YU



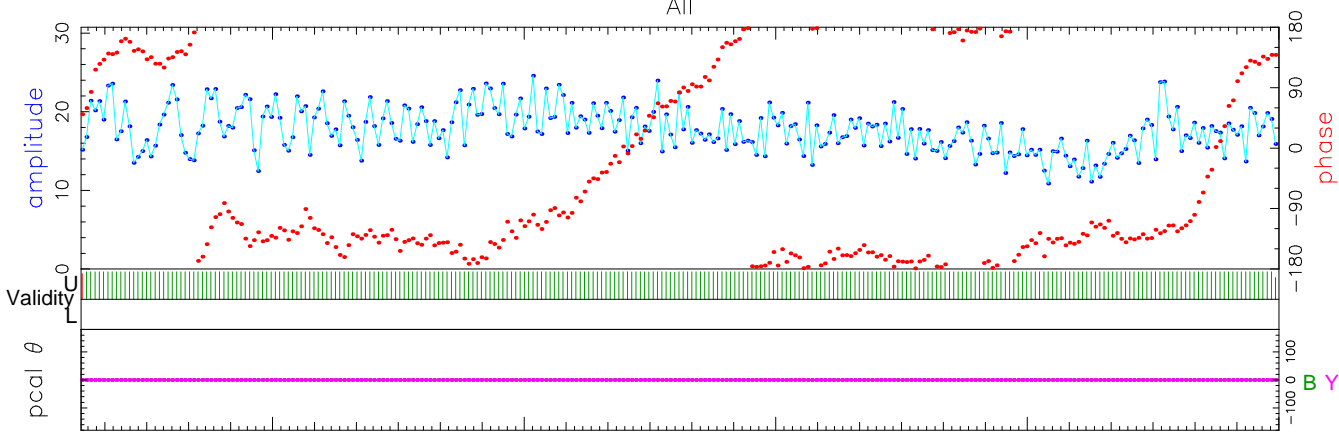
Fringe quality 7

SNR 118.4  
 Int time 285.318  
 Amp 10.252  
 Phase 87.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.005244  
 MBD -0.000007  
 Fringe rate (Hz)  
 -0.006481  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125514.34  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163636  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -154.4  
 10.2  
 513.7  
 U/L 558/0  
 B 0  
 Y 0  
 B:Y 0:0  
 B:Y 0:0  
 B 1000  
 Y 1000  
 B W00UL  
 Y W00UL

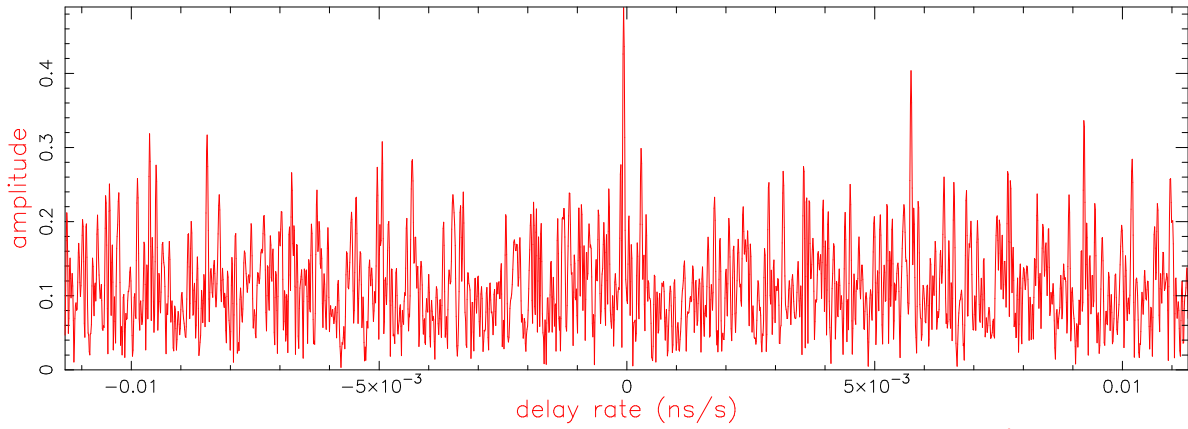
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-2.80467430942E+03	Apriori delay (usec)	-2.80467955760E+03	Resid mbdelay (usec)	-6.90797E-06	+/- 1.5E-04
Sband delay (usec)	-2.80467431410E+03	Apriori clock (usec)	1.2879183E+01	Resid sbdelay (usec)	5.24350E-03	+/- 1.5E-04
Phase delay (usec)	-2.80467956258E+03	Apriori clockrate (us/s)	-2.3700001E-07	Resid phdelay (usec)	-4.97850E-06	+/- 3.1E-08
Delay rate (us/s)	2.87582743072E-03	Apriori rate (us/s)	2.87590266608E-03	Resid rate (us/s)	-7.52354E-08	+/- 1.9E-10
Total phase (deg)	54.9	Apriori accel (us/s/s)	1.88398071791E-05	Resid phase (deg)	87.8	+/- 1.0

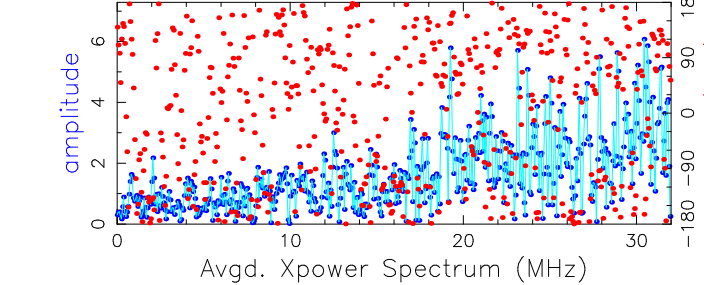
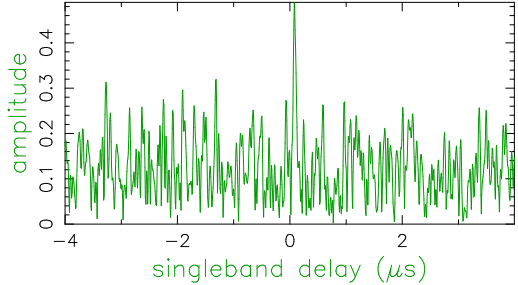
ph/seg (deg)	63.2	Theor.	8.1	Amplitude	10.252 +/- 0.087	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	78.2		14.1	Search (2048X8)	10.136	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		0.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.6		0.8	Inc. seg. avg.	17.596	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	10.194	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

B: az 247.2 el 37.9 pa 37.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 7.171 1470.823 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BY.W.54.0QR0YU

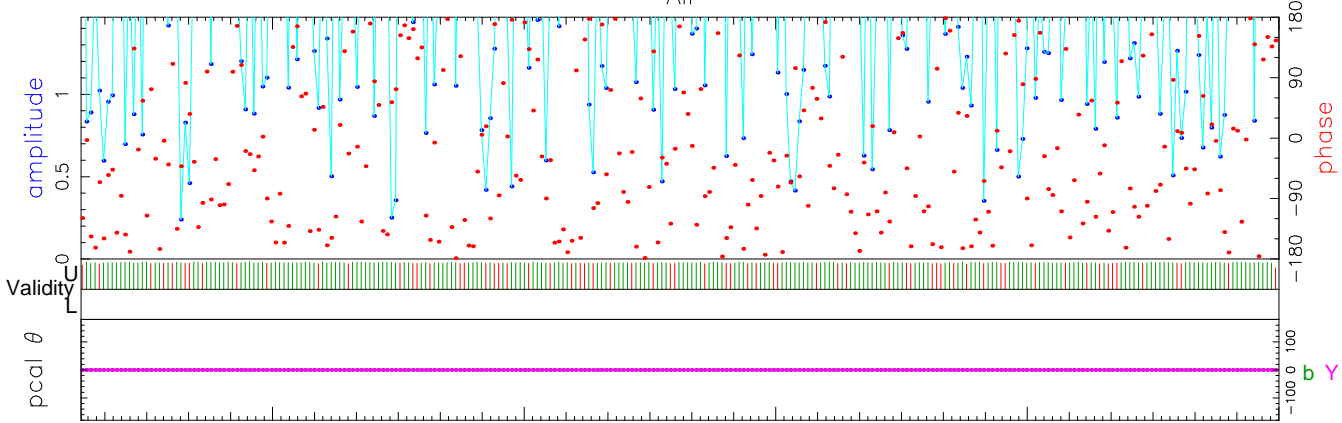


Fringe quality 0  
SNR 5.5  
Int time 274.626  
Amp 0.490  
Phase 308.1  
PFD 9.7e-01  
Delays (us)  
SBD 0.079726  
MBD -0.000007  
Fringe rate (Hz)  
-0.005436  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-126.0 Phase  
0.5 Ampl.  
523.2 Sbd box  
U/L 558/0 APs used  
b 3000 PC freqs  
Y 0 PC freqs  
b:Y 0:0 PC phase  
b:Y 0:0 Mani PC  
b 1000 PC amp  
Y 1000  
b W00UL Chan ids  
Y W00UR Chan ids

Group delay (usec)(sbd)	-8.12444635888E+03	Apriori delay (usec)	-8.12452608509E+03	Resid mbdelay (usec)	-6.84537E-06	+/-	3.1E-03
Sband delay (usec)	-8.12444635909E+03	Apriori clock (usec)	8.9446554E+00	Resid sbdelay (usec)	7.97260E-02	+/-	3.1E-03
Phase delay (usec)	-8.12452608916E+03	Apriori clockrate (us/s)	1.8999998E-07	Resid phdelay (usec)	-4.06398E-06	+/-	6.7E-07
Delay rate (us/s)	1.69910217092E+00	Apriori rate (us/s)	1.69910223402E+00	Resid rate (us/s)	-6.31041E-08	+/-	4.0E-09
Total phase (deg)	318.9	Apriori accel (us/s/s)	4.62451310326E-05	Resid phase (deg)	308.1	+/-	20.7

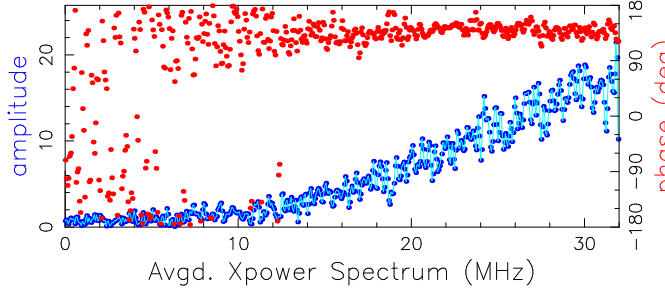
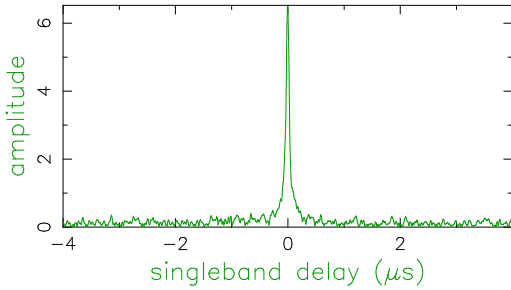
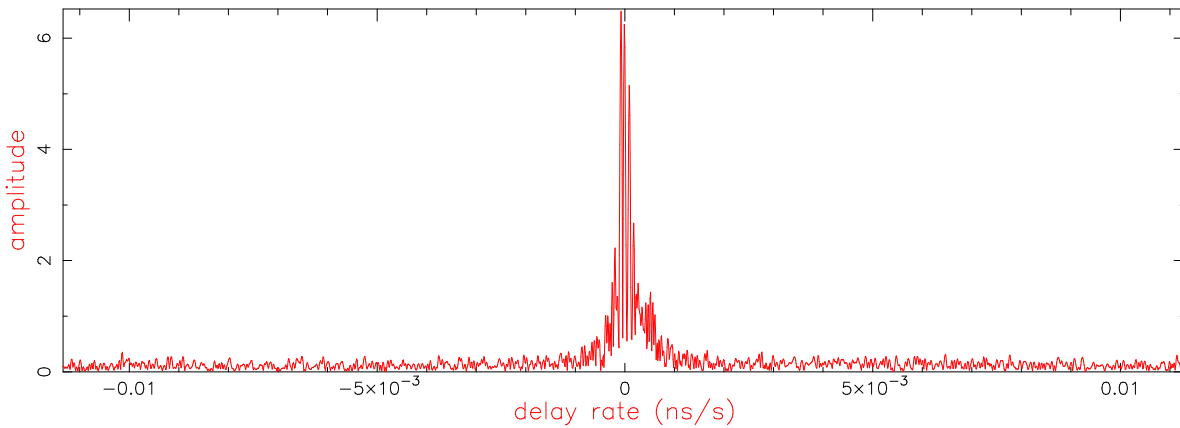
ph/seg (deg)	89.7	Theor.	172.6	Amplitude	0.490 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	343.8	Search (2048X8)	0.482	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.339	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.481	Inc. frq. avg.	0.481	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10075.155 1914.760 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bY.W.65.0QR0YU

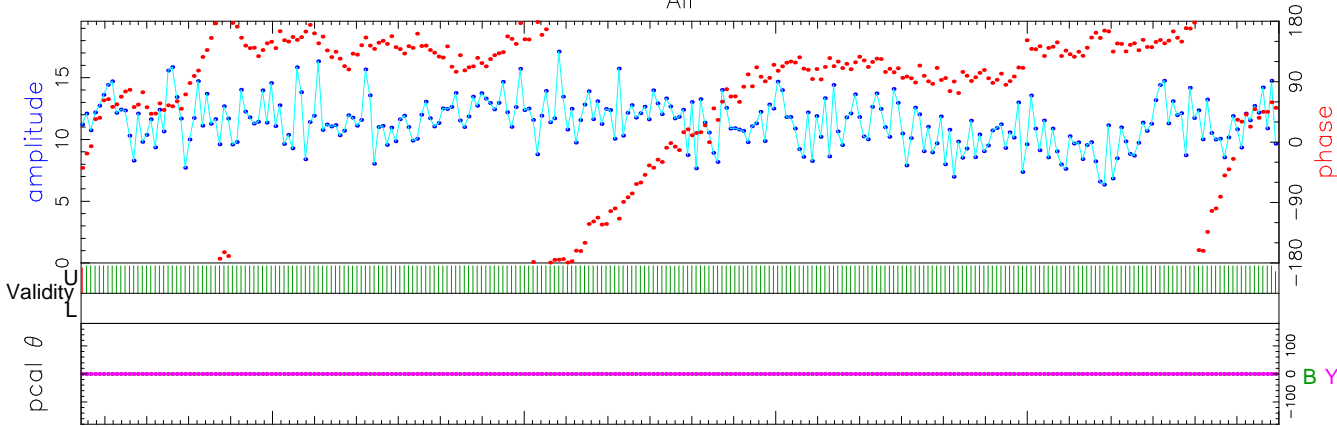
Fringe quality 9

SNR 75.3  
Int time 285.318  
Amp 6.525  
Phase -97.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.004742  
MBD -0.000005  
Fringe rate (Hz)  
-0.006428  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163638  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
120.7  
6.5  
512.4  
U/L 558/0  
B 0  
Y 0  
B:Y 0:0  
B:Y 0:0  
B 1000  
Y 1000  
B W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.80468429458E+03	Apriori delay (usec)	-2.80467955760E+03	Resid mbdelay (usec)	-5.08692E-06	+/-	2.3E-04
Sband delay (usec)	-2.80468430010E+03	Apriori clock (usec)	1.2879183E+01	Resid sbdelay (usec)	-4.74250E-03	+/-	2.3E-04
Phase delay (usec)	-2.80467955371E+03	Apriori clockrate (us/s)	-2.3700001E-07	Resid phdelay (usec)	3.89193E-06	+/-	4.9E-08
Delay rate (us/s)	2.87582804433E-03	Apriori rate (us/s)	2.87590266608E-03	Resid rate (us/s)	-7.46217E-08	+/-	3.0E-10
Total phase (deg)	-130.3	Apriori accel (us/s/s)	1.88398071791E-05	Resid phase (deg)	-97.4	+/-	1.5

ph/seg (deg)	63.5	RMS	12.7	Theor.	12.7	Amplitude	6.525 +/- 0.087	Search (2048X8)	6.424	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	80.0		22.2			Interp.	0.000			Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.8			Inc. seg. avg.	11.111			Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7		1.3			Inc. frq. avg.	6.481			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
										Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		
										nlags:	512	t_cohere	infinite		

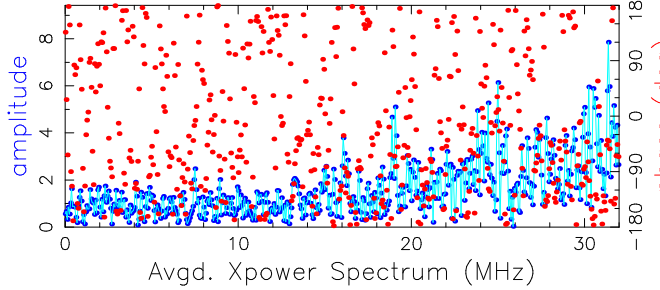
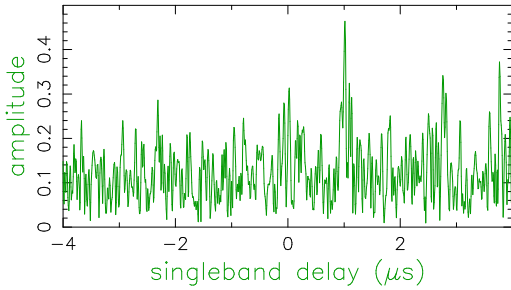
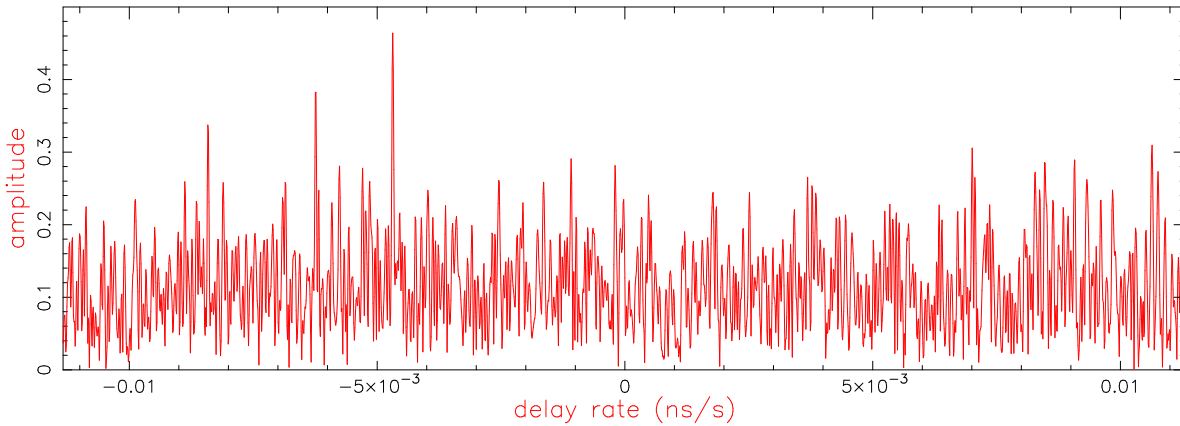
B: az 247.2 el 37.9 pa 37.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 7.171 1470.823 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BY.W.67.0QR0YU

Fringe quality 0

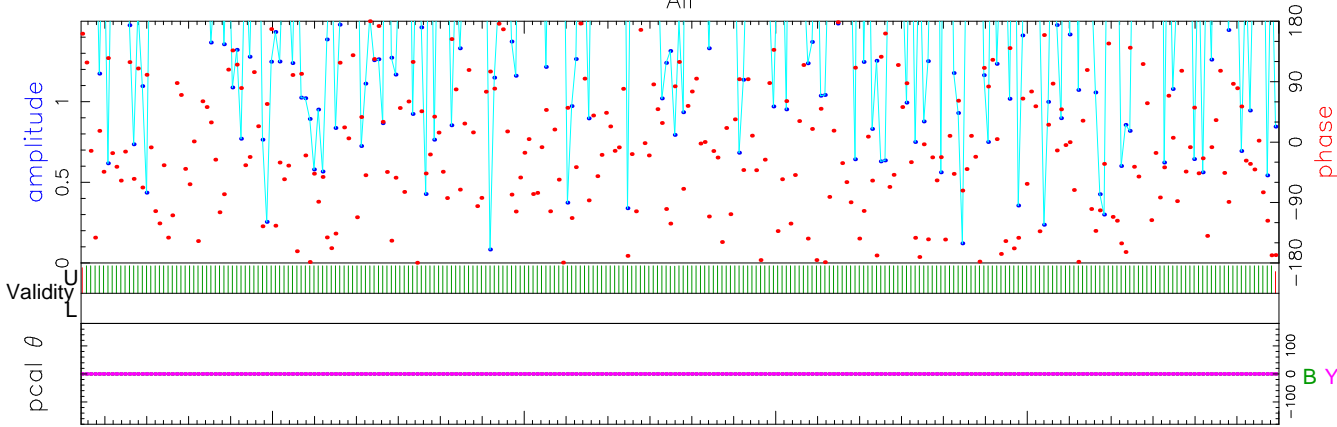
SNR 5.4  
Int time 285.318  
Amp 0.500  
Phase 256.9  
PFD 1.0e+00  
Delays (us)  
SBD 1.013840  
MBD -0.000007  
Fringe rate (Hz)  
-0.404428  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-21.1  
0.5  
642.7  
U/L 558/0  
B 0  
Y 0  
B:Y 0:0  
B:Y 0:0  
B 1000  
Y 1000  
B W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

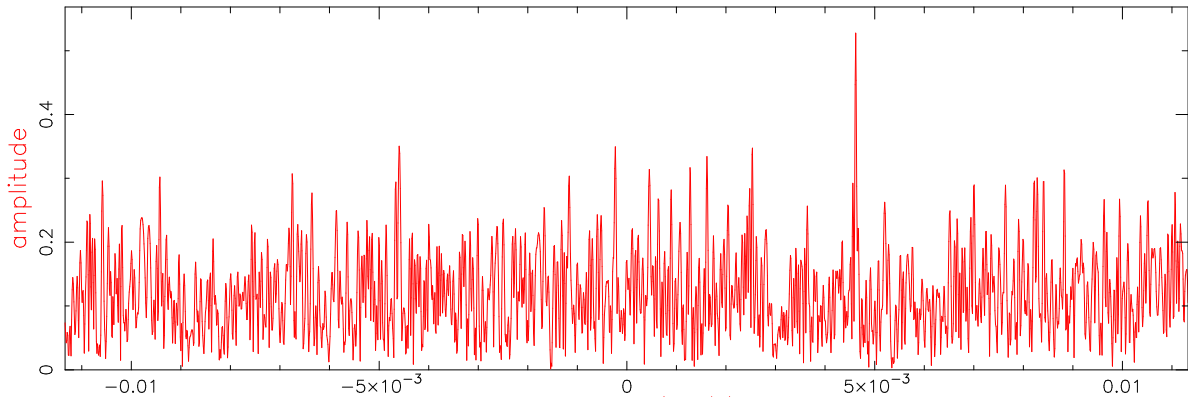
Group delay (usec)(sbd)	-2.80366571749E+03	Apriori delay (usec)	-2.80467955760E+03	Resid mbdelay (usec)	-6.79440E-06	+/-	3.2E-03
Sband delay (usec)	-2.80366571760E+03	Apriori clock (usec)	1.2879183E+01	Resid sbdelay (usec)	1.01384E+00	+/-	3.2E-03
Phase delay (usec)	-2.80467955828E+03	Apriori clockrate (us/s)	-2.3700001E-07	Resid phdelay (usec)	-6.81122E-07	+/-	6.9E-07
Delay rate (us/s)	2.87120765913E-03	Apriori rate (us/s)	2.87590266608E-03	Resid rate (us/s)	-4.69501E-06	+/-	4.2E-09
Total phase (deg)	224.0	Apriori accel (us/s/s)	1.88398071791E-05	Resid phase (deg)	256.9	+/-	21.3

ph/seg (deg)	RMS 91.9	Theor. 178.1	Amplitude 0.500 +/- 0.093	Search (2048X8)	0.460	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	396.7	310.8	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.7	Inc. seg. avg.	0.367		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3	18.6	Inc. frq. avg.	0.490		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

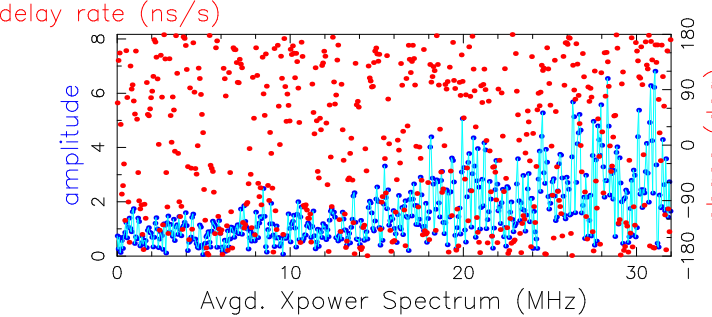
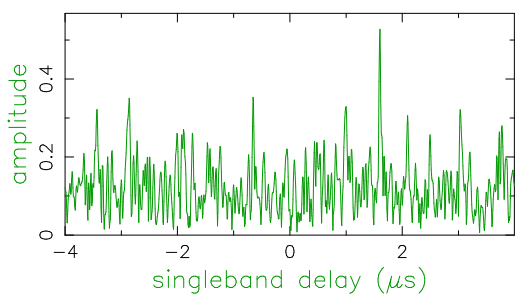
B: az 247.2 el 37.9 pa 37.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 7.171 1470.823 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BY.W.78.0QR0YU





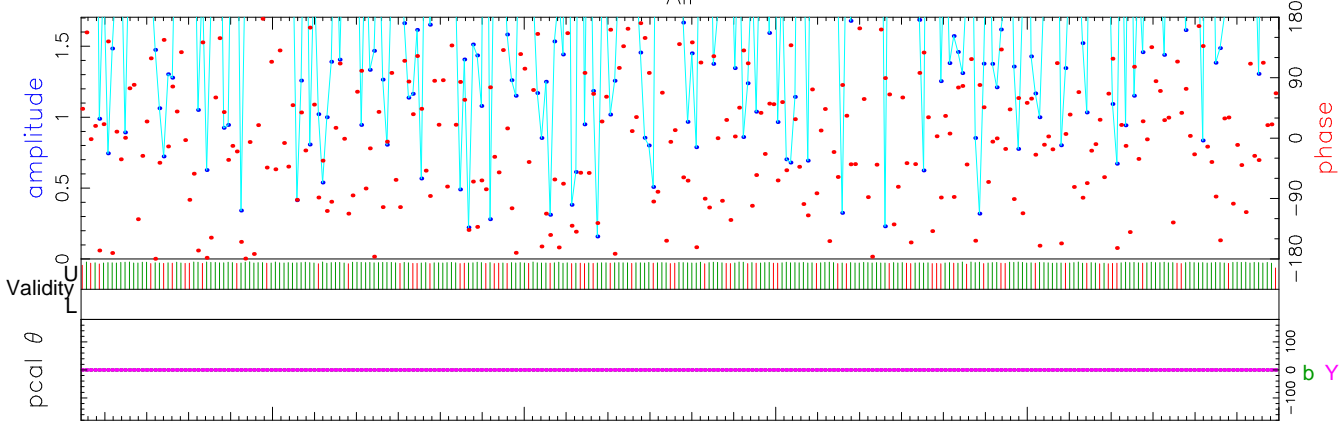
Fringe quality 0  
SNR 6.0  
Int time 274.621  
Amp 0.568  
Phase 279.6  
PFD 2.2e-01  
Delays (us)  
SBD 1.599729  
MBD 0.000004  
Fringe rate (Hz) 0.398567  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



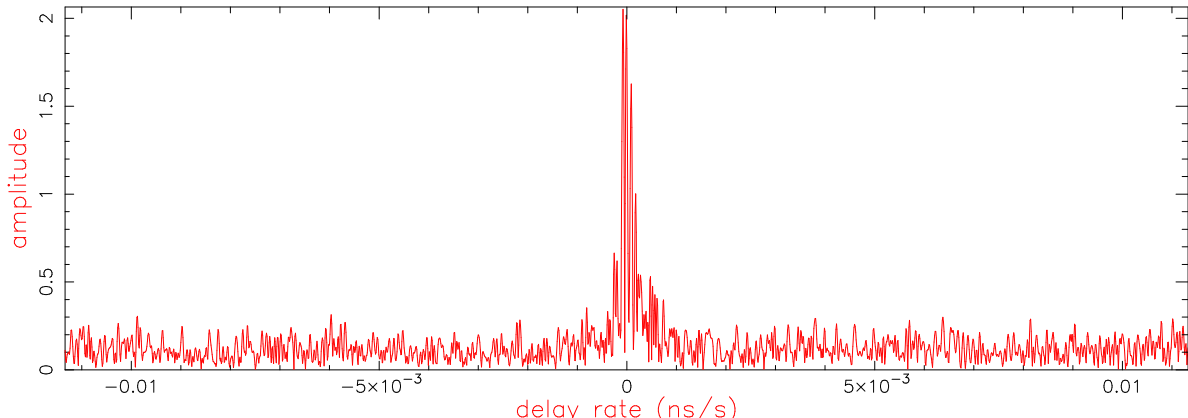
86012.00  
4.0  
0.6  
717.8  
U/L 558/0  
b 3000  
Y 0  
b:Y 0:0  
b:Y 0:0  
b 1000  
Y 1000  
b W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

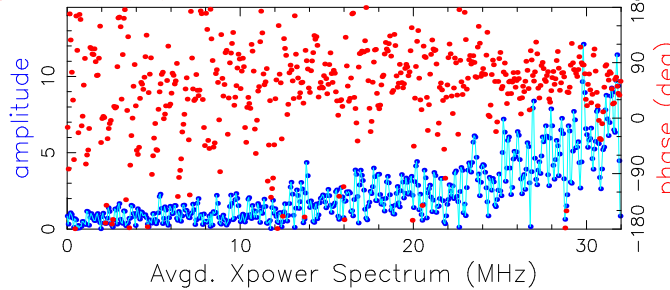
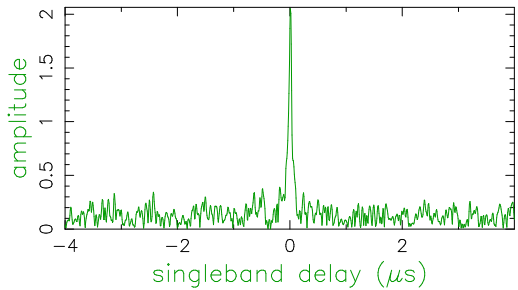
Group delay (usec)(sbd)	-8.12292635044E+03	Apriori delay (usec)	-8.12452608509E+03	Resid mbdelay (usec)	4.38762E-06	+/-	2.9E-03
Sband delay (usec)	-8.12292635609E+03	Apriori clock (usec)	8.9446554E+00	Resid sbdelay (usec)	1.59973E+00	+/-	2.9E-03
Phase delay (usec)	-8.12452608496E+03	Apriori clockrate (us/s)	1.8999998E-07	Resid phdelay (usec)	1.29606E-07	+/-	6.2E-07
Delay rate (us/s)	1.69910686099E+00	Apriori rate (us/s)	1.69910223402E+00	Resid rate (us/s)	4.62696E-06	+/-	3.7E-09
Total phase (deg)	290.4	Apriori accel (us/s/s)	4.62451310326E-05	Resid phase (deg)	279.6	+/-	19.1
ph/seg (deg)	RMS 93.0 Theor. 159.3	Amplitude	0.568 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	355.9 278.0	Search (2048X8)	0.522	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0 9.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.5 16.6	Inc. seg. avg.	0.460	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
		Inc. frq. avg.	0.558	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
				nlags:	512	ion window (TEC)	0.00 0.00

b: az 88.2 el 20.4 pa -44.0 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10075.155 1914.760 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bY.W.81.0QR0YU

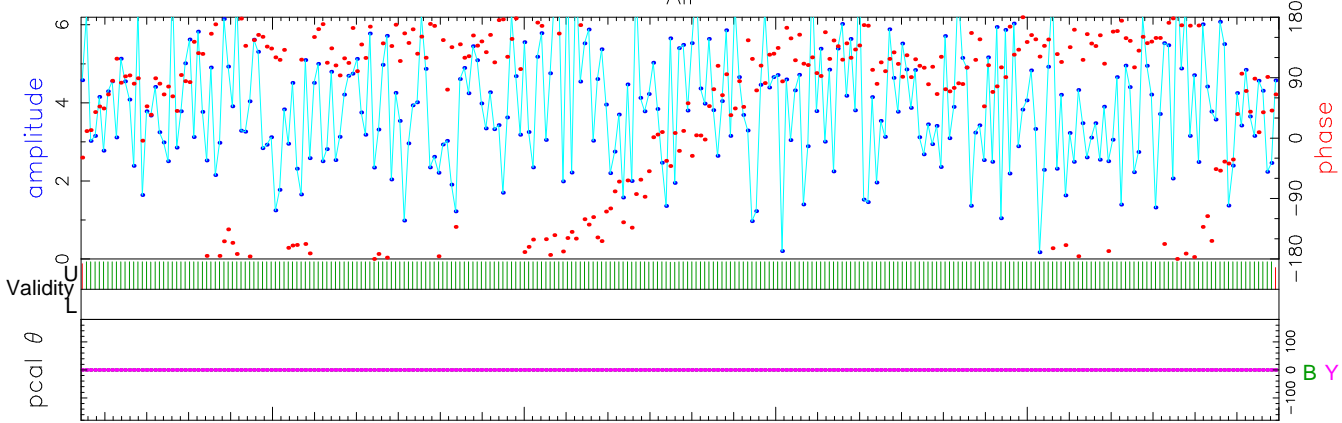


Fringe quality 9  
SNR 23.8  
Int time 285.318  
Amp 2.065  
Phase 246.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.010310  
MBD -0.000007  
Fringe rate (Hz)  
-0.006453  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163640  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
131.3  
2.1  
514.3  
U/L 558/0  
B 0  
Y 0  
B:Y 0:0  
B:Y 0:0  
B 1000  
Y 1000  
B W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.80466925190E+03	Apriori delay (usec)	-2.80467955760E+03	Resid mbdelay (usec)	-6.82221E-06	+/-	7.2E-04
Sband delay (usec)	-2.80466924760E+03	Apriori clock (usec)	1.2879183E+01	Resid sbdelay (usec)	1.03100E-02	+/-	7.2E-04
Phase delay (usec)	-2.80467955336E+03	Apriori clockrate (us/s)	-2.3700001E-07	Resid phdelay (usec)	4.23475E-06	+/-	1.5E-07
Delay rate (us/s)	2.87582775028E-03	Apriori rate (us/s)	2.87590266608E-03	Resid rate (us/s)	-7.49158E-08	+/-	9.4E-10
Total phase (deg)	213.6	Apriori accel (us/s/s)	1.88398071791E-05	Resid phase (deg)	246.5	+/-	4.8

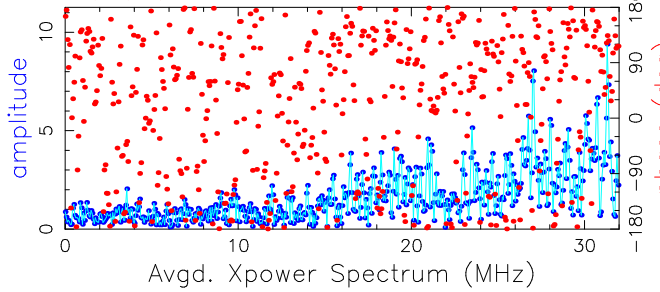
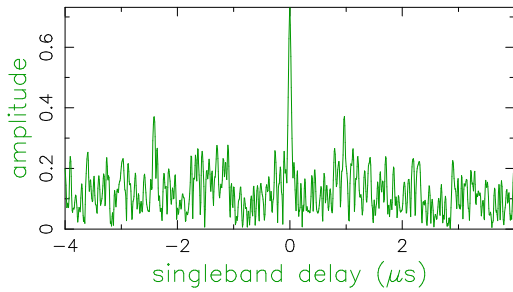
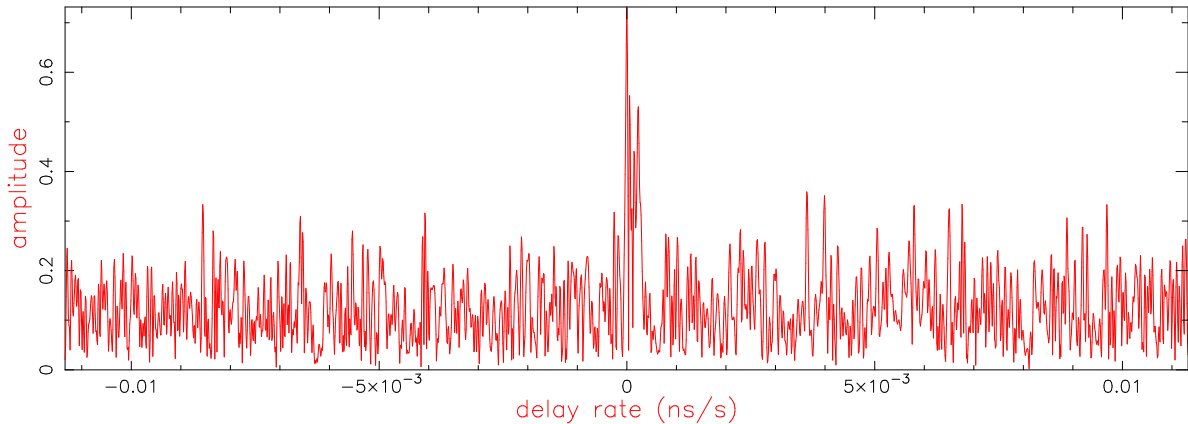
ph/seg (deg)	66.6	Theor.	40.1	Amplitude	2.065 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	116.2	Search (2048X8)	2.037	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	3.157	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	2.050	Inc. frq. avg.	2.050	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 7.171 1470.823 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BY.W.87.0QR0YU

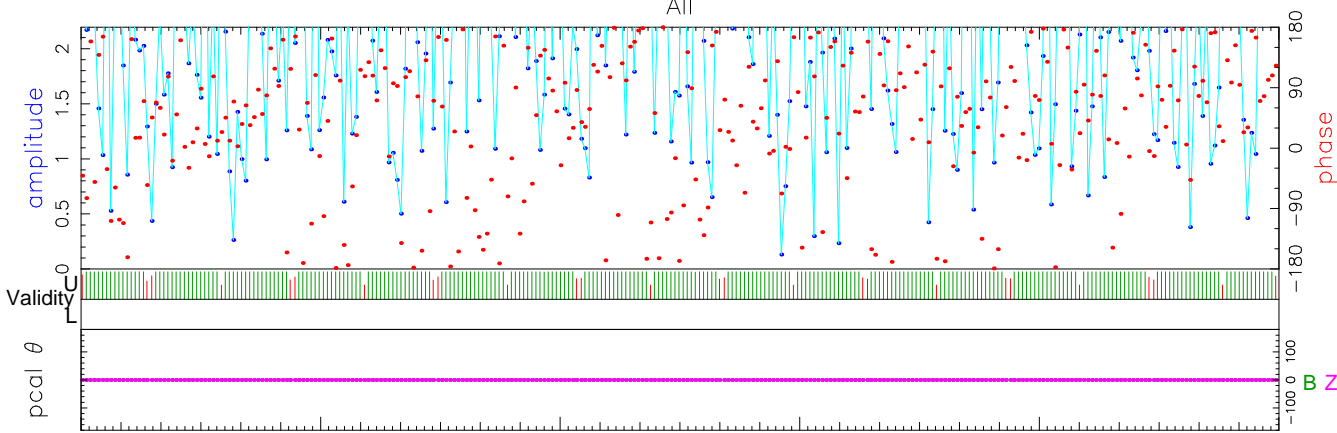
Fringe quality 9

SNR 8.5  
Int time 291.742  
Amp 0.732  
Phase 15.0  
PFD 2.4e-09  
Delays (us)  
SBD -0.001897  
MBD -0.000007  
Fringe rate (Hz)  
-0.000442  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
102.3  
0.7  
512.8  
U/L 586/0  
B 0  
Z 0  
B:Z 0:0  
B:Z 0:0  
B 1000  
Z 1000  
B W00UR  
Z W00UL

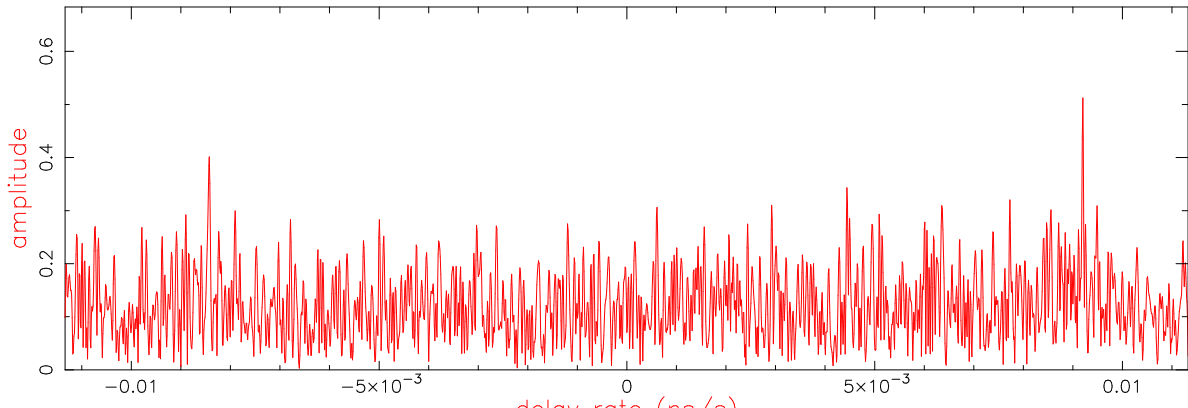
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.92081714370E+03	Apriori delay (usec)	3.92081904539E+03	Resid mbdelay (usec)	-6.60373E-06	+/-	2.0E-03
Sband delay (usec)	3.92081714889E+03	Apriori clock (usec)	1.9753950E+01	Resid sbdelay (usec)	-1.89650E-03	+/-	2.0E-03
Phase delay (usec)	3.92081904869E+03	Apriori clockrate (us/s)	-5.9400000E-07	Resid phdelay (usec)	3.30018E-06	+/-	4.3E-07
Delay rate (us/s)	-4.21077200579E-02	Apriori rate (us/s)	-4.21077149300E-02	Resid rate (us/s)	-5.12783E-09	+/-	2.5E-09
Total phase (deg)	220.2	Apriori accel (us/s/s)	-2.37817958873E-05	Resid phase (deg)	15.0	+/-	13.4

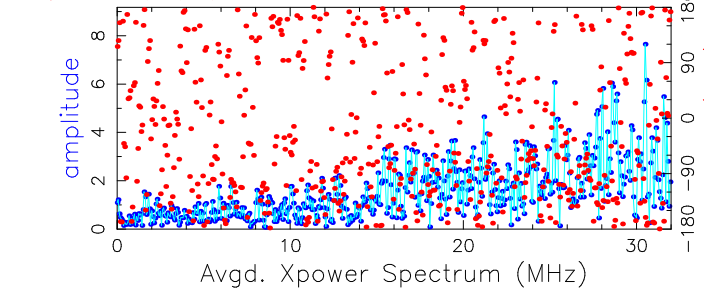
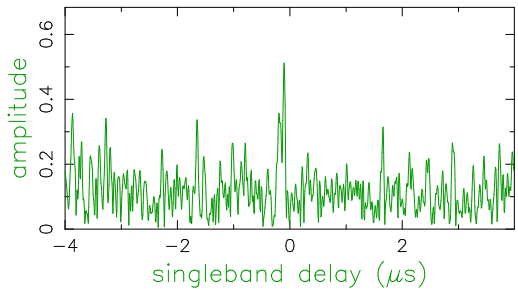
ph/seg (deg)	83.0	Theor.	114.8	Amplitude	0.732 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	271.4	Search (2048X8)	0.710	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.773	Inc. seg. avg.	0.773	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.3	Inc. frq. avg.	0.724	Inc. frq. avg.	0.724	Sample rate (MSamp/s):	64	mb window (us)	-0.000 0.000

B: az 247.2 el 37.9 pa 37.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) 220.706 -1364.214 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BZ.W.106.0QR0YU

Fringe quality 0

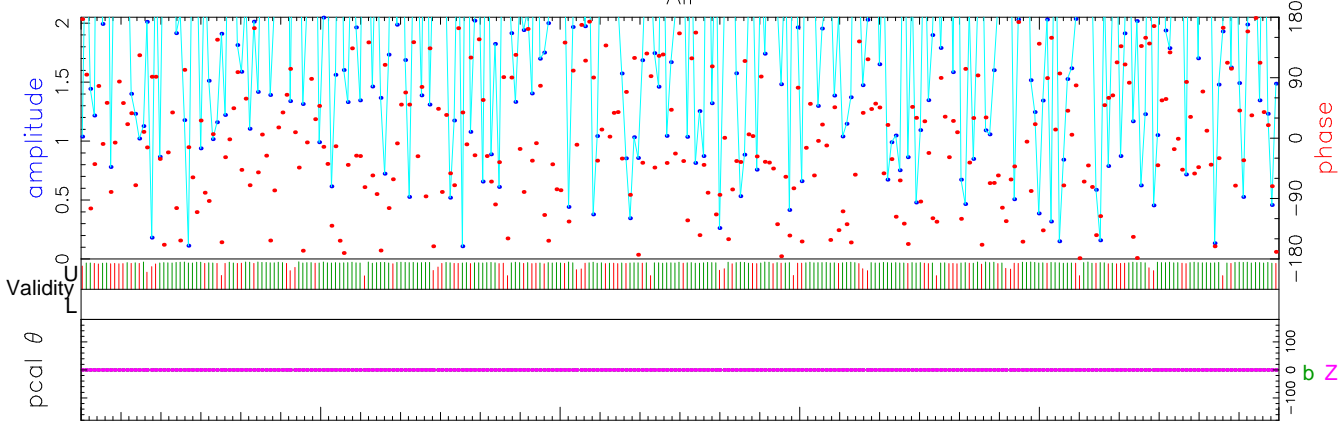


SNR 5.9  
Int time 280.762  
Amp 0.684  
Phase -38.0  
PFD 4.2e-01  
Delays (us)  
SBD -0.102374  
MBD 0.000007  
Fringe rate (Hz)  
0.793914  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



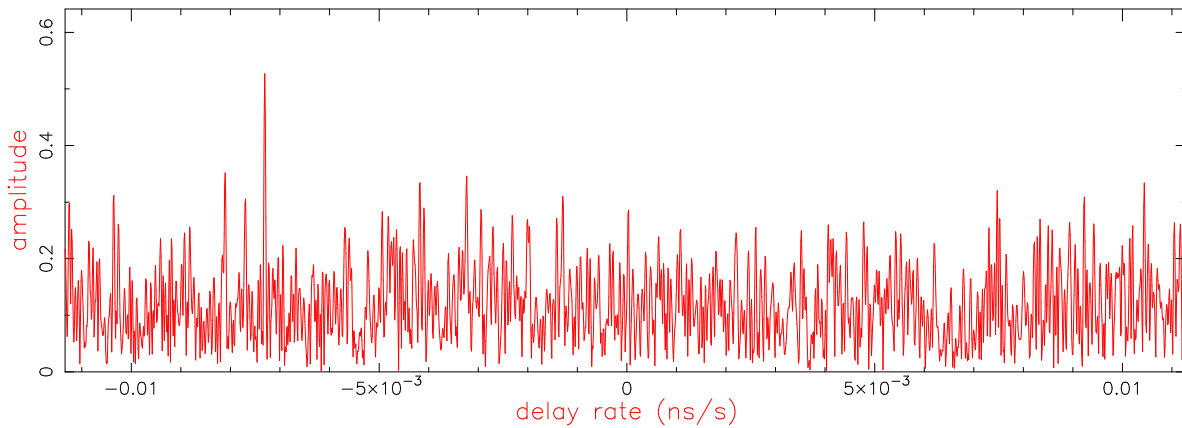
86012.00  
-0.2  
0.7  
499.9  
U/L 586/0  
b 3000  
Z 0  
b:Z 0:0  
b:Z 0:0  
b 1000  
Z 1000  
b W00UR  
Z W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.39912985594E+03	Apriori delay (usec)	-1.39902748210E+03	Resid mbdelay (usec)	7.23178E-06	+/-	2.9E-03
Sband delay (usec)	-1.39912985610E+03	Apriori clock (usec)	1.5819423E+01	Resid sbdelay (usec)	-1.02374E-01	+/-	2.9E-03
Phase delay (usec)	-1.39902748211E+03	Apriori clockrate (us/s)	-1.6700001E-07	Resid phdelay (usec)	-7.54900E-09	+/-	6.3E-07
Delay rate (us/s)	1.65412783298E+00	Apriori rate (us/s)	1.65411861643E+00	Resid rate (us/s)	9.21655E-06	+/-	3.6E-09
Total phase (deg)	-149.0	Apriori accel (us/s/s)	3.62352796621E-06	Resid phase (deg)	-38.0	+/-	19.5

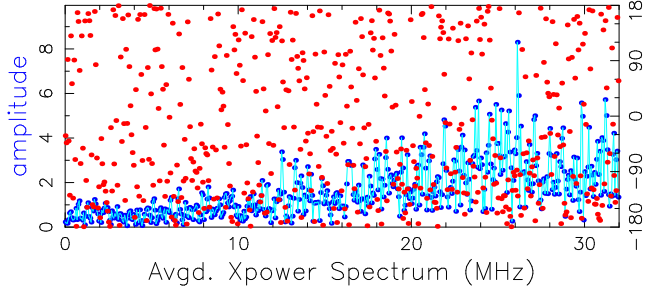
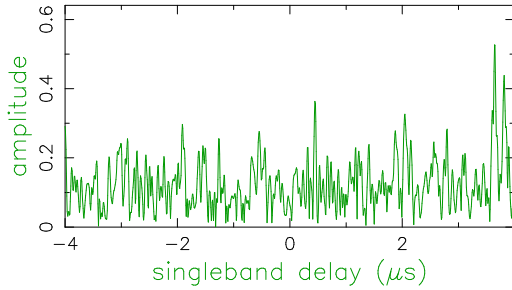
ph/seg (deg)	92.1	Theor.	167.1	Amplitude	0.684 +/- 0.116	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	387.6	Search (2048X8)	0.494	Search	0.494	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.536	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.674	Inc. frq. avg.	0.674	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -9861.620 -920.276 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bZ.W.121.0QR0YU



Fringe quality 0

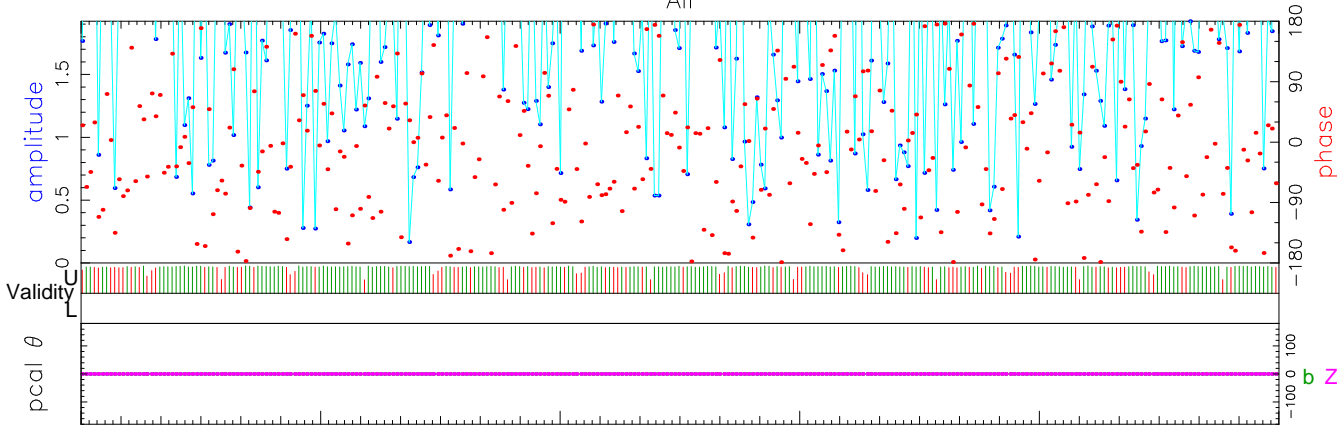
SNR 6.2  
Int time 280.767  
Amp 0.641  
Phase 150.3  
PFD 9.6e-02  
Delays (us)  
SBD 3.644444  
MBD -0.000007  
Fringe rate (Hz)  
-0.629896  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-25.8  
0.6  
979.5  
U/L 586/0  
b 3000  
Z 0  
b:Z 0:0  
b:Z 0:0  
b 1000  
Z 1000  
b W00UL  
Z W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.39538304439E+03	Apriori delay (usec)	-1.39902748210E+03	Resid mbdelay (usec)	-7.24518E-06	+/-	2.8E-03
Sband delay (usec)	-1.39538303860E+03	Apriori clock (usec)	1.5819423E+01	Resid sbdelay (usec)	3.64444E+00	+/-	2.8E-03
Phase delay (usec)	-1.39902748293E+03	Apriori clockrate (us/s)	-1.6700001E-07	Resid phdelay (usec)	-8.30416E-07	+/-	6.0E-07
Delay rate (us/s)	1.65411130396E+00	Apriori rate (us/s)	1.65411861643E+00	Resid rate (us/s)	-7.31247E-06	+/-	3.5E-09
Total phase (deg)	39.2	Apriori accel (us/s/s)	3.62352796621E-06	Resid phase (deg)	150.3	+/-	18.6

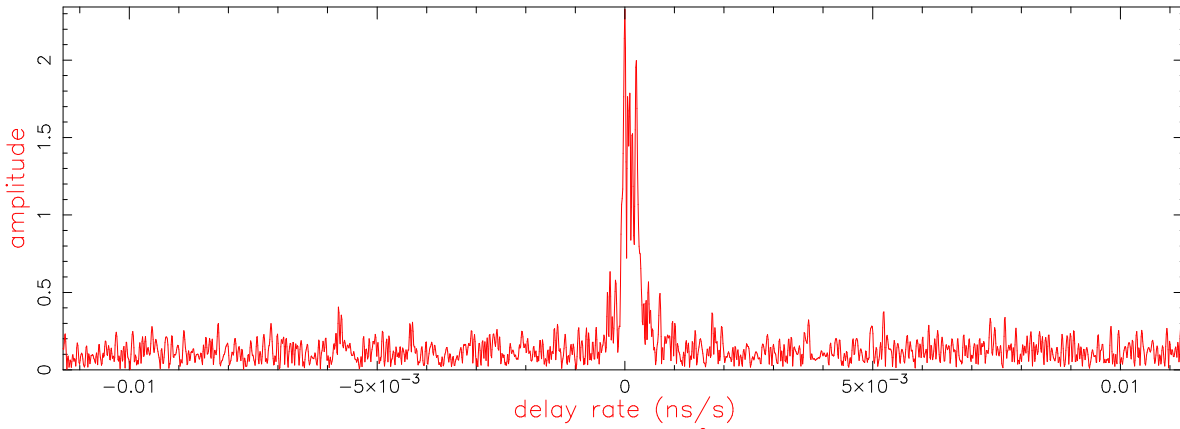
ph/seg (deg)	RMS 91.8	Theor. 159.4	Amplitude 0.641 +/- 0.104	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	351.8	278.2	Search (2048X8) 0.507	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	9.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	1.9	16.3	Inc. seg. avg. 0.511	Sample rate(MSamp/s): 64	ion window (TEC) 0.00 0.00	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.621	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

b: az 88.2 el 20.4 pa -44.0 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -9861.620 -920.276 simultaneous interpolator

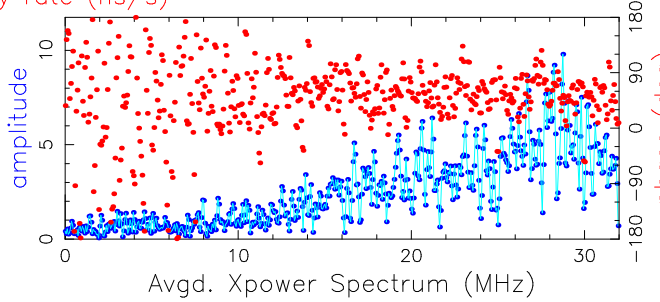
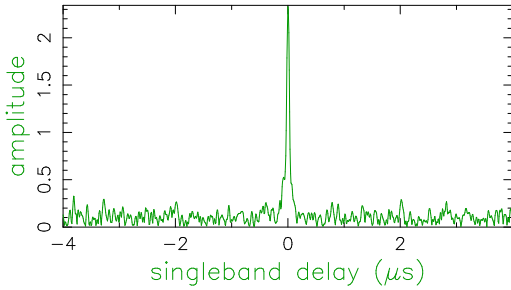
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bZ.W.75.0QR0YU



Fringe quality 9



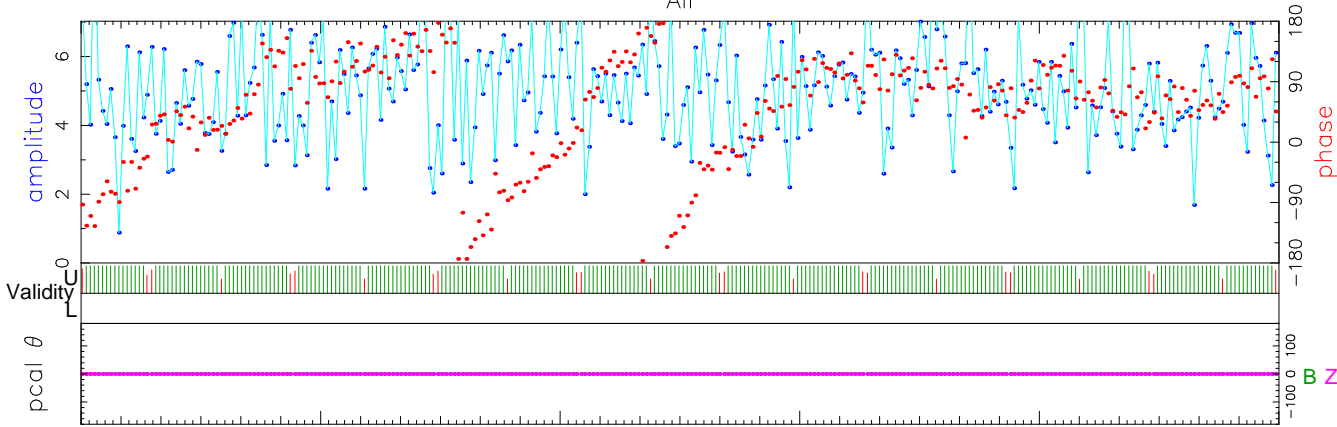
SNR 27.4  
 Int time 291.742  
 Amp 2.343  
 Phase 212.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002862  
 MBD -0.000006  
 Fringe rate (Hz)  
 -0.000302  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163639  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 79.8  
 2.3  
 513.4  
 U/L 586/0  
 B 0  
 Z 0  
 B:Z 0:0  
 B:Z 0:0  
 B 1000  
 Z 1000  
 B W00UL  
 Z W00UL

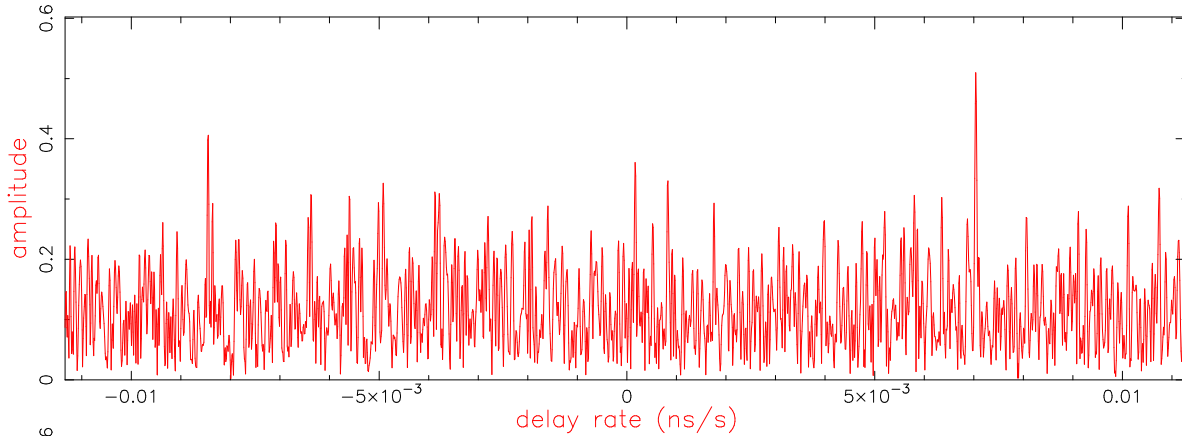
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	3.92082191136E+03	Apriori delay (usec)	3.92081904539E+03	Resid mbdelay (usec)	-5.72153E-06	+/- 6.3E-04
Sband delay (usec)	3.92082190739E+03	Apriori clock (usec)	1.9753950E+01	Resid sbdelay (usec)	2.86200E-03	+/- 6.3E-04
Phase delay (usec)	3.92081904796E+03	Apriori clockrate (us/s)	-5.9400000E-07	Resid phdelay (usec)	2.57180E-06	+/- 1.4E-07
Delay rate (us/s)	-4.21077184388E-02	Apriori rate (us/s)	-4.21077149300E-02	Resid rate (us/s)	-3.50878E-09	+/- 7.8E-10
Total phase (deg)	57.3	Apriori accel (us/s/s)	-2.37817958873E-05	Resid phase (deg)	212.1	+/- 4.2

ph/seg (deg)	73.7	Theor.	35.8	Amplitude	2.343 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	132.0		62.6	Search (2048X8)	2.304	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		2.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.7		3.7	Inc. seg. avg.	4.234	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	2.326	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

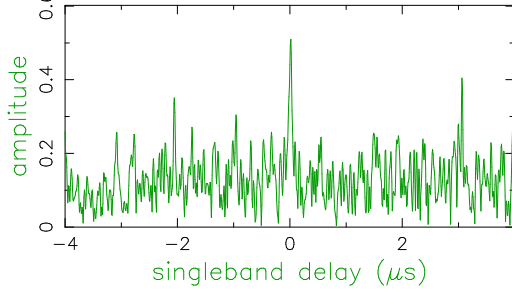
B: az 247.2 el 37.9 pa 37.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) 220.706 -1364.214 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BZ.W.76.0QR0YU

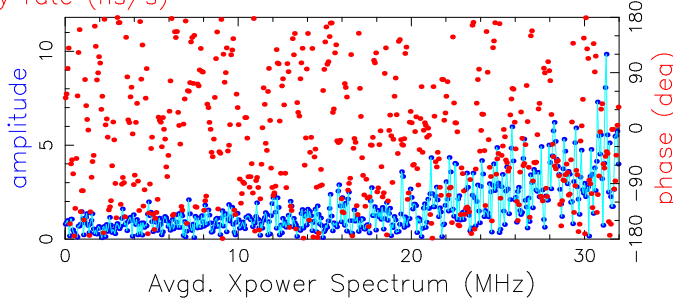


Fringe quality 0

SNR 5.9  
Int time 280.762  
Amp 0.602  
Phase 310.6  
PFD 4.6e-01  
Delays (us)  
SBD 0.014163  
MBD 0.000006  
Fringe rate (Hz)  
0.607622  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

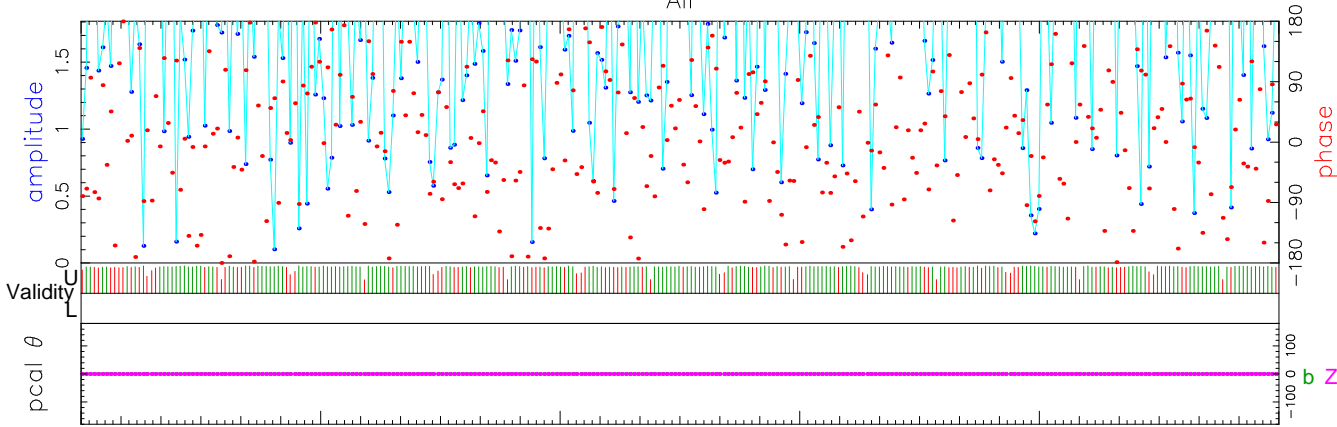


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163640  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
18.0  
0.6  
514.8  
U/L 586/0  
b 3000  
Z 0  
b:Z 0:0  
b:Z 0:0  
b 1000  
Z 1000  
b W00UR  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.39901331566E+03	Apriori delay (usec)	-1.39902748210E+03	Resid mbdelay (usec)	5.62777E-06	+/-	2.9E-03
Sband delay (usec)	-1.39901331960E+03	Apriori clock (usec)	1.5819423E+01	Resid sbdelay (usec)	1.41625E-02	+/-	2.9E-03
Phase delay (usec)	-1.39902748152E+03	Apriori clockrate (us/s)	-1.6700001E-07	Resid phdelay (usec)	5.81866E-07	+/-	6.3E-07
Delay rate (us/s)	1.65412567032E+00	Apriori rate (us/s)	1.65411861643E+00	Resid rate (us/s)	7.05389E-06	+/-	3.6E-09
Total phase (deg)	199.5	Apriori accel (us/s/s)	3.62352796621E-06	Resid phase (deg)	310.6	+/-	19.6

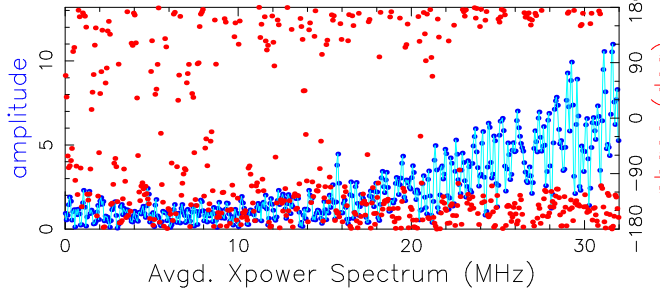
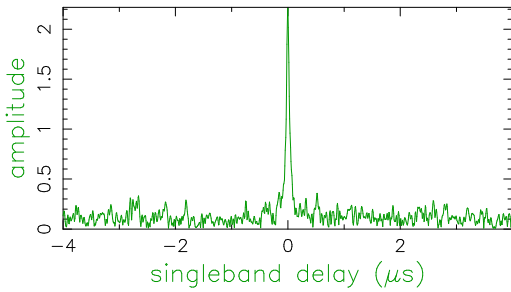
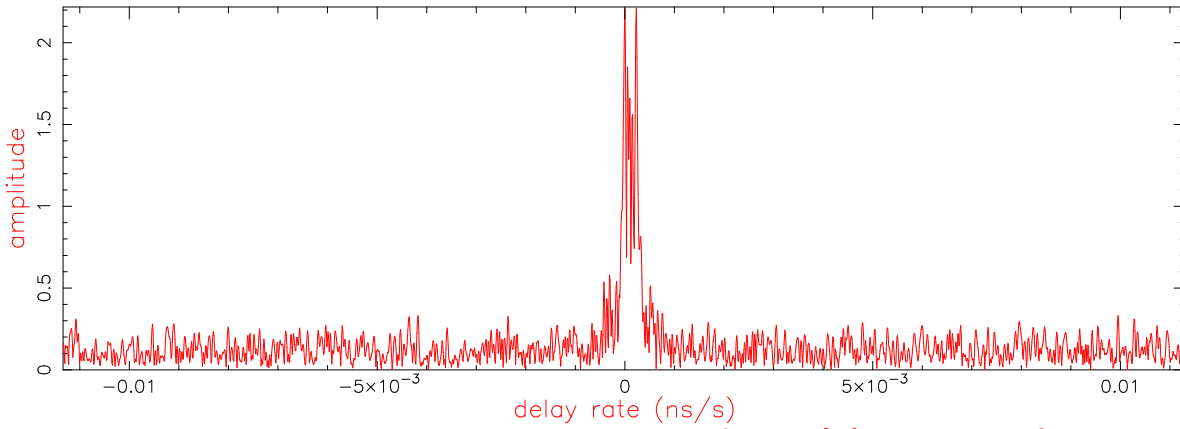
ph/seg (deg)	90.5	Theor.	167.6	Amplitude	0.602 +/- 0.103	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	358.8	Search (2048X8)	0.505	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.453	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.592	Inc. frq. avg.	0.592	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -9861.620 -920.276 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//bZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//bZ.W.86.0QR0YU

Fringe quality 9

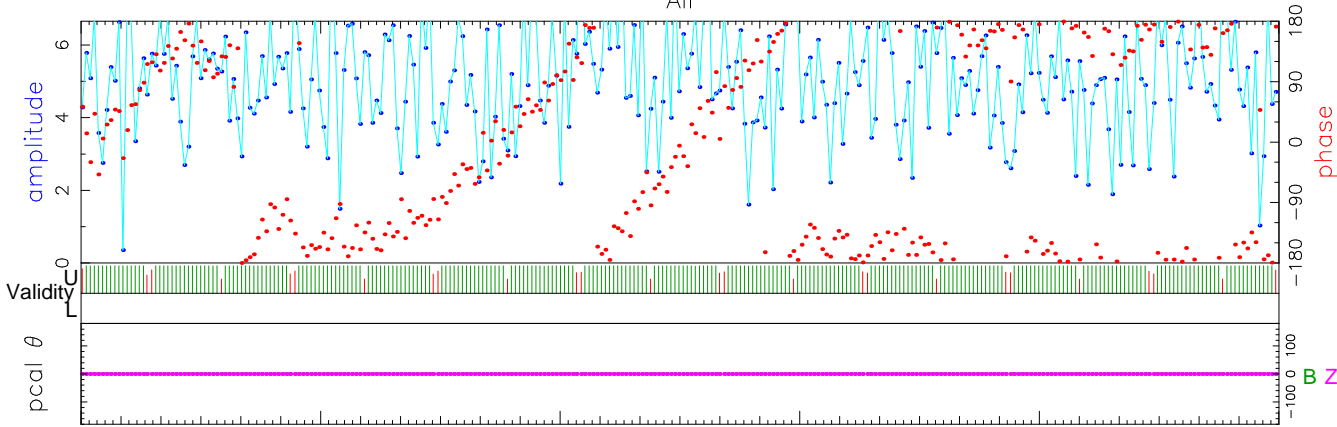
SNR 25.9  
Int time 291.742  
Amp 2.219  
Phase -274.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.002134  
MBD -0.000006  
Fringe rate (Hz)  
-0.000264  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163640  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-176.7  
2.2  
512.7  
U/L 586/0  
B 0  
Z 0  
B:Z 0:0  
B:Z 0:0  
B 1000  
Z 1000  
B W00UR  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.92081691195E+03	Apriori delay (usec)	3.92081904539E+03	Resid mbdelay (usec)	-5.82681E-06	+/- 6.6E-04
Sband delay (usec)	3.92081691189E+03	Apriori clock (usec)	1.9753950E+01	Resid sbdelay (usec)	-2.13350E-03	+/- 6.6E-04
Phase delay (usec)	3.92081903969E+03	Apriori clockrate (us/s)	-5.9400000E-07	Resid phdelay (usec)	-5.69774E-06	+/- 1.4E-07
Delay rate (us/s)	-4.21077179974E-02	Apriori rate (us/s)	-4.21077149300E-02	Resid rate (us/s)	-3.06735E-09	+/- 8.2E-10
Total phase (deg)	-69.5	Apriori accel (us/s/s)	-2.37817958873E-05	Resid phase (deg)	-274.7	+/- 4.4

ph/seg (deg)	RMS 75.6	Theor. 37.9	Amplitude 2.219 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	145.2	66.1	Search (2048X8) 2.190	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	2.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.5	3.9	Inc. seg. avg. 4.155	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 2.207	Data rate(Mb/s): 128	ion window (TEC) 0.00 0.00

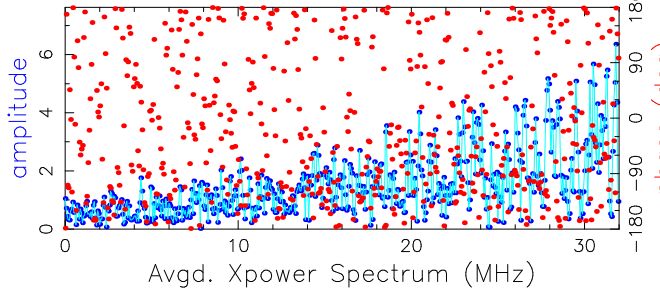
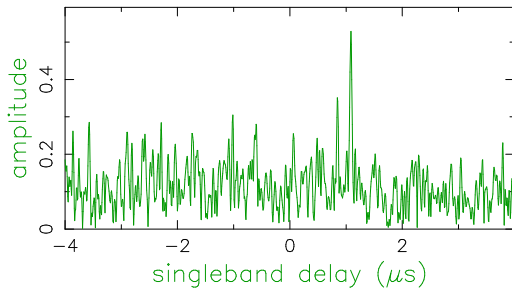
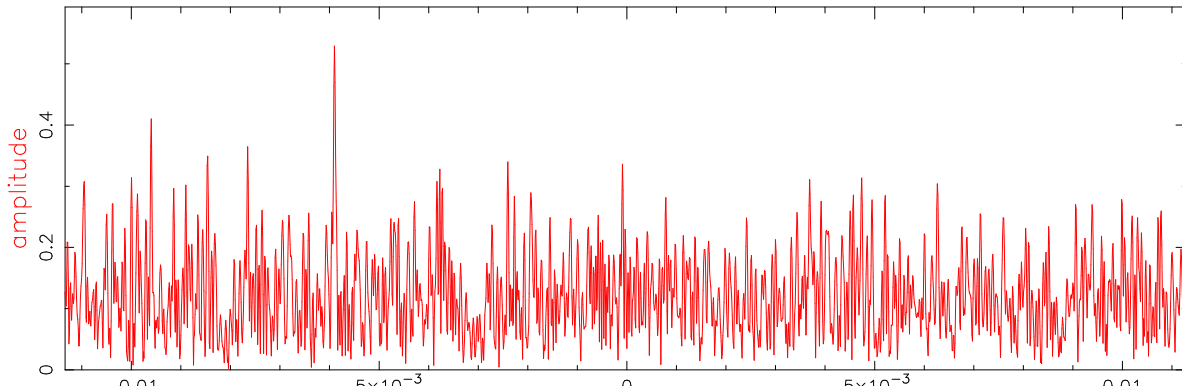
B: az 247.2 el 37.9 pa 37.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) 220.706 -1364.214 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BZ.W.89.0QR0YU

Fringe quality 0

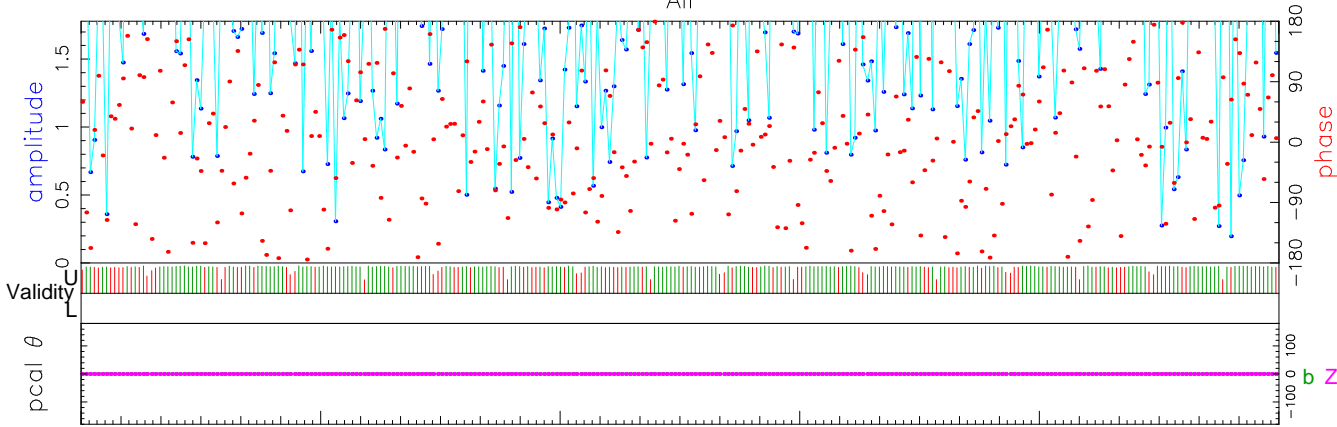
SNR 6.1  
Int time 280.767  
Amp 0.593  
Phase 13.3  
PFD 1.6e-01  
Delays (us)  
SBD 1.085852  
MBD -0.000005  
Fringe rate (Hz)  
-0.509465  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



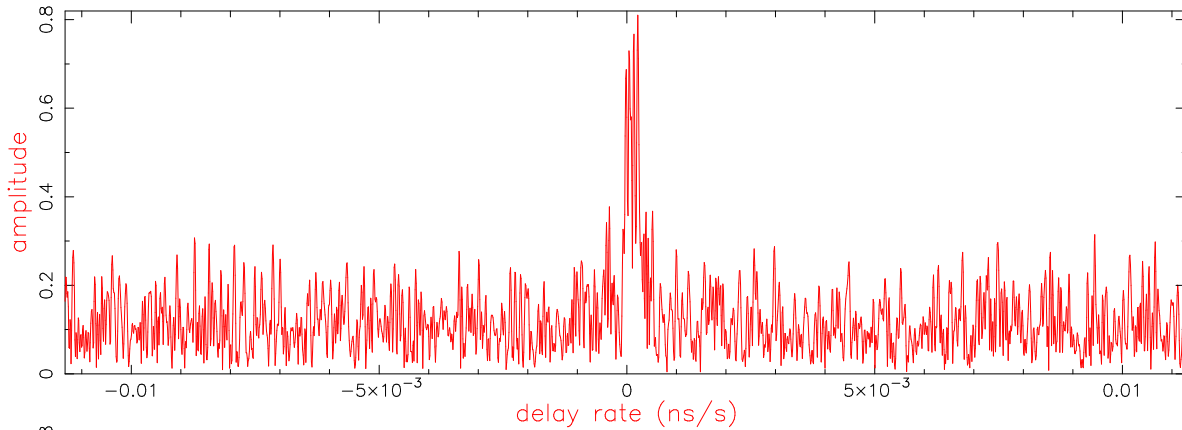
86012.00  
16.9  
0.6  
652.0  
U/L 586/0  
b 3000  
Z 0  
b:Z 0:0  
b:Z 0:0  
b 1000  
Z 1000  
b W00UL  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
  
Chan ids

Group delay (usec)(sbd)	-1.39794162676E+03	Apriori delay (usec)	-1.39902748210E+03	Resid mbdelay (usec)	-4.77282E-06	+/-	2.8E-03
Sband delay (usec)	-1.39794163010E+03	Apriori clock (usec)	1.5819423E+01	Resid sbdelay (usec)	1.08585E+00	+/-	2.8E-03
Phase delay (usec)	-1.39902748156E+03	Apriori clockrate (us/s)	-1.6700001E-07	Resid phdelay (usec)	5.43561E-07	+/-	6.1E-07
Delay rate (us/s)	1.65411270205E+00	Apriori rate (us/s)	1.65411861643E+00	Resid rate (us/s)	-5.91438E-06	+/-	3.5E-09
Total phase (deg)	262.2	Apriori accel (us/s/s)	3.62352796621E-06	Resid phase (deg)	13.3	+/-	18.9

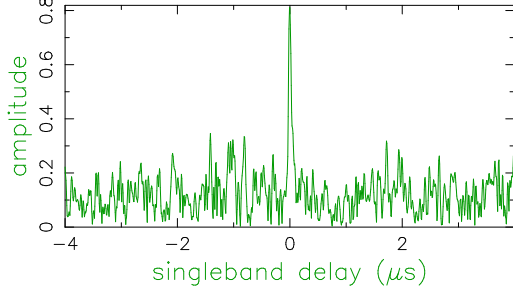
ph/seg (deg)	92.8	Theor.	161.9	Amplitude	0.593 +/- 0.098	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	367.7	Search (2048X8)	0.523	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.482	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.585	Inc. frq. avg.	0.585	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

b: az 88.2 el 20.4 pa -44.0      Z: az 257.8 el 25.5 pa 30.4      u,v (fr/asec) -9861.620 -920.276      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//bZ..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//bZ.W.94.0QR0YU

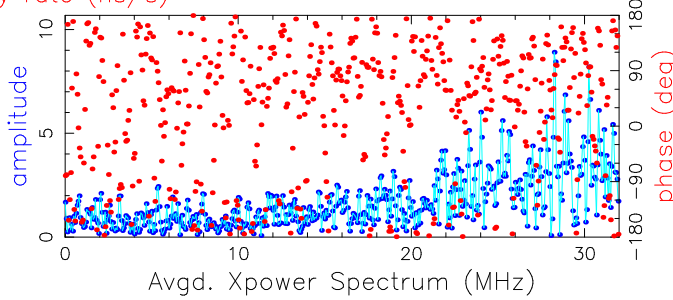


Fringe quality 9

SNR 9.6  
Int time 291.742  
Amp 0.820  
Phase -97.4  
PFD 2.2e-13  
Delays (us)  
SBD -0.003927  
MBD 0.000005  
Fringe rate (Hz)  
0.019459  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



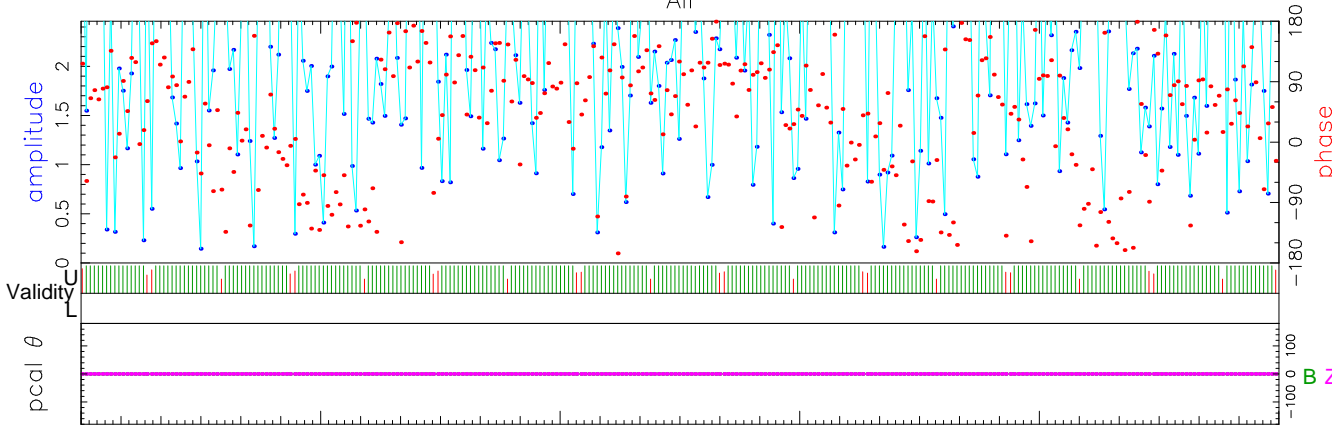
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
83.7  
0.8  
512.5  
U/L 586/0  
B 0  
Z 0  
B:Z 0:0  
B:Z 0:0  
B 1000  
Z 1000  
B W00UL  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.92081512049E+03	Apriori delay (usec)	3.92081904539E+03	Resid mbdelay (usec)	4.78584E-06	+/-	1.8E-03
Sband delay (usec)	3.92081511789E+03	Apriori clock (usec)	1.9753950E+01	Resid sbdelay (usec)	-3.92750E-03	+/-	1.8E-03
Phase delay (usec)	3.92081904809E+03	Apriori clockrate (us/s)	-5.9400000E-07	Resid phdelay (usec)	2.69838E-06	+/-	3.9E-07
Delay rate (us/s)	-4.21074890298E-02	Apriori rate (us/s)	-4.21077149300E-02	Resid rate (us/s)	2.25900E-07	+/-	2.2E-09
Total phase (deg)	107.8	Apriori accel (us/s/s)	-2.37817958873E-05	Resid phase (deg)	-97.4	+/-	12.0

ph/seg (deg)	86.5	Theor.	102.5	Amplitude	0.820 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	256.7	Search (2048X8)	0.797	Search	0.797	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.942	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.2	Inc. frq. avg.	0.806	Inc. frq. avg.	0.806	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

B: az 247.2 el 37.9 pa 37.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) 220.706 -1364.214 simultaneous interpolator

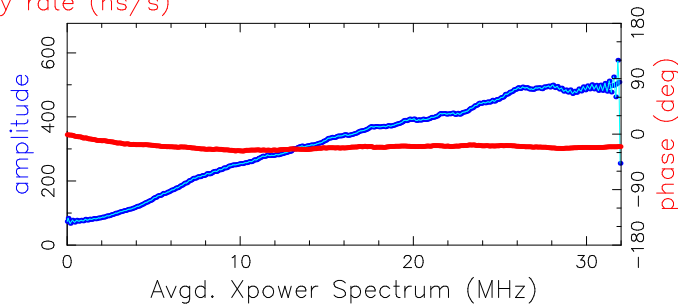
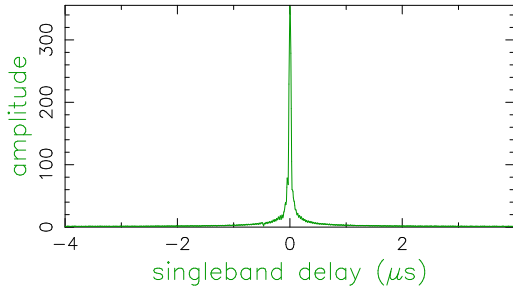
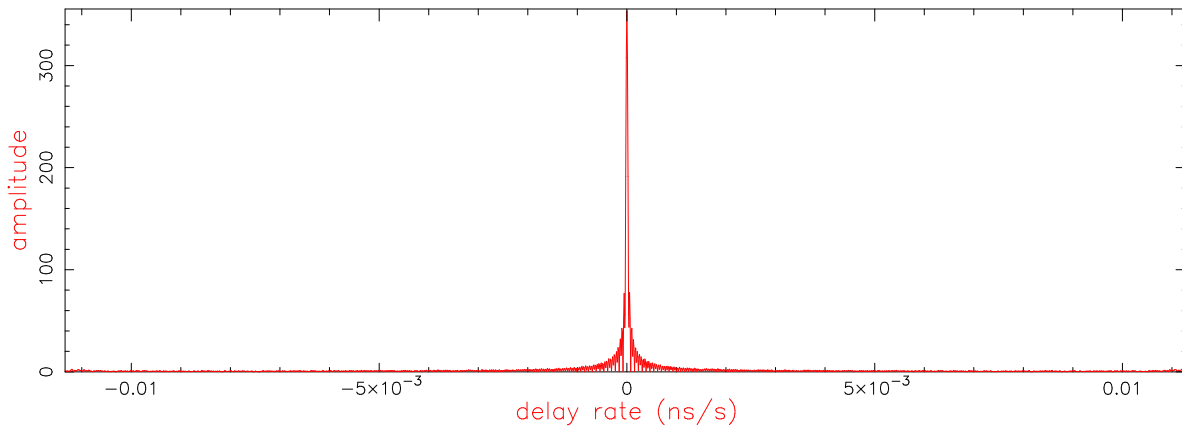
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//BZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//BZ.W.97.0QR0YU



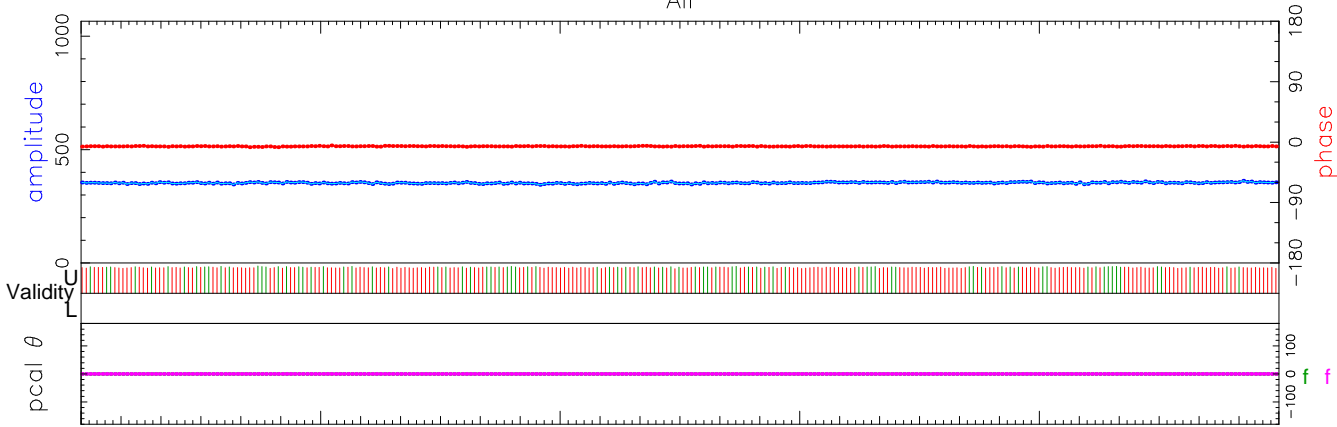
Fringe quality 9

SNR 4079.8  
Int time 281.894  
Amp 355.436  
Phase 88.6  
PFD 0.0e+00  
Delays (us)  
SBD 0.002051  
MBD -0.000007  
Fringe rate (Hz)  
0.000003  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-6.3  
353.5  
513.3  
U/L 586/0  
f 3000  
f 3000  
f:f 0:0  
f:f 0:0  
f 1000  
f 1000  
f W00UL  
f W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

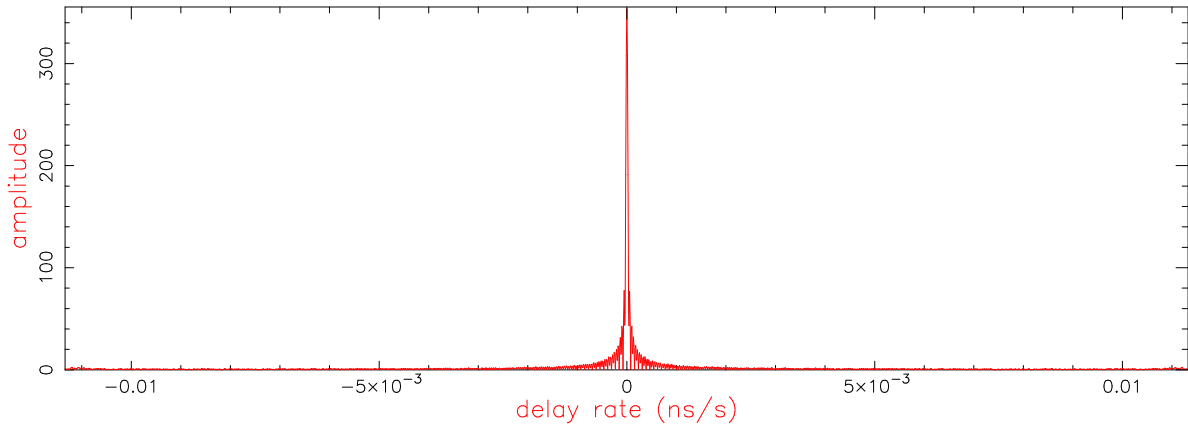
Group delay (usec)(sbd)	2.05059696321E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-7.25543E-06	+/-	4.2E-06
Sband delay (usec)	2.05100000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.05100E-03	+/-	4.2E-06
Phase delay (usec)	-2.02365345928E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.02365E-07	+/-	9.1E-10
Delay rate (us/s)	3.04679776421E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.04680E-11	+/-	5.2E-12
Total phase (deg)	88.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	88.6	+/-	0.0

ph/seg (deg)	0.3	0.2	Amplitude	355.436 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	1.0	0.4	Search (2048X8)	353.495	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.5	0.0	Inc. seg. avg.	353.498	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
			Inc. frq. avg.	353.496	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

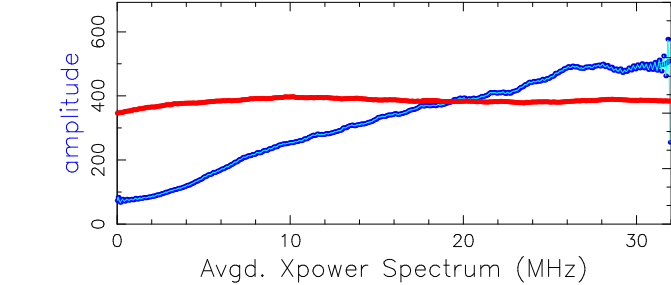
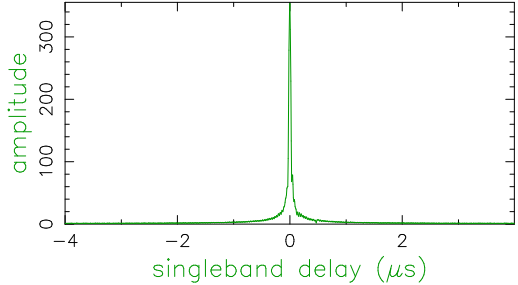
f: az 89.4 el 32.4 pa -63.6 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ff..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ff.W.109.0QR0YU

Fringe quality 9

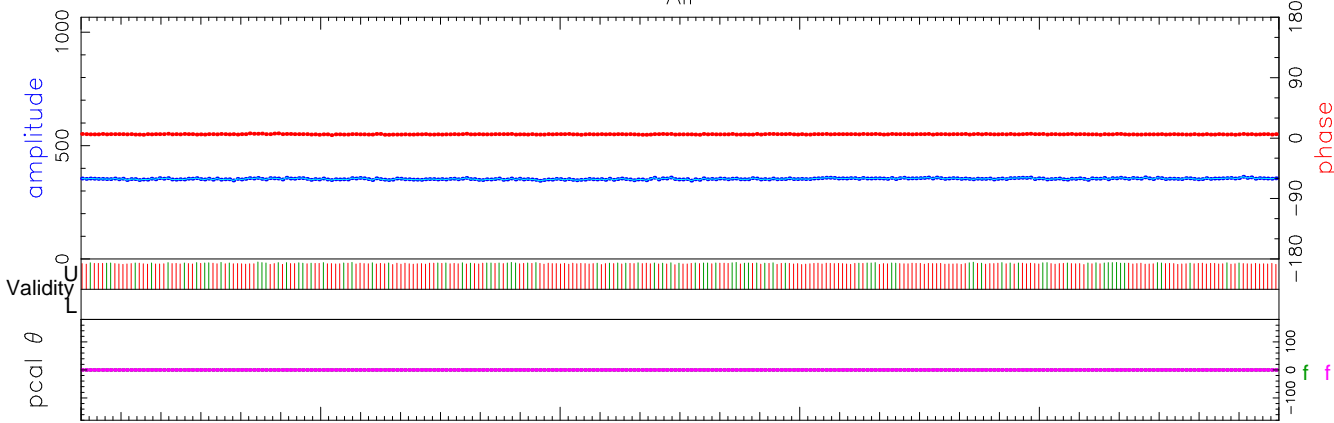


SNR 4079.8  
Int time 281.892  
Amp 355.437  
Phase -88.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.002051  
MBD -0.000007  
Fringe rate (Hz)  
-0.000003  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
5.7 Phase  
353.5 Ampl.  
512.7 Sbd box  
U/L 586/0 APs used  
f 3000 PC freqs  
f 3000 PC freqs  
f:f 0:0 PC phase  
f:f 0:0 Mani PC  
f 1000 PC amp  
f 1000  
f W00UR Chan ids  
f W00UL Chan ids

Group delay (usec)(sbd)	-2.05329516812E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-7.06906E-06	+/-	4.2E-06
Sband delay (usec)	-2.05100000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.05100E-03	+/-	4.2E-06
Phase delay (usec)	1.83740516100E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.83741E-07	+/-	9.1E-10
Delay rate (us/s)	-3.04679776421E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-3.04680E-11	+/-	5.2E-12
Total phase (deg)	-88.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-88.6	+/-	0.0

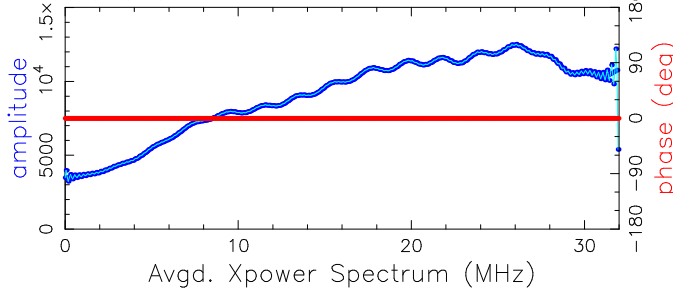
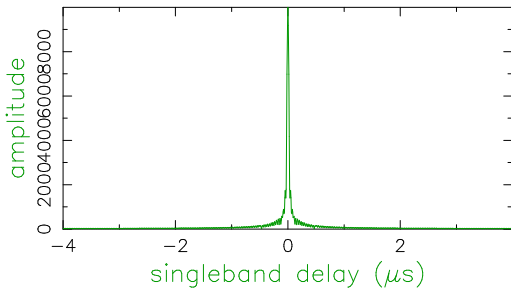
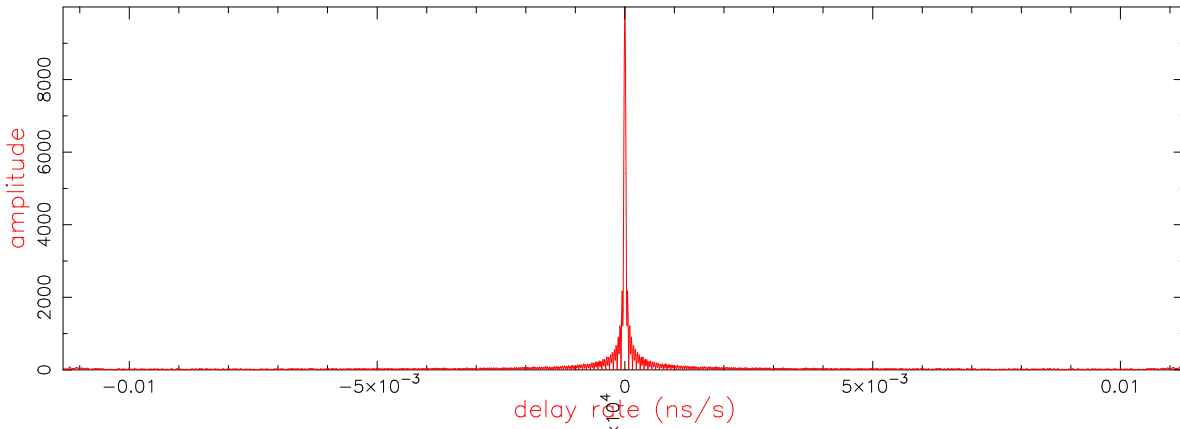
ph/seg (deg)	0.3	0.2	Amplitude	355.437 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	1.0	0.4	Search (2048X8)	353.496	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.5	0.0	Inc. seg. avg.	353.500	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
			Inc. frq. avg.	353.497	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

f: az 89.4 el 32.4 pa -63.6 f: az 89.4 el 32.4 pa -63.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ff..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ff.W.119.0QR0YU

Fringe quality 9

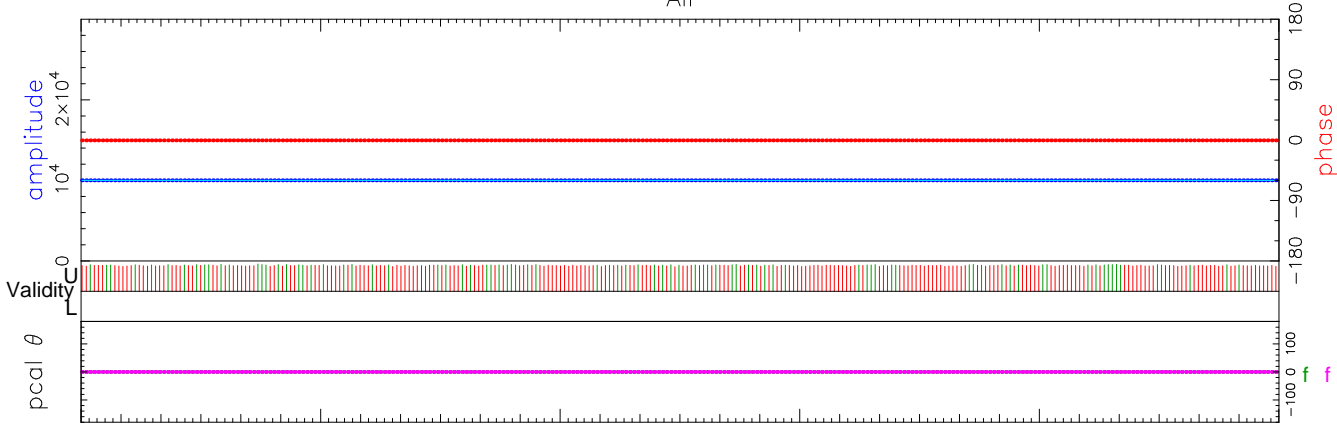
SNR 114783.7  
Int time 281.894  
Amp 9999.999  
Phase 0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000007  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163639  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



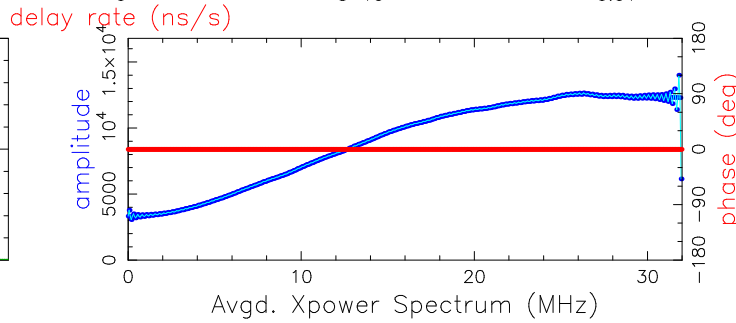
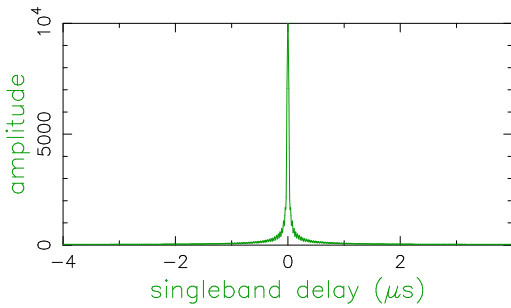
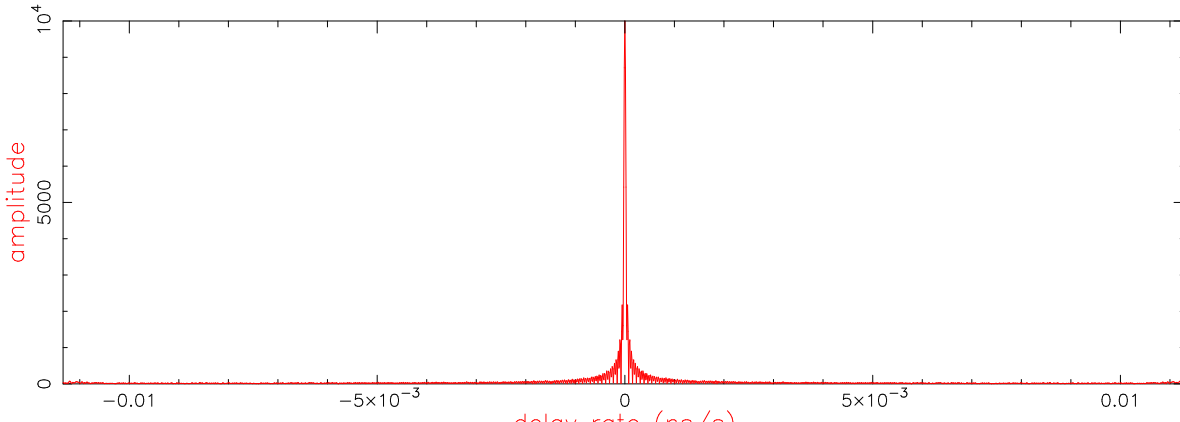
86012.00  
-0.3  
10000.0  
513.0  
U/L 586/0  
f 3000  
f 3000  
f:f 0:0  
f:f 0:0  
f 1000  
f 1000  
f W00UL  
f W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	4.36160070688E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-7.26468E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-9.44560724088E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-9.44561E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.9E-13
Total phase (deg)	0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	Search (2048X8)	9999.999	Search	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	9999.999	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	9999.999	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

f: az 89.4 el 32.4 pa -63.6      f: az 89.4 el 32.4 pa -63.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ff..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ff.W.80.0QR0YU



Fringe quality 9

SNR 114783.5

Int time 281.892

Amp 10000.005

Phase 0.3

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000007

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163640

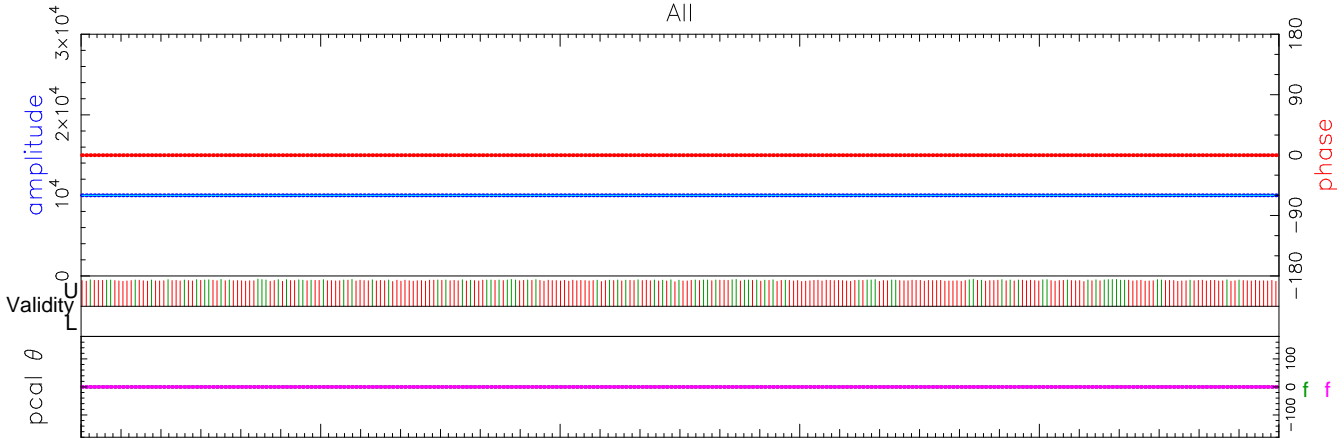
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



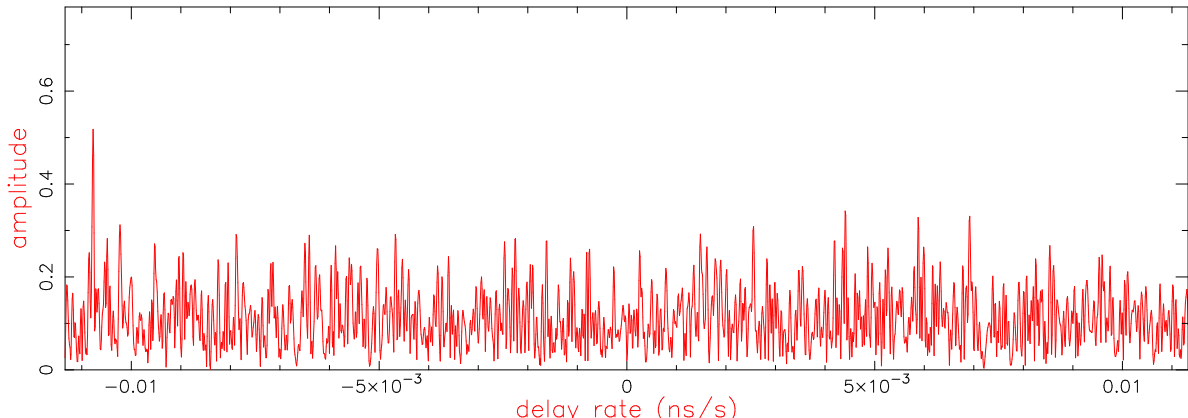
86012.00		Freq (MHz)
-0.3		Phase
10000.0		Ampl.
513.0		Sbd box
U/L 586/0		APs used
f 3000		PC freqs
f 3000		PC freqs
f:f 0:0		PC phase
f:f 0:0		Manl PC
f 1000		PC amp
f 1000		
f W00UR		Chan ids
f W00UR		Chan ids

Group delay (usec)(sbd)	4.76677672883E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-6.85951E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-8.91879374589E-09	Apriori clockrate (us/s)	0.000000E+00	Resid phdelay (usec)	-8.91879E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.9E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/-	0.0

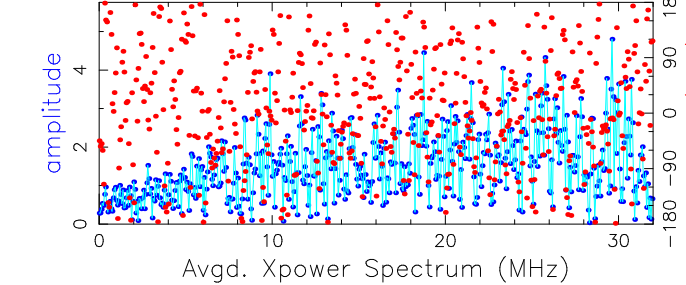
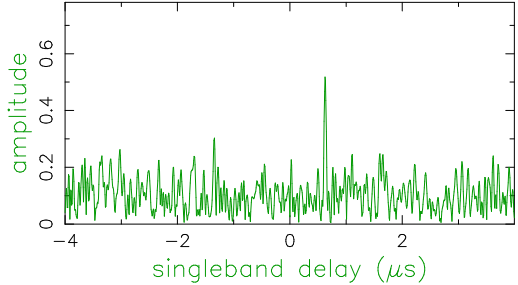
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.005 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5						
amp/seg (%)	0.0	Search (2048X8)	10000.004	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000						
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Inc. frq. avg.	10000.004	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000				
amp/frq (%)	0.0	Inc. frq. avg.	10000.004			Sample rate(MSamp/s):	64	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

f: az 89.4 el 32.4 pa -63.6      f: az 89.4 el 32.4 pa -63.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

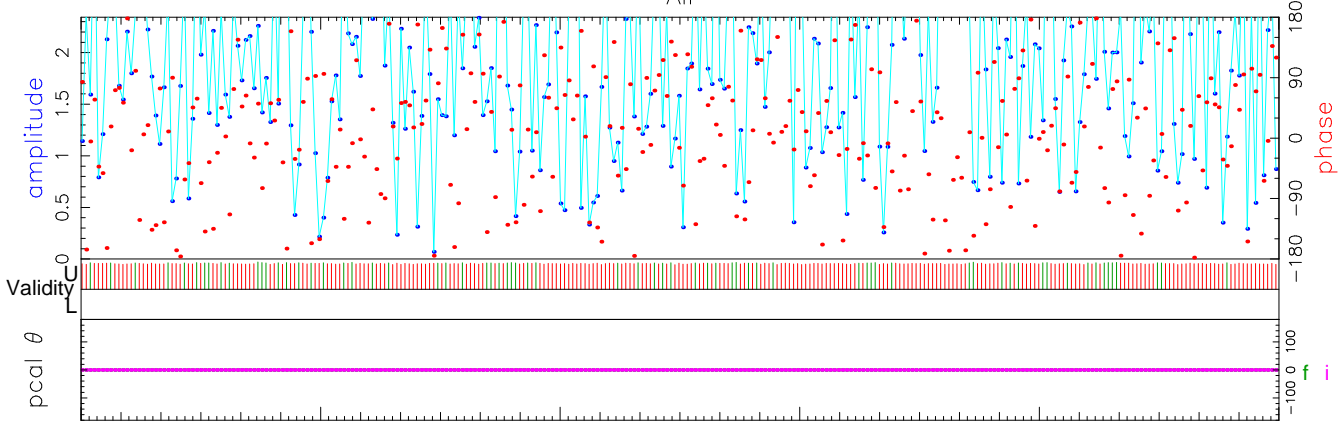
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ff..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ff.W.90.0QR0YU



Fringe quality 0  
SNR 6.0  
Int time 281.102  
Amp 0.781  
Phase 139.8  
PFD 2.6e-01  
Delays (us)  
SBD 0.627422  
MBD -0.000005  
Fringe rate (Hz)  
-0.929739  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



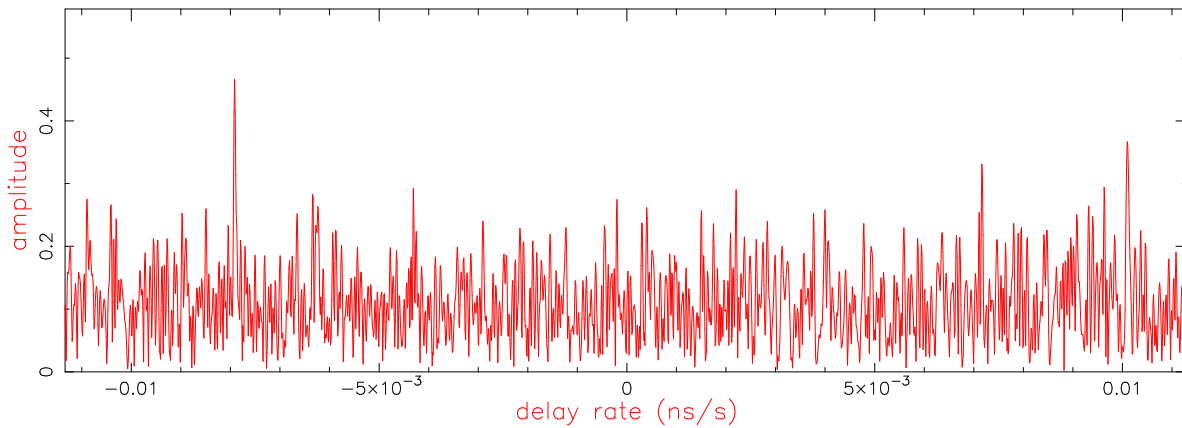
86012.00 Freq (MHz)  
28.1 Phase  
0.8 Ampl.  
593.3 Sbd box  
U/L 586/0 APs used  
f 3000 PC freqs  
i 0 PC phase  
f:i 0:0 Mani PC  
f:i 0:0 PC amp  
f 1000 Chan ids  
i 1000 Chan ids  
f W00UR  
i W00UR

Group delay (usec)(sbd)	-4.47678115327E+03	Apriori delay (usec)	-4.47740857282E+03	Resid mbdelay (usec)	-4.53216E-06	+/-	2.9E-03
Sband delay (usec)	-4.47678115082E+03	Apriori clock (usec)	1.5374871E+01	Resid sbdelay (usec)	6.27422E-01	+/-	2.9E-03
Phase delay (usec)	-4.47740857191E+03	Apriori clockrate (us/s)	2.5299999E-07	Resid phdelay (usec)	9.06689E-07	+/-	6.2E-07
Delay rate (us/s)	1.88155834629E+00	Apriori rate (us/s)	1.88156913964E+00	Resid rate (us/s)	-1.07933E-05	+/-	3.6E-09
Total phase (deg)	333.2	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	139.8	+/-	19.2

ph/seg (deg)	RMS 91.1	Theor. 164.3	Amplitude 0.781 +/- 0.131	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	348.3	286.7	Search (2048X8) 0.513	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000		
ph/frq (deg)	0.0	9.6	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000	
amp/frq (%)	0.6	16.7	Inc. seg. avg. 0.590	Sample rate(MSamp/s): 64	nlags: 512	t_cohere infinite	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.766	Data rate(Mb/s): 128	ion window (TEC) 0.00 0.00		

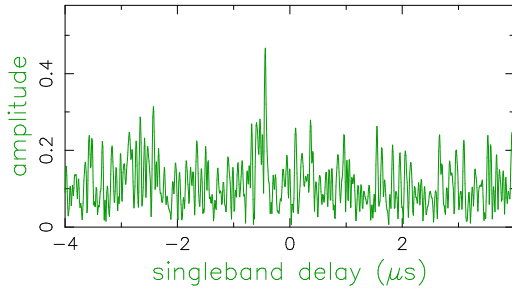
f: az 89.4 el 32.4 pa -63.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fi.W.103.0QR0YU



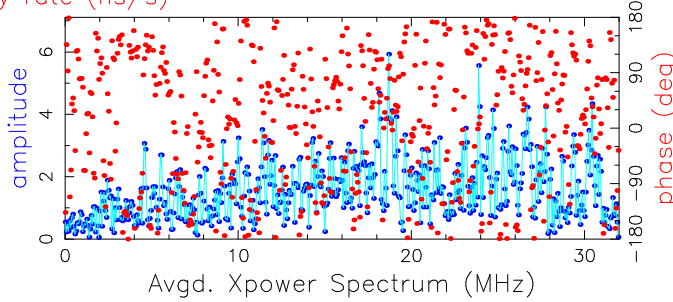


Fringe quality 0

SNR 5.4  
Int time 281.112  
Amp 0.578  
Phase -19.2  
PFD 1.0e+00  
Delays (us)  
SBD -0.439494  
MBD -0.000007  
Fringe rate (Hz)  
-0.682686  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

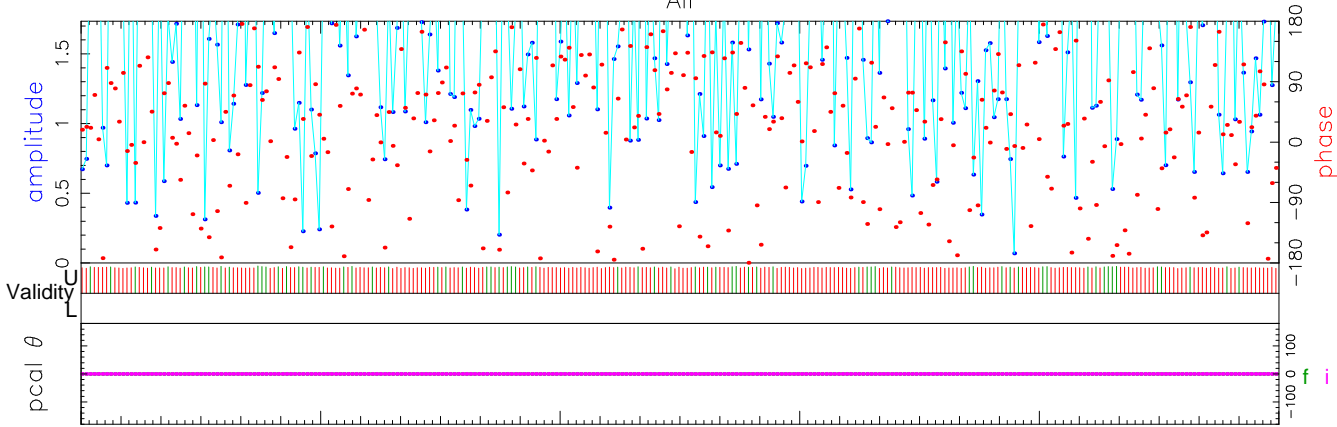


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
72.3  
0.6  
456.8  
U/L 586/0  
f 3000  
i 0  
f:i 0:0  
f:i 0:0  
f 1000  
i 1000  
f W00UL  
i W00UR

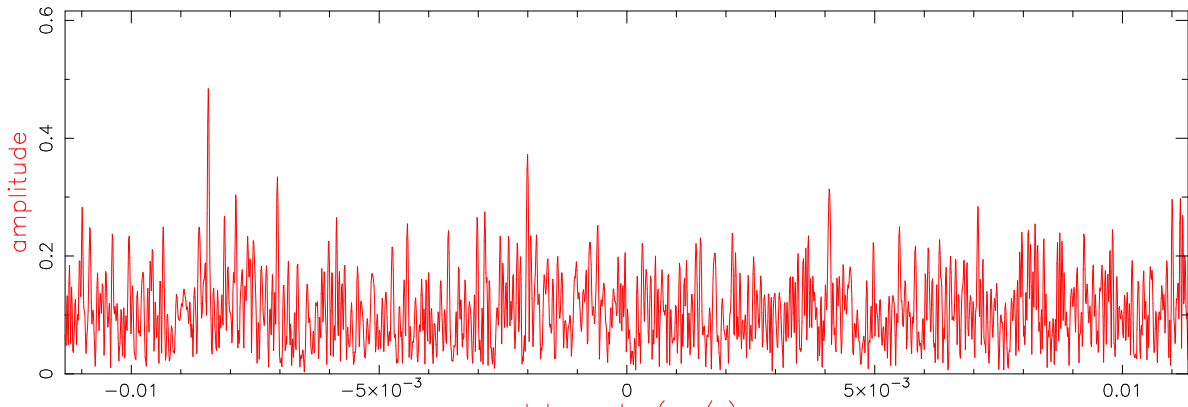
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.47784806508E+03	Apriori delay (usec)	-4.47740857282E+03	Resid mbdelay (usec)	-7.06976E-06	+/-	3.2E-03
Sband delay (usec)	-4.47784806632E+03	Apriori clock (usec)	1.5374871E+01	Resid sbdelay (usec)	-4.39494E-01	+/-	3.2E-03
Phase delay (usec)	-4.47740857049E+03	Apriori clockrate (us/s)	2.5299999E-07	Resid phdelay (usec)	2.33066E-06	+/-	6.9E-07
Delay rate (us/s)	1.88156121434E+00	Apriori rate (us/s)	1.88156913964E+00	Resid rate (us/s)	-7.92530E-06	+/-	4.0E-09
Total phase (deg)	-185.8	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	-19.2	+/-	21.3

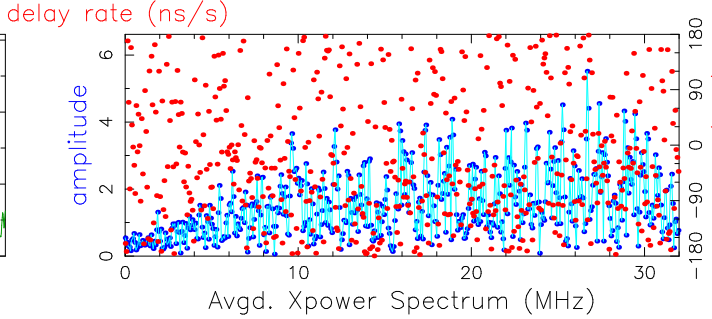
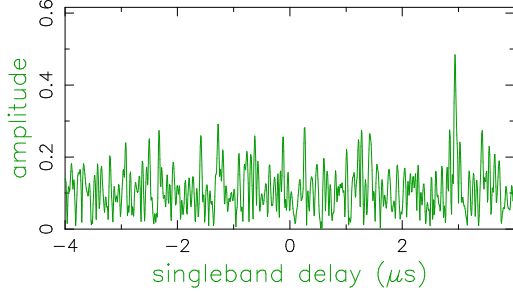
ph/seg (deg)	89.3	Theor.	182.5	Amplitude	0.578 +/- 0.108	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	389.1	Search (2048X8)	0.463	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000
amp/frq (%)	0.5	Inc. seg. avg.	0.398	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.565	Data rate (Mb/s):	128	ion window (TEC)	0.00	0.00		

f: az 89.4 el 32.4 pa -63.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fi.W.115.0QR0YU

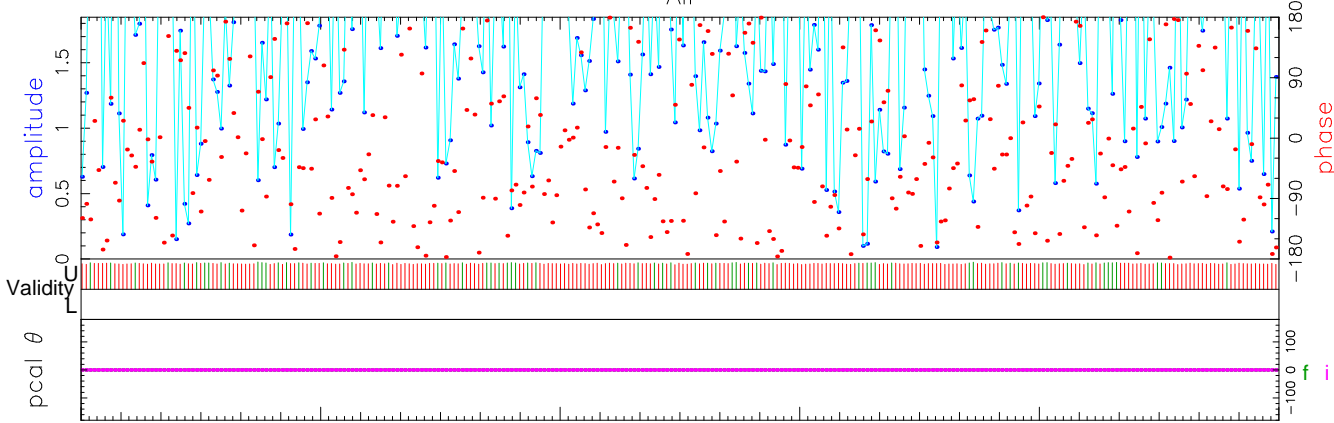


Fringe quality 0  
SNR 5.6  
Int time 281.102  
Amp 0.616  
Phase 290.5  
PFD 9.7e-01  
Delays (us)  
SBD 2.937901  
MBD -0.000004  
Fringe rate (Hz)  
-0.729048  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All

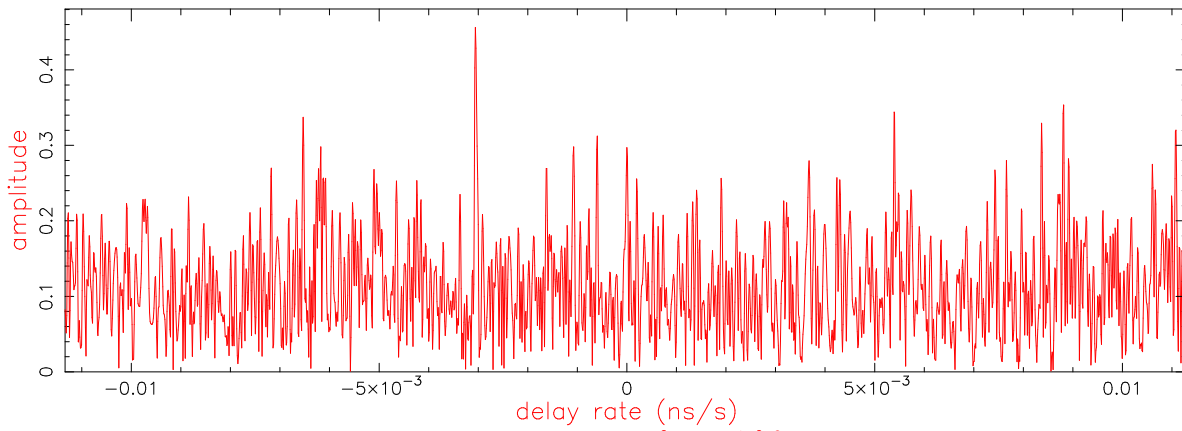


86012.00 Freq (MHz)  
-88.1 Phase  
0.6 Ampl.  
889.1 Sbd box  
U/L 586/0 APs used  
f 3000 PC freqs  
i 0 PC freqs  
f:i 0:0 PC phase  
f:i 0:0 Manl PC  
f 1000 PC amp  
i 1000  
f W00UR Chan ids  
i W00UL Chan ids

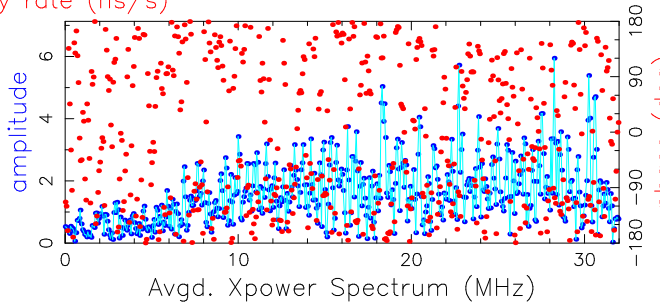
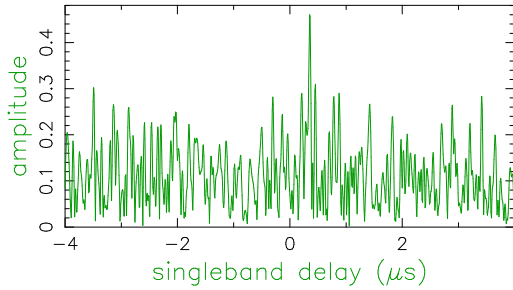
Group delay (usec)(sbd)	-4.47447067318E+03	Apriori delay (usec)	-4.47740857282E+03	Resid mbdelay (usec)	-4.37648E-06	+/-	3.1E-03
Sband delay (usec)	-4.47447067132E+03	Apriori clock (usec)	1.5374871E+01	Resid sbdelay (usec)	2.93790E+00	+/-	3.1E-03
Phase delay (usec)	-4.47740857566E+03	Apriori clockrate (us/s)	2.5299999E-07	Resid phdelay (usec)	-2.84145E-06	+/-	6.7E-07
Delay rate (us/s)	1.88156067611E+00	Apriori rate (us/s)	1.88156913964E+00	Resid rate (us/s)	-8.46353E-06	+/-	3.8E-09
Total phase (deg)	123.9	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	290.5	+/-	20.6

ph/seg (deg)	88.4	Theor.	176.7	Amplitude	0.616 +/- 0.111	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	348.7	Search (2048X8)	0.468	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.415	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.606	Inc. frq. avg.	0.606	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fi.W.135.0QR0YU

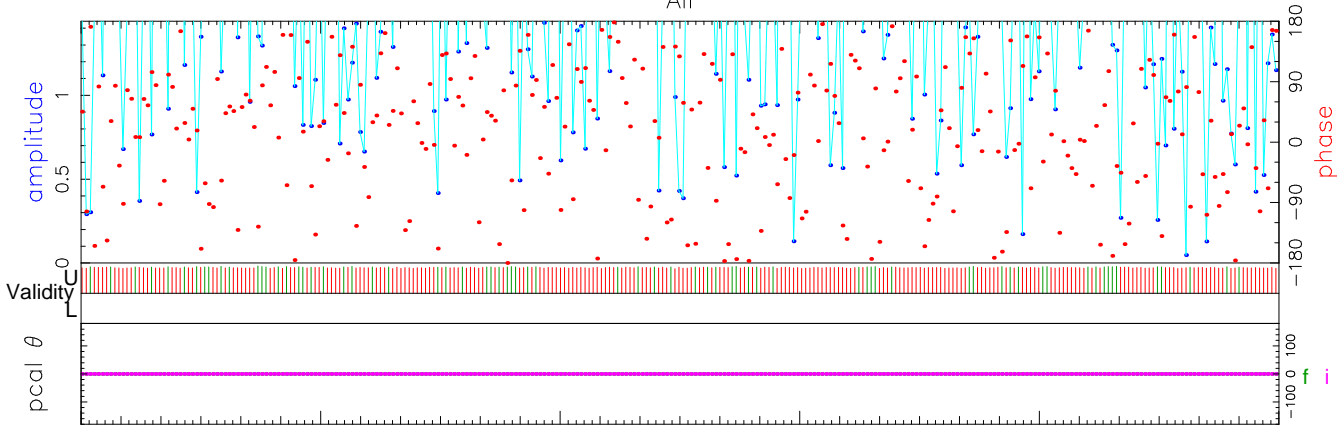


Fringe quality 0  
SNR 5.3  
Int time 281.112  
Amp 0.481  
Phase 228.9  
PFD 1.0e+00  
Delays (us)  
SBD 0.354994  
MBD -0.000006  
Fringe rate (Hz)  
-0.263528  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
70.7  
0.5  
558.4  
U/L 586/0  
f 3000  
i 0  
f:i 0:0  
f:i 0:0  
f 1000  
i 1000  
f W00UL  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.47705358189E+03	Apriori delay (usec)	-4.47740857282E+03	Resid mbdelay (usec)	-6.04278E-06	+/-	3.2E-03
Sband delay (usec)	-4.47705357882E+03	Apriori clock (usec)	1.5374871E+01	Resid sbdelay (usec)	3.54994E-01	+/-	3.2E-03
Phase delay (usec)	-4.47740857054E+03	Apriori clockrate (us/s)	2.5299999E-07	Resid phdelay (usec)	2.27831E-06	+/-	6.9E-07
Delay rate (us/s)	1.88156608035E+00	Apriori rate (us/s)	1.88156913964E+00	Resid rate (us/s)	-3.05930E-06	+/-	4.0E-09
Total phase (deg)	62.3	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	228.9	+/-	21.4

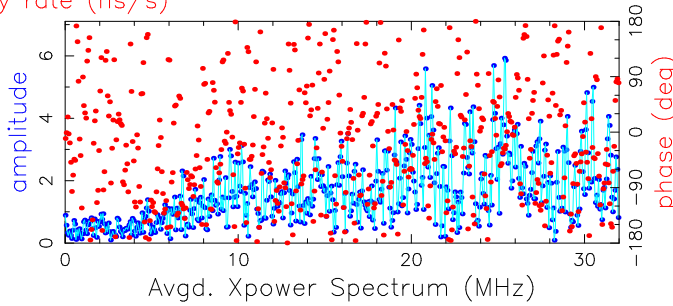
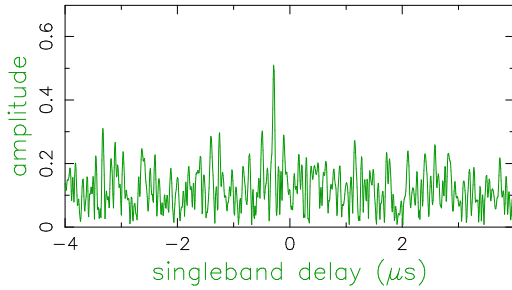
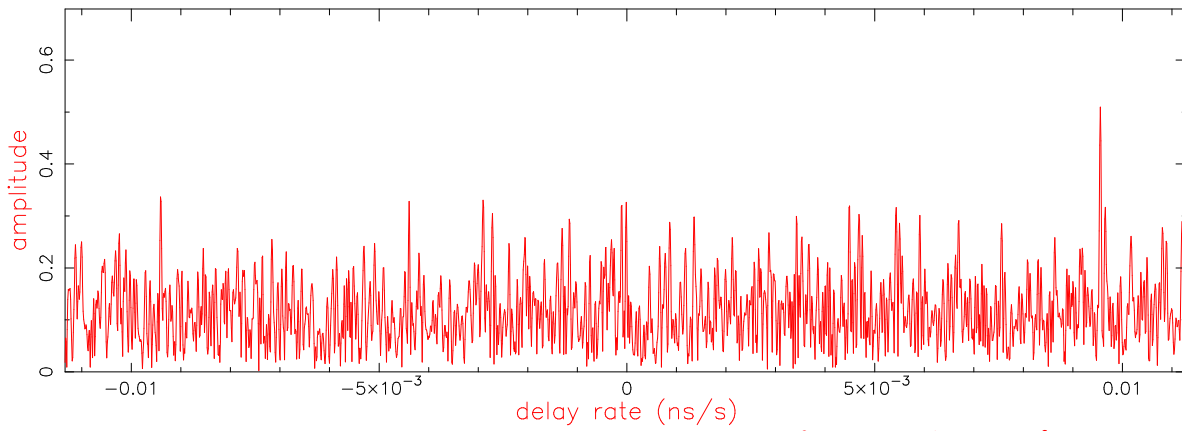
ph/seg (deg)	92.7	Theor.	183.4	Amplitude	0.481 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	396.1	Search (2048X8)	0.453	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.329	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	2.2	Inc. frq. avg.	0.462	Inc. frq. avg.	0.462	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fi.W.91.0QR0YU

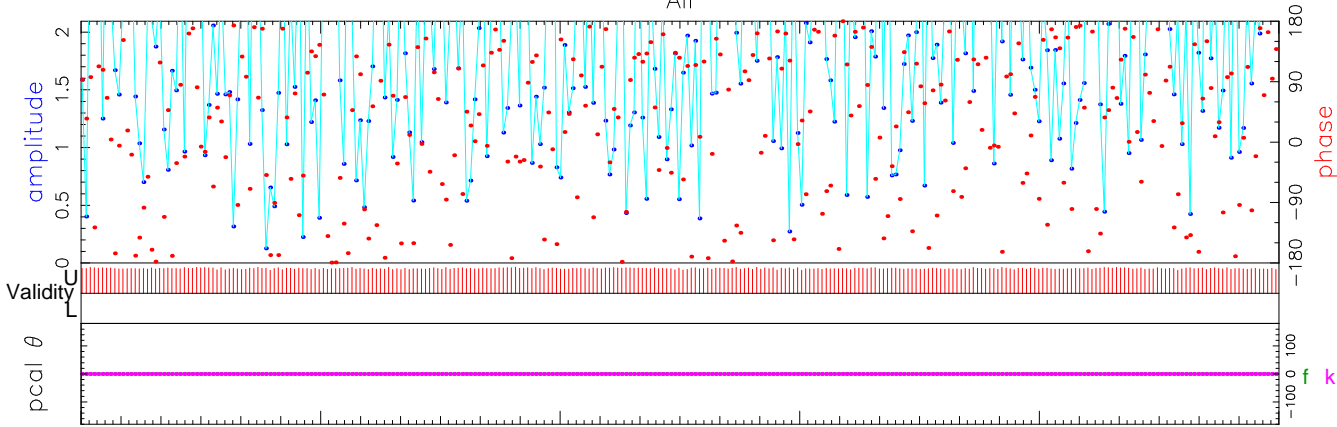
Fringe quality 0

SNR 5.7  
Int time 270.096  
Amp 0.698  
Phase -160.8  
PFD 6.9e-01  
Delays (us)  
SBD -0.287353  
MBD 0.000007  
Fringe rate (Hz)  
0.824093  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



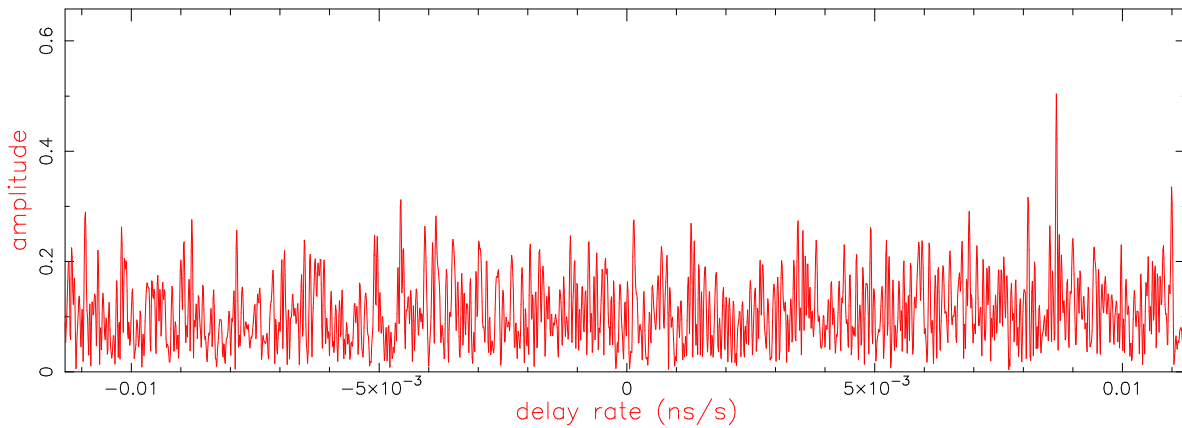
86012.00  
120.5  
0.7  
476.2  
U/L 586/0  
f 3000  
k 3000  
f:k 0:0  
f:k 0:0  
f 1000  
k 1000  
f W00UR  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.08828991666E+03	Apriori delay (usec)	2.08857726495E+03	Resid mbdelay (usec)	6.96005E-06	+/-	3.0E-03
Sband delay (usec)	2.08828991195E+03	Apriori clock (usec)	-8.7217007E+00	Resid sbdelay (usec)	-2.87353E-01	+/-	3.0E-03
Phase delay (usec)	2.08857726883E+03	Apriori clockrate (us/s)	8.6659995E-08	Resid phdelay (usec)	3.88664E-06	+/-	6.4E-07
Delay rate (us/s)	-5.71904201958E-02	Apriori rate (us/s)	-5.71999870976E-02	Resid rate (us/s)	9.56690E-06	+/-	3.7E-09
Total phase (deg)	-303.9	Apriori accel (us/s/s)	-1.17742361062E-05	Resid phase (deg)	-160.8	+/-	20.0

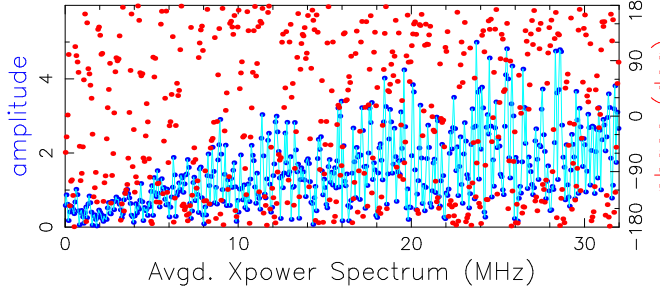
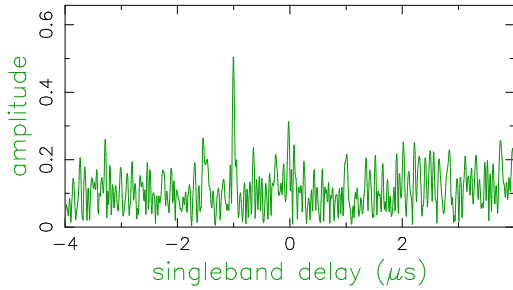
ph/seg (deg)	92.9	Theor.	170.8	Amplitude	0.698 +/- 0.122	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	370.3	Search (2048X8)	0.505	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.520	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.686	Inc. frq. avg.	0.686	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 326.216 -438.775 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fk.W.111.0QR0YU



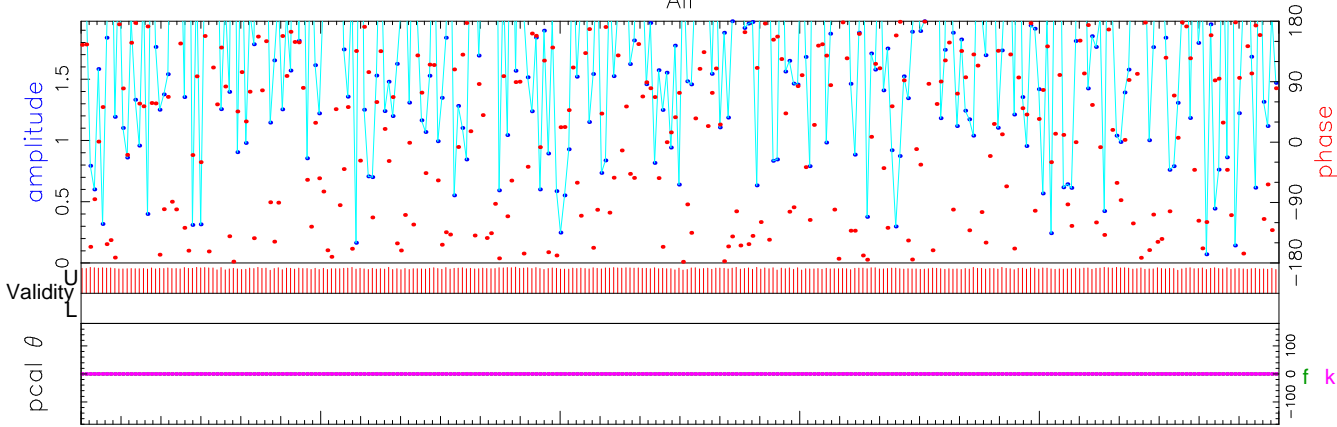
Fringe quality 0

SNR 5.7  
Int time 270.111  
Amp 0.658  
Phase -46.2  
PFD 7.0e-01  
Delays (us)  
SBD -1.004455  
MBD 0.000004  
Fringe rate (Hz)  
0.747489  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
159.5  
0.6  
384.4  
U/L 586/0  
f 3000  
k 3000  
f:k 0:0  
f:k 0:0  
f 1000  
k 1000  
f W00UL  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.08757280482E+03	Apriori delay (usec)	2.08857726495E+03	Resid mbdelay (usec)	4.36879E-06	+/-	3.0E-03
Sband delay (usec)	2.08757280945E+03	Apriori clock (usec)	-8.7217007E+00	Resid sbdelay (usec)	-1.00446E+00	+/-	3.0E-03
Phase delay (usec)	2.08857727009E+03	Apriori clockrate (us/s)	8.6659995E-08	Resid phdelay (usec)	5.14257E-06	+/-	6.4E-07
Delay rate (us/s)	-5.71913094895E-02	Apriori rate (us/s)	-5.71999870976E-02	Resid rate (us/s)	8.67761E-06	+/-	3.7E-09
Total phase (deg)	-189.3	Apriori accel (us/s/s)	-1.17742361062E-05	Resid phase (deg)	-46.2	+/-	20.0

ph/seg (deg)	89.6	Theor.	171.0	Amplitude	0.658 +/- 0.115	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	341.9	Search (2048X8)	0.496	Search (2048X8)	0.496	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	1.3	Inc. seg. avg.	0.457	Inc. seg. avg.	0.457	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
		Inc. frq. avg.	0.640	Inc. frq. avg.	0.640	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

f: az 89.4 el 32.4 pa -63.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 326.216 -438.775 simultaneous interpolator

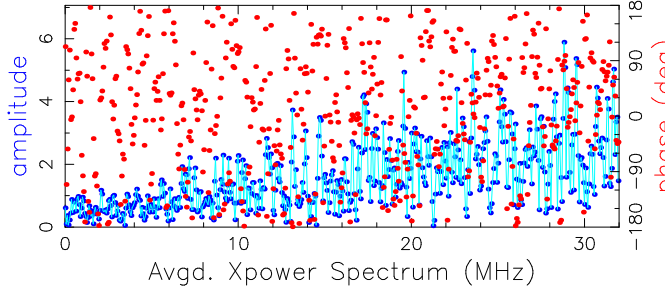
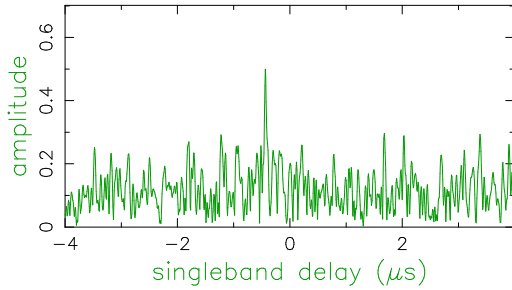
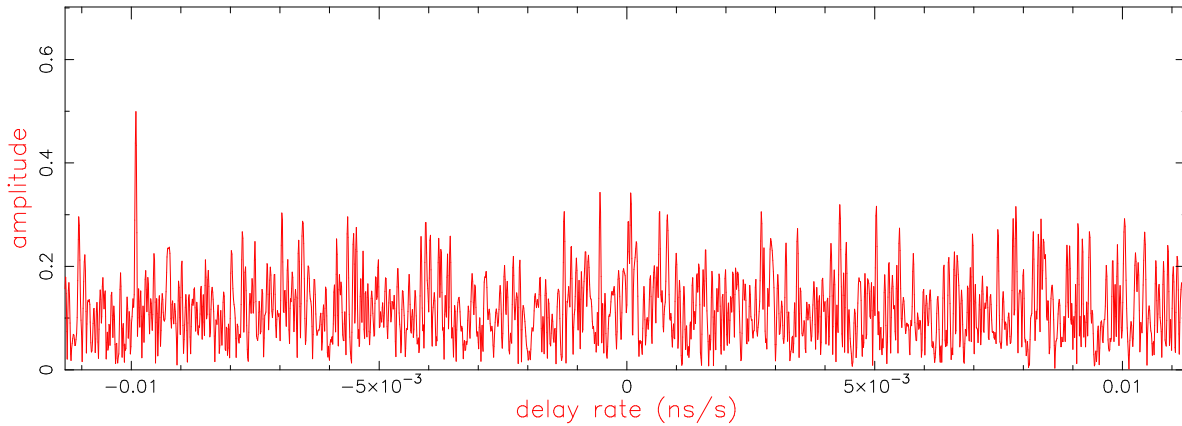
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fk.W.120.0QR0YU



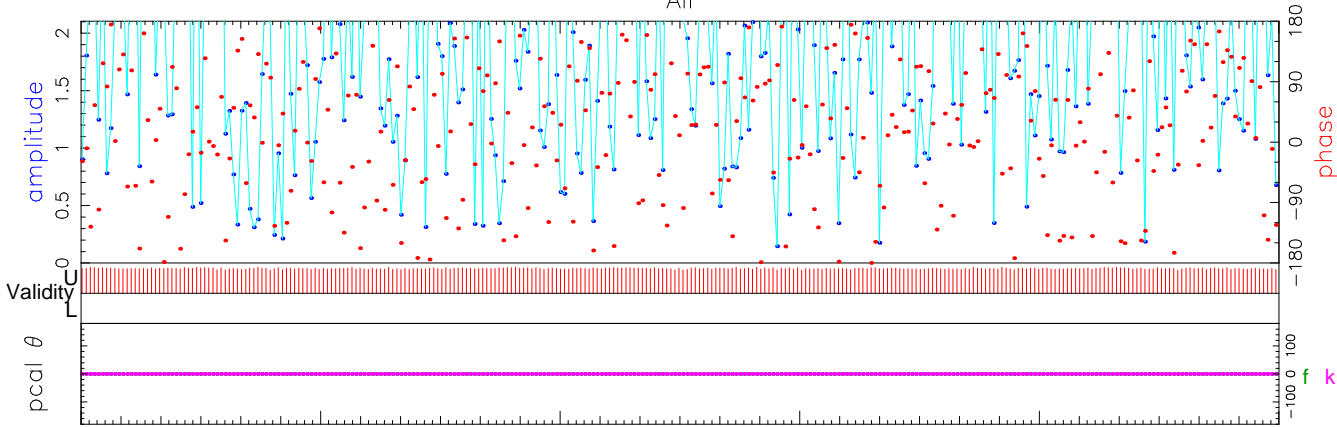
Fringe quality 0

SNR 5.6  
Int time 270.092  
Amp 0.702  
Phase -245.4  
PFD 9.0e-01  
Delays (us)  
SBD -0.436127  
MBD -0.000007  
Fringe rate (Hz)  
-0.854722  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
51.2  
0.7  
457.2  
U/L 586/0  
f 3000  
k 3000  
f:k 0:0  
f:k 0:0  
f 1000  
k 1000  
f W00UR  
k W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.08814113306E+03	Apriori delay (usec)	2.08857726495E+03	Resid mbdelay (usec)	-6.69488E-06	+/-	3.1E-03
Sband delay (usec)	2.08814113845E+03	Apriori clock (usec)	-8.7217007E+00	Resid sbdelay (usec)	-4.36127E-01	+/-	3.1E-03
Phase delay (usec)	2.08857726660E+03	Apriori clockrate (us/s)	8.6659995E-08	Resid phdelay (usec)	1.65266E-06	+/-	6.6E-07
Delay rate (us/s)	-5.72099095734E-02	Apriori rate (us/s)	-5.71999870976E-02	Resid rate (us/s)	-9.92248E-06	+/-	3.8E-09
Total phase (deg)	-28.5	Apriori accel (us/s/s)	-1.17742361062E-05	Resid phase (deg)	-245.4	+/-	20.4

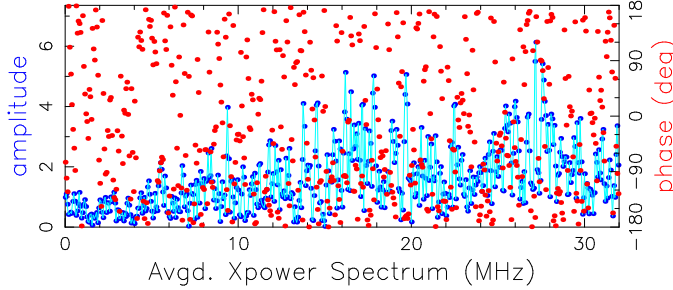
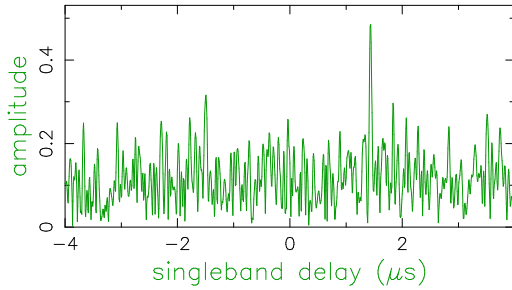
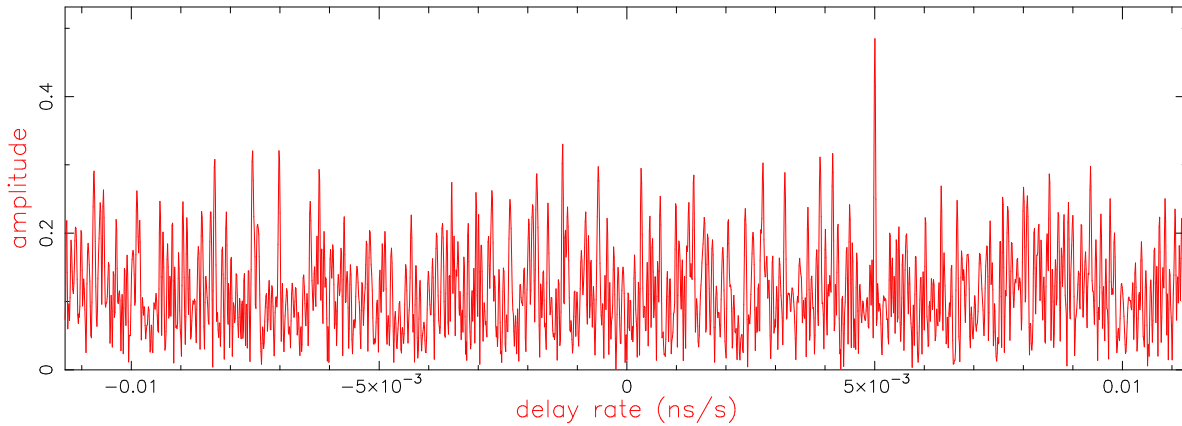
ph/seg (deg)	92.8	Theor.	174.4	Amplitude	0.702 +/- 0.125	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	371.9	Search (2048X8)	0.491	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.504	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.689	Inc. frq. avg.	0.689	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 326.216 -438.775 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fk.W.144.0QR0YU

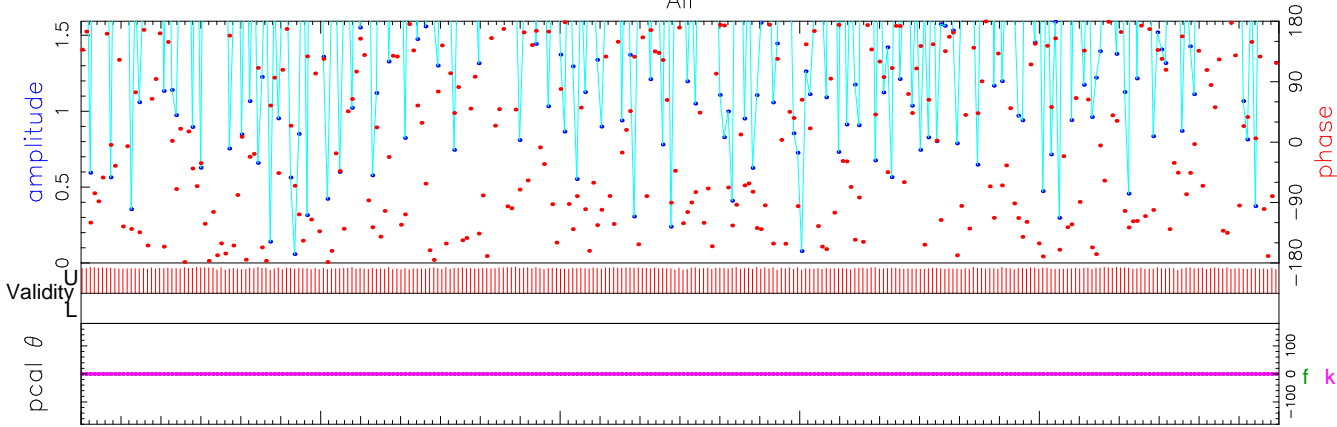
Fringe quality 0

SNR 5.5  
Int time 270.108  
Amp 0.531  
Phase 49.3  
PFD 9.9e-01  
Delays (us)  
SBD 1.434178  
MBD 0.000007  
Fringe rate (Hz)  
0.431989  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-157.3  
0.5  
696.6  
U/L 586/0  
f 3000  
k 3000  
f:k 0:0  
f:k 0:0  
f 1000  
k 1000  
f W00UL  
k W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

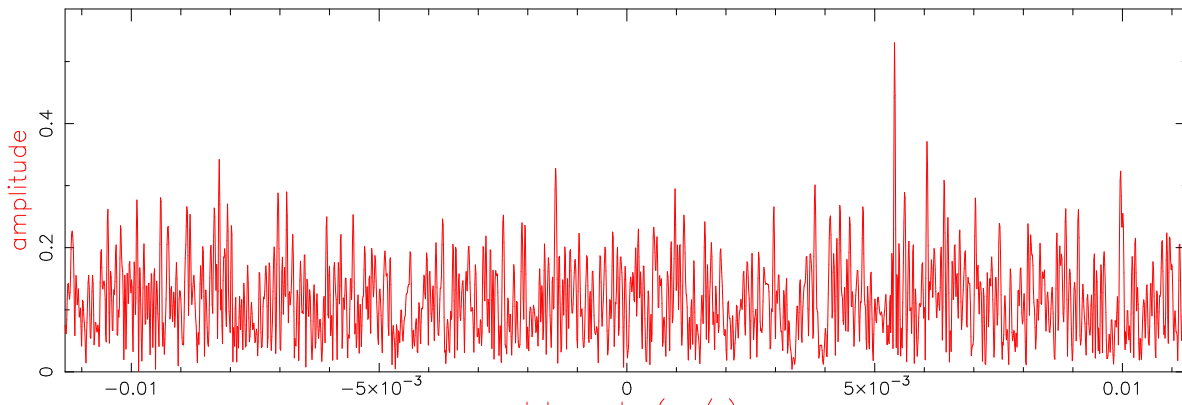
Group delay (usec)(sbd)	2.09001144359E+03	Apriori delay (usec)	2.08857726495E+03	Resid mbdelay (usec)	6.66577E-06	+/-	3.1E-03
Sband delay (usec)	2.09001144345E+03	Apriori clock (usec)	-8.7217007E+00	Resid sbdelay (usec)	1.43418E+00	+/-	3.1E-03
Phase delay (usec)	2.08857725987E+03	Apriori clockrate (us/s)	8.6659995E-08	Resid phdelay (usec)	-5.07327E-06	+/-	6.7E-07
Delay rate (us/s)	-5.71949721329E-02	Apriori rate (us/s)	-5.71999870976E-02	Resid rate (us/s)	5.01496E-06	+/-	3.9E-09
Total phase (deg)	266.3	Apriori accel (us/s/s)	-1.17742361062E-05	Resid phase (deg)	49.3	+/-	20.8

ph/seg (deg)	90.6	Theor.	178.3	Amplitude	0.531 +/- 0.097	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	367.2	Search (2048X8)	0.481	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.366	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.9	Inc. frq. avg.	0.518	Inc. frq. avg.	0.518	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

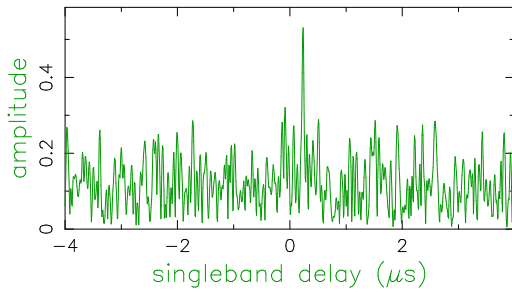
f: az 89.4 el 32.4 pa -63.6 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 326.216 -438.775 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fk.W.96.0QR0YU

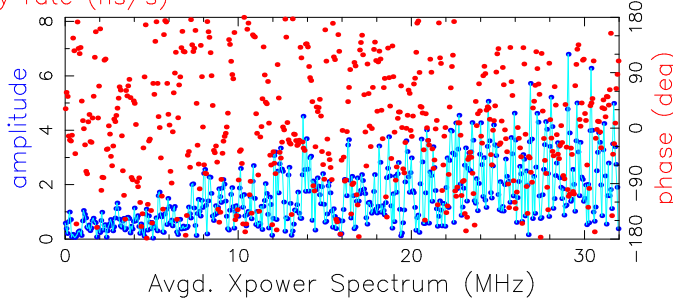
Fringe quality 0



SNR 6.0  
Int time 270.376  
Amp 0.585  
Phase 197.9  
PFD 2.6e-01  
Delays (us)  
SBD 0.233027  
MBD 0.000005  
Fringe rate (Hz)  
0.466139  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

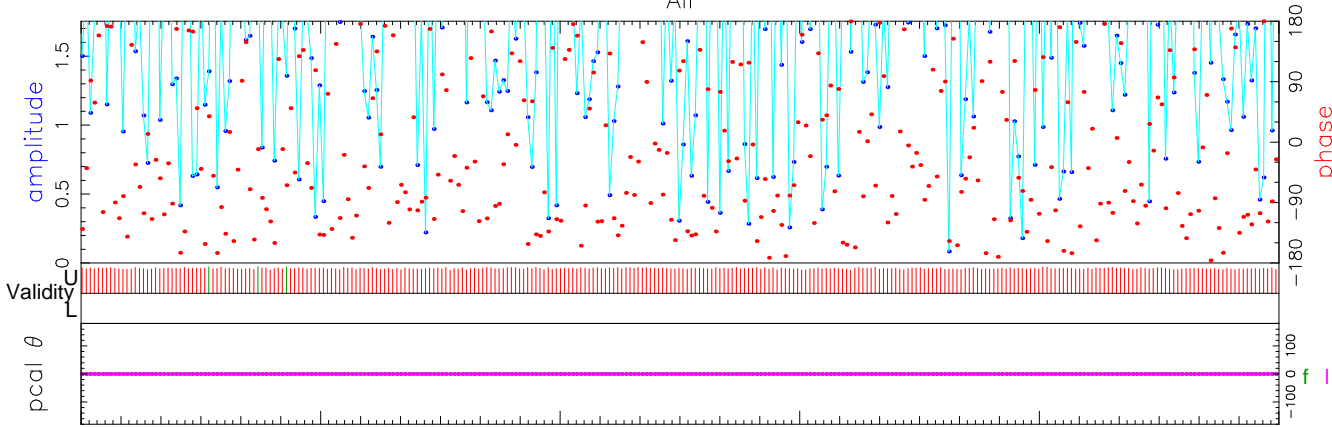


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



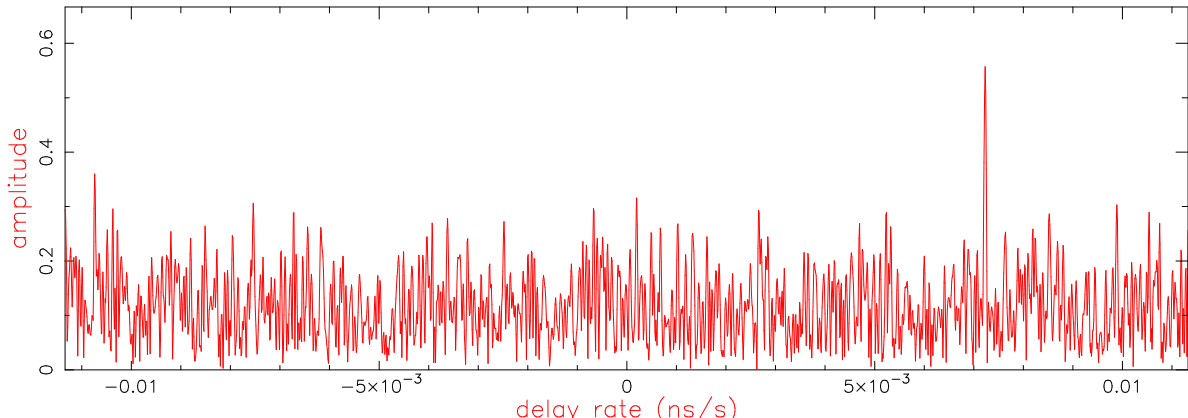
86012.00  
-99.9  
0.6  
542.8  
U/L 586/0  
f 3000  
l 3000  
f:l 0:0  
f:l 0:0  
f 1000  
l 1000  
f W00UL  
l W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

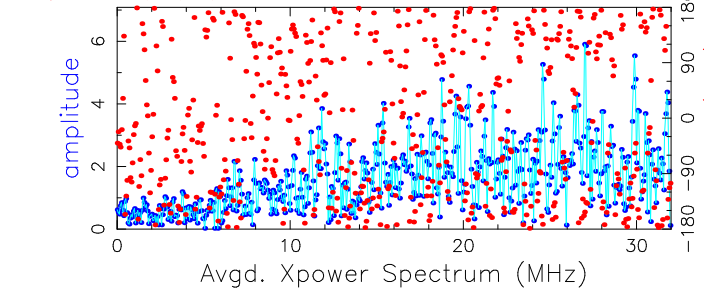
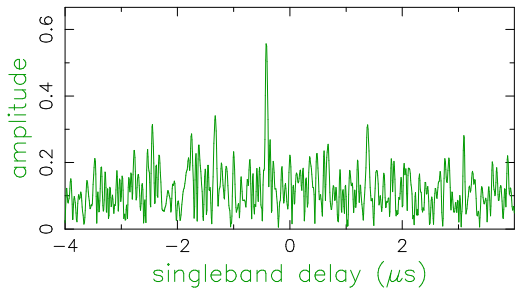
Group delay (usec)(sbd)	6.32548390521E+02	Apriori delay (usec)	6.32315360132E+02	Resid mbdelay (usec)	4.76529E-06	+/- 2.9E-03
Sband delay (usec)	6.32548386632E+02	Apriori clock (usec)	1.6214590E+00	Resid sbdelay (usec)	2.33027E-01	+/- 2.9E-03
Phase delay (usec)	6.32315356909E+02	Apriori clockrate (us/s)	1.3300000E-07	Resid phdelay (usec)	-3.22208E-06	+/- 6.2E-07
Delay rate (us/s)	4.06464997824E-02	Apriori rate (us/s)	4.06410883698E-02	Resid rate (us/s)	5.41141E-06	+/- 3.6E-09
Total phase (deg)	241.7	Apriori accel (us/s/s)	-5.72154534897E-06	Resid phase (deg)	197.9	+/- 19.2

ph/seg (deg)	88.6	Theor.	164.2	Amplitude	0.585 +/- 0.098	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	339.5	Search (2048X8)	0.525	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.427	Inc. frq. avg.	0.575	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.575			Sample rate(MSamp/s): 64	ion window (TEC)	-0.011 0.011	

f: az 89.4 el 32.4 pa -63.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -249.959 -767.894 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fl.W.105.0QR0YU



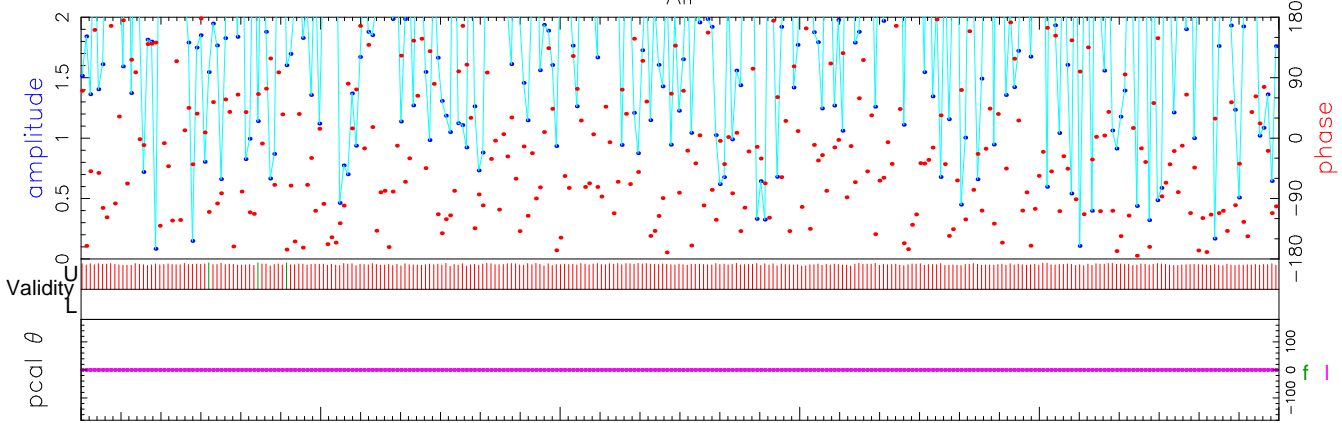
Fringe quality 0  
SNR 6.3  
Int time 270.366  
Amp 0.667  
Phase -297.7  
PFD 4.0e-02  
Delays (us)  
SBD -0.419147  
MBD 0.000005  
Fringe rate (Hz)  
0.623820  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



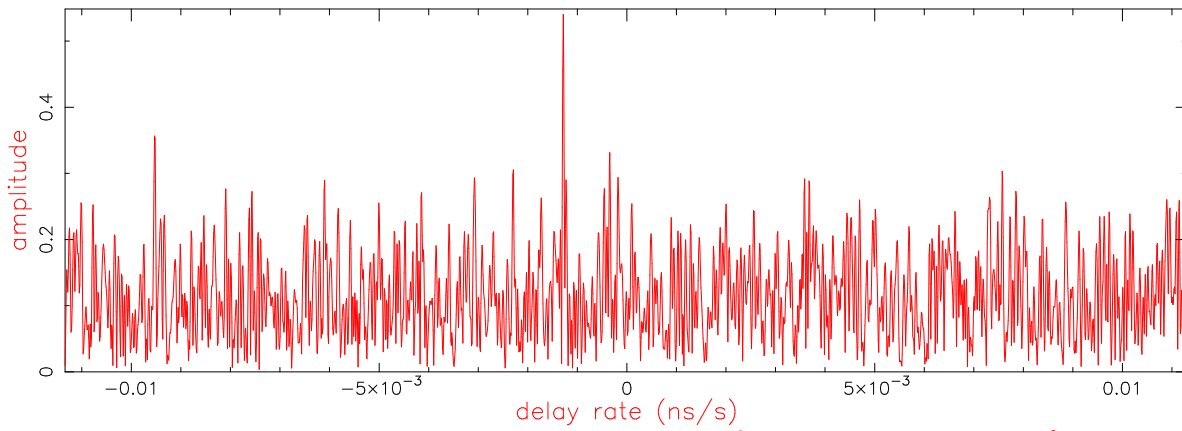
86012.00  
-63.3  
0.7  
459.4  
U/L 586/0  
f 3000  
l 3000  
f:l 0:0  
f:l 0:0  
f 1000  
l 1000  
f W00UR  
l W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

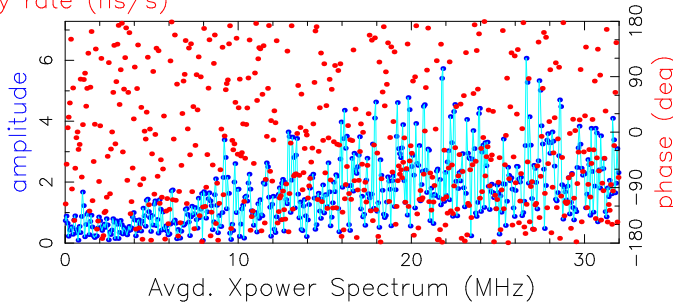
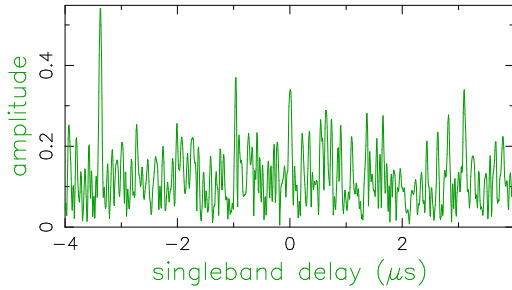
Group delay (usec)(sbd)	6.31896214025E+02	Apriori delay (usec)	6.32315360132E+02	Resid mbdelay (usec)	4.70976E-06	+/-	2.7E-03
Sband delay (usec)	6.31896213132E+02	Apriori clock (usec)	1.6214590E+00	Resid sbdelay (usec)	-4.19147E-01	+/-	2.7E-03
Phase delay (usec)	6.32315358092E+02	Apriori clockrate (us/s)	1.3300000E-07	Resid phdelay (usec)	-2.03989E-06	+/-	5.9E-07
Delay rate (us/s)	4.06483302999E-02	Apriori rate (us/s)	4.06410883698E-02	Resid rate (us/s)	7.24193E-06	+/-	3.4E-09
Total phase (deg)	-253.9	Apriori accel (us/s/s)	-5.72154534897E-06	Resid phase (deg)	-297.7	+/-	18.2

ph/seg (deg)	89.3	Theor.	155.7	Amplitude	0.667 +/- 0.106	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	332.2	Search (2048X8)	0.553	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.532	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.654	Inc. frq. avg.	0.654	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

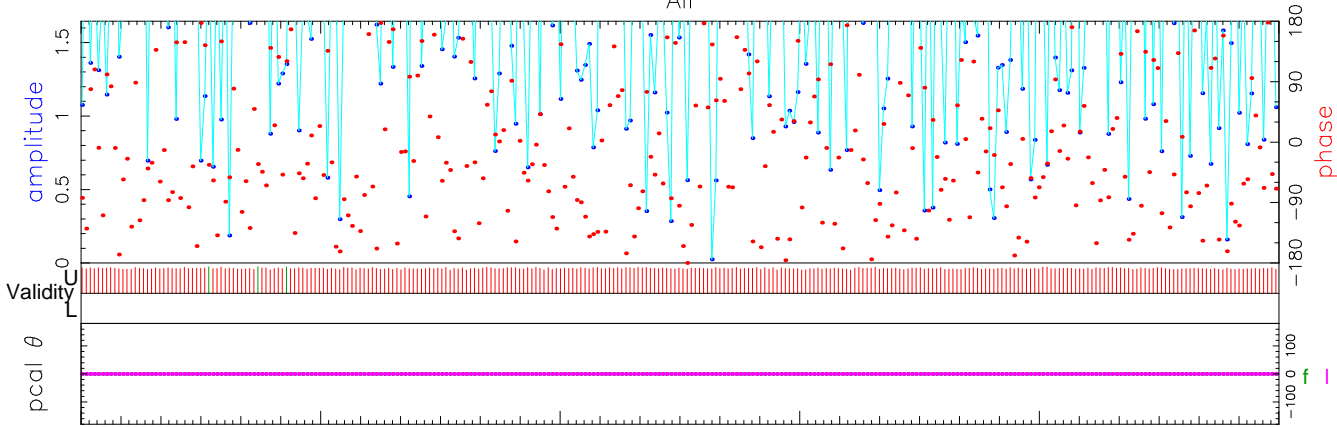
f: az 89.4 el 32.4 pa -63.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -249.959 -767.894 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fl.W.117.0QR0YU



Fringe quality 0  
SNR 6.1  
Int time 270.382  
Amp 0.549  
Phase -246.2  
PFD 1.1e-01  
Delays (us)  
SBD -3.371140  
MBD -0.000007  
Fringe rate (Hz)  
-0.110799  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-64.3  
0.5  
81.5  
U/L 586/0  
f 3000  
l 3000  
f:l 0:0  
f:l 0:0  
f 1000  
l 1000  
f W00UL  
l W00UR

