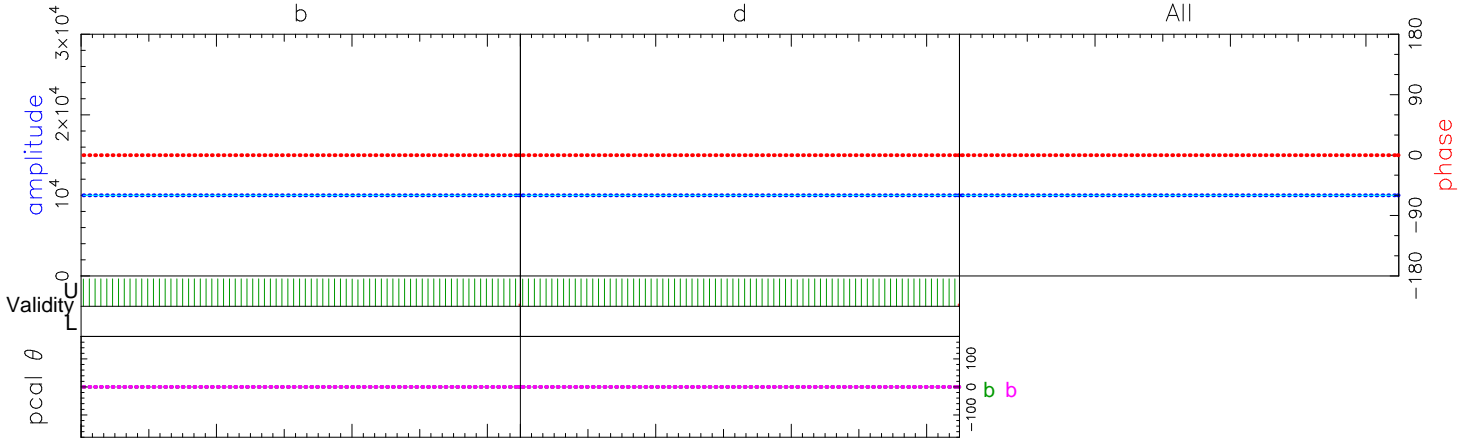
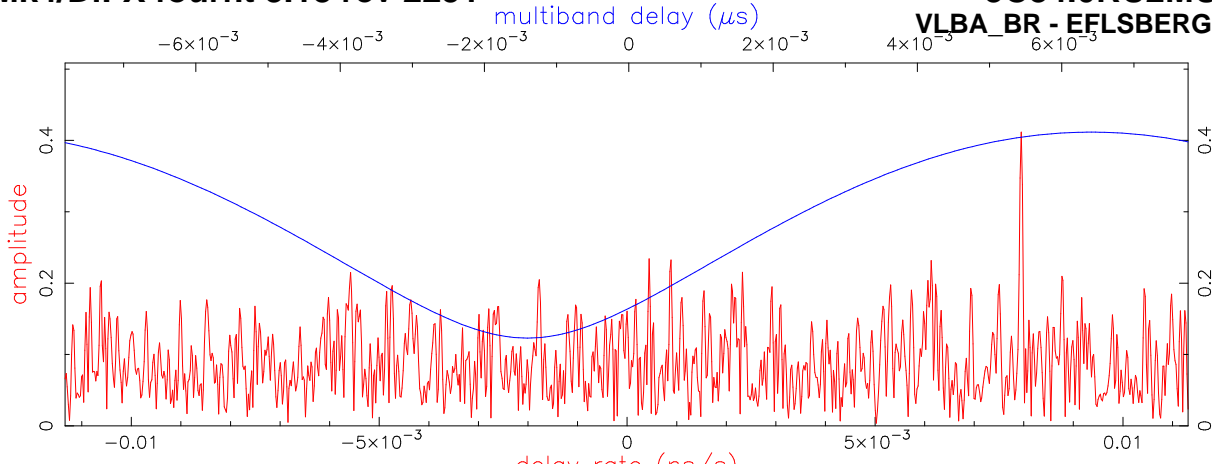


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
b 1000	1000	PC freqs					
b:b 0:0	0:0	PC phase					
b:b 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
b 1000	1000						
b W01UR	W03UR	Chan ids					
b W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.7E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.3E-07
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.8E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.5E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

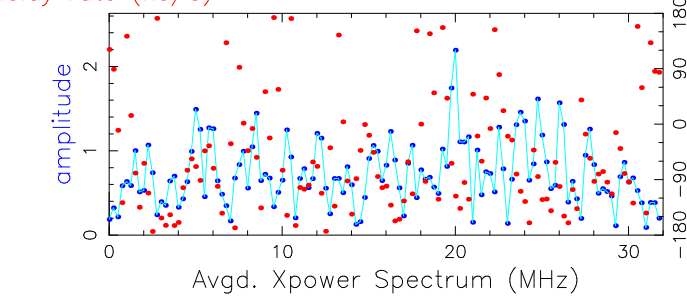
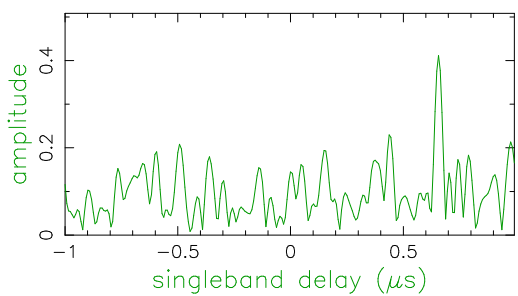
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.075	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	Search (1024X8)	10000.000	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	10000.000	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
			Inc. frq. avg.	10000.000	10000.000	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
								ion window (TEC)	0.00 0.00



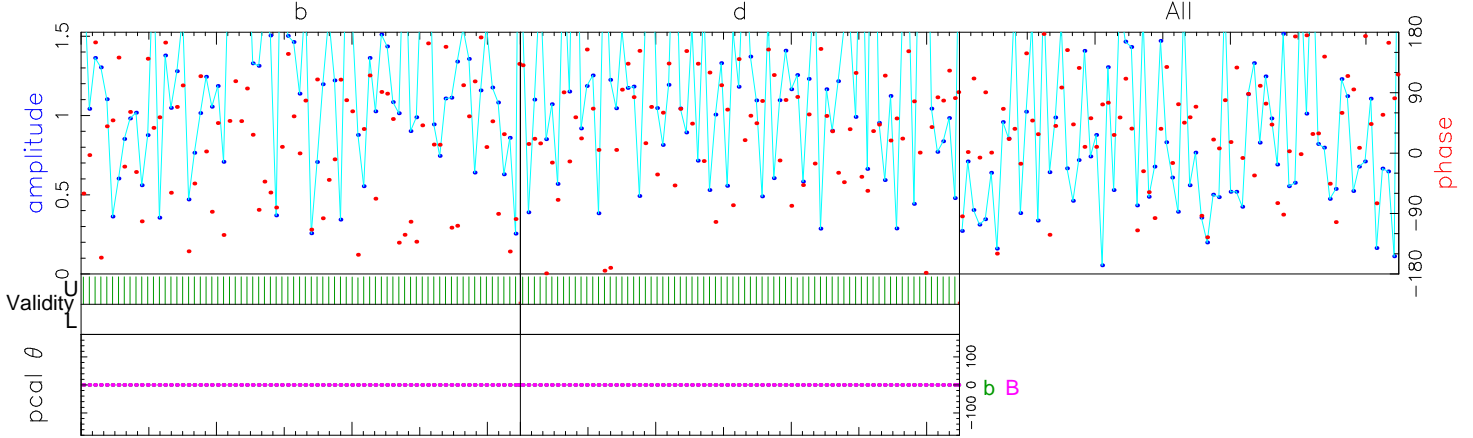
Fringe quality 0

SNR 5.5
 Int time 192.042
 Amp 0.509
 Phase -130.2
 PFD 4.1e-01
 Delays (us)
 SBD 0.656401
 MBD 0.006401
 Fringe rate (Hz) 0.685403
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150819
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

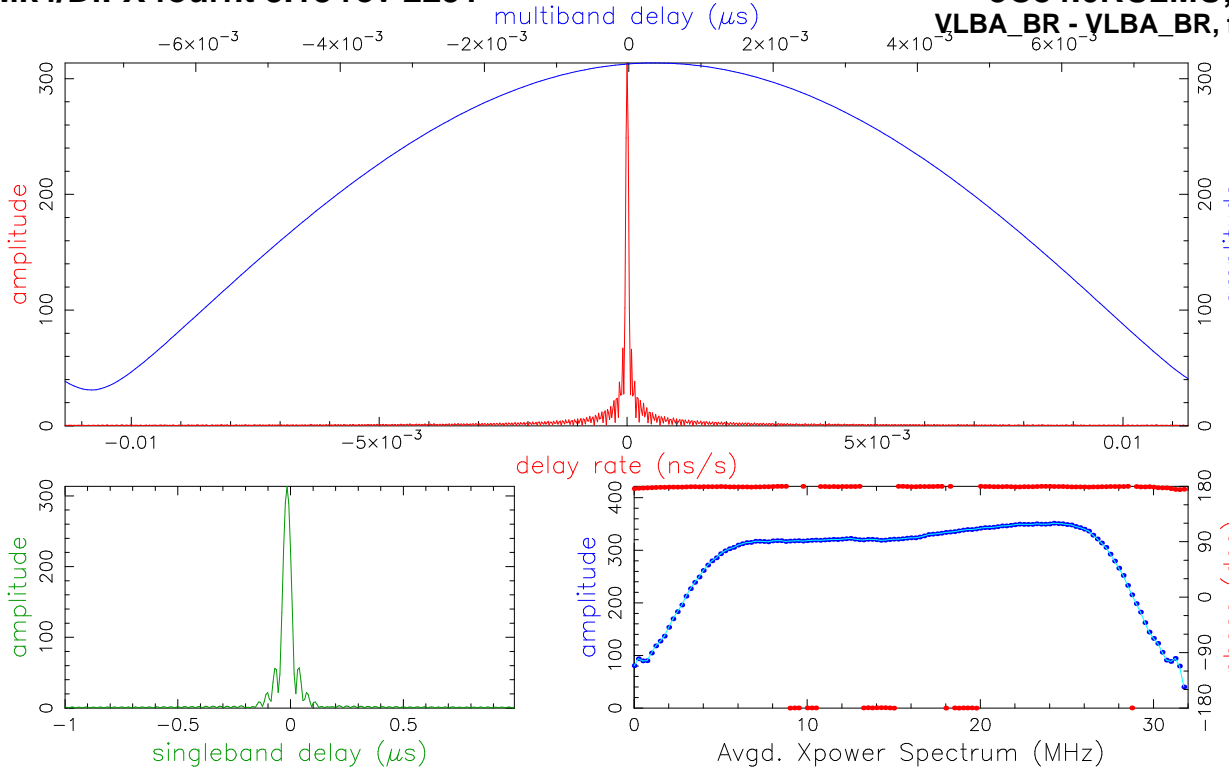


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
49.7	49.9	Phase	49.8				
0.4	0.7	Ampl.	0.5				
254.2	213.2	Sbd box	213.0				
U/L 376/0	376/0	APs used					
B 1000	1000	PC freqs					
b:B 0:0	0:0	PC freqs					
b:B 0:0	0:0	PC phase					
b 1000	1000	Mani PC					
B 1000	1000	PC amp					
b W01UL	W03UL	Chan ids					
B W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.56990432101E+02	Apriori delay (usec)	-1.57653083233E+02	Resid mbdelay (usec)	6.40113E-03	+/-	9.0E-04
Sband delay (usec)	-1.56996682733E+02	Apriori clock (usec)	-1.9326307E+01	Resid sbdelay (usec)	6.56401E-01	+/-	3.1E-03
Phase delay (usec)	-1.57653081626E+02	Apriori clockrate (us/s)	1.2700000E-07	Resid phdelay (usec)	1.60628E-06	+/-	6.7E-07
Delay rate (us/s)	1.35356740997E+00	Apriori rate (us/s)	1.35355945312E+00	Resid rate (us/s)	7.95685E-06	+/-	6.0E-09
Total phase (deg)	-342.5	Apriori accel (us/s/s)	-1.30795330635E-06	Resid phase (deg)	-130.2	+/-	20.8

ph/seg (deg) 79.2 90.6 Theor. Amplitude 0.509 +/- 0.092 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 160.6 158.1 Search (1024X8) 0.395 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.9 25.6 Inc. seg. avg. 0.469 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 B: az 283.1 el 47.1 pa 55.9 u,v (fr/asec) -10363.952 -170.641 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bB..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bB.W.23.0RU2MU simultaneous interpolator

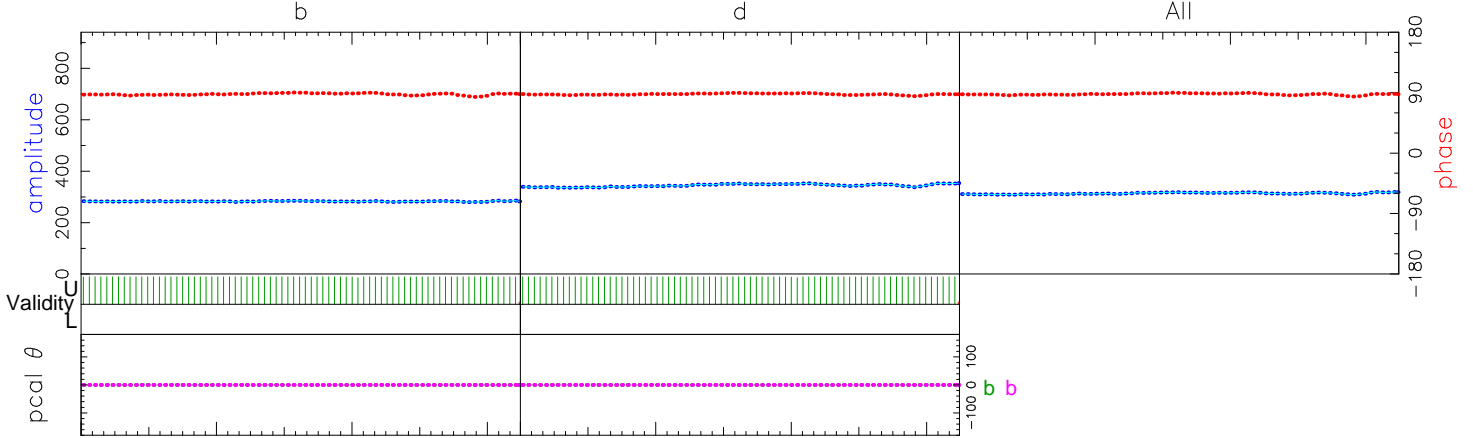


Fringe quality 9

SNR 4201.5
 Int time 192.043
 Amp 313.583
 Phase 177.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.015569
 MBD 0.000363
 Fringe rate (Hz)
 0.000059
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

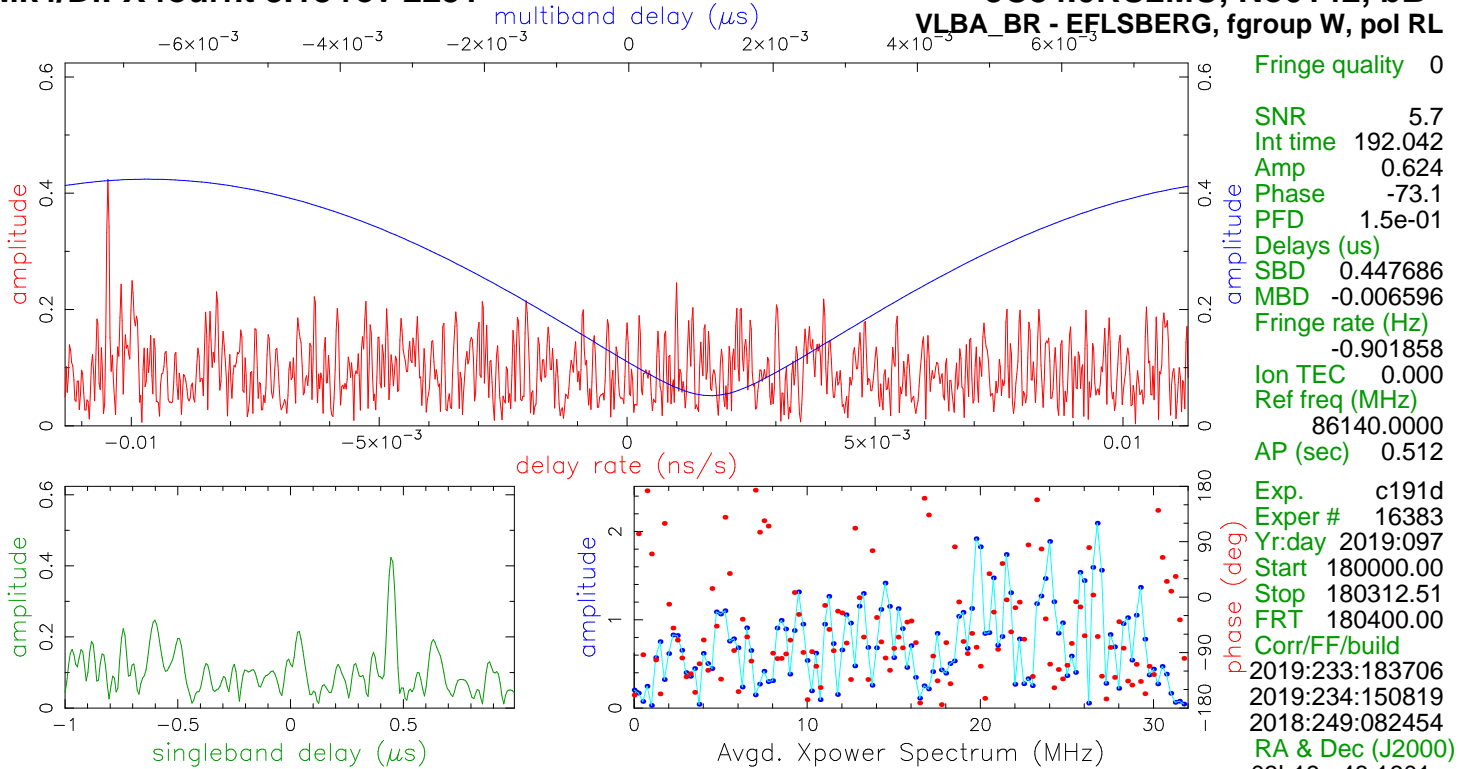
Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150819
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

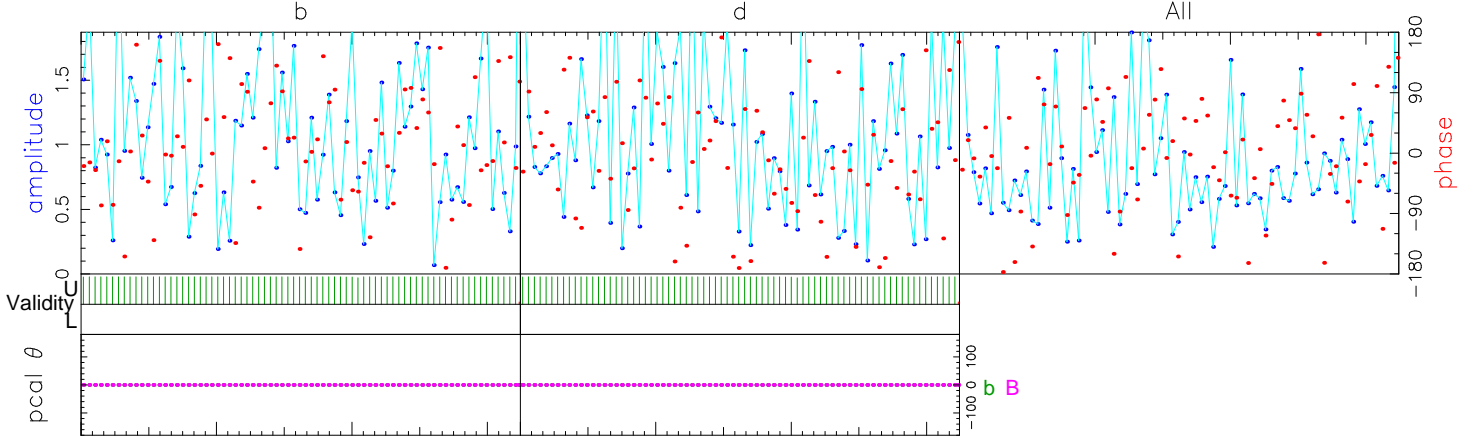


86156.00	86220.00	Freq (MHz)	All				
87.7	87.7	Phase	87.7				
282.7	344.5	Ampl.	313.6				
127.0	127.0	Sbd box	127.0				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
b 1000	1000	PC freqs					
b:b 0:0	0:0	PC phase					
b:b 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
b 1000	1000						
b W01UL	W03UL	Chan ids					
b W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.52617500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.63250E-04	+/-	1.2E-06
Sband delay (usec)	-1.55685000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.55685E-02	+/-	4.1E-06
Phase delay (usec)	2.82722329482E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.82722E-06	+/-	8.8E-10
Delay rate (us/s)	6.83049545279E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	6.83050E-10	+/-	7.9E-12
Total phase (deg)	177.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	177.7	+/-	0.0

ph/seg (deg)	1.2	0.1	Search (1024X8)	312.690	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	0.9	0.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	313.651	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	9.9	0.0	Inc. frq. avg.	313.582	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



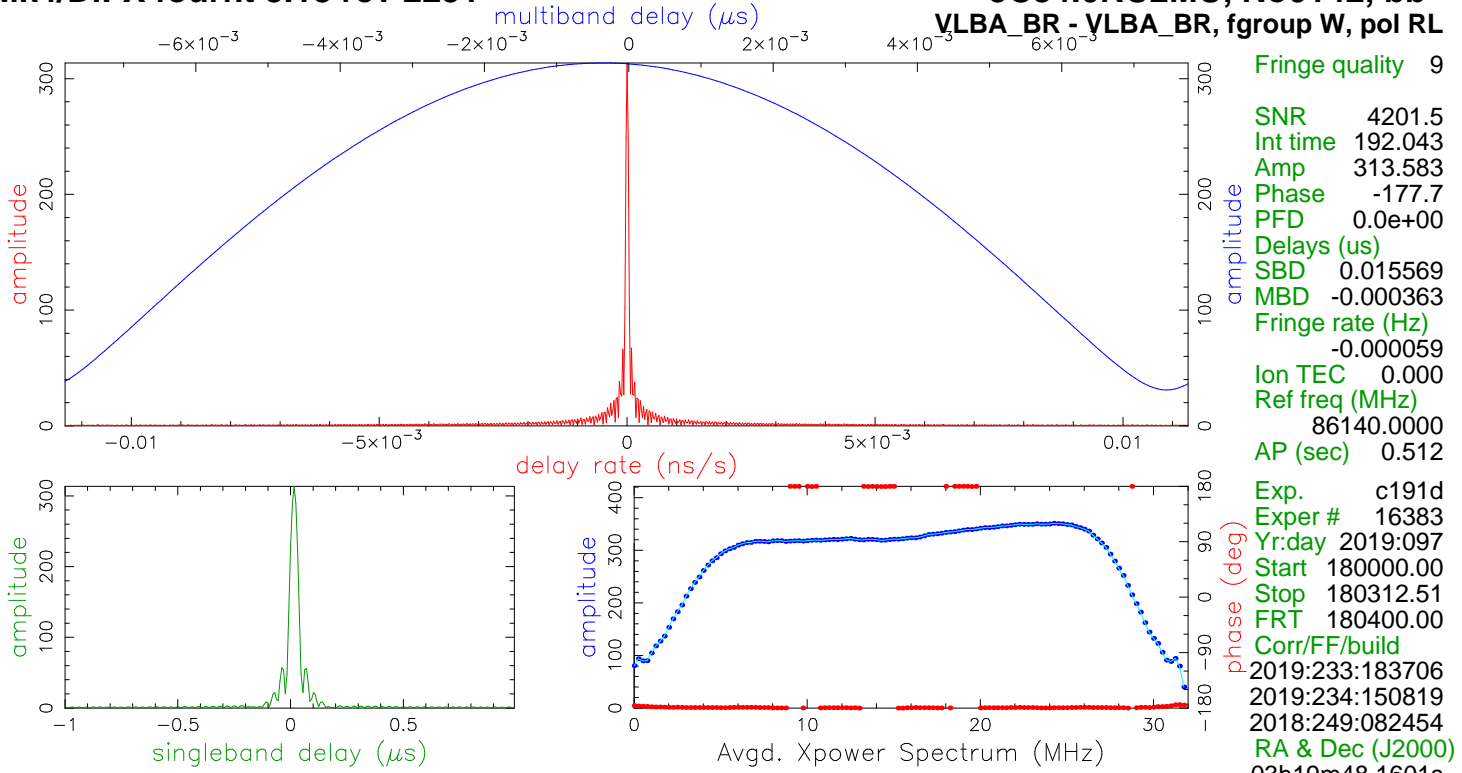
86156.00	86220.00	Freq (MHz)	All
17.7	15.9	Phase	16.9
0.7	0.5	Ampl.	0.6
185.6	187.1	Sbd box	186.3
UL 376/0	376/0	APs used	
b 1000	1000	PC freqs	
B 1000	1000	PC freqs	
b:B 0:0	0:0	PC phase	
b:B 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
B 1000	1000		
b W01UR	W03UR	Chan ids	
B W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.57206554410E+02	Apriori delay (usec)	-1.57653083233E+02	Resid mbdelay (usec)	-6.59618E-03	+/-	8.7E-04
Sband delay (usec)	-1.57205397233E+02	Apriori clock (usec)	-1.9326307E+01	Resid sbdelay (usec)	4.47686E-01	+/-	3.0E-03
Phase delay (usec)	-1.57653082689E+02	Apriori clockrate (us/s)	1.2700000E-07	Resid phdelay (usec)	5.43987E-07	+/-	6.5E-07
Delay rate (us/s)	1.35354898344E+00	Apriori rate (us/s)	1.35355945312E+00	Resid rate (us/s)	-1.04697E-05	+/-	5.8E-09
Total phase (deg)	-285.4	Apriori accel (us/s/s)	-1.30795330635E-06	Resid phase (deg)	-73.1	+/-	20.0

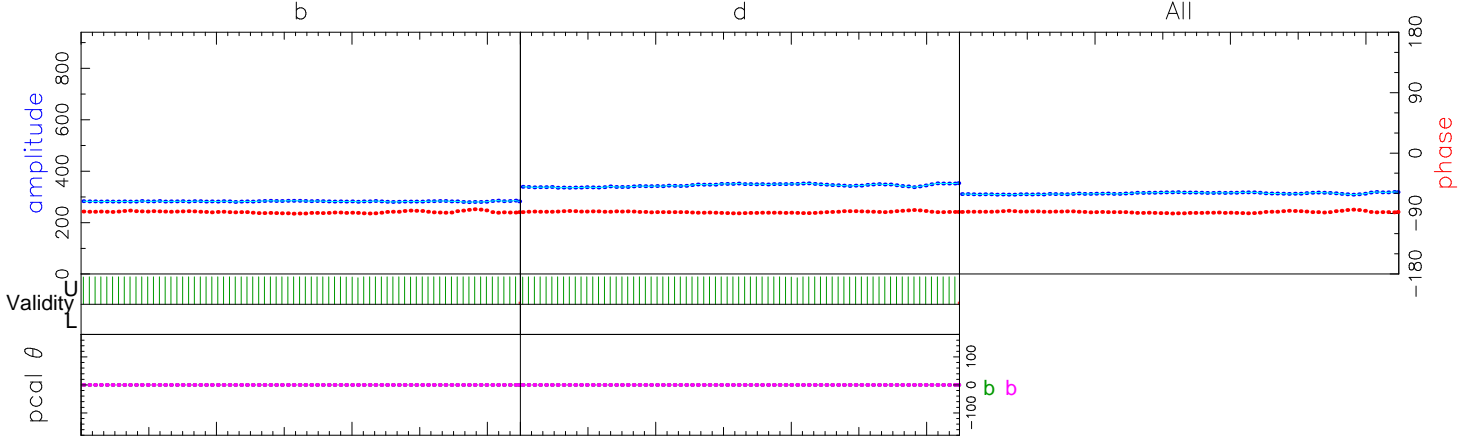
ph/seg (deg)	RMS 79.5	Theor. 87.3	Amplitude 0.624 +/- 0.109	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	156.6	152.4	Search (1024X8) 0.415	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.2	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	12.2	24.7	Inc. seg. avg. 0.599	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.601	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

b: az 73.4 el 45.3 pa -58.8 B: az 283.1 el 47.1 pa 55.9 u,v (fr/asec) -10363.952 -170.641 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bB..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bB.W.27.0RU2MU

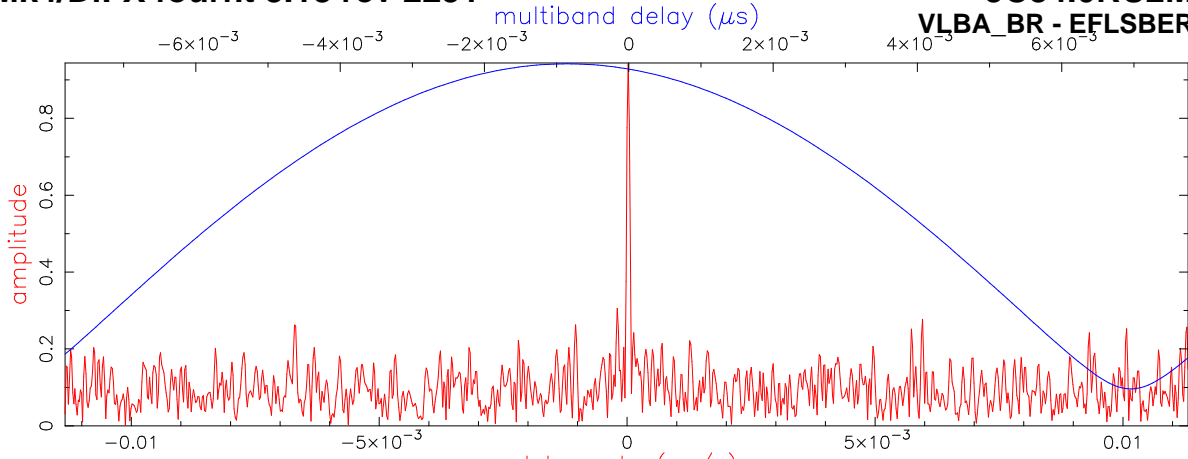


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-87.7	-87.7	Phase	-87.7				
282.7	344.5	Ampl.	313.6				
131.0	131.0	Sbd box	131.0				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
b 1000	1000	PC freqs					
b:b 0:0	0:0	PC phase					
b:b 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
b 1000	1000						
b W01UR	W03UR	Chan ids					
b W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.52617500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.63250E-04	+/-	1.2E-06
Sband delay (usec)	1.55685000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.55685E-02	+/-	4.1E-06
Phase delay (usec)	-2.82722329468E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.82722E-06	+/-	8.8E-10
Delay rate (us/s)	-6.83049545279E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-6.83050E-10	+/-	7.9E-12
Total phase (deg)	-177.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-177.7	+/-	0.0

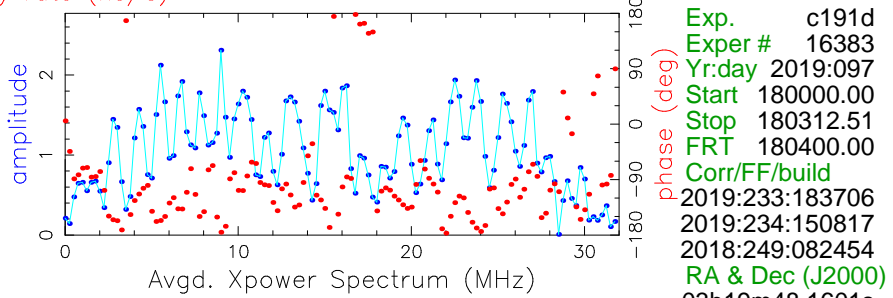
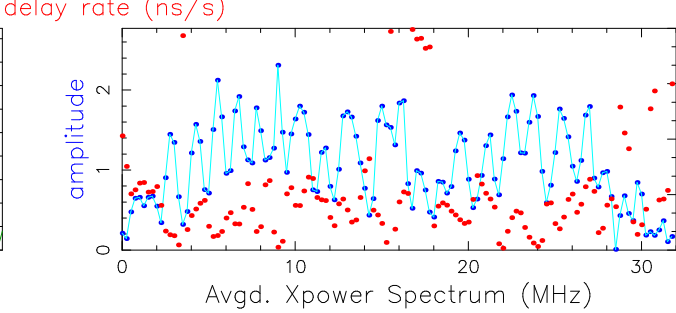
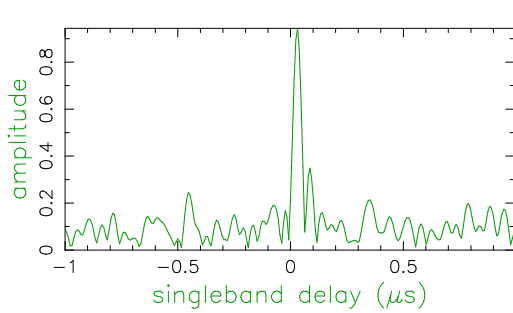
ph/seg (deg)	1.2	0.1	Amplitude	313.583 +/- 0.075	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.9	0.2	Search (1024X8)	312.690	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	9.9	0.0	Inc. seg. avg.	313.651	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
			Inc. frq. avg.	313.582	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
							ion window (TEC)	0.00 0.00



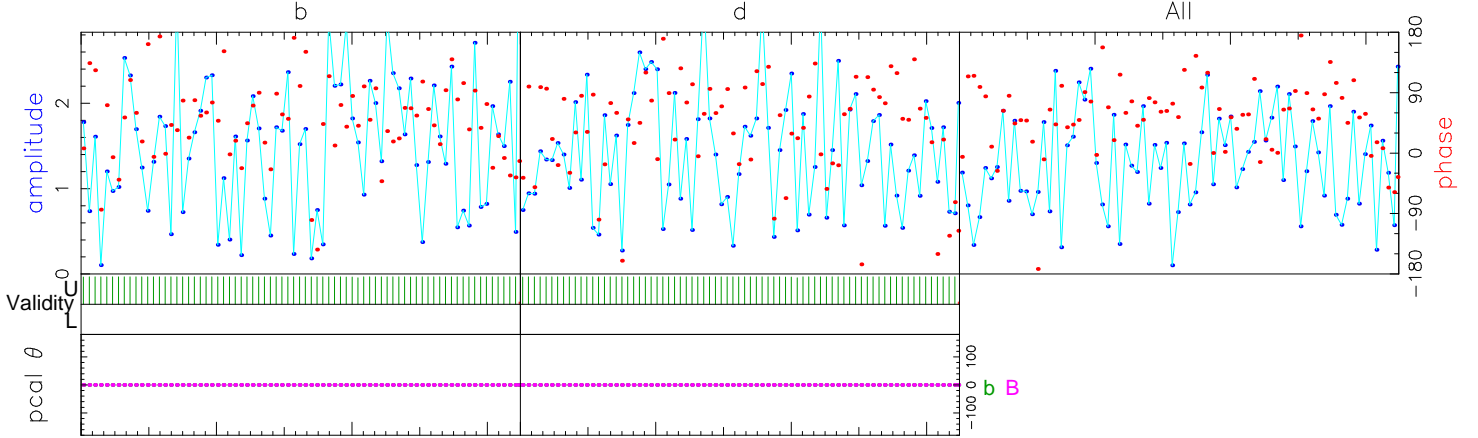
Fringe quality 9

SNR 12.6
Int time 192.042
Amp 0.944
Phase -124.9
PFD 3.8e-29
Delays (us)
SBD 0.029862
MBD -0.000845
Fringe rate (Hz) 0.001364
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150817
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

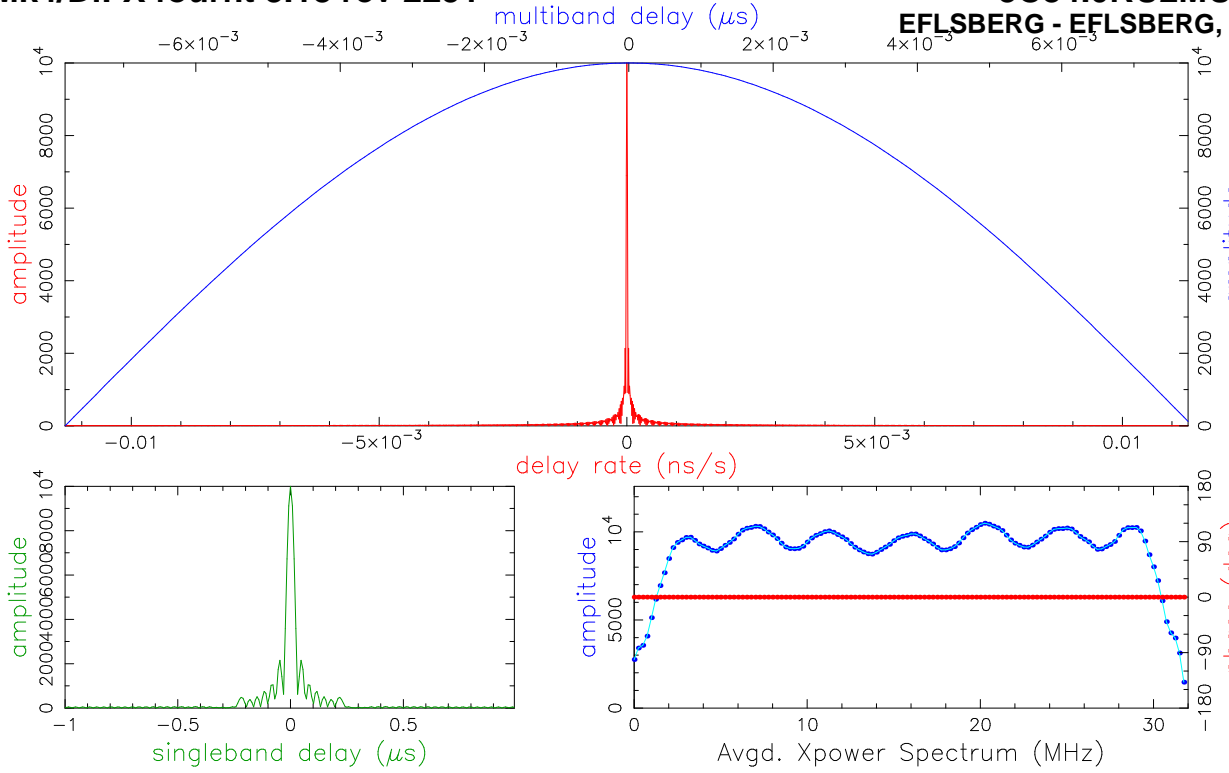


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All			
55.1	54.9	Phase	55.1			
1.0	0.8	Ampl.	0.9			
133.0	132.7	Sbd box	132.8			
U/L 376/0	376/0	APs used				
b 1000	1000	PC freqs				
B 1000	1000	PC freqs				
b:B 0:0	0:0	PC phase				
b:B 0:0	0:0	Manl PC				
b 1000	1000	PC amp				
B 1000	1000					
b W01UL	W03UL	Chan ids				
B W01UL	W03UL	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	-1.57622678174E+02	Apriori delay (usec)	-1.57653083233E+02	Resid mbdelay (usec)	-8.44941E-04	+/- 3.9E-04
Sband delay (usec)	-1.57623221233E+02	Apriori clock (usec)	-1.9326307E+01	Resid sbdelay (usec)	2.98620E-02	+/- 1.4E-03
Phase delay (usec)	-1.57653081457E+02	Apriori clockrate (us/s)	1.2700000E-07	Resid phdelay (usec)	1.77535E-06	+/- 2.9E-07
Delay rate (us/s)	1.35355946895E+00	Apriori rate (us/s)	1.35355945312E+00	Resid rate (us/s)	1.58306E-08	+/- 2.6E-09
Total phase (deg)	-337.2	Apriori accel (us/s/s)	-1.30795330635E-06	Resid phase (deg)	-124.9	+/- 9.1

ph/seg (deg) 49.0 39.5 Search (1024X8) 0.917 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 69.9 68.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 6.4 Inc. seg. avg. 1.049 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 10.2 11.2 Inc. frq. avg. 0.936 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 B: az 283.1 el 47.1 pa 55.9 u.v (fr/asec) -10363.952 -170.641 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bB..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bB.W.3.0RU2MU simultaneous interpolator

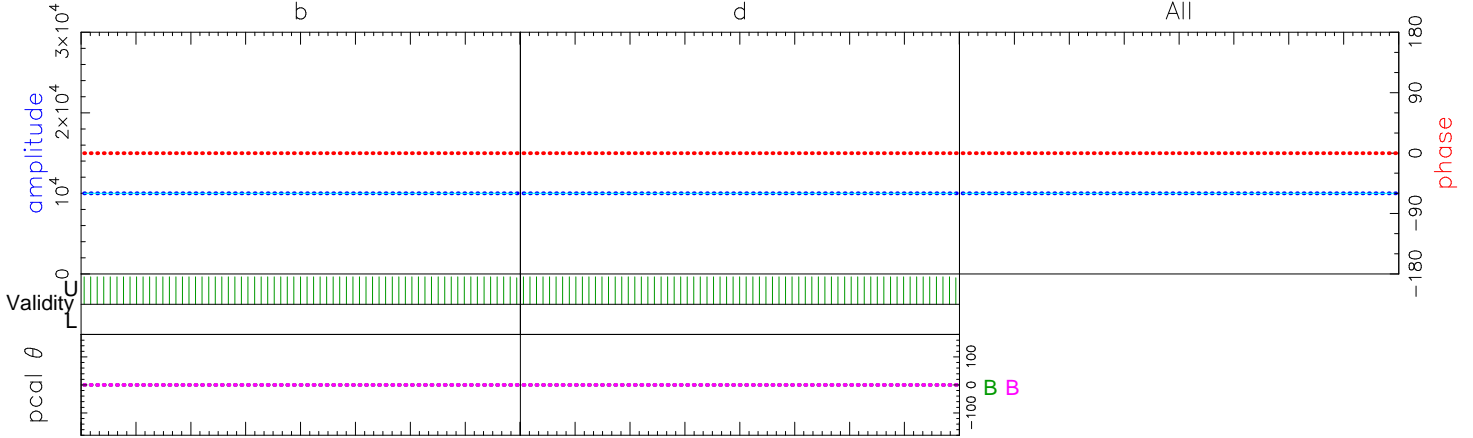


Fringe quality 9

SNR 211823.1
 Int time 480.000
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150820
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

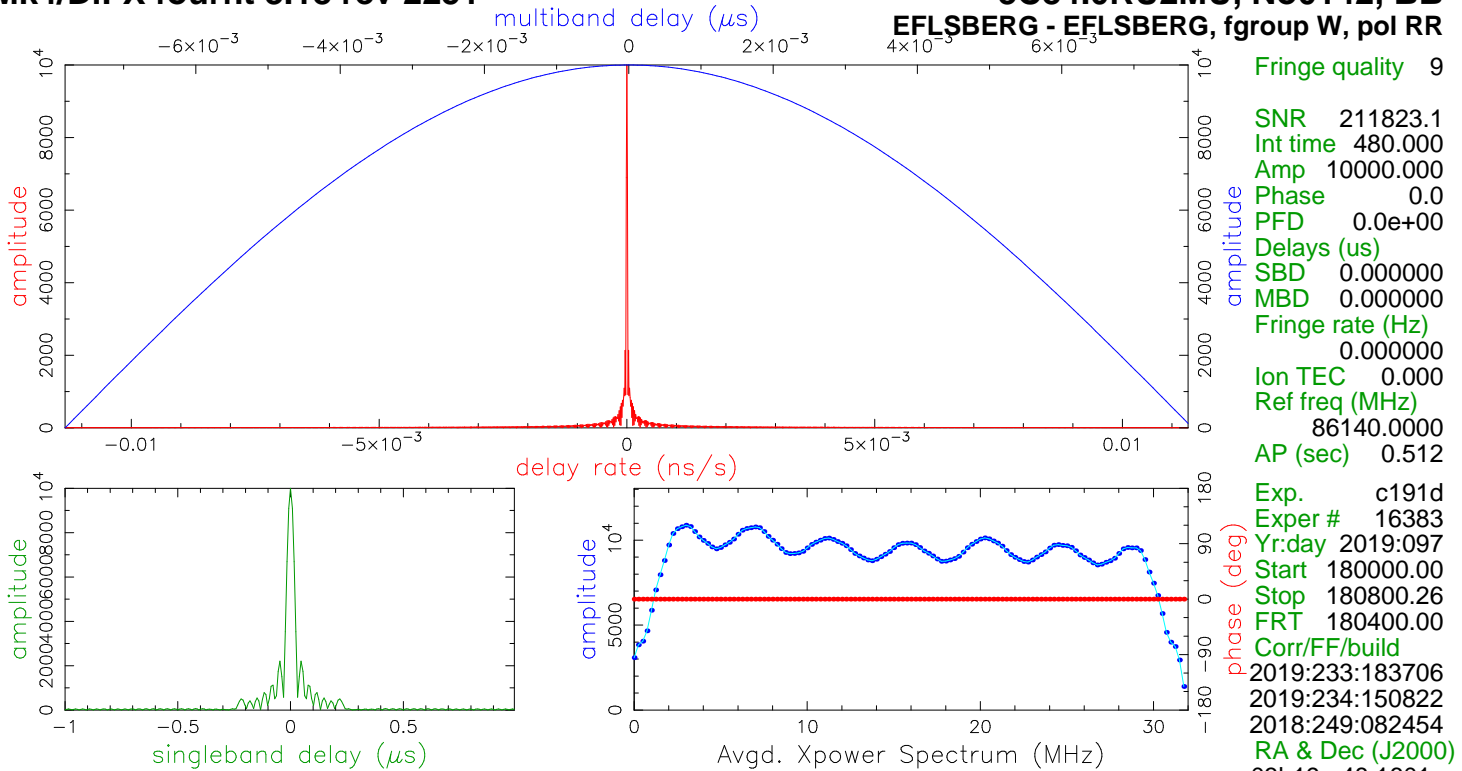
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



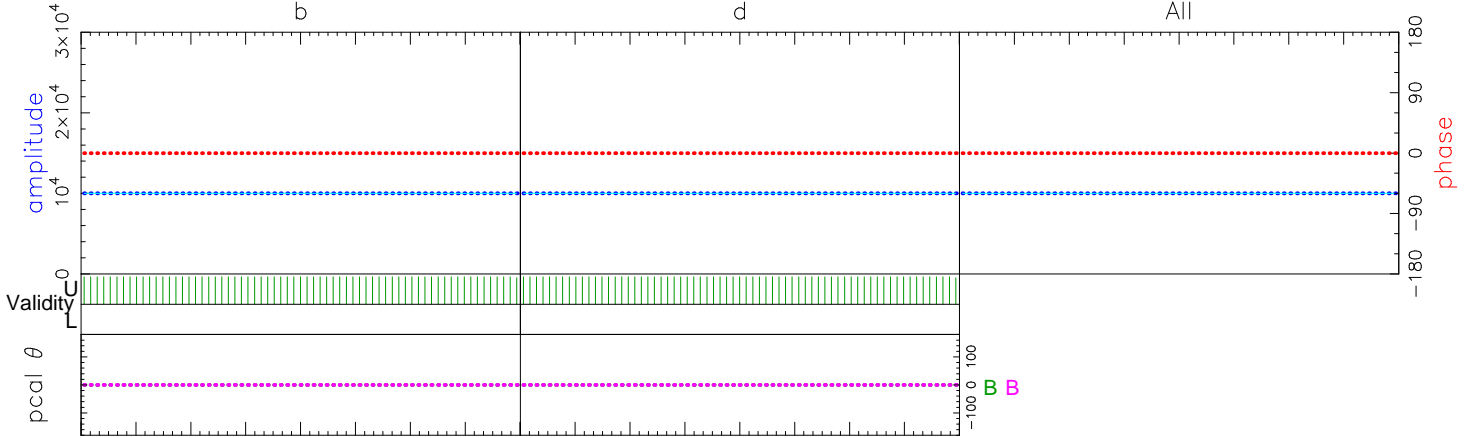
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 938/0	938/0	APs used	
B 1000	1000	PC freqs	
B 1000	1000	PC freqs	
B:B 0:0	0:0	PC phase	
B:B 0:0	0:0	Manl PC	
B 1000	1000	PC amp	
B 1000	1000		
B W01UL	W03UL	Chan ids	
B		Tracks	
B W01UL	W03UL	Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.0		0.0		0.0	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
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.	10000.000	Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite	



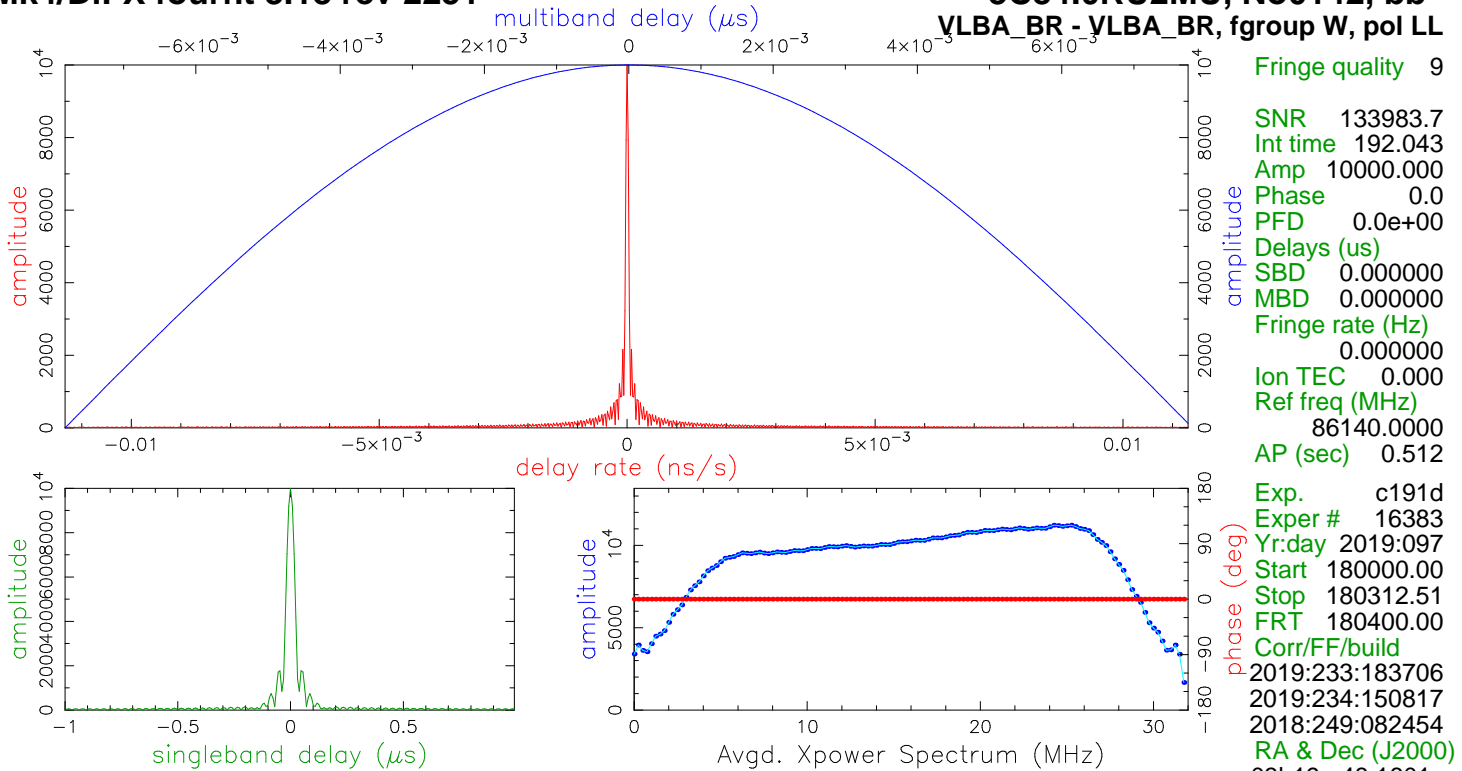
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



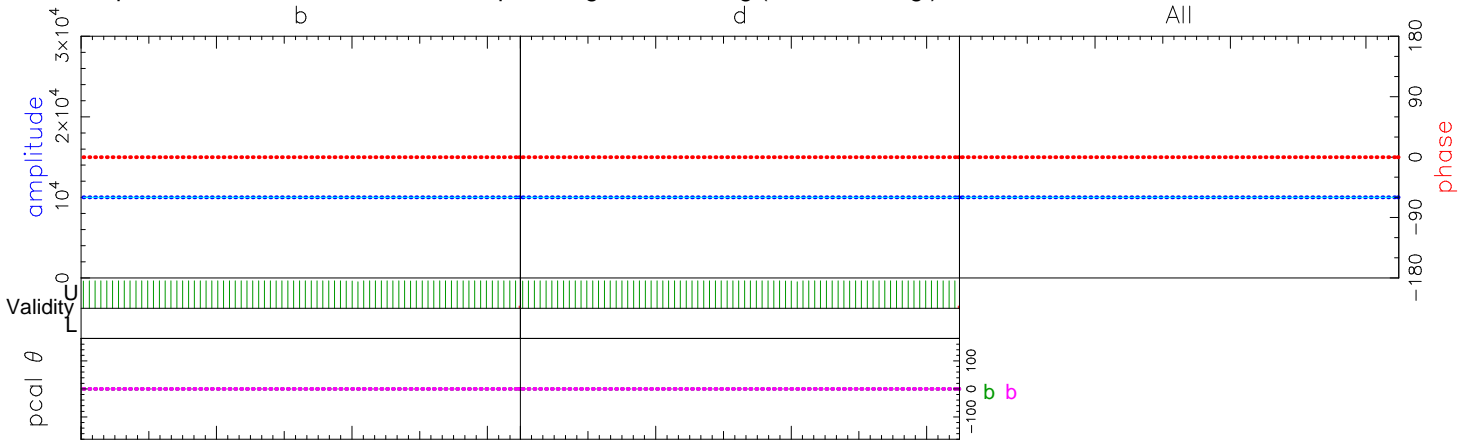
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 938/0	938/0	APs used	
B 1000	1000	PC freqs	
B 1000	1000	PC freqs	
B:B 0:0	0:0	PC phase	
B:B 0:0	0:0	Mani PC	
B 1000	1000	PC amp	
B 1000	1000		
B W01UR	W03UR	Chan ids	
B W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	0.0		0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	0.0		0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008	
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	ion window (TEC)	0.00 0.00	
						Inc. frq. avg.	10000.000	Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite	simultaneous interpolator



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



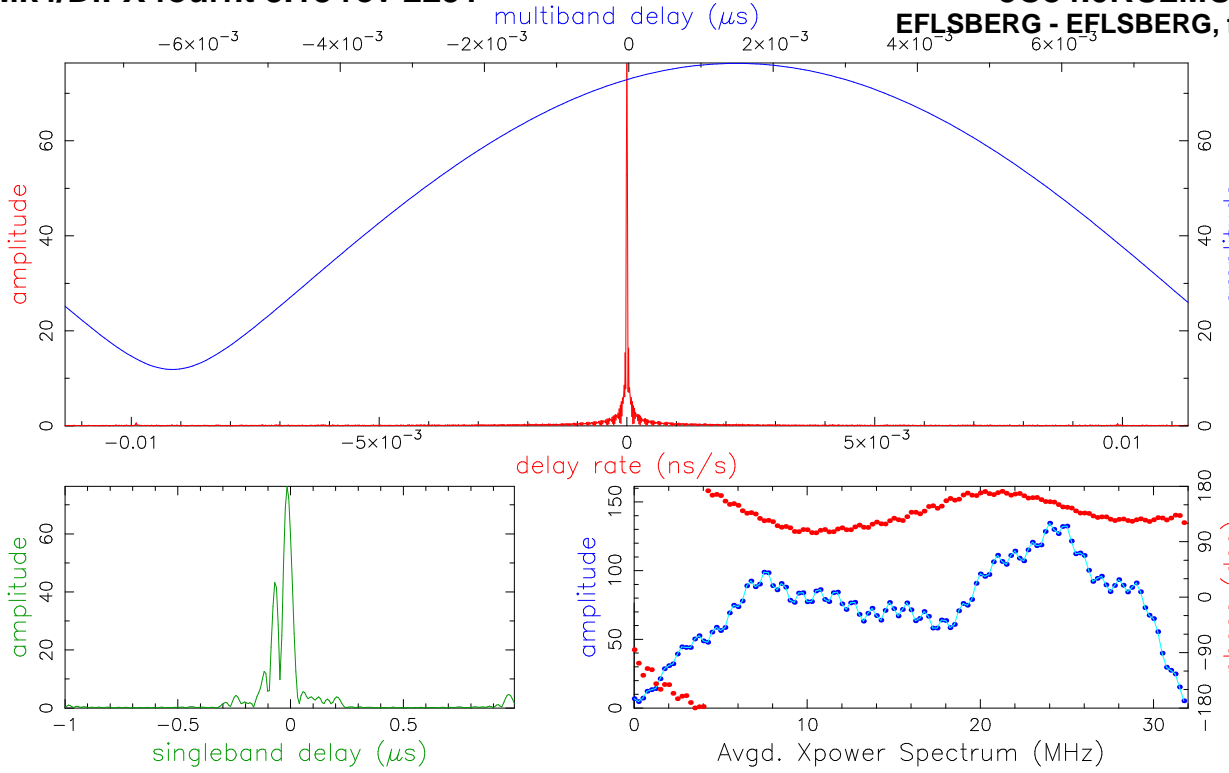
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 376/0	376/0	APs used	
b 1000	1000	PC freqs	
b 1000	1000	PC freqs	
b:b 0:0	0:0	PC phase	
b:b 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
b 1000	1000		
b W01UL	W03UL	Chan ids	
b W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.7E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.3E-07
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.8E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.5E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.075	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (1024X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
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	mb window (us)	-0.008 0.008
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
								ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 b: az 73.4 el 45.3 pa -58.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bb..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bb.W.6.0RU2MU

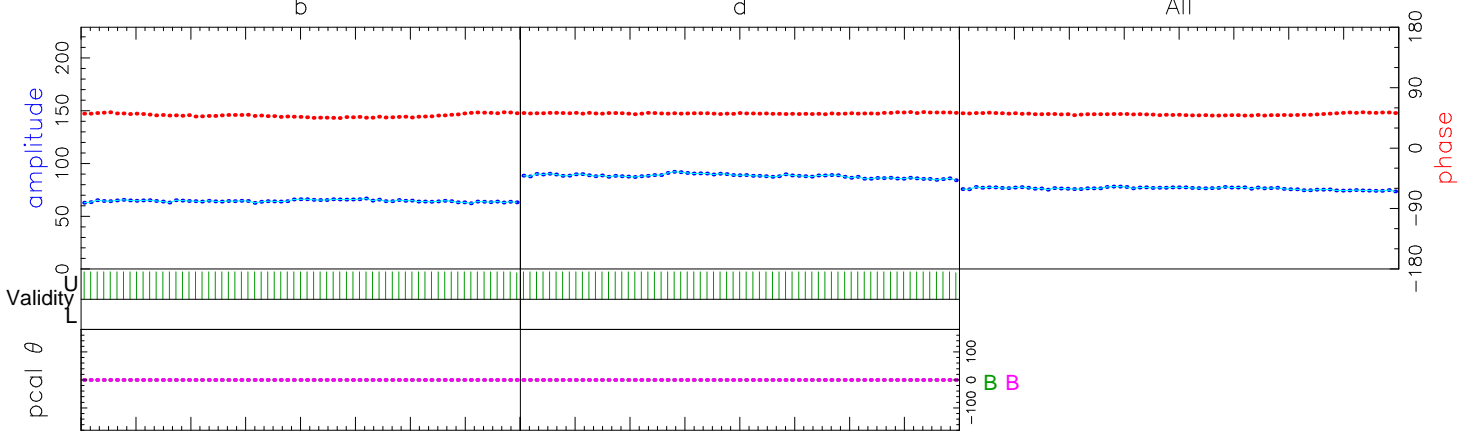


Fringe quality 9

SNR 1618.2
Int time 480.000
Amp 76.394
Phase 140.4
PFD 0.0e+00
Delays (us)
SBD -0.014532
MBD 0.001353
Fringe rate (Hz)
0.000009
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

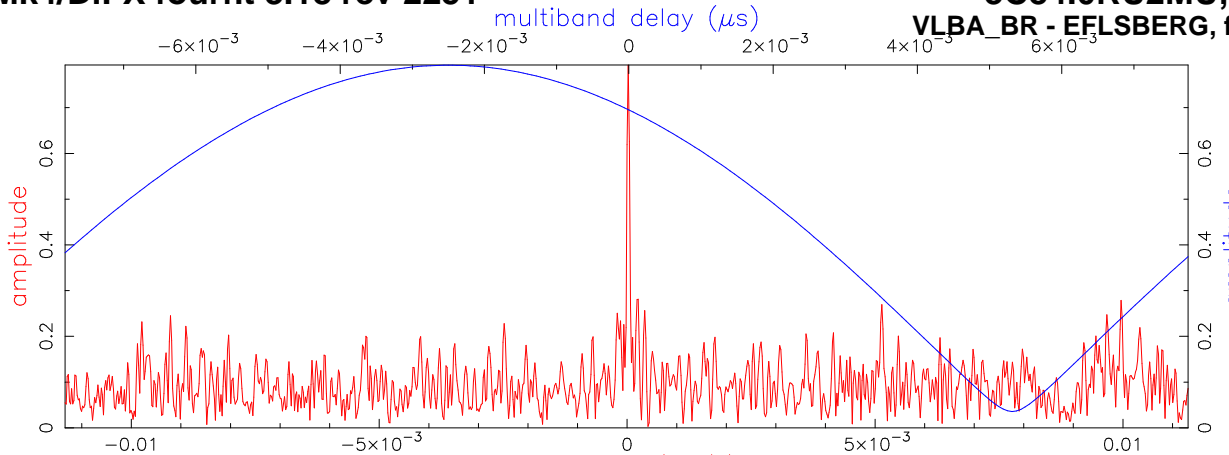
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150823
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)		All
48.6		51.8		Phase		50.4
64.4		88.2		Ampl.		76.3
127.6		126.5		Sbd box		127.1
U/L 938/0		938/0		APs used		
B 1000		1000		PC freqs		
B 1000		1000		PC freqs		
B:B 0:0		0:0		PC phase		
B:B 0:0		0:0		Manl PC		
B 1000		1000		PC amp		
B 1000		1000				
B W01UL		W03UL		Chan ids		
B W01UR		W03UR		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	-1.42722500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.35275E-03	+/- 3.1E-06
Sband delay (usec)	-1.45325000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.45325E-02	+/- 1.1E-05
Phase delay (usec)	1.62650452955E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.62650E-06	+/- 2.3E-09
Delay rate (us/s)	1.07700758177E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.07701E-10	+/- 8.2E-12
Total phase (deg)	140.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	140.4	+/- 0.1