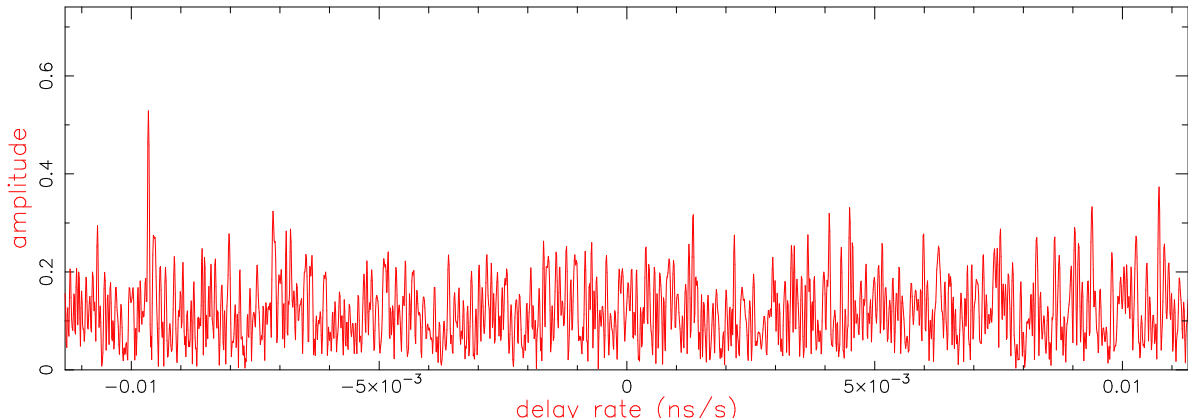
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	6.28944218900E+02	Apriori delay (usec)	6.32315360132E+02	Resid mbdelay (usec)	-6.97093E-06	+/-	2.8E-03
Sband delay (usec)	6.28944220132E+02	Apriori clock (usec)	1.6214590E+00	Resid sbdelay (usec)	-3.37114E+00	+/-	2.8E-03
Phase delay (usec)	6.32315358057E+02	Apriori clockrate (us/s)	1.3300000E-07	Resid phdelay (usec)	-2.07473E-06	+/-	6.0E-07
Delay rate (us/s)	4.06398020976E-02	Apriori rate (us/s)	4.06410883698E-02	Resid rate (us/s)	-1.28627E-06	+/-	3.5E-09
Total phase (deg)	-202.4	Apriori accel (us/s/s)	-5.72154534897E-06	Resid phase (deg)	-246.2	+/-	18.7

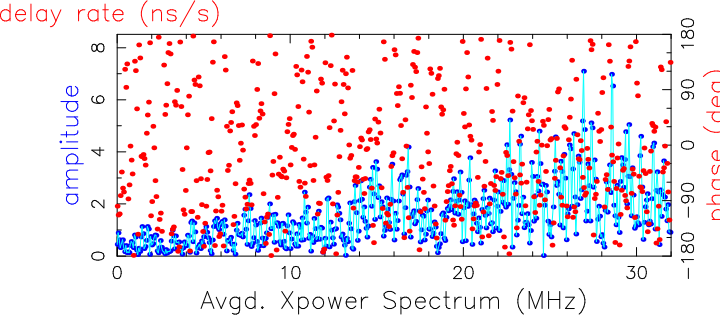
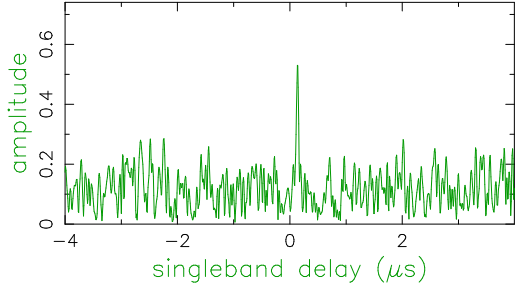
ph/seg (deg)	RMS 91.5	Theor. 159.9	Amplitude 0.549 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	337.3	279.0	Search (2048X8) 0.536	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.0	16.3	Inc. seg. avg. 0.422	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.536	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

f: az 89.4 el 32.4 pa -63.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -249.959 -767.894 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fl.W.139.0QR0YU



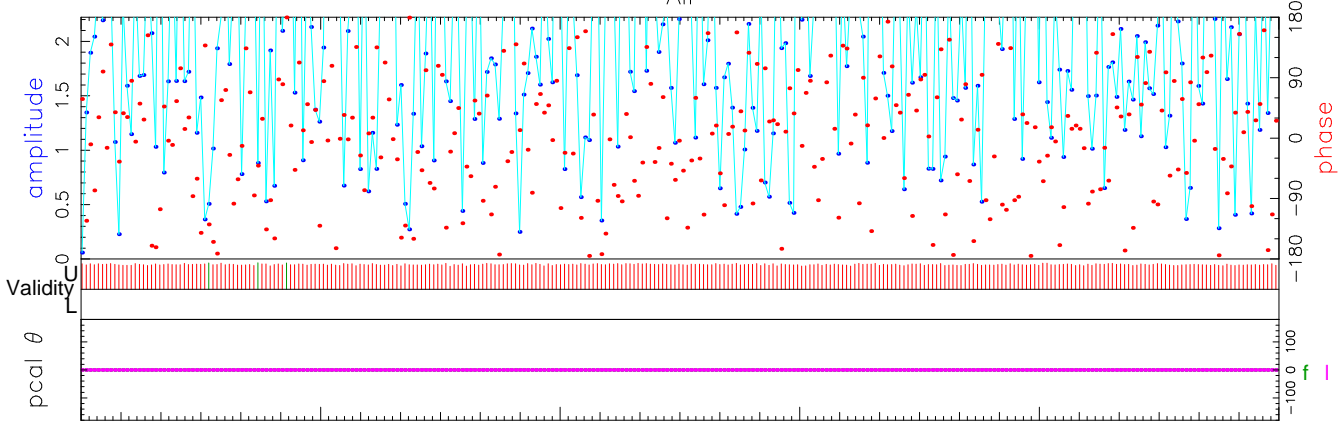


Fringe quality 0  
SNR 6.0  
Int time 270.361  
Amp 0.741  
Phase 187.4  
PFD 1.7e-01  
Delays (us)  
SBD 0.136606  
MBD -0.000005  
Fringe rate (Hz)  
-0.833260  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
12.4  
0.7  
530.5  
U/L 586/0  
f 3000  
l 3000  
f:l 0:0  
f:l 0:0  
f 1000  
l 1000  
f W00UR  
l W00UL

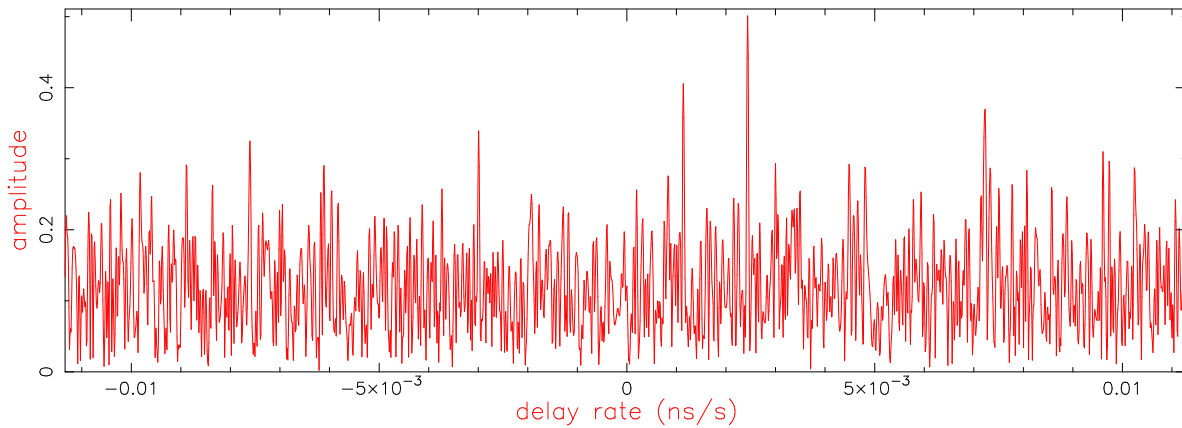
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	6.32451964252E+02	Apriori delay (usec)	6.32315360132E+02	Resid mbdelay (usec)	-4.72474E-06	+/-	2.8E-03
Sband delay (usec)	6.32451966132E+02	Apriori clock (usec)	1.6214590E+00	Resid sbdelay (usec)	1.36606E-01	+/-	2.8E-03
Phase delay (usec)	6.32315360532E+02	Apriori clockrate (us/s)	1.3300000E-07	Resid phdelay (usec)	4.00924E-07	+/-	6.1E-07
Delay rate (us/s)	4.06314150456E-02	Apriori rate (us/s)	4.06410883698E-02	Resid rate (us/s)	-9.67332E-06	+/-	3.5E-09
Total phase (deg)	231.2	Apriori accel (us/s/s)	-5.72154534897E-06	Resid phase (deg)	187.4	+/-	18.9

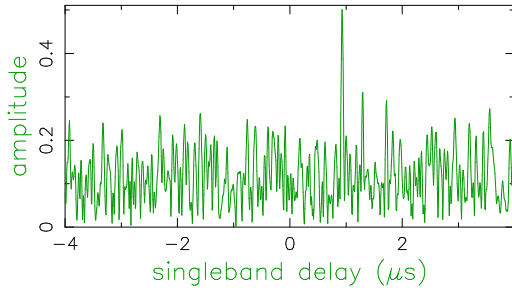
ph/seg (deg)	RMS 90.0	Theor. 162.1	Amplitude 0.741 +/- 0.122	Search (2048X8) 0.522	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	358.3	283.0	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.5	Inc. seg. avg. 0.580	0.718	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.8	16.5	Inc. frq. avg. 0.718		Data rate(Mb/s): 128	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -249.959 -767.894 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fl.W.156.0QR0YU

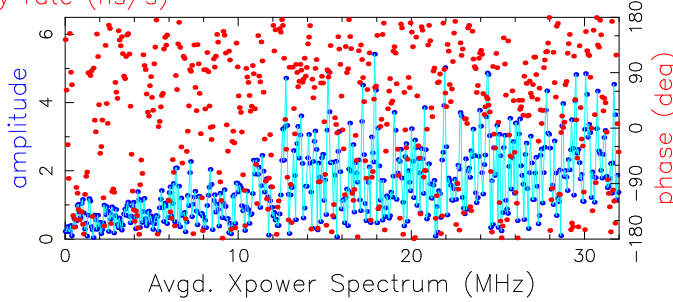
Fringe quality 0



SNR 5.6  
Int time 271.176  
Amp 0.511  
Phase 35.1  
PFD 8.7e-01  
Delays (us)  
SBD 0.929274  
MBD 0.000005  
Fringe rate (Hz)  
0.210228  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



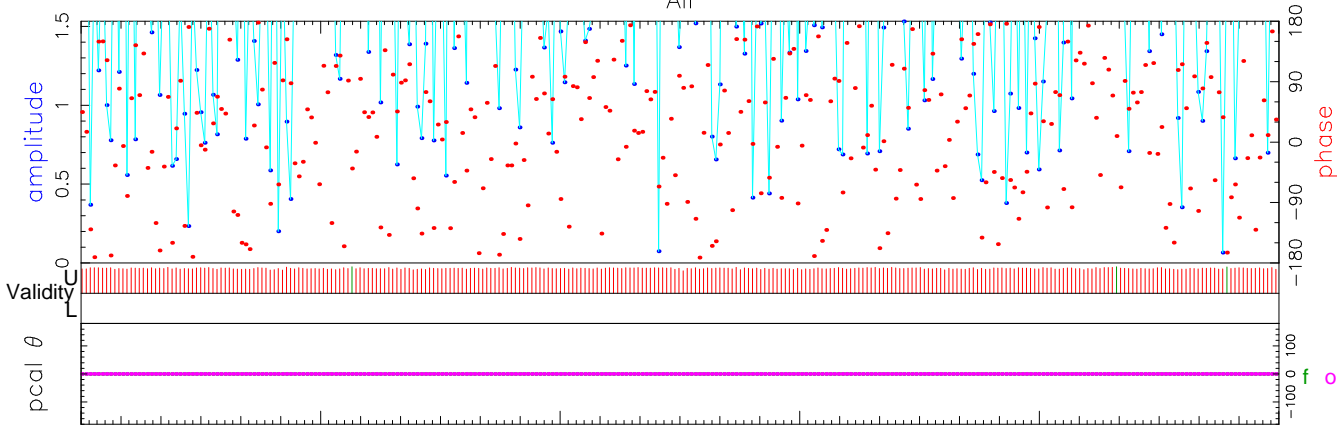
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
54.5  
0.5  
632.0  
U/L 586/0  
f 3000  
o 3000  
f:o 0:0  
f:o 0:0  
f 1000  
o 1000  
f W00UR  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

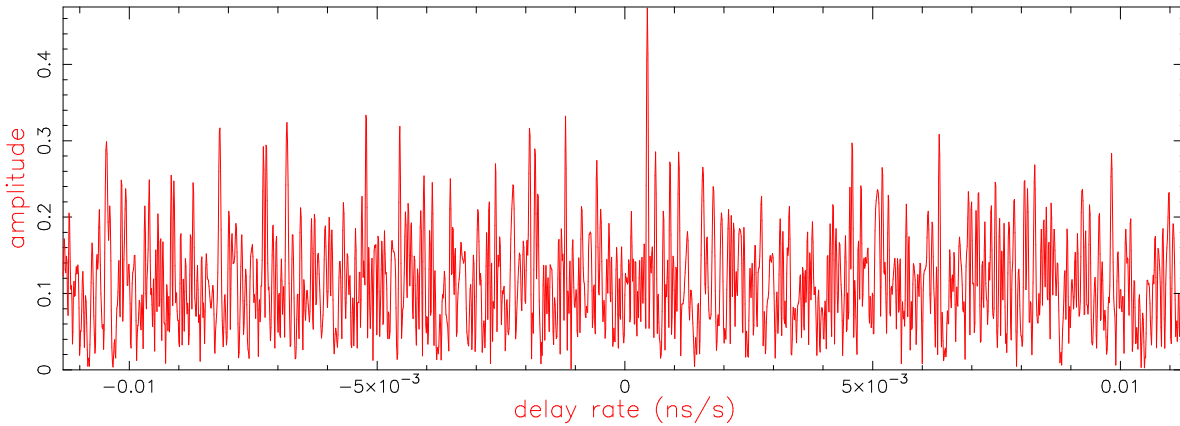
Group delay (usec)(sbd)	3.82475755665E+03	Apriori delay (usec)	3.82382828620E+03	Resid mbdelay (usec)	4.76547E-06	+/-	3.1E-03
Sband delay (usec)	3.82475756020E+03	Apriori clock (usec)	-1.4512599E+01	Resid sbdelay (usec)	9.29274E-01	+/-	3.1E-03
Phase delay (usec)	3.82382828795E+03	Apriori clockrate (us/s)	-4.6355996E-07	Resid phdelay (usec)	1.75773E-06	+/-	6.5E-07
Delay rate (us/s)	-2.82021848316E-02	Apriori rate (us/s)	-2.82046253704E-02	Resid rate (us/s)	2.44054E-06	+/-	3.8E-09
Total phase (deg)	241.3	Apriori accel (us/s/s)	-2.34201246628E-05	Resid phase (deg)	35.1	+/-	20.3

ph/seg (deg)	RMS 93.9	Theor. 173.8	Amplitude Search (2048X8) 0.511 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	379.2	303.3	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000		
ph/frq (deg)	0.0	10.2	Inc. seg. avg. 0.377	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000	
amp/frq (%)	0.0	17.7	Inc. frq. avg. 0.503	Sample rate(MSamp/s): 64	nlags: 512	t_cohere infinite	dr window (ns/s) -0.011 0.011
				Data rate(Mb/s): 128		ion window (TEC) 0.00 0.00	

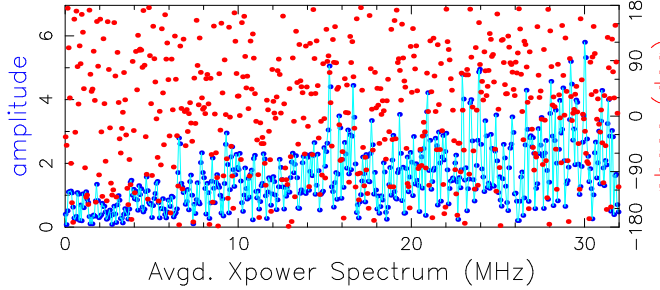
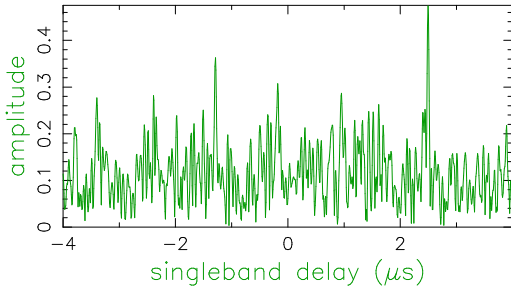
f: az 89.4 el 32.4 pa -63.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 138.231 -1348.119 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fo.W.116.0QR0YU

Fringe quality 0



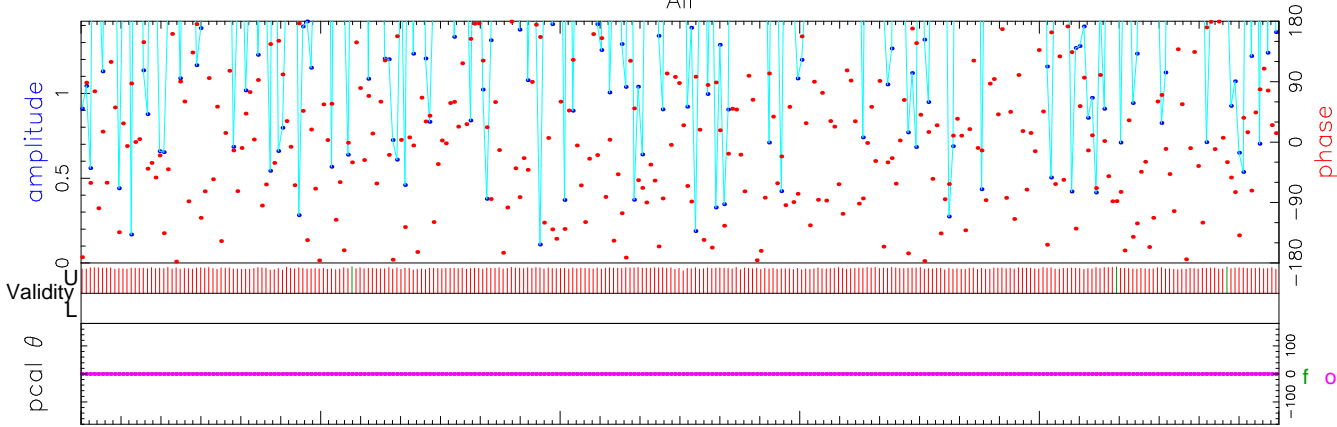
SNR 5.3  
 Int time 271.185  
 Amp 0.475  
 Phase 64.5  
 PFD 1.0e+00  
 Delays (us)  
 SBD 2.493630  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.039412  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163645  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -1.9  
 0.5  
 832.2  
 U/L 586/0  
 f 3000  
 o 3000  
 f:o 0:0  
 f:o 0:0  
 f 1000  
 o 1000  
 f W00UL  
 o W00UR

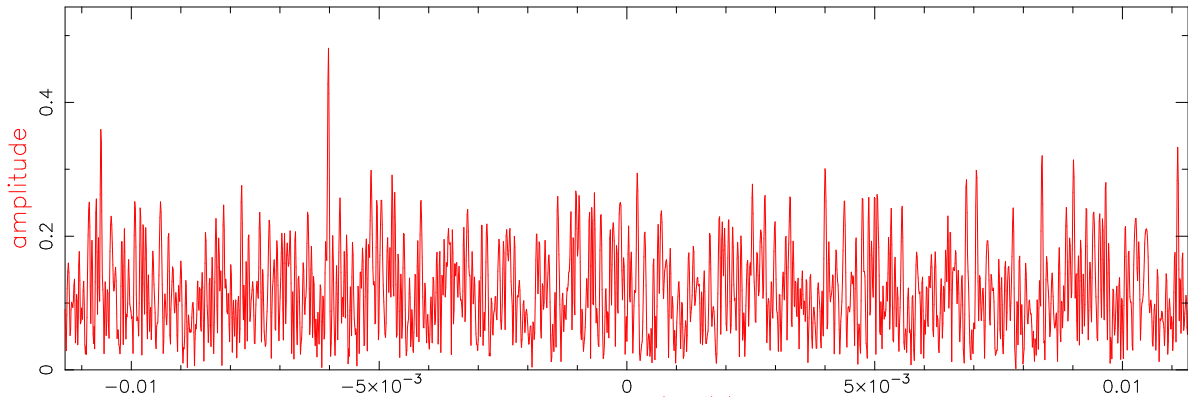
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	3.82632191969E+03	Apriori delay (usec)	3.82382828620E+03	Resid mbdelay (usec)	4.70148E-06	+/- 3.2E-03
Sband delay (usec)	3.82632191670E+03	Apriori clock (usec)	-1.4512599E+01	Resid sbdelay (usec)	2.49363E+00	+/- 3.2E-03
Phase delay (usec)	3.82382828614E+03	Apriori clockrate (us/s)	-4.6355996E-07	Resid phdelay (usec)	-6.09475E-08	+/- 6.9E-07
Delay rate (us/s)	-2.82041678328E-02	Apriori rate (us/s)	-2.82046253704E-02	Resid rate (us/s)	4.57538E-07	+/- 4.0E-09
Total phase (deg)	270.8	Apriori accel (us/s/s)	-2.34201246628E-05	Resid phase (deg)	64.5	+/- 21.4

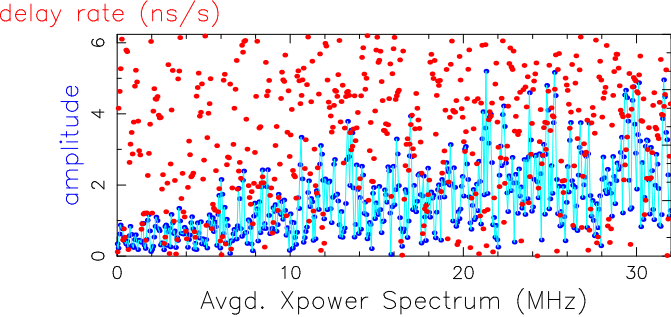
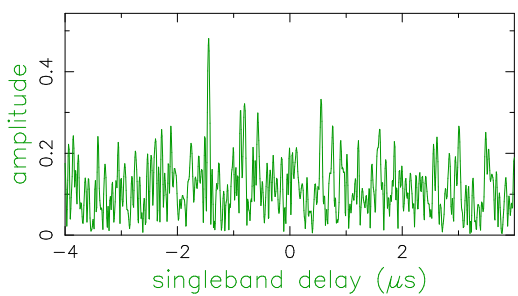
ph/seg (deg)	RMS 94.1	Theor. 183.4	Amplitude Search (2048X8)	0.475 +/- 0.089	0.462	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	396.9	320.2	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.7	Inc. seg. avg.	0.329	0.329	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.2	18.7	Inc. frq. avg.	0.466	0.466	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 138.231 -1348.119 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fo.W.138.0QR0YU

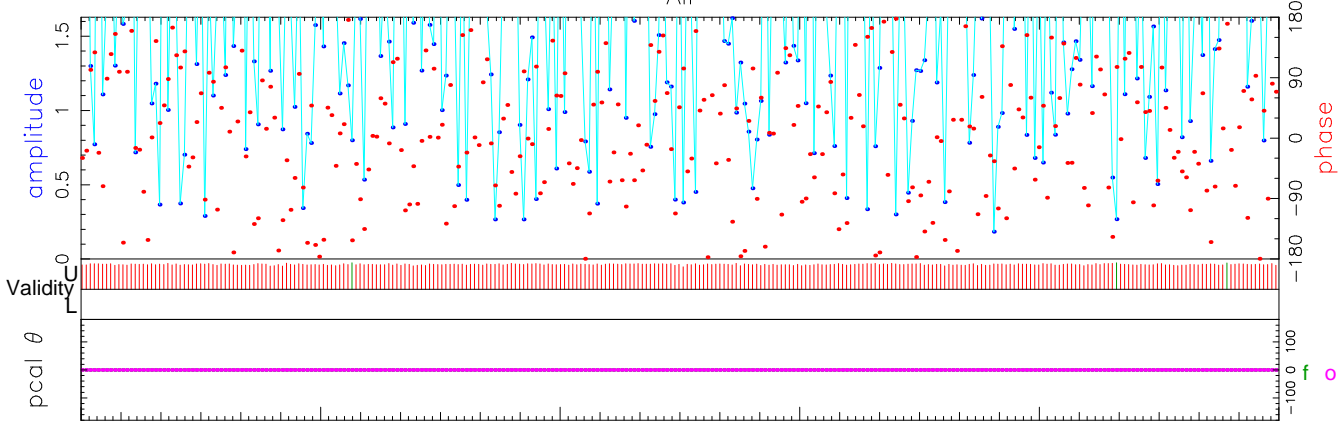


Fringe quality 0  
SNR 5.4  
Int time 271.173  
Amp 0.543  
Phase -41.1  
PFD 1.0e+00  
Delays (us)  
SBD -1.446545  
MBD -0.000007  
Fringe rate (Hz)  
-0.519816  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
15.6  
0.5  
327.8  
U/L 586/0  
f 3000  
o 3000  
f:o 0:0  
f:o 0:0  
f 1000  
o 1000  
f W00UR  
o W00UL

Validity  
pcal  $\theta$

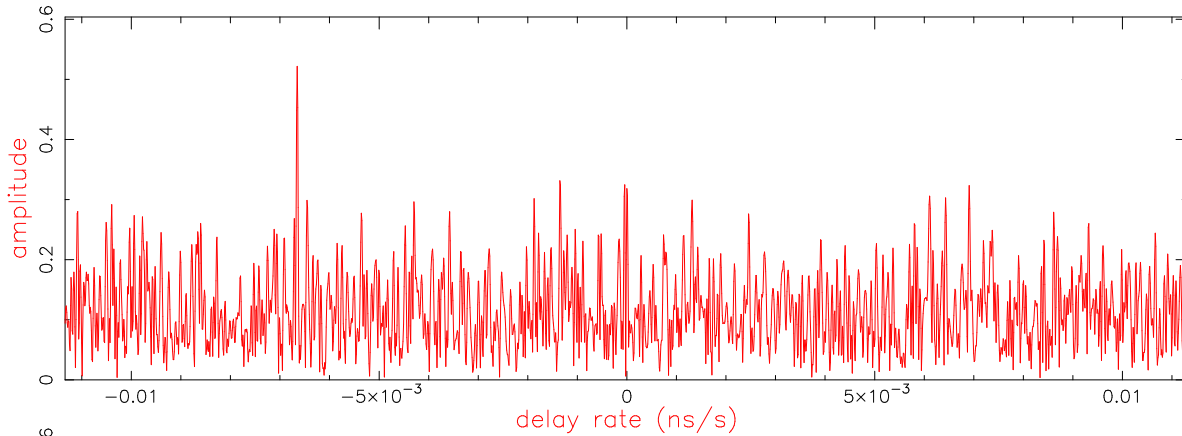
86012.00  
15.6  
0.5  
327.8  
U/L 586/0  
f 3000  
o 3000  
f:o 0:0  
f:o 0:0  
f 1000  
o 1000  
f W00UR  
o W00UL

Chan ids  
Chan ids

Group delay (usec)(sbd)	3.82238173695E+03	Apriori delay (usec)	3.82382828620E+03	Resid mbdelay (usec)	-6.90462E-06	+/-	3.2E-03
Sband delay (usec)	3.82238174170E+03	Apriori clock (usec)	-1.4512599E+01	Resid sbdelay (usec)	-1.44654E+00	+/-	3.2E-03
Phase delay (usec)	3.82382828670E+03	Apriori clockrate (us/s)	-4.6355996E-07	Resid phdelay (usec)	5.01959E-07	+/-	6.8E-07
Delay rate (us/s)	-2.82106599148E-02	Apriori rate (us/s)	-2.82046253704E-02	Resid rate (us/s)	-6.03454E-06	+/-	3.9E-09
Total phase (deg)	-194.8	Apriori accel (us/s/s)	-2.34201246628E-05	Resid phase (deg)	-41.1	+/-	21.1

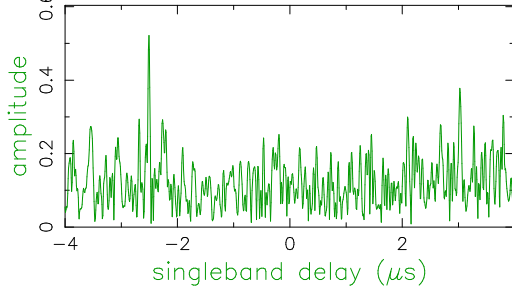
ph/seg (deg)	RMS 91.9	Theor. 180.8	Amplitude 0.543 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	384.4	315.6	Search (2048X8) 0.478	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	10.6	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.1	18.4	Inc. seg. avg. 0.367	Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
			Inc. frq. avg. 0.533	Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
				nlags: 512	t_cohere infinite
					ion window (TEC) 0.00 0.00

f: az 89.4 el 32.4 pa -63.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 138.231 -1348.119 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fo.W.155.0QR0YU

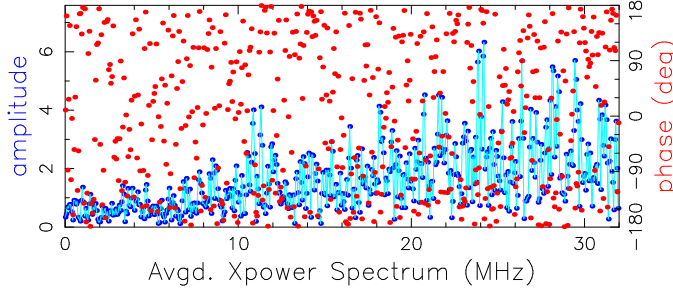


Fringe quality 0

SNR 5.9  
Int time 271.182  
Amp 0.604  
Phase -232.9  
PFD 4.2e-01  
Delays (us)  
SBD -2.507828  
MBD -0.000007  
Fringe rate (Hz)  
-0.573644  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

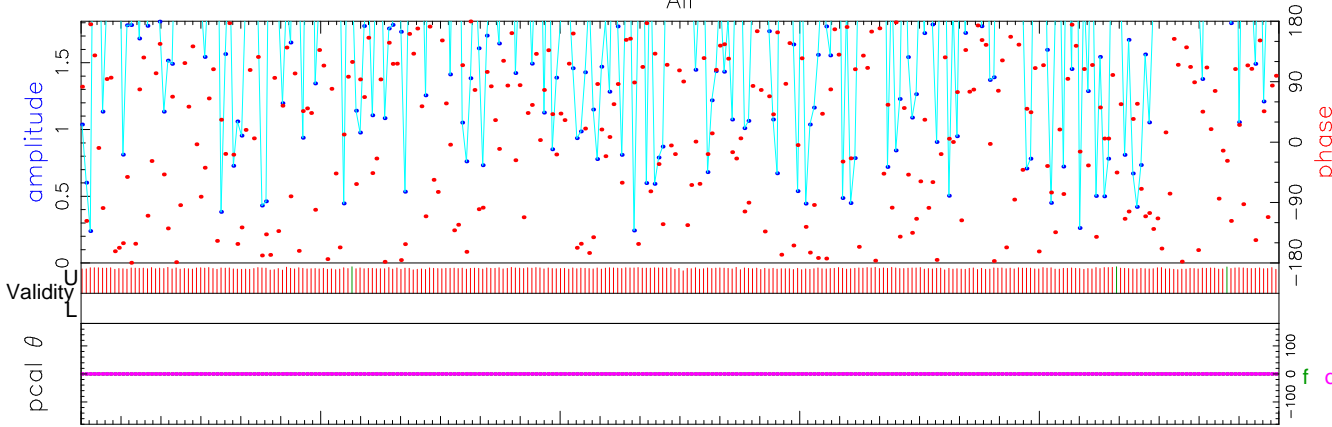


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
127.6  
0.6  
192.0  
U/L 586/0  
f 3000  
o 3000  
f:o 0:0  
f:o 0:0  
f 1000  
o 1000  
f W00UL  
o W00UL

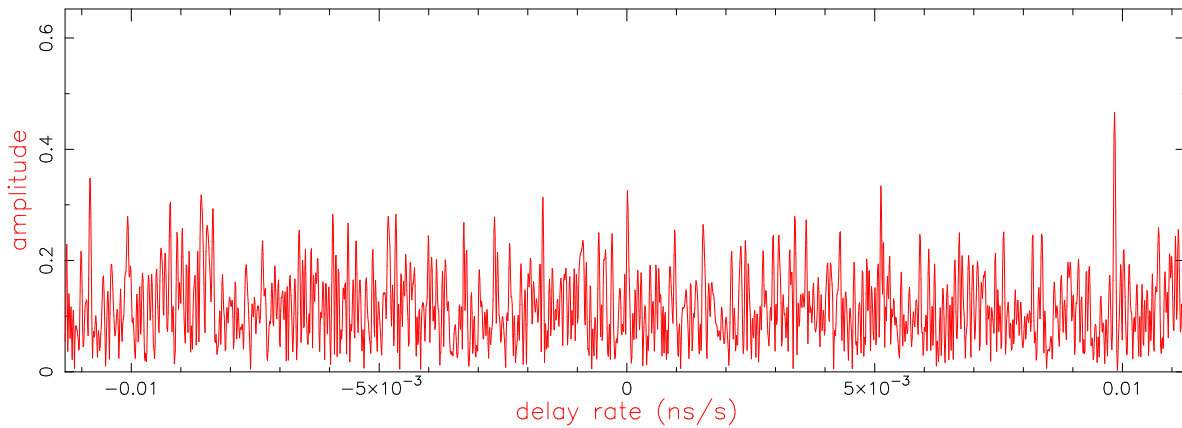
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.82132045510E+03	Apriori delay (usec)	3.82382828620E+03	Resid mbdelay (usec)	-6.60373E-06	+/-	2.9E-03
Sband delay (usec)	3.82132045820E+03	Apriori clock (usec)	-1.4512599E+01	Resid sbdelay (usec)	-2.50783E+00	+/-	2.9E-03
Phase delay (usec)	3.82382829031E+03	Apriori clockrate (us/s)	-4.6355996E-07	Resid phdelay (usec)	4.11590E-06	+/-	6.3E-07
Delay rate (us/s)	-2.82112848116E-02	Apriori rate (us/s)	-2.82046253704E-02	Resid rate (us/s)	-6.65944E-06	+/-	3.6E-09
Total phase (deg)	-26.6	Apriori accel (us/s/s)	-2.34201246628E-05	Resid phase (deg)	-232.9	+/-	19.5

ph/seg (deg)	93.9	Theor.	167.0	Amplitude	0.604 +/- 0.103	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	344.2	Search (2048X8)	0.500	Search	0.500	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.449	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.595	Inc. frq. avg.	0.595	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

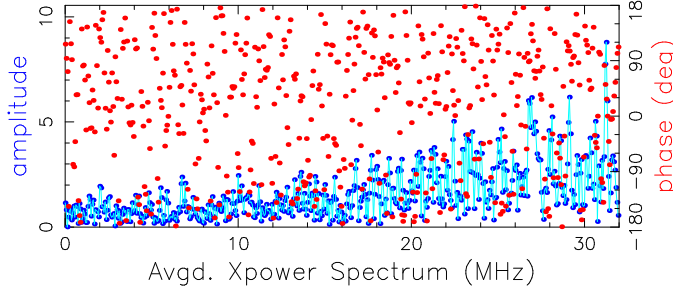
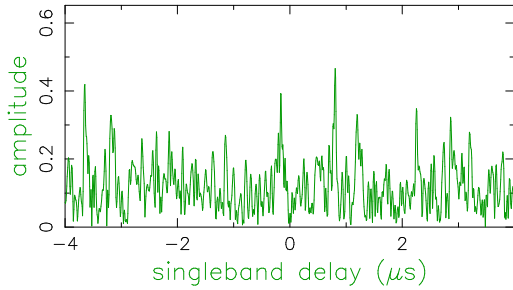
f: az 89.4 el 32.4 pa -63.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 138.231 -1348.119 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fo.W.93.0QR0YU





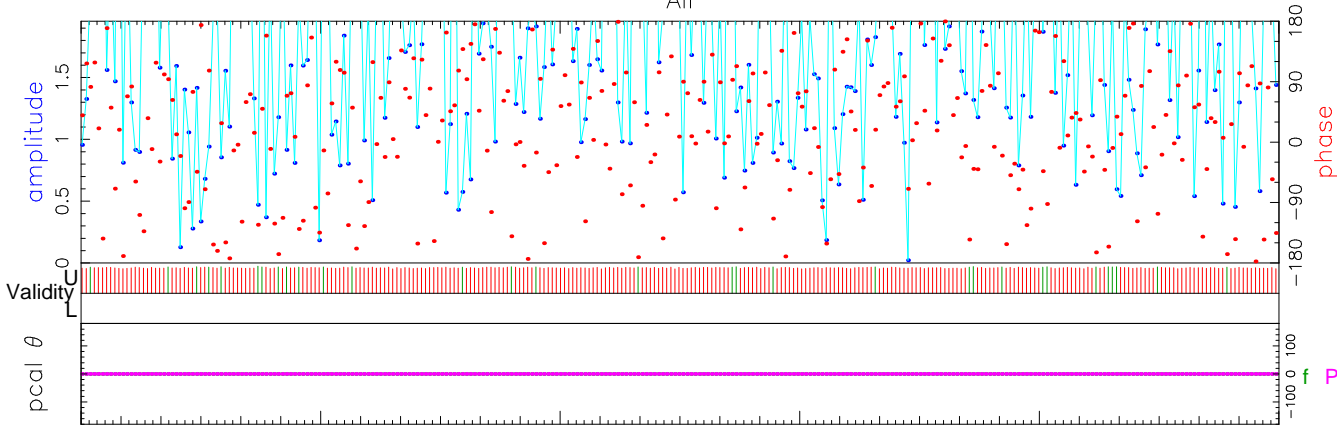
Fringe quality 0

SNR 5.3  
 Int time 278.297  
 Amp 0.652  
 Phase 109.5  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.806000  
 MBD 0.000006  
 Fringe rate (Hz)  
 0.848785  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163642  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 49.4  
 0.7  
 616.1  
 U/L 586/0  
 f 3000  
 P 0  
 f:P 0:0  
 f:P 0:0  
 f 1000  
 P 1000  
 f W00UR  
 P W00UR

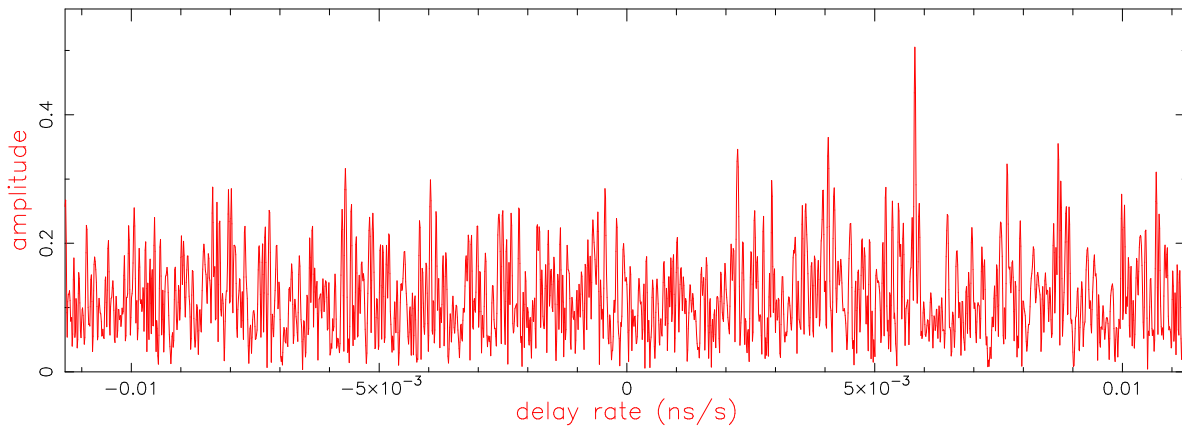
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.47708688465E+03	Apriori delay (usec)	-4.47789288282E+03	Resid mbdelay (usec)	5.98819E-06	+/-	3.2E-03
Sband delay (usec)	-4.47708688232E+03	Apriori clock (usec)	1.4890563E+01	Resid sbdelay (usec)	8.06000E-01	+/-	3.2E-03
Phase delay (usec)	-4.47789288123E+03	Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	1.59270E-06	+/-	6.9E-07
Delay rate (us/s)	1.88157919319E+00	Apriori rate (us/s)	1.88156933964E+00	Resid rate (us/s)	9.85355E-06	+/-	4.0E-09
Total phase (deg)	136.1	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	109.5	+/-	21.5

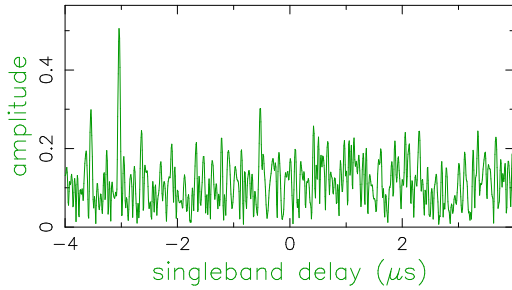
ph/seg (deg)	RMS 92.1	Theor. 183.9	Amplitude Search (2048X8)	0.652 +/- 0.122	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	392.0	321.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.7	Inc. seg. avg.	0.446	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.3	18.8	Inc. frq. avg.	0.639	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fP.W.104.0QR0YU

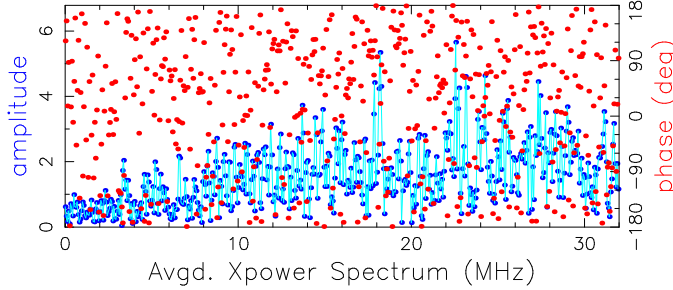
Fringe quality 0



SNR 5.7  
Int time 268.783  
Amp 0.565  
Phase -97.9  
PFD 8.4e-01  
Delays (us)  
SBD -3.038450  
MBD 0.000007  
Fringe rate (Hz)  
0.501650  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

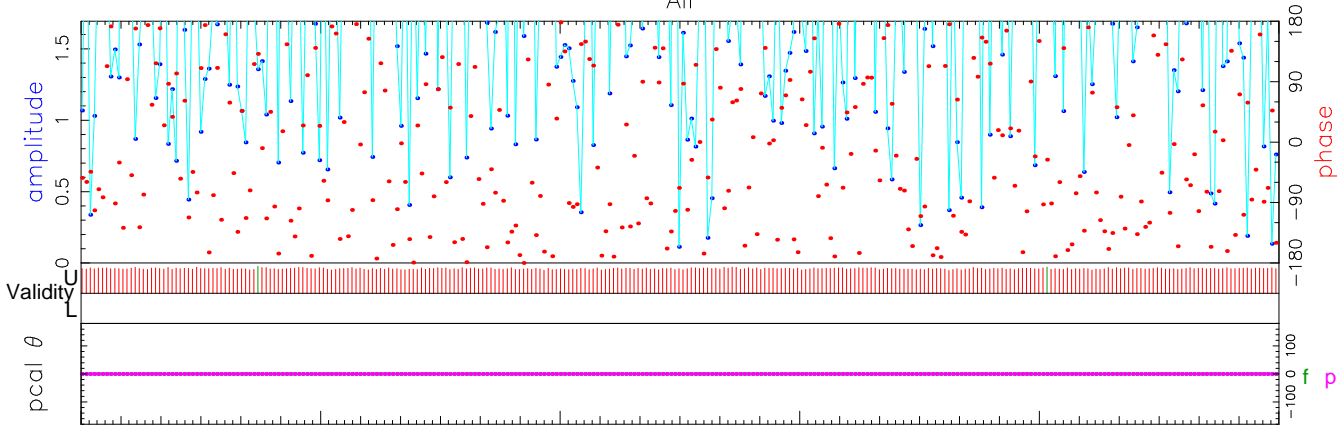


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



Validity  
pcal θ  
86012.00  
-125.7  
0.6  
124.1  
U/L 586/0  
f 3000  
p 3000  
f:p 0:0  
f:p 0:0  
f 1000  
p 1000  
f W00UL  
p W00UL

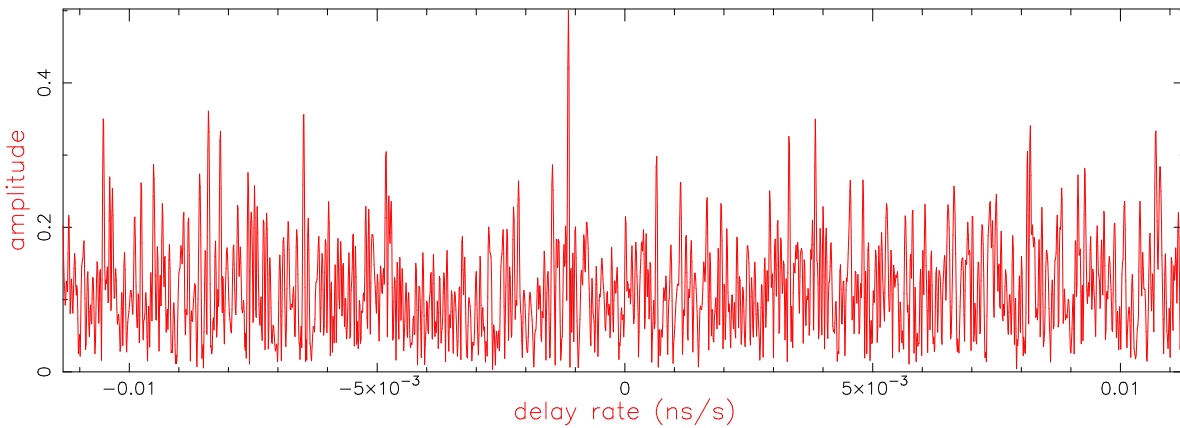
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.09559731531E+03	Apriori delay (usec)	1.09863576780E+03	Resid mbdelay (usec)	7.25885E-06	+/- 3.0E-03
Sband delay (usec)	1.09559731730E+03	Apriori clock (usec)	-1.6491962E+01	Resid sbdelay (usec)	-3.03845E+00	+/- 3.0E-03
Phase delay (usec)	1.09863576374E+03	Apriori clockrate (us/s)	1.0999990E-08	Resid phdelay (usec)	-4.05402E-06	+/- 6.5E-07
Delay rate (us/s)	3.35062822118E-03	Apriori rate (us/s)	3.34480456484E-03	Resid rate (us/s)	5.82366E-06	+/- 3.8E-09
Total phase (deg)	-84.2	Apriori accel (us/s/s)	-7.63394504442E-06	Resid phase (deg)	-97.9	+/- 20.2

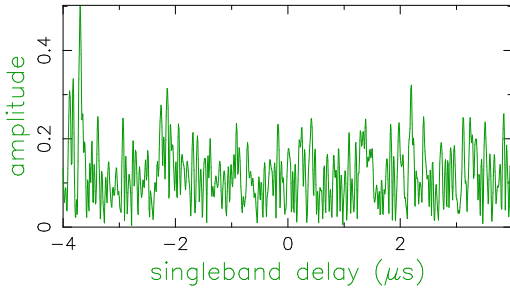
ph/seg (deg)	94.2	Theor.	173.2	Amplitude	0.565 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	378.8	Search (2048X8)	0.503	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.418	Inc. seg. avg.	0.418	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	Inc. frq. avg.	0.556	Inc. frq. avg.	0.556	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -29.828 -633.921 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fp.W.107.0QR0YU

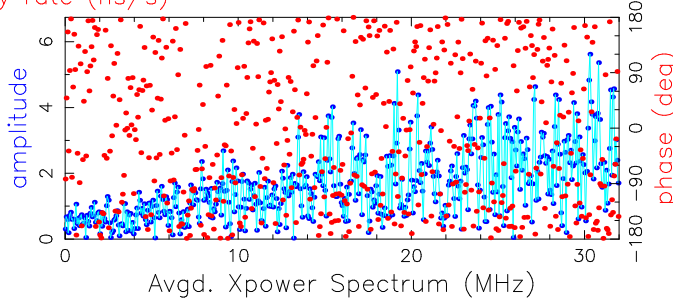
Fringe quality 0



SNR 5.6  
Int time 268.767  
Amp 0.502  
Phase -172.9  
PFD 9.2e-01  
Delays (us)  
SBD -3.694779  
MBD -0.000006  
Fringe rate (Hz)  
-0.097936  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

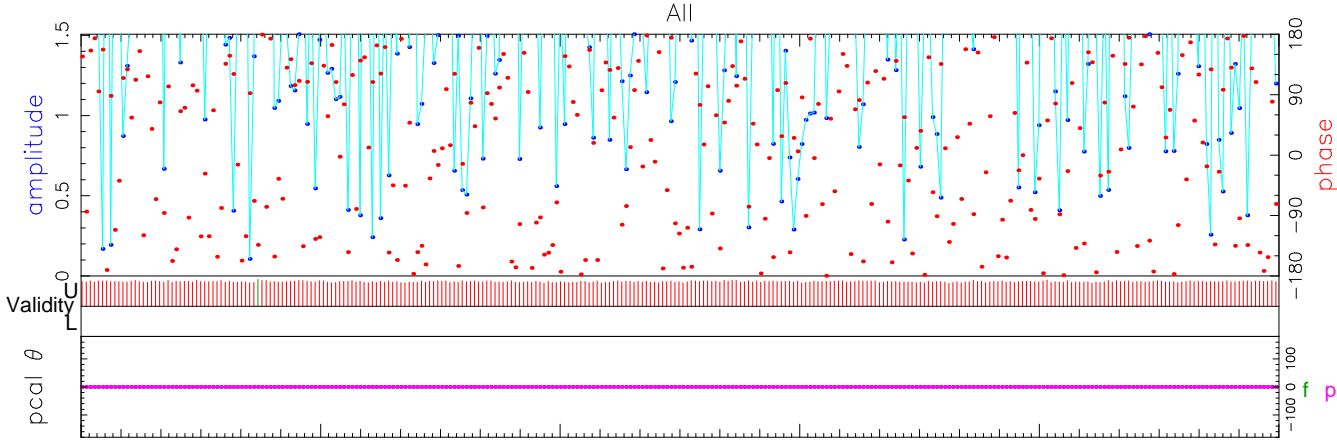


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



All

86012.00  
162.4  
0.5  
40.0  
U/L 586/0  
f 3000  
p 3000  
f:p 0:0  
f:p 0:0  
f 1000  
p 1000  
f W00UR  
p W00UR

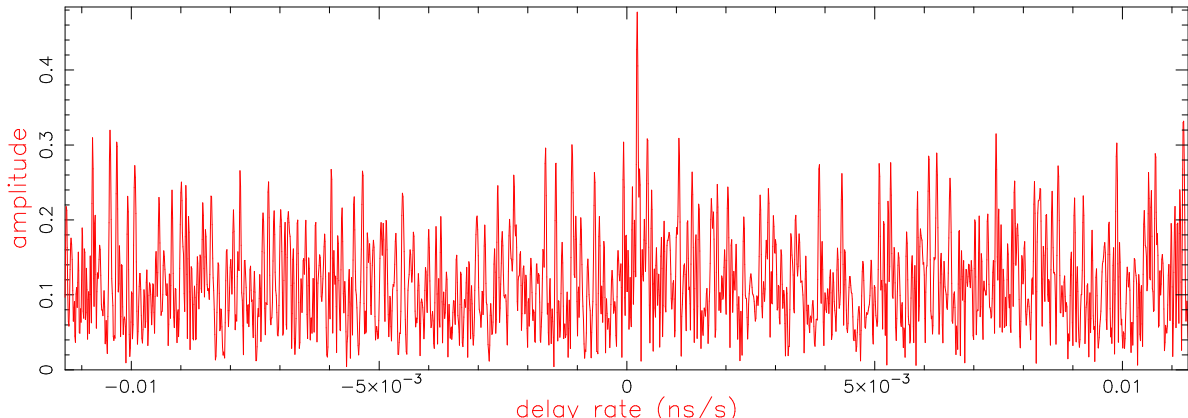
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.09494098679E+03	Apriori delay (usec)	1.09863576780E+03	Resid mbdelay (usec)	-5.85862E-06	+/-	3.1E-03
Sband delay (usec)	1.09494098830E+03	Apriori clock (usec)	-1.6491962E+01	Resid sbdelay (usec)	-3.69478E+00	+/-	3.1E-03
Phase delay (usec)	1.09863577303E+03	Apriori clockrate (us/s)	1.0999990E-08	Resid phdelay (usec)	5.23571E-06	+/-	6.6E-07
Delay rate (us/s)	3.34366763029E-03	Apriori rate (us/s)	3.34480456484E-03	Resid rate (us/s)	-1.13693E-06	+/-	3.8E-09
Total phase (deg)	-159.2	Apriori accel (us/s/s)	-7.63394504442E-06	Resid phase (deg)	-172.9	+/-	20.4

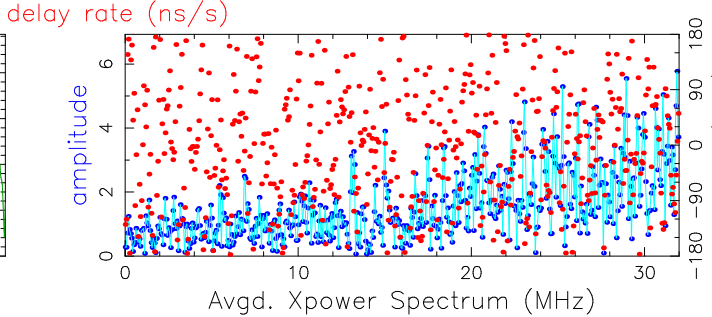
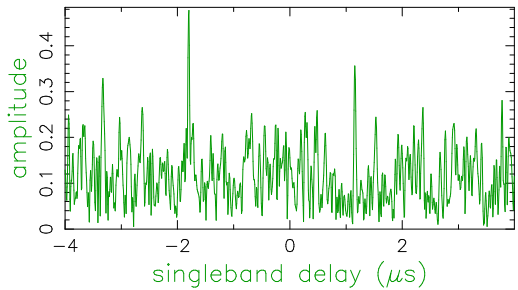
ph/seg (deg)	90.8	Theor.	174.9	Amplitude	0.502 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	345.5	Search (2048X8)	0.488	Search	0.488	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.339	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.494	Inc. frq. avg.	0.494	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -29.828 -633.921 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fp.W.122.0QR0YU



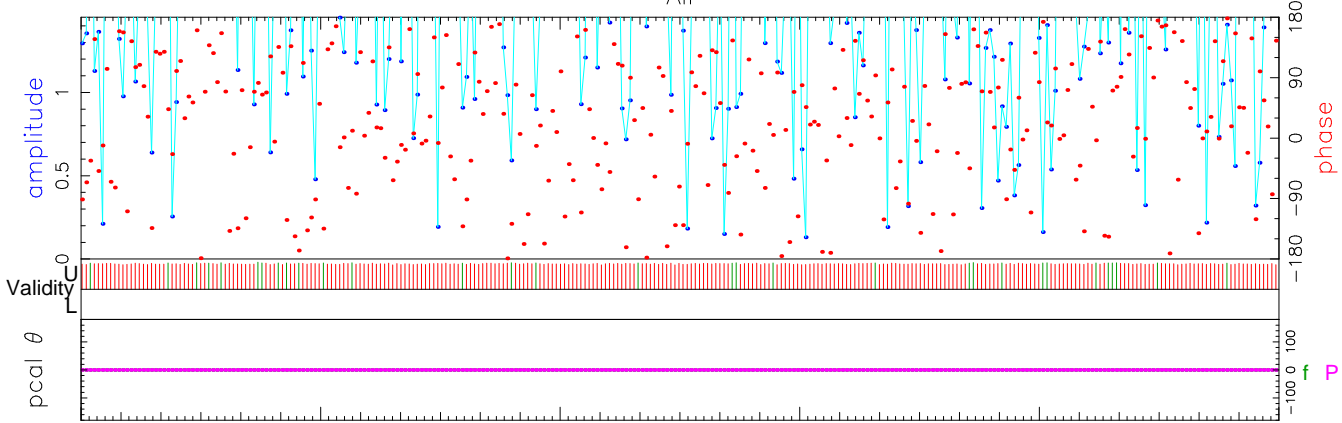
Fringe quality 0  
SNR 5.5  
Int time 278.307  
Amp 0.484  
Phase -72.4  
PFD 9.8e-01  
Delays (us)  
SBD -1.799917  
MBD 0.000005  
Fringe rate (Hz)  
0.017867  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



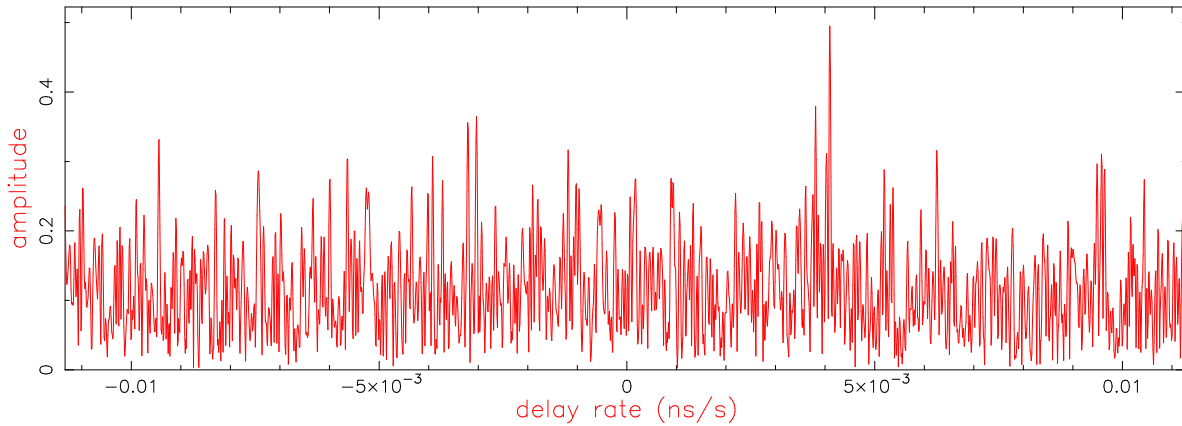
86012.00  
68.0  
0.5  
282.6  
U/L 586/0  
f 3000  
P 0  
f:P 0:0  
f:P 0:0  
f 1000  
P 1000  
f W00UL  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.47969280130E+03	Apriori delay (usec)	-4.47789288282E+03	Resid mbdelay (usec)	4.79142E-06	+/-	3.1E-03
Sband delay (usec)	-4.47969280032E+03	Apriori clock (usec)	1.4890563E+01	Resid sbdelay (usec)	-1.79992E+00	+/-	3.1E-03
Phase delay (usec)	-4.47789288063E+03	Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	2.19344E-06	+/-	6.7E-07
Delay rate (us/s)	1.88156954706E+00	Apriori rate (us/s)	1.88156933964E+00	Resid rate (us/s)	2.07415E-07	+/-	3.9E-09
Total phase (deg)	-45.9	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	-72.4	+/-	20.8

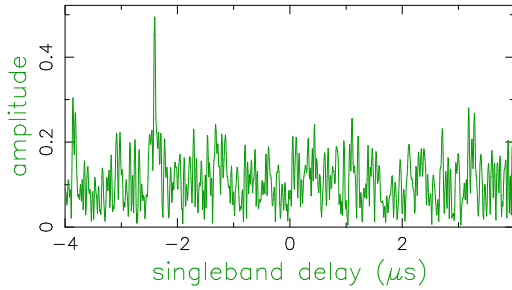
ph/seg (deg)	90.6	Theor.	177.7	Amplitude	0.484 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	387.4	Search (2048X8)	0.467	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.349	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.4	Inc. frq. avg.	0.469	Inc. frq. avg.	0.469	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fP.W.123.0QR0YU

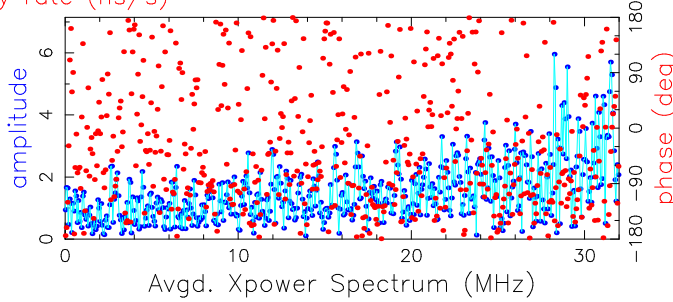


Fringe quality 0

SNR 5.6  
Int time 278.297  
Amp 0.522  
Phase -285.5  
PFD 8.7e-01  
Delays (us)  
SBD -2.406483  
MBD 0.000005  
Fringe rate (Hz)  
0.353276  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

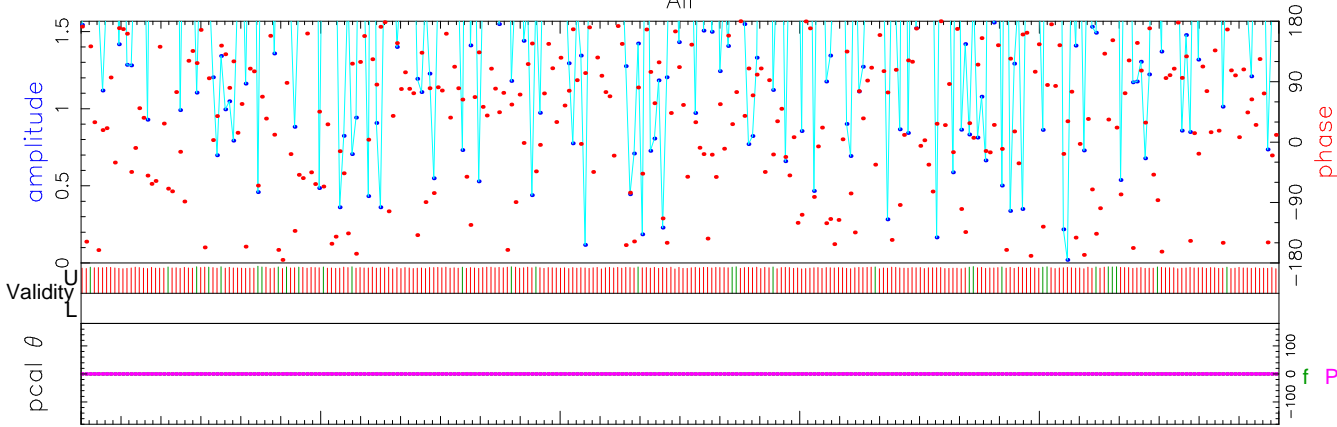


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
85.6  
0.5  
205.0  
U/L 586/0  
f 3000  
P 0  
f:P 0:0  
f:P 0:0  
f 1000  
P 1000  
f W00UR  
P W00UL

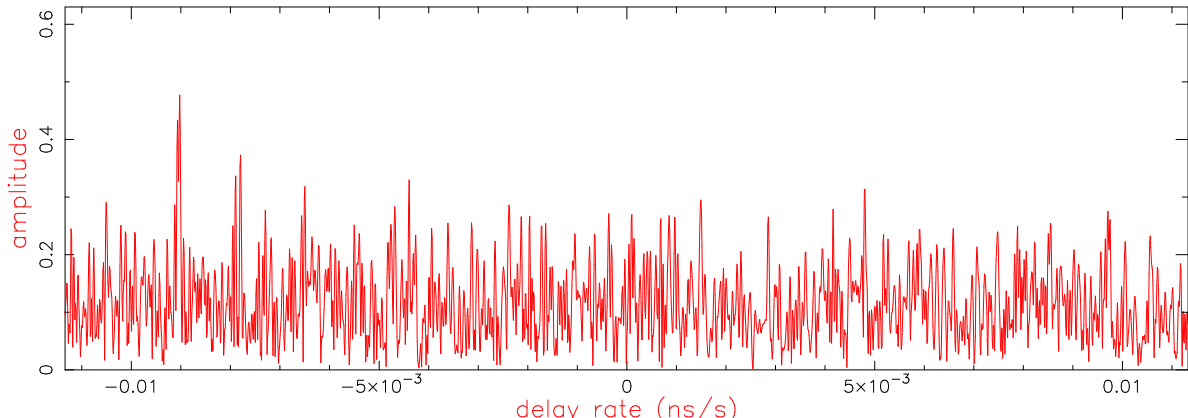
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.48029936766E+03	Apriori delay (usec)	-4.47789288282E+03	Resid mbdelay (usec)	4.95438E-06	+/-	3.1E-03
Sband delay (usec)	-4.48029936632E+03	Apriori clock (usec)	1.4890563E+01	Resid sbdelay (usec)	-2.40648E+00	+/-	3.1E-03
Phase delay (usec)	-4.47789288006E+03	Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	2.75926E-06	+/-	6.5E-07
Delay rate (us/s)	1.88157344083E+00	Apriori rate (us/s)	1.88156933964E+00	Resid rate (us/s)	4.10118E-06	+/-	3.8E-09
Total phase (deg)	-258.9	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	-285.5	+/-	20.3

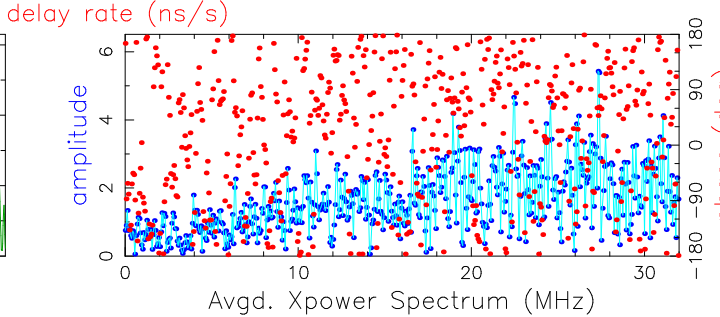
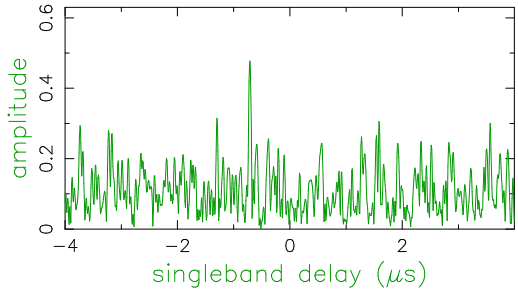
ph/seg (deg)	88.9	Theor.	173.8	Amplitude	0.522 +/- 0.093	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	375.4	Search (2048X8)	0.479	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.378	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.514	Inc. frq. avg.	0.514	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fP.W.134.0QR0YU





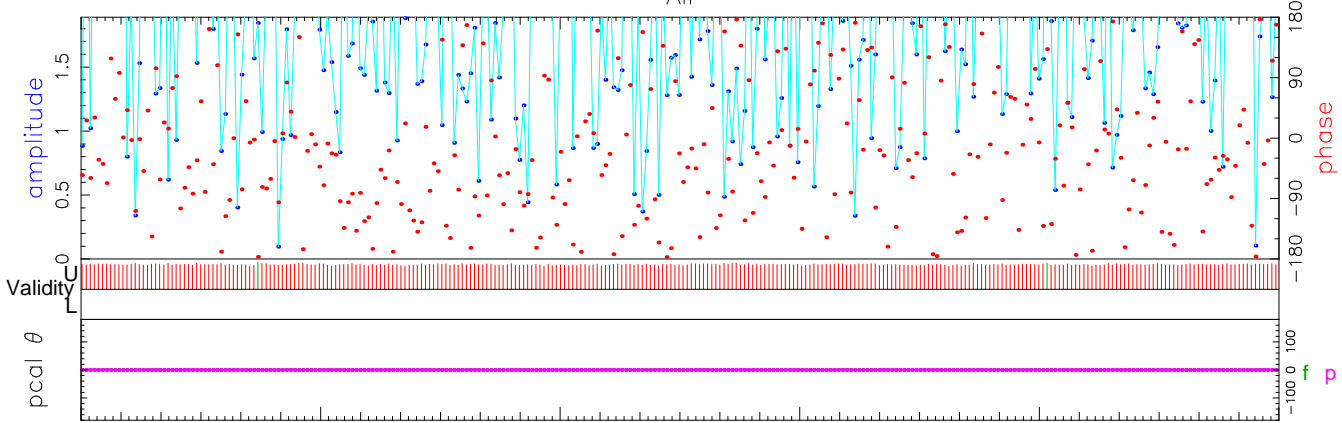
Fringe quality 0  
SNR 5.4  
Int time 268.777  
Amp 0.630  
Phase -131.1  
PFD 1.0e+00  
Delays (us)  
SBD -0.712710  
MBD -0.000007  
Fringe rate (Hz)  
-0.778484  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



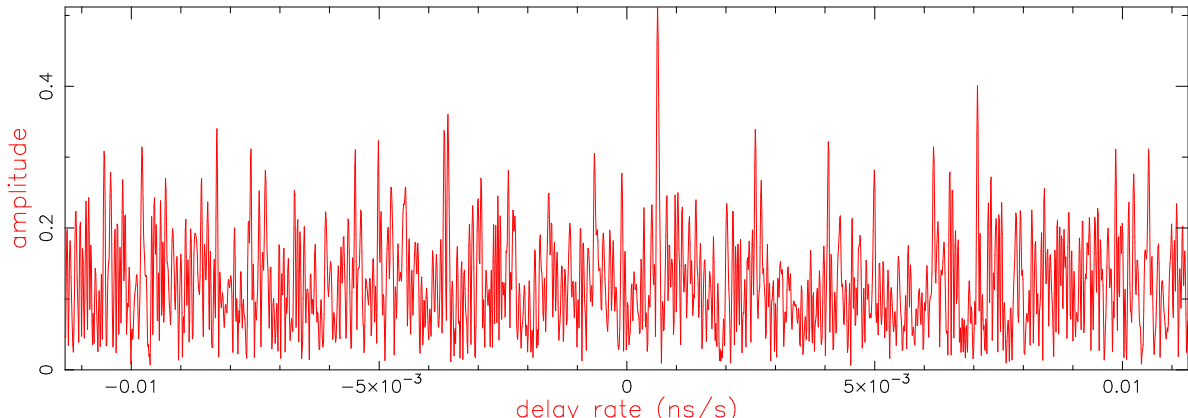
86012.00  
-49.8  
0.6  
421.8  
U/L 586/0  
f 3000  
p 3000  
f:p 0:0  
f:p 0:0  
f 1000  
p 1000  
f W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

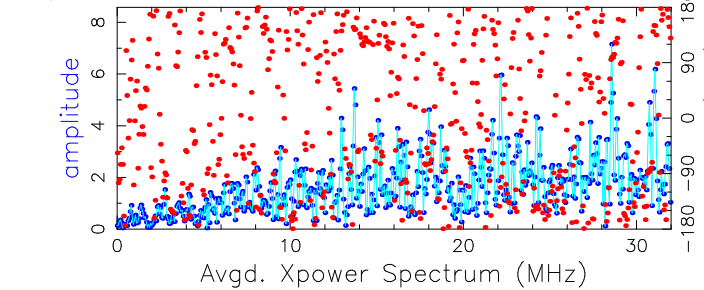
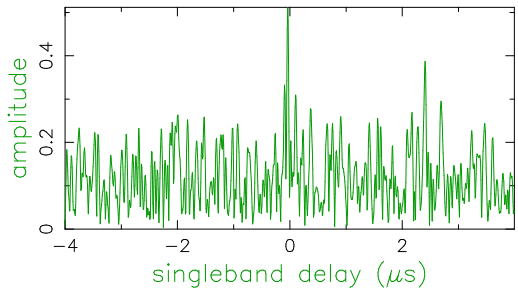
Group delay (usec)(sbd)	1.09792305831E+03	Apriori delay (usec)	1.09863576780E+03	Resid mbdelay (usec)	-6.61294E-06	+/-	3.2E-03
Sband delay (usec)	1.09792305730E+03	Apriori clock (usec)	-1.6491962E+01	Resid sbdelay (usec)	-7.12710E-01	+/-	3.2E-03
Phase delay (usec)	1.09863576619E+03	Apriori clockrate (us/s)	1.0999990E-08	Resid phdelay (usec)	-1.60483E-06	+/-	6.9E-07
Delay rate (us/s)	3.33576714198E-03	Apriori rate (us/s)	3.34480456484E-03	Resid rate (us/s)	-9.03742E-06	+/-	4.0E-09
Total phase (deg)	-117.4	Apriori accel (us/s/s)	-7.63394504442E-06	Resid phase (deg)	-131.1	+/-	21.4

ph/seg (deg)	RMS 90.9	Theor. 183.1	Amplitude 0.630 +/- 0.118	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	392.4	319.6	Search (2048X8) 0.468	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	10.7	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.2	18.7	Inc. seg. avg. 0.443	Sample rate(MSamp/s): 64	ion window (TEC)	0.00 0.00
			Inc. frq. avg. 0.618	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

f: az 89.4 el 32.4 pa -63.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -29.828 -633.921 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fp.W.164.0QR0YU



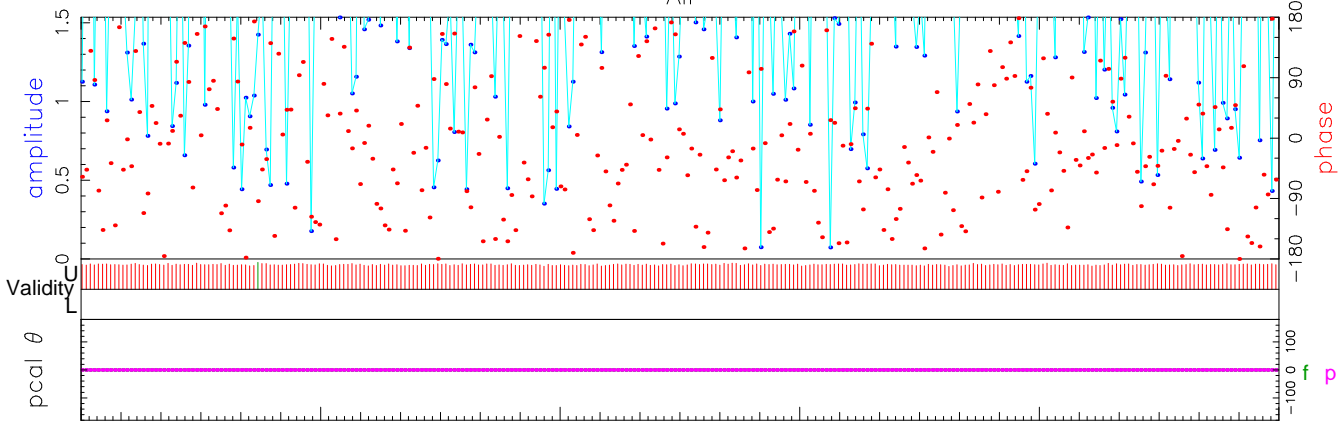
Fringe quality 0  
SNR 5.7  
Int time 268.772  
Amp 0.512  
Phase -6.2  
PFD 7.1e-01  
Delays (us)  
SBD -0.038220  
MBD 0.000005  
Fringe rate (Hz) 0.053711  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



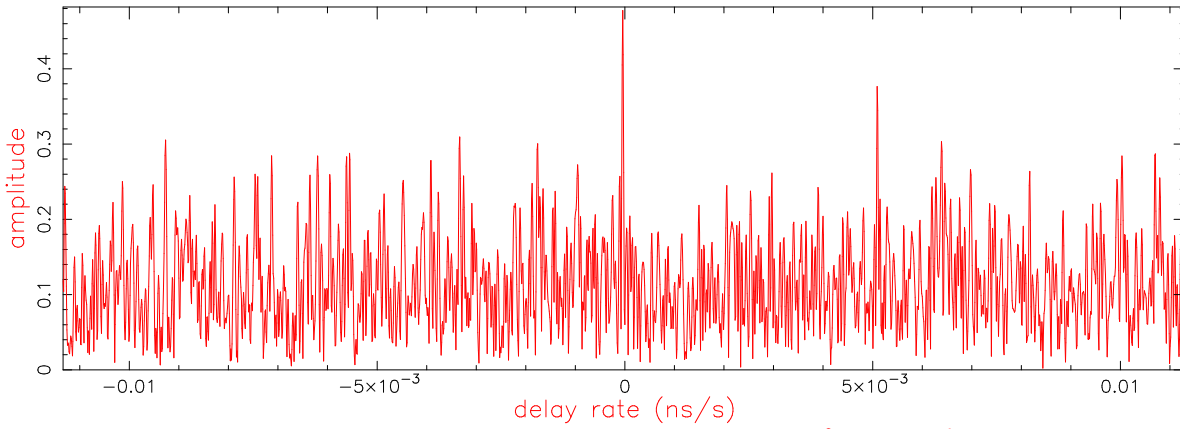
86012.00  
-44.7  
0.5  
508.1  
U/L 586/0  
f 3000  
p 3000  
f:p 0:0  
f:p 0:0  
f 1000  
p 1000  
f W00UR  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

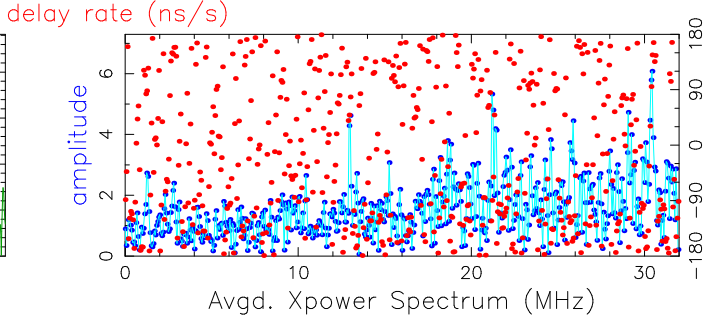
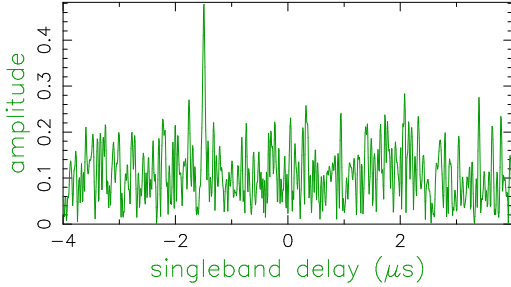
Group delay (usec)(sbd)	1.09859754607E+03	Apriori delay (usec)	1.09863576780E+03	Resid mbdelay (usec)	5.49588E-06	+/-	3.0E-03
Sband delay (usec)	1.09859754730E+03	Apriori clock (usec)	-1.6491962E+01	Resid sbdelay (usec)	-3.82205E-02	+/-	3.0E-03
Phase delay (usec)	1.09863576636E+03	Apriori clockrate (us/s)	1.0999990E-08	Resid phdelay (usec)	-1.44137E-06	+/-	6.4E-07
Delay rate (us/s)	3.34542809626E-03	Apriori rate (us/s)	3.34480456484E-03	Resid rate (us/s)	6.23531E-07	+/-	3.7E-09
Total phase (deg)	-352.5	Apriori accel (us/s/s)	-7.63394504442E-06	Resid phase (deg)	-6.2	+/-	20.0

ph/seg (deg)	RMS 92.0	Theor. 171.1	Amplitude Search (2048X8)	0.512 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	378.6	298.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.0	Inc. seg. avg.	0.385	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.1	17.4	Inc. frq. avg.	0.504	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -29.828 -633.921 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fp.W.175.0QR0YU



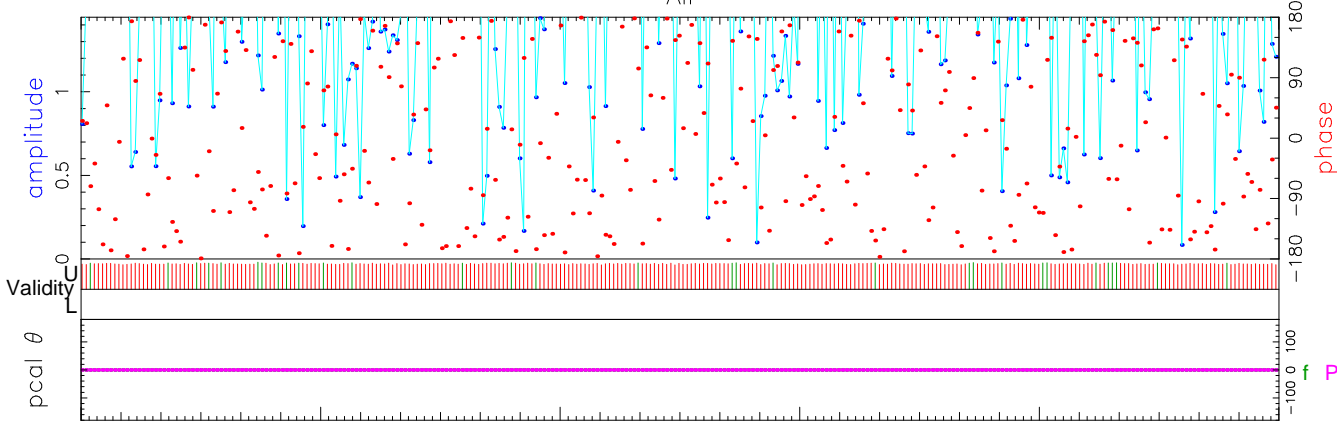
Fringe quality 0  
SNR 5.5  
Int time 278.307  
Amp 0.482  
Phase -280.2  
PFD 9.9e-01  
Delays (us)  
SBD -1.495178  
MBD -0.000005  
Fringe rate (Hz)  
-0.004052  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



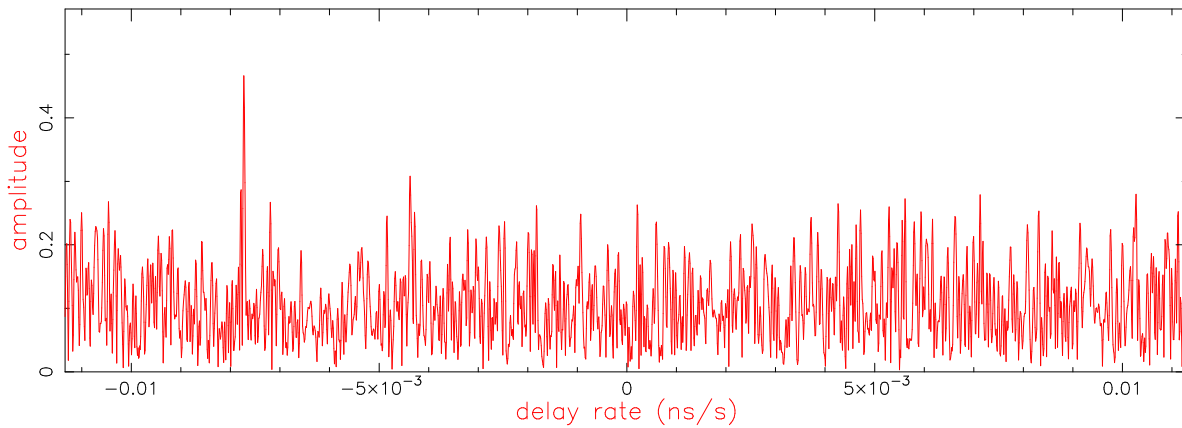
86012.00  
-142.5  
0.5  
321.6  
U/L 586/0  
f 3000  
P 0  
f:P 0:0  
f:P 0:0  
f 1000  
P 1000  
f W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.47938806281E+03	Apriori delay (usec)	-4.47789288282E+03	Resid mbdelay (usec)	-4.89439E-06	+/-	3.1E-03
Sband delay (usec)	-4.47938806032E+03	Apriori clock (usec)	1.4890563E+01	Resid sbdelay (usec)	-1.49518E+00	+/-	3.1E-03
Phase delay (usec)	-4.47789288742E+03	Apriori clockrate (us/s)	4.5300000E-07	Resid phdelay (usec)	-4.59584E-06	+/-	6.7E-07
Delay rate (us/s)	1.88156929261E+00	Apriori rate (us/s)	1.88156933964E+00	Resid rate (us/s)	-4.70341E-08	+/-	3.9E-09
Total phase (deg)	-253.6	Apriori accel (us/s/s)	2.09475294758E-05	Resid phase (deg)	-280.2	+/-	20.8

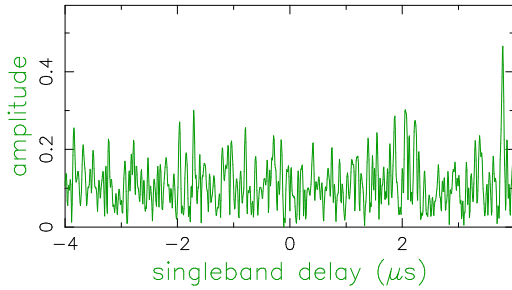
ph/seg (deg)	91.3	Theor.	178.4	Amplitude	0.482 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	377.6	Search (2048X8)	0.475	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.335	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.9	Inc. frq. avg.	0.470	Inc. frq. avg.	0.470	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11196.227 -259.439 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fP.W.92.0QR0YU

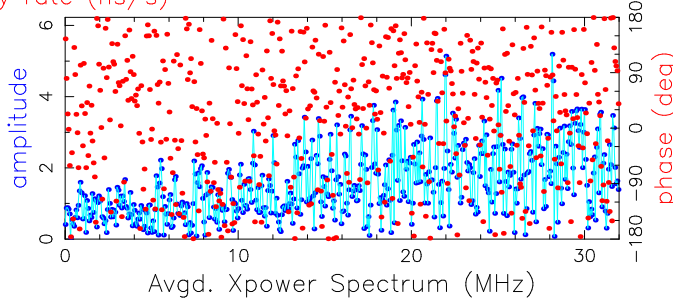


Fringe quality 0

SNR 5.4  
Int time 280.946  
Amp 0.571  
Phase 194.0  
PFD 1.0e+00  
Delays (us)  
SBD 3.787112  
MBD -0.000005  
Fringe rate (Hz)  
-0.666453  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

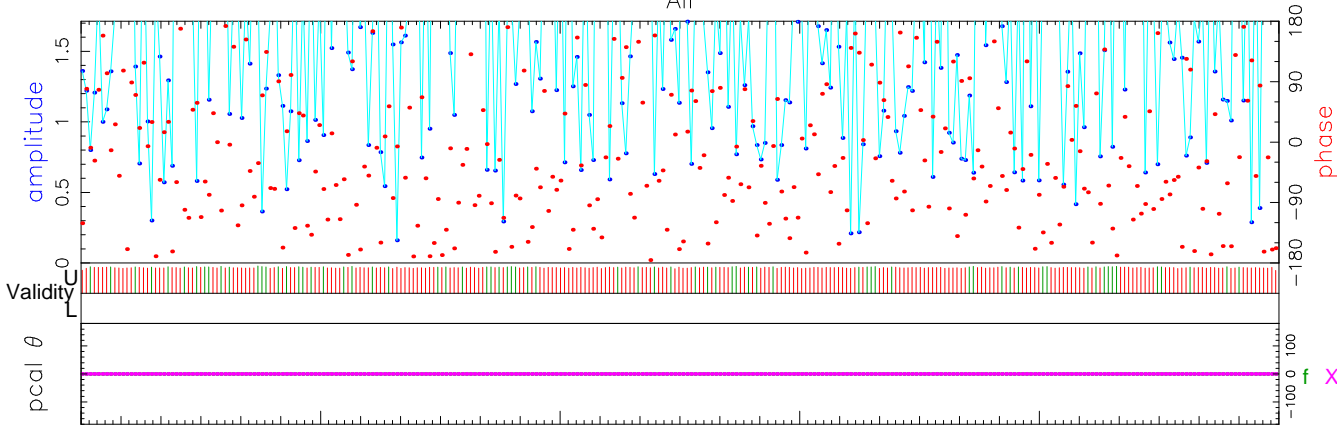


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



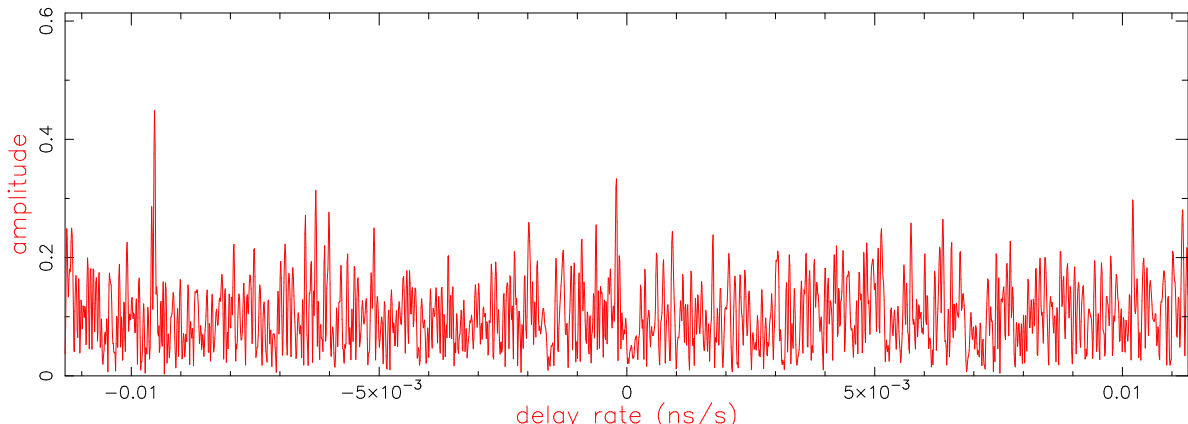
86012.00  
-76.1  
0.6  
997.7  
U/L 586/0  
f 3000  
X 0  
f:X 0:0  
f:X 0:0  
f 1000  
X 1000  
f W00UL  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.11082530945E+02	Apriori delay (usec)	3.07295425066E+02	Resid mbdelay (usec)	-5.22206E-06	+/- 3.2E-03
Sband delay (usec)	3.11082536566E+02	Apriori clock (usec)	-1.0255153E+01	Resid sbdelay (usec)	3.78711E+00	+/- 3.2E-03
Phase delay (usec)	3.07295422611E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-2.45499E-06	+/- 6.9E-07
Delay rate (us/s)	1.77934942222E+00	Apriori rate (us/s)	1.77935715907E+00	Resid rate (us/s)	-7.73685E-06	+/- 4.0E-09
Total phase (deg)	163.4	Apriori accel (us/s/s)	-1.21981002106E-05	Resid phase (deg)	194.0	+/- 21.4

ph/seg (deg)	RMS 90.3	Theor. 182.8	Amplitude 0.571 +/- 0.107	Search (2048X8) 0.462	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	353.0	319.1	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.7	Inc. seg. avg. 0.365	0.365	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.4	18.6	Inc. frq. avg. 0.559	0.559	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10629.522 -3060.148 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fX.W.101.0QR0YU



Fringe quality 0

SNR 5.2

Int time 280.936

Amp 0.614

Phase -126.3

PFD 1.0e+00

Delays (us)

SBD -3.094958

MBD -0.000006

Fringe rate (Hz)

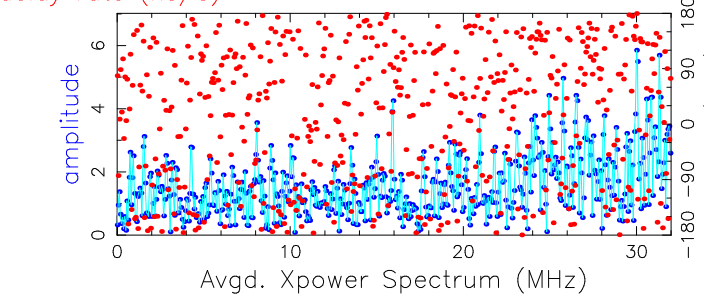
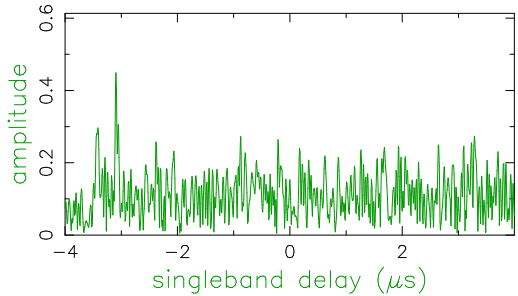
-0.822060

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163643

2018:249:082454

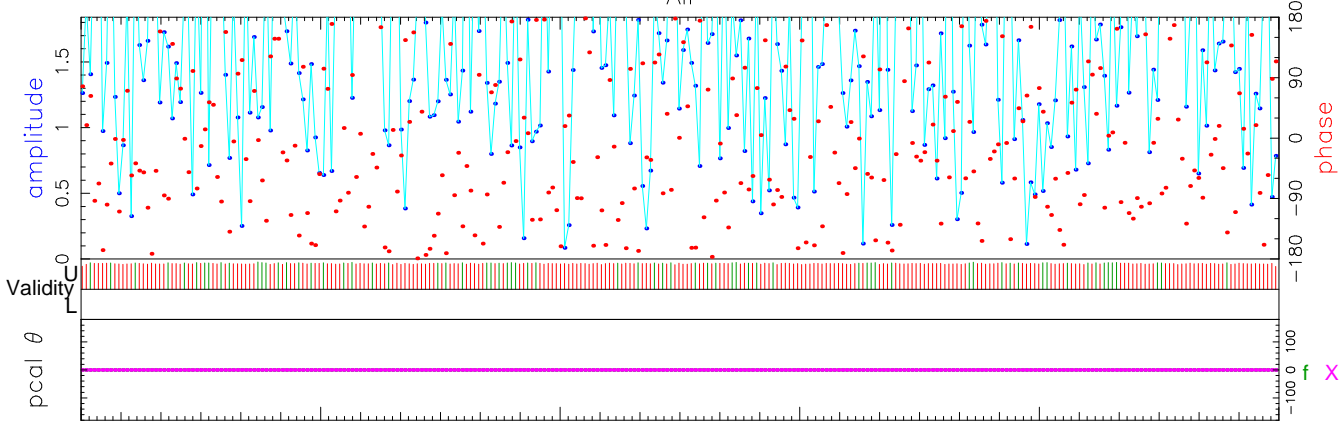
RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00

-70.9

0.6

116.9

U/L 586/0

f 3000

X 0

f:X 0:0

f:X 0:0

f 1000

X 1000

f W00UR

X W00UR

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Manl PC

PC amp

Chan ids

Chan ids

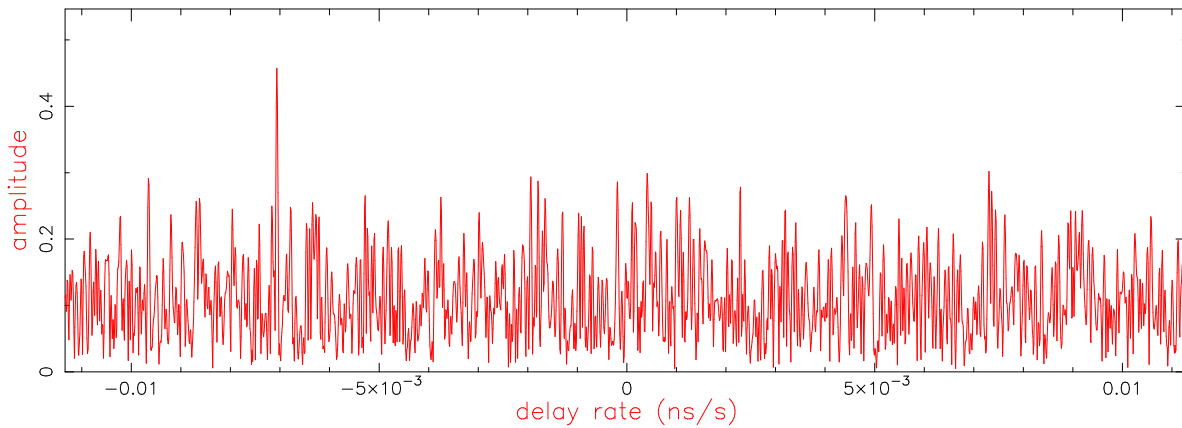
Group delay (usec)(sbd)	3.04200467479E+02	Apriori delay (usec)	3.07295425066E+02	Resid mbdelay (usec)	-5.71995E-06	+/-	3.3E-03
Sband delay (usec)	3.04200467566E+02	Apriori clock (usec)	-1.0255153E+01	Resid sbdelay (usec)	-3.09496E+00	+/-	3.3E-03
Phase delay (usec)	3.07295422781E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-2.28583E-06	+/-	7.2E-07
Delay rate (us/s)	1.77934761578E+00	Apriori rate (us/s)	1.77935715907E+00	Resid rate (us/s)	-9.54330E-06	+/-	4.1E-09
Total phase (deg)	-156.8	Apriori accel (us/s/s)	-1.21981002106E-05	Resid phase (deg)	-126.3	+/-	22.2

ph/seg (deg)	RMS 92.9	Theor. 190.3	Amplitude 0.614 +/- 0.119	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	352.5	332.1	Search (2048X8) 0.447	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	11.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3	19.4	Inc. seg. avg. 0.361	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.601	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

f: az 89.4 el 32.4 pa -63.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10629.522 -3060.148 simultaneous interpolator

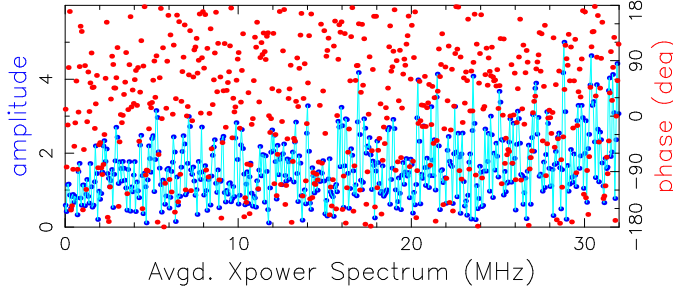
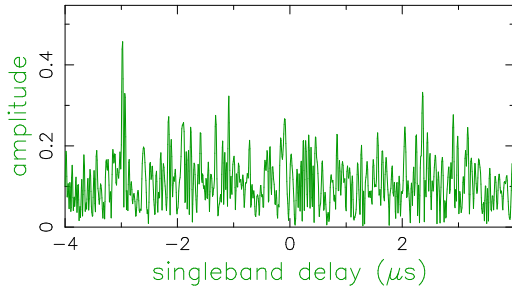
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fX.W.112.0QR0YU





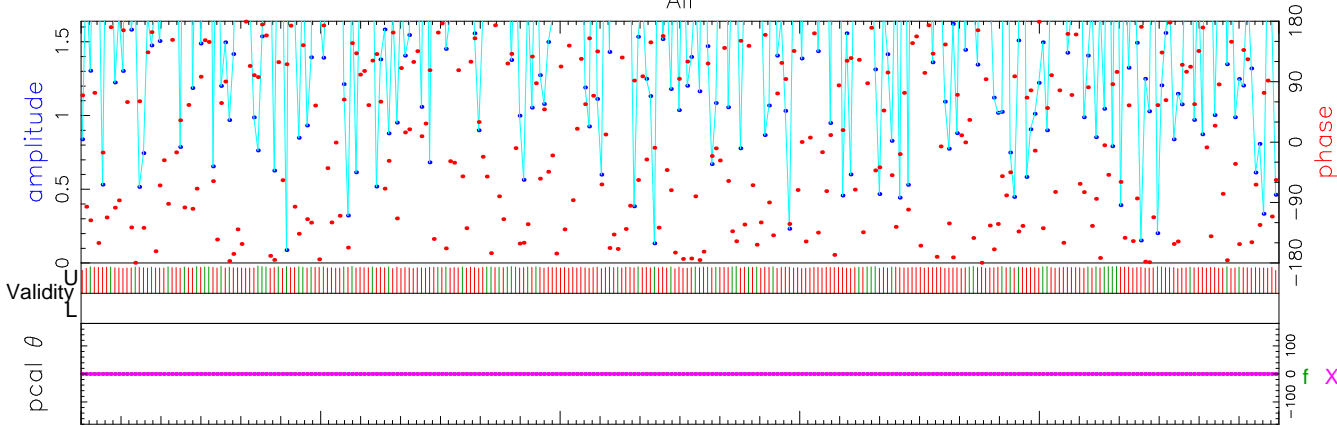
Fringe quality 0

SNR 5.3  
Int time 280.946  
Amp 0.547  
Phase -291.1  
PFD 1.0e+00  
Delays (us)  
SBD -2.979084  
MBD -0.000006  
Fringe rate (Hz)  
-0.609785  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-175.5  
0.5  
131.7  
U/L 586/0  
f 3000  
X 0  
f:X 0:0  
f:X 0:0  
f 1000  
X 1000  
f W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.04316346644E+02	Apriori delay (usec)	3.07295425066E+02	Resid mbdelay (usec)	-5.73446E-06	+/-	3.2E-03
Sband delay (usec)	3.04316341566E+02	Apriori clock (usec)	-1.0255153E+01	Resid sbdelay (usec)	-2.97908E+00	+/-	3.2E-03
Phase delay (usec)	3.07295419408E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-5.65864E-06	+/-	7.0E-07
Delay rate (us/s)	1.77935008008E+00	Apriori rate (us/s)	1.77935715907E+00	Resid rate (us/s)	-7.07900E-06	+/-	4.0E-09
Total phase (deg)	-321.7	Apriori accel (us/s/s)	-1.21981002106E-05	Resid phase (deg)	-291.1	+/-	21.6

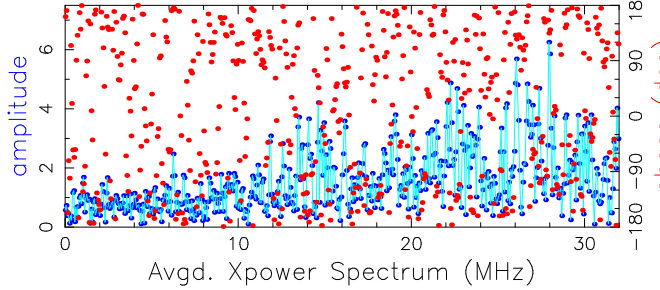
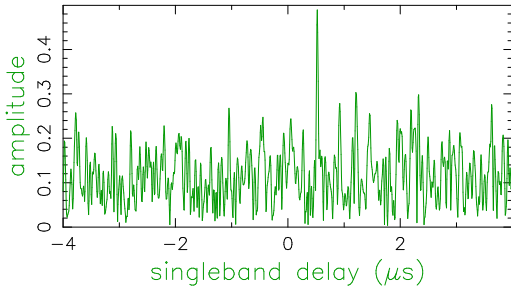
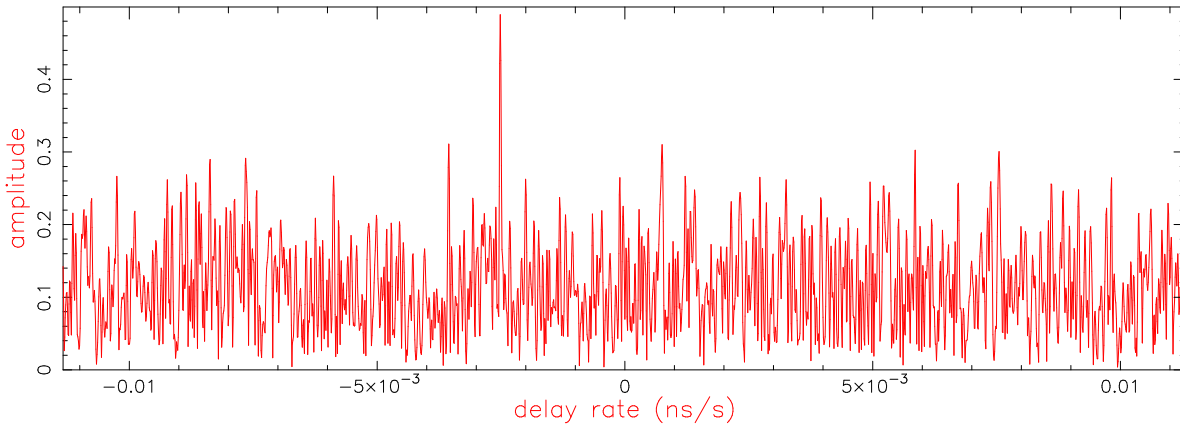
ph/seg (deg)	RMS 90.9	Theor. 184.8	Amplitude 0.547 +/- 0.103	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	388.2	322.6	Search (2048X8) 0.446	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.3	18.8	Inc. seg. avg. 0.364	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.530	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

f: az 89.4 el 32.4 pa -63.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10629.522 -3060.148 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fX.W.128.0QR0YU

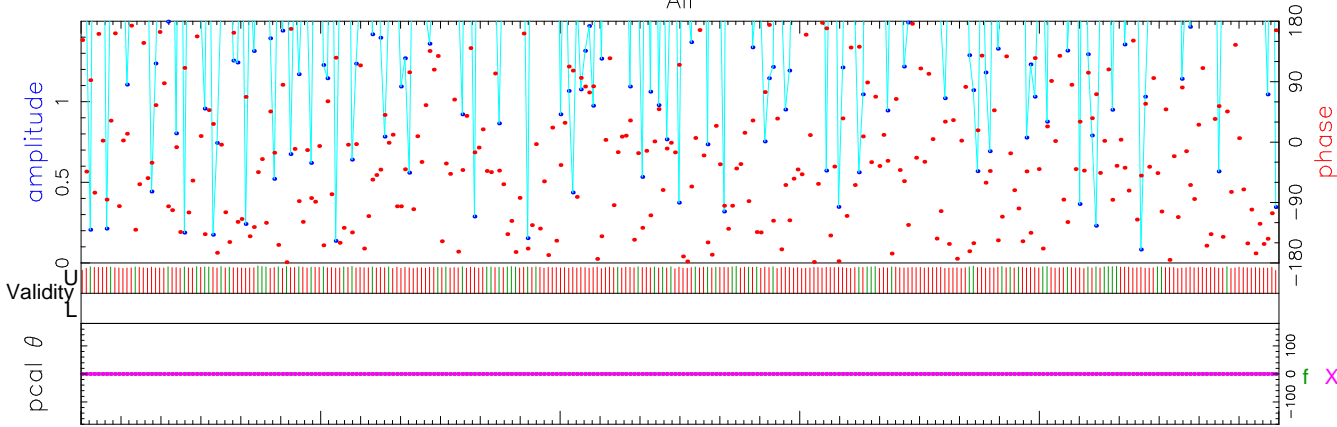
Fringe quality 0

SNR 5.6  
Int time 280.936  
Amp 0.500  
Phase 250.3  
PFD 9.1e-01  
Delays (us)  
SBD 0.522560  
MBD -0.000006  
Fringe rate (Hz)  
-0.216814  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-69.5  
0.5  
579.9  
U/L 586/0  
f 3000  
X 0  
f:X 0:0  
f:X 0:0  
f 1000  
X 1000  
f W00UR  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.07817985531E+02	Apriori delay (usec)	3.07295425066E+02	Resid mbdelay (usec)	-6.15402E-06	+/-	3.1E-03
Sband delay (usec)	3.07817984566E+02	Apriori clock (usec)	-1.0255153E+01	Resid sbdelay (usec)	5.22560E-01	+/-	3.1E-03
Phase delay (usec)	3.07295422824E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-2.24218E-06	+/-	6.6E-07
Delay rate (us/s)	1.77935464208E+00	Apriori rate (us/s)	1.77935715907E+00	Resid rate (us/s)	-2.51699E-06	+/-	3.8E-09
Total phase (deg)	219.8	Apriori accel (us/s/s)	-1.21981002106E-05	Resid phase (deg)	250.3	+/-	20.4

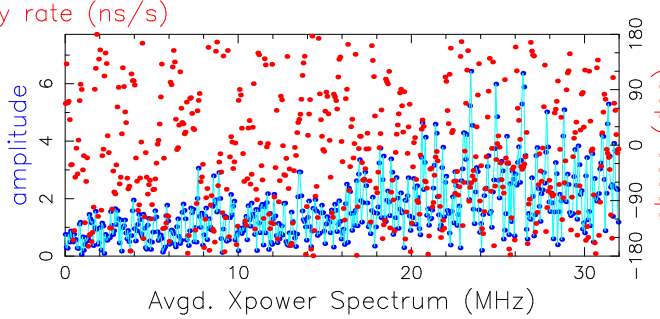
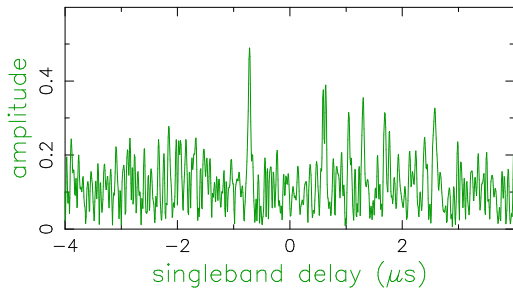
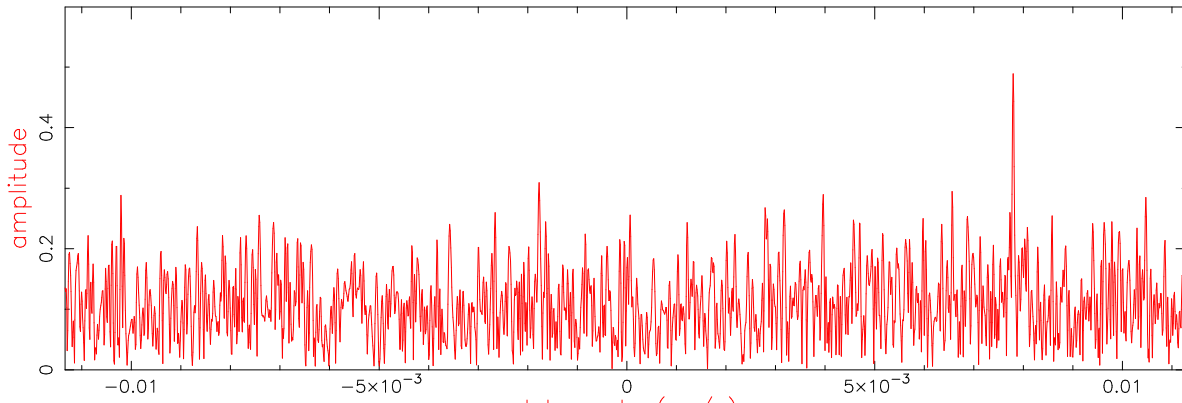
ph/seg (deg)	RMS 91.5	Theor. 174.8	Amplitude Search (2048X8) 0.478	0.500 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	374.8	305.1	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.2	Inc. seg. avg. 0.361	0.361	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.1	17.8	Inc. frq. avg. 0.491	0.491	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 89.4 el 32.4 pa -63.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10629.522 -3060.148 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fX.W.157.0QR0YU

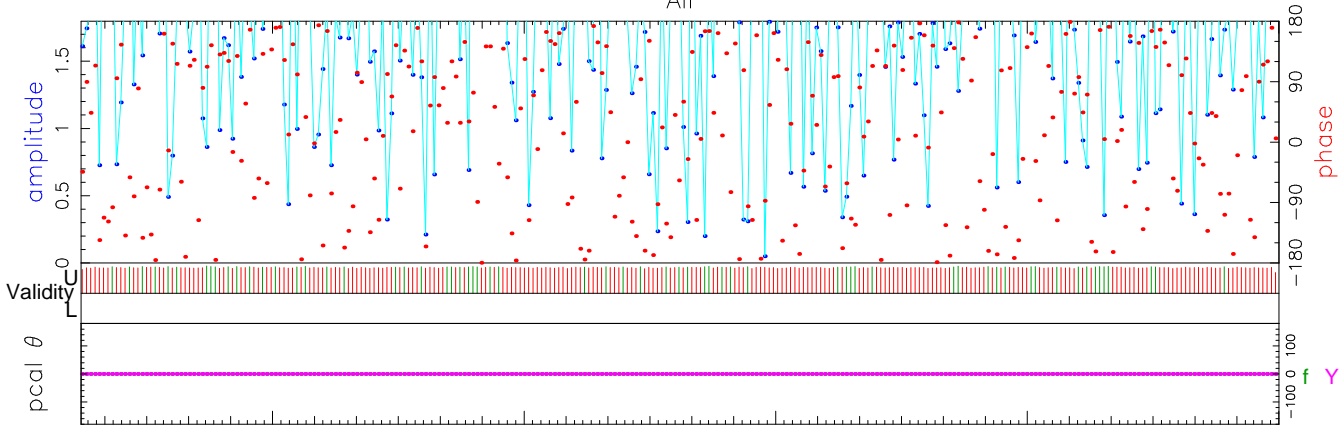
Fringe quality 0

SNR 5.5  
Int time 267.400  
Amp 0.599  
Phase -174.9  
PFD 1.0e+00  
Delays (us)  
SBD -0.718131  
MBD 0.000007  
Fringe rate (Hz)  
0.672039  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



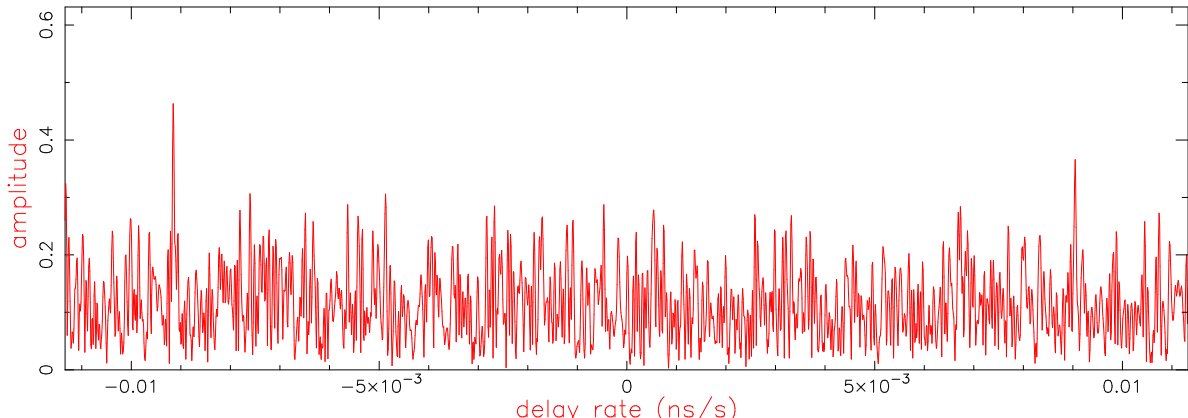
86012.00  
157.2  
0.6  
421.1  
U/L 558/0  
f 3000  
Y 0  
f:Y 0:0  
f:Y 0:0  
f 1000  
Y 1000  
f W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

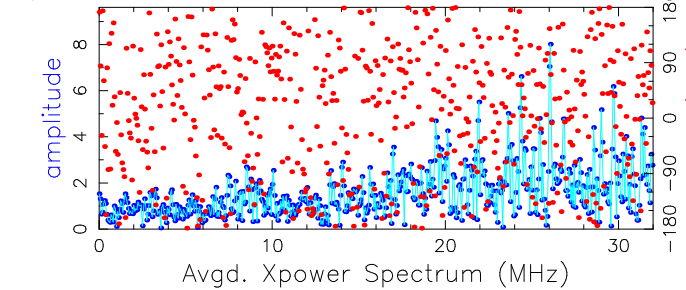
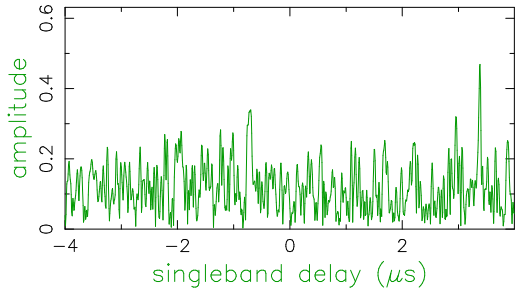
Group delay (usec)(sbd)	-4.11506351905E+03	Apriori delay (usec)	-4.11434538234E+03	Resid mbdelay (usec)	7.26567E-06	+/-	3.2E-03
Sband delay (usec)	-4.11506351384E+03	Apriori clock (usec)	7.7918730E+00	Resid sbdelay (usec)	-7.18131E-01	+/-	3.2E-03
Phase delay (usec)	-4.11434537727E+03	Apriori clockrate (us/s)	-3.7000012E-08	Resid phdelay (usec)	5.06873E-06	+/-	6.8E-07
Delay rate (us/s)	1.85001365382E+00	Apriori rate (us/s)	1.85000585212E+00	Resid rate (us/s)	7.80171E-06	+/-	4.1E-09
Total phase (deg)	-259.3	Apriori accel (us/s/s)	1.74974602562E-05	Resid phase (deg)	-174.9	+/-	21.0

ph/seg (deg)	91.3	Theor.	175.0	Amplitude	0.599 +/- 0.110	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	358.7	Search (2048X8)	0.482	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.423	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.589	Inc. seg. avg.	0.423	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11012.545 -737.929 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fY.W.110.0QR0YU

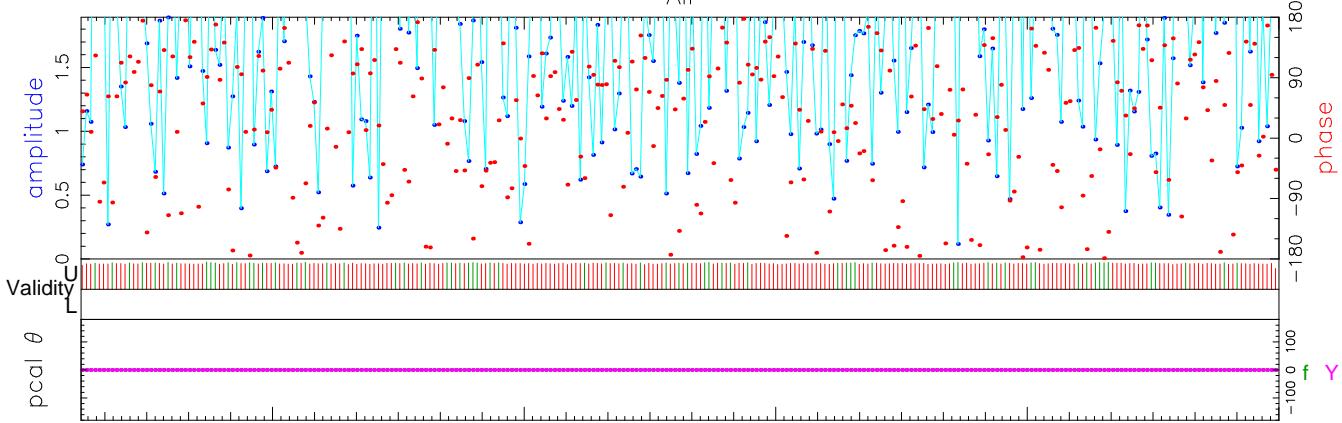


Fringe quality 0  
SNR 5.3  
Int time 267.406  
Amp 0.631  
Phase 315.8  
PFD 1.0e+00  
Delays (us)  
SBD 3.379641  
MBD -0.000006  
Fringe rate (Hz)  
-0.789861  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
101.8 Phase  
0.6 Ampl.  
945.6 Sbd box  
U/L 558/0 APs used  
f 3000 PC freqs  
Y 0 PC freqs  
f:Y 0:0 PC phase  
f:Y 0:0 Manl PC  
f 1000 PC amp  
Y 1000  
f W00UL Chan ids  
Y W00UR Chan ids

Group delay (usec)(sbd)	-4.11096574408E+03	Apriori delay (usec)	-4.11434538234E+03	Resid mbdelay (usec)	-6.44459E-06	+/-	3.2E-03
Sband delay (usec)	-4.11096574184E+03	Apriori clock (usec)	7.7918730E+00	Resid sbdelay (usec)	3.37964E+00	+/-	3.2E-03
Phase delay (usec)	-4.11434537905E+03	Apriori clockrate (us/s)	-3.7000012E-08	Resid phdelay (usec)	3.28132E-06	+/-	7.0E-07
Delay rate (us/s)	1.84999668261E+00	Apriori rate (us/s)	1.85000585212E+00	Resid rate (us/s)	-9.16951E-06	+/-	4.2E-09
Total phase (deg)	231.4	Apriori accel (us/s/s)	1.74974602562E-05	Resid phase (deg)	315.8	+/-	21.6

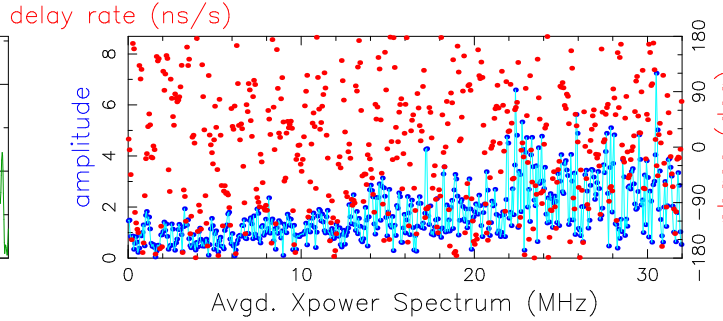
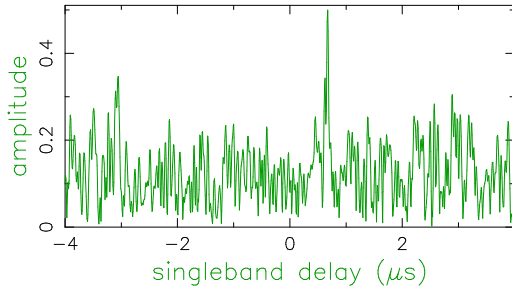
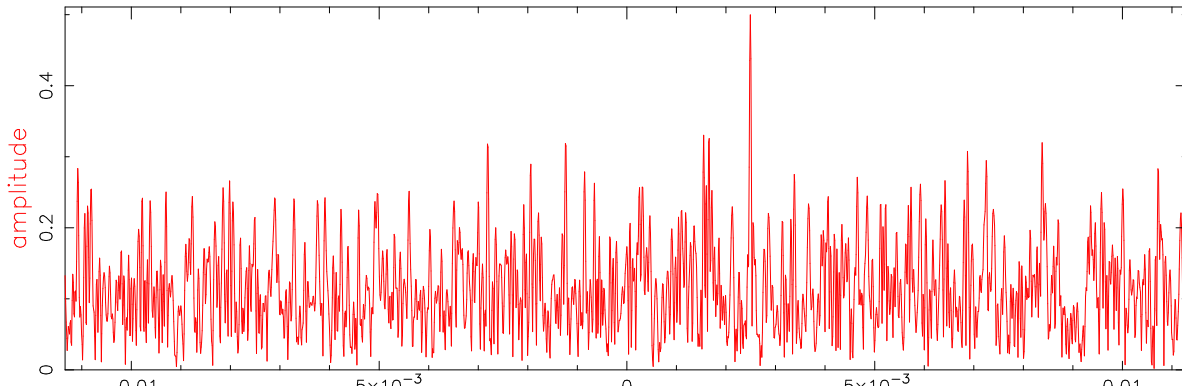
ph/seg (deg)	90.6	Theor.	180.3	Amplitude	0.631 +/- 0.119	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	387.6	Search (2048X8)	0.462	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.442	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	2.5	Inc. frq. avg.	0.605	Inc. frq. avg.	0.605	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11012.545 -737.929 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fY.W.126.0QR0YU

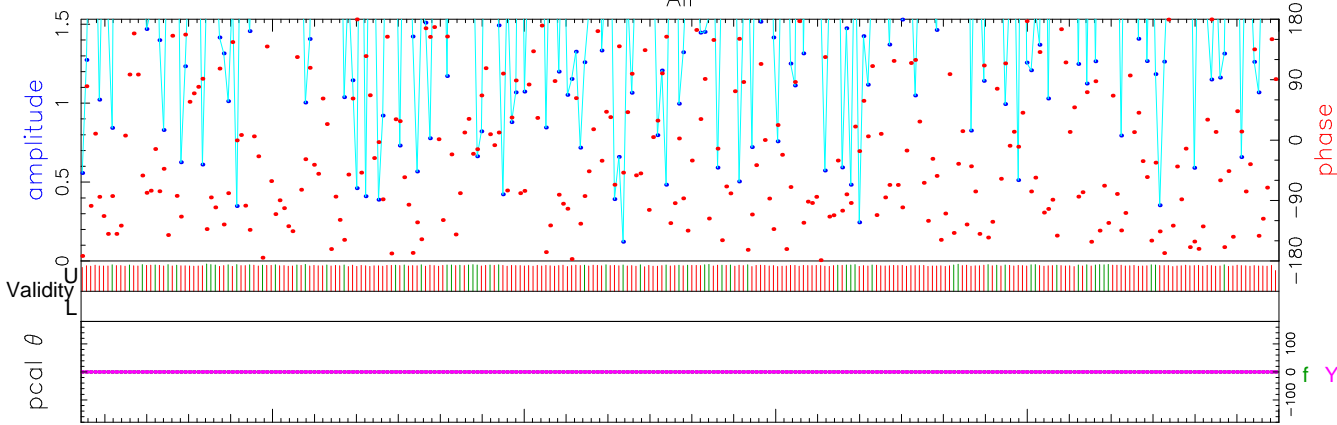
Fringe quality 0

SNR 5.6  
Int time 267.400  
Amp 0.511  
Phase 213.8  
PFD 9.3e-01  
Delays (us)  
SBD 0.670605  
MBD 0.000006  
Fringe rate (Hz)  
0.214453  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-87.6  
0.5  
598.9  
U/L 558/0  
f 3000  
Y 0  
f:Y 0:0  
f:Y 0:0  
f 1000  
Y 1000  
f W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.11367477230E+03	Apriori delay (usec)	-4.11434538234E+03	Resid mbdelay (usec)	5.93238E-06	+/-	3.1E-03
Sband delay (usec)	-4.11367477784E+03	Apriori clock (usec)	7.7918730E+00	Resid sbdelay (usec)	6.70605E-01	+/-	3.1E-03
Phase delay (usec)	-4.11434538516E+03	Apriori clockrate (us/s)	-3.700012E-08	Resid phdelay (usec)	-2.82523E-06	+/-	6.6E-07
Delay rate (us/s)	1.85000834170E+00	Apriori rate (us/s)	1.85000585212E+00	Resid rate (us/s)	2.48959E-06	+/-	4.0E-09
Total phase (deg)	129.4	Apriori accel (us/s/s)	1.74974602562E-05	Resid phase (deg)	213.8	+/-	20.5

ph/seg (deg)	92.0	Theor.	171.0	Amplitude	0.511 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	349.4	Search (2048X8)	0.495	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.367	Inc. seg. avg.	0.367	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.502	Inc. frq. avg.	0.502	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

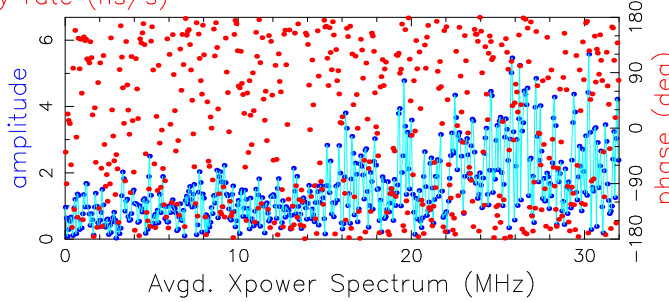
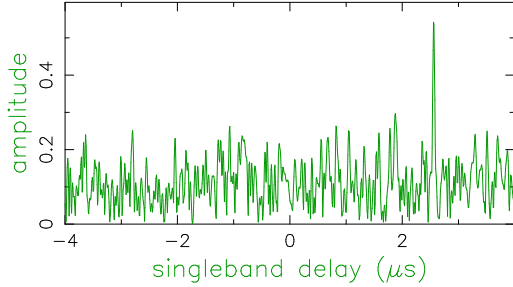
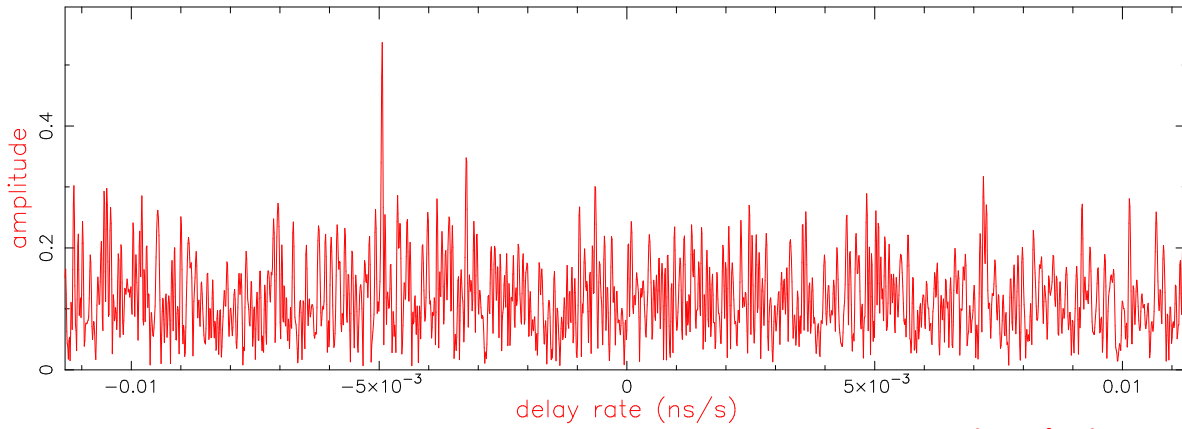
f: az 89.4 el 32.4 pa -63.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11012.545 -737.929 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fY.W.141.0QR0YU



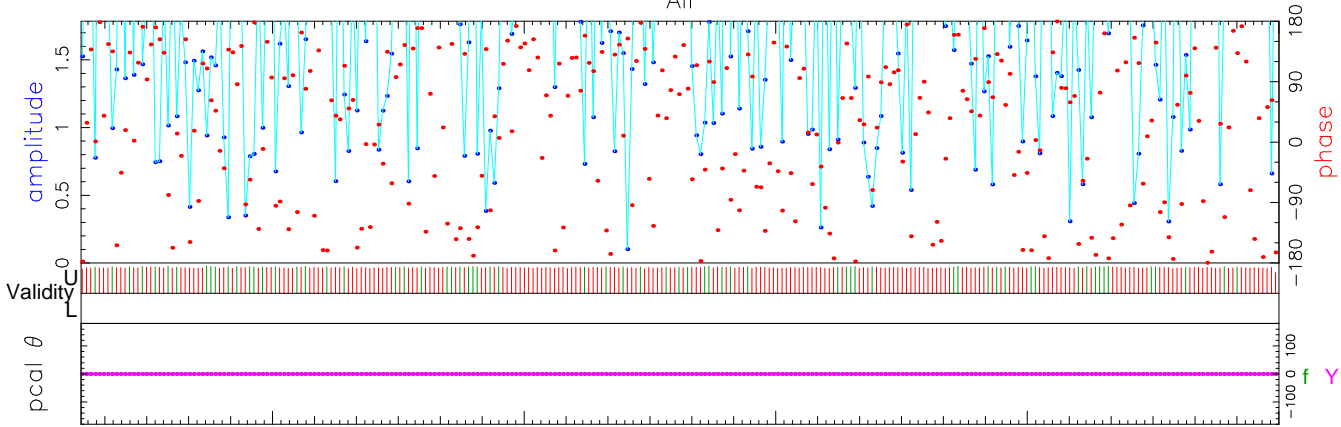
Fringe quality 0

SNR 6.1  
Int time 267.406  
Amp 0.595  
Phase 290.7  
PFD 1.0e-01  
Delays (us)  
SBD 2.558184  
MBD -0.000005  
Fringe rate (Hz)  
-0.425869  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
129.3  
0.6  
840.4  
U/L 558/0  
f 3000  
Y 0  
f:Y 0:0  
f:Y 0:0  
f 1000  
Y 1000  
f W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.11178719759E+03	Apriori delay (usec)	-4.11434538234E+03	Resid mbdelay (usec)	-4.80863E-06	+/-	2.8E-03
Sband delay (usec)	-4.11178719834E+03	Apriori clock (usec)	7.7918730E+00	Resid sbdelay (usec)	2.55818E+00	+/-	2.8E-03
Phase delay (usec)	-4.11434537817E+03	Apriori clockrate (us/s)	-3.7000012E-08	Resid phdelay (usec)	4.16959E-06	+/-	6.0E-07
Delay rate (us/s)	1.85000090820E+00	Apriori rate (us/s)	1.85000585212E+00	Resid rate (us/s)	-4.94392E-06	+/-	3.6E-09
Total phase (deg)	206.3	Apriori accel (us/s/s)	1.74974602562E-05	Resid phase (deg)	290.7	+/-	18.6

ph/seg (deg)	91.2	Theor.	155.7	Amplitude	0.595 +/- 0.097	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	330.8	Search (2048X8)	0.524	Apriori clock (usec)	7.7918730E+00	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Apriori clockrate (us/s)	-3.7000012E-08	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.3	Inc. seg. avg.	0.470	Apriori rate (us/s)	1.85000585212E+00	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
		Inc. frq. avg.	0.574	Apriori accel (us/s/s)	1.74974602562E-05	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011

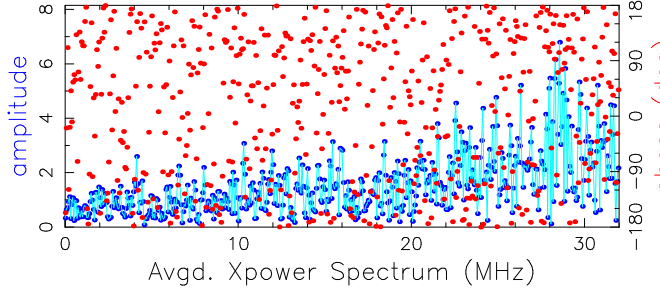
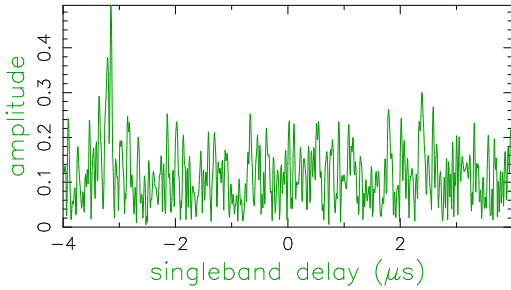
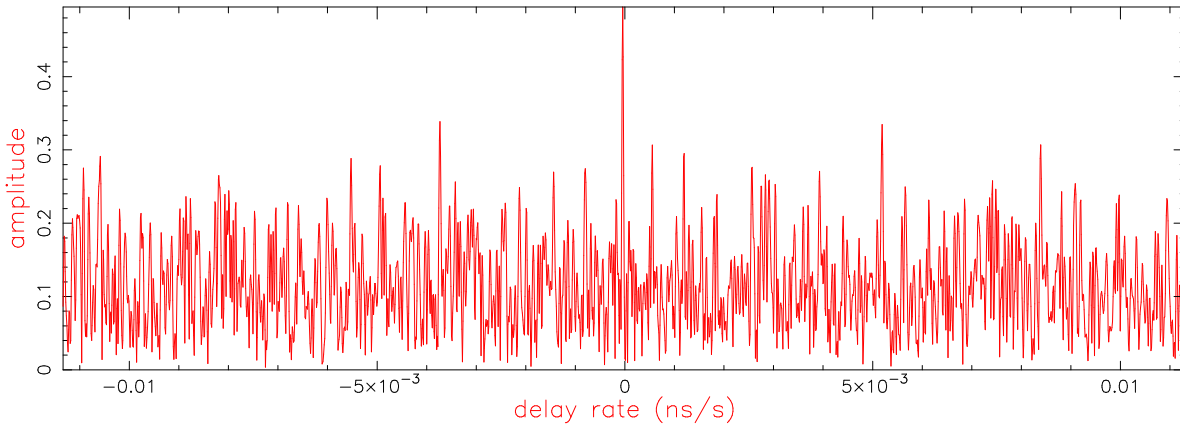
f: az 89.4 el 32.4 pa -63.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11012.545 -737.929 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fY.W.99.0QR0YU

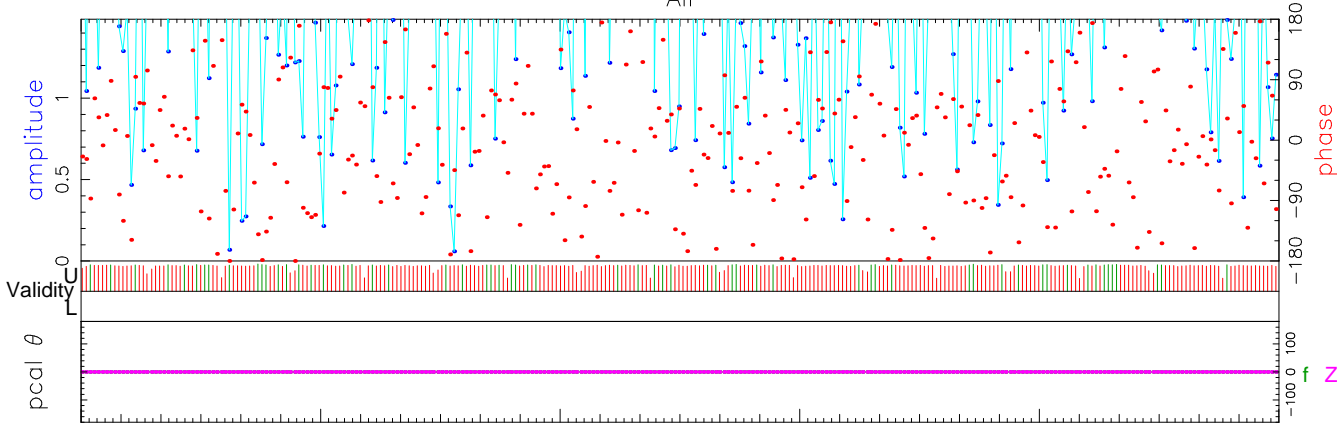
Fringe quality 0

SNR 5.6  
Int time 273.578  
Amp 0.495  
Phase -344.1  
PFD 9.3e-01  
Delays (us)  
SBD -3.148021  
MBD -0.000007  
Fringe rate (Hz)  
-0.003928  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-3.6  
0.5  
110.1  
U/L 586/0  
f 3000  
Z 0  
f:Z 0:0  
f:Z 0:0  
f 1000  
Z 1000  
f W00UR  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
  
Chan ids

Group delay (usec)(sbd)	2.60800519972E+03	Apriori delay (usec)	2.61115322065E+03	Resid mbdelay (usec)	-6.70000E-06	+/-	3.1E-03
Sband delay (usec)	2.60800520015E+03	Apriori clock (usec)	1.4666640E+01	Resid sbdelay (usec)	-3.14802E+00	+/-	3.1E-03
Phase delay (usec)	2.61115322054E+03	Apriori clockrate (us/s)	-3.9399999E-07	Resid phdelay (usec)	-1.16952E-07	+/-	6.6E-07
Delay rate (us/s)	1.80502218892E+00	Apriori rate (us/s)	1.80502223452E+00	Resid rate (us/s)	-4.56042E-08	+/-	3.8E-09
Total phase (deg)	-190.4	Apriori accel (us/s/s)	-2.51241428101E-05	Resid phase (deg)	-344.1	+/-	20.5

ph/seg (deg)	91.2	Theor.	175.2	Amplitude	0.495 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	366.9	Search (2048X8)	0.493	Search	0.493	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.349	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0	Inc. frq. avg.	0.487	Inc. frq. avg.	0.487	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

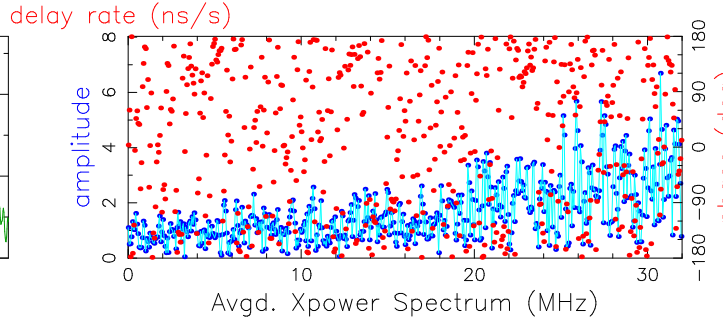
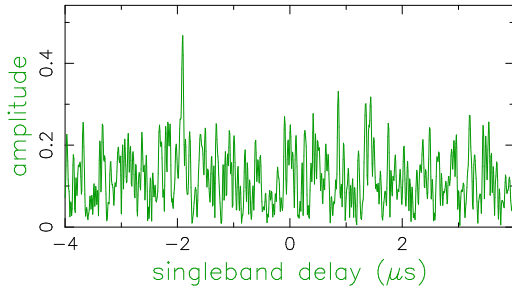
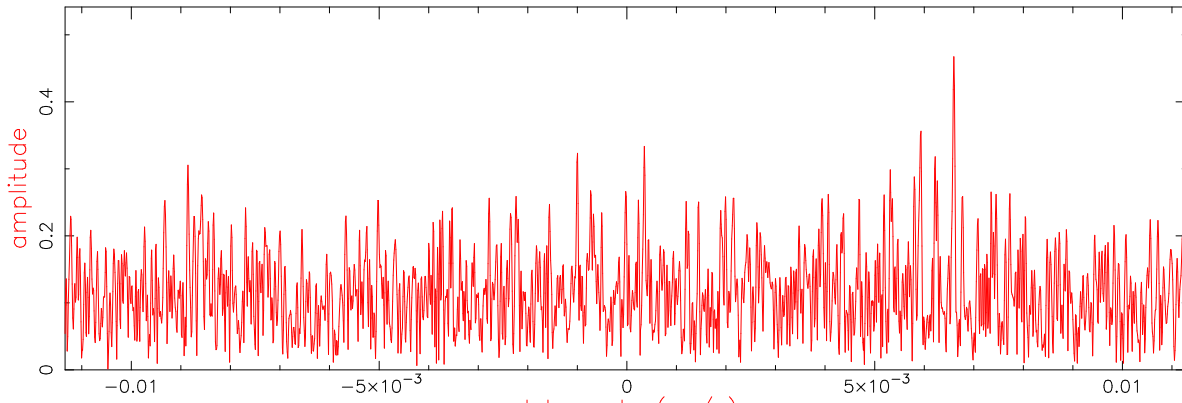
f: az 89.4 el 32.4 pa -63.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10799.010 -3572.966 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fZ.W.113.0QR0YU

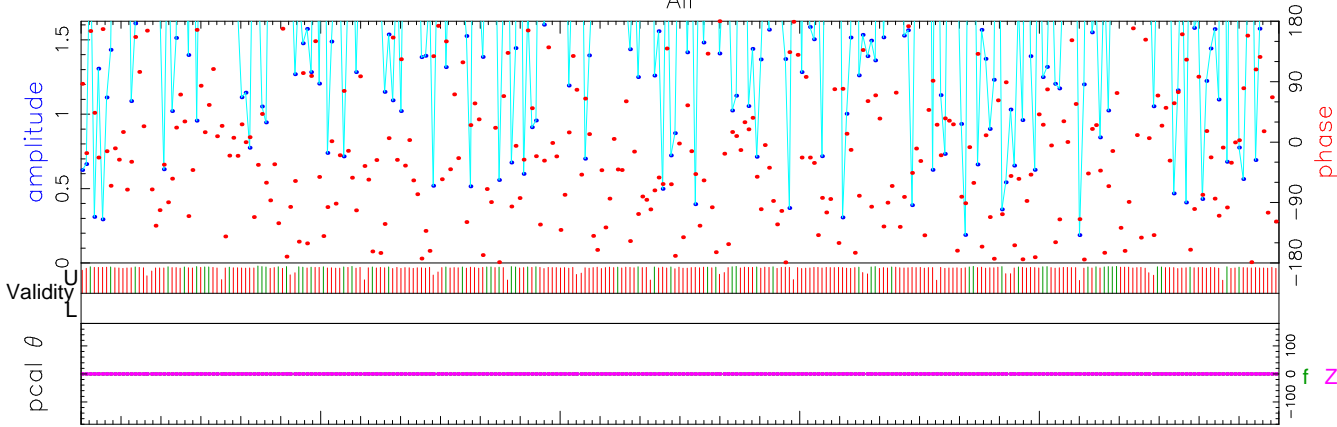
Fringe quality 0

SNR 5.3  
Int time 273.587  
Amp 0.542  
Phase -132.9  
PFD 1.0e+00  
Delays (us)  
SBD -1.908048  
MBD 0.000004  
Fringe rate (Hz)  
0.569152  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



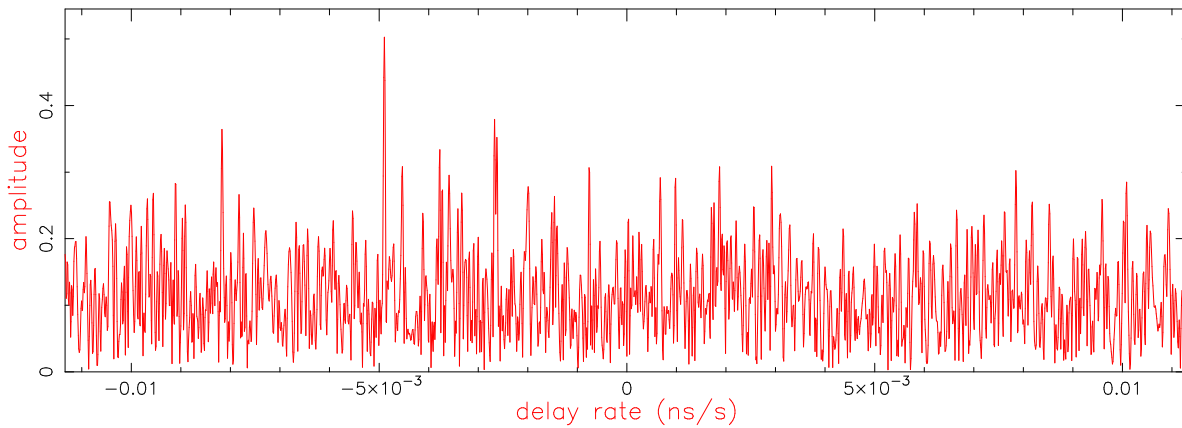
86012.00  
-50.1  
0.5  
268.8  
U/L 586/0  
f 3000  
Z 0  
f:Z 0:0  
f:Z 0:0  
f 1000  
Z 1000  
f W00UL  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.60924517731E+03	Apriori delay (usec)	2.61115322065E+03	Resid mbdelay (usec)	4.37067E-06	+/-	3.2E-03
Sband delay (usec)	2.60924517265E+03	Apriori clock (usec)	1.4666640E+01	Resid sbdelay (usec)	-1.90805E+00	+/-	3.2E-03
Phase delay (usec)	2.61115321904E+03	Apriori clockrate (us/s)	-3.9399999E-07	Resid phdelay (usec)	-1.61512E-06	+/-	7.0E-07
Delay rate (us/s)	1.80502884181E+00	Apriori rate (us/s)	1.80502223452E+00	Resid rate (us/s)	6.60729E-06	+/-	4.0E-09
Total phase (deg)	-339.2	Apriori accel (us/s/s)	-2.51241428101E-05	Resid phase (deg)	-132.9	+/-	21.6

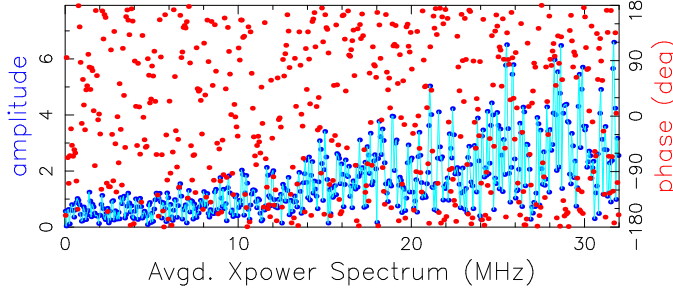
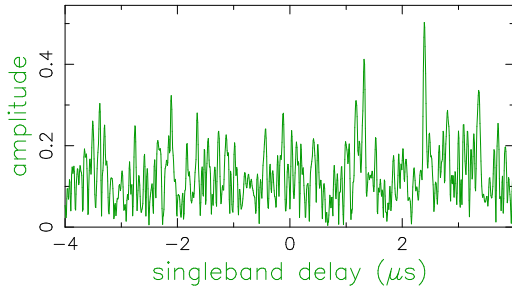
ph/seg (deg)	89.3	Theor.	184.9	Amplitude	0.542 +/- 0.102	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	410.0	Search (2048X8)	0.463	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.382	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.530	Inc. frq. avg.	0.530	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

f: az 89.4 el 32.4 pa -63.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10799.010 -3572.966 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fZ.W.136.0QR0YU



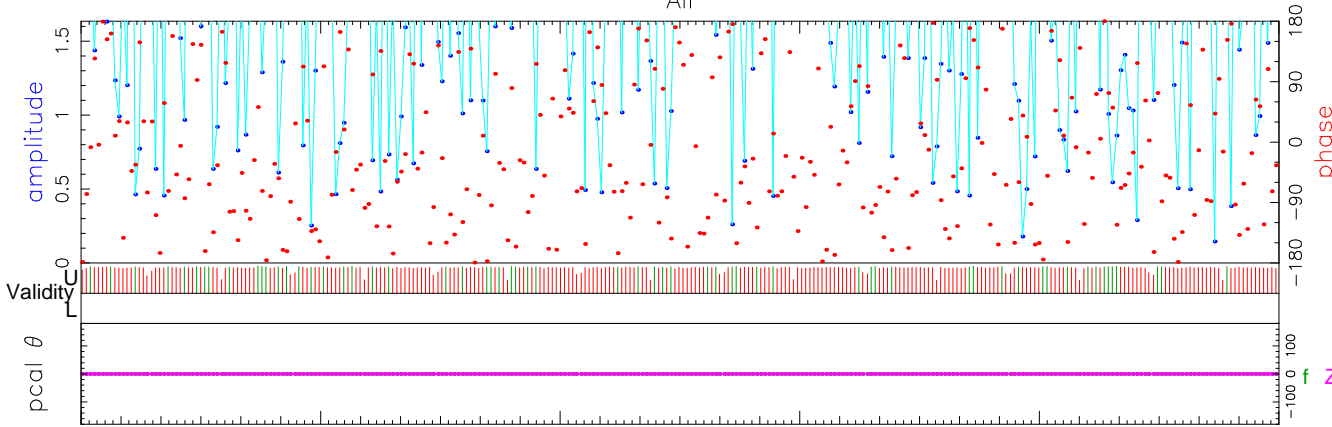
Fringe quality 0

SNR 5.7  
 Int time 273.578  
 Amp 0.545  
 Phase 353.6  
 PFD 7.7e-01  
 Delays (us)  
 SBD 2.392480  
 MBD -0.000004  
 Fringe rate (Hz)  
 -0.422463  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163647  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 -91.9  
 0.5  
 819.3  
 U/L 586/0  
 f 3000  
 Z 0  
 f:Z 0:0  
 f:Z 0:0  
 f 1000  
 Z 1000  
 f W00UR  
 Z W00UL

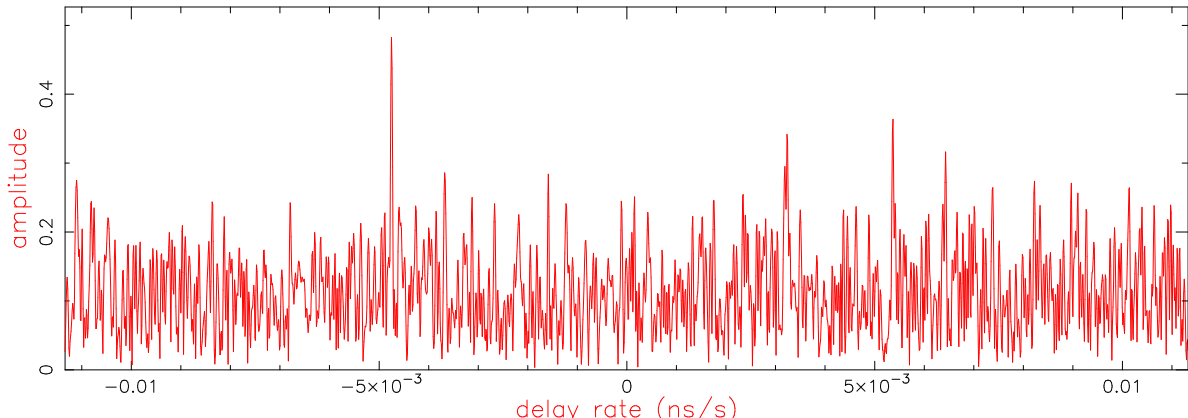
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	2.61354569640E+03	Apriori delay (usec)	2.61115322065E+03	Resid mbdelay (usec)	-4.37581E-06	+/-	3.0E-03
Sband delay (usec)	2.61354570065E+03	Apriori clock (usec)	1.4666640E+01	Resid sbdelay (usec)	2.39248E+00	+/-	3.0E-03
Phase delay (usec)	2.61115321769E+03	Apriori clockrate (us/s)	-3.9399999E-07	Resid phdelay (usec)	-2.96195E-06	+/-	6.5E-07
Delay rate (us/s)	1.80501733015E+00	Apriori rate (us/s)	1.8050223452E+00	Resid rate (us/s)	-4.90437E-06	+/-	3.7E-09
Total phase (deg)	147.4	Apriori accel (us/s/s)	-2.51241428101E-05	Resid phase (deg)	353.6	+/-	20.1

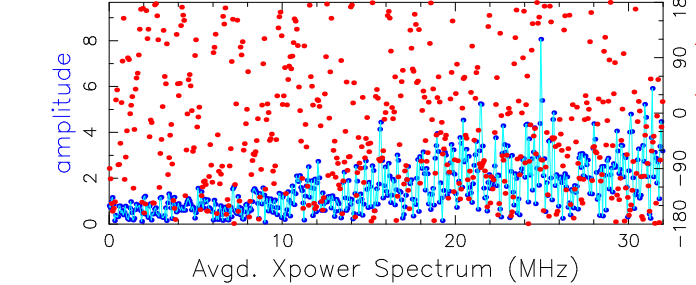
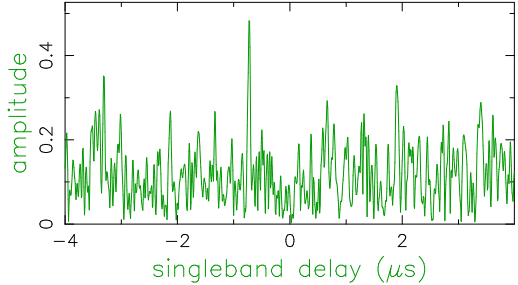
ph/seg (deg)	92.7	Theor.	172.0	Amplitude	0.545 +/- 0.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	377.6	Search (2048X8)	0.499	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. seg. avg.	0.403	Sample rate(MSamp/s): 64		ion window (TEC)	-0.011 0.011	
		Inc. frq. avg.	0.535	Data rate(Mb/s): 128		nlags: 512	t_cohere infinite	

f: az 89.4 el 32.4 pa -63.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10799.010 -3572.966 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/fZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/fZ.W.151.0QR0YU



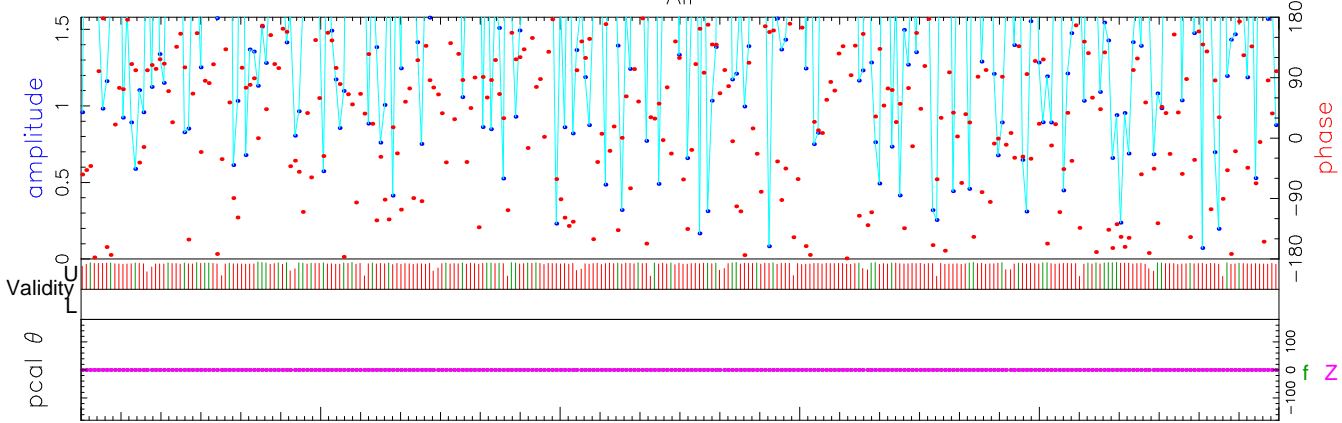
Fringe quality 0  
SNR 5.5  
Int time 273.587  
Amp 0.527  
Phase -88.4  
PFD 9.8e-01  
Delays (us)  
SBD -0.722665  
MBD -0.000005  
Fringe rate (Hz)  
-0.409275  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
91.5  
0.5  
420.5  
U/L 586/0  
f 3000  
Z 0  
f:Z 0:0  
f:Z 0:0  
f 1000  
Z 1000  
f W00UL  
Z W00UL

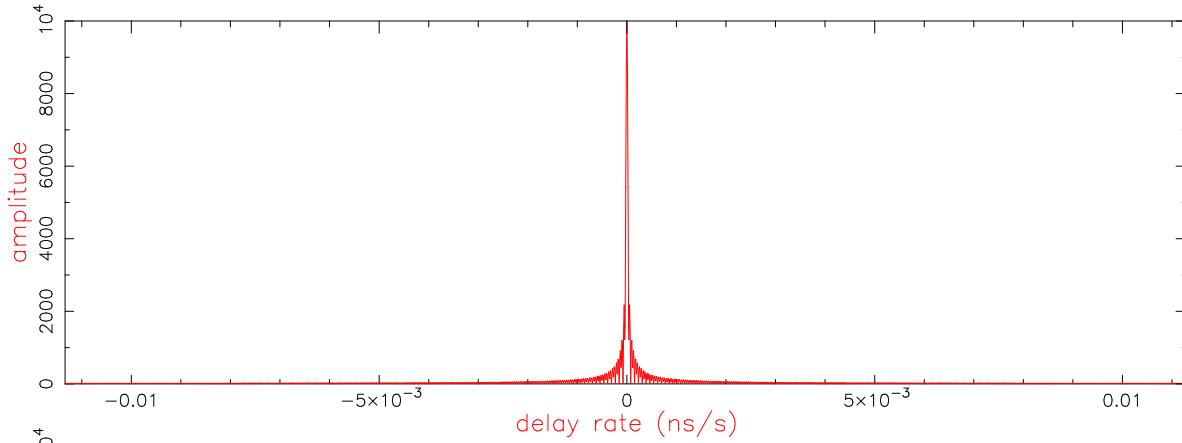
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	2.61043056098E+03	Apriori delay (usec)	2.61115322065E+03	Resid mbdelay (usec)	-4.69572E-06	+/-	3.1E-03
Sband delay (usec)	2.61043055565E+03	Apriori clock (usec)	1.4666640E+01	Resid sbdelay (usec)	-7.22665E-01	+/-	3.1E-03
Phase delay (usec)	2.61115322360E+03	Apriori clockrate (us/s)	-3.9399999E-07	Resid phdelay (usec)	2.95069E-06	+/-	6.7E-07
Delay rate (us/s)	1.80501748324E+00	Apriori rate (us/s)	1.80502223452E+00	Resid rate (us/s)	-4.75128E-06	+/-	3.9E-09
Total phase (deg)	-294.7	Apriori accel (us/s/s)	-2.51241428101E-05	Resid phase (deg)	-88.4	+/-	20.7

ph/seg (deg)	90.3	Theor.	177.2	Amplitude	0.527 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	352.5	Search (2048X8)	0.480	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.347	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.5	Inc. frq. avg.	0.511	Inc. frq. avg.	0.511	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

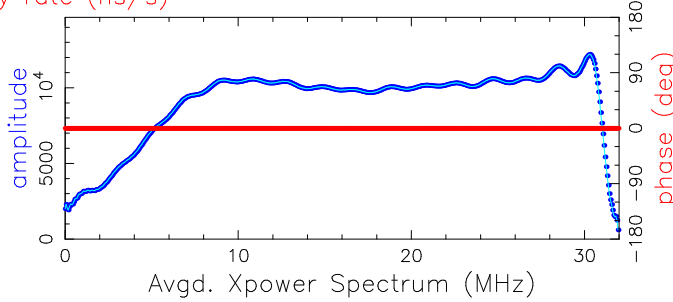
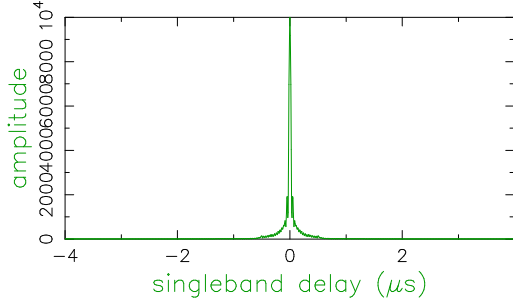
f: az 89.4 el 32.4 pa -63.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10799.010 -3572.966 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//fZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//fZ.W.95.0QR0YU





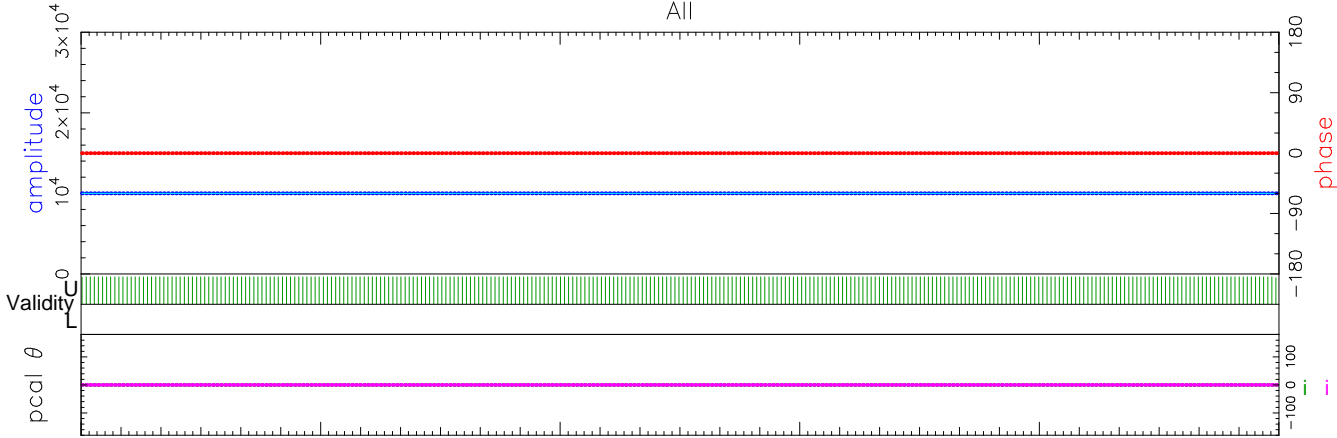
Fringe quality 9

SNR 118408.2  
 Int time 299.977  
 Amp 10000.000  
 Phase -0.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163642  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -0.2  
 10000.0  
 513.0  
 U/L 586/0  
 i 0  
 i 0  
 i:i 0:0  
 i:i 0:0  
 i 1000  
 i 1000  
 i W00UR  
 i W00UR

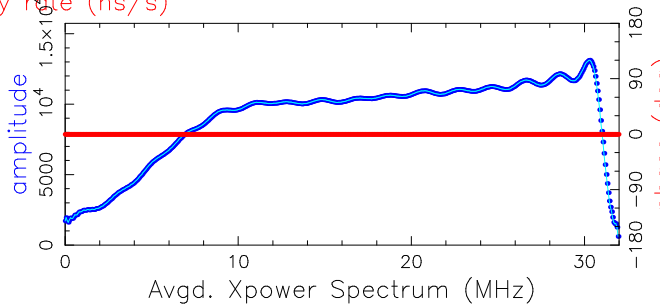
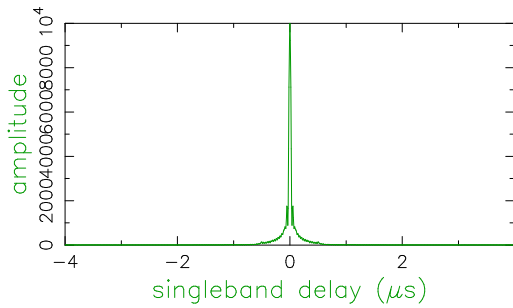
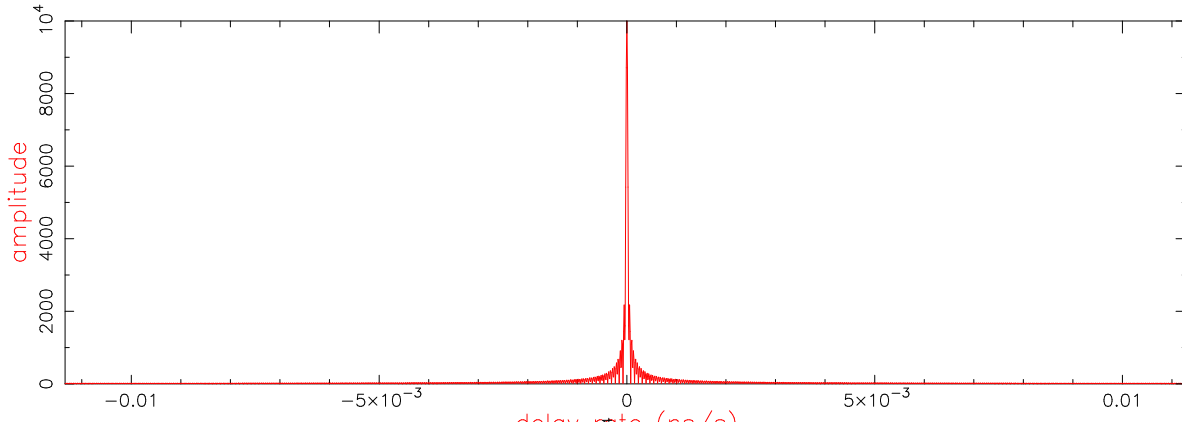
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.39017811468E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.39018E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.70814893016E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.70815E-09	+/-	3.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

i: az 249.4 el 49.9 pa 50.9 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ii..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ii.W.108.0QR0YU



Fringe quality 9

SNR 118408.2

Int time 299.977

Ampl 10000.000

Phase -0.2

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000004

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163641

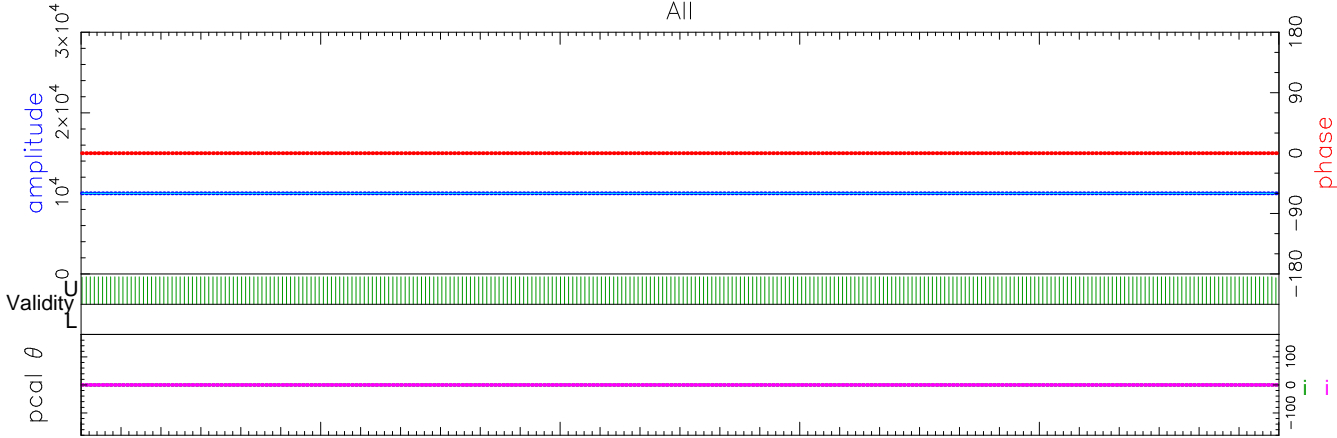
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00

-0.2

10000.0

513.0

U/L 586/0

i 0

i 0

ii 0:0

ii 0:0

i 1000

i 1000

i W00UL

i W00UL

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Manl PC

PC amp

Chan ids

Chan ids

Group delay (usec)(sbd)	-4.37322699158E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.37323E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.68610892799E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.68611E-09	+/-	3.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

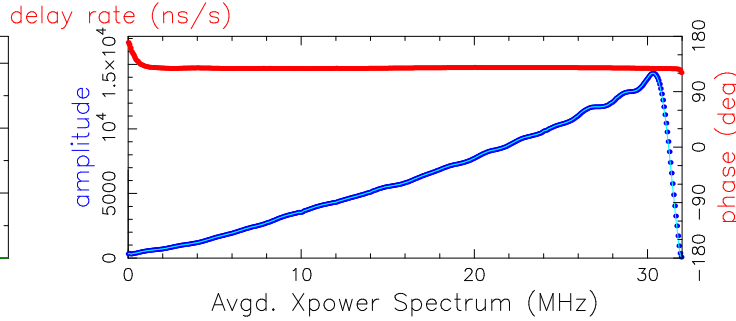
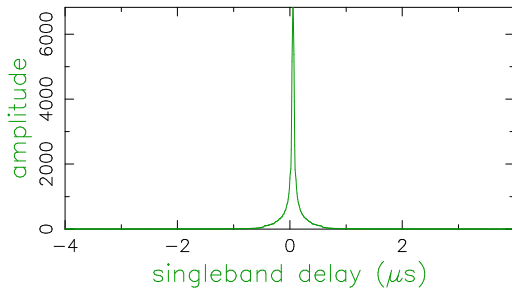
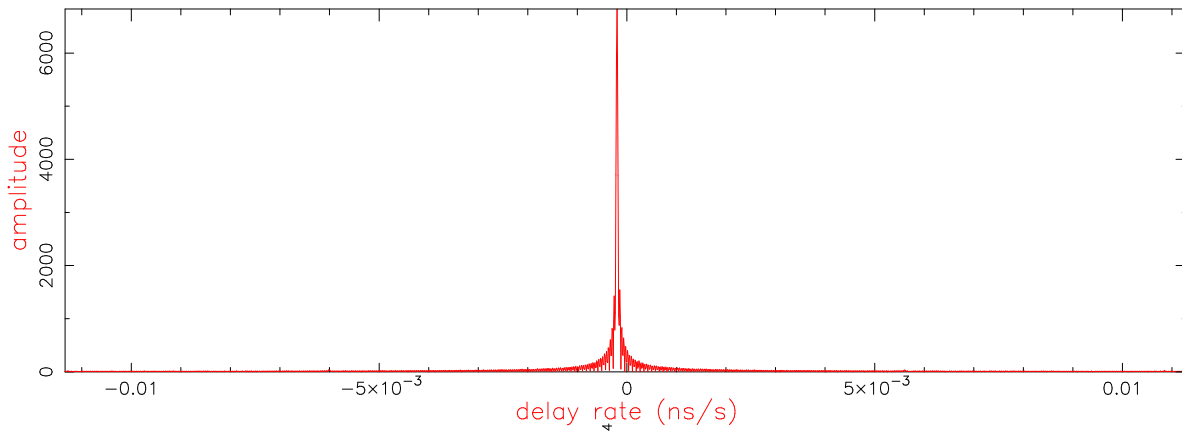
i: az 249.4 el 49.9 pa 50.9      i: az 249.4 el 49.9 pa 50.9      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ii..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ii.W.98.0QR0YU

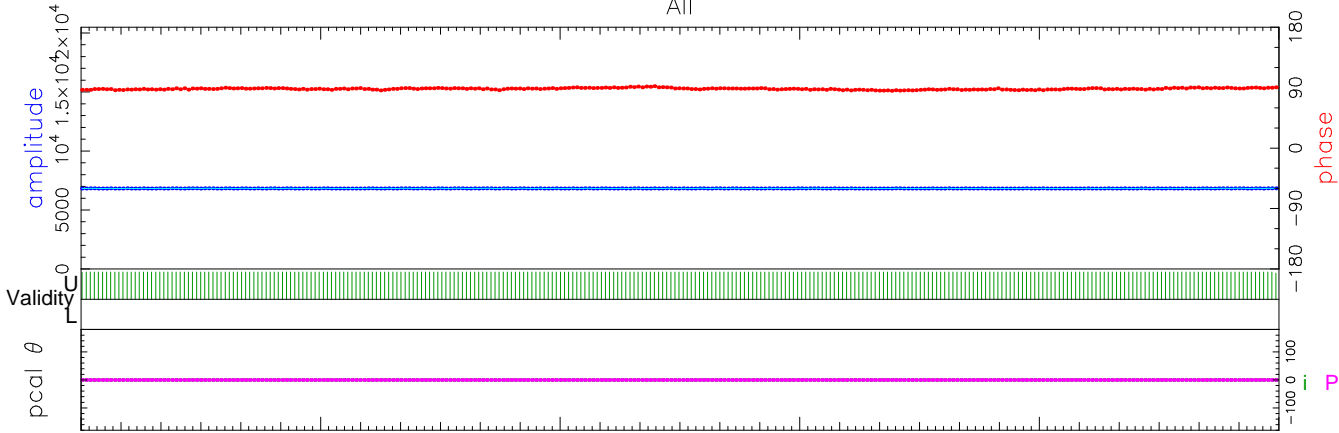
Fringe quality 9

SNR 80433.2  
Int time 296.792  
Amp 6830.099  
Phase 115.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.055280  
MBD -0.000006  
Fringe rate (Hz)  
-0.017180  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163641  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

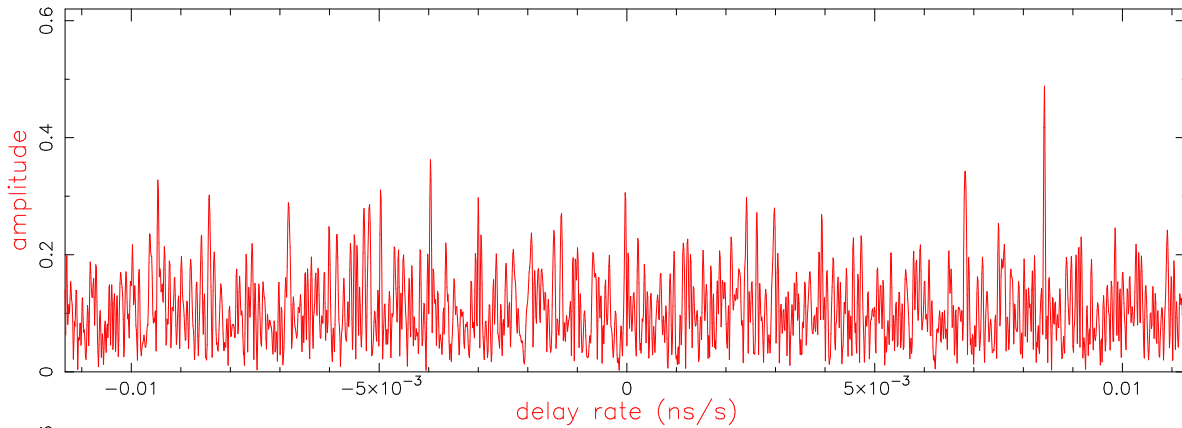


86012.00 Freq (MHz)  
88.2 Phase  
6827.6 Ampl.  
520.1 Sbd box  
U/L 586/0 APs used  
i 0 PC freqs  
P 0 PC freqs  
i:P 0:0 PC phase  
i:P 0:0 Mani PC  
i 1000 PC amp  
P 1000  
i W00UL Chan ids  
P W00UL Chan ids