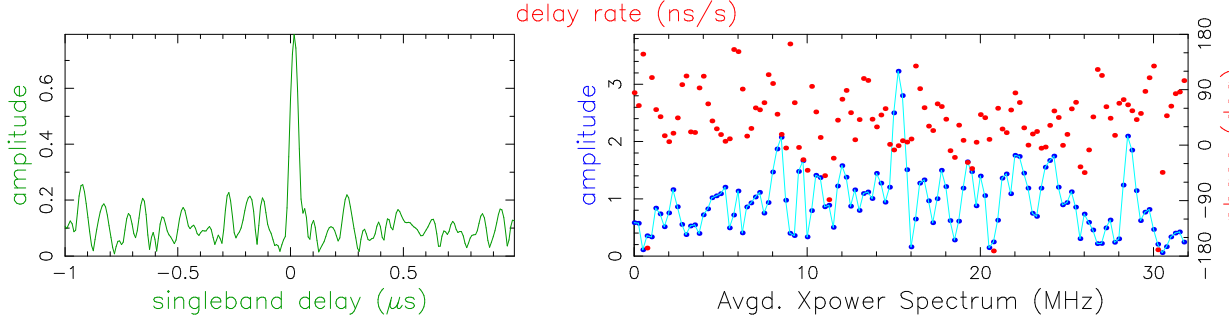
RMS		Theor.		Amplitude		76.394 +/- 0.047		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
ph/seg (deg)	1.4	0.3	Search (2048X8)	75.981				Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	1.5	0.5	Interp.	0.000				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	0.0	0.1	Inc. seg. avg.	76.302				Sample rate(MSamp/s): 64		dr window (ns/s)	-0.011 0.011
amp/frq (%)	15.5	0.1	Inc. frq. avg.	76.308				Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC) 0.00 0.00



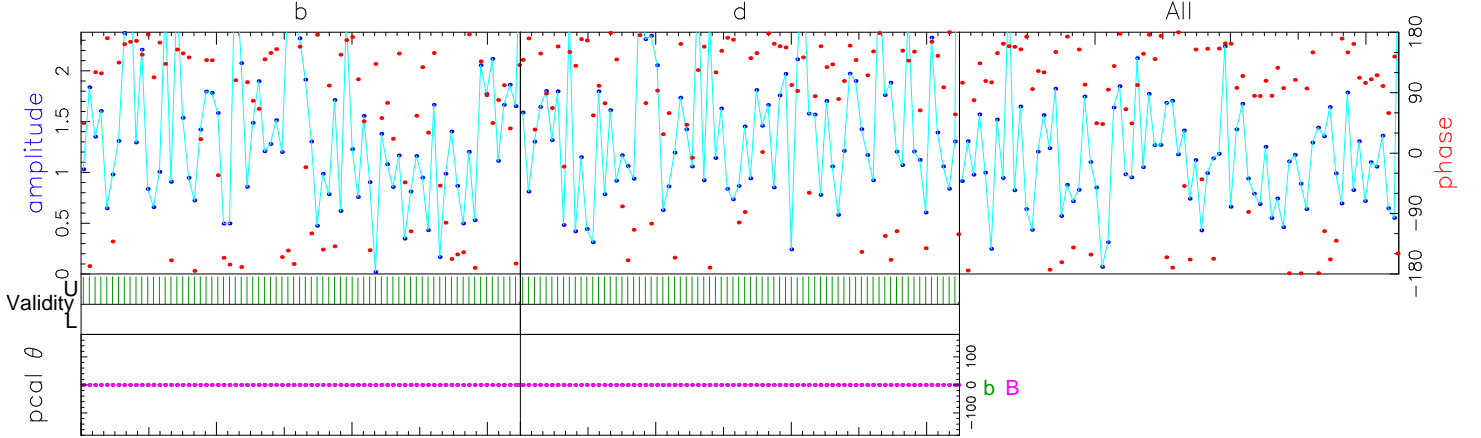
Fringe quality 9

SNR 10.6
 Int time 192.042
 Amp 0.793
 Phase 57.8
 PFD 6.1×10^{-19}
 Delays (us)
 SBD 0.016374
 MBD -0.002490
 Fringe rate (Hz) 0.001204
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150817
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s
 +41°30'42.104"

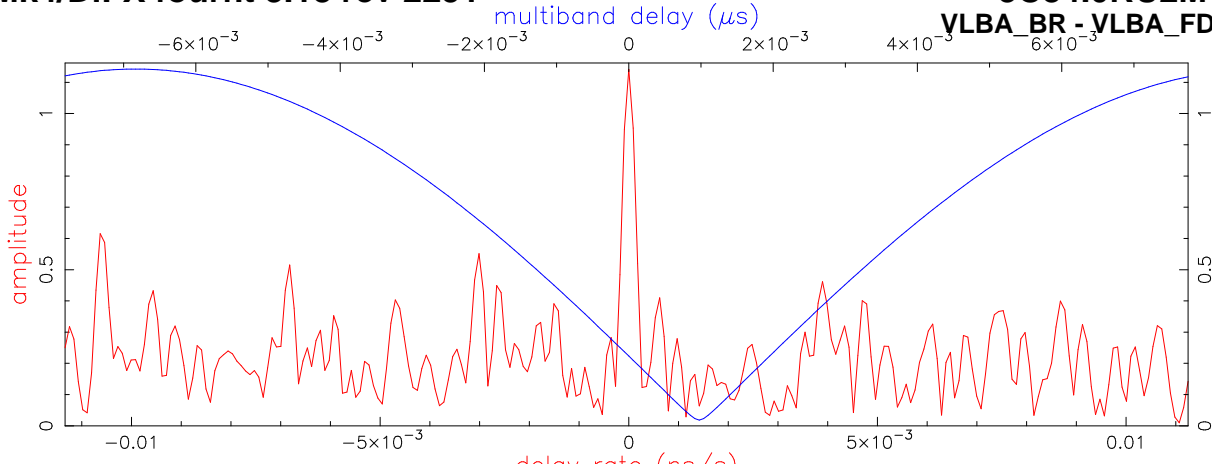


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All			
147.9	147.7	Phase	147.8			
0.8	0.8	Ampl.	0.8			
130.8	131.4	Sbd box	131.1			
U/L 376/0	376/0	APs used				
B 1000	1000	PC freqs				
b:B 0:0	0:0	PC phase				
b:B 0:0	0:0	Manl PC				
b 1000	1000	PC amp				
B 1000	1000					
b W01UR	W03UR	Chan ids				
B W01UR	W03UR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	-1.57639947799E+02	Apriori delay (usec)	-1.57653083233E+02	Resid mbdelay (usec)	-2.48957E-03	+/- 4.7E-04
Sband delay (usec)	-1.57636709733E+02	Apriori clock (usec)	-1.9326307E+01	Resid sbdelay (usec)	1.63735E-02	+/- 1.6E-03
Phase delay (usec)	-1.57653078468E+02	Apriori clockrate (us/s)	1.2700000E-07	Resid phdelay (usec)	4.76491E-06	+/- 3.5E-07
Delay rate (us/s)	1.35355946710E+00	Apriori rate (us/s)	1.35355945312E+00	Resid rate (us/s)	1.39770E-08	+/- 3.1E-09
Total phase (deg)	-154.5	Apriori accel (us/s/s)	-1.30795330635E-06	Resid phase (deg)	57.8	+/- 10.8

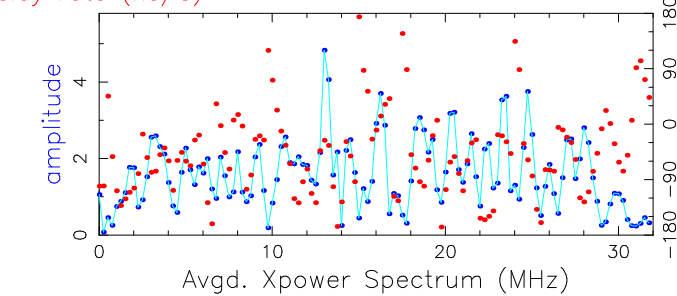
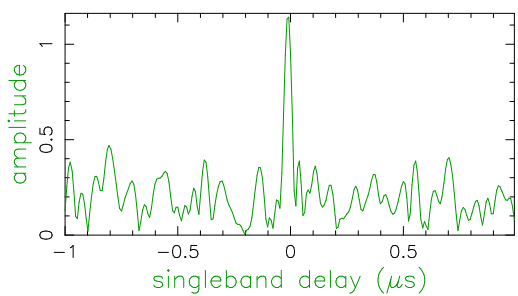
ph/seg (deg) 55.1 47.0 Search (1024X8) 0.758 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.7 82.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 7.6 Inc. seg. avg. 0.842 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.5 13.3 Inc. frq. avg. 0.786 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 B: az 283.1 el 47.1 pa 55.9 u,v (fr/asec) -10363.952 -170.641 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bB..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bB.W.8.0RU2MU simultaneous interpolator



Fringe quality 9

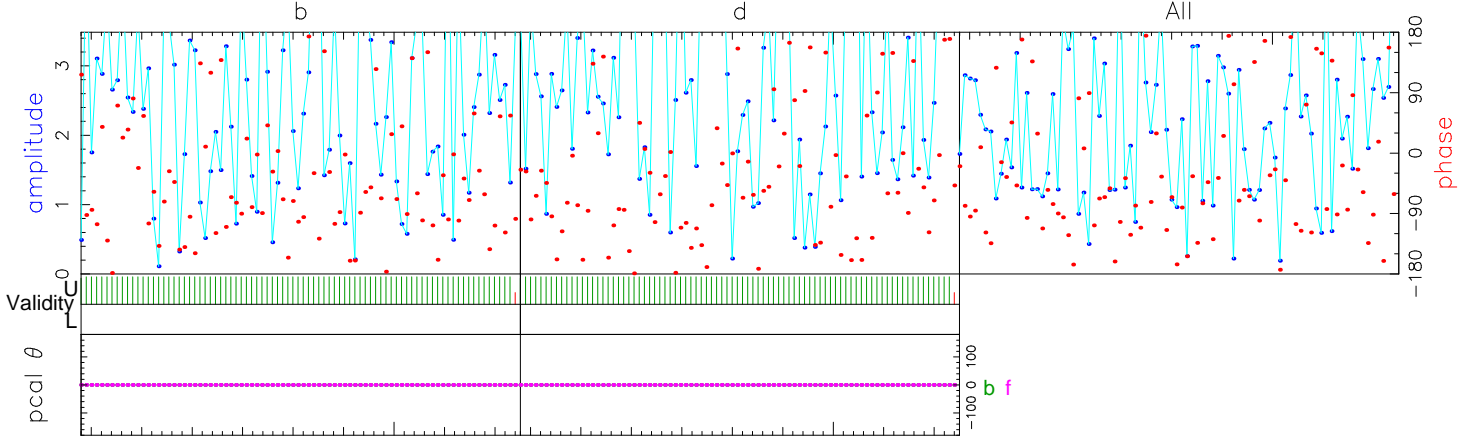
SNR 7.4
Int time 43.201
Amp 1.162
Phase -83.2
PFD 7.6e-07
Delays (us)
SBD -0.011308
MBD -0.006647
Fringe rate (Hz) 0.002912
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150816
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Avgd. Xpower Spectrum (MHz)

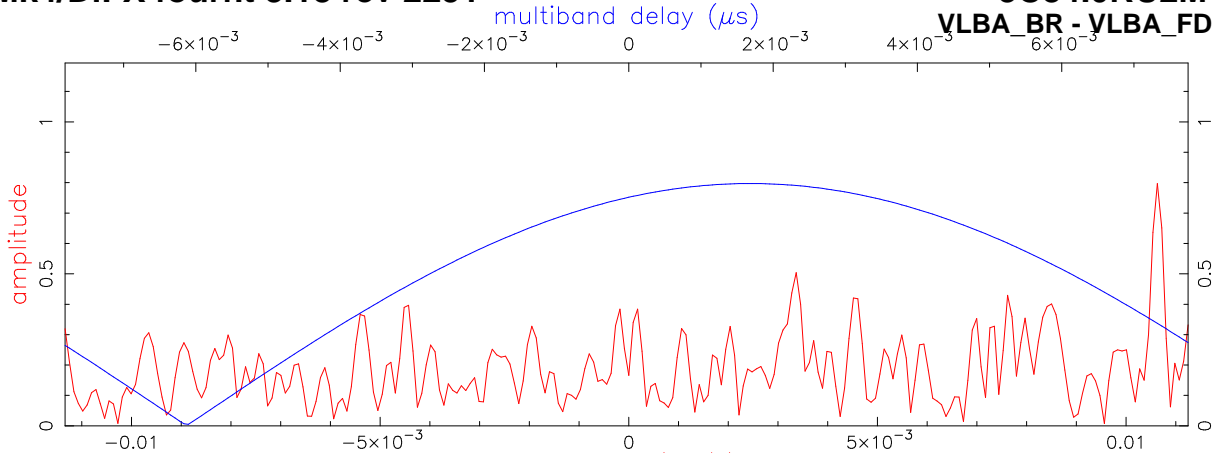
Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



86156.00	86220.00	Freq (MHz)	All
-81.0	-85.4	Phase	-83.2
1.1	1.2	Ampl.	1.1
127.7	127.3	Sbd box	127.6
U/L 85/0	85/0	APs used	
b 1000	1000	PC freqs	
f 1000	1000	PC freqs	
b:f 0:0	0:0	PC phase	
b:f 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
f 1000	1000		
b W01UL	W03UL	Chan ids	
f W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.16746172423E+03	Apriori delay (usec)	-1.16745507685E+03	Resid mbdelay (usec)	-6.64737E-03	+/-	6.7E-04
Sband delay (usec)	-1.16746638485E+03	Apriori clock (usec)	-6.7437305E+00	Resid sbdelay (usec)	-1.13080E-02	+/-	2.3E-03
Phase delay (usec)	-1.16745507954E+03	Apriori clockrate (us/s)	-8.8000001E-08	Resid phdelay (usec)	-2.68400E-06	+/-	5.0E-07
Delay rate (us/s)	-4.40318984688E-02	Apriori rate (us/s)	-4.40319322755E-02	Resid rate (us/s)	3.38067E-08	+/-	2.0E-08
Total phase (deg)	-198.5	Apriori accel (us/s/s)	2.37683715435E-05	Resid phase (deg)	-83.2	+/-	15.5

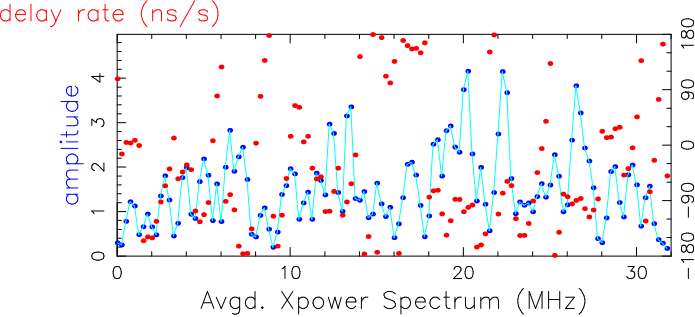
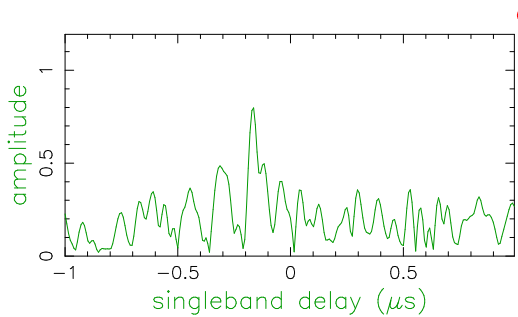
ph/seg (deg) 77.5 71.5 Search (256X8) 1.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 129.2 124.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 11.0 Inc. seg. avg. 1.221 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.3 19.2 Inc. frq. avg. 1.122 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 374.712 3210.534 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bf.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bf.W.1.0RU2MU simultaneous interpolator



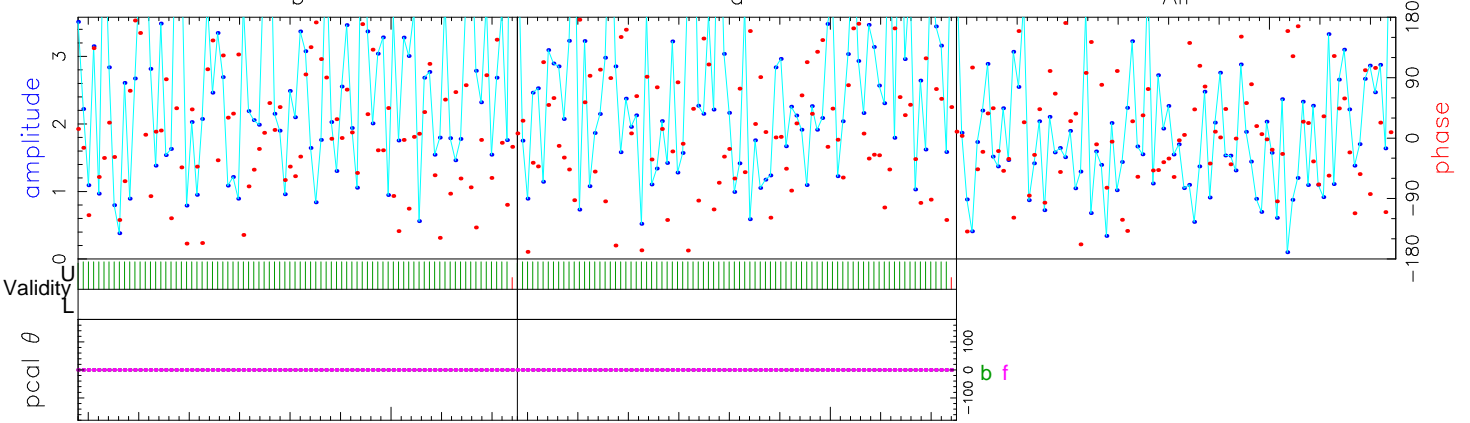
Fringe quality 0

SNR 5.1
Int time 43.201
Amp 1.194
Phase 279.8
PFD 6.6e-01
Delays (us)
SBD -0.167030
MBD 0.001639
Fringe rate (Hz) 0.917519
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150817
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



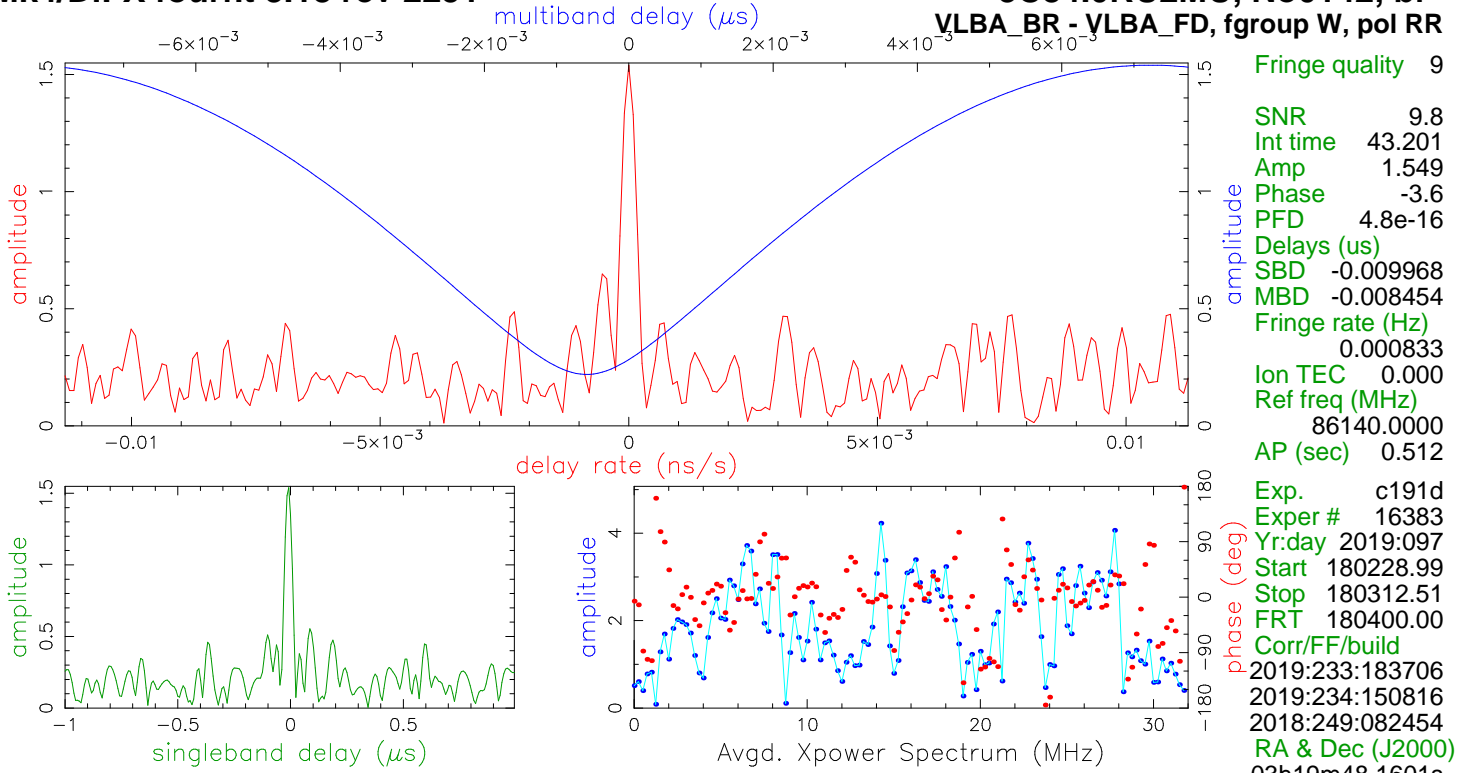
Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



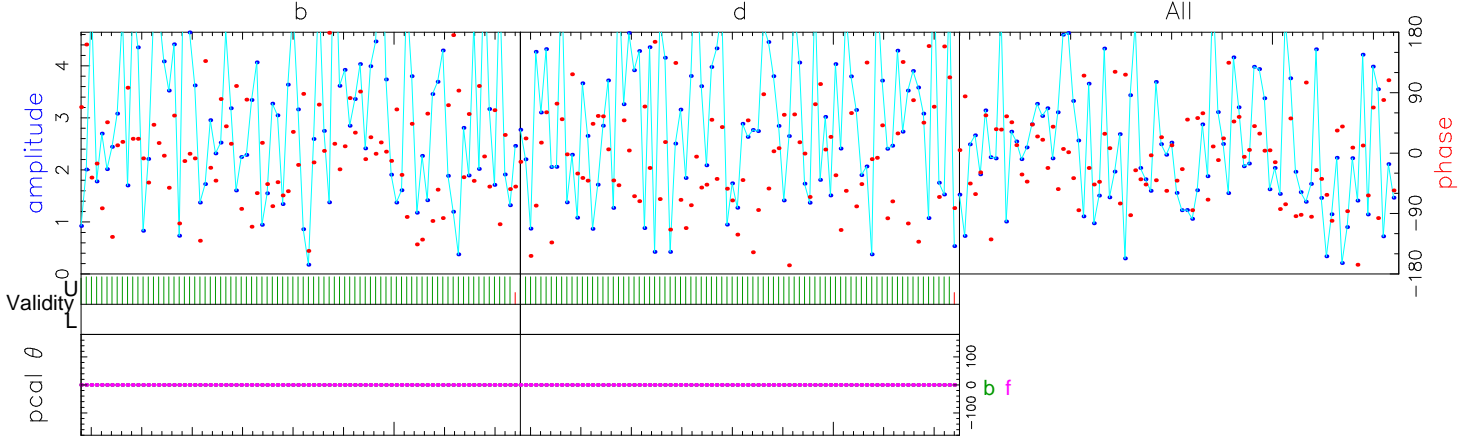
86156.00	86220.00	Freq (MHz)	All
9.3	10.3	Phase	9.8
1.2	1.2	Ampl.	1.1
107.3	108.0	Sbd box	107.6
U/L 85/0	85/0	APs used	
b 1000	1000	PC freqs	
f 1000	1000	PC freqs	
b:f 0:0	0:0	PC phase	
b:f 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
f 1000	1000		
b W01UR	W03UR	Chan ids	
f W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.16762531331E+03	Apriori delay (usec)	-1.16745507685E+03	Resid mbdelay (usec)	1.63855E-03	+/-	9.7E-04
Sband delay (usec)	-1.16762210685E+03	Apriori clock (usec)	-6.7437305E+00	Resid sbdelay (usec)	-1.67030E-01	+/-	3.4E-03
Phase delay (usec)	-1.16745507654E+03	Apriori clockrate (us/s)	-8.8000001E-08	Resid phdelay (usec)	3.16262E-07	+/-	7.2E-07
Delay rate (us/s)	-4.40212807839E-02	Apriori rate (us/s)	-4.40319322755E-02	Resid rate (us/s)	1.06515E-05	+/-	2.9E-08
Total phase (deg)	164.5	Apriori accel (us/s/s)	2.37683715435E-05	Resid phase (deg)	279.8	+/-	22.4

ph/seg (deg) 77.9 103.2 Search (256X8) 0.769 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 170.7 180.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 15.8 Inc. seg. avg. 1.032 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 1.1 27.6 Inc. frq. avg. 1.138 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 374.712 3210.534 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bf.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bf.W.11.0RU2MU simultaneous interpolator



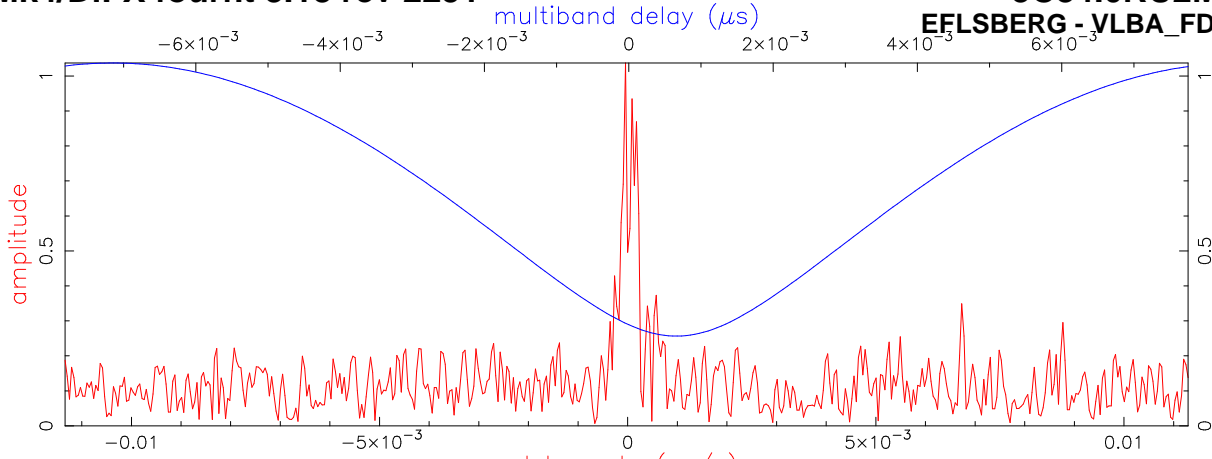
Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



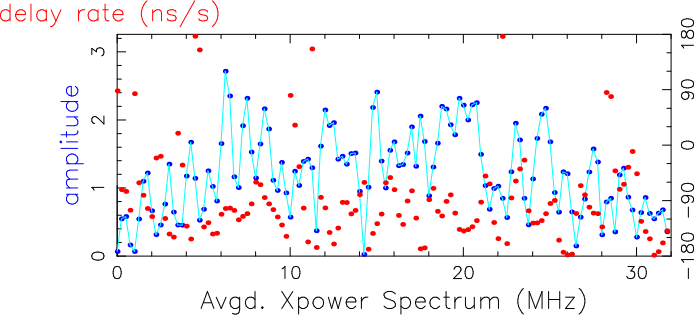
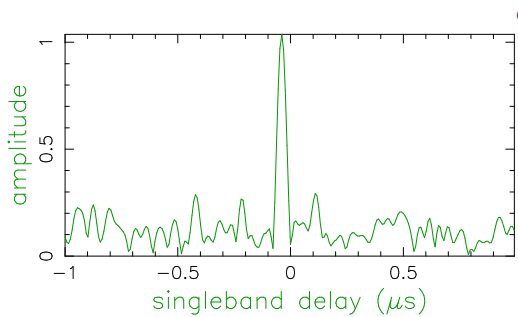
86156.00		86220.00		Freq (MHz)	All
-4.1		-2.8		Phase	-3.6
1.8		1.3		Ampl.	1.5
127.7		127.8		Sbd box	127.7
U/L 85/0		85/0		APs used	
b 1000		1000		PC freqs	
f 1000		1000		PC freqs	
b:f 0:0		0:0		PC phase	
b:f 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
f 1000		1000			
b W01UR		W03UR		Chan ids	
f W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.16746353073E+03	Apriori delay (usec)	-1.16745507685E+03	Resid mbdelay (usec)	-8.45387E-03 +/- 5.1E-04
Sband delay (usec)	-1.16746504535E+03	Apriori clock (usec)	-6.7437305E+00	Resid sbdelay (usec)	-9.96850E-03 +/- 1.8E-03
Phase delay (usec)	-1.16745507697E+03	Apriori clockrate (us/s)	-8.8000001E-08	Resid phdelay (usec)	-1.14563E-07 +/- 3.8E-07
Delay rate (us/s)	-4.40319226108E-02	Apriori rate (us/s)	-4.40319322755E-02	Resid rate (us/s)	9.66473E-09 +/- 1.5E-08
Total phase (deg)	-118.8	Apriori accel (us/s/s)	2.37683715435E-05	Resid phase (deg)	-3.6 +/- 11.6

ph/seg (deg)	61.8	Theor.	53.7	Amplitude	1.549 +/- 0.157	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	96.9		93.7	Search (256X8)	1.526	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0		8.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	14.2		14.4	Inc. seg. avg.	1.702	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
				Inc. frq. avg.	1.524	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
b: az 73.4 el 45.3 pa -58.8		f: az 60.4 el 49.9 pa -89.2		u,v (fr/asec)	374.712 3210.534	nlags:	128	t_cohere	infinite
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/bf.0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/bf.W.2.0RU2MU		ion window (TEC)	0.00	0.00	