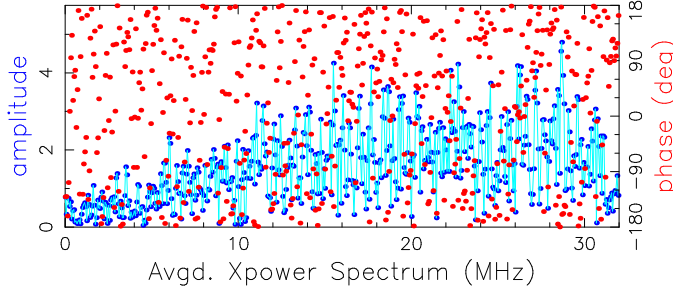
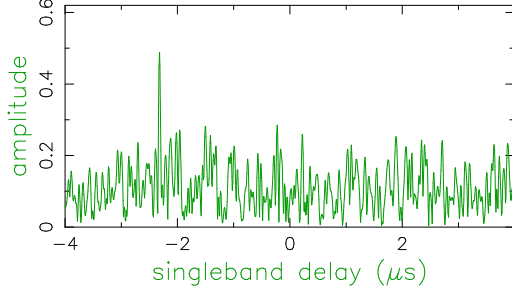
Group delay (usec)(sbd) -4.29033066921E-01 Apriori delay (usec) -4.84310000000E-01 Resid mbdelay (usec) -6.05069E-06 +/- 2.1E-07  
Sband delay (usec) -4.29030500000E-01 Apriori clock (usec) -4.8430824E-01 Resid sbdelay (usec) 5.52795E-02 +/- 2.1E-07  
Phase delay (usec) -4.84307155007E-01 Apriori clockrate (us/s) 2.0000001E-07 Resid phdelay (usec) 2.84499E-06 +/- 4.6E-11  
Delay rate (us/s) 5.58744011873E-10 Apriori rate (us/s) 1.99999999984E-07 Resid rate (us/s) -1.99441E-07 +/- 2.7E-13  
Total phase (deg) 308.8 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 115.7 +/- 0.0

RMS Theor. Amplitude 6830.099 +/- 0.085 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 1.2 0.0 Search (2048X8) 6804.823 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 6829.184 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.0 0.0 Inc. frq. avg. 6827.610 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

i: az 249.4 el 49.9 pa 50.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iP.W.100.0QR0YU

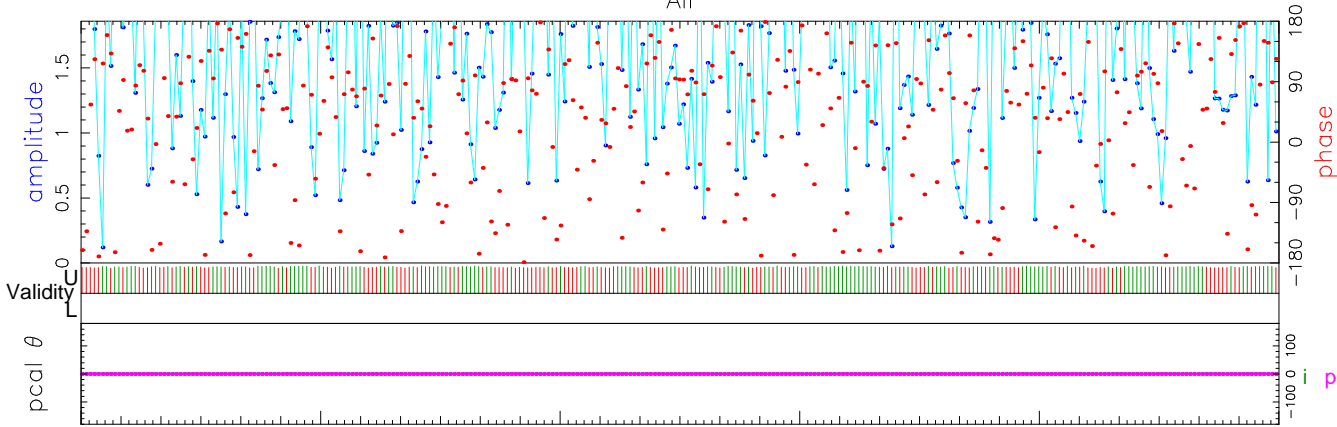


Fringe quality 0  
SNR 5.6  
Int time 285.847  
Amp 0.620  
Phase -253.6  
PFD 8.7e-01  
Delays (us)  
SBD -2.320210  
MBD 0.000007  
Fringe rate (Hz)  
0.726451  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163642  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All

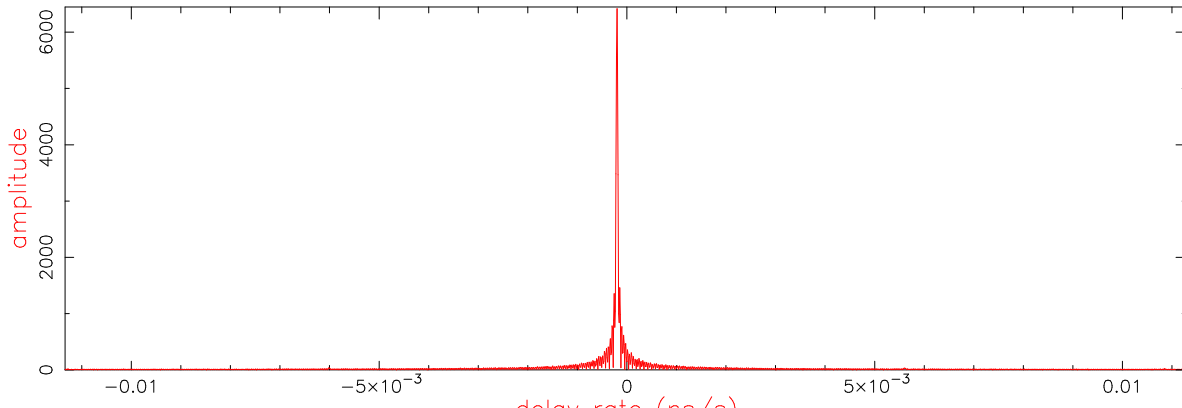


86012.00 Freq (MHz)  
101.8 Phase  
0.6 Ampl.  
216.0 Sbd box  
U/L 586/0 APs used  
i 0 PC freqs  
p 3000 PC freqs  
i:p 0:0 PC phase  
i:p 0:0 Mani PC  
i 1000 PC amp  
p 1000  
i W00UL Chan ids  
p W00UL Chan ids

Group delay (usec)(sbd)	5.57372413640E+03	Apriori delay (usec)	5.57604434062E+03	Resid mbdelay (usec)	6.91559E-06	+/-	3.1E-03
Sband delay (usec)	5.57372413062E+03	Apriori clock (usec)	-3.1866833E+01	Resid sbdelay (usec)	-2.32021E+00	+/-	3.1E-03
Phase delay (usec)	5.57604434390E+03	Apriori clockrate (us/s)	-2.4200000E-07	Resid phdelay (usec)	3.28121E-06	+/-	6.5E-07
Delay rate (us/s)	-1.87821590170E+00	Apriori rate (us/s)	-1.87822433508E+00	Resid rate (us/s)	8.43338E-06	+/-	3.8E-09
Total phase (deg)	-73.3	Apriori accel (us/s/s)	-2.85814745202E-05	Resid phase (deg)	-253.6	+/-	20.3

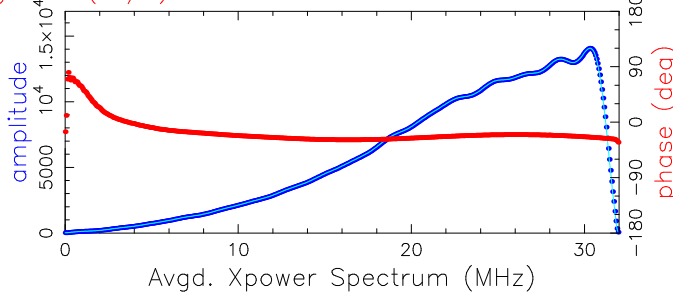
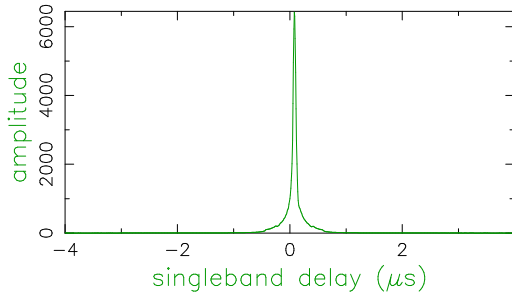
ph/seg (deg)	88.4	Theor.	173.8	Amplitude	0.620 +/- 0.110	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	333.8	Search (2048X8)	0.479	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.414	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0	Inc. frq. avg.	0.610	Inc. frq. avg.	0.610	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate (Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

i: az 249.4 el 49.9 pa 50.9 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 11166.399 -374.481 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/ip..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/ip.W.102.0QR0YU



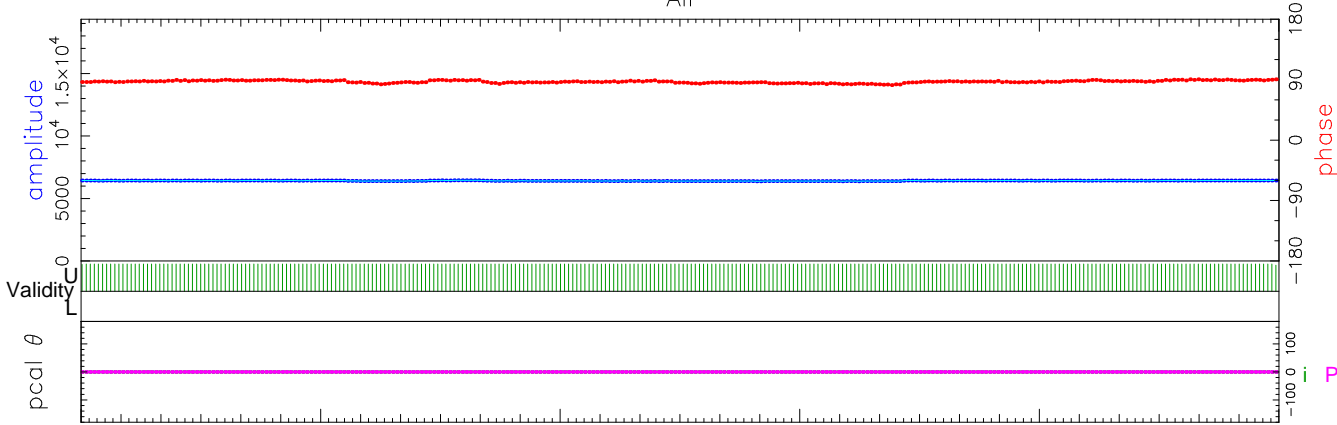
Fringe quality 9

SNR 75938.4  
 Int time 296.792  
 Amp 6448.416  
 Phase 200.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.080578  
 MBD -0.000004  
 Fringe rate (Hz)  
 -0.017176  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163643  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All



86012.00  
 87.0  
 6418.4  
 523.3  
 U/L 586/0  
 i 0  
 P 0  
 i:P 0:0  
 i:P 0:0  
 i 1000  
 P 1000  
 i W00UR  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.03732616705E-01	Apriori delay (usec)	-4.84310000000E-01	Resid mbdelay (usec)	-4.39599E-06	+/-	2.3E-07
Sband delay (usec)	-4.03731500000E-01	Apriori clock (usec)	-4.8430824E-01	Resid sbdelay (usec)	8.05785E-02	+/-	2.3E-07
Phase delay (usec)	-4.84307194799E-01	Apriori clockrate (us/s)	2.0000001E-07	Resid phdelay (usec)	2.80520E-06	+/-	4.9E-11
Delay rate (us/s)	5.99131796189E-10	Apriori rate (us/s)	1.99999999984E-07	Resid rate (us/s)	-1.99401E-07	+/-	2.8E-13
Total phase (deg)	33.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	200.2	+/-	0.0

ph/seg (deg)	1.9	Theor.	0.0	Amplitude	6448.416 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.5	0.0	0.0	Search (2048X8)	6396.981	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.5	0.0	0.0	Inc. seg. avg.	6421.739	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
				Inc. frq. avg.	6418.352	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

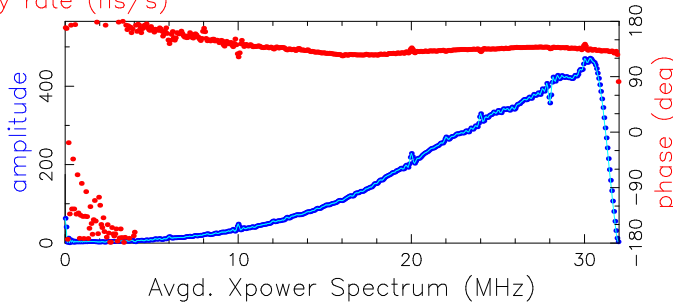
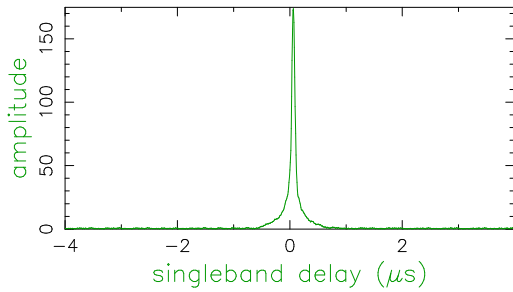
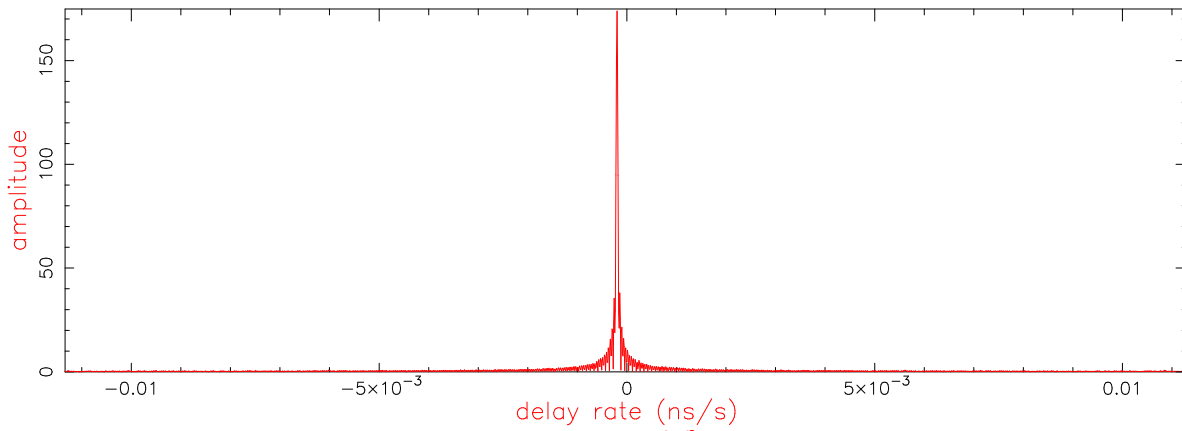
i: az 249.4 el 49.9 pa 50.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iP.W.114.0QR0YU



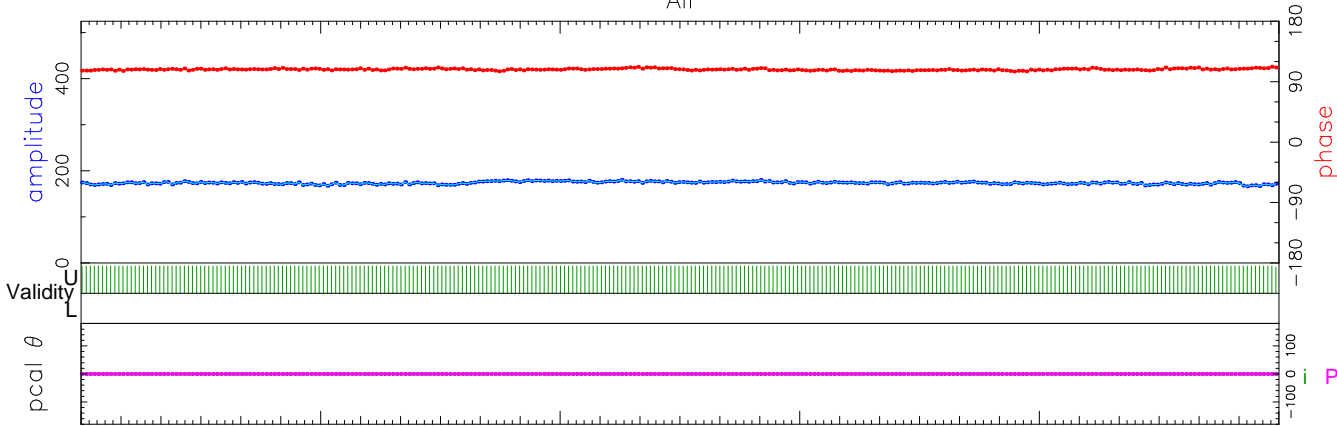
Fringe quality 9

SNR 2059.1  
Int time 296.792  
Amp 174.851  
Phase 327.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.059444  
MBD -0.000006  
Fringe rate (Hz)  
-0.017185  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
108.2 Phase  
173.8 Ampl.  
520.6 Sbd box  
U/L 586/0 APs used  
i 0 PC freqs  
P 0 PC freqs  
i:P 0:0 PC phase  
i:P 0:0 Mani PC  
i 1000 PC amp  
P 1000  
i W00UL Chan ids  
P W00UR Chan ids

Group delay (usec)(sbd) -4.24870778031E-01 Apriori delay (usec) -4.84310000000E-01 Resid mbdelay (usec) -5.97172E-06 +/- 8.4E-06  
Sband delay (usec) -4.24865500000E-01 Apriori clock (usec) -4.8430824E-01 Resid sbdelay (usec) 5.94445E-02 +/- 8.4E-06  
Phase delay (usec) -4.84306511638E-01 Apriori clockrate (us/s) 2.000001E-07 Resid phdelay (usec) 3.48836E-06 +/- 1.8E-09  
Delay rate (us/s) 4.99225171828E-10 Apriori rate (us/s) 1.9999999984E-07 Resid rate (us/s) -1.99501E-07 +/- 1.0E-11  
Total phase (deg) 160.6 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 327.4 +/- 0.1

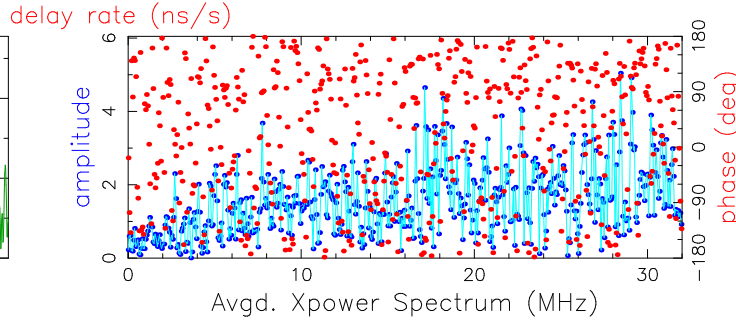
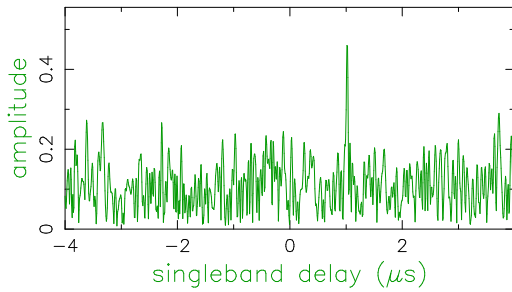
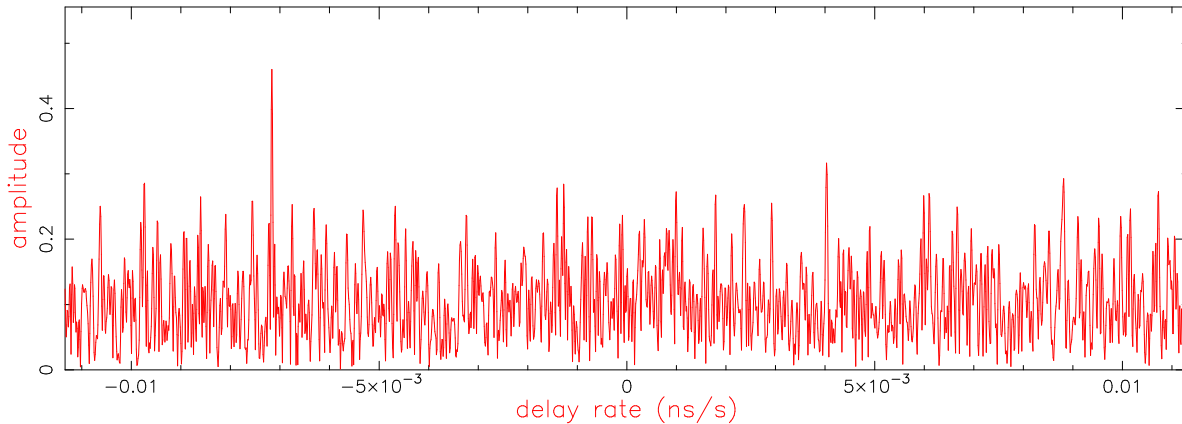
RMS Theor. Amplitude 174.851 +/- 0.085 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 1.3 0.5 Search (2048X8) 173.266 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 1.6 0.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 173.887 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.6 0.0 Inc. frq. avg. 173.849 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

i: az 249.4 el 49.9 pa 50.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iP.W.124.0QR0YU

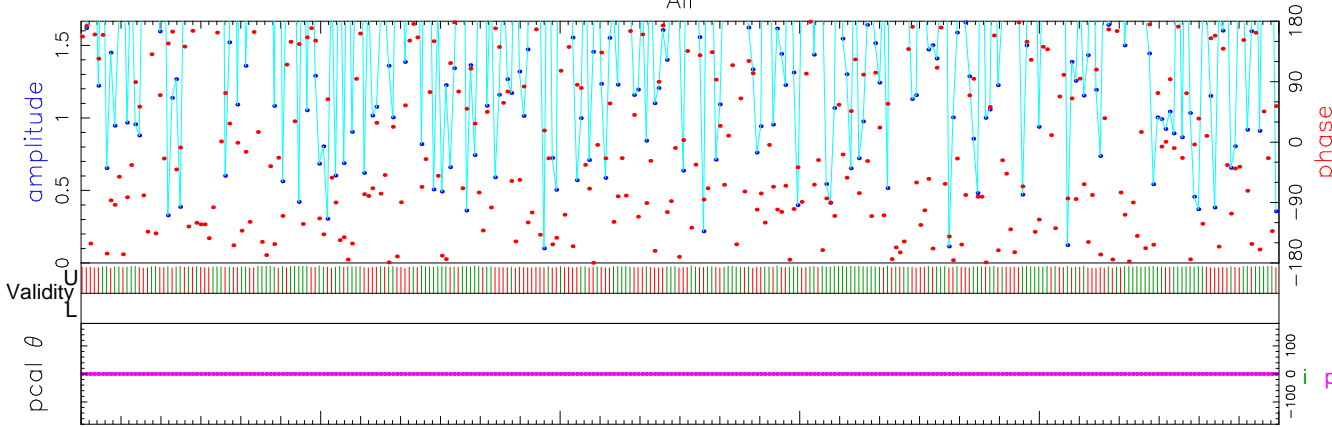
Fringe quality 0

SNR 5.4  
Int time 285.842  
Amp 0.556  
Phase 35.7  
PFD 1.0e+00  
Delays (us)  
SBD 1.019380  
MBD -0.000005  
Fringe rate (Hz)  
-0.617765  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



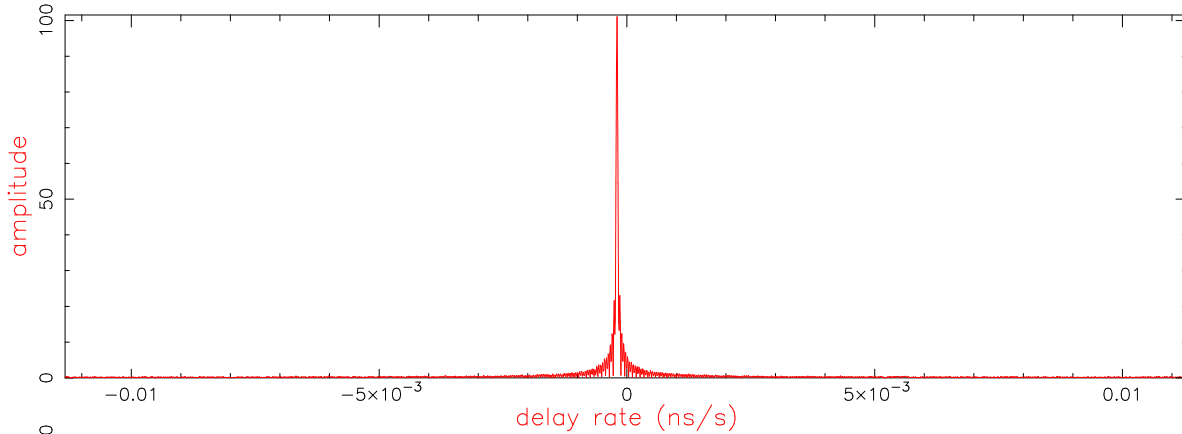
86012.00  
-137.4  
0.5  
643.5  
U/L 586/0  
i 0  
p 3000  
i:p 0:0  
i:p 0:0  
i 1000  
p 1000  
i W00UR  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.57706371622E+03	Apriori delay (usec)	5.57604434062E+03	Resid mbdelay (usec)	-5.41124E-06	+/- 3.2E-03
Sband delay (usec)	5.57706372112E+03	Apriori clock (usec)	-3.1866833E+01	Resid sbdelay (usec)	1.01938E+00	+/- 3.2E-03
Phase delay (usec)	5.57604433619E+03	Apriori clockrate (us/s)	-2.4200000E-07	Resid phdelay (usec)	-4.42964E-06	+/- 6.8E-07
Delay rate (us/s)	-1.87823150671E+00	Apriori rate (us/s)	-1.87822433508E+00	Resid rate (us/s)	-7.17164E-06	+/- 3.9E-09
Total phase (deg)	216.0	Apriori accel (us/s/s)	-2.85814745202E-05	Resid phase (deg)	35.7	+/- 21.2

ph/seg (deg)	90.6	Theor.	181.1	Amplitude	0.556 +/- 0.103	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	363.6	Search (2048X8)	0.456	Search (2048X8)	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.362	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	1.8	Inc. frq. avg.	0.536	Inc. frq. avg.	0.536	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011	

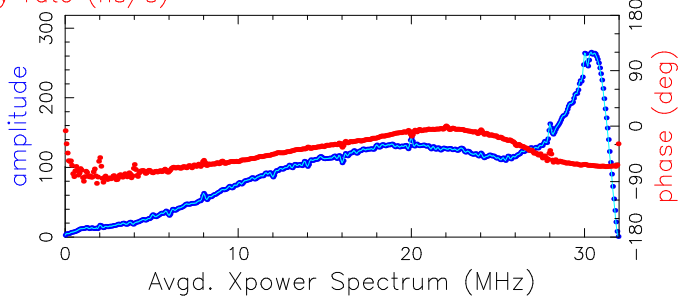
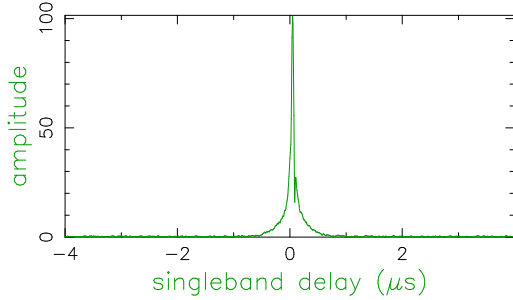
i: az 249.4 el 49.9 pa 50.9 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 11166.399 -374.481 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ip..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ip.W.125.0QR0YU



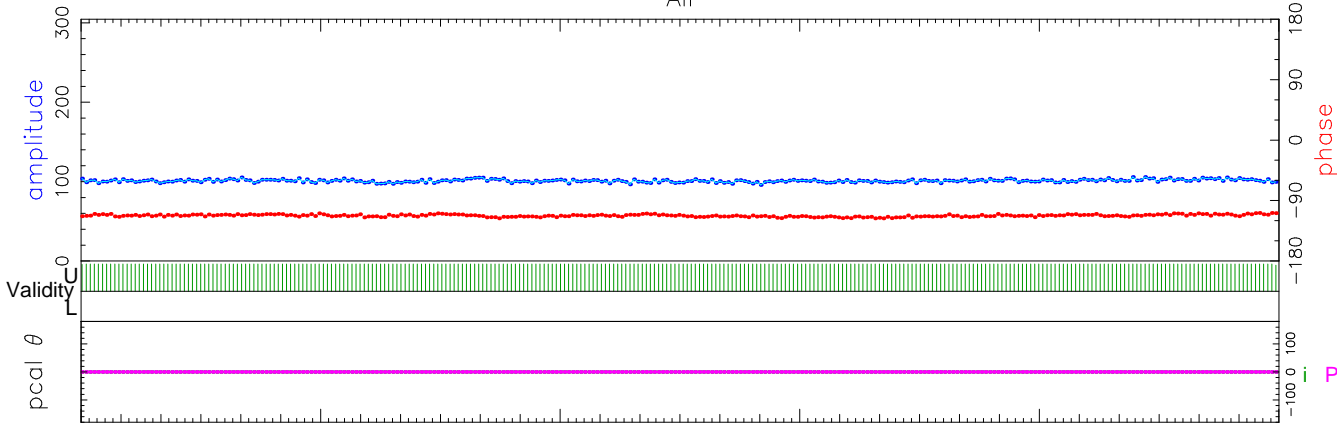
Fringe quality 9

SNR 1195.8  
Int time 296.792  
Amp 101.539  
Phase 341.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.048899  
MBD -0.000007  
Fringe rate (Hz)  
-0.017181  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



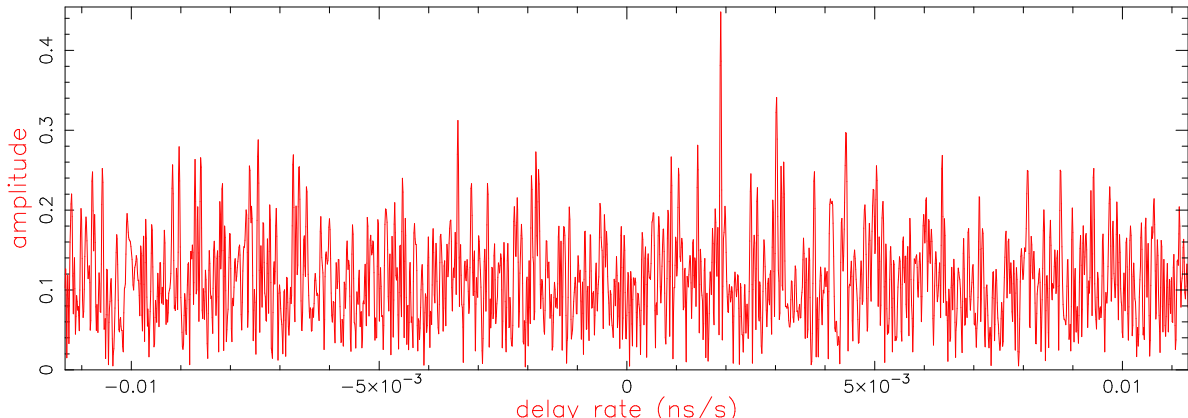
86012.00		Freq (MHz)
-112.4		Phase
101.1		Ampl.
519.2		Sbd box
U/L 586/0		APs used
i 0		PC freqs
P 0		PC freqs
i:P 0:0		PC phase
i:P 0:0		Mani PC
i 1000		PC amp
P 1000		
i W00UR		Chan ids
P W00UL		Chan ids

Group delay (usec)(sbd)	-4.35405478491E-01	Apriori delay (usec)	-4.84310000000E-01	Resid mbdelay (usec)	-7.25824E-06	+/- 1.4E-05
Sband delay (usec)	-4.35411000000E-01	Apriori clock (usec)	-4.8430824E-01	Resid sbdelay (usec)	4.88990E-02	+/- 1.4E-05
Phase delay (usec)	-4.84313623849E-01	Apriori clockrate (us/s)	2.0000001E-07	Resid phdelay (usec)	-3.62385E-06	+/- 3.1E-09
Delay rate (us/s)	5.40321513764E-10	Apriori rate (us/s)	1.99999999984E-07	Resid rate (us/s)	-1.99460E-07	+/- 1.8E-11
Total phase (deg)	174.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	341.5	+/- 0.1

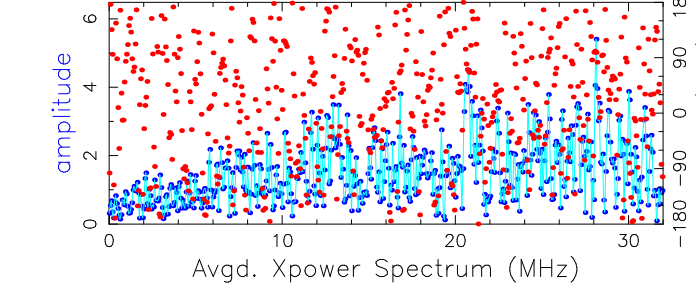
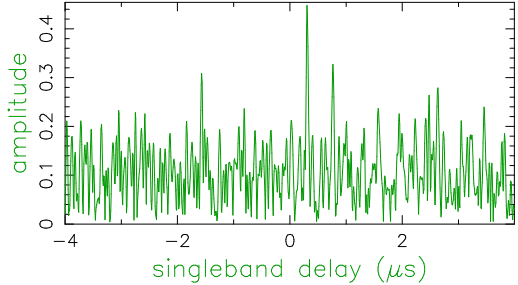
ph/seg (deg)	1.7	0.8	Amplitude	101.539 +/- 0.085	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	1.8	1.4	Search (2048X8)	100.734	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.5	0.1	Inc. seg. avg.	101.108	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	101.074	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

i: az 249.4 el 49.9 pa 50.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iP.W.133.0QR0YU



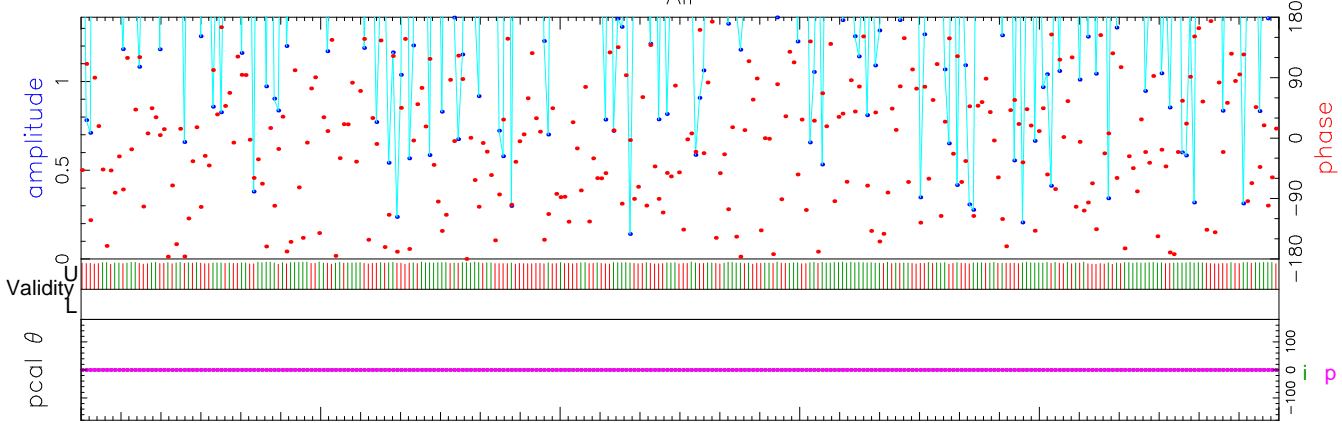
Fringe quality 0  
SNR 5.2  
Int time 285.842  
Amp 0.454  
Phase 70.7  
PFD 1.0e+00  
Delays (us)  
SBD 0.306089  
MBD 0.000007  
Fringe rate (Hz)  
0.163330  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



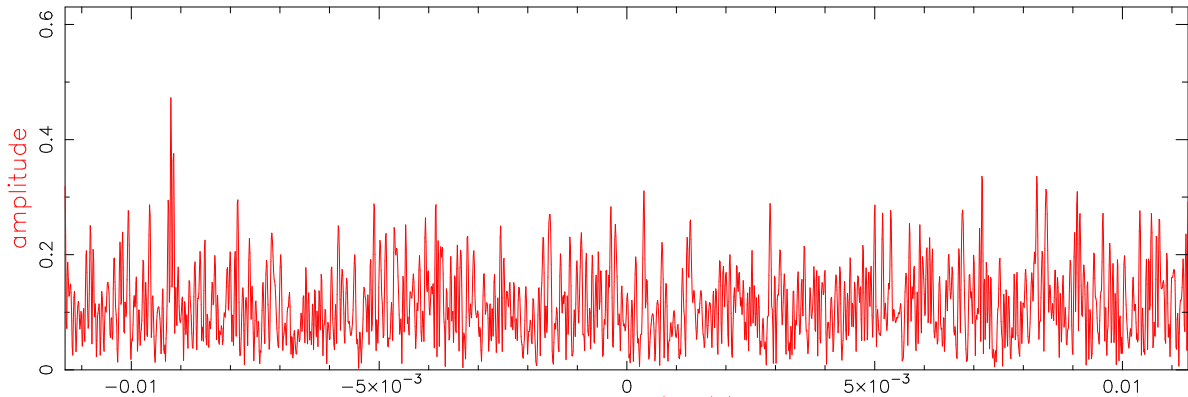
86012.00  
6.3  
0.5  
552.2  
U/L 586/0  
i 0  
p 3000  
i:p 0:0  
i:p 0:0  
i 1000  
p 1000  
i W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

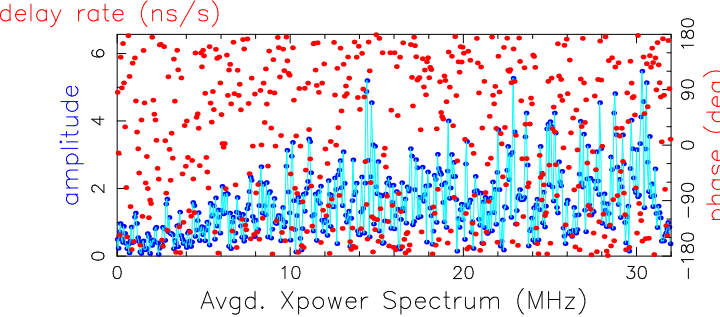
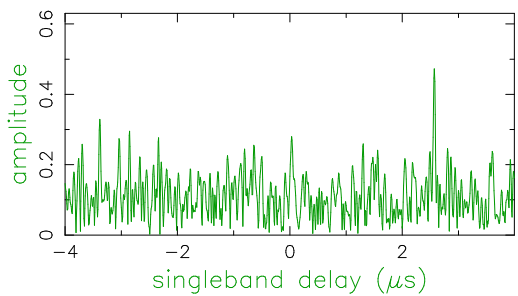
Group delay (usec)(sbd)	5.57635043303E+03	Apriori delay (usec)	5.57604434062E+03	Resid mbdelay (usec)	7.21044E-06	+/-	3.3E-03
Sband delay (usec)	5.57635042962E+03	Apriori clock (usec)	-3.1866833E+01	Resid sbdelay (usec)	3.06089E-01	+/-	3.3E-03
Phase delay (usec)	5.57604434082E+03	Apriori clockrate (us/s)	-2.4200000E-07	Resid phdelay (usec)	2.04491E-07	+/-	7.1E-07
Delay rate (us/s)	-1.8782243897E+00	Apriori rate (us/s)	-1.87822433508E+00	Resid rate (us/s)	1.89610E-06	+/-	4.1E-09
Total phase (deg)	251.0	Apriori accel (us/s/s)	-2.85814745202E-05	Resid phase (deg)	70.7	+/-	22.1

ph/seg (deg)	93.4	Theor.	189.0	Amplitude	0.454 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	411.7	Search (2048X8)	0.442	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.311	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.445	Inc. frq. avg.	0.445	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

i: az 249.4 el 49.9 pa 50.9 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 11166.399 -374.481 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ip..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ip.W.137.0QR0YU

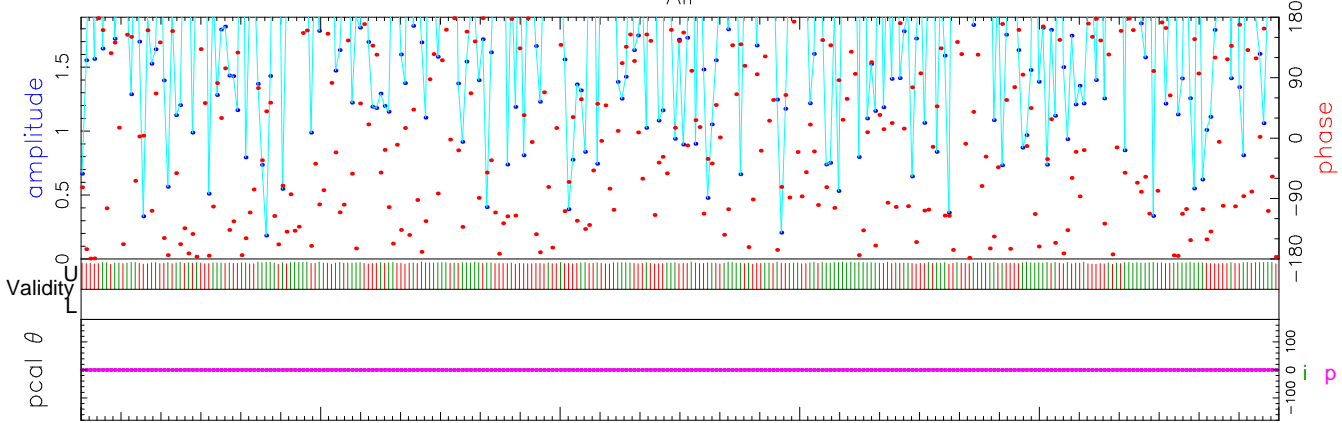


Fringe quality 0  
SNR 5.5  
Int time 285.847  
Amp 0.630  
Phase 175.5  
PFD 1.0e+00  
Delays (us)  
SBD 2.569808  
MBD -0.000007  
Fringe rate (Hz)  
-0.793282  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-161.6  
0.6  
841.9  
U/L 586/0  
i 0  
p 3000  
i:p 0:0  
i:p 0:0  
i 1000  
p 1000  
i W00UR  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.57861414959E+03	Apriori delay (usec)	5.57604434062E+03	Resid mbdelay (usec)	-6.86704E-06	+/-	3.2E-03
Sband delay (usec)	5.57861414912E+03	Apriori clock (usec)	-3.1866833E+01	Resid sbdelay (usec)	2.56981E+00	+/-	3.2E-03
Phase delay (usec)	5.57604433541E+03	Apriori clockrate (us/s)	-2.4200000E-07	Resid phdelay (usec)	-5.21158E-06	+/-	6.8E-07
Delay rate (us/s)	-1.87823354429E+00	Apriori rate (us/s)	-1.87822433508E+00	Resid rate (us/s)	-9.20921E-06	+/-	3.9E-09
Total phase (deg)	355.8	Apriori accel (us/s/s)	-2.85814745202E-05	Resid phase (deg)	175.5	+/-	21.0

ph/seg (deg)	RMS 93.4	Theor. 179.5	Amplitude 0.630 +/- 0.115	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	393.6	313.3	Search (2048X8) 0.468	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	10.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.0	18.3	Inc. seg. avg. 0.459	Sample rate(MSamp/s): 64	ion window (TEC) 0.00 0.00	
			Inc. frq. avg. 0.620	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

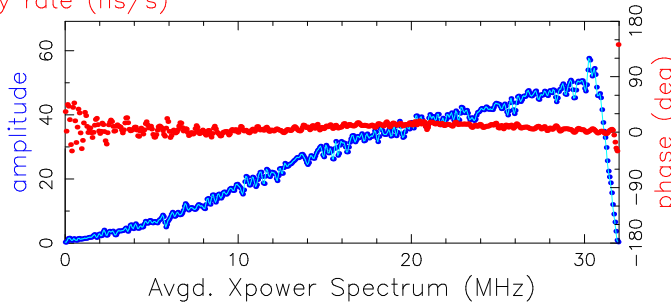
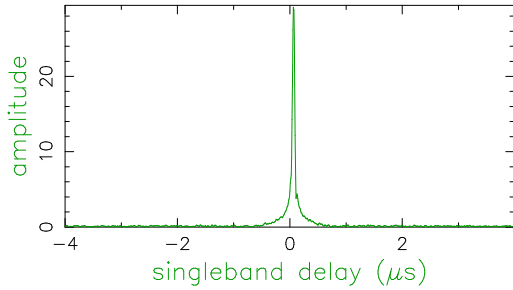
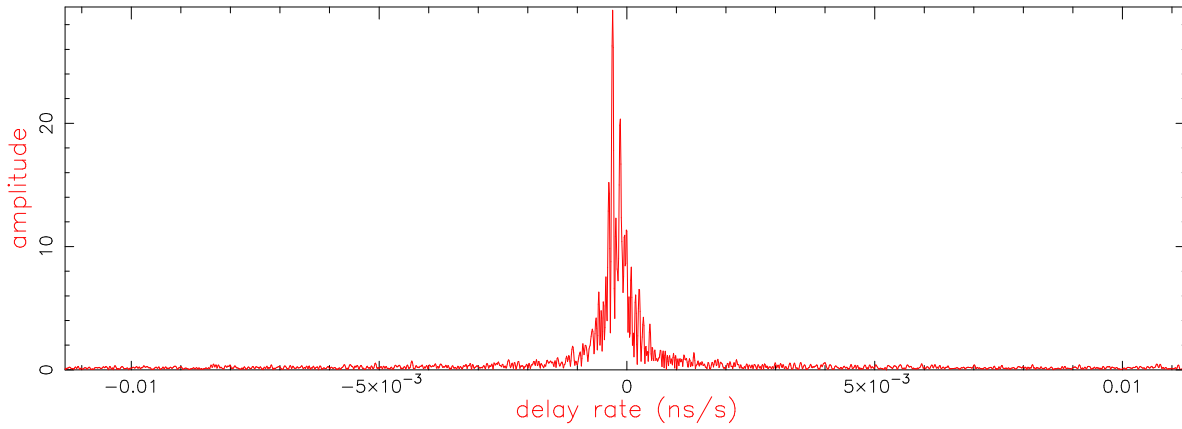
i: az 249.4 el 49.9 pa 50.9 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 11166.399 -374.481 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ip..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ip.W.158.0QR0YU



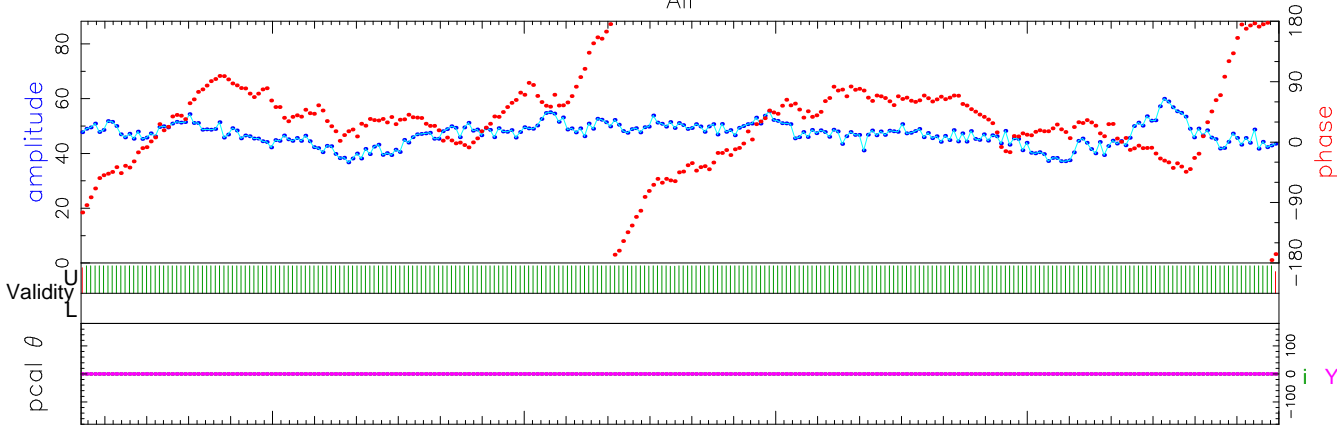
Fringe quality 5

SNR 339.8  
Int time 285.318  
Amp 29.437  
Phase 169.5  
PFD 0.0e+00  
Delays (us)  
SBD 0.065510  
MBD -0.000004  
Fringe rate (Hz)  
-0.025036  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163643  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
30.6  
29.2  
521.4  
U/L 558/0  
i 0  
Y 0  
i:Y 0:0  
i:Y 0:0  
i 1000  
Y 1000  
i W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.63128700211E+02	Apriori delay (usec)	3.63063190485E+02	Resid mbdelay (usec)	-4.38811E-06	+/-	5.1E-05
Sband delay (usec)	3.63128700485E+02	Apriori clock (usec)	-7.5829983E+00	Resid sbdelay (usec)	6.55100E-02	+/-	5.1E-05
Phase delay (usec)	3.63063191472E+02	Apriori clockrate (us/s)	-2.9000001E-07	Resid phdelay (usec)	9.87562E-07	+/-	1.1E-08
Delay rate (us/s)	-3.15635781720E-02	Apriori rate (us/s)	-3.15632875252E-02	Resid rate (us/s)	-2.90647E-07	+/-	6.6E-11
Total phase (deg)	251.7	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	169.5	+/-	0.3

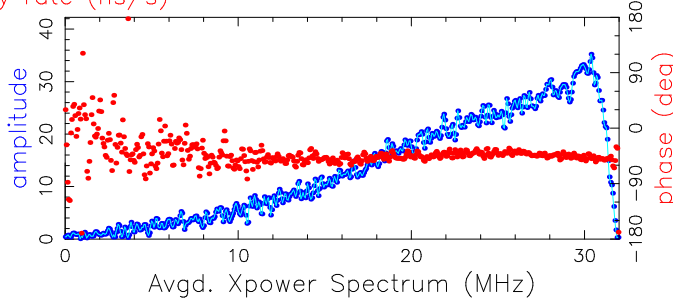
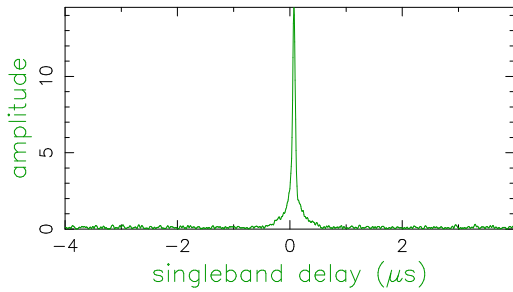
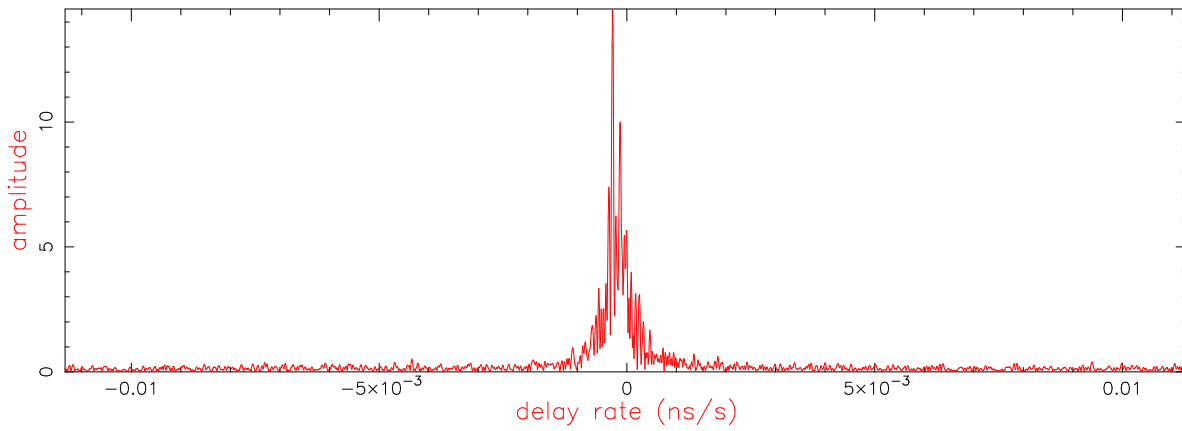
ph/seg (deg)	58.4	RMS	2.8	Theor.	2.8	Amplitude	29.437 +/- 0.087	Search (2048X8)	28.867	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	61.6		4.9			Interp.	0.000			Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.2			Inc. seg. avg.	47.053			Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.9		0.3			Inc. frq. avg.	29.172			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

i: az 249.4 el 49.9 pa 50.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iY.W.118.0QR0YU

Fringe quality 5

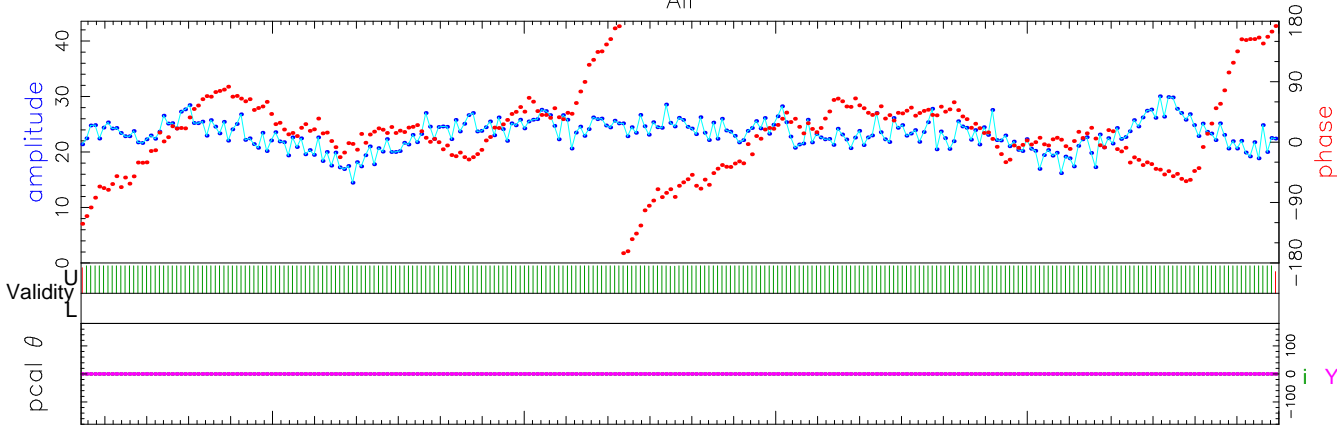
SNR 167.7  
Int time 285.318  
Amp 14.526  
Phase 77.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.071734  
MBD -0.000006  
Fringe rate (Hz)  
-0.025034  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
11.8  
14.5  
522.2  
U/L 558/0  
i 0  
Y 0  
i:Y 0:0  
i:Y 0:0  
i 1000  
Y 1000  
i W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.63134930120E+02	Apriori delay (usec)	3.63063190485E+02	Resid mbdelay (usec)	-6.16770E-06	+/-	1.0E-04
Sband delay (usec)	3.63134924485E+02	Apriori clock (usec)	-7.5829983E+00	Resid sbdelay (usec)	7.17340E-02	+/-	1.0E-04
Phase delay (usec)	3.63063190865E+02	Apriori clockrate (us/s)	-2.9000001E-07	Resid phdelay (usec)	3.79869E-07	+/-	2.2E-08
Delay rate (us/s)	-3.15635781486E-02	Apriori rate (us/s)	-3.15632875252E-02	Resid rate (us/s)	-2.90623E-07	+/-	1.3E-10
Total phase (deg)	160.0	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	77.8	+/-	0.7

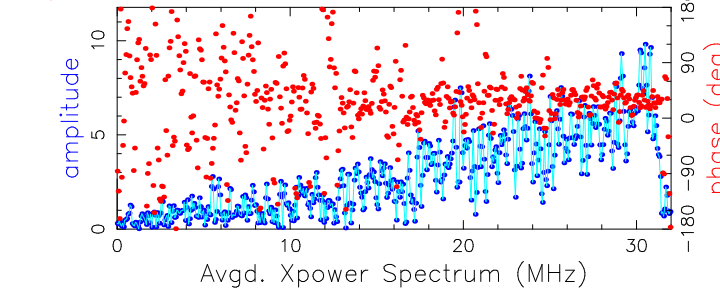
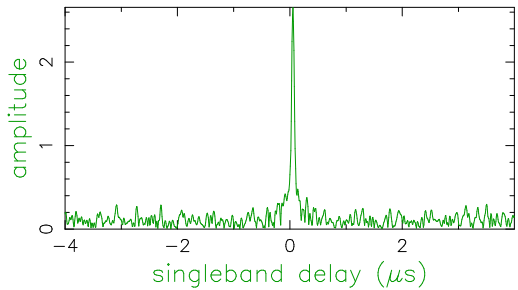
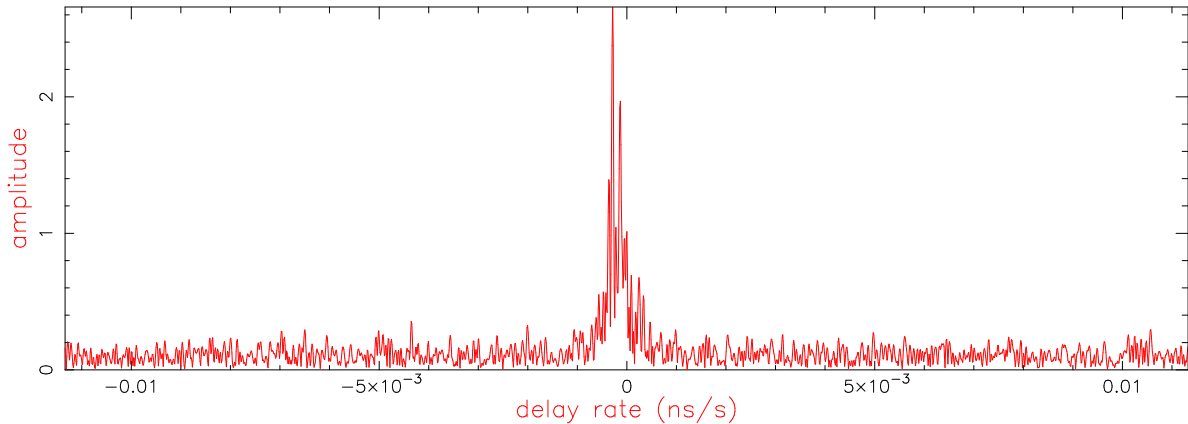
ph/seg (deg)	58.1	RMS	58.1	Theor.	5.7	Amplitude	14.526 +/- 0.087	Search (2048X8)	14.350	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	62.8		62.8		10.0	Interp.	0.000		0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.0		0.3	Inc. seg. avg.	23.152		23.152	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2		0.2		0.6	Inc. frq. avg.	14.500		14.500	Sample rate(MSamp/s):	64	ion window (TEC)	0.00 0.00	dr window (ns/s)	-0.011 0.011

i: az 249.4 el 49.9 pa 50.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iY.W.132.0QR0YU

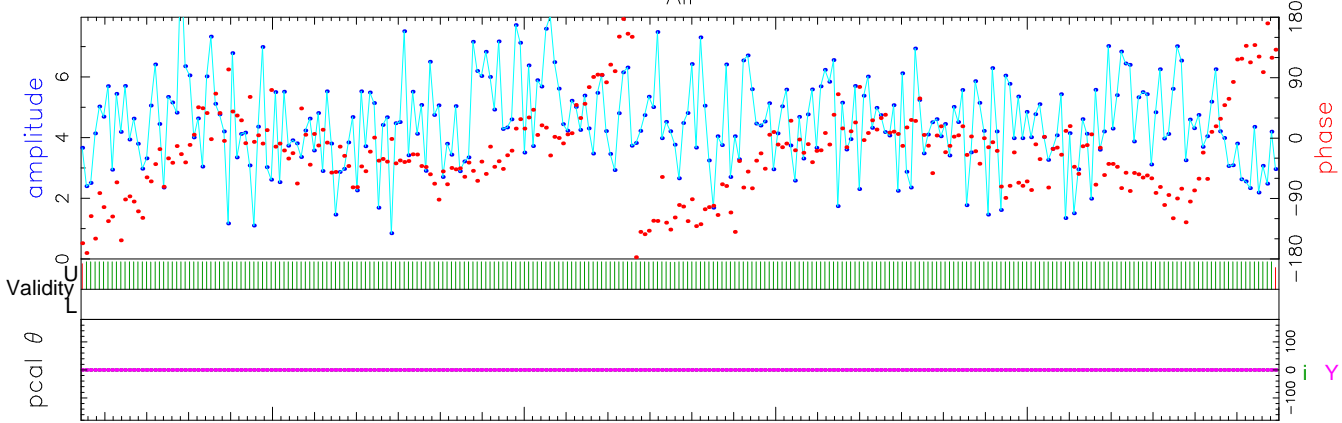
Fringe quality 9

SNR 30.7  
Int time 285.318  
Amp 2.658  
Phase 272.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.053376  
MBD -0.000007  
Fringe rate (Hz)  
-0.025048  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-28.1  
2.7  
519.8  
U/L 558/0  
i 0  
Y 0  
i:Y 0:0  
i:Y 0:0  
i 1000  
Y 1000  
i W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.63116571118E+02	Apriori delay (usec)	3.63063190485E+02	Resid mbdelay (usec)	-7.26630E-06	+/-	5.6E-04
Sband delay (usec)	3.63116566485E+02	Apriori clock (usec)	-7.5829983E+00	Resid sbdelay (usec)	5.33760E-02	+/-	5.6E-04
Phase delay (usec)	3.63063189579E+02	Apriori clockrate (us/s)	-2.9000001E-07	Resid phdelay (usec)	-9.05903E-07	+/-	1.2E-07
Delay rate (us/s)	-3.15635783116E-02	Apriori rate (us/s)	-3.15632875252E-02	Resid rate (us/s)	-2.90786E-07	+/-	7.3E-10
Total phase (deg)	354.2	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	272.0	+/-	3.7

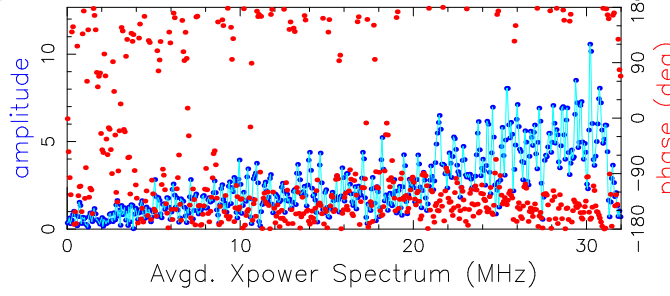
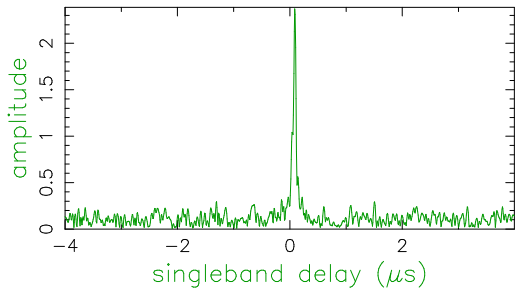
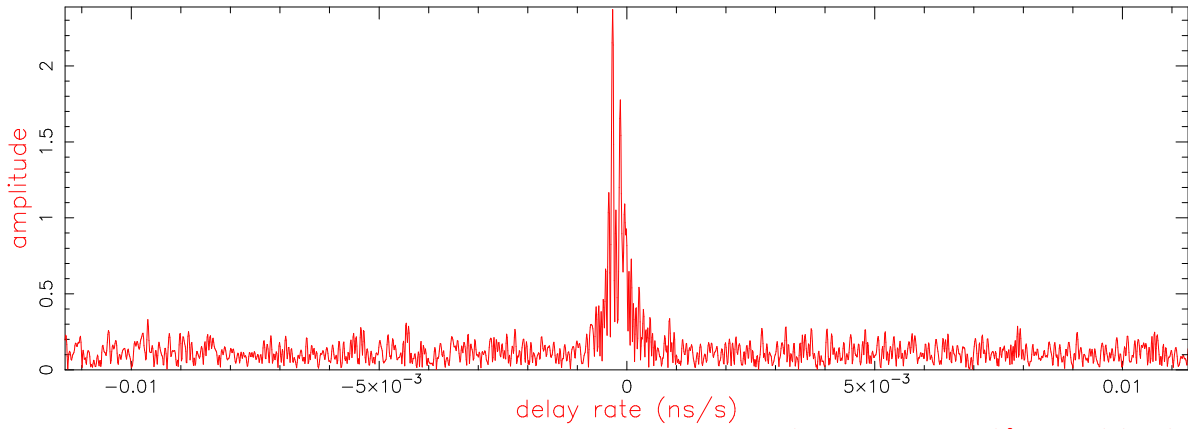
ph/seg (deg)	63.9	RMS	31.2	Theor.	Amplitude	2.658 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	87.7		54.4		Search (2048X8)	2.624	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		1.9		Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.1		3.3		Inc. seg. avg.	3.911	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
					Inc. frq. avg.	2.653	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

i: az 249.4 el 49.9 pa 50.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iY.W.143.0QR0YU

Fringe quality 9

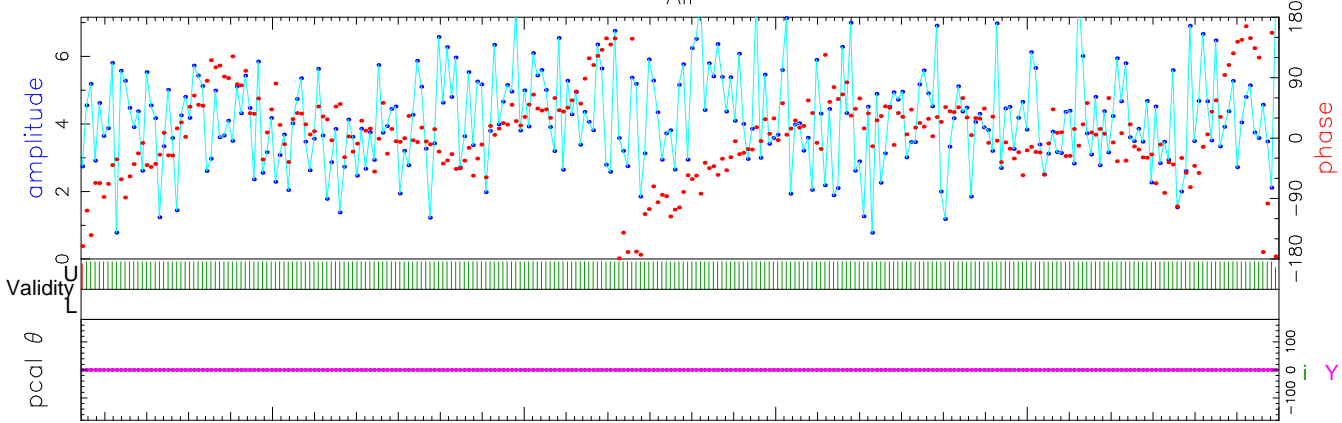
SNR 27.6  
Int time 285.318  
Amp 2.388  
Phase 120.7  
PFD 0.0e+00  
Delays (us)  
SBD 0.088398  
MBD -0.000006  
Fringe rate (Hz)  
-0.025021  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



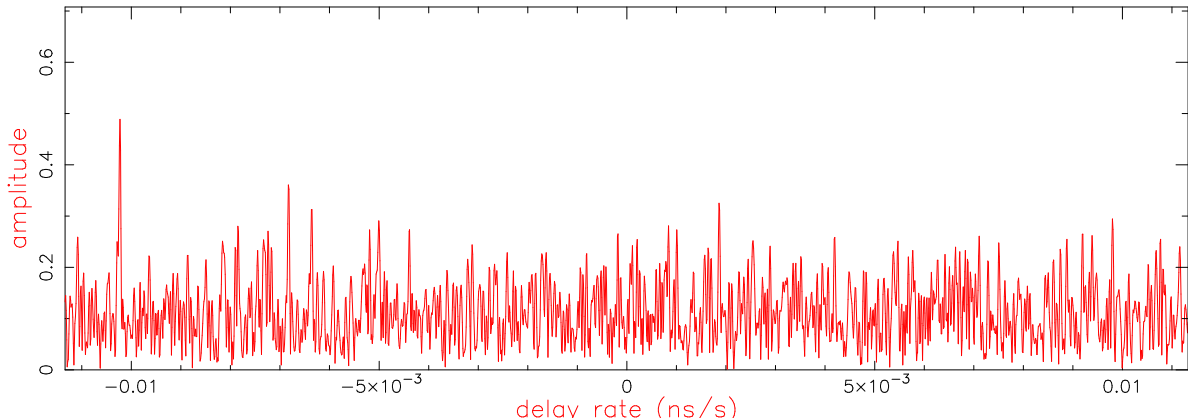
86012.00  
6.9  
2.4  
524.3  
U/L 558/0  
i 0  
Y 0  
i:Y 0:0  
i:Y 0:0  
i 1000  
Y 1000  
i W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

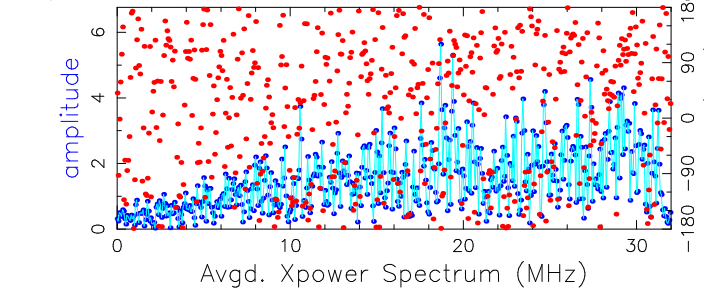
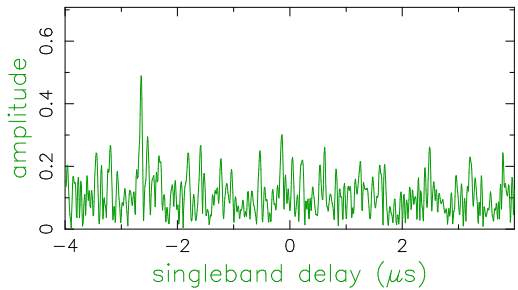
Group delay (usec)(sbd)	3.63151590709E+02	Apriori delay (usec)	3.63063190485E+02	Resid mbdelay (usec)	-6.04455E-06	+/-	6.3E-04
Sband delay (usec)	3.63151587985E+02	Apriori clock (usec)	-7.5829983E+00	Resid sbdelay (usec)	8.83975E-02	+/-	6.3E-04
Phase delay (usec)	3.63063190707E+02	Apriori clockrate (us/s)	-2.9000001E-07	Resid phdelay (usec)	2.22223E-07	+/-	1.3E-07
Delay rate (us/s)	-3.15635779955E-02	Apriori rate (us/s)	-3.15632875252E-02	Resid rate (us/s)	-2.90470E-07	+/-	8.1E-10
Total phase (deg)	202.9	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	120.7	+/-	4.2

ph/seg (deg)	63.2	RMS	34.7	Theor.	34.7	Amplitude	2.388 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	93.6	Search (2048X8)	2.349	Interp.	0.000	Inc. seg. avg.	3.499	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. frq. avg.	2.370	Inc. frq. avg.	2.370	u, v (fr/asec)	183.682 -478.490	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7	u, v (fr/asec)	183.682 -478.490	Data rate (Mb/s):	128	nlags:	512	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

i: az 249.4 el 49.9 pa 50.9 Y: az 246.0 el 48.3 pa 46.5 u, v (fr/asec) 183.682 -478.490 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//iY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//iY.W.153.0QR0YU



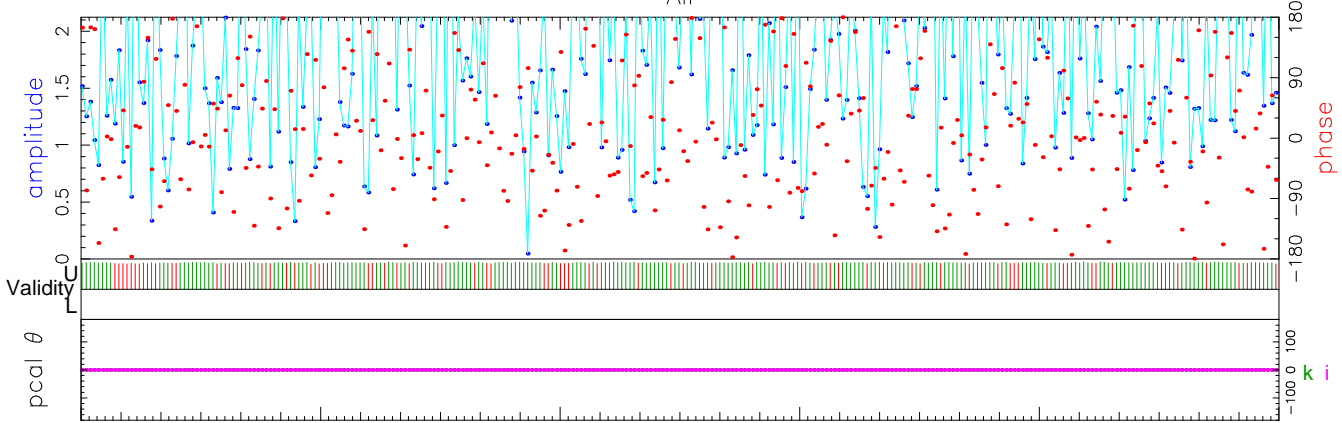
Fringe quality 0  
SNR 5.7  
Int time 287.851  
Amp 0.708  
Phase -235.9  
PFD 7.4e-01  
Delays (us)  
SBD -2.645559  
MBD -0.000006  
Fringe rate (Hz)  
-0.882662  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163645  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-9.0  
0.7  
174.4  
U/L 586/0  
k 3000  
i 0  
k:i 0:0  
k:i 0:0  
k 1000  
i 1000  
k W00UL  
i W00UL

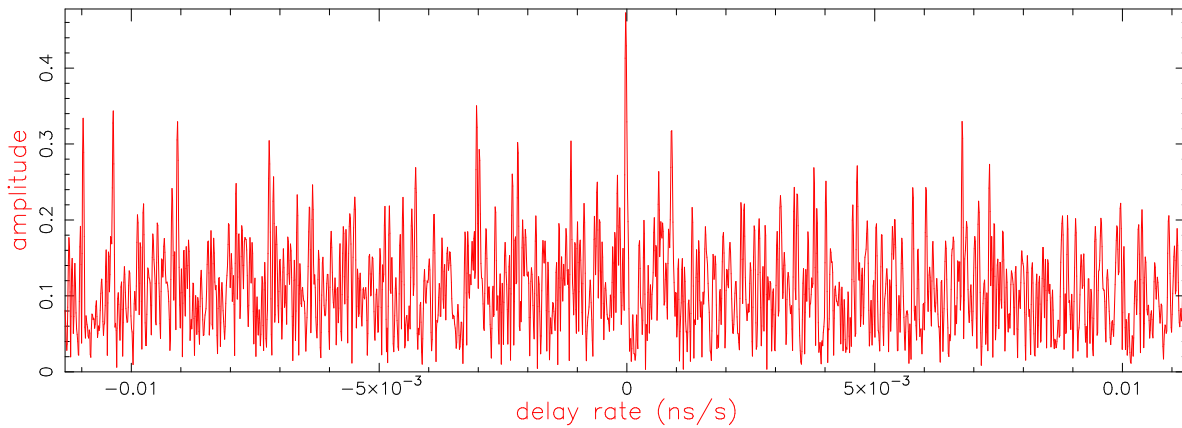
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56863139325E+03	Apriori delay (usec)	-6.56598583777E+03	Resid mbdelay (usec)	-6.02409E-06	+/-	3.0E-03
Sband delay (usec)	-6.56863139677E+03	Apriori clock (usec)	2.4096573E+01	Resid sbdelay (usec)	-2.64556E+00	+/-	3.0E-03
Phase delay (usec)	-6.56598583806E+03	Apriori clockrate (us/s)	1.6634000E-07	Resid phdelay (usec)	-2.89337E-07	+/-	6.5E-07
Delay rate (us/s)	1.93875887991E+00	Apriori rate (us/s)	1.93876912674E+00	Resid rate (us/s)	-1.02468E-05	+/-	3.7E-09
Total phase (deg)	-259.4	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	-235.9	+/-	20.0

ph/seg (deg)	92.3	Theor.	171.5	Amplitude	0.708 +/- 0.124	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	362.4	Search (2048X8)	0.475	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.515	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.8	Inc. frq. avg.	0.692	Inc. frq. avg.	0.692	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

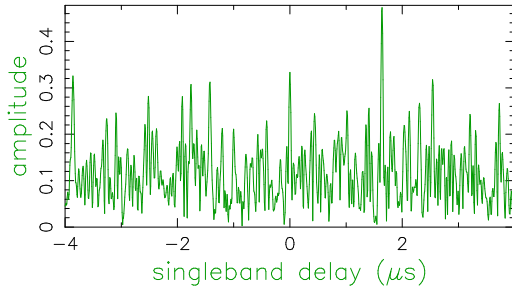
k: az 86.3 el 25.9 pa -61.9 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ki..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ki.W.130.0QR0YU



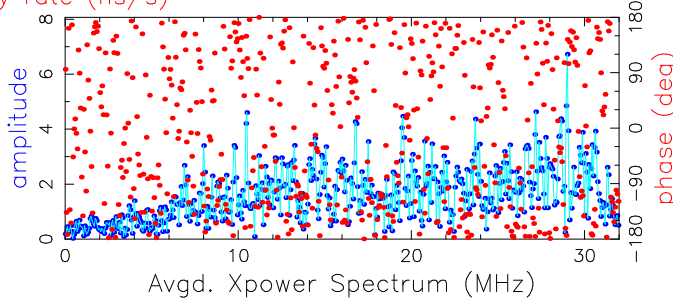


Fringe quality 0

SNR 5.5  
Int time 287.857  
Amp 0.478  
Phase 108.1  
PFD 9.7e-01  
Delays (us)  
SBD 1.637595  
MBD -0.000006  
Fringe rate (Hz)  
-0.001729  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



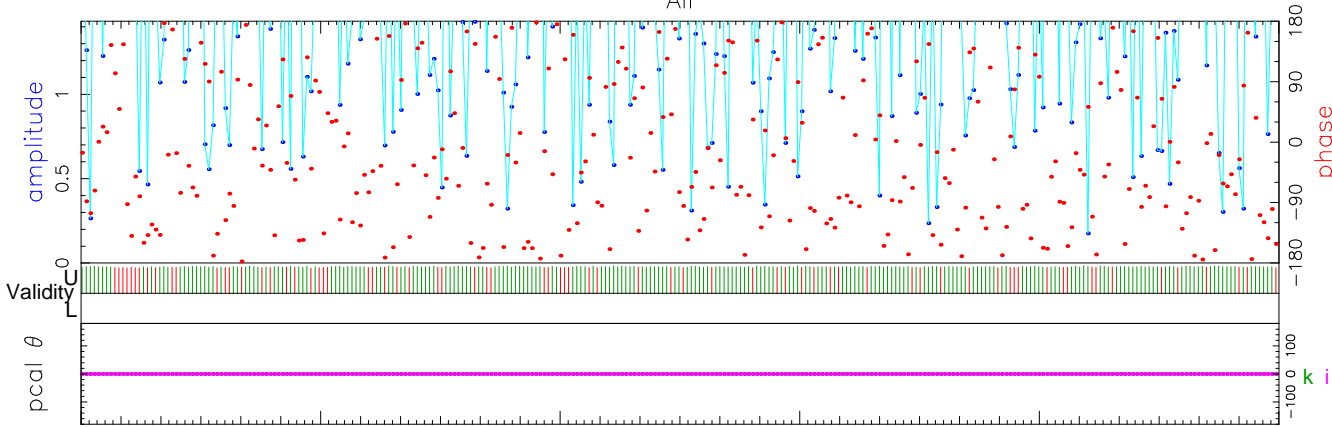
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-112.4  
0.5  
722.6  
U/L 586/0  
k 3000  
i 0  
k:i 0:0  
k:i 0:0  
k 1000  
i 1000  
k W00UR  
i W00UR

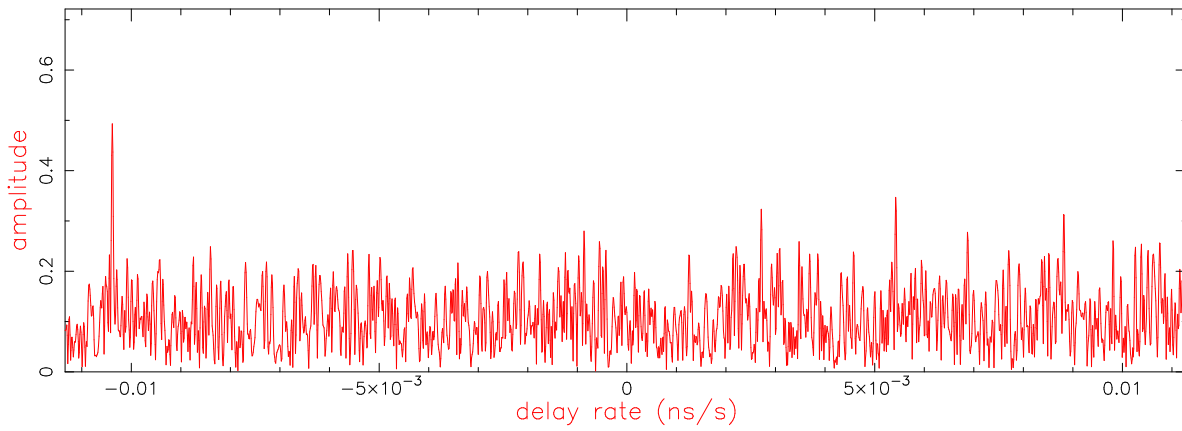
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56434824668E+03	Apriori delay (usec)	-6.56598583777E+03	Resid mbdelay (usec)	-5.98661E-06	+/-	3.1E-03
Sband delay (usec)	-6.56434824277E+03	Apriori clock (usec)	2.4096573E+01	Resid sbdelay (usec)	1.63760E+00	+/-	3.1E-03
Phase delay (usec)	-6.56598584139E+03	Apriori clockrate (us/s)	1.6634000E-07	Resid phdelay (usec)	-3.62408E-06	+/-	6.7E-07
Delay rate (us/s)	1.93876910666E+00	Apriori rate (us/s)	1.93876912674E+00	Resid rate (us/s)	-2.00756E-08	+/-	3.8E-09
Total phase (deg)	84.5	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	108.1	+/-	20.7

ph/seg (deg)	91.4	Theor.	177.0	Amplitude	0.478 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	373.4	Search (2048X8)	0.470	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.330	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.465	Inc. frq. avg.	0.465	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

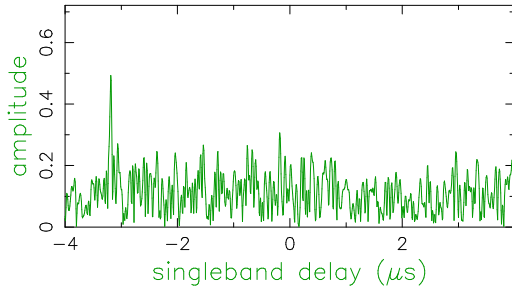
k: az 86.3 el 25.9 pa -61.9 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ki..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ki.W.145.0QR0YU

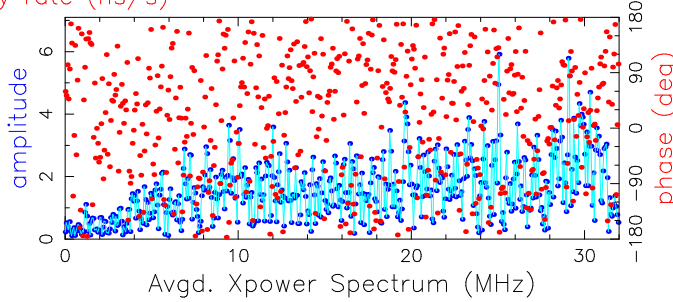


Fringe quality 0

SNR 5.8  
Int time 287.851  
Amp 0.721  
Phase -168.3  
PFD 6.6e-01  
Delays (us)  
SBD -3.185241  
MBD -0.000005  
Fringe rate (Hz)  
-0.896242  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



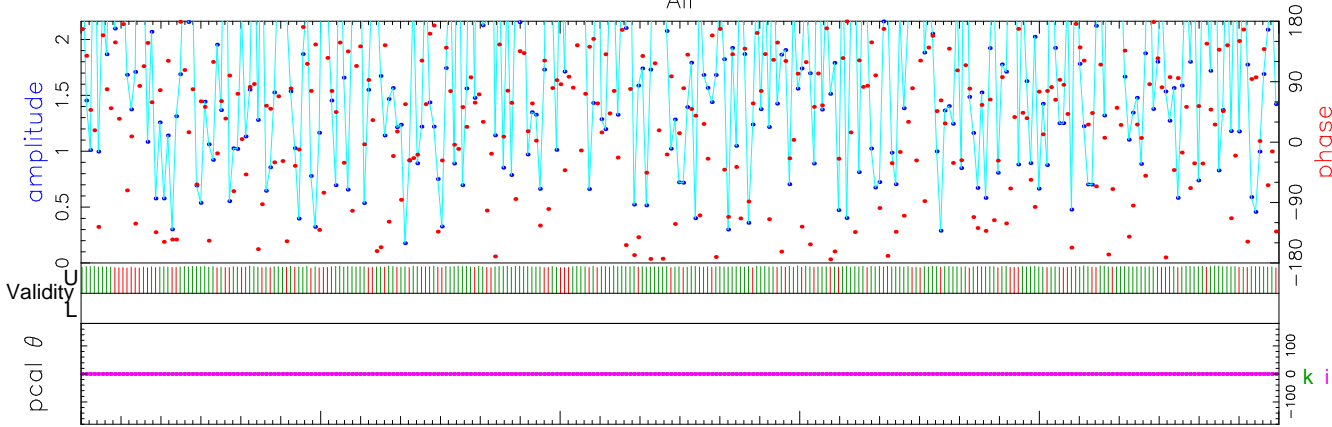
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
87.6  
0.7  
105.3  
U/L 586/0  
k 3000  
i 0  
k:i 0:0  
k:i 0:0  
k 1000  
i 1000  
k W00UL  
i W00UR

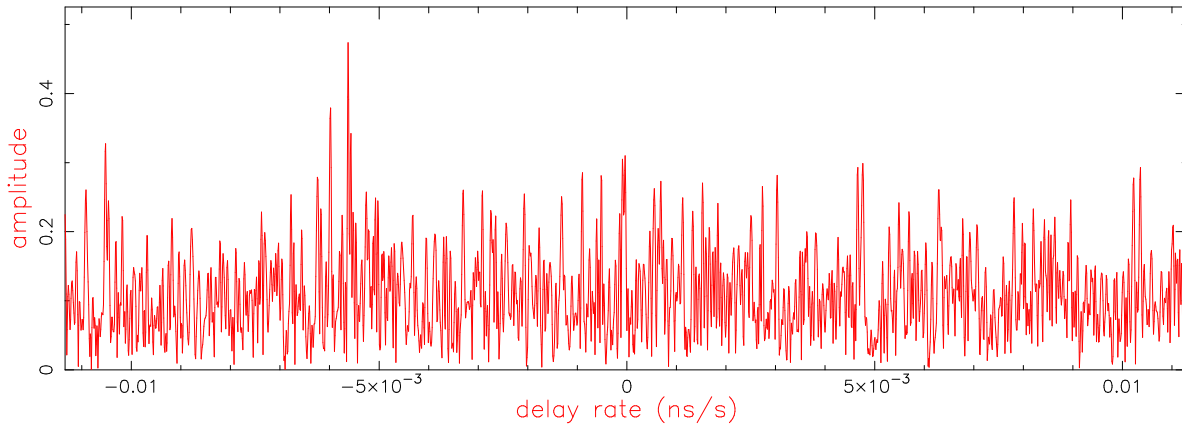
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56917108399E+03	Apriori delay (usec)	-6.56598583777E+03	Resid mbdelay (usec)	-4.62494E-06	+/-	3.0E-03
Sband delay (usec)	-6.56917107927E+03	Apriori clock (usec)	2.4096573E+01	Resid sbdelay (usec)	-3.18524E+00	+/-	3.0E-03
Phase delay (usec)	-6.56598583494E+03	Apriori clockrate (us/s)	1.6634000E-07	Resid phdelay (usec)	2.82632E-06	+/-	6.4E-07
Delay rate (us/s)	1.93875872226E+00	Apriori rate (us/s)	1.93876912674E+00	Resid rate (us/s)	-1.04045E-05	+/-	3.7E-09
Total phase (deg)	-191.8	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	-168.3	+/-	19.9

ph/seg (deg)	89.8	Theor.	170.4	Amplitude	0.721 +/- 0.125	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	343.6	Search (2048X8)	0.487	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.497	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.6	Inc. frq. avg.	0.706	Inc. frq. avg.	0.706	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate (Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

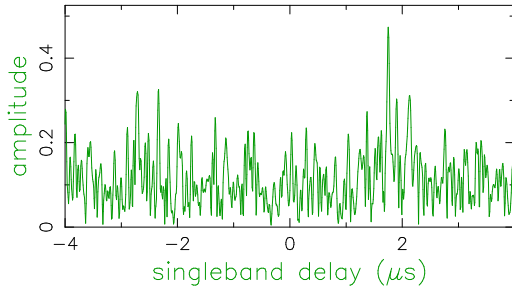
k: az 86.3 el 25.9 pa -61.9 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ki..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ki.W.159.0QR0YU

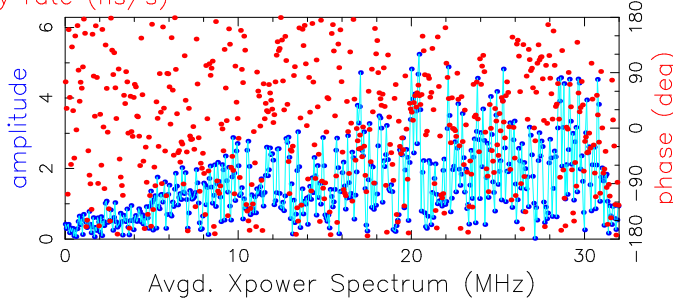


Fringe quality 0

SNR 5.5  
Int time 287.857  
Amp 0.525  
Phase 7.6  
PFD 9.9e-01  
Delays (us)  
SBD 1.749802  
MBD -0.000007  
Fringe rate (Hz)  
-0.485641  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

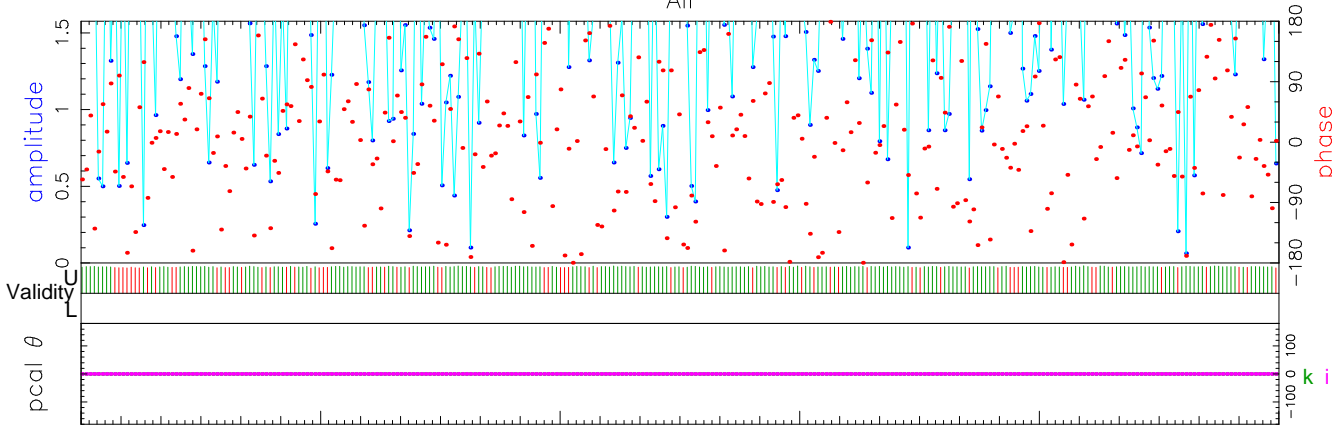


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
16.2  
0.5  
737.0  
U/L 586/0  
k 3000  
i 0  
k:i 0:0  
k:i 0:0  
k 1000  
i 1000  
k W00UR  
i W00UL

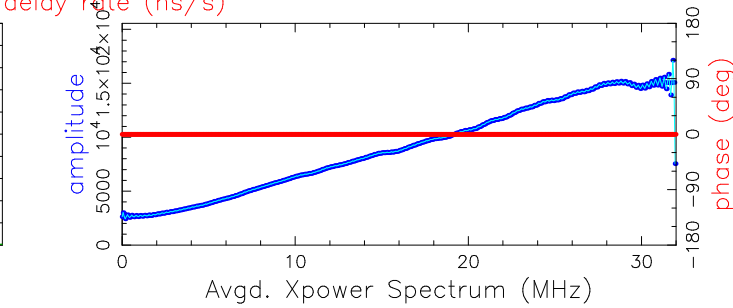
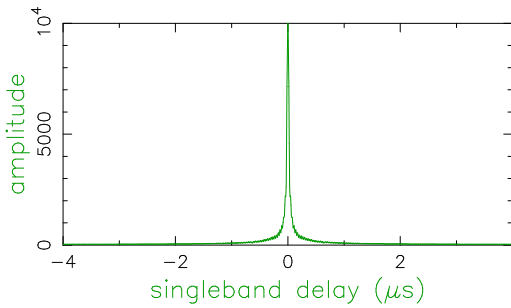
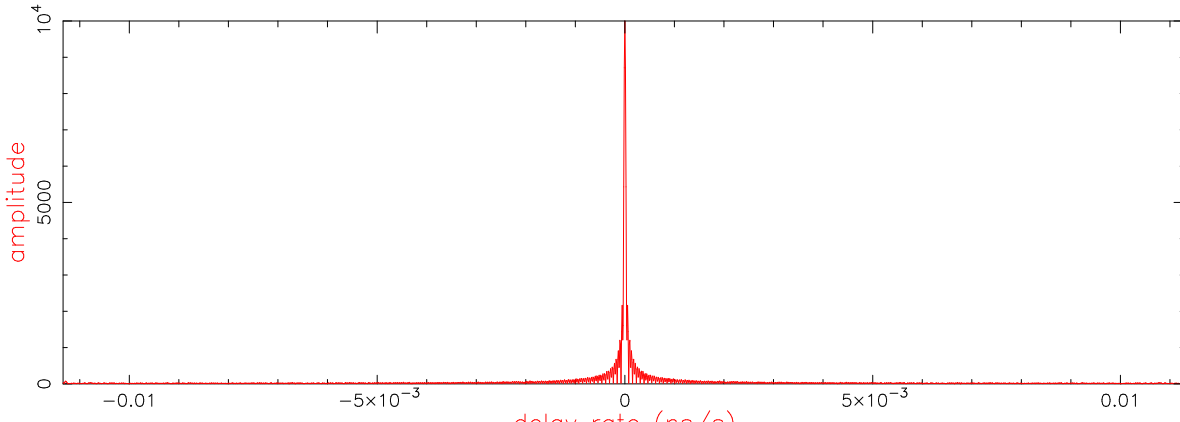
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56423603106E+03	Apriori delay (usec)	-6.56598583777E+03	Resid mbdelay (usec)	-7.26572E-06	+/-	3.1E-03
Sband delay (usec)	-6.56423603577E+03	Apriori clock (usec)	2.4096573E+01	Resid sbdelay (usec)	1.74980E+00	+/-	3.1E-03
Phase delay (usec)	-6.56598583725E+03	Apriori clockrate (us/s)	1.6634000E-07	Resid phdelay (usec)	5.22216E-07	+/-	6.7E-07
Delay rate (us/s)	1.93876348893E+00	Apriori rate (us/s)	1.93876912674E+00	Resid rate (us/s)	-5.63781E-06	+/-	3.9E-09
Total phase (deg)	344.1	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	7.6	+/-	20.9

ph/seg (deg)	91.6	Theor.	178.5	Amplitude	0.525 +/- 0.096	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	381.7	Search (2048X8)	0.469	Search (2048X8)	0.469	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. seg. avg.	0.374	Inc. seg. avg.	0.374	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.517	Inc. frq. avg.	0.517	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

k: az 86.3 el 25.9 pa -61.9 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ki..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ki.W.179.0QR0YU



Fringe quality 9

SNR 116090.6

Int time 288.349

Amp 10000.002

Phase 0.3

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000007

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163645

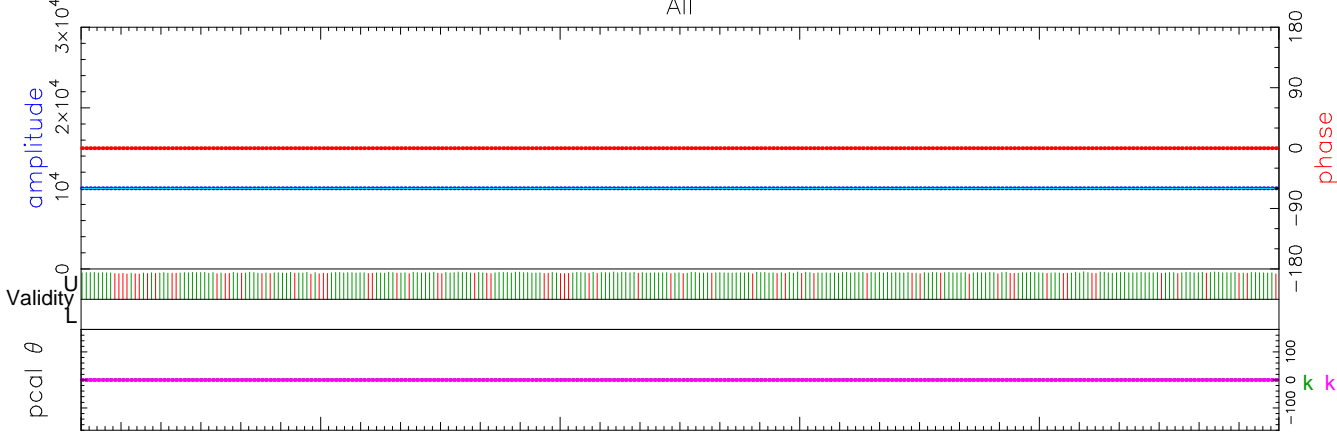
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00		Freq (MHz)
-0.3		Phase
10000.0		Ampl.
513.0		Sbd box
U/L 586/0		APs used
k 3000		PC freqs
k 3000		PC freqs
k:k 0:0		PC phase
k:k 0:0		Mani PC
k 1000		PC amp
k 1000		
k W00UL		Chan ids
k W00UL		Chan ids

Group delay (usec)(sbd)	4.72027159001E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-6.90601E-06	+/- 1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-8.97926014416E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-8.97926E-09	+/- 3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/- 0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.002 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.0	0.0	0.0	Search (2048X8)	10000.003	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	0.0	0.0	Inc. frq. avg.	10000.003	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

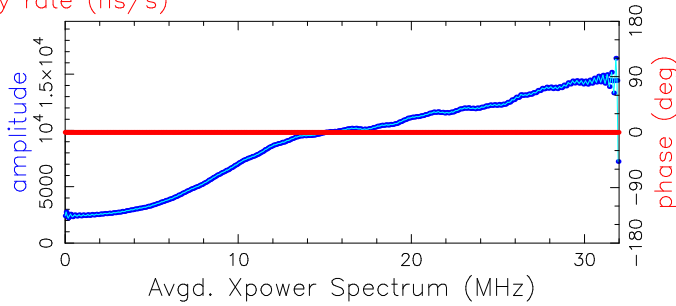
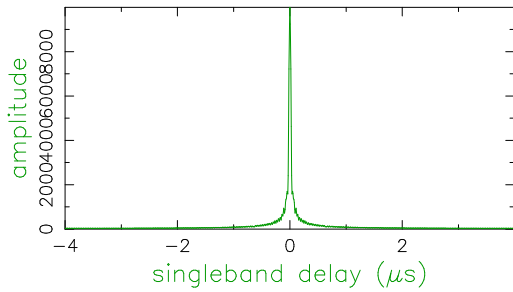
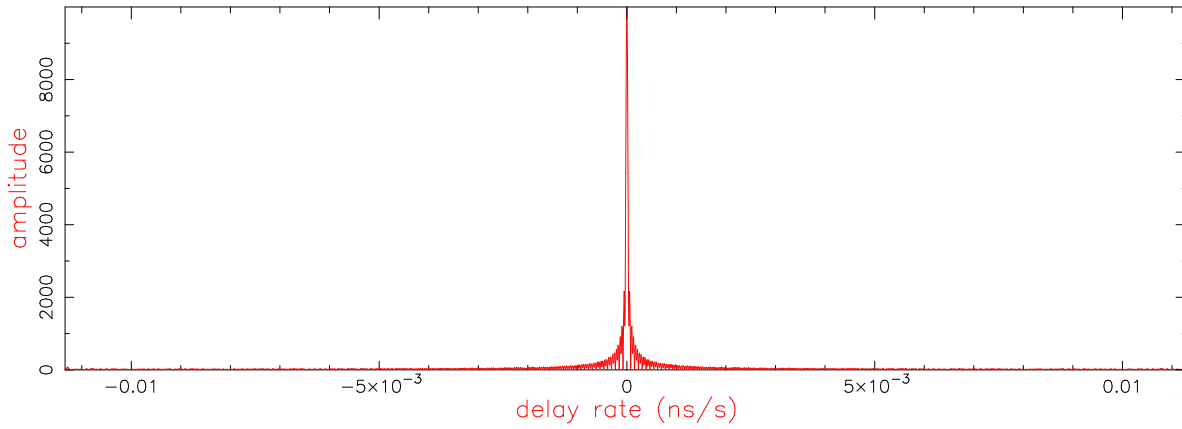
k: az 86.3 el 25.9 pa -61.9      k: az 86.3 el 25.9 pa -61.9      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//kk..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//kk.W.131.0QR0YU

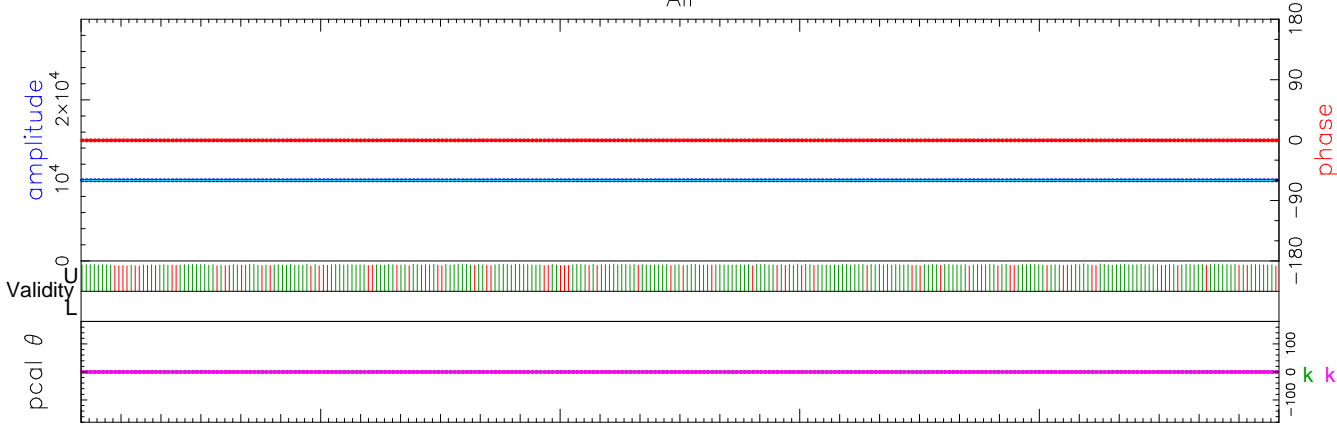
Fringe quality 9

SNR 116092.2  
Int time 288.357  
Amp 9999.998  
Phase 0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000007  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-0.3 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 586/0 APs used  
k 3000 PC freqs  
k 3000 PC freqs  
k:k 0:0 PC phase  
k:k 0:0 Mani PC  
k 1000 PC amp  
k 1000  
k W00UR Chan ids  
k W00UR Chan ids

Group delay (usec)(sbd) 4.36101939264E-06 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) -7.26527E-06 +/- 1.5E-07  
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-07  
Phase delay (usec) -9.44636307086E-09 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -9.44636E-09 +/- 3.2E-11  
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.8E-13  
Total phase (deg) 0.2 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.2 +/- 0.0

RMS Theor. Amplitude 9999.998 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 0.0 0.0 Search (2048X8) 9999.998 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.998 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

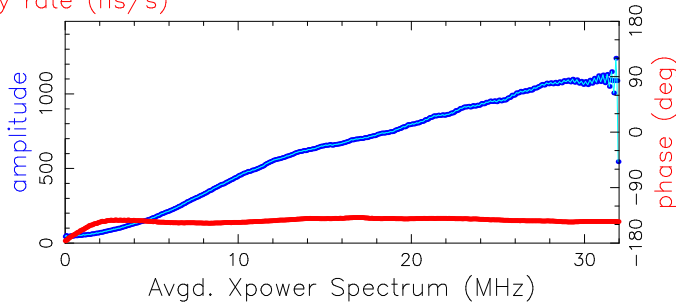
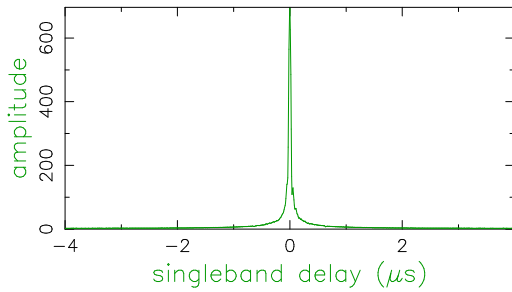
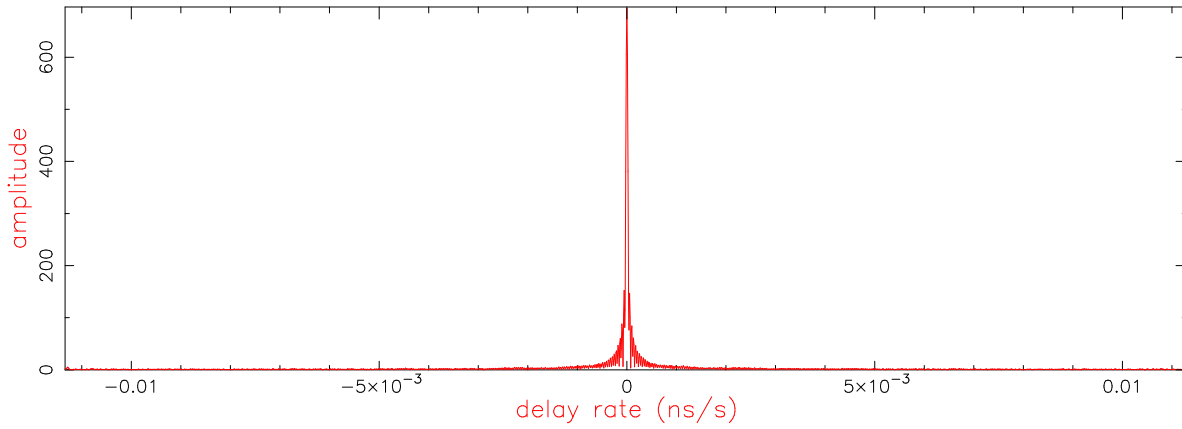
k: az 86.3 el 25.9 pa -61.9 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kk.W.146.0QR0YU



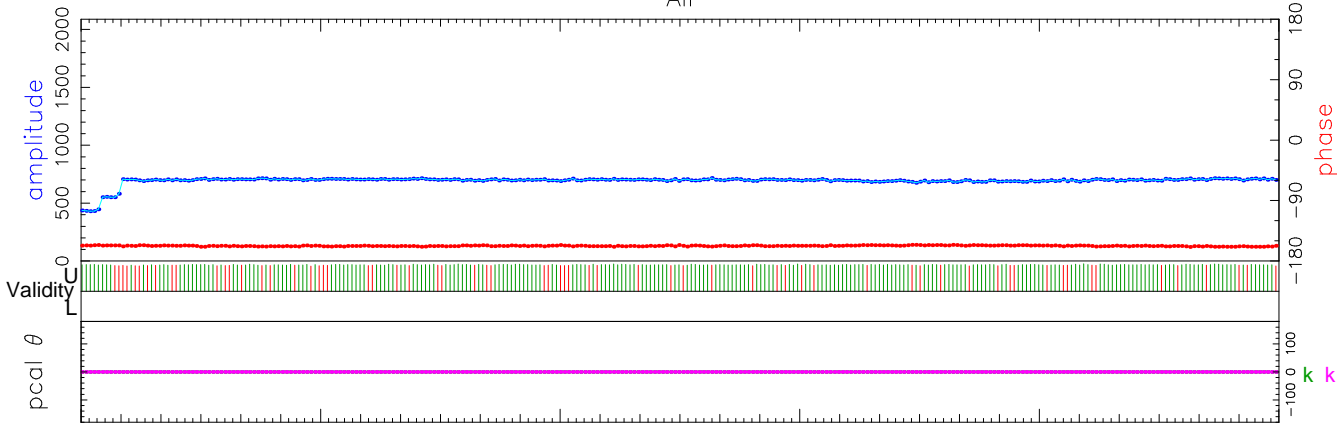
Fringe quality 9

SNR 8085.4  
Int time 288.349  
Amp 696.471  
Phase -246.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.001941  
MBD -0.000007  
Fringe rate (Hz)  
0.000010  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-157.4  
693.6  
512.8  
U/L 586/0  
k 3000  
k 3000  
k:k 0:0  
k:k 0:0  
k 1000  
k 1000  
k W00UL  
k W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.93722427103E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-7.26101E-06	+/-	2.1E-06
Sband delay (usec)	-1.94150000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.94150E-03	+/-	2.1E-06
Phase delay (usec)	-5.07655117911E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.07655E-06	+/-	4.6E-10
Delay rate (us/s)	1.20454795329E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.20455E-10	+/-	2.6E-12
Total phase (deg)	-246.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-246.4	+/-	0.0

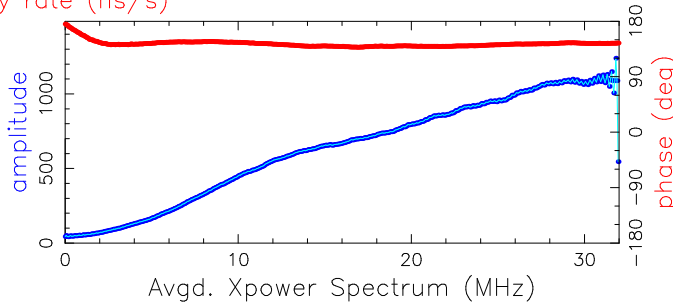
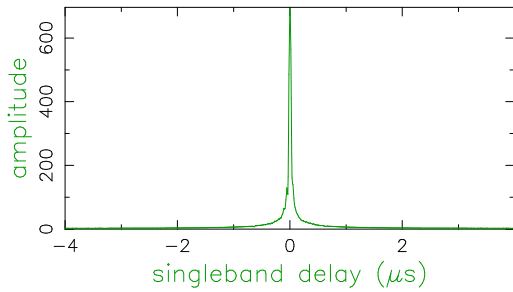
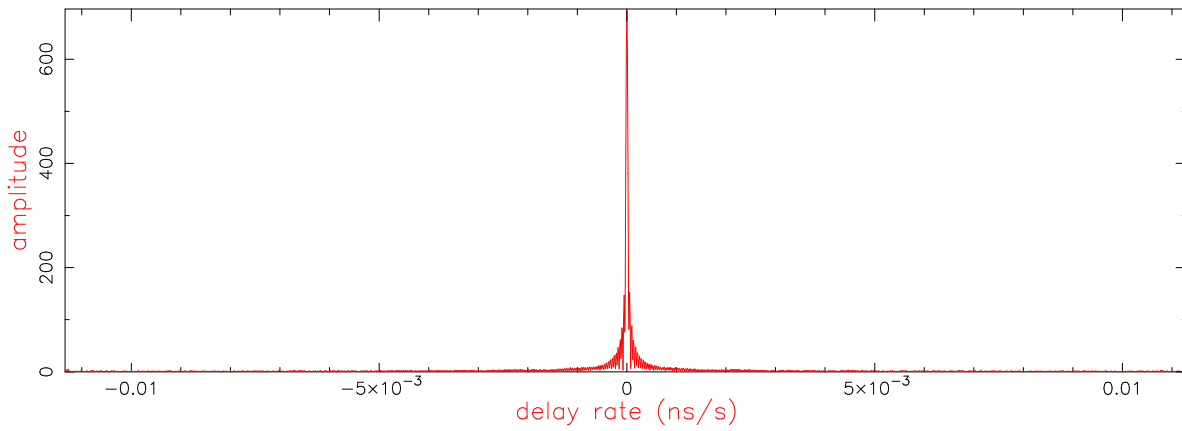
ph/seg (deg)	0.7	Theor.	0.1	Amplitude	696.471 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	5.7		0.2	Search (2048X8)	693.565	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.4		0.0	Inc. seg. avg.	693.620	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	693.576	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

k: az 86.3 el 25.9 pa -61.9      k: az 86.3 el 25.9 pa -61.9      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//kk..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//kk.W.160.0QR0YU

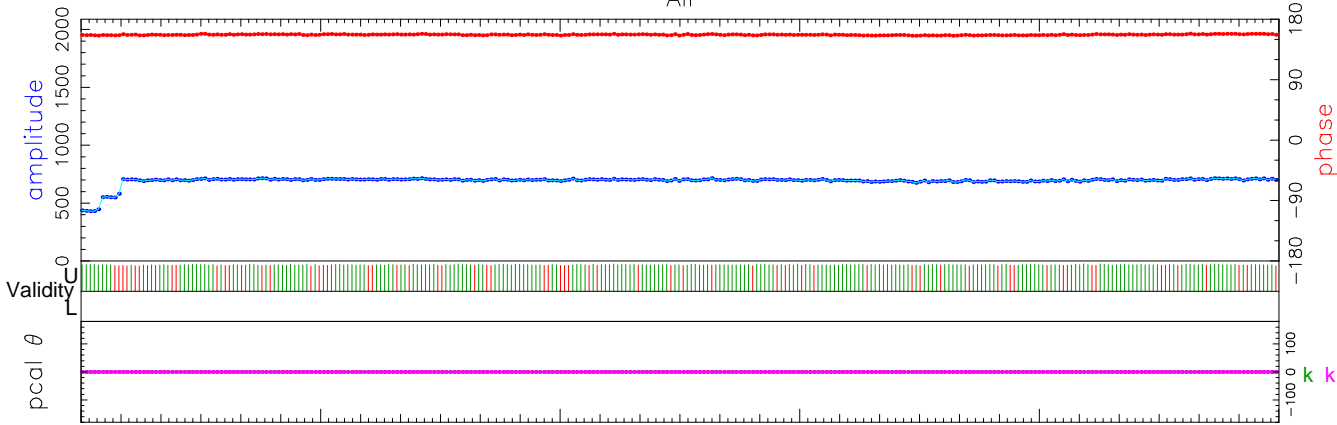
Fringe quality 9

SNR 8085.3  
Int time 288.357  
Amp 696.451  
Phase 246.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.001941  
MBD -0.000007  
Fringe rate (Hz)  
-0.000010  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



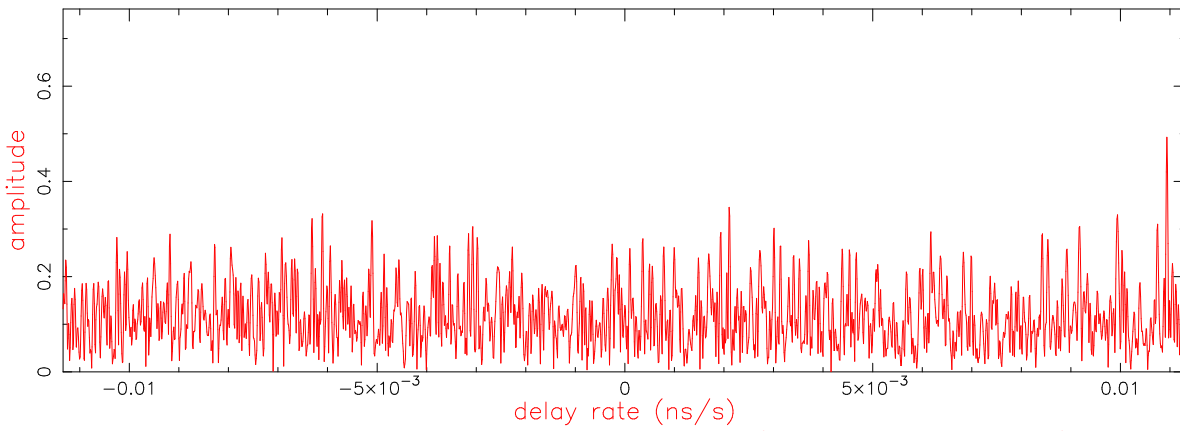
86012.00 Freq (MHz)  
156.8 Phase  
693.6 Ampl.  
513.2 Sbd box  
U/L 586/0 APs used  
k 3000 PC freqs  
k 3000 PC freqs  
k:k 0:0 PC phase  
k:k 0:0 Mani PC  
k 1000 PC amp  
k 1000  
k W00UR Chan ids  
k W00UL Chan ids

Group delay (usec)(sbd)	1.94613086546E-03	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-7.08497E-06	+/-	2.1E-06
Sband delay (usec)	1.94150000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.94150E-03	+/-	2.1E-06
Phase delay (usec)	5.05789841387E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.05790E-06	+/-	4.6E-10
Delay rate (us/s)	-1.20454795329E-10	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	-1.20455E-10	+/-	2.6E-12
Total phase (deg)	246.9	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	246.9	+/-	0.0

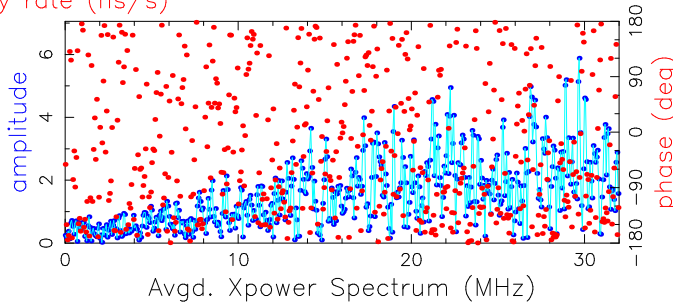
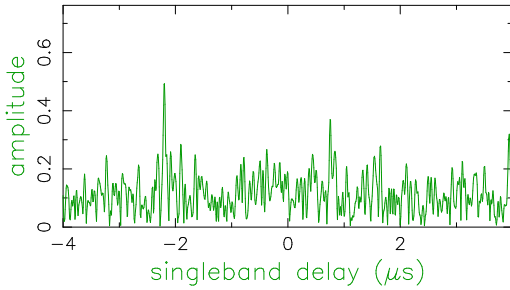
ph/seg (deg)	0.7	Theor.	0.1	Amplitude	696.451 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	5.7		0.2	Search (2048X8)	693.545	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.4		0.0	Inc. seg. avg.	693.601	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	693.556	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

k: az 86.3 el 25.9 pa -61.9 k: az 86.3 el 25.9 pa -61.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kk..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kk.W.170.0QR0YU

Fringe quality 0

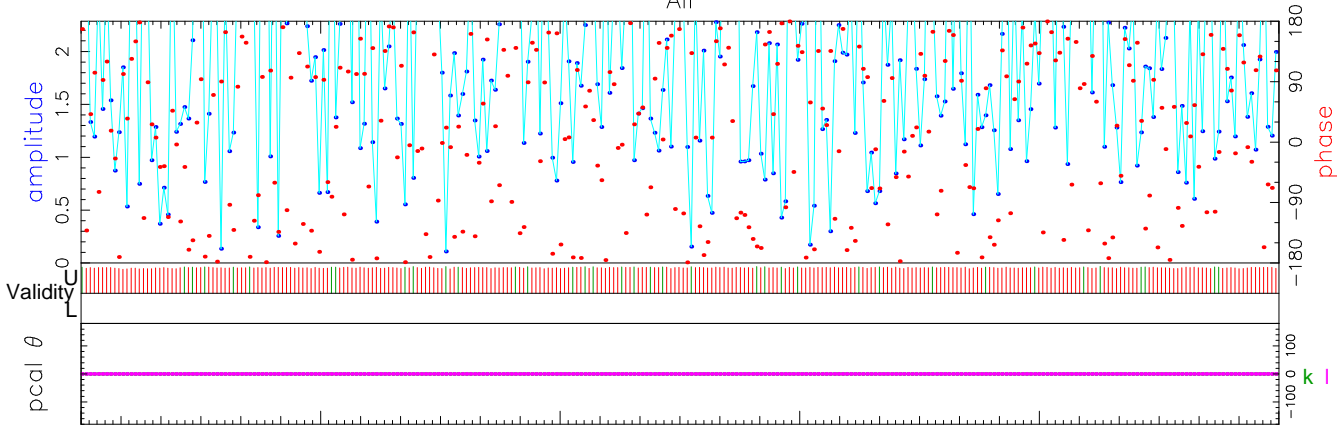


SNR 5.7  
 Int time 279.096  
 Amp 0.762  
 Phase -14.6  
 PFD 7.1e-01  
 Delays (us)  
 SBD -2.198974  
 MBD 0.000007  
 Fringe rate (Hz)  
 0.943258  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163644  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



Validity  
 pcal θ  
 k l  
 86012.00  
 154.6  
 0.7  
 231.5  
 U/L 586/0  
 k 3000  
 l 3000  
 k:l 0:0  
 k:l 0:0  
 k 1000  
 l 1000  
 k W00UL  
 l W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-1.45846088201E+03	Apriori delay (usec)	-1.45626190482E+03	Resid mbdelay (usec)	6.66837E-06	+/-	3.0E-03
Sband delay (usec)	-1.45846087882E+03	Apriori clock (usec)	1.0343160E+01	Resid sbdelay (usec)	-2.19897E+00	+/-	3.0E-03
Phase delay (usec)	-1.45626189983E+03	Apriori clockrate (us/s)	4.6340000E-08	Resid phdelay (usec)	4.98438E-06	+/-	6.4E-07
Delay rate (us/s)	9.78520257535E-02	Apriori rate (us/s)	9.78410754674E-02	Resid rate (us/s)	1.09503E-05	+/-	3.7E-09
Total phase (deg)	-187.7	Apriori accel (us/s/s)	6.05269075719E-06	Resid phase (deg)	-14.6	+/-	20.0

ph/seg (deg)	92.1	Theor.	171.2	Amplitude	0.762 +/- 0.133	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	372.5	Search (2048X8)	0.490	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.565	Inc. frq. avg.	0.738	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.7					Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

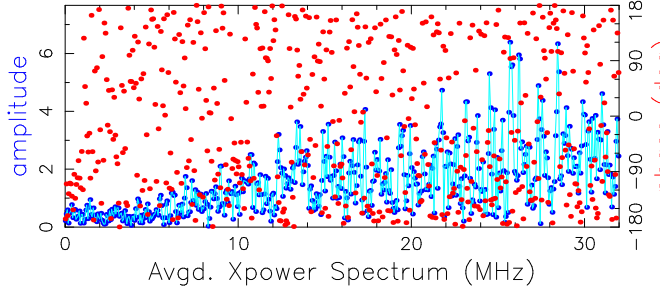
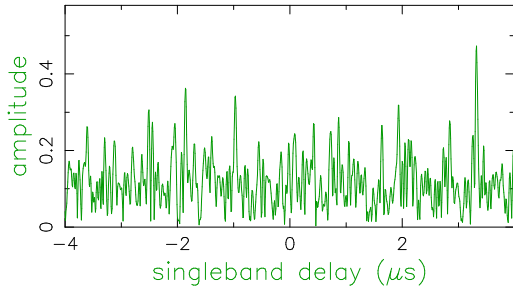
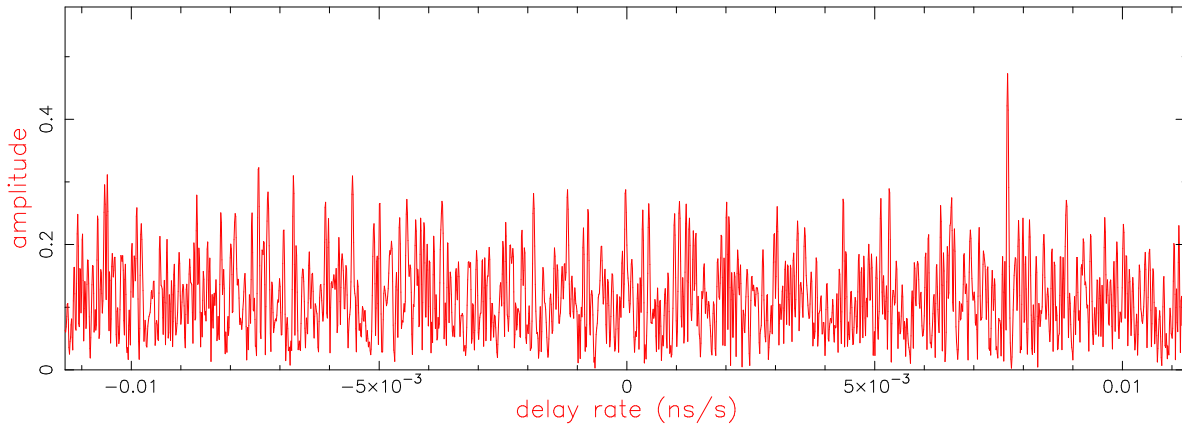
k: az 86.3 el 25.9 pa -61.9 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -576.175 -329.119 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kl.W.127.0QR0YU

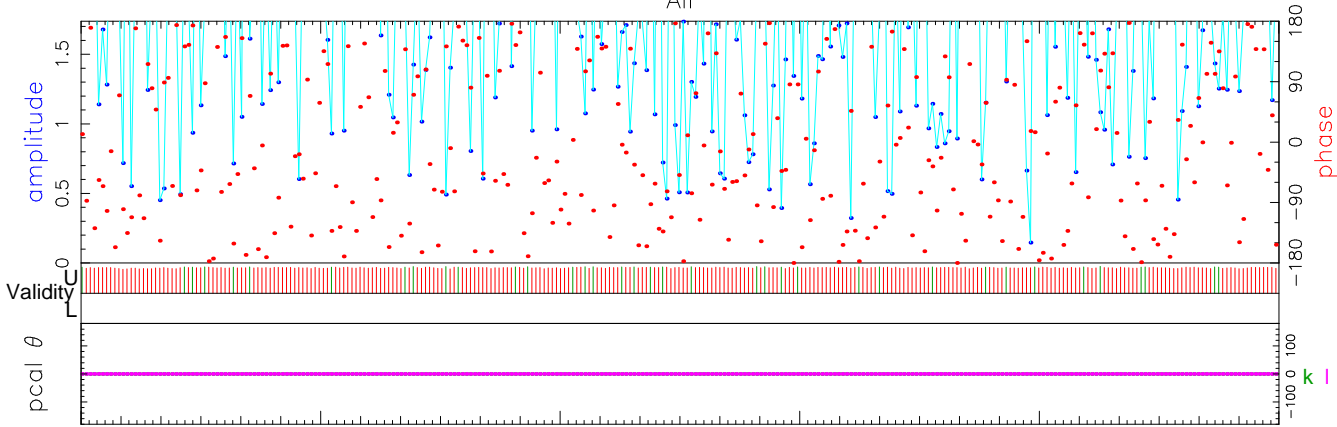
Fringe quality 0

SNR 5.4  
Int time 279.104  
Amp 0.579  
Phase 108.6  
PFD 1.0e+00  
Delays (us)  
SBD 3.317931  
MBD 0.000005  
Fringe rate (Hz)  
0.662733  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-141.7  
0.6  
937.7  
U/L 586/0  
k 3000  
l 3000  
k:l 0:0  
k:l 0:0  
k 1000  
l 1000  
k W00UR  
l W00UR

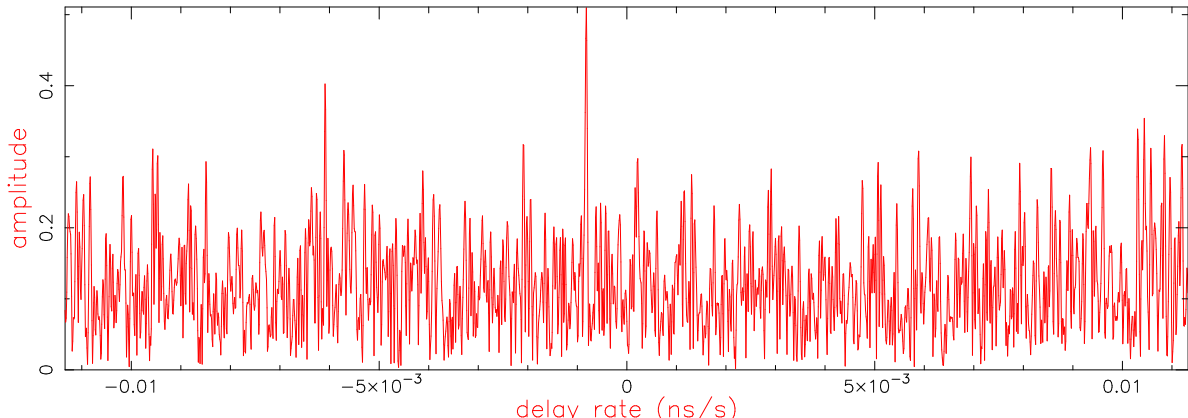
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.45294396765E+03	Apriori delay (usec)	-1.45626190482E+03	Resid mbdelay (usec)	4.78463E-06	+/-	3.2E-03
Sband delay (usec)	-1.45294397332E+03	Apriori clock (usec)	1.0343160E+01	Resid sbdelay (usec)	3.31793E+00	+/-	3.2E-03
Phase delay (usec)	-1.45626190939E+03	Apriori clockrate (us/s)	4.6340000E-08	Resid phdelay (usec)	-4.57072E-06	+/-	6.8E-07
Delay rate (us/s)	9.78487691348E-02	Apriori rate (us/s)	9.78410754674E-02	Resid rate (us/s)	7.69367E-06	+/-	3.9E-09
Total phase (deg)	295.5	Apriori accel (us/s/s)	6.05269075719E-06	Resid phase (deg)	108.6	+/-	21.1

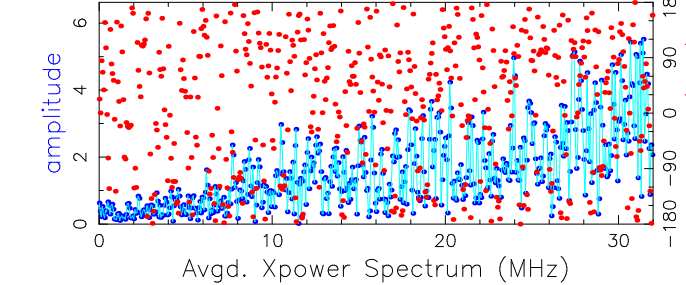
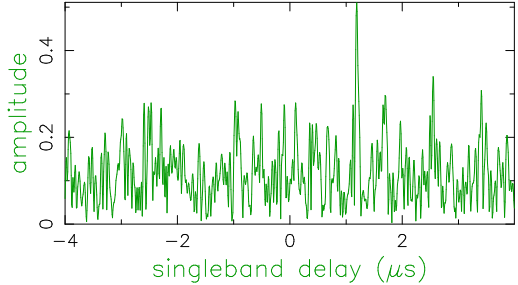
ph/seg (deg)	RMS 91.1	Theor. 180.5	Amplitude 0.579 +/- 0.107	Search (2048X8)	0.471	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	393.9	315.1	Interp. 0.000	Inc. seg. avg. 0.418	0.566	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	10.5	Inc. frq. avg. 0.566	u,v (fr/asec) -576.175 -329.119		Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.6	18.4				Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
						Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
						nlags: 512	t_cohere infinite
							ion window (TEC) 0.00 0.00

k: az 86.3 el 25.9 pa -61.9 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -576.175 -329.119 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kl.W.147.0QR0YU

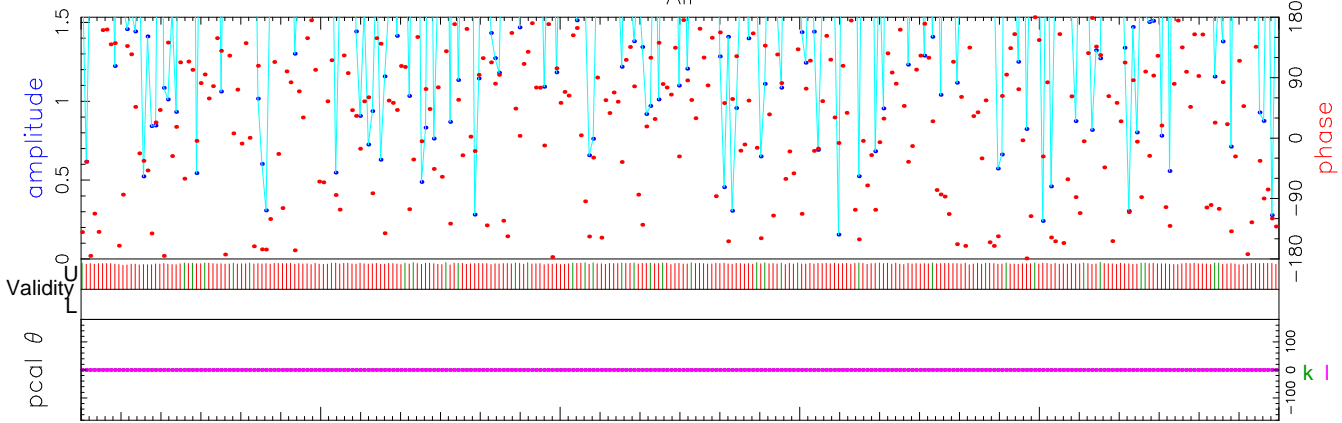


Fringe quality 0  
SNR 5.8  
Int time 279.098  
Amp 0.511  
Phase 130.2  
PFD 5.2e-01  
Delays (us)  
SBD 1.188143  
MBD -0.000007  
Fringe rate (Hz)  
-0.070604  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
100.4 Phase  
0.5 Ampl.  
665.1 Sbd box  
U/L 586/0 APs used  
k 3000 PC freqs  
l 3000 PC freqs  
k:l 0:0 PC phase  
k:l 0:0 Manl PC  
k 1000 PC amp  
l 1000  
k W00UL Chan ids  
l W00UR Chan ids

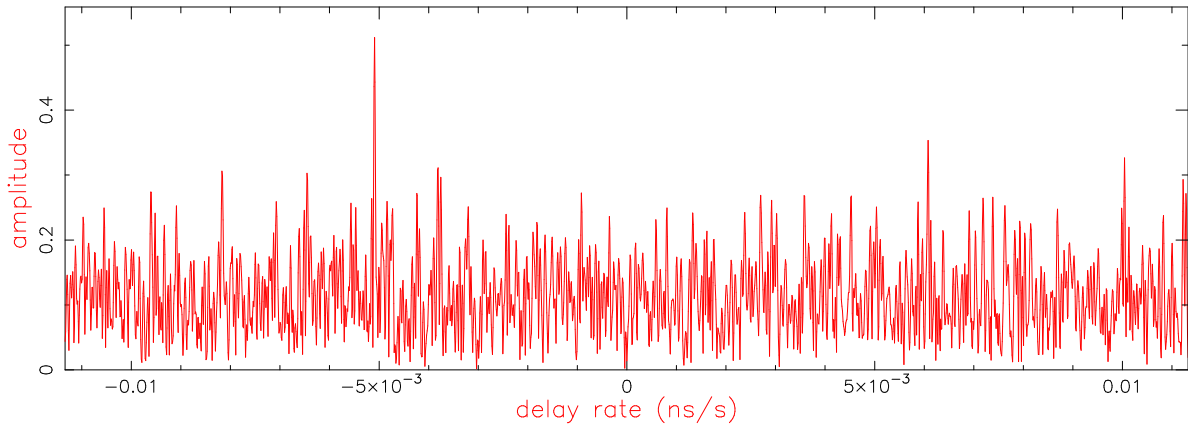
Group delay (usec)(sbd)	-1.45507376389E+03	Apriori delay (usec)	-1.45626190482E+03	Resid mbdelay (usec)	-7.24271E-06	+/-	3.0E-03
Sband delay (usec)	-1.45507376182E+03	Apriori clock (usec)	1.0343160E+01	Resid sbdelay (usec)	1.18814E+00	+/-	3.0E-03
Phase delay (usec)	-1.45626190158E+03	Apriori clockrate (us/s)	4.6340000E-08	Resid phdelay (usec)	3.23660E-06	+/-	6.3E-07
Delay rate (us/s)	9.78402558285E-02	Apriori rate (us/s)	9.78410754674E-02	Resid rate (us/s)	-8.19639E-07	+/-	3.7E-09
Total phase (deg)	317.1	Apriori accel (us/s/s)	6.05269075719E-06	Resid phase (deg)	130.2	+/-	19.7

ph/seg (deg)	RMS 91.0	Theor. 168.4	Amplitude 0.511 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	358.9	293.9	Search (2048X8) 0.507	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	9.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.0	17.2	Inc. seg. avg. 0.386	Sample rate(MSamp/s): 64	ion window (TEC) 0.00 0.00	
			Inc. frq. avg. 0.503	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

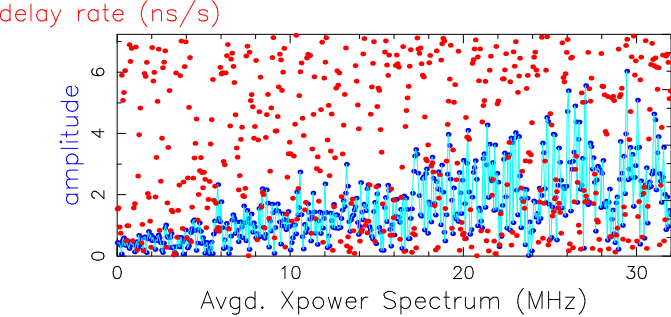
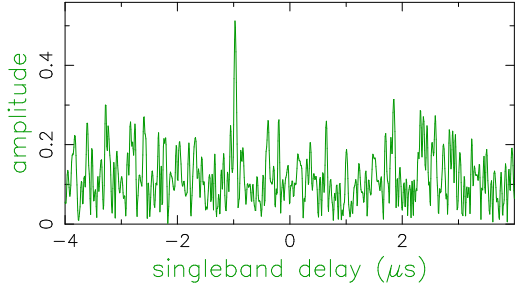
k: az 86.3 el 25.9 pa -61.9 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -576.175 -329.119 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kl.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kl.W.161.0QR0YU



Fringe quality 0



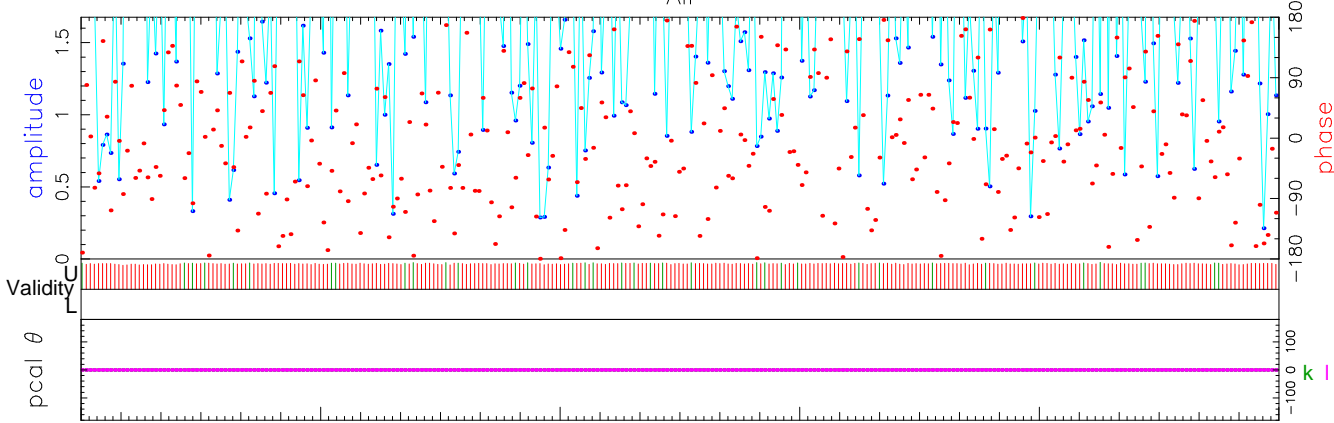
SNR 5.9  
Int time 279.103  
Amp 0.559  
Phase -317.6  
PFD 4.3e-01  
Delays (us)  
SBD -0.974848  
MBD -0.000005  
Fringe rate (Hz)  
-0.439584  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-36.9  
0.6  
388.2  
U/L 586/0  
k 3000  
l 3000  
k:l 0:0  
k:l 0:0  
k 1000  
l 1000  
k W00UR  
l W00UL

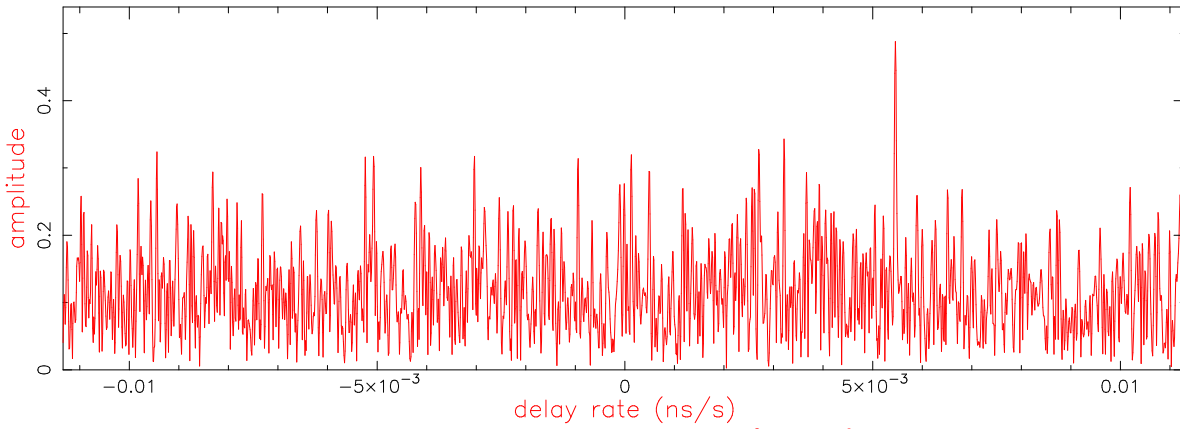
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.45723675026E+03	Apriori delay (usec)	-1.45626190482E+03	Resid mbdelay (usec)	-4.72195E-06	+/-	2.9E-03
Sband delay (usec)	-1.45723675282E+03	Apriori clock (usec)	1.0343160E+01	Resid sbdelay (usec)	-9.74848E-01	+/-	2.9E-03
Phase delay (usec)	-1.45626190601E+03	Apriori clockrate (us/s)	4.6340000E-08	Resid phdelay (usec)	-1.19066E-06	+/-	6.3E-07
Delay rate (us/s)	9.78359723299E-02	Apriori rate (us/s)	9.78410754674E-02	Resid rate (us/s)	-5.10314E-06	+/-	3.6E-09
Total phase (deg)	-130.7	Apriori accel (us/s/s)	6.05269075719E-06	Resid phase (deg)	-317.6	+/-	19.5

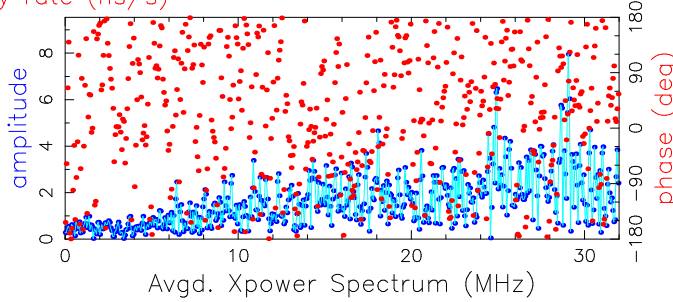
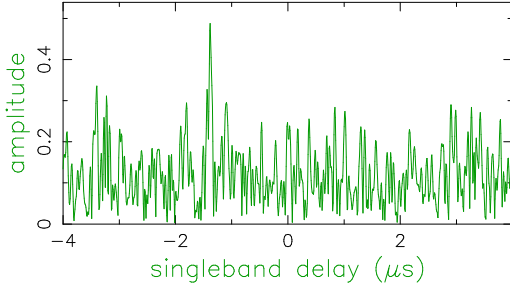
ph/seg (deg)	91.5	Theor.	167.2	Amplitude	0.559 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	358.8	Search (2048X8)	0.508	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.419	Inc. frq. avg.	0.549	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.549			Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) -576.175 -329.119 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kl..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kl.W.171.0QR0YU

Fringe quality 0



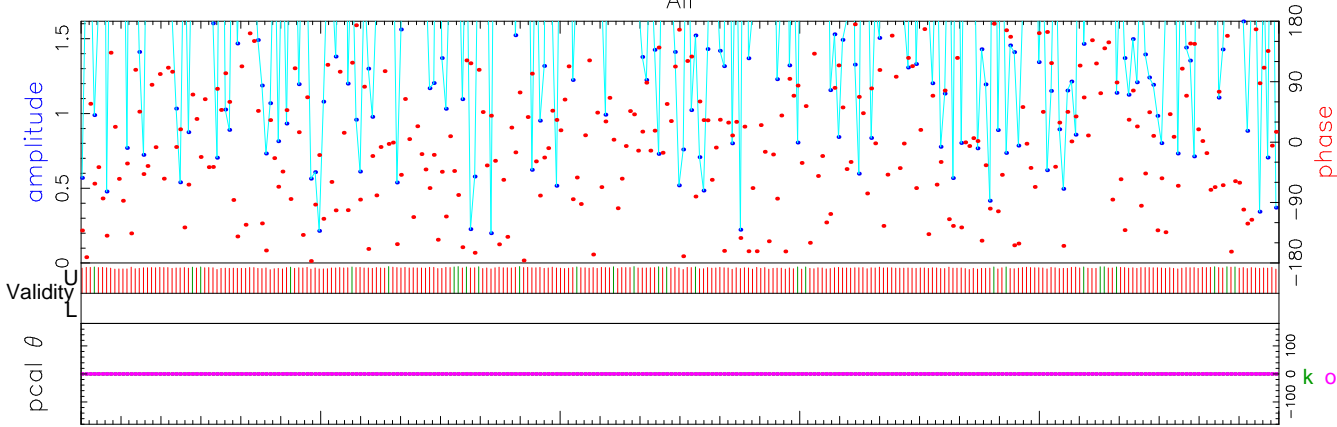
SNR 5.6  
Int time 276.966  
Amp 0.539  
Phase -75.0  
PFD 9.6e-01  
Delays (us)  
SBD -1.384421  
MBD 0.000006  
Fringe rate (Hz)  
0.471299  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163644  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-0.8  
0.5  
335.9  
U/L 586/0  
k 3000  
o 3000  
k:o 0:0  
k:o 0:0  
k 1000  
o 1000  
k W00UL  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.73386660418E+03	Apriori delay (usec)	1.73525102125E+03	Resid mbdelay (usec)	6.03097E-06	+/-	3.1E-03
Sband delay (usec)	1.73386659975E+03	Apriori clock (usec)	-5.7908983E+00	Resid sbdelay (usec)	-1.38442E+00	+/-	3.1E-03
Phase delay (usec)	1.73525102122E+03	Apriori clockrate (us/s)	-5.5021997E-07	Resid phdelay (usec)	-2.68163E-08	+/-	6.6E-07
Delay rate (us/s)	2.90008330390E-02	Apriori rate (us/s)	2.89953617271E-02	Resid rate (us/s)	5.47131E-06	+/-	3.8E-09
Total phase (deg)	-85.7	Apriori accel (us/s/s)	-1.16458885566E-05	Resid phase (deg)	-75.0	+/-	20.6

ph/seg (deg)	RMS 92.1	Theor. 176.3	Amplitude 0.539 +/- 0.097	Search (2048X8)	0.485	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5					
amp/seg (%)	382.8	307.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000					
ph/frq (deg)	0.0	10.3	Inc. seg. avg.	0.389	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000				
amp/frq (%)	0.2	18.0	Inc. frq. avg.	0.529	Sample rate(MSamp/s): 64	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	dr window (ns/s)	-0.011 0.011	ion window (TEC)	0.00 0.00

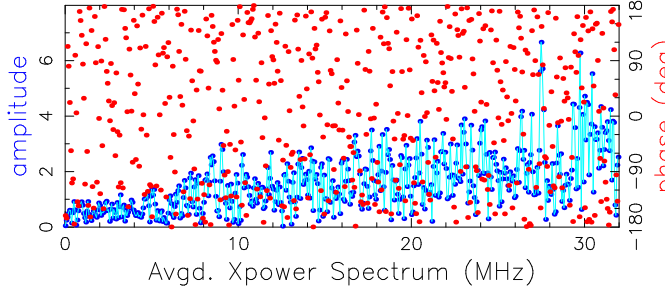
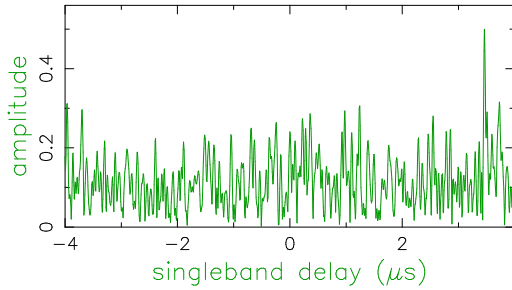
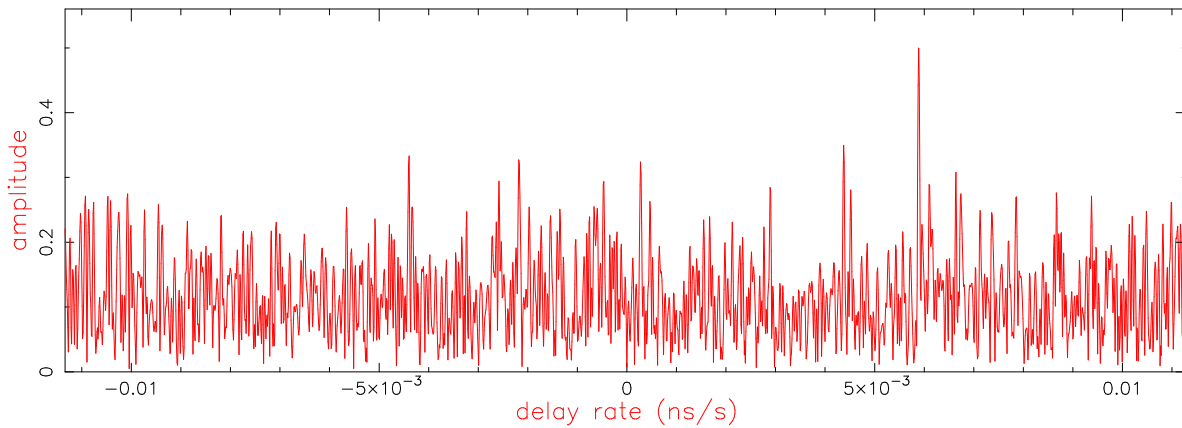
k: az 86.3 el 25.9 pa -61.9 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) -187.984 -909.343 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/ko..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/ko.W.129.0QR0YU

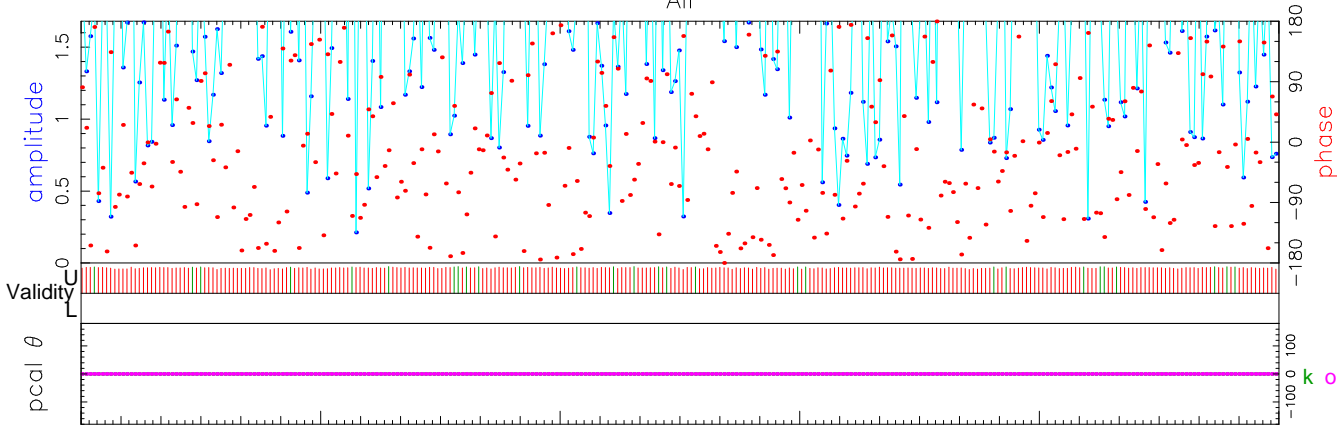
Fringe quality 0

SNR 5.7  
Int time 276.973  
Amp 0.560  
Phase 318.9  
PFD 8.0e-01  
Delays (us)  
SBD 3.461552  
MBD 0.000005  
Fringe rate (Hz)  
0.508103  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-69.4  
0.6  
956.1  
U/L 586/0  
k 3000  
o 3000  
k:o 0:0  
k:o 0:0  
k 1000  
o 1000  
k W00UR  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.7387125777E+03	Apriori delay (usec)	1.73525102125E+03	Resid mbdelay (usec)	4.64819E-06	+/-	3.0E-03
Sband delay (usec)	1.73871257325E+03	Apriori clock (usec)	-5.7908983E+00	Resid sbdelay (usec)	3.46155E+00	+/-	3.0E-03
Phase delay (usec)	1.73525101901E+03	Apriori clockrate (us/s)	-5.5021997E-07	Resid phdelay (usec)	-2.23882E-06	+/-	6.5E-07
Delay rate (us/s)	2.90012602964E-02	Apriori rate (us/s)	2.89953617271E-02	Resid rate (us/s)	5.89857E-06	+/-	3.8E-09
Total phase (deg)	308.2	Apriori accel (us/s/s)	-1.16458885566E-05	Resid phase (deg)	318.9	+/-	20.2

ph/seg (deg)	92.3	Theor.	172.5	Amplitude	0.560 +/- 0.098	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	353.4	Search (2048X8)	0.495	Search	0.495	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.399	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.551	Inc. frq. avg.	0.551	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

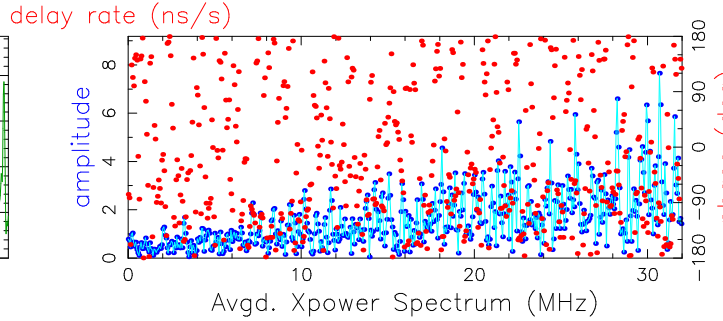
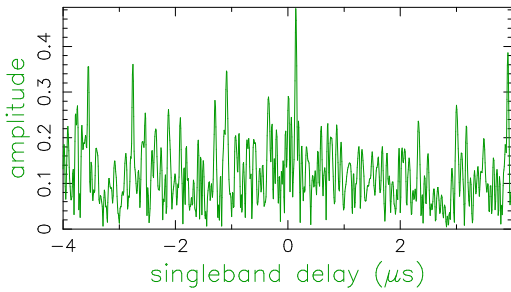
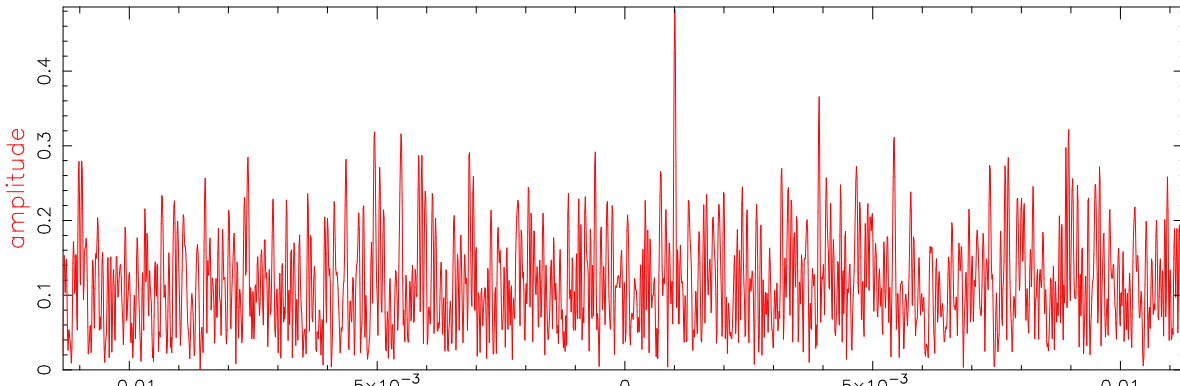
k: az 86.3 el 25.9 pa -61.9 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) -187.984 -909.343 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ko..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ko.W.150.0QR0YU

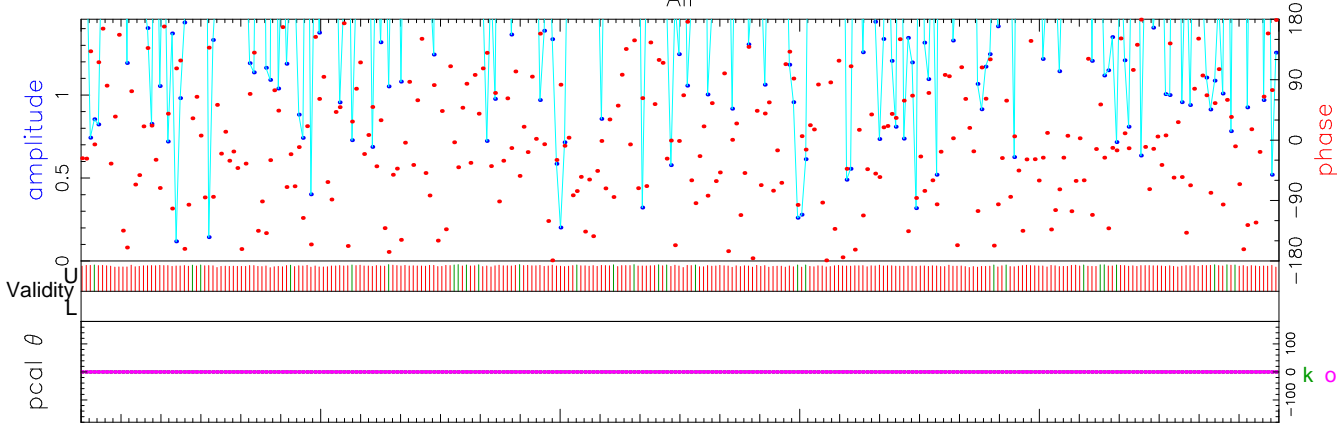
Fringe quality 0

SNR 5.5  
Int time 276.968  
Amp 0.486  
Phase 53.3  
PFD 9.9e-01  
Delays (us)  
SBD 0.142093  
MBD 0.000005  
Fringe rate (Hz)  
0.086531  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-13.9  
0.5  
531.2  
U/L 586/0  
k 3000  
o 3000  
k:o 0:0  
k:o 0:0  
k 1000  
o 1000  
k W00UL  
o W00UR

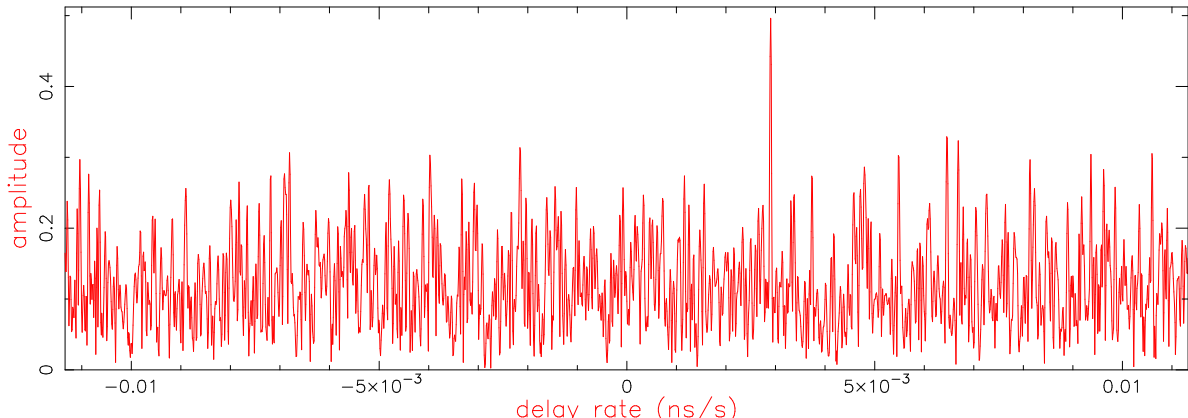
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.73539311155E+03	Apriori delay (usec)	1.73525102125E+03	Resid mbdelay (usec)	5.47459E-06	+/-	3.1E-03
Sband delay (usec)	1.73539311425E+03	Apriori clock (usec)	-5.7908983E+00	Resid sbdelay (usec)	1.42093E-01	+/-	3.1E-03
Phase delay (usec)	1.73525102080E+03	Apriori clockrate (us/s)	-5.5021997E-07	Resid phdelay (usec)	-4.49618E-07	+/-	6.7E-07
Delay rate (us/s)	2.89963662705E-02	Apriori rate (us/s)	2.89953617271E-02	Resid rate (us/s)	1.00454E-06	+/-	3.9E-09
Total phase (deg)	42.7	Apriori accel (us/s/s)	-1.16458885566E-05	Resid phase (deg)	53.3	+/-	20.8

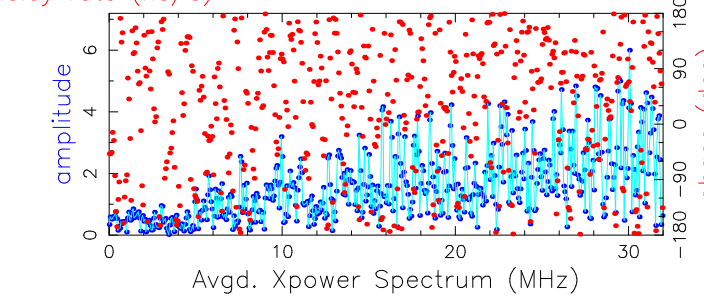
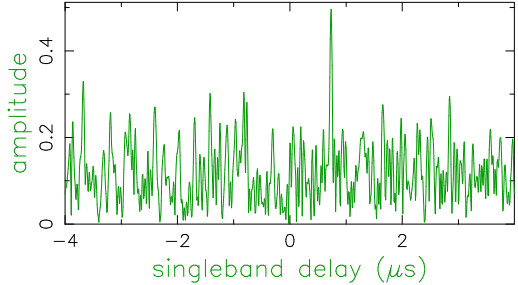
ph/seg (deg)	RMS 89.6	Theor. 178.0	Amplitude 0.486 +/- 0.088	Search (2048X8)	0.475	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	386.5	310.7	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.4	Inc. seg. avg.	0.351		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3	18.2	Inc. frq. avg.	0.476		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

k: az 86.3 el 25.9 pa -61.9 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) -187.984 -909.343 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ko..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ko.W.165.0QR0YU



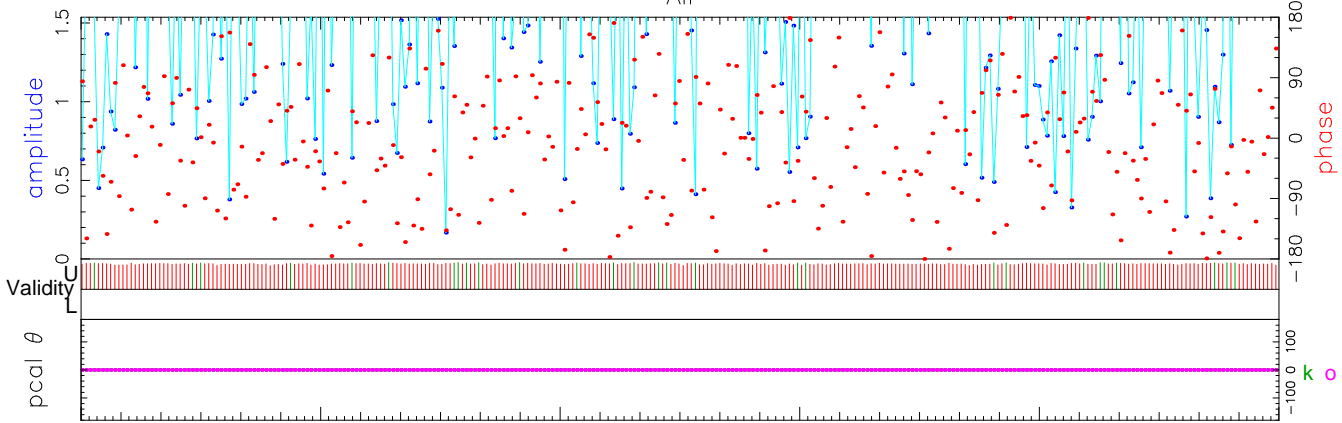
Fringe quality 0  
SNR 5.7  
Int time 276.971  
Amp 0.512  
Phase 248.7  
PFD 8.2e-01  
Delays (us)  
SBD 0.732144  
MBD 0.000005  
Fringe rate (Hz)  
0.250663  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-8.4  
0.5  
606.7  
U/L 586/0  
k 3000  
o 3000  
k:o 0:0  
k:o 0:0  
k 1000  
o 1000  
k W00UR  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

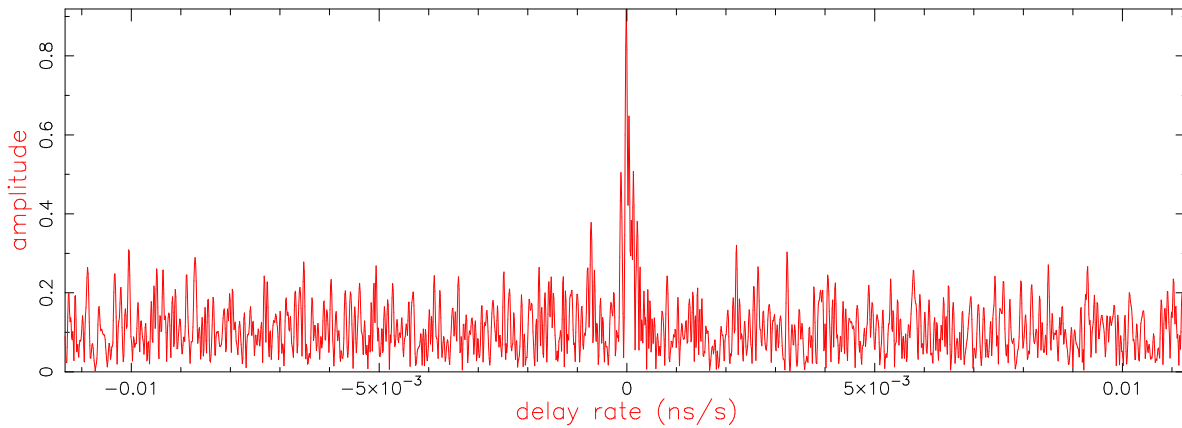
Group delay (usec)(sbd)	1.73598316852E+03	Apriori delay (usec)	1.73525102125E+03	Resid mbdelay (usec)	5.24420E-06	+/-	3.0E-03
Sband delay (usec)	1.73598316575E+03	Apriori clock (usec)	-5.7908983E+00	Resid sbdelay (usec)	7.32144E-01	+/-	3.0E-03
Phase delay (usec)	1.73525102098E+03	Apriori clockrate (us/s)	-5.5021997E-07	Resid phdelay (usec)	-2.71005E-07	+/-	6.5E-07
Delay rate (us/s)	2.89982716812E-02	Apriori rate (us/s)	2.89953617271E-02	Resid rate (us/s)	2.90995E-06	+/-	3.8E-09
Total phase (deg)	238.0	Apriori accel (us/s/s)	-1.16458885566E-05	Resid phase (deg)	248.7	+/-	20.2

ph/seg (deg)	89.0	Theor.	172.9	Amplitude	0.512 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	379.2	Search (2048X8)	0.490	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.381	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.502	Inc. frq. avg.	0.502	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

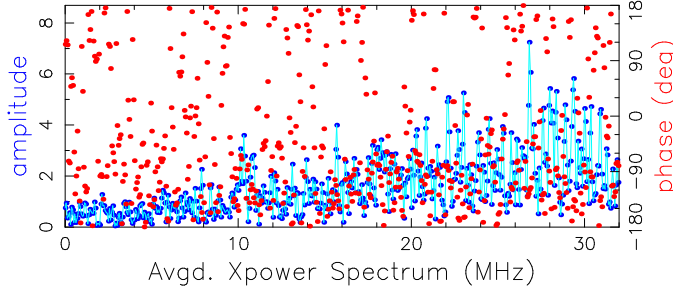
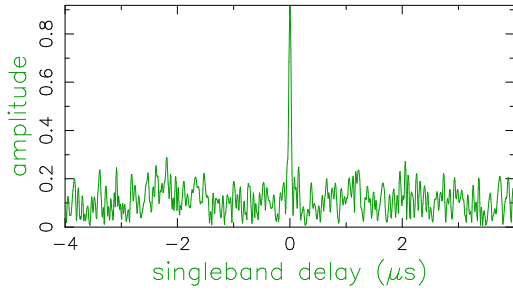
k: az 86.3 el 25.9 pa -61.9 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) -187.984 -909.343 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ko..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ko.W.180.0QR0YU



Fringe quality 9

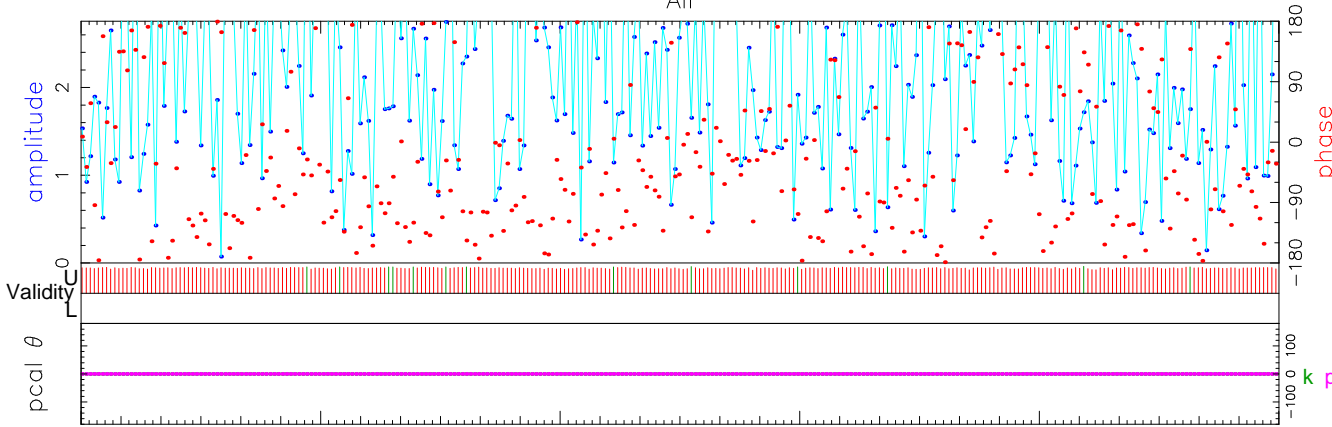


SNR 10.4  
 Int time 275.214  
 Amp 0.919  
 Phase -46.5  
 PFD 4.4e-17  
 Delays (us)  
 SBD 0.001307  
 MBD -0.000007  
 Fringe rate (Hz)  
 -0.000480  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163646  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00	Freq (MHz)
-107.0	Phase
0.9	Ampl.
513.2	Sbd box
U/L 586/0	APs used
k 3000	PC freqs
p 3000	PC freqs
k:p 0:0	PC phase
k:p 0:0	Manl PC
k 1000	PC amp
p 1000	
k W00UL	Chan ids
p W00UL	Chan ids

Group delay (usec)(sbd)	-9.89940190629E+02	Apriori delay (usec)	-9.89941497151E+02	Resid mbdelay (usec)	-7.24773E-06	+/-	1.7E-03
Sband delay (usec)	-9.89940190651E+02	Apriori clock (usec)	-7.7702618E+00	Resid sbdelay (usec)	1.30650E-03	+/-	1.7E-03
Phase delay (usec)	-9.89941500603E+02	Apriori clockrate (us/s)	-7.5660005E-08	Resid phdelay (usec)	-3.45159E-06	+/-	3.5E-07
Delay rate (us/s)	6.05447860896E-02	Apriori rate (us/s)	6.05447916624E-02	Resid rate (us/s)	-5.57281E-09	+/-	2.0E-09
Total phase (deg)	-249.8	Apriori accel (us/s/s)	4.14029106174E-06	Resid phase (deg)	-46.5	+/-	11.0

ph/seg (deg)	80.1	Theor.	94.1	Amplitude	0.919 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	192.8	Search (2048X8)	0.893	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000	
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000
amp/frq (%)	0.2	Inc. seg. avg.	0.952	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.913	Data rate(Mb/s):	128	ion window (TEC)	0.00	0.00	

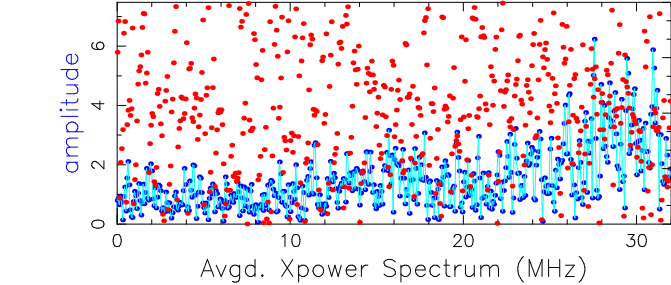
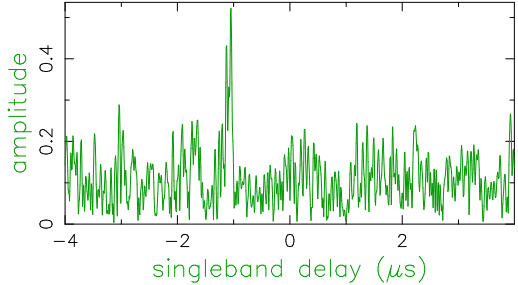
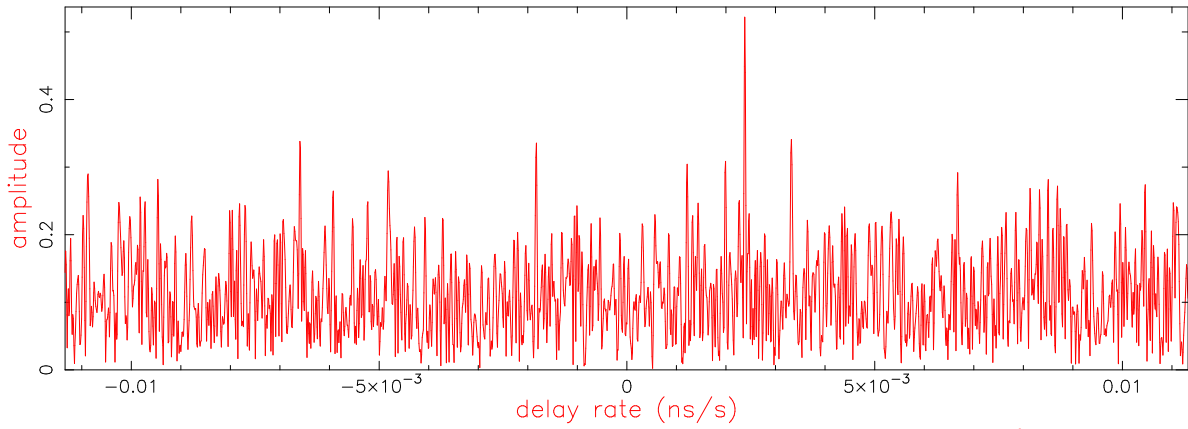
k: az 86.3 el 25.9 pa -61.9      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) -356.044 -195.145      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//kp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//kp.W.140.0QR0YU