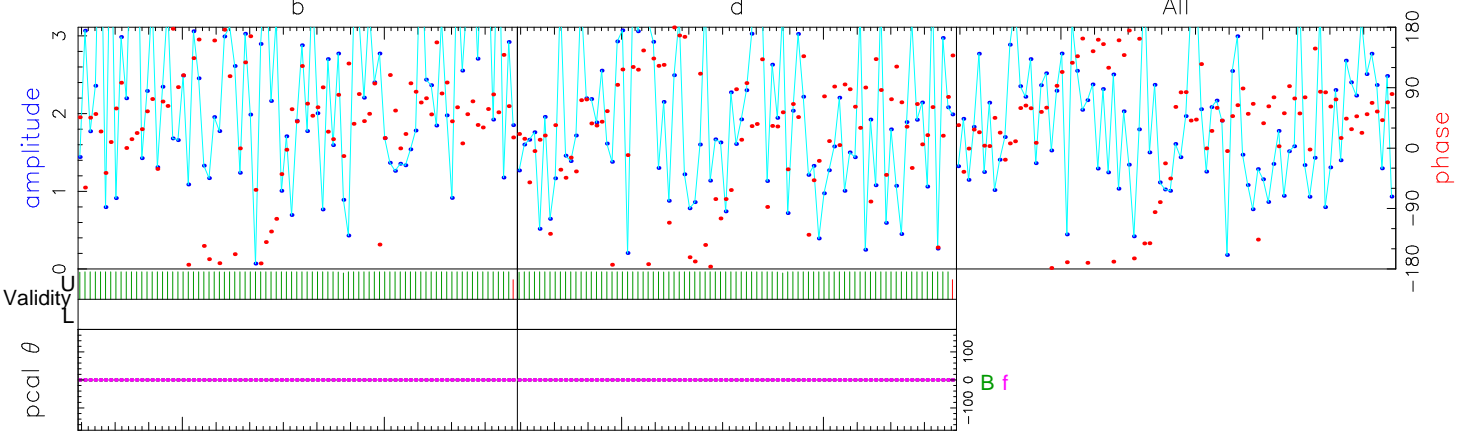
simultaneous interpolator



Fringe quality 9
 SNR 11.4
 Int time 130.006
 Amp 1.037
 Phase 243.2
 PFD 4.2e-23
 Delays (us)
 SBD -0.039305
 MBD -0.007144
 Fringe rate (Hz)
 -0.003976
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150817
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

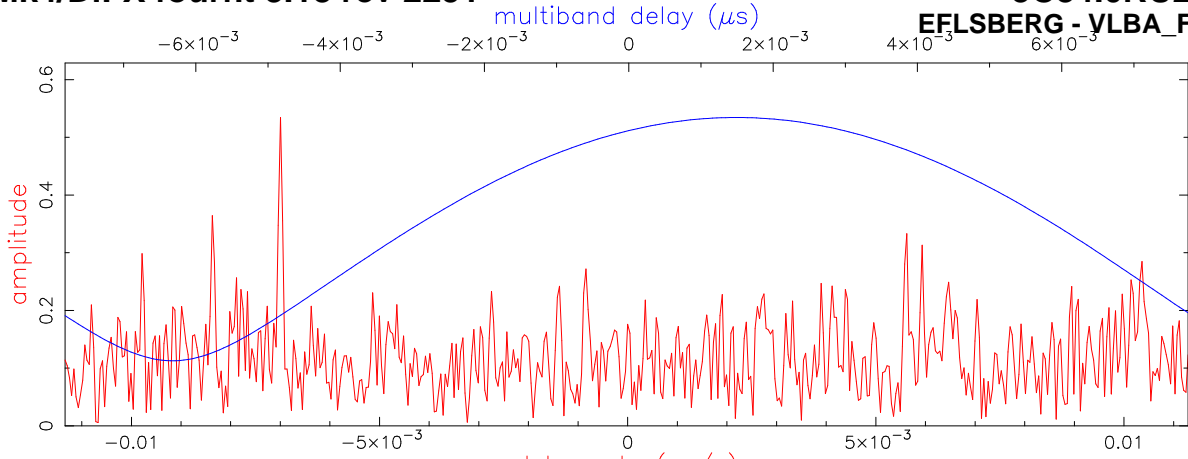


86156.00	86220.00	Freq (MHz)	All
63.3	63.1	Phase	63.2
1.3	0.8	Ampl.	1.0
123.7	124.5	Sbd box	124.0
U/L 255/0	255/0	APs used	
B 1000	1000	PC freqs	
f 1000	1000	PC freqs	
B:f 0:0	0:0	PC phase	
B:f 0:0	0:0	Manl PC	
B 1000	1000	PC amp	
f 1000	1000		
B W01UL	W03UL	Chan ids	
f W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

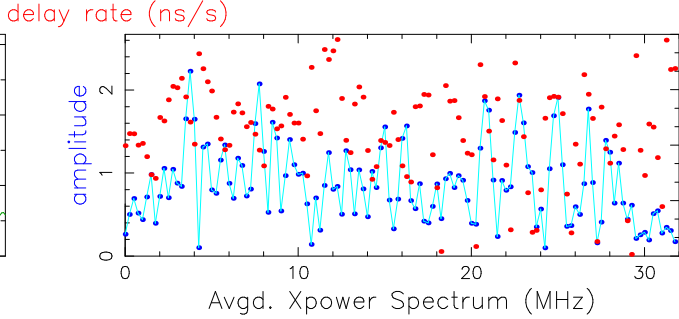
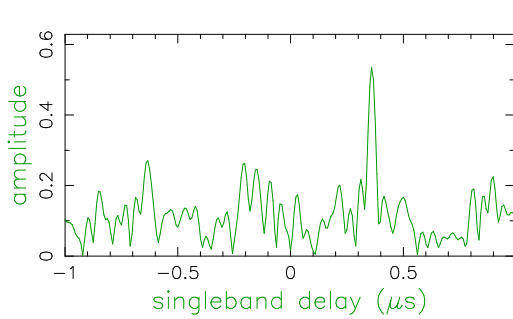
Group delay (usec)(sbd) -1.00984038737E+03 Apriori delay (usec) -1.00980199362E+03 Resid mbdelay (usec) -7.14375E-03 +/- 4.3E-04
 Sband delay (usec) -1.00984129862E+03 Apriori clock (usec) 1.2582577E+01 Resid sbdelay (usec) -3.93050E-02 +/- 1.5E-03
 Phase delay (usec) -1.00980199158E+03 Apriori clockrate (us/s) -2.1500000E-07 Resid phdelay (usec) 2.03894E-06 +/- 3.2E-07
 Delay rate (us/s) -1.39759143155E+00 Apriori rate (us/s) -1.39759138539E+00 Resid rate (us/s) -4.61583E-08 +/- 4.3E-09
 Total phase (deg) -19.8 Apriori accel (us/s/s) 2.50763248499E-05 Resid phase (deg) 243.2 +/- 10.0

RMS Theor. Amplitude 1.037 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.0 46.2 Search (512X8) 1.027 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 113.6 80.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 7.1 Inc. seg. avg. 1.431 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 24.7 12.4 Inc. frq. avg. 1.029 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 10738.664 3381.175 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bf.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bf.W.4.0RU2MU

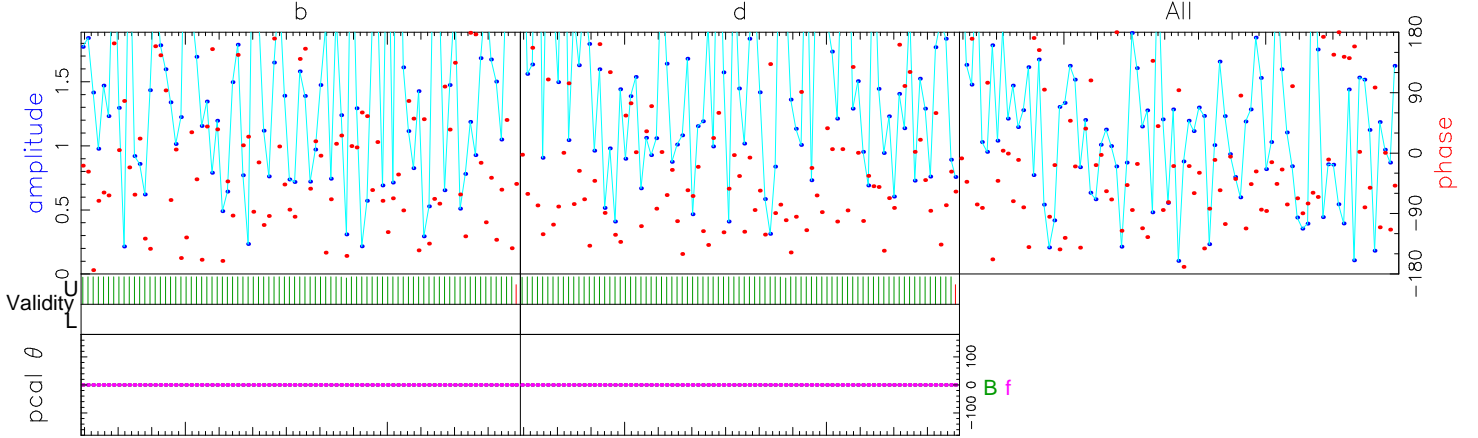


Fringe quality 0
 SNR 5.9
 Int time 130.006
 Amp 0.629
 Phase -327.3
 PFD 2.8e-02
 Delays (us)
 SBD 0.360395
 MBD 0.001488
 Fringe rate (Hz)
 -0.601832
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150821
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



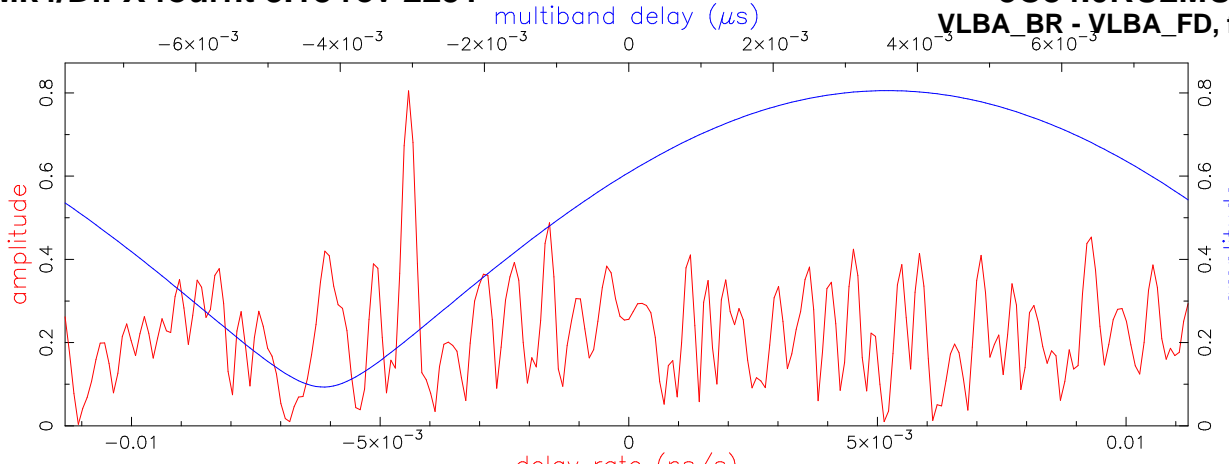
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

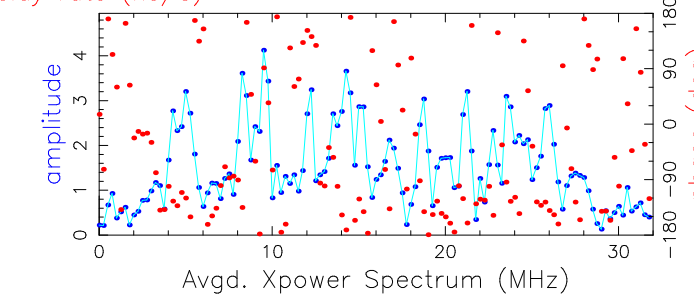
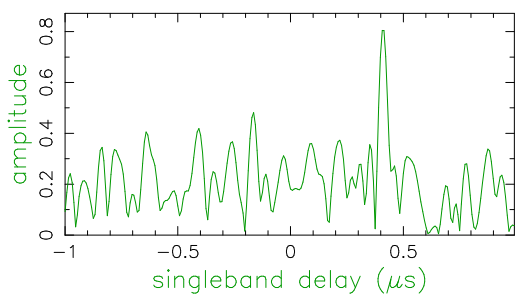


86156.00	86220.00	Freq (MHz)	All				
-57.3	-57.2	Phase	-57.3				
0.5	0.8	Ampl.	0.6				
175.1	175.1	Sbd box	175.1				
U/L 255/0	255/0	APs used					
B 1000	1000	PC freqs					
f 1000	1000	PC freqs					
B:f 0:0	0:0	PC phase					
B:f 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
f 1000	1000						
B W01UL	W03UL	Chan ids					
f W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.00944113036E+03	Apriori delay (usec)	-1.00980199362E+03	Resid mbdelay (usec)	1.48826E-03	+/-	8.4E-04
Sband delay (usec)	-1.00944159812E+03	Apriori clock (usec)	1.2582577E+01	Resid sbdelay (usec)	3.60395E-01	+/-	2.9E-03
Phase delay (usec)	-1.00980199547E+03	Apriori clockrate (us/s)	-2.1500000E-07	Resid phdelay (usec)	-1.84620E-06	+/-	6.3E-07
Delay rate (us/s)	-1.39759837207E+00	Apriori rate (us/s)	-1.39759138539E+00	Resid rate (us/s)	-6.98668E-06	+/-	8.3E-09
Total phase (deg)	-230.3	Apriori accel (us/s/s)	2.50763248499E-05	Resid phase (deg)	-327.3	+/-	19.4

ph/seg (deg)	81.1	Theor.	89.5	Amplitude	0.629 +/- 0.107	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	155.4	Search (512X8)	0.513	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.600	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	21.1	Inc. frq. avg.	0.611	Sample rate(MSamp/s):	64	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
				nlags:	128	t_cohere	infinite	ion window (TEC)	0.00 0.00

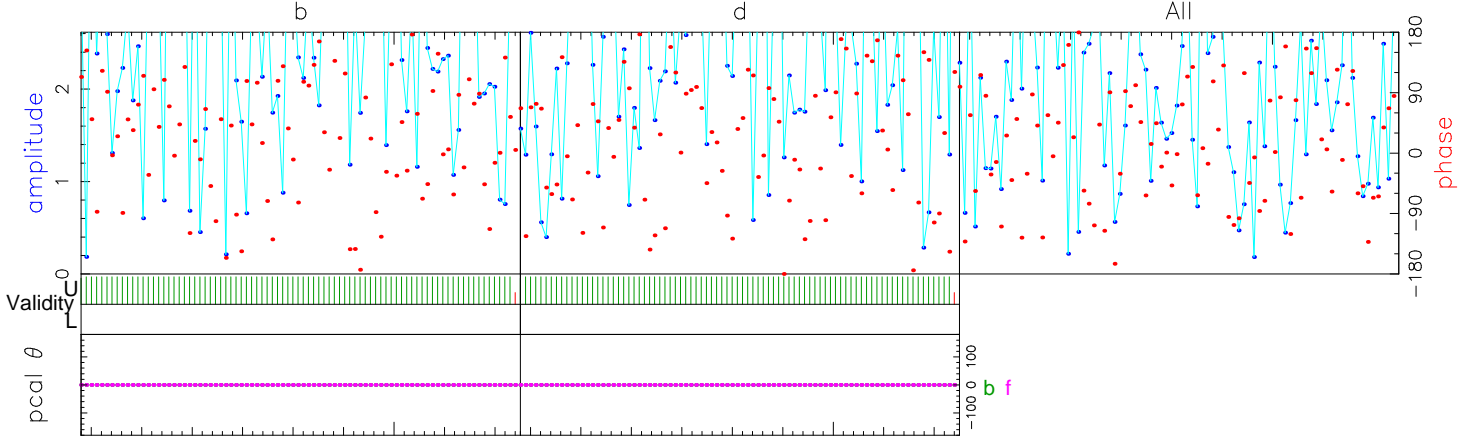


Fringe quality 0
SNR 5.2
Int time 43.201
Amp 0.872
Phase -143.3
PFD 5.1e-01
Delays (us)
SBD 0.410035
MBD 0.003781
Fringe rate (Hz)
-0.382932
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150817
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec

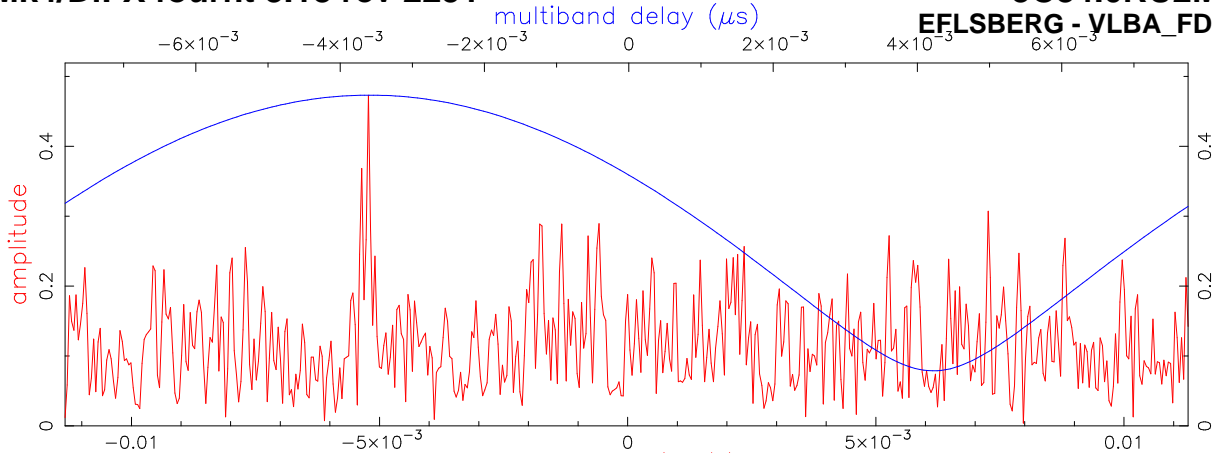


86156.00	86220.00	Freq (MHz)	All
38.7	34.1	Phase	36.7
1.0	0.8	Ampl.	0.8
181.9	180.7	Sbd box	181.5
U/L 85/0	85/0	APs used	
b 1000	1000	PC freqs	
f 1000	1000	PC freqs	
b:f 0:0	0:0	PC phase	
b:f 0:0	0:0	ManI PC	
b 1000	1000	PC amp	
f 1000	1000		
b W01UL	W03UL	Chan ids	
f W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd) -1.16704504575E+03 Apriori delay (usec) -1.16745507685E+03 Resid mbdelay (usec) 3.78111E-03 +/- 9.6E-04
 Sband delay (usec) -1.16704504185E+03 Apriori clock (usec) -6.7437305E+00 Resid sbdelay (usec) 4.10035E-01 +/- 3.3E-03
 Phase delay (usec) -1.16745507567E+03 Apriori clockrate (us/s) -8.8000001E-08 Resid phdelay (usec) 1.18276E-06 +/- 7.1E-07
 Delay rate (us/s) -4.40363777377E-02 Apriori rate (us/s) -4.40319322755E-02 Resid rate (us/s) -4.44546E-06 +/- 2.8E-08
 Total phase (deg) -258.6 Apriori accel (us/s/s) 2.37683715435E-05 Resid phase (deg) -143.3 +/- 22.0

RMS Theor. Amplitude 0.872 +/- 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 87.8 101.6 Search (256X8) 0.799 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 204.2 177.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 15.6 Inc. seg. avg. 0.843 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 11.5 27.2 Inc. frq. avg. 0.828 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

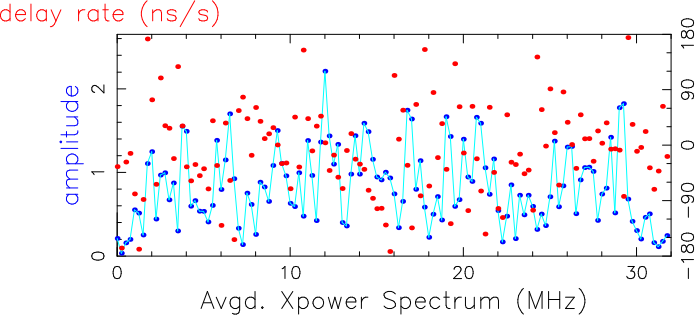
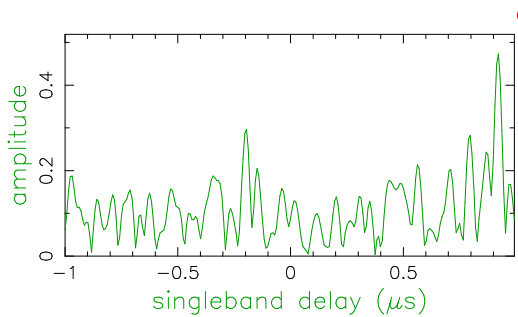
b: az 73.4 el 45.3 pa -58.8 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 374.712 3210.534 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bf..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bf.W.5.0RU2MU



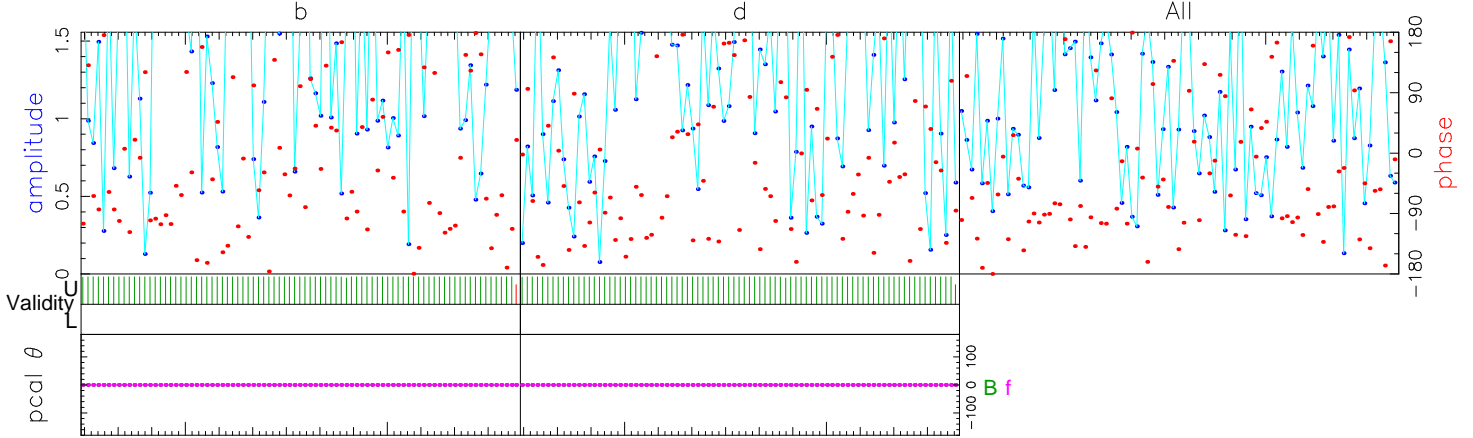
Fringe quality 0

SNR 5.2
Int time 130.006
Amp 0.519
Phase -4.5
PFD 6.9e-01
Delays (us)
SBD 0.920205
MBD -0.003651
Fringe rate (Hz)
-0.449895
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150823
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

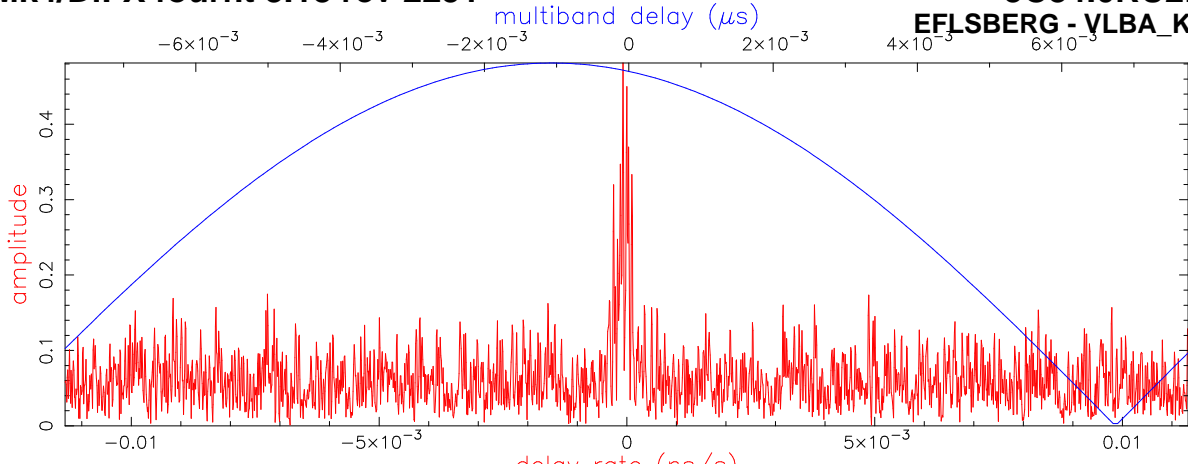


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
-95.0	-93.7	Phase	-94.5				
0.6	0.4	Ampl.	0.5				
247.1	246.3	Sbd box	246.8				
U/L 255/0	255/0	APs used					
B 1000	1000	PC freqs					
f 1000	1000	PC freqs					
B:f 0:0	0:0	PC phase					
B:f 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
f 1000	1000						
B W01UR	W03UR	Chan ids					
f W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.00888376936E+03	Apriori delay (usec)	-1.00980199362E+03	Resid mbdelay (usec)	-3.65073E-03	+/-	9.5E-04
Sband delay (usec)	-1.00888178912E+03	Apriori clock (usec)	1.2582577E+01	Resid sbdelay (usec)	9.20205E-01	+/-	3.3E-03
Phase delay (usec)	-1.00980199667E+03	Apriori clockrate (us/s)	-2.1500000E-07	Resid phdelay (usec)	-3.04593E-06	+/-	7.1E-07
Delay rate (us/s)	-1.39759660824E+00	Apriori rate (us/s)	-1.39759138539E+00	Resid rate (us/s)	-5.22284E-06	+/-	9.4E-09
Total phase (deg)	-267.5	Apriori accel (us/s/s)	2.50763248499E-05	Resid phase (deg)	-4.5	+/-	21.9

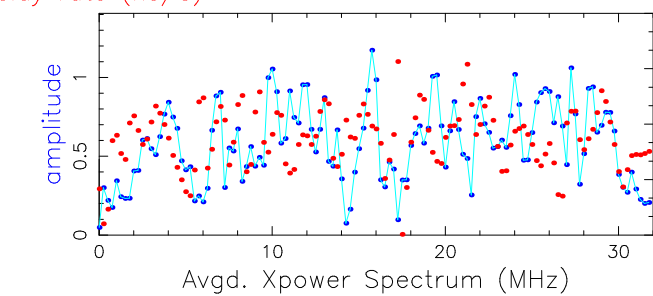
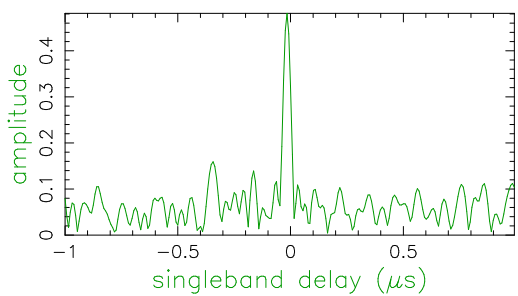
ph/seg (deg)	RMS 80.4	Theor. 100.9	Amplitude Search (512X8)	0.519 +/- 0.099	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	164.9	176.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.5	Inc. seg. avg.	0.462	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	16.6	27.0	Inc. frq. avg.	0.499	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00



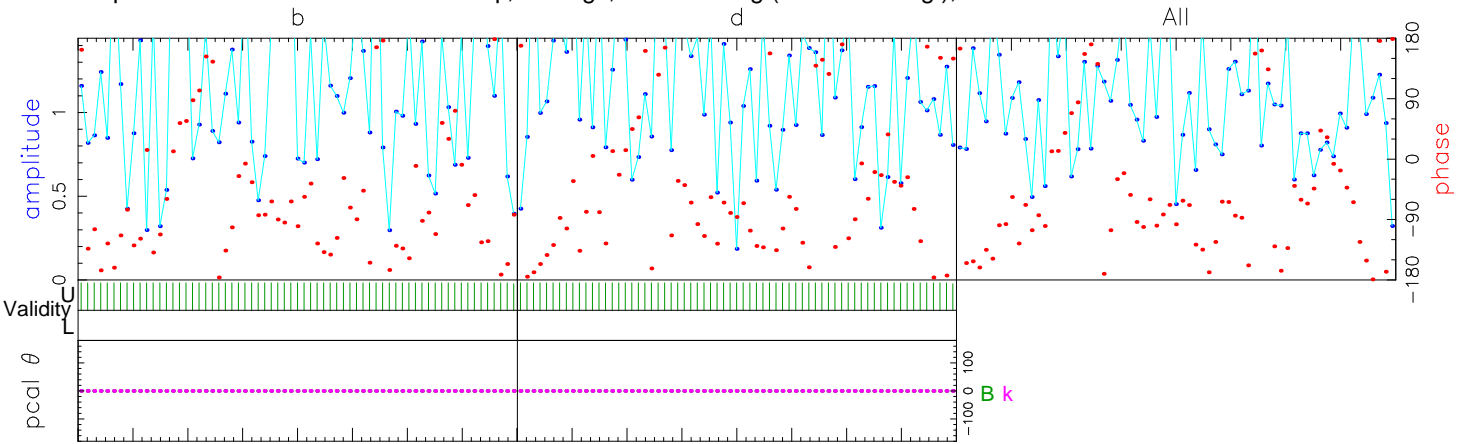
Fringe quality 9

SNR 10.2
 Int time 479.807
 Amp 0.481
 Phase -15.6
 PFD 1.2e-16
 Delays (us)
 SBD -0.015950
 MBD -0.001074
 Fringe rate (Hz)
 -0.006503
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150818
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

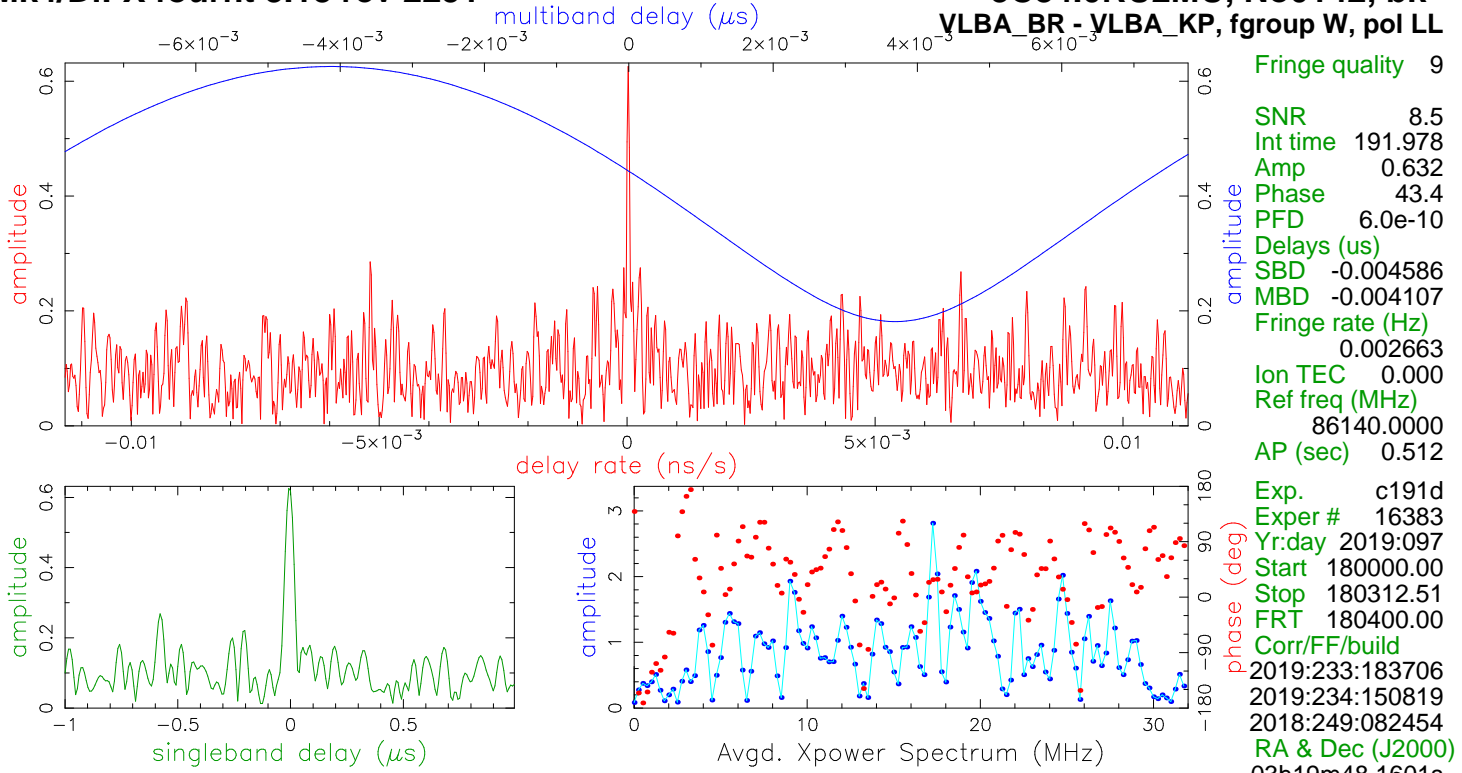


86156.00	86220.00	Freq (MHz)	All				
-105.6	-105.5	Phase	-105.6				
0.5	0.5	Ampl.	0.5				
126.7	127.2	Sbd box	127.0				
U/L 938/0	938/0	APs used					
B 1000	1000	PC freqs					
k 1000	1000	PC freqs					
B:k 0:0	0:0	PC phase					
B:k 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
k 1000	1000						
B W01UR	W03UR	Chan ids					
k W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.59063907725E+02	Apriori delay (usec)	2.59080606680E+02	Resid mbdelay (usec)	-1.07395E-03	+/-	4.9E-04
Sband delay (usec)	2.59064656680E+02	Apriori clock (usec)	1.9753147E+01	Resid sbdelay (usec)	-1.59500E-02	+/-	1.7E-03
Phase delay (usec)	2.59080603275E+02	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	-3.40460E-06	+/-	3.6E-07
Delay rate (us/s)	-1.46981259138E+00	Apriori rate (us/s)	-1.46981251589E+00	Resid rate (us/s)	-7.54933E-08	+/-	1.3E-09
Total phase (deg)	149.8	Apriori accel (us/s/s)	1.68914855099E-05	Resid phase (deg)	-15.6	+/-	11.2

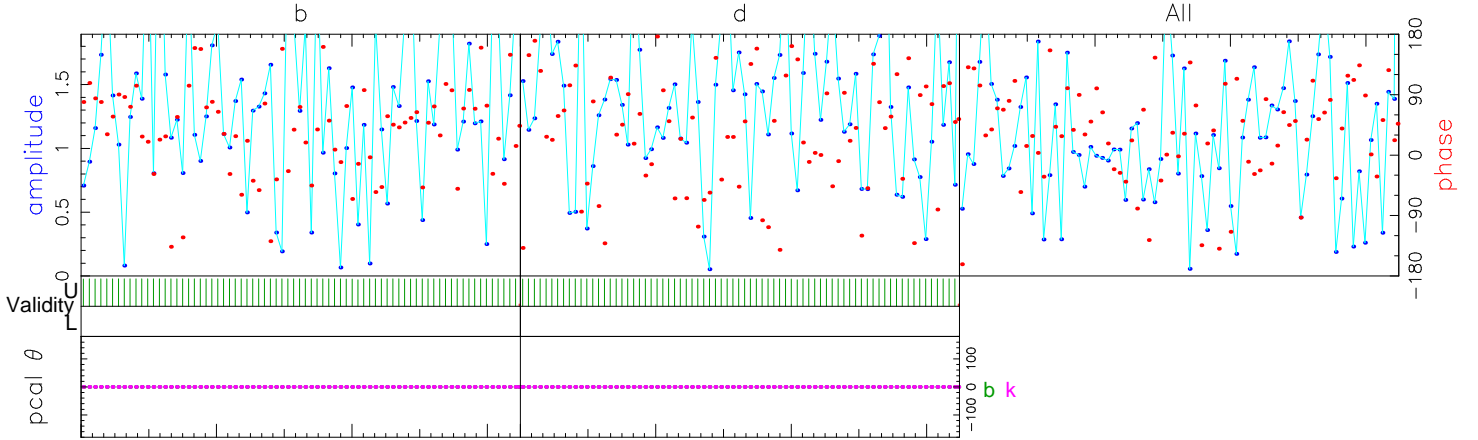
ph/seg (deg) 71.0 46.0 Amplitude 0.481 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 142.4 80.3 Search (2048X8) 0.470 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 7.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.1 13.9 Inc. seg. avg. 0.811 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.477 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 11277.847 2674.829 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bk.W.18.0RU2MU

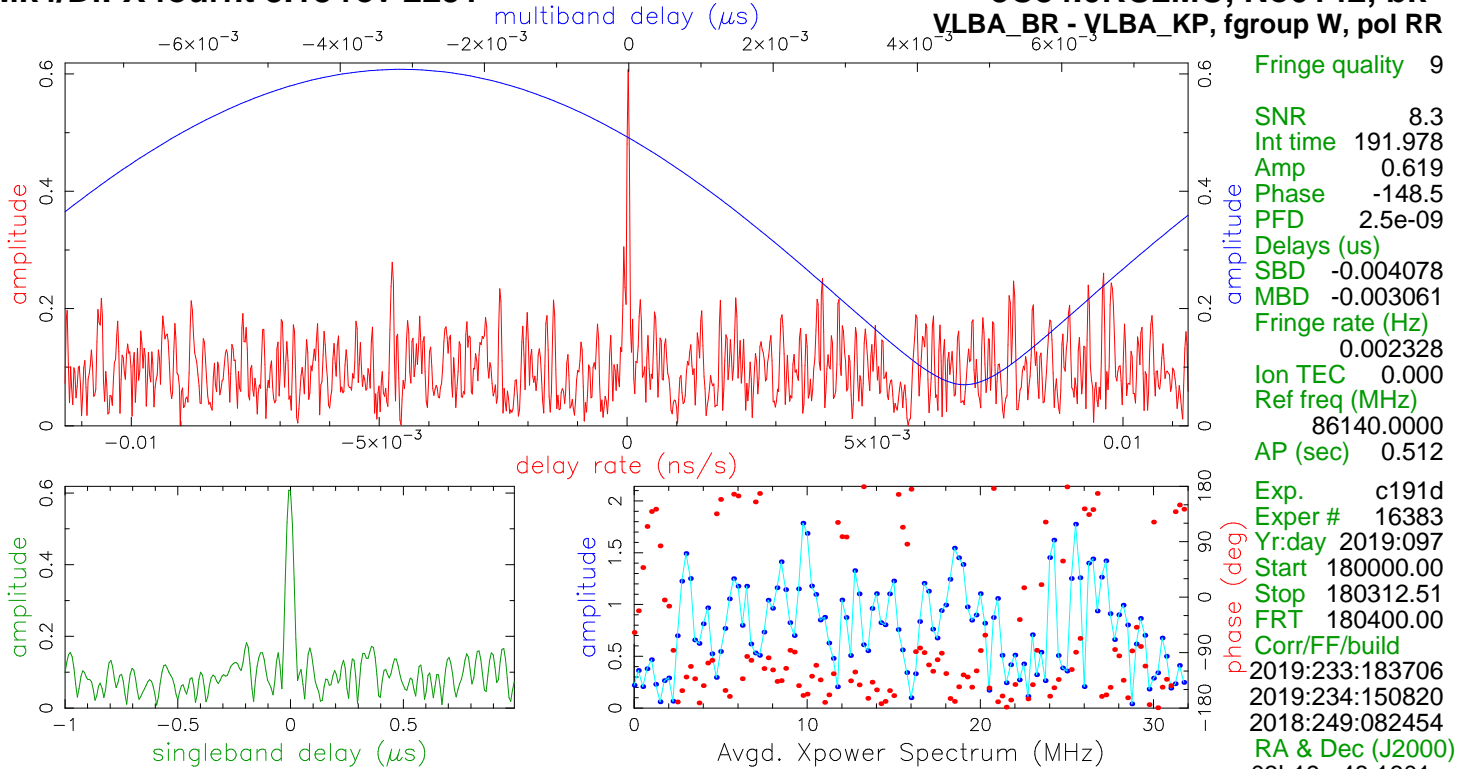


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

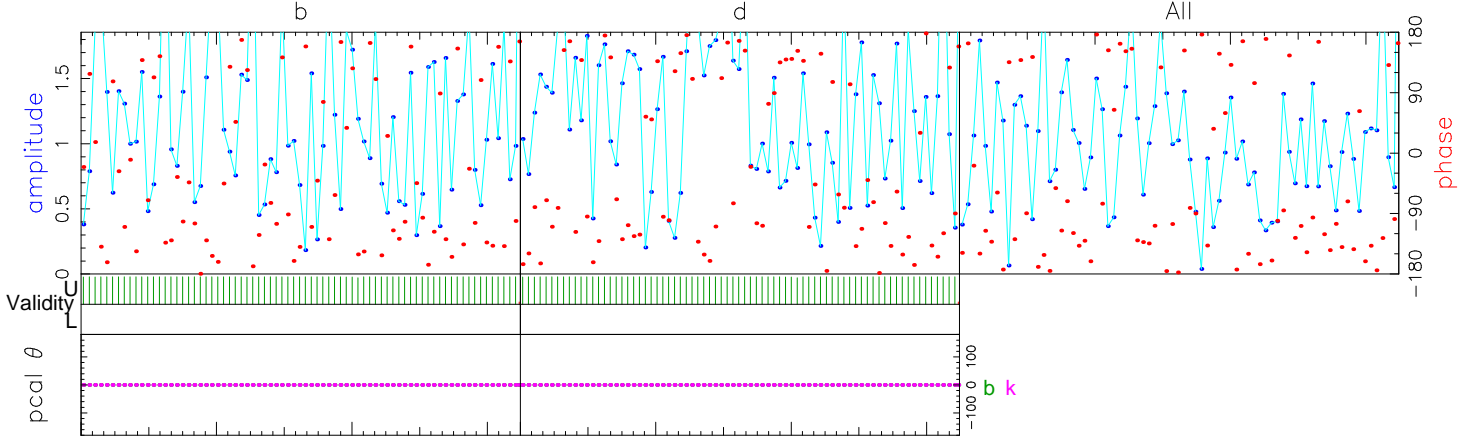


86156.00		86220.00		Freq (MHz)	All
43.5		43.2		Phase	43.4
0.8		0.4		Ampl.	0.6
128.4		128.4		Sbd box	128.4
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
k 1000		1000		PC freqs	
b:k 0:0		0:0		PC phase	
b:k 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
k 1000		1000			
b W01UL		W03UL		Chan ids	
k W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.01423416006E+02	Apriori delay (usec)	1.01427523447E+02	Resid mbdelay (usec)	-4.10744E-03 +/- 5.9E-04
Sband delay (usec)	1.01422937447E+02	Apriori clock (usec)	4.2683983E-01	Resid sbdelay (usec)	-4.58600E-03 +/- 2.0E-03
Phase delay (usec)	1.01427524847E+02	Apriori clockrate (us/s)	1.3659999E-08	Resid phdelay (usec)	1.39952E-06 +/- 4.4E-07
Delay rate (us/s)	-1.16253031849E-01	Apriori rate (us/s)	-1.16253062768E-01	Resid rate (us/s)	3.09186E-08 +/- 3.9E-09
Total phase (deg)	356.5	Apriori accel (us/s/s)	1.55835322036E-05	Resid phase (deg)	43.4 +/- 13.5

ph/seg (deg)	RMS 69.7	Theor. 59.0	Amplitude Search (1024X8) 0.632 +/- 0.075	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	110.7	103.0	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	9.6	Inc. seg. avg. 0.702	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	28.8	16.7	Inc. frq. avg. 0.617	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

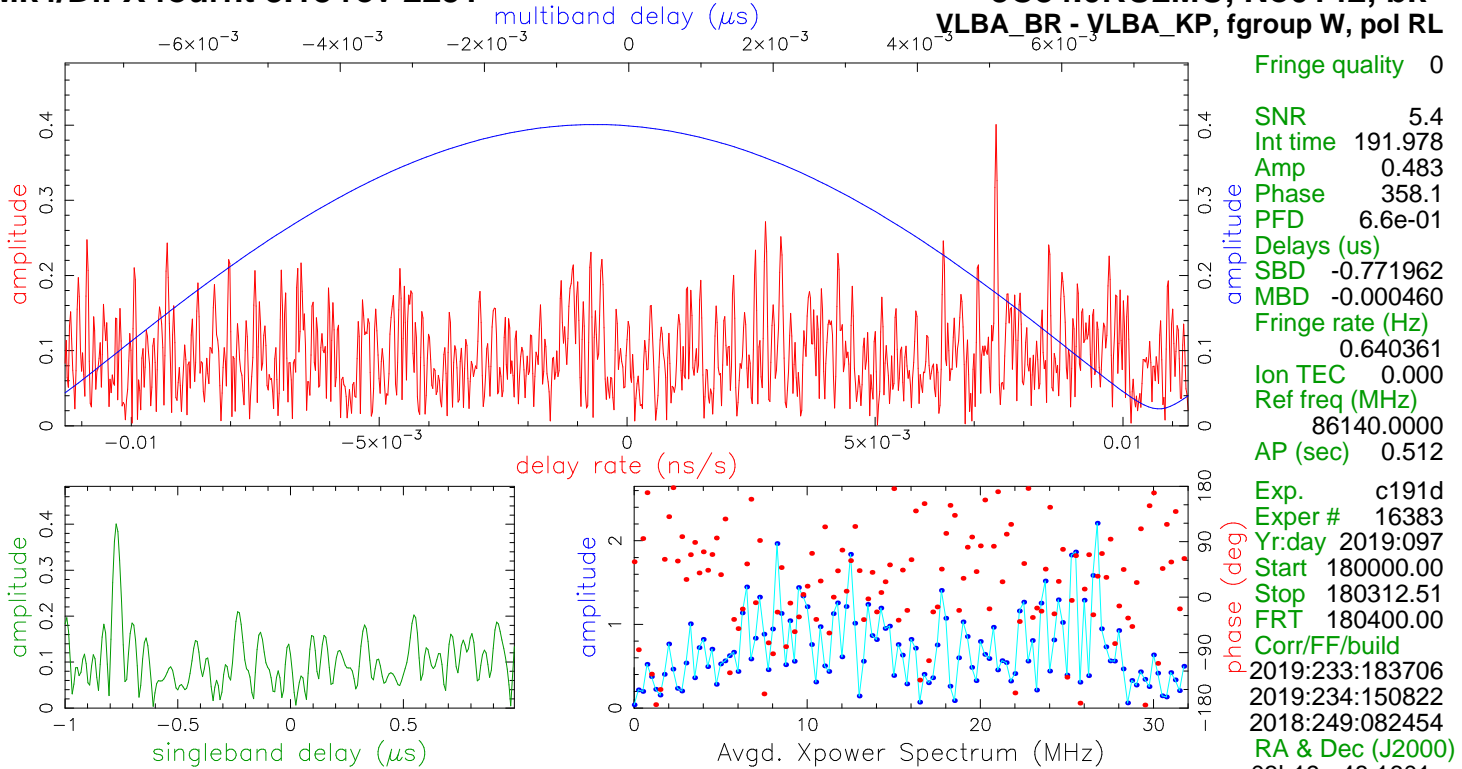


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

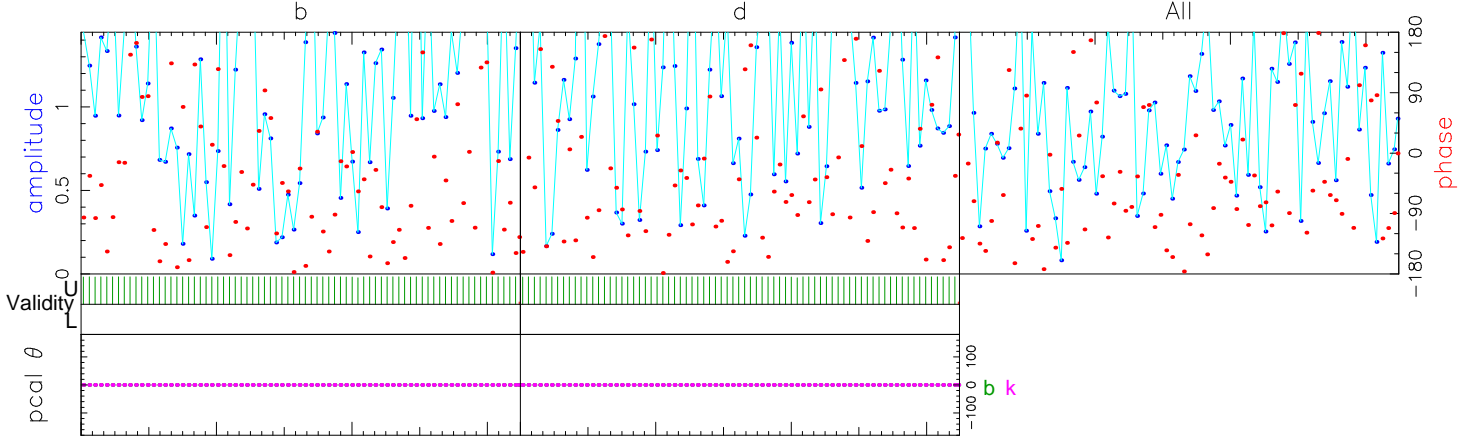


86156.00	86220.00	Freq (MHz)	All				
-147.3	-149.5	Phase	-148.5				
0.5	0.7	Ampl.	0.6				
128.4	128.5	Sbd box	128.5				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
k 1000	1000	PC freqs					
b:k 0:0	0:0	PC phase					
b:k 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
k 1000	1000						
b W01UR	W03UR	Chan ids					
k W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.01424462006E+02	Apriori delay (usec)	1.01427523447E+02	Resid mbdelay (usec)	-3.06144E-03	+/-	6.0E-04
Sband delay (usec)	1.01423445447E+02	Apriori clock (usec)	4.2683983E-01	Resid sbdelay (usec)	-4.07800E-03	+/-	2.1E-03
Phase delay (usec)	1.01427518657E+02	Apriori clockrate (us/s)	1.3659999E-08	Resid phdelay (usec)	-4.79018E-06	+/-	4.5E-07
Delay rate (us/s)	-1.16253035745E-01	Apriori rate (us/s)	-1.16253062768E-01	Resid rate (us/s)	2.70230E-08	+/-	4.0E-09
Total phase (deg)	164.6	Apriori accel (us/s/s)	1.55835322036E-05	Resid phase (deg)	-148.5	+/-	13.8

ph/seg (deg) 60.4 60.3 Search (1024X8) 0.598 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 97.5 105.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 9.8 Inc. seg. avg. 0.633 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 11.5 17.1 Inc. frq. avg. 0.599 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 913.895 2504.188 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bk.W.32.0RU2MU simultaneous interpolator

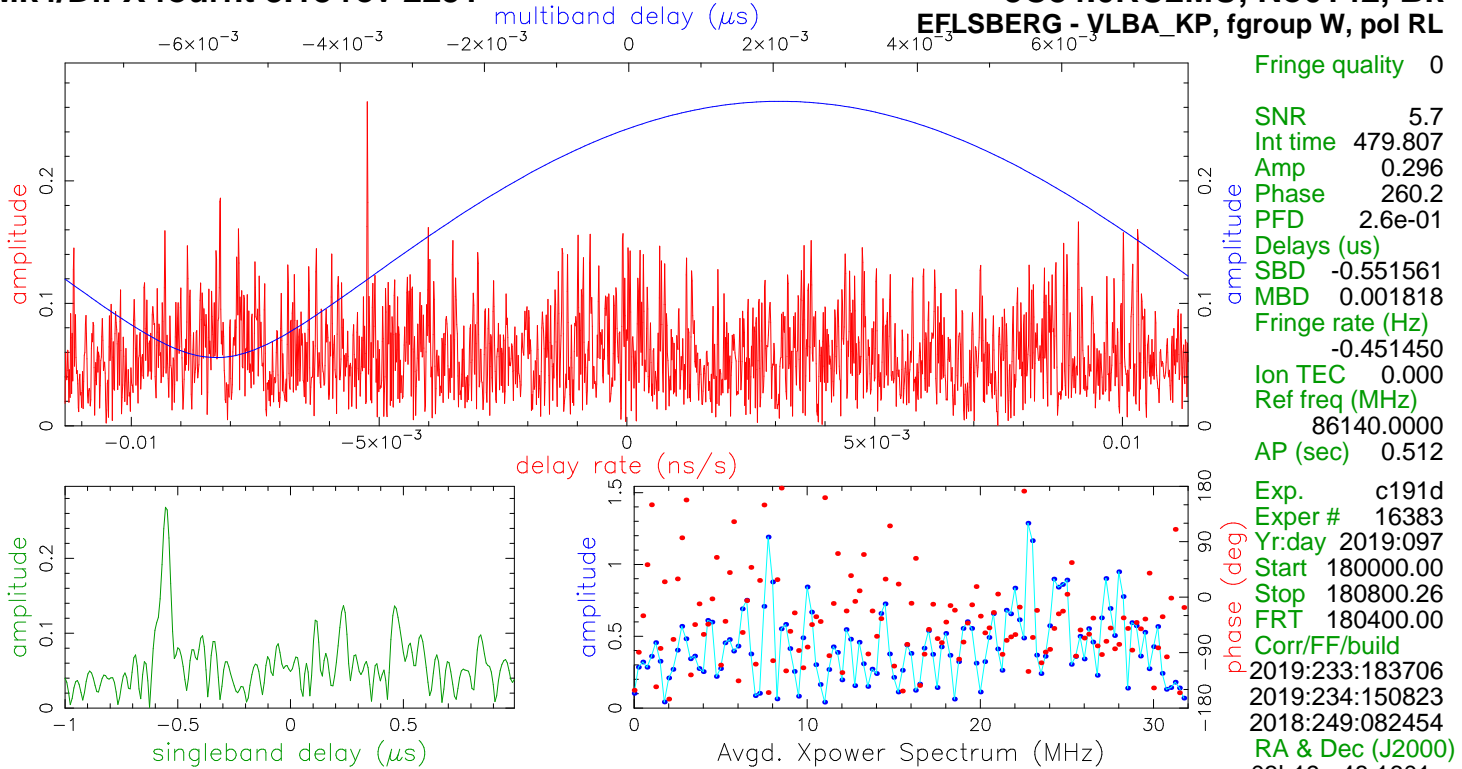


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

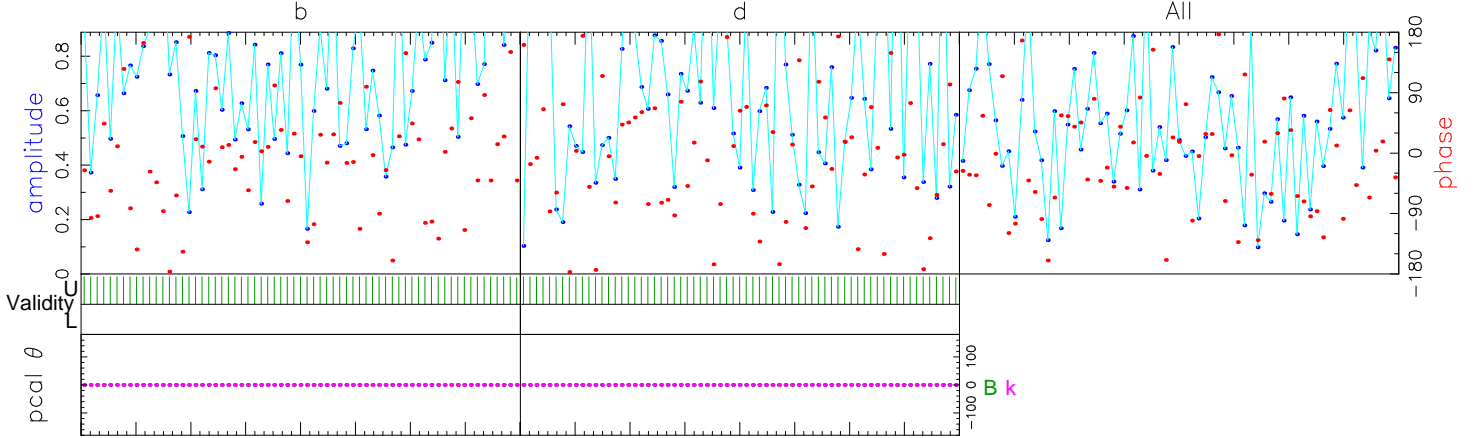


86156.00	86220.00	Freq (MHz)	All				
-91.8	-92.0	Phase	-91.9				
0.5	0.5	Ampl.	0.5				
232.6	30.3	Sbd box	30.2				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
k 1000	1000	PC freqs					
b:k 0:0	0:0	PC phase					
b:k 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
k 1000	1000						
b W01UR	W03UR	Chan ids					
k W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.00661438483E+02	Apriori delay (usec)	1.01427523447E+02	Resid mbdelay (usec)	-4.59964E-04	+/-	9.2E-04
Sband delay (usec)	1.00655561447E+02	Apriori clock (usec)	4.2683983E-01	Resid sbdelay (usec)	-7.71962E-01	+/-	3.2E-03
Phase delay (usec)	1.01427520485E+02	Apriori clockrate (us/s)	1.3659999E-08	Resid phdelay (usec)	-2.96254E-06	+/-	6.9E-07
Delay rate (us/s)	-1.16245628807E-01	Apriori rate (us/s)	-1.16253062768E-01	Resid rate (us/s)	7.43396E-06	+/-	6.2E-09
Total phase (deg)	311.2	Apriori accel (us/s/s)	1.55835322036E-05	Resid phase (deg)	358.1	+/-	21.3

ph/seg (deg) 81.5 92.8 Search (1024X8) 0.390 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 172.2 162.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 15.1 Inc. seg. avg. 0.488 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 5.6 26.3 Inc. frq. avg. 0.465 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 913.895 2504.188 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bk.W.52.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

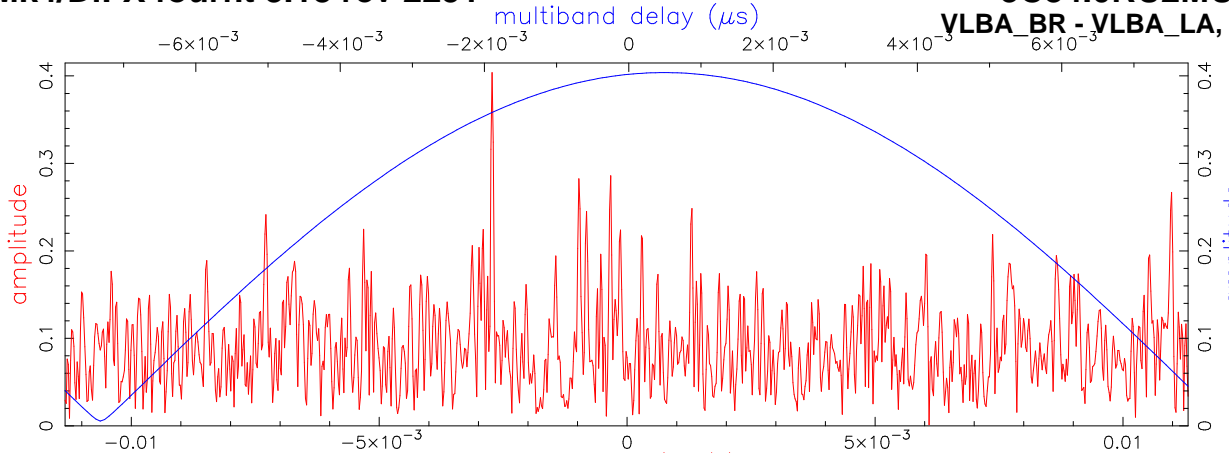


86156.00		86220.00		Freq (MHz)	All
-12.4		-5.9		Phase	-9.8
0.4		0.2		Ampl.	0.3
58.3		129.1		Sbd box	58.4
U/L 938/0		938/0		APs used	
B 1000		1000		PC freqs	
k 1000		1000		PC freqs	
B:k 0:0		0:0		PC phase	
B:k 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
k 1000		1000			
B W01UR		W03UR		Chan ids	
k W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	2.58535549841E+02	Apriori delay (usec)	2.59080606680E+02	Resid mbdelay (usec)	1.81816E-03 +/- 8.7E-04
Sband delay (usec)	2.58529045180E+02	Apriori clock (usec)	1.9753147E+01	Resid sbdelay (usec)	-5.51561E-01 +/- 3.0E-03
Phase delay (usec)	2.59080606363E+02	Apriori clockrate (us/s)	-1.1334000E-07	Resid phdelay (usec)	-3.16897E-07 +/- 6.4E-07
Delay rate (us/s)	-1.46981775677E+00	Apriori rate (us/s)	-1.46981251589E+00	Resid rate (us/s)	-5.24089E-06 +/- 2.3E-09
Total phase (deg)	65.6	Apriori accel (us/s/s)	1.68914855099E-05	Resid phase (deg)	260.2 +/- 20.0