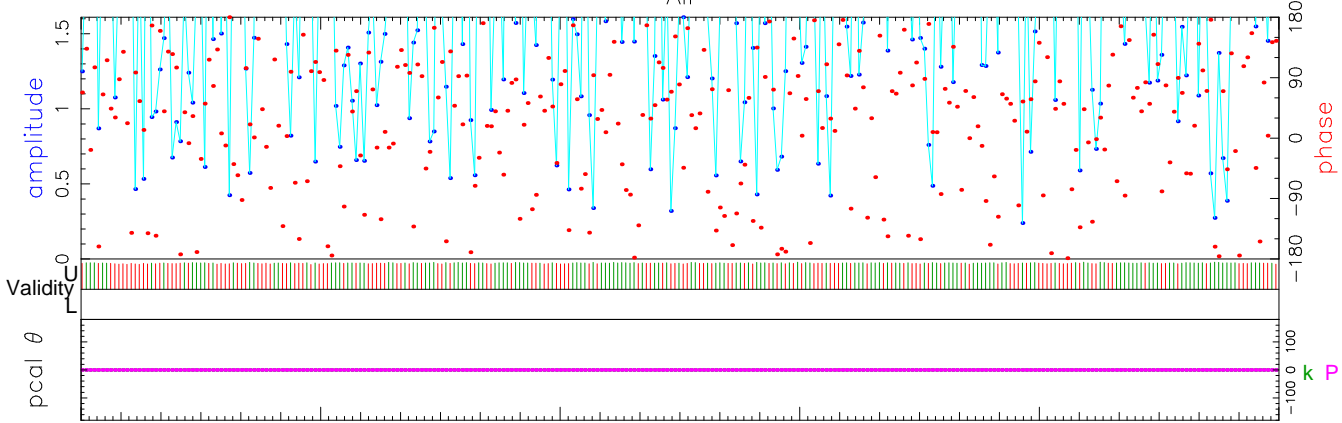
Fringe quality 0

SNR 6.1  
Int time 284.911  
Amp 0.537  
Phase -49.2  
PFD 1.4e-01  
Delays (us)  
SBD -1.049560  
MBD 0.000006  
Fringe rate (Hz)  
0.205385  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
74.6  
0.5  
378.7  
U/L 586/0  
k 3000  
P 0  
k:P 0:0  
k:P 0:0  
k 1000  
P 1000  
k W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56751970497E+03	Apriori delay (usec)	-6.56647014777E+03	Resid mbdelay (usec)	5.64851E-06	+/-	2.8E-03
Sband delay (usec)	-6.56751970777E+03	Apriori clock (usec)	2.3612265E+01	Resid sbdelay (usec)	-1.04956E+00	+/-	2.8E-03
Phase delay (usec)	-6.56647014536E+03	Apriori clockrate (us/s)	3.6634001E-07	Resid phdelay (usec)	2.40620E-06	+/-	6.1E-07
Delay rate (us/s)	1.93877171105E+00	Apriori rate (us/s)	1.93876932674E+00	Resid rate (us/s)	2.38431E-06	+/-	3.5E-09
Total phase (deg)	-239.6	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	-49.2	+/-	18.8

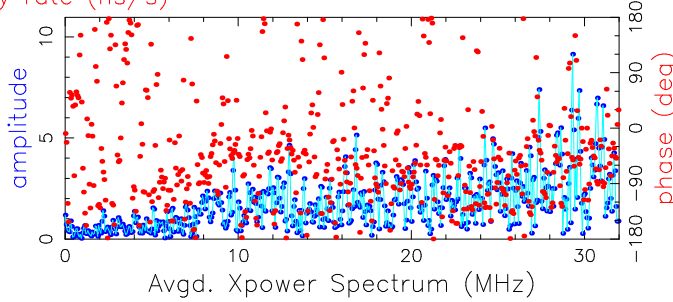
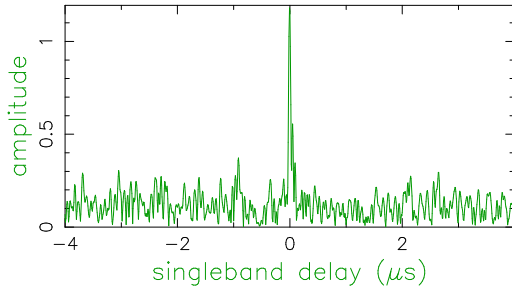
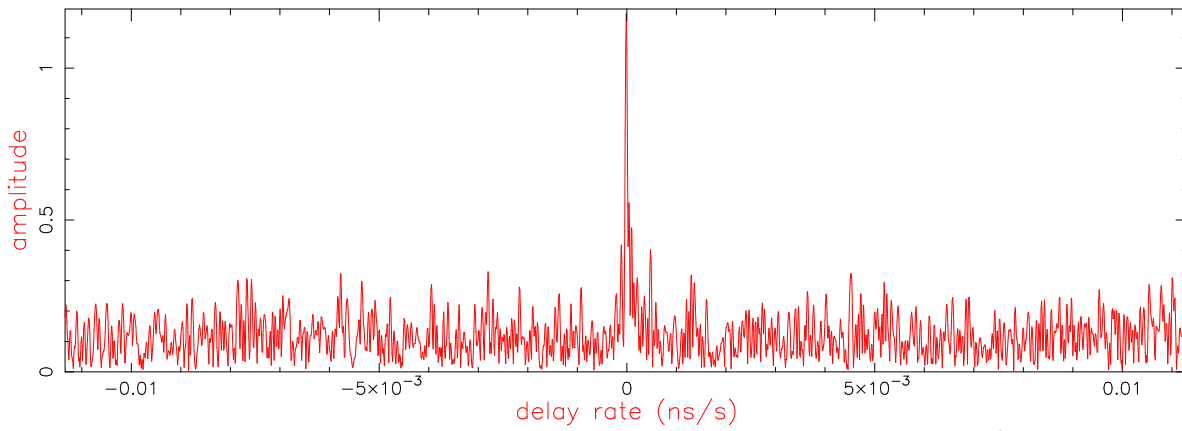
ph/seg (deg)	88.9	Theor.	161.2	Amplitude	0.537 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	331.2	Search (2048X8)	0.509	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.403	Inc. frq. avg.	0.525	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.525			Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kP.W.148.0QR0YU

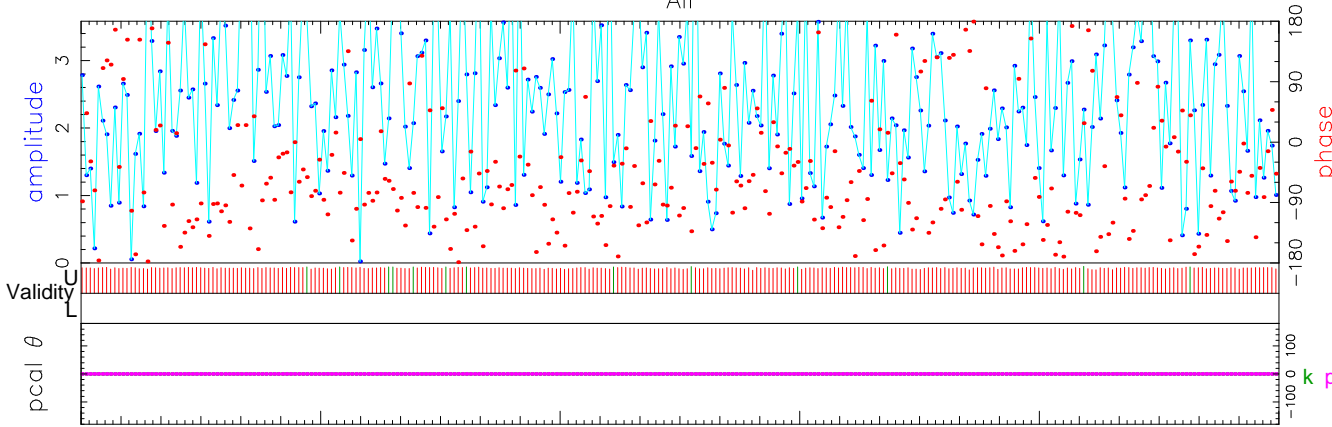
Fringe quality 9

SNR 13.5  
Int time 275.217  
Amp 1.195  
Phase -296.6  
PFD 2.3e-33  
Delays (us)  
SBD -0.004588  
MBD -0.000005  
Fringe rate (Hz)  
-0.000588  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-85.5  
1.2  
512.4  
U/L 586/0  
k 3000  
p 3000  
k:p 0:0  
kp 0:0  
k 1000  
p 1000  
k W00UR  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-9.89946082892E+02	Apriori delay (usec)	-9.89941497151E+02	Resid mbdelay (usec)	-4.98433E-06	+/-	1.3E-03
Sband delay (usec)	-9.89946085151E+02	Apriori clock (usec)	-7.7702618E+00	Resid sbdelay (usec)	-4.58800E-03	+/-	1.3E-03
Phase delay (usec)	-9.89941499909E+02	Apriori clockrate (us/s)	-7.5660005E-08	Resid phdelay (usec)	-2.75759E-06	+/-	2.7E-07
Delay rate (us/s)	6.05447848383E-02	Apriori rate (us/s)	6.05447916624E-02	Resid rate (us/s)	-6.82412E-09	+/-	1.6E-09
Total phase (deg)	-139.9	Apriori accel (us/s/s)	4.14029106174E-06	Resid phase (deg)	-296.6	+/-	8.5

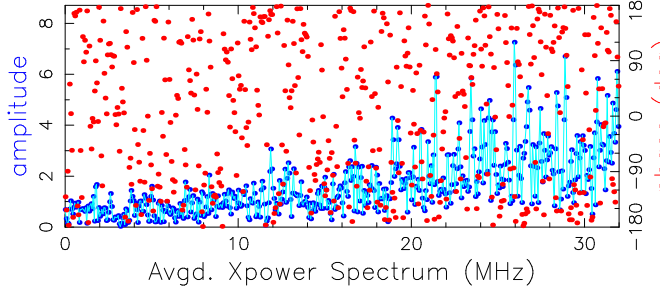
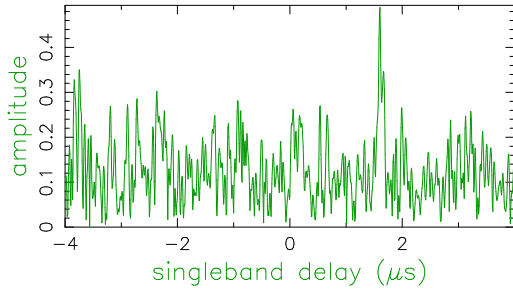
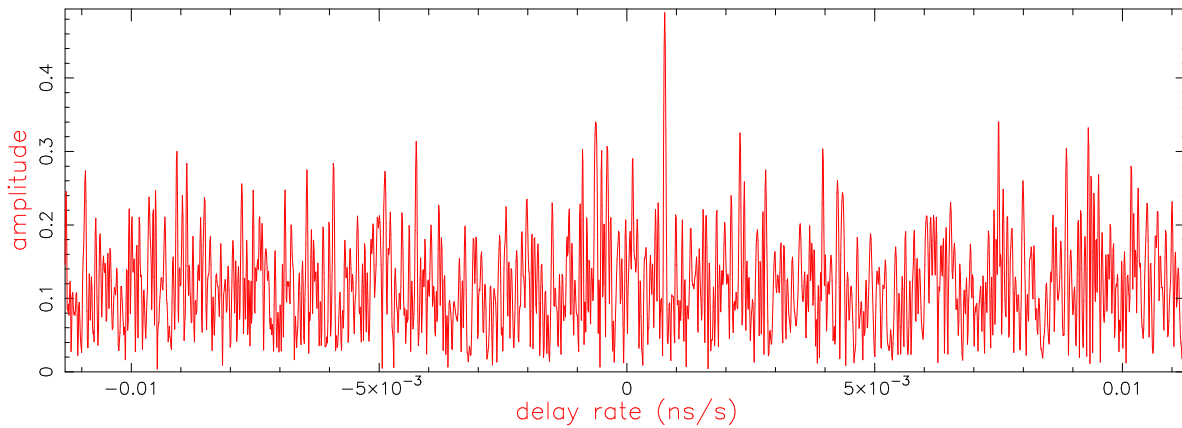
ph/seg (deg)	RMS 75.0	Theor. 72.4	Amplitude 1.195 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	142.9	126.3	Search (2048X8) 1.159	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	4.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.3	7.4	Inc. seg. avg. 1.349	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 1.176	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

k: az 86.3 el 25.9 pa -61.9      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) -356.044 -195.145      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//kp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//kp.W.154.0QR0YU

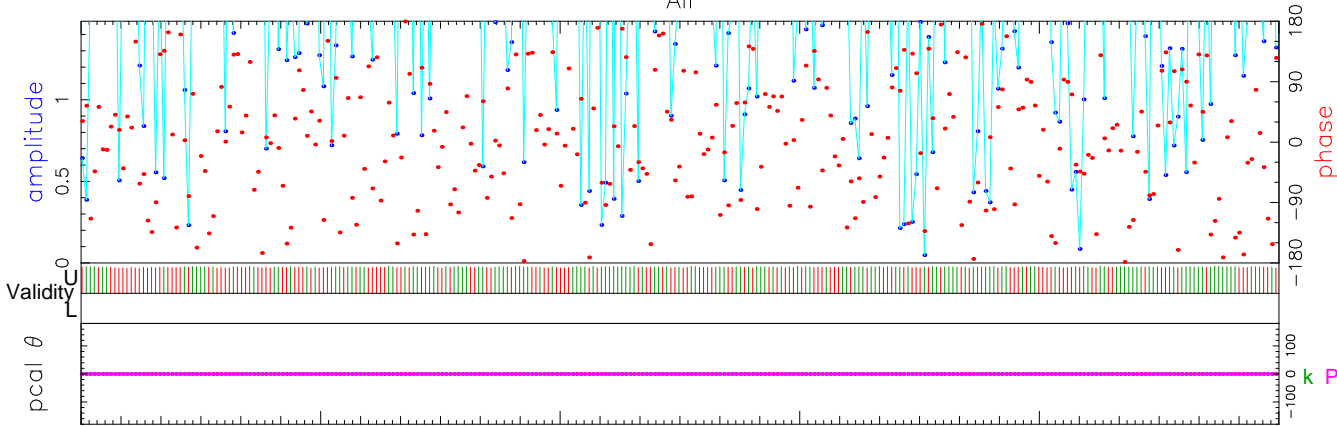
Fringe quality 0

SNR 5.7  
Int time 284.917  
Amp 0.494  
Phase 231.2  
PFD 7.9e-01  
Delays (us)  
SBD 1.598760  
MBD 0.000005  
Fringe rate (Hz)  
0.065901  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
0.6  
0.5  
717.6  
U/L 586/0  
k 3000  
P 0  
k:P 0:0  
k:P 0:0  
k 1000  
P 1000  
k W00UR  
P W00UR

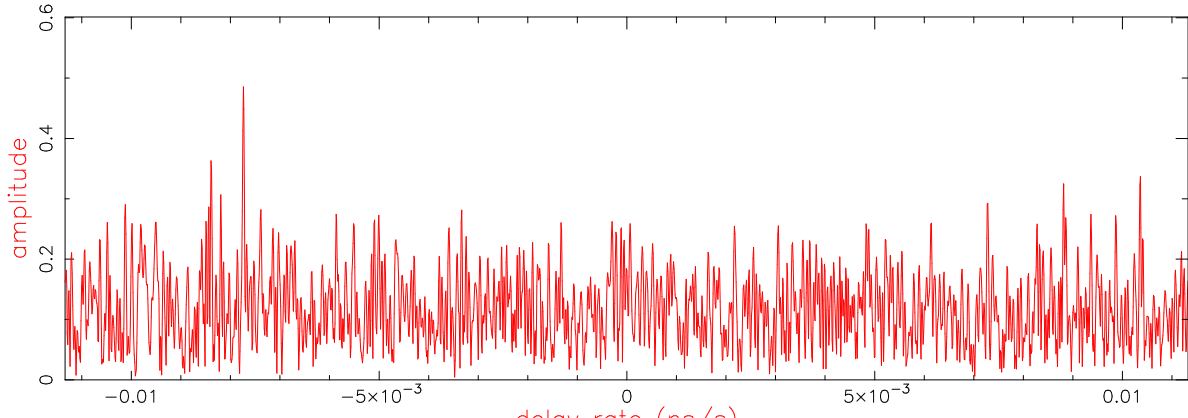
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56487138870E+03	Apriori delay (usec)	-6.56647014777E+03	Resid mbdelay (usec)	5.40855E-06	+/-	3.0E-03
Sband delay (usec)	-6.56487138727E+03	Apriori clock (usec)	2.3612265E+01	Resid sbdelay (usec)	1.59876E+00	+/-	3.0E-03
Phase delay (usec)	-6.56647014775E+03	Apriori clockrate (us/s)	3.6634001E-07	Resid phdelay (usec)	2.02093E-08	+/-	6.5E-07
Delay rate (us/s)	1.93877009178E+00	Apriori rate (us/s)	1.93876932674E+00	Resid rate (us/s)	7.65045E-07	+/-	3.7E-09
Total phase (deg)	40.8	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	231.2	+/-	20.1

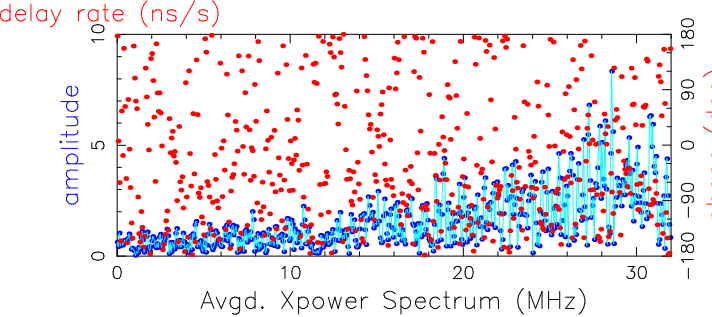
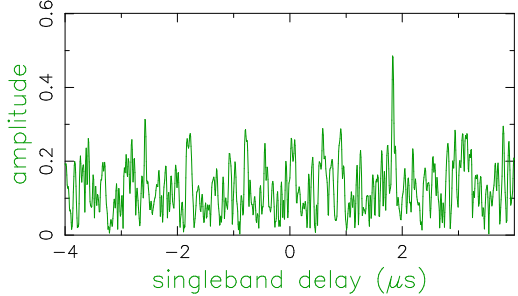
ph/seg (deg)	89.2	Theor.	172.4	Amplitude	0.494 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	383.2	Search (2048X8)	0.485	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.369	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.8	Inc. frq. avg.	0.483	Inc. frq. avg.	0.483	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

k: az 86.3 el 25.9 pa -61.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kP.W.166.0QR0YU

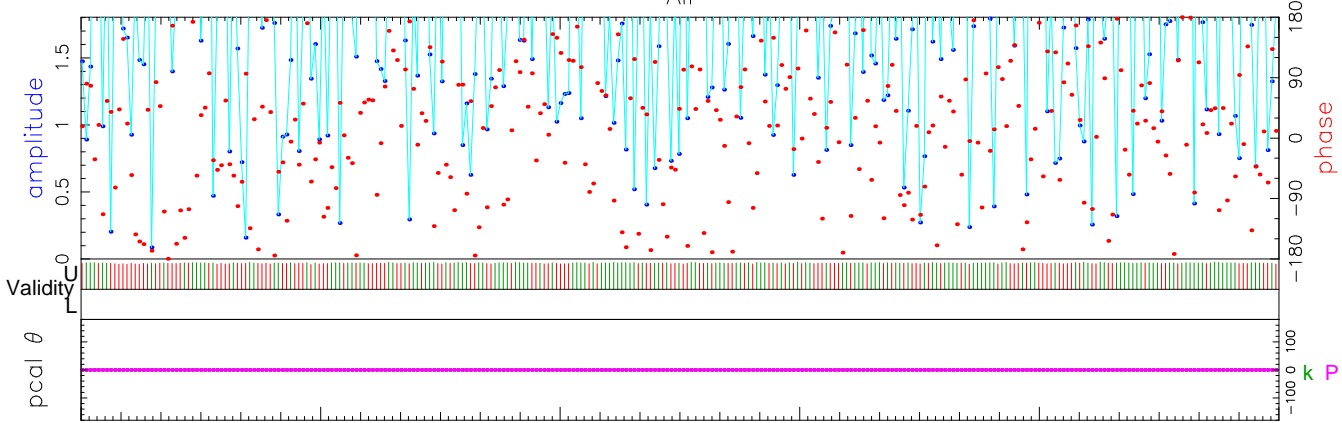


Fringe quality 0  
SNR 5.7  
Int time 284.911  
Amp 0.601  
Phase 195.6  
PFD 8.1e-01  
Delays (us)  
SBD 1.831524  
MBD -0.000006  
Fringe rate (Hz)  
-0.667500  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
38.4  
0.6  
747.4  
U/L 586/0  
k 3000  
P 0  
k:P 0:0  
k:P 0:0  
k 1000  
P 1000  
k W00UL  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56463861861E+03	Apriori delay (usec)	-6.56647014777E+03	Resid mbdelay (usec)	-5.97126E-06	+/-	3.0E-03
Sband delay (usec)	-6.56463862327E+03	Apriori clock (usec)	2.3612265E+01	Resid sbdelay (usec)	1.83152E+00	+/-	3.0E-03
Phase delay (usec)	-6.56647014653E+03	Apriori clockrate (us/s)	3.6634001E-07	Resid phdelay (usec)	1.23897E-06	+/-	6.5E-07
Delay rate (us/s)	1.93876157772E+00	Apriori rate (us/s)	1.93876932674E+00	Resid rate (us/s)	-7.74902E-06	+/-	3.8E-09
Total phase (deg)	5.2	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	195.6	+/-	20.2

ph/seg (deg)	93.2	Theor.	172.7	Amplitude	0.601 +/- 0.106	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	395.8	Search (2048X8)	0.481	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.463	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.4	Inc. frq. avg.	0.584	Inc. frq. avg.	0.584	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

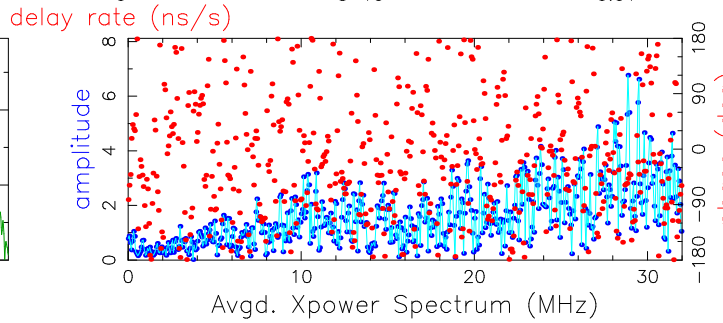
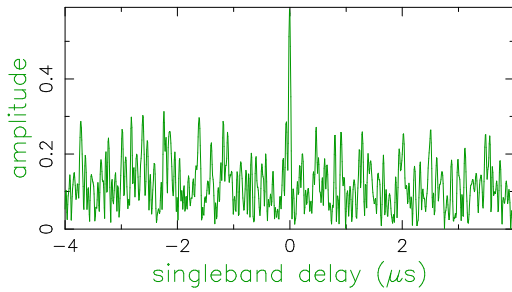
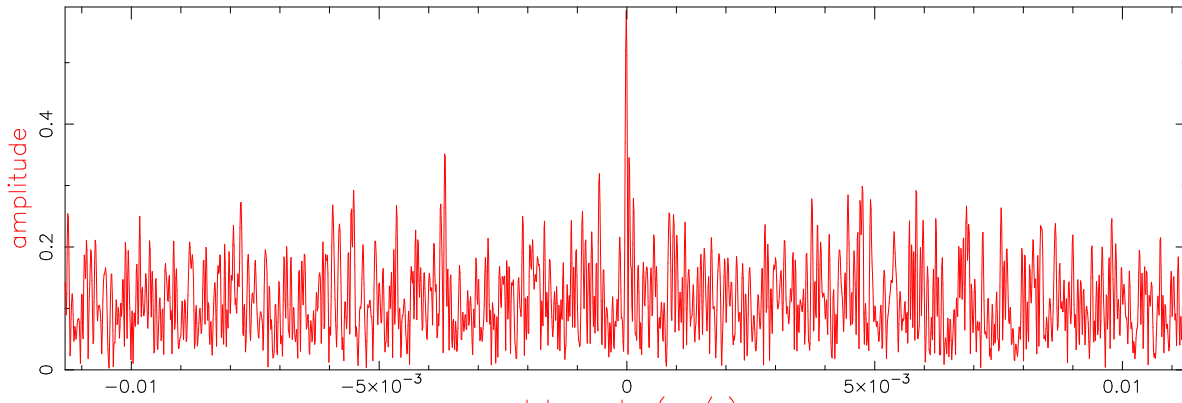
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kP.W.177.0QR0YU



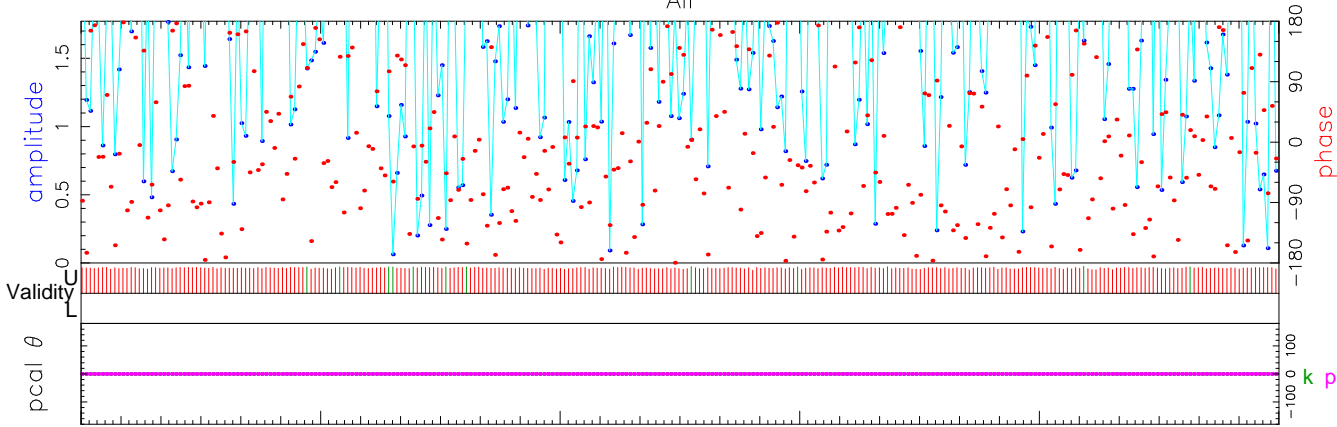
Fringe quality 0

SNR 6.7  
Int time 275.210  
Amp 0.591  
Phase -296.1  
PFD 3.0e-03  
Delays (us)  
SBD -0.004941  
MBD -0.000006  
Fringe rate (Hz)  
-0.000899  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-69.0  
0.6  
512.4  
U/L 586/0  
k 3000  
p 3000  
k:p 0:0  
kp 0:0  
k 1000  
p 1000  
k W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-9.89946432455E+02	Apriori delay (usec)	-9.89941497151E+02	Resid mbdelay (usec)	-5.75920E-06	+/-	2.6E-03
Sband delay (usec)	-9.89946437651E+02	Apriori clock (usec)	-7.7702618E+00	Resid sbdelay (usec)	-4.94050E-03	+/-	2.6E-03
Phase delay (usec)	-9.89941499376E+02	Apriori clockrate (us/s)	-7.5660005E-08	Resid phdelay (usec)	-2.22491E-06	+/-	5.5E-07
Delay rate (us/s)	6.05447812282E-02	Apriori rate (us/s)	6.05447916624E-02	Resid rate (us/s)	-1.04342E-08	+/-	3.2E-09
Total phase (deg)	-139.4	Apriori accel (us/s/s)	4.14029106174E-06	Resid phase (deg)	-296.1	+/-	17.1

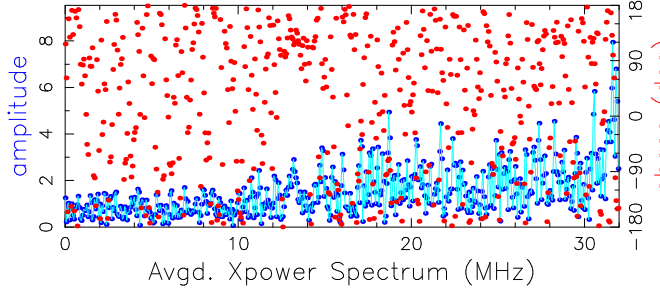
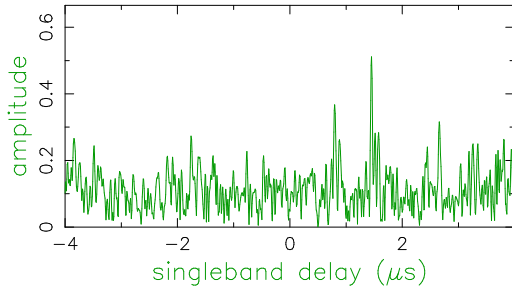
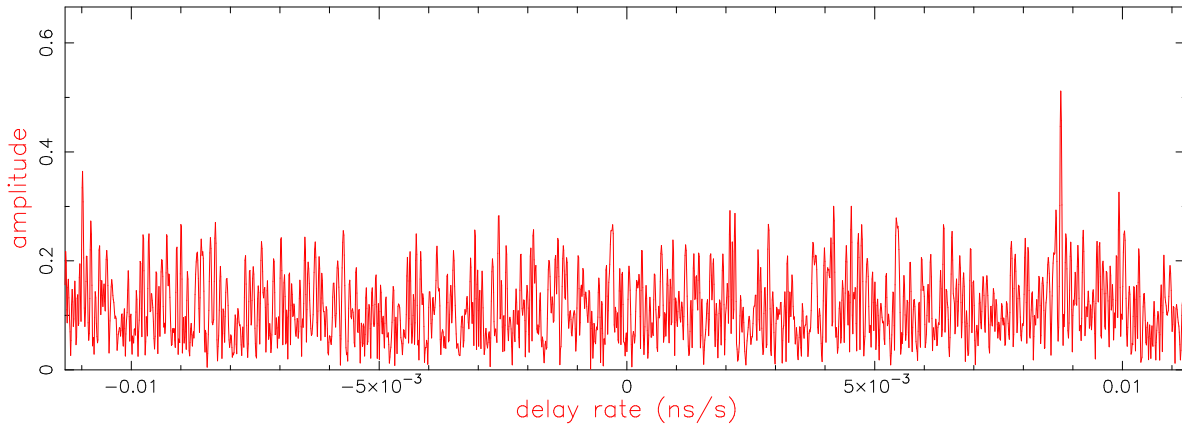
ph/seg (deg)	90.2	Theor.	146.4	Amplitude	0.591 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	307.0	Search (2048X8)	0.585	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.478	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.579	Inc. frq. avg.	0.579	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) -356.044 -195.145      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//kp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//kp.W.178.0QR0YU

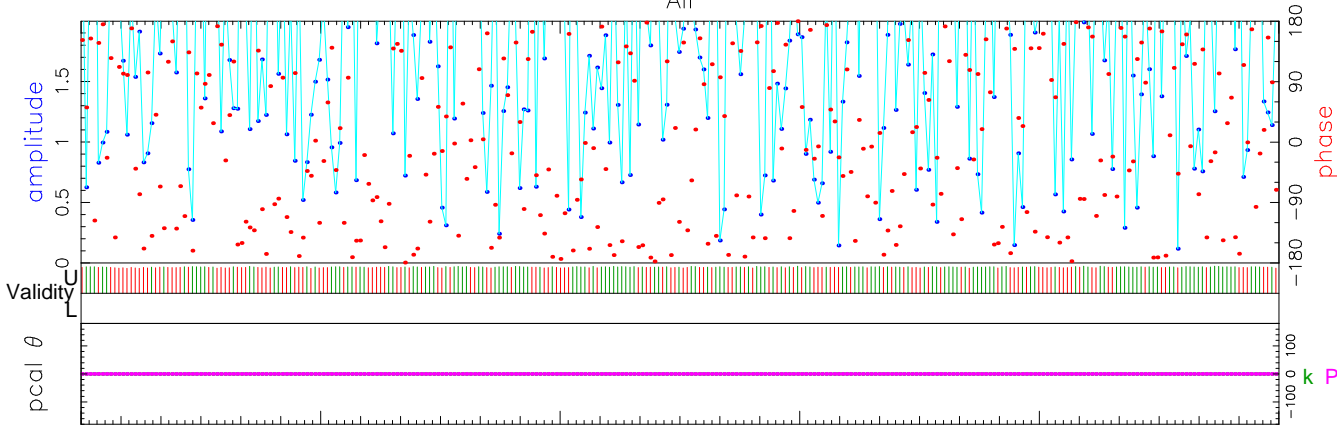
Fringe quality 0

SNR 5.9  
Int time 284.917  
Amp 0.666  
Phase 124.3  
PFD 3.2e-01  
Delays (us)  
SBD 1.451349  
MBD 0.000006  
Fringe rate (Hz)  
0.755093  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-153.6  
0.7  
698.8  
U/L 586/0  
k 3000  
P 0  
k:P 0:0  
k:P 0:0  
k 1000  
P 1000  
k W00UR  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.56501879770E+03	Apriori delay (usec)	-6.56647014777E+03	Resid mbdelay (usec)	6.07552E-06	+/-	2.9E-03
Sband delay (usec)	-6.56501879927E+03	Apriori clock (usec)	2.3612265E+01	Resid sbdelay (usec)	1.45135E+00	+/-	2.9E-03
Phase delay (usec)	-6.56647015272E+03	Apriori clockrate (us/s)	3.6634001E-07	Resid phdelay (usec)	-4.95289E-06	+/-	6.2E-07
Delay rate (us/s)	1.93877809262E+00	Apriori rate (us/s)	1.93876932674E+00	Resid rate (us/s)	8.76588E-06	+/-	3.6E-09
Total phase (deg)	294.0	Apriori accel (us/s/s)	3.27217655819E-05	Resid phase (deg)	124.3	+/-	19.3

ph/seg (deg)	RMS 91.5	Theor. 165.4	Amplitude 0.666 +/- 0.112	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	368.0	288.6	Search (2048X8) 0.507	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000		
ph/frq (deg)	0.0	9.7	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000	
amp/frq (%)	0.5	16.9	Inc. seg. avg. 0.510	Sample rate(MSamp/s): 64	ion window (TEC)	-0.011 0.011	
			Inc. frq. avg. 0.654	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	0.00 0.00

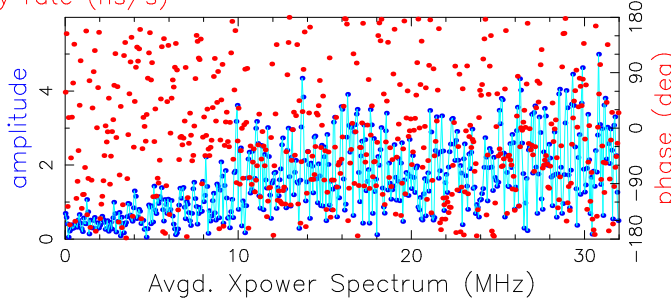
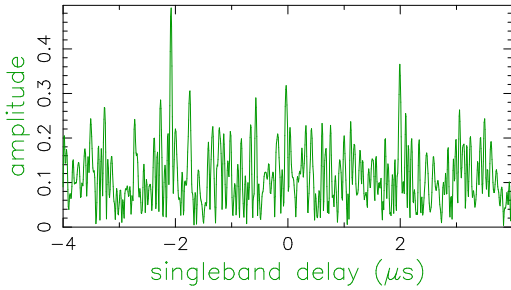
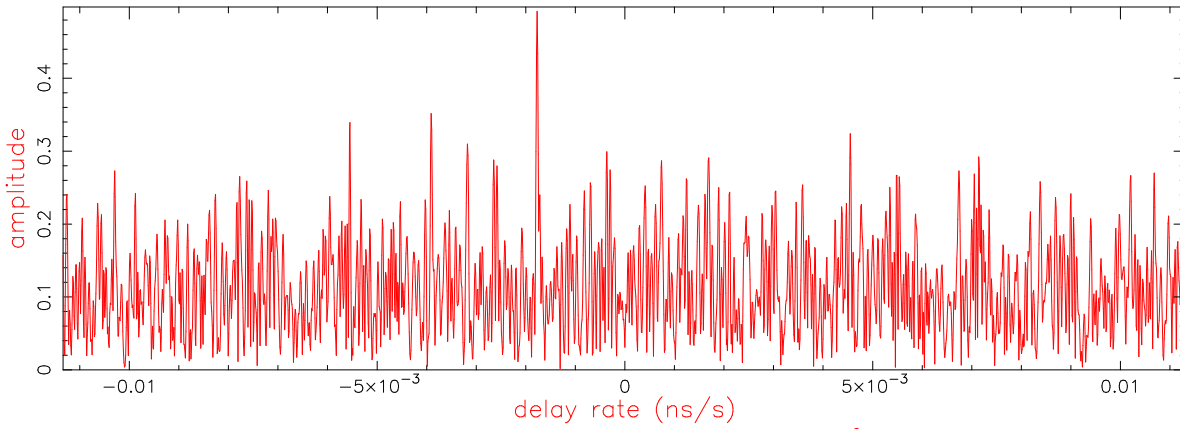
k: az 86.3 el 25.9 pa -61.9 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11522.443 179.336 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kP.W.189.0QR0YU

Fringe quality 0

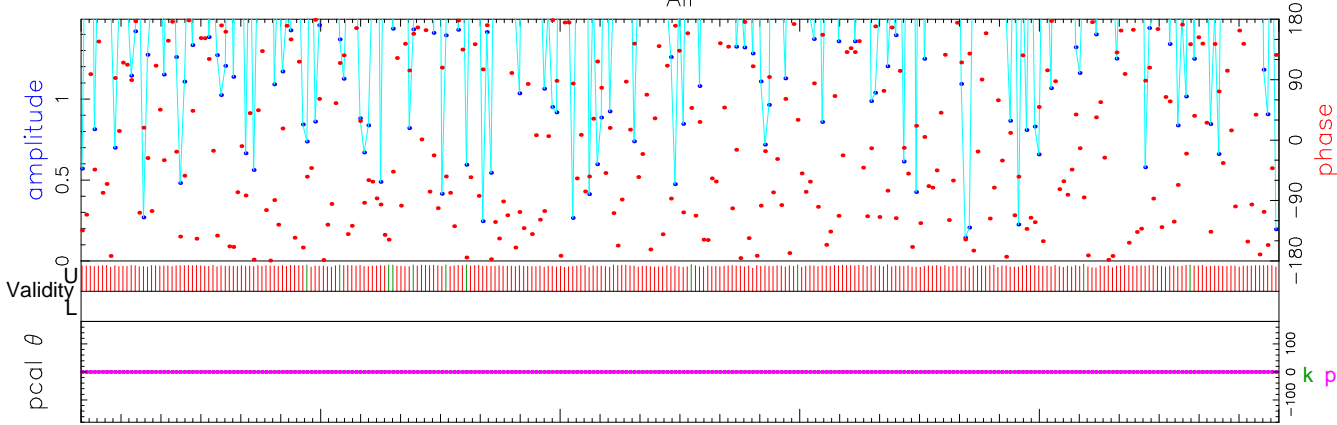
SNR 5.6  
Int time 275.222  
Amp 0.498  
Phase -213.1  
PFD 9.4e-01  
Delays (us)  
SBD -2.079596  
MBD -0.000005  
Fringe rate (Hz)  
-0.152408  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-145.4  
0.5  
246.8  
U/L 586/0  
k 3000  
p 3000  
k:p 0:0  
kp 0:0  
k 1000  
p 1000  
k W00UR  
p W00UL

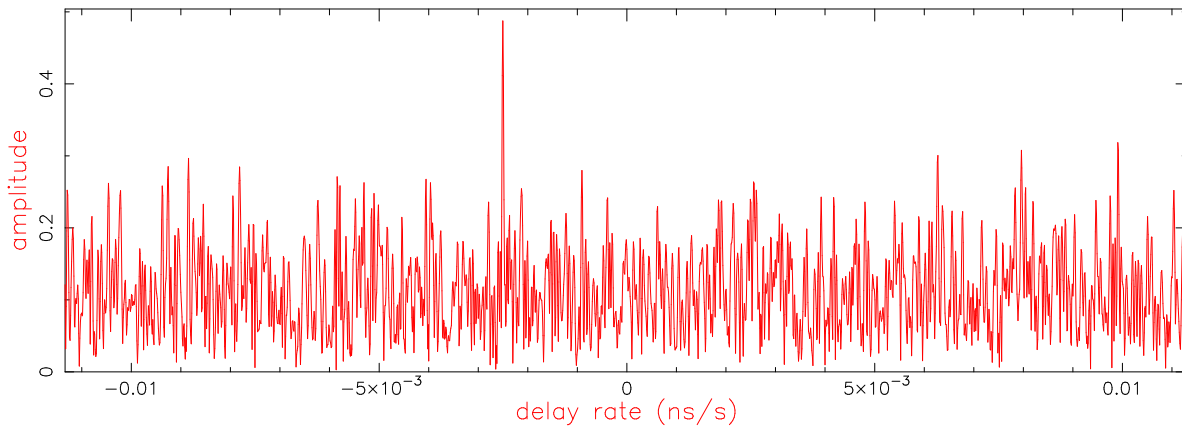
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-9.92021095466E+02	Apriori delay (usec)	-9.89941497151E+02	Resid mbdelay (usec)	-4.76957E-06	+/-	3.1E-03
Sband delay (usec)	-9.92021092651E+02	Apriori clock (usec)	-7.7702618E+00	Resid sbdelay (usec)	-2.07960E+00	+/-	3.1E-03
Phase delay (usec)	-9.89941501840E+02	Apriori clockrate (us/s)	-7.5660005E-08	Resid phdelay (usec)	-4.68936E-06	+/-	6.6E-07
Delay rate (us/s)	6.05430223600E-02	Apriori rate (us/s)	6.05447916624E-02	Resid rate (us/s)	-1.76930E-06	+/-	3.8E-09
Total phase (deg)	-56.3	Apriori accel (us/s/s)	4.14029106174E-06	Resid phase (deg)	-213.1	+/-	20.5

ph/seg (deg)	91.7	Theor.	175.4	Amplitude	0.498 +/- 0.089	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	380.7	Search (2048X8)	0.489	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.361	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.489	Inc. frq. avg.	0.489	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

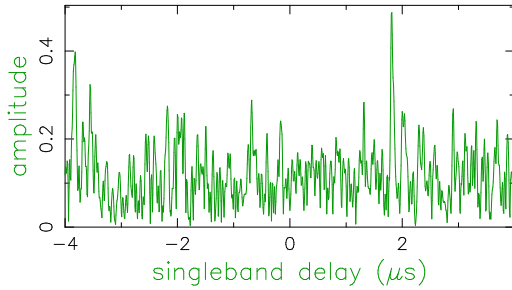
k: az 86.3 el 25.9 pa -61.9      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) -356.044 -195.145      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007/kp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007/kp.W.198.0QR0YU

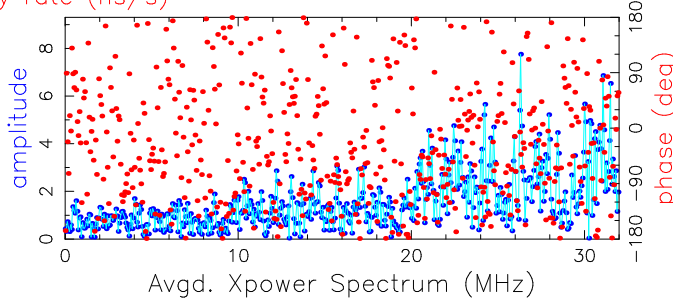


Fringe quality 0

SNR 5.7  
Int time 287.673  
Amp 0.504  
Phase 118.4  
PFD 7.1e-01  
Delays (us)  
SBD 1.809005  
MBD -0.000005  
Fringe rate (Hz)  
-0.215615  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

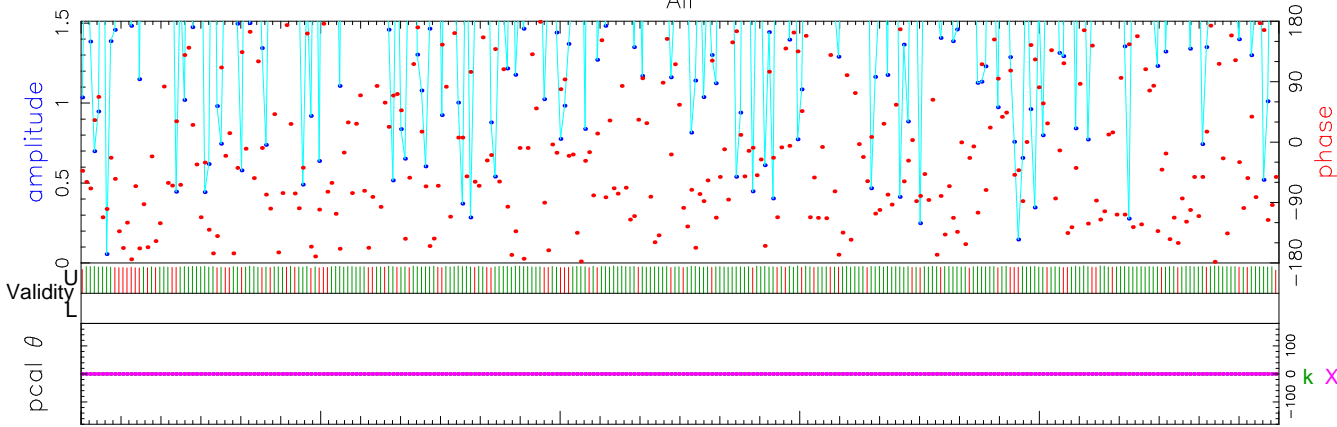


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-81.0  
0.5  
744.6  
U/L 586/0  
k 3000  
X 0  
k:X 0:0  
k:X 0:0  
k 1000  
X 1000  
k W00UL  
X W00UL

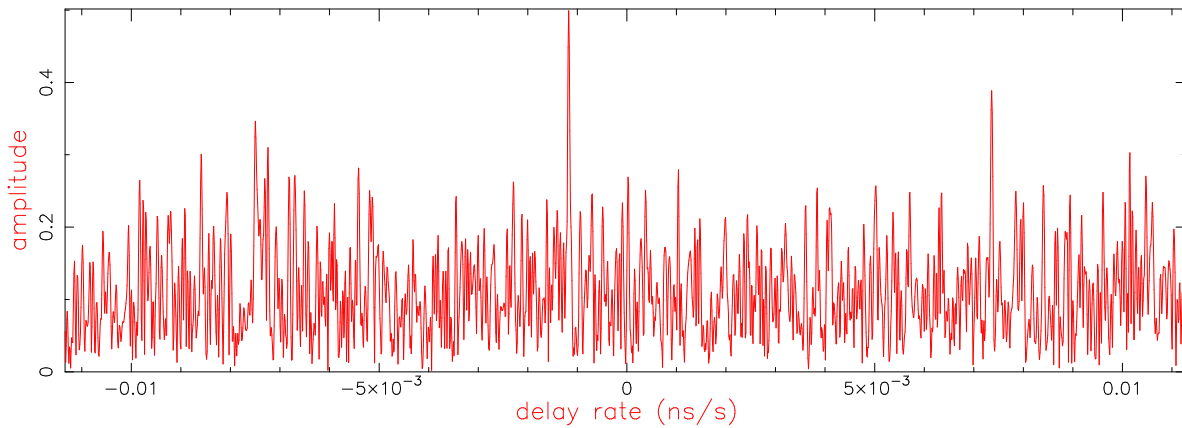
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.77947282989E+03	Apriori delay (usec)	-1.78128183988E+03	Resid mbdelay (usec)	-5.02665E-06	+/- 3.0E-03
Sband delay (usec)	-1.77947283438E+03	Apriori clock (usec)	-1.5334518E+00	Resid sbdelay (usec)	1.80901E+00	+/- 3.0E-03
Phase delay (usec)	-1.78128184249E+03	Apriori clockrate (us/s)	-7.1065999E-07	Resid phdelay (usec)	-2.61204E-06	+/- 6.4E-07
Delay rate (us/s)	1.83655464310E+00	Apriori rate (us/s)	1.83655714617E+00	Resid rate (us/s)	-2.50307E-06	+/- 3.7E-09
Total phase (deg)	230.9	Apriori accel (us/s/s)	-4.23864104482E-07	Resid phase (deg)	118.4	+/- 20.0

ph/seg (deg)	RMS 90.5	Theor. 171.2	Amplitude 0.504 +/- 0.088	Search (2048X8) 0.483	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	356.1	298.8	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.0	Inc. seg. avg. 0.368	0.490	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.3	17.5	Inc. frq. avg. 0.490	0.490	Data rate(Mb/s): 128	nlags: 512	ion window (TEC)	0.00	0.00

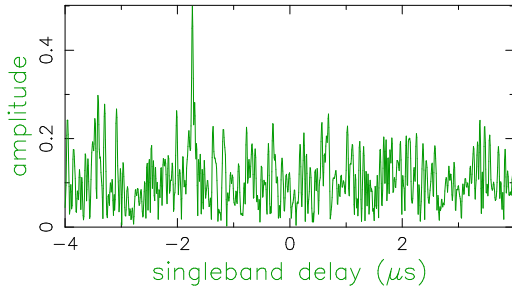
k: az 86.3 el 25.9 pa -61.9 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10955.738 -2621.372 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kX.W.149.0QR0YU

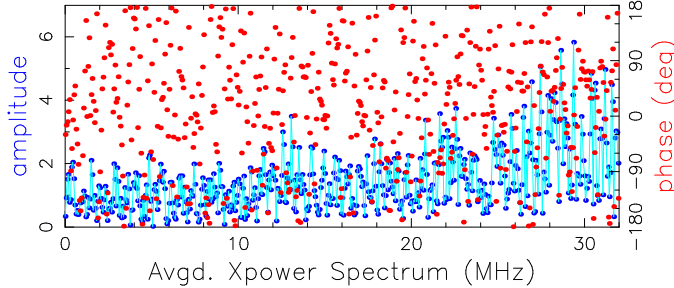


Fringe quality 0

SNR 5.8  
Int time 287.679  
Amp 0.502  
Phase -207.1  
PFD 5.8e-01  
Delays (us)  
SBD -1.734099  
MBD -0.000007  
Fringe rate (Hz)  
-0.101416  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

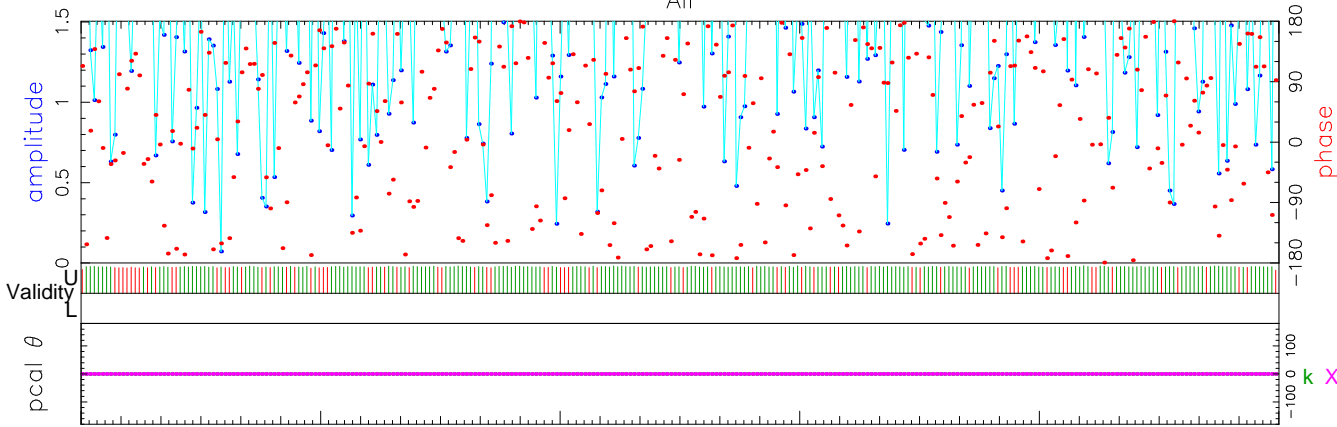


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
140.0  
0.5  
291.0  
U/L 586/0  
k 3000  
X 0  
k:X 0:0  
k:X 0:0  
k 1000  
X 1000  
k W00UR  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

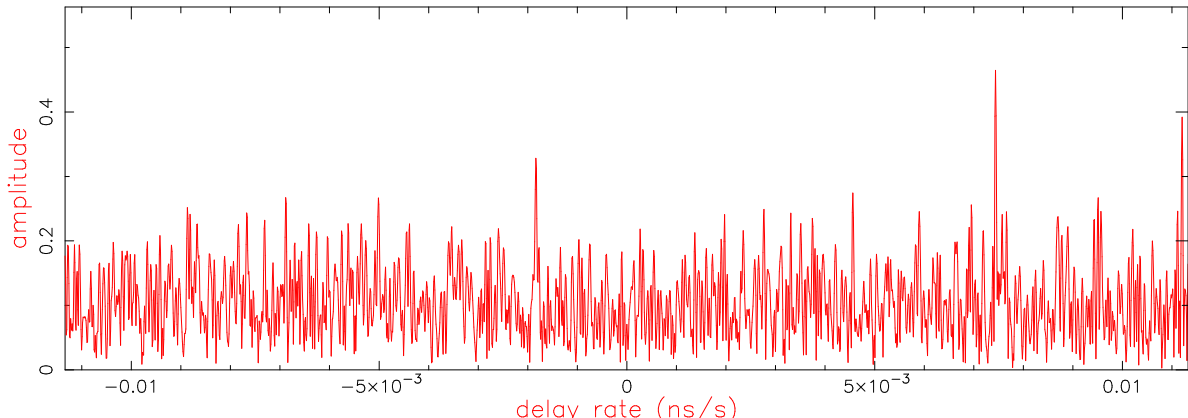
Group delay (usec)(sbd)	-1.78301594210E+03	Apriori delay (usec)	-1.78128183988E+03	Resid mbdelay (usec)	-6.97754E-06	+/-	3.0E-03
Sband delay (usec)	-1.78301593838E+03	Apriori clock (usec)	-1.5334518E+00	Resid sbdelay (usec)	-1.73410E+00	+/-	3.0E-03
Phase delay (usec)	-1.78128183537E+03	Apriori clockrate (us/s)	-7.1065999E-07	Resid phdelay (usec)	4.51450E-06	+/-	6.4E-07
Delay rate (us/s)	1.83655596883E+00	Apriori rate (us/s)	1.83655714617E+00	Resid rate (us/s)	-1.17734E-06	+/-	3.7E-09
Total phase (deg)	-94.6	Apriori accel (us/s/s)	-4.23864104482E-07	Resid phase (deg)	-207.1	+/-	19.8

ph/seg (deg)	RMS 92.4	Theor. 169.4	Amplitude 0.502 +/- 0.087	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	336.1	295.6	Search (2048X8) 0.490	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	9.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.0	17.3	Inc. seg. avg. 0.350	Sample rate(MSamp/s): 64	ion window (TEC)	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.494	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

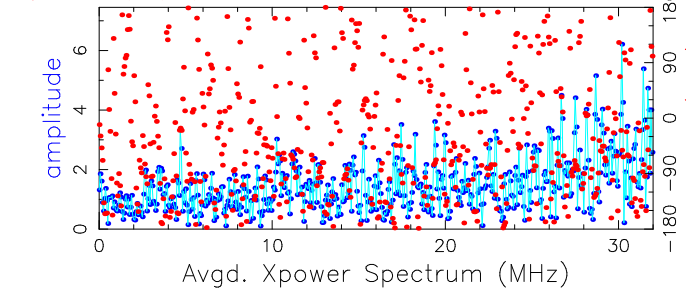
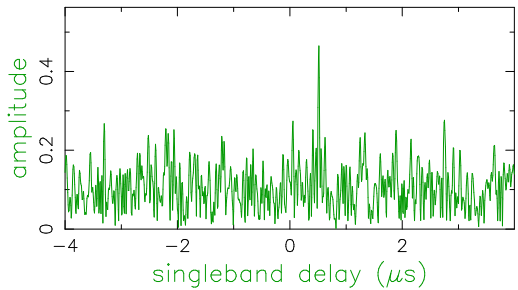
k: az 86.3 el 25.9 pa -61.9 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10955.738 -2621.372 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kX.W.167.0QR0YU



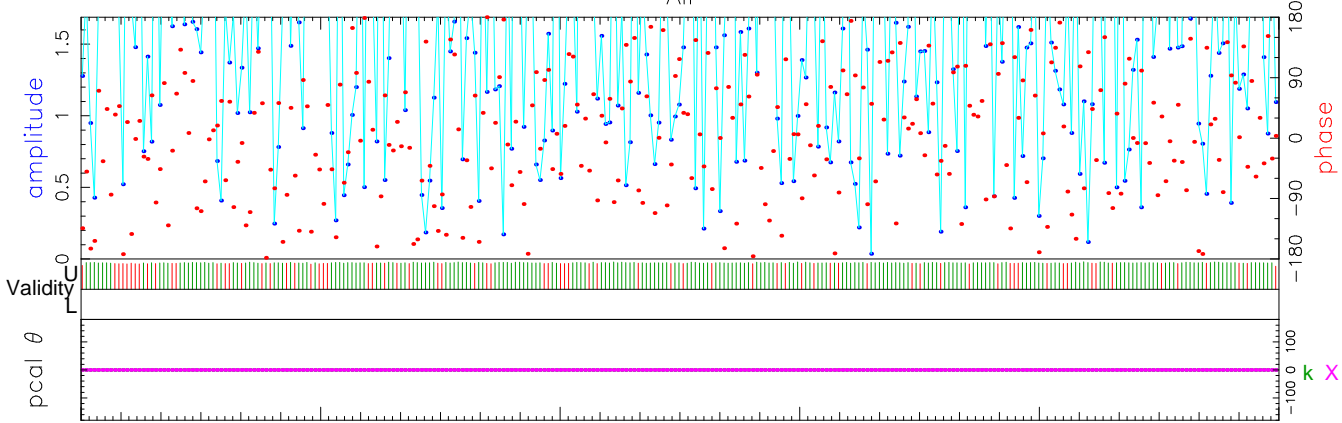


Fringe quality 0  
SNR 5.4  
Int time 287.673  
Amp 0.563  
Phase 268.4  
PFD 1.0e+00  
Delays (us)  
SBD 0.513673  
MBD 0.000006  
Fringe rate (Hz) 0.641667  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-1.6  
0.6  
578.8  
U/L 586/0  
k 3000  
X 0  
k:X 0:0  
k:X 0:0  
k 1000  
X 1000  
k W00UL  
X W00UR

Validity  
pcal θ

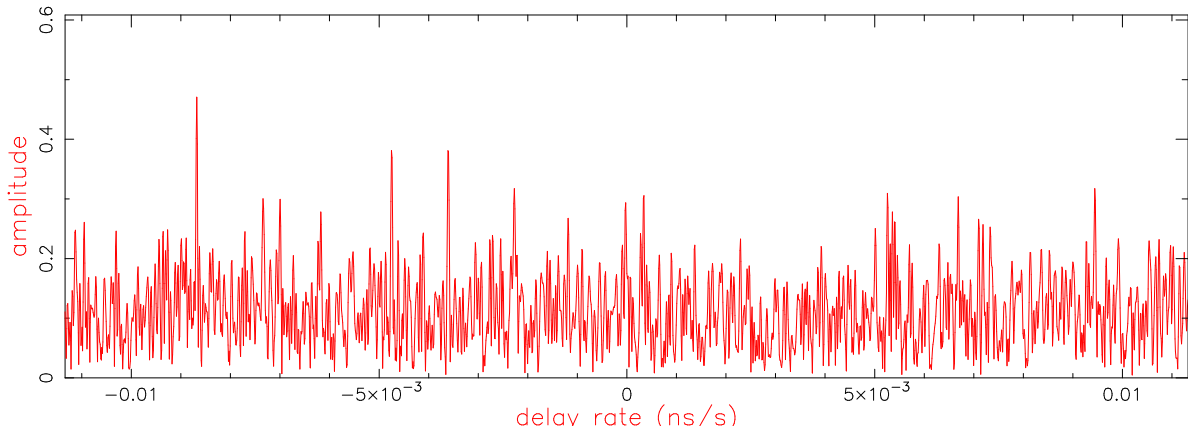
86012.00  
-1.6  
0.6  
578.8  
U/L 586/0  
k 3000  
X 0  
k:X 0:0  
k:X 0:0  
k 1000  
X 1000  
k W00UL  
X W00UR

Chan ids  
Chan ids

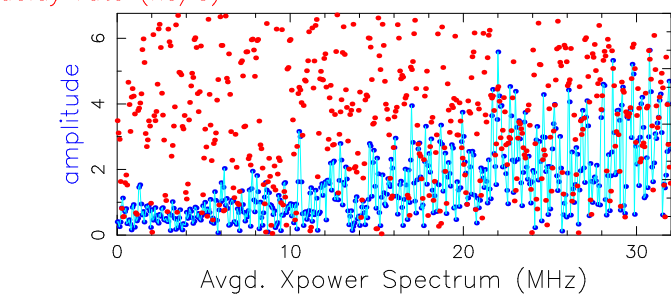
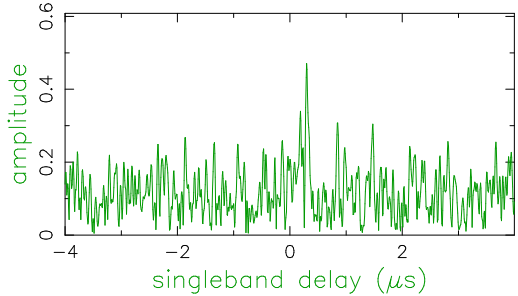
Group delay (usec)(sbd)	-1.78076816167E+03	Apriori delay (usec)	-1.78128183988E+03	Resid mbdelay (usec)	5.70451E-06	+/-	3.2E-03
Sband delay (usec)	-1.78076816688E+03	Apriori clock (usec)	-1.5334518E+00	Resid sbdelay (usec)	5.13673E-01	+/-	3.2E-03
Phase delay (usec)	-1.78128183993E+03	Apriori clockrate (us/s)	-7.1065999E-07	Resid phdelay (usec)	-5.23413E-08	+/-	6.8E-07
Delay rate (us/s)	1.83656459529E+00	Apriori rate (us/s)	1.83655714617E+00	Resid rate (us/s)	7.44911E-06	+/-	3.9E-09
Total phase (deg)	20.9	Apriori accel (us/s/s)	-4.23864104482E-07	Resid phase (deg)	268.4	+/-	21.1

RMS Theor. Amplitude 0.563 +/- 0.104  
ph/seg (deg) 91.3 180.7 Search (2048X8) 0.463 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 352.0 315.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
ph/frq (deg) 0.0 10.6 Inc. seg. avg. 0.352 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
amp/frq (%) 0.8 18.4 Inc. frq. avg. 0.549 Data rate(Mb/s): 64 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00

k: az 86.3 el 25.9 pa -61.9 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10955.738 -2621.372 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kX.W.190.0QR0YU

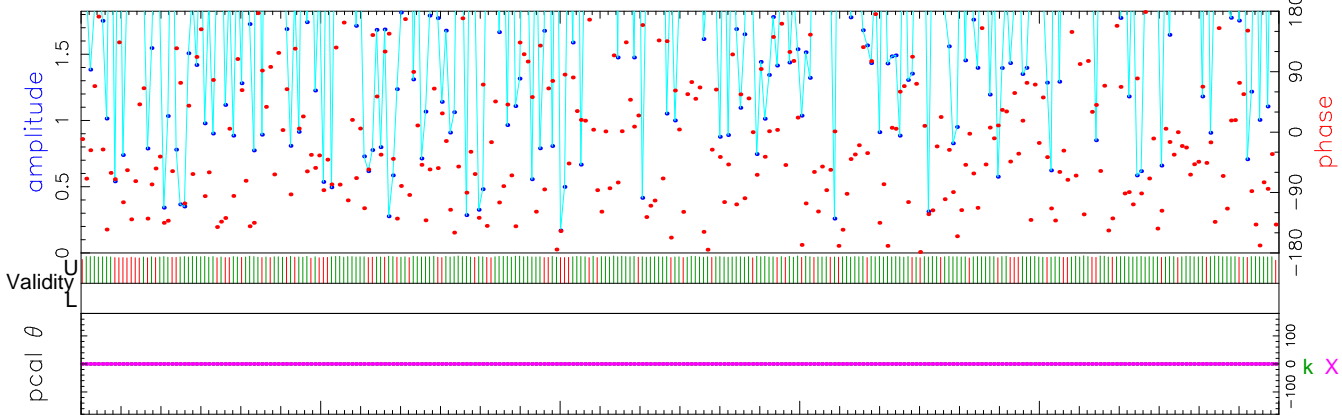


Fringe quality 0  
SNR 5.5  
Int time 287.679  
Amp 0.608  
Phase 25.8  
PFD 1.0e+00  
Delays (us)  
SBD 0.298440  
MBD -0.000005  
Fringe rate (Hz)  
-0.748323  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-46.6  
0.6  
551.2  
U/L 586/0  
k 3000  
X 0  
k:X 0:0  
k:X 0:0  
k 1000  
X 1000  
k W00UR  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.78098339827E+03	Apriori delay (usec)	-1.78128183988E+03	Resid mbdelay (usec)	-5.11817E-06	+/-	3.1E-03
Sband delay (usec)	-1.78098339938E+03	Apriori clock (usec)	-1.5334518E+00	Resid sbdelay (usec)	2.98440E-01	+/-	3.1E-03
Phase delay (usec)	-1.78128184139E+03	Apriori clockrate (us/s)	-7.1065999E-07	Resid phdelay (usec)	-1.50378E-06	+/-	6.8E-07
Delay rate (us/s)	1.83654845888E+00	Apriori rate (us/s)	1.83655714617E+00	Resid rate (us/s)	-8.68729E-06	+/-	3.9E-09
Total phase (deg)	138.3	Apriori accel (us/s/s)	-4.23864104482E-07	Resid phase (deg)	25.8	+/-	20.9

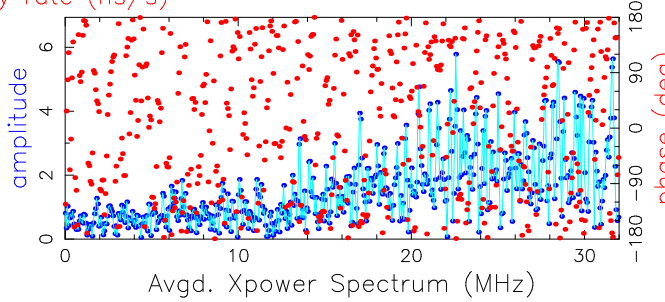
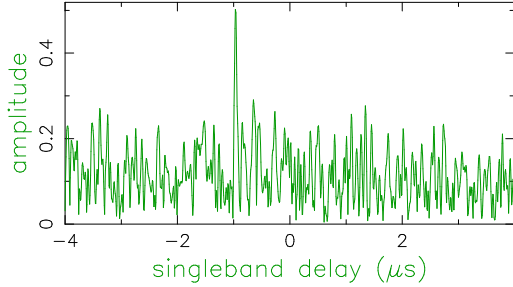
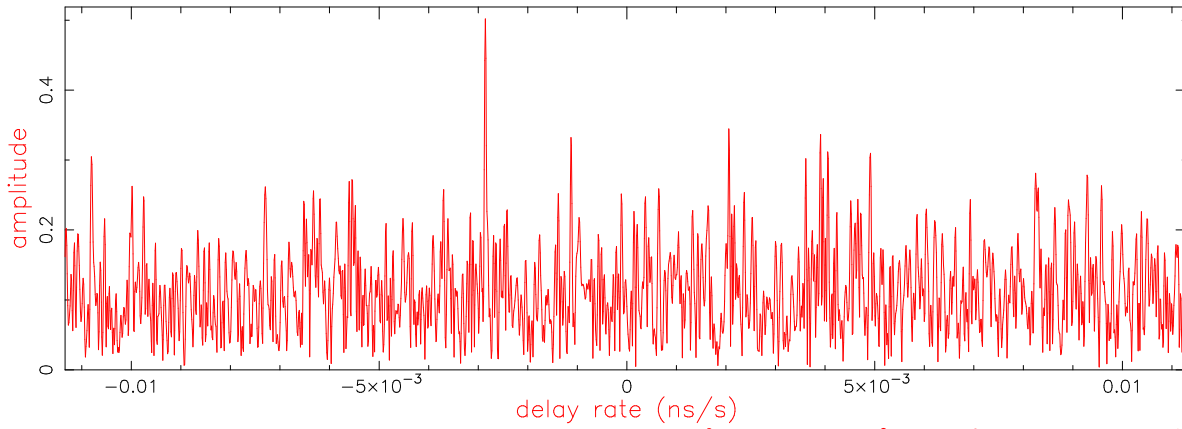
ph/seg (deg)	90.4	Theor.	179.3	Amplitude	0.608 +/- 0.111	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	391.2	Search (2048X8)	0.459	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.441	Inc. frq. avg.	0.597	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.597			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10955.738 -2621.372 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kX.W.202.0QR0YU

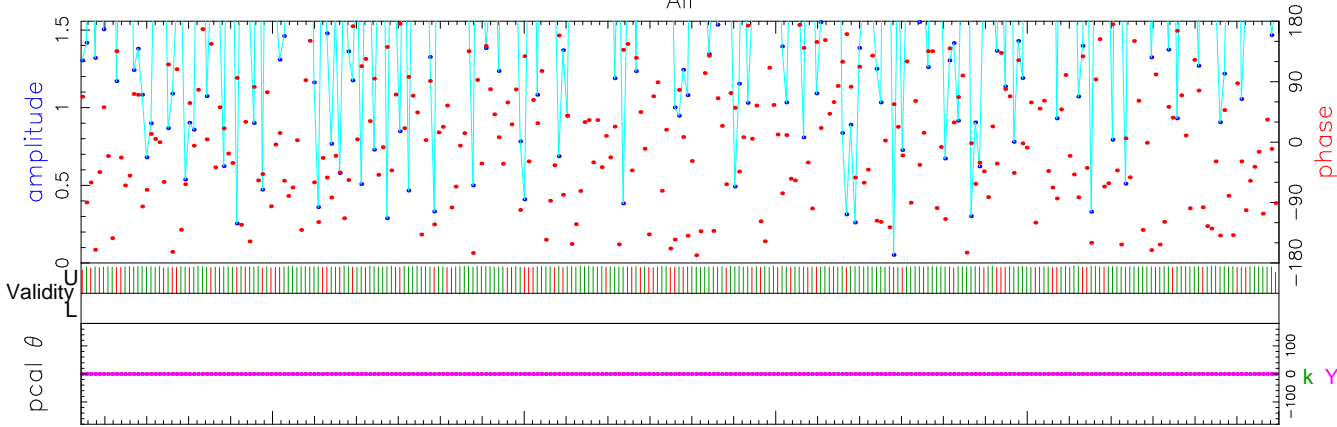
Fringe quality 0

SNR 5.7  
Int time 273.911  
Amp 0.519  
Phase -238.1  
PFD 7.3e-01  
Delays (us)  
SBD -0.965973  
MBD -0.000006  
Fringe rate (Hz)  
-0.246029  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163646  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-6.2  
0.5  
389.3  
U/L 558/0  
k 3000  
Y 0  
k:Y 0:0  
k:Y 0:0  
k 1000  
Y 1000  
k W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.20388862307E+03	Apriori delay (usec)	-6.20292264728E+03	Resid mbdelay (usec)	-5.91685E-06	+/-	3.0E-03
Sband delay (usec)	-6.20388862078E+03	Apriori clock (usec)	1.6513575E+01	Resid sbdelay (usec)	-9.65973E-01	+/-	3.0E-03
Phase delay (usec)	-6.20292264749E+03	Apriori clockrate (us/s)	-1.2366001E-07	Resid phdelay (usec)	-2.01333E-07	+/-	6.5E-07
Delay rate (us/s)	1.90720298306E+00	Apriori rate (us/s)	1.90720583921E+00	Resid rate (us/s)	-2.85615E-06	+/-	3.9E-09
Total phase (deg)	-179.5	Apriori accel (us/s/s)	2.92716963624E-05	Resid phase (deg)	-238.1	+/-	20.0

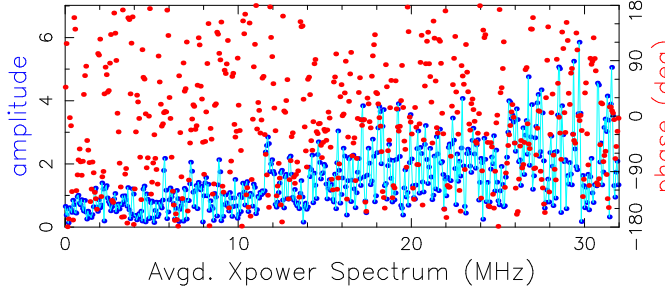
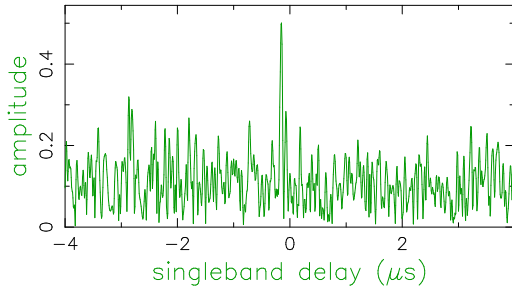
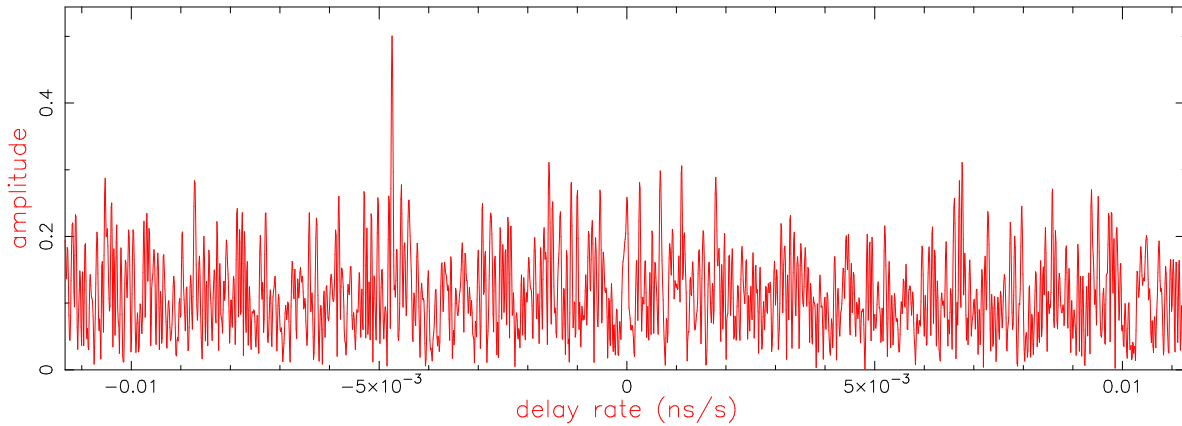
ph/seg (deg)	90.4	Theor.	167.3	Amplitude	0.519 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	339.5	Search (2048X8)	0.499	Search	0.499	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.379	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7	Inc. frq. avg.	0.508	Inc. frq. avg.	0.508	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11338.761 -299.154 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kY.W.142.0QR0YU

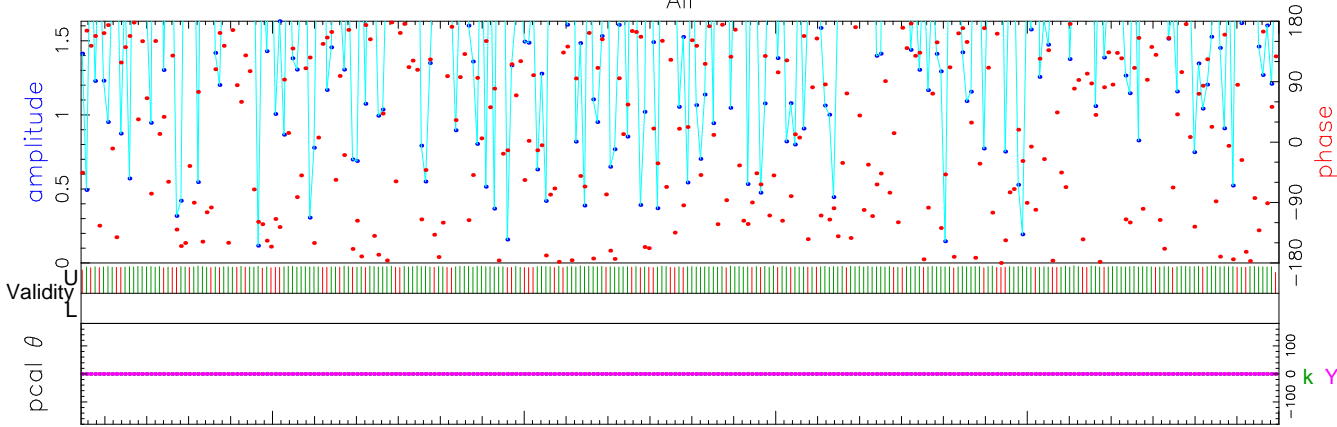
Fringe quality 0

SNR 5.7  
Int time 273.916  
Amp 0.544  
Phase -333.9  
PFD 7.3e-01  
Delays (us)  
SBD -0.151768  
MBD -0.000007  
Fringe rate (Hz)  
-0.409203  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163647  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
179.1  
0.5  
493.6  
U/L 558/0  
k 3000  
Y 0  
k:Y 0:0  
k:Y 0:0  
k 1000  
Y 1000  
k W00UR  
Y W00UR

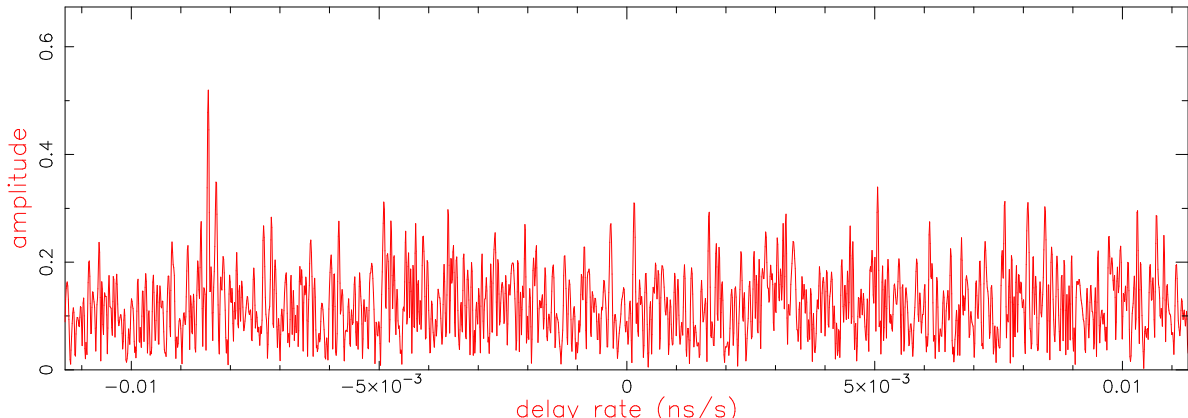
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.20307441179E+03	Apriori delay (usec)	-6.20292264728E+03	Resid mbdelay (usec)	-6.60699E-06	+/-	3.0E-03
Sband delay (usec)	-6.20307441478E+03	Apriori clock (usec)	1.6513575E+01	Resid sbdelay (usec)	-1.51768E-01	+/-	3.0E-03
Phase delay (usec)	-6.20292264151E+03	Apriori clockrate (us/s)	-1.2366001E-07	Resid phdelay (usec)	5.77691E-06	+/-	6.5E-07
Delay rate (us/s)	1.90720108877E+00	Apriori rate (us/s)	1.90720583921E+00	Resid rate (us/s)	-4.75045E-06	+/-	3.9E-09
Total phase (deg)	-275.2	Apriori accel (us/s/s)	2.92716963624E-05	Resid phase (deg)	-333.9	+/-	20.0

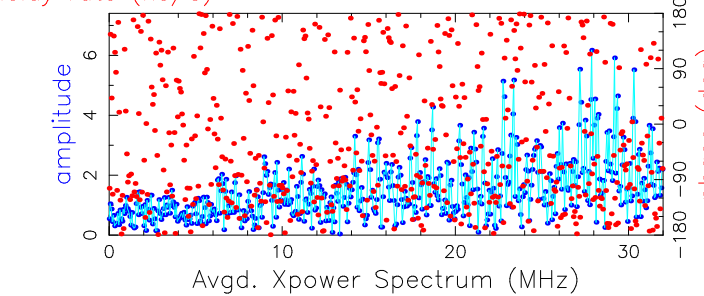
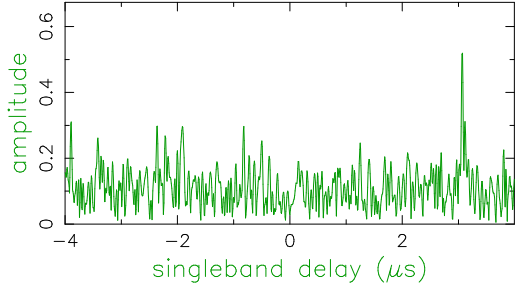
ph/seg (deg)	88.9	Theor.	167.3	Amplitude	0.544 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	341.1	Search (2048X8)	0.497	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.393	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.531	Inc. frq. avg.	0.531	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

k: az 86.3 el 25.9 pa -61.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11338.761 -299.154 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kY.W.152.0QR0YU



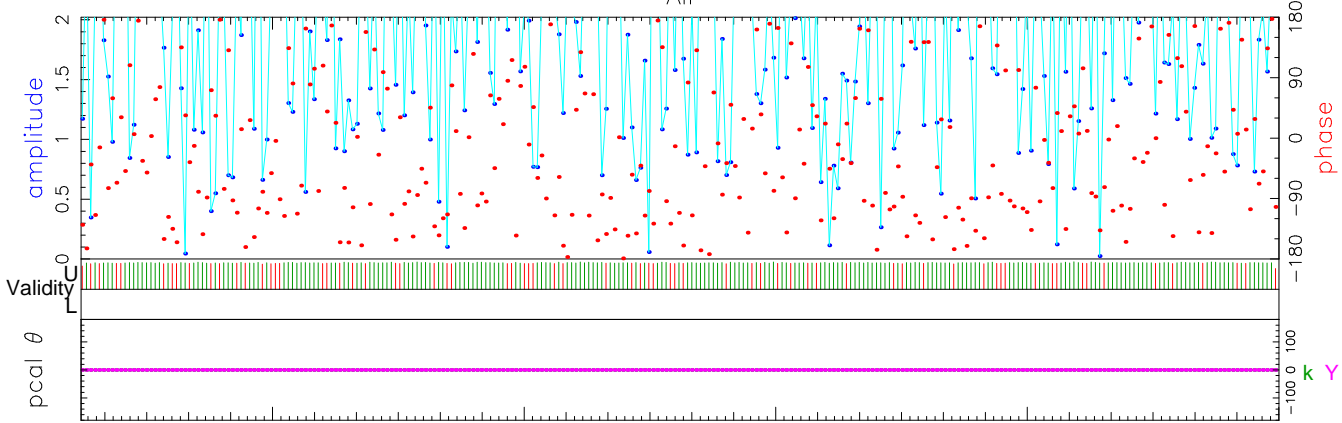
Fringe quality 0  
SNR 6.0  
Int time 273.911  
Amp 0.674  
Phase 93.7  
PFD 2.3e-01  
Delays (us)  
SBD 3.066708  
MBD -0.000006  
Fringe rate (Hz)  
-0.729163  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-100.4  
0.7  
905.5  
U/L 558/0  
k 3000  
Y 0  
k:Y 0:0  
k:Y 0:0  
k 1000  
Y 1000  
k W00UL  
Y W00UR

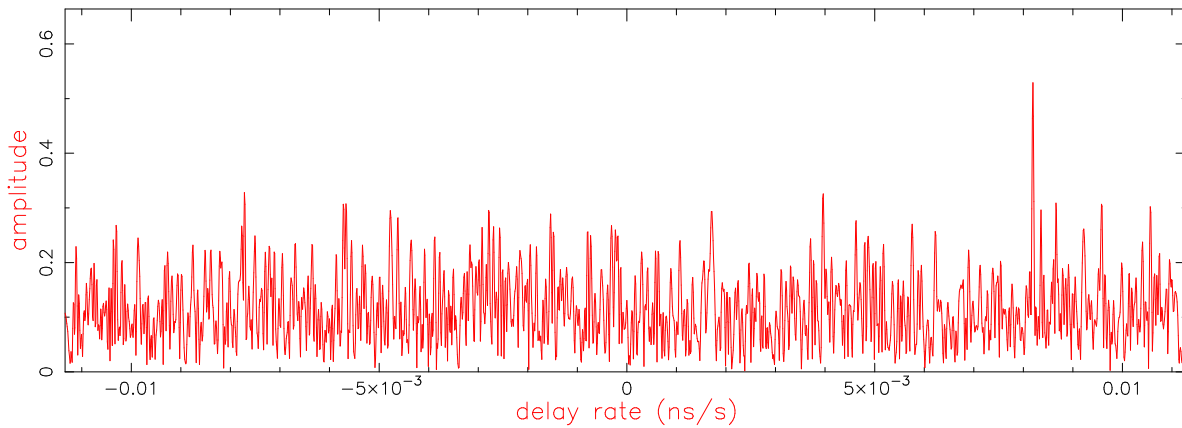
Validity  
pcal  $\theta$   
k Y

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.19985594189E+03	Apriori delay (usec)	-6.20292264728E+03	Resid mbdelay (usec)	-6.22332E-06	+/-	2.9E-03
Sband delay (usec)	-6.19985593928E+03	Apriori clock (usec)	1.6513575E+01	Resid sbdelay (usec)	3.06671E+00	+/-	2.9E-03
Phase delay (usec)	-6.20292265052E+03	Apriori clockrate (us/s)	-1.2366001E-07	Resid phdelay (usec)	-3.23696E-06	+/-	6.2E-07
Delay rate (us/s)	1.90719737435E+00	Apriori rate (us/s)	1.90720583921E+00	Resid rate (us/s)	-8.46486E-06	+/-	3.7E-09
Total phase (deg)	152.3	Apriori accel (us/s/s)	2.92716963624E-05	Resid phase (deg)	93.7	+/-	19.1

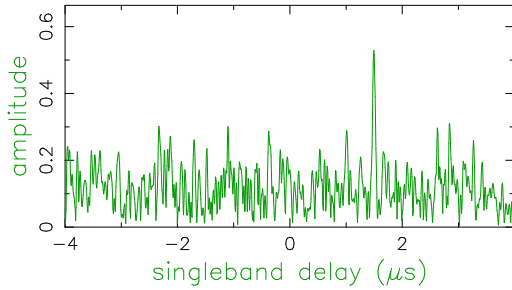
ph/seg (deg) 90.3 159.7 Search (2048X8) 0.513 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 351.7 278.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
ph/frq (deg) 0.0 9.6 Inc. seg. avg. 0.537 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
amp/frq (%) 2.0 16.7 Inc. frq. avg. 0.652 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
k: az 86.3 el 25.9 pa -61.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11338.761 -299.154 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//KY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kY.W.162.0QR0YU



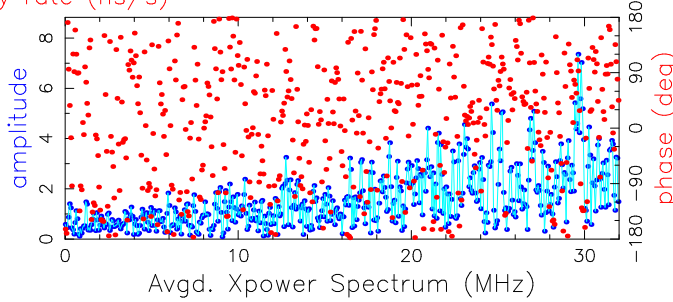


Fringe quality 0

SNR 6.0  
Int time 273.916  
Amp 0.664  
Phase 119.7  
PFD 2.3e-01  
Delays (us)  
SBD 1.493773  
MBD 0.000006  
Fringe rate (Hz)  
0.706949  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



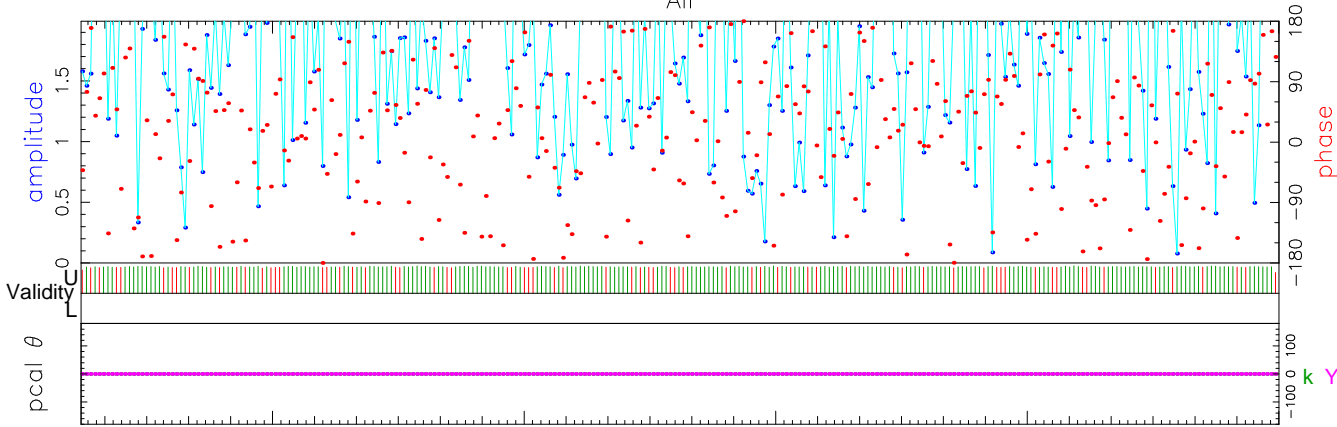
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
46.8  
0.7  
704.2  
U/L 558/0  
k 3000  
Y 0  
k:Y 0:0  
k:Y 0:0  
k 1000  
Y 1000  
k W00UR  
Y W00UL

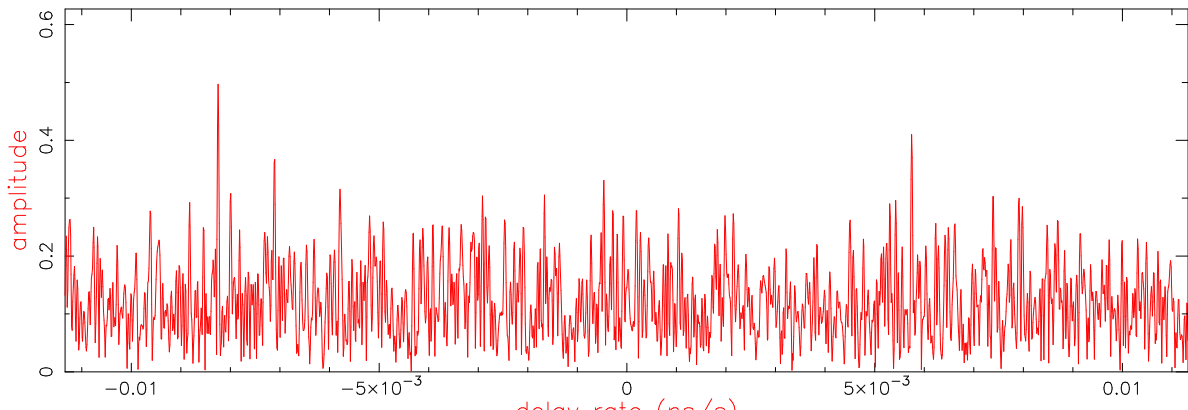
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.20142887309E+03	Apriori delay (usec)	-6.20292264728E+03	Resid mbdelay (usec)	5.88309E-06	+/-	2.9E-03
Sband delay (usec)	-6.20142887478E+03	Apriori clock (usec)	1.6513575E+01	Resid sbdelay (usec)	1.49377E+00	+/-	2.9E-03
Phase delay (usec)	-6.20292264577E+03	Apriori clockrate (us/s)	-1.2366001E-07	Resid phdelay (usec)	1.51066E-06	+/-	6.2E-07
Delay rate (us/s)	1.90721404619E+00	Apriori rate (us/s)	1.90720583921E+00	Resid rate (us/s)	8.20697E-06	+/-	3.7E-09
Total phase (deg)	178.3	Apriori accel (us/s/s)	2.92716963624E-05	Resid phase (deg)	119.7	+/-	19.1

ph/seg (deg)	RMS 92.5	Theor. 159.6	Amplitude Search (2048X8)	0.664 +/- 0.111	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	326.1	278.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.6	Inc. seg. avg.	0.503	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.2	16.7	Inc. frq. avg.	0.654	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

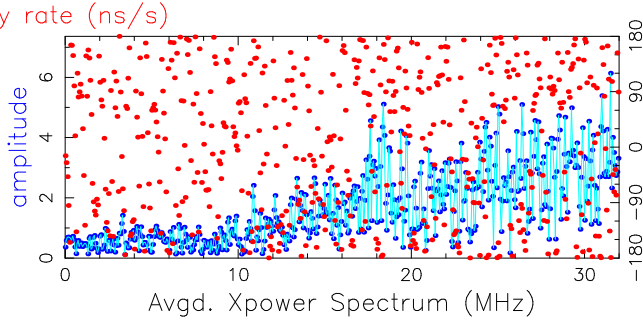
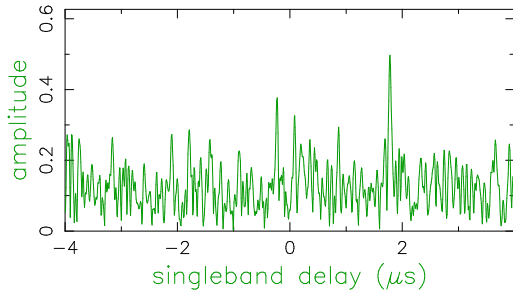
k: az 86.3 el 25.9 pa -61.9 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11338.761 -299.154 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//KY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kY.W.174.0QR0YU



Fringe quality 0

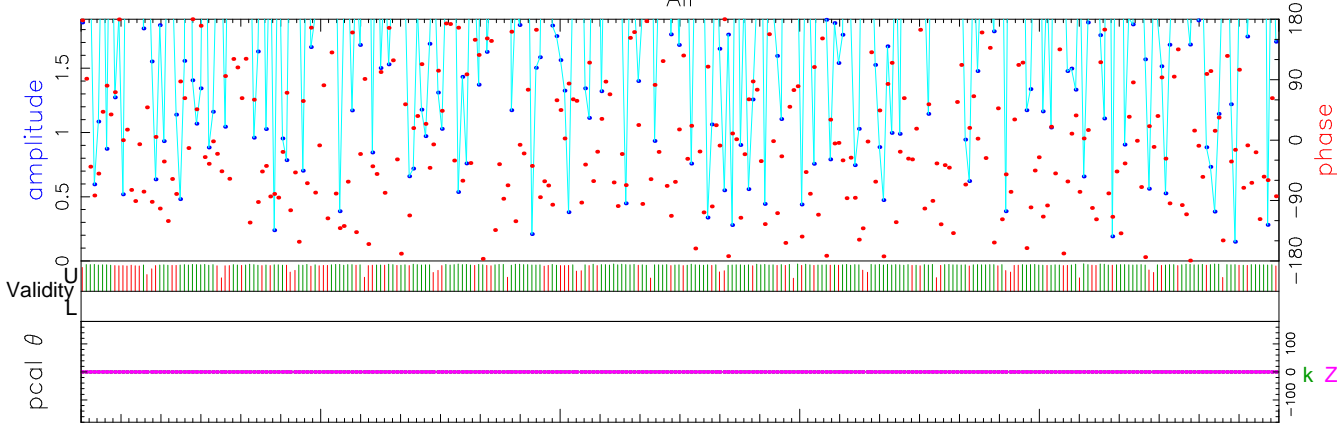
SNR 5.7  
Int time 280.010  
Amp 0.627  
Phase 206.6  
PFD 7.6e-01  
Delays (us)  
SBD 1.778959  
MBD -0.000004  
Fringe rate (Hz)  
-0.711275  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-48.0  
0.6  
740.7  
U/L 586/0  
k 3000  
Z 0  
k:Z 0:0  
k:Z 0:0  
k 1000  
Z 1000  
k W00UL  
Z W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.24354912416E+02	Apriori delay (usec)	5.22575955705E+02	Resid mbdelay (usec)	-4.36393E-06	+/-	3.0E-03
Sband delay (usec)	5.24354914205E+02	Apriori clock (usec)	2.3388342E+01	Resid sbdelay (usec)	1.77896E+00	+/-	3.0E-03
Phase delay (usec)	5.22575954158E+02	Apriori clockrate (us/s)	-4.8066000E-07	Resid phdelay (usec)	-1.54676E-06	+/-	6.5E-07
Delay rate (us/s)	1.86221396443E+00	Apriori rate (us/s)	1.8622222162E+00	Resid rate (us/s)	-8.25719E-06	+/-	3.7E-09
Total phase (deg)	143.3	Apriori accel (us/s/s)	-1.33499067039E-05	Resid phase (deg)	206.6	+/-	20.1

ph/seg (deg)	92.6	Theor.	171.9	Amplitude	0.627 +/- 0.110	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	402.8	Search (2048X8)	0.491	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.489	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.615	Inc. frq. avg.	0.615	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

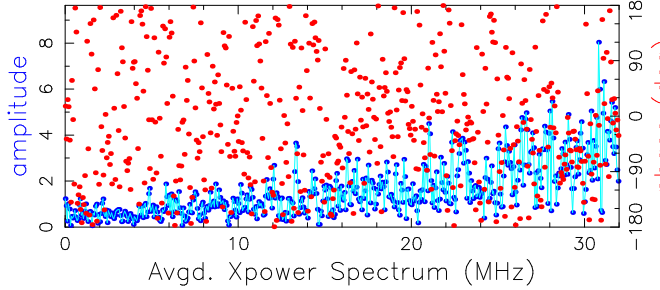
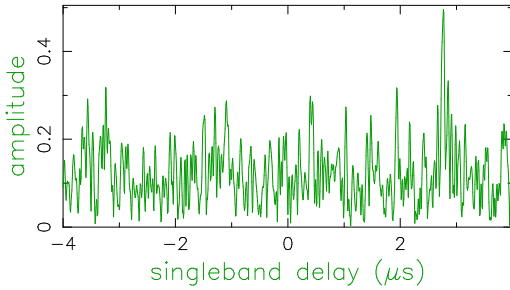
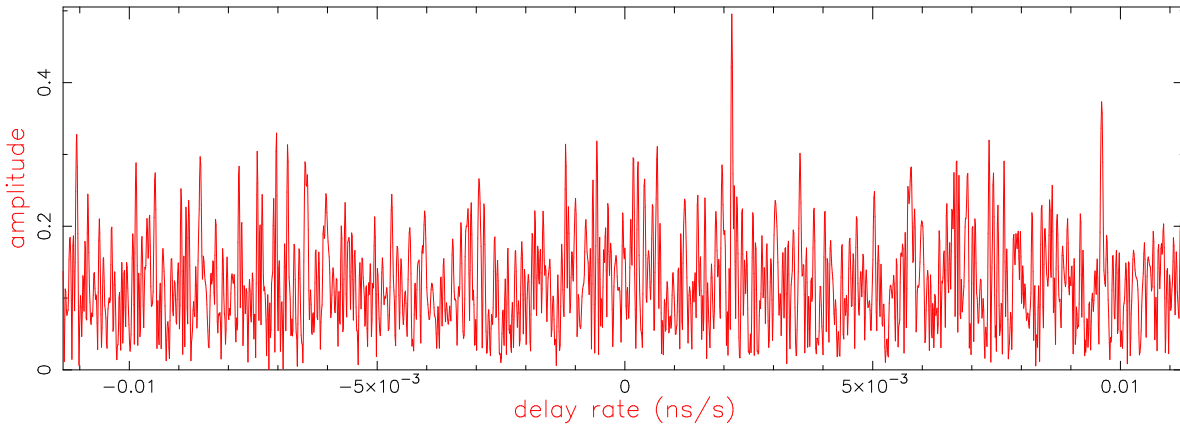
k: az 86.3 el 25.9 pa -61.9 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -11125.226 -3134.190 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kZ.W.168.0QR0YU

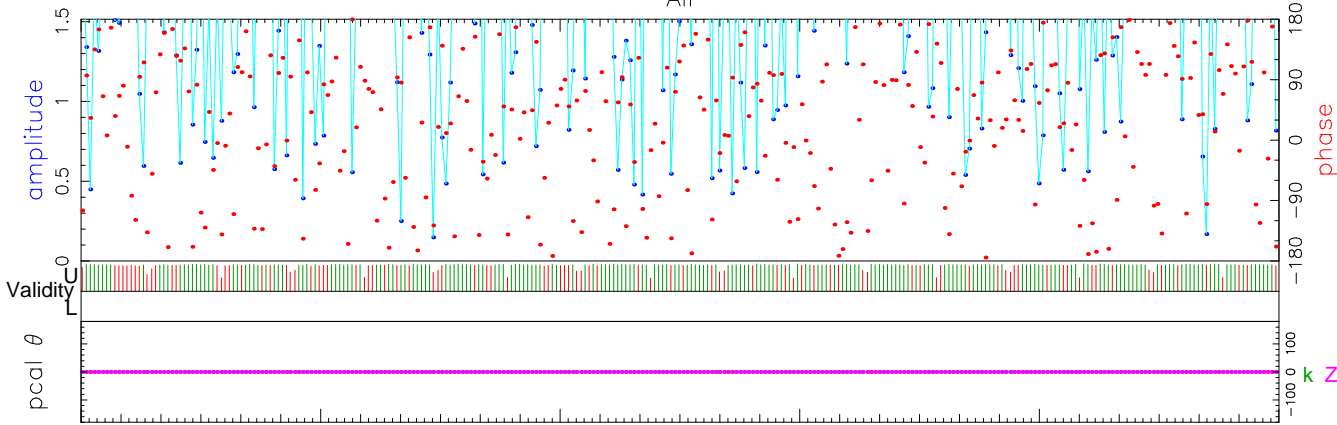
Fringe quality 0

SNR 5.7  
Int time 280.015  
Amp 0.505  
Phase 212.5  
PFD 7.8e-01  
Delays (us)  
SBD 2.768329  
MBD 0.000005  
Fringe rate (Hz)  
0.186053  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
88.2  
0.5  
867.3  
U/L 586/0  
k 3000  
Z 0  
k:Z 0:0  
k:Z 0:0  
k 1000  
Z 1000  
k W00UR  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.25344283605E+02	Apriori delay (usec)	5.22575955705E+02	Resid mbdelay (usec)	4.87569E-06	+/-	3.0E-03
Sband delay (usec)	5.25344285205E+02	Apriori clock (usec)	2.3388342E+01	Resid sbdelay (usec)	2.76833E+00	+/-	3.0E-03
Phase delay (usec)	5.22575958549E+02	Apriori clockrate (us/s)	-4.8066000E-07	Resid phdelay (usec)	2.84472E-06	+/-	6.5E-07
Delay rate (us/s)	1.86222438151E+00	Apriori rate (us/s)	1.8622222162E+00	Resid rate (us/s)	2.15989E-06	+/-	3.7E-09
Total phase (deg)	149.3	Apriori accel (us/s/s)	-1.33499067039E-05	Resid phase (deg)	212.5	+/-	20.1

ph/seg (deg)	RMS 93.0	Theor. 172.2	Amplitude 0.505 +/- 0.089	Search (2048X8)	0.492	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	391.2	300.6	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	10.1	Inc. seg. avg.	0.385		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.5	17.6	Inc. frq. avg.	0.495		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

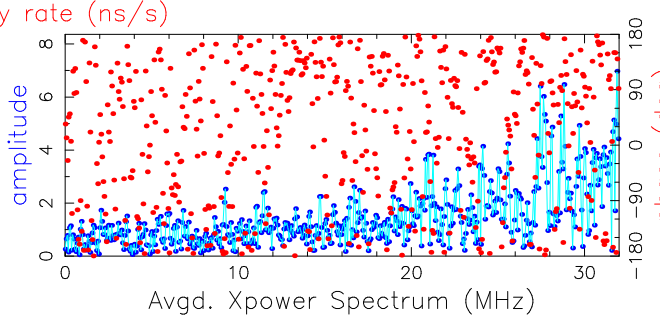
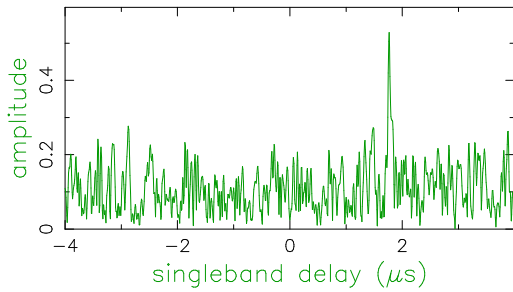
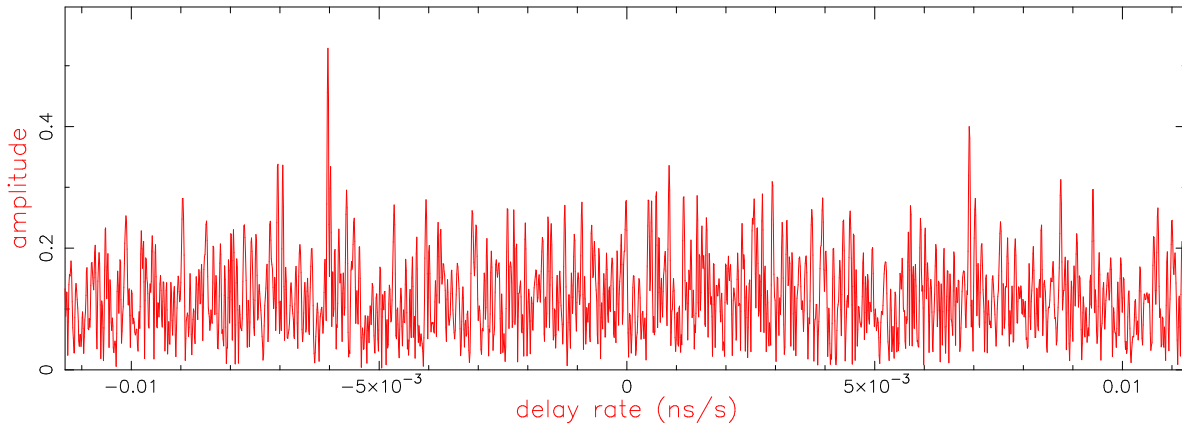
k: az 86.3 el 25.9 pa -61.9 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -11125.226 -3134.190 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kZ.W.181.0QR0YU

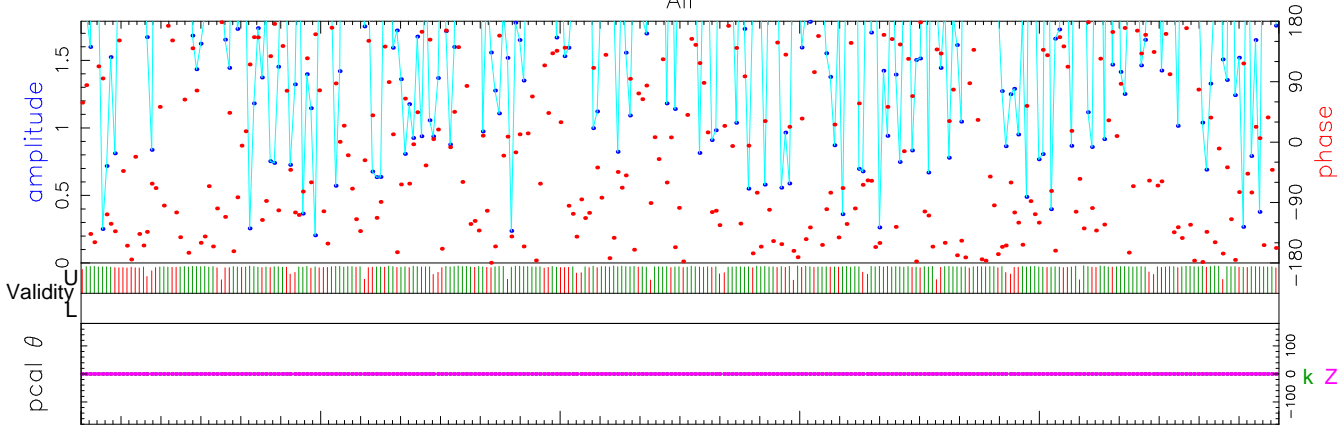
Fringe quality 0

SNR 6.1  
Int time 280.010  
Amp 0.597  
Phase 157.9  
PFD 1.7e-01  
Delays (us)  
SBD 1.764436  
MBD -0.000004  
Fringe rate (Hz)  
-0.520278  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-147.5  
0.6  
738.9  
U/L 586/0  
k 3000  
Z 0  
k:Z 0:0  
k:Z 0:0  
k 1000  
Z 1000  
k W00UL  
Z W00UR

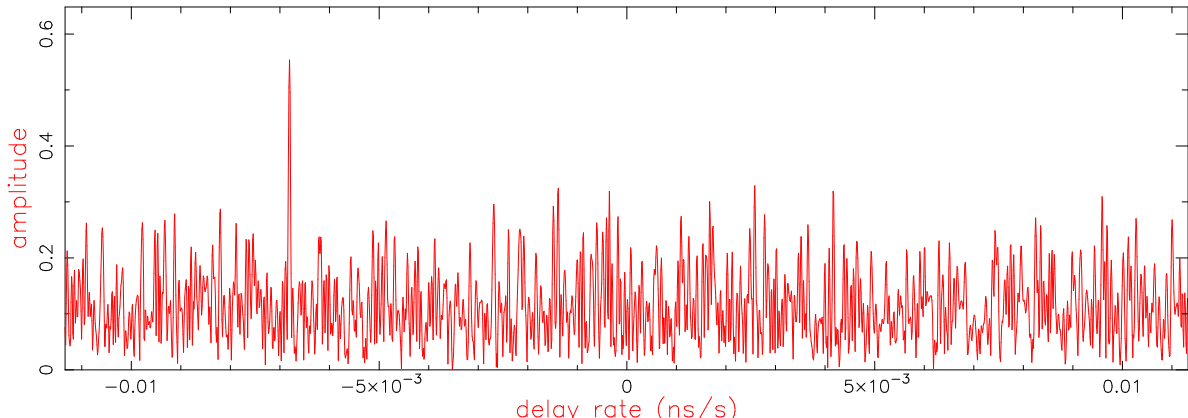
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	5.24340391163E+02	Apriori delay (usec)	5.22575955705E+02	Resid mbdelay (usec)	-4.38713E-06	+/- 2.8E-03
Sband delay (usec)	5.24340391705E+02	Apriori clock (usec)	2.3388342E+01	Resid sbdelay (usec)	1.76444E+00	+/- 2.8E-03
Phase delay (usec)	5.22575950949E+02	Apriori clockrate (us/s)	-4.8066000E-07	Resid phdelay (usec)	-4.75509E-06	+/- 6.1E-07
Delay rate (us/s)	1.86221618170E+00	Apriori rate (us/s)	1.86222222162E+00	Resid rate (us/s)	-6.03991E-06	+/- 3.5E-09
Total phase (deg)	94.7	Apriori accel (us/s/s)	-1.33499067039E-05	Resid phase (deg)	157.9	+/- 18.9

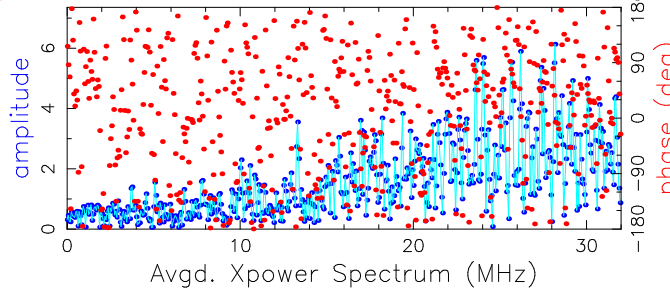
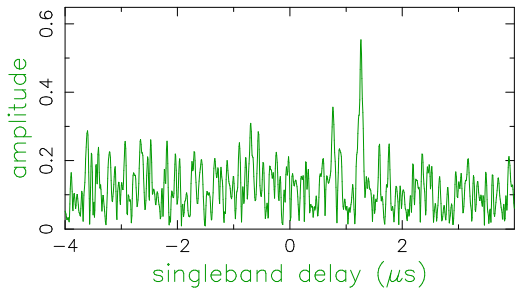
ph/seg (deg)	RMS 90.9	Theor. 162.0	Amplitude 0.597 +/- 0.099	Search (2048X8)	0.511	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	352.3	282.7	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.5	Inc. seg. avg.	0.464		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1	16.5	Inc. frq. avg.	0.588		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

k: az 86.3 el 25.9 pa -61.9 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -11125.226 -3134.190 simultaneous interpolator

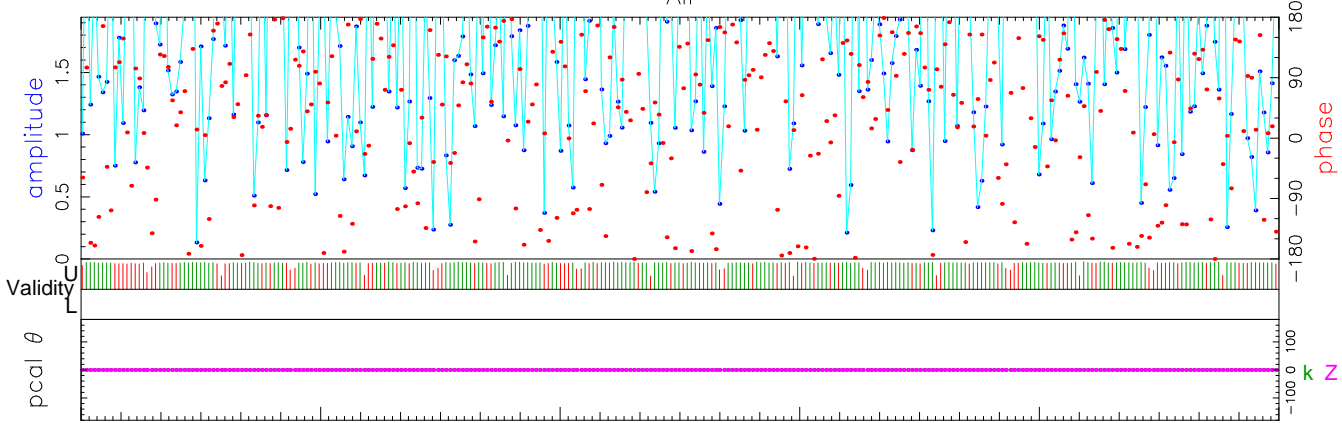
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kZ.W.201.0QR0YU



Fringe quality 0  
SNR 6.4  
Int time 280.015  
Amp 0.648  
Phase 21.9  
PFD 2.7e-02  
Delays (us)  
SBD 1.263453  
MBD -0.000006  
Fringe rate (Hz)  
-0.587693  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
121.5  
0.6  
674.7  
U/L 586/0  
k 3000  
Z 0  
k:Z 0:0  
k:Z 0:0  
k 1000  
Z 1000  
k W00UR  
Z W00UL

Chan ids  
Chan ids

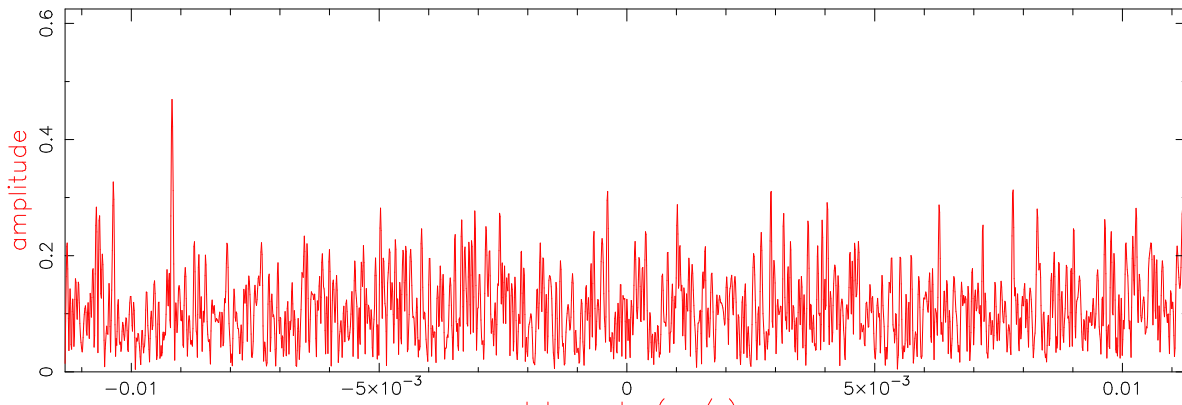
86012.00 Freq (MHz)  
121.5 Phase  
0.6 Ampl.  
674.7 Sbd box  
U/L 586/0 APs used  
k 3000 PC freqs  
Z 0 PC freqs  
k:Z 0:0 PC phase  
k:Z 0:0 Mani PC  
k 1000 PC amp  
Z 1000  
k W00UR  
Z W00UL

Group delay (usec)(sbd)	5.23839412807E+02	Apriori delay (usec)	5.22575955705E+02	Resid mbdelay (usec)	-6.13570E-06	+/-	2.7E-03
Sband delay (usec)	5.23839408205E+02	Apriori clock (usec)	2.3388342E+01	Resid sbdelay (usec)	1.26345E+00	+/-	2.7E-03
Phase delay (usec)	5.22575959622E+02	Apriori clockrate (us/s)	-4.8066000E-07	Resid phdelay (usec)	3.91761E-06	+/-	5.8E-07
Delay rate (us/s)	1.86221539908E+00	Apriori rate (us/s)	1.86222222162E+00	Resid rate (us/s)	-6.82254E-06	+/-	3.4E-09
Total phase (deg)	318.7	Apriori accel (us/s/s)	-1.33499067039E-05	Resid phase (deg)	21.9	+/-	18.0

ph/seg (deg)	86.2	Theor.	154.2	Amplitude	0.648 +/- 0.102	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	323.7	Search (2048X8)	0.545	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.504	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.638	Inc. frq. avg.	0.638	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

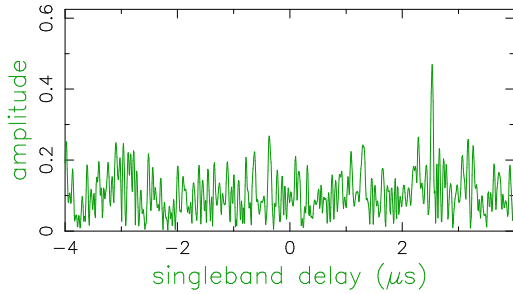
k: az 86.3 el 25.9 pa -61.9 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -11125.226 -3134.190 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//kZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//kZ.W.224.0QR0YU



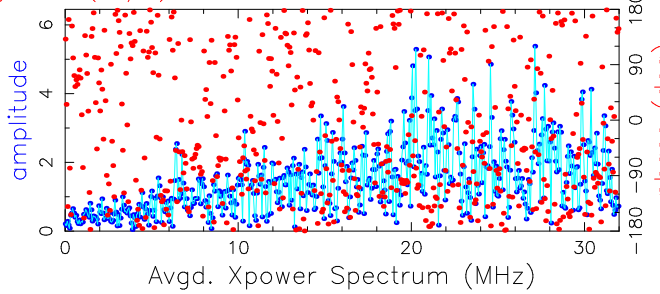


Fringe quality 0

SNR 5.4  
Int time 288.128  
Amp 0.625  
Phase 67.1  
PFD 1.0e+00  
Delays (us)  
SBD 2.531343  
MBD -0.000007  
Fringe rate (Hz)  
-0.791782  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

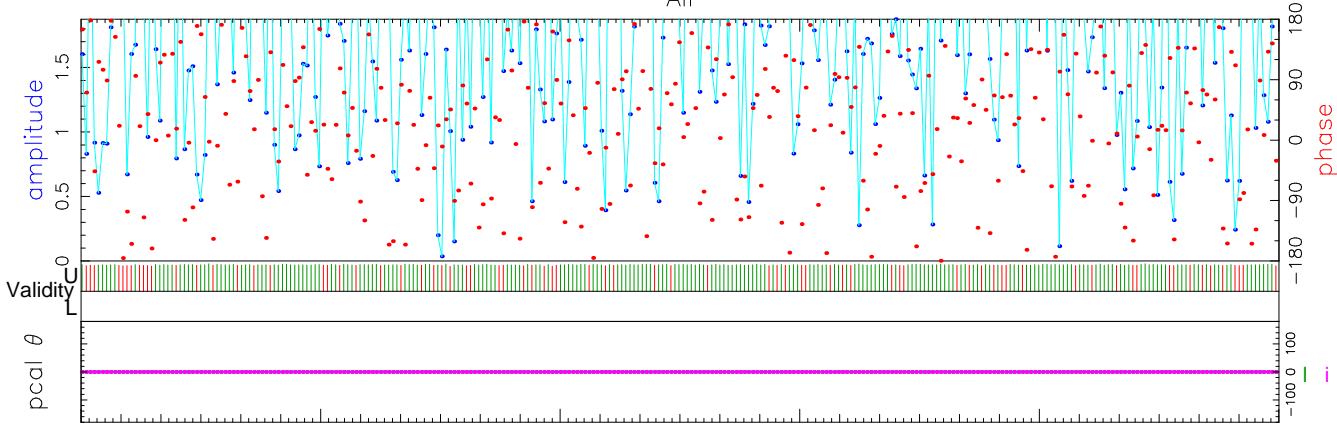


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



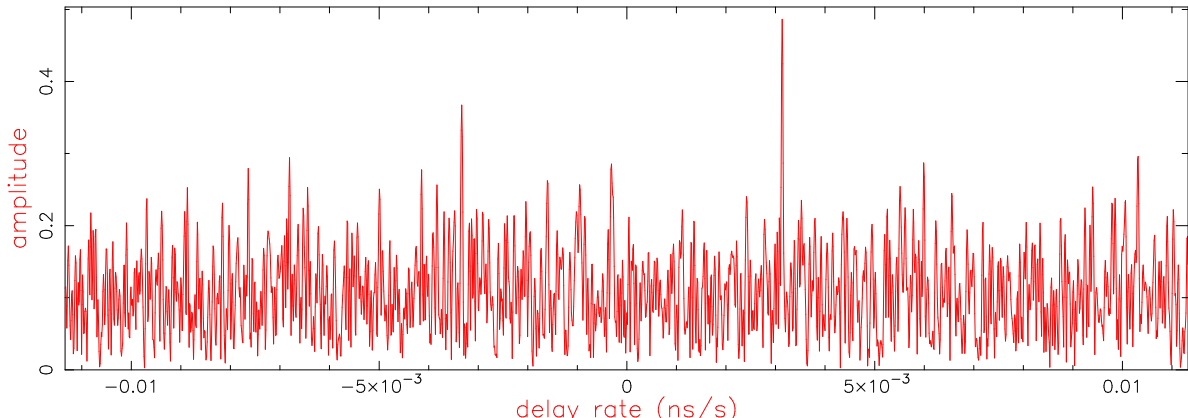
86012.00  
62.8  
0.6  
837.0  
U/L 586/0  
i 3000  
i 0  
l:i 0:0  
l:i 0:0  
i 1000  
i 1000  
i W00UL  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

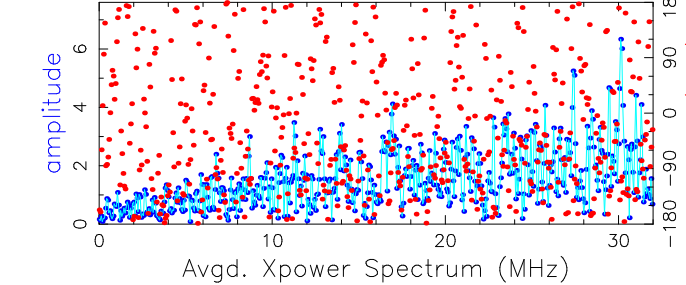
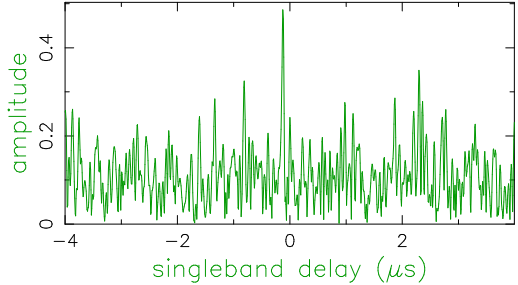
Group delay (usec)(sbd)	-5.10719259517E+03	Apriori delay (usec)	-5.10972393295E+03	Resid mbdelay (usec)	-6.68037E-06	+/-	3.2E-03
Sband delay (usec)	-5.10719259045E+03	Apriori clock (usec)	1.3753412E+01	Resid sbdelay (usec)	2.53134E+00	+/-	3.2E-03
Phase delay (usec)	-5.10972393093E+03	Apriori clockrate (us/s)	1.2000000E-07	Resid phdelay (usec)	2.02444E-06	+/-	6.8E-07
Delay rate (us/s)	1.84091885946E+00	Apriori rate (us/s)	1.84092805127E+00	Resid rate (us/s)	-9.19181E-06	+/-	3.9E-09
Total phase (deg)	216.7	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	67.1	+/-	21.0

ph/seg (deg)	93.0	Theor.	180.2	Amplitude	0.625 +/- 0.115	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	373.0	Search (2048X8)	0.465	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.430	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0	Inc. frq. avg.	0.615	Inc. frq. avg.	0.615	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

l: az 91.3 el 30.4 pa -57.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//li..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//li.W.176.0QR0YU



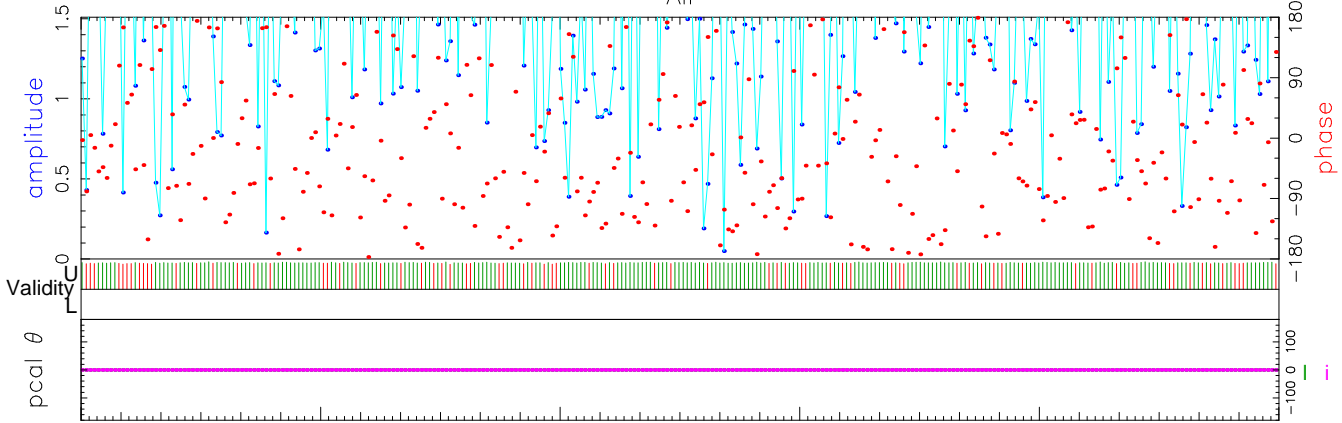
Fringe quality 0  
SNR 5.7  
Int time 288.133  
Amp 0.503  
Phase -358.6  
PFD 8.4e-01  
Delays (us)  
SBD -0.123402  
MBD 0.000006  
Fringe rate (Hz) 0.270378  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



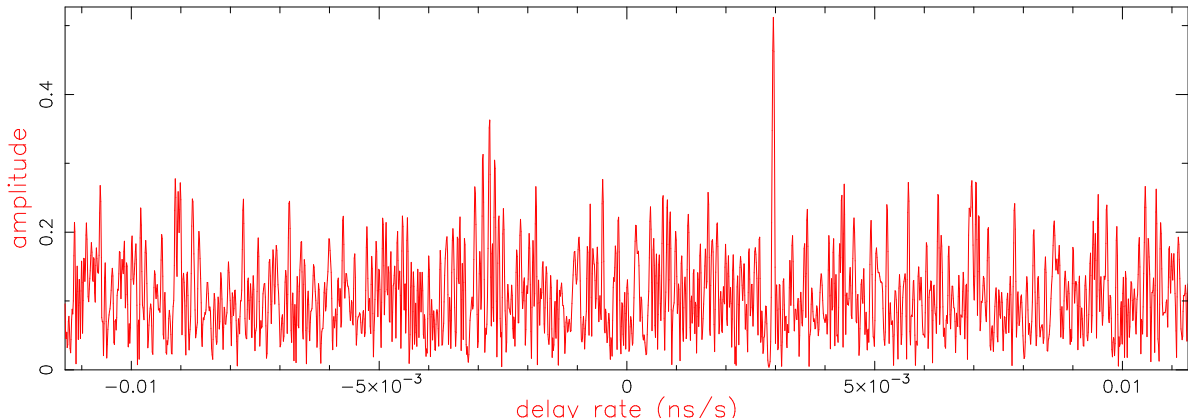
86012.00  
-71.7  
0.5  
497.2  
U/L 586/0  
| 3000  
i 0  
l:i 0:0  
l:i 0:0  
| 1000  
i 1000  
| W00UR  
i W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

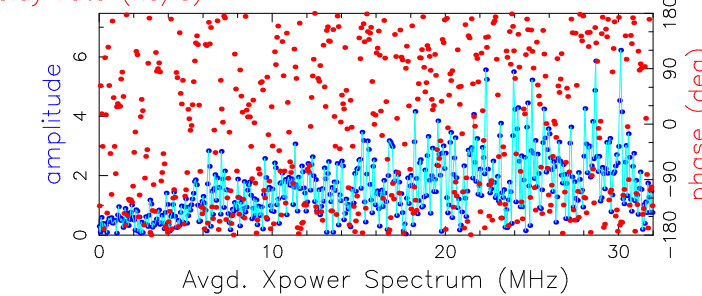
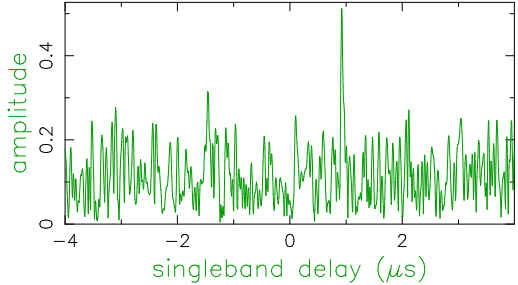
Group delay (usec)(sbd)	-5.10984733966E+03	Apriori delay (usec)	-5.10972393295E+03	Resid mbdelay (usec)	6.30154E-06	+/-	3.0E-03
Sband delay (usec)	-5.10984733495E+03	Apriori clock (usec)	1.3753412E+01	Resid sbdelay (usec)	-1.23402E-01	+/-	3.0E-03
Phase delay (usec)	-5.10972393527E+03	Apriori clockrate (us/s)	1.2000000E-07	Resid phdelay (usec)	-2.31367E-06	+/-	6.5E-07
Delay rate (us/s)	1.84093119009E+00	Apriori rate (us/s)	1.84092805127E+00	Resid rate (us/s)	3.13882E-06	+/-	3.8E-09
Total phase (deg)	-209.1	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	-358.6	+/-	20.2

ph/seg (deg)	89.8	Theor.	173.3	Amplitude	0.503 +/- 0.089	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	357.9	Search (2048X8)	0.466	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.355	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.494	Inc. frq. avg.	0.494	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

l: az 91.3 el 30.4 pa -57.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//li..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//li.W.188.0QR0YU



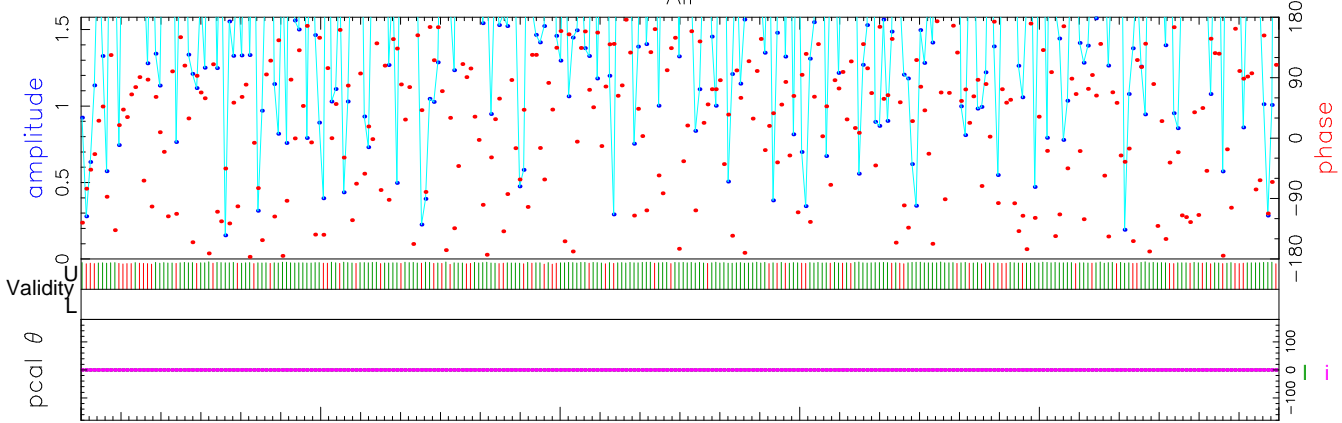
Fringe quality 0  
SNR 5.9  
Int time 288.128  
Amp 0.527  
Phase 123.3  
PFD 3.0e-01  
Delays (us)  
SBD 0.922674  
MBD 0.000005  
Fringe rate (Hz)  
0.255168  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



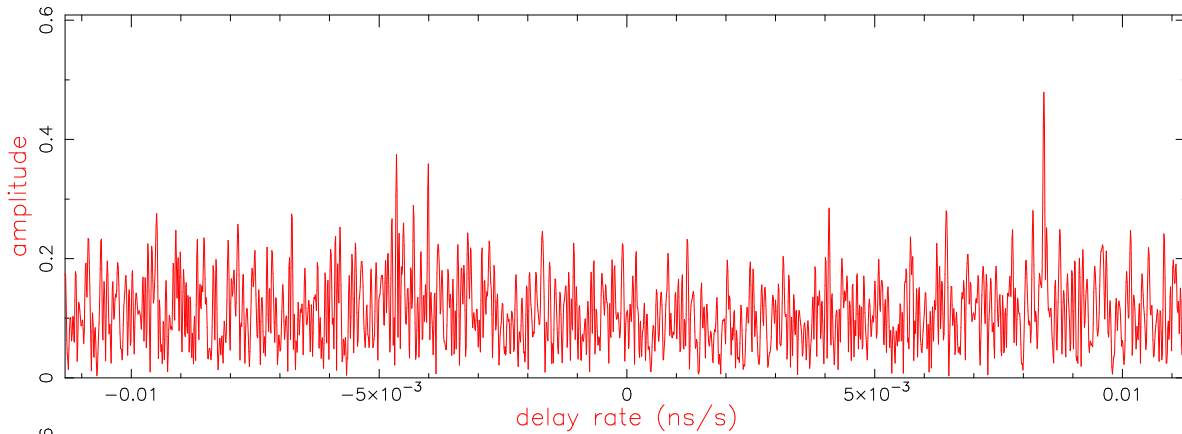
86012.00  
86.5  
0.5  
631.1  
U/L 586/0  
| 3000  
i 0  
l:i 0:0  
l:i 0:0  
| 1000  
i 1000  
| W00UL  
i W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

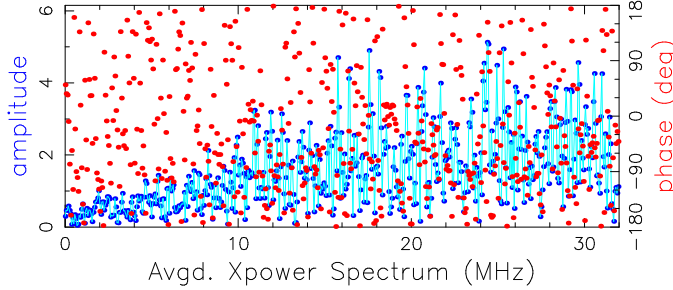
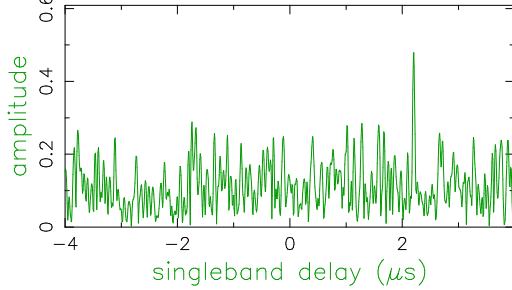
Group delay (usec)(sbd)	-5.10880125471E+03	Apriori delay (usec)	-5.10972393295E+03	Resid mbdelay (usec)	4.66288E-06	+/- 2.9E-03
Sband delay (usec)	-5.10880125845E+03	Apriori clock (usec)	1.3753412E+01	Resid sbdelay (usec)	9.22674E-01	+/- 2.9E-03
Phase delay (usec)	-5.10972393016E+03	Apriori clockrate (us/s)	1.2000000E-07	Resid phdelay (usec)	2.78907E-06	+/- 6.2E-07
Delay rate (us/s)	1.84093101352E+00	Apriori rate (us/s)	1.84092805127E+00	Resid rate (us/s)	2.96224E-06	+/- 3.6E-09
Total phase (deg)	272.9	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	123.3	+/- 19.3

ph/seg (deg)	93.5	Theor.	164.9	Amplitude	0.527 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	327.7	Search (2048X8)	0.499	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.375	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.519	Inc. frq. avg.	0.519	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	

l: az 91.3 el 30.4 pa -57.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//li..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//li.W.212.0QR0YU

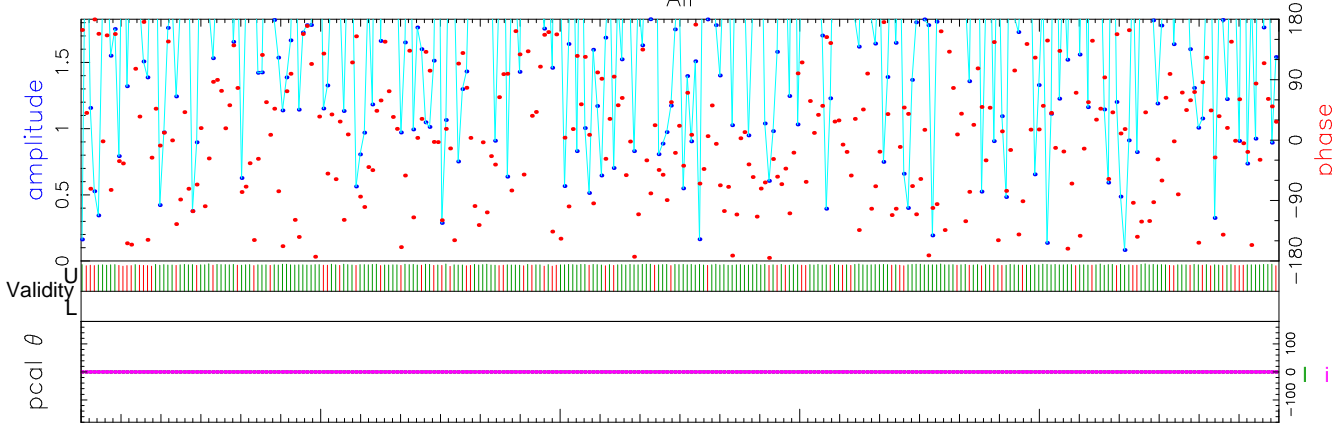


Fringe quality 0  
SNR 5.6  
Int time 288.133  
Amp 0.609  
Phase 321.5  
PFD 9.6e-01  
Delays (us)  
SBD 2.202078  
MBD 0.000004  
Fringe rate (Hz)  
0.726259  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
9.9  
0.6  
794.9  
U/L 586/0  
I 3000  
i 0  
li 0:0  
li 0:0  
I 1000  
i 1000  
W00UR  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.10752185214E+03	Apriori delay (usec)	-5.10972393295E+03	Resid mbdelay (usec)	4.36207E-06	+/-	3.1E-03
Sband delay (usec)	-5.10752185495E+03	Apriori clock (usec)	1.3753412E+01	Resid sbdelay (usec)	2.20208E+00	+/-	3.1E-03
Phase delay (usec)	-5.10972393263E+03	Apriori clockrate (us/s)	1.2000000E-07	Resid phdelay (usec)	3.17877E-07	+/-	6.6E-07
Delay rate (us/s)	1.84093648241E+00	Apriori rate (us/s)	1.84092805127E+00	Resid rate (us/s)	8.43114E-06	+/-	3.8E-09
Total phase (deg)	111.1	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	321.5	+/-	20.6

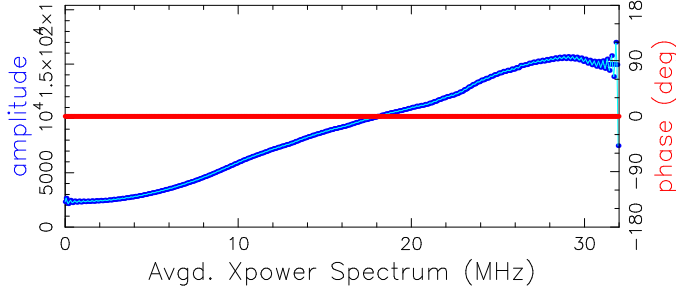
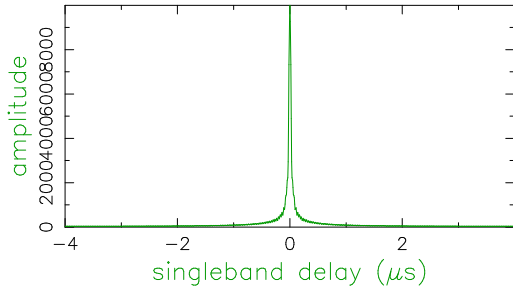
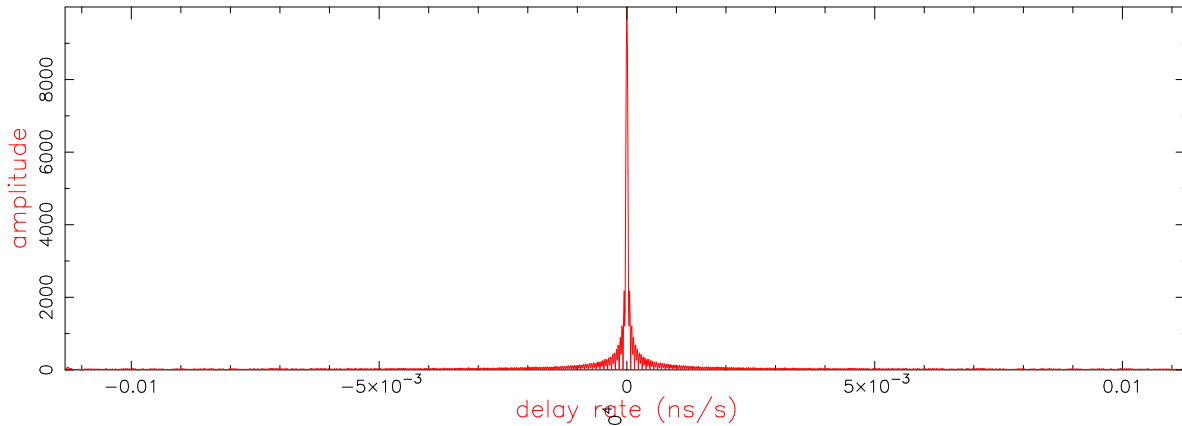
ph/seg (deg)	91.8	Theor.	176.2	Amplitude	0.609 +/- 0.109	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	363.9	Search (2048X8)	0.463	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.429	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.598	Inc. frq. avg.	0.598	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

l: az 91.3 el 30.4 pa -57.6 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//li..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//li.W.222.0QR0YU

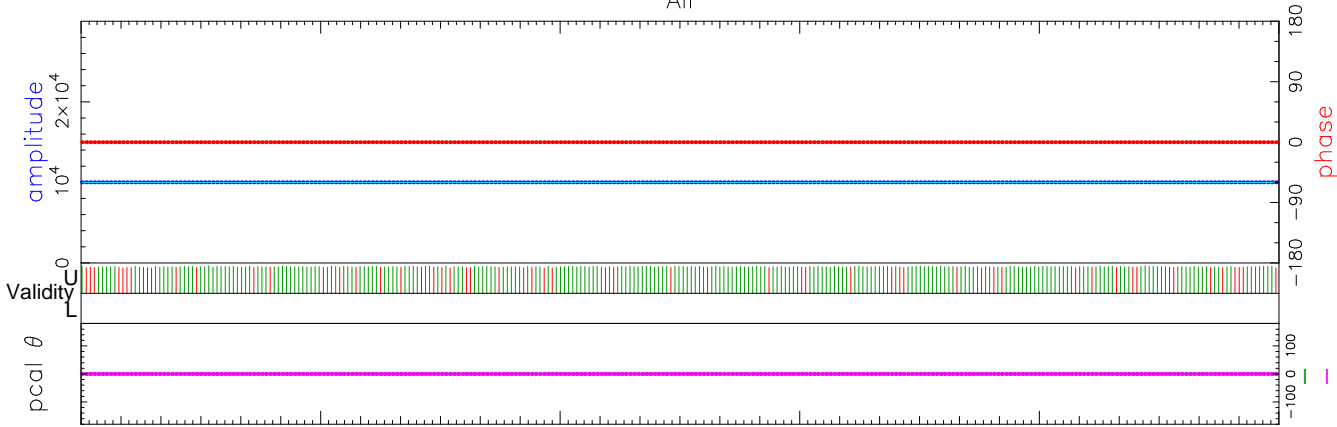
Fringe quality 9

SNR 116143.0  
Int time 288.610  
Amp 9999.995  
Phase -0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000005  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163648  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-0.2 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 586/0 APs used  
| 3000 PC freqs  
| 3000 PC freqs  
|:| 0:0 PC phase  
|:| 0:0 Manl PC  
| 1000 PC amp  
| 1000  
| W00UL Chan ids  
| W00UL Chan ids

Group delay (usec)(sbd)	-5.16858112821E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-5.16858E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-6.72023550453E-09	Apriori clockrate (us/s)	0.000000E+00	Resid phdelay (usec)	-6.72024E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	9999.995 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	0.0		0.0		0.0	Search (2048X8)	9999.995	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0		0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Inc. frq. avg.	9999.994	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

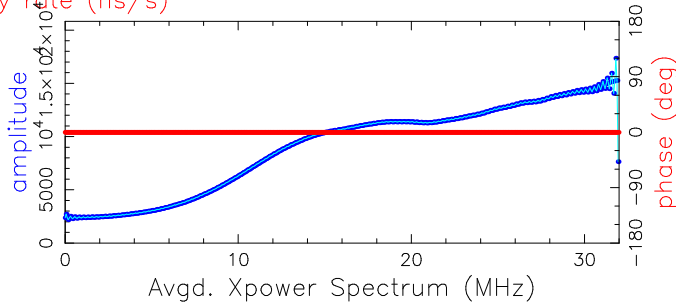
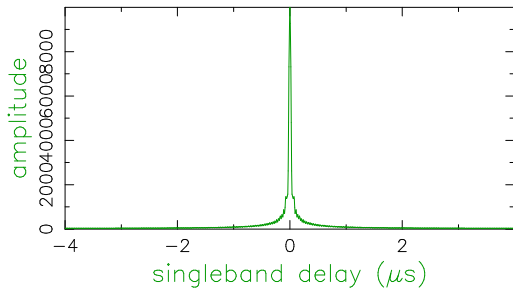
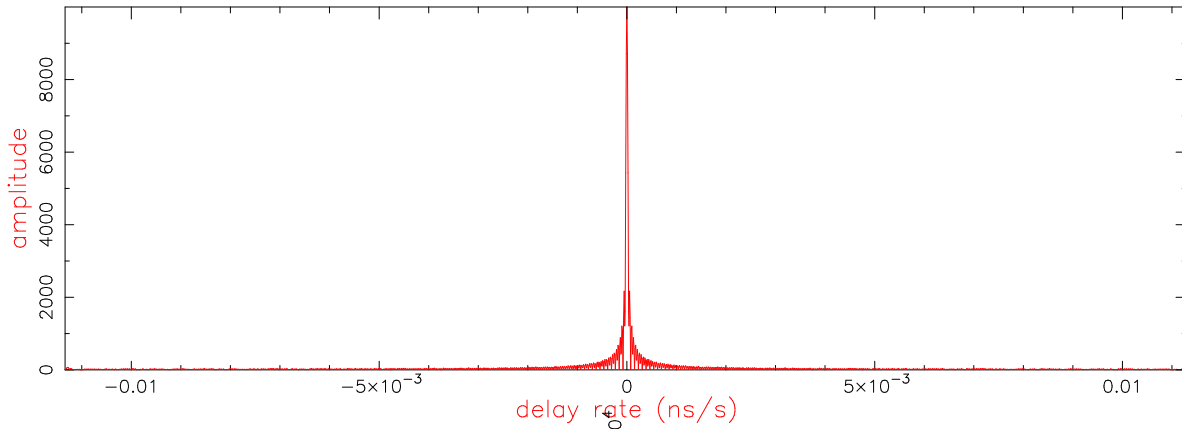
l: az 91.3 el 30.4 pa -57.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007///II..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007///II.W.163.0QR0YU



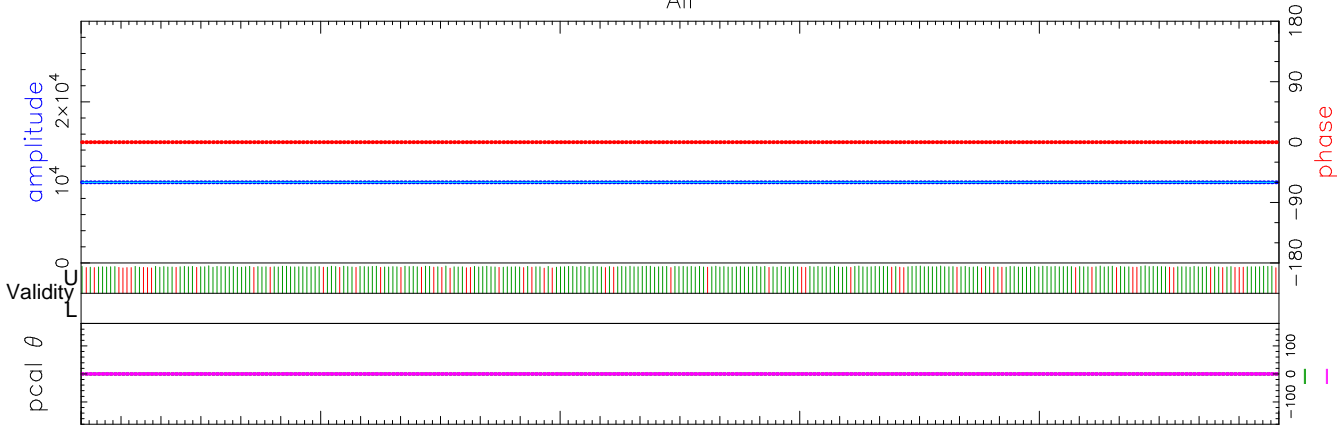
Fringe quality 9

SNR 116144.3  
Int time 288.617  
Amp 9999.991  
Phase -0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000006  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All

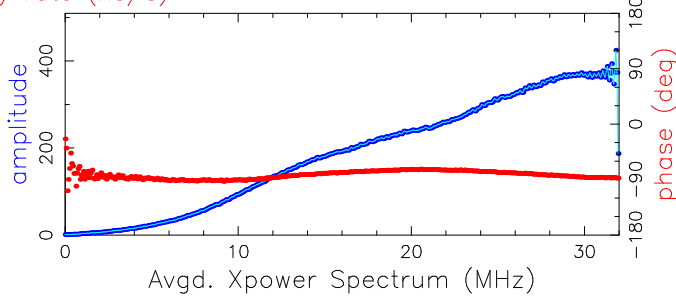
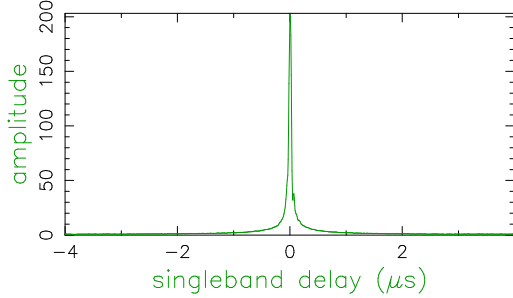
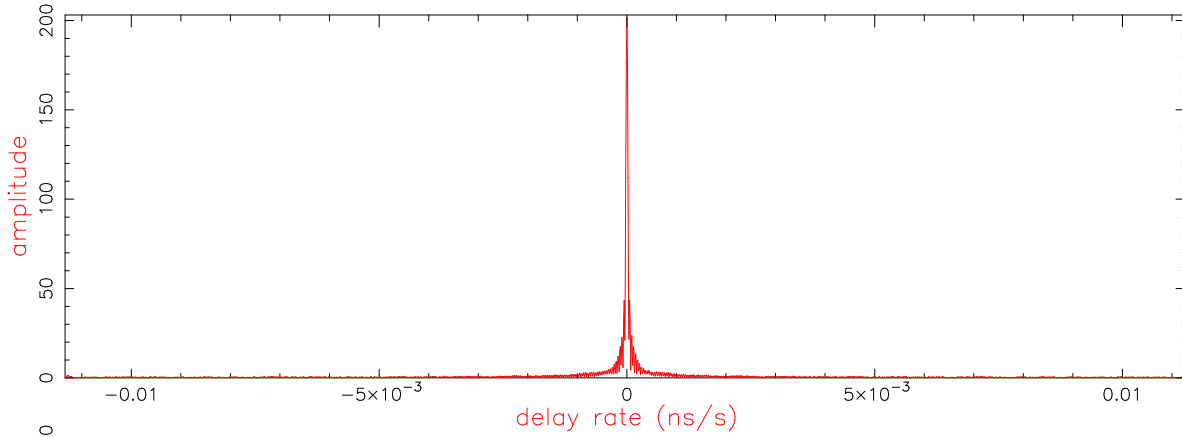


86012.00 Freq (MHz)  
-0.2 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 586/0 APs used  
| 3000 PC freqs  
| 3000 PC freqs  
|:| 0:0 PC phase  
|:| 0:0 Mani PC  
| 1000 PC amp  
| 1000  
| W00UR Chan ids  
| W00UR Chan ids

Group delay (usec)(sbd)	-5.70571548156E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-5.70572E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-7.41862240463E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-7.41862E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	9999.991 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	0.0		0.0		0.0	Search (2048X8)	9999.991	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.0		0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Inc. frq. avg.	9999.991	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

l: az 91.3 el 30.4 pa -57.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//II..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//III.W.173.0QR0YU



Fringe quality 9

SNR 2359.4

Int time 288.610

Amp 203.143

Phase 170.2

PFD 0.0e+00

Delays (us)

SBD 0.004955

MBD -0.000006

Fringe rate (Hz)

-0.000027

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163650

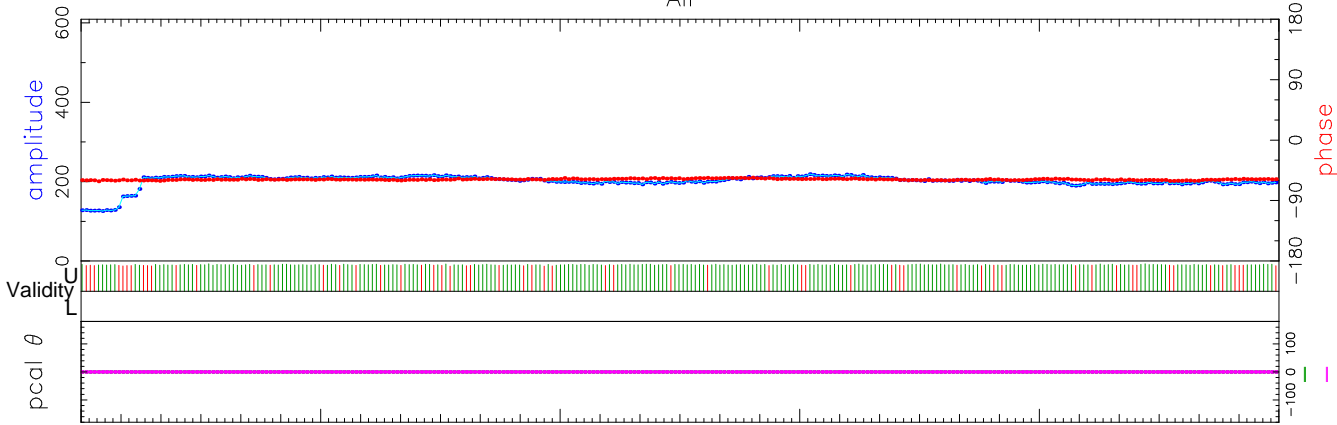
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



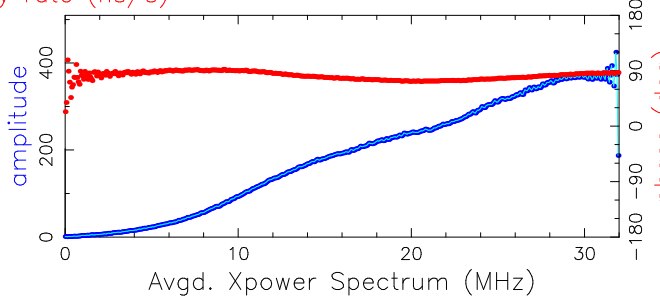
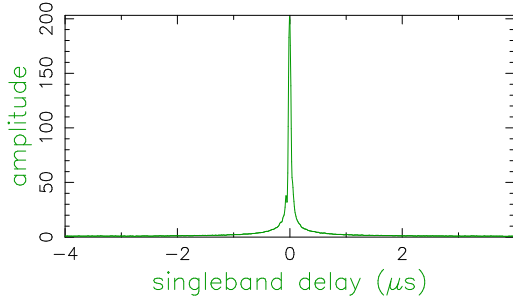
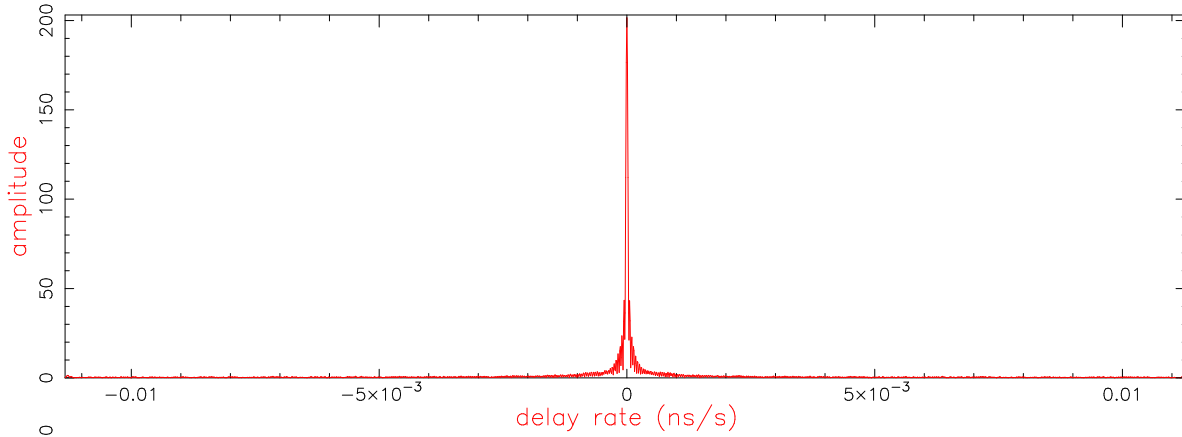
86012.00		Freq (MHz)
-58.5		Phase
201.6		Ampl.
513.6		Sbd box
U/L 586/0		APs used
3000		PC freqs
3000		PC freqs
:  0:0		PC phase
:  0:0		Manl PC
1000		PC amp
1000		
W00UL		Chan ids
W00UR		Chan ids

Group delay (usec)(sbd)	4.95849565177E-03	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-5.92792E-06	+/- 7.3E-06
Sband delay (usec)	4.95500000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.95500E-03	+/- 7.3E-06
Phase delay (usec)	-1.88719996942E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.88720E-06	+/- 1.6E-09
Delay rate (us/s)	-3.09639679758E-10	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	-3.09640E-10	+/- 9.0E-12
Total phase (deg)	170.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	170.2	+/- 0.0

ph/seg (deg)	1.0	0.4	Amplitude	203.143 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	8.0	0.7	Search (2048X8)	201.621	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.7	0.0	Inc. seg. avg.	201.665	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	201.640	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

l: az 91.3 el 30.4 pa -57.6 l: az 91.3 el 30.4 pa -57.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//II..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//II.W.184.0QR0YU



Fringe quality 9

SNR 2359.3

Int time 288.617

Amp 203.138

Phase -170.1

PFD 0.0e+00

Delays (us)

SBD -0.004955

MBD -0.000005

Fringe rate (Hz)

0.000027

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163651

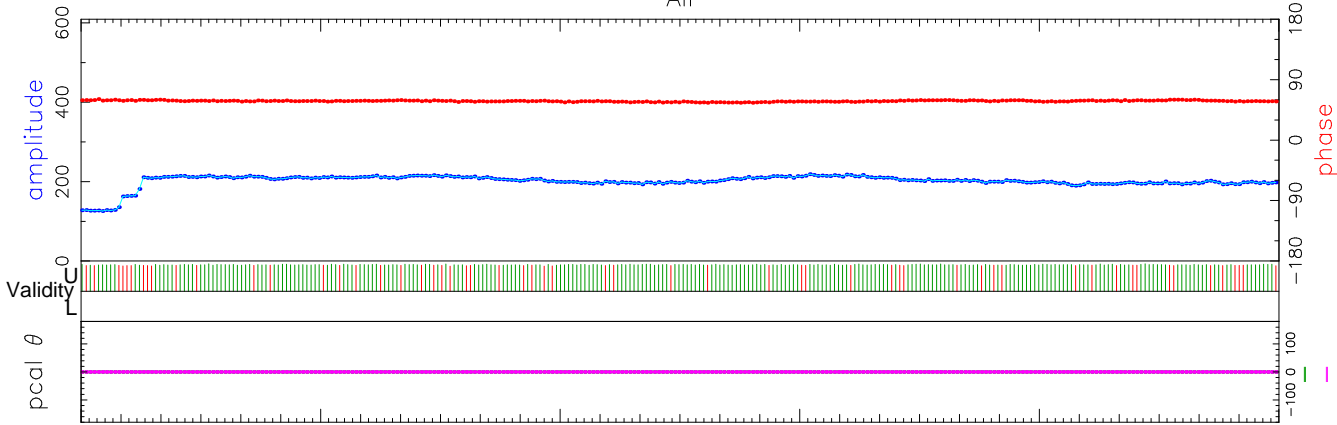
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



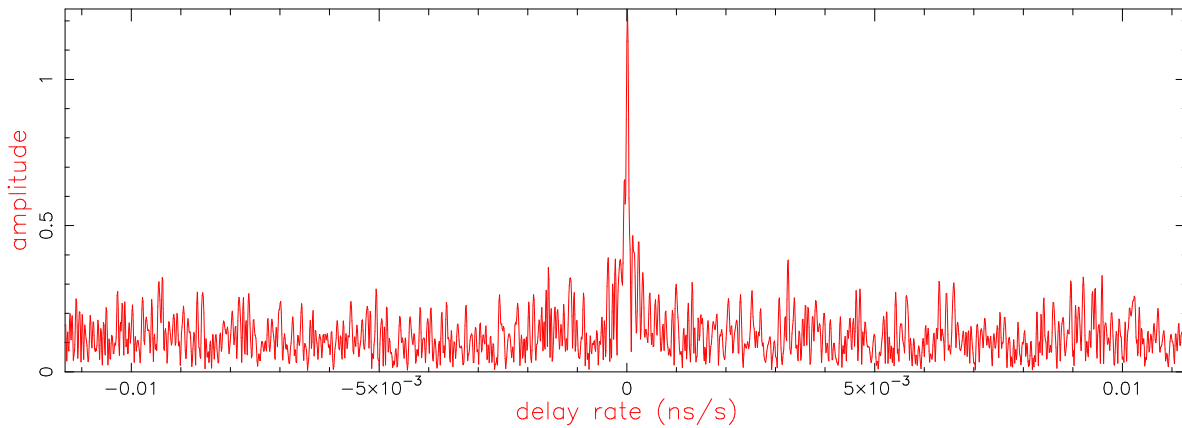
86012.00		Freq (MHz)
58.1		Phase
201.6		Ampl.
512.4		Sbd box
U/L 586/0		APs used
3000		PC freqs
3000		PC freqs
:  0:0		PC phase
:  0:0		Mani PC
1000		PC amp
1000		
W00UR		Chan ids
W00UL		Chan ids

Group delay (usec)(sbd)	-4.95758731340E-03	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.79003E-06	+/- 7.3E-06
Sband delay (usec)	-4.95500000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-4.95500E-03	+/- 7.3E-06
Phase delay (usec)	1.87326439923E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.87326E-06	+/- 1.6E-09
Delay rate (us/s)	3.09639679758E-10	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	3.09640E-10	+/- 9.0E-12
Total phase (deg)	-170.1	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-170.1	+/- 0.0

ph/seg (deg)	1.0	0.4	Amplitude	203.138 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	8.0	0.7	Search (2048X8)	201.617	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.7	0.0	Inc. seg. avg.	201.661	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	201.635	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

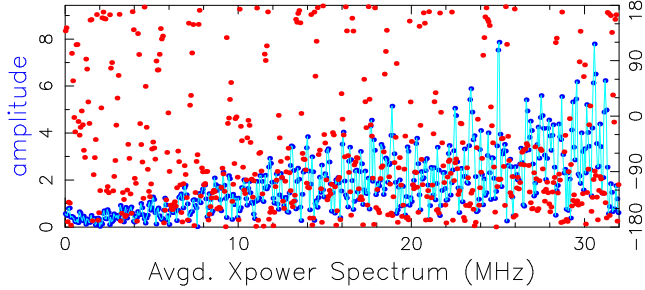
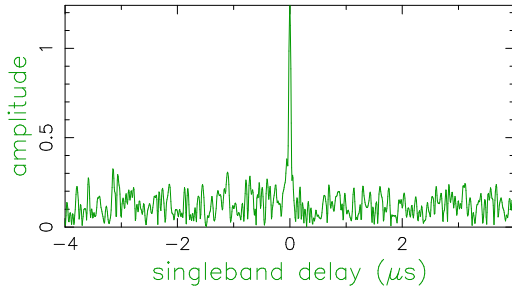
l: az 91.3 el 30.4 pa -57.6      l: az 91.3 el 30.4 pa -57.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//II..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//II.W.194.0QR0YU



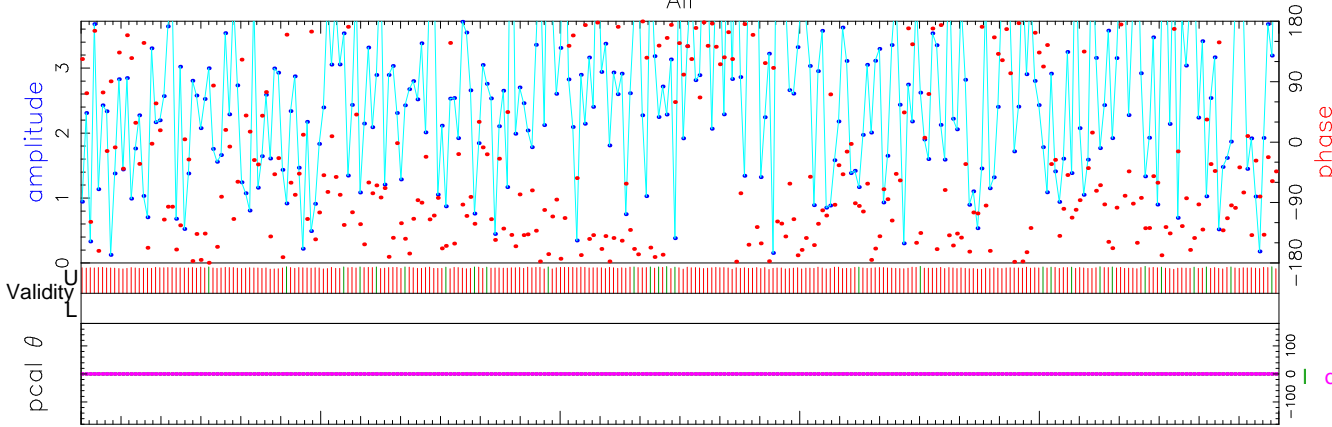
Fringe quality 9

SNR 14.1  
 Int time 277.050  
 Amp 1.241  
 Phase -189.6  
 PFD 8.5e-37  
 Delays (us)  
 SBD -0.001296  
 MBD -0.000003  
 Fringe rate (Hz)  
 0.000559  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163649  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



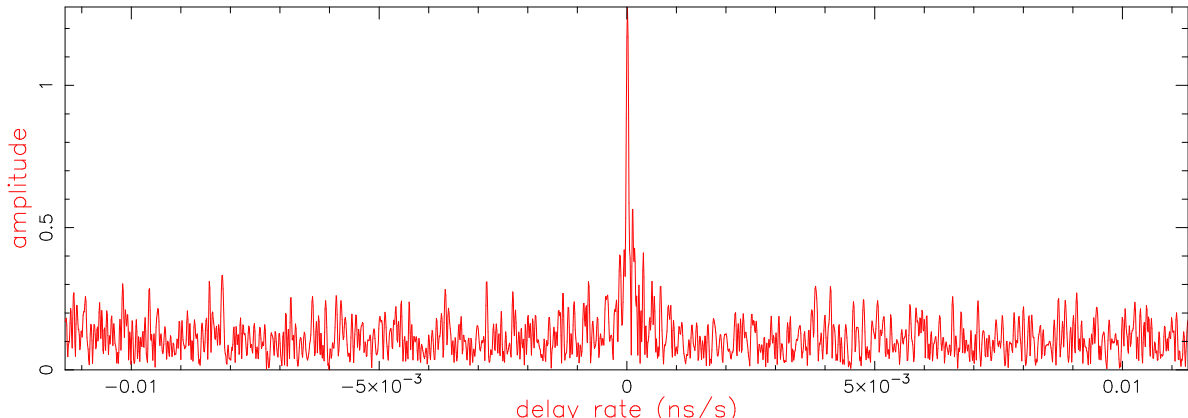
86012.00  
 -130.1  
 1.2  
 512.8  
 U/L 586/0  
 l 3000  
 o 3000  
 l:o 0:0  
 l:o 0:0  
 l 1000  
 o 1000  
 l W00UL  
 o W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

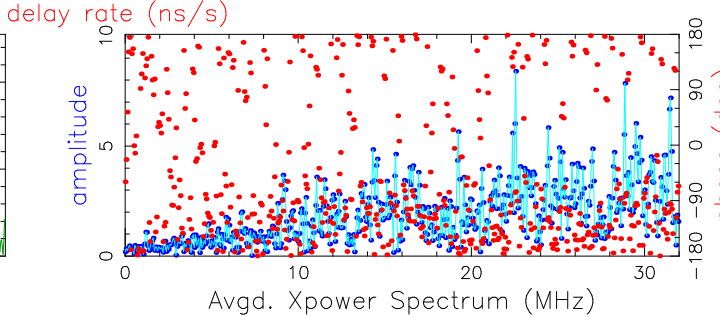
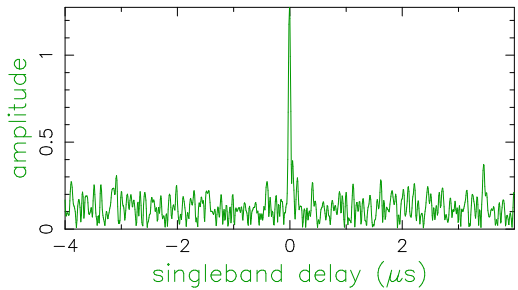
Group delay (usec)(sbd)	3.19151163227E+03	Apriori delay (usec)	3.19151292607E+03	Resid mbdelay (usec)	-3.27365E-06	+/- 1.2E-03
Sband delay (usec)	3.19151163007E+03	Apriori clock (usec)	-1.6134058E+01	Resid sbdelay (usec)	-1.29600E-03	+/- 1.2E-03
Phase delay (usec)	3.19151292187E+03	Apriori clockrate (us/s)	-5.9655997E-07	Resid phdelay (usec)	-4.19601E-06	+/- 2.6E-07
Delay rate (us/s)	-6.88457072456E-02	Apriori rate (us/s)	-6.88457137403E-02	Resid rate (us/s)	6.49464E-09	+/- 1.5E-09
Total phase (deg)	-27.1	Apriori accel (us/s/s)	-1.76985793138E-05	Resid phase (deg)	-189.6	+/- 8.1

ph/seg (deg)	RMS 75.7	Theor. 69.5	Amplitude 1.241 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	156.9	121.2	Search (2048X8) 1.219	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	4.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.2	7.1	Inc. seg. avg. 1.524	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 1.235	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

l: az 91.3 el 30.4 pa -57.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 388.191 -580.225 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lo.W.172.0QR0YU

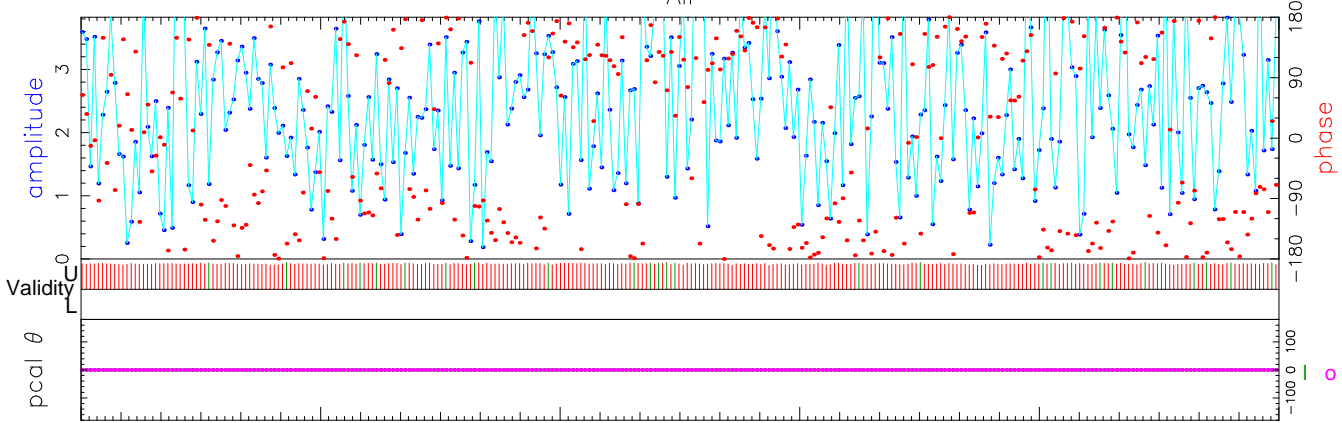


Fringe quality 9  
SNR 14.5  
Int time 277.057  
Amp 1.276  
Phase -134.3  
PFD 2.9e-39  
Delays (us)  
SBD -0.006932  
MBD -0.000004  
Fringe rate (Hz)  
0.000532  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