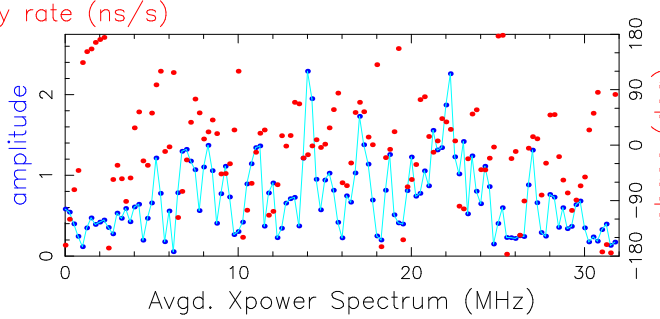
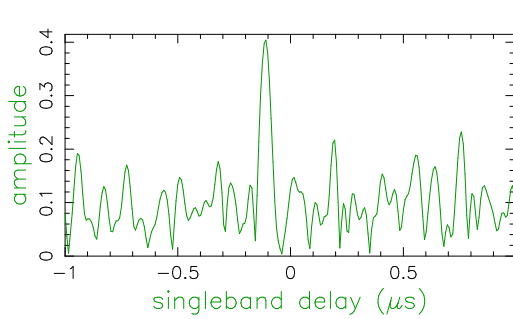
ph/seg (deg)	RMS 78.6	Theor. 81.7	Amplitude Search (2048X8)	0.296 +/- 0.052	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	144.2	142.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.1	Inc. seg. avg.	0.307	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.7	24.6	Inc. frq. avg.	0.281	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 11277.847 2674.829 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bk.W.65.0RU2MU

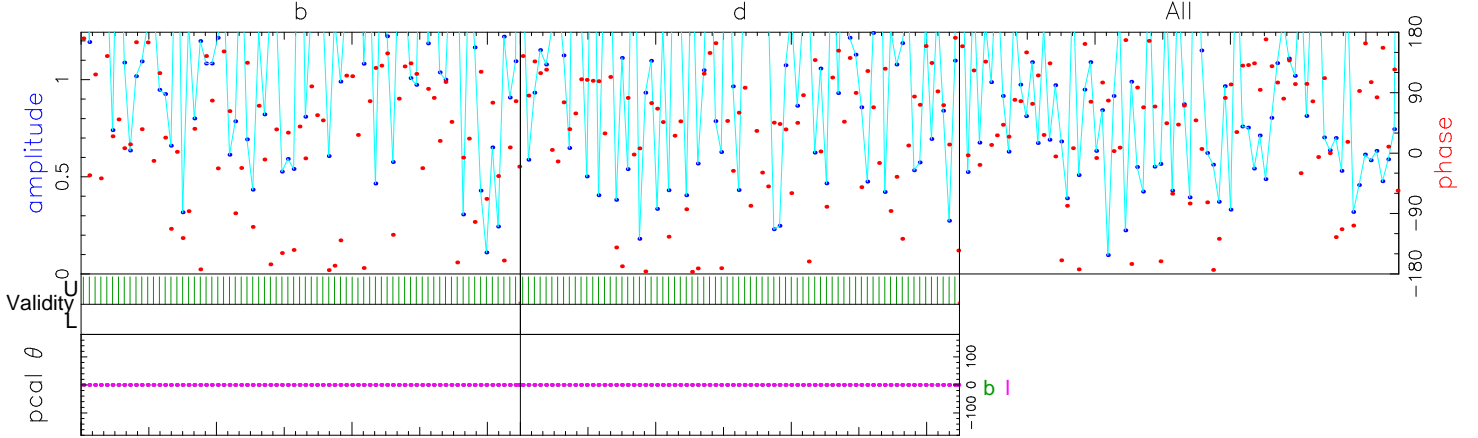


Fringe quality 0
SNR 5.4
Int time 192.040
Amp 0.415
Phase 343.0
PFD 5.7e-01
Delays (us)
SBD -0.111620
MBD 0.000507
Fringe rate (Hz)
-0.234459
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150821
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

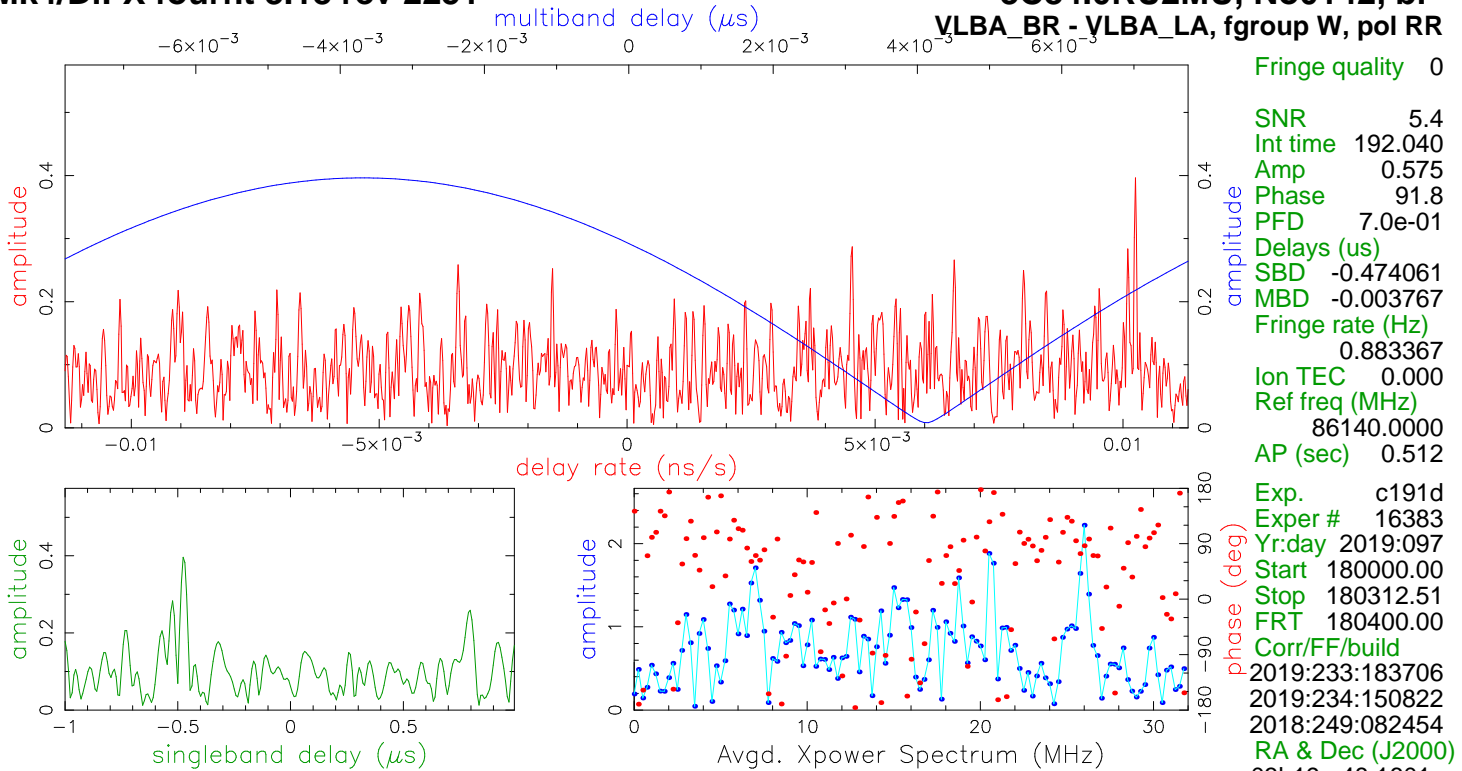


86156.00	86220.00	Freq (MHz)	All
73.2	72.8	Phase	73.0
0.4	0.4	Ampl.	0.4
114.0	115.4	Sbd box	114.7
U/L 376/0	376/0	APs used	
l 1000	1000	PC freqs	
b:l 0:0	0:0	PC freqs	
b:l 0:0	0:0	PC phase	
b 1000	1000	Manl PC	
l 1000	1000	PC amp	
b W01UL	W03UL	Chan ids	
l W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

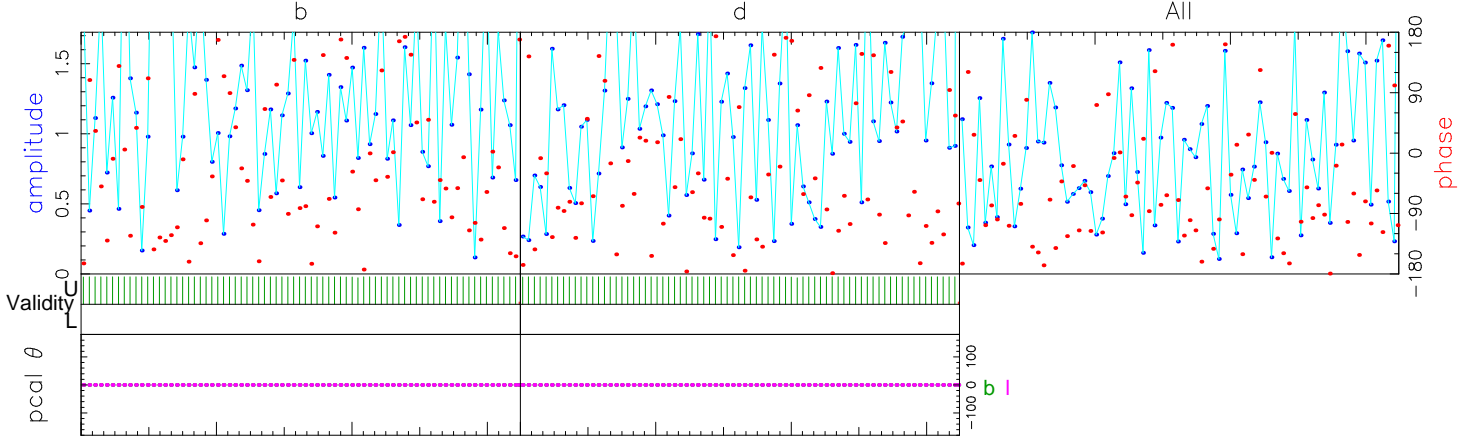
Group delay (usec)(sbd)	-1.29870822159E+03	Apriori delay (usec)	-1.29859935339E+03	Resid mbdelay (usec)	5.06803E-04	+/-	9.2E-04
Sband delay (usec)	-1.29871097339E+03	Apriori clock (usec)	2.8147774E+00	Resid sbdelay (usec)	-1.11620E-01	+/-	3.2E-03
Phase delay (usec)	-1.29859935104E+03	Apriori clockrate (us/s)	1.7000000E-07	Resid phdelay (usec)	2.35400E-06	+/-	6.8E-07
Delay rate (us/s)	-2.72263308091E-02	Apriori rate (us/s)	-2.72236089700E-02	Resid rate (us/s)	-2.72184E-06	+/-	6.1E-09
Total phase (deg)	234.5	Apriori accel (us/s/s)	1.88997419020E-05	Resid phase (deg)	343.0	+/-	21.1

ph/seg (deg)	78.8	Theor.	92.0	Amplitude	0.415 +/- 0.076	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	165.6	Search (1024X8)	0.394	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.403	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.4	Inc. frq. avg.	0.400	Inc. frq. avg.	0.400	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 238.657 2375.332 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bl.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bl.W.45.0RU2MU



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

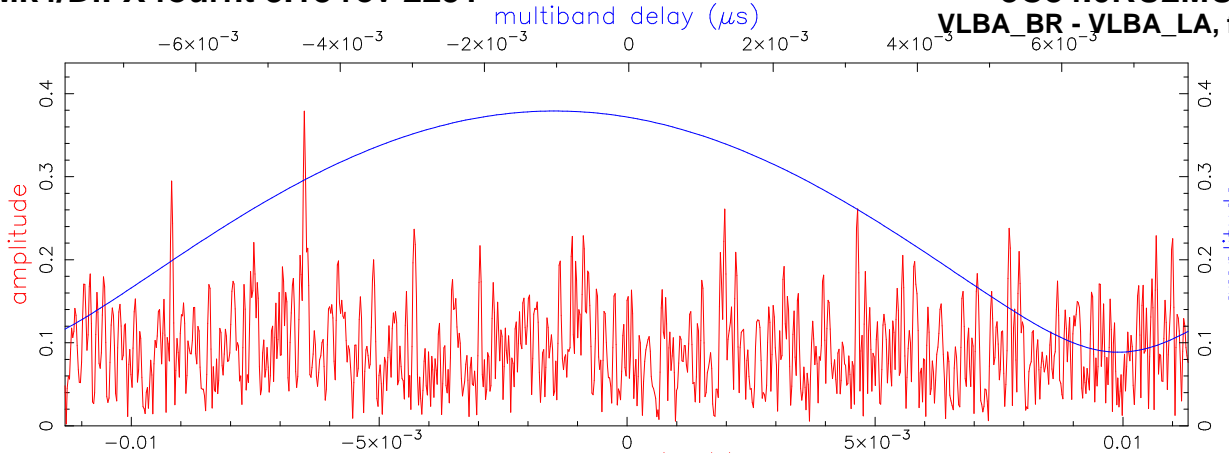


86156.00		86220.00		Freq (MHz)	All
-89.2		-87.3		Phase	-88.2
0.6		0.6		Ampl.	0.6
61.7		68.3		Sbd box	68.3
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
l 1000		1000		PC freqs	
b:l 0:0		0:0		PC phase	
b:l 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
l 1000		1000			
b W01UR		W03UR		Chan ids	
l W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.29907187043E+03	Apriori delay (usec)	-1.29859935339E+03	Resid mbdelay (usec)	-3.76703E-03 +/- 9.3E-04
Sband delay (usec)	-1.29907341439E+03	Apriori clock (usec)	2.8147774E+00	Resid sbdelay (usec)	-4.74061E-01 +/- 3.2E-03
Phase delay (usec)	-1.29859935624E+03	Apriori clockrate (us/s)	1.7000000E-07	Resid phdelay (usec)	-2.84492E-06 +/- 6.9E-07
Delay rate (us/s)	-2.72133539504E-02	Apriori rate (us/s)	-2.72236089700E-02	Resid rate (us/s)	1.02550E-05 +/- 6.2E-09
Total phase (deg)	343.3	Apriori accel (us/s/s)	1.88997419020E-05	Resid phase (deg)	91.8 +/- 21.4

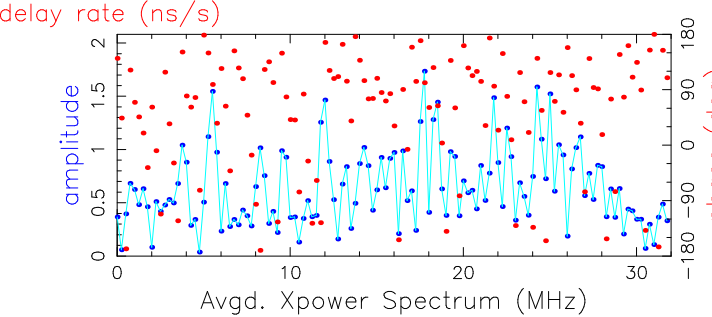
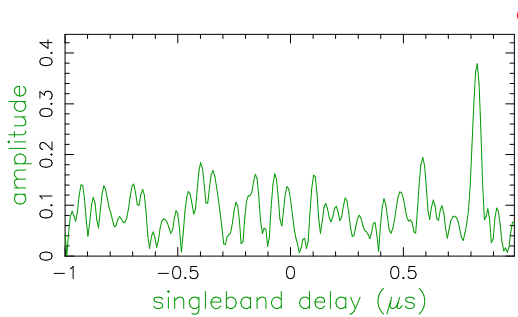
ph/seg (deg)	RMS 76.1	Theor. 93.1	Amplitude Search (1024X8)	0.575 +/- 0.107	0.388	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	165.6	162.6	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.1	Inc. seg. avg.	0.533		Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.2	26.4	Inc. frq. avg.	0.550		Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 256	nlags: 128 t_cohere infinite			

b: az 73.4 el 45.3 pa -58.8 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 238.657 2375.332 simultaneous interpolator

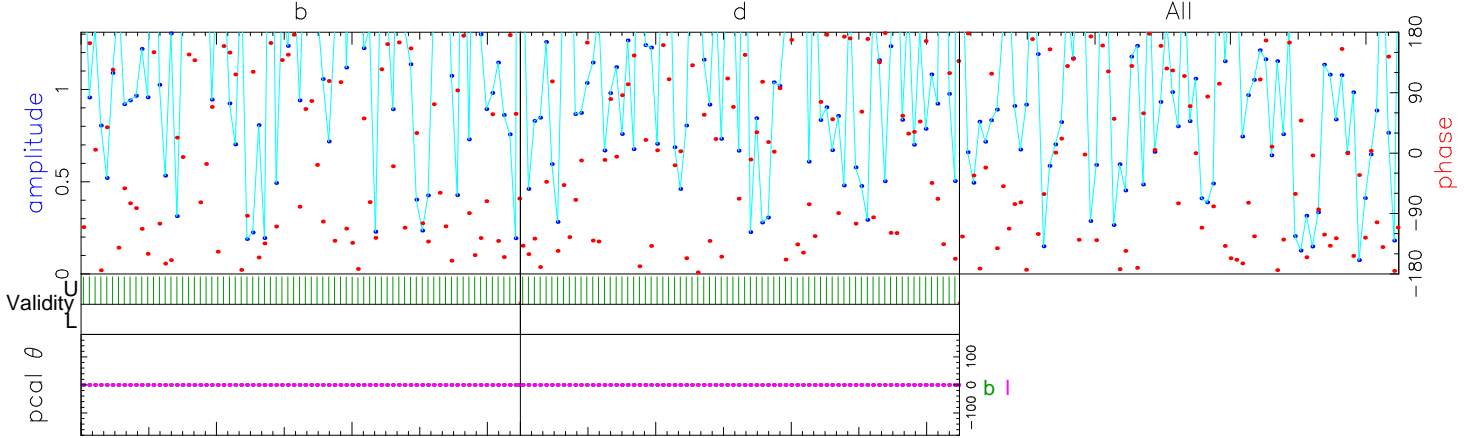
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bl.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bl.W.53.0RU2MU



Fringe quality 0
 SNR 5.1
 Int time 192.040
 Amp 0.437
 Phase -258.4
 PFD 9.9e-01
 Delays (us)
 SBD 0.826595
 MBD -0.000930
 Fringe rate (Hz)
 -0.560575
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150822
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

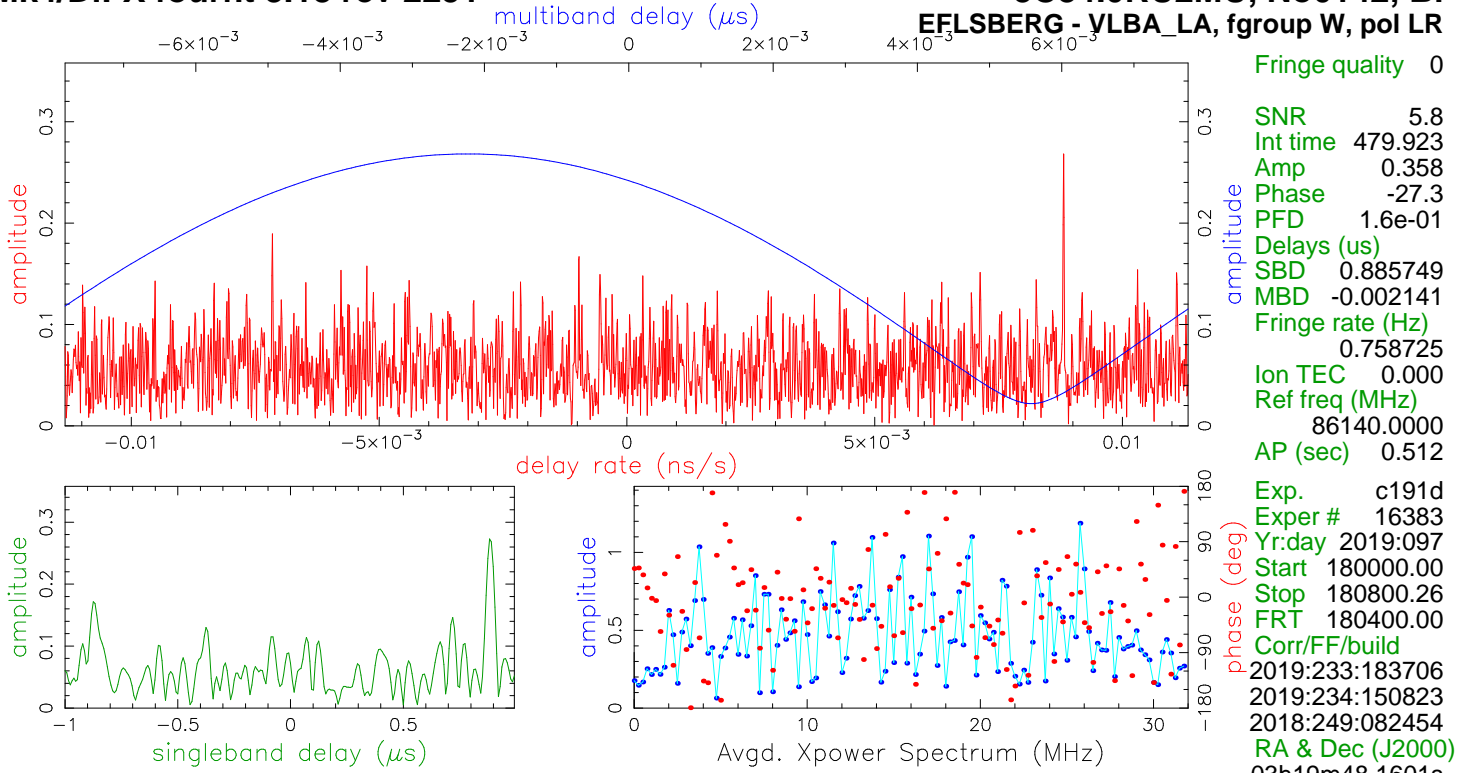


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

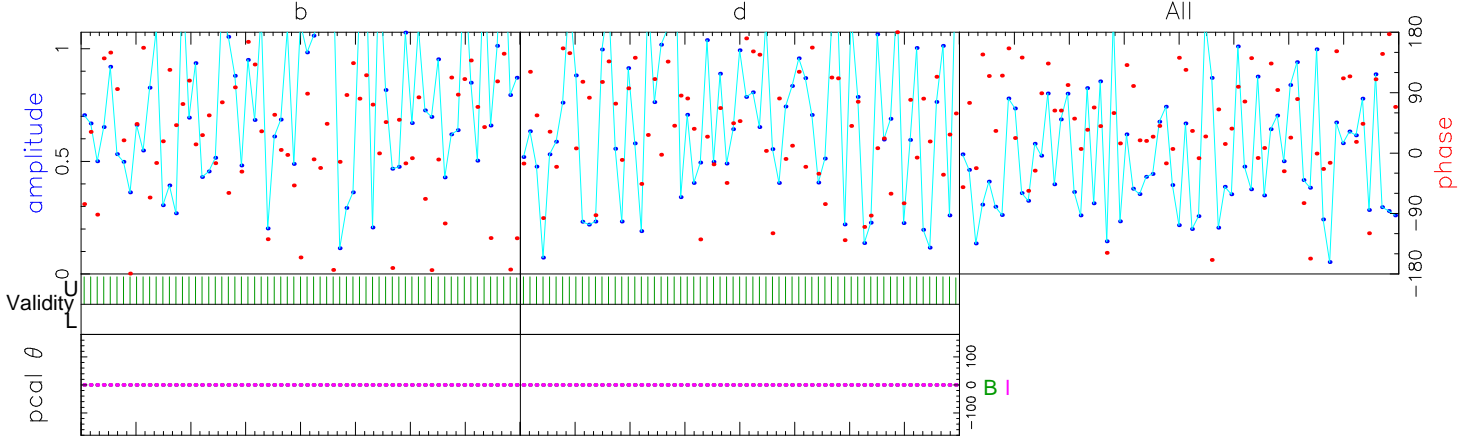


86156.00	86220.00	Freq (MHz)	All			
-167.6	-169.8	Phase	-168.4			
0.5	0.3	Ampl.	0.4			
234.9	143.9	Sbd box	234.8			
U/L 376/0	376/0	APs used				
b 1000	1000	PC freqs				
l 1000	1000	PC freqs				
b:l 0:0	0:0	PC phase				
b:l 0:0	0:0	Manl PC				
b 1000	1000	PC amp				
l 1000	1000					
b W01UL	W03UL	Chan ids				
l W01UR	W03UR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	-1.29777215797E+03	Apriori delay (usec)	-1.29859935339E+03	Resid mbdelay (usec)	-9.29578E-04	+/- 9.8E-04
Sband delay (usec)	-1.29777275839E+03	Apriori clock (usec)	2.8147774E+00	Resid sbdelay (usec)	8.26595E-01	+/- 3.4E-03
Phase delay (usec)	-1.29859935883E+03	Apriori clockrate (us/s)	1.7000000E-07	Resid phdelay (usec)	-5.43151E-06	+/- 7.3E-07
Delay rate (us/s)	-2.72301166920E-02	Apriori rate (us/s)	-2.72236089700E-02	Resid rate (us/s)	-6.50772E-06	+/- 6.5E-09
Total phase (deg)	-6.9	Apriori accel (us/s/s)	1.88997419020E-05	Resid phase (deg)	-258.4	+/- 22.5

ph/seg (deg) 88.1 98.1 Amplitude 0.437 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 195.7 171.2 Search (1024X8) 0.374 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.3 27.8 Inc. seg. avg. 0.436 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 238.657 2375.332 Data rate (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bl.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bl.W.58.0RU2MU simultaneous interpolator

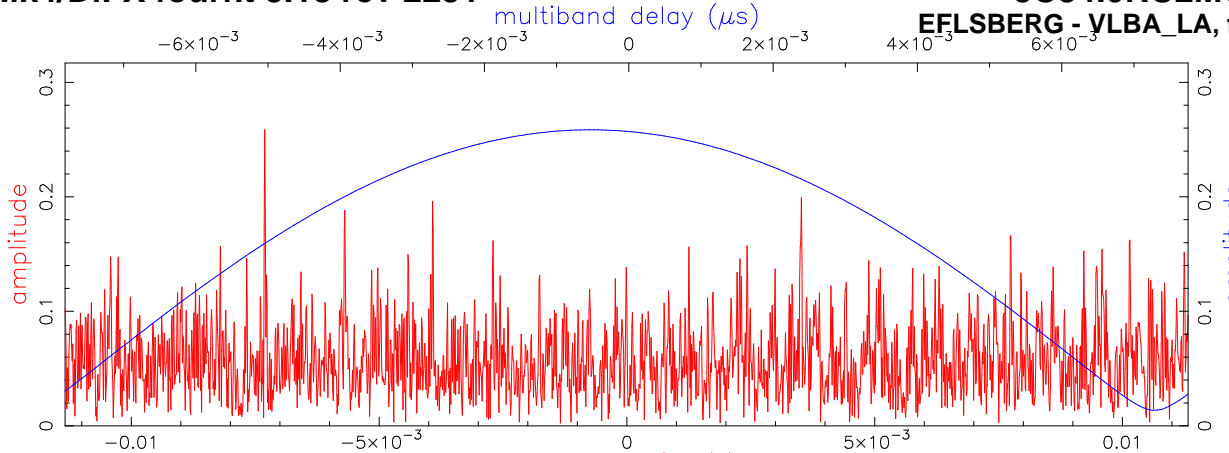


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

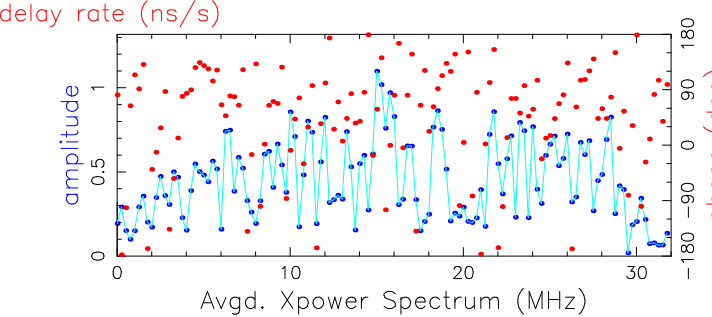
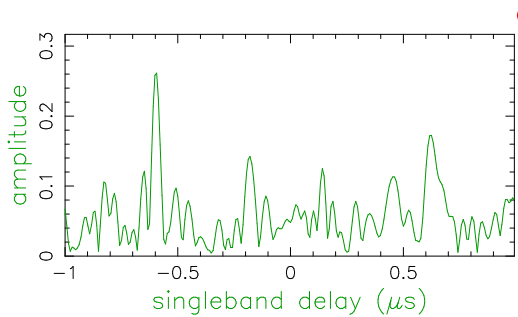


86156.00		86220.00		Freq (MHz)	All
63.8		61.7		Phase	62.7
0.3		0.4		Ampl.	0.3
241.7		242.8		Sbd box	242.4
U/L 938/0		938/0		APs used	
B 1000		1000		PC freqs	
I 1000		1000		PC freqs	
B:I 0:0		0:0		PC phase	
B:I 0:0		0:0		ManI PC	
B 1000		1000		PC amp	
I 1000		1000			
B W01UL		W03UL		Chan ids	
I W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.14005778612E+03	Apriori delay (usec)	-1.14094627016E+03	Resid mbdelay (usec)	-2.14096E-03 +/- 8.5E-04
Sband delay (usec)	-1.14006052116E+03	Apriori clock (usec)	2.2141085E+01	Resid sbdelay (usec)	8.85749E-01 +/- 3.0E-03
Phase delay (usec)	-1.14094626814E+03	Apriori clockrate (us/s)	4.3000000E-08	Resid phdelay (usec)	2.02107E-06 +/- 6.3E-07
Delay rate (us/s)	-1.38077425404E+00	Apriori rate (us/s)	-1.38078306209E+00	Resid rate (us/s)	8.80805E-06 +/- 2.3E-09
Total phase (deg)	-283.5	Apriori accel (us/s/s)	2.02076952084E-05	Resid phase (deg)	-27.3 +/- 19.6

ph/seg (deg)	69.8	Theor.	80.4	Amplitude	0.358 +/- 0.061	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	130.0	Search (2048X8)		Search	0.255	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.		Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	8.4	Inc. seg. avg.		Inc. seg. avg.	0.342	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.		Inc. frq. avg.	0.339	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

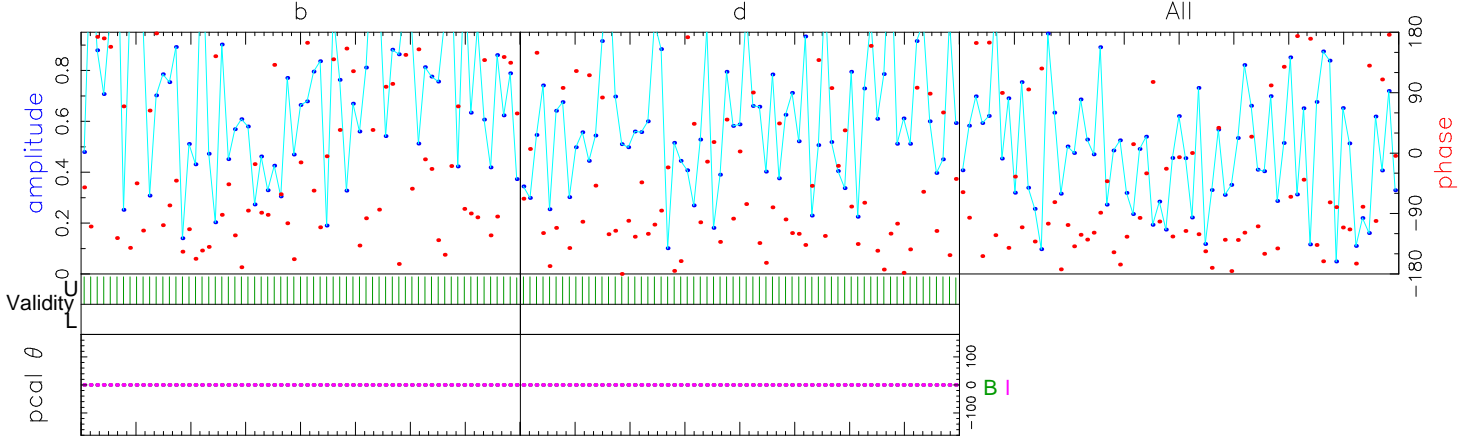


Fringe quality 0
 SNR 5.6
 Int time 479.923
 Amp 0.317
 Phase 59.9
 PFD 4.4e-01
 Delays (us)
 SBD -0.597154
 MBD -0.000530
 Fringe rate (Hz)
 -0.629780
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

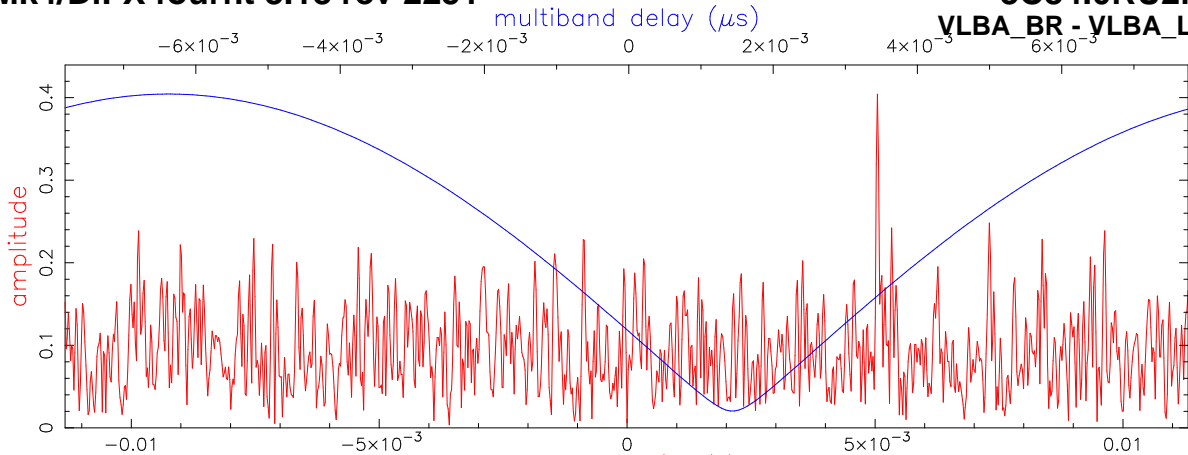


Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



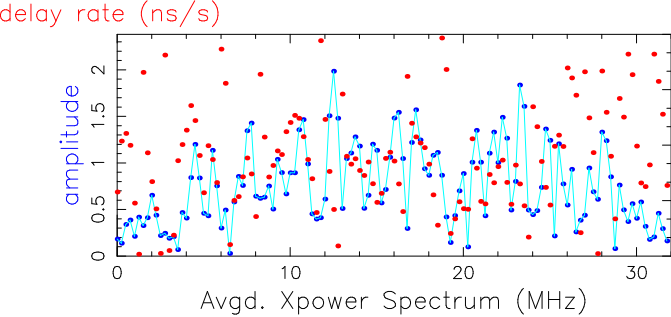
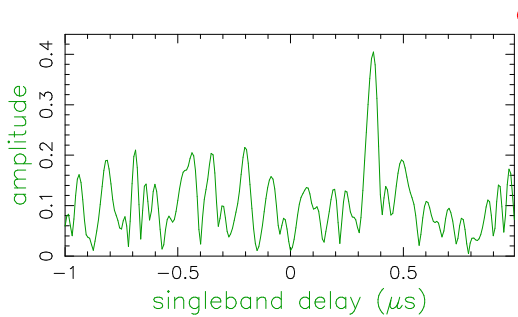
86156.00	-120.2	0.3	52.6	U/L 938/0	B 1000	I 1000	B:I 0:0	B:I 0:0	B 1000	I 1000	B W01UR	I W01UL	86220.00	-120.1	0.3	52.5	U/L 938/0	B 1000	I 1000	B:I 0:0	B:I 0:0	B 1000	I 1000	B W03UR	I W03UL	86140.00	59.9	4.4e-01	0.317 +/- 0.056	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000																																													
Group delay (usec)(sbd)		-1.14154054997E+03		Apriori delay (usec)		-1.14094627016E+03		Resid mbdelay (usec)		-5.29810E-04		+/-		8.8E-04		Sband delay (usec)		-1.14154342466E+03		Apriori clock (usec)		2.2141085E+01		Resid sbdelay (usec)		-5.97154E-01		+/-		3.1E-03		Phase delay (usec)		-1.14094627404E+03		Apriori clockrate (us/s)		4.3000000E-08		Resid phdelay (usec)		-3.87433E-06		+/-		6.6E-07		Delay rate (us/s)		-1.38079037322E+00		Apriori rate (us/s)		-1.38078306209E+00		Resid rate (us/s)		-7.31113E-06		+/-		2.4E-09		Total phase (deg)		163.6		Apriori accel (us/s/s)		2.02076952084E-05		Resid phase (deg)		59.9		+/-		20.4	
ph/seg (deg)	71.1	83.4	Amplitude	0.317 +/- 0.056	PCal rate: 0.000E+00, 0.000E+00 (us/s)	mb window (us)	-1.000	1.000	amp/seg (%)	119.7	145.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	ph/frq (deg)	0.0	14.4	Inc. seg. avg.	0.281	Sample rate(MSamp/s): 64	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00	simultaneous interpolator																																																



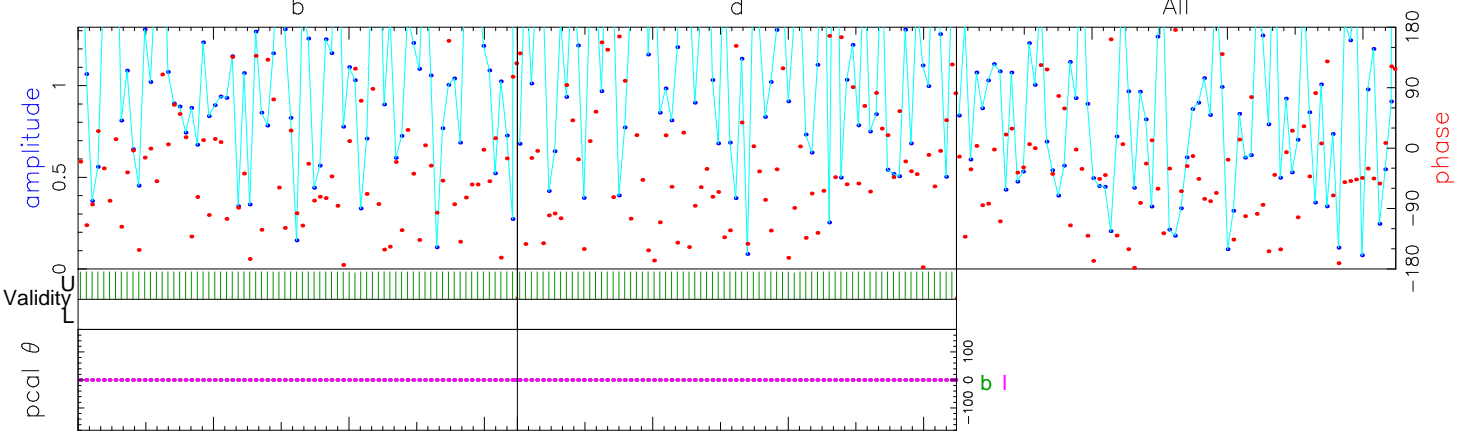
Fringe quality 0

SNR 5.4
 Int time 192.040
 Amp 0.440
 Phase -46.4
 PFD 5.8e-01
 Delays (us)
 SBD 0.366161
 MBD -0.006333
 Fringe rate (Hz) 0.434398
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

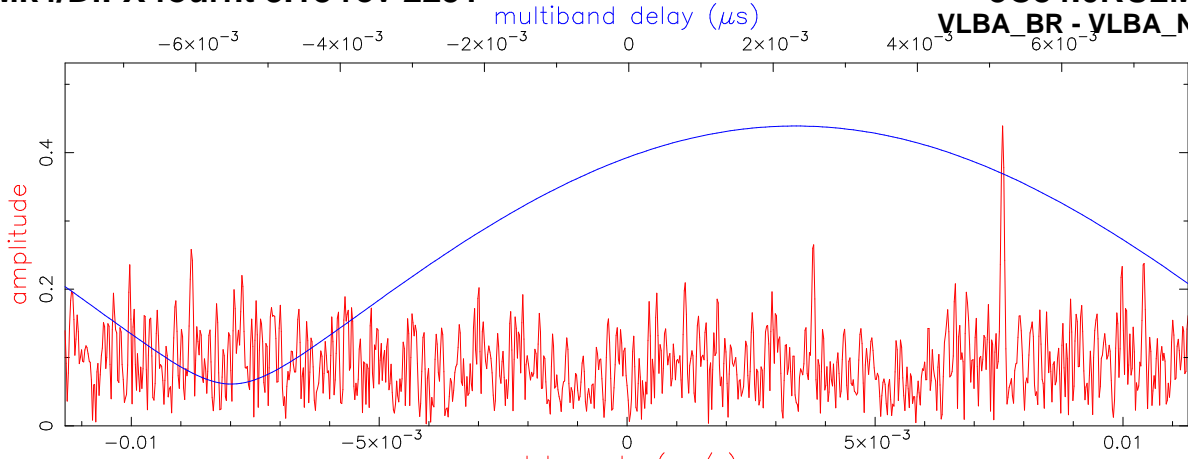


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-46.0	-47.0	Phase	-46.4				
0.5	0.4	Ampl.	0.4				
176.4	175.7	Sbd box	175.9				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
l 1000	1000	PC freqs					
b:l 0:0	0:0	PC phase					
b:l 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
l 1000	1000						
b W01UR	W03UR	Chan ids					
l W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.29823068630E+03	Apriori delay (usec)	-1.29859935339E+03	Resid mbdelay (usec)	-6.33291E-03	+/-	9.2E-04
Sband delay (usec)	-1.29823319189E+03	Apriori clock (usec)	2.8147774E+00	Resid sbdelay (usec)	3.66161E-01	+/-	3.2E-03
Phase delay (usec)	-1.29859935489E+03	Apriori clockrate (us/s)	1.7000000E-07	Resid phdelay (usec)	-1.49760E-06	+/-	6.8E-07
Delay rate (us/s)	-2.72185660450E-02	Apriori rate (us/s)	-2.72236089700E-02	Resid rate (us/s)	5.04292E-06	+/-	6.1E-09
Total phase (deg)	-154.9	Apriori accel (us/s/s)	1.88997419020E-05	Resid phase (deg)	-46.4	+/-	21.1

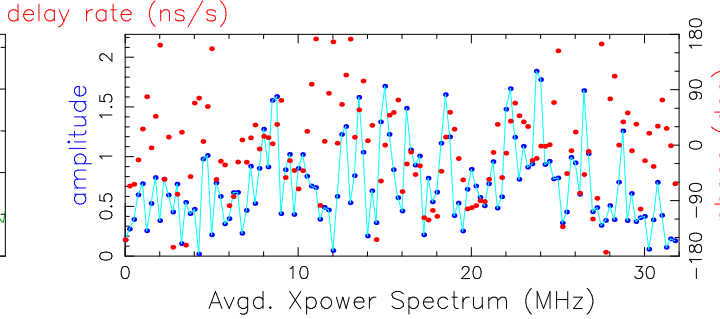
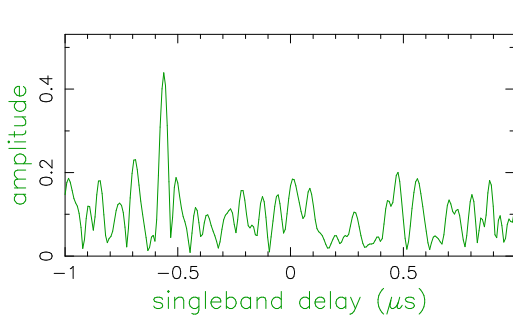
ph/seg (deg) 77.0 92.1 Search (1024X8) 0.396 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 158.3 160.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.9 Inc. seg. avg. 0.400 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.0 26.1 Inc. frq. avg. 0.425 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 238.657 2375.332 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00



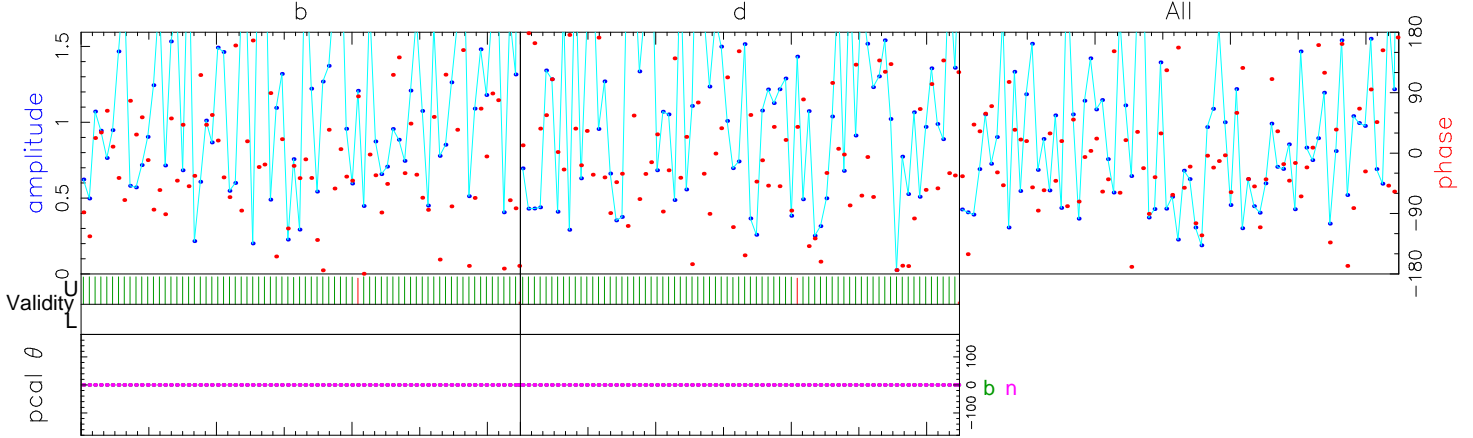
Fringe quality 0

SNR 5.9
Int time 191.924
Amp 0.531
Phase 347.7
PFD 6.2e-02
Delays (us)
SBD -0.561991
MBD 0.002296
Fringe rate (Hz) 0.652022
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150828
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

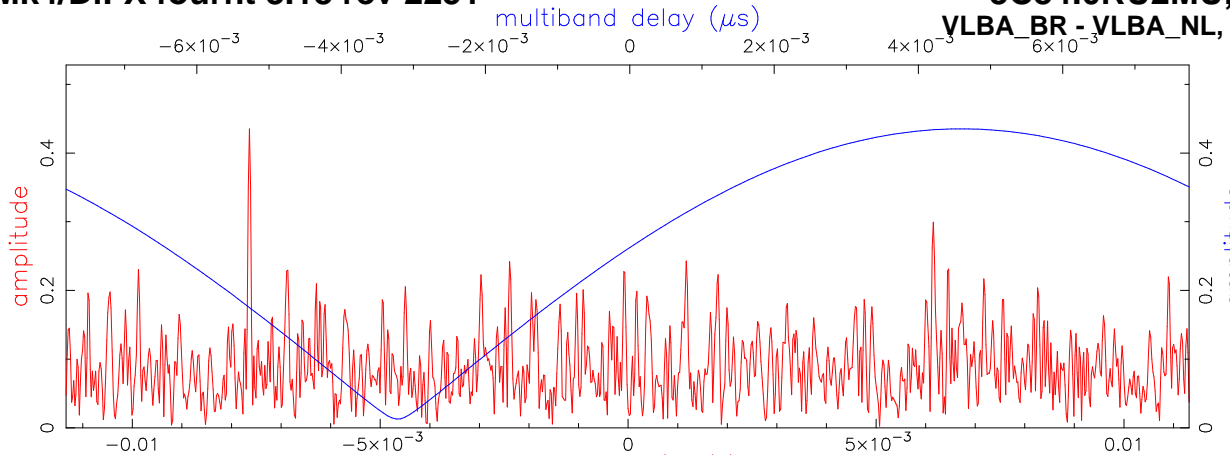


86156.00		86220.00		Freq (MHz)	All
-12.4		-12.2		Phase	-12.3
0.6		0.5		Ampl.	0.5
56.6		57.6		Sbd box	57.1
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
n 1000		1000		PC freqs	
b:n 0:0		0:0		PC phase	
b:n 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
n 1000		1000			
b W01UR		W03UR		Chan ids	
n W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-3.84495417659E+03	Apriori delay (usec)	-3.84439397297E+03	Resid mbdelay (usec)	2.29639E-03 +/- 8.5E-04
Sband delay (usec)	-3.84495596397E+03	Apriori clock (usec)	-2.1592587E+01	Resid sbdelay (usec)	-5.61991E-01 +/- 2.9E-03
Phase delay (usec)	-3.84439397337E+03	Apriori clockrate (us/s)	-3.3299999E-07	Resid phdelay (usec)	-3.97186E-07 +/- 6.3E-07
Delay rate (us/s)	1.94214172768E-01	Apriori rate (us/s)	1.94206603437E-01	Resid rate (us/s)	7.56933E-06 +/- 5.7E-09
Total phase (deg)	48.2	Apriori accel (us/s/s)	2.62128840734E-05	Resid phase (deg)	347.7 +/- 19.5

ph/seg (deg)	RMS 78.3	Theor. 84.9	Amplitude Search (1024X8)	0.531 +/- 0.090	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	146.3	148.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.8	Inc. seg. avg.	0.512	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	13.9	24.0	Inc. frq. avg.	0.516	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 73.4 el 45.3 pa -58.8 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1443.045 2361.980 simultaneous interpolator

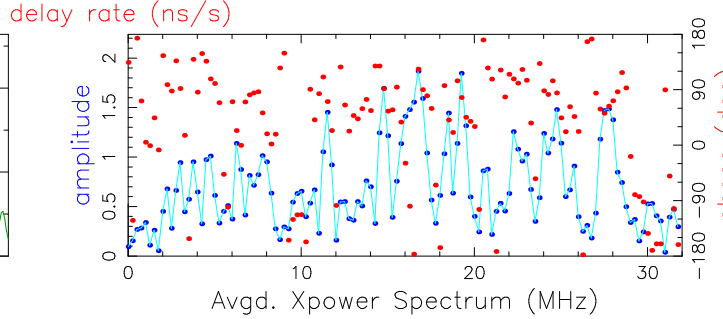
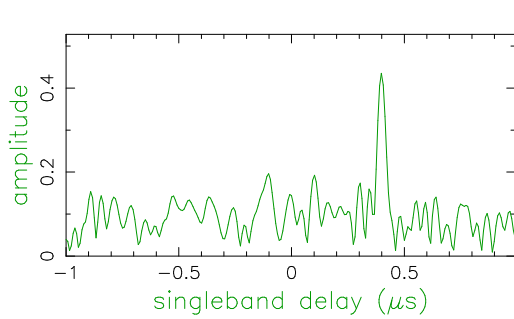
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bn.W.111.0RU2MU



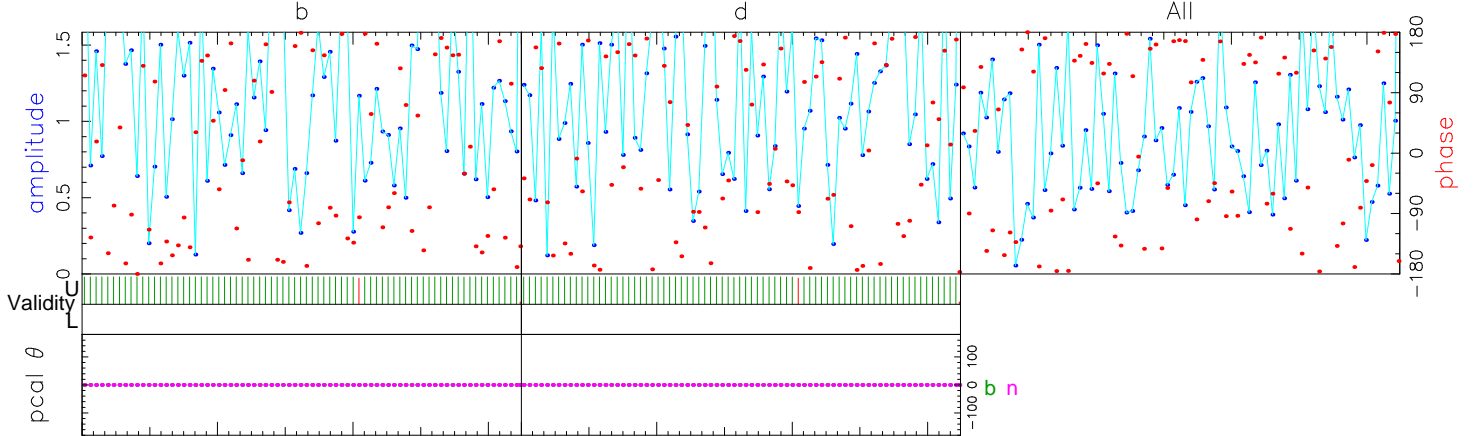
Fringe quality 0

SNR 5.8
Int time 191.924
Amp 0.528
Phase -257.8
PFD 8.4e-02
Delays (us)
SBD 0.398508
MBD 0.004595
Fringe rate (Hz)
-0.657269
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150818
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

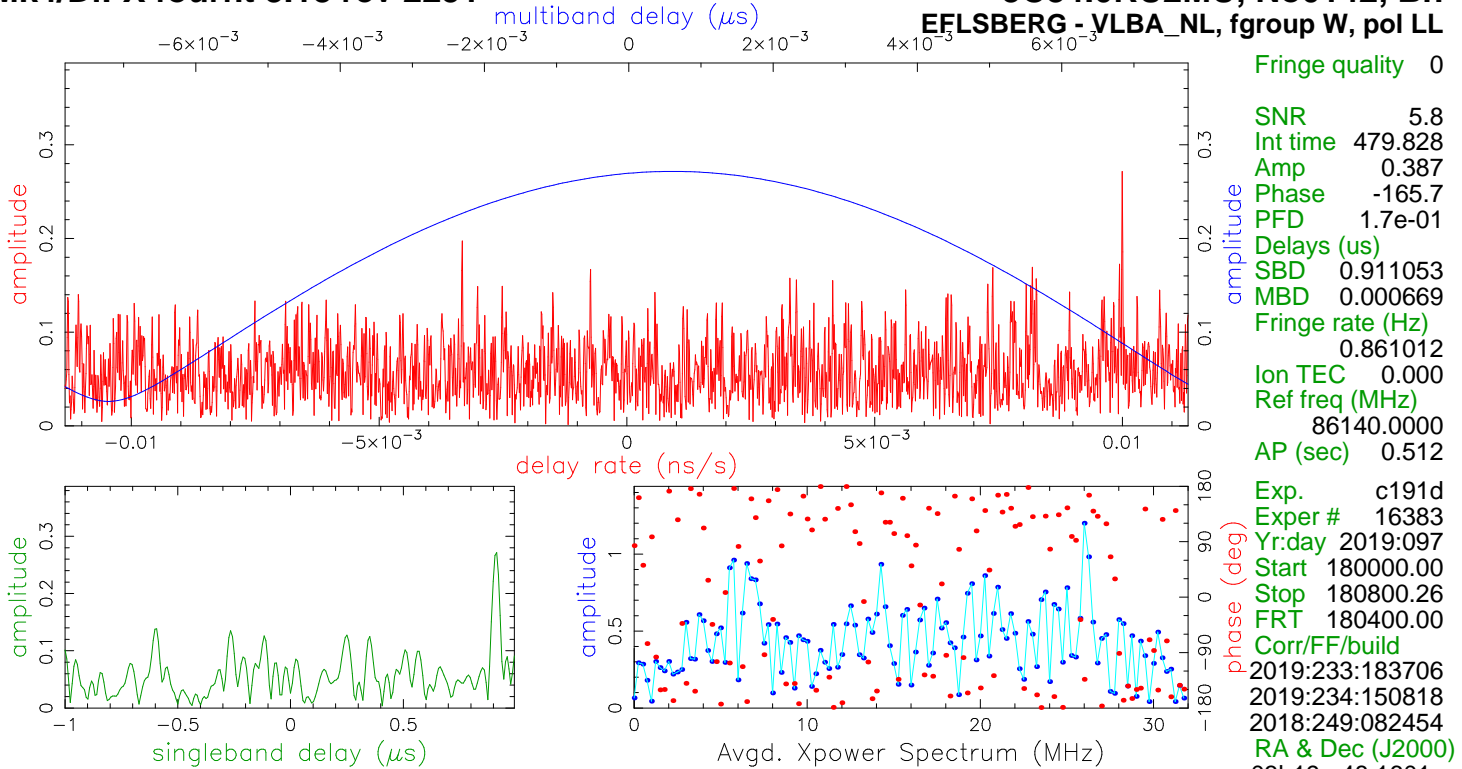


86156.00	86220.00	Freq (MHz)	All				
-167.8	-167.8	Phase	-167.8				
0.5	0.5	Ampl.	0.5				
180.5	179.4	Sbd box	180.0				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
n 1000	1000	PC freqs					
b:n 0:0	0:0	PC phase					
b:n 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
n 1000	1000						
b W01UL	W03UL	Chan ids					
n W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-3.84399875279E+03	Apriori delay (usec)	-3.84439397297E+03	Resid mbdelay (usec)	4.59519E-03	+/-	8.5E-04
Sband delay (usec)	-3.84399546547E+03	Apriori clock (usec)	-2.1592587E+01	Resid sbdelay (usec)	3.98508E-01	+/-	3.0E-03
Phase delay (usec)	-3.84439397838E+03	Apriori clockrate (us/s)	-3.3299999E-07	Resid phdelay (usec)	-5.41017E-06	+/-	6.3E-07
Delay rate (us/s)	1.94198973200E-01	Apriori rate (us/s)	1.94206603437E-01	Resid rate (us/s)	-7.63024E-06	+/-	5.7E-09
Total phase (deg)	-197.3	Apriori accel (us/s/s)	2.62128840734E-05	Resid phase (deg)	-257.8	+/-	19.7

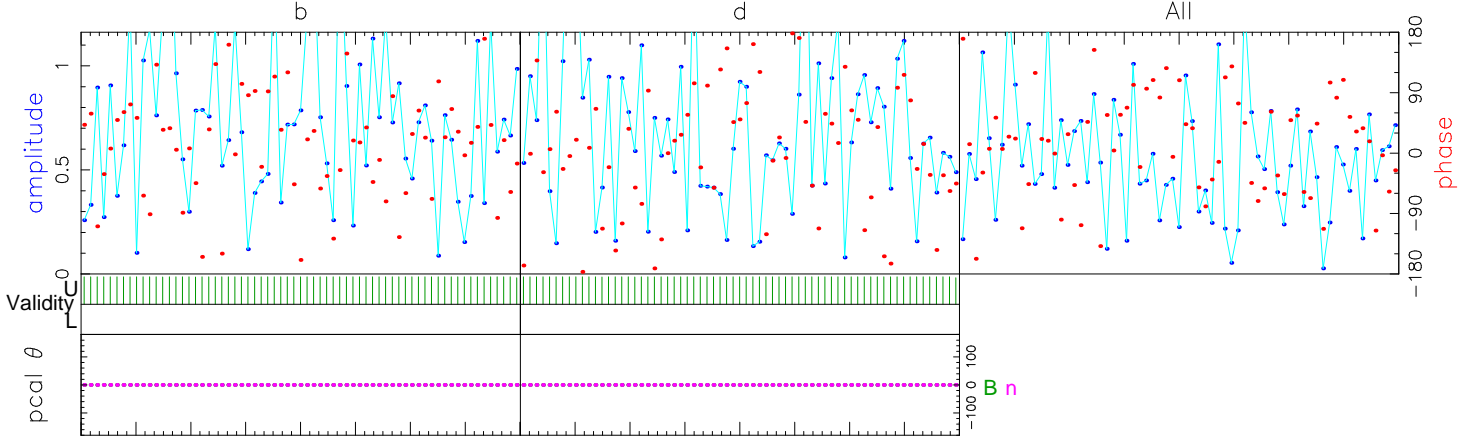
ph/seg (deg)	RMS 72.9	Theor. 85.7	Amplitude Search (1024X8)	0.528 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	145.3	149.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.9	Inc. seg. avg.	0.523	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.9	24.3	Inc. frq. avg.	0.513	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 73.4 el 45.3 pa -58.8 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1443.045 2361.980 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bn.W.12.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