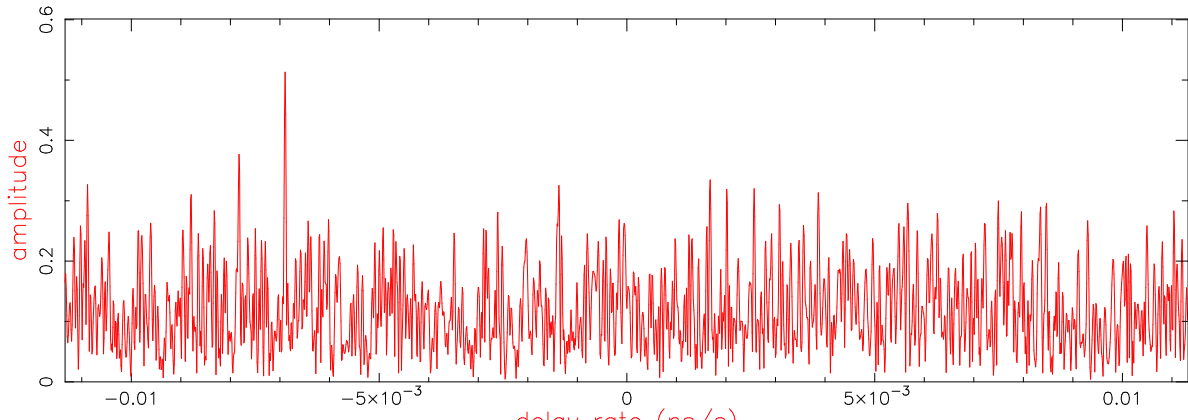
86012.00 Freq (MHz)  
-175.0 Phase  
1.3 Ampl.  
512.1 Sbd box  
U/L 586/0 APs used  
l 3000 PC freqs  
o 3000 PC freqs  
l:0 0:0 PC phase  
l:0 0:0 Manl PC  
l 1000 PC amp  
o 1000  
l W00UR Chan ids  
o W00UR Chan ids

Group delay (usec)(sbd)	3.19150599241E+03	Apriori delay (usec)	3.19151292607E+03	Resid mbdelay (usec)	-4.39042E-06	+/-	1.2E-03
Sband delay (usec)	3.19150599457E+03	Apriori clock (usec)	-1.6134058E+01	Resid sbdelay (usec)	-6.93150E-03	+/-	1.2E-03
Phase delay (usec)	3.19151292042E+03	Apriori clockrate (us/s)	-5.9655997E-07	Resid phdelay (usec)	-5.64170E-06	+/-	2.5E-07
Delay rate (us/s)	-6.88457075687E-02	Apriori rate (us/s)	-6.88457137403E-02	Resid rate (us/s)	6.17154E-09	+/-	1.5E-09
Total phase (deg)	-331.8	Apriori accel (us/s/s)	-1.76985793138E-05	Resid phase (deg)	-134.3	+/-	7.9

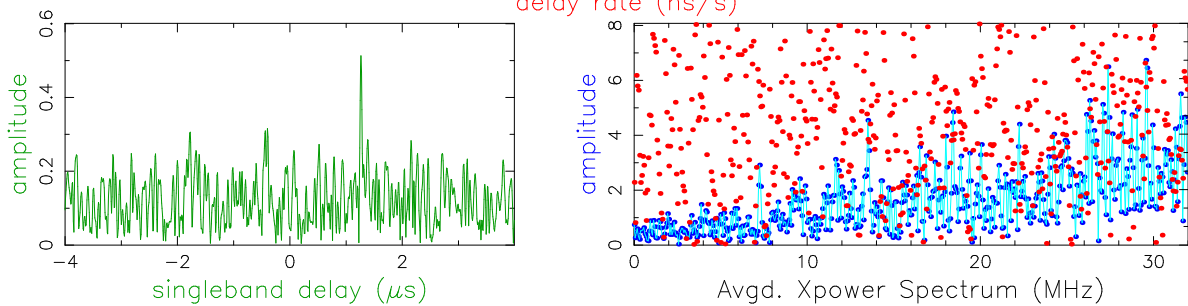
ph/seg (deg)	75.4	Theor.	67.6	Amplitude	1.276 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	135.1	Search (2048X8)	1.255	Search	1.255	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	1.457	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	1.272	Inc. frq. avg.	1.272	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

l: az 91.3 el 30.4 pa -57.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 388.191 -580.225 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lo.W.185.0QR0YU



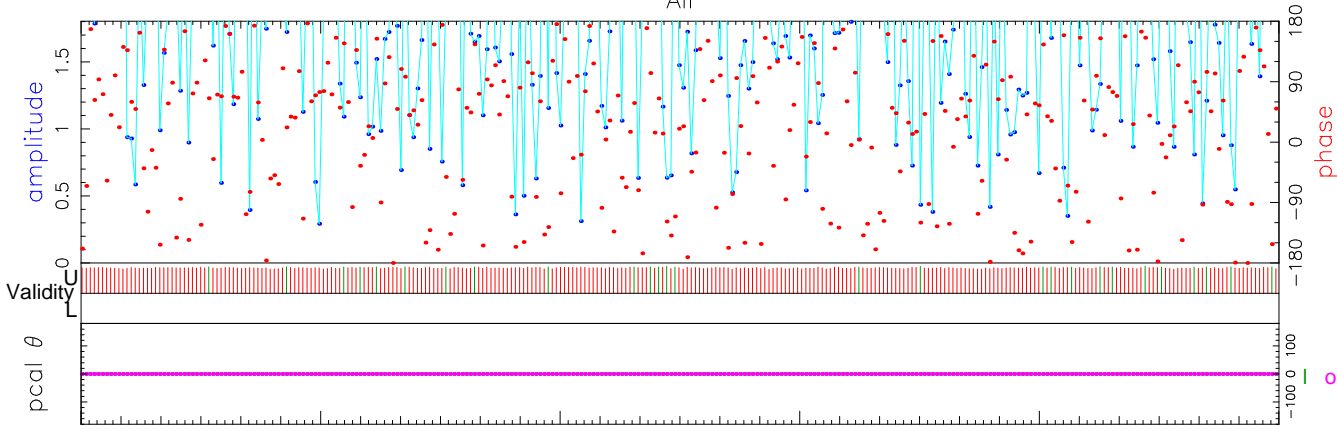


Fringe quality 0  
SNR 5.8  
Int time 277.052  
Amp 0.601  
Phase 56.5  
PFD 4.8e-01  
Delays (us)  
SBD 1.264823  
MBD -0.000006  
Fringe rate (Hz)  
-0.595461  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



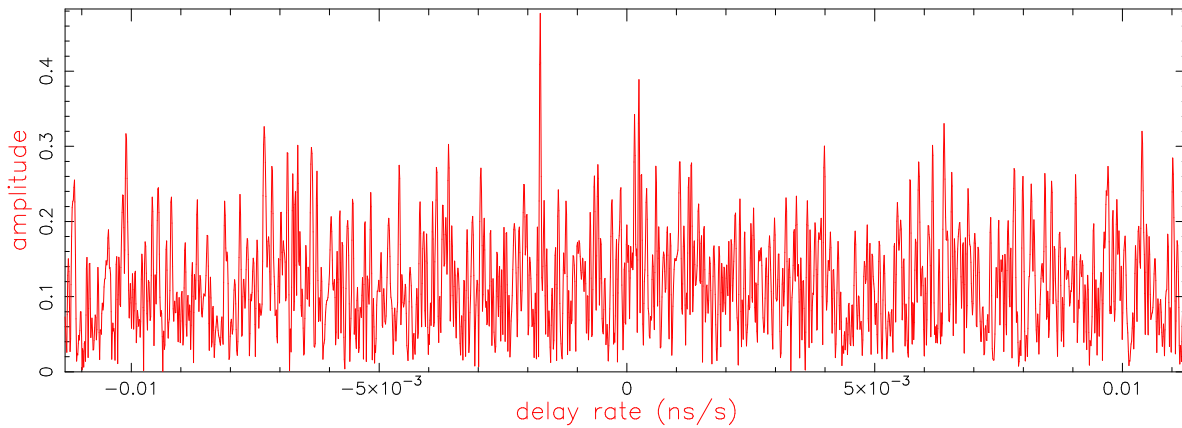
86012.00  
93.4  
0.6  
674.9  
U/L 586/0  
l 3000  
o 3000  
l:0  
l:0  
l 1000  
o 1000  
l W00UL  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.1927774405E+03	Apriori delay (usec)	3.19151292607E+03	Resid mbdelay (usec)	-5.52648E-06	+/- 2.9E-03
Sband delay (usec)	3.1927774907E+03	Apriori clock (usec)	-1.6134058E+01	Resid sbdelay (usec)	1.26482E+00	+/- 2.9E-03
Phase delay (usec)	3.19151292908E+03	Apriori clockrate (us/s)	-5.9655997E-07	Resid phdelay (usec)	3.01189E-06	+/- 6.3E-07
Delay rate (us/s)	-6.88526264525E-02	Apriori rate (us/s)	-6.88457137403E-02	Resid rate (us/s)	-6.91271E-06	+/- 3.7E-09
Total phase (deg)	218.9	Apriori accel (us/s/s)	-1.76985793138E-05	Resid phase (deg)	56.5	+/- 19.6

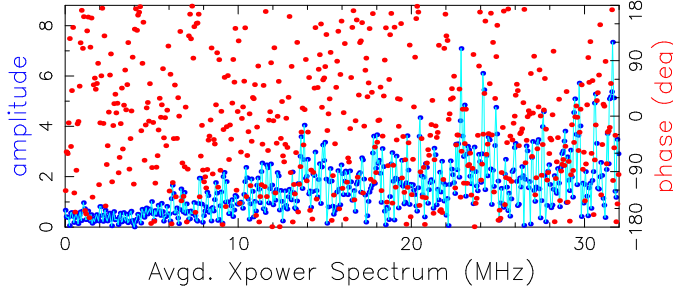
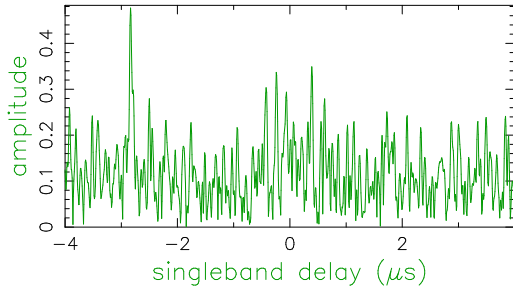
ph/seg (deg)	RMS 92.7	Theor. 167.9	Amplitude 0.601 +/- 0.103	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	358.0	293.0	Search (2048X8) 0.500	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	9.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.1	17.1	Inc. seg. avg. 0.450	Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
			Inc. frq. avg. 0.592	Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
				nlags: 512	t_cohere infinite
					ion window (TEC) 0.00 0.00

l: az 91.3 el 30.4 pa -57.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 388.191 -580.225 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lo.W.195.0QR0YU



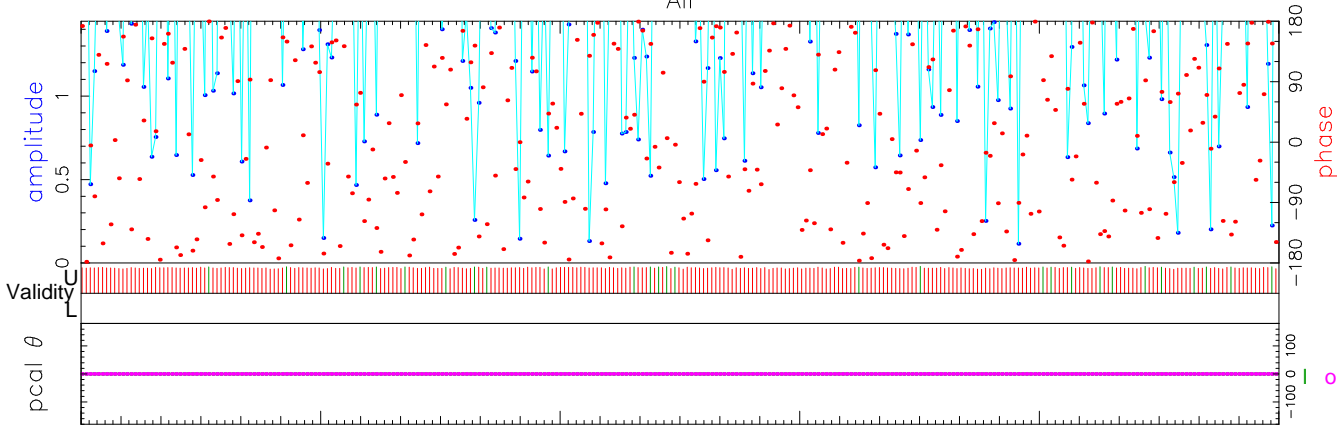
Fringe quality 0

SNR 5.4  
Int time 277.055  
Amp 0.483  
Phase -97.4  
PFD 1.0e+00  
Delays (us)  
SBD -2.834397  
MBD -0.000005  
Fringe rate (Hz)  
-0.151298  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-168.4  
0.5  
150.2  
U/L 586/0  
l 3000  
o 3000  
l:0 0:0  
l:0 0:0  
l 1000  
o 1000  
l W00UR  
o W00UL

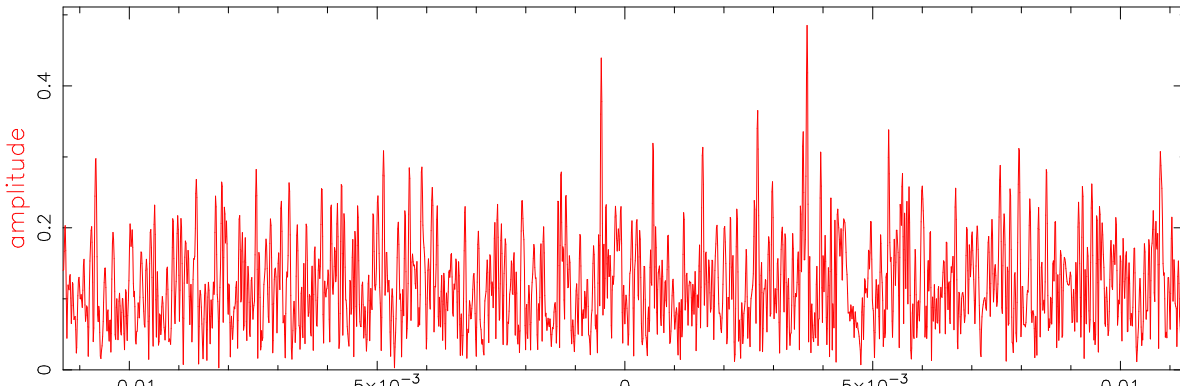
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.18867852593E+03	Apriori delay (usec)	3.19151292607E+03	Resid mbdelay (usec)	-4.93327E-06	+/- 3.2E-03
Sband delay (usec)	3.18867852907E+03	Apriori clock (usec)	-1.6134058E+01	Resid sbdelay (usec)	-2.83440E+00	+/- 3.2E-03
Phase delay (usec)	3.19151292063E+03	Apriori clockrate (us/s)	-5.9655997E-07	Resid phdelay (usec)	-5.43149E-06	+/- 6.8E-07
Delay rate (us/s)	-6.88474701597E-02	Apriori rate (us/s)	-6.88457137403E-02	Resid rate (us/s)	-1.75642E-06	+/- 3.9E-09
Total phase (deg)	-294.9	Apriori accel (us/s/s)	-1.76985793138E-05	Resid phase (deg)	-97.4	+/- 21.1

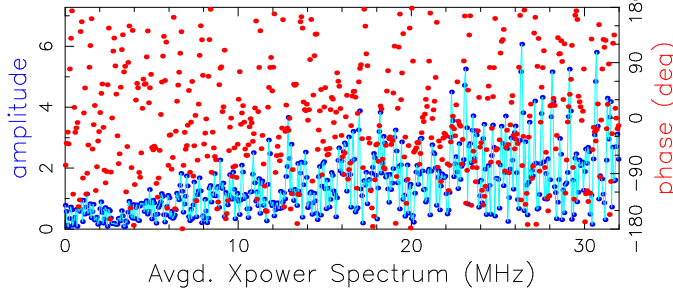
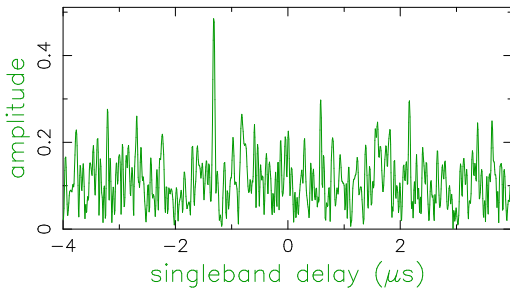
ph/seg (deg)	93.3	Theor.	180.3	Amplitude	0.483 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	406.6	Search (2048X8)	0.468	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.353	Inc. frq. avg.	0.474	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.2	Inc. frq. avg.	0.474			Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

l: az 91.3 el 30.4 pa -57.6 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 388.191 -580.225 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lo.W.214.0QR0YU

Fringe quality 0



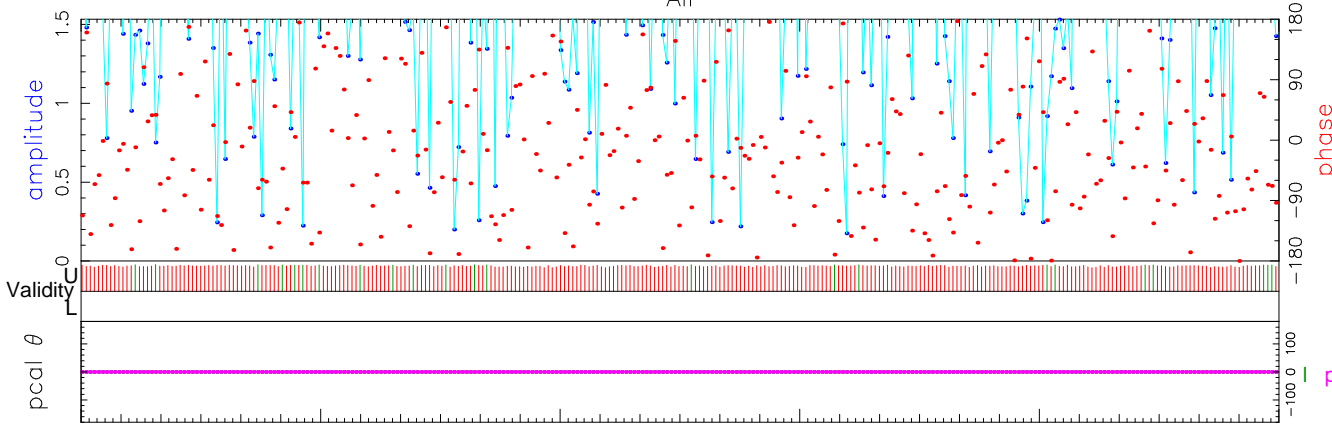
SNR 5.6  
Int time 275.413  
Amp 0.511  
Phase -268.9  
PFD 9.7e-01  
Delays (us)  
SBD -1.317430  
MBD 0.000004  
Fringe rate (Hz)  
0.317407  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163649  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-41.7  
0.5  
344.4  
U/L 586/0  
l 3000  
p 3000  
l:p 0:0  
l:p 0:0  
l 1000  
p 1000  
l W00UL  
p W00UL

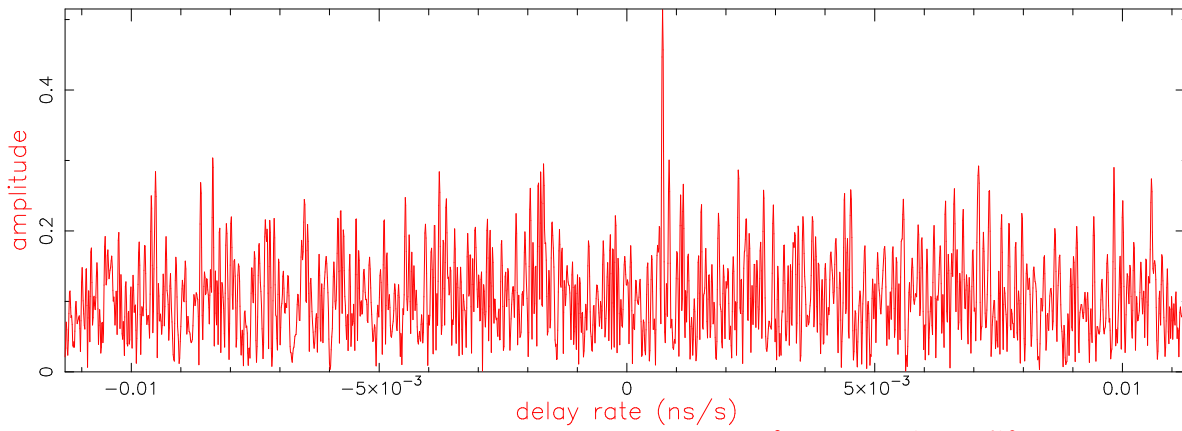
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	4.65002979583E+02	Apriori delay (usec)	4.66320407665E+02	Resid mbdelay (usec)	4.36893E-06	+/-	3.1E-03
Sband delay (usec)	4.65002977665E+02	Apriori clock (usec)	-1.8113422E+01	Resid sbdelay (usec)	-1.31743E+00	+/-	3.1E-03
Phase delay (usec)	4.66320406322E+02	Apriori clockrate (us/s)	-1.2200001E-07	Resid phdelay (usec)	-1.34316E-06	+/-	6.7E-07
Delay rate (us/s)	-3.72925990219E-02	Apriori rate (us/s)	-3.72962836050E-02	Resid rate (us/s)	3.68478E-06	+/-	3.8E-09
Total phase (deg)	-299.1	Apriori accel (us/s/s)	-1.91239969545E-06	Resid phase (deg)	-268.9	+/-	20.6

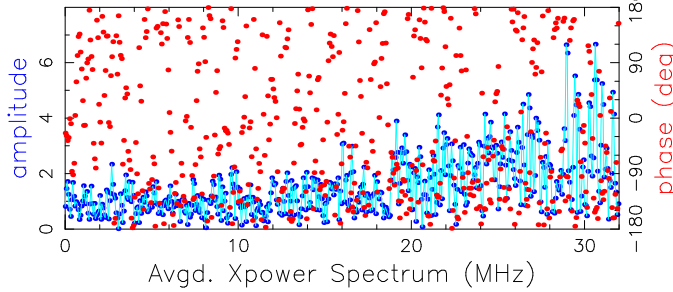
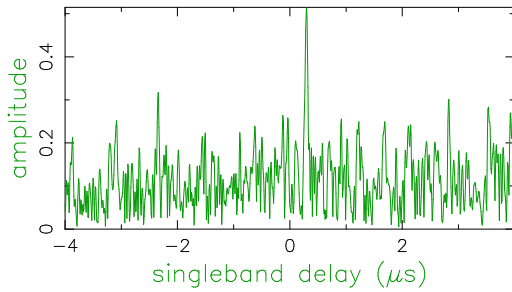
ph/seg (deg)	90.2	Theor.	176.7	Amplitude	0.511 +/- 0.092	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	404.9	Search (2048X8)	0.484	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.388	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.8	Inc. frq. avg.	0.499	Inc. frq. avg.	0.499	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

l: az 91.3 el 30.4 pa -57.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 220.131 133.973 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lp.W.169.0QR0YU

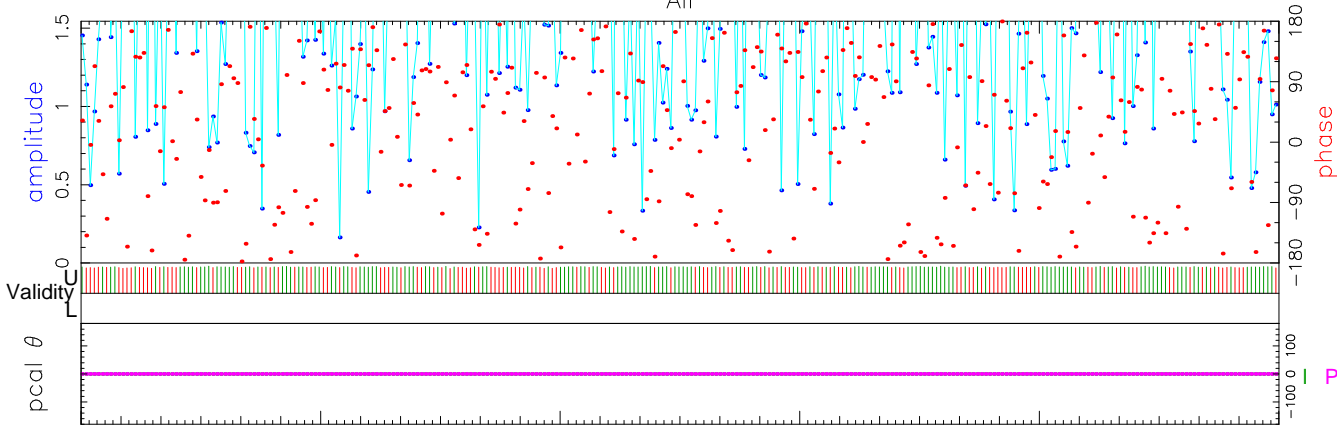


Fringe quality 0  
SNR 5.9  
Int time 285.195  
Amp 0.515  
Phase 77.3  
PFD 3.1e-01  
Delays (us)  
SBD 0.295929  
MBD 0.000005  
Fringe rate (Hz) 0.062248  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
121.1  
0.5  
550.9  
U/L 586/0  
I 3000  
P 0  
I:P 0:0  
I:P 0:0  
I 1000  
P 1000  
I W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

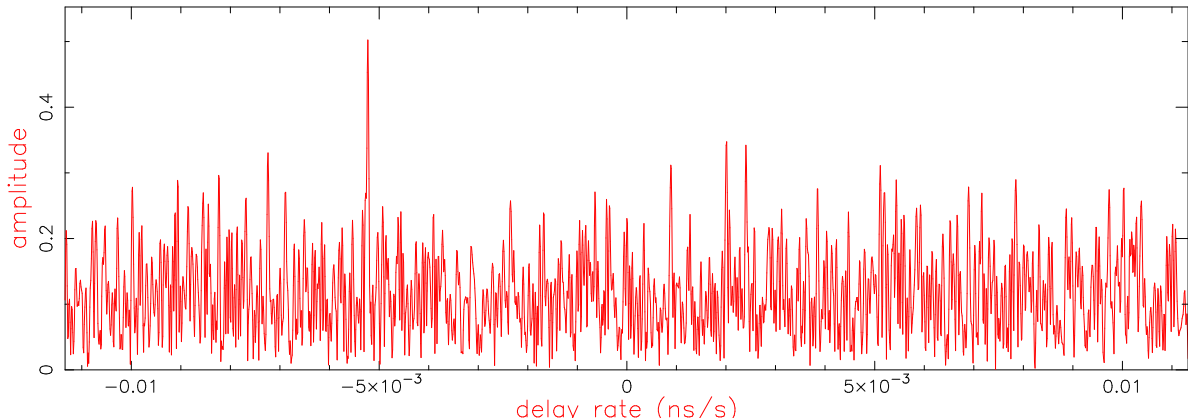
Group delay (usec)(sbd)	-5.10991231412E+03	Apriori delay (usec)	-5.11020824295E+03	Resid mbdelay (usec)	5.01297E-06	+/- 2.9E-03
Sband delay (usec)	-5.10991231445E+03	Apriori clock (usec)	1.3269104E+01	Resid sbdelay (usec)	2.95929E-01	+/- 2.9E-03
Phase delay (usec)	-5.11020823905E+03	Apriori clockrate (us/s)	3.2000002E-07	Resid phdelay (usec)	3.90506E-06	+/- 6.2E-07
Delay rate (us/s)	1.84092897390E+00	Apriori rate (us/s)	1.84092825127E+00	Resid rate (us/s)	7.22632E-07	+/- 3.6E-09
Total phase (deg)	60.0	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	77.3	+/- 19.3

ph/seg (deg) 91.8 165.2 Theor. Amplitude 0.515 +/- 0.087 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 336.0 288.4 Search (2048X8) 0.504 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
ph/frq (deg) 0.0 9.7 Inc. seg. avg. 0.372 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
amp/frq (%) 0.0 16.8 Inc. frq. avg. 0.508 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
I: az 91.3 el 30.4 pa -57.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IP.W.187.0QR0YU

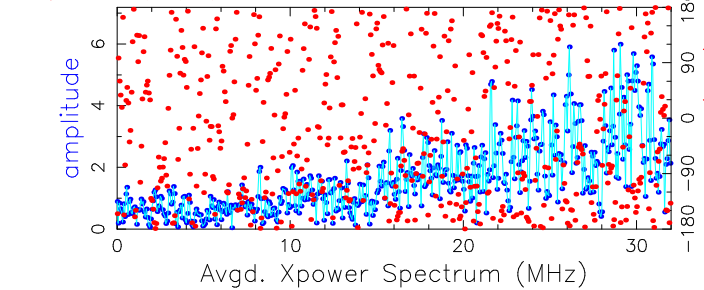
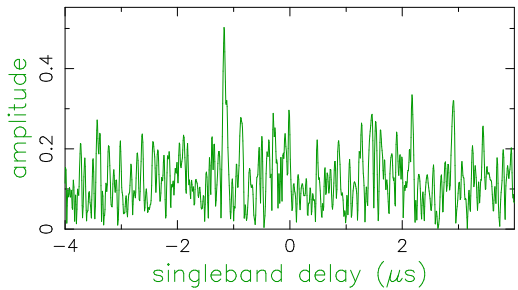




Fringe quality 0

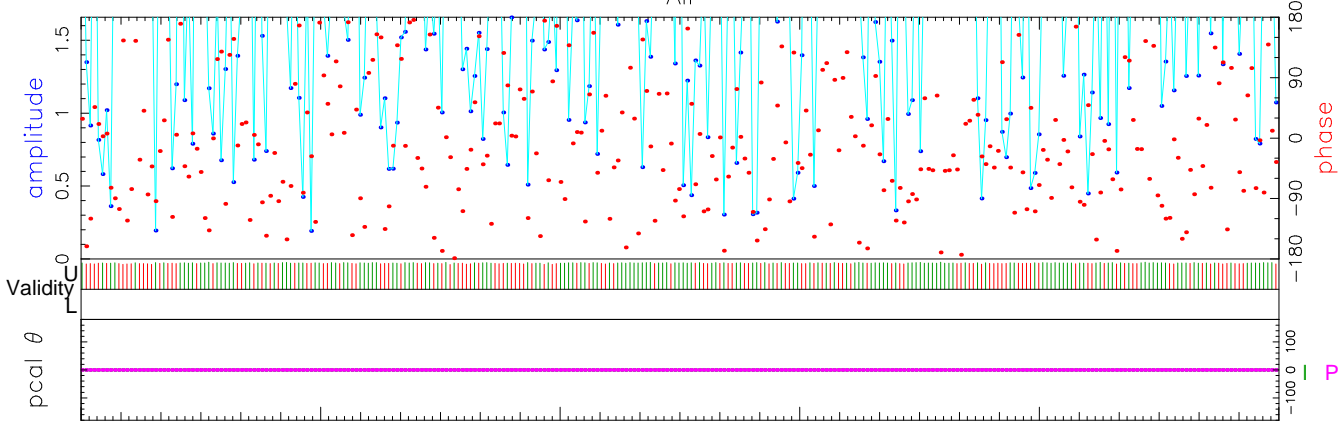


SNR 5.8  
Int time 285.199  
Amp 0.553  
Phase -264.2  
PFD 4.9e-01  
Delays (us)  
SBD -1.169112  
MBD -0.000006  
Fringe rate (Hz)  
-0.451072  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



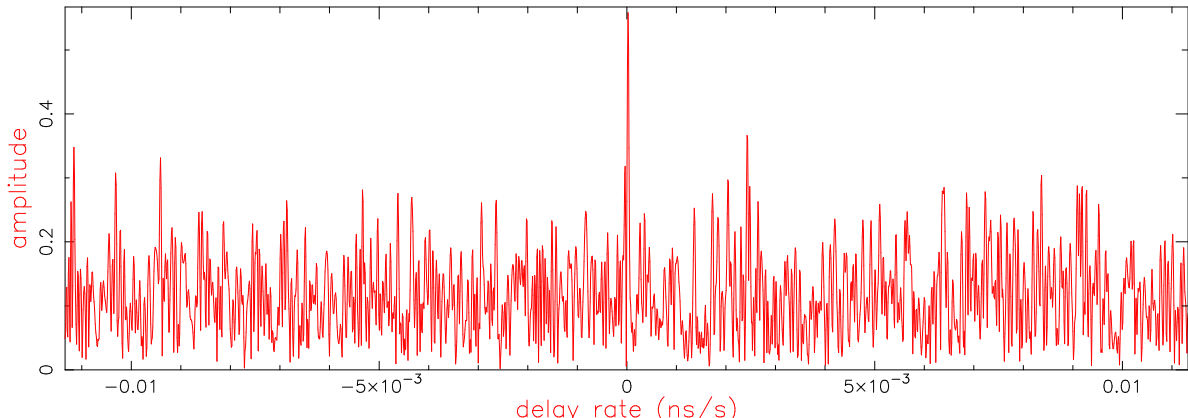
86012.00  
-31.8  
0.5  
363.3  
U/L 586/0  
I 3000  
P 0  
I:P 0:0  
I:P 0:0  
I 1000  
P 1000  
I W00UR  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

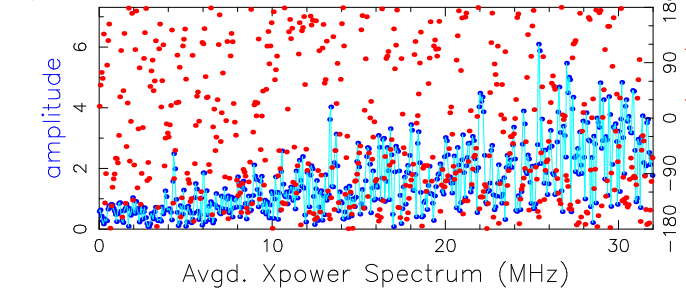
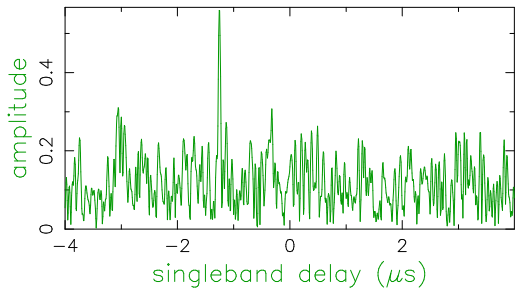
Group delay (usec)(sbd)	-5.11137735320E+03	Apriori delay (usec)	-5.11020824295E+03	Resid mbdelay (usec)	-5.93629E-06	+/-	3.0E-03
Sband delay (usec)	-5.11137735545E+03	Apriori clock (usec)	1.3269104E+01	Resid sbdelay (usec)	-1.16911E+00	+/-	3.0E-03
Phase delay (usec)	-5.11020824398E+03	Apriori clockrate (us/s)	3.2000002E-07	Resid phdelay (usec)	-1.02656E-06	+/-	6.3E-07
Delay rate (us/s)	1.84092301477E+00	Apriori rate (us/s)	1.84092825127E+00	Resid rate (us/s)	-5.23650E-06	+/-	3.7E-09
Total phase (deg)	-281.4	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	-264.2	+/-	19.6

ph/seg (deg)	89.5	Theor.	168.1	Amplitude	0.553 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	354.7	Search (2048X8)	0.499	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.410	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.541	Inc. frq. avg.	0.541	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IP.W.200.0QR0YU

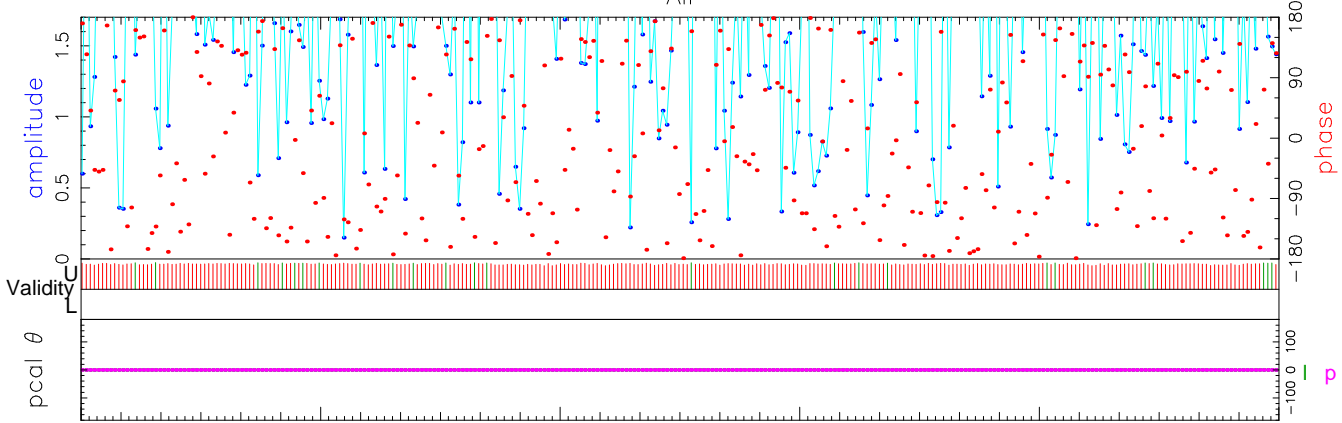


Fringe quality 0  
SNR 6.4  
Int time 275.408  
Amp 0.567  
Phase -344.4  
PFD 1.7e-02  
Delays (us)  
SBD -1.254037  
MBD -0.000001  
Fringe rate (Hz) 0.001857  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-158.5  
0.6  
352.5  
U/L 586/0  
l 3000  
p 3000  
l:p 0:0  
l:p 0:0  
l 1000  
p 1000  
l W00UL  
p W00UR

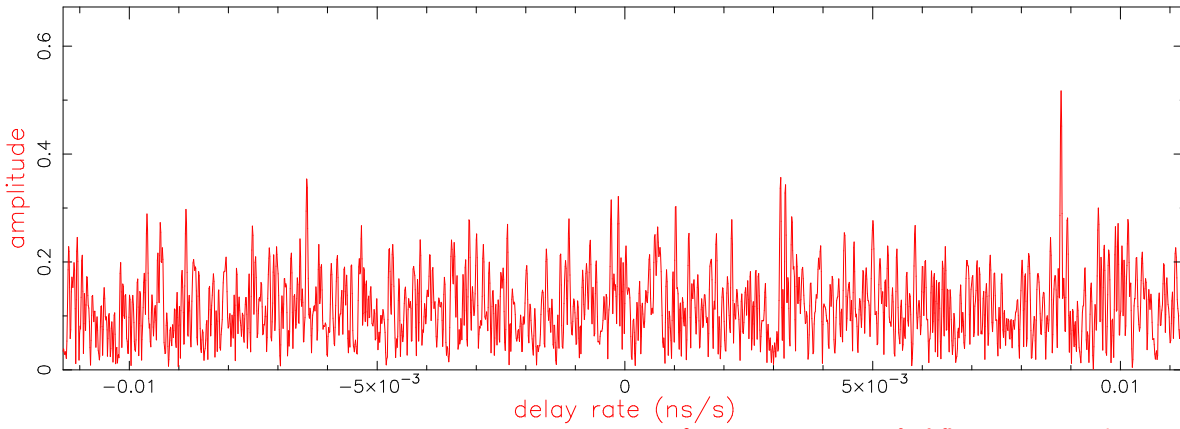
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	4.65066372246E+02	Apriori delay (usec)	4.66320407665E+02	Resid mbdelay (usec)	-1.09839E-06	+/-	2.7E-03
Sband delay (usec)	4.65066371165E+02	Apriori clock (usec)	-1.8113422E+01	Resid sbdelay (usec)	-1.25404E+00	+/-	2.7E-03
Phase delay (usec)	4.66320402554E+02	Apriori clockrate (us/s)	-1.2200001E-07	Resid phdelay (usec)	-5.11190E-06	+/-	5.7E-07
Delay rate (us/s)	-3.72962622436E-02	Apriori rate (us/s)	-3.72962838050E-02	Resid rate (us/s)	2.15614E-08	+/-	3.3E-09
Total phase (deg)	-14.6	Apriori accel (us/s/s)	-1.91239969545E-06	Resid phase (deg)	-344.4	+/-	17.8

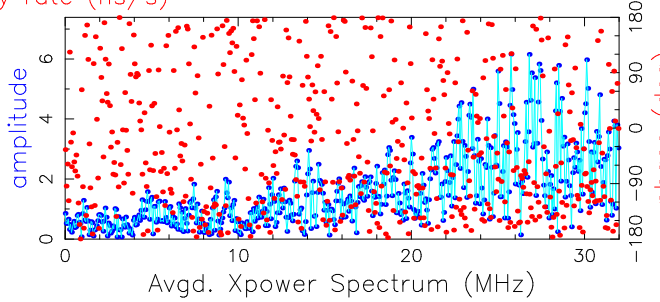
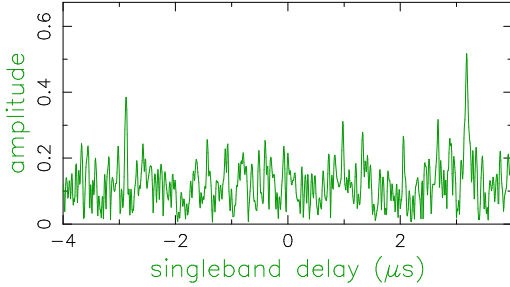
ph/seg (deg)	89.6	Theor.	152.4	Amplitude	0.567 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	318.2	Search (2048X8)	0.558	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.444	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.6	Inc. frq. avg.	0.552	Inc. frq. avg.	0.552	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

l: az 91.3 el 30.4 pa -57.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 220.131 133.973 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lp.W.203.0QR0YU

Fringe quality 0

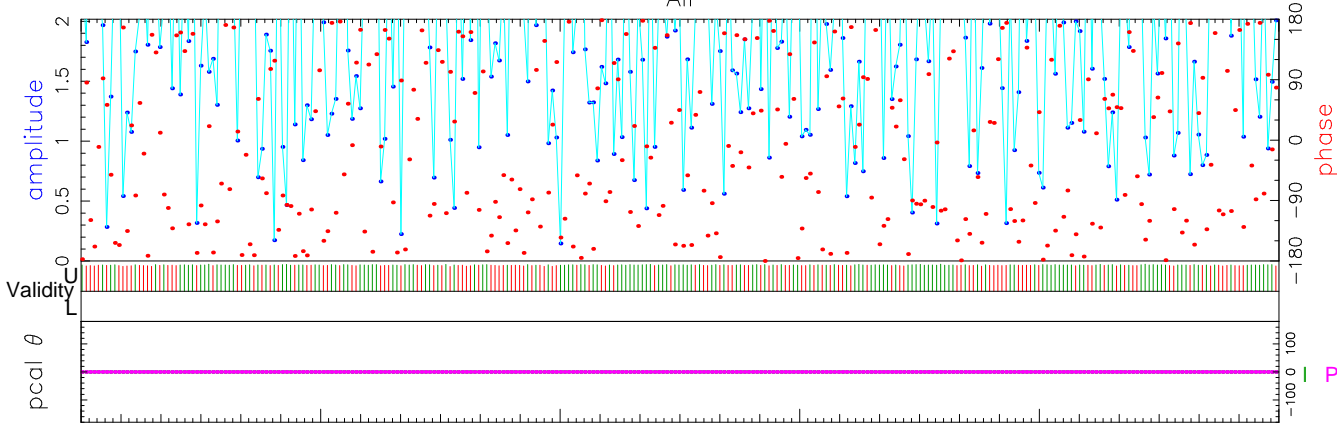


SNR 6.0  
 Int time 285.195  
 Amp 0.673  
 Phase 244.0  
 PFD 2.6e-01  
 Delays (us)  
 SBD 3.180544  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.759348  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163654  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



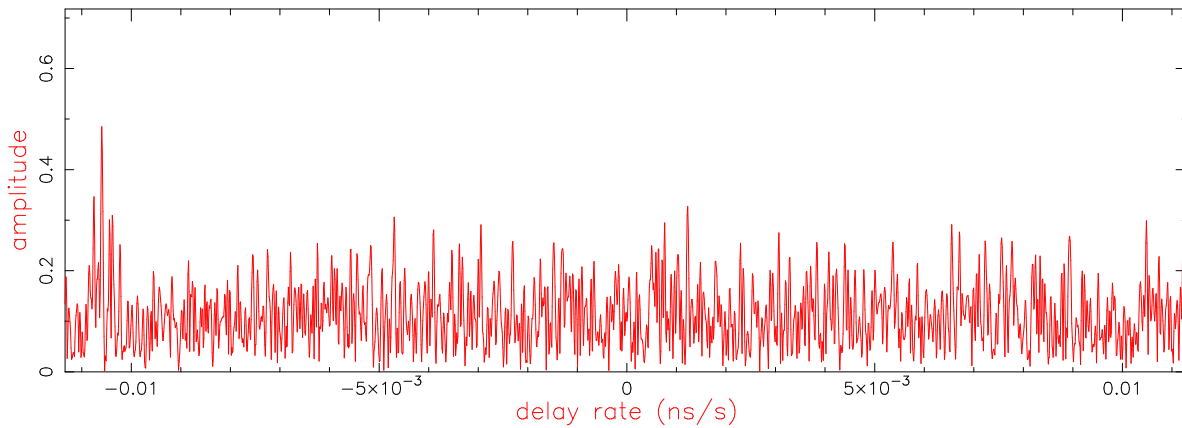
86012.00  
 -155.4  
 0.7  
 920.1  
 U/L 586/0  
 I 3000  
 P 0  
 I:P 0:0  
 I:P 0:0  
 I 1000  
 P 1000  
 I W00UL  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 ManI PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-5.10702769358E+03	Apriori delay (usec)	-5.11020824295E+03	Resid mbdelay (usec)	4.79673E-06	+/- 2.9E-03
Sband delay (usec)	-5.10702769895E+03	Apriori clock (usec)	1.3269104E+01	Resid sbdelay (usec)	3.18054E+00	+/- 2.9E-03
Phase delay (usec)	-5.11020824797E+03	Apriori clockrate (us/s)	3.2000002E-07	Resid phdelay (usec)	-5.01256E-06	+/- 6.2E-07
Delay rate (us/s)	1.84093706654E+00	Apriori rate (us/s)	1.84092825127E+00	Resid rate (us/s)	8.81527E-06	+/- 3.6E-09
Total phase (deg)	226.8	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	244.0	+/- 19.2

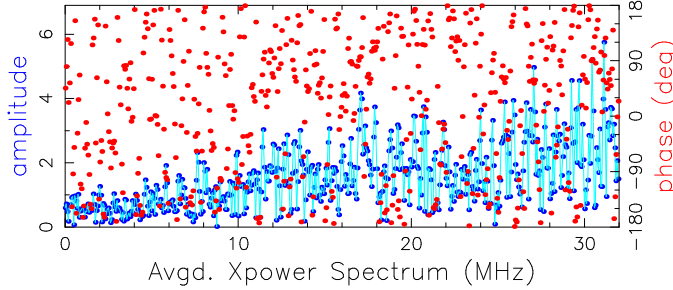
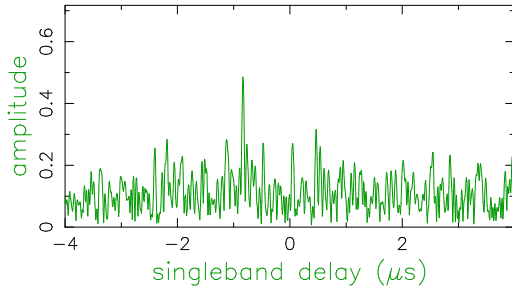
ph/seg (deg)	89.9	Theor.	164.2	Amplitude	0.673 +/- 0.113	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	355.2	Search (2048X8)	0.511	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.521	Inc. seg. avg.	0.521	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.1	Inc. frq. avg.	0.663	Inc. frq. avg.	0.663	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 91.3 el 30.4 pa -57.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IP.W.219.0QR0YU



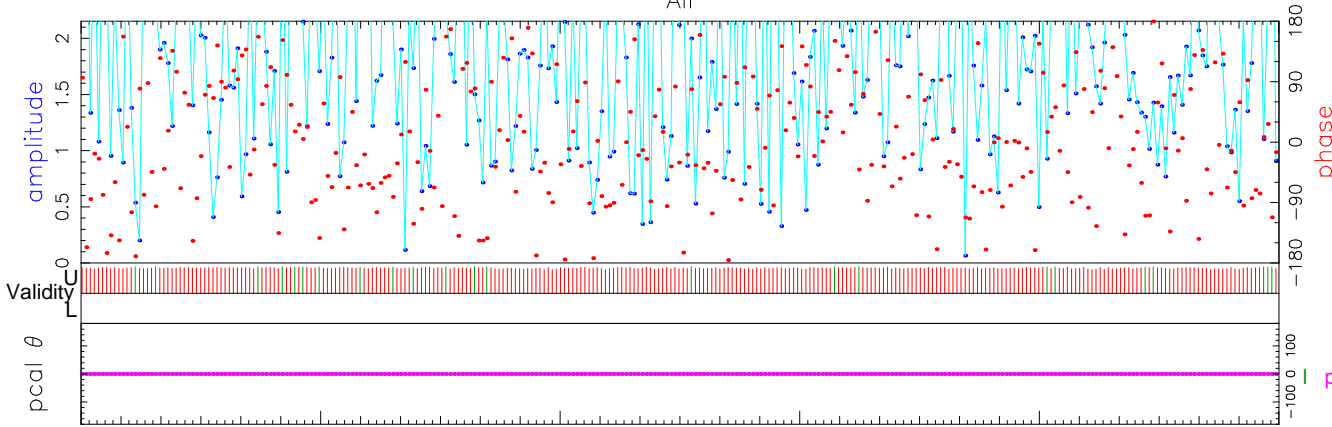
Fringe quality 0

SNR 5.5  
 Int time 275.418  
 Amp 0.718  
 Phase -306.8  
 PFD 9.9e-01  
 Delays (us)  
 SBD -0.834522  
 MBD -0.000006  
 Fringe rate (Hz)  
 -0.913617  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163655  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



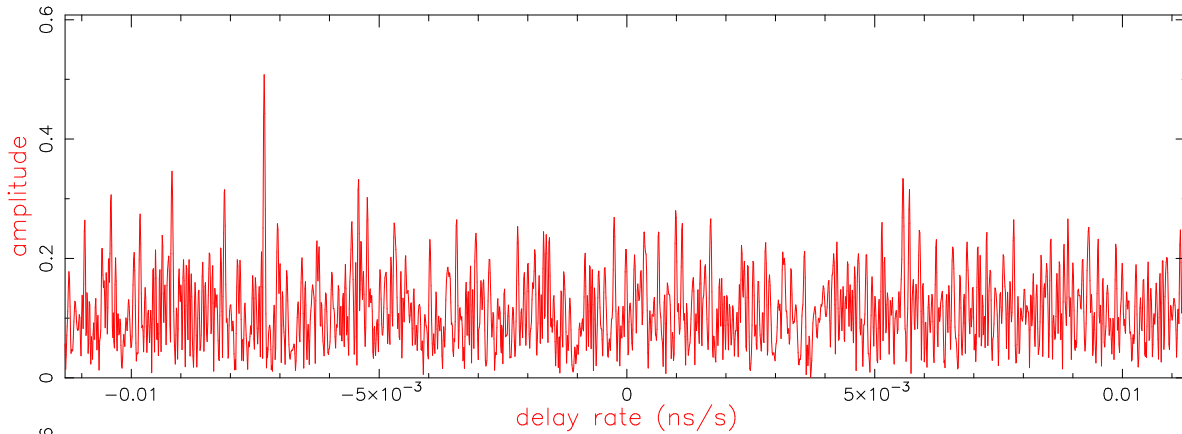
86012.00  
 -12.6  
 0.7  
 406.2  
 U/L 586/0  
 l 3000  
 p 3000  
 l:p 0:0  
 l:p 0:0  
 l 1000  
 p 1000  
 l W00UR  
 p W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

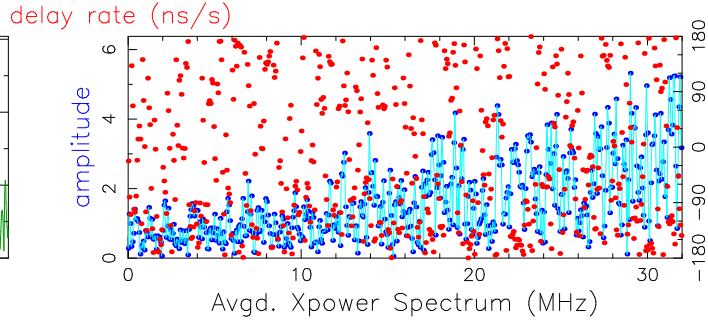
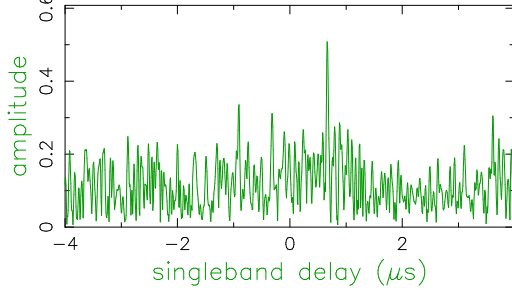
Group delay (usec)(sbd)	4.65485890513E+02	Apriori delay (usec)	4.66320407665E+02	Resid mbdelay (usec)	-5.68897E-06	+/-	3.1E-03
Sband delay (usec)	4.65485885165E+02	Apriori clock (usec)	-1.8113422E+01	Resid sbdelay (usec)	-8.34522E-01	+/-	3.1E-03
Phase delay (usec)	4.66320407260E+02	Apriori clockrate (us/s)	-1.2200001E-07	Resid phdelay (usec)	-4.04970E-07	+/-	6.7E-07
Delay rate (us/s)	-3.73068899914E-02	Apriori rate (us/s)	-3.72962838050E-02	Resid rate (us/s)	-1.06062E-05	+/-	3.9E-09
Total phase (deg)	-337.0	Apriori accel (us/s/s)	-1.91239969545E-06	Resid phase (deg)	-306.8	+/-	20.8

ph/seg (deg)	89.2	Theor.	177.9	Amplitude	0.718 +/- 0.130	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	357.6	Search (2048X8)	0.482	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.492	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.2	Inc. frq. avg.	0.705	Inc. frq. avg.	0.705	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
						Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

l: az 91.3 el 30.4 pa -57.6 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 220.131 133.973 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//lp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//lp.W.226.0QR0YU



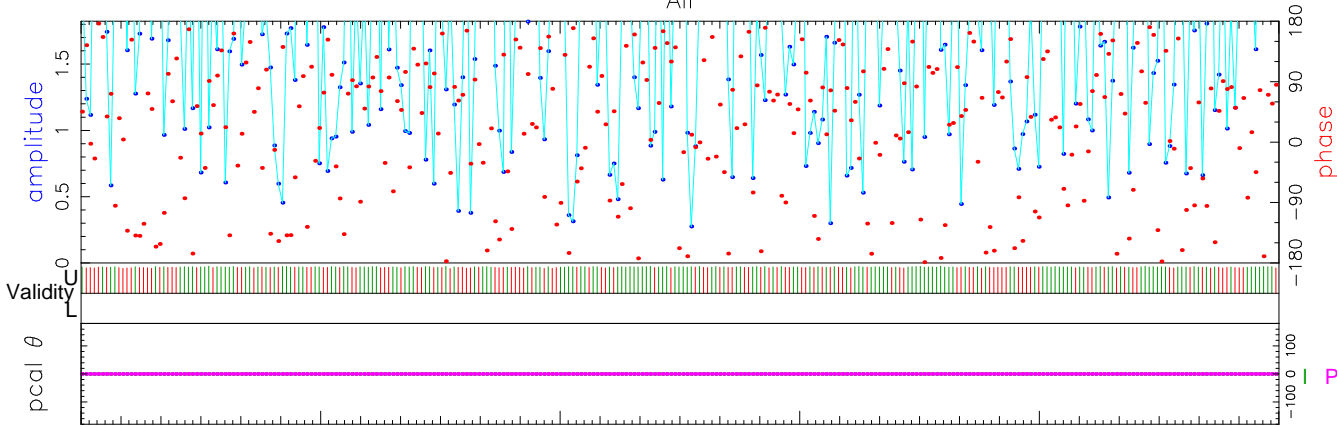
Fringe quality 0  
SNR 5.9  
Int time 285.199  
Amp 0.608  
Phase 137.5  
PFD 4.2e-01  
Delays (us)  
SBD 0.665147  
MBD -0.000006  
Fringe rate (Hz)  
-0.631096  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
87.3  
0.6  
598.2  
U/L 586/0  
I 3000  
P 0  
I:P 0:0  
I:P 0:0  
I 1000  
P 1000  
I W00UR  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.10954309753E+03	Apriori delay (usec)	-5.11020824295E+03	Resid mbdelay (usec)	-5.94773E-06	+/-	2.9E-03
Sband delay (usec)	-5.10954309645E+03	Apriori clock (usec)	1.3269104E+01	Resid sbdelay (usec)	6.65147E-01	+/-	2.9E-03
Phase delay (usec)	-5.11020824014E+03	Apriori clockrate (us/s)	3.2000002E-07	Resid phdelay (usec)	2.81451E-06	+/-	6.3E-07
Delay rate (us/s)	1.84092092487E+00	Apriori rate (us/s)	1.84092825127E+00	Resid rate (us/s)	-7.32640E-06	+/-	3.6E-09
Total phase (deg)	120.2	Apriori accel (us/s/s)	2.66690748247E-05	Resid phase (deg)	137.5	+/-	19.5

ph/seg (deg)	90.7	Theor.	167.0	Amplitude	0.608 +/- 0.103	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	350.4	Search (2048X8)	0.502	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.452	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.1	Inc. frq. avg.	0.598	Inc. frq. avg.	0.598	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

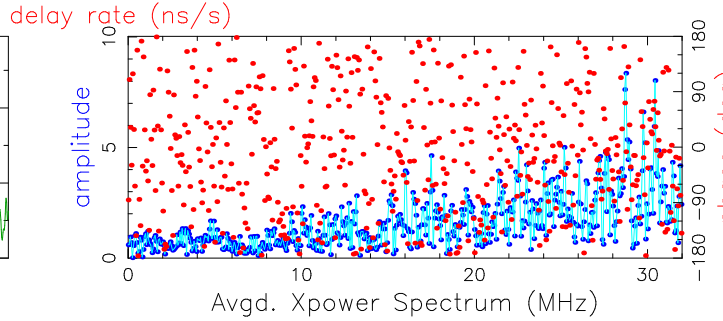
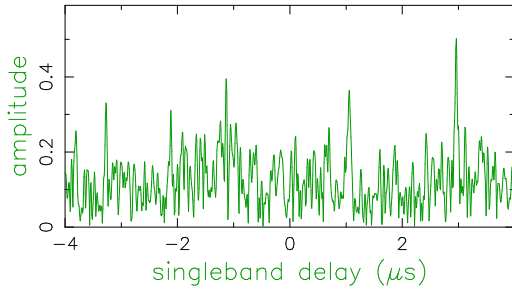
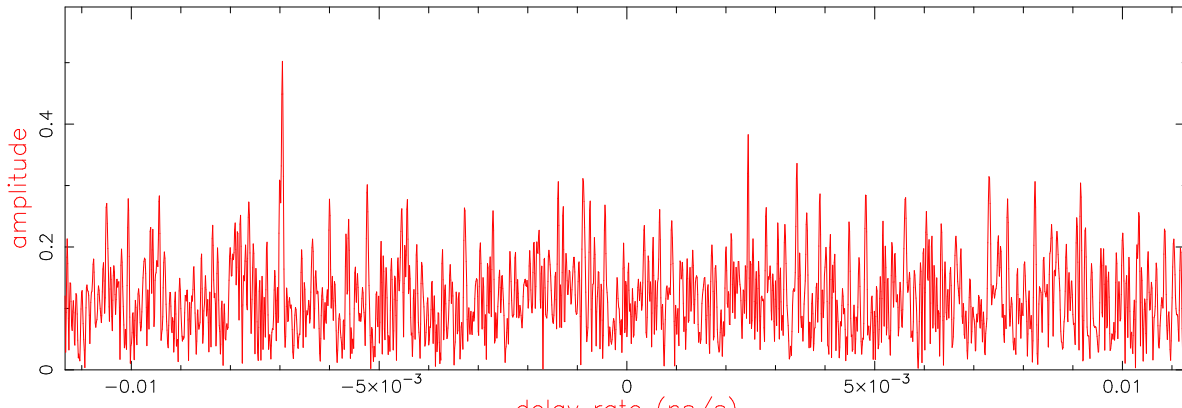
I: az 91.3 el 30.4 pa -57.6 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -10946.268 508.455 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/IP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/IP.W.236.0QR0YU



Fringe quality 0

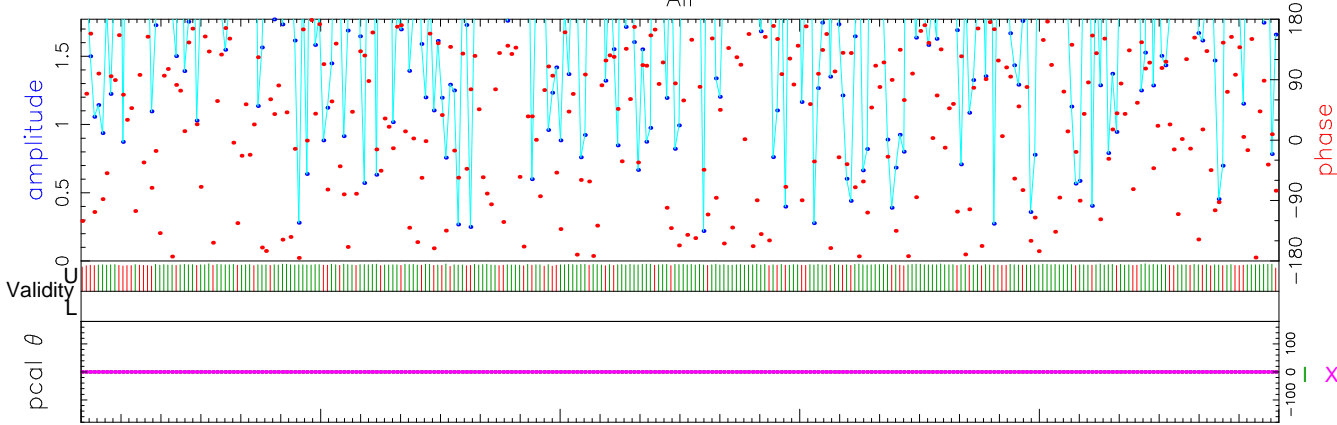
SNR 5.8  
Int time 287.947  
Amp 0.591  
Phase 64.3  
PFD 4.9e-01  
Delays (us)  
SBD 2.959785  
MBD -0.000007  
Fringe rate (Hz)  
-0.600267  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
116.9  
0.6  
891.8  
U/L 586/0  
I 3000  
X 0  
I:X 0:0  
I:X 0:0  
I 1000  
X 1000  
I W00UL  
X W00UL

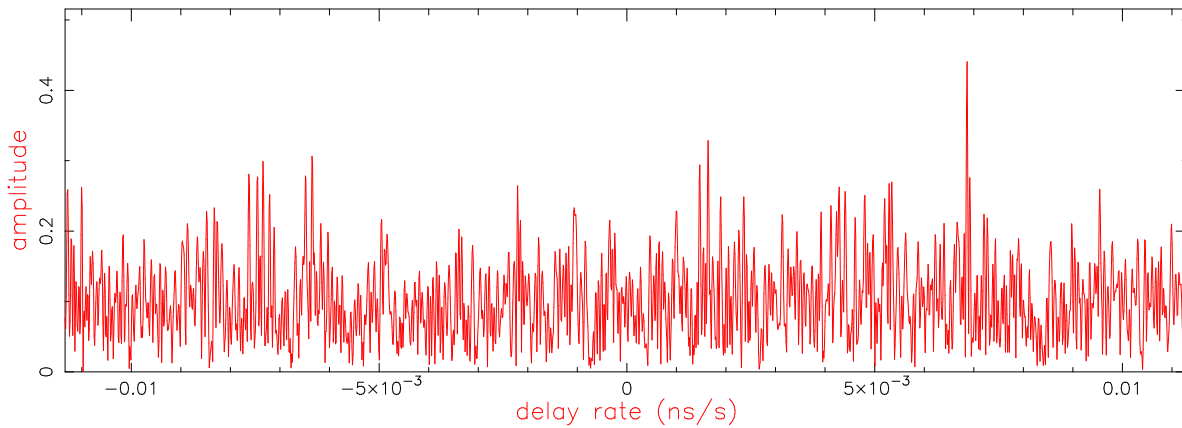
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.22060146023E+02	Apriori delay (usec)	-3.25019935065E+02	Resid mbdelay (usec)	-7.26531E-06	+/-	3.0E-03
Sband delay (usec)	-3.22060149565E+02	Apriori clock (usec)	-1.1876612E+01	Resid sbdelay (usec)	2.95979E+00	+/-	3.0E-03
Phase delay (usec)	-3.25019931295E+02	Apriori clockrate (us/s)	-7.5699999E-07	Resid phdelay (usec)	3.77034E-06	+/-	6.3E-07
Delay rate (us/s)	1.73870910220E+00	Apriori rate (us/s)	1.73871607070E+00	Resid rate (us/s)	-6.96851E-06	+/-	3.7E-09
Total phase (deg)	350.0	Apriori accel (us/s/s)	-6.47655486167E-06	Resid phase (deg)	64.3	+/-	19.6

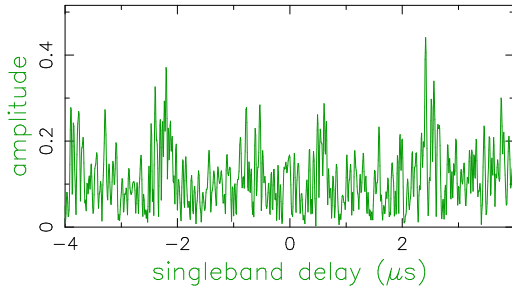
ph/seg (deg)	92.4	Theor.	168.0	Amplitude	0.591 +/- 0.101	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	369.8	Search (2048X8)	0.489	Search	0.489	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.455	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.581	Inc. frq. avg.	0.581	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10379.563 -2292.254 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IX.W.182.0QR0YU

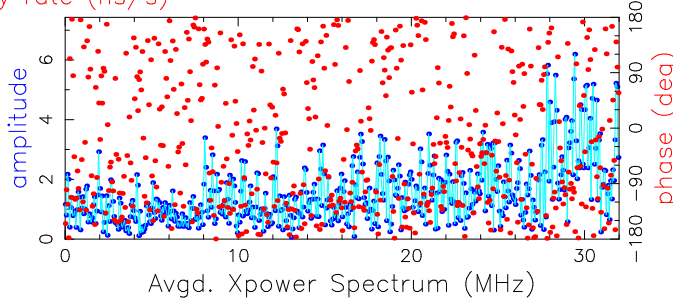
Fringe quality 0



SNR 5.1  
Int time 287.951  
Amp 0.516  
Phase 130.9  
PFD 1.0e+00  
Delays (us)  
SBD 2.414821  
MBD 0.000007  
Fringe rate (Hz)  
0.592480  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

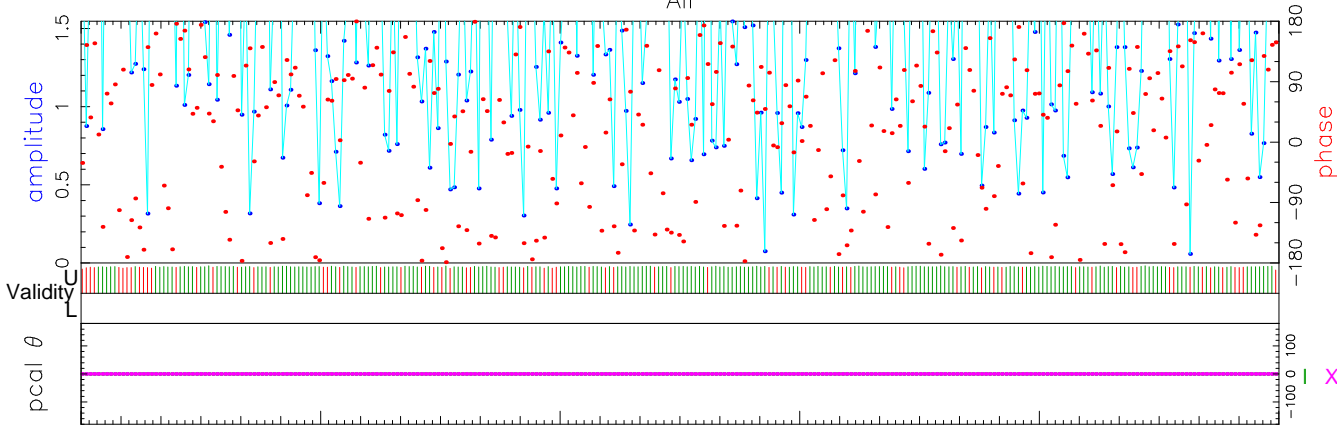


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



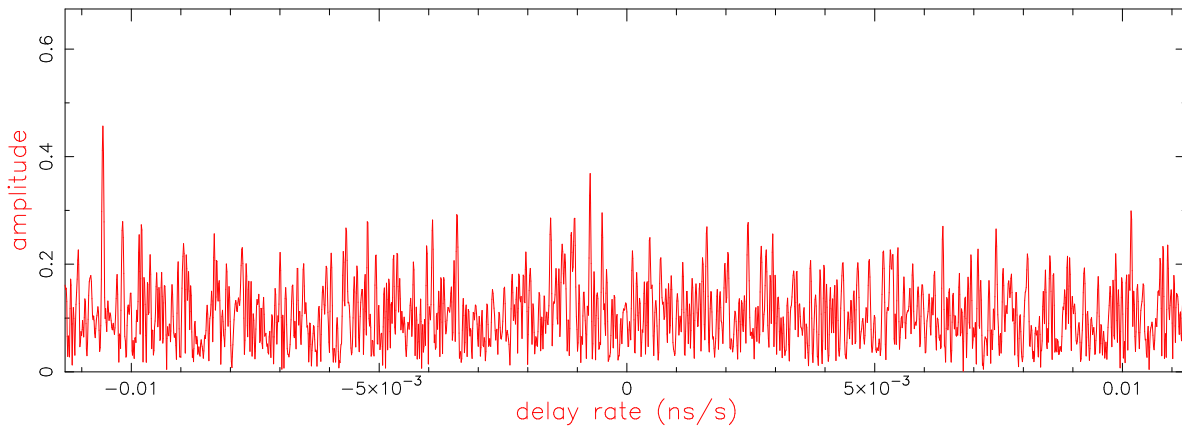
86012.00  
96.3  
0.5  
822.1  
U/L 586/0  
I 3000  
X 0  
I:X 0:0  
I:X 0:0  
I 1000  
X 1000  
I W00UR  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
  
Chan ids

Group delay (usec)(sbd)	-3.22605113615E+02	Apriori delay (usec)	-3.25019935065E+02	Resid mbdelay (usec)	7.23776E-06	+/-	3.4E-03
Sband delay (usec)	-3.22605114065E+02	Apriori clock (usec)	-1.1876612E+01	Resid sbdelay (usec)	2.41482E+00	+/-	3.4E-03
Phase delay (usec)	-3.25019931960E+02	Apriori clockrate (us/s)	-7.5699999E-07	Resid phdelay (usec)	3.10471E-06	+/-	7.2E-07
Delay rate (us/s)	1.73872294881E+00	Apriori rate (us/s)	1.73871607070E+00	Resid rate (us/s)	6.87811E-06	+/-	4.2E-09
Total phase (deg)	56.6	Apriori accel (us/s/s)	-6.47655486167E-06	Resid phase (deg)	130.9	+/-	22.4

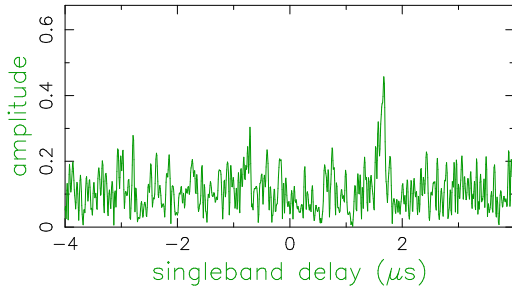
ph/seg (deg)	91.0	Theor.	191.7	Amplitude	0.516 +/- 0.101	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	378.9	Search (2048X8)	0.433	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.320	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.1	Inc. frq. avg.	0.505	Inc. seg. avg.	0.320	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	0.505	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

I: az 91.3 el 30.4 pa -57.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10379.563 -2292.254 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IX.W.199.0QR0YU

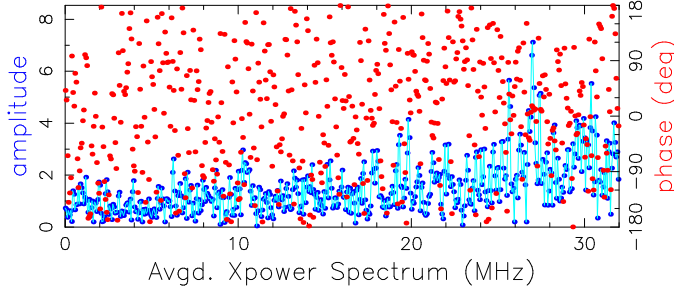


Fringe quality 0

SNR 5.3  
Int time 287.947  
Amp 0.675  
Phase 346.1  
PFD 1.0e+00  
Delays (us)  
SBD 1.672729  
MBD -0.000005  
Fringe rate (Hz)  
-0.912339  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

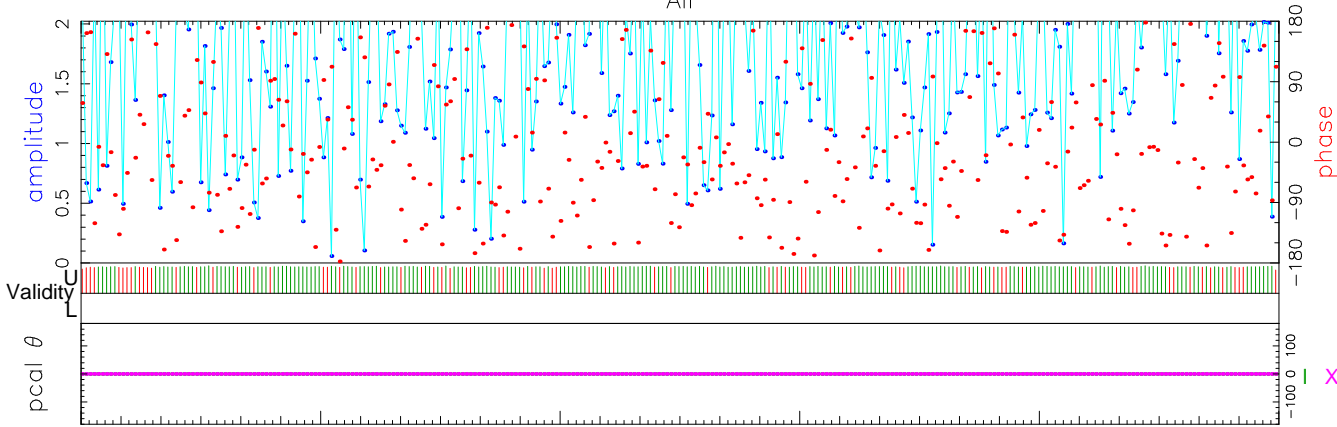


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



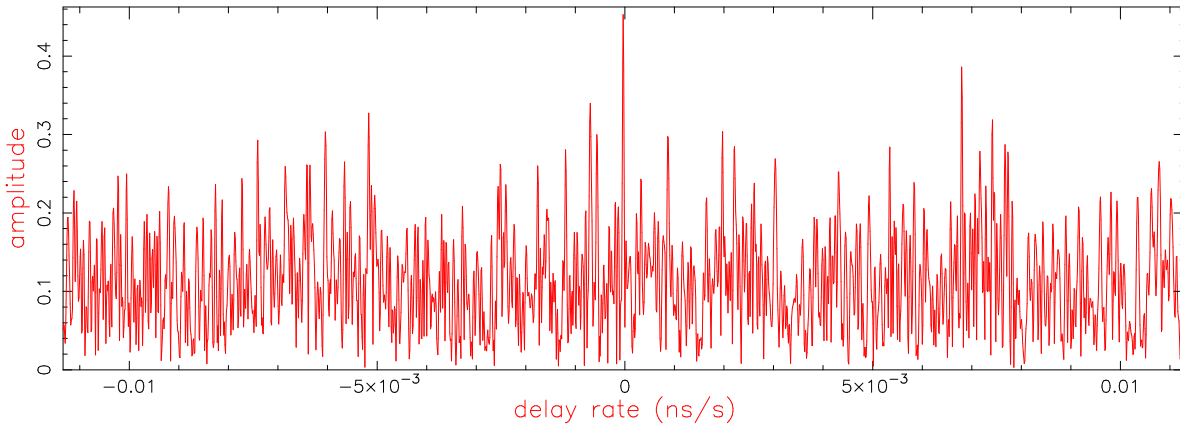
86012.00  
-53.4  
0.7  
727.0  
U/L 586/0  
I 3000  
X 0  
I:X 0:0  
I:X 0:0  
I 1000  
X 1000  
I W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-3.23347208105E+02	Apriori delay (usec)	-3.25019935065E+02	Resid mbdelay (usec)	-4.75143E-06	+/- 3.2E-03
Sband delay (usec)	-3.23347206065E+02	Apriori clock (usec)	-1.1876612E+01	Resid sbdelay (usec)	1.67273E+00	+/- 3.2E-03
Phase delay (usec)	-3.25019936788E+02	Apriori clockrate (us/s)	-7.5699999E-07	Resid phdelay (usec)	-1.72243E-06	+/- 7.0E-07
Delay rate (us/s)	1.73870547935E+00	Apriori rate (us/s)	1.73871607070E+00	Resid rate (us/s)	-1.05914E-05	+/- 4.0E-09
Total phase (deg)	271.7	Apriori accel (us/s/s)	-6.47655486167E-06	Resid phase (deg)	346.1	+/- 21.6

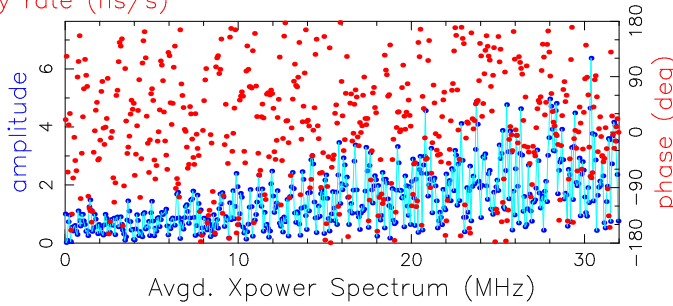
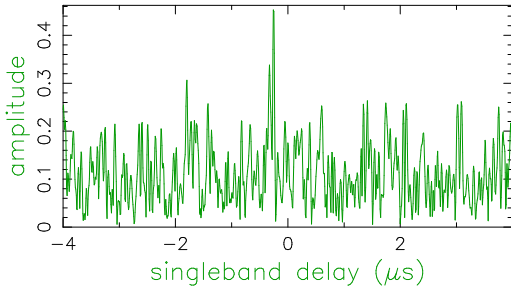
ph/seg (deg)	RMS 89.7	Theor. 184.9	Amplitude 0.675 +/- 0.127	Search (2048X8) 0.449	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	363.2	322.7	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	10.8	Inc. seg. avg. 0.442	0.662	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.1	18.9	Inc. frq. avg. 0.662	0.662	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 91.3 el 30.4 pa -57.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10379.563 -2292.254 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IX.W.216.0QR0YU



Fringe quality 0

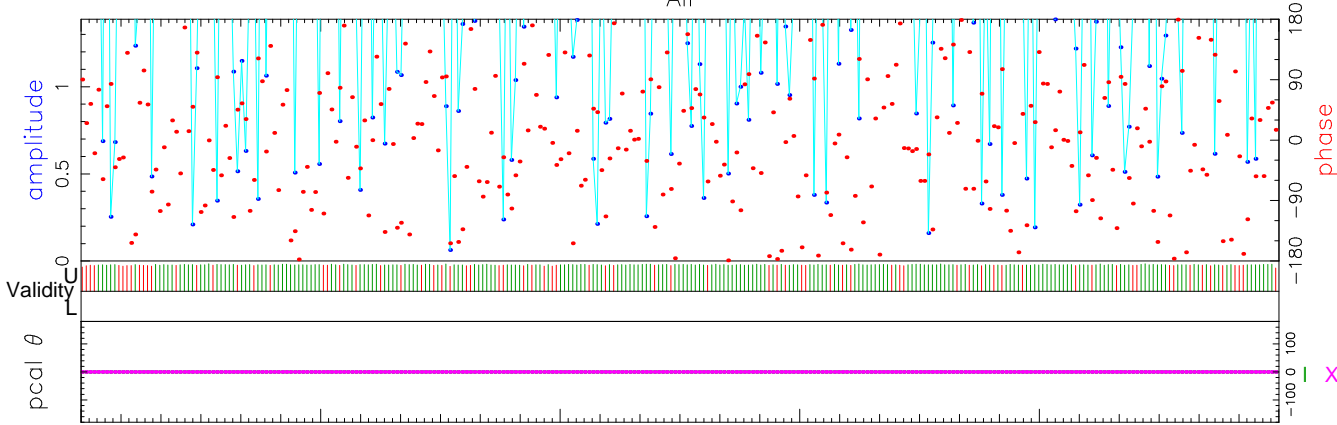
SNR 5.4  
Int time 287.951  
Amp 0.463  
Phase -196.2  
PFD 1.0e+00  
Delays (us)  
SBD -0.254221  
MBD -0.000004  
Fringe rate (Hz)  
-0.003029  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



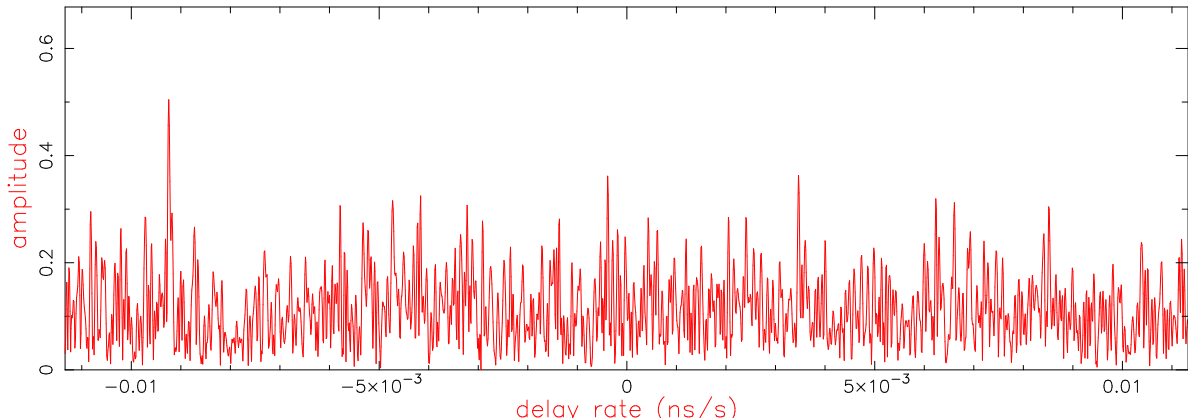
86012.00  
-1.7  
0.5  
480.5  
U/L 586/0  
I 3000  
X 0  
I:X 0:0  
I:X 0:0  
I 1000  
X 1000  
I W00UR  
X W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
  
Chan ids  
Chan ids

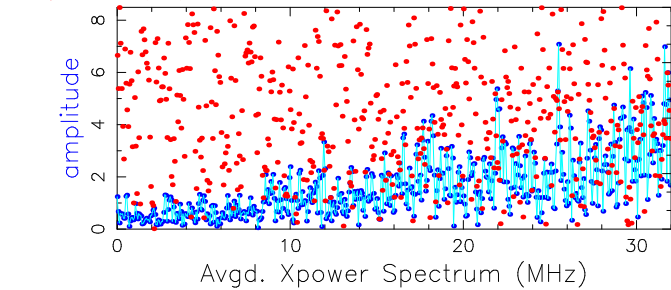
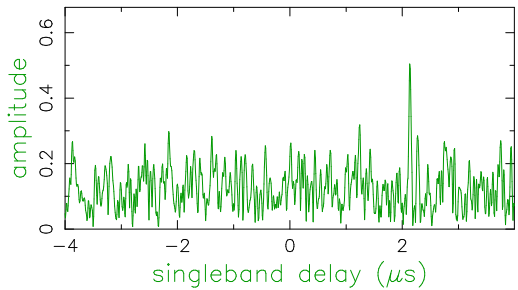
Group delay (usec)(sbd)	-3.25274159808E+02	Apriori delay (usec)	-3.25019935065E+02	Resid mbdelay (usec)	-4.40129E-06	+/-	3.2E-03
Sband delay (usec)	-3.25274156065E+02	Apriori clock (usec)	-1.1876612E+01	Resid sbdelay (usec)	-2.54221E-01	+/-	3.2E-03
Phase delay (usec)	-3.25019935120E+02	Apriori clockrate (us/s)	-7.5699999E-07	Resid phdelay (usec)	-5.49413E-08	+/-	6.9E-07
Delay rate (us/s)	1.73871603554E+00	Apriori rate (us/s)	1.73871607070E+00	Resid rate (us/s)	-3.51593E-08	+/-	4.0E-09
Total phase (deg)	-270.5	Apriori accel (us/s/s)	-6.47655486167E-06	Resid phase (deg)	-196.2	+/-	21.4

ph/seg (deg)	91.0	Theor.	182.8	Amplitude	0.463 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	413.3	Search (2048X8)	0.450	Search	0.450	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.337	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	2.1	Inc. frq. avg.	0.445	Inc. frq. avg.	0.445	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) -10379.563 -2292.254 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IX.W.225.0QR0YU



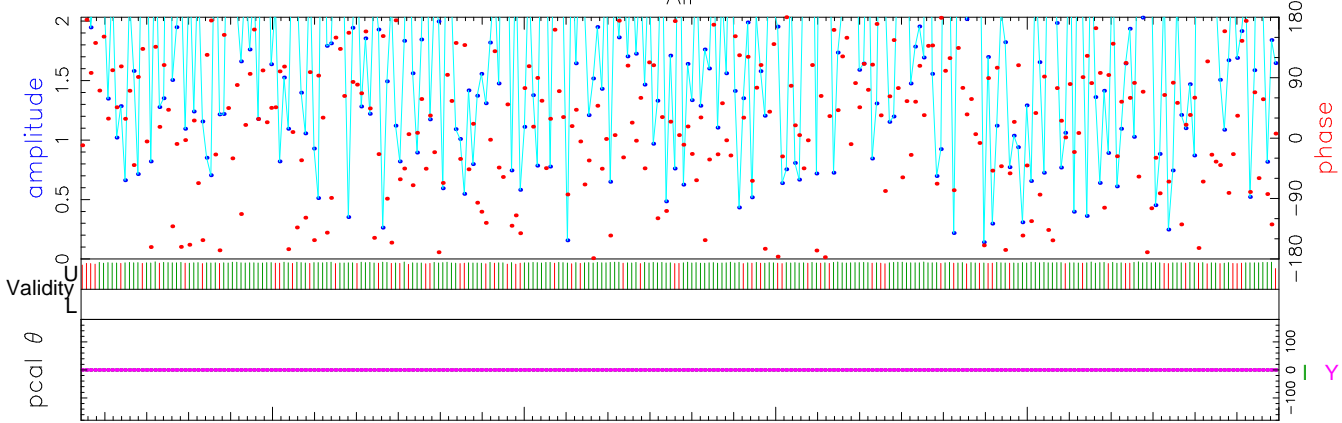
Fringe quality 0  
SNR 5.7  
Int time 274.187  
Amp 0.678  
Phase 146.7  
PFD 7.1e-01  
Delays (us)  
SBD 2.134789  
MBD -0.000007  
Fringe rate (Hz)  
-0.797410  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
55.4  
0.7  
786.3  
U/L 558/0  
I 3000  
Y 0  
I:Y 0:0  
I:Y 0:0  
I 1000  
Y 1000  
I W00UL  
Y W00UL

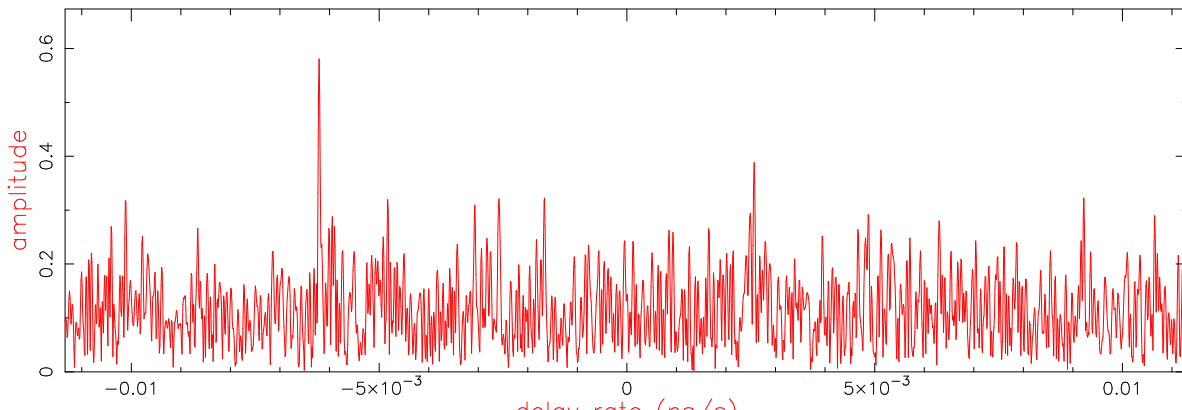
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.74452595416E+03	Apriori delay (usec)	-4.74666074247E+03	Resid mbdelay (usec)	-6.83253E-06	+/-	3.0E-03
Sband delay (usec)	-4.74452595347E+03	Apriori clock (usec)	6.1704140E+00	Resid sbdelay (usec)	2.13479E+00	+/-	3.0E-03
Phase delay (usec)	-4.74666074068E+03	Apriori clockrate (us/s)	-1.7000000E-07	Resid phdelay (usec)	1.78563E-06	+/-	6.4E-07
Delay rate (us/s)	1.80935550661E+00	Apriori rate (us/s)	1.80936476375E+00	Resid rate (us/s)	-9.25713E-06	+/-	3.9E-09
Total phase (deg)	18.5	Apriori accel (us/s/s)	2.32190056052E-05	Resid phase (deg)	146.7	+/-	20.0

ph/seg (deg)	90.1	Theor.	166.9	Amplitude	0.678 +/- 0.118	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	336.0	Search (2048X8)	0.502	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.480	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.665	Inc. frq. avg.	0.665	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

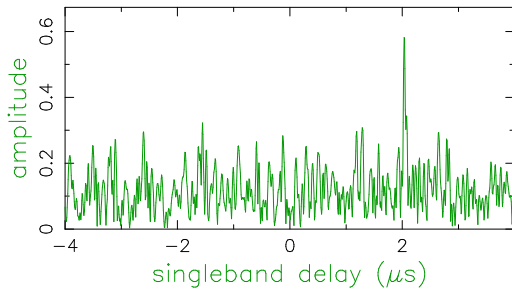
I: az 91.3 el 30.4 pa -57.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10762.586 29.965 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IY.W.192.0QR0YU



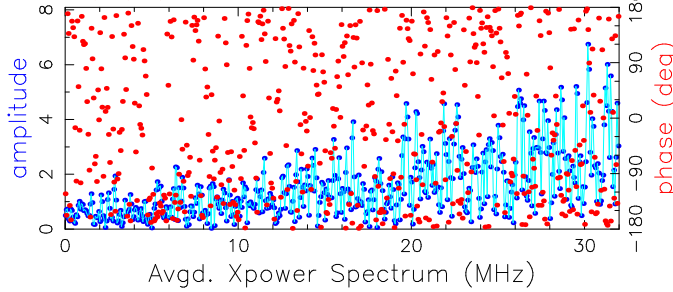


Fringe quality 0

SNR 6.7  
Int time 274.193  
Amp 0.673  
Phase 216.2  
PFD 2.7e-03  
Delays (us)  
SBD 2.035054  
MBD -0.000007  
Fringe rate (Hz)  
-0.535607  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



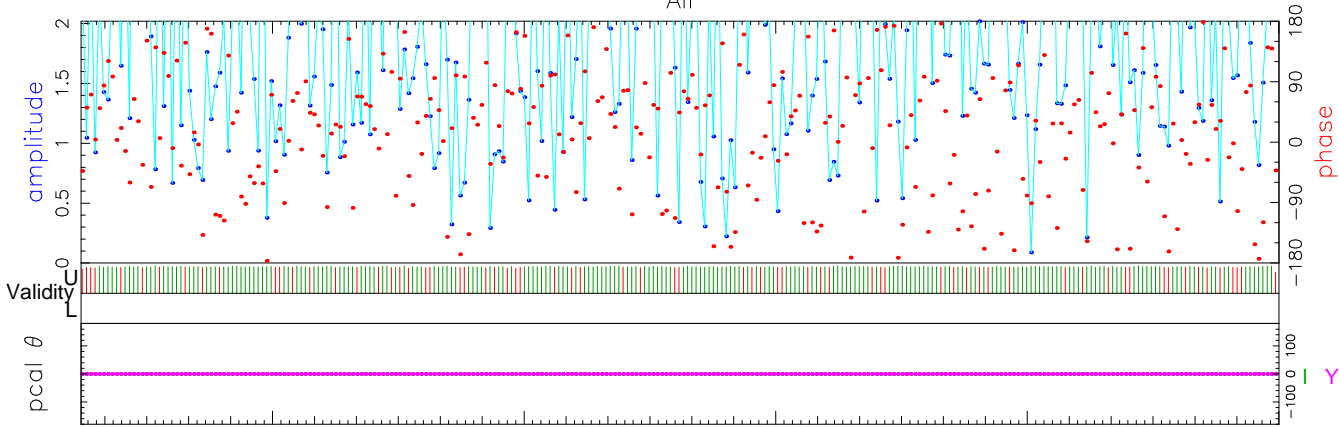
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
40.4  
0.7  
773.5  
U/L 558/0  
I 3000  
Y 0  
I:Y 0:0  
I:Y 0:0  
I 1000  
Y 1000  
I W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.74462568484E+03	Apriori delay (usec)	-4.74666074247E+03	Resid mbdelay (usec)	-7.25115E-06	+/- 2.6E-03
Sband delay (usec)	-4.74462568847E+03	Apriori clock (usec)	6.1704140E+00	Resid sbdelay (usec)	2.03505E+00	+/- 2.6E-03
Phase delay (usec)	-4.74666074117E+03	Apriori clockrate (us/s)	-1.7000000E-07	Resid phdelay (usec)	1.30189E-06	+/- 5.5E-07
Delay rate (us/s)	1.80935854588E+00	Apriori rate (us/s)	1.80936476375E+00	Resid rate (us/s)	-6.21787E-06	+/- 3.3E-09
Total phase (deg)	87.9	Apriori accel (us/s/s)	2.32190056052E-05	Resid phase (deg)	216.2	+/- 17.1

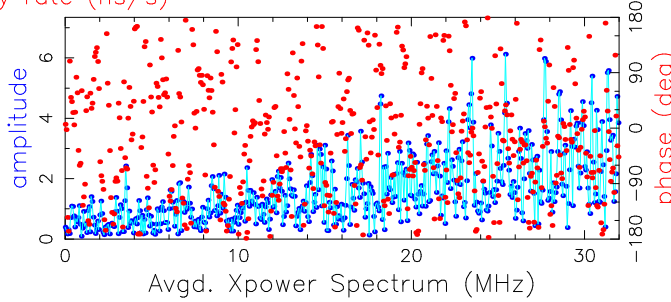
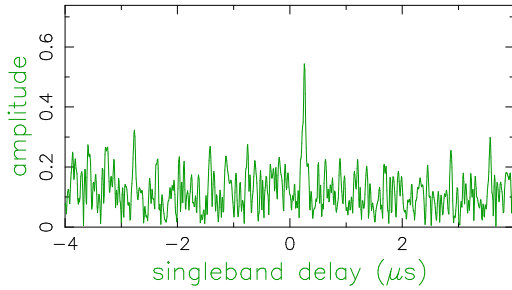
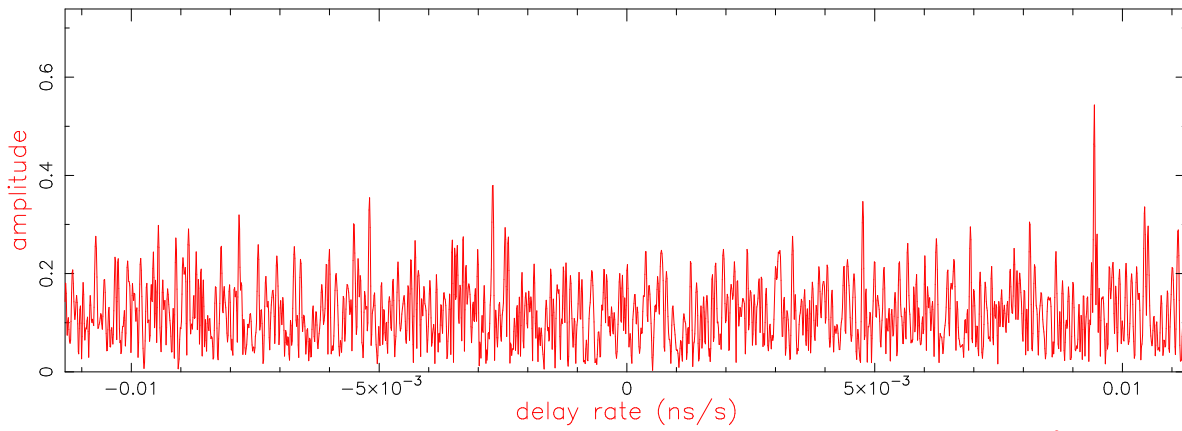
ph/seg (deg)	88.6	Theor.	142.5	Amplitude	0.673 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	284.9	Search (2048X8)	0.569	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.544	Inc. frq. avg.	0.652	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000	0.000
amp/frq (%)	2.1	Inc. frq. avg.	0.652	u,v (fr/asec)	-10762.586 29.965	Sample rate(MSamp/s): 64	ion window (TEC)	-0.011	0.011	

I: az 91.3 el 30.4 pa -57.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10762.586 29.965 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/IY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/IY.W.213.0QR0YU

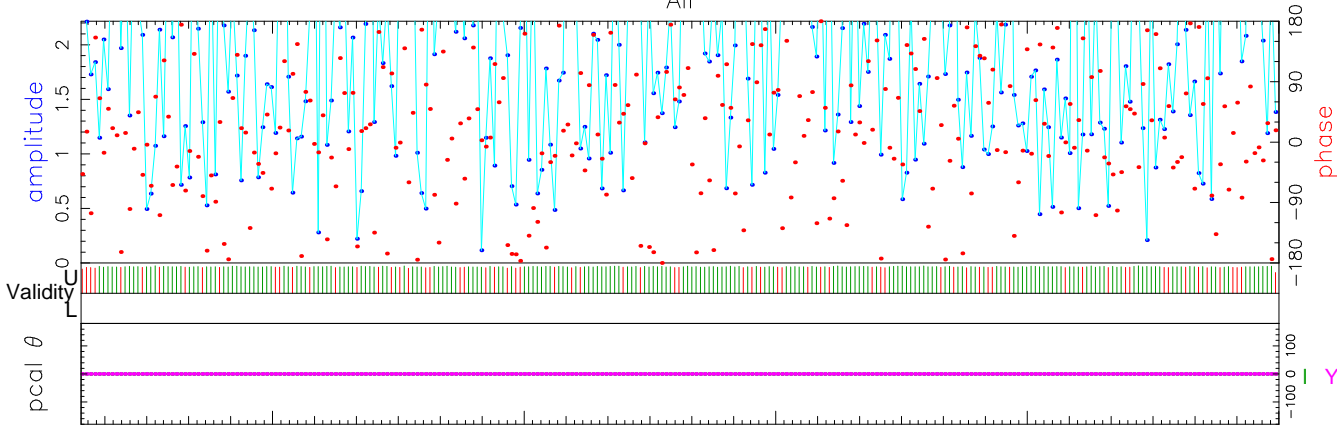
Fringe quality 0

SNR 6.2  
Int time 274.187  
Amp 0.739  
Phase 103.1  
PFD 8.6e-02  
Delays (us)  
SBD 0.259486  
MBD 0.000006  
Fringe rate (Hz)  
0.813837  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
26.5  
0.7  
546.2  
U/L 558/0  
I 3000  
Y 0  
I:Y 0:0  
I:Y 0:0  
I 1000  
Y 1000  
I W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.74640126084E+03	Apriori delay (usec)	-4.74666074247E+03	Resid mbdelay (usec)	6.20695E-06	+/-	2.8E-03
Sband delay (usec)	-4.74640125647E+03	Apriori clock (usec)	6.1704140E+00	Resid sbdelay (usec)	2.59486E-01	+/-	2.8E-03
Phase delay (usec)	-4.74666074161E+03	Apriori clockrate (us/s)	-1.7000000E-07	Resid phdelay (usec)	8.53631E-07	+/-	6.0E-07
Delay rate (us/s)	1.80937421159E+00	Apriori rate (us/s)	1.80936476375E+00	Resid rate (us/s)	9.44784E-06	+/-	3.6E-09
Total phase (deg)	334.9	Apriori accel (us/s/s)	2.32190056052E-05	Resid phase (deg)	103.1	+/-	18.6

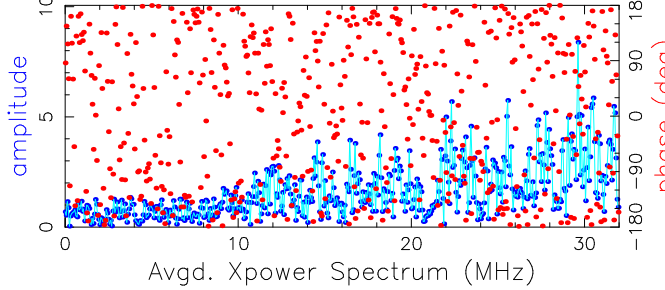
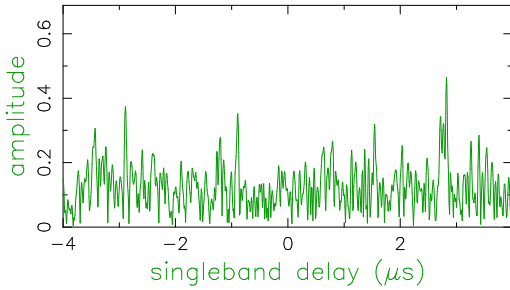
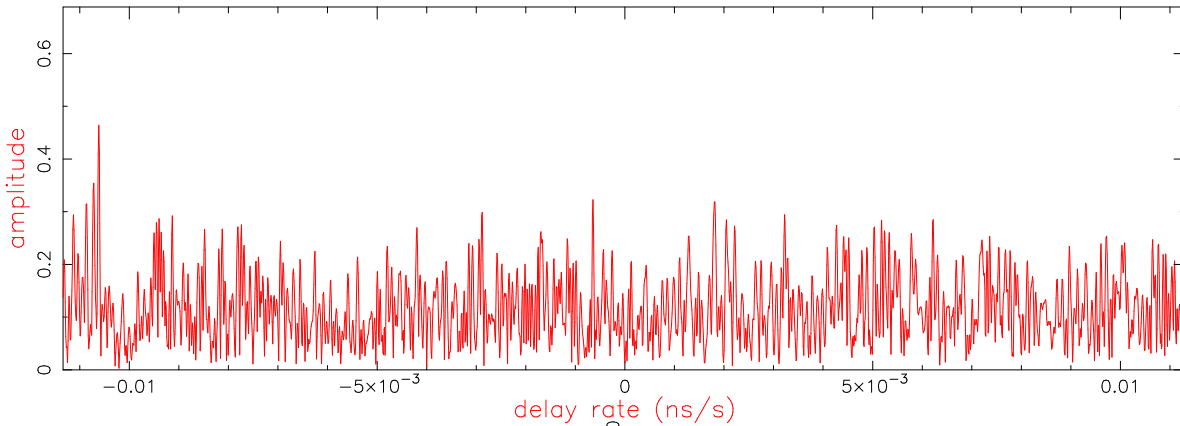
ph/seg (deg)	92.2	Theor.	155.1	Amplitude	0.739 +/- 0.120	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	339.1	Search (2048X8)	0.531	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.593	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.727	Inc. frq. avg.	0.727	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10762.586 29.965 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/IY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/IY.W.223.0QR0YU

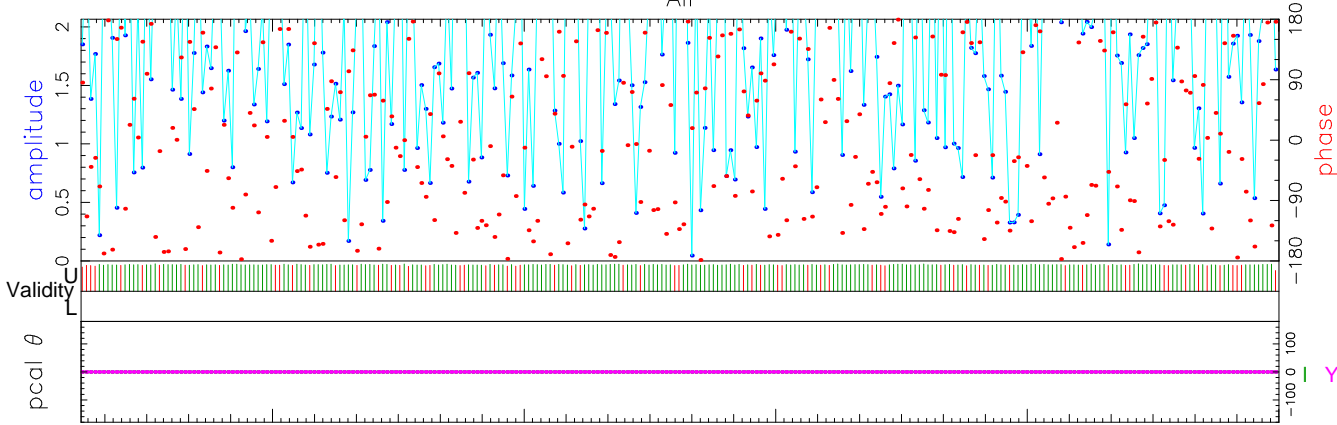
Fringe quality 0

SNR 5.3  
Int time 274.193  
Amp 0.689  
Phase 272.2  
PFD 1.0e+00  
Delays (us)  
SBD 2.821680  
MBD -0.000005  
Fringe rate (Hz)  
-0.915634  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-151.2  
0.7  
874.2  
U/L 558/0  
I 3000  
Y 0  
I:Y 0:0  
I:Y 0:0  
I 1000  
Y 1000  
I W00UR  
Y W00UL

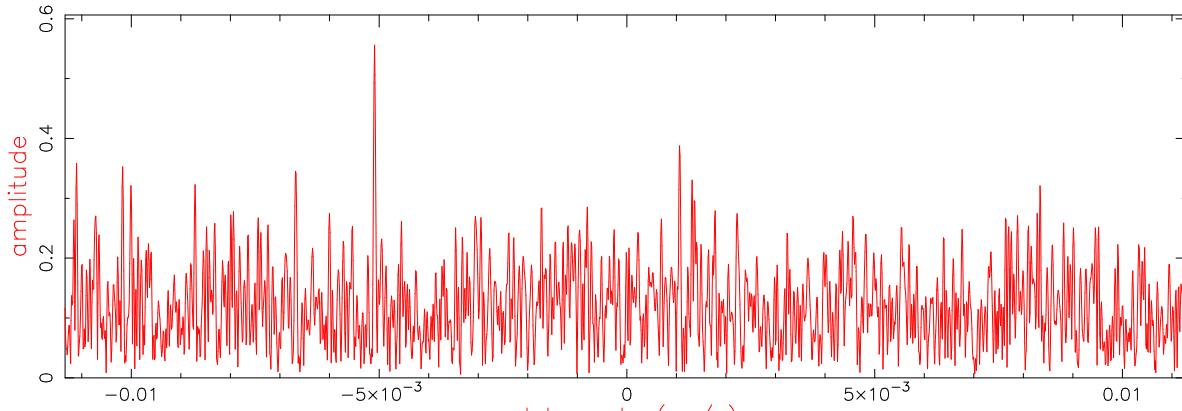
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.74383905957E+03	Apriori delay (usec)	-4.74666074247E+03	Resid mbdelay (usec)	-4.77636E-06	+/-	3.3E-03
Sband delay (usec)	-4.74383906297E+03	Apriori clock (usec)	6.1704140E+00	Resid sbdelay (usec)	2.82168E+00	+/-	3.3E-03
Phase delay (usec)	-4.74666074734E+03	Apriori clockrate (us/s)	-1.7000000E-07	Resid phdelay (usec)	-4.87592E-06	+/-	7.0E-07
Delay rate (us/s)	1.80935413414E+00	Apriori rate (us/s)	1.80936476375E+00	Resid rate (us/s)	-1.06296E-05	+/-	4.3E-09
Total phase (deg)	143.9	Apriori accel (us/s/s)	2.32190056052E-05	Resid phase (deg)	272.2	+/-	21.8

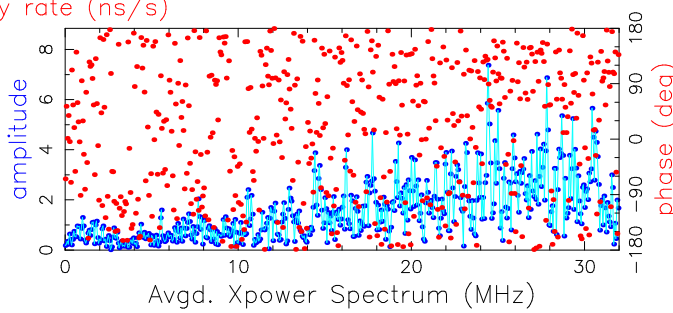
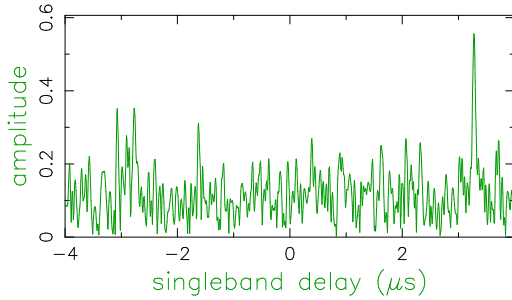
ph/seg (deg)	94.2	Theor.	181.7	Amplitude	0.689 +/- 0.131	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	398.1	Search (2048X8)	0.461	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Inc. seg. avg.	0.491	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.3	Inc. frq. avg.	0.674	Inc. seg. avg.	0.491	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	0.674	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

I: az 91.3 el 30.4 pa -57.6 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10762.586 29.965 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IY.W.241.0QR0YU

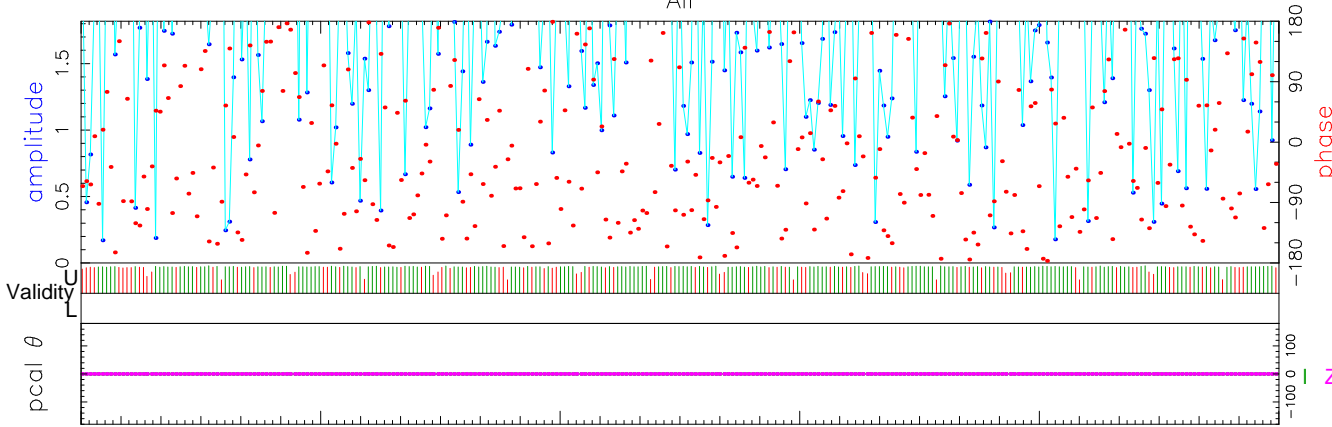


Fringe quality 0  
SNR 6.4  
Int time 280.325  
Amp 0.606  
Phase 3.7  
PFD 2.4e-02  
Delays (us)  
SBD 3.275506  
MBD -0.000004  
Fringe rate (Hz)  
-0.438975  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-91.7 Phase  
0.6 Ampl.  
932.3 Sbd box  
U/L 586/0 APs used  
I 3000 PC freqs  
Z 0 PC freqs  
I:Z 0:0 PC phase  
I:Z 0:0 Manl PC  
I 1000 PC amp  
Z 1000  
I W00UL Chan ids  
Z W00UL Chan ids

Group delay (usec)(sbd)	1.98211336422E+03	Apriori delay (usec)	1.97883786052E+03	Resid mbdelay (usec)	-4.36630E-06	+/-	2.7E-03
Sband delay (usec)	1.98211336702E+03	Apriori clock (usec)	1.3045181E+01	Resid sbdelay (usec)	3.27551E+00	+/-	2.7E-03
Phase delay (usec)	1.97883785756E+03	Apriori clockrate (us/s)	-5.2699999E-07	Resid phdelay (usec)	-2.95623E-06	+/-	5.8E-07
Delay rate (us/s)	1.76437605009E+00	Apriori rate (us/s)	1.76438114615E+00	Resid rate (us/s)	-5.09606E-06	+/-	3.3E-09
Total phase (deg)	113.6	Apriori accel (us/s/s)	-1.94025974611E-05	Resid phase (deg)	3.7	+/-	18.0

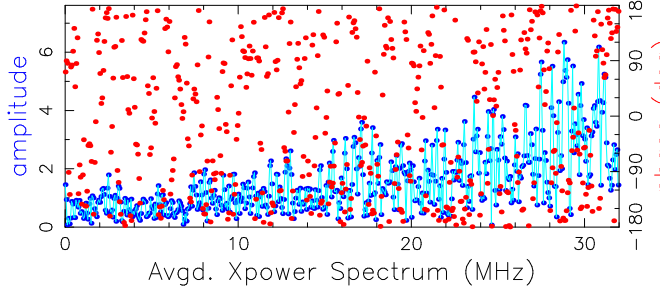
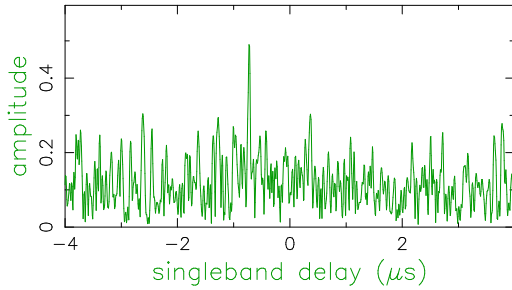
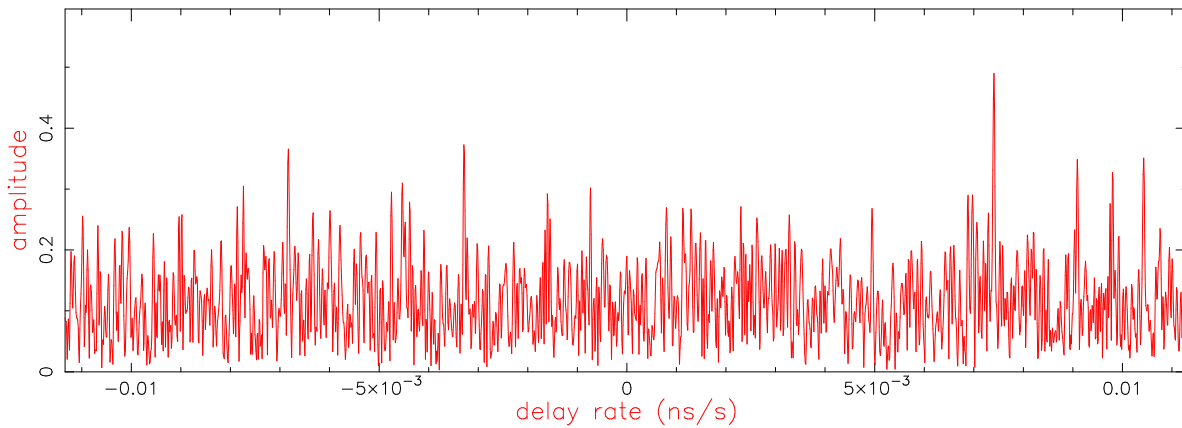
ph/seg (deg)	RMS 91.6	Theor. 153.8	Amplitude 0.606 +/- 0.095	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	343.9	268.4	Search (2048X8) 0.549	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	9.0	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.2	15.7	Inc. seg. avg. 0.501	Sample rate(MSamp/s): 64	ion window (TEC)	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.598	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

I: az 91.3 el 30.4 pa -57.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10549.051 -2805.072 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IZ.W.197.0QR0YU

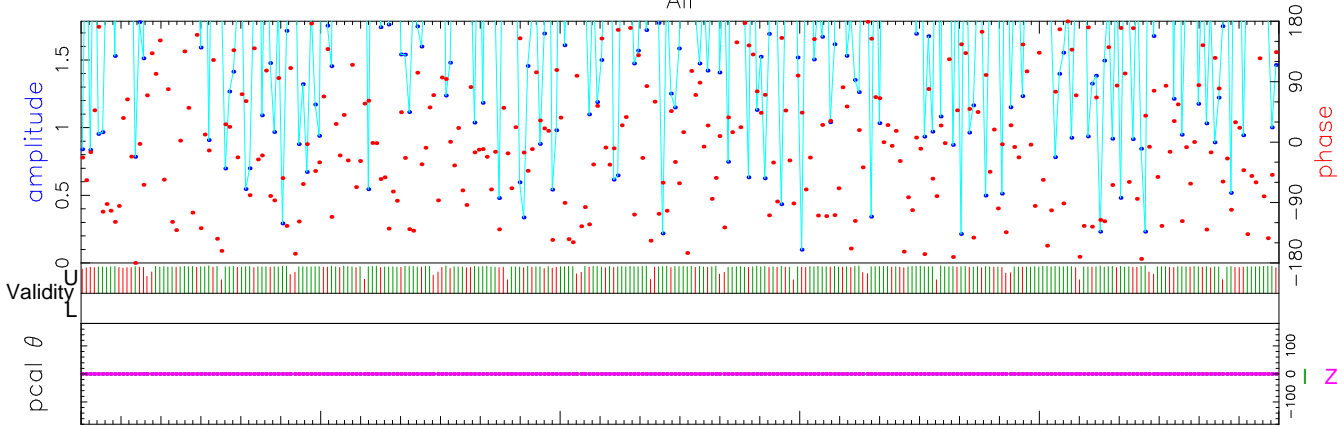
Fringe quality 0

SNR 5.7  
Int time 280.331  
Amp 0.596  
Phase -213.1  
PFD 8.1e-01  
Delays (us)  
SBD -0.723109  
MBD 0.000005  
Fringe rate (Hz)  
0.639417  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-12.3  
0.6  
420.4  
U/L 586/0  
I 3000  
Z 0  
I:Z 0:0  
I:Z 0:0  
I 1000  
Z 1000  
I W00UR  
Z W00UR

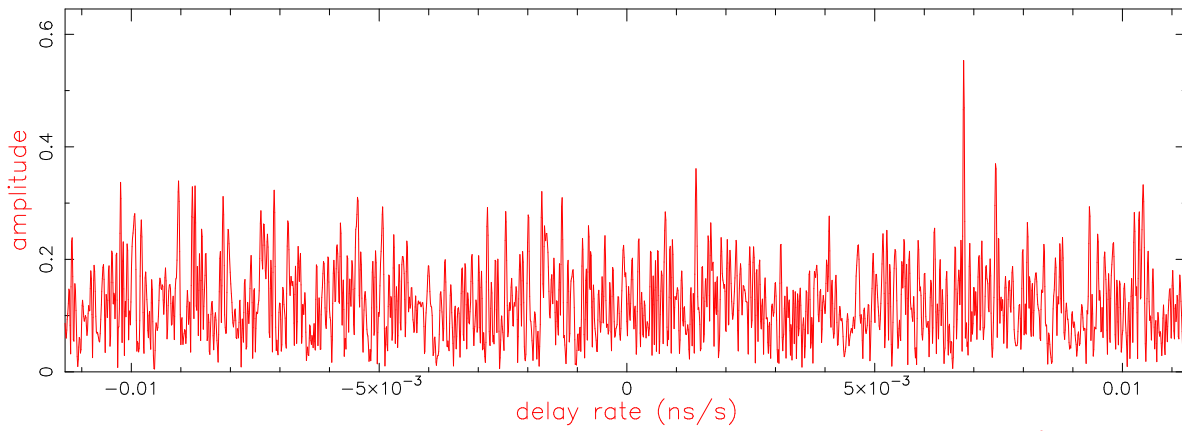
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.97811475668E+03	Apriori delay (usec)	1.97883786052E+03	Resid mbdelay (usec)	4.56229E-06	+/-	3.0E-03
Sband delay (usec)	1.97811475102E+03	Apriori clock (usec)	1.3045181E+01	Resid sbdelay (usec)	-7.23109E-01	+/-	3.0E-03
Phase delay (usec)	1.97883786012E+03	Apriori clockrate (us/s)	-5.2699999E-07	Resid phdelay (usec)	-3.97056E-07	+/-	6.5E-07
Delay rate (us/s)	1.76438856915E+00	Apriori rate (us/s)	1.76438114615E+00	Resid rate (us/s)	7.42300E-06	+/-	3.8E-09
Total phase (deg)	-103.2	Apriori accel (us/s/s)	-1.94025974611E-05	Resid phase (deg)	-213.1	+/-	20.2

ph/seg (deg)	92.8	Theor.	172.7	Amplitude	0.596 +/- 0.105	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	381.3	Search (2048X8)	0.482	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.448	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.3	Inc. frq. avg.	0.579	Inc. frq. avg.	0.579	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

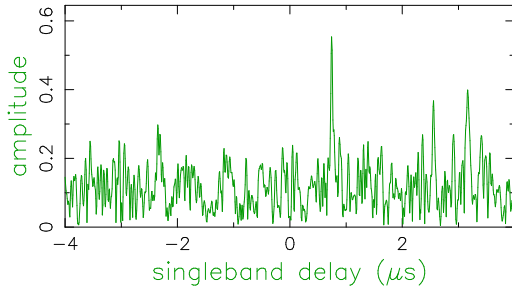
I: az 91.3 el 30.4 pa -57.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10549.051 -2805.072 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IZ.W.215.0QR0YU



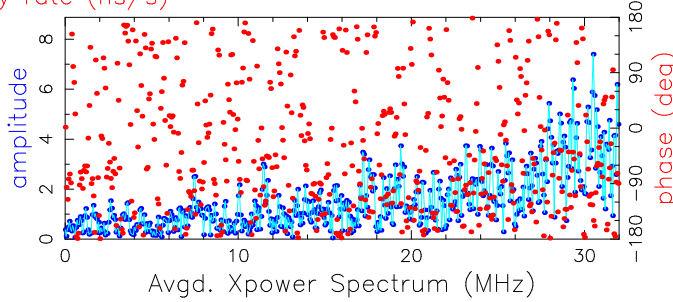


Fringe quality 0

SNR 6.3  
Int time 280.325  
Amp 0.645  
Phase 233.0  
PFD 3.1e-02  
Delays (us)  
SBD 0.742594  
MBD 0.000006  
Fringe rate (Hz)  
0.586089  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

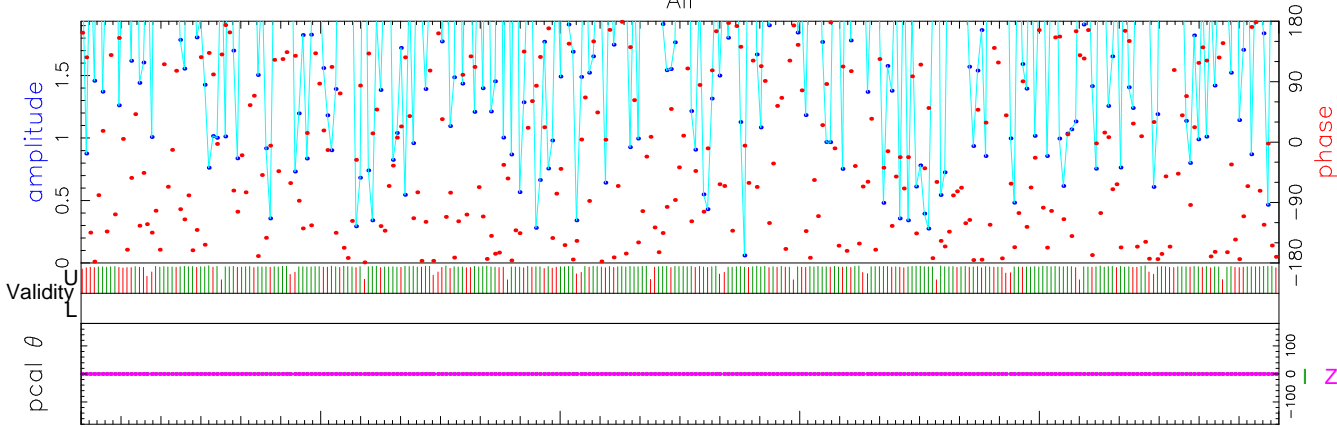


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



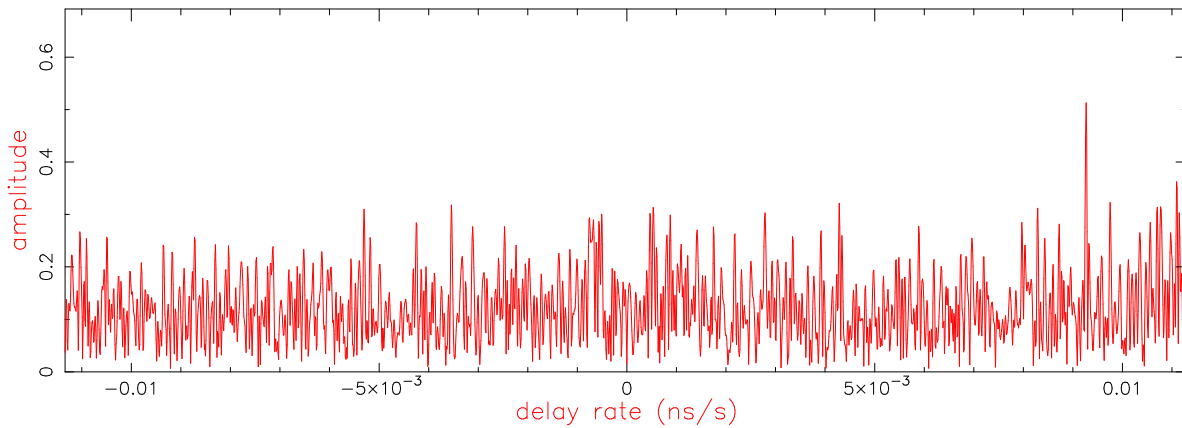
86012.00  
-145.2  
0.6  
608.1  
U/L 586/0  
I 3000  
Z 0  
I:Z 0:0  
I:Z 0:0  
I 1000  
Z 1000  
I W00UL  
Z W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.97958044880E+03	Apriori delay (usec)	1.97883786052E+03	Resid mbdelay (usec)	5.85165E-06	+/-	2.7E-03
Sband delay (usec)	1.97958045402E+03	Apriori clock (usec)	1.3045181E+01	Resid sbdelay (usec)	7.42594E-01	+/-	2.7E-03
Phase delay (usec)	1.97883785584E+03	Apriori clockrate (us/s)	-5.2699999E-07	Resid phdelay (usec)	-4.68093E-06	+/-	5.8E-07
Delay rate (us/s)	1.76438795006E+00	Apriori rate (us/s)	1.76438114615E+00	Resid rate (us/s)	6.80391E-06	+/-	3.4E-09
Total phase (deg)	342.9	Apriori accel (us/s/s)	-1.94025974611E-05	Resid phase (deg)	233.0	+/-	18.1

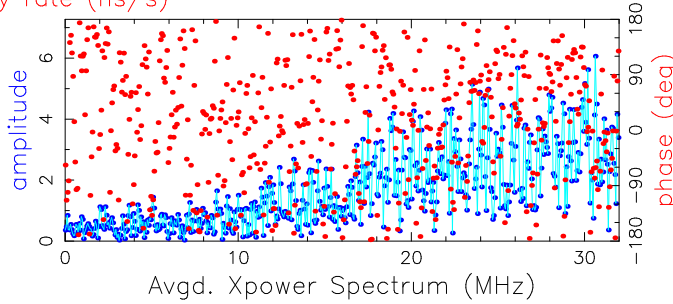
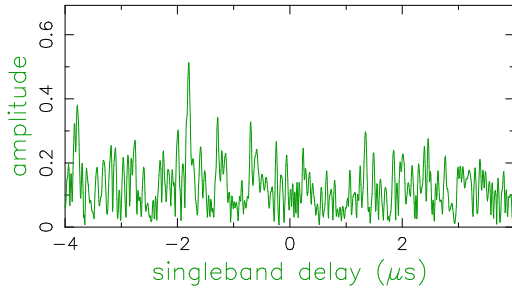
ph/seg (deg)	90.8	Theor.	154.7	Amplitude	0.645 +/- 0.102	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	346.3	Search (2048X8)	0.532	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.526	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.637	Inc. frq. avg.	0.637	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10549.051 -2805.072 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IZ.W.228.0QR0YU



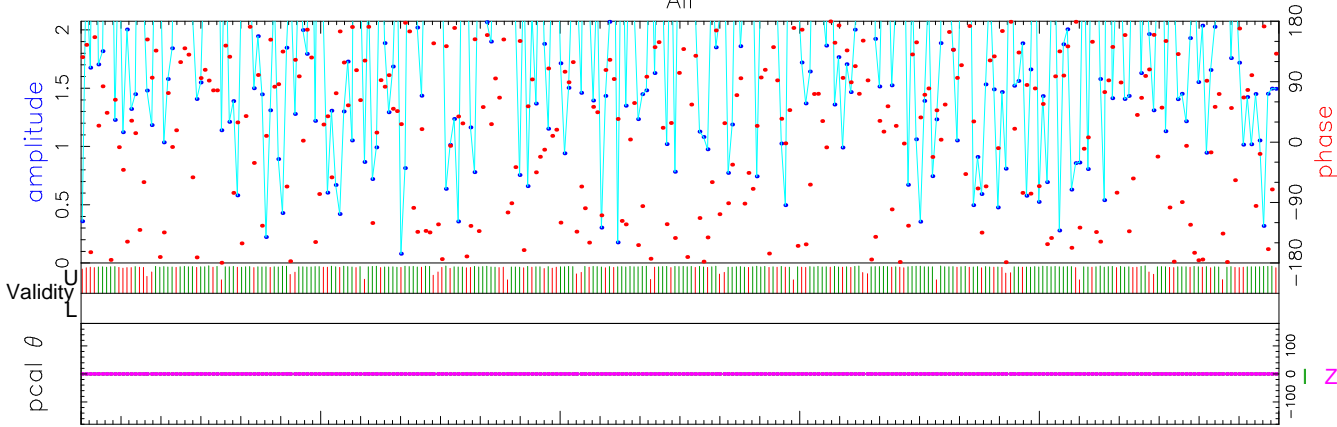
Fringe quality 0

SNR 5.9  
Int time 280.331  
Amp 0.692  
Phase -34.4  
PFD 3.5e-01  
Delays (us)  
SBD -1.800179  
MBD 0.000004  
Fringe rate (Hz)  
0.799121  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



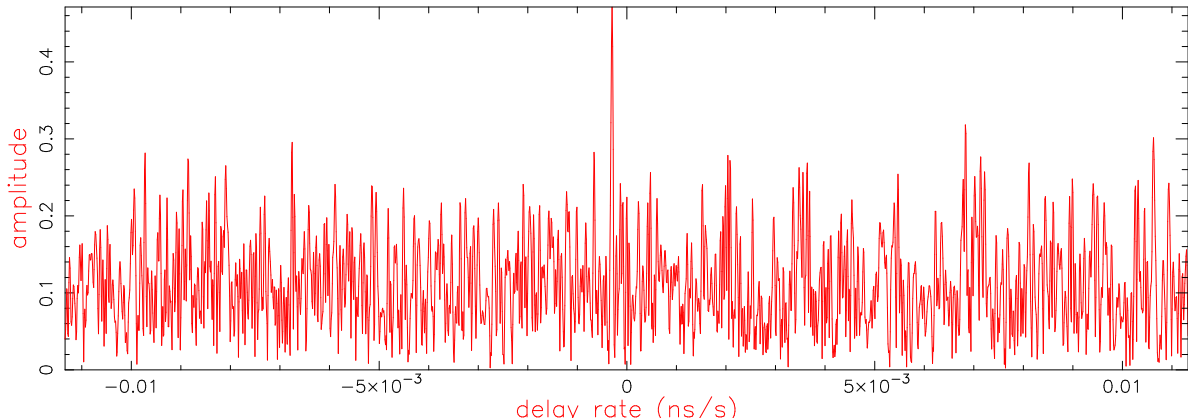
86012.00  
117.8  
0.7  
282.6  
U/L 586/0  
I 3000  
Z 0  
I:Z 0:0  
I:Z 0:0  
I 1000  
Z 1000  
I W00UR  
Z W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

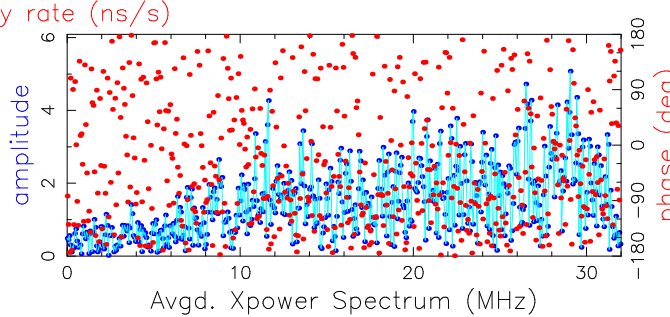
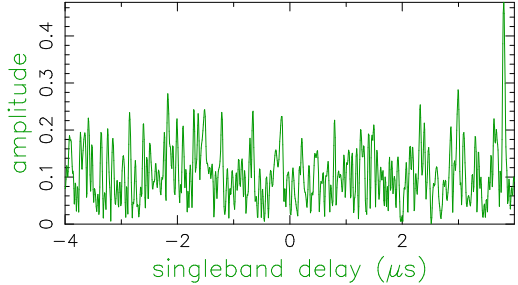
Group delay (usec)(sbd)	1.97703768585E+03	Apriori delay (usec)	1.97883786052E+03	Resid mbdelay (usec)	4.37397E-06	+/-	2.9E-03
Sband delay (usec)	1.97703768152E+03	Apriori clock (usec)	1.3045181E+01	Resid sbdelay (usec)	-1.80018E+00	+/-	2.9E-03
Phase delay (usec)	1.97883786432E+03	Apriori clockrate (us/s)	-5.2699999E-07	Resid phdelay (usec)	3.79985E-06	+/-	6.3E-07
Delay rate (us/s)	1.76439042315E+00	Apriori rate (us/s)	1.76438114615E+00	Resid rate (us/s)	9.27700E-06	+/-	3.6E-09
Total phase (deg)	-284.5	Apriori accel (us/s/s)	-1.94025974611E-05	Resid phase (deg)	-34.4	+/-	19.4

ph/seg (deg)	89.4	Theor.	165.9	Amplitude	0.692 +/- 0.117	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	374.6	Search (2048X8)	0.512	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.538	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7	Inc. frq. avg.	0.677	Inc. frq. avg.	0.677	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

I: az 91.3 el 30.4 pa -57.6 Z: az 257.8 el 25.5 pa 30.4 u,v (fr/asec) -10549.051 -2805.072 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//IZ..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//IZ.W.238.0QR0YU

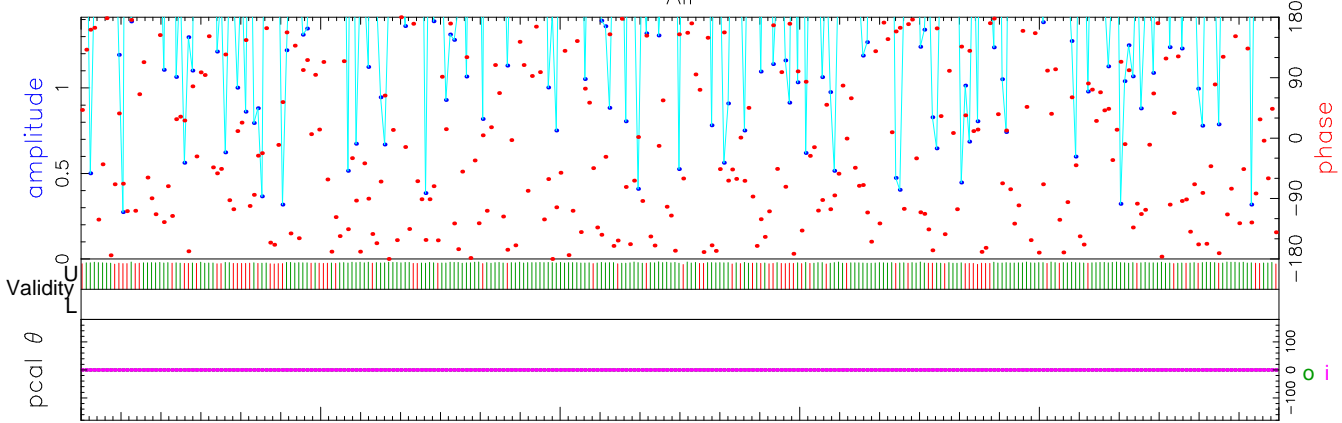


Fringe quality 0  
SNR 5.5  
Int time 287.942  
Amp 0.471  
Phase 221.6  
PFD 1.0e+00  
Delays (us)  
SBD 3.804535  
MBD -0.000007  
Fringe rate (Hz)  
-0.025839  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163650  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-131.6  
0.5  
1000.0  
U/L 586/0  
o 3000  
i 0  
oi 0:0  
oi 0:0  
o 1000  
i 1000  
o W00UL  
i W00UL

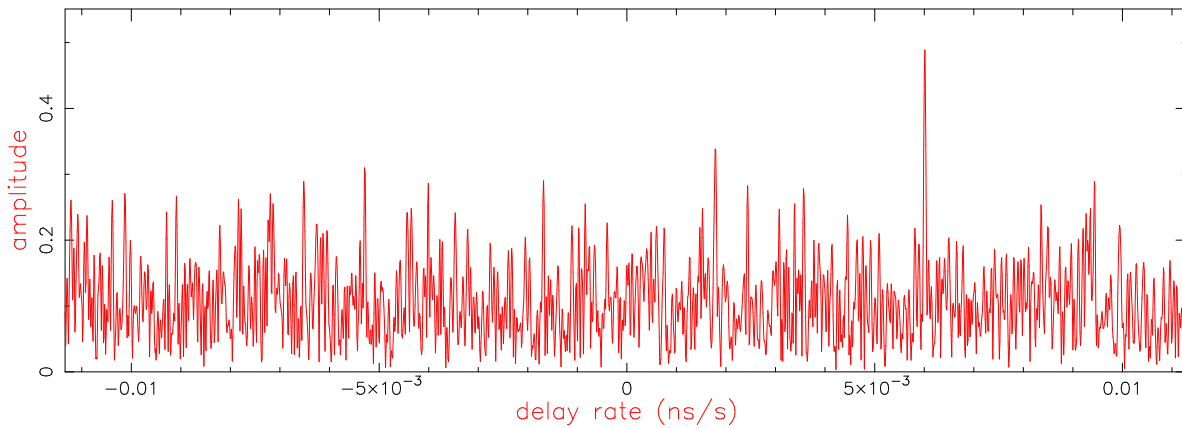
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.29743232702E+03	Apriori delay (usec)	-8.30123685902E+03	Resid mbdelay (usec)	-6.90452E-06	+/- 3.2E-03
Sband delay (usec)	-8.29743232402E+03	Apriori clock (usec)	2.9887470E+01	Resid sbdelay (usec)	3.80453E+00	+/- 3.2E-03
Phase delay (usec)	-8.30123686326E+03	Apriori clockrate (us/s)	7.1655995E-07	Resid phdelay (usec)	-4.24309E-06	+/- 6.8E-07
Delay rate (us/s)	1.90977346504E+00	Apriori rate (us/s)	1.90977376501E+00	Resid rate (us/s)	-2.99969E-07	+/- 3.9E-09
Total phase (deg)	208.7	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	221.6	+/- 21.0

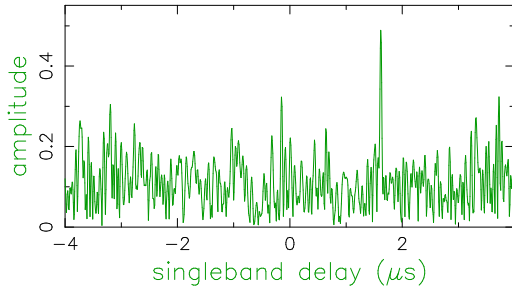
ph/seg (deg)	91.7	Theor.	179.4	Amplitude	0.471 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	384.6	Search (2048X8)	0.469	Search (2048X8)	0.469	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. seg. avg.	0.336	Inc. seg. avg.	0.336	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.464	Inc. frq. avg.	0.464	Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	

o: az 85.0 el 20.8 pa -55.7 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oi.W.183.0QR0YU

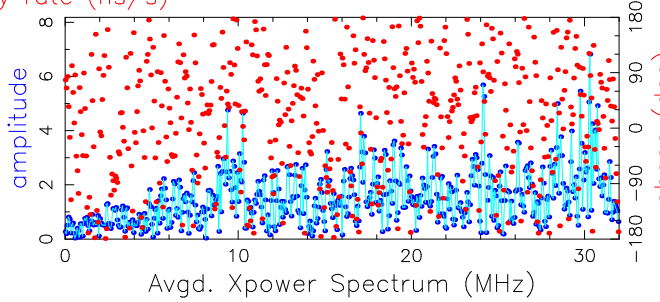
Fringe quality 0



SNR 5.7  
Int time 287.944  
Amp 0.551  
Phase 51.5  
PFD 8.2e-01  
Delays (us)  
SBD 1.617958  
MBD 0.000006  
Fringe rate (Hz)  
0.518632  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

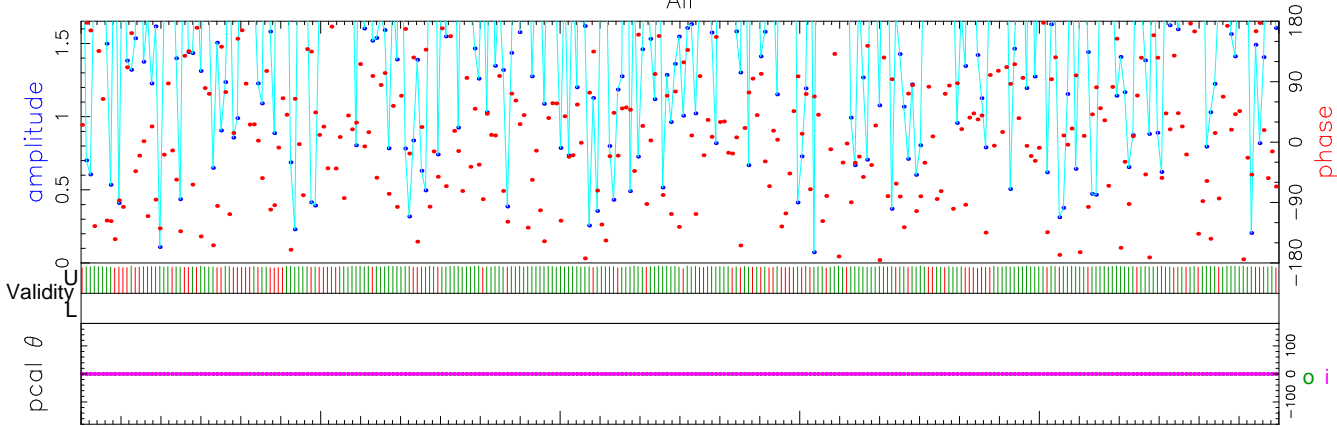


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
16.4  
0.6  
720.1  
U/L 586/0  
o 3000  
i 0  
oi 0:0  
oi 0:0  
o 1000  
i 1000  
o W00UR  
i W00UR

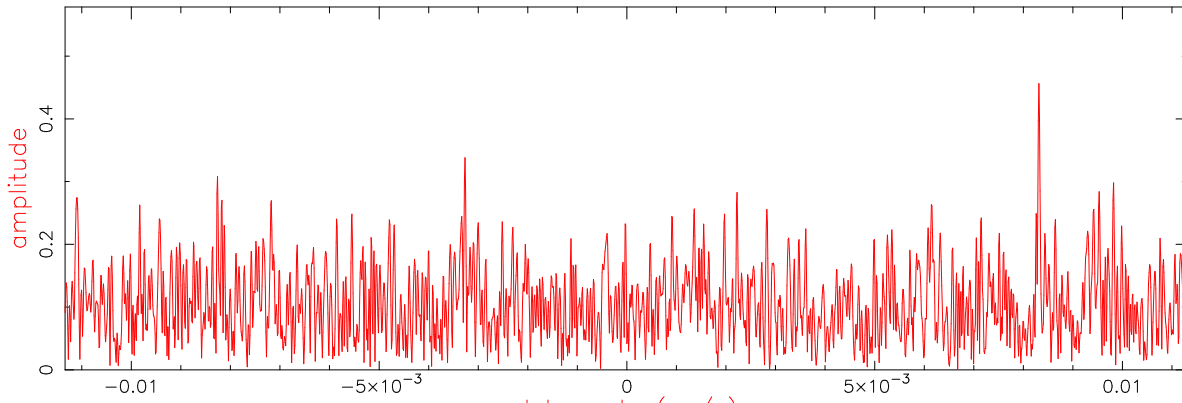
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.29961890451E+03	Apriori delay (usec)	-8.30123685902E+03	Resid mbdelay (usec)	5.84523E-06	+/- 3.0E-03
Sband delay (usec)	-8.29961890102E+03	Apriori clock (usec)	2.9887470E+01	Resid sbdelay (usec)	1.61796E+00	+/- 3.0E-03
Phase delay (usec)	-8.30123685849E+03	Apriori clockrate (us/s)	7.1655995E-07	Resid phdelay (usec)	5.28881E-07	+/- 6.5E-07
Delay rate (us/s)	1.90977978581E+00	Apriori rate (us/s)	1.90977376501E+00	Resid rate (us/s)	6.02080E-06	+/- 3.8E-09
Total phase (deg)	38.6	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	51.5	+/- 20.2

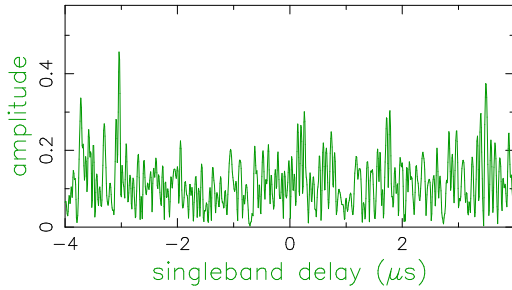
ph/seg (deg)	90.2	Theor.	172.8	Amplitude	0.551 +/- 0.097	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	334.4	Search (2048X8)	0.485	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.367	Inc. frq. avg.	0.542	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1					Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

o: az 85.0 el 20.8 pa -55.7 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oi.W.193.0QR0YU

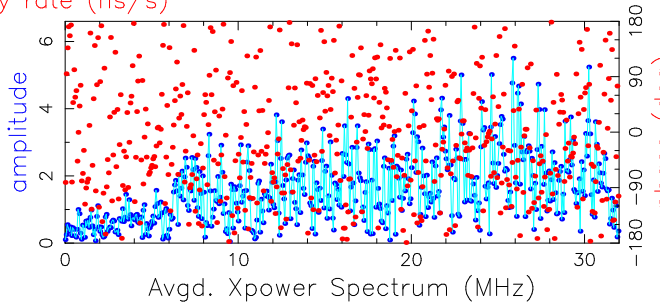
Fringe quality 0



SNR 5.3  
Int time 287.942  
Amp 0.578  
Phase -156.6  
PFD 1.0e+00  
Delays (us)  
SBD -3.037285  
MBD 0.000007  
Fringe rate (Hz)  
0.717490  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

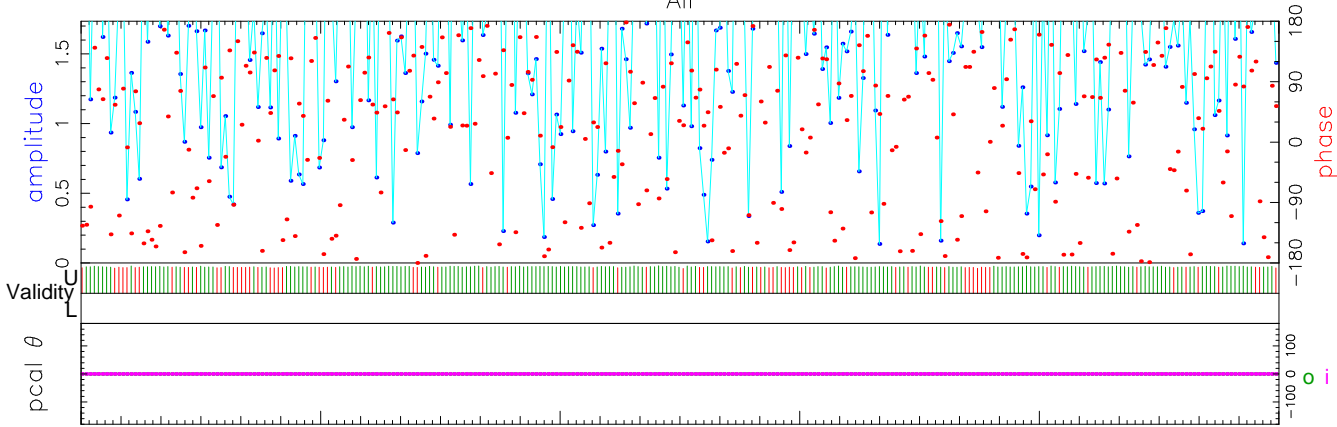


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
122.0  
0.6  
124.2  
U/L 586/0  
o 3000  
i 0  
oi 0:0  
oi 0:0  
o 1000  
i 1000  
o W00UL  
i W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

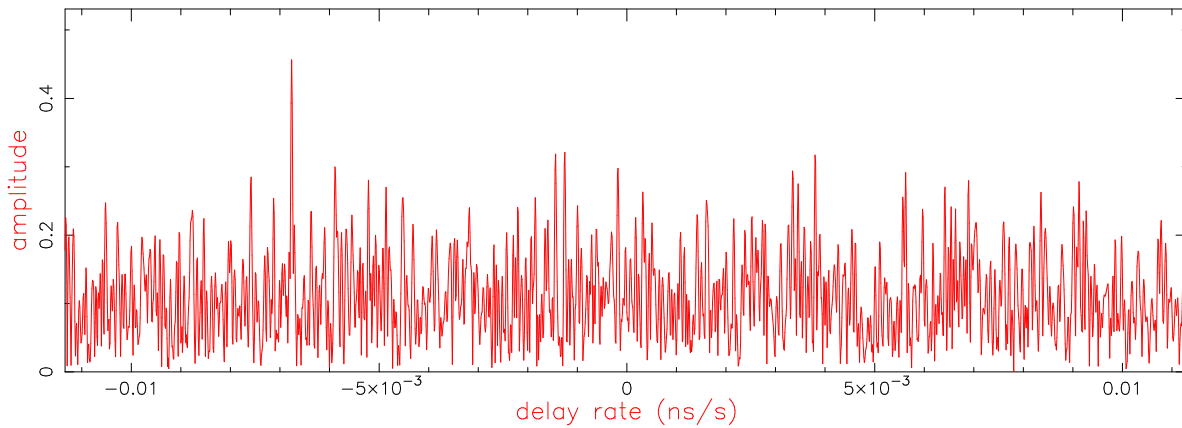
Group delay (usec)(sbd)	-8.30427414887E+03	Apriori delay (usec)	-8.30123685902E+03	Resid mbdelay (usec)	7.26444E-06	+/-	3.2E-03
Sband delay (usec)	-8.30427414352E+03	Apriori clock (usec)	2.9887470E+01	Resid sbdelay (usec)	-3.03728E+00	+/-	3.2E-03
Phase delay (usec)	-8.30123685508E+03	Apriori clockrate (us/s)	7.1655995E-07	Resid phdelay (usec)	3.93541E-06	+/-	7.0E-07
Delay rate (us/s)	1.90978209436E+00	Apriori rate (us/s)	1.90977376501E+00	Resid rate (us/s)	8.32935E-06	+/-	4.0E-09
Total phase (deg)	-169.5	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	-156.6	+/-	21.6

ph/seg (deg)	88.4	Theor.	184.5	Amplitude	0.578 +/- 0.109	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	372.4	Search (2048X8)	0.445	Search (2048X8)	0.445	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. seg. avg.	0.383	Inc. seg. avg.	0.383	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.566	Inc. frq. avg.	0.566	Data rate (Mb/s):	128	ion window (TEC)	0.00 0.00		

o: az 85.0 el 20.8 pa -55.7 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator

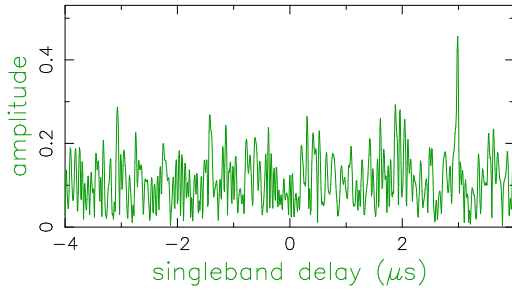
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oi.W.208.0QR0YU



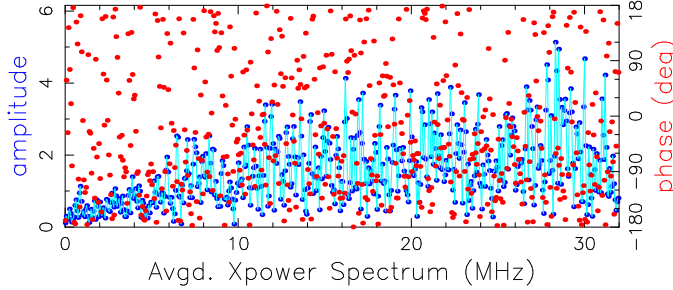


Fringe quality 0

SNR 5.3  
Int time 287.944  
Amp 0.531  
Phase 166.4  
PFD 1.0e+00  
Delays (us)  
SBD 2.984385  
MBD -0.000004  
Fringe rate (Hz)  
-0.583148  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

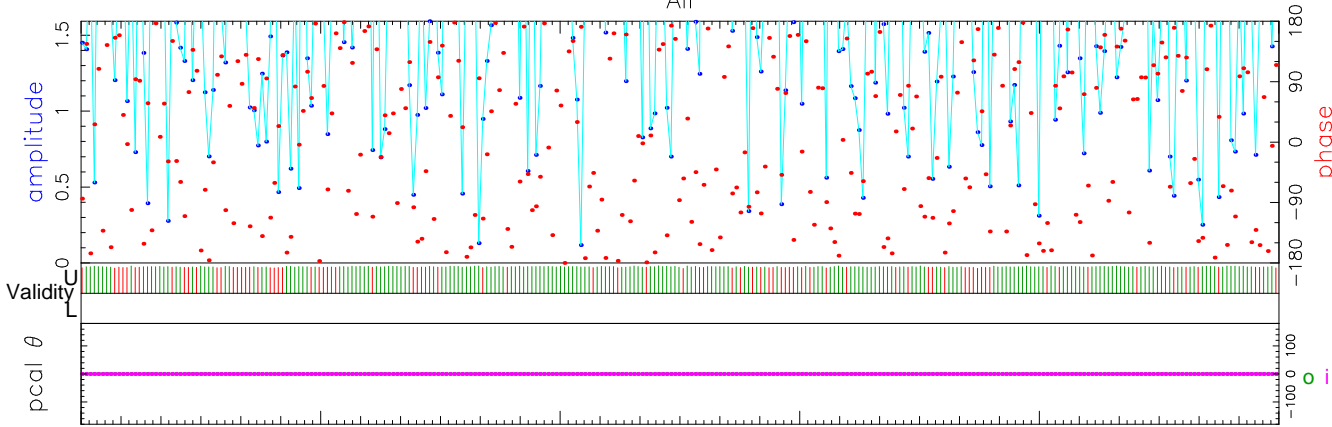


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



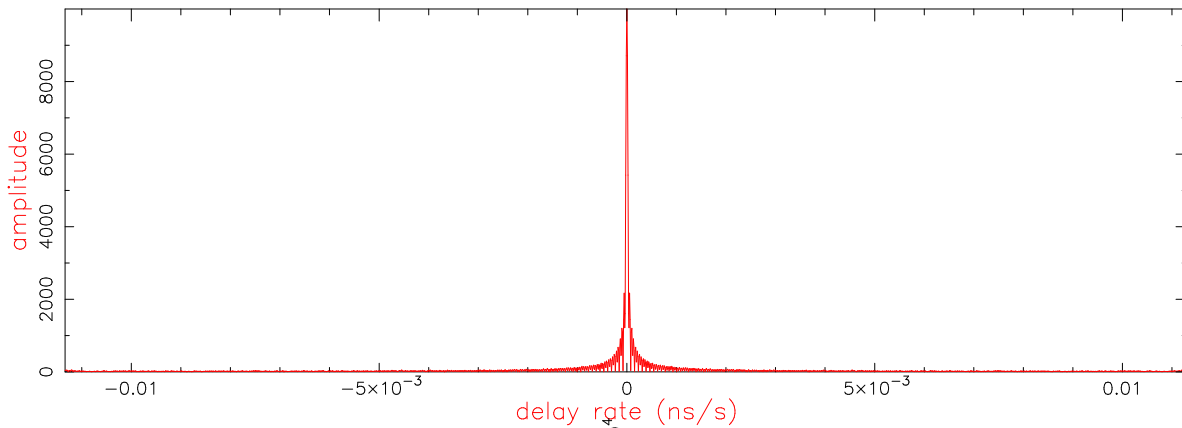
86012.00  
165.9  
0.5  
895.0  
U/L 586/0  
o 3000  
i 0  
oi 0:0  
oi 0:0  
o 1000  
i 1000  
o W00UR  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.29825247748E+03	Apriori delay (usec)	-8.30123685902E+03	Resid mbdelay (usec)	-4.36125E-06	+/- 3.3E-03
Sband delay (usec)	-8.29825247402E+03	Apriori clock (usec)	2.9887470E+01	Resid sbdelay (usec)	2.98439E+00	+/- 3.3E-03
Phase delay (usec)	-8.30123685367E+03	Apriori clockrate (us/s)	7.1655995E-07	Resid phdelay (usec)	5.35004E-06	+/- 7.0E-07
Delay rate (us/s)	1.90976699524E+00	Apriori rate (us/s)	1.90977376501E+00	Resid rate (us/s)	-6.76977E-06	+/- 4.0E-09
Total phase (deg)	153.5	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	166.4	+/- 21.6

ph/seg (deg)	90.1	Theor.	185.3	Amplitude	0.531 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	383.9	Search (2048X8)	0.438	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.358	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.521	Inc. frq. avg.	0.521	Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011	

o: az 85.0 el 20.8 pa -55.7 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oi.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oi.W.221.0QR0YU



Fringe quality 9

SNR 116109.2

Int time 288.442

Amp 9999.999

Phase 0.3

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000007

Fringe rate (Hz)

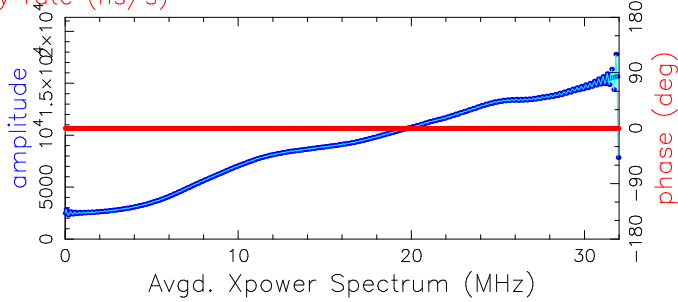
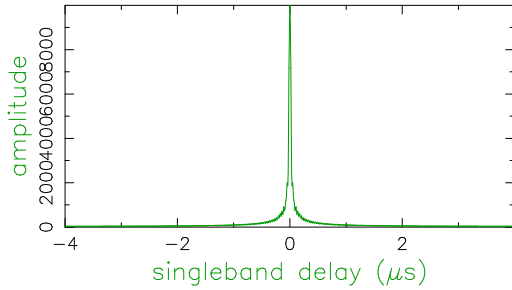
0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163650

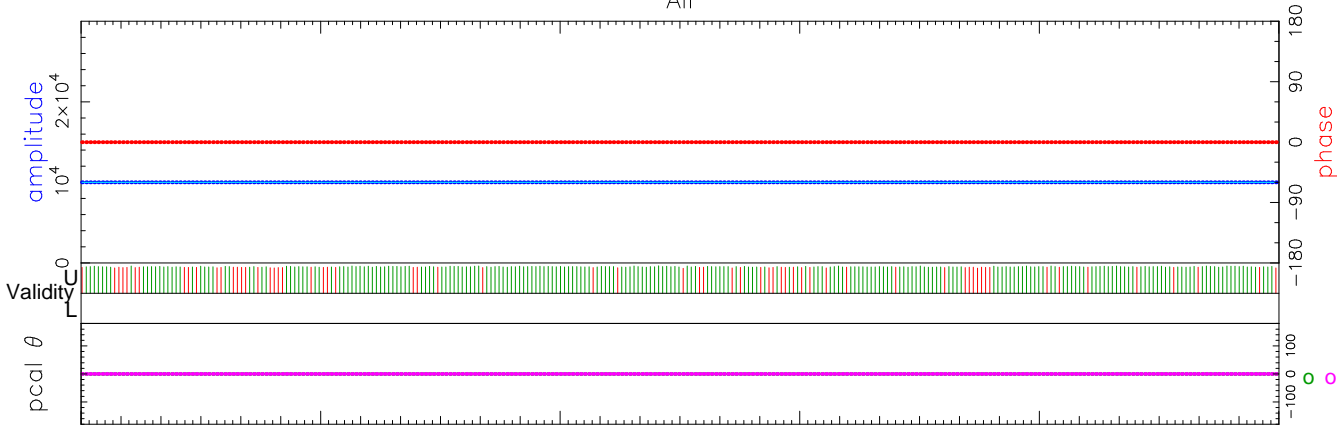
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)

-0.3 Phase

10000.0 Ampl.

513.0 Sbd box

U/L 586/0 APs used

o 3000 PC freqs

o 3000 PC freqs

o:0 0:0 PC phase

o:0 0:0 Mani PC

o 1000 PC amp

o 1000

o W00UL Chan ids

o W00UL Chan ids

Group delay (usec)(sbd)	5.02236897177E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-6.60392E-06	+/- 1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-8.58647042096E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-8.58647E-09	+/- 3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/- 0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	Search (2048X8)	9999.999	Search	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	Inc. frq. avg.	9999.999	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
		o: az 85.0 el 20.8 pa -55.7		u,v (fr/asec) 0.000 0.000		Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

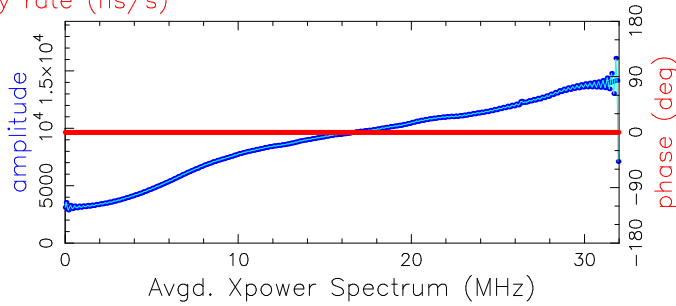
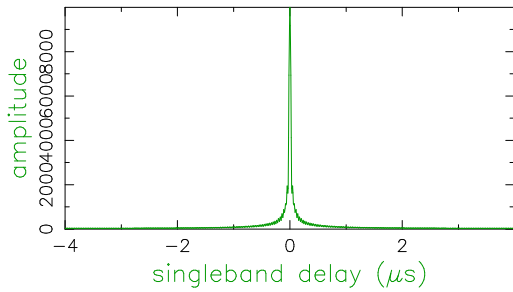
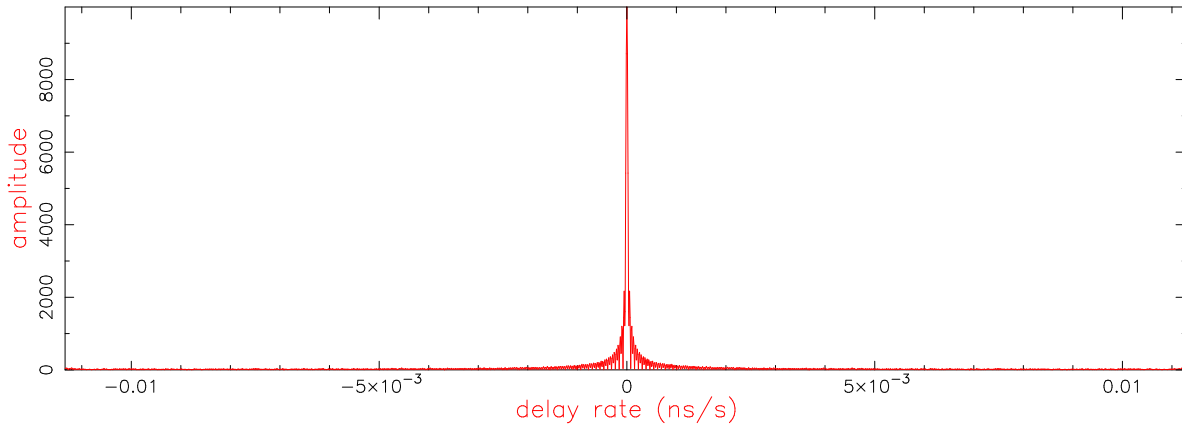
o: az 85.0 el 20.8 pa -55.7 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oo.W.186.0QR0YU

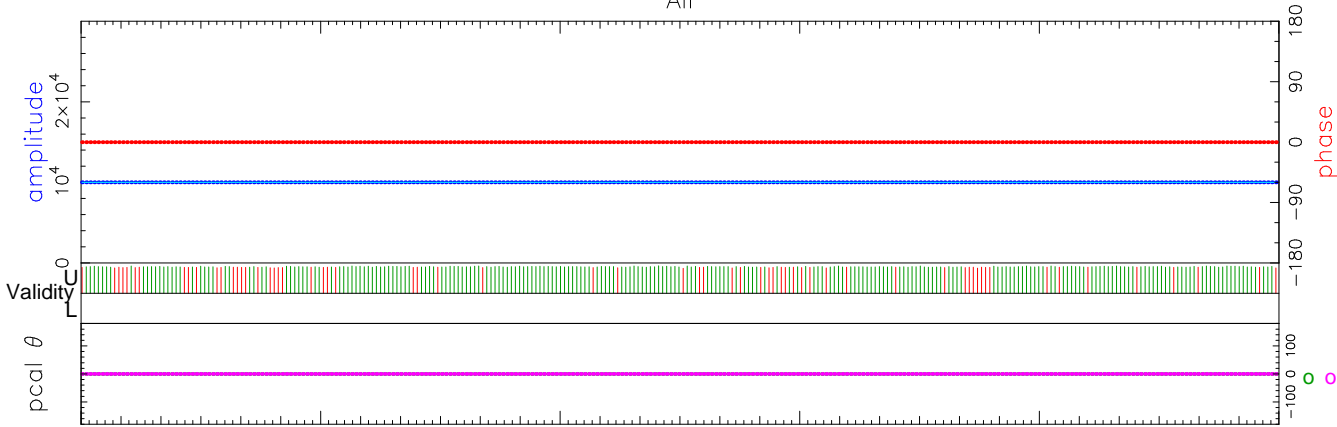
Fringe quality 9

SNR 116108.7  
Int time 288.439  
Amp 9999.998  
Phase 0.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000007  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163651  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All

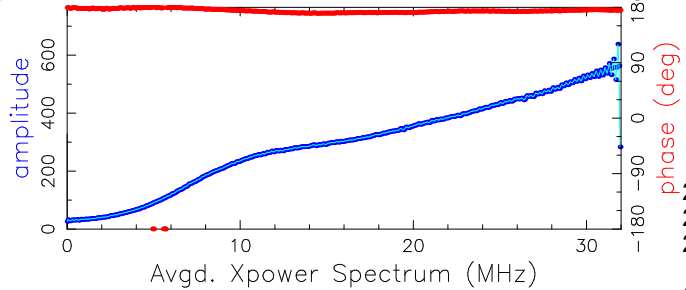
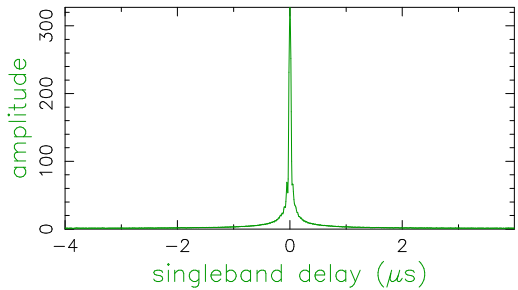
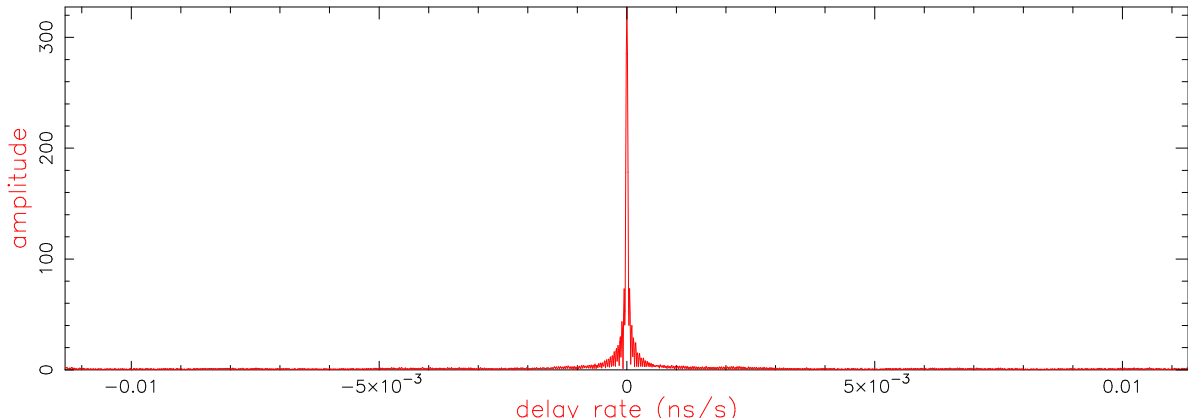


86012.00 Freq (MHz)  
-0.3 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 586/0 APs used  
o 3000 PC freqs  
o 3000 PC freqs  
o:0 0:0 PC phase  
o:0 0:0 Mani PC  
o 1000 PC amp  
o 1000  
o W00UR Chan ids  
o W00UR Chan ids

Group delay (usec)(sbd)	4.56238664372E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-7.06390E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-9.18454356632E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-9.18454E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/-	0.0

ph/seg (deg)	0.0	0.0	Amplitude	9999.998 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	Search (2048X8)	9999.998	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	9999.998	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

o: az 85.0 el 20.8 pa -55.7      o: az 85.0 el 20.8 pa -55.7      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//oo..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//oo.W.196.0QR0YU



Fringe quality 9

SNR 3801.8

Int time 288.442

Amp 327.430

Phase -135.2

PFD 0.0e+00

Delays (us)

SBD 0.000944

MBD -0.000004

Fringe rate (Hz)

0.000003

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163653

2018:249:082454

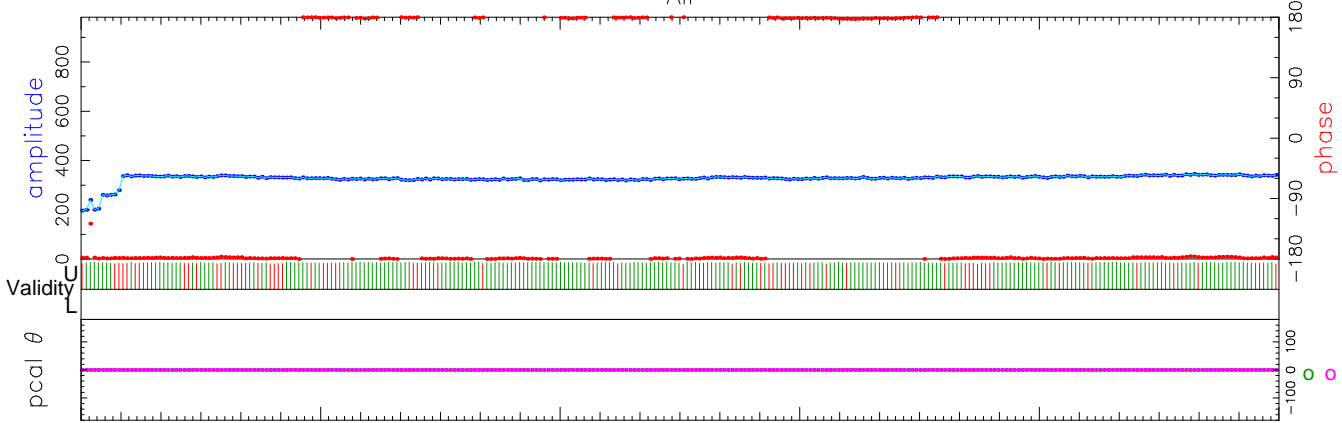
RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00	-179.2	327.1	513.1	U/L 586/0	o 3000	o 3000	o: 0:0	o: 0:0	o 1000	o 1000	o W00UL	o W00UR	86012.00	-179.2	327.1	513.1	U/L 586/0	o 3000	o 3000	o: 0:0	o: 0:0	o 1000	o 1000	o W00UL	o W00UR	Chan ids	Chan ids												
Group delay (usec)(sbd)	9.48970399479E-04	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.38495E-06	+/-	4.5E-06	Sband delay (usec)	9.4350000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	9.43500E-04	+/-	4.5E-06	Phase delay (usec)	-5.77725969720E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.77726E-06	+/-	9.7E-10	Delay rate (us/s)	4.03877843163E-11	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	4.03878E-11	+/-	5.6E-12	Total phase (deg)	-135.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-135.2	+/-	0.0

ph/seg (deg) 3.3 0.3 Theor. Amplitude 327.430 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 5.8 0.5 Search (2048X8) 327.083 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000

ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000

amp/frq (%) 0.1 0.0 Inc. seg. avg. 327.492 Sample rate(MSamp/s): 64 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011

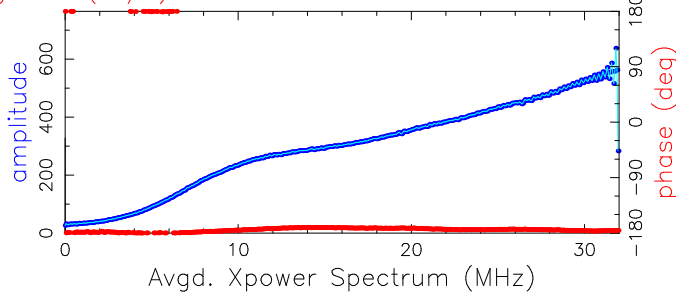
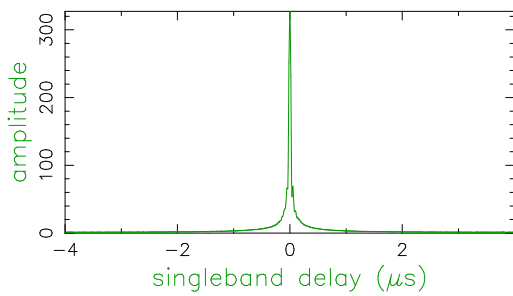
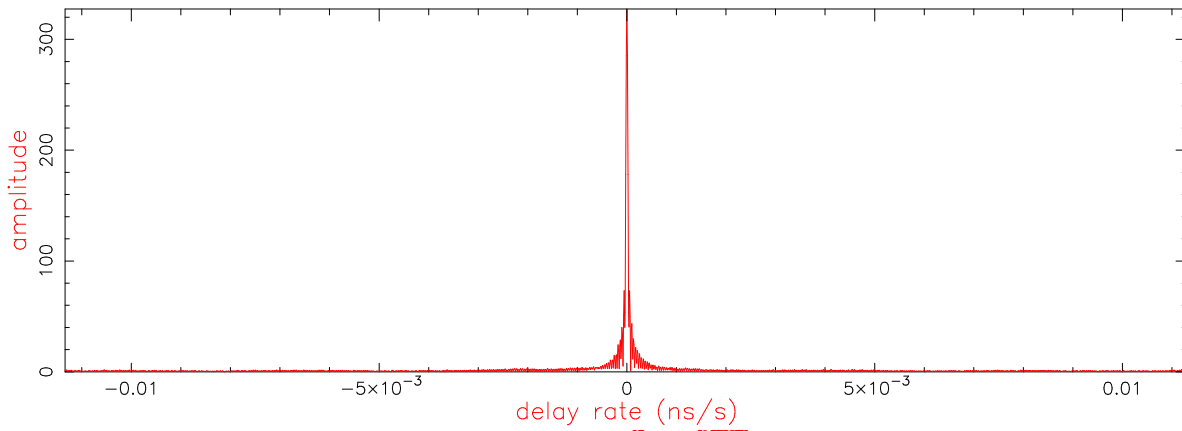
o: az 85.0 el 20.8 pa -55.7 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oo.W.210.0QR0YU

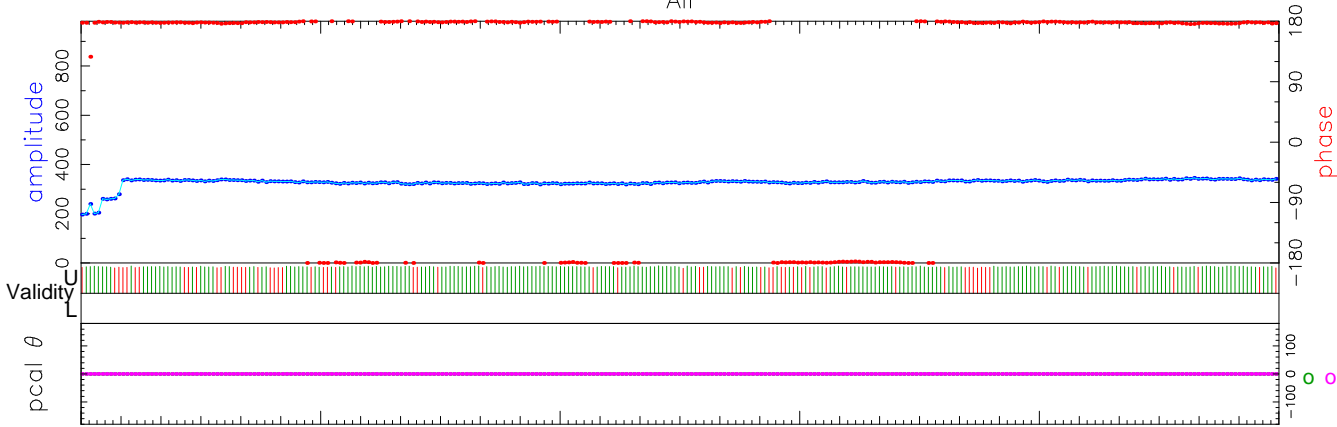
Fringe quality 9

SNR 3801.8  
Int time 288.439  
Amp 327.433  
Phase 135.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.000944  
MBD -0.000006  
Fringe rate (Hz)  
-0.000003  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00 Freq (MHz)  
178.7 Phase  
327.1 Ampl.  
512.9 Sbd box  
U/L 586/0 APs used  
o 3000 PC freqs  
o 3000 PC freqs  
o:0 0:0 PC phase  
o:0 0:0 Mani PC  
o 1000 PC amp  
o 1000  
o W00UR Chan ids  
o W00UL Chan ids

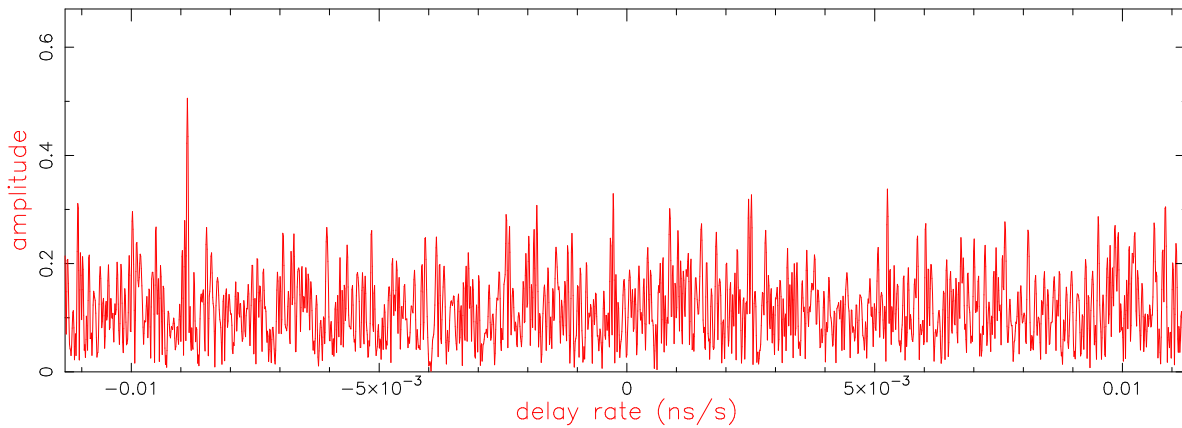
Group delay (usec)(sbd) -9.47494396131E-04 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) -5.76534E-06 +/- 4.5E-06  
Sband delay (usec) -9.43500000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -9.43500E-04 +/- 4.5E-06  
Phase delay (usec) 5.76406221041E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.76406E-06 +/- 9.7E-10  
Delay rate (us/s) -4.03877843163E-11 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) -4.03878E-11 +/- 5.6E-12  
Total phase (deg) 135.4 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 135.4 +/- 0.0

RMS Theor. Amplitude 327.433 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 3.3 0.3 Search (2048X8) 327.086 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 5.8 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 327.495 Sample rate(MSamp/s): 64 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.1 0.0 Inc. frq. avg. 327.087 ion window (TEC) 0.00 0.00

o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oo.W.227.0QR0YU

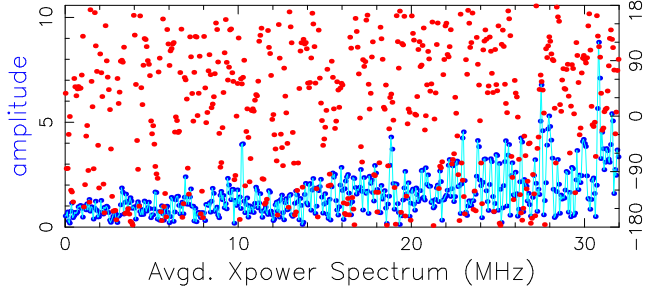
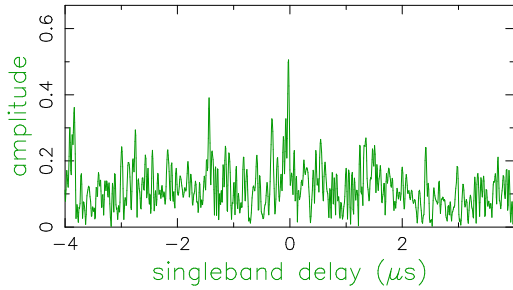






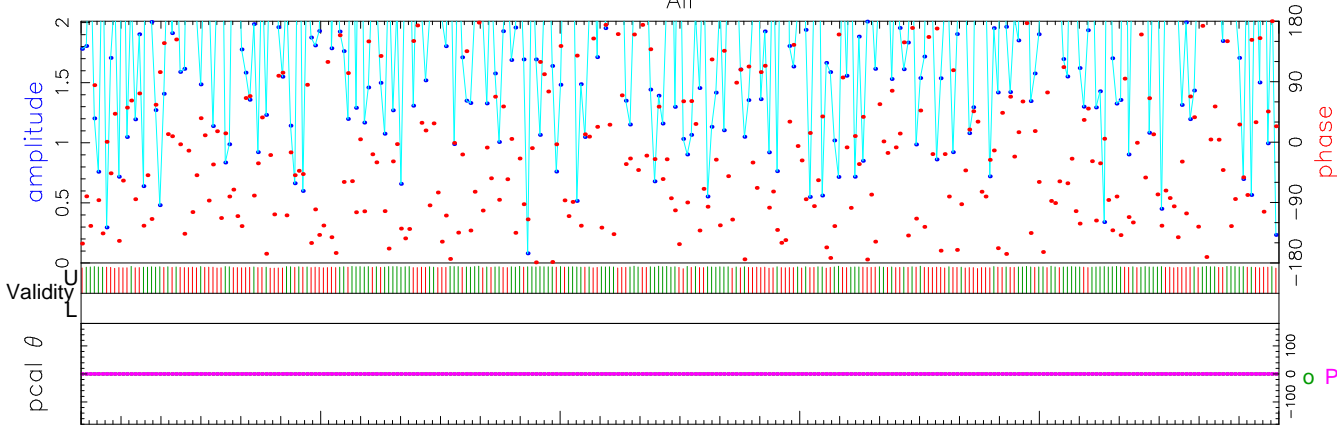
Fringe quality 0

SNR 5.9  
Int time 285.001  
Amp 0.671  
Phase -223.7  
PFD 3.2e-01  
Delays (us)  
SBD -0.026686  
MBD -0.000007  
Fringe rate (Hz)  
-0.765328  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163653  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



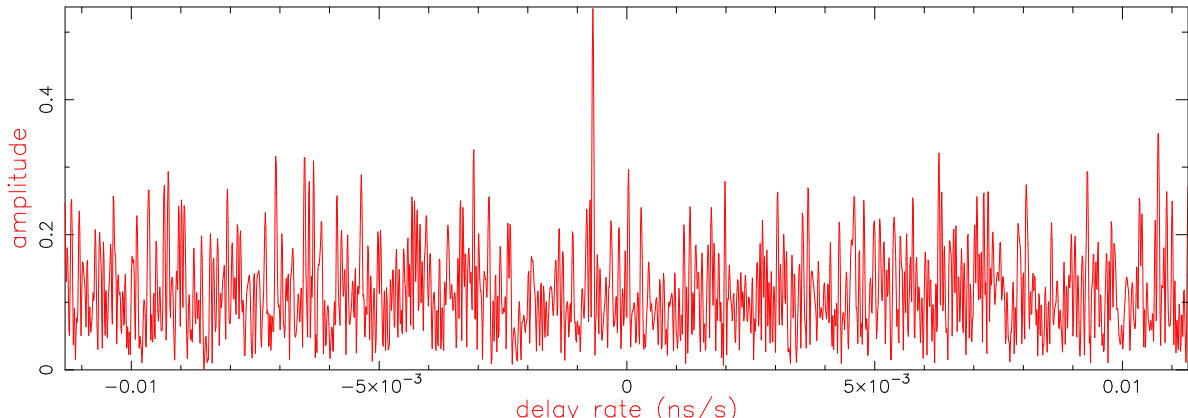
86012.00  
-74.1  
0.7  
509.6  
U/L 586/0  
o 3000  
P 0  
o:P 0:0  
o:P 0:0  
o 1000  
P 1000  
o W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

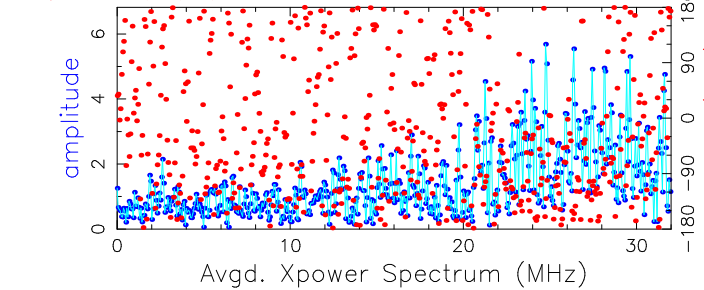
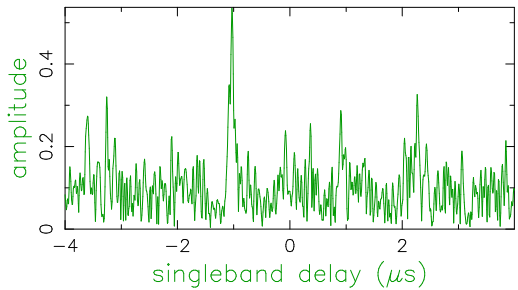
Group delay (usec)(sbd)	-8.30174785823E+03	Apriori delay (usec)	-8.30172116902E+03	Resid mbdelay (usec)	-6.89002E-06	+/-	2.9E-03
Sband delay (usec)	-8.30174785452E+03	Apriori clock (usec)	2.9403162E+01	Resid sbdelay (usec)	-2.66855E-02	+/-	2.9E-03
Phase delay (usec)	-8.30172117141E+03	Apriori clockrate (us/s)	9.1656001E-07	Resid phdelay (usec)	-2.39083E-06	+/-	6.2E-07
Delay rate (us/s)	1.90976508031E+00	Apriori rate (us/s)	1.90977396501E+00	Resid rate (us/s)	-8.88470E-06	+/-	3.6E-09
Total phase (deg)	-43.4	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	-223.7	+/-	19.3

ph/seg (deg)	89.7	Theor.	165.4	Amplitude	0.671 +/- 0.113	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	359.0	Search (2048X8)	0.485	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.522	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.6	Inc. frq. avg.	0.651	Inc. frq. avg.	0.651	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

o: az 85.0 el 20.8 pa -55.7 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oP.W.209.0QR0YU

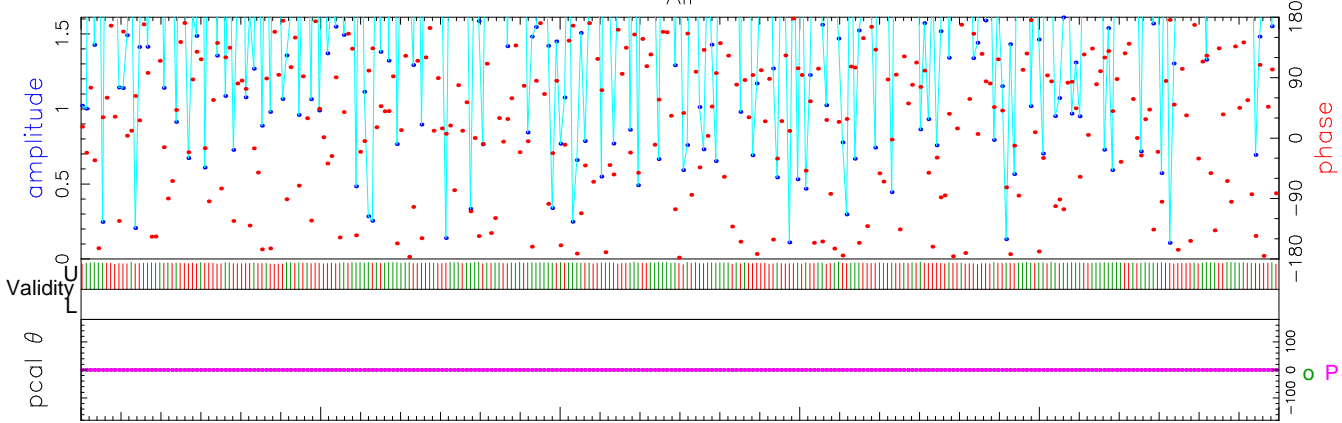


Fringe quality 0  
SNR 6.2  
Int time 285.003  
Amp 0.537  
Phase -170.7  
PFD 7.7e-02  
Delays (us)  
SBD -1.029258  
MBD -0.000006  
Fringe rate (Hz)  
-0.059350  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
97.2  
0.5  
381.2  
U/L 586/0  
o 3000  
P 0  
o:P 0:0  
o:P 0:0  
o 1000  
P 1000  
o W00UR  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.30275042671E+03	Apriori delay (usec)	-8.30172116902E+03	Resid mbdelay (usec)	-5.95722E-06	+/-	2.8E-03
Sband delay (usec)	-8.30275042702E+03	Apriori clock (usec)	2.9403162E+01	Resid sbdelay (usec)	-1.02926E+00	+/-	2.8E-03
Phase delay (usec)	-8.30172116588E+03	Apriori clockrate (us/s)	9.1656001E-07	Resid phdelay (usec)	3.13564E-06	+/-	6.0E-07
Delay rate (us/s)	1.90977327602E+00	Apriori rate (us/s)	1.90977396501E+00	Resid rate (us/s)	-6.88993E-07	+/-	3.4E-09
Total phase (deg)	-350.4	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	-170.7	+/-	18.5

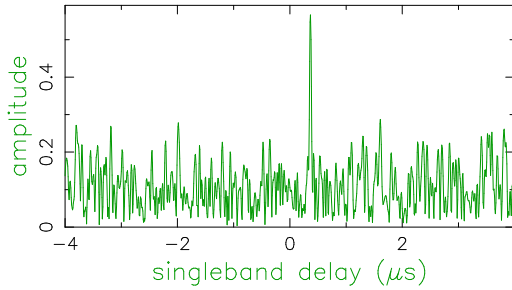
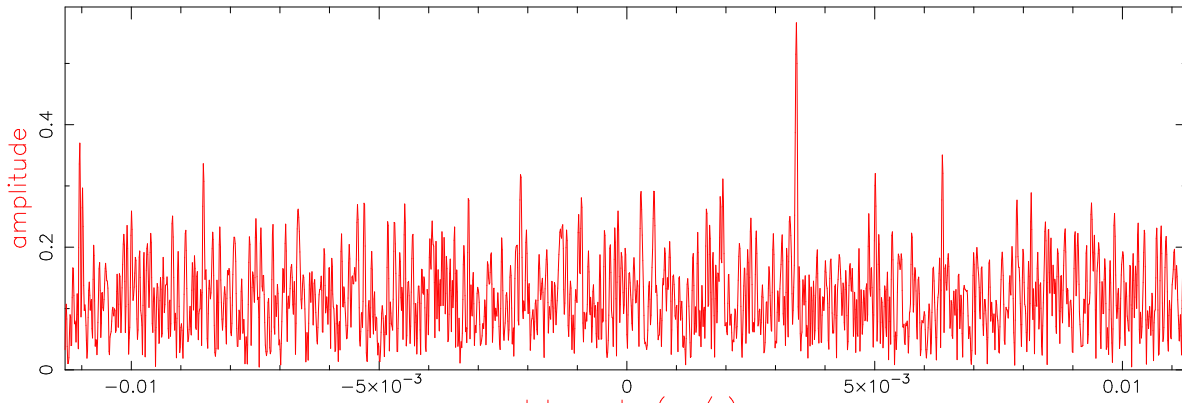
ph/seg (deg)	90.9	Theor.	158.4	Amplitude	0.537 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	331.2	Search (2048X8)	0.527	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.409	Inc. frq. avg.	0.529	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.529			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

o: az 85.0 el 20.8 pa -55.7 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oP.W.218.0QR0YU

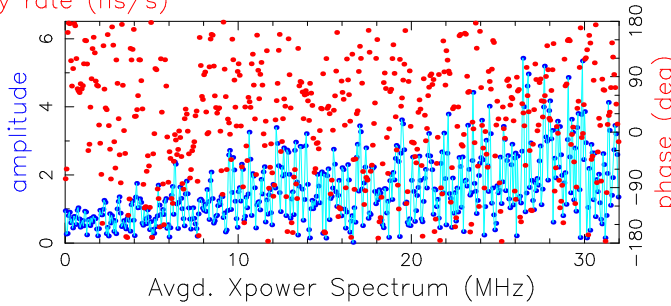
Fringe quality 0

SNR 6.5  
Int time 275.448  
Amp 0.592  
Phase 240.9  
PFD 1.4e-02  
Delays (us)  
SBD 0.364947  
MBD 0.000005  
Fringe rate (Hz)  
0.295227  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



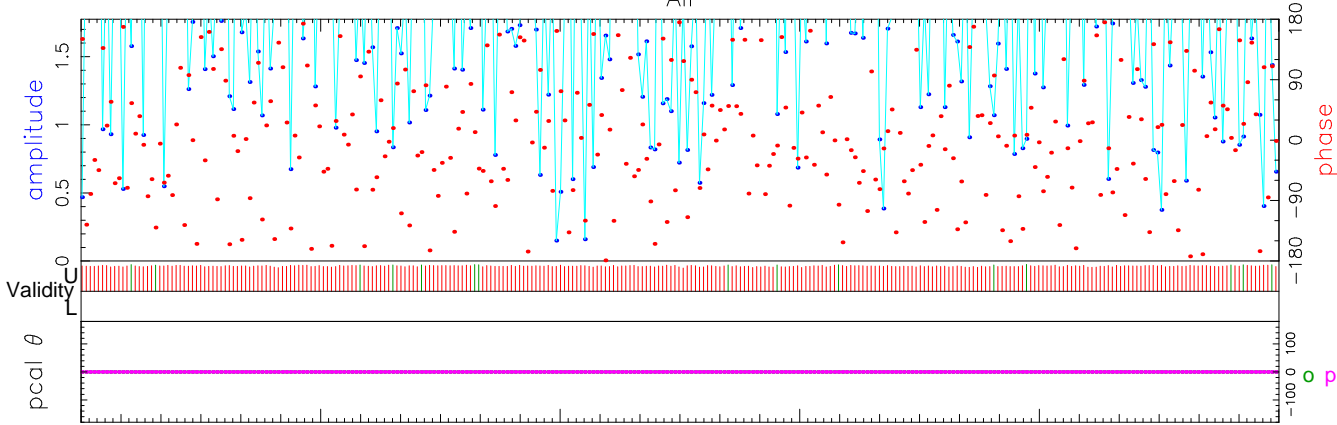
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00

-15.4

0.6

559.7

U/L 586/0

o 3000

p 3000

o:p 0:0

o:p 0:0

o 1000

p 1000

o W00UR

p W00UR

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Manl PC

PC amp

Chan ids

Chan ids

Group delay (usec)(sbd)	-2.72482757625E+03	Apriori delay (usec)	-2.72519251840E+03	Resid mbdelay (usec)	4.70120E-06	+/- 2.7E-03
Sband delay (usec)	-2.72482757190E+03	Apriori clock (usec)	-1.9793634E+00	Resid sbdelay (usec)	3.64947E-01	+/- 2.7E-03
Phase delay (usec)	-2.72519251890E+03	Apriori clockrate (us/s)	4.7455995E-07	Resid phdelay (usec)	-4.96789E-07	+/- 5.7E-07
Delay rate (us/s)	3.15528572313E-02	Apriori rate (us/s)	3.15494299353E-02	Resid rate (us/s)	3.42730E-06	+/- 3.3E-09
Total phase (deg)	48.3	Apriori accel (us/s/s)	1.57861796184E-05	Resid phase (deg)	240.9	+/- 17.7

ph/seg (deg)	RMS 90.7	Theor. 151.6	Amplitude 0.592 +/- 0.092	Search (2048X8)	0.551	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	326.2	264.7	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	8.9	Inc. seg. avg.	0.494		Bits/sample: 2x2		dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.6	15.5	Inc. frq. avg.	0.581		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

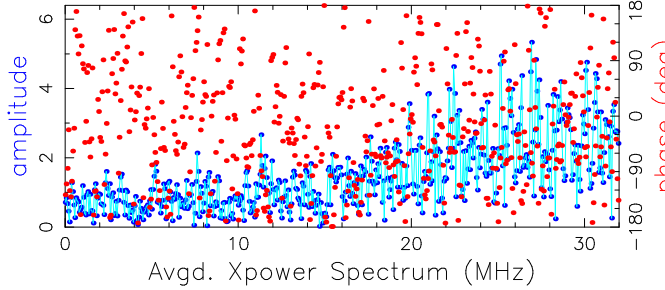
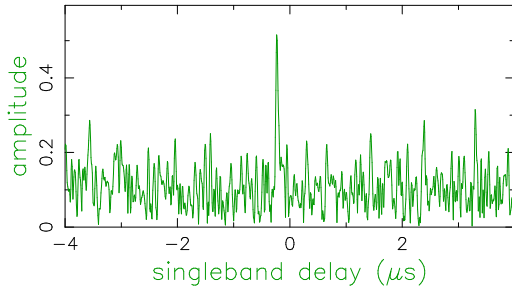
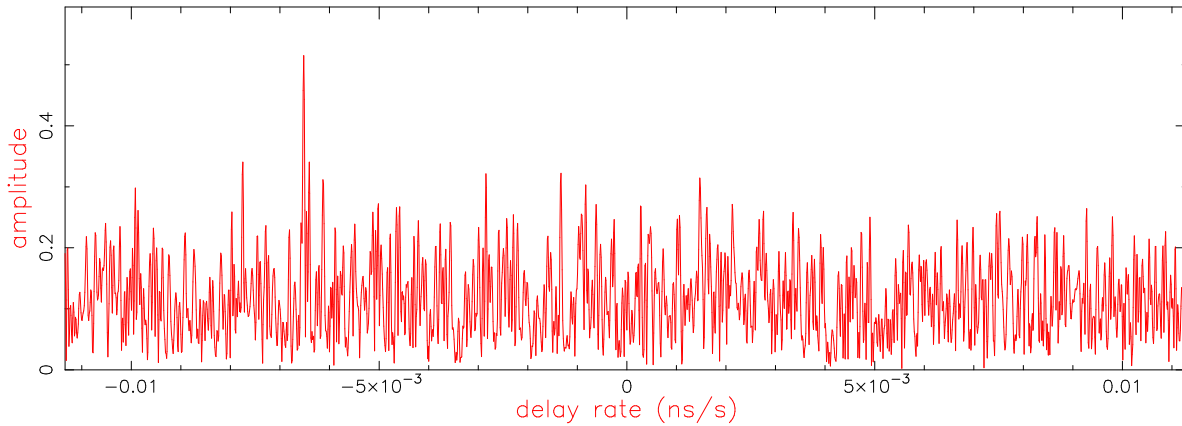
o: az 85.0 el 20.8 pa -55.7 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -168.059 714.198 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//op..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//op.W.231.0QR0YU

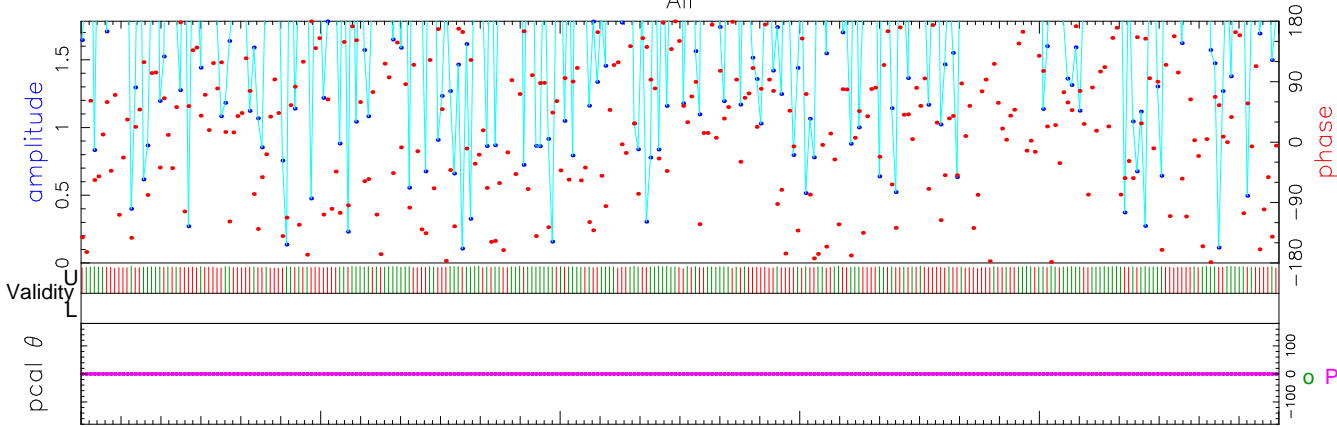
Fringe quality 0

SNR 6.0  
Int time 285.001  
Amp 0.595  
Phase -211.7  
PFD 2.7e-01  
Delays (us)  
SBD -0.232503  
MBD -0.000007  
Fringe rate (Hz)  
-0.562243  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
61.4  
0.6  
483.3  
U/L 586/0  
o 3000  
P 0  
o:P 0:0  
o:P 0:0  
o 1000  
P 1000  
o W00UL  
P W00UR

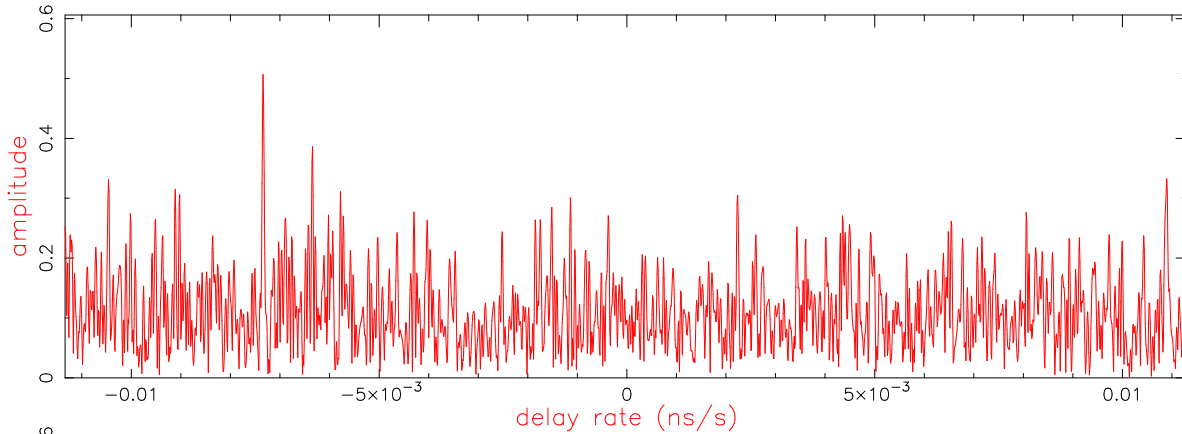
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.30195366710E+03	Apriori delay (usec)	-8.30172116902E+03	Resid mbdelay (usec)	-7.26354E-06	+/- 2.9E-03
Sband delay (usec)	-8.30195367202E+03	Apriori clock (usec)	2.9403162E+01	Resid sbdelay (usec)	-2.32503E-01	+/- 2.9E-03
Phase delay (usec)	-8.30172116704E+03	Apriori clockrate (us/s)	9.1656001E-07	Resid phdelay (usec)	1.98146E-06	+/- 6.2E-07
Delay rate (us/s)	1.90976743793E+00	Apriori rate (us/s)	1.90977396501E+00	Resid rate (us/s)	-6.52708E-06	+/- 3.6E-09
Total phase (deg)	-31.4	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	-211.7	+/- 19.2

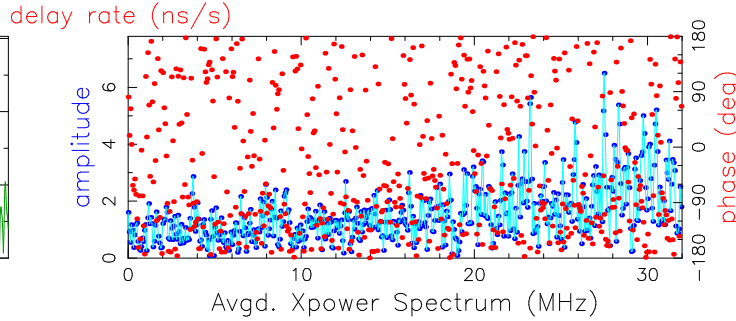
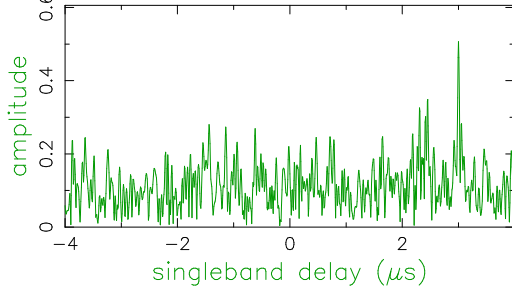
ph/seg (deg)	93.9	Theor.	164.3	Amplitude	0.595 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	369.6	Search (2048X8)	0.500	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.475	Inc. frq. avg.	0.585	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.585			Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	
						nlags: 512	t_cohere infinite		

o: az 85.0 el 20.8 pa -55.7 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oP.W.232.0QR0YU

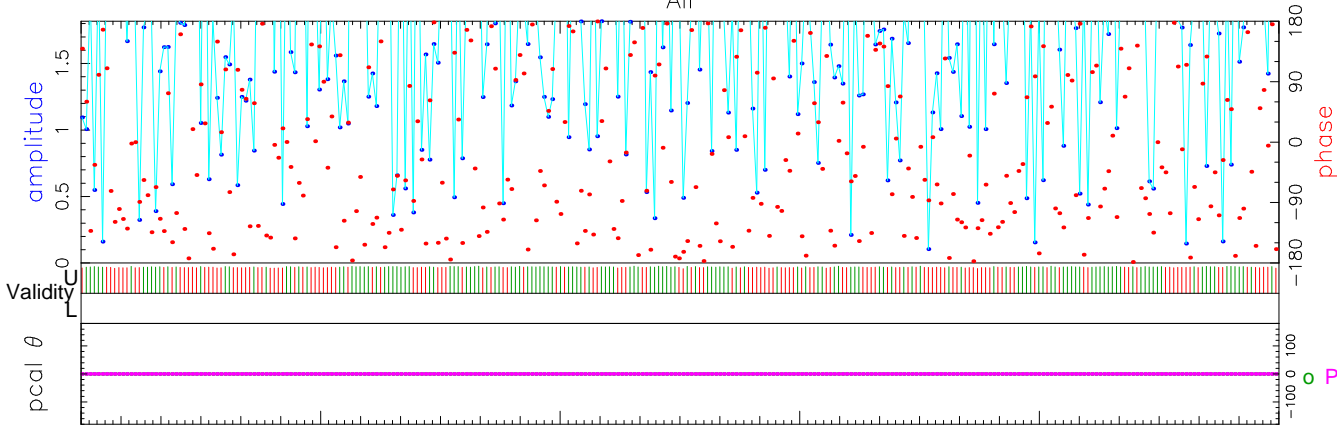




Fringe quality 0  
SNR 5.8  
Int time 285.003  
Amp 0.606  
Phase 228.0  
PFD 4.7e-01  
Delays (us)  
SBD 3.000034  
MBD -0.000007  
Fringe rate (Hz)  
-0.632875  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-134.1  
0.6  
897.0  
U/L 586/0  
o 3000  
P 0  
o:P 0:0  
o:P 0:0  
o 1000  
P 1000  
o W00UR  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-8.29872112951E+03	Apriori delay (usec)	-8.30172116902E+03	Resid mbdelay (usec)	-6.99437E-06	+/- 2.9E-03
Sband delay (usec)	-8.29872113502E+03	Apriori clock (usec)	2.9403162E+01	Resid sbdelay (usec)	3.00003E+00	+/- 2.9E-03
Phase delay (usec)	-8.30172117334E+03	Apriori clockrate (us/s)	9.1656001E-07	Resid phdelay (usec)	-4.32564E-06	+/- 6.3E-07
Delay rate (us/s)	1.90976661796E+00	Apriori rate (us/s)	1.90977396501E+00	Resid rate (us/s)	-7.34705E-06	+/- 3.6E-09
Total phase (deg)	48.3	Apriori accel (us/s/s)	4.43676541386E-05	Resid phase (deg)	228.0	+/- 19.6

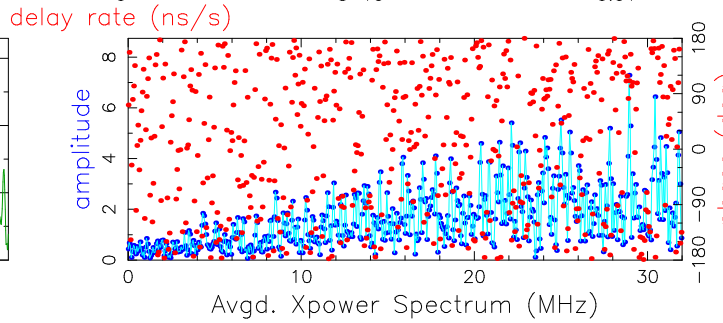
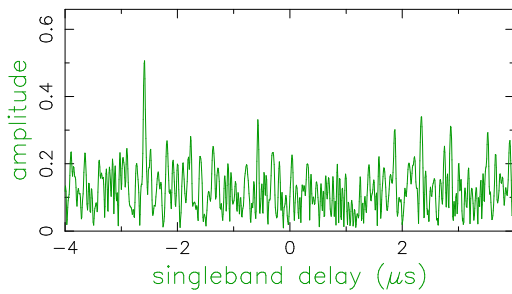
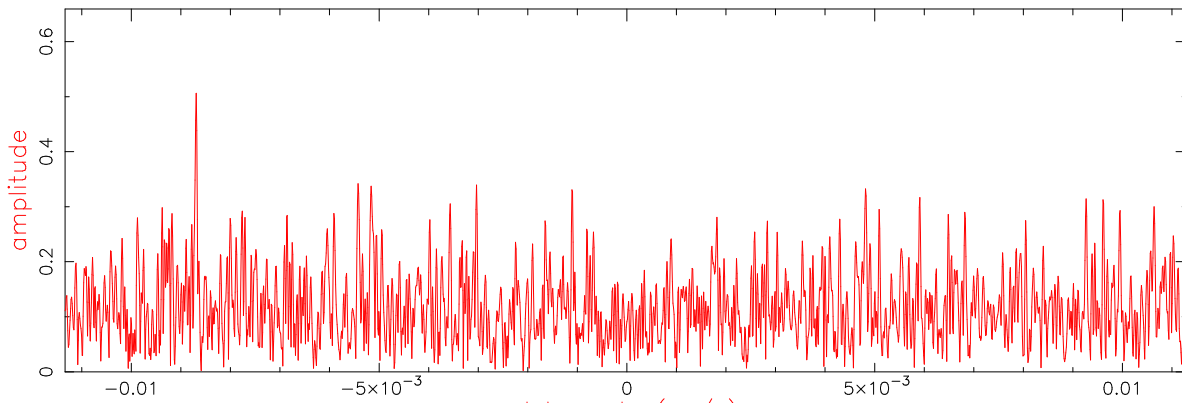
ph/seg (deg)	89.1	Theor.	167.7	Amplitude	0.606 +/- 0.104	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	356.6	Search (2048X8)	0.499	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.447	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.597	Inc. frq. avg.	0.597	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	
						nlags: 512 t_cohere infinite			

o: az 85.0 el 20.8 pa -55.7 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11334.459 1088.680 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oP.W.242.0QR0YU

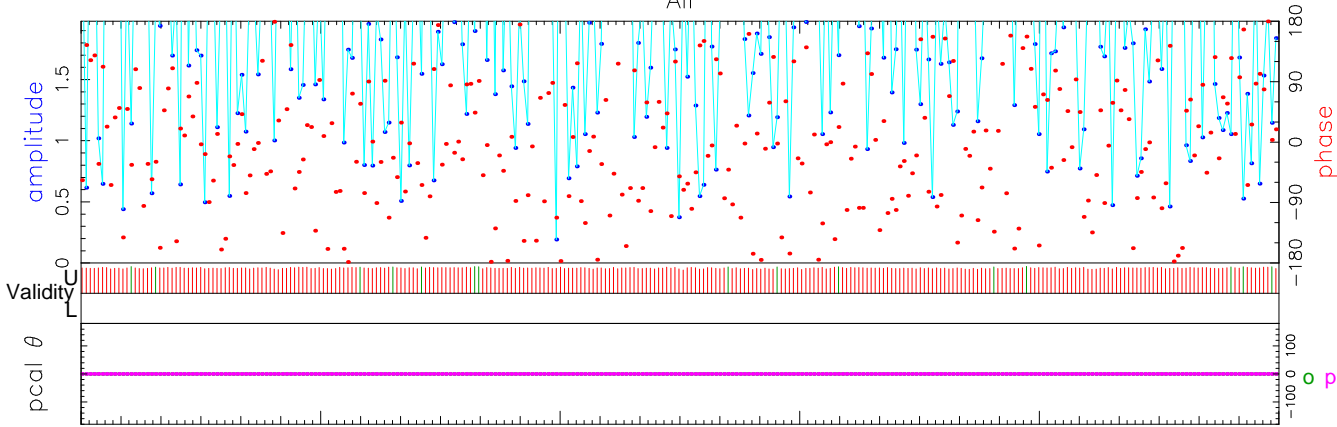
Fringe quality 0

SNR 5.8  
Int time 275.444  
Amp 0.659  
Phase -152.5  
PFD 5.7e-01  
Delays (us)  
SBD -2.588907  
MBD -0.000006  
Fringe rate (Hz)  
-0.749558  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163657  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



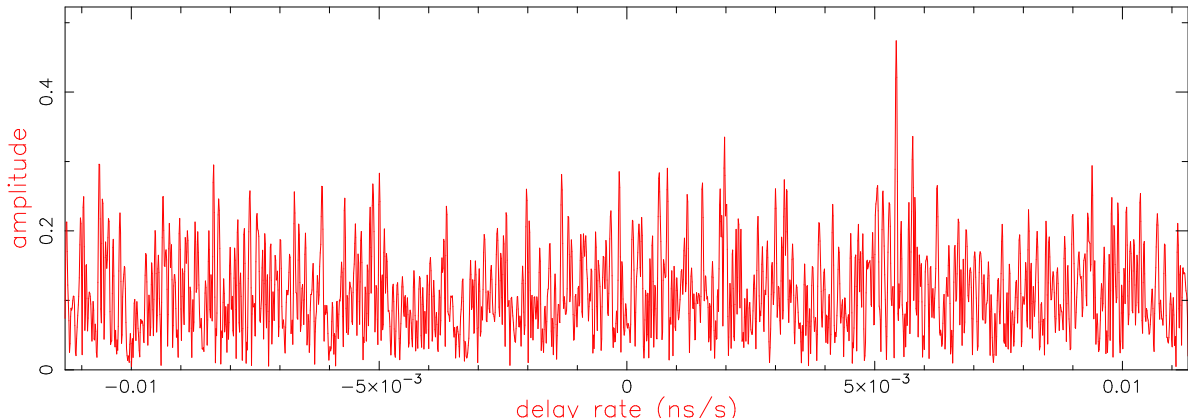
86012.00  
-15.7  
0.7  
181.6  
U/L 586/0  
o 3000  
p 3000  
o:p 0:0  
o:p 0:0  
o 1000  
p 1000  
o W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

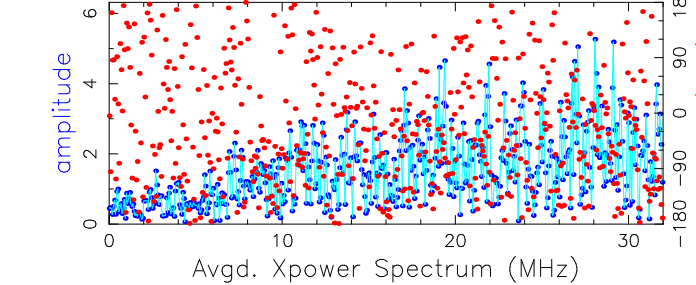
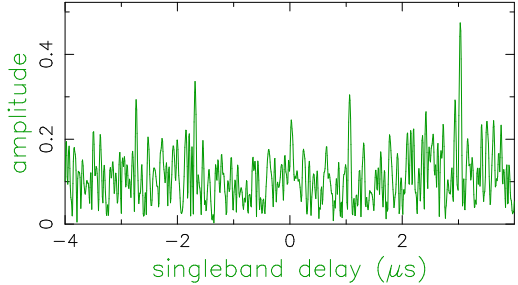
Group delay (usec)(sbd)	-2.72778143083E+03	Apriori delay (usec)	-2.72519251840E+03	Resid mbdelay (usec)	-6.22713E-06	+/-	3.0E-03
Sband delay (usec)	-2.72778142590E+03	Apriori clock (usec)	-1.9793634E+00	Resid sbdelay (usec)	-2.58891E+00	+/-	3.0E-03
Phase delay (usec)	-2.72519251891E+03	Apriori clockrate (us/s)	4.7455995E-07	Resid phdelay (usec)	-5.06310E-07	+/-	6.4E-07
Delay rate (us/s)	3.15407283050E-02	Apriori rate (us/s)	3.15494299353E-02	Resid rate (us/s)	-8.70163E-06	+/-	3.7E-09
Total phase (deg)	-345.1	Apriori accel (us/s/s)	1.57861796184E-05	Resid phase (deg)	-152.5	+/-	19.8

ph/seg (deg)	90.8	Theor.	169.2	Amplitude	0.659 +/- 0.114	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	384.9	Search (2048X8)	0.503	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.522	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.9	Inc. frq. avg.	0.644	Inc. frq. avg.	0.644	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000

o: az 85.0 el 20.8 pa -55.7 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -168.059 714.198 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//op..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//op.W.245.0QR0YU



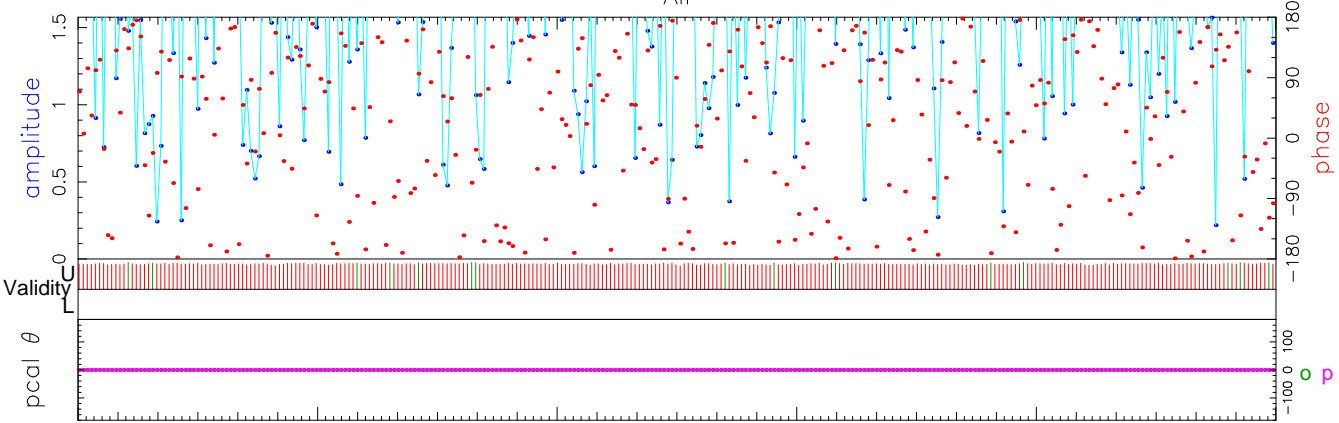
Fringe quality 0  
SNR 5.4  
Int time 275.454  
Amp 0.523  
Phase 182.5  
PFD 1.0e+00  
Delays (us)  
SBD 3.032278  
MBD 0.000005  
Fringe rate (Hz)  
0.468846  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00 135.3 0.5 901.1  
U/L 586/0 o 3000 p 3000  
o:p 0:0 o:p 0:0  
o 1000 p 1000  
o W00UR p W00UL

Validity  
pcal theta

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.72216023892E+03	Apriori delay (usec)	-2.72519251840E+03	Resid mbdelay (usec)	4.91178E-06	+/-	3.2E-03
Sband delay (usec)	-2.72216024040E+03	Apriori clock (usec)	-1.9793634E+00	Resid sbdelay (usec)	3.03228E+00	+/-	3.2E-03
Phase delay (usec)	-2.72519251404E+03	Apriori clockrate (us/s)	4.7455995E-07	Resid phdelay (usec)	4.36218E-06	+/-	6.9E-07
Delay rate (us/s)	3.15548727709E-02	Apriori rate (us/s)	3.15494299353E-02	Resid rate (us/s)	5.44284E-06	+/-	4.0E-09
Total phase (deg)	349.9	Apriori accel (us/s/s)	1.57861796184E-05	Resid phase (deg)	182.5	+/-	21.3

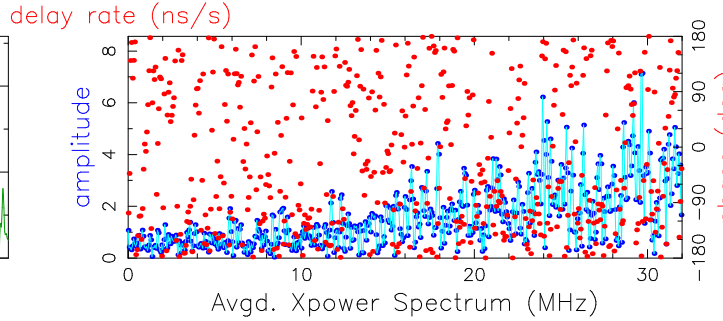
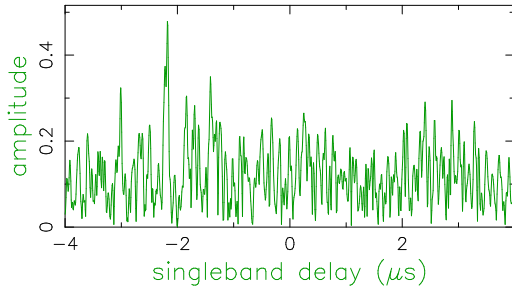
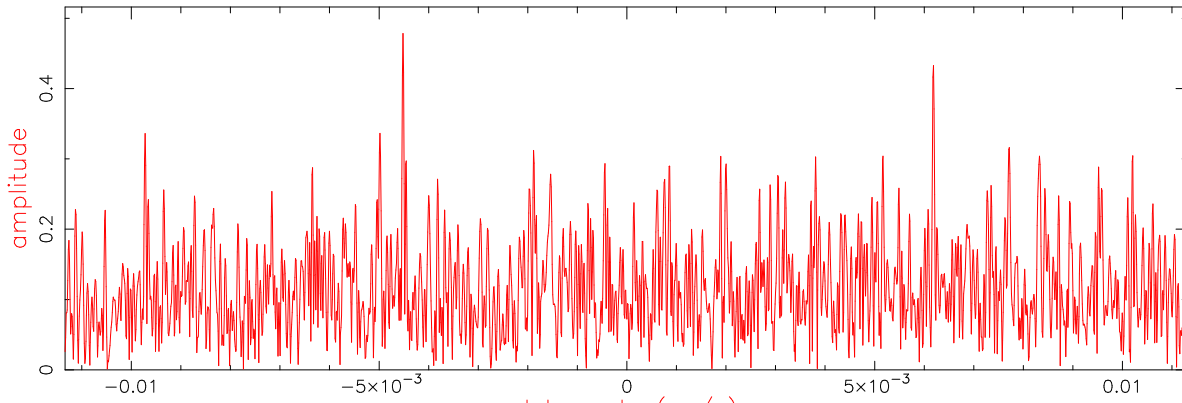
RMS 91.9 Theor. 182.2 Amplitude 0.523 +/- 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 379.7 Search (2048X8) 0.466 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 10.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.1 18.6 Inc. seg. avg. 0.363 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.1 18.6 Inc. frq. avg. 0.513 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

o: az 85.0 el 20.8 pa -55.7 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) -168.059 714.198 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//op..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//op.W.256.0QR0YU

Fringe quality 0

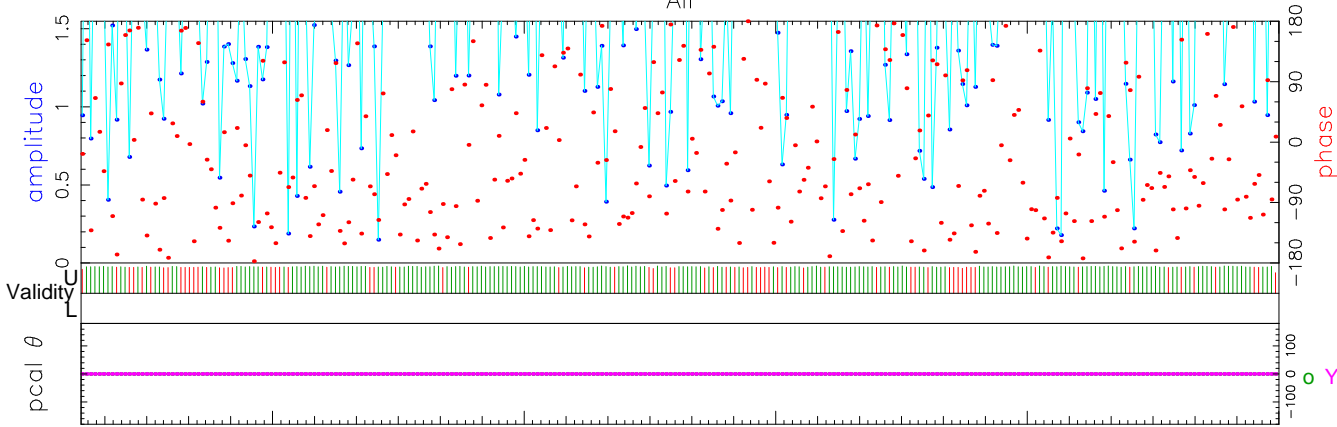
SNR 5.5  
Int time 273.947  
Amp 0.516  
Phase -314.2  
PFD 1.0e+00  
Delays (us)  
SBD -2.176851  
MBD -0.000007  
Fringe rate (Hz)  
-0.389995  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-85.1  
0.5  
234.3  
U/L 558/0  
o 3000  
Y 0  
o:Y 0:0  
o:Y 0:0  
o 1000  
Y 1000  
o W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

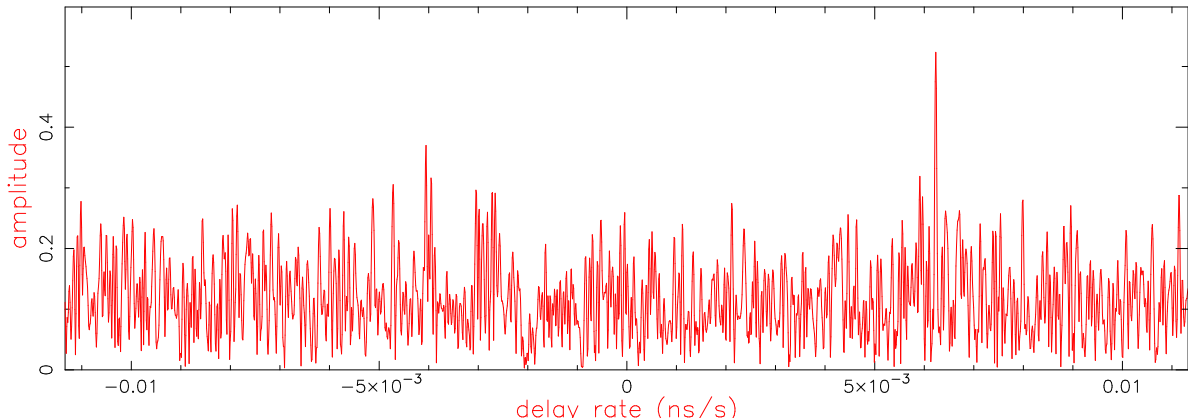
Group delay (usec)(sbd)	-7.94035052282E+03	Apriori delay (usec)	-7.93817366853E+03	Resid mbdelay (usec)	-6.87318E-06	+/-	3.2E-03
Sband delay (usec)	-7.94035051903E+03	Apriori clock (usec)	2.2304472E+01	Resid sbdelay (usec)	-2.17685E+00	+/-	3.2E-03
Phase delay (usec)	-7.93817367128E+03	Apriori clockrate (us/s)	4.2655996E-07	Resid phdelay (usec)	-2.74457E-06	+/-	6.8E-07
Delay rate (us/s)	1.87820595003E+00	Apriori rate (us/s)	1.87821047749E+00	Resid rate (us/s)	-4.52745E-06	+/-	4.1E-09
Total phase (deg)	-244.9	Apriori accel (us/s/s)	4.09175849190E-05	Resid phase (deg)	-314.2	+/-	21.0

ph/seg (deg)	89.9	Theor.	175.2	Amplitude	0.516 +/- 0.094	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	377.3	Search (2048X8)	0.473	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.378	Inc. seg. avg.	0.378	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.9	Inc. frq. avg.	0.503	Inc. frq. avg.	0.503	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000

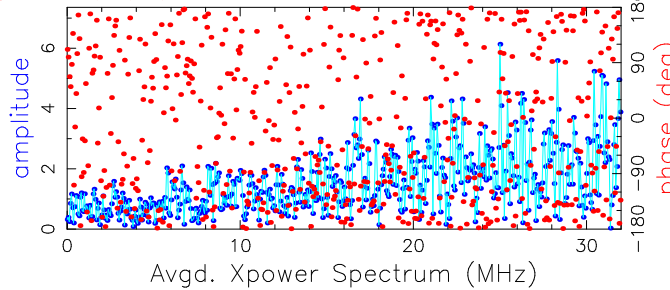
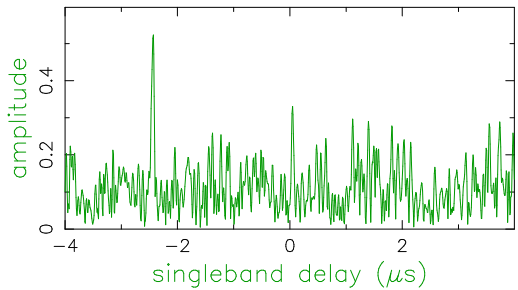
o: az 85.0 el 20.8 pa -55.7 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11150.777 610.190 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oY.W.204.0QR0YU

Fringe quality 0



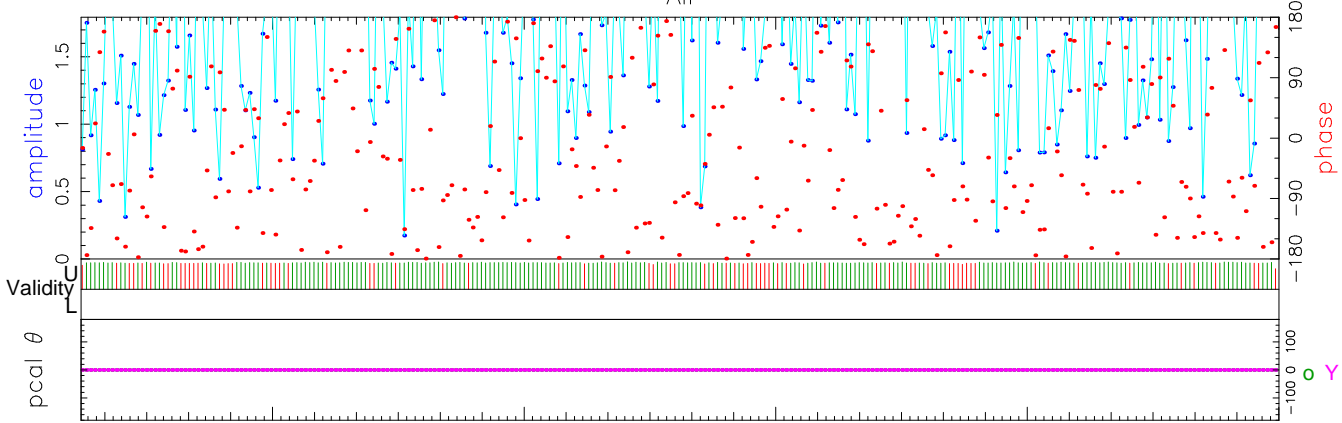
SNR 6.0  
Int time 273.950  
Amp 0.598  
Phase -251.1  
PFD 2.8e-01  
Delays (us)  
SBD -2.432159  
MBD 0.000007  
Fringe rate (Hz)  
0.537333  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163654  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-137.1  
0.6  
201.6  
U/L 558/0  
o 3000  
Y 0  
o:Y 0:0  
o:Y 0:0  
o 1000  
Y 1000  
o W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.94060582191E+03	Apriori delay (usec)	-7.93817366853E+03	Resid mbdelay (usec)	7.25252E-06	+/- 2.9E-03
Sband delay (usec)	-7.94060582753E+03	Apriori clock (usec)	2.2304472E+01	Resid sbdelay (usec)	-2.43216E+00	+/- 2.9E-03
Phase delay (usec)	-7.93817367295E+03	Apriori clockrate (us/s)	4.2655996E-07	Resid phdelay (usec)	-4.42190E-06	+/- 6.2E-07
Delay rate (us/s)	1.87821671539E+00	Apriori rate (us/s)	1.87821047749E+00	Resid rate (us/s)	6.23790E-06	+/- 3.8E-09
Total phase (deg)	-181.8	Apriori accel (us/s/s)	4.09175849190E-05	Resid phase (deg)	-251.1	+/- 19.2

ph/seg (deg)	91.7	Theor.	160.7	Amplitude	0.598 +/- 0.100	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	339.5	Search (2048X8)	0.512	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.461	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.587	Inc. frq. avg.	0.587	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	

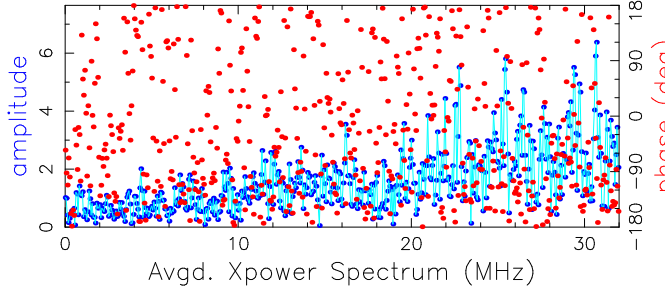
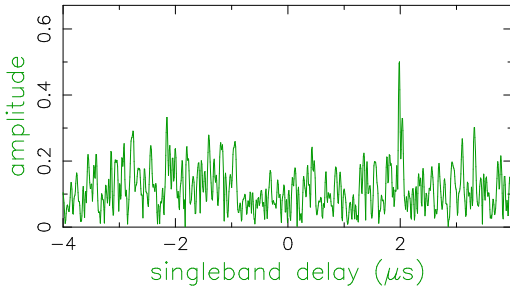
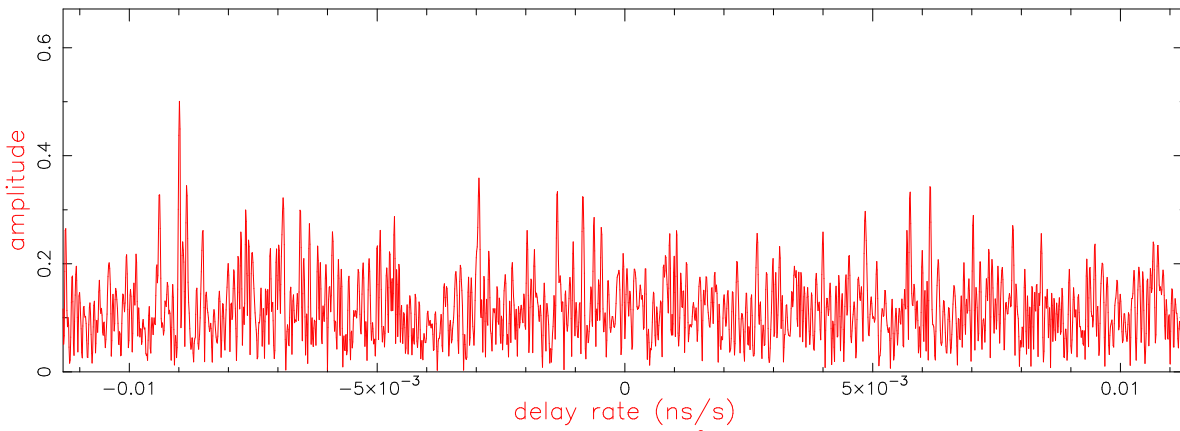
o: az 85.0 el 20.8 pa -55.7 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11150.777 610.190 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oY.W.217.0QR0YU



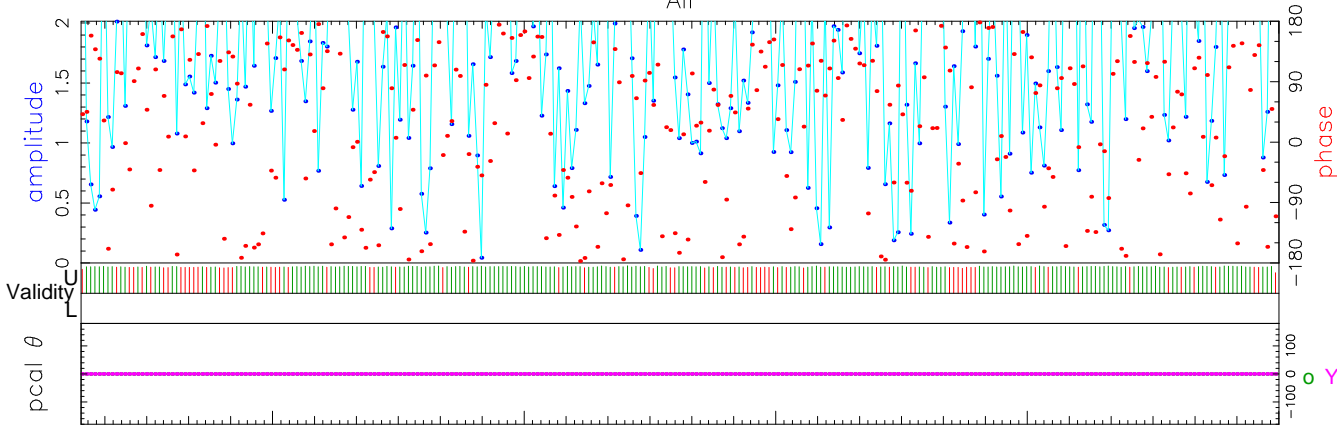
Fringe quality 0

SNR 5.8  
Int time 273.947  
Amp 0.672  
Phase 331.8  
PFD 6.1e-01  
Delays (us)  
SBD 1.980911  
MBD -0.000005  
Fringe rate (Hz)  
-0.775422  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



Validity  
pcal θ  
86012.00  
131.0  
0.7  
766.6  
U/L 558/0  
o 3000  
Y 0  
o:Y 0:0  
o:Y 0:0  
o 1000  
Y 1000  
o W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.93619275186E+03	Apriori delay (usec)	-7.93817366853E+03	Resid mbdelay (usec)	-4.59778E-06	+/-	3.0E-03
Sband delay (usec)	-7.93619275753E+03	Apriori clock (usec)	2.2304472E+01	Resid sbdelay (usec)	1.98091E+00	+/-	3.0E-03
Phase delay (usec)	-7.93817366431E+03	Apriori clockrate (us/s)	4.2655996E-07	Resid phdelay (usec)	4.22353E-06	+/-	6.4E-07
Delay rate (us/s)	1.87820147561E+00	Apriori rate (us/s)	1.87821047749E+00	Resid rate (us/s)	-9.00188E-06	+/-	3.9E-09
Total phase (deg)	41.1	Apriori accel (us/s/s)	4.09175849190E-05	Resid phase (deg)	331.8	+/-	19.8

ph/seg (deg)	92.6	Theor.	165.6	Amplitude	0.672 +/- 0.116	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	352.6	Search (2048X8)	0.499	Search	0.499	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.506	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.9	Inc. frq. avg.	0.649	Inc. frq. avg.	0.649	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		
						nlags:	512	t_cohere	infinite		

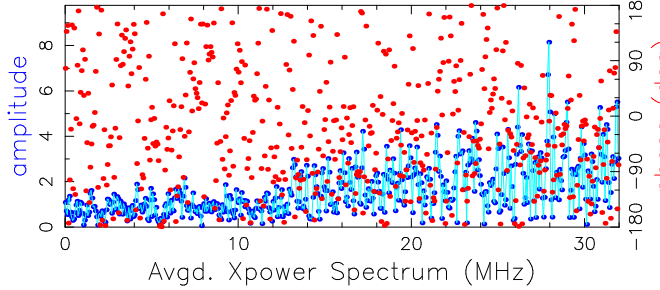
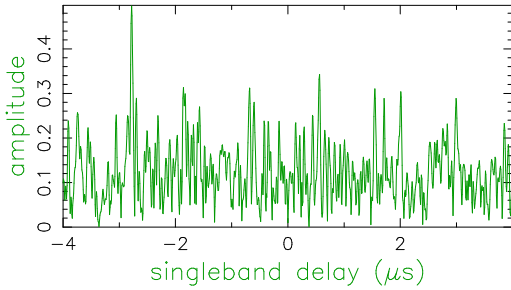
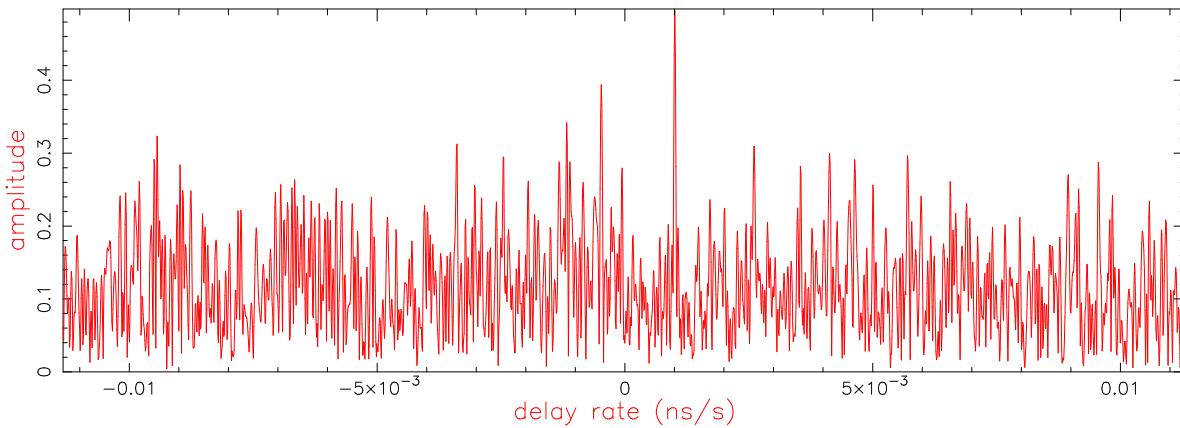
o: az 85.0 el 20.8 pa -55.7 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11150.777 610.190 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oY.W.229.0QR0YU

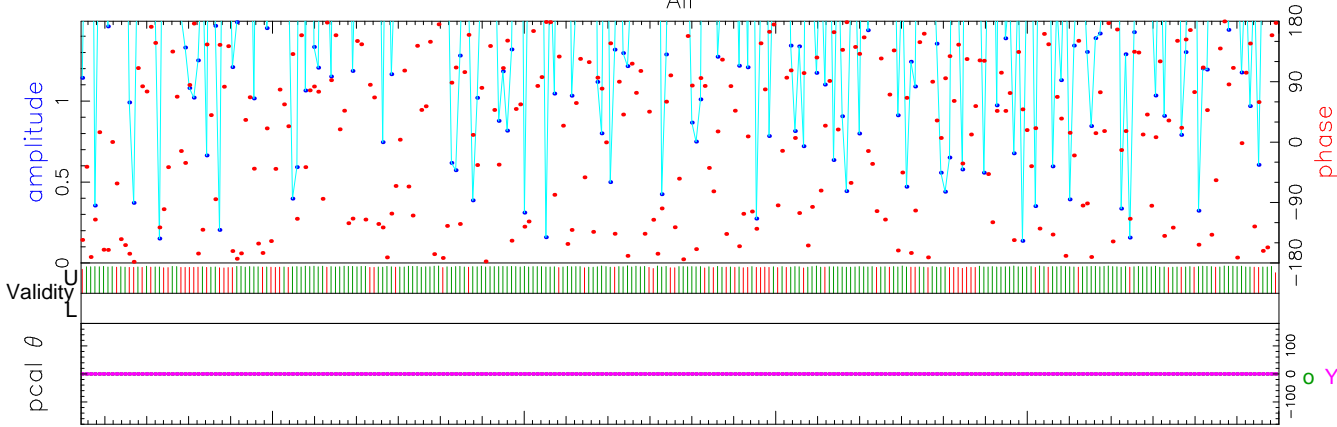
Fringe quality 0

SNR 5.6  
Int time 273.950  
Amp 0.498  
Phase -175.4  
PFD 9.1e-01  
Delays (us)  
SBD -2.780309  
MBD 0.000007  
Fringe rate (Hz)  
0.086463  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163657  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



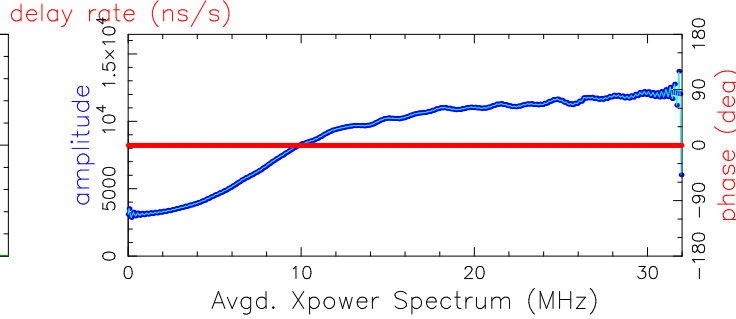
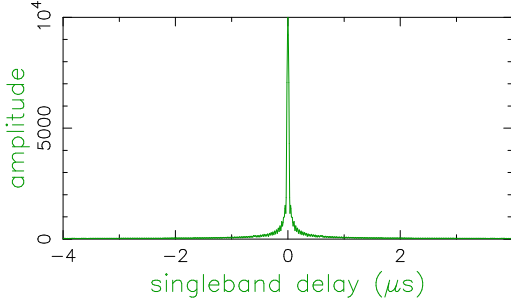
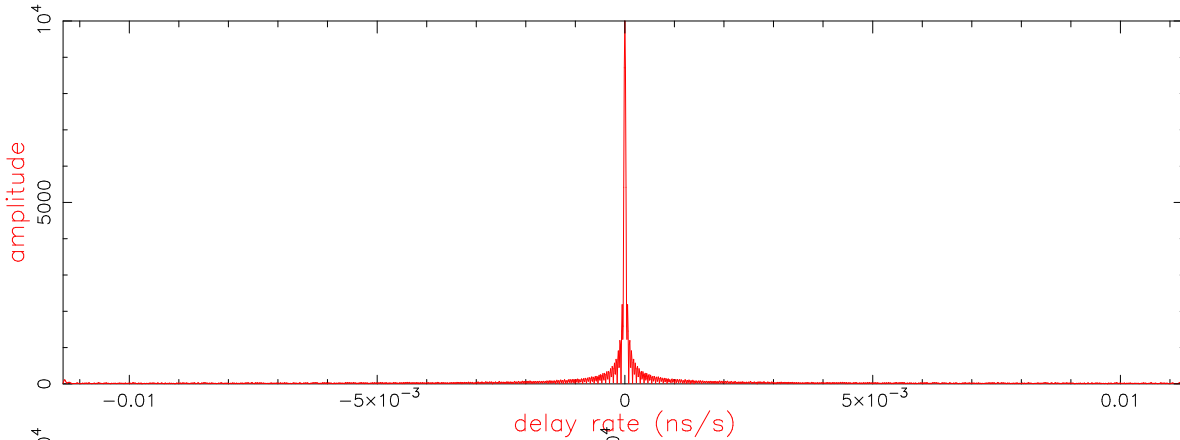
86012.00  
141.8  
0.5  
157.1  
U/L 558/0  
o 3000  
Y 0  
o:Y 0:0  
o:Y 0:0  
o 1000  
Y 1000  
o W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.94095398282E+03	Apriori delay (usec)	-7.93817366853E+03	Resid mbdelay (usec)	7.06613E-06	+/-	3.1E-03
Sband delay (usec)	-7.94095397803E+03	Apriori clock (usec)	2.2304472E+01	Resid sbdelay (usec)	-2.78031E+00	+/-	3.1E-03
Phase delay (usec)	-7.93817366396E+03	Apriori clockrate (us/s)	4.2655996E-07	Resid phdelay (usec)	4.57208E-06	+/-	6.6E-07
Delay rate (us/s)	1.87821148123E+00	Apriori rate (us/s)	1.87821047749E+00	Resid rate (us/s)	1.00375E-06	+/-	4.0E-09
Total phase (deg)	-106.1	Apriori accel (us/s/s)	4.09175849190E-05	Resid phase (deg)	-175.4	+/-	20.4

ph/seg (deg)	89.7	Theor.	170.4	Amplitude	0.498 +/- 0.089	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	374.8	Search (2048X8)	0.485	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.370	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.490	Inc. frq. avg.	0.490	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

o: az 85.0 el 20.8 pa -55.7 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -11150.777 610.190 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//oY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//oY.W.248.0QR0YU



Fringe quality 9

SNR 115702.4

Int time 286.424

Amp 10000.001

Phase 0.2

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000007

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163652

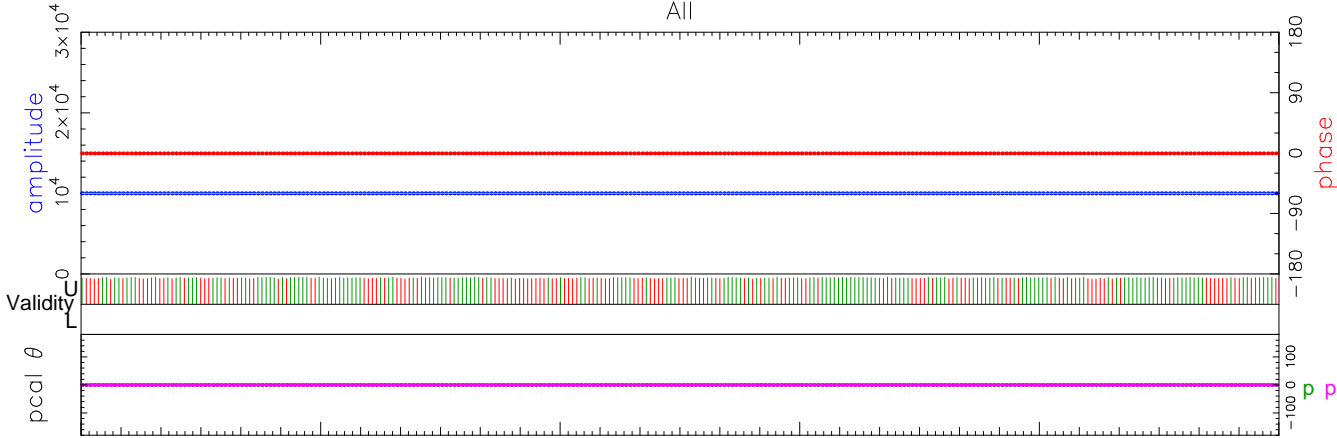
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00		Freq (MHz)
-0.3		Phase
10000.0		Ampl.
513.0		Sbd box
U/L 586/0		APs used
p 3000		PC freqs
p 3000		PC freqs
p:p 0:0		PC phase
p:p 0:0		Mani PC
p 1000		PC amp
p 1000		
p W00UL		Chan ids
p W00UL		Chan ids

Group delay (usec)(sbd)	4.37204111054E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-7.25424E-06	+/- 1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-9.43203253446E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-9.43203E-09	+/- 3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.2	+/- 0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.001 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.0	0.0	0.0	Search (2048X8)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	10000.001	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

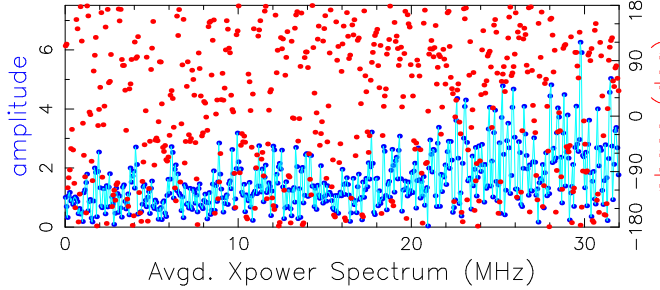
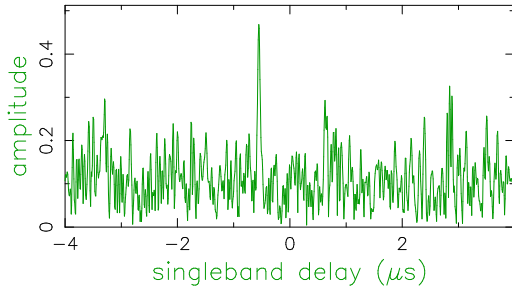
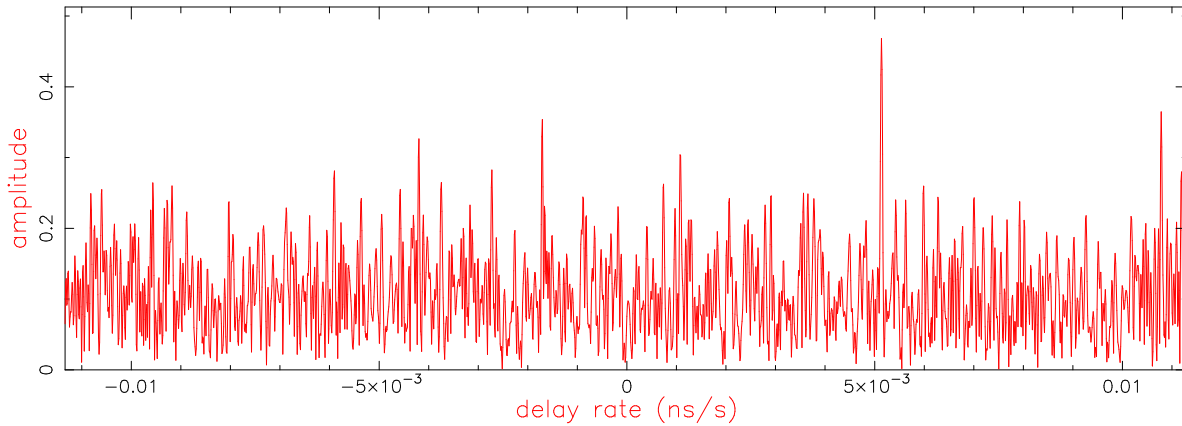
p: az 89.4 el 28.9 pa -59.3      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//pp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//pp.W.205.0QR0YU

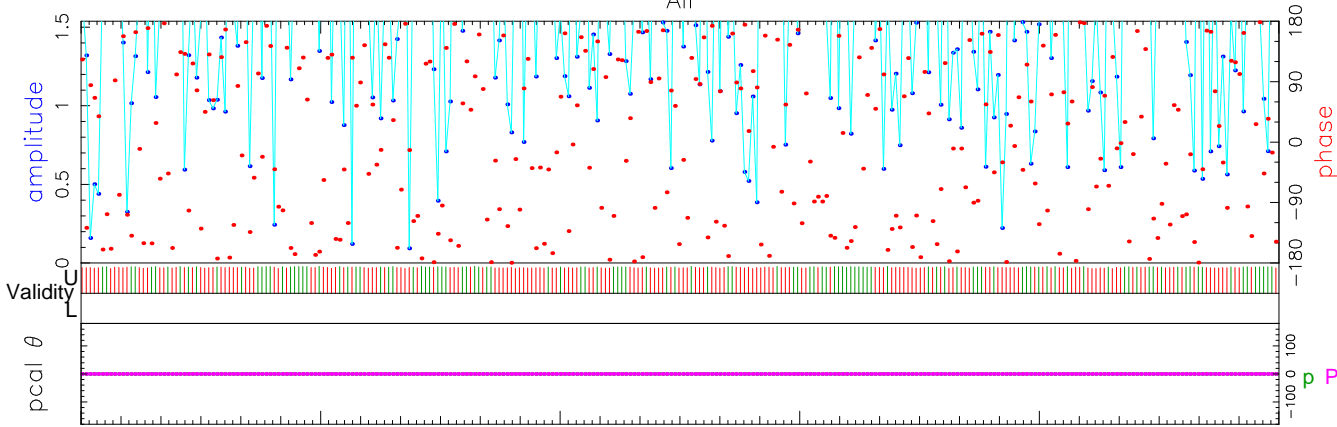
Fringe quality 0

SNR 5.4  
Int time 282.935  
Amp 0.513  
Phase -69.9  
PFD 1.0e+00  
Delays (us)  
SBD -0.552321  
MBD 0.000007  
Fringe rate (Hz)  
0.443296  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163652  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



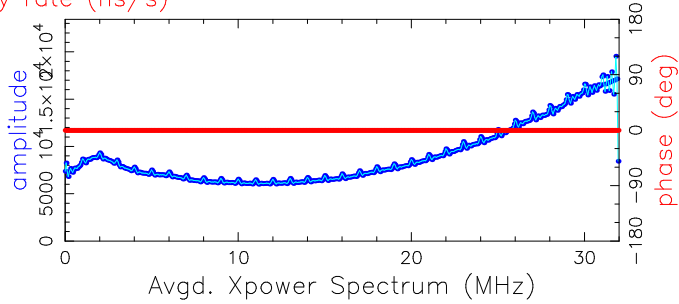
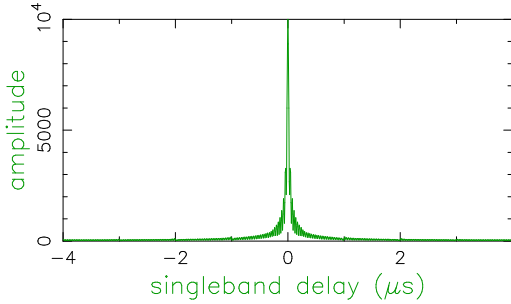
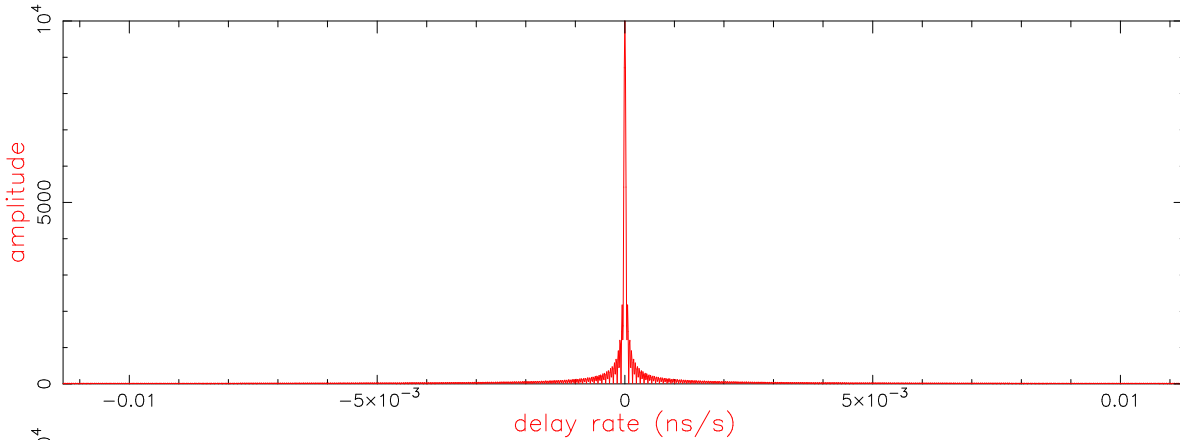
86012.00  
-178.5  
0.5  
442.3  
U/L 586/0  
p 3000  
P 0  
p:P 0:0  
p:P 0:0  
p 1000  
P 1000  
p W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.57708097393E+03	Apriori delay (usec)	-5.57652865062E+03	Resid mbdelay (usec)	6.59778E-06	+/-	3.2E-03
Sband delay (usec)	-5.57708097162E+03	Apriori clock (usec)	3.1382526E+01	Resid sbdelay (usec)	-5.52321E-01	+/-	3.2E-03
Phase delay (usec)	-5.57652865637E+03	Apriori clockrate (us/s)	4.4200001E-07	Resid phdelay (usec)	-5.75646E-06	+/-	6.8E-07
Delay rate (us/s)	1.87822968130E+00	Apriori rate (us/s)	1.87822453508E+00	Resid rate (us/s)	5.14622E-06	+/-	3.9E-09
Total phase (deg)	-57.0	Apriori accel (us/s/s)	2.85814745202E-05	Resid phase (deg)	-69.9	+/-	21.2

ph/seg (deg)	90.2	Theor.	181.3	Amplitude	0.513 +/- 0.095	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	363.3	Search (2048X8)	0.466	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.340	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.502	Inc. frq. avg.	0.502	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

p: az 89.4 el 28.9 pa -59.3 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11166.399 374.481 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pP.W.206.0QR0YU



Fringe quality 9

SNR 118345.4

Int time 299.659

Amp 10000.004

Phase -0.2

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000005

Fringe rate (Hz)

0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163653

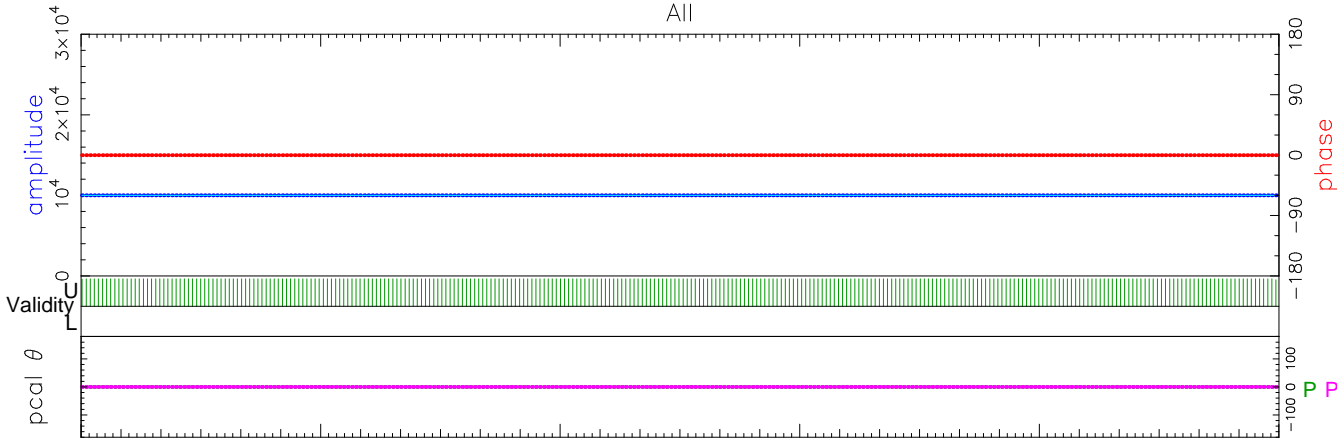
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00

-0.2

10000.0

513.0

U/L 586/0

P 0

P 0

P:P 0:0

P:P 0:0

P 1000

P 1000

P W00UL

P W00UL

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Mani PC

PC amp

Chan ids

Chan ids

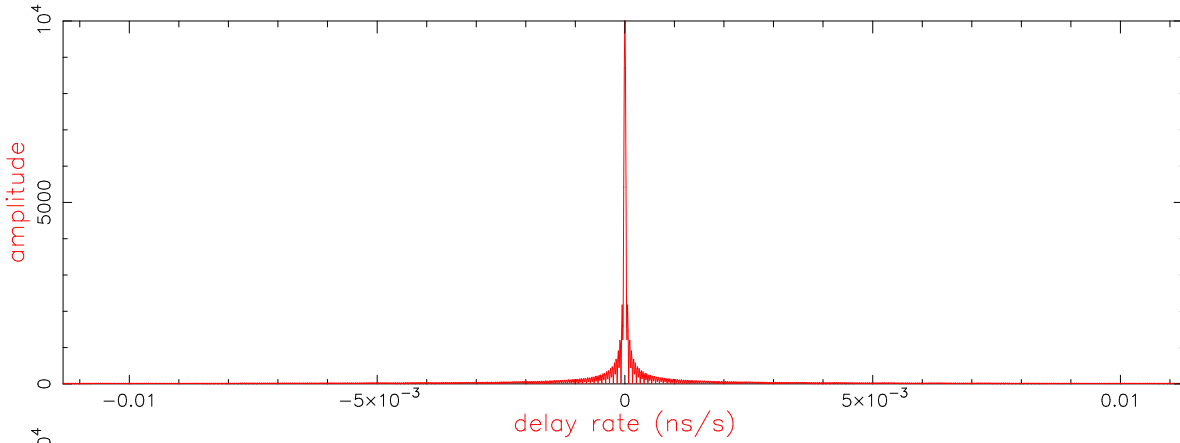
Group delay (usec)(sbd)	-5.17369669348E-06	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.17370E-06	+/-	1.5E-07
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-6.72688680834E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-6.72689E-09	+/-	3.1E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.004 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	Search (2048X8)	10000.003	Search	10000.003	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	Inc. frq. avg.	10000.003	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.003	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

P: az 249.4 el 49.9 pa 50.8 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

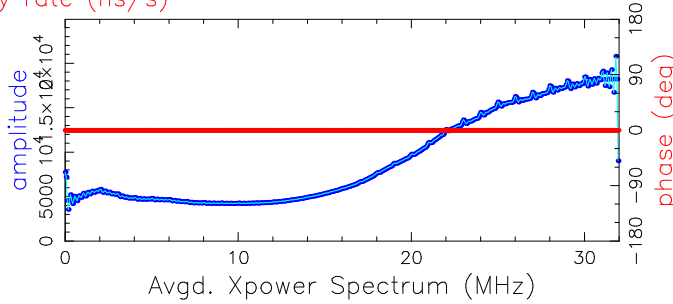
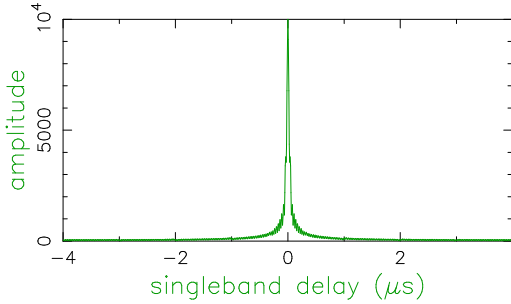
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PP.W.211.0QR0YU





Fringe quality 9

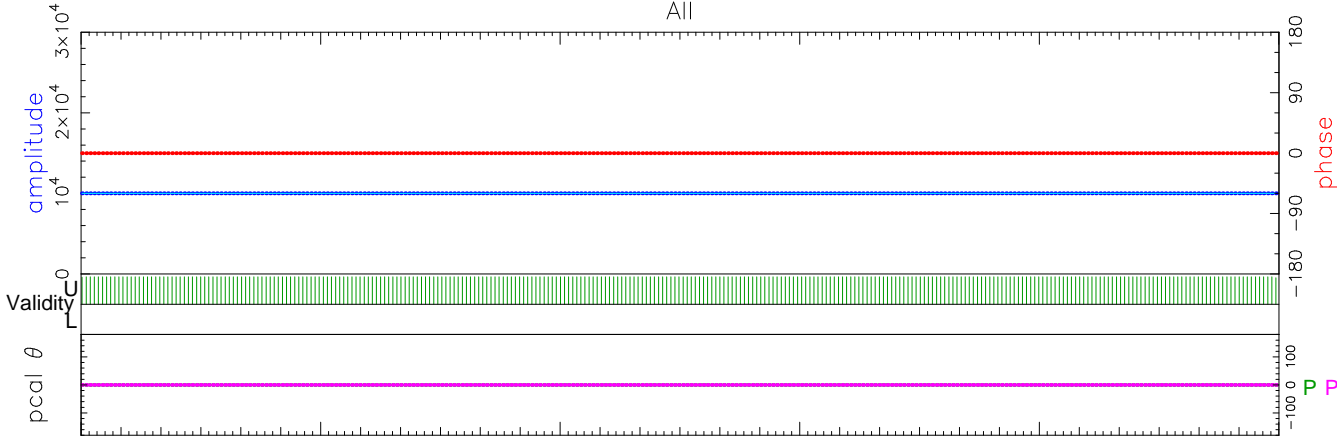
SNR 118345.4  
 Int time 299.659  
 Amp 10000.004  
 Phase 0.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000006  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163654  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -0.2  
 10000.0  
 513.0  
 U/L 586/0  
 P 0  
 P 0  
 P:P 0:0  
 P:P 0:0  
 P 1000  
 P 1000  
 P W00UR  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	5.69594940241E-06	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.93034E-06	+/-	1.5E-07
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-7.71067510831E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-7.71068E-09	+/-	3.1E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.3	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.004 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	Search (2048X8)	10000.003	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.003	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

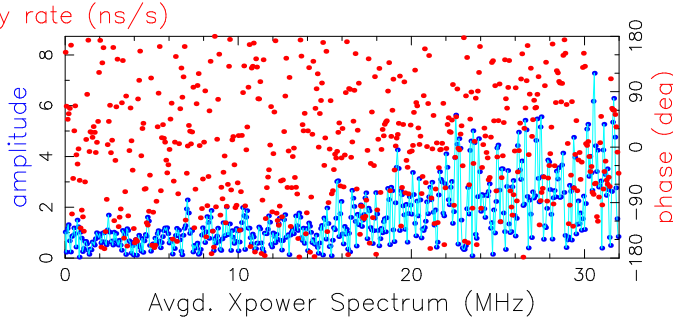
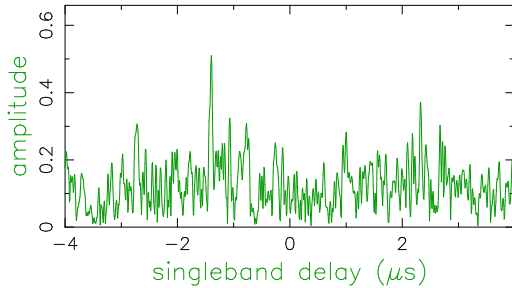
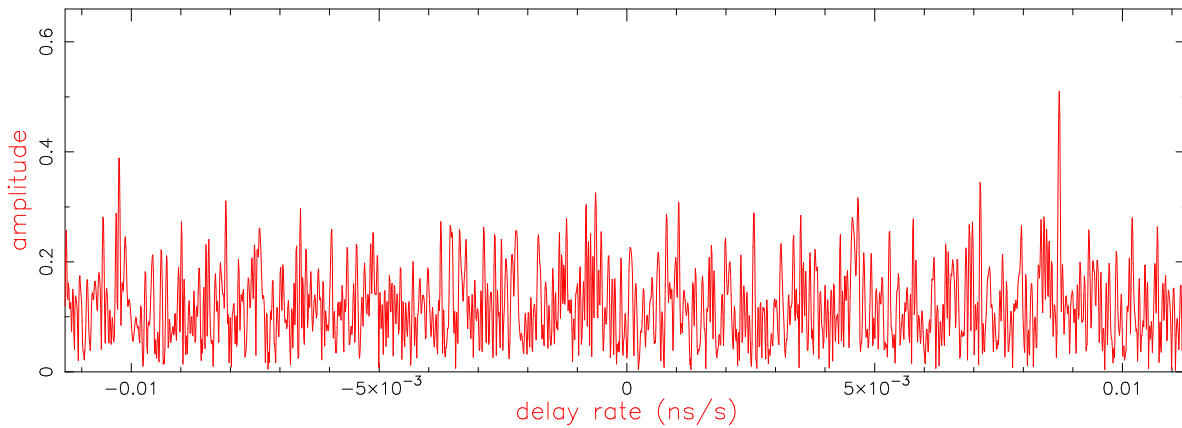
P: az 249.4 el 49.9 pa 50.8 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PP.W.220.0QR0YU

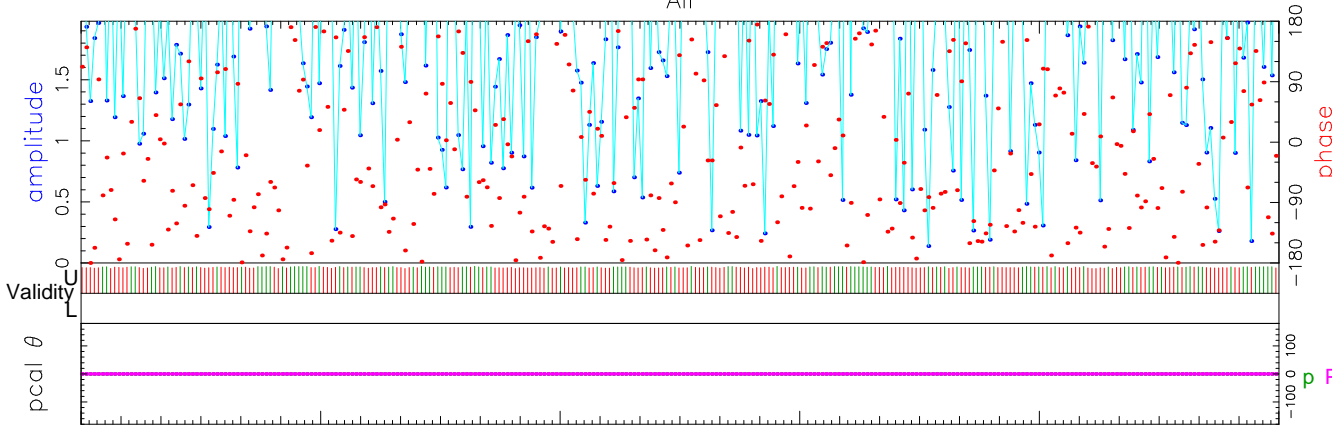
Fringe quality 0

SNR 5.9  
Int time 282.931  
Amp 0.660  
Phase -109.3  
PFD 4.4e-01  
Delays (us)  
SBD -1.398015  
MBD 0.000006  
Fringe rate (Hz)  
0.752898  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163655  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-128.2  
0.7  
334.0  
U/L 586/0  
p 3000  
P 0  
p:P 0:0  
p:P 0:0  
p 1000  
P 1000  
p W00UR  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.57792667061E+03	Apriori delay (usec)	-5.57652865062E+03	Resid mbdelay (usec)	5.86476E-06	+/- 2.9E-03
Sband delay (usec)	-5.57792666562E+03	Apriori clock (usec)	3.1382526E+01	Resid sbdelay (usec)	-1.39802E+00	+/- 2.9E-03
Phase delay (usec)	-5.57652865475E+03	Apriori clockrate (us/s)	4.4200001E-07	Resid phdelay (usec)	-4.13528E-06	+/- 6.3E-07
Delay rate (us/s)	1.87823327547E+00	Apriori rate (us/s)	1.87822453508E+00	Resid rate (us/s)	8.74040E-06	+/- 3.6E-09
Total phase (deg)	-96.4	Apriori accel (us/s/s)	2.85814745202E-05	Resid phase (deg)	-109.3	+/- 19.5

ph/seg (deg)	93.4	Theor.	167.2	Amplitude	0.660 +/- 0.113	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	377.8	Search (2048X8)	0.497	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.519	Inc. frq. avg.	0.650	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.650			Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	

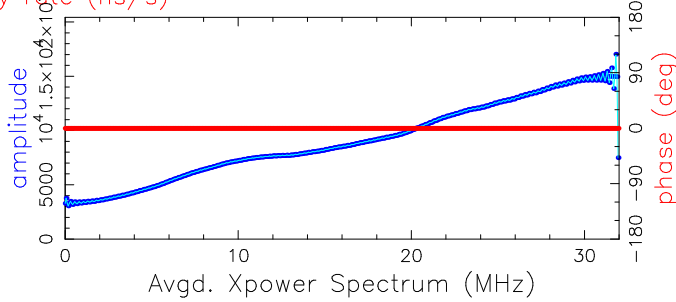
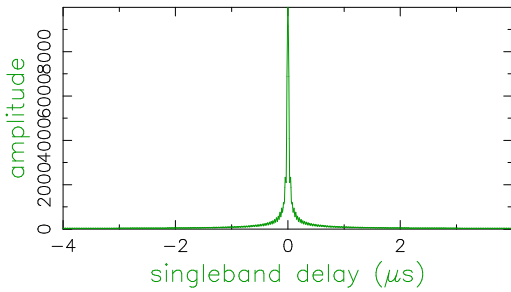
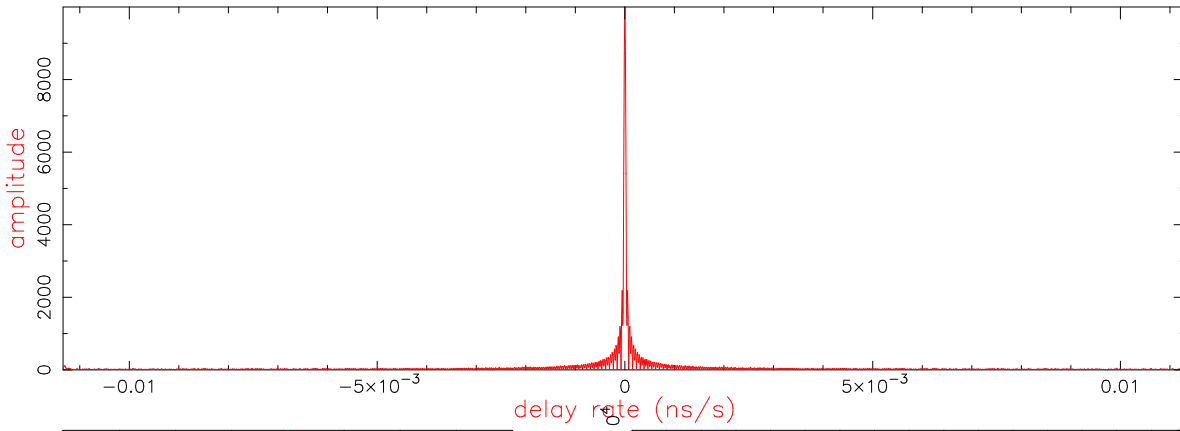
p: az 89.4 el 28.9 pa -59.3 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11166.399 374.481 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pP.W.230.0QR0YU

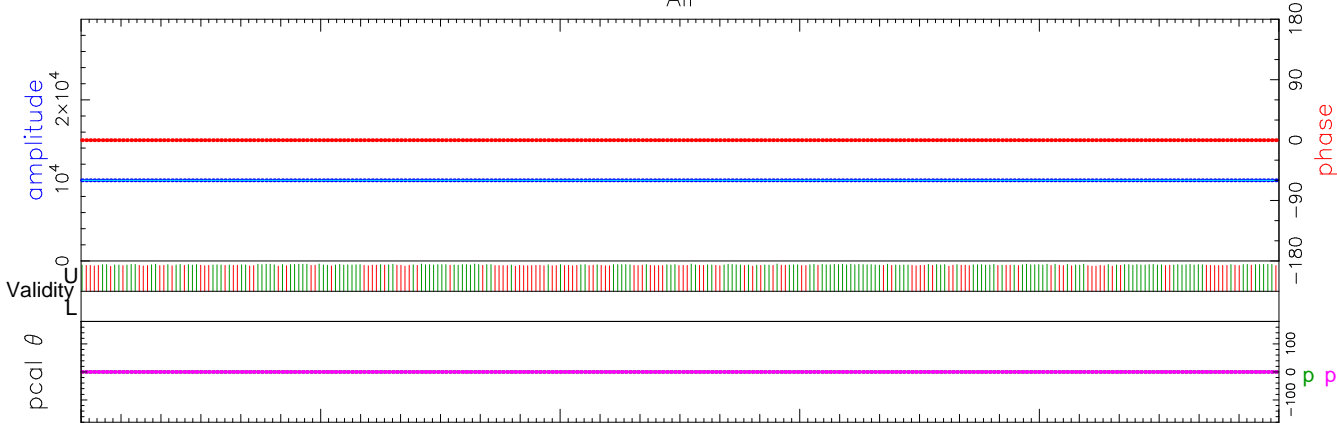
Fringe quality 9

SNR 115701.3  
 Int time 286.419  
 Amp 9999.999  
 Phase 0.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000007  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163655  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00		Freq (MHz)
-0.3		Phase
10000.0		Ampl.
513.0		Sbd box
U/L 586/0		APs used
p 3000		PC freqs
p 3000		PC freqs
p:p 0:0		PC phase
p:p 0:0		Mani PC
p 1000		PC amp
p 1000		
p W00UR		Chan ids
p		Chan ids
p W00UR		

Group delay (usec)(sbd)	4.72027159001E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-6.90601E-06	+/- 1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-8.97926014416E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-8.97926E-09	+/- 3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	0.3	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.3	+/- 0.0

ph/seg (deg)	0.0	0.0	Amplitude	9999.999 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.0	0.0	Search (2048X8)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg.	9999.999	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

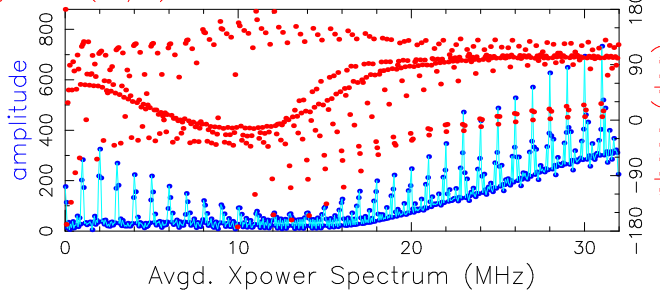
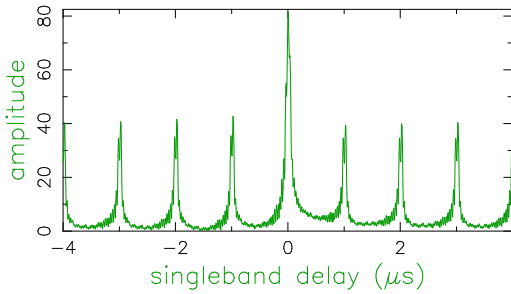
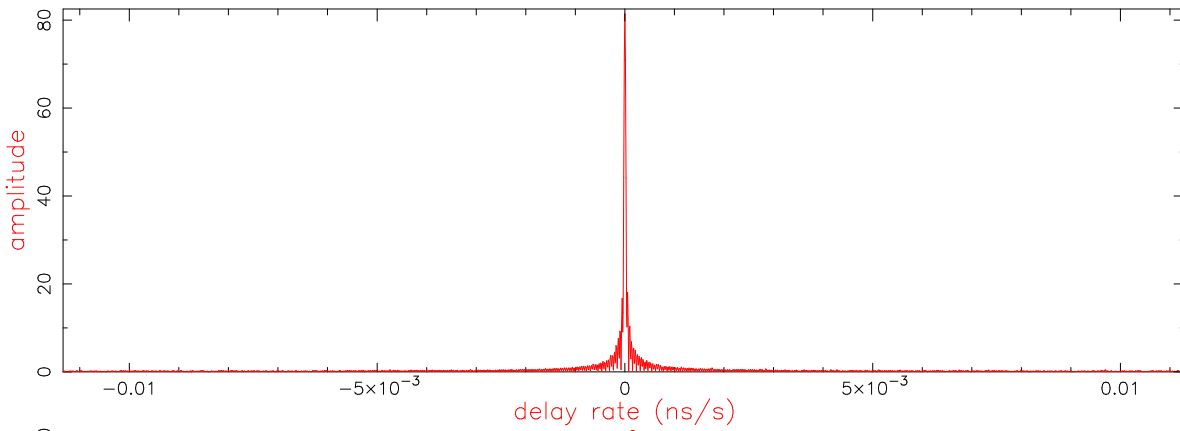
p: az 89.4 el 28.9 pa -59.3      p: az 89.4 el 28.9 pa -59.3      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//pp..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//pp.W.233.0QR0YU

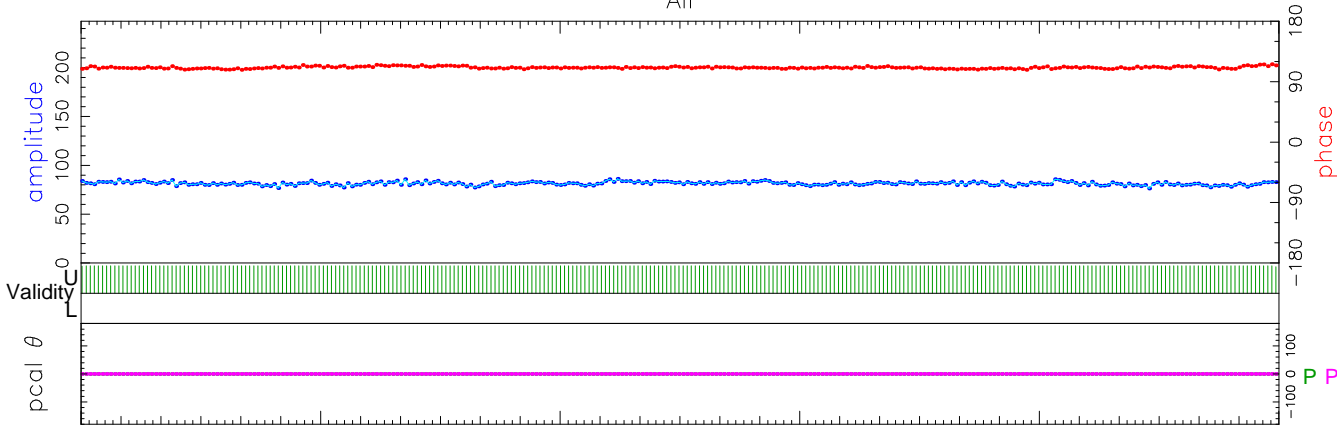
Fringe quality 9

SNR 976.8  
Int time 299.659  
Amp 82.539  
Phase 259.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.003212  
MBD -0.000004  
Fringe rate (Hz)  
-0.000004  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
111.0  
81.4  
513.4  
U/L 586/0  
P 0  
P 0  
P:P 0:0  
P:P 0:0  
P 1000  
P 1000  
P W00UL  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.21610965912E-03	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.37120E-06	+/-	1.8E-05
Sband delay (usec)	3.2125000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.21250E-03	+/-	1.8E-05
Phase delay (usec)	3.57784734158E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.57785E-06	+/-	3.8E-09
Delay rate (us/s)	-5.03075909905E-11	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	-5.03076E-11	+/-	2.2E-11
Total phase (deg)	259.4	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	259.4	+/-	0.1

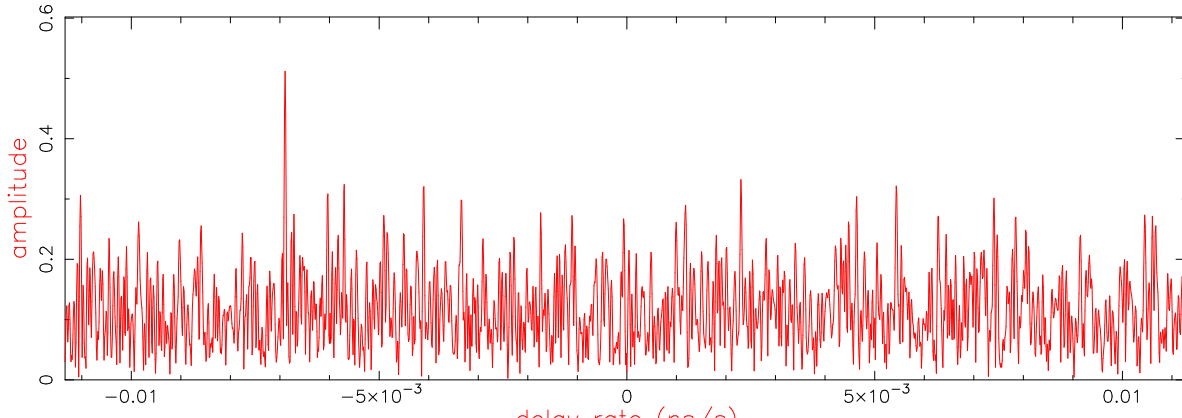
ph/seg (deg)	1.6	Theor.	1.0	Amplitude	82.539 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	2.5		1.8	Search (2048X8)	81.435	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	1.3		0.1	Inc. seg. avg.	81.454	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	81.435	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

P: az 249.4 el 49.9 pa 50.8 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

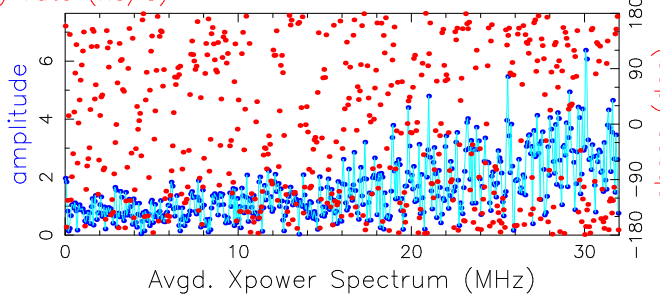
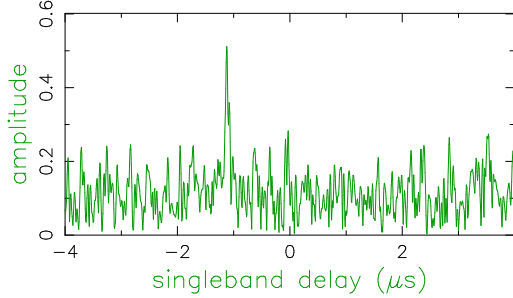
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PP.W.237.0QR0YU





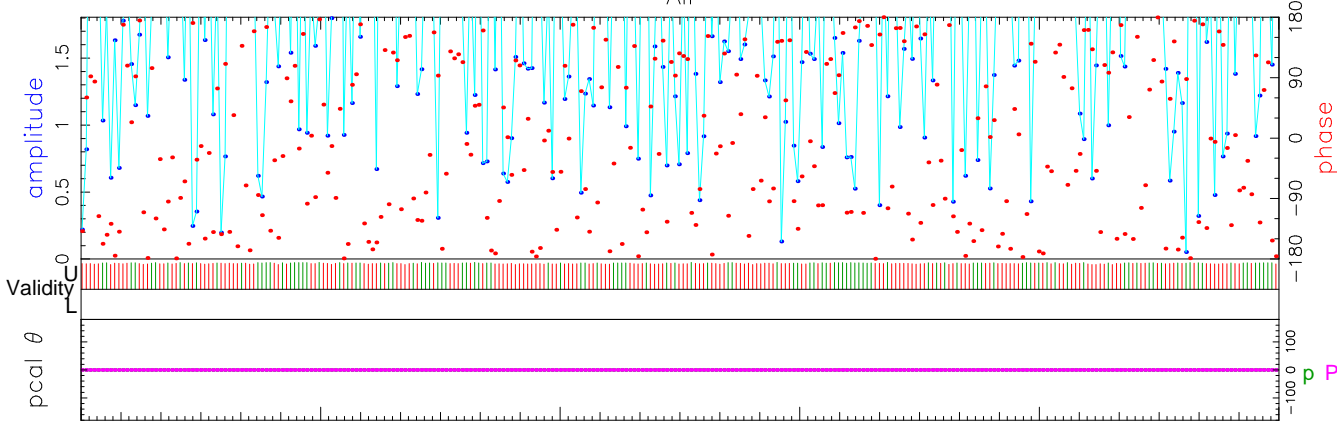


Fringe quality 0  
SNR 5.9  
Int time 282.935  
Amp 0.602  
Phase -66.7  
PFD 3.5e-01  
Delays (us)  
SBD -1.122795  
MBD -0.000004  
Fringe rate (Hz)  
-0.594782  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163657  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



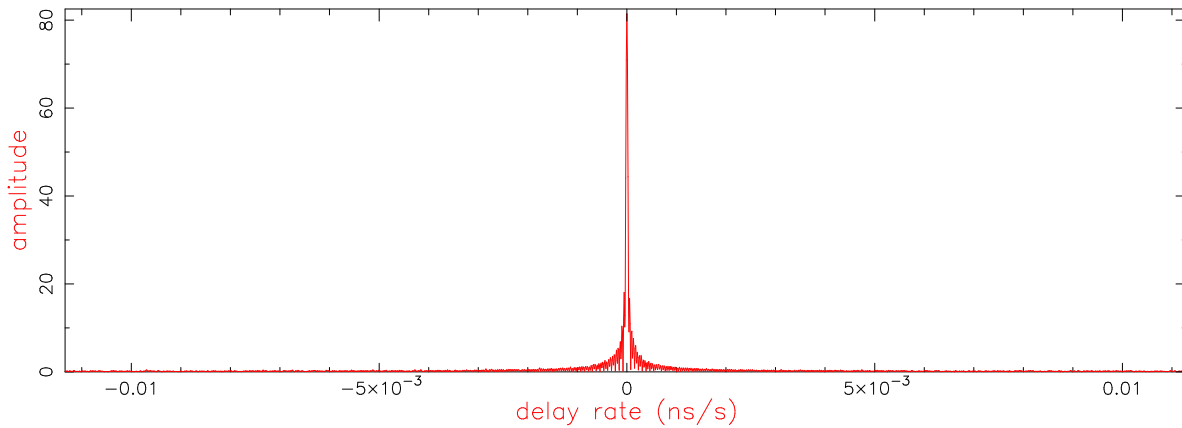
86012.00  
-168.7  
0.6  
369.3  
U/L 586/0  
p 3000  
P 0  
p:P 0:0  
p:P 0:0  
p 1000  
P 1000  
p W00UL  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.57765144024E+03	Apriori delay (usec)	-5.57652865062E+03	Resid mbdelay (usec)	-4.42934E-06	+/-	2.9E-03
Sband delay (usec)	-5.57765144562E+03	Apriori clock (usec)	3.1382526E+01	Resid sbdelay (usec)	-1.12279E+00	+/-	2.9E-03
Phase delay (usec)	-5.57652865060E+03	Apriori clockrate (us/s)	4.4200001E-07	Resid phdelay (usec)	-5.44085E-06	+/-	6.2E-07
Delay rate (us/s)	1.87821763025E+00	Apriori rate (us/s)	1.87822453508E+00	Resid rate (us/s)	-6.90482E-06	+/-	3.6E-09
Total phase (deg)	-53.8	Apriori accel (us/s/s)	2.85814745202E-05	Resid phase (deg)	-66.7	+/-	19.4

ph/seg (deg)	88.7	Theor.	165.9	Amplitude	0.602 +/- 0.102	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	353.6	Search (2048X8)	0.501	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.452	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.5	Inc. frq. avg.	0.591	Inc. frq. avg.	0.591	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
p: az 89.4 el 28.9 pa -59.3		P: az 249.4 el 49.9 pa 50.8		u,v (fr/asec) -11166.399 374.481		Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

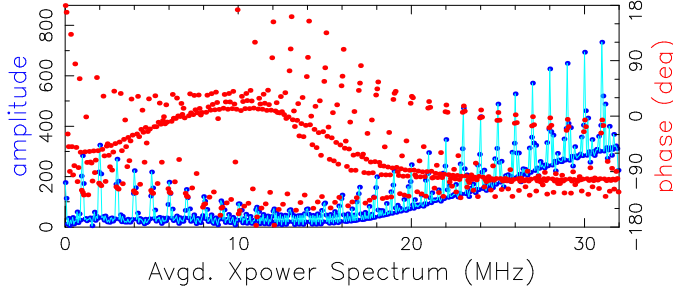
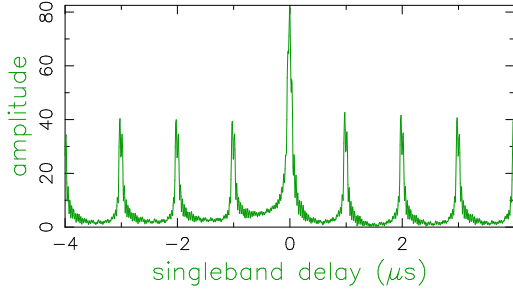
simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pP.W.251.0QR0YU



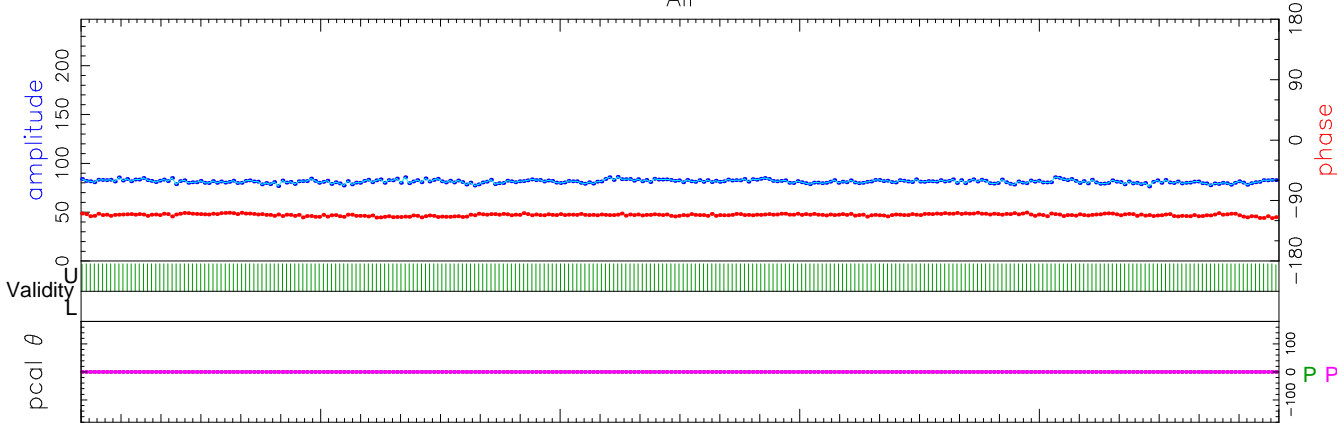
Fringe quality 9

SNR 976.8  
 Int time 299.659  
 Amp 82.539  
 Phase -259.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003212  
 MBD -0.000006  
 Fringe rate (Hz)  
 0.000004  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163657  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All

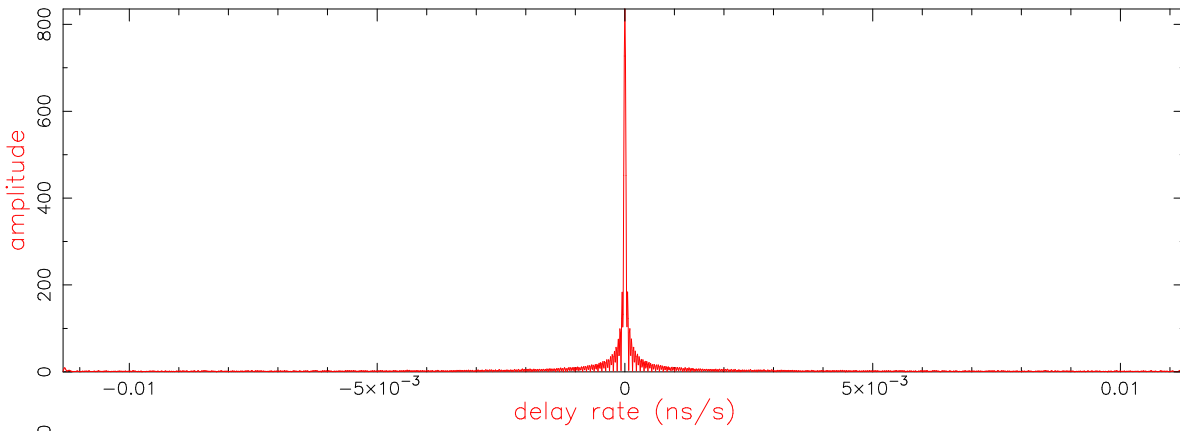


86012.00		Freq (MHz)
-111.4		Phase
81.4		Ampl.
512.6		Sbd box
U/L 586/0		APs used
P 0		PC freqs
P 0		PC freqs
P:P 0:0		PC phase
P:P 0:0		Mani PC
P 1000		PC amp
P 1000		
P W00UR		Chan ids
P W00UL		Chan ids

Group delay (usec)(sbd)	-3.21481895549E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.96438E-06	+/-	1.8E-05
Sband delay (usec)	-3.21250000000E-03	Apriori clock (usec)	0.00000000000E+00	Resid sbdelay (usec)	-3.21250E-03	+/-	1.8E-05
Phase delay (usec)	-3.59128575675E-06	Apriori clockrate (us/s)	0.00000000000E+00	Resid phdelay (usec)	-3.59129E-06	+/-	3.8E-09
Delay rate (us/s)	5.03075909905E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.03076E-11	+/-	2.2E-11
Total phase (deg)	-259.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-259.2	+/-	0.1

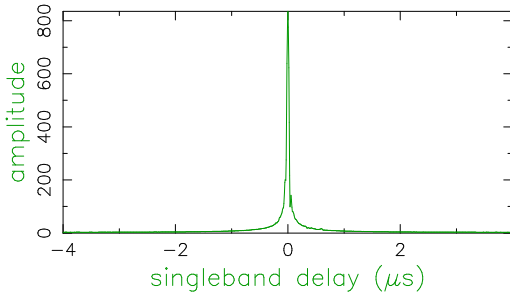
ph/seg (deg)	1.6	Theor.	1.0	Amplitude	82.539 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	2.5		1.8	Search (2048X8)	81.435	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.3		0.1	Inc. seg. avg.	81.454	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
				Inc. frq. avg.	81.435	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00

P: az 249.4 el 49.9 pa 50.8 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PP.W.252.0QR0YU

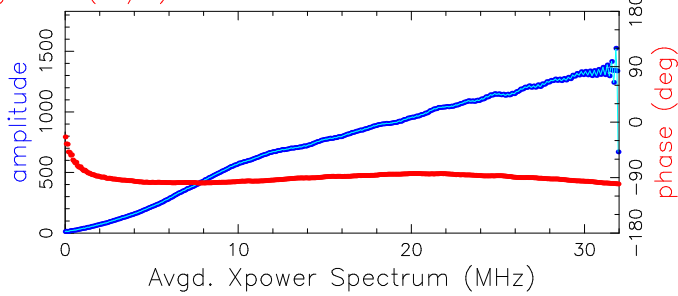


Fringe quality 9

SNR 9666.8  
 Int time 286.419  
 Amp 835.492  
 Phase -105.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000281  
 MBD -0.000005  
 Fringe rate (Hz)  
 0.000002  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



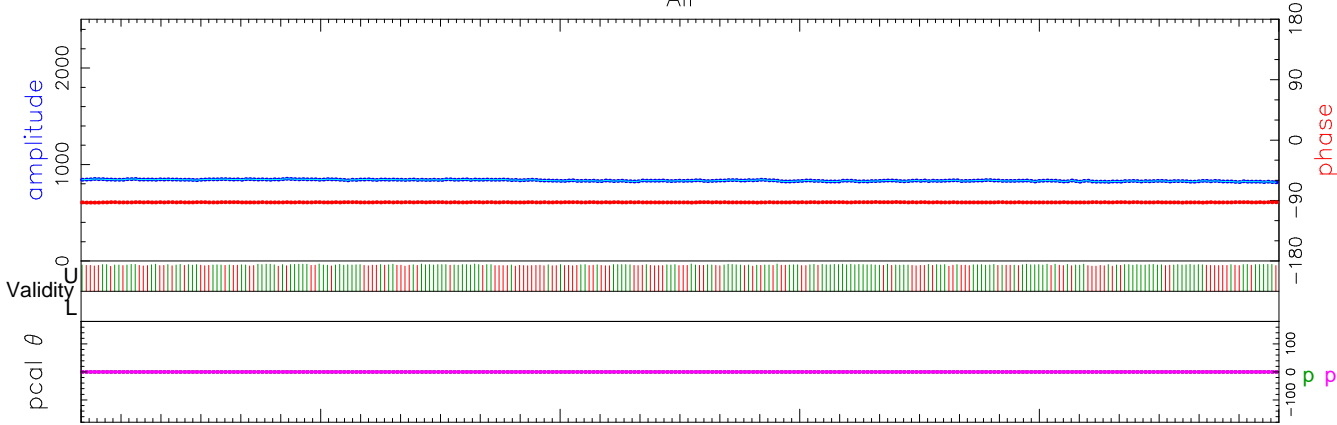
delay rate (ns/s)



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163658  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00		Freq (MHz)
-92.6		Phase
835.4		Ampl.
513.0		Sbd box
U/L 586/0		APs used
p 3000		PC freqs
p 3000		PC freqs
p:p 0:0		PC phase
p:p 0:0		Mani PC
p 1000		PC amp
p 1000		
p W00UR		Chan ids
p		
p W00UL		Chan ids

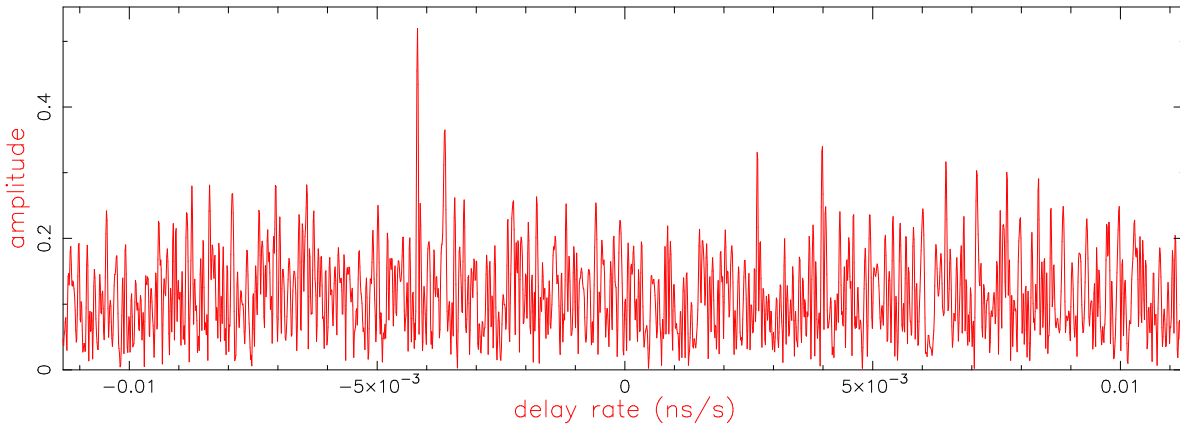
Group delay (usec)(sbd)	-2.83822164349E-04	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.79133E-06	+/-	1.8E-06
Sband delay (usec)	-2.81000000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.81000E-04	+/-	1.8E-06
Phase delay (usec)	-2.98664151931E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.98664E-06	+/-	3.8E-10
Delay rate (us/s)	2.40909590659E-11	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	2.40910E-11	+/-	2.2E-12
Total phase (deg)	-105.5	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-105.5	+/-	0.0

ph/seg (deg)	0.1	Theor.	0.1	Amplitude	835.492 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.0		0.1	Search (2048X8)	835.418	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0		0.0	Inc. seg. avg.	835.420	Sample rate(MSamp/s):	64	ion window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	835.419	Data rate(Mb/s):	128	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

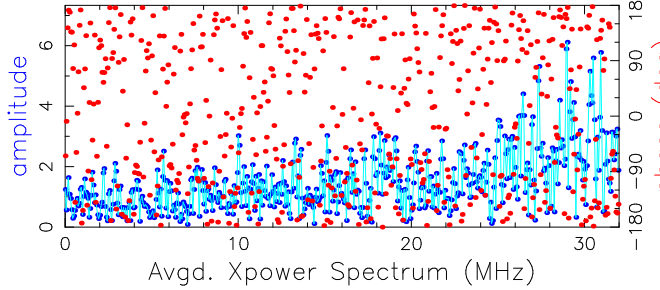
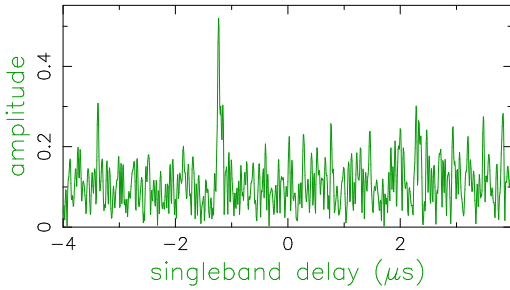
p: az 89.4 el 28.9 pa -59.3 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pp.W.255.0QR0YU

Fringe quality 0



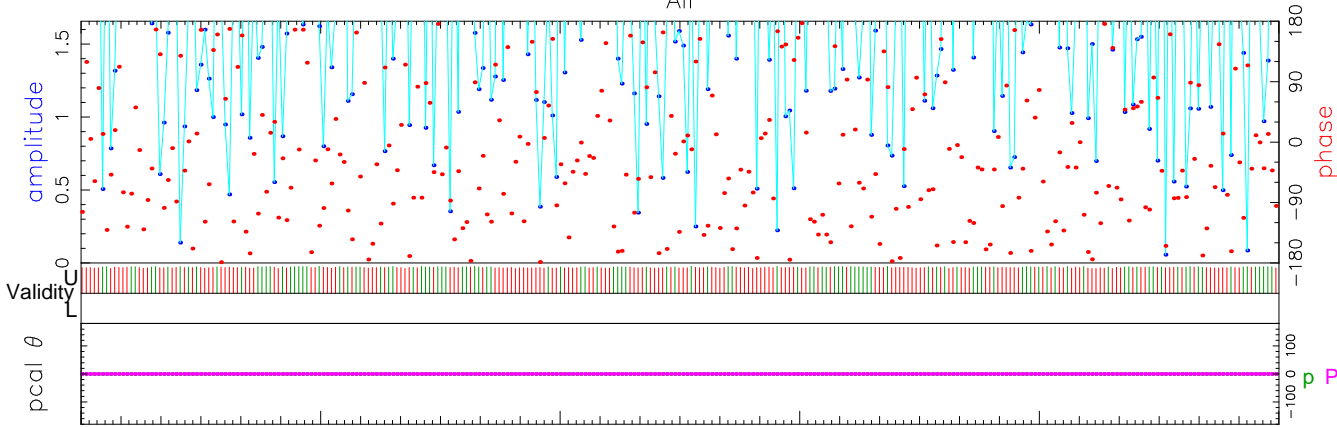
SNR 6.0  
Int time 282.931  
Amp 0.552  
Phase -356.5  
PFD 2.3e-01  
Delays (us)  
SBD -1.232566  
MBD -0.000007  
Fringe rate (Hz)  
-0.360827  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-80.1  
0.5  
355.2  
U/L 586/0  
p 3000  
P 0  
p:P 0:0  
p:P 0:0  
p 1000  
P 1000  
p W00UR  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.57776121804E+03	Apriori delay (usec)	-5.57652865062E+03	Resid mbdelay (usec)	-6.84956E-06	+/-	2.9E-03
Sband delay (usec)	-5.57776121712E+03	Apriori clock (usec)	3.1382526E+01	Resid sbdelay (usec)	-1.23257E+00	+/-	2.9E-03
Phase delay (usec)	-5.57652865320E+03	Apriori clockrate (us/s)	4.4200001E-07	Resid phdelay (usec)	-2.58373E-06	+/-	6.2E-07
Delay rate (us/s)	1.87822034624E+00	Apriori rate (us/s)	1.87822453508E+00	Resid rate (us/s)	-4.18884E-06	+/-	3.6E-09
Total phase (deg)	-343.6	Apriori accel (us/s/s)	2.85814745202E-05	Resid phase (deg)	-356.5	+/-	19.1

ph/seg (deg)	90.4	Theor.	163.4	Amplitude	0.552 +/- 0.092	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	359.4	Search (2048X8)	0.503	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.430	Inc. seg. avg.	0.430	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	Inc. frq. avg.	0.542	Inc. frq. avg.	0.542	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

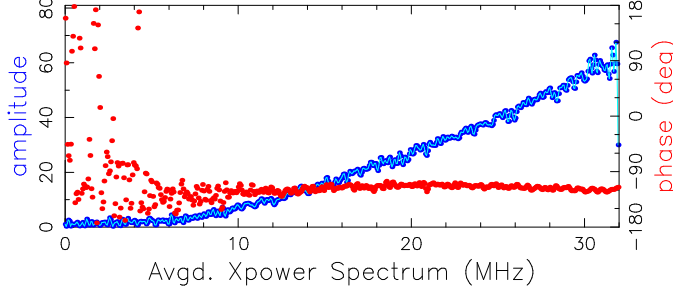
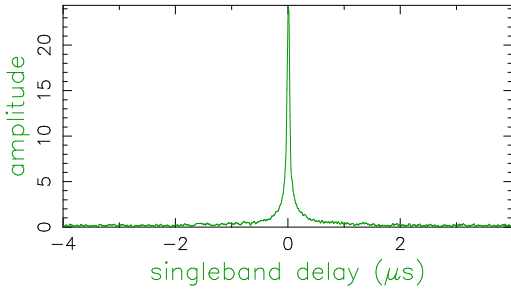
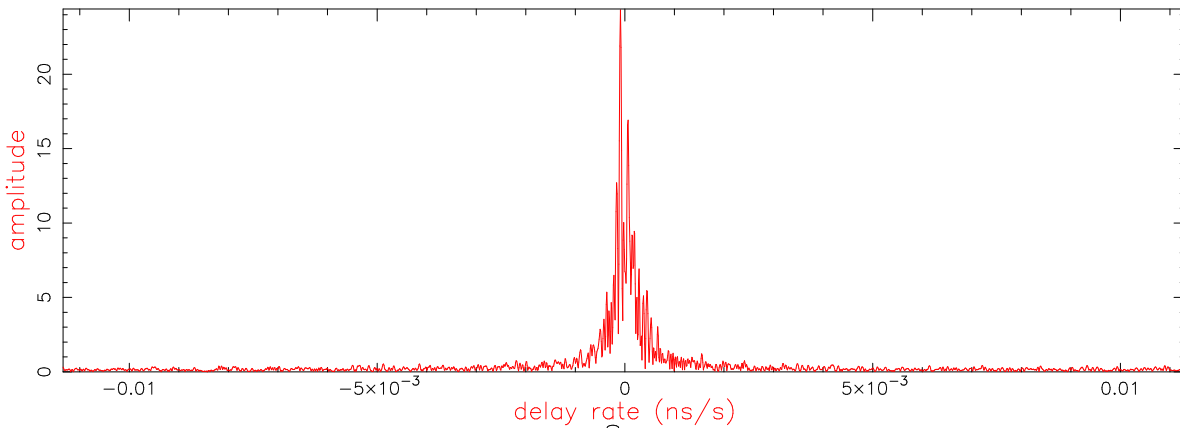
p: az 89.4 el 28.9 pa -59.3 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -11166.399 374.481 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pP.W.261.0QR0YU

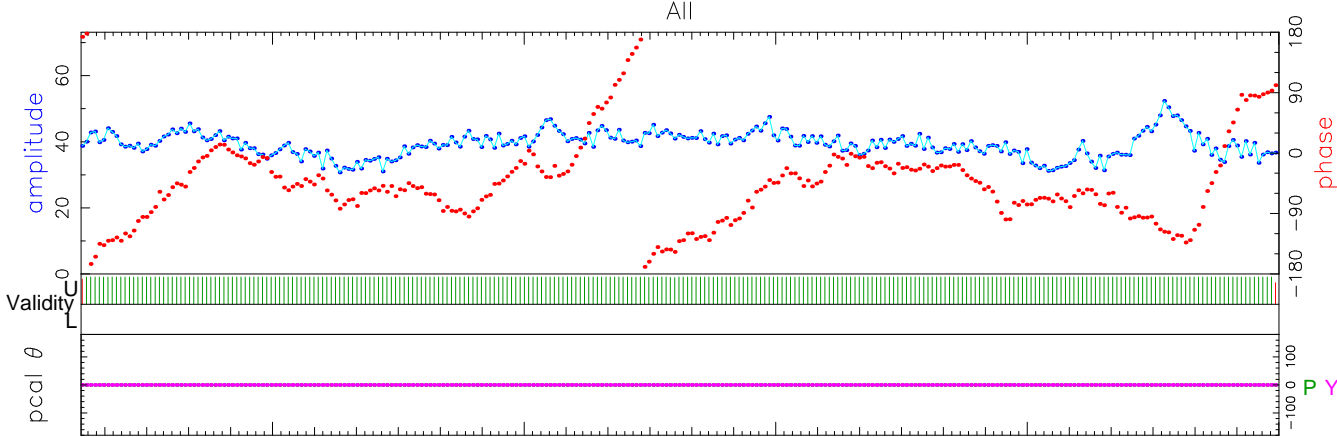
Fringe quality 5

SNR 280.1  
 Int time 282.288  
 Amp 24.385  
 Phase 30.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009674  
 MBD -0.000006  
 Fringe rate (Hz)  
 -0.007841  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125514.34  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163655  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -55.5  
 24.3  
 514.2  
 U/L 558/0  
 P 0  
 Y 0  
 P:Y 0:0  
 P:Y 0:0  
 P 1000  
 Y 1000  
 P W00UL  
 Y W00UL

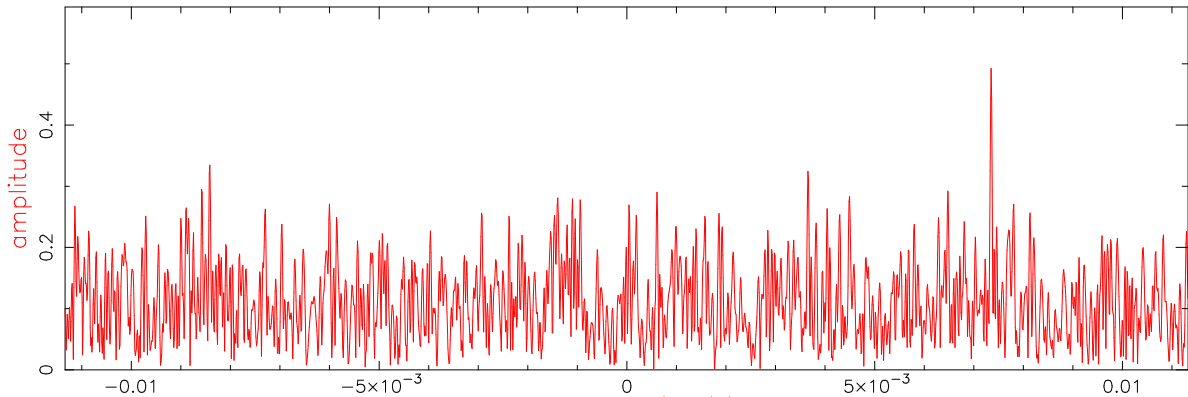
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	3.63557179319E+02	Apriori delay (usec)	3.63547500485E+02	Resid mbdelay (usec)	-5.86095E-06	+/- 6.2E-05
Sband delay (usec)	3.63557173985E+02	Apriori clock (usec)	-7.0986900E+00	Resid sbdelay (usec)	9.67350E-03	+/- 6.2E-05
Phase delay (usec)	3.63547498694E+02	Apriori clockrate (us/s)	-4.900002E-07	Resid phdelay (usec)	-1.79048E-06	+/- 1.3E-08
Delay rate (us/s)	-3.15635785571E-02	Apriori rate (us/s)	-3.15634875252E-02	Resid rate (us/s)	-9.10319E-08	+/- 8.0E-11
Total phase (deg)	279.8	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	30.7	+/- 0.4

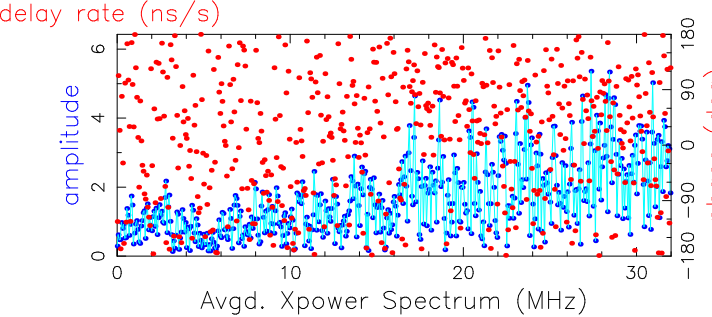
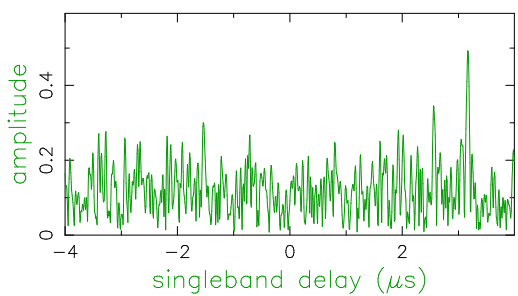
ph/seg (deg)	58.1	Theor.	3.4	Amplitude	24.385 +/- 0.087	Search (2048X8)	24.163	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	63.1		6.0	Interp.	0.000			Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0		0.2	Inc. seg. avg.	39.262			Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
amp/frq (%)	0.3		0.4	Inc. frq. avg.	24.317			Sample rate(MSamp/s): 64		dr window (ns/s)	-0.011	0.011	
								Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

P: az 249.4 el 49.9 pa 50.8 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PY.W.234.0QR0YU



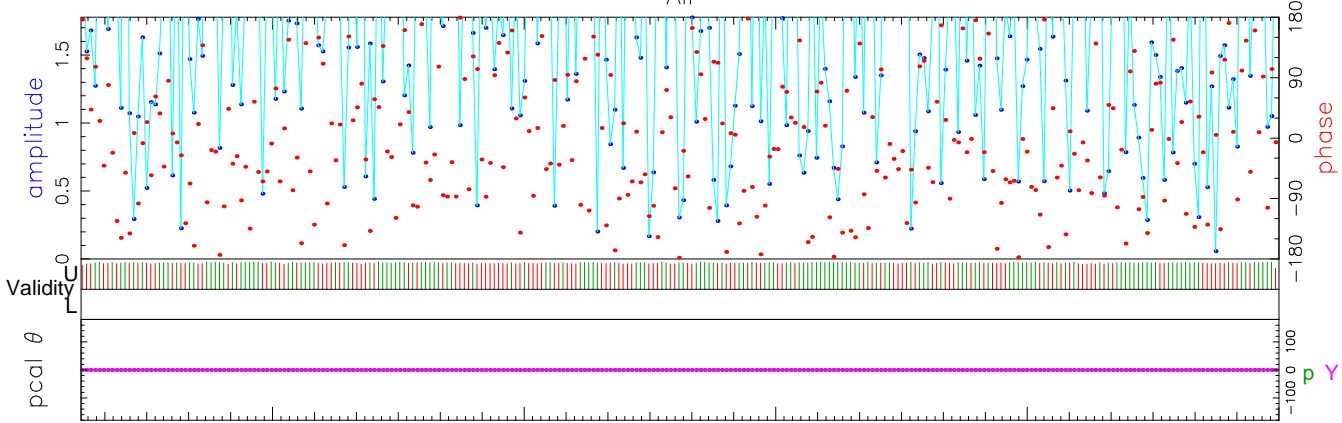


Fringe quality 0  
SNR 5.6  
Int time 271.902  
Amp 0.593  
Phase 116.6  
PFD 9.4e-01  
Delays (us)  
SBD 3.167381  
MBD 0.000004  
Fringe rate (Hz) 0.633926  
Ion TEC 0.000  
Ref freq (MHz) 86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All

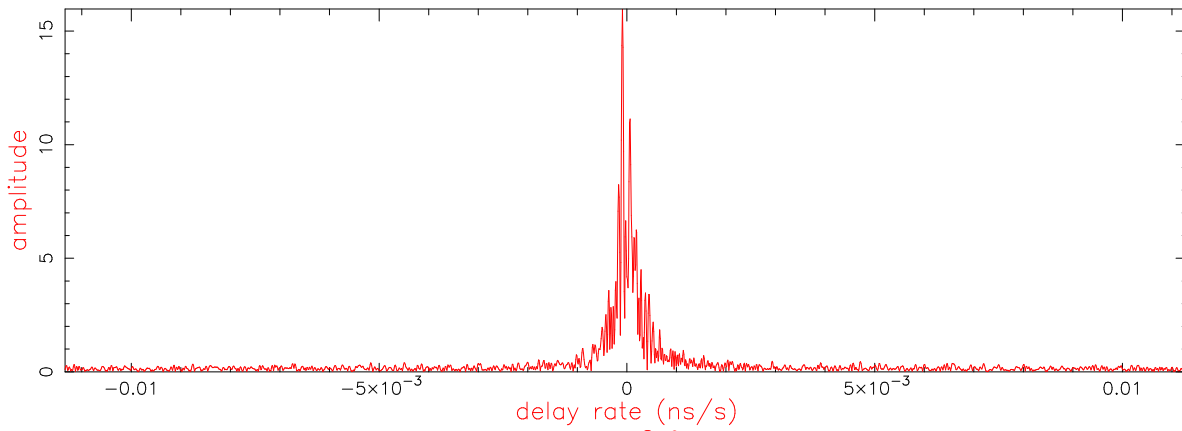


86012.00 Freq (MHz)  
-35.9 Phase  
0.6 Ampl.  
918.4 Sbd box  
U/L 558/0 APs used  
p 3000 PC freqs  
Y 0 PC freqs  
p:Y 0:0 PC phase  
p:Y 0:0 Mani PC  
p 1000 PC amp  
Y 1000  
p W00UL Chan ids  
Y W00UL Chan ids

Group delay (usec)(sbd)	-5.20981377365E+03	Apriori delay (usec)	-5.21298115013E+03	Resid mbdelay (usec)	4.49263E-06	+/-	3.1E-03
Sband delay (usec)	-5.20981376963E+03	Apriori clock (usec)	2.4283836E+01	Resid sbdelay (usec)	3.16738E+00	+/-	3.1E-03
Phase delay (usec)	-5.21298115129E+03	Apriori clockrate (us/s)	-4.8000002E-08	Resid phdelay (usec)	-1.15676E-06	+/-	6.6E-07
Delay rate (us/s)	1.84666840680E+00	Apriori rate (us/s)	1.84666104755E+00	Resid rate (us/s)	7.35925E-06	+/-	4.0E-09
Total phase (deg)	18.5	Apriori accel (us/s/s)	2.51314053007E-05	Resid phase (deg)	116.6	+/-	20.5

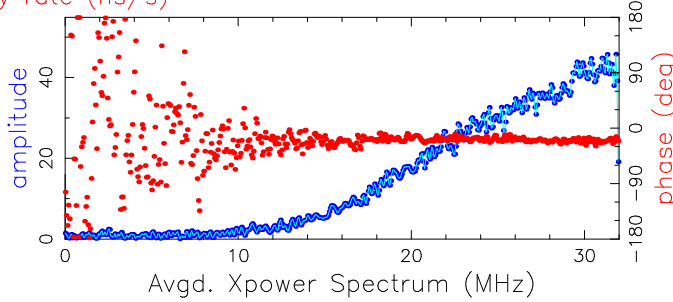
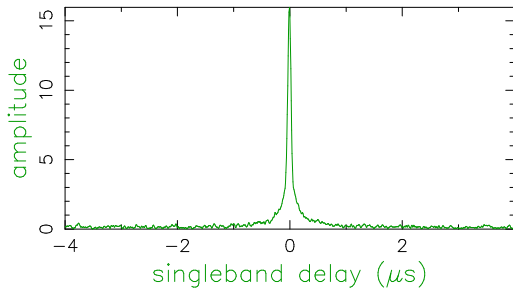
ph/seg (deg)	92.9	Theor.	171.4	Amplitude	0.593 +/- 0.106	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	355.4	Search (2048X8)	0.488	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000
amp/frq (%)	0.6	Inc. seg. avg.	0.416	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.580	Data rate(Mb/s):	128	ion window (TEC)	0.00	0.00		

p: az 89.4 el 28.9 pa -59.3 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10982.717 -104.008 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pY.W.240.0QR0YU



Fringe quality 5

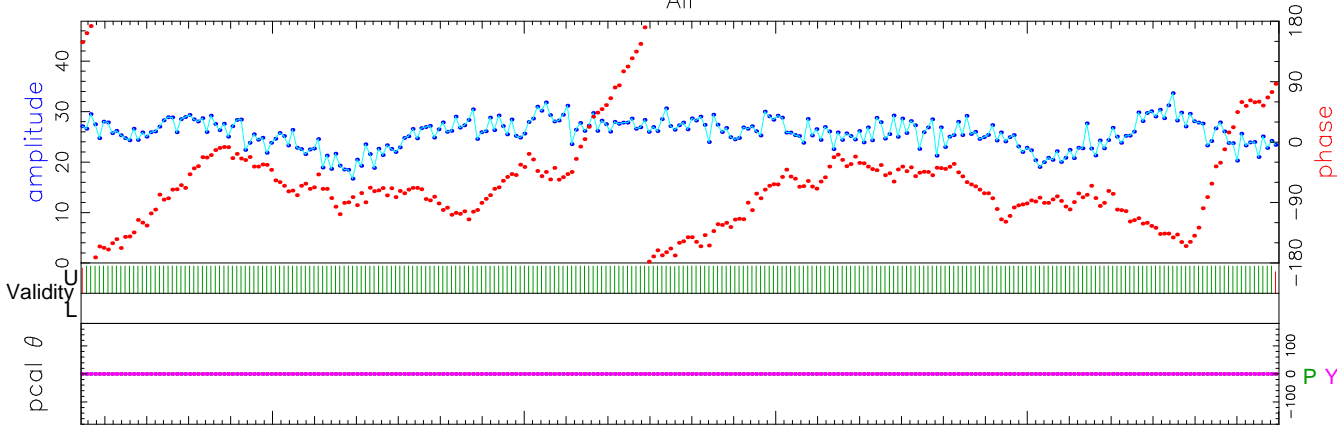
SNR 183.5  
 Int time 282.288  
 Amp 15.974  
 Phase -134.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009096  
 MBD -0.000007  
 Fringe rate (Hz)  
 -0.007839  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125514.34  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163656  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00

-75.7

16.0

511.8

U/L 558/0

P 0

Y 0

P:Y 0:0

P:Y 0:0

P 1000

Y 1000

P W00UR

Y W00UR

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Mani PC

PC amp

Chan ids

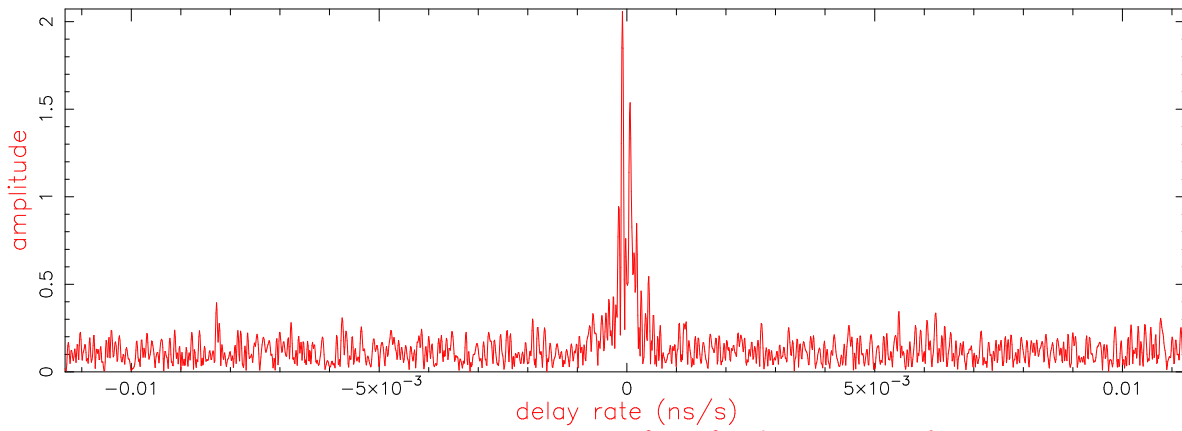
Chan ids

Group delay (usec)(sbd)	3.63538401482E+02	Apriori delay (usec)	3.63547500485E+02	Resid mbdelay (usec)	-7.24852E-06	+/-	9.4E-05
Sband delay (usec)	3.63538404985E+02	Apriori clock (usec)	-7.0986900E+00	Resid sbdelay (usec)	-9.09550E-03	+/-	9.4E-05
Phase delay (usec)	3.63547498044E+02	Apriori clockrate (us/s)	-4.9000002E-07	Resid phdelay (usec)	-2.44051E-06	+/-	2.0E-08
Delay rate (us/s)	-3.15635785224E-02	Apriori rate (us/s)	-3.15634875252E-02	Resid rate (us/s)	-9.09972E-08	+/-	1.2E-10
Total phase (deg)	-245.6	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	-134.6	+/-	0.6

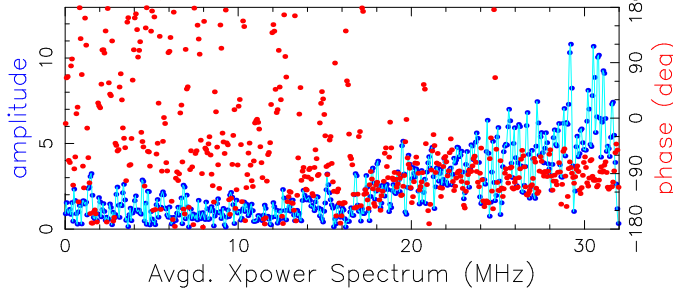
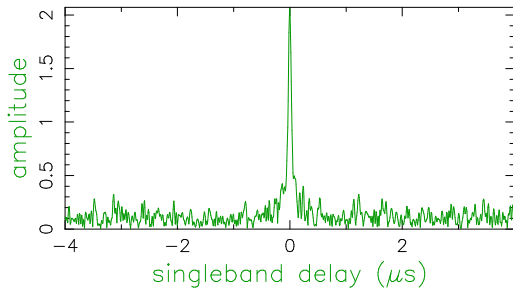
ph/seg (deg)	58.0	Theor.	5.2	Amplitude	15.974 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	63.7		9.1	Search (2048X8)	15.860	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.1		0.5	Inc. seg. avg.	25.653	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
				Inc. frq. avg.	15.959	Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	t_cohere	infinite
								ion window (TEC)	0.00 0.00

P: az 249.4 el 49.9 pa 50.8 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator

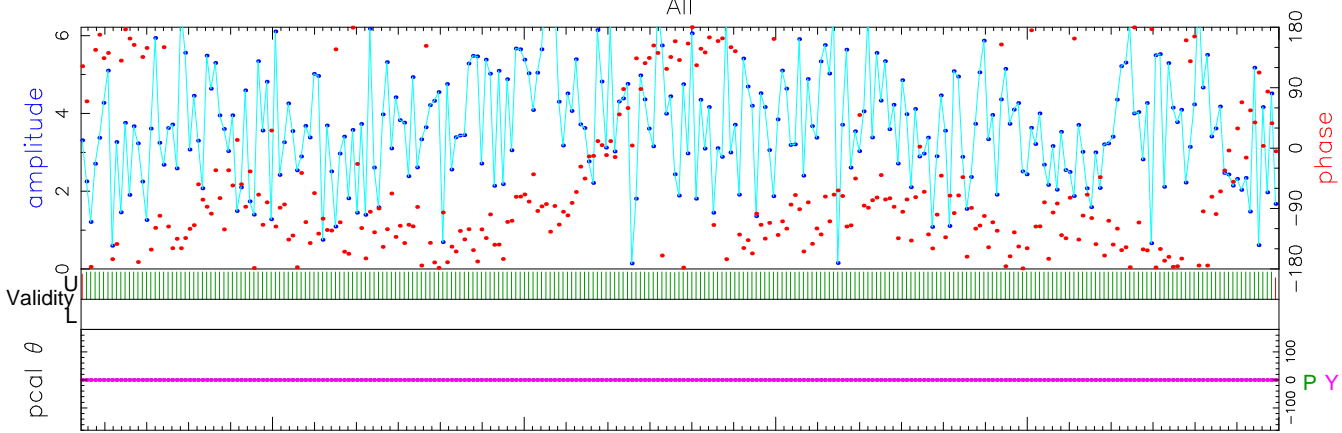
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PY.W.244.0QR0YU



Fringe quality 9  
SNR 23.8  
Int time 282.288  
Amp 2.073  
Phase -264.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.003076  
MBD -0.000007  
Fringe rate (Hz)  
-0.007898  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
-122.7  
2.1  
512.6  
U/L 558/0  
P 0  
Y 0  
P:Y 0:0  
P:Y 0:0  
P 1000  
Y 1000  
P W00UL  
Y W00UR

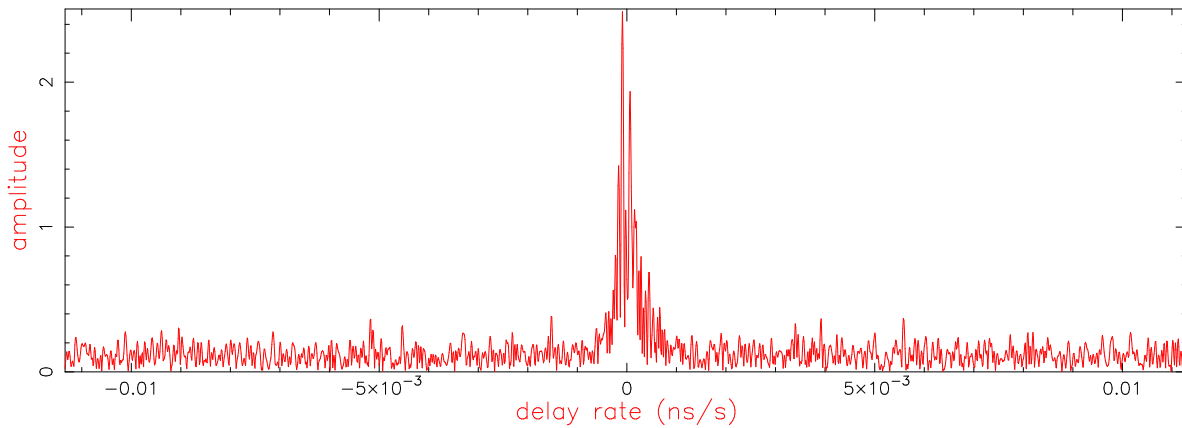
Validity  
pcal  $\theta$

Chan ids  
Chan ids

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp

Group delay (usec)(sbd)	3.63544424204E+02	Apriori delay (usec)	3.63547500485E+02	Resid mbdelay (usec)	-6.94117E-06	+/-	7.2E-04
Sband delay (usec)	3.63544424485E+02	Apriori clock (usec)	-7.0986900E+00	Resid sbdelay (usec)	-3.07600E-03	+/-	7.2E-04
Phase delay (usec)	3.63547496529E+02	Apriori clockrate (us/s)	-4.9000002E-07	Resid phdelay (usec)	-3.95609E-06	+/-	1.6E-07
Delay rate (us/s)	-3.15635792189E-02	Apriori rate (us/s)	-3.15634875252E-02	Resid rate (us/s)	-9.16937E-08	+/-	9.4E-10
Total phase (deg)	-15.1	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	-264.1	+/-	4.8

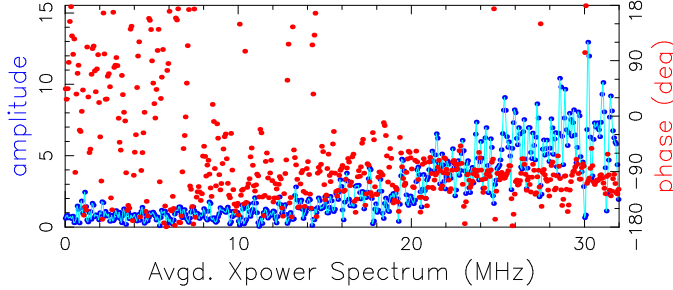
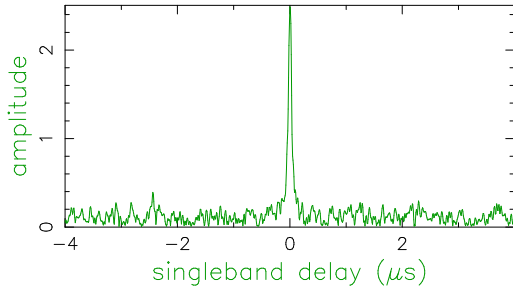
RMS Theor. Amplitude 2.073 +/- 0.087  
ph/seg (deg) 66.4 40.2 Search (2048X8) 2.039 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 103.3 70.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
ph/frq (deg) 0.0 2.4 Inc. seg. avg. 2.937 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
amp/frq (%) 0.7 4.2 Inc. frq. avg. 2.056 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
ion window (TEC) 0.00 0.00



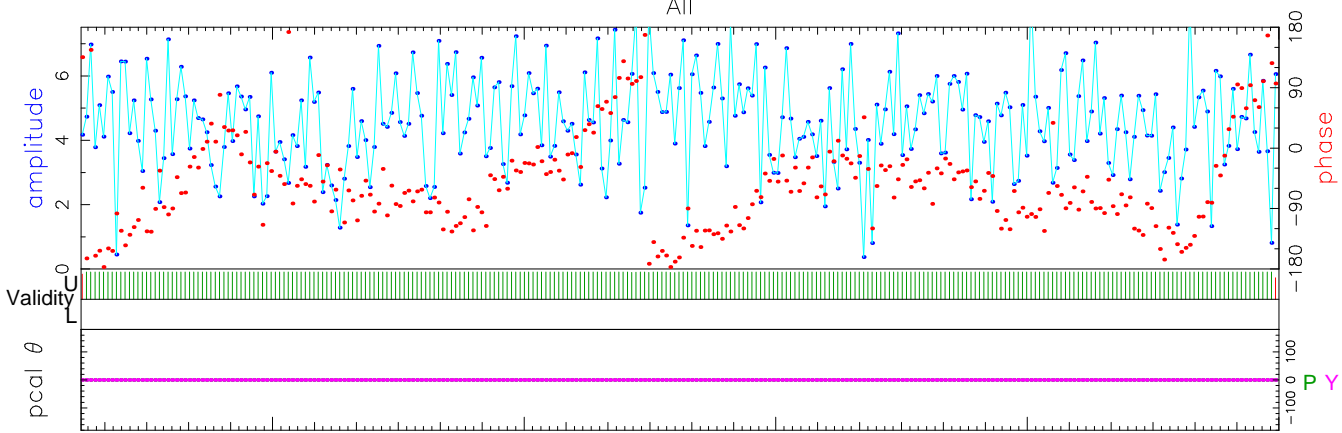
Fringe quality 9

SNR 28.8  
Int time 282.288  
Amp 2.506  
Phase 99.1  
PFD 0.0e+00  
Delays (us)  
SBD 0.003639  
MBD -0.000007  
Fringe rate (Hz)  
-0.007790  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

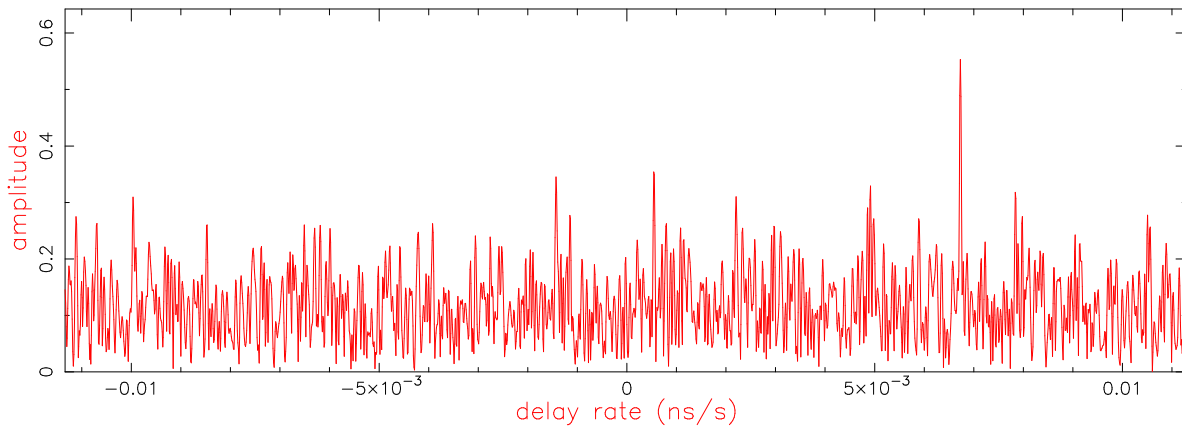


Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



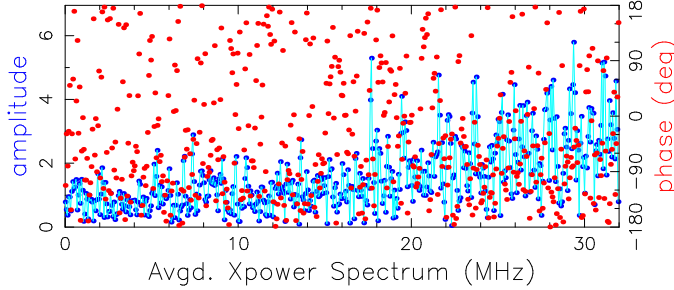
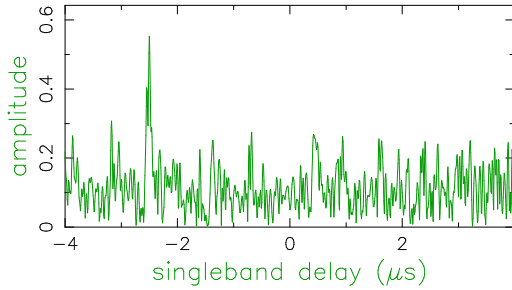
86012.00	-69.2	2.5	513.5	U/L 558/0	P 0	Y 0	P:Y 0:0	P:Y 0:0	P 1000	Y 1000	P W00UR	Y W00UL	8612.00	-69.2	2.5	513.5	U/L 558/0	P 0	Y 0	P:Y 0:0	P:Y 0:0	P 1000	Y 1000	P W00UR	Y W00UL	8612.00	-69.2	2.5	513.5	U/L 558/0	P 0	Y 0	P:Y 0:0	P:Y 0:0	P 1000	Y 1000	P W00UR	Y W00UL	
Group delay (usec)(sbd)	3.63551144312E+02	Apriori delay (usec)	3.63547500485E+02	Resid mbdelay (usec)	-6.82575E-06	+/-	6.0E-04	Sband delay (usec)	3.63551138985E+02	Apriori clock (usec)	-7.0986900E+00	Resid sbdelay (usec)	3.63850E-03	+/-	6.0E-04	Phase delay (usec)	3.63547498254E+02	Apriori clockrate (us/s)	-4.9000002E-07	Resid phdelay (usec)	-2.23036E-06	+/-	1.3E-07	Delay rate (us/s)	-3.15635779633E-02	Apriori rate (us/s)	-3.15634875252E-02	Resid rate (us/s)	-9.04382E-08	+/-	7.8E-10	Total phase (deg)	348.1	Apriori accel (us/s/s)	-3.45006921952E-06	Resid phase (deg)	99.1	+/-	4.0

ph/seg (deg) 65.3 33.3 Search (2048X8) 2.476 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 101.1 58.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
 ph/frq (deg) 0.0 2.0 Inc. seg. avg. 3.893 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
 amp/frq (%) 0.7 3.5 Inc. frq. avg. 2.486 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 P: az 249.4 el 49.9 pa 50.8 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 183.682 -478.490 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//PY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//PY.W.264.0QR0YU



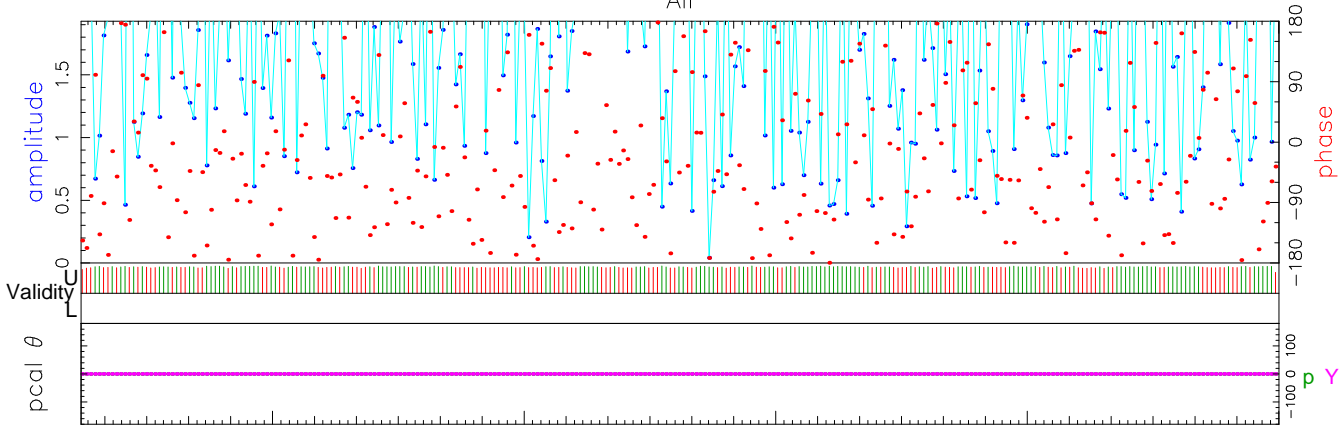
Fringe quality 0

SNR 6.2  
Int time 271.897  
Amp 0.643  
Phase -89.7  
PFD 5.9e-02  
Delays (us)  
SBD -2.500004  
MBD 0.000006  
Fringe rate (Hz)  
0.580918  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-89.2  
0.6  
193.0  
U/L 558/0  
p 3000  
Y 0  
p:Y 0:0  
p:Y 0:0  
p 1000  
Y 1000  
p W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.21548115613E+03	Apriori delay (usec)	-5.21298115013E+03	Resid mbdelay (usec)	5.62991E-06	+/-	2.8E-03
Sband delay (usec)	-5.21548115413E+03	Apriori clock (usec)	2.4283836E+01	Resid sbdelay (usec)	-2.50000E+00	+/-	2.8E-03
Phase delay (usec)	-5.21298115301E+03	Apriori clockrate (us/s)	-4.8000002E-08	Resid phdelay (usec)	-2.87624E-06	+/-	5.9E-07
Delay rate (us/s)	1.84666779144E+00	Apriori rate (us/s)	1.84666104755E+00	Resid rate (us/s)	6.74389E-06	+/-	3.6E-09
Total phase (deg)	-187.8	Apriori accel (us/s/s)	2.51314053007E-05	Resid phase (deg)	-89.7	+/-	18.4

ph/seg (deg)	RMS 91.2	Theor. 153.5	Amplitude 0.643 +/- 0.103	Search (2048X8)	0.549	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	335.7	267.9	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.2	Inc. seg. avg.	0.510		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0	16.0	Inc. frq. avg.	0.635		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

p: az 89.4 el 28.9 pa -59.3 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10982.717 -104.008 simultaneous interpolator

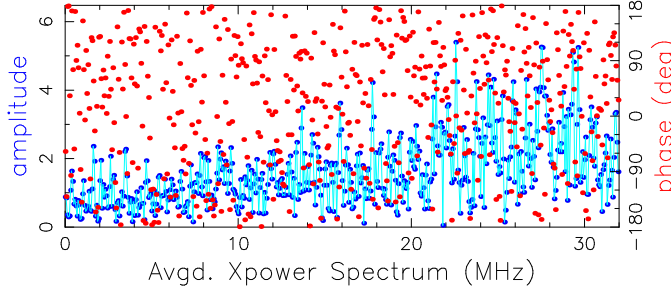
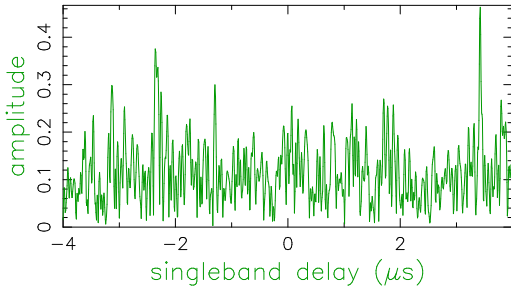
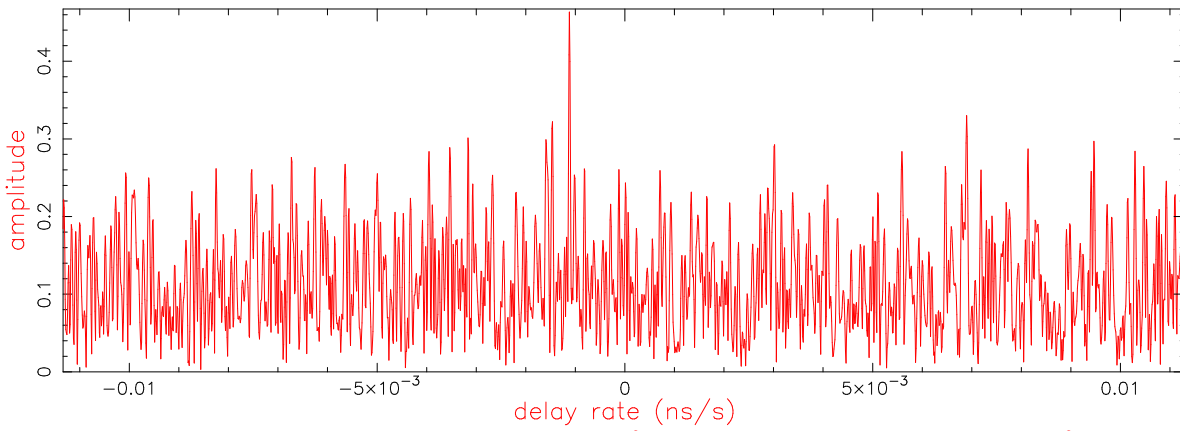
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pY.W.267.0QR0YU



Fringe quality 0

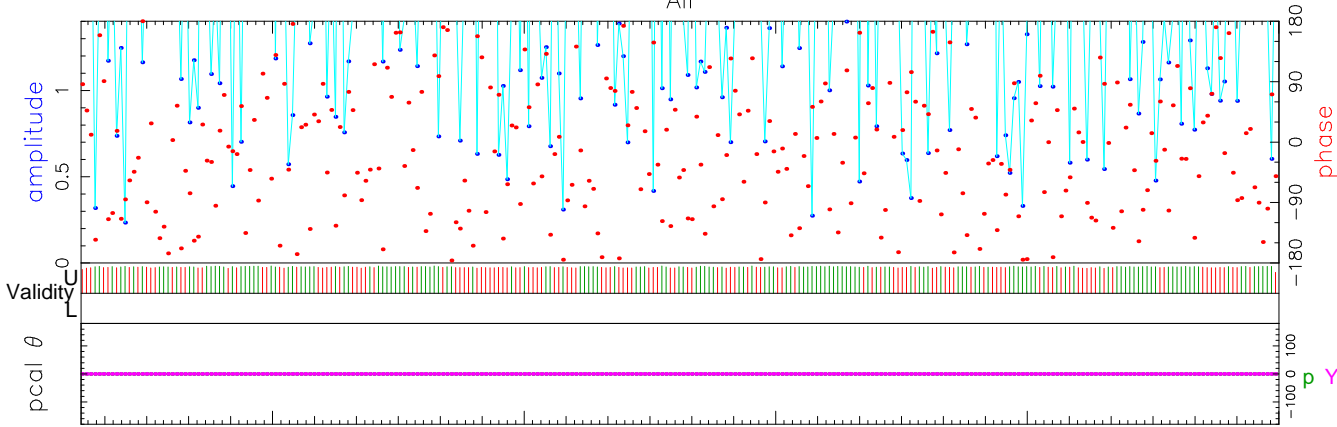
SNR 5.2  
Int time 271.902  
Amp 0.467  
Phase 251.4  
PFD 1.0e+00  
Delays (us)  
SBD 3.420109  
MBD -0.000006  
Fringe rate (Hz)  
-0.096519  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-27.6  
0.5  
950.8  
U/L 558/0  
p 3000  
Y 0  
p:Y 0:0  
p:Y 0:0  
p 1000  
Y 1000  
p W00UL  
Y W00UR

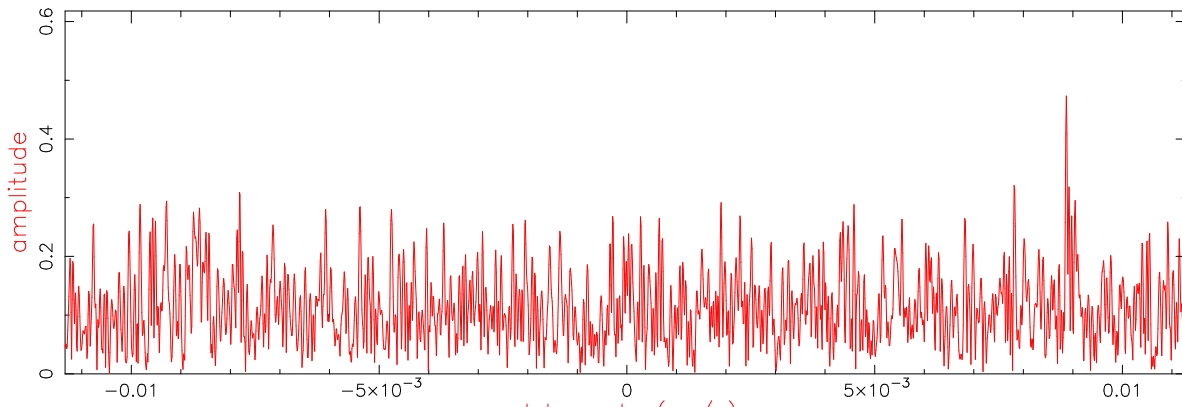
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.20956104054E+03	Apriori delay (usec)	-5.21298115013E+03	Resid mbdelay (usec)	-6.20165E-06	+/-	3.3E-03
Sband delay (usec)	-5.20956104113E+03	Apriori clock (usec)	2.4283836E+01	Resid sbdelay (usec)	3.42011E+00	+/-	3.3E-03
Phase delay (usec)	-5.21298115102E+03	Apriori clockrate (us/s)	-4.8000002E-08	Resid phdelay (usec)	-8.88454E-07	+/-	7.0E-07
Delay rate (us/s)	1.84665992706E+00	Apriori rate (us/s)	1.84666104755E+00	Resid rate (us/s)	-1.12049E-06	+/-	4.3E-09
Total phase (deg)	153.3	Apriori accel (us/s/s)	2.51314053007E-05	Resid phase (deg)	251.4	+/-	21.8

ph/seg (deg)	90.3	Theor.	182.4	Amplitude	0.467 +/- 0.089	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	382.0	Search (2048X8)	0.456	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.318	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	Inc. frq. avg.	0.457	Inc. frq. avg.	0.457	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

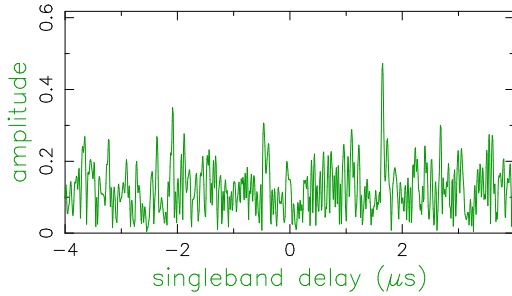
p: az 89.4 el 28.9 pa -59.3 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10982.717 -104.008 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pY.W.291.0QR0YU

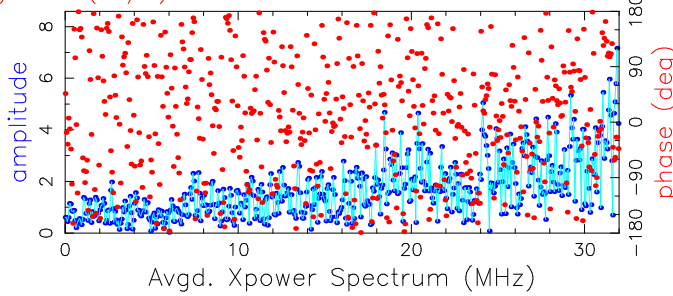


Fringe quality 0

SNR 5.3  
Int time 271.897  
Amp 0.618  
Phase 109.8  
PFD 1.0e+00  
Delays (us)  
SBD 1.647377  
MBD 0.000007  
Fringe rate (Hz)  
0.764896  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



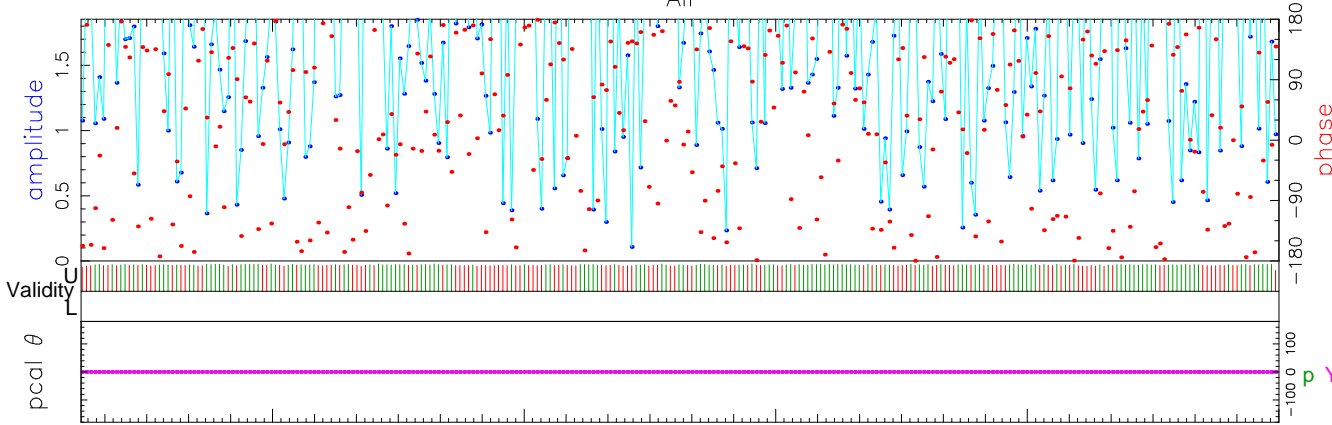
delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
158.8  
0.6  
723.9  
U/L 558/0  
p 3000  
Y 0  
p:Y 0:0  
p:Y 0:0  
p 1000  
Y 1000  
p W00UR  
Y W00UL

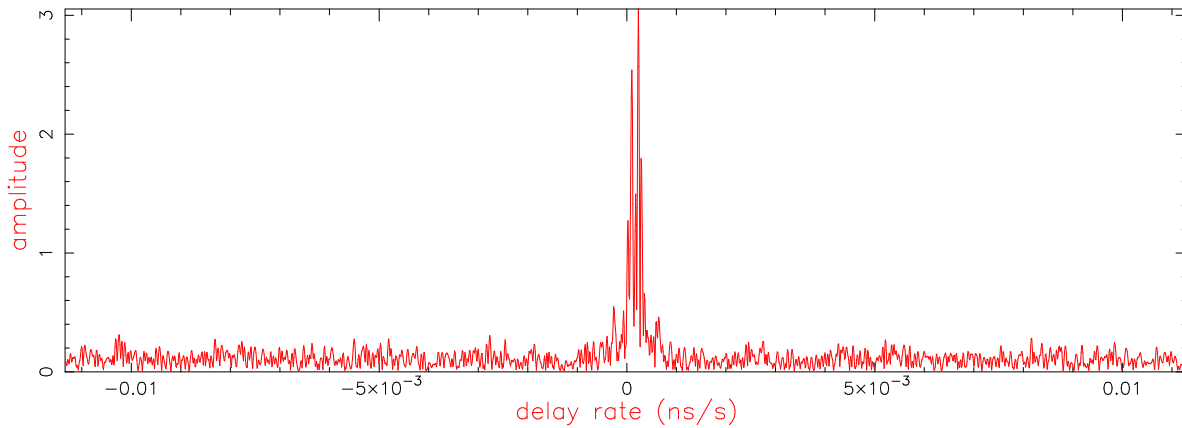
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
ManI PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-5.21133376808E+03	Apriori delay (usec)	-5.21298115013E+03	Resid mbdelay (usec)	7.26459E-06	+/-	3.2E-03
Sband delay (usec)	-5.21133377313E+03	Apriori clock (usec)	2.4283836E+01	Resid sbdelay (usec)	1.64738E+00	+/-	3.2E-03
Phase delay (usec)	-5.21298114501E+03	Apriori clockrate (us/s)	-4.8000002E-08	Resid phdelay (usec)	5.12070E-06	+/-	6.9E-07
Delay rate (us/s)	1.84666992723E+00	Apriori rate (us/s)	1.84666104755E+00	Resid rate (us/s)	8.87968E-06	+/-	4.2E-09
Total phase (deg)	11.7	Apriori accel (us/s/s)	2.51314053007E-05	Resid phase (deg)	109.8	+/-	21.5

ph/seg (deg)	93.8	Theor.	179.3	Amplitude	0.618 +/- 0.116	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	372.0	Search (2048X8)	0.470	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.418	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. frq. avg.	0.607	Inc. frq. avg.	0.607	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

p: az 89.4 el 28.9 pa -59.3 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -10982.717 -104.008 simultaneous interpolator

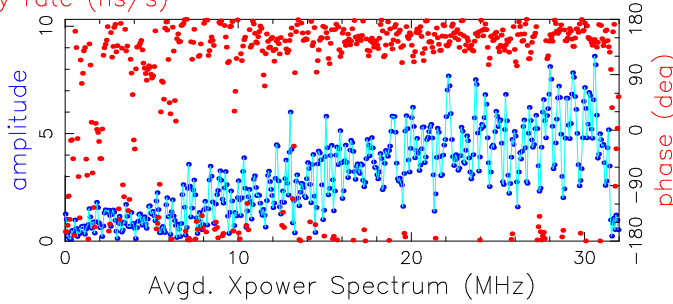
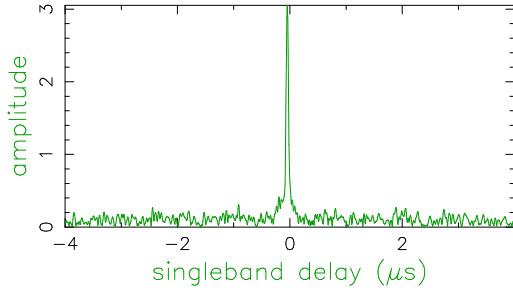
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//pY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//pY.W.303.0QR0YU



Fringe quality 9

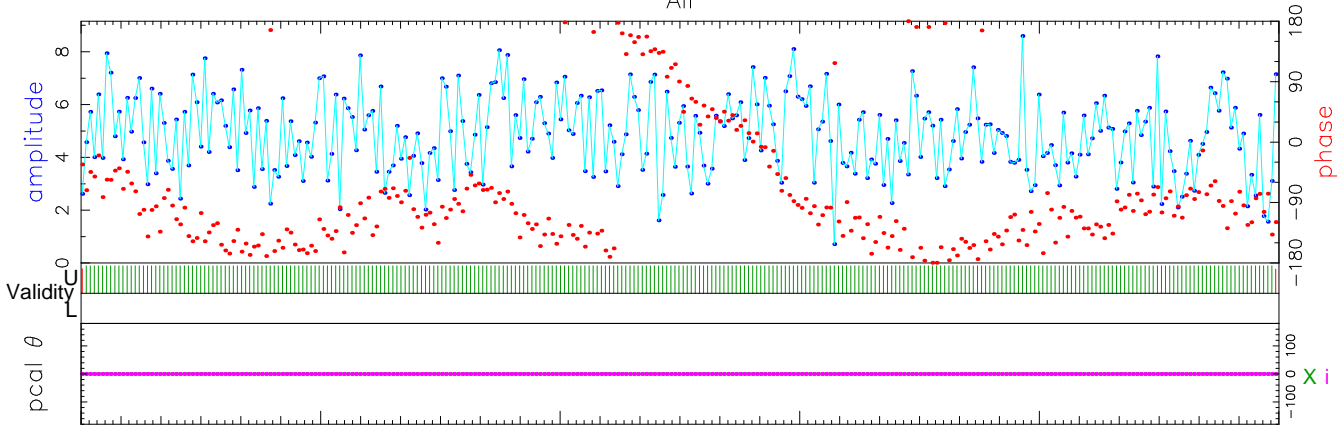
SNR 36.1  
Int time 299.796  
Amp 3.053  
Phase -110.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.046730  
MBD 0.000004  
Fringe rate (Hz)  
0.020241  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-116.4  
3.1  
507.0  
U/L 586/0  
X 0  
i 0  
X:i 0:0  
X:i 0:0  
X 1000  
i 1000  
X W00UL  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp

Chan ids  
Chan ids

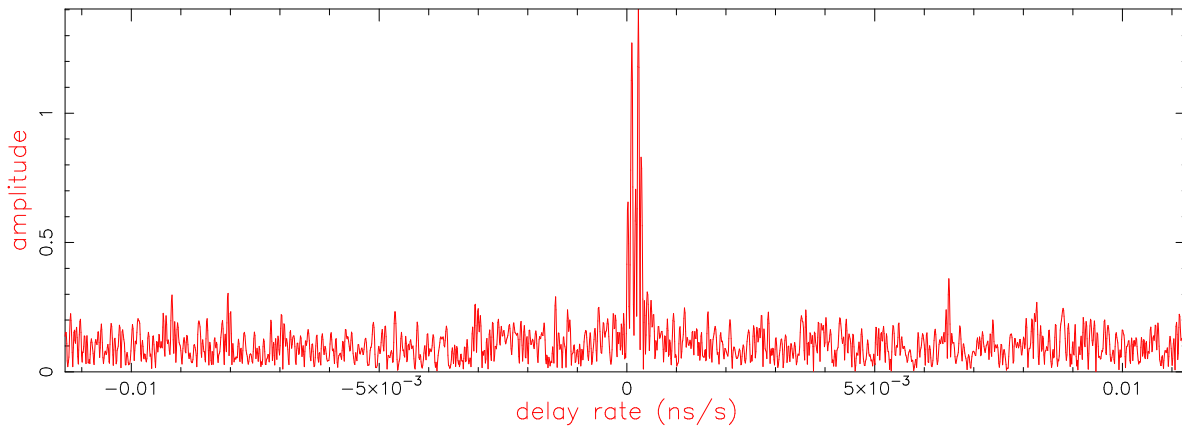
Group delay (usec)(sbd)	-4.78475073117E+03	Apriori delay (usec)	-4.78470399789E+03	Resid mbdelay (usec)	4.38643E-06	+/-	4.8E-04
Sband delay (usec)	-4.78475072789E+03	Apriori clock (usec)	2.5630024E+01	Resid sbdelay (usec)	-4.67300E-02	+/-	4.8E-04
Phase delay (usec)	-4.78470400164E+03	Apriori clockrate (us/s)	8.7699997E-07	Resid phdelay (usec)	-3.75339E-06	+/-	1.0E-07
Delay rate (us/s)	1.02212215548E-01	Apriori rate (us/s)	1.02211980568E-01	Resid rate (us/s)	2.34980E-07	+/-	5.9E-10
Total phase (deg)	-246.2	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	-110.1	+/-	3.2

ph/seg (deg)	59.4	RMS	27.1	Theor.	59.4	Amplitude	3.053 +/- 0.084	Search (2048X8)	3.016	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	76.6	ph/frq (deg)	0.0	amp/frq (%)	0.0	Inc. seg. avg.	4.379	Inc. frq. avg.	3.052	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
Data rate (Mb/s): 128 nlags: 512 t_cohere infinite													

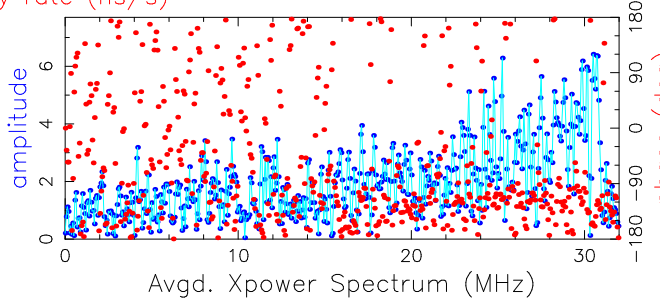
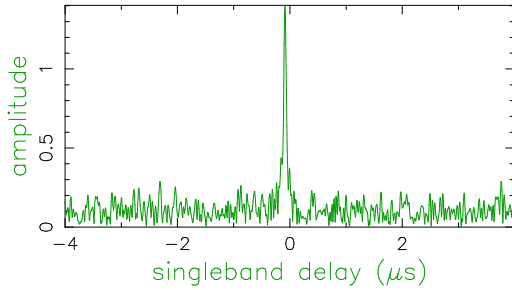
X: az 247.6 el 32.5 pa 31.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xi.0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xi.W.235.0QR0YU

Fringe quality 9

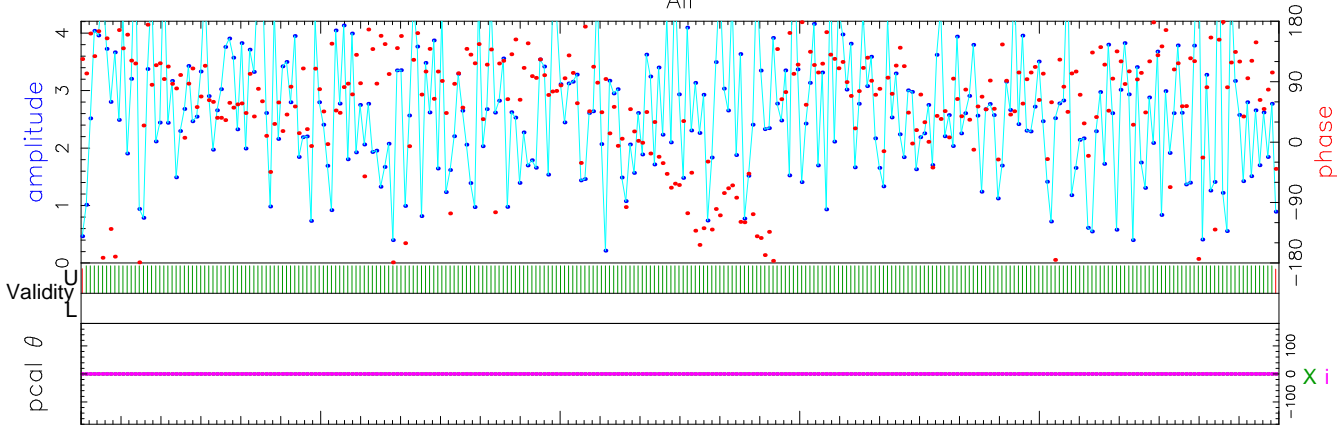


SNR 16.6  
 Int time 299.796  
 Amp 1.403  
 Phase -321.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.087059  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.020225  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163657  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



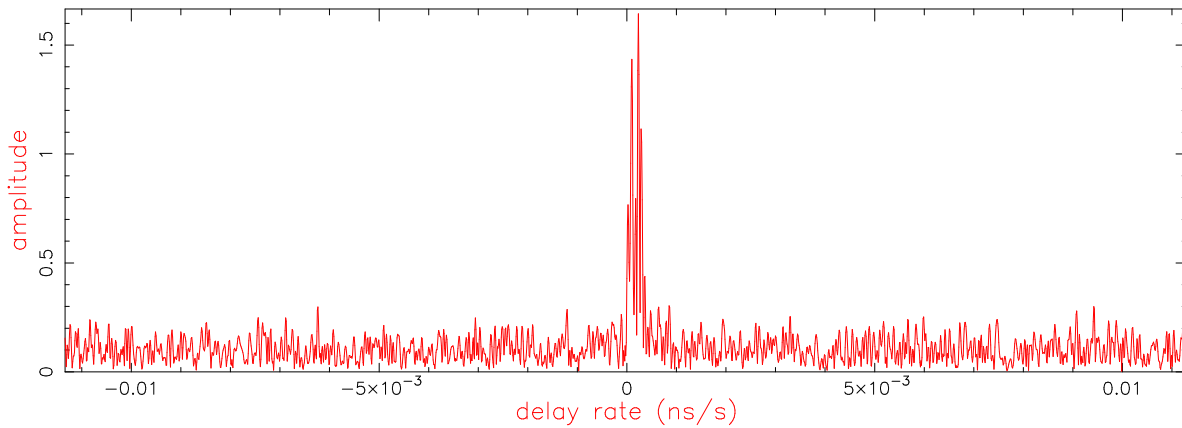
86012.00  
 90.5  
 1.4  
 501.9  
 U/L 586/0  
 X 0  
 i 0  
 X:i 0:0  
 X:i 0:0  
 X 1000  
 i 1000  
 X W00UR  
 i W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.78479106247E+03	Apriori delay (usec)	-4.78470399789E+03	Resid mbdelay (usec)	4.66168E-06	+/- 1.0E-03
Sband delay (usec)	-4.78479105689E+03	Apriori clock (usec)	2.5630024E+01	Resid sbdelay (usec)	-8.70590E-02	+/- 1.0E-03
Phase delay (usec)	-4.78470399497E+03	Apriori clockrate (us/s)	8.7699997E-07	Resid phdelay (usec)	2.91770E-06	+/- 2.2E-07
Delay rate (us/s)	1.02212215363E-01	Apriori rate (us/s)	1.02211980568E-01	Resid rate (us/s)	2.34795E-07	+/- 1.3E-09
Total phase (deg)	-97.8	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	-321.7	+/- 6.9

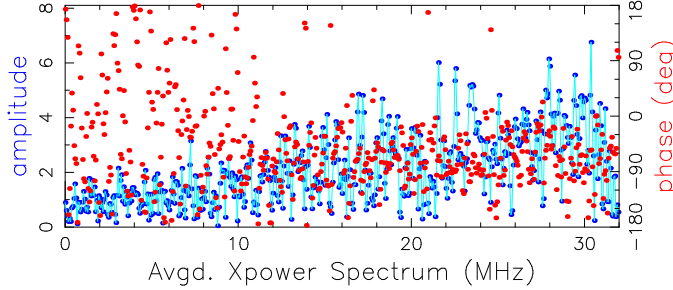
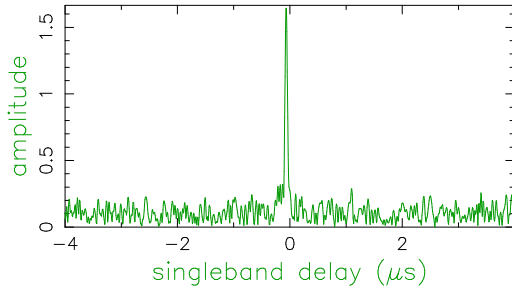
ph/seg (deg)	RMS 69.9	Theor. 59.1	Amplitude 1.403 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	124.7	103.1	Search (2048X8) 1.387	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	3.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1	6.0	Inc. seg. avg. 1.758	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 1.399	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

X: az 247.6 el 32.5 pa 31.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xi.W.246.0QR0YU



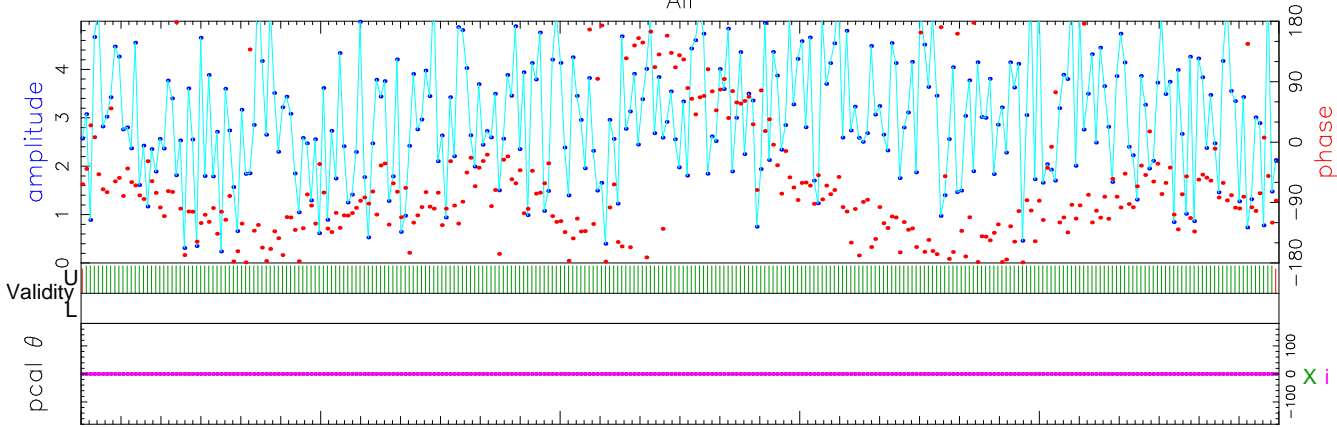
Fringe quality 9

SNR 19.7  
 Int time 299.796  
 Amp 1.666  
 Phase -270.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.066226  
 MBD 0.000004  
 Fringe rate (Hz)  
 0.020152  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163658  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 -97.9  
 1.6  
 504.5  
 U/L 586/0  
 X 0  
 i 0  
 Xi 0:0  
 Xi 0:0  
 X 1000  
 i 1000  
 X W00UL  
 i W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.78477022843E+03	Apriori delay (usec)	-4.78470399789E+03	Resid mbdelay (usec)	4.40390E-06	+/-	8.7E-04
Sband delay (usec)	-4.78477022439E+03	Apriori clock (usec)	2.5630024E+01	Resid sbdelay (usec)	-6.62265E-02	+/-	8.7E-04
Phase delay (usec)	-4.78470400105E+03	Apriori clockrate (us/s)	8.7699997E-07	Resid phdelay (usec)	-3.15813E-06	+/-	1.9E-07
Delay rate (us/s)	1.02212214514E-01	Apriori rate (us/s)	1.02211980568E-01	Resid rate (us/s)	2.33946E-07	+/-	1.1E-09
Total phase (deg)	-46.1	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	-270.0	+/-	5.8

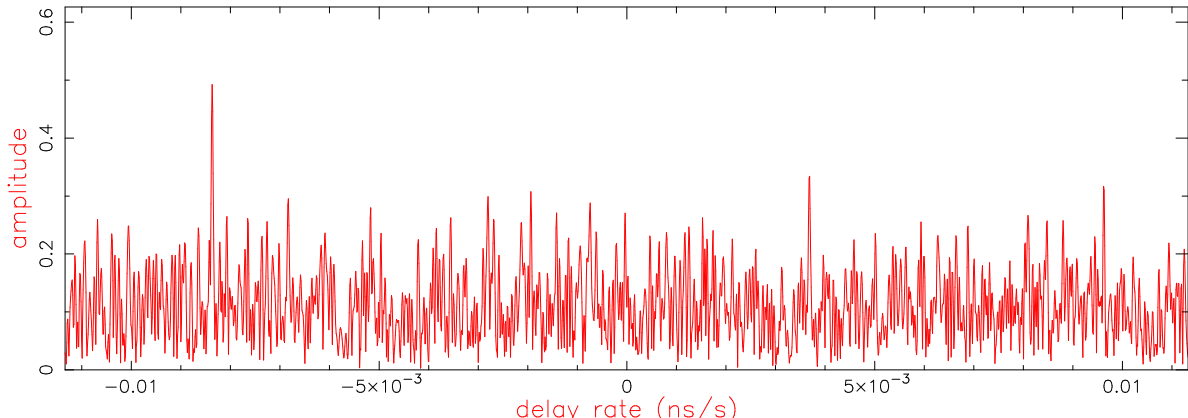
ph/seg (deg)	67.3	Theor.	49.7	Amplitude	1.666 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	110.6	Search (2048X8)	1.634	Search	1.634	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.177	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.3	Inc. frq. avg.	1.642	Inc. frq. avg.	1.642	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000
						Data rate(Mb/s):	128	dr window (ns/s)	-0.011 0.011
						nlags:	512	ion window (TEC)	0.00 0.00
						t_cohere	infinite		

X: az 247.6 el 32.5 pa 31.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator

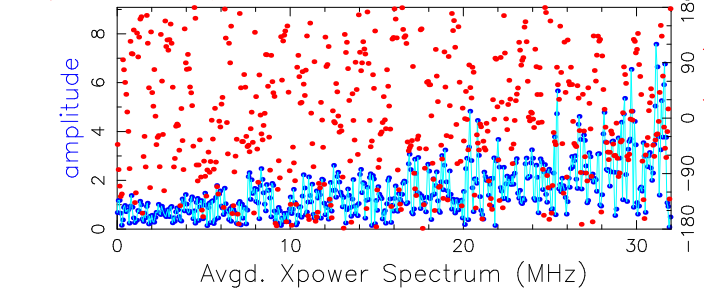
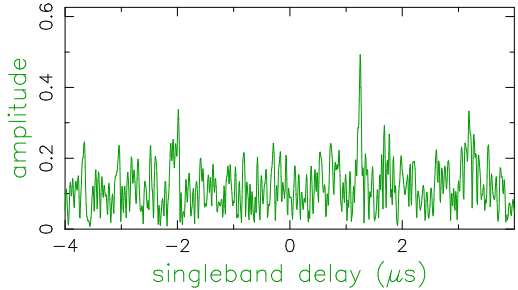
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xi.W.262.0QR0YU





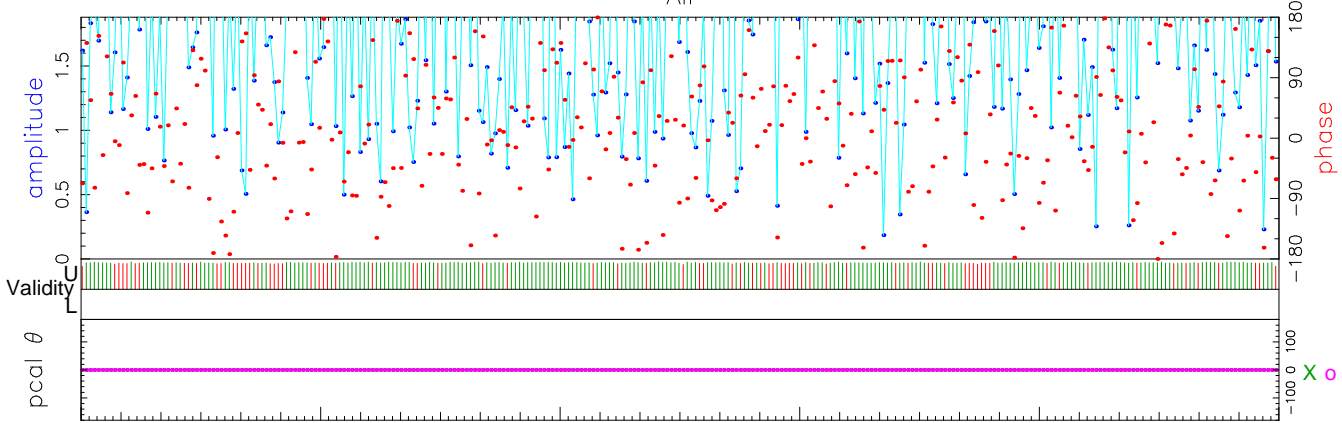


Fringe quality 0  
SNR 5.7  
Int time 287.761  
Amp 0.626  
Phase 113.5  
PFD 7.0e-01  
Delays (us)  
SBD 1.252104  
MBD -0.000007  
Fringe rate (Hz)  
-0.721983  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163656  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
16.0  
0.6  
673.3  
U/L 586/0  
X 0  
o 3000  
X:o 0:0  
X:o 0:0  
X 1000  
o 1000  
X W00UL  
o W00UL

Validity  
pcal theta X o

Group delay (usec)(sbd)	3.51778496985E+03	Apriori delay (usec)	3.51653286113E+03	Resid mbdelay (usec)	-7.26558E-06	+/-	3.0E-03
Sband delay (usec)	3.51778496513E+03	Apriori clock (usec)	-4.2574463E+00	Resid sbdelay (usec)	1.25210E+00	+/-	3.0E-03
Phase delay (usec)	3.51653286165E+03	Apriori clockrate (us/s)	1.6044002E-07	Resid phdelay (usec)	5.16374E-07	+/-	6.4E-07
Delay rate (us/s)	-1.80757016596E+00	Apriori rate (us/s)	-1.80756178444E+00	Resid rate (us/s)	-8.38151E-06	+/-	3.7E-09
Total phase (deg)	350.3	Apriori accel (us/s/s)	-1.12220244521E-05	Resid phase (deg)	113.5	+/-	20.0

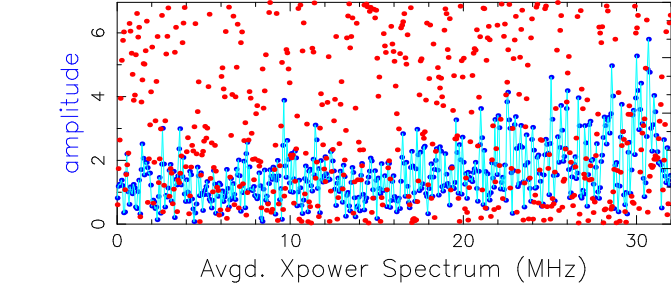
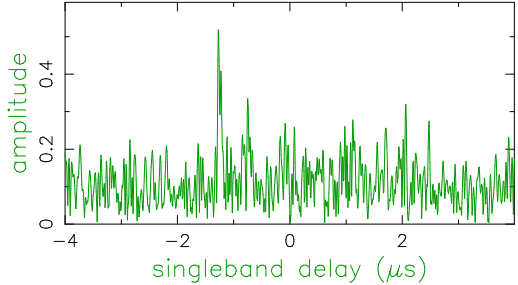
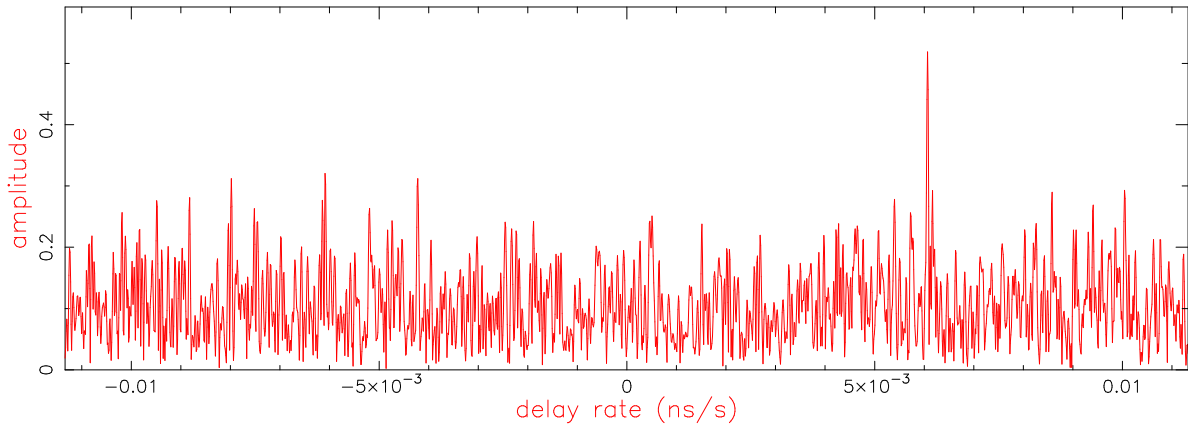
ph/seg (deg)	89.5	Theor.	170.9	Amplitude	0.626 +/- 0.109	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	358.2	Search (2048X8)	0.489	Search	0.489	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.459	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	Inc. frq. avg.	0.614	Inc. frq. avg.	0.614	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

X: az 247.6 el 32.5 pa 31.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10767.754 1712.029 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xo.W.239.0QR0YU

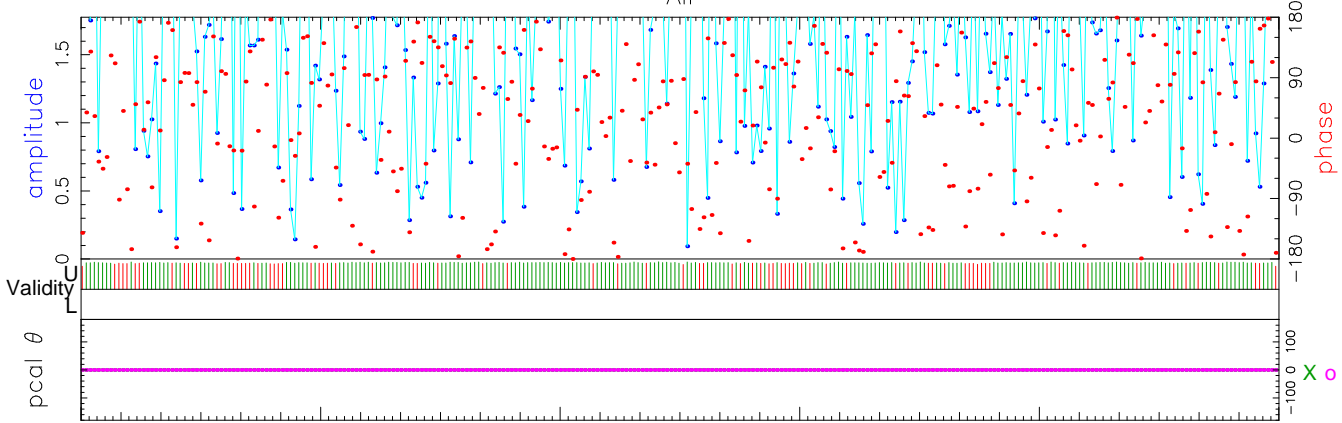
Fringe quality 0

SNR 6.1  
Int time 287.763  
Amp 0.592  
Phase -134.8  
PFD 1.4e-01  
Delays (us)  
SBD -1.270704  
MBD 0.000007  
Fringe rate (Hz)  
0.523129  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
99.4  
0.6  
350.4  
U/L 586/0  
X 0  
o 3000  
X:o 0:0  
X:o 0:0  
X 1000  
o 1000  
X W00UR  
o W00UR

Validity  
pcal  $\theta$

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.51526216197E+03	Apriori delay (usec)	3.51653286113E+03	Resid mbdelay (usec)	7.25471E-06	+/-	2.8E-03
Sband delay (usec)	3.51526215763E+03	Apriori clock (usec)	-4.2574463E+00	Resid sbdelay (usec)	-1.27070E+00	+/-	2.8E-03
Phase delay (usec)	3.51653286433E+03	Apriori clockrate (us/s)	1.6044002E-07	Resid phdelay (usec)	3.20395E-06	+/-	6.1E-07
Delay rate (us/s)	-1.80755571144E+00	Apriori rate (us/s)	-1.80756178444E+00	Resid rate (us/s)	6.07301E-06	+/-	3.5E-09
Total phase (deg)	-258.0	Apriori accel (us/s/s)	-1.12220244521E-05	Resid phase (deg)	-134.8	+/-	18.8

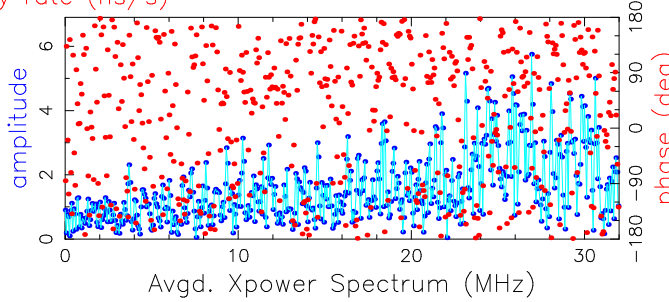
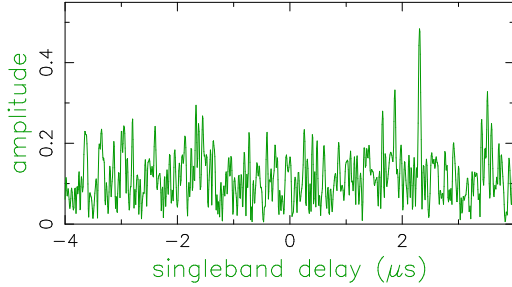
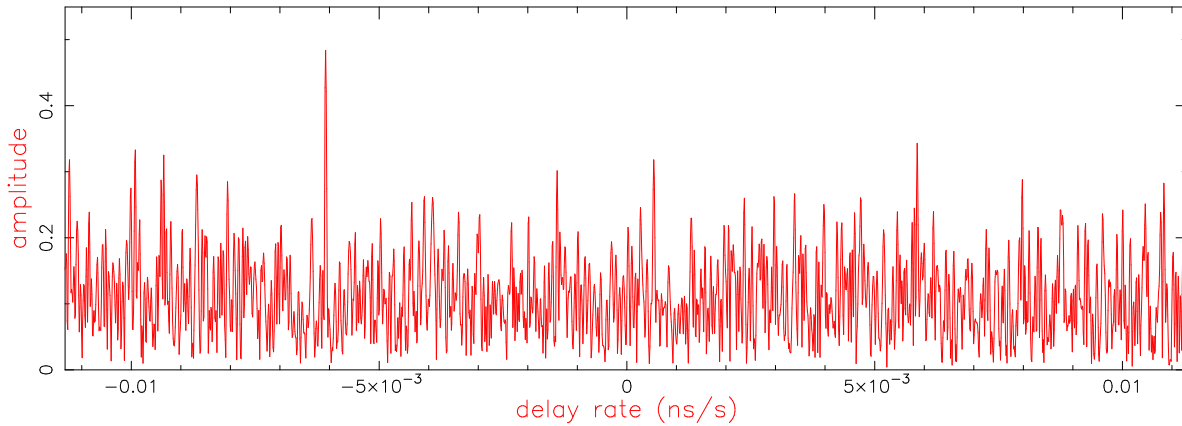
ph/seg (deg)	RMS 89.9	Theor. 161.2	Amplitude 0.592 +/- 0.097	Search (2048X8)	0.506	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	326.3	281.3	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.4	Inc. seg. avg.	0.426		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.1	16.4	Inc. frq. avg.	0.578		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

X: az 247.6 el 32.5 pa 31.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10767.754 1712.029 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xo.W.260.0QR0YU

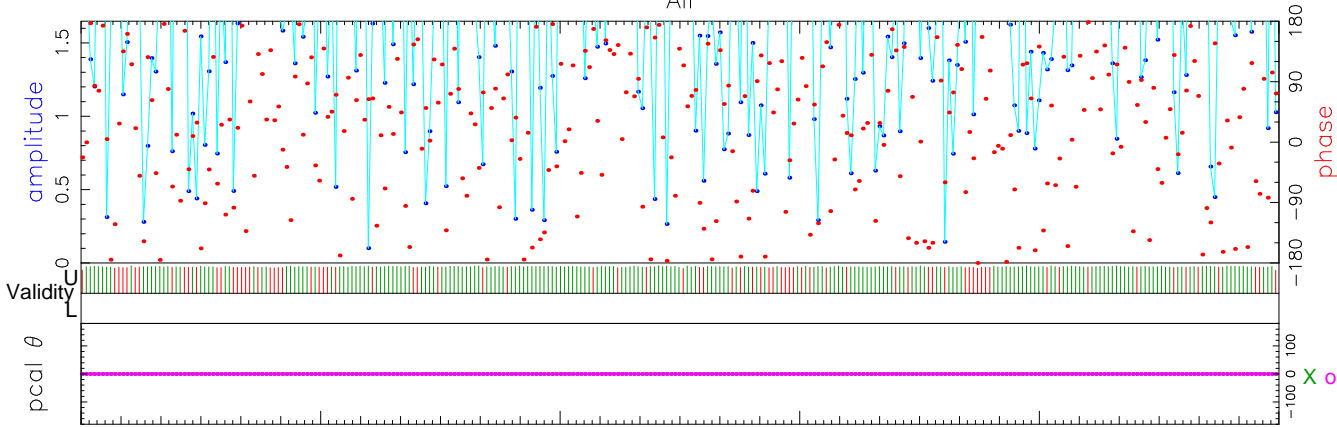
Fringe quality 0

SNR 5.6  
Int time 287.763  
Amp 0.549  
Phase 213.4  
PFD 8.7e-01  
Delays (us)  
SBD 2.307378  
MBD -0.000005  
Fringe rate (Hz)  
-0.524044  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
89.0  
0.5  
808.3  
U/L 586/0  
X 0  
o 3000  
X:o 0:0  
X:o 0:0  
X 1000  
o 1000  
X W00UL  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.51884024354E+03	Apriori delay (usec)	3.51653286113E+03	Resid mbdelay (usec)	-4.92787E-06	+/-	3.1E-03
Sband delay (usec)	3.51884023913E+03	Apriori clock (usec)	-4.2574463E+00	Resid sbdelay (usec)	2.30738E+00	+/-	3.1E-03
Phase delay (usec)	3.51653286400E+03	Apriori clockrate (us/s)	1.6044002E-07	Resid phdelay (usec)	2.87115E-06	+/-	6.5E-07
Delay rate (us/s)	-1.80756786807E+00	Apriori rate (us/s)	-1.80756178444E+00	Resid rate (us/s)	-6.08363E-06	+/-	3.8E-09
Total phase (deg)	90.2	Apriori accel (us/s/s)	-1.12220244521E-05	Resid phase (deg)	213.4	+/-	20.3

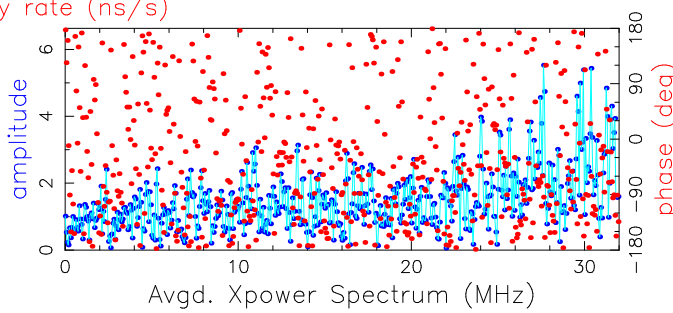
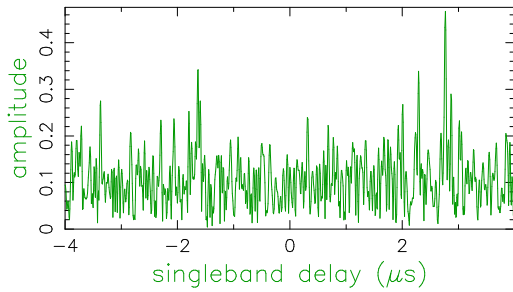
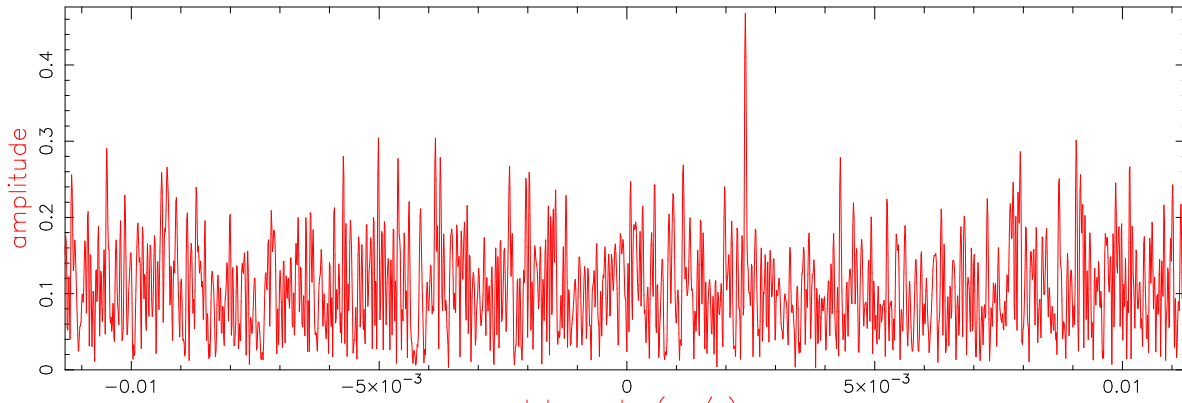
ph/seg (deg)	92.8	Theor.	173.8	Amplitude	0.549 +/- 0.097	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	372.9	Search (2048X8)	0.467	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.402	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.6	Inc. frq. avg.	0.538	Inc. frq. avg.	0.538	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

X: az 247.6 el 32.5 pa 31.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10767.754 1712.029 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xo.W.276.0QR0YU

Fringe quality 0

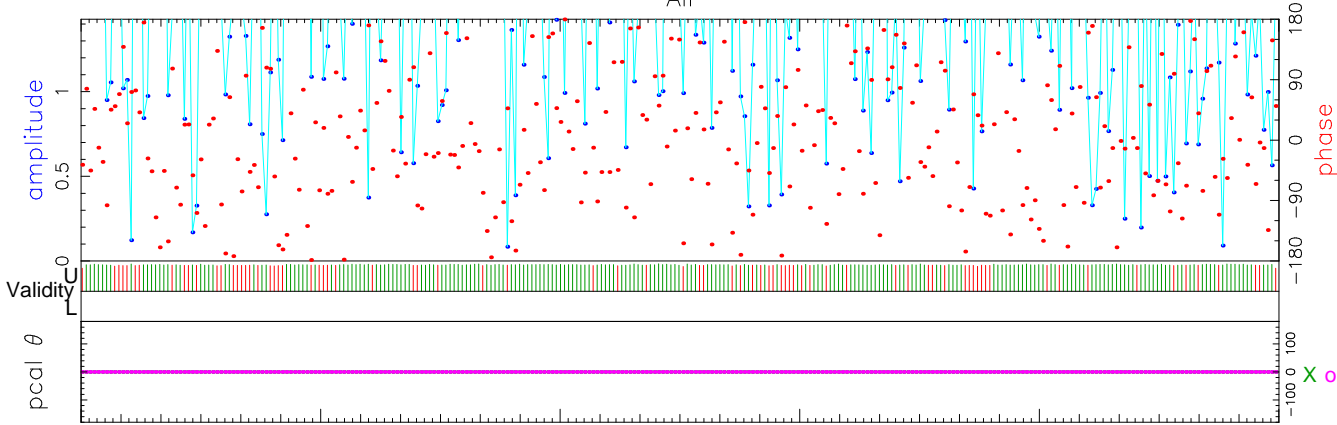
SNR 5.4  
Int time 287.761  
Amp 0.476  
Phase 340.7  
PFD 1.0e+00  
Delays (us)  
SBD 2.765445  
MBD 0.000006  
Fringe rate (Hz)  
0.206199  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
-10.7  
0.5  
867.0  
U/L 586/0  
X 0  
o 3000  
X:o 0:0  
X:o 0:0  
X 1000  
o 1000  
X W00UR  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	3.51929830653E+03	Apriori delay (usec)	3.51653286113E+03	Resid mbdelay (usec)	5.69437E-06	+/-	3.2E-03
Sband delay (usec)	3.51929830563E+03	Apriori clock (usec)	-4.2574463E+00	Resid sbdelay (usec)	2.76544E+00	+/-	3.2E-03
Phase delay (usec)	3.51653286078E+03	Apriori clockrate (us/s)	1.6044002E-07	Resid phdelay (usec)	-3.46026E-07	+/-	6.8E-07
Delay rate (us/s)	-1.80755939068E+00	Apriori rate (us/s)	-1.80756178444E+00	Resid rate (us/s)	2.39376E-06	+/-	3.9E-09
Total phase (deg)	217.5	Apriori accel (us/s/s)	-1.12220244521E-05	Resid phase (deg)	340.7	+/-	21.1

ph/seg (deg)	92.9	Theor.	180.9	Amplitude	0.476 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	358.3	RMS	180.9	Search (2048X8)	0.463	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.312	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.468	Inc. frq. avg.	0.468	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		
						nlags:	512	t_cohere	infinite		

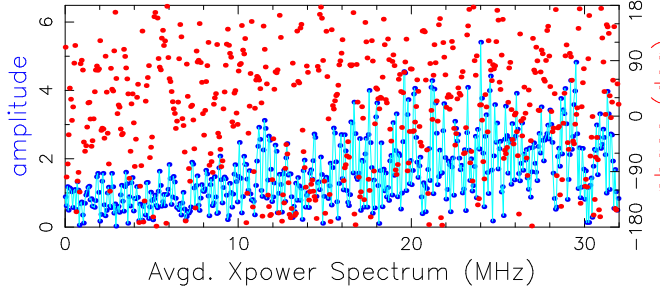
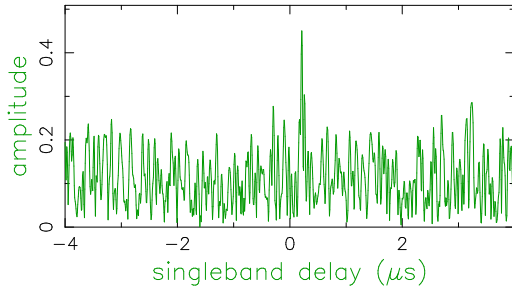
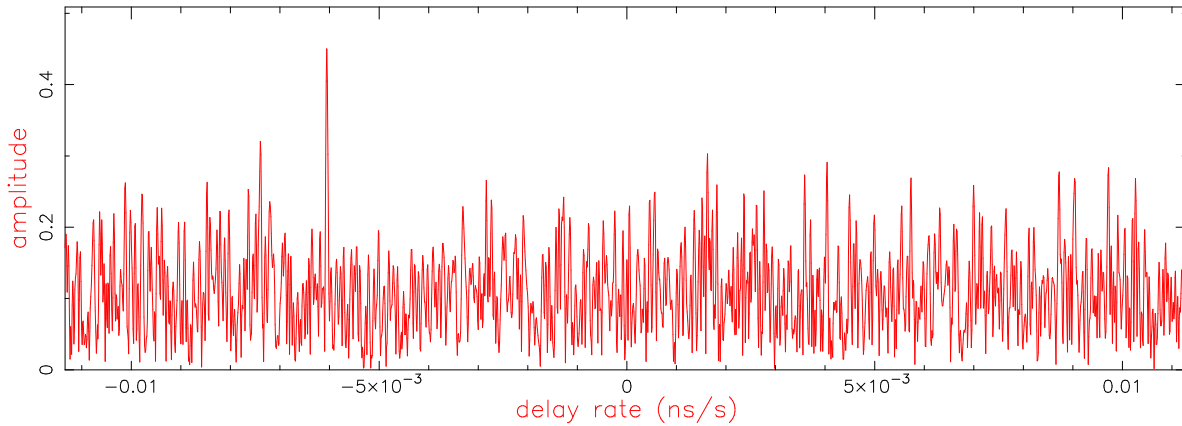
X: az 247.6 el 32.5 pa 31.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10767.754 1712.029 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xo.W.292.0QR0YU



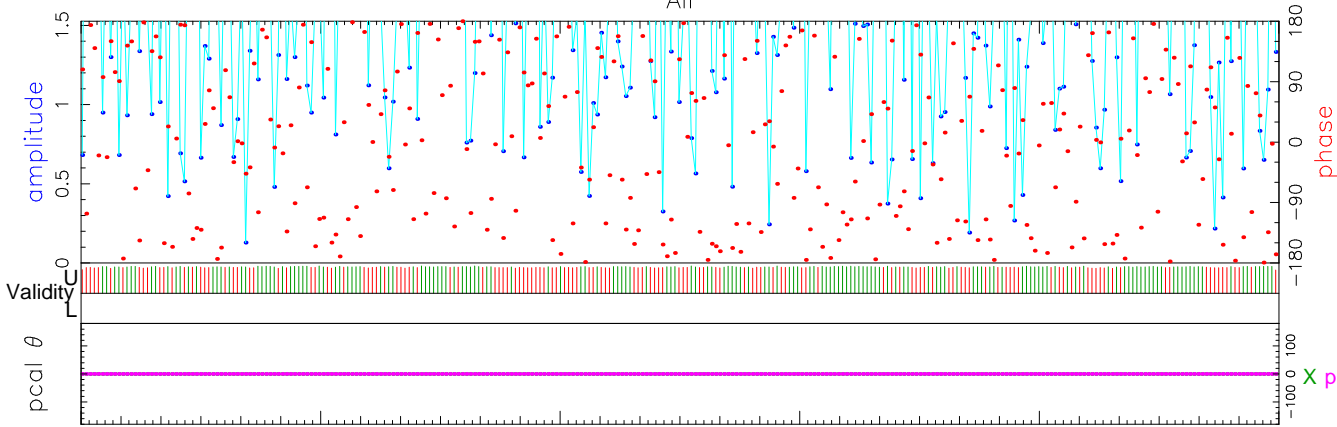
Fringe quality 0

SNR 5.2  
Int time 285.670  
Amp 0.509  
Phase 237.4  
PFD 1.0e+00  
Delays (us)  
SBD 0.212009  
MBD -0.000004  
Fringe rate (Hz)  
-0.522541  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163657  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



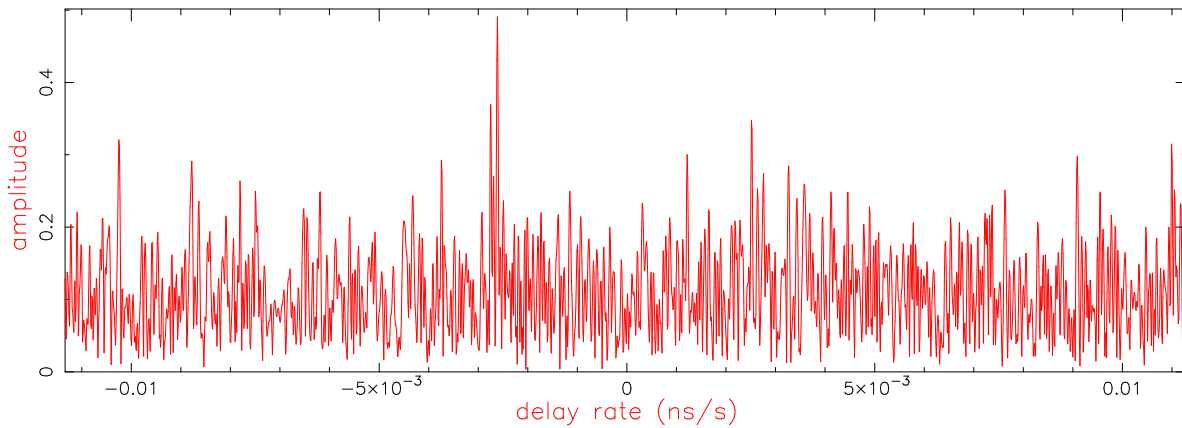
86012.00  
-172.3  
0.5  
540.1  
U/L 586/0  
X 0  
p 3000  
X:p 0:0  
X:p 0:0  
X 1000  
p 1000  
X W00UL  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	7.91552355185E+02	Apriori delay (usec)	7.91340342731E+02	Resid mbdelay (usec)	-4.47375E-06	+/-	3.3E-03
Sband delay (usec)	7.91552351731E+02	Apriori clock (usec)	-6.2368097E+00	Resid sbdelay (usec)	2.12009E-01	+/-	3.3E-03
Phase delay (usec)	7.91340337173E+02	Apriori clockrate (us/s)	6.3499997E-07	Resid phdelay (usec)	-5.55777E-06	+/-	7.1E-07
Delay rate (us/s)	-1.77601842069E+00	Apriori rate (us/s)	-1.77601235451E+00	Resid rate (us/s)	-6.06618E-06	+/-	4.1E-09
Total phase (deg)	281.6	Apriori accel (us/s/s)	4.56415516622E-06	Resid phase (deg)	237.4	+/-	22.0

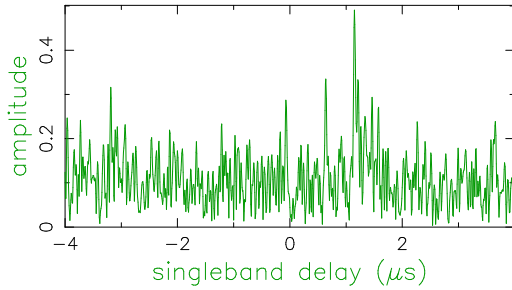
ph/seg (deg)	96.5	Theor.	188.2	Amplitude	0.509 +/- 0.098	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	402.2	Search (2048X8)	0.448	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.340	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.499	Inc. frq. avg.	0.499	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

X: az 247.6 el 32.5 pa 31.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10599.694 2426.227 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xp.W.253.0QR0YU

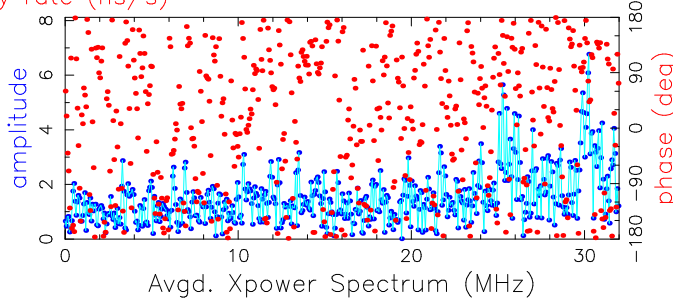


Fringe quality 0

SNR 5.7  
Int time 285.666  
Amp 0.502  
Phase 254.6  
PFD 8.3e-01  
Delays (us)  
SBD 1.148597  
MBD -0.000007  
Fringe rate (Hz)  
-0.225301  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

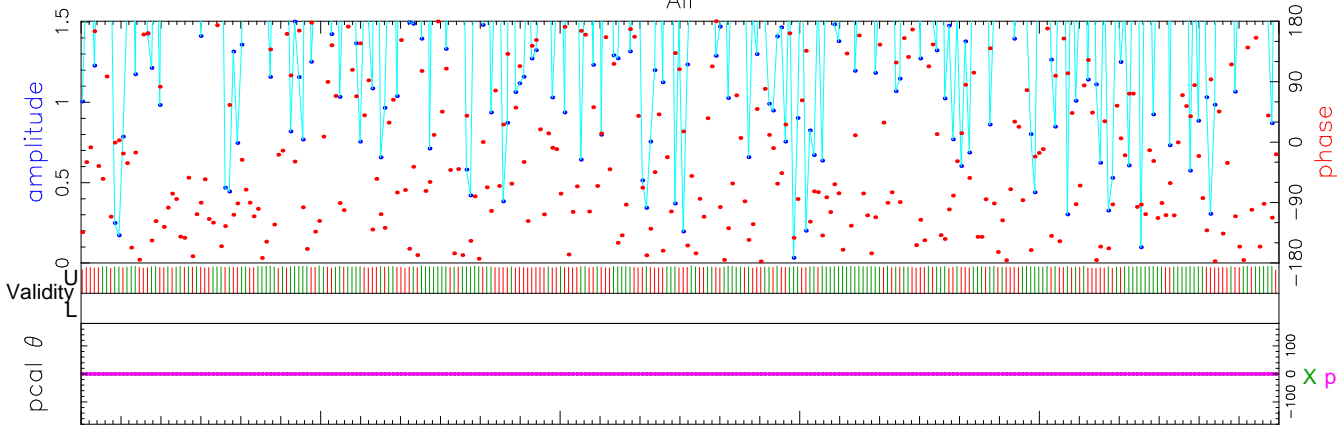


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-113.2  
0.5  
660.0  
U/L 586/0  
X 0  
p 3000  
X:p 0:0  
X:p 0:0  
X 1000  
p 1000  
X W00UR  
p W00UR

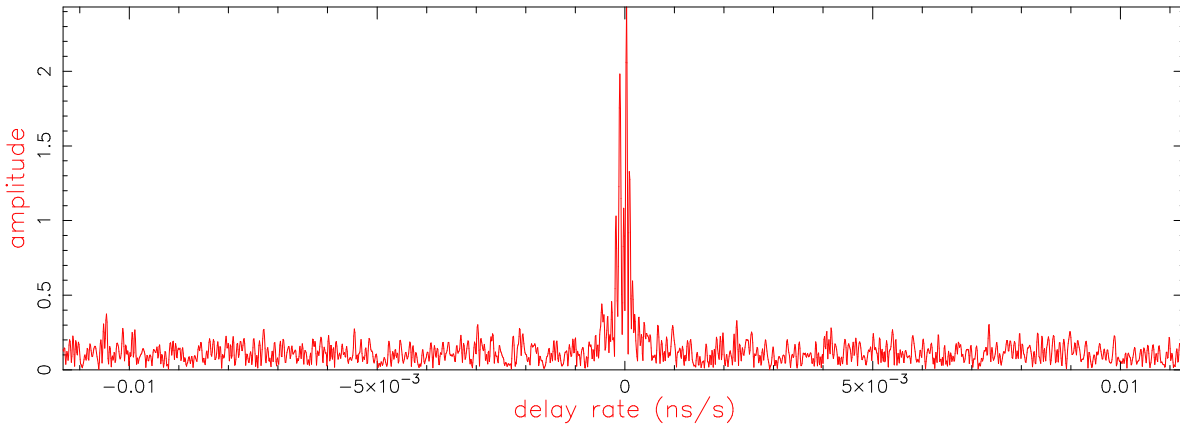
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	7.92488942673E+02	Apriori delay (usec)	7.91340342731E+02	Resid mbdelay (usec)	-7.22862E-06	+/-	3.0E-03
Sband delay (usec)	7.92488940231E+02	Apriori clock (usec)	-6.2368097E+00	Resid sbdelay (usec)	1.14860E+00	+/-	3.0E-03
Phase delay (usec)	7.91340339080E+02	Apriori clockrate (us/s)	6.3499997E-07	Resid phdelay (usec)	-3.65060E-06	+/-	6.5E-07
Delay rate (us/s)	-1.77601497003E+00	Apriori rate (us/s)	-1.77601235451E+00	Resid rate (us/s)	-2.61552E-06	+/-	3.8E-09
Total phase (deg)	298.8	Apriori accel (us/s/s)	4.56415516622E-06	Resid phase (deg)	254.6	+/-	20.2

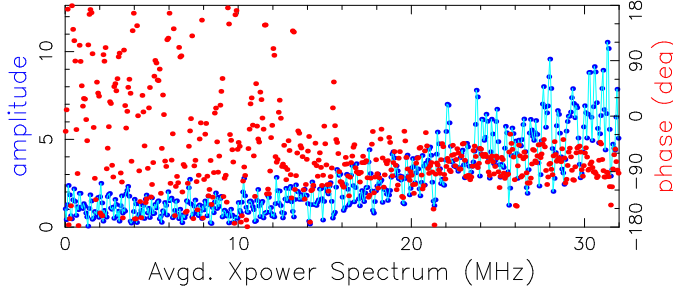
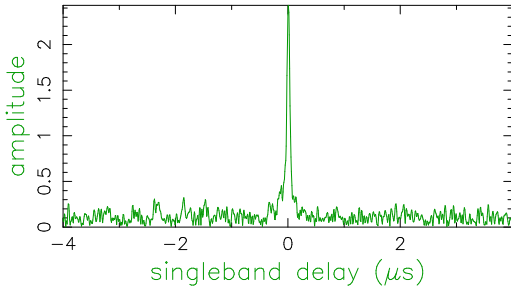
ph/seg (deg)	RMS 90.3	Theor. 173.0	Amplitude 0.502 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	351.8	301.9	Search (2048X8) 0.484	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000	
ph/frq (deg)	0.0	10.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.000 0.000
amp/frq (%)	0.0	17.6	Inc. seg. avg. 0.348	Sample rate(MSamp/s): 64	ion window (TEC)	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.494	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite

X: az 247.6 el 32.5 pa 31.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10599.694 2426.227 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xp.W.263.0QR0YU

Fringe quality 9



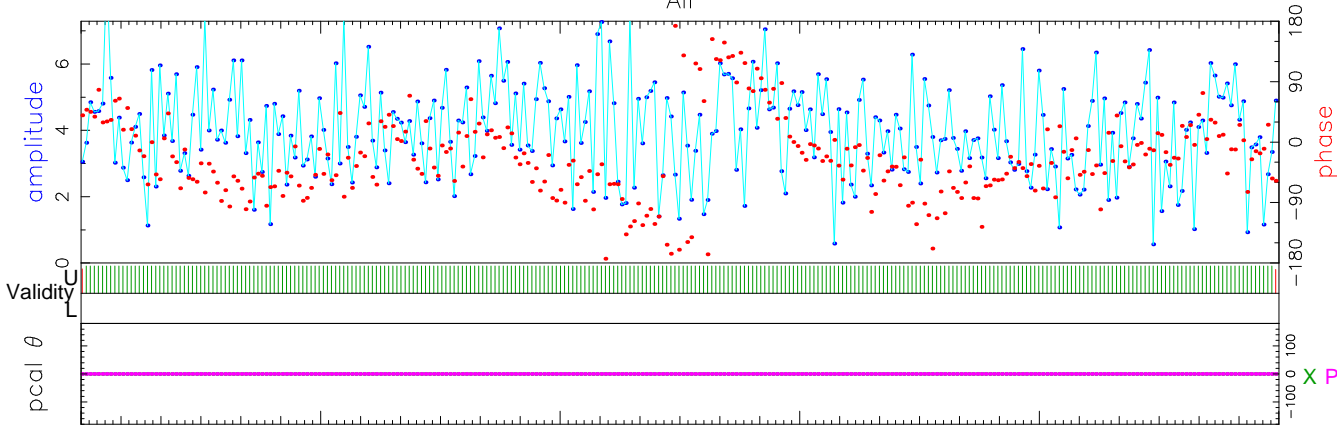
SNR 28.6  
 Int time 296.612  
 Amp 2.431  
 Phase 2.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.008463  
 MBD -0.000001  
 Fringe rate (Hz)  
 0.003062  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163659  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -27.8  
 2.4  
 514.1  
 U/L 586/0  
 X 0  
 P 0  
 X:P 0:0  
 X:P 0:0  
 X 1000  
 P 1000  
 X W00UL  
 P W00UL

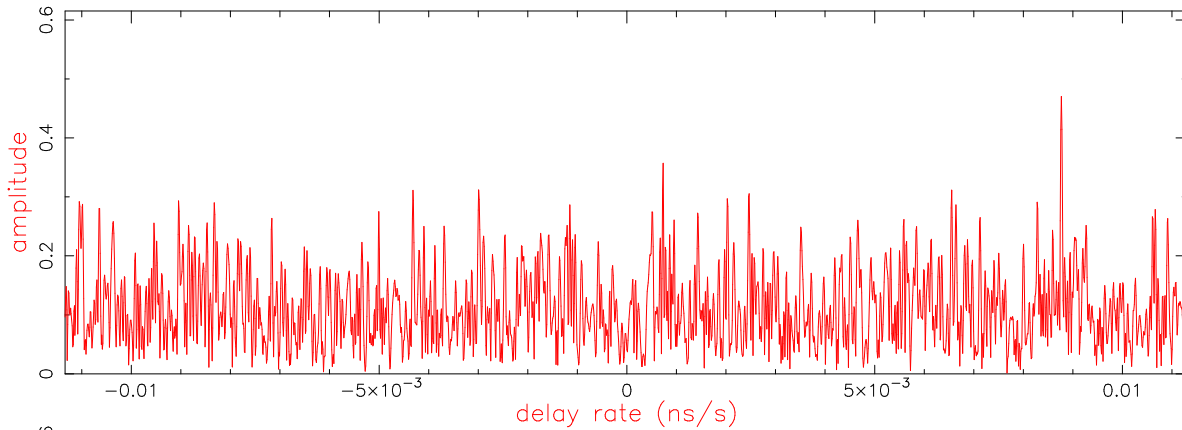
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.78517984479E+03	Apriori delay (usec)	-4.78518830789E+03	Resid mbdelay (usec)	-8.35042E-07	+/-	6.0E-04
Sband delay (usec)	-4.78517984489E+03	Apriori clock (usec)	2.5145716E+01	Resid sbdelay (usec)	8.46300E-03	+/-	6.0E-04
Phase delay (usec)	-4.78518830878E+03	Apriori clockrate (us/s)	1.0770000E-06	Resid phdelay (usec)	-8.97110E-07	+/-	1.3E-07
Delay rate (us/s)	1.02212216111E-01	Apriori rate (us/s)	1.02212180568E-01	Resid rate (us/s)	3.55427E-08	+/-	7.5E-10
Total phase (deg)	59.3	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	2.2	+/-	4.0

ph/seg (deg)	59.7	Theor.	34.3	Amplitude	2.431 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	86.7		59.8	Search (2048X8)	2.412	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		2.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		3.5	Inc. seg. avg.	3.386	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	2.429	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

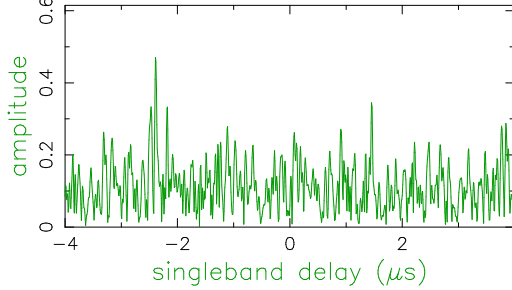
X: az 247.6 el 32.5 pa 31.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XP.W.265.0QR0YU

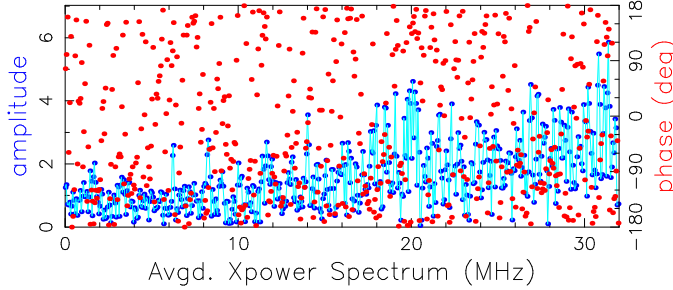


Fringe quality 0

SNR 5.5  
Int time 285.666  
Amp 0.615  
Phase -107.9  
PFD 9.9e-01  
Delays (us)  
SBD -2.388065  
MBD 0.000006  
Fringe rate (Hz)  
0.756321  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

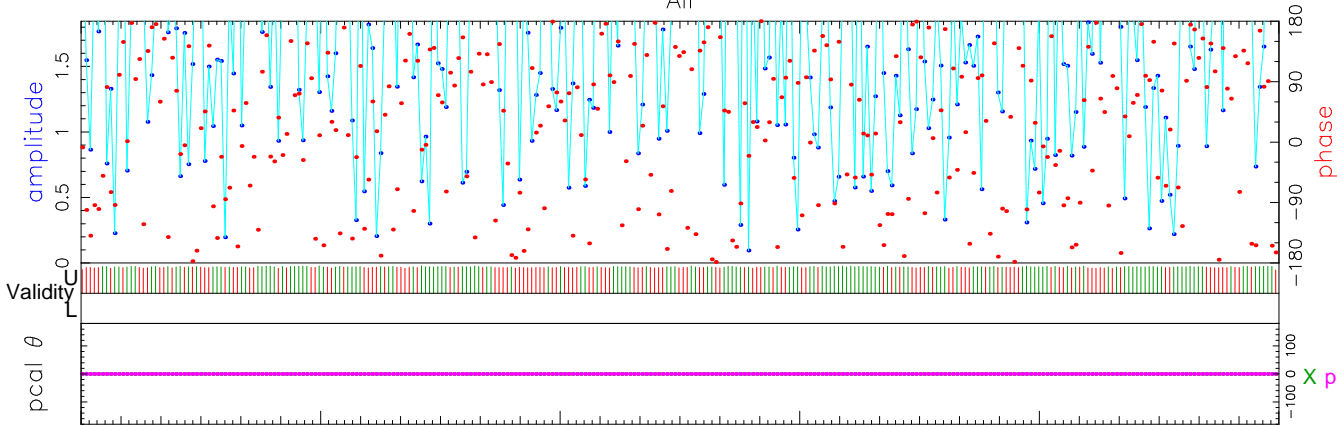


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
134.5  
0.6  
207.3  
U/L 586/0  
X 0  
p 3000  
X:p 0:0  
X:p 0:0  
X 1000  
p 1000  
X W00UL  
p W00UR

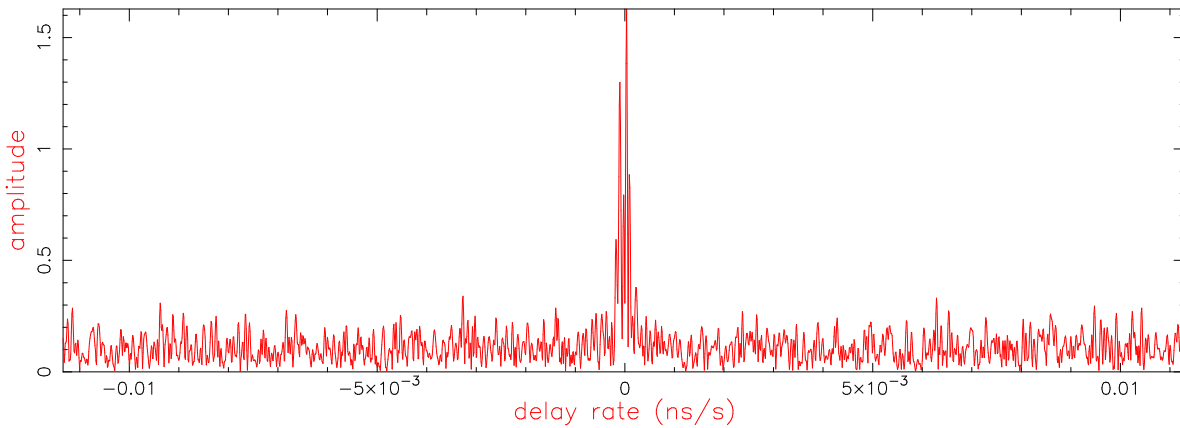
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	7.88952274760E+02	Apriori delay (usec)	7.91340342731E+02	Resid mbdelay (usec)	5.78673E-06	+/-	3.1E-03
Sband delay (usec)	7.88952277731E+02	Apriori clock (usec)	-6.2368097E+00	Resid sbdelay (usec)	-2.38807E+00	+/-	3.1E-03
Phase delay (usec)	7.91340347069E+02	Apriori clockrate (us/s)	6.3499997E-07	Resid phdelay (usec)	4.33840E-06	+/-	6.7E-07
Delay rate (us/s)	-1.77600357437E+00	Apriori rate (us/s)	-1.77601235451E+00	Resid rate (us/s)	8.78014E-06	+/-	3.9E-09
Total phase (deg)	-63.7	Apriori accel (us/s/s)	4.56415516622E-06	Resid phase (deg)	-107.9	+/-	20.9

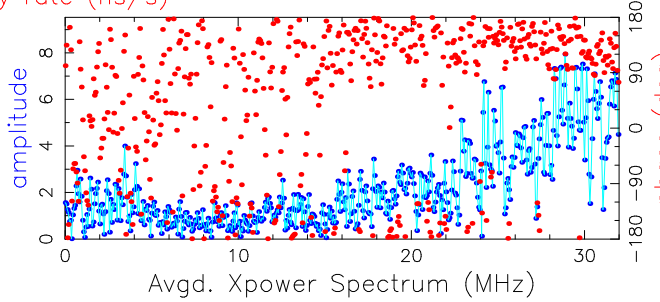
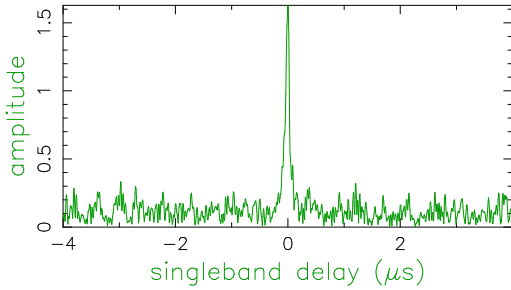
ph/seg (deg)	94.1	Theor.	179.0	Amplitude	0.615 +/- 0.112	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	375.1	Search (2048X8)	0.466	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.424	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.9	Inc. frq. avg.	0.600	Inc. frq. avg.	0.600	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

X: az 247.6 el 32.5 pa 31.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10599.694 2426.227 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xp.W.273.0QR0YU

Fringe quality 9

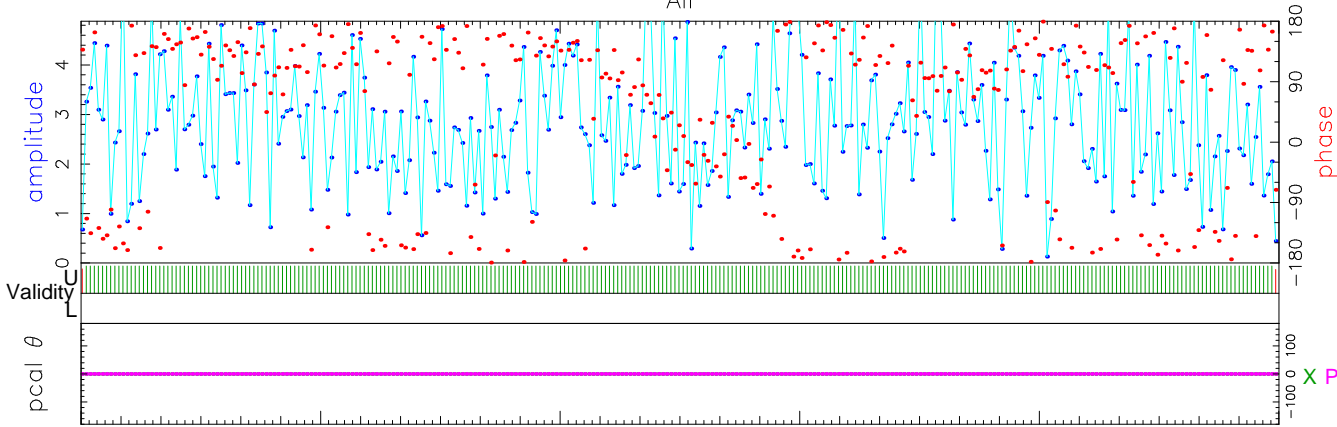


SNR 19.2  
 Int time 296.612  
 Amp 1.628  
 Phase 194.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001007  
 MBD -0.000002  
 Fringe rate (Hz)  
 0.003066  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163700  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All



86012.00  
 147.6  
 1.6  
 513.0  
 U/L 586/0  
 X 0  
 P 0  
 X:P 0:0  
 X:P 0:0  
 X 1000  
 P 1000  
 X W00UR  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.78518729866E+03	Apriori delay (usec)	-4.78518830789E+03	Resid mbdelay (usec)	-2.25754E-06	+/-	9.0E-04
Sband delay (usec)	-4.78518730089E+03	Apriori clock (usec)	2.5145716E+01	Resid sbdelay (usec)	1.00700E-03	+/-	9.0E-04
Phase delay (usec)	-4.78518830313E+03	Apriori clockrate (us/s)	1.0770000E-06	Resid phdelay (usec)	4.76127E-06	+/-	1.9E-07
Delay rate (us/s)	1.02212216165E-01	Apriori rate (us/s)	1.02212180568E-01	Resid rate (us/s)	3.55972E-08	+/-	1.1E-09
Total phase (deg)	-108.7	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	194.3	+/-	6.0

ph/seg (deg)	67.8	Theor.	51.2	Amplitude	1.628 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	110.1	Search (2048X8)	1.614	Search	1.614	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.062	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.1	Inc. frq. avg.	1.625	Inc. frq. avg.	1.625	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

X: az 247.6 el 32.5 pa 31.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator

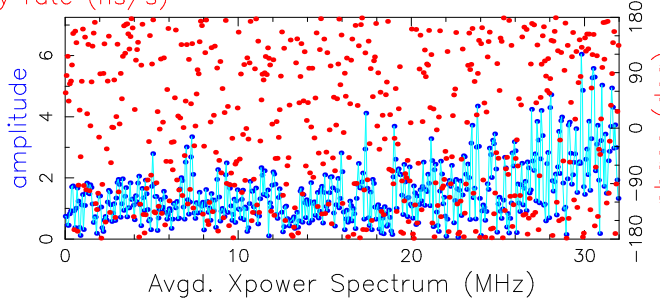
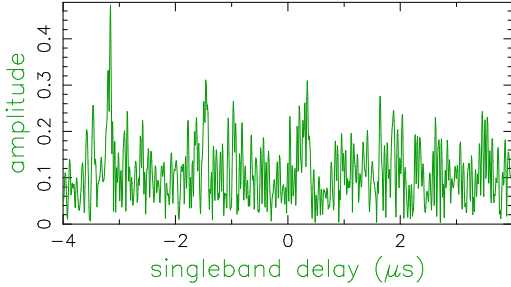
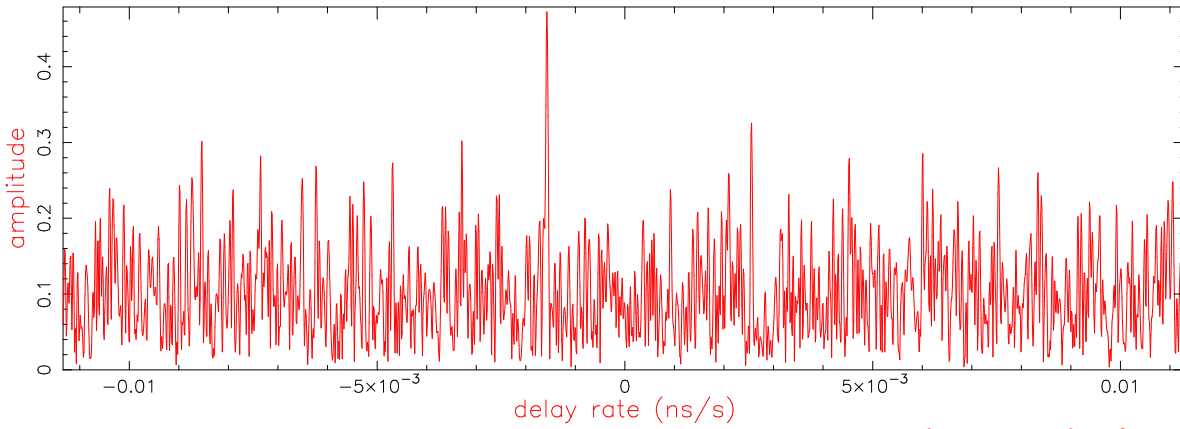
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XP.W.275.0QR0YU



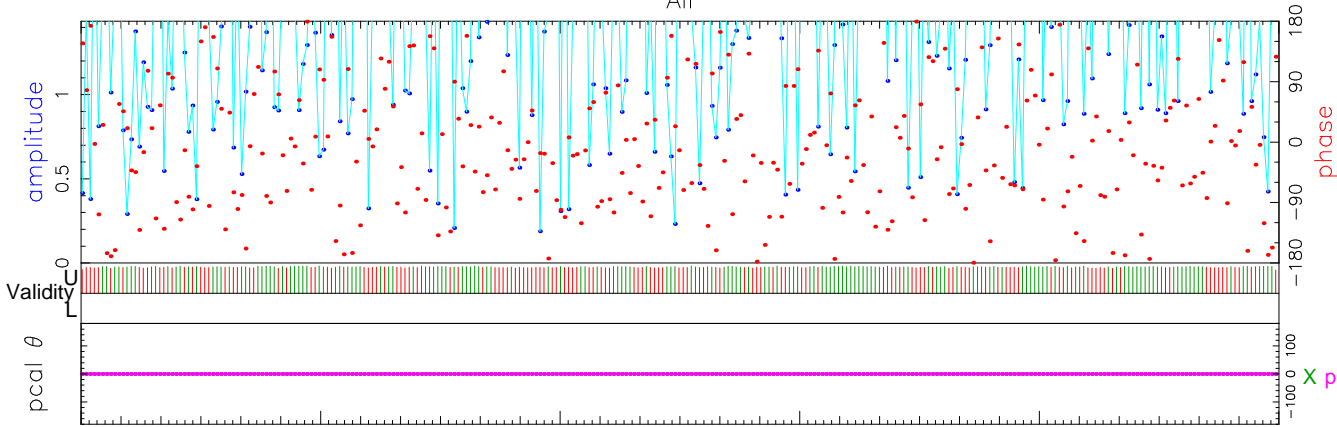
Fringe quality 0

SNR 5.5  
Int time 285.670  
Amp 0.479  
Phase -107.9  
PFD 9.9e-01  
Delays (us)  
SBD -3.157880  
MBD -0.000007  
Fringe rate (Hz)  
-0.135850  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-33.1  
0.5  
108.8  
U/L 586/0  
X 0  
p 3000  
X:p 0:0  
X:p 0:0  
X 1000  
p 1000  
X W00UR  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

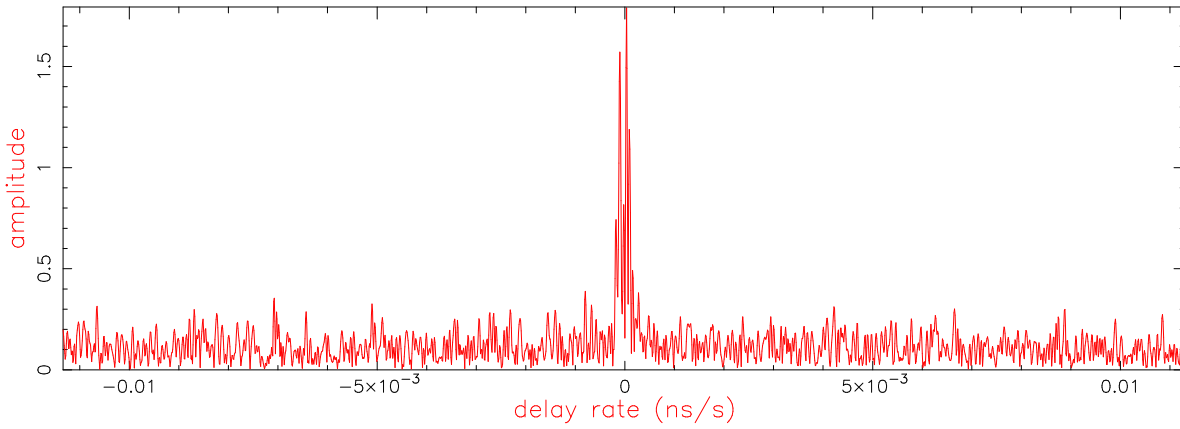
Group delay (usec)(sbd)	7.88182462146E+02	Apriori delay (usec)	7.91340342731E+02	Resid mbdelay (usec)	-7.26466E-06	+/-	3.1E-03
Sband delay (usec)	7.88182462731E+02	Apriori clock (usec)	-6.2368097E+00	Resid sbdelay (usec)	-3.15788E+00	+/-	3.1E-03
Phase delay (usec)	7.91340341663E+02	Apriori clockrate (us/s)	6.3499997E-07	Resid phdelay (usec)	-1.06723E-06	+/-	6.7E-07
Delay rate (us/s)	-1.77601393159E+00	Apriori rate (us/s)	-1.77601235451E+00	Resid rate (us/s)	-1.57708E-06	+/-	3.9E-09
Total phase (deg)	-63.7	Apriori accel (us/s/s)	4.56415516622E-06	Resid phase (deg)	-107.9	+/-	20.9

ph/seg (deg)	RMS 91.0	Theor. 178.7	Amplitude 0.479 +/- 0.087	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	334.2	311.8	Search (2048X8) 0.462	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -4.000 4.000
ph/frq (deg)	0.0	10.4	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.5	18.2	Inc. seg. avg. 0.302	Sample rate(MSamp/s): 64	mb window (us) -0.000 0.000
			Inc. frq. avg. 0.469	Data rate(Mb/s): 128	dr window (ns/s) -0.011 0.011
				nlags: 512	t_cohere infinite
					ion window (TEC) 0.00 0.00

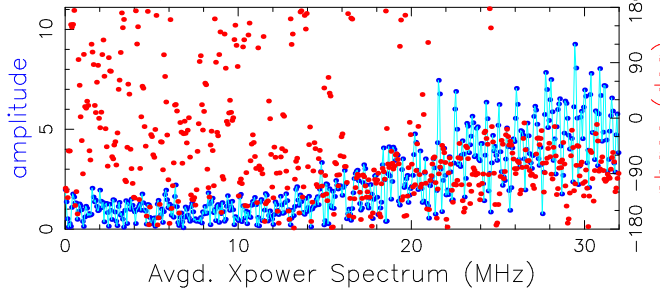
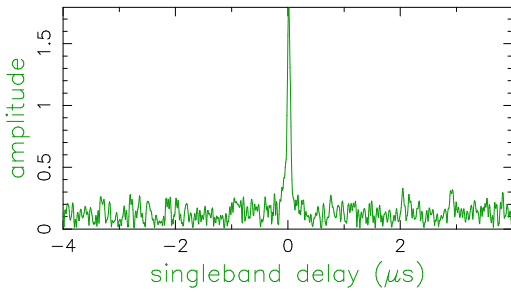
X: az 247.6 el 32.5 pa 31.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10599.694 2426.227 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Xp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Xp.W.283.0QR0YU

Fringe quality 9

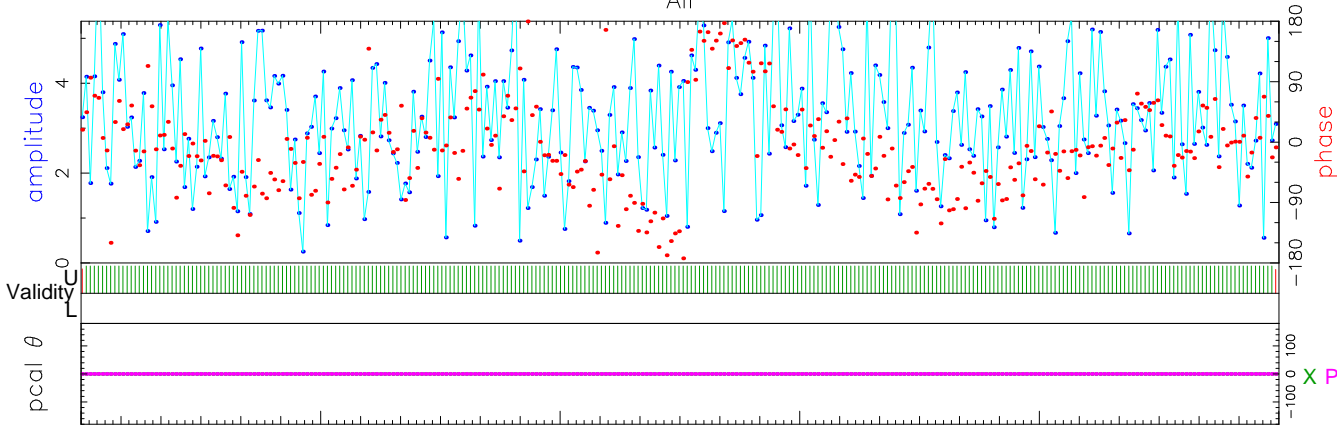


SNR 21.1  
 Int time 296.612  
 Amp 1.794  
 Phase 253.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.013605  
 MBD -0.000000  
 Fringe rate (Hz)  
 0.002992  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163701  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 -12.9  
 1.8  
 514.8  
 U/L 586/0  
 X 0  
 P 0  
 X:P 0:0  
 X:P 0:0  
 X 1000  
 P 1000  
 X W00UL  
 P W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.78517470548E+03	Apriori delay (usec)	-4.78518830789E+03	Resid mbdelay (usec)	-3.45343E-07	+/- 8.2E-04
Sband delay (usec)	-4.78517470289E+03	Apriori clock (usec)	2.5145716E+01	Resid sbdelay (usec)	1.36050E-02	+/- 8.2E-04
Phase delay (usec)	-4.78518830830E+03	Apriori clockrate (us/s)	1.0770000E-06	Resid phdelay (usec)	-4.17412E-07	+/- 1.7E-07
Delay rate (us/s)	1.02212215307E-01	Apriori rate (us/s)	1.02212180568E-01	Resid rate (us/s)	3.47392E-08	+/- 1.0E-09
Total phase (deg)	311.0	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	253.9	+/- 5.4

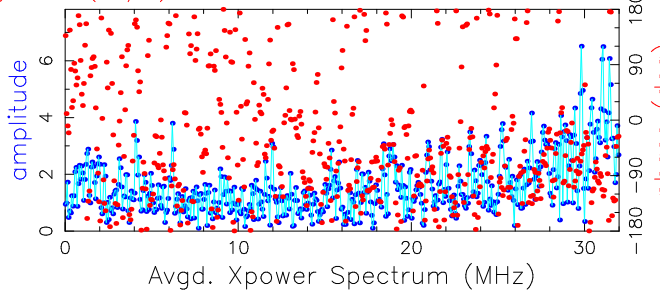
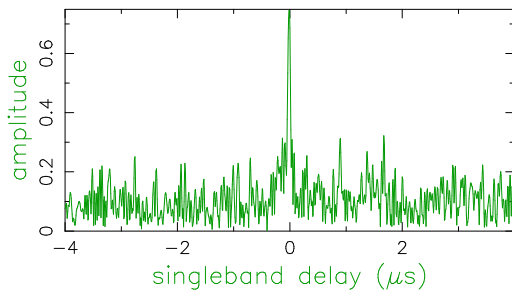
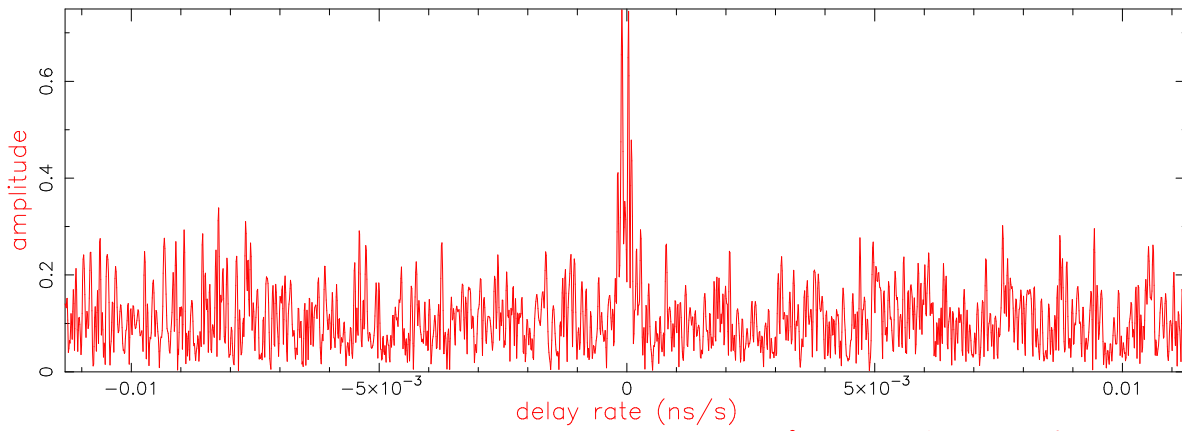
ph/seg (deg)	67.8	Theor.	46.4	Amplitude	1.794 +/- 0.085	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	113.0		81.0	Search (2048X8)	1.783	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		2.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3		4.7	Inc. seg. avg.	2.443	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	1.788	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

X: az 247.6 el 32.5 pa 31.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XP.W.285.0QR0YU

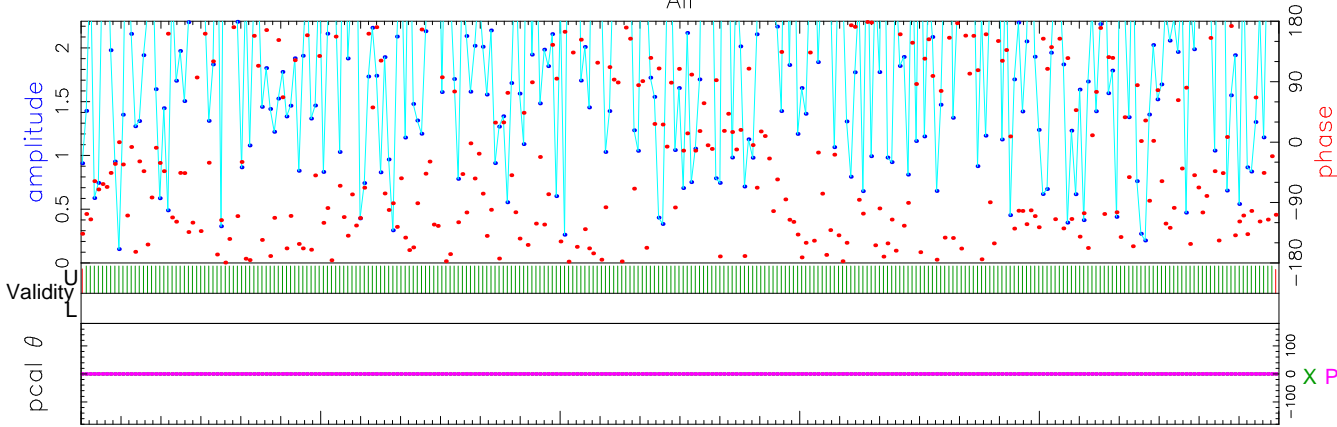
Fringe quality 9

SNR 8.8  
Int time 296.612  
Amp 0.749  
Phase -310.6  
PFD 2.1e-10  
Delays (us)  
SBD -0.011517  
MBD -0.000000  
Fringe rate (Hz)  
0.002968  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



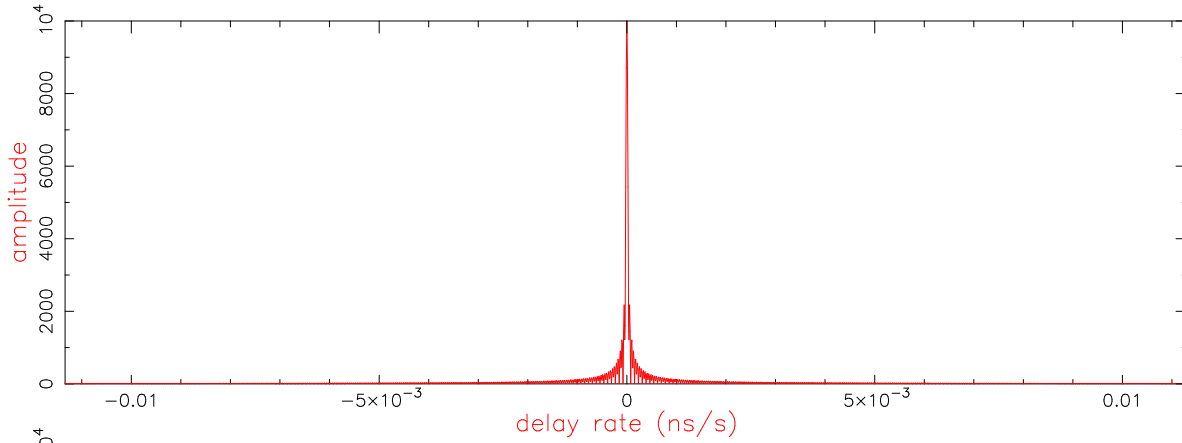
Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00									Freq (MHz)
-139.6									Phase
0.7									Ampl.
511.5									Sbd box
U/L 586/0									APs used
X 0									PC freqs
P 0									PC freqs
X:P 0:0									PC phase
X:P 0:0									Manl PC
X 1000									PC amp
P 1000									
X W00UR									Chan ids
P W00UL									Chan ids
Group delay (usec)(sbd)	-4.78519982968E+03	Apriori delay (usec)	-4.78518830789E+03	Resid mbdelay (usec)	-1.40534E-07	+/-	2.0E-03		
Sband delay (usec)	-4.78519982489E+03	Apriori clock (usec)	2.5145716E+01	Resid sbdelay (usec)	-1.15170E-02	+/-	2.0E-03		
Phase delay (usec)	-4.78518831239E+03	Apriori clockrate (us/s)	1.0770000E-06	Resid phdelay (usec)	-4.50280E-06	+/-	4.2E-07		
Delay rate (us/s)	1.02212215019E-01	Apriori rate (us/s)	1.02212180568E-01	Resid rate (us/s)	3.44515E-08	+/-	2.4E-09		
Total phase (deg)	-253.5	Apriori accel (us/s/s)	3.31456296864E-05	Resid phase (deg)	-310.6	+/-	13.0		

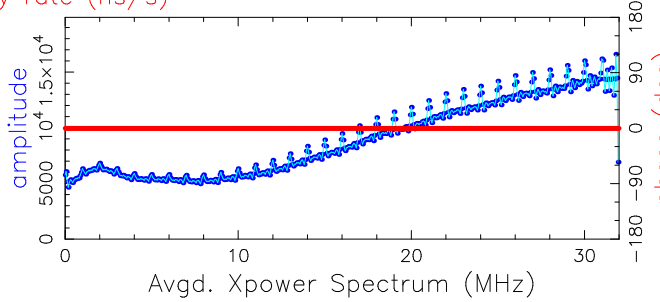
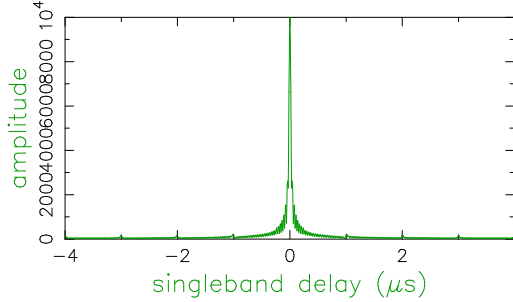
ph/seg (deg)	84.1	Theor.	111.2	Amplitude	0.749 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5					
amp/seg (%)	229.8	Search (2048X8)	0.745	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000				
ph/frq (deg)	0.0	Inc. seg. avg.	0.718	Inc. frq. avg.	0.740	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000		
amp/frq (%)	0.6	Inc. frq. avg.	0.740			Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011	0.011				
						Data rate (Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00	0.00

X: az 247.6 el 32.5 pa 31.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -566.705 2800.708 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XP.W.294.0QR0YU



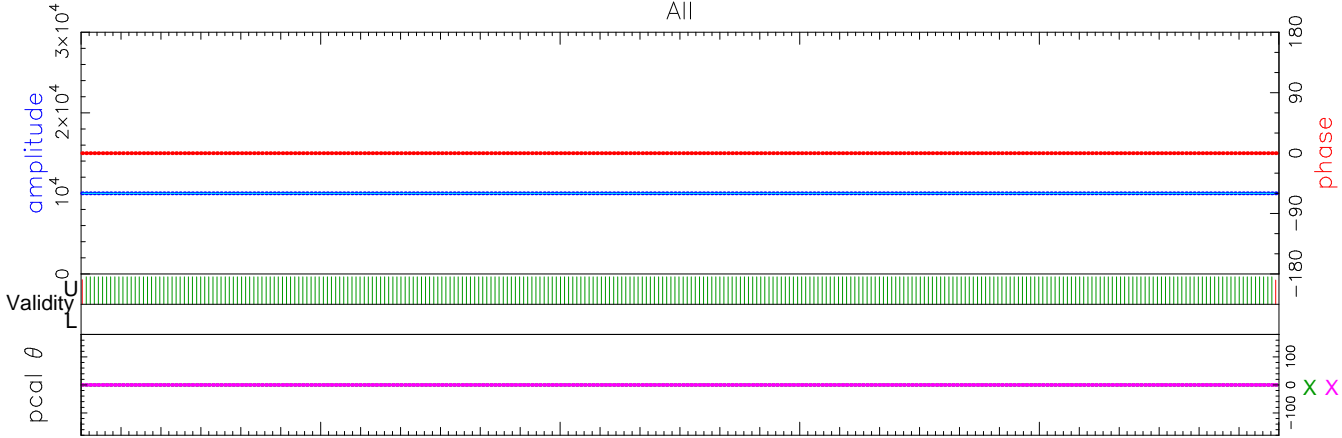
Fringe quality 9

SNR 118372.4  
 Int time 299.796  
 Amp 10000.000  
 Phase -0.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163657  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



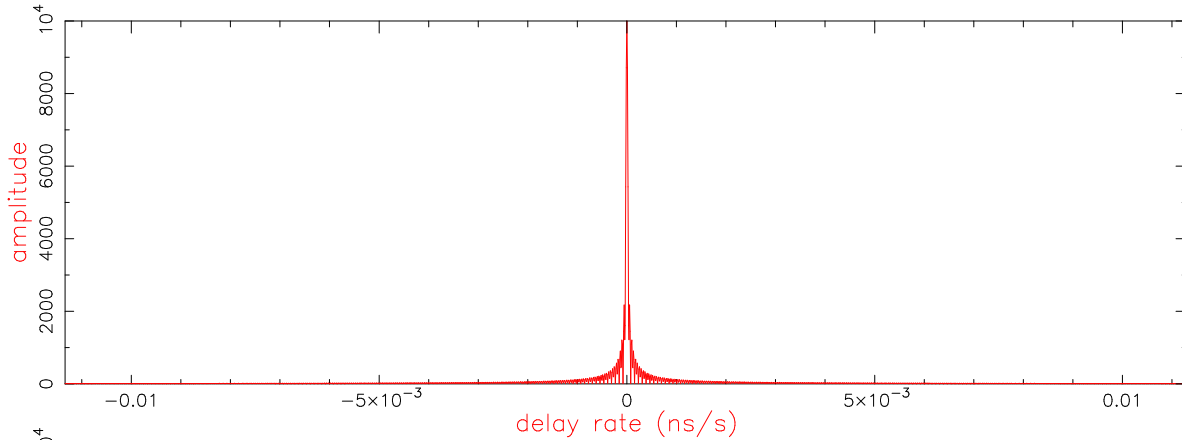
86012.00  
 -0.2  
 10000.0  
 513.0  
 U/L 586/0  
 X 0  
 X 0  
 X:X 0:0  
 X:X 0:0  
 X 1000  
 X 1000  
 X W00UL  
 X W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.37322699158E-06	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.37323E-06	+/-	1.5E-07
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.68610892799E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.68611E-09	+/-	3.1E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

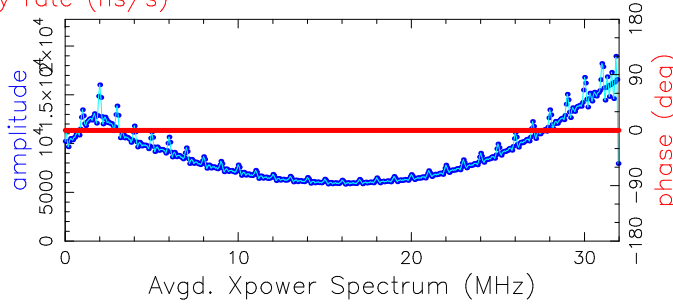
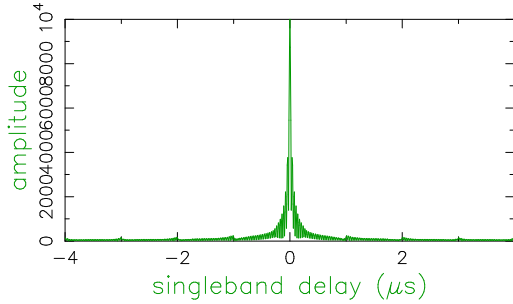
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	Search (2048X8)	10000.000	Search	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	Inc. frq. avg.	10000.000	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

X: az 247.6 el 32.5 pa 31.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XX.W.247.0QR0YU



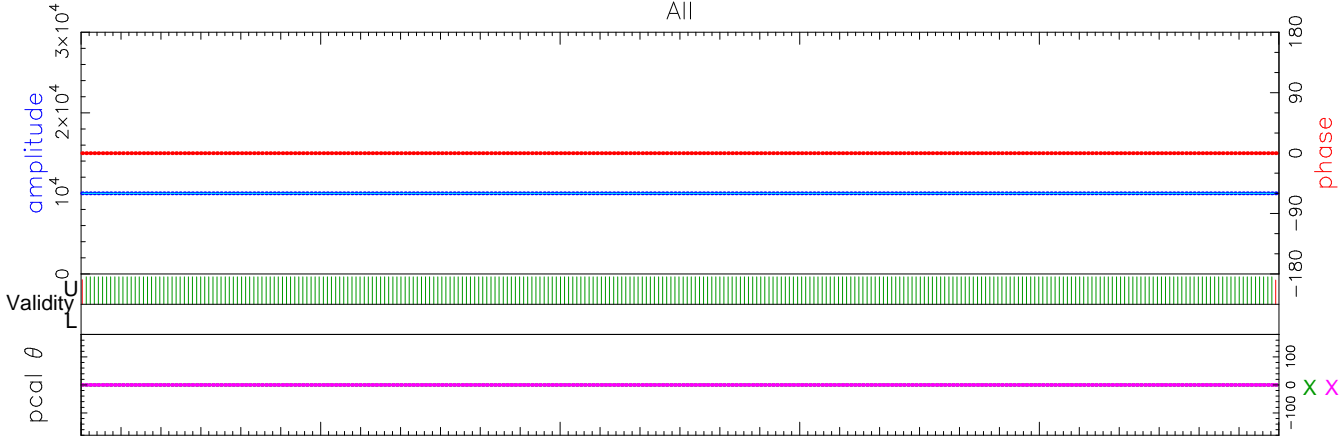
Fringe quality 9

SNR 118372.4  
 Int time 299.796  
 Amp 10000.000  
 Phase -0.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163658  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
 -0.2  
 10000.0  
 513.0  
 U/L 586/0  
 X 0  
 X 0  
 X:X 0:0  
 X:X 0:0  
 X 1000  
 X 1000  
 X W00UR  
 X W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-4.37322699158E-06	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.37323E-06	+/- 1.5E-07
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/- 1.5E-07
Phase delay (usec)	-5.68610892799E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.68611E-09	+/- 3.1E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/- 1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-0.2	+/- 0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.084	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	10000.000	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

X: az 247.6 el 32.5 pa 31.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

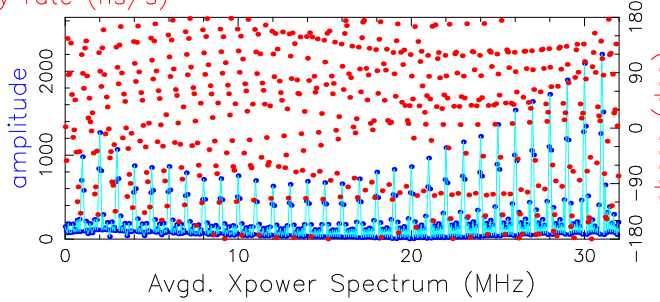
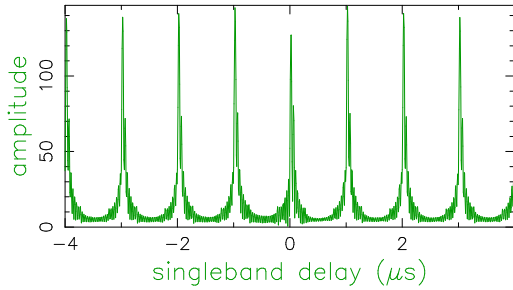
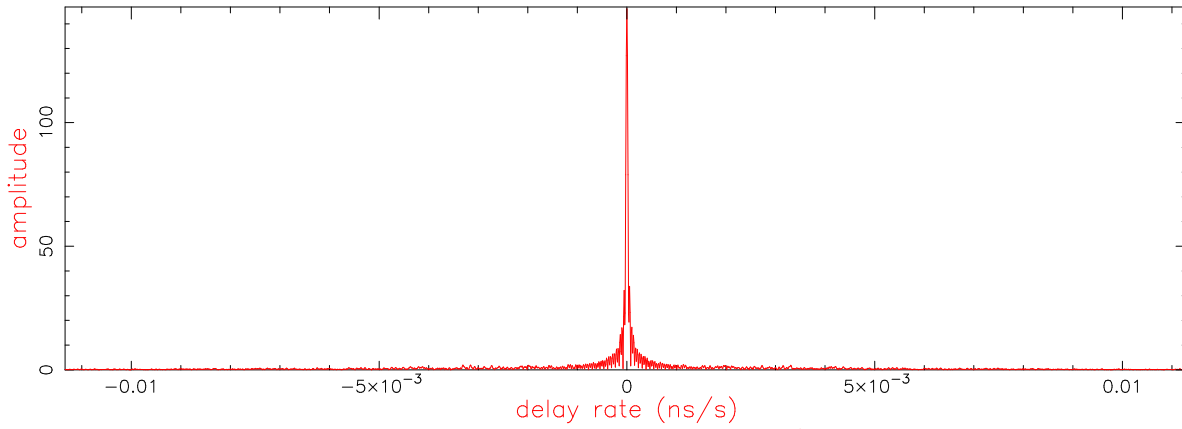
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XX.W.257.0QR0YU



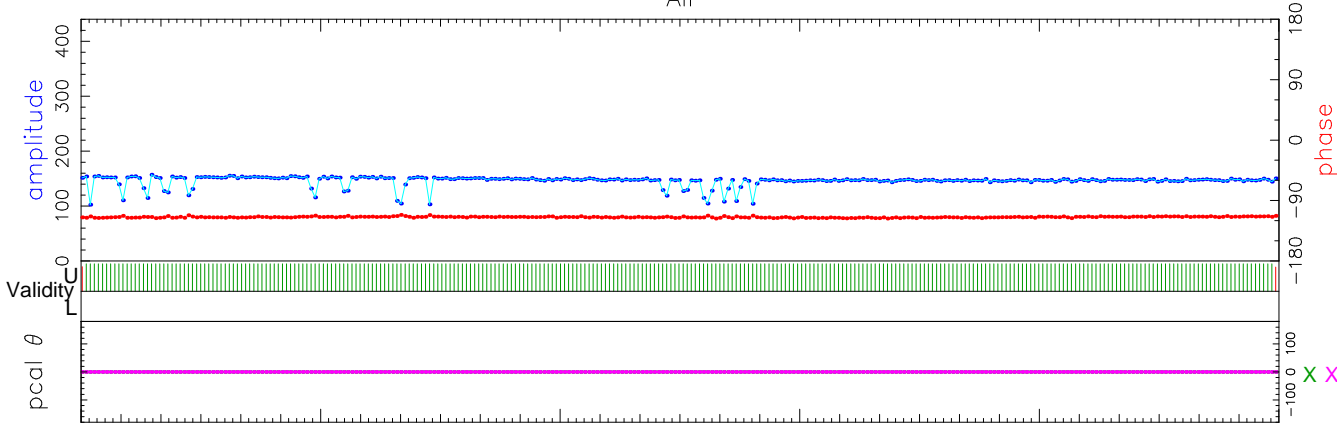
Fringe quality 9

SNR 1737.7  
Int time 299.796  
Amp 146.803  
Phase 318.8  
PFD 0.0e+00  
Delays (us)  
SBD 1.025032  
MBD -0.000005  
Fringe rate (Hz)  
-0.000088  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-114.6  
146.1  
644.2  
U/L 586/0  
X 0  
X 0  
X:X 0:0  
X:X 0:0  
X 1000  
X 1000  
X W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.02502645268E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.93829E-06	+/-	9.9E-06
Sband delay (usec)	1.02503200000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.02503E+00	+/-	9.9E-06
Phase delay (usec)	-3.69666930369E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.69667E-06	+/-	2.1E-09
Delay rate (us/s)	-1.02457431792E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.02457E-09	+/-	1.2E-11
Total phase (deg)	318.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	318.8	+/-	0.1

ph/seg (deg)	0.9	Theor.	0.6	Amplitude	146.803 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	6.5		1.0	Search (2048X8)	145.955	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.5		0.1	Inc. seg. avg.	146.124	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	146.115	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

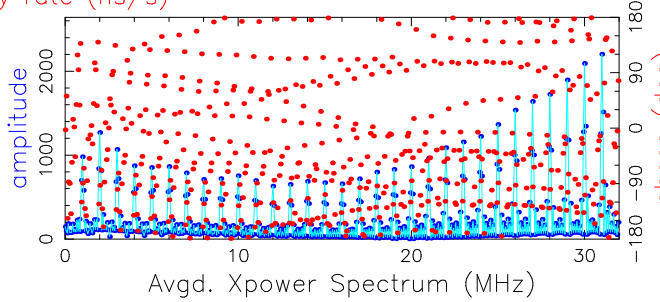
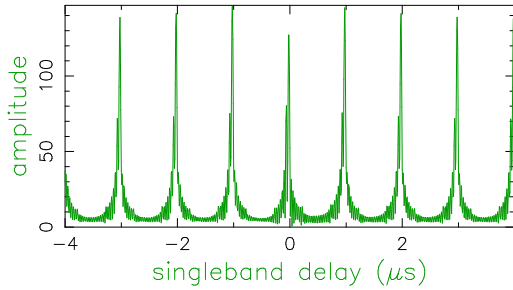
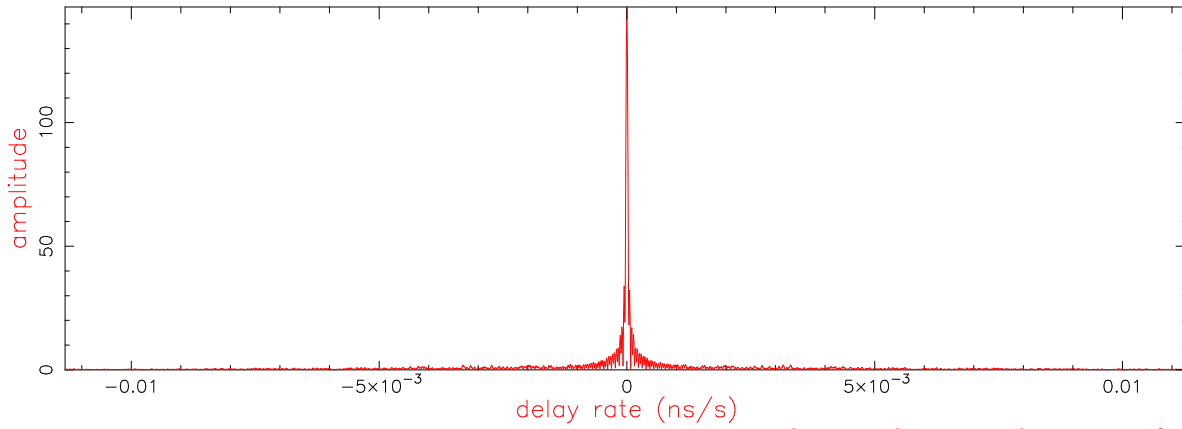
X: az 247.6 el 32.5 pa 31.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XX.W.295.0QR0YU

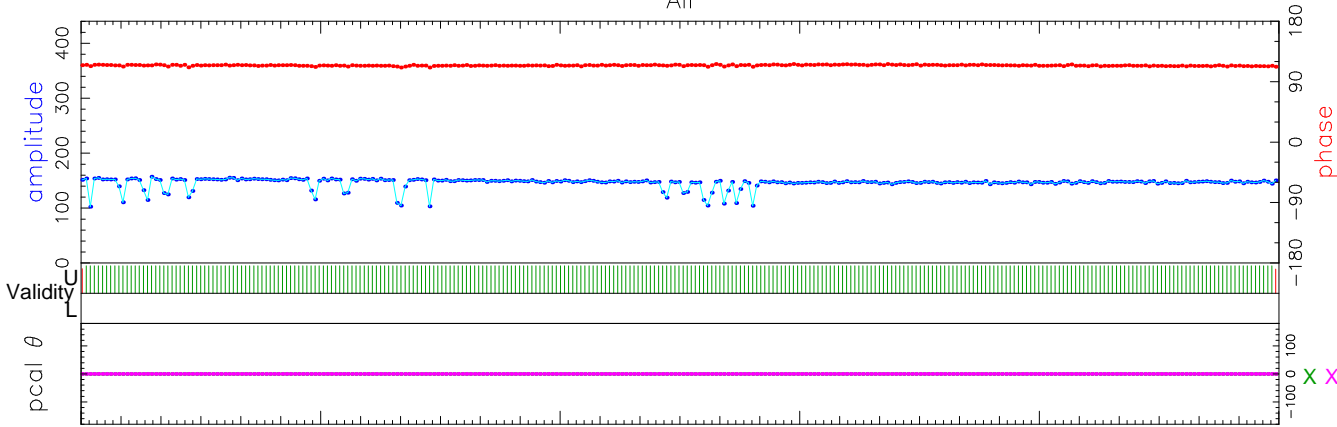
Fringe quality 9

SNR 1737.7  
Int time 299.796  
Amp 146.803  
Phase -318.8  
PFD 0.0e+00  
Delays (us)  
SBD -1.025032  
MBD -0.000007  
Fringe rate (Hz)  
0.000088  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
114.1  
146.1  
381.8  
U/L 586/0  
X 0  
X 0  
X:X 0:0  
X:X 0:0  
X 1000  
X 1000  
X W00UR  
X W00UL

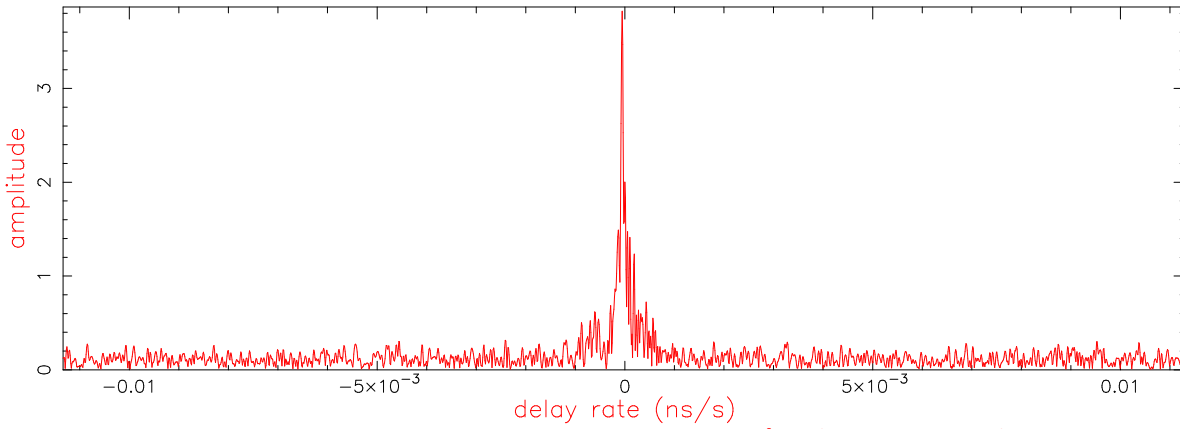
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.02502701660E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-7.25192E-06	+/-	9.9E-06
Sband delay (usec)	-1.02503200000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.02503E+00	+/-	9.9E-06
Phase delay (usec)	3.68081948855E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.68082E-06	+/-	2.1E-09
Delay rate (us/s)	1.02457431792E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.02457E-09	+/-	1.2E-11
Total phase (deg)	-318.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-318.8	+/-	0.1

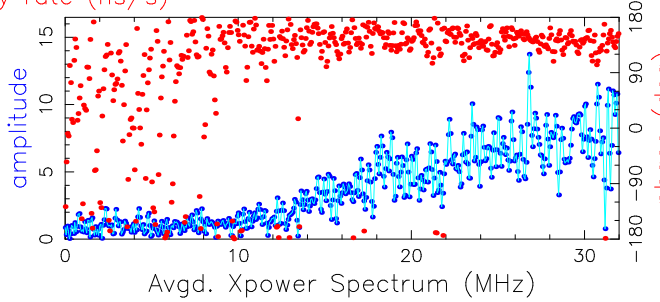
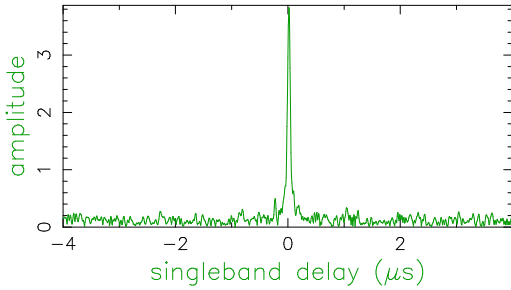
ph/seg (deg)	0.9	Theor.	0.6	Amplitude	146.803 +/- 0.084	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	6.5		1.0	Search (2048X8)	145.955	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.0	Inc. seg. avg.	146.124	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5		0.1	Inc. frq. avg.	146.115	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

X: az 247.6 el 32.5 pa 31.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XX.W.304.0QR0YU

Fringe quality 9



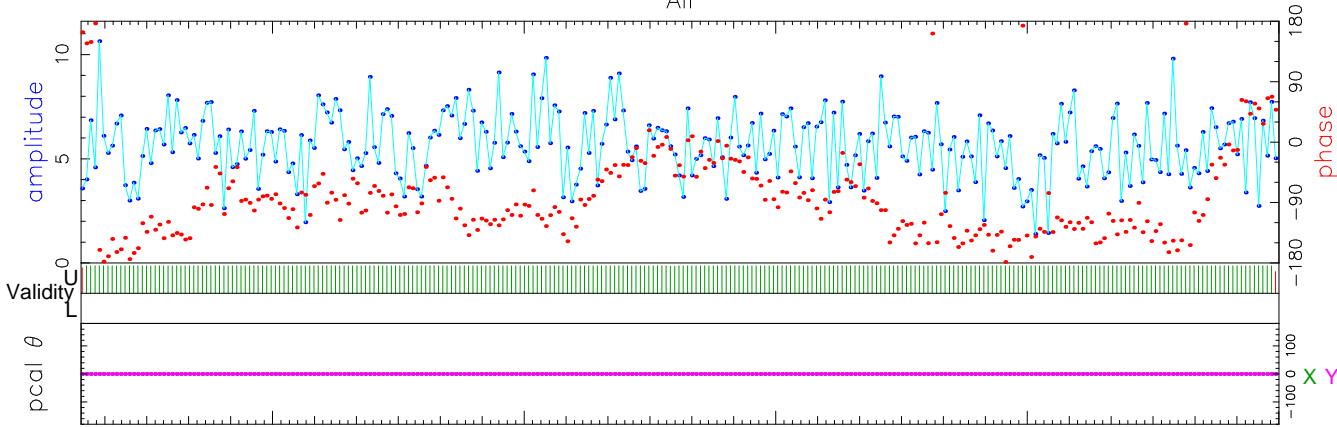
SNR 44.7  
 Int time 285.318  
 Amp 3.869  
 Phase 84.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.019527  
 MBD -0.000006  
 Fringe rate (Hz)  
 -0.004686  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125514.34  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163658  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -95.1  
 3.8  
 515.5  
 U/L 558/0  
 X 0  
 Y 0  
 X:Y 0:0  
 X:Y 0:0  
 X 1000  
 Y 1000  
 X W00UL  
 Y W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

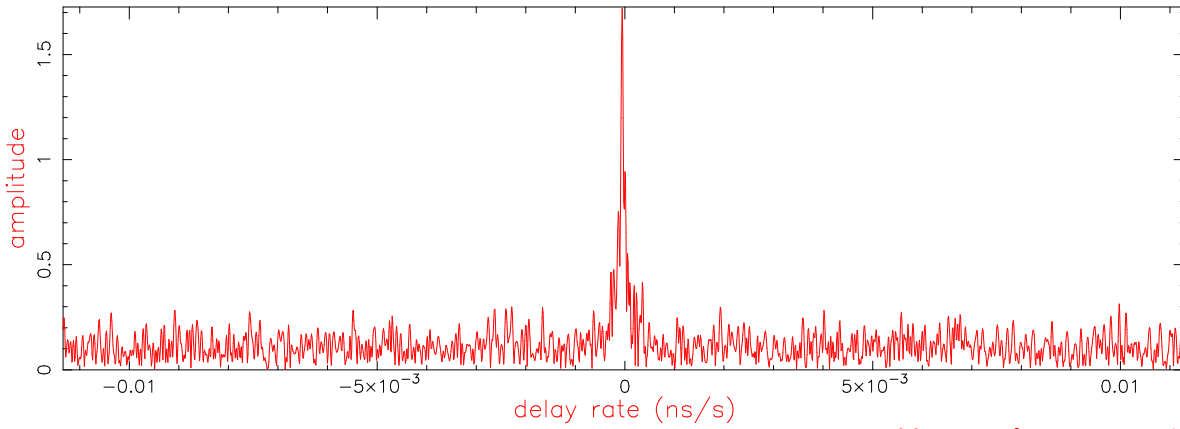
Group delay (usec)(sbd)	-4.42162128094E+03	Apriori delay (usec)	-4.42164080740E+03	Resid mbdelay (usec)	-5.69967E-06	+/-	3.9E-04
Sband delay (usec)	-4.42162128040E+03	Apriori clock (usec)	1.8047026E+01	Resid sbdelay (usec)	1.95270E-02	+/-	3.9E-04
Phase delay (usec)	-4.42164081047E+03	Apriori clockrate (us/s)	5.8699996E-07	Resid phdelay (usec)	-3.06677E-06	+/-	8.3E-08
Delay rate (us/s)	7.06486386474E-02	Apriori rate (us/s)	7.06486930427E-02	Resid rate (us/s)	-5.43953E-08	+/-	5.0E-10
Total phase (deg)	31.1	Apriori accel (us/s/s)	2.96955604669E-05	Resid phase (deg)	84.9	+/-	2.6

ph/seg (deg)	52.3	Theor.	21.4	Amplitude	3.869 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	61.6	Search (2048X8)	3.819	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	5.295	Inc. frq. avg.	3.823	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.2	Inc. frq. avg.	3.823	u, v (fr/asec)	-383.023 2322.219	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate (Mb/s):	128	ion window (TEC)	0.00 0.00

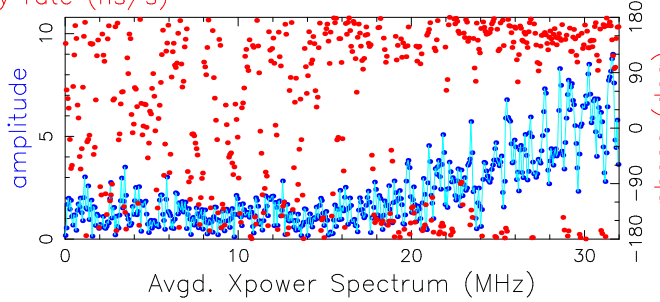
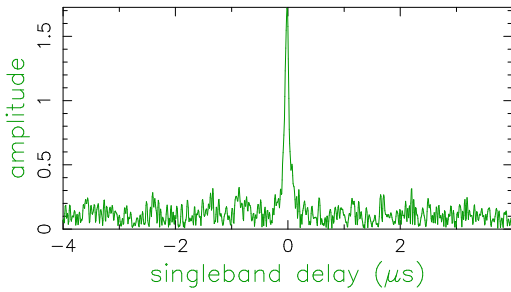
simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XY.W.259.0QR0YU

Fringe quality 9

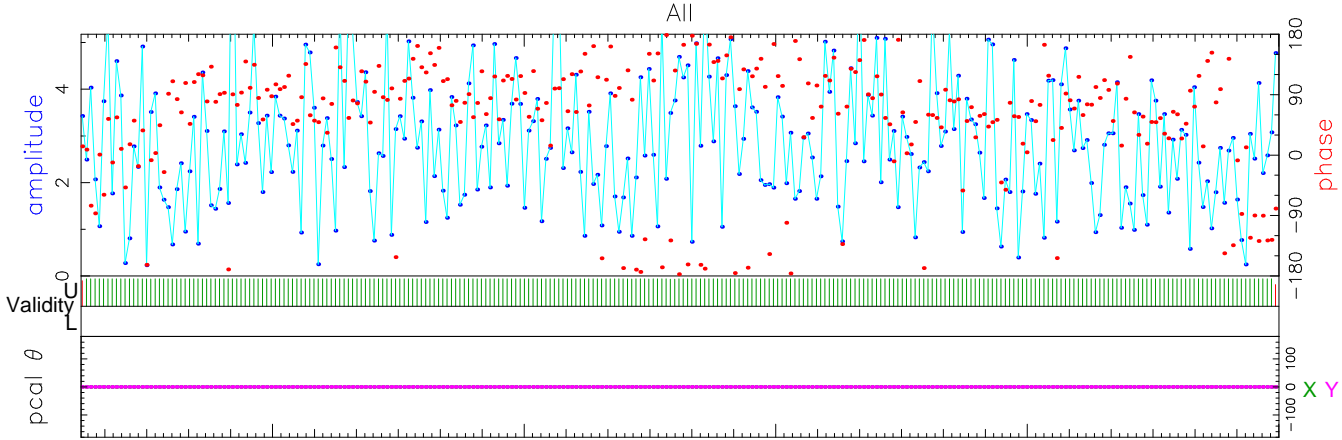


SNR 19.9  
Int time 285.318  
Amp 1.726  
Phase -119.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.012477  
MBD -0.000007  
Fringe rate (Hz)  
-0.004878  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00  
95.9  
1.7  
511.4  
U/L 558/0  
X 0  
Y 0  
X:Y 0:0  
X:Y 0:0  
X 1000  
Y 1000  
X W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.42165328909E+03	Apriori delay (usec)	-4.42164080740E+03	Resid mbdelay (usec)	-6.68474E-06	+/-	8.6E-04
Sband delay (usec)	-4.42165328390E+03	Apriori clock (usec)	1.8047026E+01	Resid sbdelay (usec)	-1.24765E-02	+/-	8.6E-04
Phase delay (usec)	-4.42164080431E+03	Apriori clockrate (us/s)	5.8699996E-07	Resid phdelay (usec)	3.09186E-06	+/-	1.9E-07
Delay rate (us/s)	7.06486364140E-02	Apriori rate (us/s)	7.06486930427E-02	Resid rate (us/s)	-5.66286E-08	+/-	1.1E-09
Total phase (deg)	-172.8	Apriori accel (us/s/s)	2.96955604669E-05	Resid phase (deg)	-119.0	+/-	5.7

ph/seg (deg)	63.7	Theor.	48.0	Amplitude	1.726 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	105.7	Search (2048X8)	1.717	Search	1.717	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	2.136	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	0.4	Inc. frq. avg.	1.717	Inc. frq. avg.	1.717	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
						Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

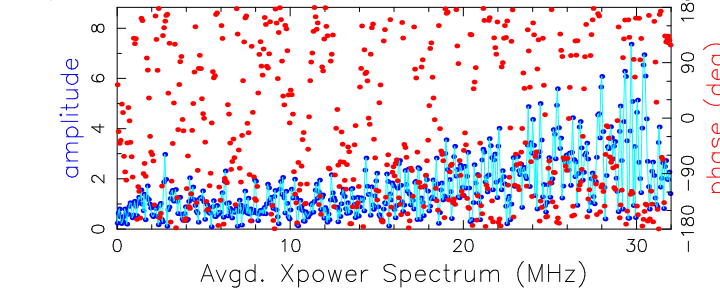
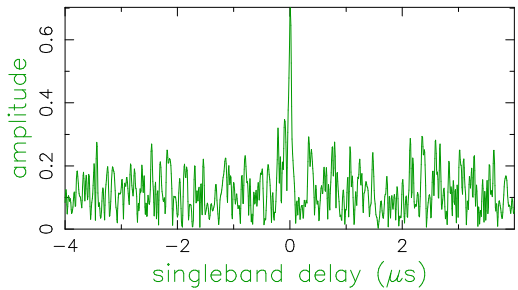
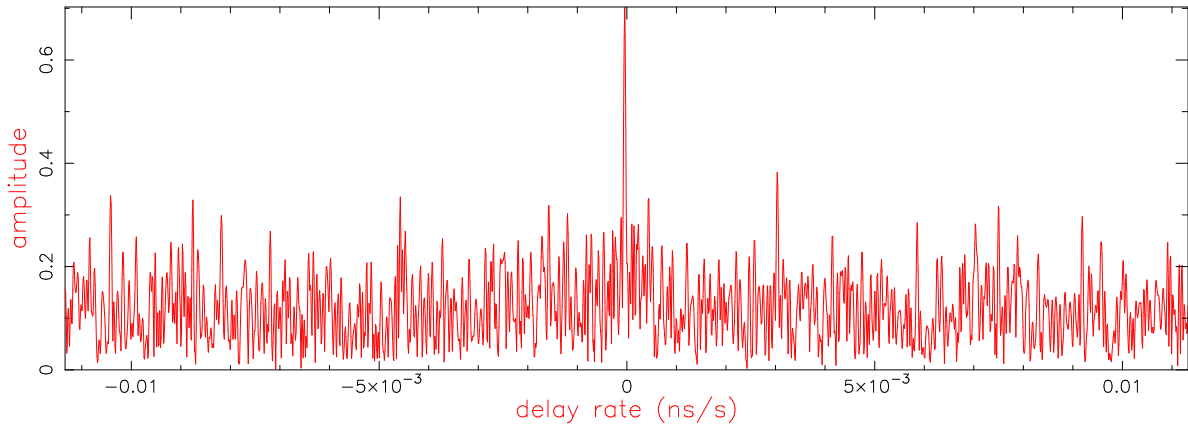
X: az 247.6 el 32.5 pa 31.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -383.023 2322.219 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XY.W.269.0QR0YU

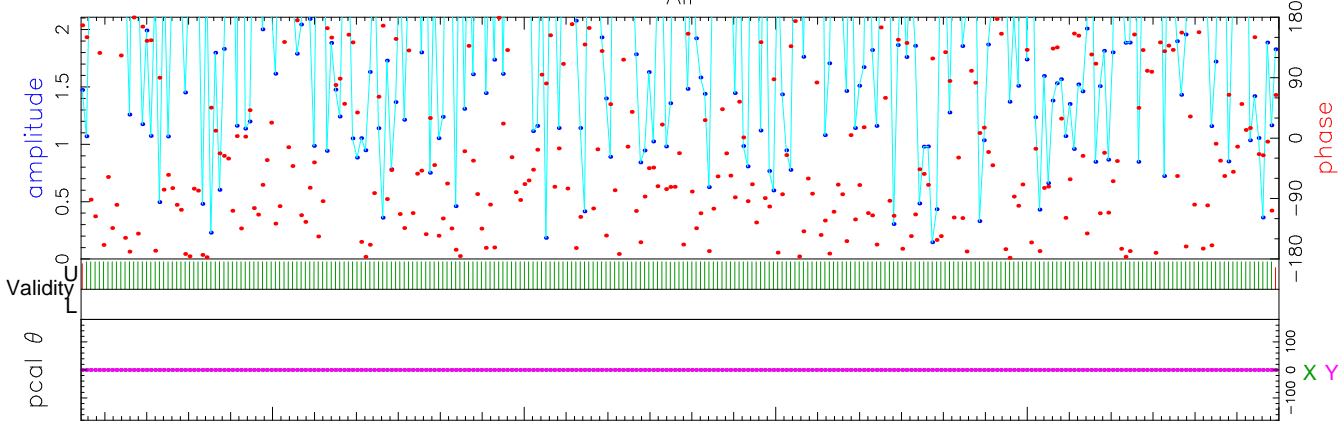
Fringe quality 9

SNR 8.1  
Int time 285.318  
Amp 0.703  
Phase 186.4  
PFD 8.4e-08  
Delays (us)  
SBD 0.006555  
MBD -0.000006  
Fringe rate (Hz)  
-0.004068  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-115.8 Phase  
0.7 Ampl.  
513.8 Sbd box  
U/L 558/0 APs used  
X 0 PC freqs  
Y 0 PC freqs  
X:Y 0:0 PC phase  
X:Y 0:0 Manl PC  
X 1000 PC amp  
Y 1000  
X W00UL Chan ids  
Y W00UR Chan ids

Group delay (usec)(sbd)	-4.42163425656E+03	Apriori delay (usec)	-4.42164080740E+03	Resid mbdelay (usec)	-6.38395E-06	+/-	2.1E-03
Sband delay (usec)	-4.42163425240E+03	Apriori clock (usec)	1.8047026E+01	Resid sbdelay (usec)	6.55500E-03	+/-	2.1E-03
Phase delay (usec)	-4.42164081114E+03	Apriori clockrate (us/s)	5.8699996E-07	Resid phdelay (usec)	-3.73313E-06	+/-	4.6E-07
Delay rate (us/s)	7.06486458166E-02	Apriori rate (us/s)	7.06486930427E-02	Resid rate (us/s)	-4.72261E-08	+/-	2.8E-09
Total phase (deg)	132.5	Apriori accel (us/s/s)	2.96955604669E-05	Resid phase (deg)	186.4	+/-	14.1

ph/seg (deg)	84.9	Theor.	117.9	Amplitude	0.703 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	266.9	Search (2048X8)	0.698	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.707	Inc. seg. avg.	0.707	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.2	Inc. frq. avg.	0.696	Inc. frq. avg.	0.696	Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000

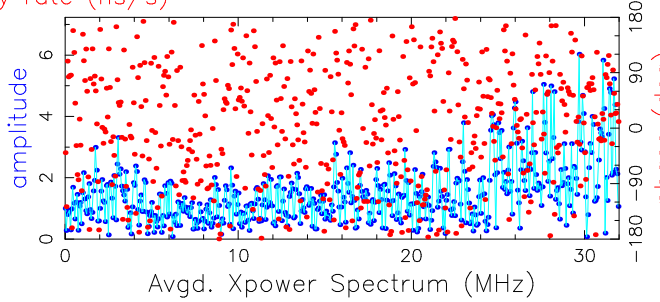
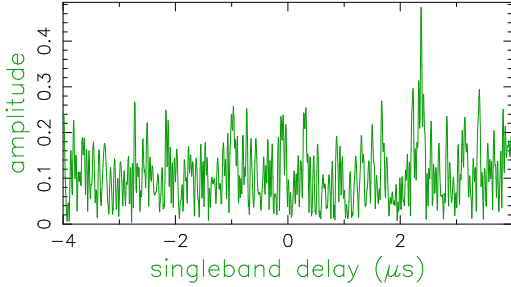
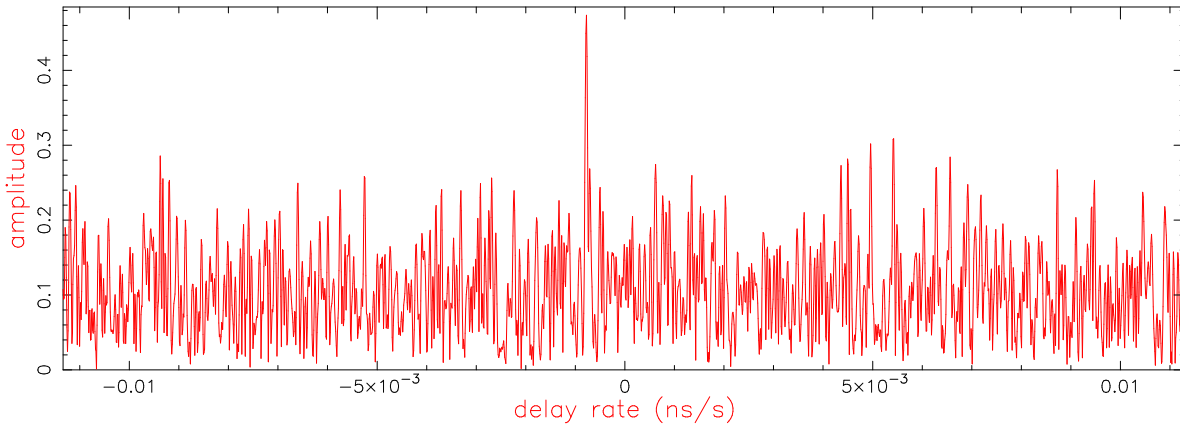
X: az 247.6 el 32.5 pa 31.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -383.023 2322.219 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XY.W.279.0QR0YU



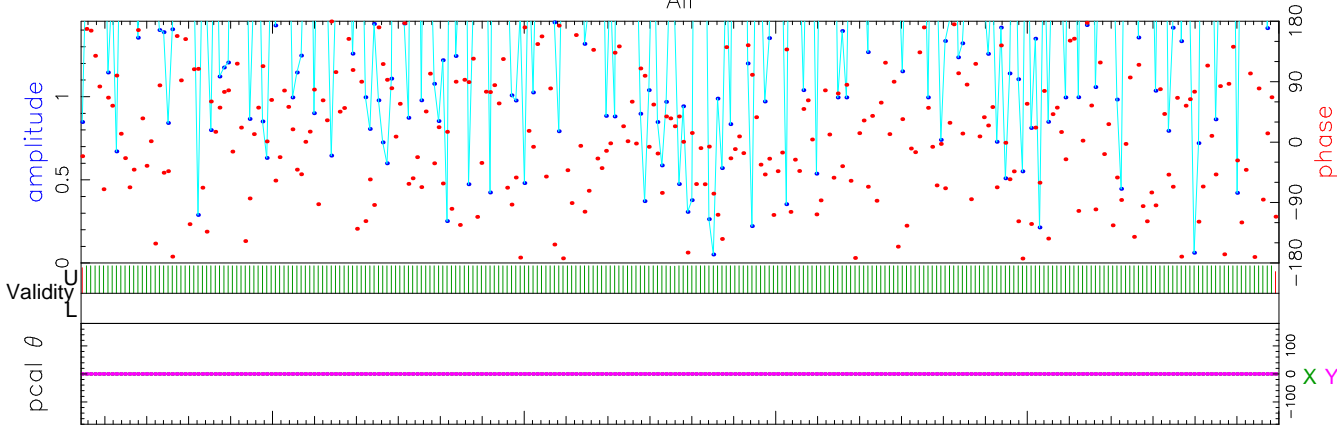
Fringe quality 0

SNR 5.6  
Int time 285.318  
Amp 0.485  
Phase 159.9  
PFD 9.4e-01  
Delays (us)  
SBD 2.370333  
MBD -0.000006  
Fringe rate (Hz)  
-0.066608  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
14.5  
0.5  
816.4  
U/L 558/0  
X 0  
Y 0  
X:Y 0:0  
X:Y 0:0  
X 1000  
Y 1000  
X W00UR  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.41927046968E+03	Apriori delay (usec)	-4.42164080740E+03	Resid mbdelay (usec)	-5.95377E-06	+/-	3.1E-03
Sband delay (usec)	-4.41927047390E+03	Apriori clock (usec)	1.8047026E+01	Resid sbdelay (usec)	2.37033E+00	+/-	3.1E-03
Phase delay (usec)	-4.42164080694E+03	Apriori clockrate (us/s)	5.8699996E-07	Resid phdelay (usec)	4.66897E-07	+/-	6.6E-07
Delay rate (us/s)	7.06479197909E-02	Apriori rate (us/s)	7.06486930427E-02	Resid rate (us/s)	-7.73252E-07	+/-	4.0E-09
Total phase (deg)	106.0	Apriori accel (us/s/s)	2.96955604669E-05	Resid phase (deg)	159.9	+/-	20.5

ph/seg (deg)	88.7	Theor.	171.3	Amplitude	0.485 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	349.9	Search (2048X8)	0.472	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.342	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	2.1	Inc. frq. avg.	0.467	Inc. frq. avg.	0.467	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

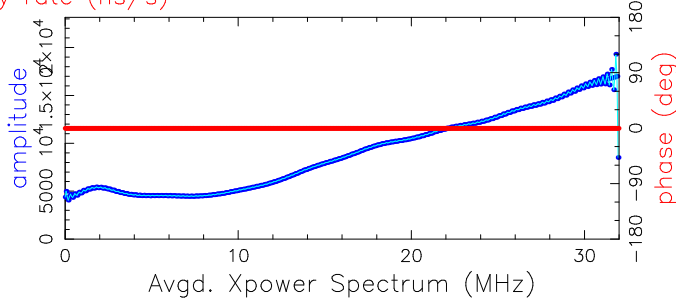
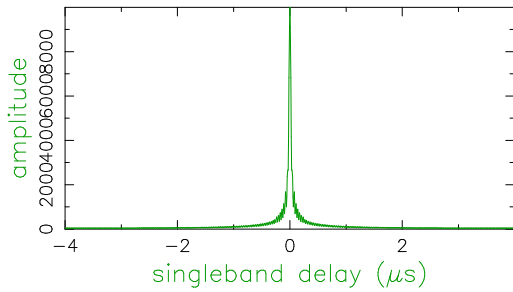
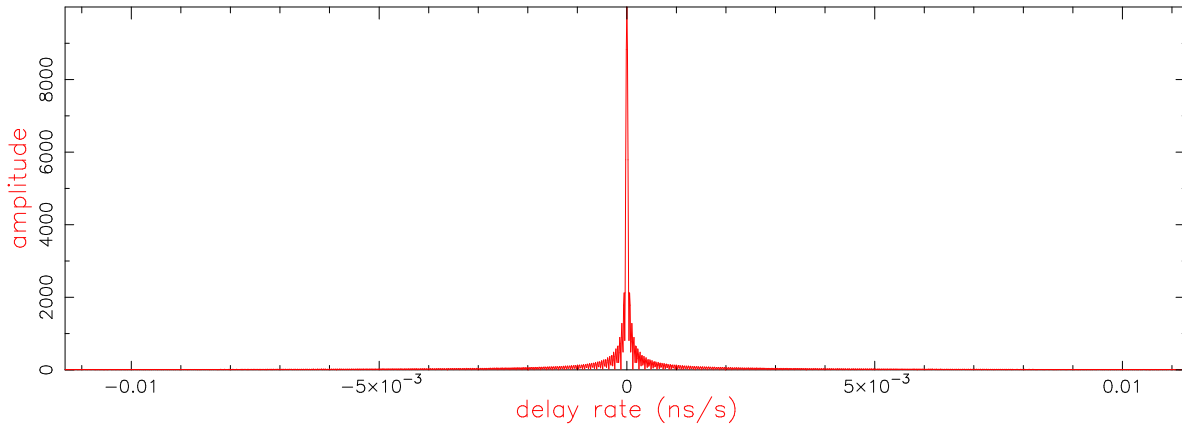
X: az 247.6 el 32.5 pa 31.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -383.023 2322.219 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//XY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//XY.W.289.0QR0YU

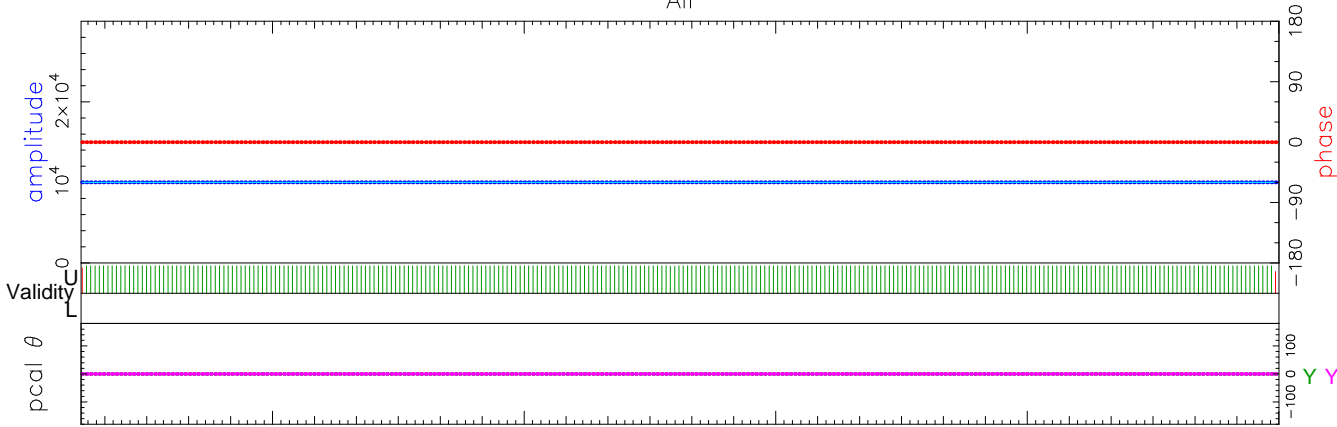
Fringe quality 9

SNR 115479.5  
Int time 285.322  
Amp 9999.999  
Phase 0.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000007  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-0.3 Phase  
10000.0 Ampl.  
513.0 Sbd box  
U/L 558/0 APs used  
Y 0 PC freqs  
Y 0 PC freqs  
Y:Y 0:0 PC phase  
Y:Y 0:0 Mani PC  
Y 1000 PC amp  
Y 1000  
Y W00UL Chan ids  
Y W00UL Chan ids

Group delay (usec)(sbd) 5.10533413942E-06 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) -6.52095E-06 +/- 1.5E-07  
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-07  
Phase delay (usec) -8.47859836643E-09 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -8.47860E-09 +/- 3.2E-11  
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.9E-13  
Total phase (deg) 0.3 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.3 +/- 0.0

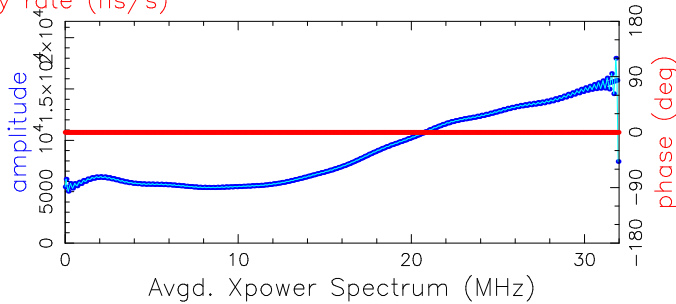
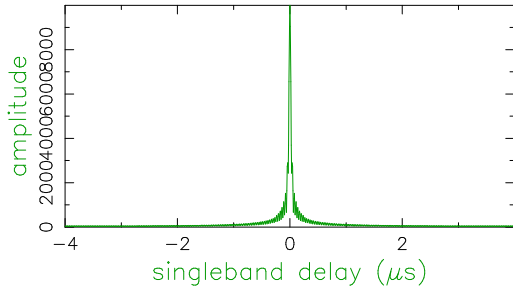
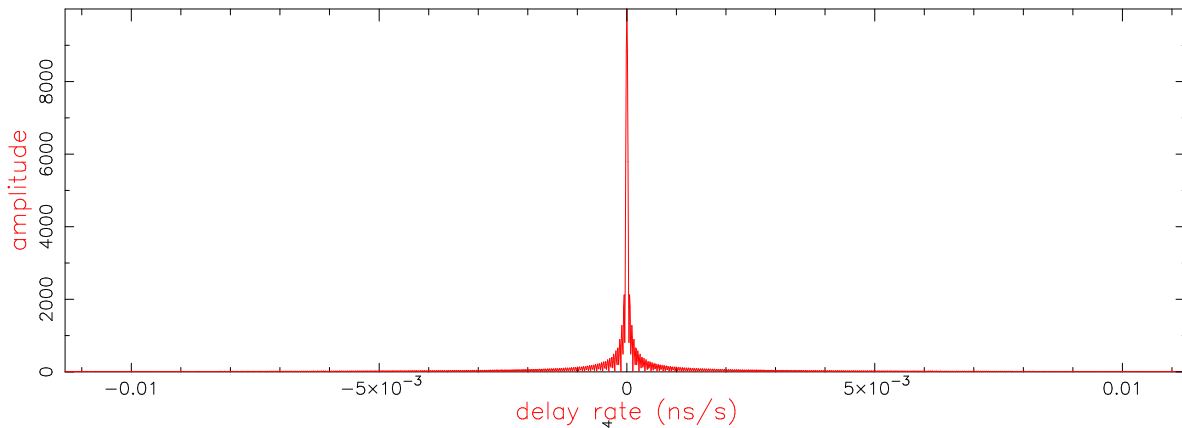
RMS Theor. Amplitude 9999.999 +/- 0.087 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
ph/seg (deg) 0.0 0.0 Search (2048X8) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -4.000 4.000  
amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.000 0.000  
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011  
amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 128 nlags: 512 t\_cohere infinite ion window (TEC) 0.00 0.00

Y: az 246.0 el 48.3 pa 46.5 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//YY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//YY.W.268.0QR0YU

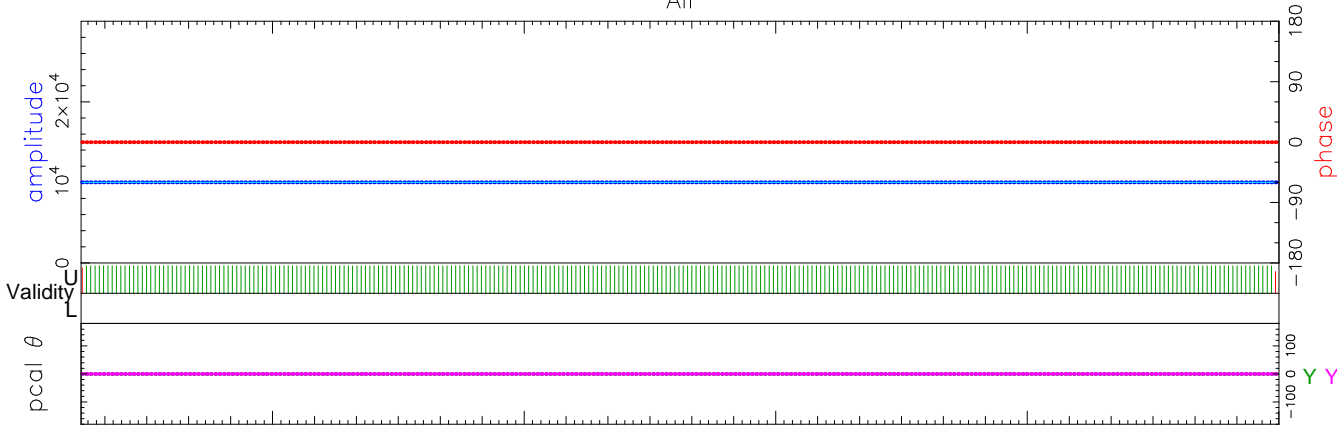
Fringe quality 9

SNR 115479.5  
Int time 285.322  
Amp 9999.999  
Phase -0.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD -0.000004  
Fringe rate (Hz)  
0.000000  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



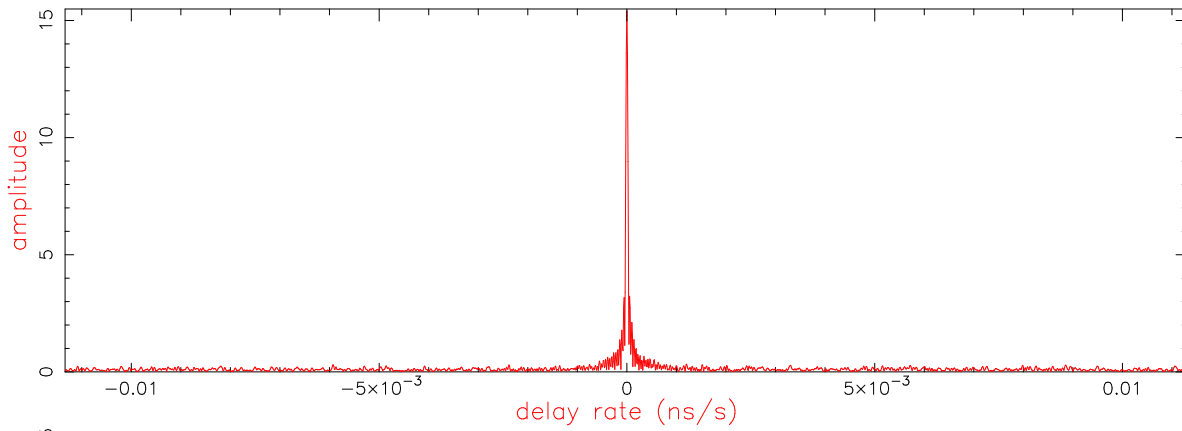
86012.00  
-0.2  
10000.0  
513.0  
U/L 558/0  
Y 0  
Y 0  
Y:Y 0:0  
Y:Y 0:0  
Y 1000  
Y 1000  
Y W00UR  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.37392456866E-06	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.37392E-06	+/-	1.5E-07
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.68701592397E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.68702E-09	+/-	3.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.9E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0		0.0	Search (2048X8)	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	9999.999	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

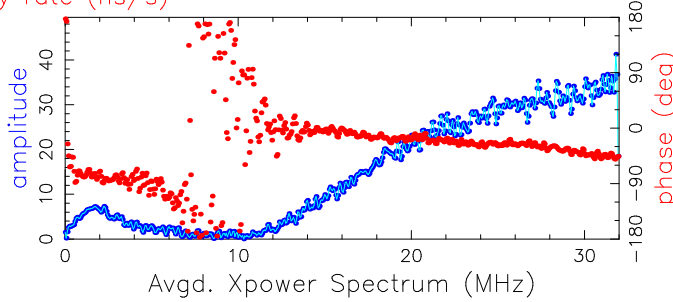
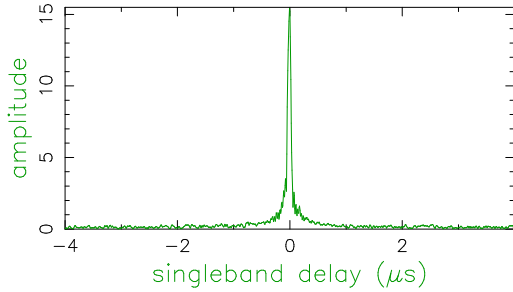
Y: az 246.0 el 48.3 pa 46.5      Y: az 246.0 el 48.3 pa 46.5      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//YY..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//YY.W.278.0QR0YU



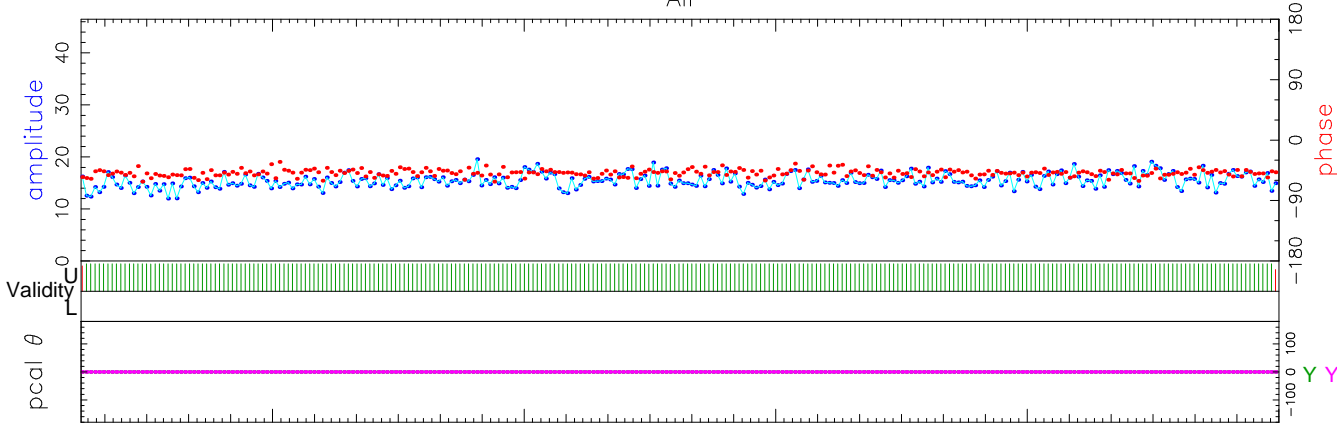
Fringe quality 9

SNR 178.9  
Int time 285.322  
Amp 15.494  
Phase -276.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.004949  
MBD -0.000005  
Fringe rate (Hz)  
0.000031  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



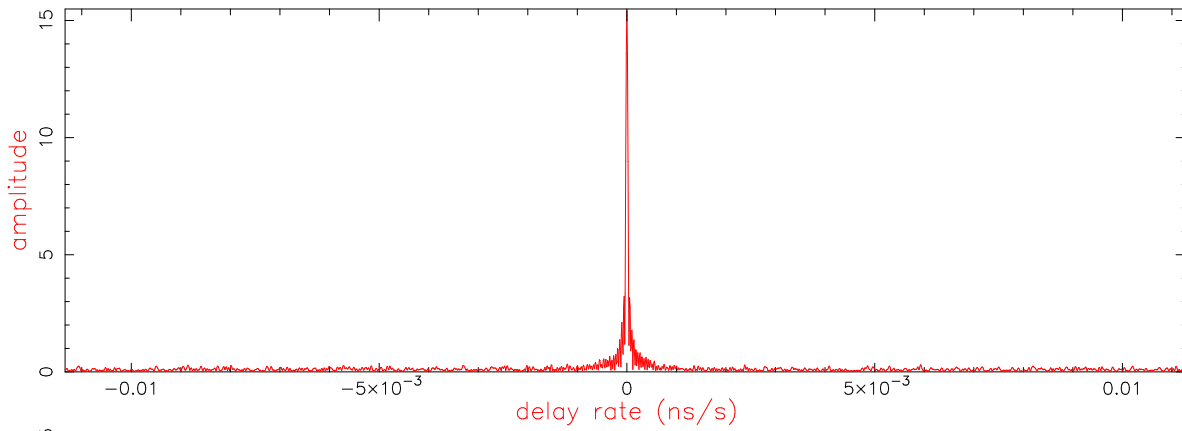
86012.00  
-48.9  
15.4  
512.3  
U/L 558/0  
Y 0  
Y 0  
Y:Y 0:0  
Y:Y 0:0  
Y 1000  
Y 1000  
Y W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-4.94633130261E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.16030E-06	+/-	9.6E-05
Sband delay (usec)	-4.94850000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-4.94850E-03	+/-	9.6E-05
Phase delay (usec)	-1.57774825525E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.57775E-06	+/-	2.1E-08
Delay rate (us/s)	3.63490058847E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.63490E-10	+/-	1.3E-10
Total phase (deg)	-276.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-276.6	+/-	0.6

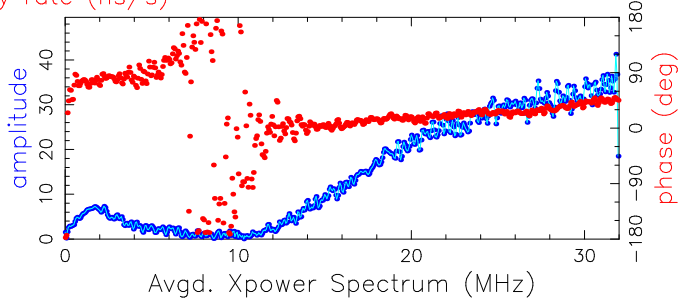
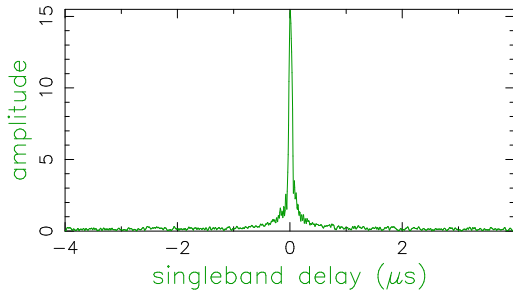
ph/seg (deg)	5.1	Theor.	5.3	Amplitude	15.494 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	8.6		9.3	Search (2048X8)	15.406	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.6		0.6	Inc. seg. avg.	15.401	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	15.408	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

Y: az 246.0 el 48.3 pa 46.5 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//YY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//YY.W.288.0QR0YU



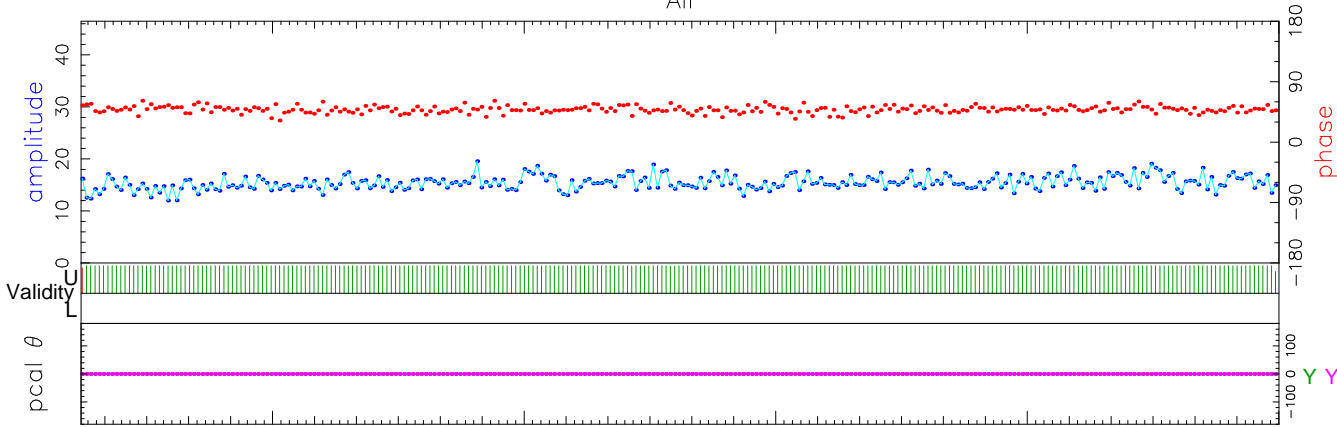
Fringe quality 9

SNR 178.9  
 Int time 285.322  
 Amp 15.494  
 Phase 276.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.004949  
 MBD -0.000005  
 Fringe rate (Hz)  
 -0.000031  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125514.34  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163702  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 48.5  
 15.4  
 513.7  
 U/L 558/0  
 Y 0  
 Y 0  
 Y:Y 0:0  
 Y:Y 0:0  
 Y 1000  
 Y 1000  
 Y W00UR  
 Y W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	4.94811686741E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.68042E-06	+/-	9.6E-05
Sband delay (usec)	4.94850000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.94850E-03	+/-	9.6E-05
Phase delay (usec)	1.56495326353E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.56495E-06	+/-	2.1E-08
Delay rate (us/s)	-3.63490058847E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-3.63490E-10	+/-	1.3E-10
Total phase (deg)	276.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	276.8	+/-	0.6

ph/seg (deg)	5.1	Theor.	5.3	Amplitude	15.494 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	8.6		9.3	Search (2048X8)	15.406	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.6		0.6	Inc. seg. avg.	15.401	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	15.408	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

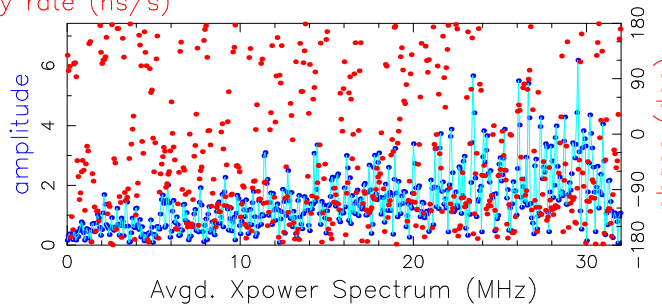
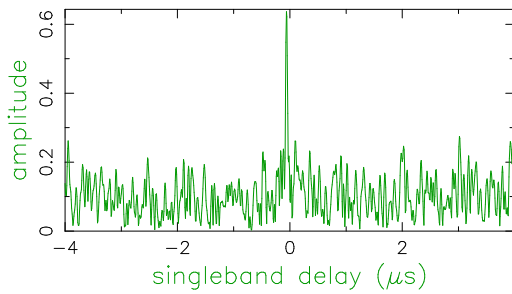
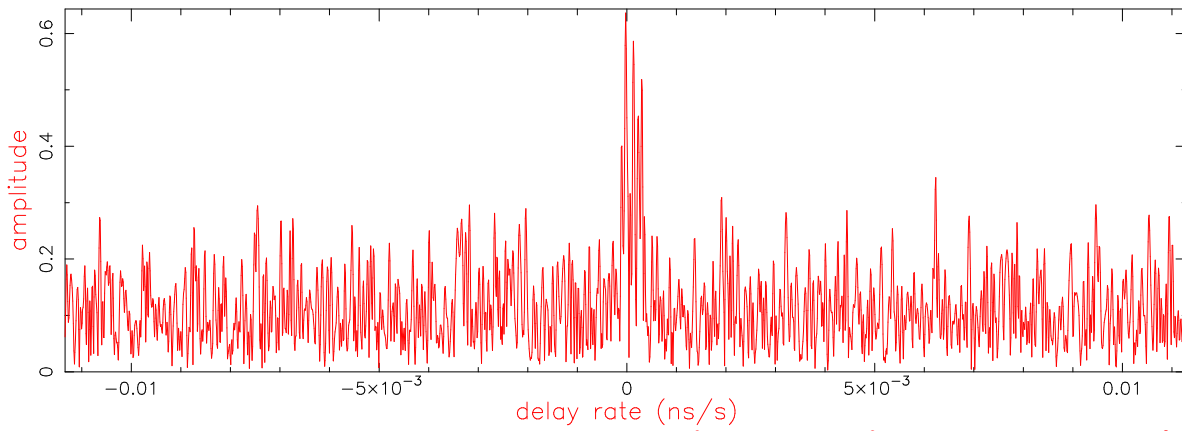
Y: az 246.0 el 48.3 pa 46.5      Y: az 246.0 el 48.3 pa 46.5      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
 Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//YY..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//YY.W.300.0QR0YU



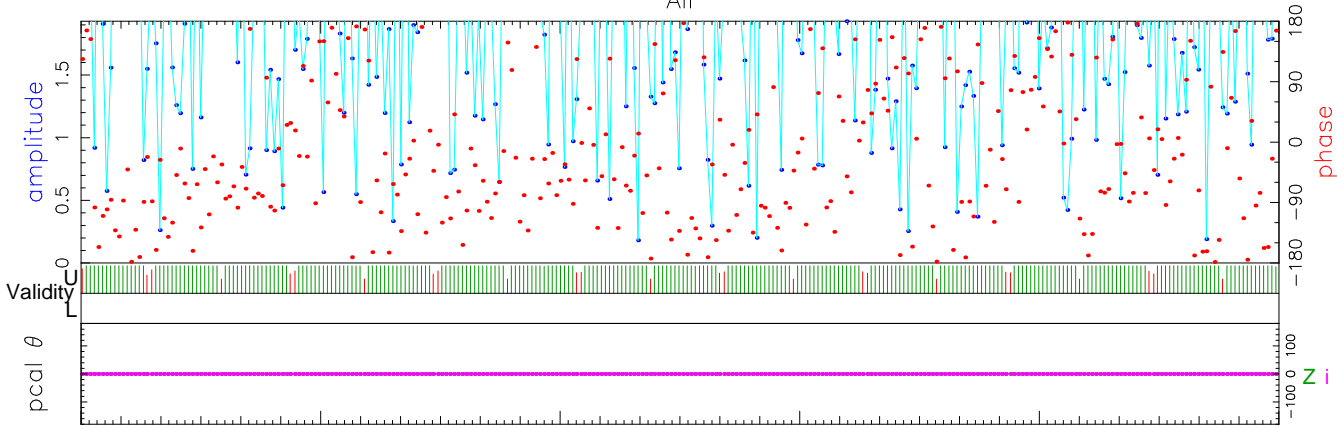
Fringe quality 9

SNR 7.5  
Int time 291.861  
Amp 0.643  
Phase -317.9  
PFD 9.1e-06  
Delays (us)  
SBD -0.059675  
MBD -0.000006  
Fringe rate (Hz)  
-0.002345  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163657  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-88.5  
0.6  
505.4  
U/L 586/0  
Z 0  
i 0  
Z:i 0:0  
Z:i 0:0  
Z 1000  
i 1000  
Z W00UL  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.08862146545E+03	Apriori delay (usec)	-7.08856179347E+03	Resid mbdelay (usec)	-5.88457E-06	+/-	2.3E-03
Sband delay (usec)	-7.08862146847E+03	Apriori clock (usec)	7.0823097E-01	Resid sbdelay (usec)	-5.96750E-02	+/-	2.3E-03
Phase delay (usec)	-7.08856179633E+03	Apriori clockrate (us/s)	6.4699998E-07	Resid phdelay (usec)	-2.85261E-06	+/-	4.9E-07
Delay rate (us/s)	7.65468778999E-02	Apriori rate (us/s)	7.65469051213E-02	Resid rate (us/s)	-2.72214E-08	+/-	2.8E-09
Total phase (deg)	-278.2	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-317.9	+/-	15.2

ph/seg (deg)	87.6	Theor.	130.5	Amplitude	0.643 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	303.5	Search (2048X8)	0.621	Search (2048X8)	0.621	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.1	Inc. seg. avg.	0.615	Inc. seg. avg.	0.615	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.631	Inc. frq. avg.	0.631	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

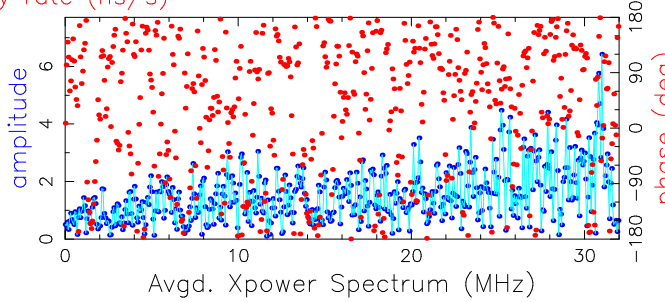
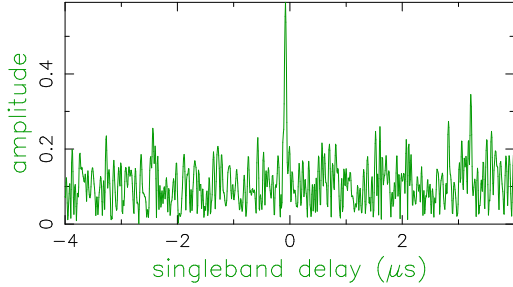
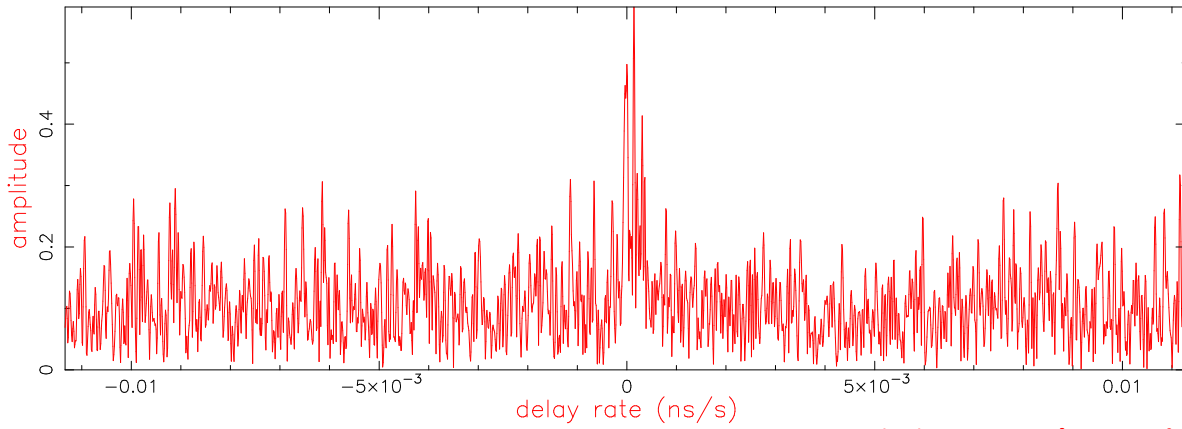
Z: az 257.8 el 25.5 pa 30.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zi.W.249.0QR0YU

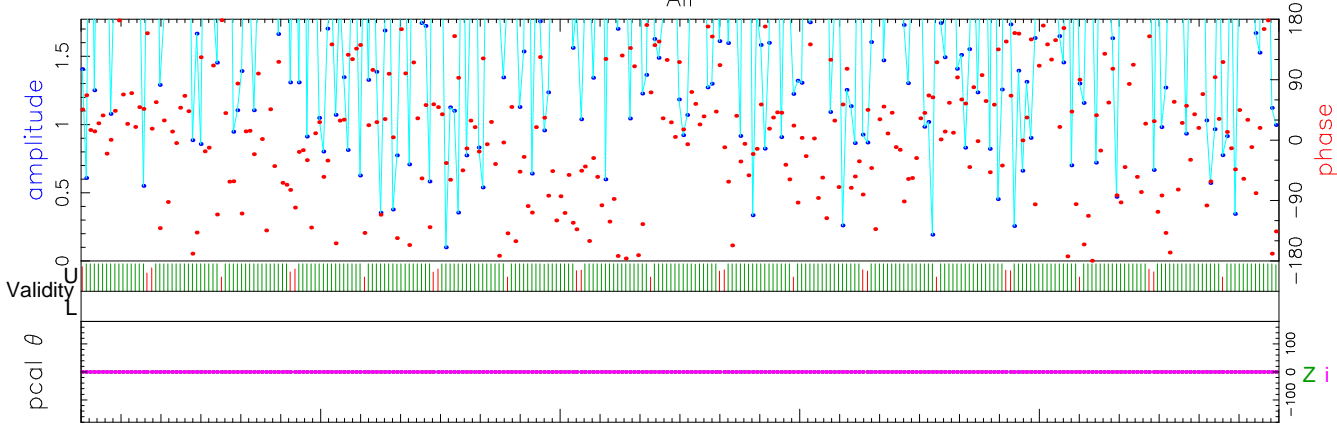
Fringe quality 0

SNR 6.9  
Int time 291.861  
Amp 0.591  
Phase -16.3  
PFD 7.7e-04  
Delays (us)  
SBD -0.078767  
MBD 0.000006  
Fringe rate (Hz)  
0.012008  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163658  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
13.3  
0.6  
502.9  
U/L 586/0  
Z 0  
i 0  
Z:i 0:0  
Z:i 0:0  
Z 1000  
i 1000  
Z W00UR  
i W00UR

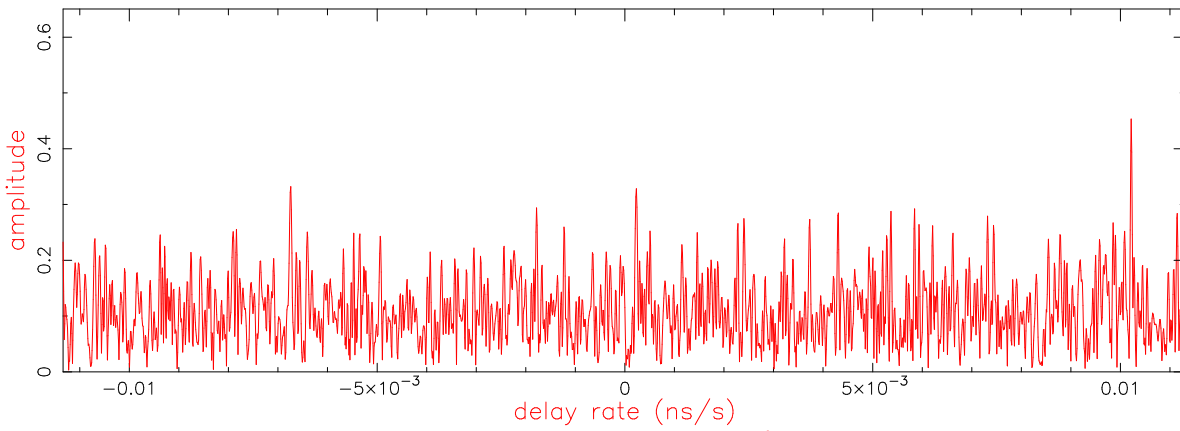
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.08864055560E+03	Apriori delay (usec)	-7.08856179347E+03	Resid mbdelay (usec)	5.95145E-06	+/- 2.5E-03
Sband delay (usec)	-7.08864055997E+03	Apriori clock (usec)	7.0823097E-01	Resid sbdelay (usec)	-7.87665E-02	+/- 2.5E-03
Phase delay (usec)	-7.08856179304E+03	Apriori clockrate (us/s)	6.4699998E-07	Resid phdelay (usec)	4.30061E-07	+/- 5.4E-07
Delay rate (us/s)	7.65470445265E-02	Apriori rate (us/s)	7.65469051213E-02	Resid rate (us/s)	1.39405E-07	+/- 3.1E-09
Total phase (deg)	-336.6	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-16.3	+/- 16.6

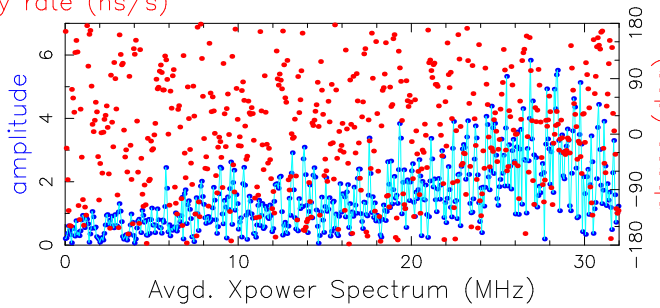
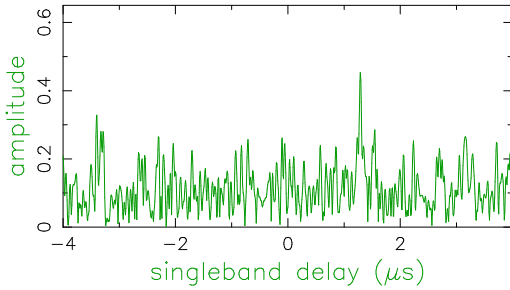
ph/seg (deg)	87.9	Theor.	142.1	Amplitude	0.591 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	306.5	Search (2048X8)	0.576	Search (2048X8)	0.576	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000	
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.1	Inc. seg. avg.	0.506	Inc. seg. avg.	0.506	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.584	Inc. frq. avg.	0.584	Data rate(Mb/s): 128	ion window (TEC)	0.00 0.00	

Z: az 257.8 el 25.5 pa 30.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zi.W.258.0QR0YU

Fringe quality 0

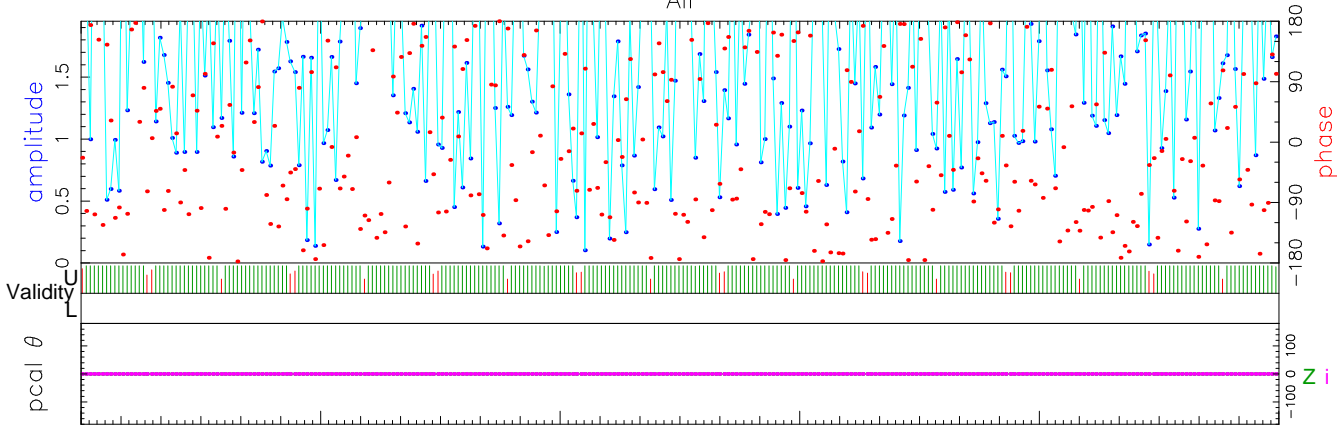


SNR 5.3  
Int time 291.861  
Amp 0.651  
Phase 257.6  
PFD 1.0e+00  
Delays (us)  
SBD 1.289464  
MBD 0.000007  
Fringe rate (Hz)  
0.881949  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-120.7  
0.7  
678.1  
U/L 586/0  
Z 0  
i 0  
Z:i 0:0  
Z:i 0:0  
Z 1000  
i 1000  
Z W00UL  
i W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.08727232660E+03	Apriori delay (usec)	-7.08856179347E+03	Resid mbdelay (usec)	7.26329E-06	+/-	3.3E-03
Sband delay (usec)	-7.08727232997E+03	Apriori clock (usec)	7.0823097E-01	Resid sbdelay (usec)	1.28946E+00	+/-	3.3E-03
Phase delay (usec)	-7.08856179737E+03	Apriori clockrate (us/s)	6.4699998E-07	Resid phdelay (usec)	-3.89222E-06	+/-	7.0E-07
Delay rate (us/s)	7.65571436797E-02	Apriori rate (us/s)	7.65469051213E-02	Resid rate (us/s)	1.02386E-05	+/-	4.0E-09
Total phase (deg)	297.3	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	257.6	+/-	21.6

ph/seg (deg)	90.1	Theor.	185.3	Amplitude	0.651 +/- 0.123	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	379.9	Search (2048X8)	0.446	Search (2048X8)	0.446	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. seg. avg.	0.421	Inc. seg. avg.	0.421	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.639	Inc. frq. avg.	0.639	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00		

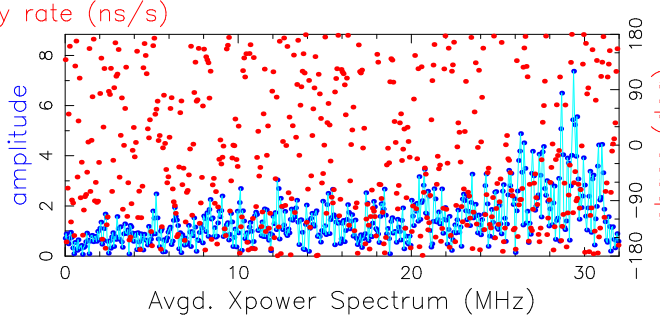
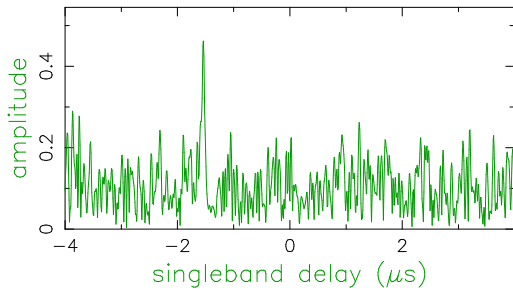
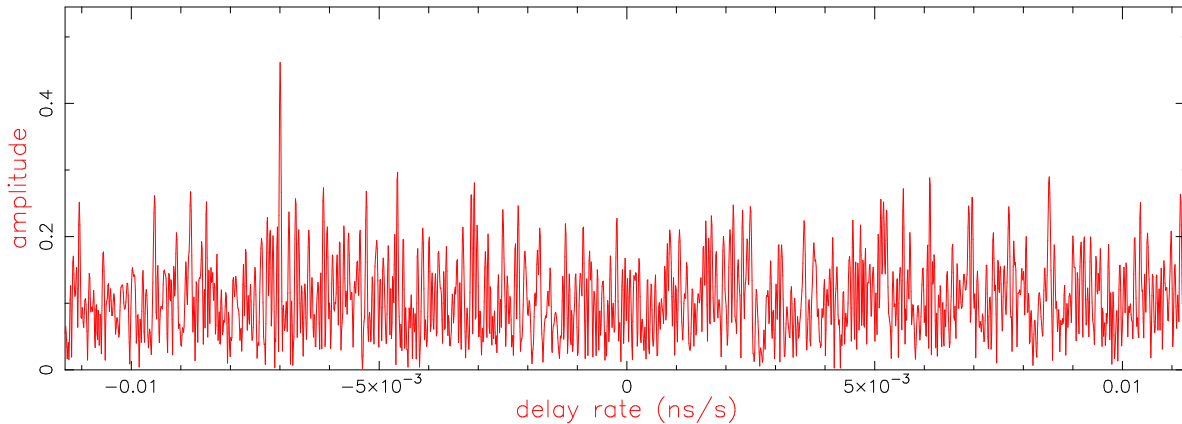
Z: az 257.8 el 25.5 pa 30.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zi.W.284.0QR0YU

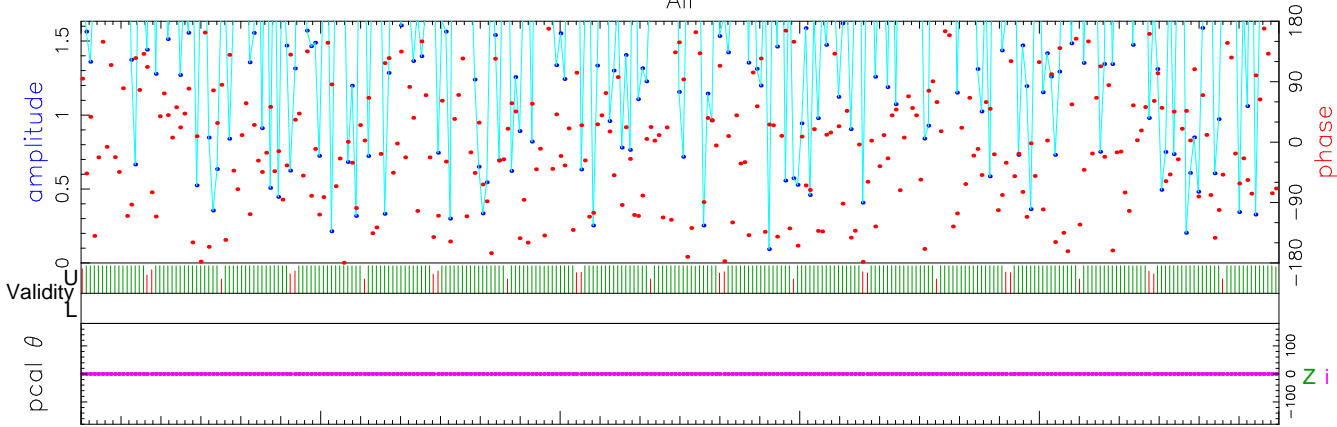
Fringe quality 0

SNR 5.4  
Int time 291.861  
Amp 0.545  
Phase -93.7  
PFD 1.0e+00  
Delays (us)  
SBD -1.540985  
MBD -0.000005  
Fringe rate (Hz)  
-0.603756  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-5.2  
0.5  
315.8  
U/L 586/0  
Z 0  
i 0  
Z:i 0:0  
Z:i 0:0  
Z 1000  
i 1000  
Z W00UR  
i W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.09010278108E+03	Apriori delay (usec)	-7.08856179347E+03	Resid mbdelay (usec)	-4.95280E-06	+/-	3.2E-03
Sband delay (usec)	-7.09010277797E+03	Apriori clock (usec)	7.0823097E-01	Resid sbdelay (usec)	-1.54098E+00	+/-	3.2E-03
Phase delay (usec)	-7.08856179364E+03	Apriori clockrate (us/s)	6.4699998E-07	Resid phdelay (usec)	-1.68953E-07	+/-	6.8E-07
Delay rate (us/s)	7.65398961133E-02	Apriori rate (us/s)	7.65469051213E-02	Resid rate (us/s)	-7.00901E-06	+/-	3.9E-09
Total phase (deg)	-54.1	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-93.7	+/-	21.2

ph/seg (deg)	88.8	Theor.	181.3	Amplitude	0.545 +/- 0.101	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	365.3	Search (2048X8)	0.459	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.365	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.534	Inc. frq. avg.	0.534	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

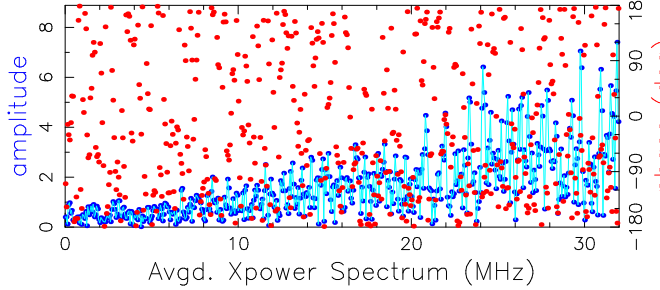
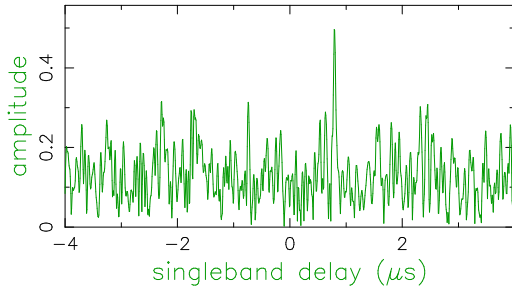
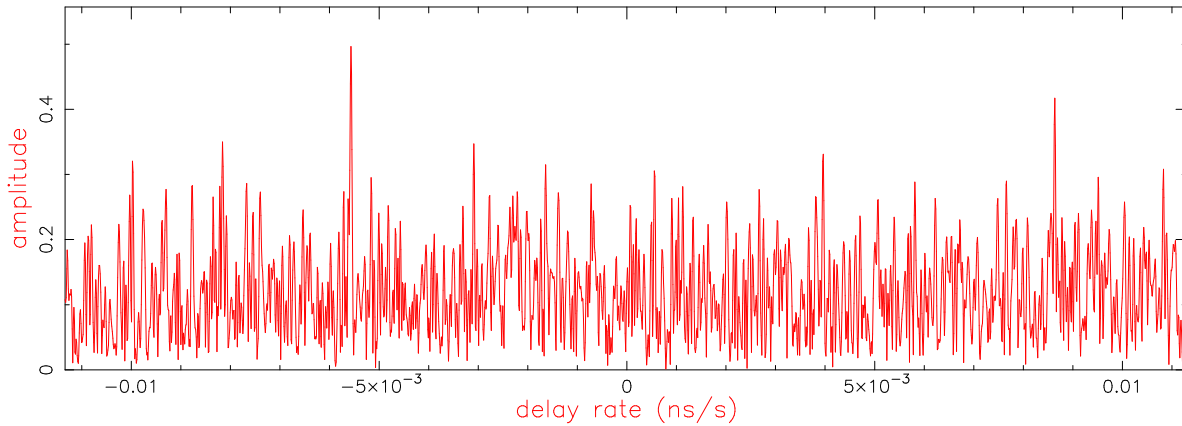
Z: az 257.8 el 25.5 pa 30.4 i: az 249.4 el 49.9 pa 50.9 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zi..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zi.W.299.0QR0YU

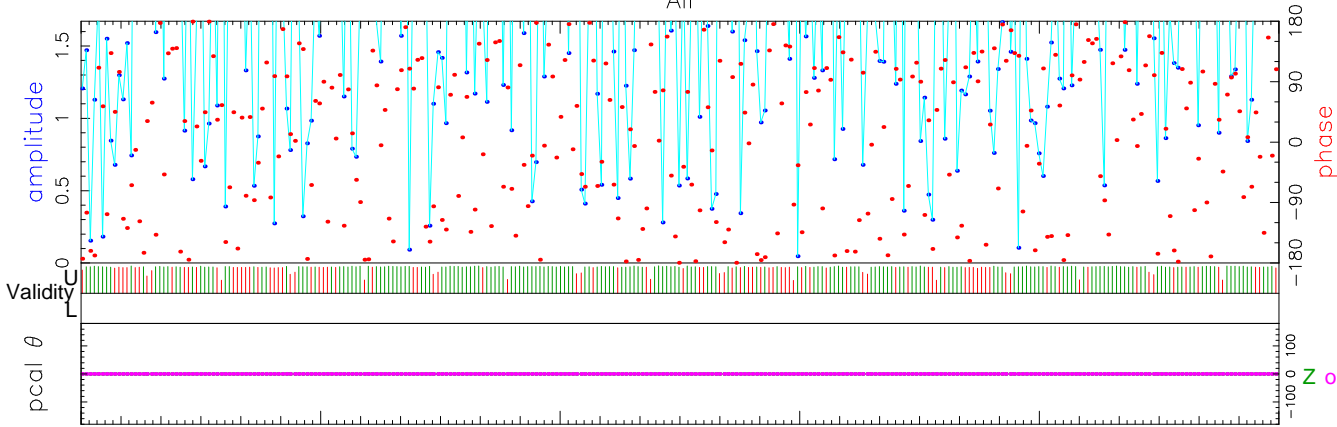
Fringe quality 0

SNR 5.8  
 Int time 280.110  
 Amp 0.557  
 Phase 293.6  
 PFD 6.5e-01  
 Delays (us)  
 SBD 0.792603  
 MBD -0.000006  
 Fringe rate (Hz)  
 -0.480605  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163657  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All



86012.00  
 130.1  
 0.5  
 614.5  
 U/L 586/0  
 Z 0  
 o 3000  
 Z:o 0:0  
 Z:o 0:0  
 Z 1000  
 o 1000  
 Z W00UL  
 o W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	1.21346766957E+03	Apriori delay (usec)	1.21267506554E+03	Resid mbdelay (usec)	-6.30917E-06	+/- 3.0E-03
Sband delay (usec)	1.21346766904E+03	Apriori clock (usec)	-2.9179239E+01	Resid sbdelay (usec)	7.92603E-01	+/- 3.0E-03
Phase delay (usec)	1.21267506974E+03	Apriori clockrate (us/s)	-6.9559972E-08	Resid phdelay (usec)	4.19559E-06	+/- 6.4E-07
Delay rate (us/s)	-1.83323243924E+00	Apriori rate (us/s)	-1.83322685989E+00	Resid rate (us/s)	-5.57935E-06	+/- 3.7E-09
Total phase (deg)	346.1	Apriori accel (us/s/s)	1.70401814732E-06	Resid phase (deg)	293.6	+/- 19.9

ph/seg (deg)	RMS 92.0	Theor. 170.3	Amplitude 0.557 +/- 0.097	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	396.6	297.2	Search (2048X8) 0.496	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.4	17.4	Inc. seg. avg. 0.426	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.541	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

Z: az 257.8 el 25.5 pa 30.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10937.241 2224.847 simultaneous interpolator

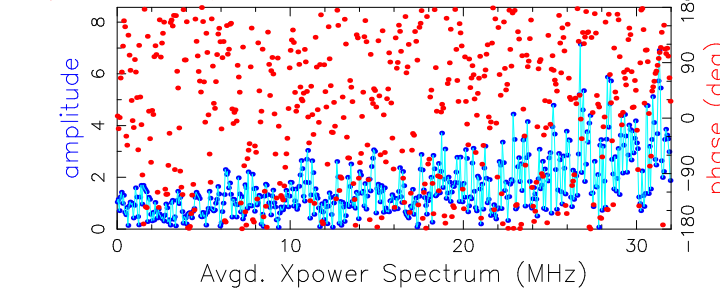
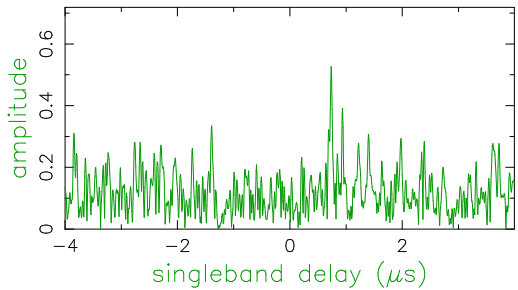
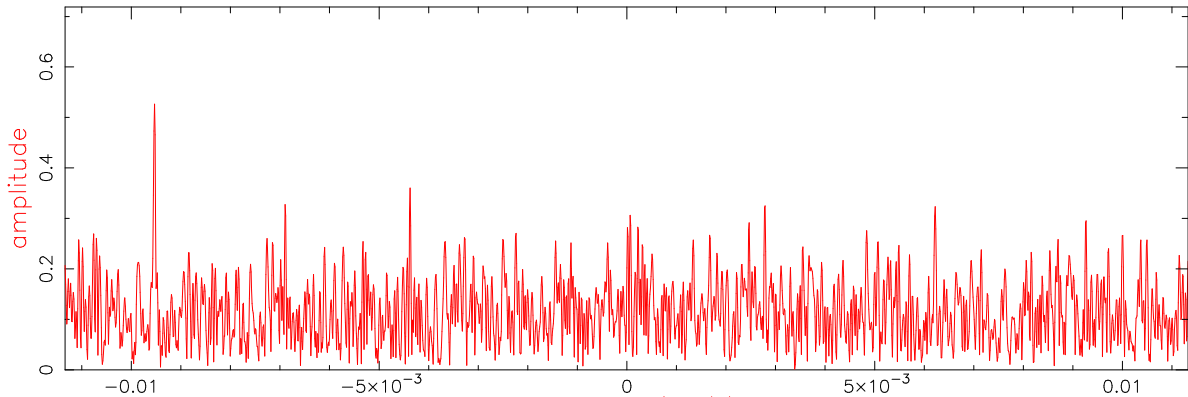
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zo.W.250.0QR0YU



Fringe quality 0

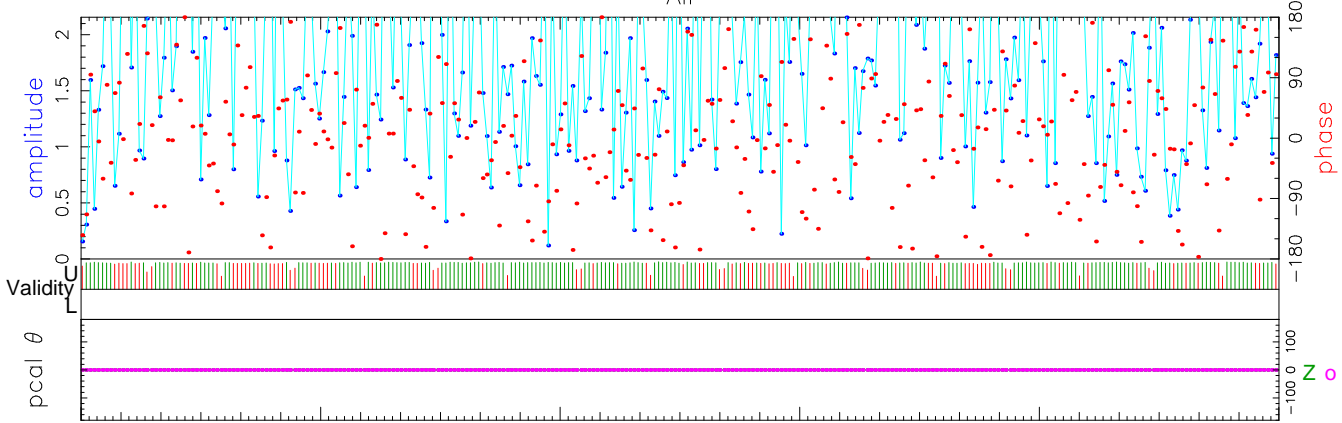
SNR 6.0  
Int time 280.112  
Amp 0.719  
Phase 41.1  
PFD 2.0e-01  
Delays (us)  
SBD 0.735022  
MBD -0.000005  
Fringe rate (Hz)  
-0.822586  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
11.1  
0.7  
607.1  
U/L 586/0  
Z 0  
o 3000  
Z:o 0:0  
Z:o 0:0  
Z 1000  
o 1000  
Z W00UR  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.21341008588E+03	Apriori delay (usec)	1.21267506554E+03	Resid mbdelay (usec)	-5.00972E-06	+/-	2.9E-03
Sband delay (usec)	1.21341008804E+03	Apriori clock (usec)	-2.9179239E+01	Resid sbdelay (usec)	7.35022E-01	+/-	2.9E-03
Phase delay (usec)	1.21267506590E+03	Apriori clockrate (us/s)	-6.9559972E-08	Resid phdelay (usec)	3.59226E-07	+/-	6.1E-07
Delay rate (us/s)	-1.83323640930E+00	Apriori rate (us/s)	-1.83322685989E+00	Resid rate (us/s)	-9.54941E-06	+/-	3.5E-09
Total phase (deg)	93.7	Apriori accel (us/s/s)	1.70401814732E-06	Resid phase (deg)	41.1	+/-	19.0

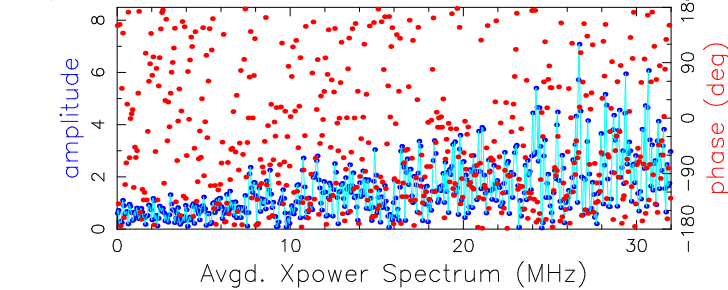
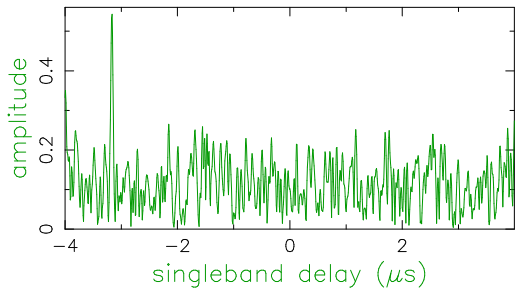
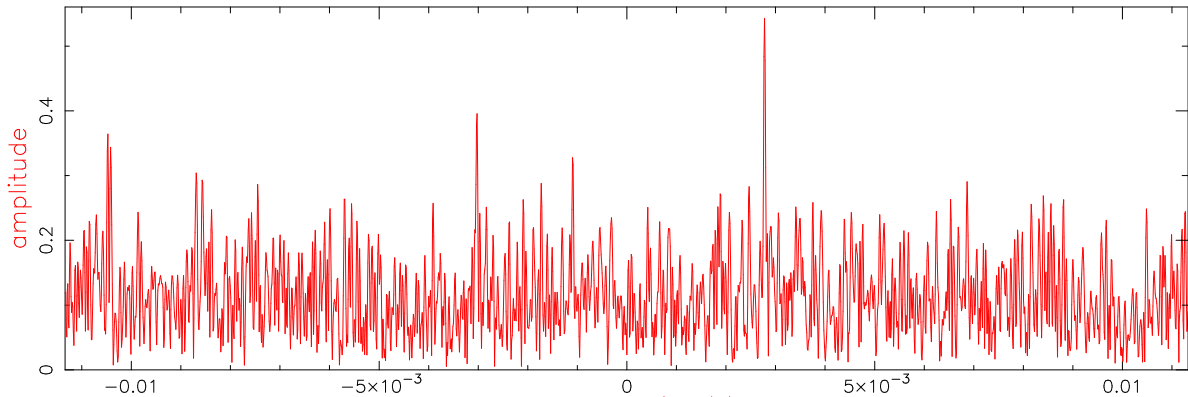
ph/seg (deg)	RMS 90.0	Theor. 162.7	Amplitude Search (2048X8)	0.719 +/- 0.119	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	343.0	284.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	9.5	Inc. seg. avg.	0.539	Bits/sample: 2x2	ion window (TEC)	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1	16.6	Inc. frq. avg.	0.709	Sample rate(MSamp/s): 64	ion window (TEC)	ion window (TEC)	0.00	0.00

Z: az 257.8 el 25.5 pa 30.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10937.241 2224.847 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zo.W.266.0QR0YU

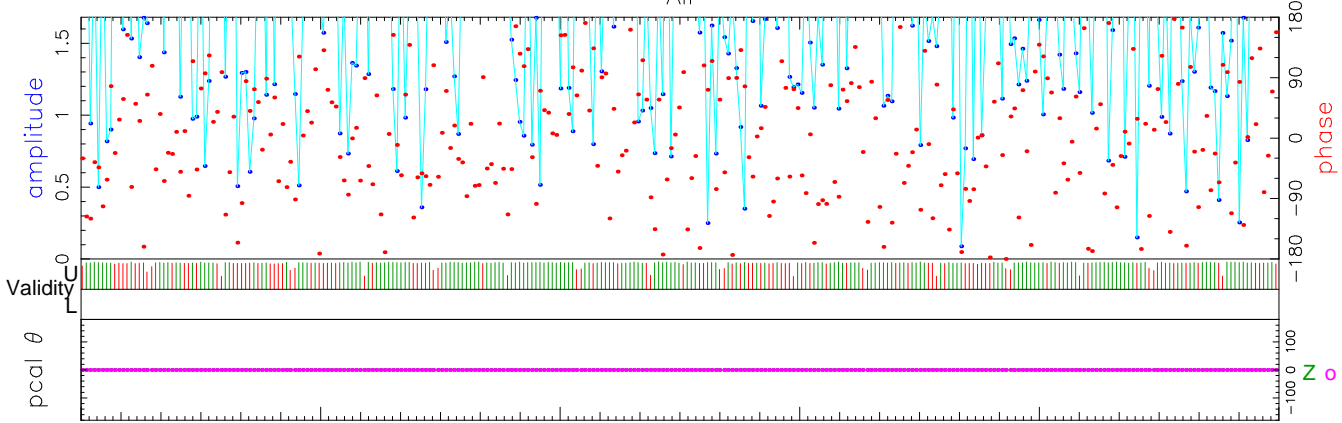
Fringe quality 0

SNR 6.3  
Int time 280.112  
Amp 0.561  
Phase -123.3  
PFD 5.2e-02  
Delays (us)  
SBD -3.166709  
MBD 0.000005  
Fringe rate (Hz)  
0.239362  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



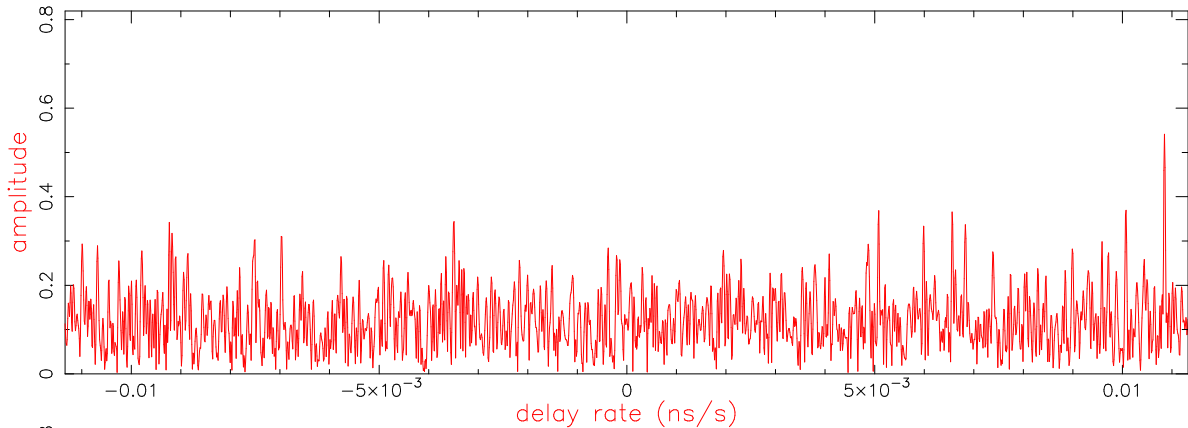
86012.00  
-1.3  
0.6  
107.7  
U/L 586/0  
Z 0  
o 3000  
Z:o 0:0  
Z:o 0:0  
Z 1000  
o 1000  
Z W00UL  
o W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

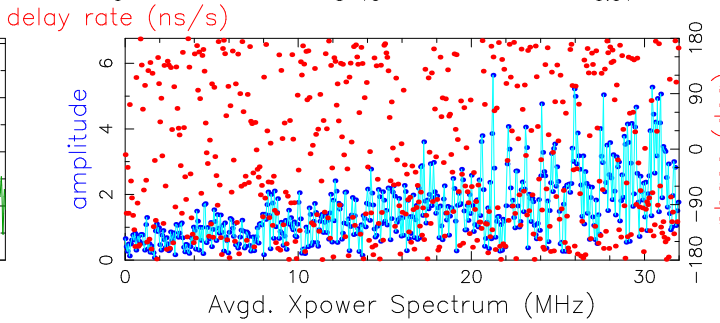
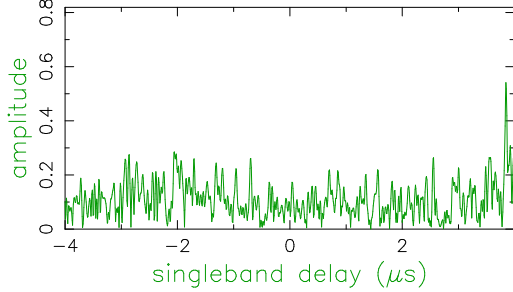
Group delay (usec)(sbd)	1.20950836131E+03	Apriori delay (usec)	1.21267506554E+03	Resid mbdelay (usec)	5.06413E-06	+/-	2.8E-03
Sband delay (usec)	1.20950835604E+03	Apriori clock (usec)	-2.9179239E+01	Resid sbdelay (usec)	-3.16671E+00	+/-	2.8E-03
Phase delay (usec)	1.21267506550E+03	Apriori clockrate (us/s)	-6.9559972E-08	Resid phdelay (usec)	-4.33451E-08	+/-	5.9E-07
Delay rate (us/s)	-1.83322408113E+00	Apriori rate (us/s)	-1.83322685989E+00	Resid rate (us/s)	2.77876E-06	+/-	3.4E-09
Total phase (deg)	-70.8	Apriori accel (us/s/s)	1.70401814732E-06	Resid phase (deg)	-123.3	+/-	18.3

ph/seg (deg)	88.0	Theor.	156.8	Amplitude	0.561 +/- 0.090	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	318.8	Search (2048X8)	0.540	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.433	Inc. seg. avg.	0.433	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.7	Inc. frq. avg.	0.550	Inc. frq. avg.	0.550	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

Z: az 257.8 el 25.5 pa 30.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10937.241 2224.847 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zo.W.277.0QR0YU

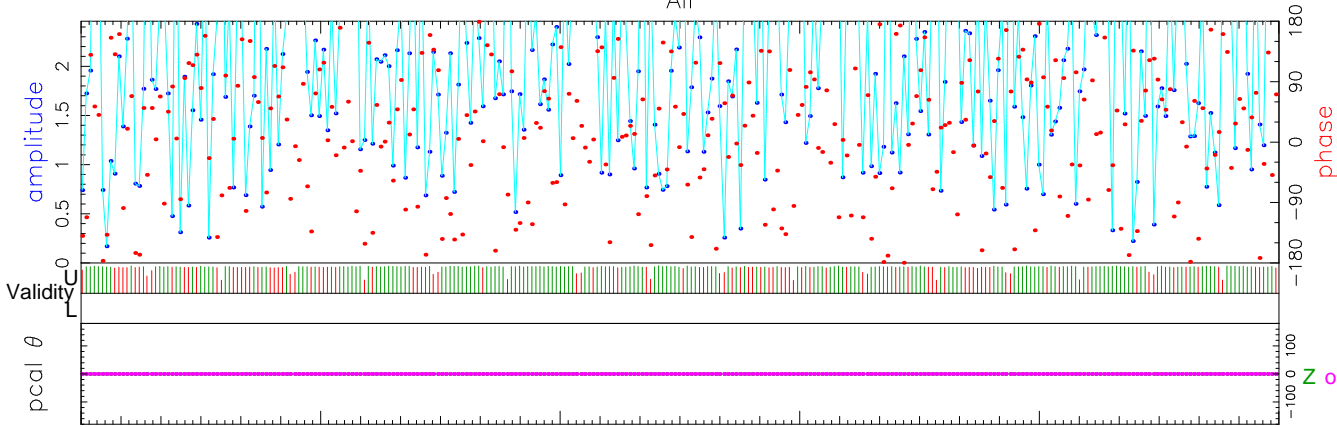


Fringe quality 0  
SNR 6.2  
Int time 280.110  
Amp 0.819  
Phase 127.1  
PFD 6.6e-02  
Delays (us)  
SBD 3.845562  
MBD 0.000007  
Fringe rate (Hz)  
0.935942  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163701  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



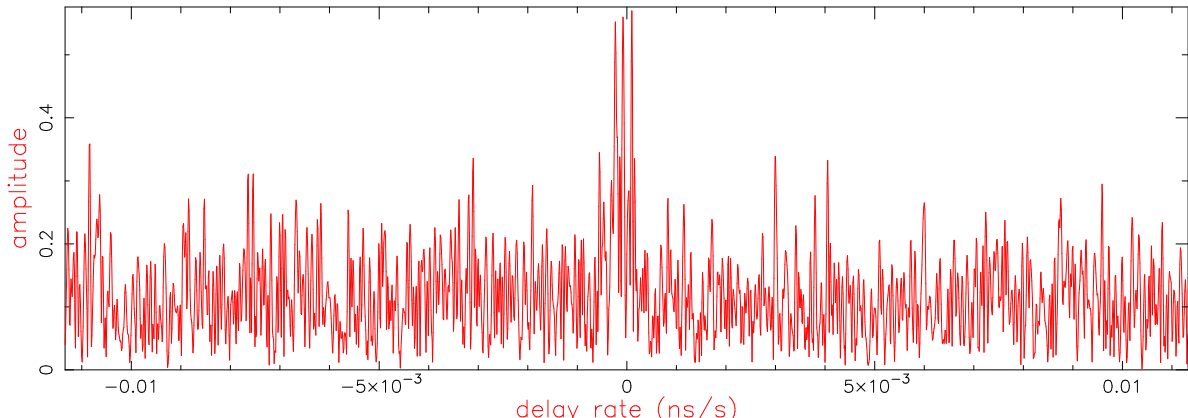
86012.00  
43.9  
0.8  
1005.2  
U/L 586/0  
Z 0  
o 3000  
Z:o 0:0  
Z:o 0:0  
Z 1000  
o 1000  
Z W00UR  
o W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

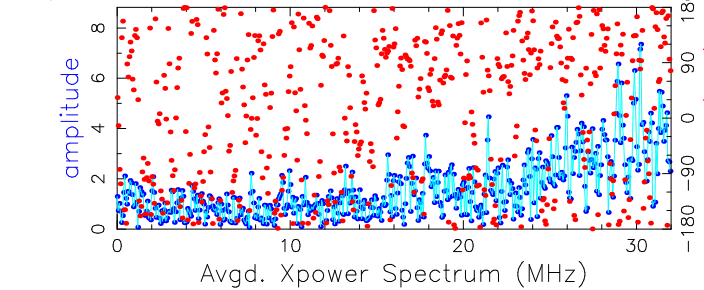
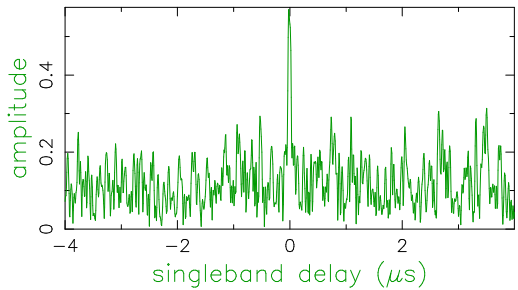
Group delay (usec)(sbd)	1.21652062924E+03	Apriori delay (usec)	1.21267506554E+03	Resid mbdelay (usec)	7.26471E-06	+/-	2.8E-03
Sband delay (usec)	1.21652062804E+03	Apriori clock (usec)	-2.9179239E+01	Resid sbdelay (usec)	3.84556E+00	+/-	2.8E-03
Phase delay (usec)	1.21267506696E+03	Apriori clockrate (us/s)	-6.9559972E-08	Resid phdelay (usec)	1.41511E-06	+/-	5.9E-07
Delay rate (us/s)	-1.83321599453E+00	Apriori rate (us/s)	-1.83322685989E+00	Resid rate (us/s)	1.08654E-05	+/-	3.4E-09
Total phase (deg)	179.7	Apriori accel (us/s/s)	1.70401814732E-06	Resid phase (deg)	127.1	+/-	18.4

ph/seg (deg)	92.4	Theor.	157.8	Amplitude	0.819 +/- 0.132	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	356.5	Search (2048X8)	0.524	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.675	Inc. frq. avg.	0.806	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.4	Inc. frq. avg.	0.806			Sample rate(MSamp/s):	64	mb window (us)	-0.000 0.000

Z: az 257.8 el 25.5 pa 30.4 o: az 85.0 el 20.8 pa -55.7 u,v (fr/asec) 10937.241 2224.847 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zo..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zo.W.287.0QR0YU

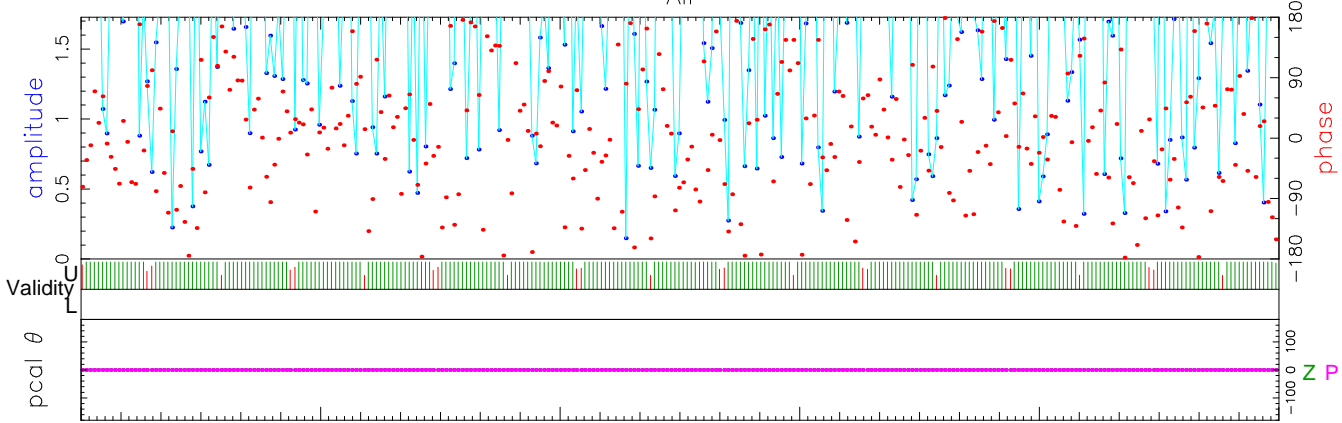


Fringe quality 0  
SNR 6.7  
Int time 288.761  
Amp 0.576  
Phase -187.6  
PFD 3.2e-03  
Delays (us)  
SBD -0.019752  
MBD 0.000007  
Fringe rate (Hz)  
0.008821  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
2.6  
0.6  
510.5  
U/L 586/0  
Z 0  
P 0  
Z:P 0:0  
Z:P 0:0  
Z 1000  
P 1000  
Z W00UL  
P W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.08906584960E+03	Apriori delay (usec)	-7.08904610347E+03	Resid mbdelay (usec)	6.93215E-06	+/-	2.6E-03
Sband delay (usec)	-7.08906585497E+03	Apriori clock (usec)	2.2392273E-01	Resid sbdelay (usec)	-1.97515E-02	+/-	2.6E-03
Phase delay (usec)	-7.08904610339E+03	Apriori clockrate (us/s)	8.46999999E-07	Resid phdelay (usec)	8.31754E-08	+/-	5.5E-07
Delay rate (us/s)	7.65472075213E-02	Apriori rate (us/s)	7.65471051213E-02	Resid rate (us/s)	1.02400E-07	+/-	3.2E-09
Total phase (deg)	-314.8	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-187.6	+/-	17.1

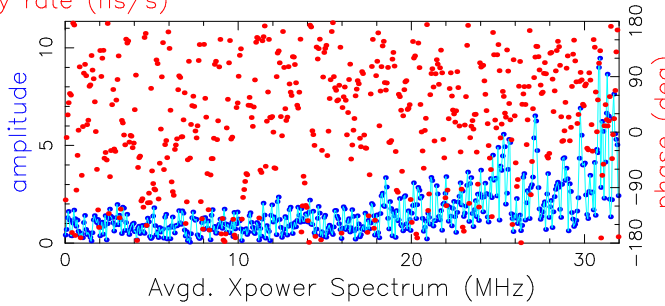
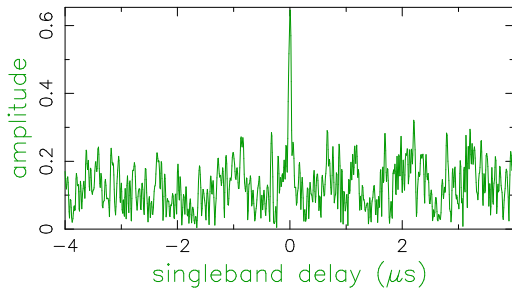
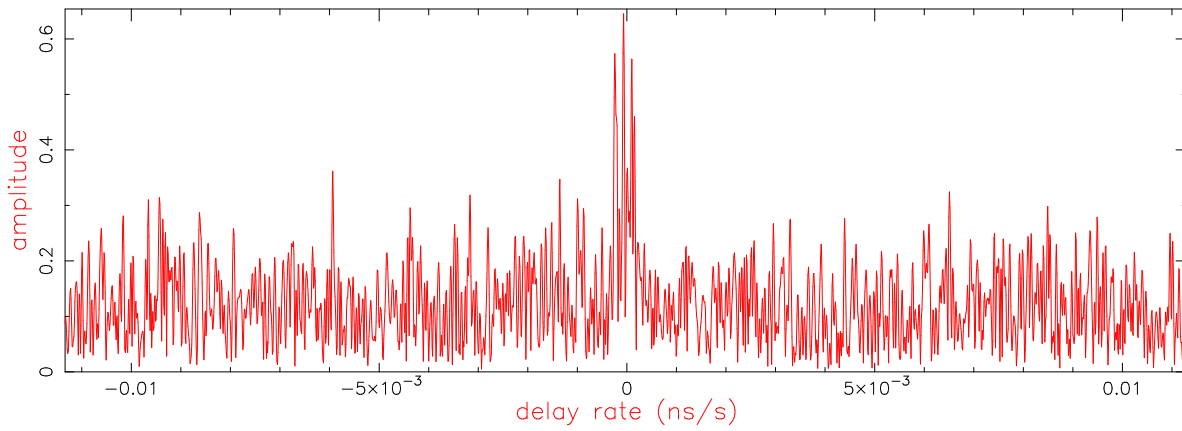
ph/seg (deg)	90.7	Theor.	146.6	Amplitude	0.576 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	336.8	Search (2048X8)	0.565	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.497	Inc. frq. avg.	0.564	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.0	Inc. frq. avg.	0.564			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

Z: az 257.8 el 25.5 pa 30.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZP.W.271.0QR0YU

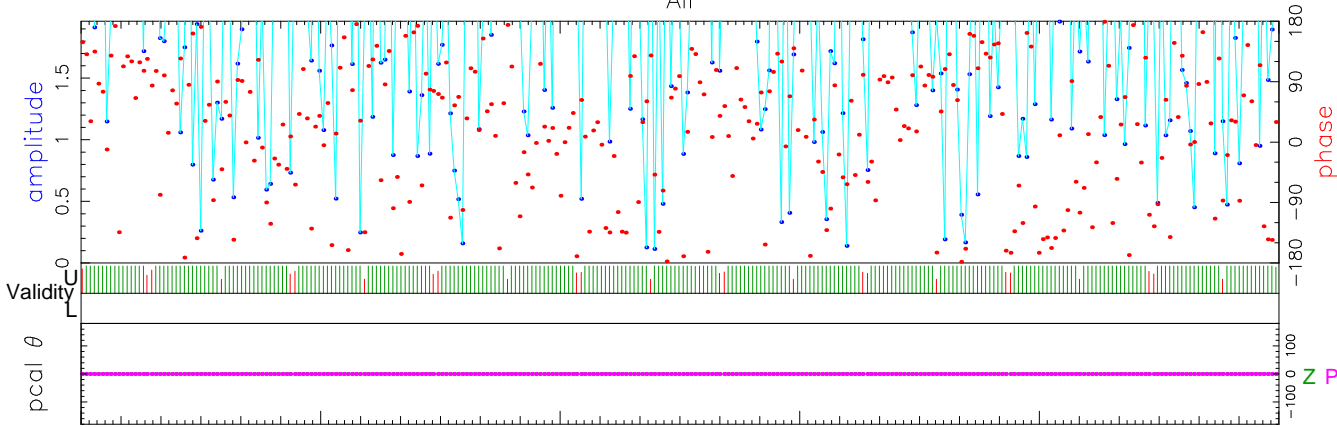
Fringe quality 9

SNR 7.6  
Int time 288.761  
Amp 0.654  
Phase 269.1  
PFD 4.8e-06  
Delays (us)  
SBD 0.004132  
MBD -0.000006  
Fringe rate (Hz)  
-0.005350  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
78.4  
0.6  
513.5  
U/L 586/0  
Z 0  
P 0  
Z:P 0:0  
Z:P 0:0  
Z 1000  
P 1000  
Z W00UR  
P W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

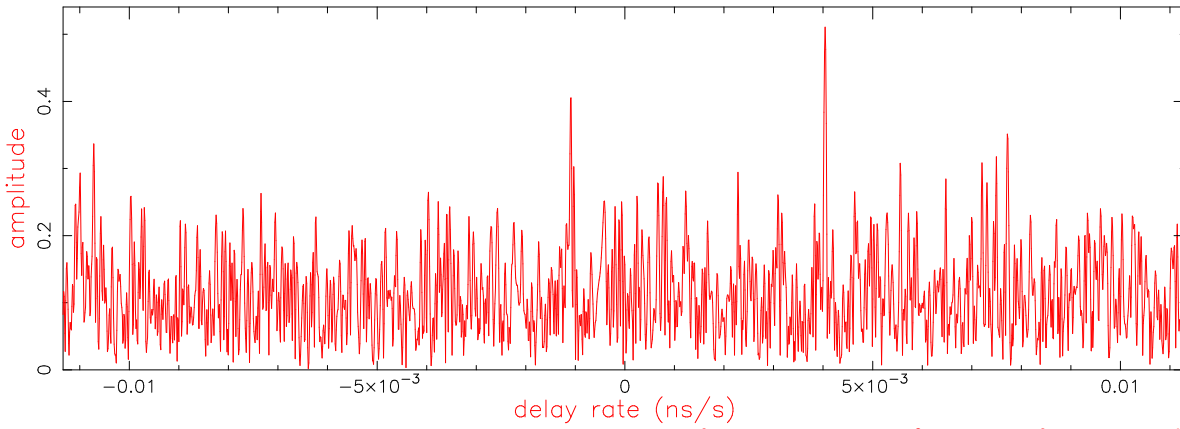
Group delay (usec)(sbd)	-7.08904197085E+03	Apriori delay (usec)	-7.08904610347E+03	Resid mbdelay (usec)	-6.33809E-06	+/-	2.3E-03
Sband delay (usec)	-7.08904197097E+03	Apriori clock (usec)	2.2392273E-01	Resid sbdelay (usec)	4.13250E-03	+/-	2.3E-03
Phase delay (usec)	-7.08904610095E+03	Apriori clockrate (us/s)	8.46999999E-07	Resid phdelay (usec)	2.52871E-06	+/-	4.9E-07
Delay rate (us/s)	7.65470430120E-02	Apriori rate (us/s)	7.65471051213E-02	Resid rate (us/s)	-6.21093E-08	+/-	2.8E-09
Total phase (deg)	142.0	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	269.1	+/-	15.1

ph/seg (deg)	90.9	Theor.	129.1	Amplitude	0.654 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	323.3	Search (2048X8)	0.636	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.669	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.3	Inc. frq. avg.	0.640	Inc. frq. avg.	0.640	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

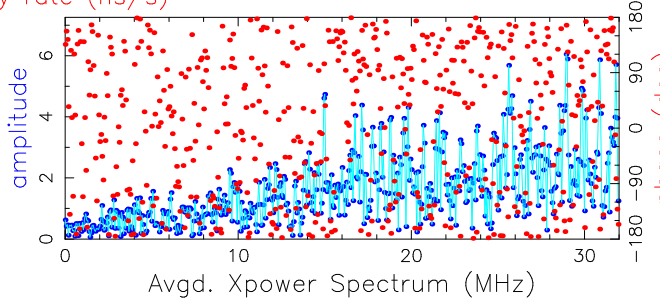
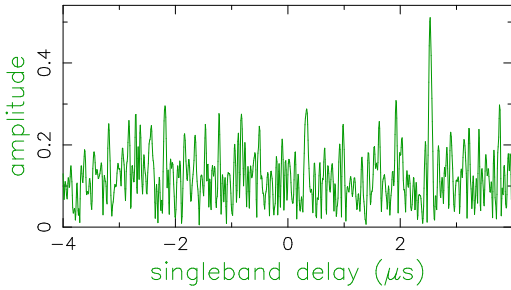
Z: az 257.8 el 25.5 pa 30.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZP.W.281.0QR0YU



Fringe quality 0



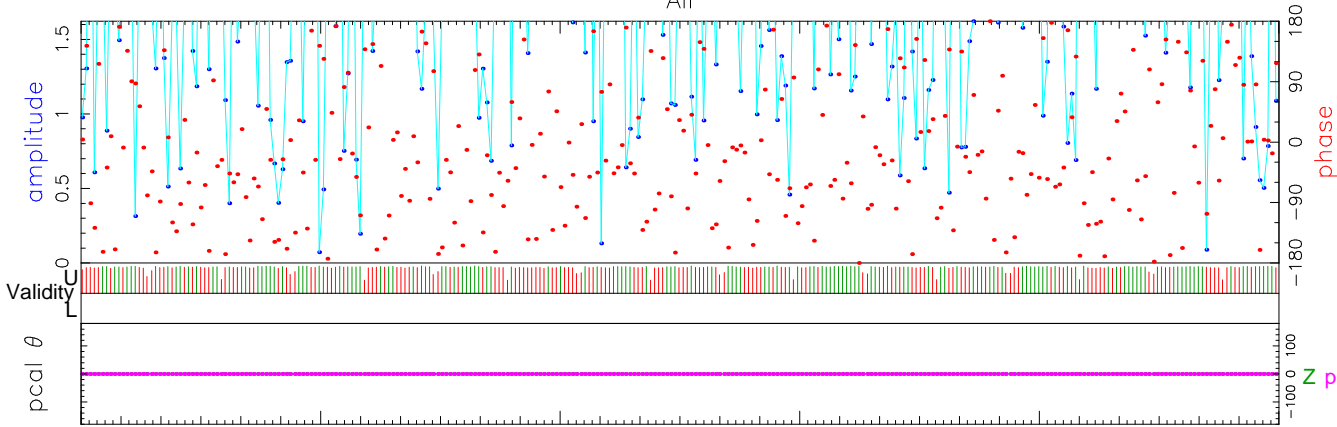
SNR 5.8  
 Int time 278.152  
 Amp 0.541  
 Phase 193.4  
 PFD 4.7e-01  
 Delays (us)  
 SBD 2.528917  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.349004  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163701  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -59.0  
 0.5  
 836.7  
 U/L 586/0  
 Z 0  
 p 3000  
 Z:p 0:0  
 Z:p 0:0  
 Z 1000  
 p 1000  
 Z W00UL  
 p W00UL

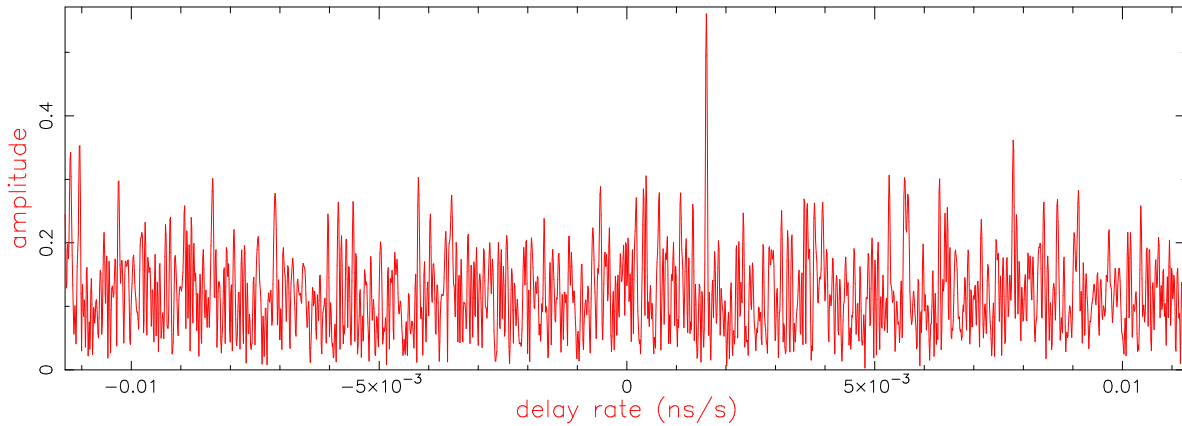
Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Manl PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-1.50998853353E+03	Apriori delay (usec)	-1.51251745286E+03	Resid mbdelay (usec)	4.75217E-06	+/- 2.9E-03
Sband delay (usec)	-1.50998853636E+03	Apriori clock (usec)	-3.1158604E+01	Resid sbdelay (usec)	2.52892E+00	+/- 2.9E-03
Phase delay (usec)	-1.51251745476E+03	Apriori clockrate (us/s)	4.0499998E-07	Resid phdelay (usec)	-1.90294E-06	+/- 6.3E-07
Delay rate (us/s)	-1.80167337836E+00	Apriori rate (us/s)	-1.80167742996E+00	Resid rate (us/s)	4.05159E-06	+/- 3.6E-09
Total phase (deg)	53.3	Apriori accel (us/s/s)	1.74901977657E-05	Resid phase (deg)	193.4	+/- 19.6

ph/seg (deg)	RMS 93.1	Theor. 167.7	Amplitude Search (2048X8)	0.541 +/- 0.092	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000	
amp/seg (%)	368.4	292.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.000	0.000	
ph/frq (deg)	0.0	9.8	Inc. seg. avg.	0.417	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.4	17.1	Inc. frq. avg.	0.531	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

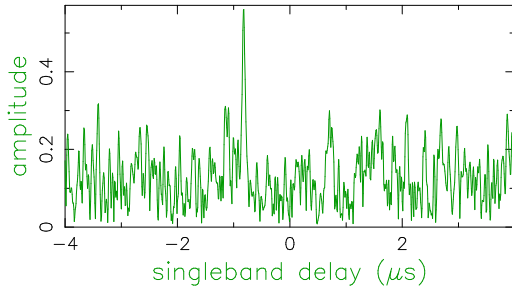
Z: az 257.8 el 25.5 pa 30.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10769.182 2939.045 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zp.W.286.0QR0YU

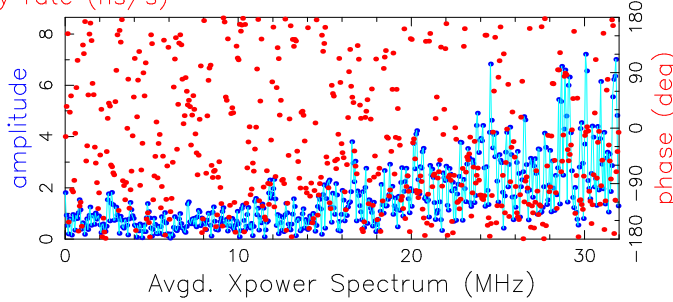


Fringe quality 0

SNR 6.6  
Int time 288.761  
Amp 0.571  
Phase -351.8  
PFD 6.5e-03  
Delays (us)  
SBD -0.824133  
MBD 0.000005  
Fringe rate (Hz)  
0.138415  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

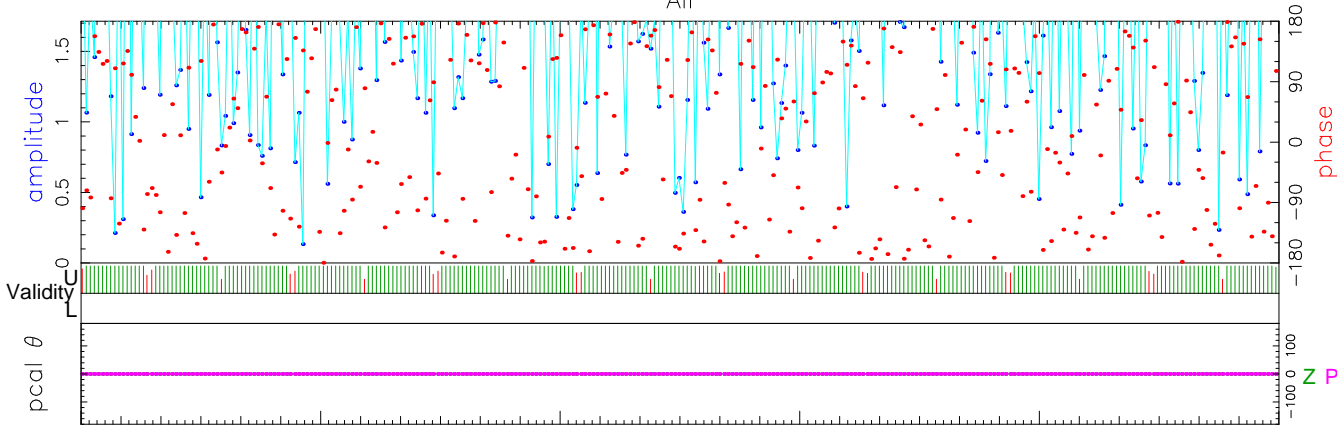


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-175.4  
0.6  
407.5  
U/L 586/0  
Z 0  
P 0  
Z:P 0:0  
Z:P 0:0  
Z 1000  
P 1000  
Z W00UL  
P W00UR

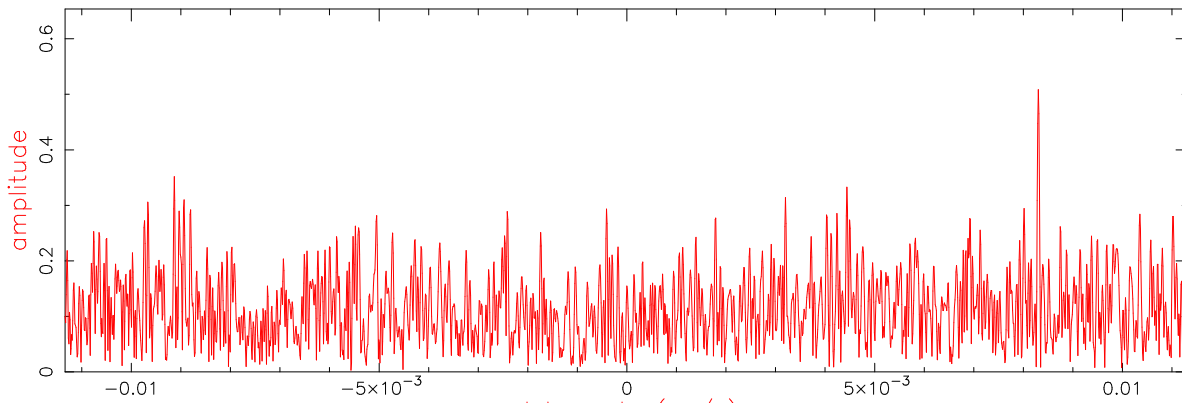
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.08987023956E+03	Apriori delay (usec)	-7.08904610347E+03	Resid mbdelay (usec)	4.73097E-06	+/-	2.6E-03
Sband delay (usec)	-7.08987023647E+03	Apriori clock (usec)	2.2392273E-01	Resid sbdelay (usec)	-8.24133E-01	+/-	2.6E-03
Phase delay (usec)	-7.08904610913E+03	Apriori clockrate (us/s)	8.4699999E-07	Resid phdelay (usec)	-5.65504E-06	+/-	5.6E-07
Delay rate (us/s)	7.65487119861E-02	Apriori rate (us/s)	7.65471051213E-02	Resid rate (us/s)	1.60686E-06	+/-	3.2E-09
Total phase (deg)	-118.9	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-351.8	+/-	17.4

ph/seg (deg)	88.1	Theor.	149.0	Amplitude	0.571 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	324.0	Search (2048X8)	0.556	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Inc. seg. avg.	0.477	Inc. seg. avg.	0.477	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	1.1	Inc. frq. avg.	0.559	Inc. frq. avg.	0.559	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

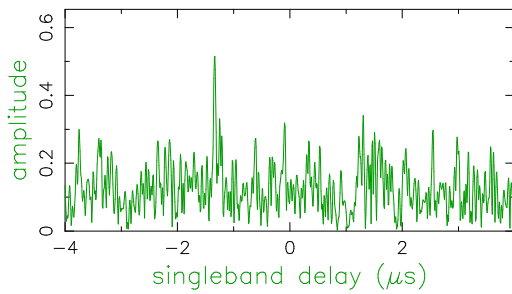
Z: az 257.8 el 25.5 pa 30.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/ZP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/ZP.W.296.0QR0YU

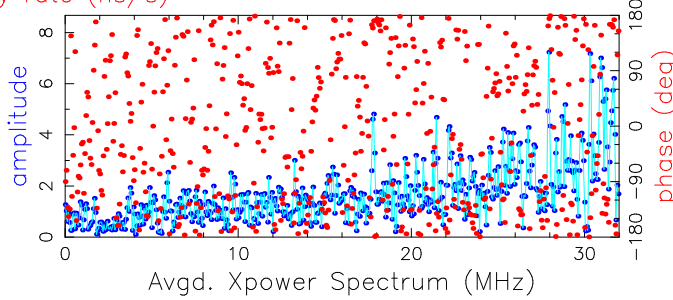


Fringe quality 0

SNR 5.9  
 Int time 278.150  
 Amp 0.654  
 Phase -96.3  
 PFD 3.5e-01  
 Delays (us)  
 SBD -1.338941  
 MBD 0.000005  
 Fringe rate (Hz)  
 0.715866  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

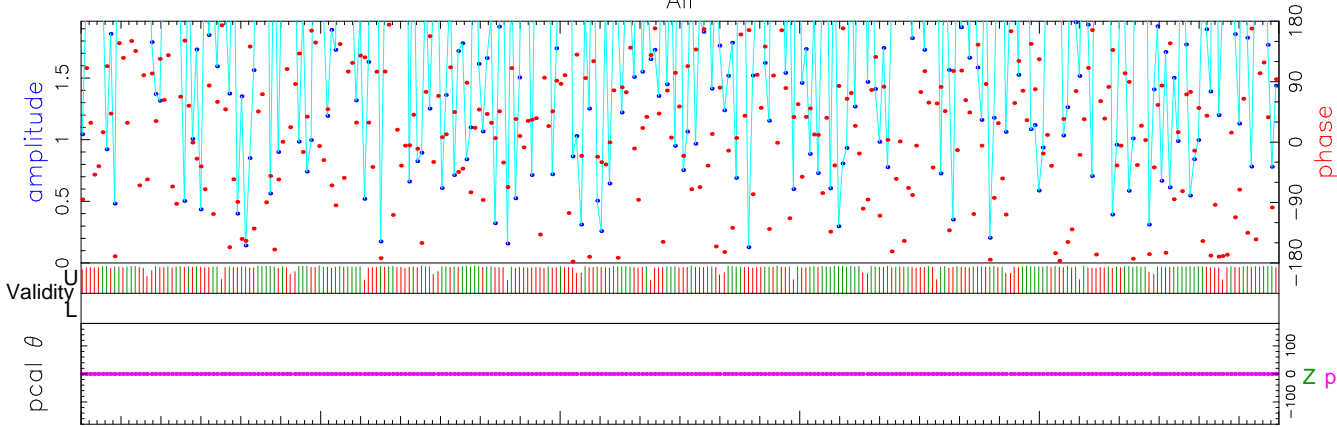


delay rate (ns/s)



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163702  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
 42.1  
 0.6  
 341.6  
 U/L 586/0  
 Z 0  
 p 3000  
 Z:p 0:0  
 Z:p 0:0  
 Z 1000  
 p 1000  
 Z W00UR  
 p W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-1.51385638915E+03	Apriori delay (usec)	-1.51251745286E+03	Resid mbdelay (usec)	4.78770E-06	+/- 2.9E-03
Sband delay (usec)	-1.51385639436E+03	Apriori clock (usec)	-3.1158604E+01	Resid sbdelay (usec)	-1.33894E+00	+/- 2.9E-03
Phase delay (usec)	-1.51251745150E+03	Apriori clockrate (us/s)	4.0499998E-07	Resid phdelay (usec)	1.35682E-06	+/- 6.2E-07
Delay rate (us/s)	-1.80166911946E+00	Apriori rate (us/s)	-1.80167742996E+00	Resid rate (us/s)	8.31050E-06	+/- 3.6E-09
Total phase (deg)	-236.4	Apriori accel (us/s/s)	1.74901977657E-05	Resid phase (deg)	-96.3	+/- 19.4

ph/seg (deg)	90.3	Theor.	165.9	Amplitude	0.654 +/- 0.111	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	379.6		289.5	Search (2048X8)	0.501	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		9.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.9		16.9	Inc. seg. avg.	0.507	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.632	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

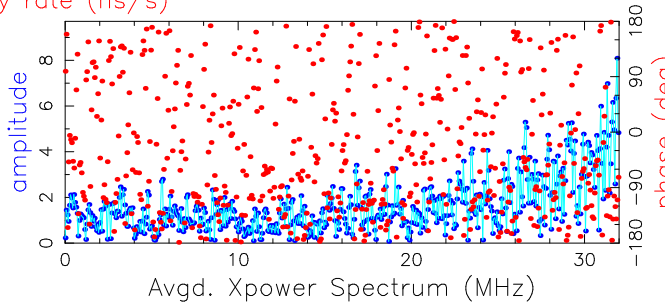
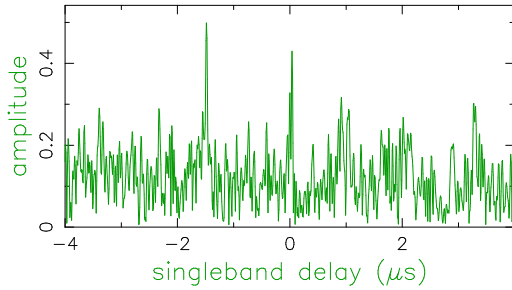
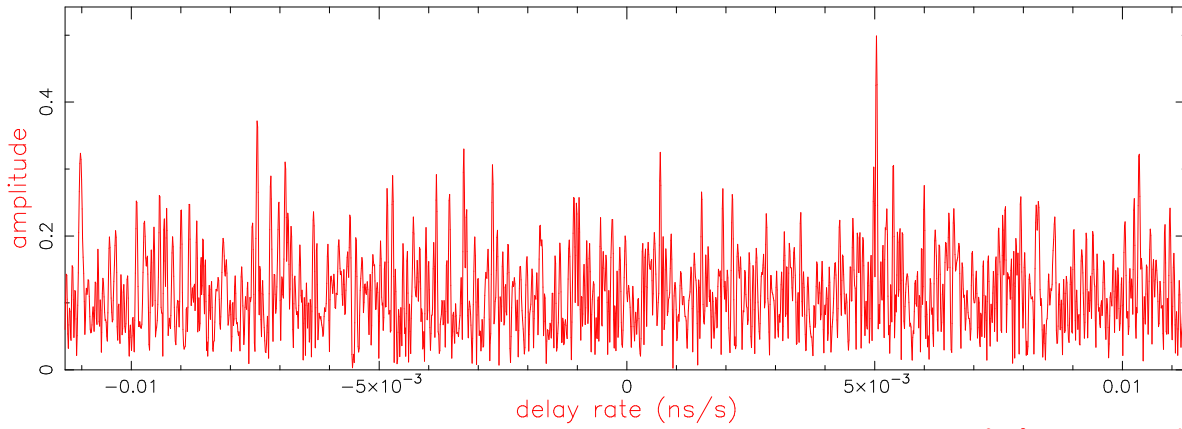
Z: az 257.8 el 25.5 pa 30.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10769.182 2939.045 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zp.W.297.0QR0YU

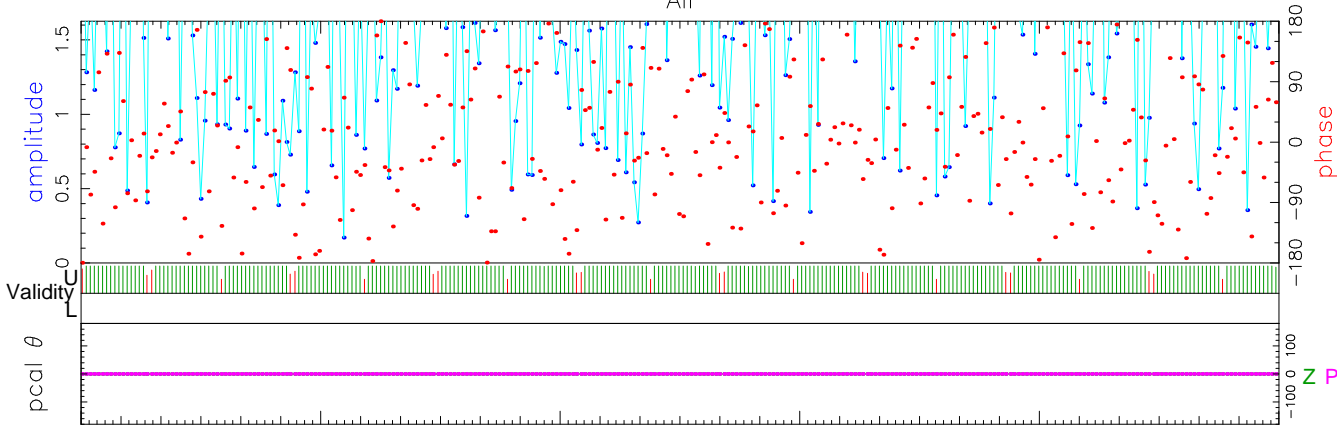
Fringe quality 0

SNR 5.8  
Int time 288.761  
Amp 0.542  
Phase -1.1  
PFD 5.7e-01  
Delays (us)  
SBD -1.484095  
MBD 0.000005  
Fringe rate (Hz)  
0.434925  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-14.0  
0.5  
323.0  
U/L 586/0  
Z 0  
P 0  
Z:P 0:0  
Z:P 0:0  
Z 1000  
P 1000  
Z W00UR  
P W00UL

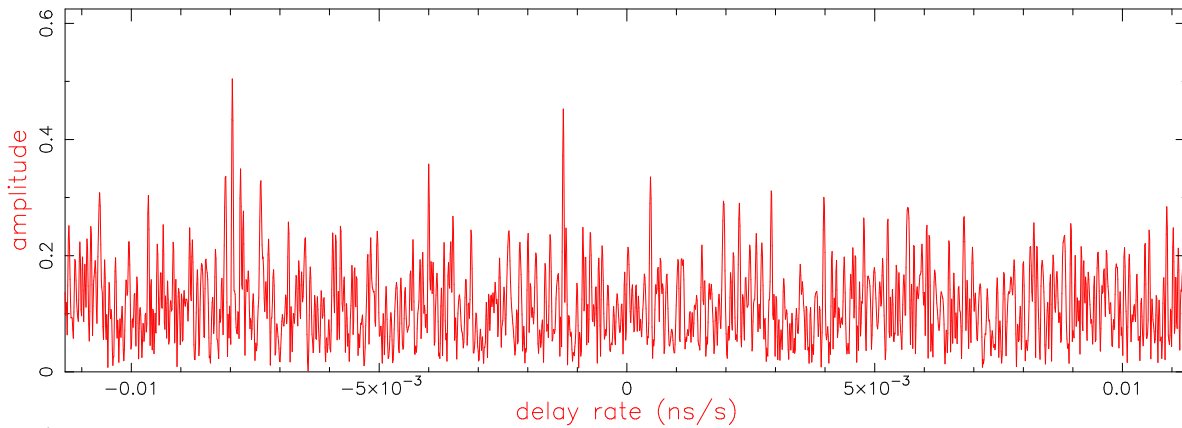
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-7.09053019411E+03	Apriori delay (usec)	-7.08904610347E+03	Resid mbdelay (usec)	4.60243E-06	+/-	3.0E-03
Sband delay (usec)	-7.09053019847E+03	Apriori clock (usec)	2.2392273E-01	Resid sbdelay (usec)	-1.48409E+00	+/-	3.0E-03
Phase delay (usec)	-7.08904610392E+03	Apriori clockrate (us/s)	8.4699999E-07	Resid phdelay (usec)	-4.51032E-07	+/-	6.4E-07
Delay rate (us/s)	7.65521541697E-02	Apriori rate (us/s)	7.65471051213E-02	Resid rate (us/s)	5.04905E-06	+/-	3.7E-09
Total phase (deg)	-128.3	Apriori accel (us/s/s)	4.60716722859E-05	Resid phase (deg)	-1.1	+/-	19.8

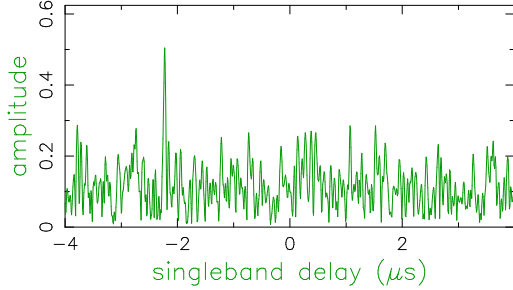
ph/seg (deg)	92.0	Theor.	169.2	Amplitude	0.542 +/- 0.094	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	375.2	Search (2048X8)	0.495	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.410	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.0	Inc. frq. avg.	0.534	Inc. frq. avg.	0.534	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

Z: az 257.8 el 25.5 pa 30.4 P: az 249.4 el 49.9 pa 50.8 u,v (fr/asec) -397.217 3313.526 simultaneous interpolator

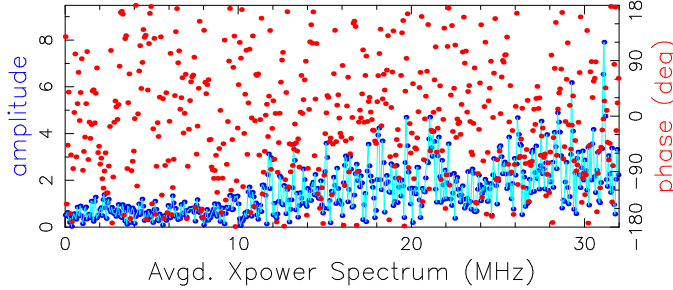
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZP..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZP.W.305.0QR0YU



Fringe quality 0  
SNR 5.8  
Int time 278.150  
Amp 0.625  
Phase -301.4  
PFD 6.5e-01  
Delays (us)  
SBD -2.227770  
MBD -0.000004  
Fringe rate (Hz)  
-0.687051  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

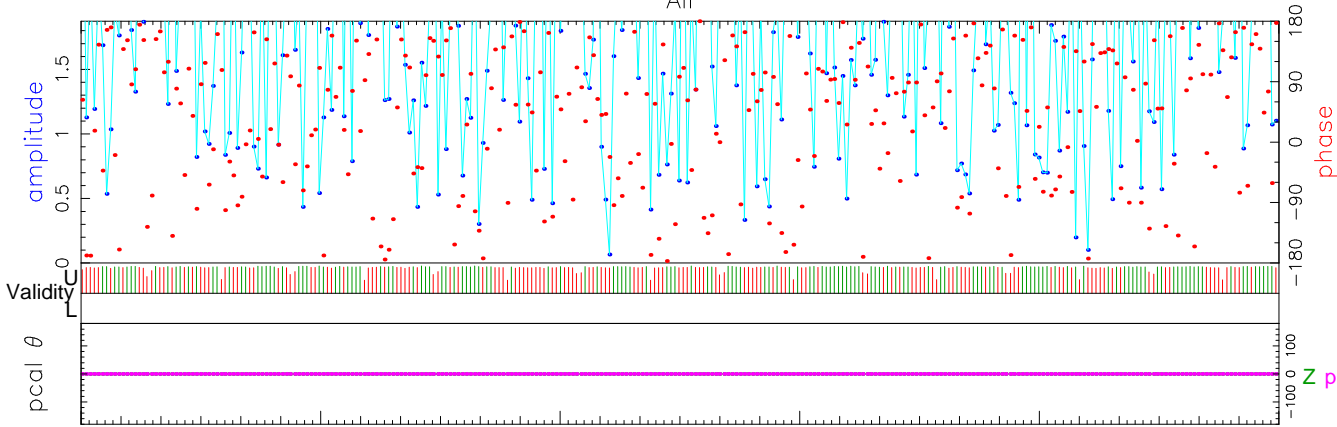


delay rate (ns/s)



Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
114.3  
0.6  
227.8  
U/L 586/0  
Z 0  
p 3000  
Z:p 0:0  
Z:p 0:0  
Z 1000  
p 1000  
Z W00UL  
p W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.5147452278E+03	Apriori delay (usec)	-1.51251745286E+03	Resid mbdelay (usec)	-4.46663E-06	+/-	3.0E-03
Sband delay (usec)	-1.51474522236E+03	Apriori clock (usec)	-3.1158604E+01	Resid sbdelay (usec)	-2.22777E+00	+/-	3.0E-03
Phase delay (usec)	-1.51251744917E+03	Apriori clockrate (us/s)	4.0499998E-07	Resid phdelay (usec)	3.68594E-06	+/-	6.4E-07
Delay rate (us/s)	-1.80168540594E+00	Apriori rate (us/s)	-1.80167742996E+00	Resid rate (us/s)	-7.97599E-06	+/-	3.7E-09
Total phase (deg)	-81.4	Apriori accel (us/s/s)	1.74901977657E-05	Resid phase (deg)	-301.4	+/-	19.9

ph/seg (deg)	92.7	Theor.	170.3	Amplitude	0.625 +/- 0.108	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	365.4	Search (2048X8)	0.486	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.455	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.2	Inc. frq. avg.	0.614	Inc. frq. avg.	0.614	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

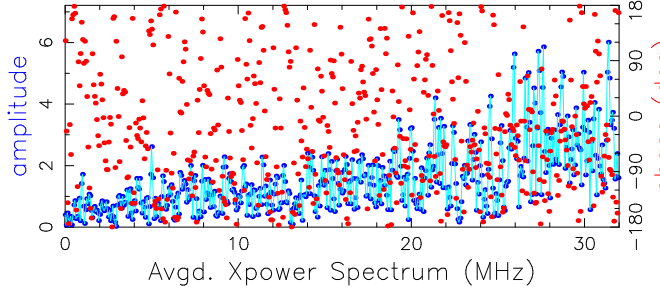
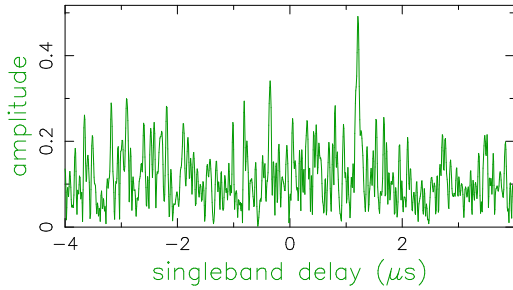
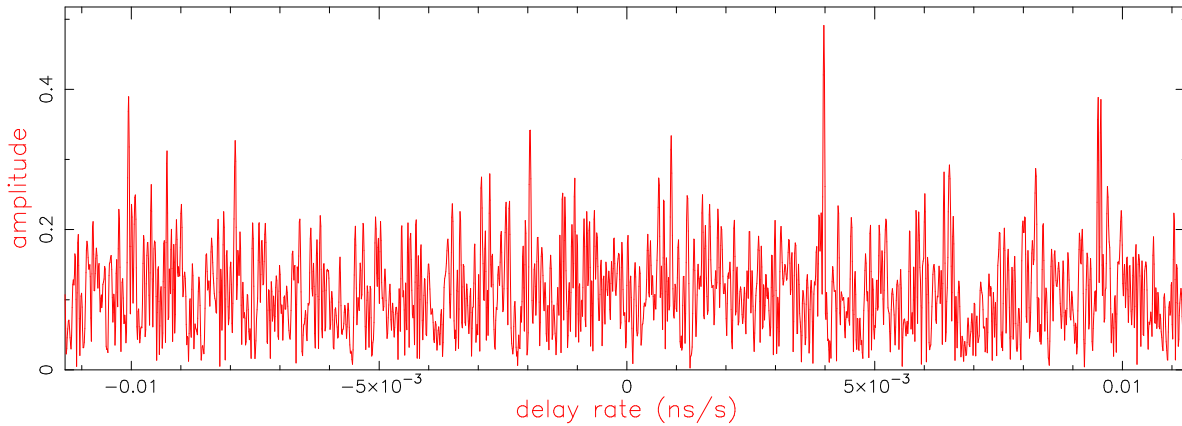
Z: az 257.8 el 25.5 pa 30.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10769.182 2939.045 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007/Zp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007/Zp.W.306.0QR0YU



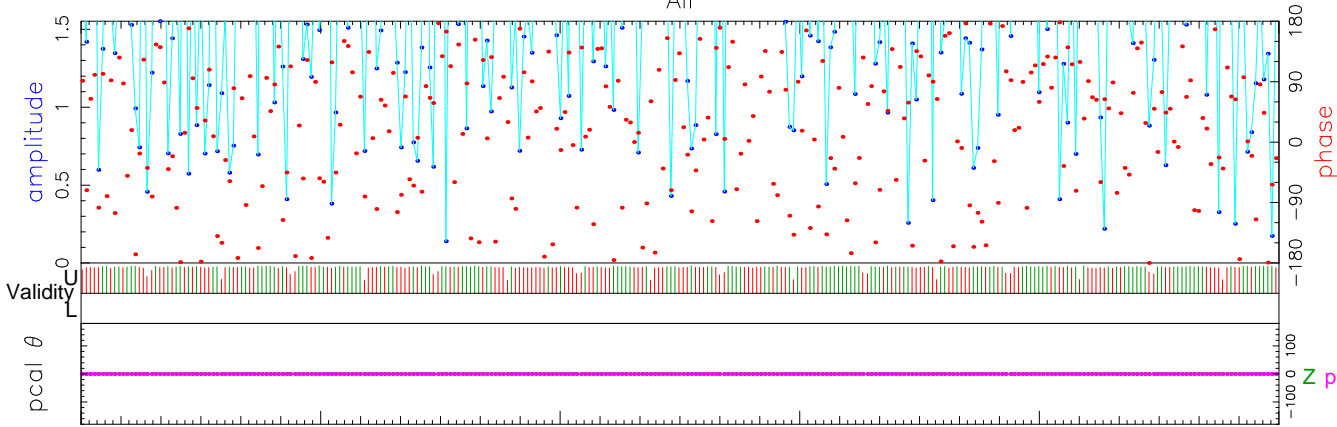
Fringe quality 0

SNR 5.6  
Int time 278.152  
Amp 0.517  
Phase 132.9  
PFD 9.2e-01  
Delays (us)  
SBD 1.212036  
MBD 0.000005  
Fringe rate (Hz)  
0.342967  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163704  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
82.6  
0.5  
668.1  
U/L 586/0  
Z 0  
p 3000  
Z:p 0:0  
Z:p 0:0  
Z 1000  
p 1000  
Z W00UR  
p W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Manl PC  
PC amp  
  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-1.51130541960E+03	Apriori delay (usec)	-1.51251745286E+03	Resid mbdelay (usec)	4.70260E-06	+/-	3.1E-03
Sband delay (usec)	-1.51130541686E+03	Apriori clock (usec)	-3.1158604E+01	Resid sbdelay (usec)	1.21204E+00	+/-	3.1E-03
Phase delay (usec)	-1.51251745019E+03	Apriori clockrate (us/s)	4.0499998E-07	Resid phdelay (usec)	2.66451E-06	+/-	6.6E-07
Delay rate (us/s)	-1.80167344845E+00	Apriori rate (us/s)	-1.80167742996E+00	Resid rate (us/s)	3.98151E-06	+/-	3.8E-09
Total phase (deg)	352.9	Apriori accel (us/s/s)	1.74901977657E-05	Resid phase (deg)	132.9	+/-	20.4

ph/seg (deg)	94.6	Theor.	175.0	Amplitude	0.517 +/- 0.092	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	371.4	Search (2048X8)	0.480	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.368	Inc. seg. avg.	0.368	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.1	Inc. frq. avg.	0.509	Inc. frq. avg.	0.509	Sample rate (MSamp/s):	64	mb window (us)	-0.000 0.000

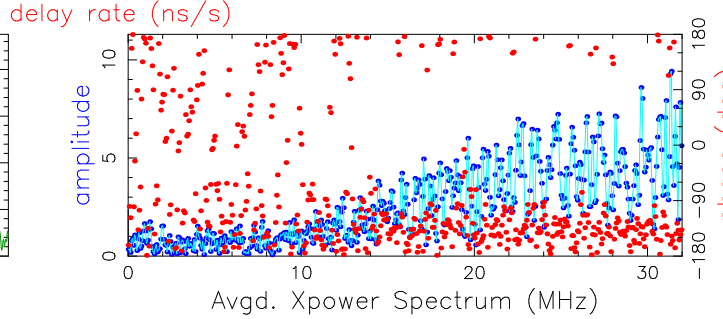
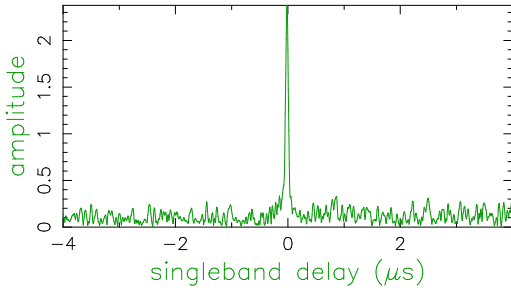
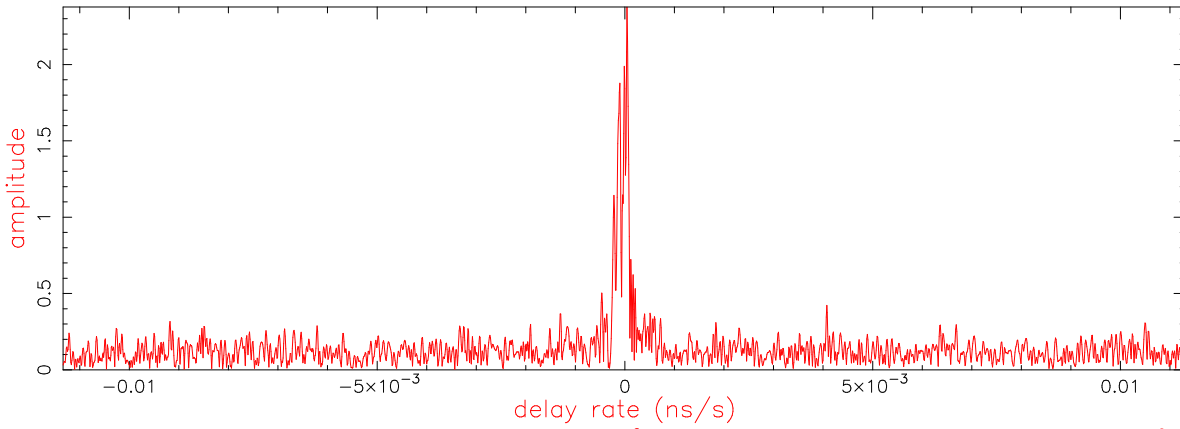
Z: az 257.8 el 25.5 pa 30.4 p: az 89.4 el 28.9 pa -59.3 u,v (fr/asec) 10769.182 2939.045 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//Zp..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//Zp.W.309.0QR0YU

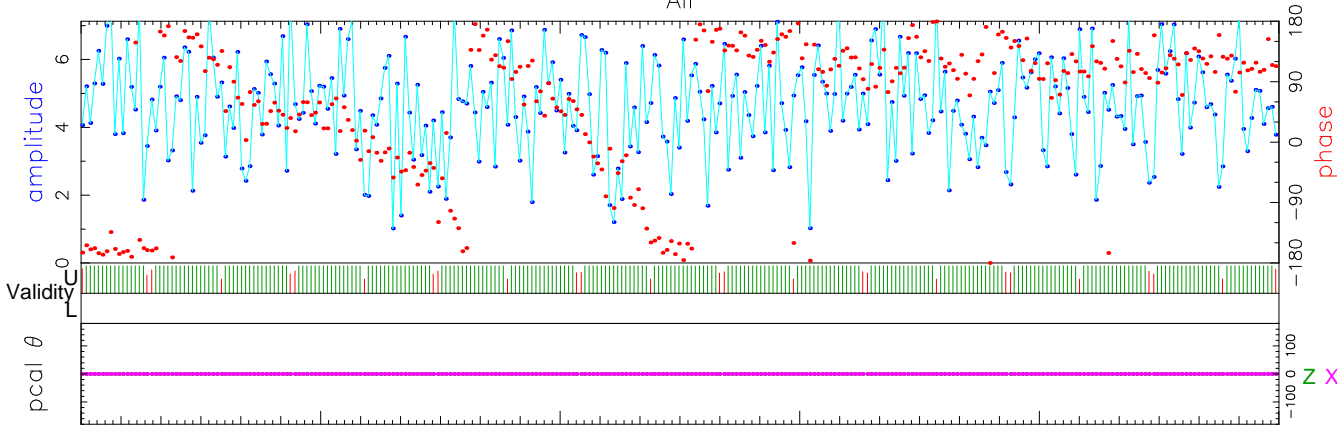
Fringe quality 9

SNR 27.8  
Int time 291.770  
Amp 2.377  
Phase -279.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.016491  
MBD 0.000001  
Fringe rate (Hz)  
0.003521  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
120.5  
2.4  
510.9  
U/L 586/0  
Z 0  
X 0  
Z:X 0:0  
Z:X 0:0  
Z 1000  
X 1000  
Z W00UL  
X W00UL

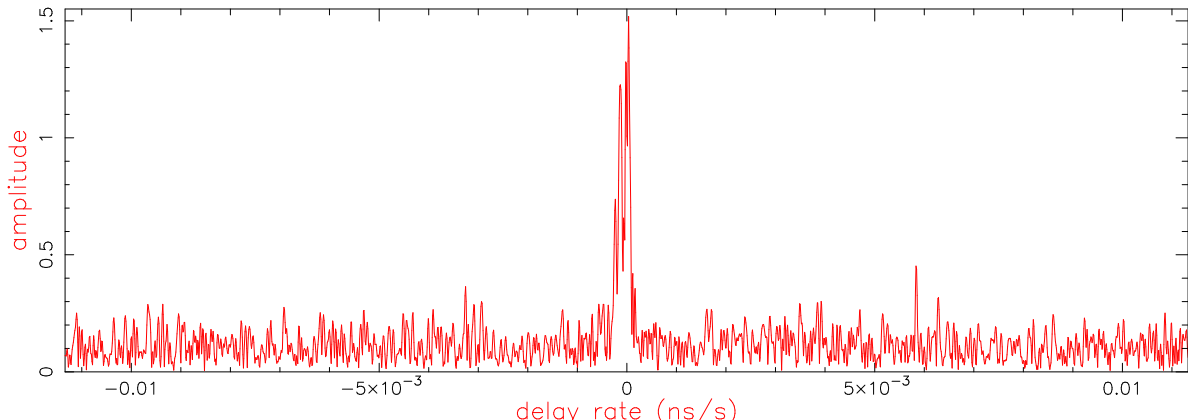
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-2.30387429178E+03	Apriori delay (usec)	-2.30385779559E+03	Resid mbdelay (usec)	1.49955E-06	+/-	6.2E-04
Sband delay (usec)	-2.30387428609E+03	Apriori clock (usec)	-2.4921793E+01	Resid sbdelay (usec)	-1.64905E-02	+/-	6.2E-04
Phase delay (usec)	-2.30385779170E+03	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	3.88540E-06	+/-	1.3E-07
Delay rate (us/s)	-2.56650345748E-02	Apriori rate (us/s)	-2.56650754465E-02	Resid rate (us/s)	4.08717E-08	+/-	7.7E-10
Total phase (deg)	-104.0	Apriori accel (us/s/s)	1.29260425995E-05	Resid phase (deg)	-279.7	+/-	4.1

ph/seg (deg)	RMS 71.0	Theor. 35.3	Amplitude 2.377 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	114.0	61.7	Search (2048X8) 2.348	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	2.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1	3.6	Inc. seg. avg. 3.928	Data rate(Mb/s): 128	nlags: 512	ion window (TEC)	0.00	0.00
			Inc. frq. avg. 2.374		t_cohere infinite			

Z: az 257.8 el 25.5 pa 30.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 169.488 512.818 simultaneous interpolator

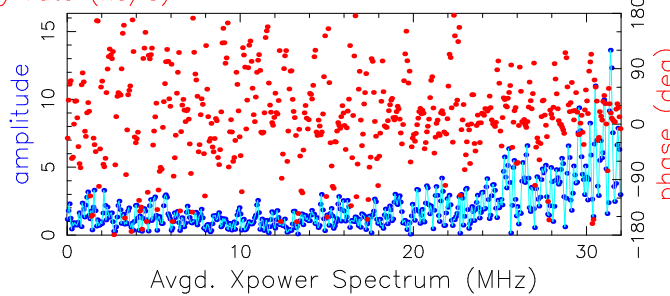
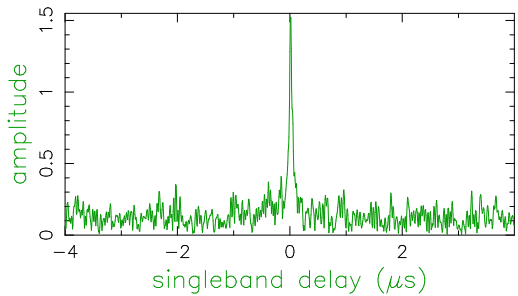
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZX.W.293.0QR0YU



Fringe quality 9

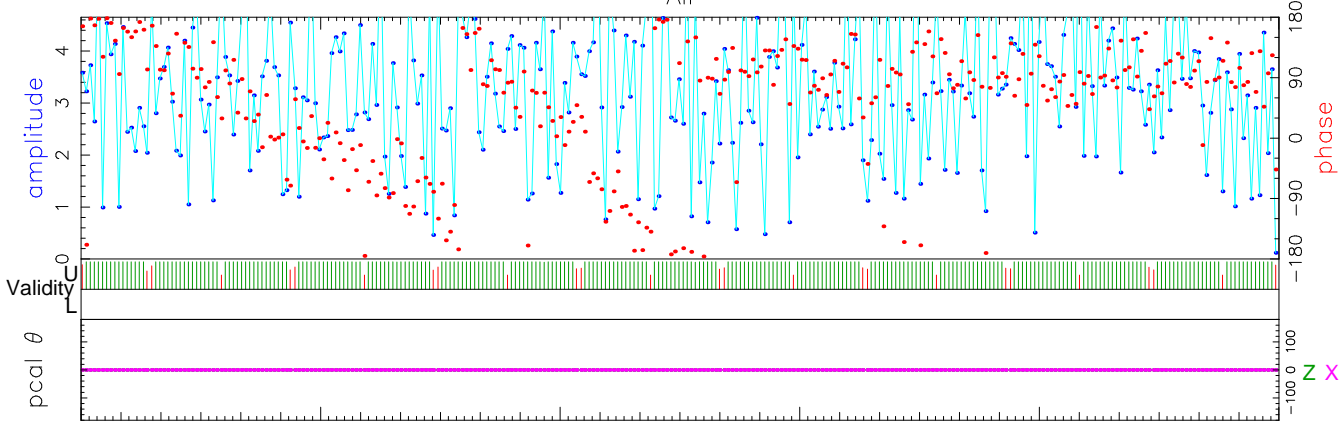
SNR 18.1  
 Int time 291.770  
 Amp 1.551  
 Phase 279.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011761  
 MBD -0.000000  
 Fringe rate (Hz)  
 0.003343  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163703  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00							Freq (MHz)
97.0							Phase
1.5							Ampl.
514.5							Sbd box
U/L 586/0							APs used
Z 0							PC freqs
X 0							PC freqs
Z:X 0:0							PC phase
Z:X 0:0							Mani PC
Z 1000							PC amp
X 1000							
Z W00UR							Chan ids
X W00UR							Chan ids

Group delay (usec)(sbd)	-2.30384602983E+03	Apriori delay (usec)	-2.30385779559E+03	Resid mbdelay (usec)	-4.16316E-08	+/-	9.5E-04
Sband delay (usec)	-2.30384603509E+03	Apriori clock (usec)	-2.4921793E+01	Resid sbdelay (usec)	1.17605E-02	+/-	9.5E-04
Phase delay (usec)	-2.30385779246E+03	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	3.12818E-06	+/-	2.0E-07
Delay rate (us/s)	-2.56650366431E-02	Apriori rate (us/s)	-2.56650754465E-02	Resid rate (us/s)	3.88034E-08	+/-	1.2E-09
Total phase (deg)	94.9	Apriori accel (us/s/s)	1.29260425995E-05	Resid phase (deg)	279.2	+/-	6.3

ph/seg (deg)	RMS 76.7	Theor. 54.2	Amplitude 1.551 +/- 0.086	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	147.5	94.5	Search (2048X8) 1.484	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0	3.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.1	5.5	Inc. seg. avg. 2.295	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 1.516	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

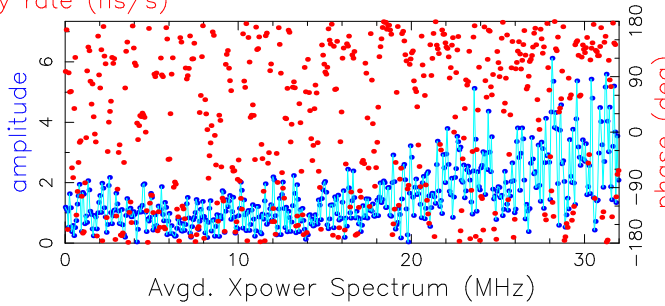
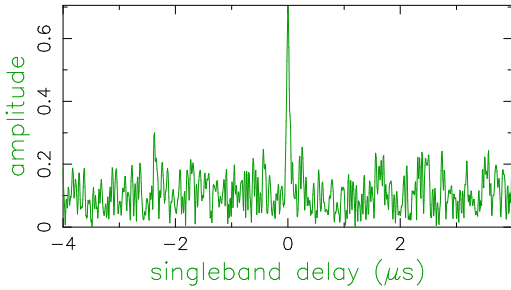
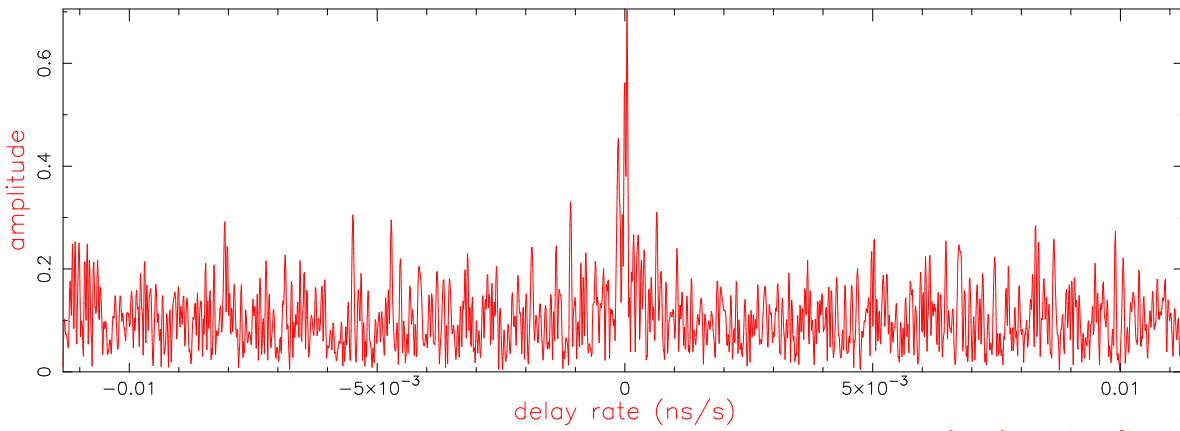
Z: az 257.8 el 25.5 pa 30.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 169.488 512.818 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZX.W.302.0QR0YU

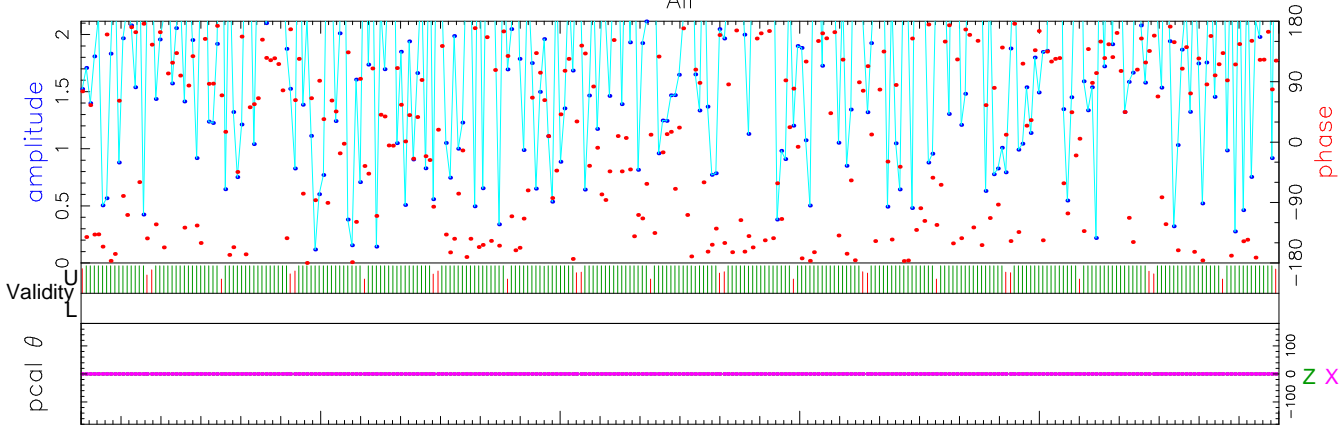
Fringe quality 9

SNR 8.2  
Int time 291.770  
Amp 0.706  
Phase 241.6  
PFD 3.0e-08  
Delays (us)  
SBD 0.001781  
MBD 0.000002  
Fringe rate (Hz)  
0.003651  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163704  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
159.6  
0.7  
513.2  
U/L 586/0  
Z 0  
X 0  
Z:X 0:0  
Z:X 0:0  
Z 1000  
X 1000  
Z W00UL  
X W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

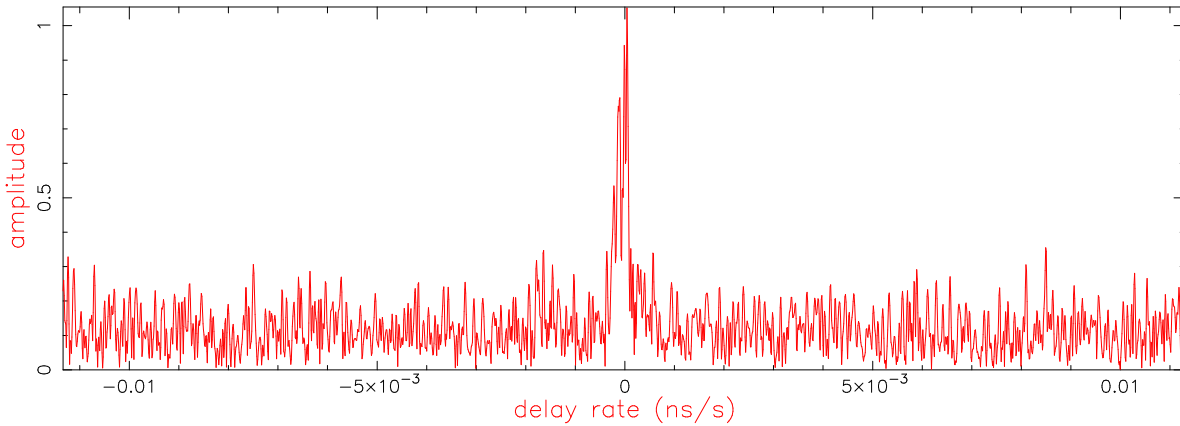
Group delay (usec)(sbd)	-2.30385601452E+03	Apriori delay (usec)	-2.30385779559E+03	Resid mbdelay (usec)	2.24275E-06	+/-	2.1E-03
Sband delay (usec)	-2.30385601459E+03	Apriori clock (usec)	-2.4921793E+01	Resid sbdelay (usec)	1.78100E-03	+/-	2.1E-03
Phase delay (usec)	-2.30385779044E+03	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	5.14728E-06	+/-	4.5E-07
Delay rate (us/s)	-2.56650330628E-02	Apriori rate (us/s)	-2.56650754465E-02	Resid rate (us/s)	4.23838E-08	+/-	2.6E-09
Total phase (deg)	57.3	Apriori accel (us/s/s)	1.29260425995E-05	Resid phase (deg)	241.6	+/-	13.9

ph/seg (deg)	84.5	Theor.	119.0	Amplitude	0.706 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	235.9	Search (2048X8)	0.700	Search	0.700	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.635	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.3	Inc. frq. avg.	0.698	Inc. frq. avg.	0.698	Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

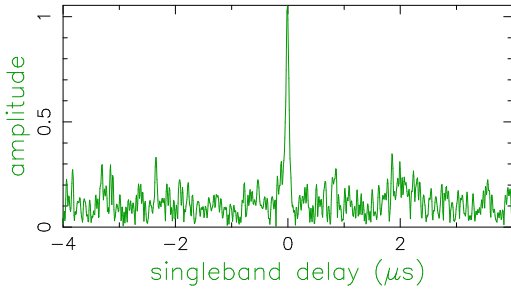
Z: az 257.8 el 25.5 pa 30.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 169.488 512.818 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZX.W.308.0QR0YU

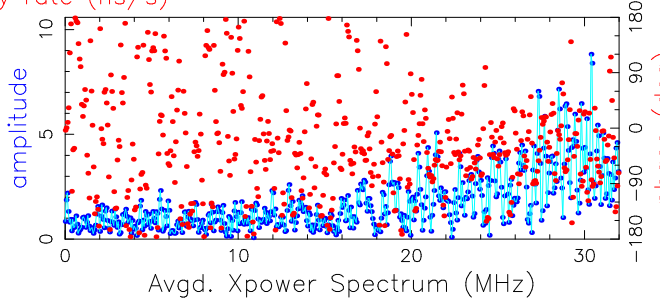
Fringe quality 9



SNR 12.3  
 Int time 291.770  
 Amp 1.054  
 Phase -189.3  
 PFD 2.0e-26  
 Delays (us)  
 SBD -0.009650  
 MBD -0.000001  
 Fringe rate (Hz)  
 0.003659  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



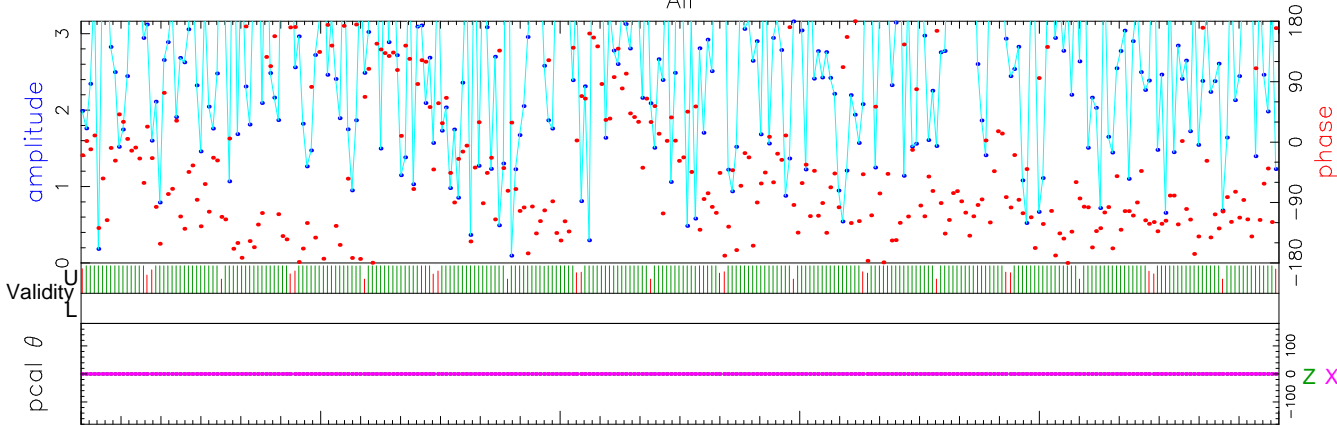
delay rate (ns/s)



Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163705  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec

All



86012.00  
 -104.6  
 1.1  
 511.8  
 U/L 586/0  
 Z 0  
 X 0  
 Z:X 0:0  
 Z:X 0:0  
 Z 1000  
 X 1000  
 Z W00UR  
 X W00UL

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-2.30386744603E+03	Apriori delay (usec)	-2.30385779559E+03	Resid mbdelay (usec)	-6.24760E-07	+/-	1.4E-03
Sband delay (usec)	-2.30386744559E+03	Apriori clock (usec)	-2.4921793E+01	Resid sbdelay (usec)	-9.65000E-03	+/-	1.4E-03
Phase delay (usec)	-2.30385779896E+03	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	-3.37388E-06	+/-	3.0E-07
Delay rate (us/s)	-2.56650329636E-02	Apriori rate (us/s)	-2.56650754465E-02	Resid rate (us/s)	4.24830E-08	+/-	1.7E-09
Total phase (deg)	-13.5	Apriori accel (us/s/s)	1.29260425995E-05	Resid phase (deg)	-189.3	+/-	9.3

ph/seg (deg)	80.9	Theor.	79.7	Amplitude	1.054 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	200.3	Search (2048X8)	1.048	Search	1.048	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	1.394	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.2	Inc. frq. avg.	1.048	Inc. frq. avg.	1.048	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

Z: az 257.8 el 25.5 pa 30.4 X: az 247.6 el 32.5 pa 31.4 u,v (fr/asec) 169.488 512.818 simultaneous interpolator

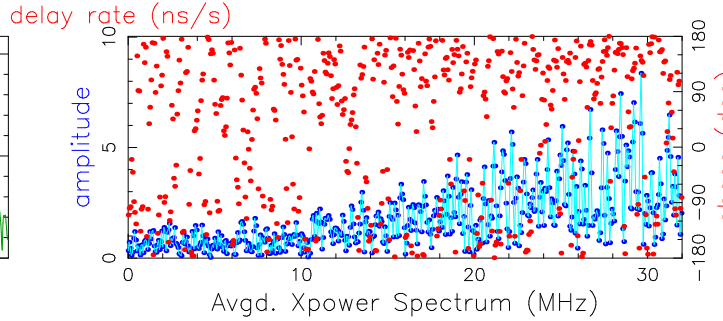
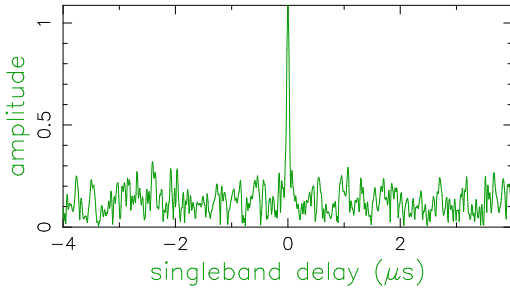
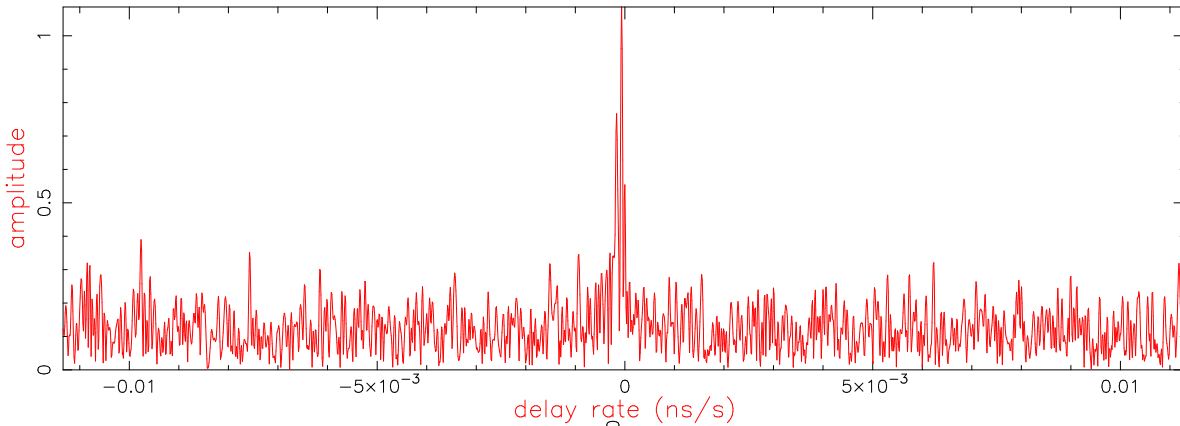
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZX..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZX.W.310.0QR0YU



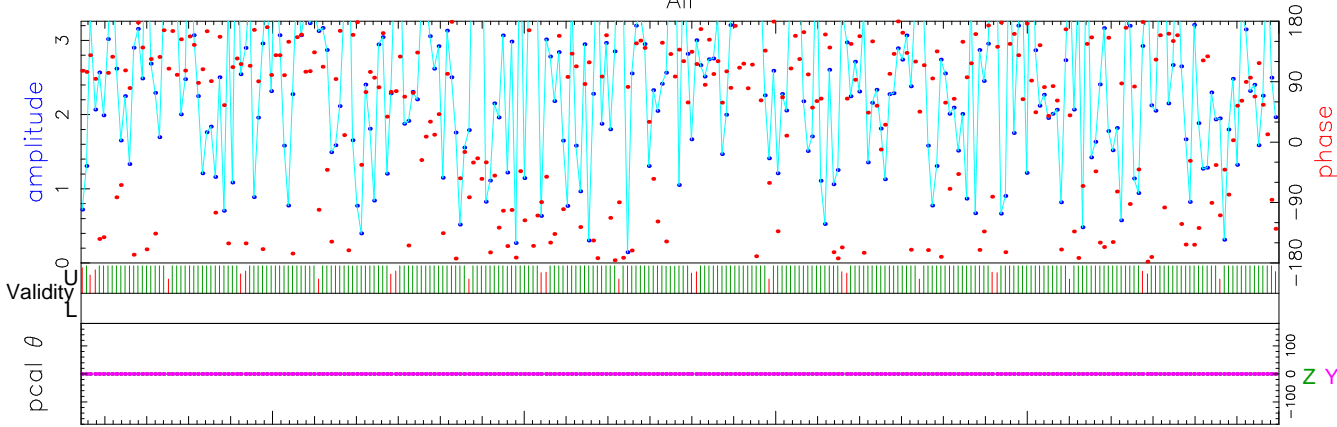
Fringe quality 9

SNR 12.4  
Int time 277.292  
Amp 1.086  
Phase 144.0  
PFD 1.0e-26  
Delays (us)  
SBD 0.000026  
MBD -0.000007  
Fringe rate (Hz)  
-0.006146  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163659  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
142.4  
1.1  
513.0  
U/L 558/0  
Z 0  
Y 0  
Z:Y 0:0  
Z:Y 0:0  
Z 1000  
Y 1000  
Z W00UL  
Y W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.72549857483E+03	Apriori delay (usec)	-6.72549860299E+03	Resid mbdelay (usec)	-6.71767E-06	+/- 1.4E-03
Sband delay (usec)	-6.72549857649E+03	Apriori clock (usec)	-6.8747673E+00	Resid sbdelay (usec)	2.65000E-05	+/- 1.4E-03
Phase delay (usec)	-6.72549859840E+03	Apriori clockrate (us/s)	3.5699999E-07	Resid phdelay (usec)	4.59229E-06	+/- 3.0E-07
Delay rate (us/s)	4.49835462437E-02	Apriori rate (us/s)	4.49836175961E-02	Resid rate (us/s)	-7.13525E-08	+/- 1.8E-09
Total phase (deg)	-94.1	Apriori accel (us/s/s)	4.26216030664E-05	Resid phase (deg)	144.0	+/- 9.3

ph/seg (deg)	77.7	Theor.	77.4	Amplitude	1.086 +/- 0.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-4.000	4.000
amp/seg (%)	170.4		135.0	Search (2048X8)	1.060	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.000	0.000
ph/frq (deg)	0.0		4.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.0		8.1	Inc. seg. avg.	1.316	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	1.083	Data rate(Mb/s): 128	nlags: 512	t_cohere infinite		

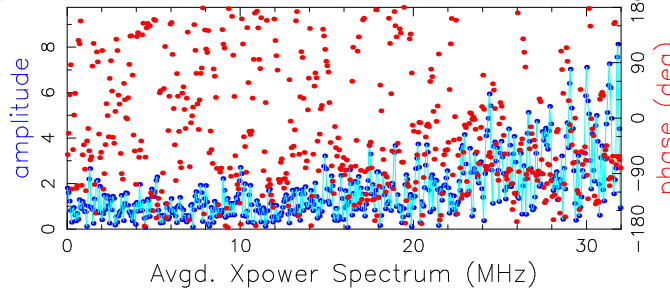
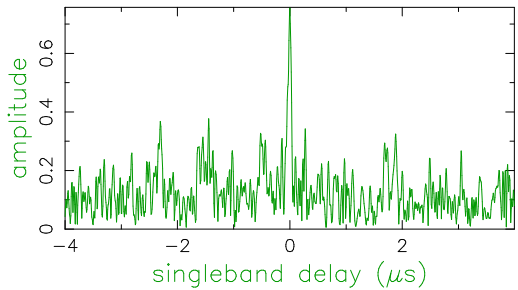
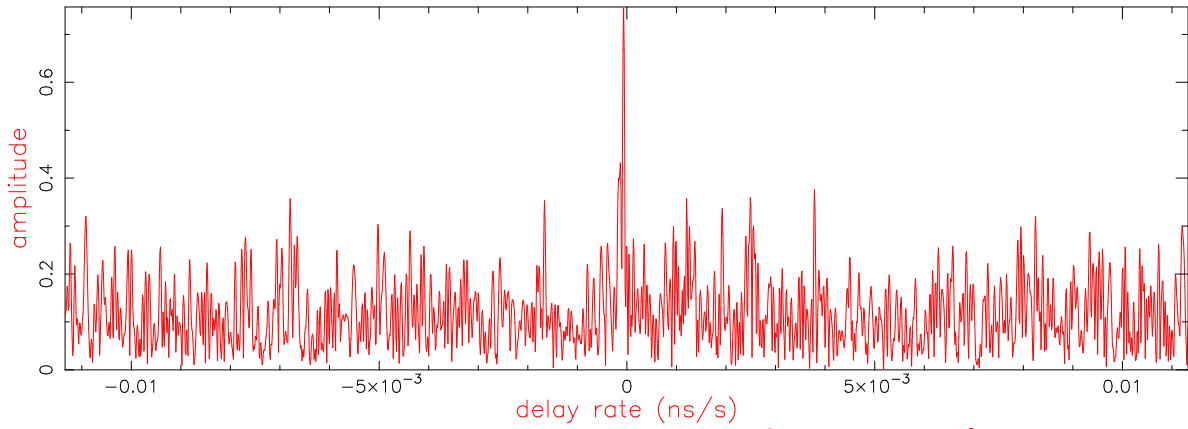
Z: az 257.8 el 25.5 pa 30.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -213.535 2835.037 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZY.W.272.0QR0YU

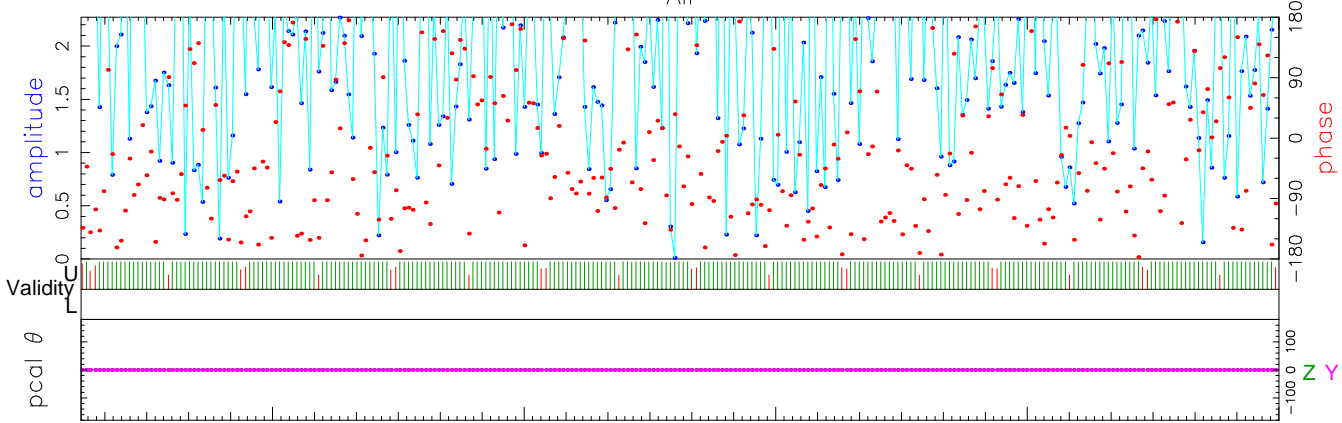
Fringe quality 9

SNR 8.6  
Int time 277.292  
Amp 0.757  
Phase -190.6  
PFD 1.2e-09  
Delays (us)  
SBD -0.002127  
MBD -0.000006  
Fringe rate (Hz)  
-0.006124  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163700  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00 Freq (MHz)  
-93.1 Phase  
0.8 Ampl.  
512.8 Sbd box  
U/L 558/0 APs used  
Z 0 PC freqs  
Y 0 PC freqs  
Z:Y 0:0 PC phase  
Z:Y 0:0 Mani PC  
Z 1000 PC amp  
Y 1000  
Z W00UR Chan ids  
Y W00UR Chan ids

Group delay (usec)(sbd)	-6.72550072494E+03	Apriori delay (usec)	-6.72549860299E+03	Resid mbdelay (usec)	-5.96912E-06	+/-	2.0E-03
Sband delay (usec)	-6.72550072999E+03	Apriori clock (usec)	-6.8747673E+00	Resid sbdelay (usec)	-2.12700E-03	+/-	2.0E-03
Phase delay (usec)	-6.72549860599E+03	Apriori clockrate (us/s)	3.5699999E-07	Resid phdelay (usec)	-3.00177E-06	+/-	4.3E-07
Delay rate (us/s)	4.49835464980E-02	Apriori rate (us/s)	4.49836175961E-02	Resid rate (us/s)	-7.10981E-08	+/-	2.6E-09
Total phase (deg)	-68.7	Apriori accel (us/s/s)	4.26216030664E-05	Resid phase (deg)	-190.6	+/-	13.3

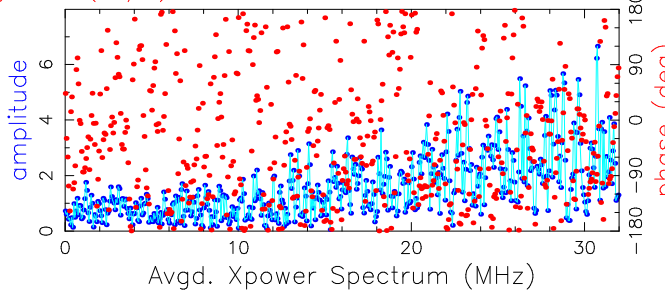
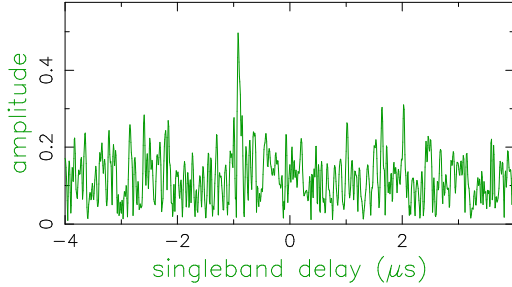
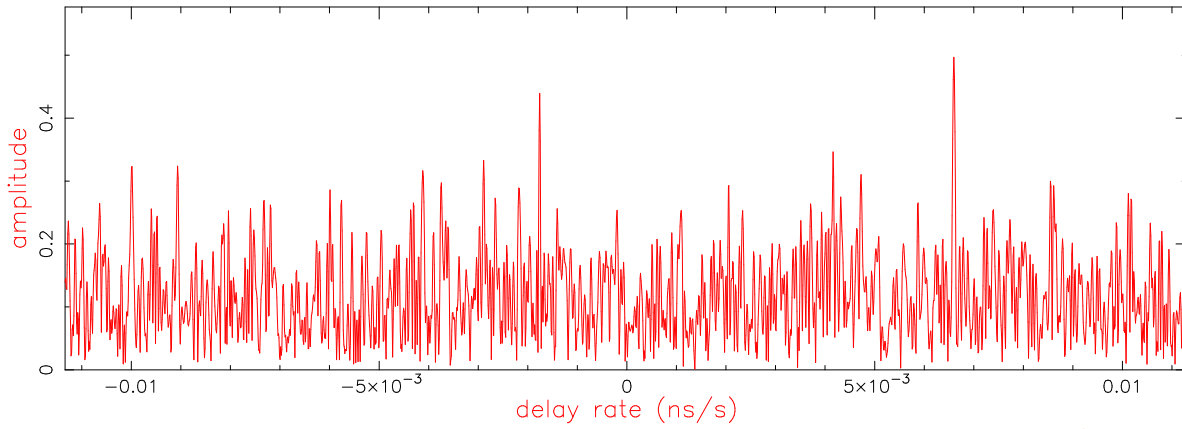
ph/seg (deg)	86.8	Theor.	111.0	Amplitude	0.757 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	234.8	Search (2048X8)	0.737	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.739	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.4	Inc. frq. avg.	0.749	Inc. frq. avg.	0.749	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

Z: az 257.8 el 25.5 pa 30.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -213.535 2835.037 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZY.W.282.0QR0YU

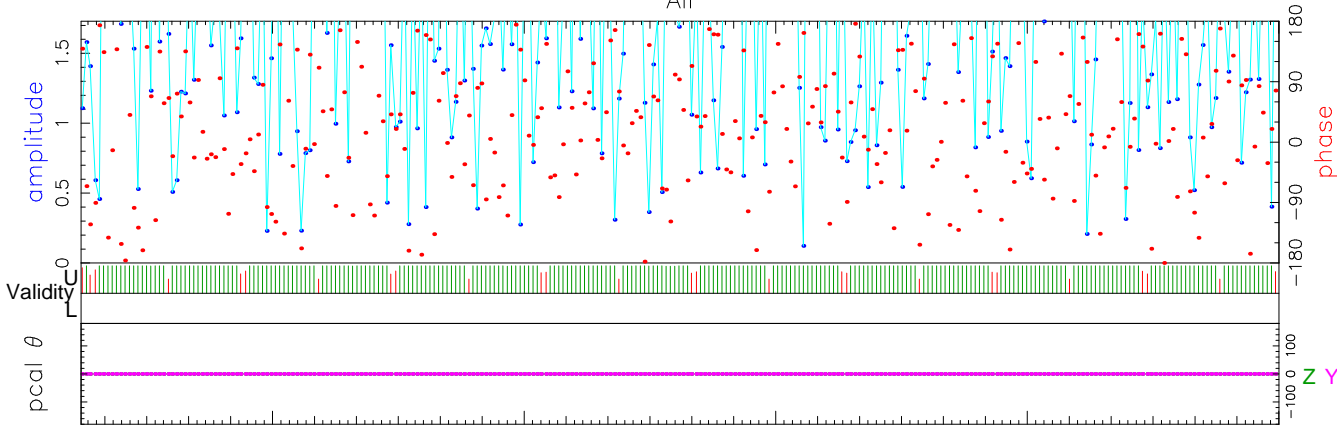
Fringe quality 0

SNR 5.7  
Int time 277.292  
Amp 0.577  
Phase -243.4  
PFD 8.0e-01  
Delays (us)  
SBD -0.919953  
MBD 0.000007  
Fringe rate (Hz)  
0.569567  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163702  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
28.5  
0.6  
395.3  
U/L 558/0  
Z 0  
Y 0  
Z:Y 0:0  
Z:Y 0:0  
Z 1000  
Y 1000  
Z W00UL  
Y W00UR

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.72641856039E+03	Apriori delay (usec)	-6.72549860299E+03	Resid mbdelay (usec)	7.26006E-06	+/-	3.0E-03
Sband delay (usec)	-6.72641855549E+03	Apriori clock (usec)	-6.8747673E+00	Resid sbdelay (usec)	-9.19953E-01	+/-	3.0E-03
Phase delay (usec)	-6.72549860207E+03	Apriori clockrate (us/s)	3.5699999E-07	Resid phdelay (usec)	9.19969E-07	+/-	6.5E-07
Delay rate (us/s)	4.49902297077E-02	Apriori rate (us/s)	4.49836175961E-02	Resid rate (us/s)	6.61211E-06	+/-	3.9E-09
Total phase (deg)	-121.6	Apriori accel (us/s/s)	4.26216030664E-05	Resid phase (deg)	-243.4	+/-	20.2

ph/seg (deg)	89.9	Theor.	168.3	Amplitude	0.577 +/- 0.101	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	369.0	Search (2048X8)	0.491	Search	0.491	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000		
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.433	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000
amp/frq (%)	0.5	Inc. frq. avg.	0.565	Inc. frq. avg.	0.565	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		

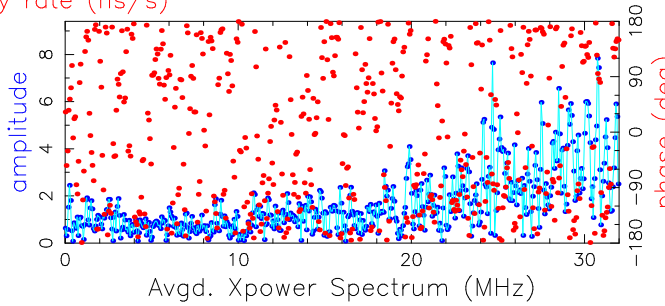
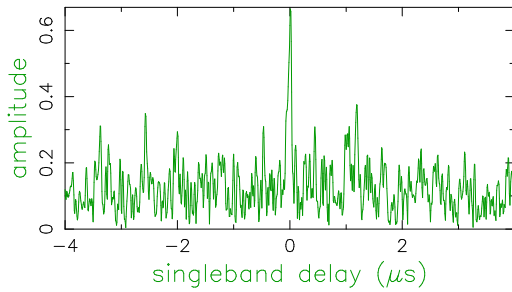
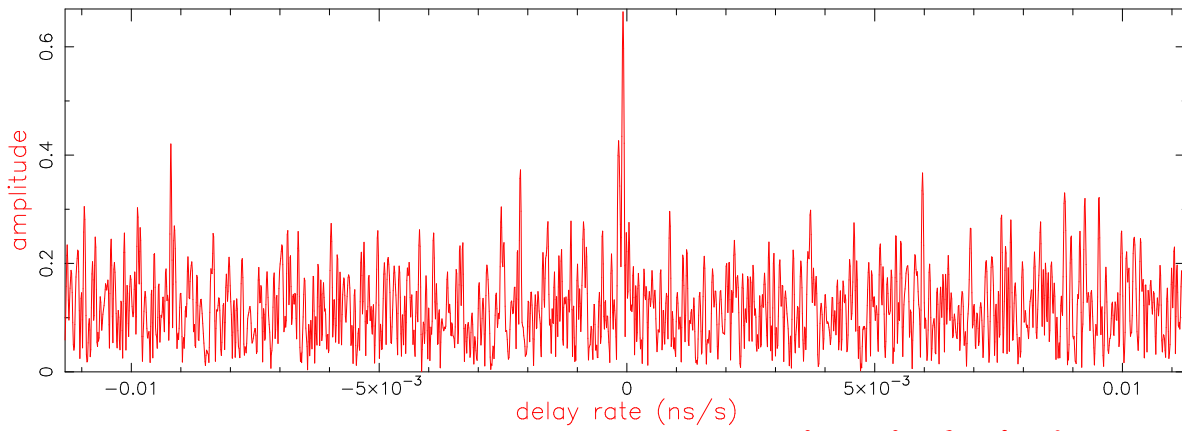
Z: az 257.8 el 25.5 pa 30.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -213.535 2835.037 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZY.W.298.0QR0YU

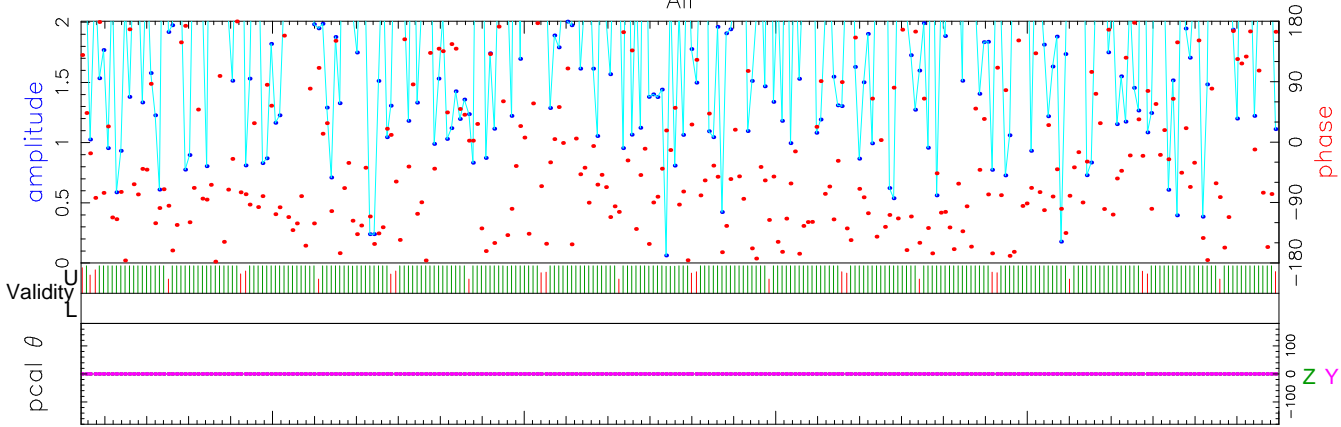
Fringe quality 9

SNR 7.6  
Int time 277.292  
Amp 0.670  
Phase 50.9  
PFD 4.0e-06  
Delays (us)  
SBD 0.010943  
MBD -0.000006  
Fringe rate (Hz)  
-0.006579  
Ion TEC 0.000  
Ref freq (MHz)  
86140.000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125514.34  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 279 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-93.7  
0.7  
514.4  
U/L 558/0  
Z 0  
Y 0  
Z:Y 0:0  
Z:Y 0:0  
Z 1000  
Y 1000  
Z W00UR  
Y W00UL

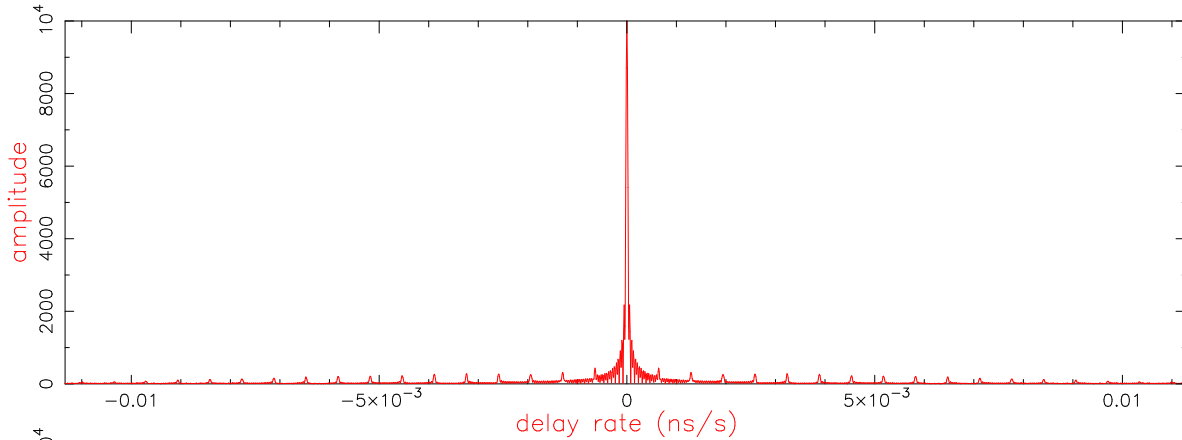
Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Manl PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	-6.72548765732E+03	Apriori delay (usec)	-6.72549860299E+03	Resid mbdelay (usec)	-6.29047E-06	+/-	2.3E-03
Sband delay (usec)	-6.72548766049E+03	Apriori clock (usec)	-6.8747673E+00	Resid sbdelay (usec)	1.09425E-02	+/-	2.3E-03
Phase delay (usec)	-6.72549860601E+03	Apriori clockrate (us/s)	3.5699999E-07	Resid phdelay (usec)	-3.02245E-06	+/-	4.8E-07
Delay rate (us/s)	4.49835412172E-02	Apriori rate (us/s)	4.49836175961E-02	Resid rate (us/s)	-7.63790E-08	+/-	2.9E-09
Total phase (deg)	172.8	Apriori accel (us/s/s)	4.26216030664E-05	Resid phase (deg)	50.9	+/-	15.0

ph/seg (deg)	85.2	Theor.	125.5	Amplitude	0.670 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	265.2	Search (2048X8)	0.663	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000	4.000		
ph/frq (deg)	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000	0.000
amp/frq (%)	0.8	Inc. seg. avg.	0.619	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.659	Data rate(Mb/s):	128	ion window (TEC)	0.00	0.00		

Z: az 257.8 el 25.5 pa 30.4 Y: az 246.0 el 48.3 pa 46.5 u,v (fr/asec) -213.535 2835.037 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps2/f191a/FRINGE/1234/No0007//ZY..0QR0YU Output file: /Exps2/f191a/FRINGE/1234/No0007//ZY.W.307.0QR0YU



Fringe quality 9

SNR 116796.0

Int time 291.864

Ampl 10000.000

Phase -0.2

PFD 0.0e+00

Delays (us)

SBD 0.000000

MBD -0.000004

Fringe rate (Hz)

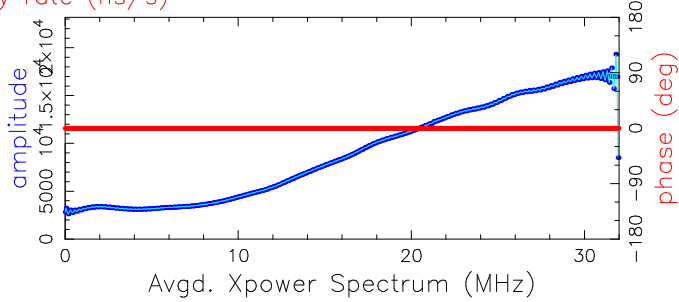
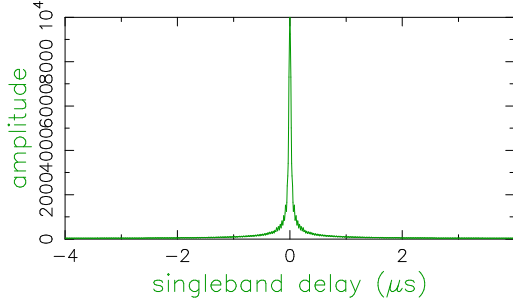
0.000000

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. f191a

Exper # 16383

Yr:day 2019:094

Start 125500.00

Stop 130000.03

FRT 125730.00

Corr/FF/build

2019:176:093417

2019:212:163659

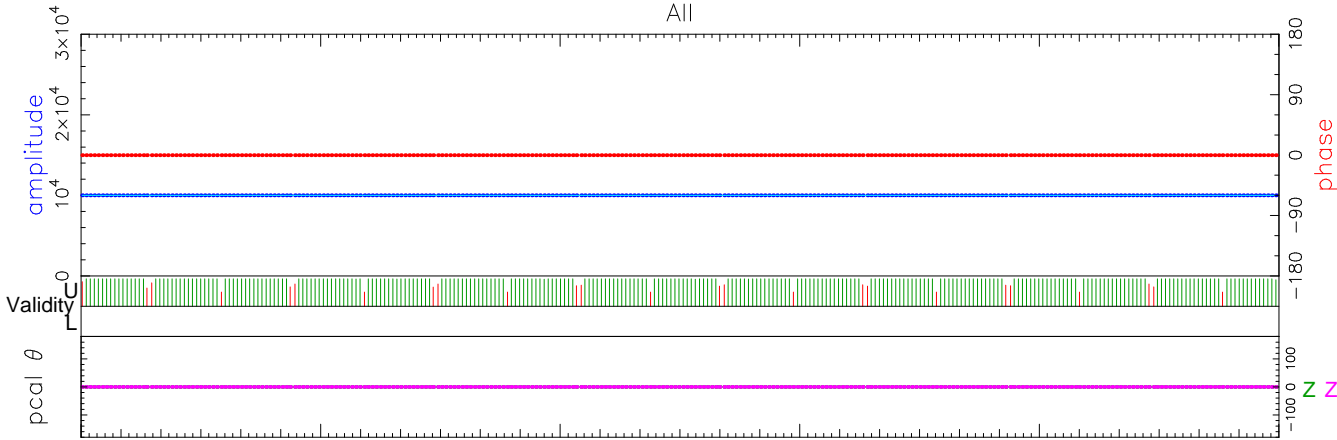
2018:249:082454

RA & Dec (J2000)

22h53m57.7479s

+16°08'53.561"

Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec



86012.00

-0.2

10000.0

513.0

U/L 586/0

Z 0

Z 0

Z:Z 0:0

Z:Z 0:0

Z 1000

Z 1000

Z W00UL

Z W00UL

Freq (MHz)

Phase

Ampl.

Sbd box

APs used

PC freqs

PC freqs

PC phase

Mani PC

PC amp

Chan ids

Chan ids

Group delay (usec)(sbd)	-4.37322699158E-06	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.37323E-06	+/-	1.5E-07
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-07
Phase delay (usec)	-5.68610892799E-09	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.68611E-09	+/-	3.2E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.8E-13
Total phase (deg)	-0.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-0.2	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	Search (2048X8)	10000.000	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Inc. frq. avg.	10000.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	Inc. frq. avg.	10000.000	Inc. frq. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

Z: az 257.8 el 25.5 pa 30.4      Z: az 257.8 el 25.5 pa 30.4      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ZZ..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ZZ.W.270.0QR0YU

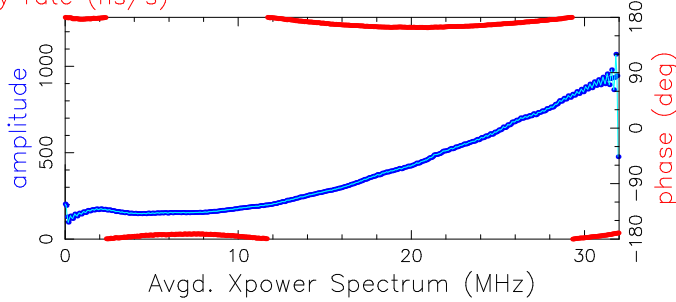
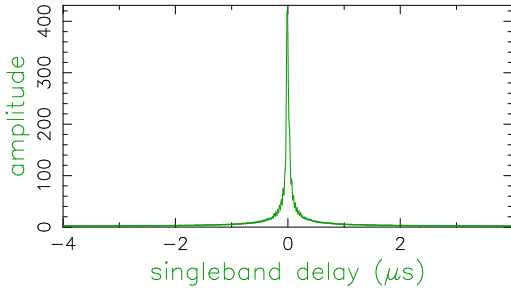
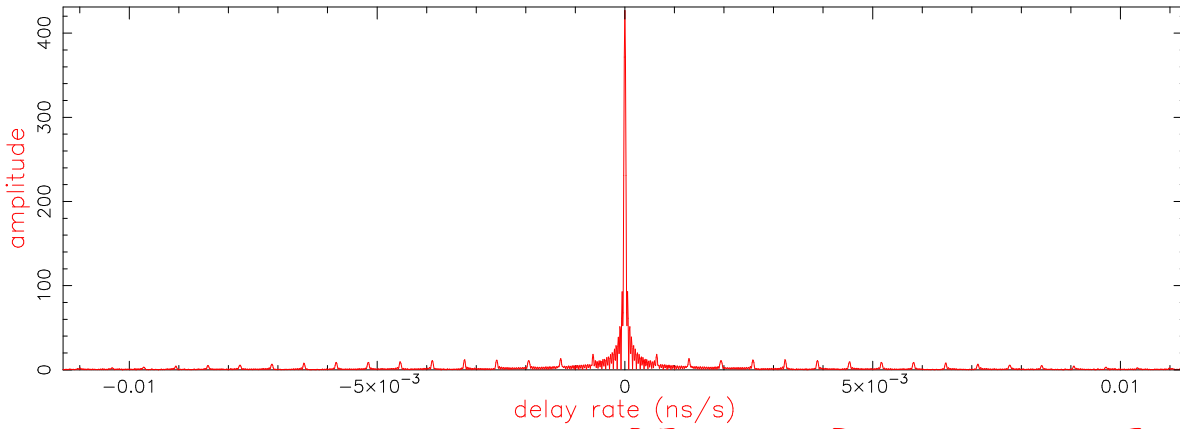




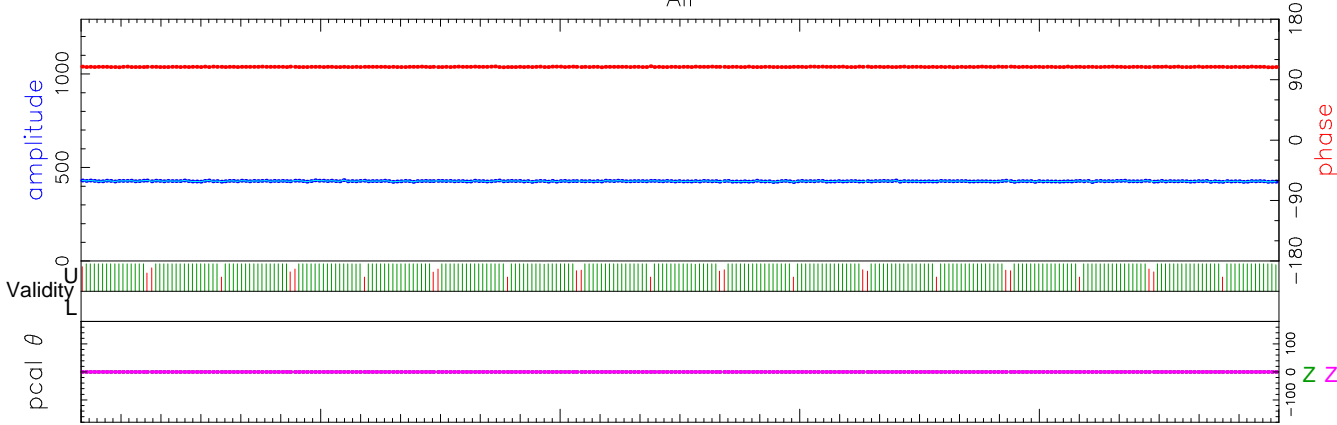
Fringe quality 9

SNR 5034.7  
 Int time 291.864  
 Amp 431.066  
 Phase -13.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010464  
 MBD -0.000004  
 Fringe rate (Hz)  
 0.000001  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. f191a  
 Exper # 16383  
 Yr:day 2019:094  
 Start 125500.00  
 Stop 130000.03  
 FRT 125730.00  
 Corr/FF/build  
 2019:176:093417  
 2019:212:163701  
 2018:249:082454  
 RA & Dec (J2000)  
 22h53m57.7479s  
 +16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
 All



86012.00  
 108.9  
 427.0  
 511.7  
 U/L 586/0  
 Z 0  
 Z 0  
 Z:Z 0:0  
 Z:Z 0:0  
 Z 1000  
 Z 1000  
 Z W00UL  
 Z W00UR

Freq (MHz)  
 Phase  
 Ampl.  
 Sbd box  
 APs used  
 PC freqs  
 PC phase  
 Mani PC  
 PC amp  
 Chan ids  
 Chan ids

Group delay (usec)(sbd)	-1.04680701763E-02	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	-4.41394E-06	+/-	3.4E-06
Sband delay (usec)	-1.0463500000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.04635E-02	+/-	3.4E-06
Phase delay (usec)	3.51260341742E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.51260E-06	+/-	7.3E-10
Delay rate (us/s)	7.08557619584E-12	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	7.08558E-12	+/-	4.2E-12
Total phase (deg)	-13.2	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-13.2	+/-	0.0

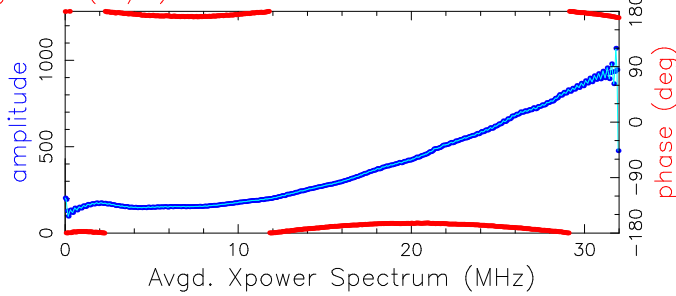
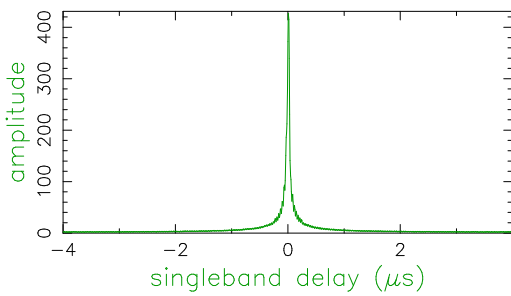
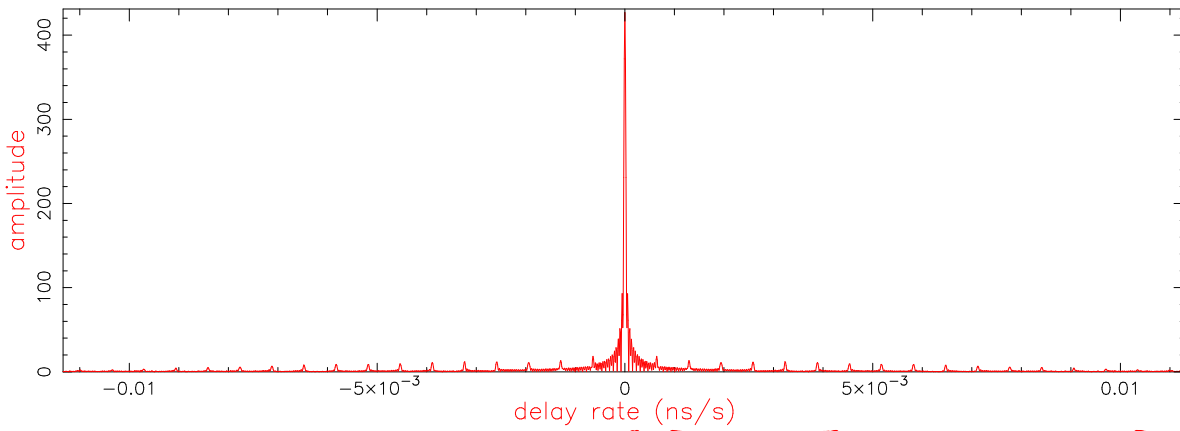
ph/seg (deg)	0.2	Theor.	0.2	Amplitude	431.066 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	1.0		0.3	Search (2048X8)	426.952	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.0		0.0	Inc. seg. avg.	426.952	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	426.952	Data rate(Mb/s):	128	ion window (TEC)	0.00 0.00

Z: az 257.8 el 25.5 pa 30.4      Z: az 257.8 el 25.5 pa 30.4      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
 Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ZZ..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ZZ.W.290.0QR0YU

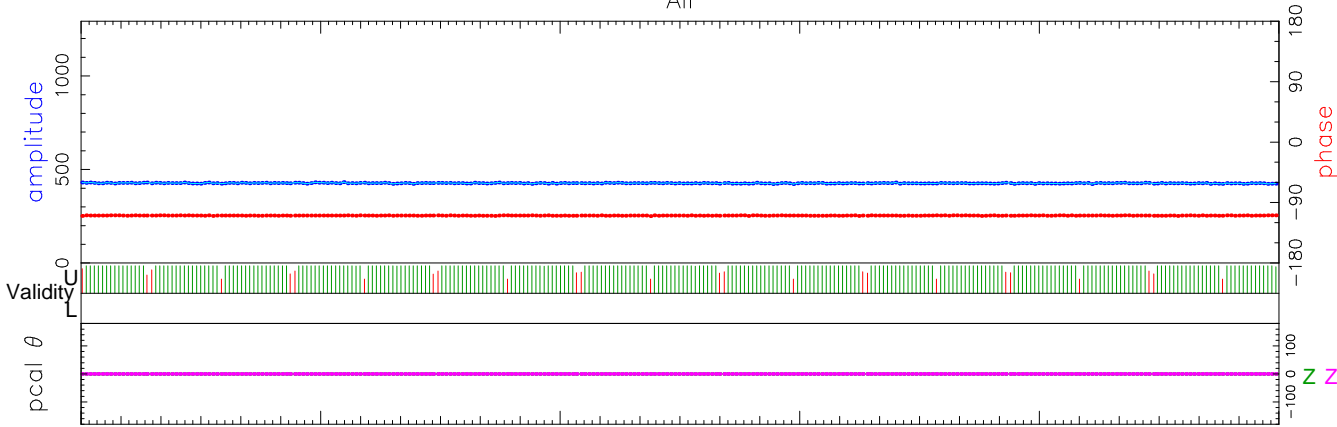
Fringe quality 9

SNR 5034.7  
Int time 291.864  
Amp 431.066  
Phase 12.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.010464  
MBD -0.000006  
Fringe rate (Hz)  
-0.000001  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. f191a  
Exper # 16383  
Yr:day 2019:094  
Start 125500.00  
Stop 130000.03  
FRT 125730.00  
Corr/FF/build  
2019:176:093417  
2019:212:163703  
2018:249:082454  
RA & Dec (J2000)  
22h53m57.7479s  
+16°08'53.561"



Amp. and Phase vs. time for each freq., 293 segs, 2 APs / seg (1.02 sec / seg.), time ticks 2 sec  
All



86012.00  
-109.3  
427.0  
514.3  
U/L 586/0  
Z 0  
Z 0  
Z:Z 0:0  
Z:Z 0:0  
Z 1000  
Z 1000  
Z W00UR  
Z W00UL

Freq (MHz)  
Phase  
Ampl.  
Sbd box  
APs used  
PC freqs  
PC phase  
Mani PC  
PC amp  
Chan ids  
Chan ids

Group delay (usec)(sbd)	1.04579252197E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.73101E-06	+/-	3.4E-06
Sband delay (usec)	1.04635000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.04635E-02	+/-	3.4E-06
Phase delay (usec)	-3.52579398081E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.52579E-06	+/-	7.3E-10
Delay rate (us/s)	-7.08557619584E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-7.08558E-12	+/-	4.2E-12
Total phase (deg)	12.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	12.8	+/-	0.0

ph/seg (deg)	0.2	Theor.	0.2	Amplitude	431.066 +/- 0.086	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	1.0		0.3	Search (2048X8)	426.952	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-4.000 4.000				
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.000 0.000		
amp/frq (%)	1.0		0.0	Inc. seg. avg.	426.952	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
				Inc. frq. avg.	426.952	Data rate(Mb/s):	128	nlags:	512	t_cohere	infinite	ion window (TEC)	0.00 0.00

Z: az 257.8 el 25.5 pa 30.4      Z: az 257.8 el 25.5 pa 30.4      u,v (fr/asec) 0.000 0.000      simultaneous interpolator  
Control file: cf\_1234\_gmva    Input file: /Exps2/f191a/FRINGE/1234/No0007//ZZ..0QR0YU    Output file: /Exps2/f191a/FRINGE/1234/No0007//ZZ.W.301.0QR0YU