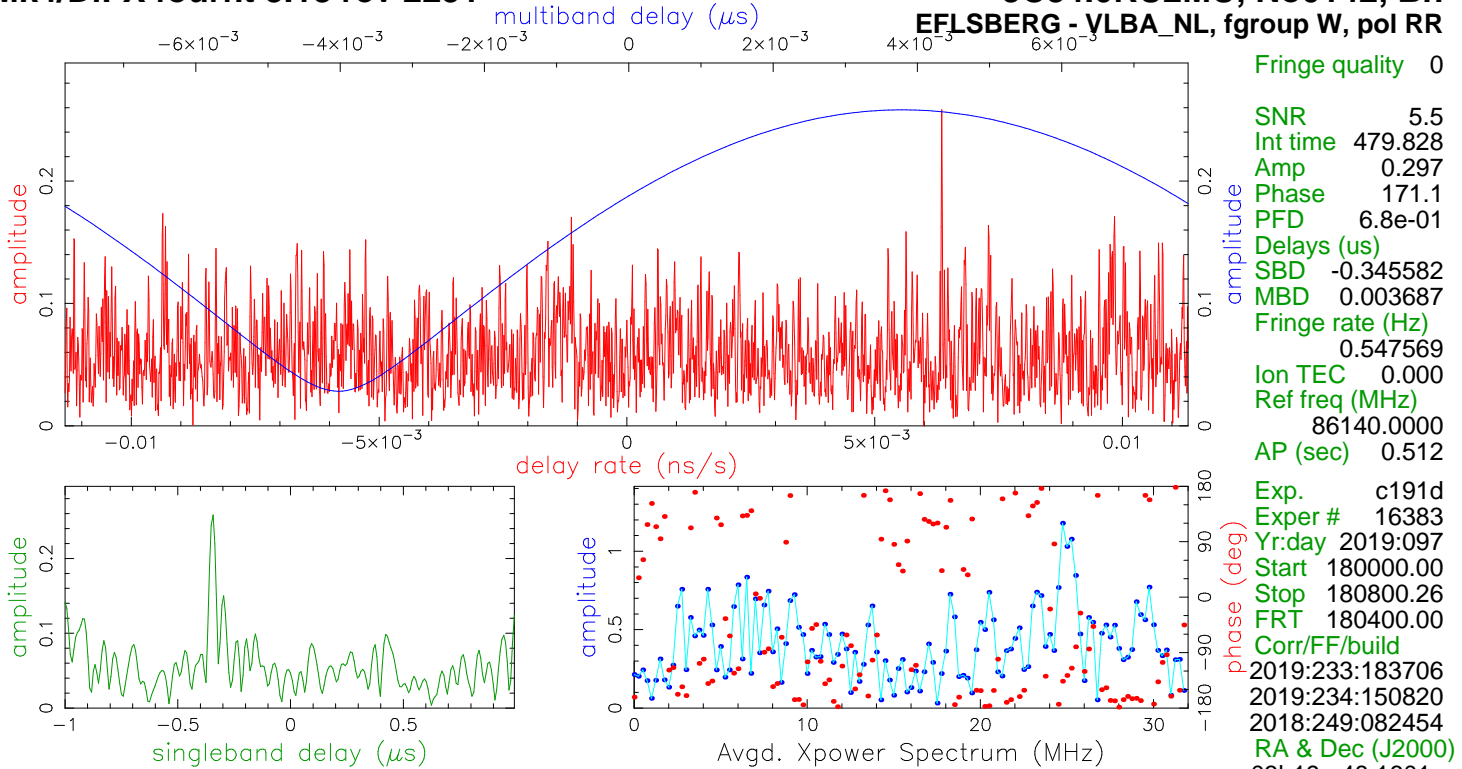


86156.00		86220.00		Freq (MHz)	All
15.0		13.5		Phase	14.3
0.4		0.3		Ampl.	0.4
245.8		245.3		Sbd box	245.6
U/L 938/0		938/0		APs used	
B 1000		1000		PC freqs	
n 1000		1000		PC freqs	
B:n 0:0		0:0		PC phase	
B:n 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
n 1000		1000			
B W01UL		W03UL		Chan ids	
n W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-3.68583397120E+03	Apriori delay (usec)	-3.68674088974E+03	Resid mbdelay (usec)	6.68544E-04 +/- 8.5E-04
Sband delay (usec)	-3.68582983624E+03	Apriori clock (usec)	-2.2662783E+00	Resid sbdelay (usec)	9.11053E-01 +/- 3.0E-03
Phase delay (usec)	-3.68674088928E+03	Apriori clockrate (us/s)	-4.59999999E-07	Resid phdelay (usec)	4.60576E-07 +/- 6.3E-07
Delay rate (us/s)	-1.15934285418E+00	Apriori rate (us/s)	-1.15935284968E+00	Resid rate (us/s)	9.99550E-06 +/- 2.3E-09
Total phase (deg)	-253.0	Apriori accel (us/s/s)	2.75208373797E-05	Resid phase (deg)	-165.7 +/- 19.7

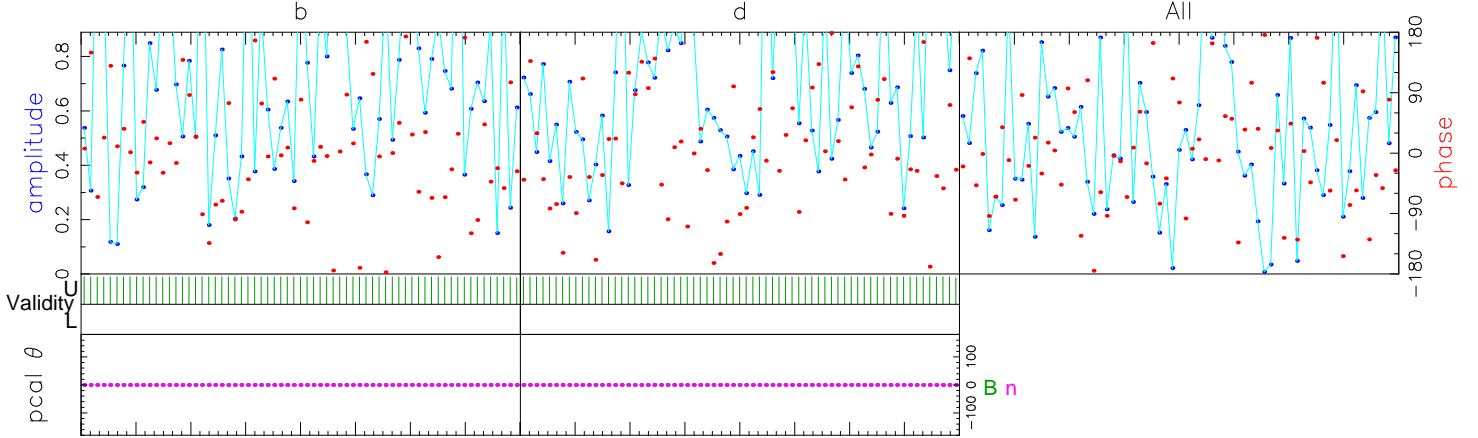
ph/seg (deg)	RMS 74.5	Theor. 80.6	Amplitude 0.387 +/- 0.067	Search (2048X8) 0.265	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	147.1	140.6	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	0.0	13.9	Inc. seg. avg. 0.395	0.372	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	9.5	24.3	Inc. frq. avg. 0.372		Sample rate(MSamp/s): 64	dr window (ns/s) -0.011 0.011	
					Data rate(Mb/s): 256	ion window (TEC) 0.00 0.00	
					nlags: 128	t_cohere infinite	

B: az 283.1 el 47.1 pa 55.9 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 8920.907 2532.621 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bn.W.21.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

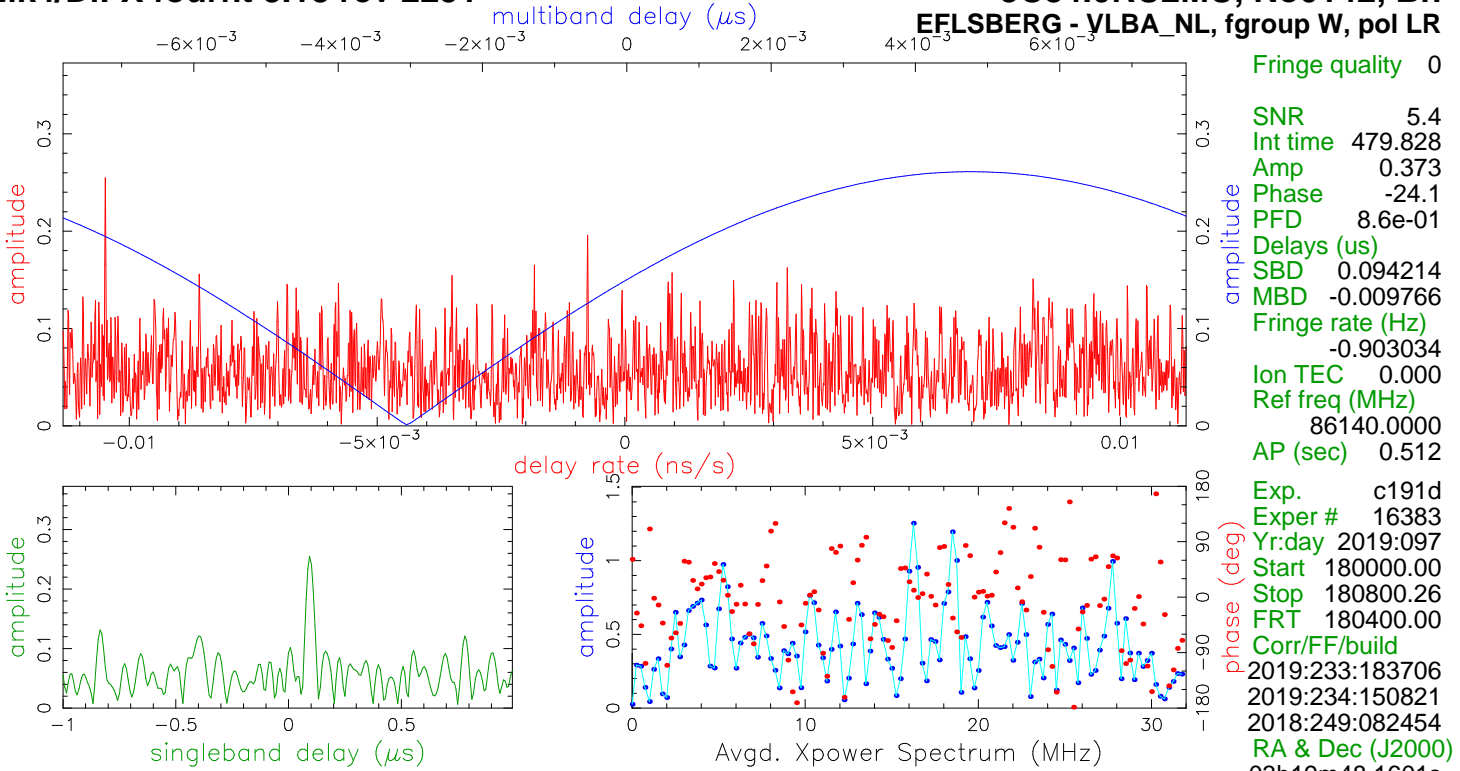


86156.00		86220.00		Freq (MHz)		All
-9.9		-7.6		Phase		-8.9
0.3		0.3		Ampl.		0.3
84.7		84.8		Sbd box		84.8
U/L 938/0		938/0		APs used		
B 1000		1000		PC freqs		
n 1000		1000		PC freqs		
B:n 0:0		0:0		PC phase		
B:n 0:0		0:0		Manl PC		
B 1000		1000		PC amp		
n 1000		1000				
B W01UR		W03UR		Chan ids		
n W01UR		W03UR		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	-3.68708095307E+03	Apriori delay (usec)	-3.68674088974E+03	Resid mbdelay (usec)	3.68667E-03	+/- 9.0E-04
Sband delay (usec)	-3.68708647124E+03	Apriori clock (usec)	-2.2662783E+00	Resid sbdelay (usec)	-3.45582E-01	+/- 3.1E-03
Phase delay (usec)	-3.68674089003E+03	Apriori clockrate (us/s)	-4.5999999E-07	Resid phdelay (usec)	-2.87042E-07	+/- 6.7E-07
Delay rate (us/s)	-1.15934649295E+00	Apriori rate (us/s)	-1.15935284968E+00	Resid rate (us/s)	6.35674E-06	+/- 2.4E-09
Total phase (deg)	83.8	Apriori accel (us/s/s)	2.75208373797E-05	Resid phase (deg)	171.1	+/- 20.8

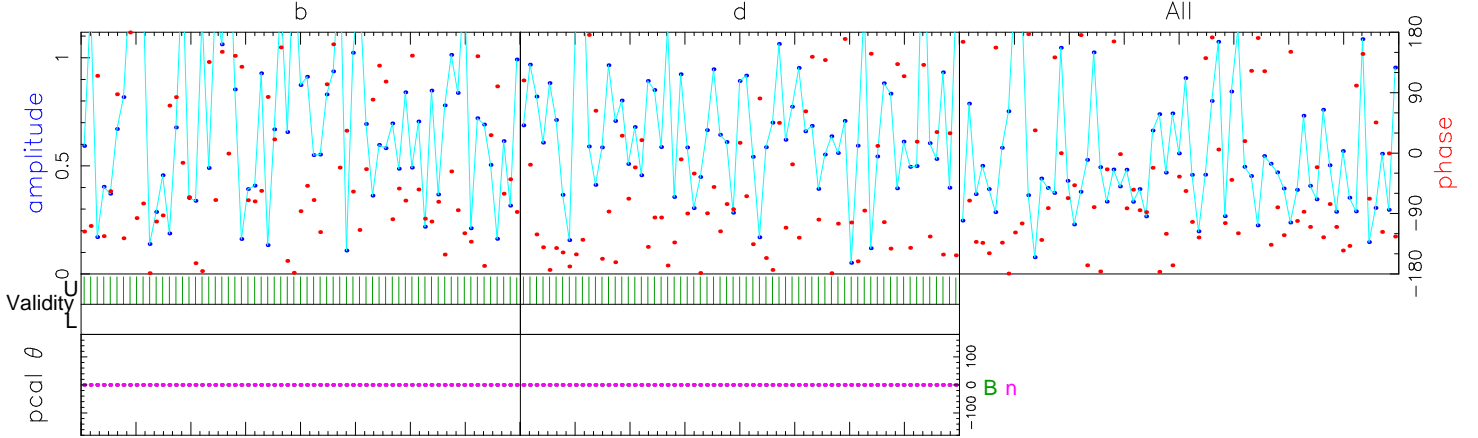
ph/seg (deg)	82.2	Theor.	85.3	Amplitude	0.297 +/- 0.054	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	155.1	Search (2048X8)	0.251	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.286	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	10.9	Inc. frq. avg.	0.285	Inc. frq. avg.	0.285	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
						Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 8920.907 2532.621 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bn.W.34.0RU2MU

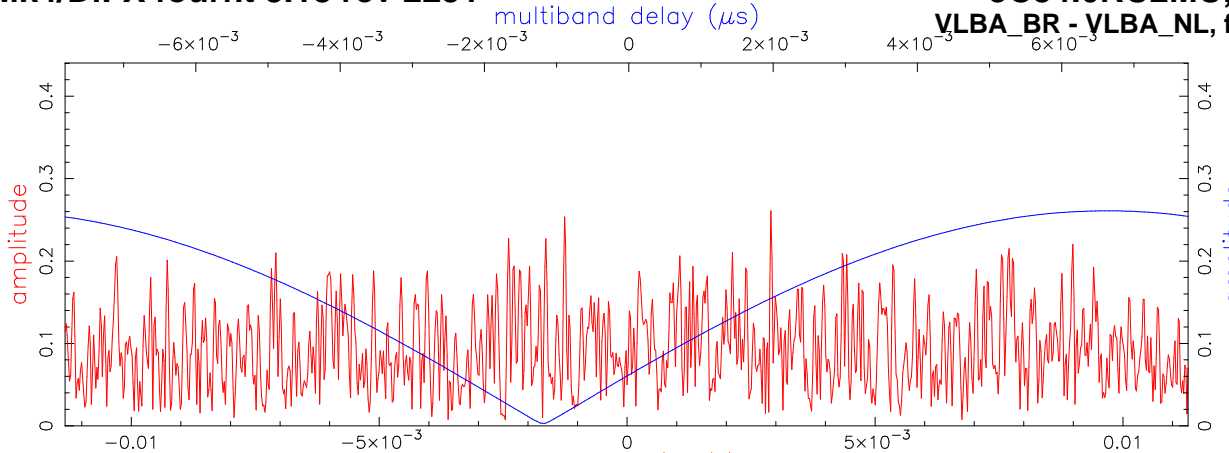


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

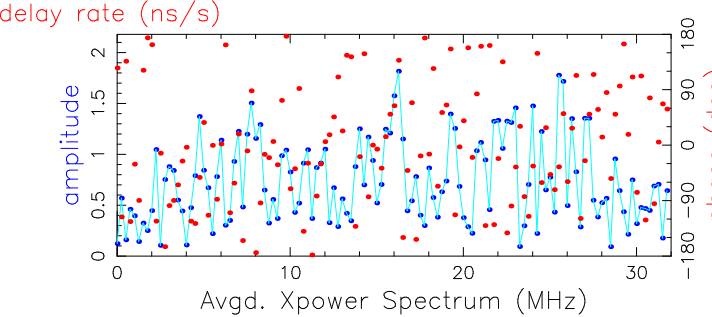
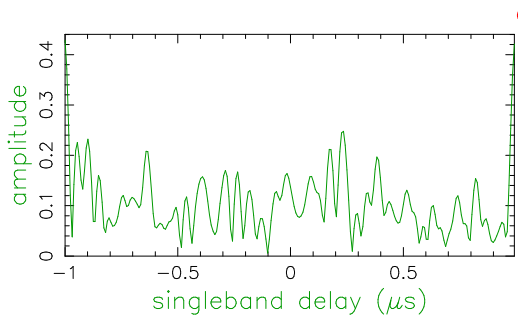


86156.00		86220.00		Freq (MHz)	All
-101.5		-126.7		Phase	-114.1
0.4		0.4		Ampl.	0.4
142.0		140.5		Sbd box	141.1
U/L 938/0		938/0		APs used	
B 1000		1000		PC freqs	
n 1000		1000		PC freqs	
B:n 0:0		0:0		PC phase	
B:n 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
n 1000		1000			
B W01UL		W03UL		Chan ids	
n W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-3.68664128037E+03	Apriori delay (usec)	-3.68674088974E+03	Resid mbdelay (usec)	-9.76562E-03 +/- 9.2E-04
Sband delay (usec)	-3.68664667574E+03	Apriori clock (usec)	-2.2662783E+00	Resid sbdelay (usec)	9.42140E-02 +/- 3.2E-03
Phase delay (usec)	-3.68674089342E+03	Apriori clockrate (us/s)	-4.5999999E-07	Resid phdelay (usec)	-3.67898E-06 +/- 6.8E-07
Delay rate (us/s)	-1.15936333302E+00	Apriori rate (us/s)	-1.15935284968E+00	Resid rate (us/s)	-1.04833E-05 +/- 2.5E-09
Total phase (deg)	-111.3	Apriori accel (us/s/s)	2.75208373797E-05	Resid phase (deg)	-24.1 +/- 21.2

ph/seg (deg)	RMS 71.0	Theor. 86.9	Amplitude	0.373 +/- 0.069	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	154.2	151.6	Search (2048X8)	0.254	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	2.5	26.2	Inc. seg. avg.	0.362	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg.	0.369	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

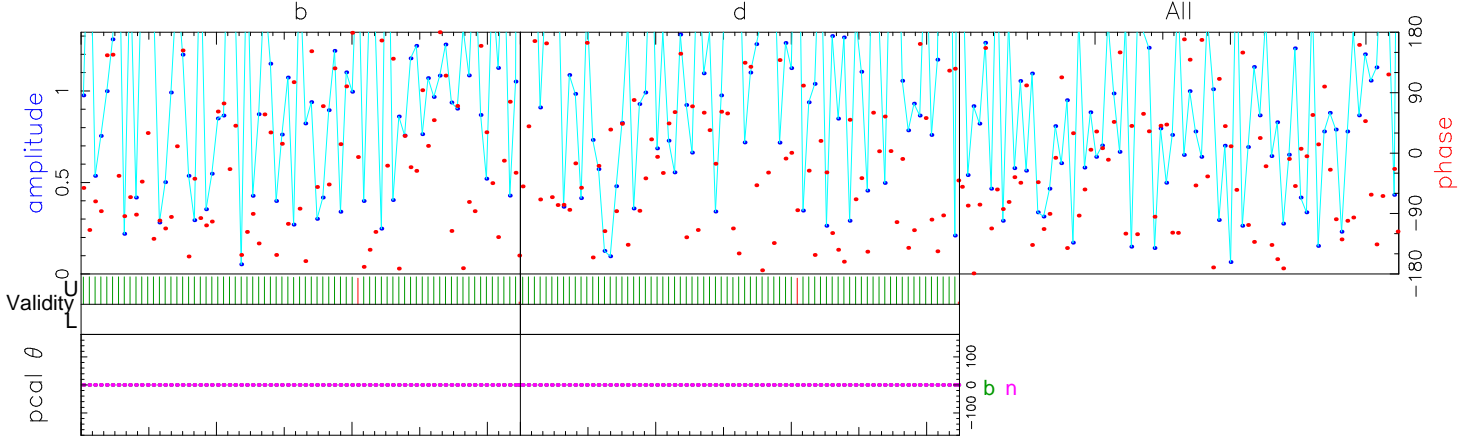


Fringe quality 0
 SNR 5.7
 Int time 191.924
 Amp 0.440
 Phase 295.5
 PFD 1.4e-01
 Delays (us)
 SBD -1.000000
 MBD 0.006692
 Fringe rate (Hz)
 0.250668
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150821
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Avgd. Xpower Spectrum (MHz)

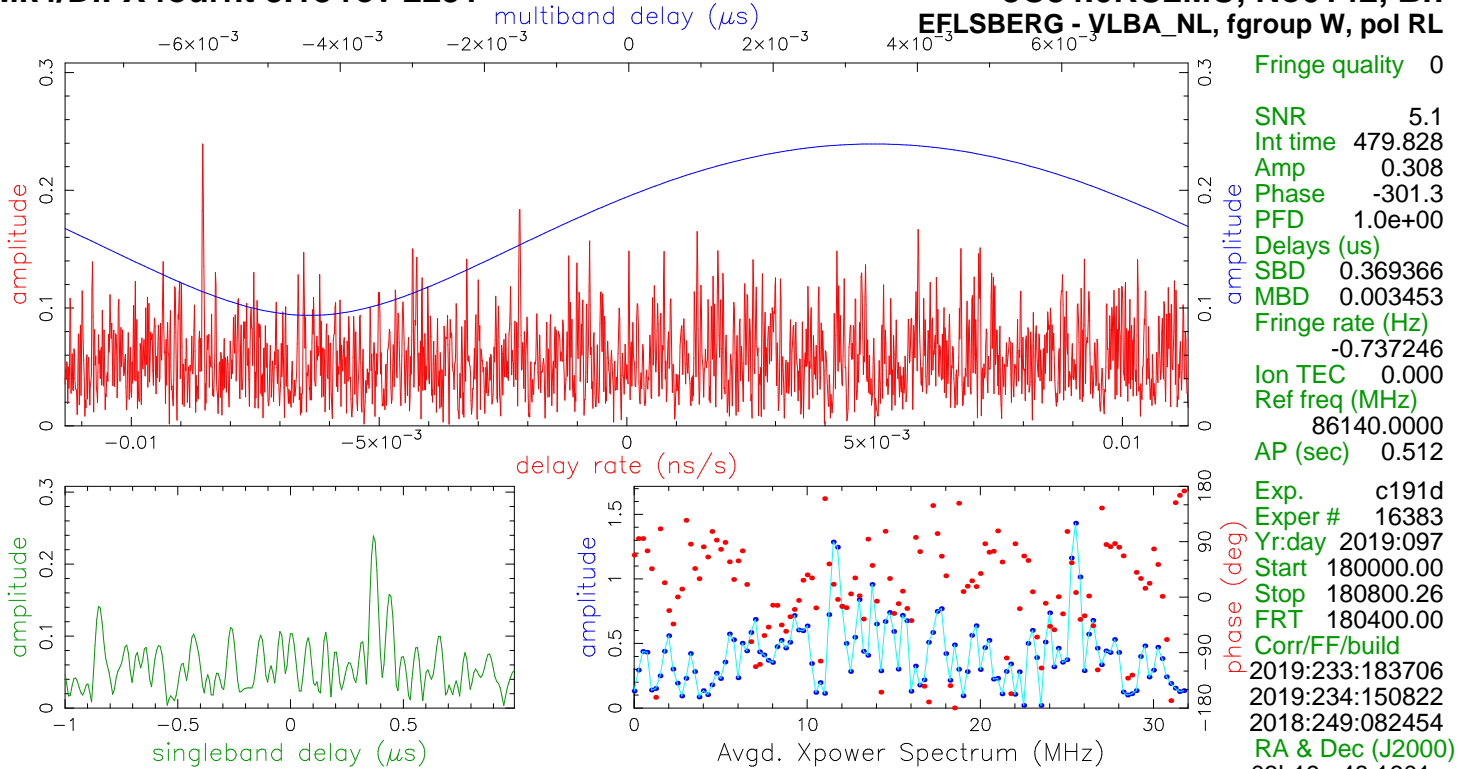
Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



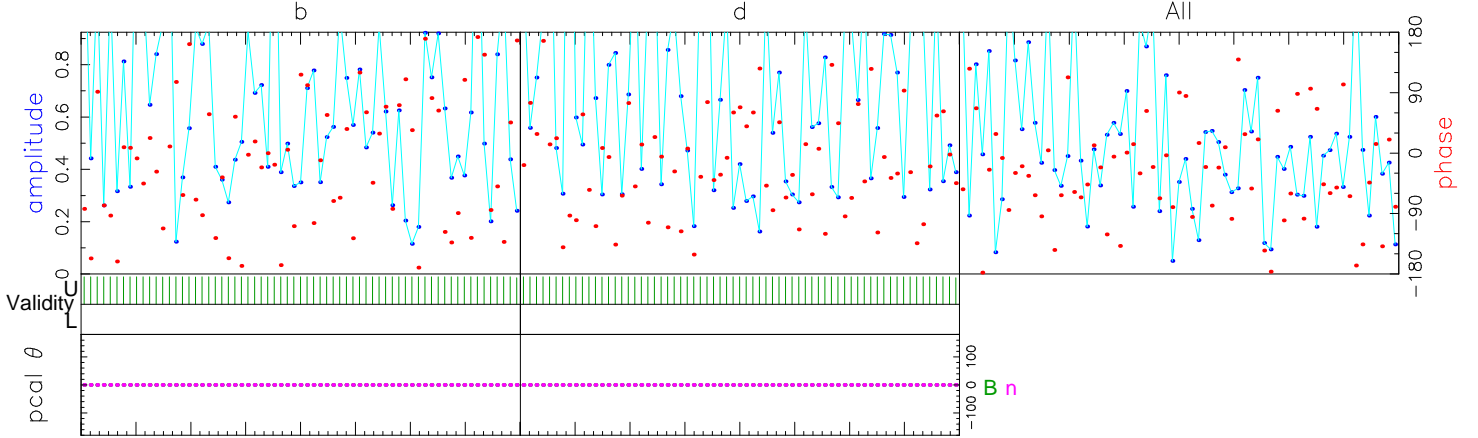
86156.00		86220.00		Freq (MHz)	All
-63.7		-65.2		Phase	-64.5
0.3		0.3		Ampl.	0.3
1.4		1.4		Sbd box	1.0
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
n 1000		1000		PC freqs	
b:n 0:0		0:0		PC phase	
b:n 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
n 1000		1000			
b W01UR		W03UR		Chan ids	
n W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-3.84538728056E+03	Apriori delay (usec)	-3.84439397297E+03	Resid mbdelay (usec)	6.69242E-03 +/- 8.7E-04
Sband delay (usec)	-3.84539397297E+03	Apriori clock (usec)	-2.1592587E+01	Resid sbdelay (usec)	-1.00000E+00 +/- 3.0E-03
Phase delay (usec)	-3.84439397505E+03	Apriori clockrate (us/s)	-3.3299999E-07	Resid phdelay (usec)	-2.07884E-06 +/- 6.4E-07
Delay rate (us/s)	1.94209513444E-01	Apriori rate (us/s)	1.94206603437E-01	Resid rate (us/s)	2.91001E-06 +/- 5.8E-09
Total phase (deg)	356.0	Apriori accel (us/s/s)	2.62128840734E-05	Resid phase (deg)	295.5 +/- 20.0

ph/seg (deg)	87.0	Theor.	87.0	Amplitude	0.440 +/- 0.077	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	147.6	Search (1024X8)	0.406	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.412	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	39.1	Inc. frq. avg.	0.260	Inc. frq. avg.	0.260	Sample rate (MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate (Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1443.045 2361.980 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bn.W.44.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

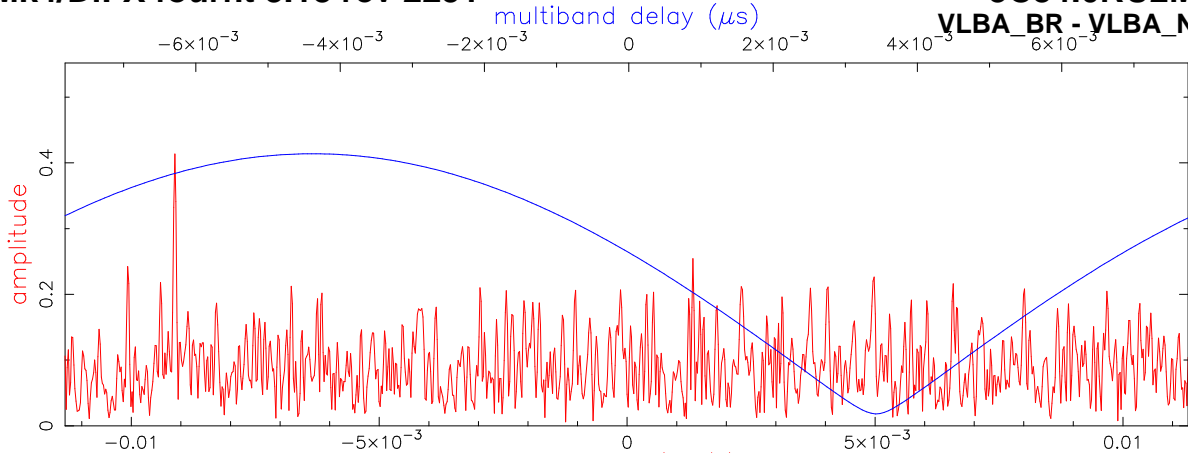


86156.00	86220.00	Freq (MHz)	All				
-30.3	-31.7	Phase	-31.3				
0.2	0.4	Ampl.	0.3				
32.4	176.1	Sbd box	176.3				
U/L 938/0	938/0	APs used					
B 1000	1000	PC freqs					
n 1000	1000	PC freqs					
B:n 0:0	0:0	PC phase					
B:n 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
n 1000	1000						
B W01UR	W03UR	Chan ids					
n W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-3.68637806173E+03	Apriori delay (usec)	-3.68674088974E+03	Resid mbdelay (usec)	3.45301E-03	+/-	9.8E-04
Sband delay (usec)	-3.68637152424E+03	Apriori clock (usec)	-2.2662783E+00	Resid sbdelay (usec)	3.69366E-01	+/-	3.4E-03
Phase delay (usec)	-3.68674089075E+03	Apriori clockrate (us/s)	-4.5999999E-07	Resid phdelay (usec)	-1.00864E-06	+/-	7.2E-07
Delay rate (us/s)	-1.15936140837E+00	Apriori rate (us/s)	-1.15935284968E+00	Resid rate (us/s)	-8.55869E-06	+/-	2.6E-09
Total phase (deg)	-28.5	Apriori accel (us/s/s)	2.75208373797E-05	Resid phase (deg)	-301.3	+/-	22.5

ph/seg (deg)	RMS	Theor.	Amplitude	0.308 +/- 0.060	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.8	92.0	Search (2048X8)	0.237	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	160.1	160.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	38.9	27.7	Inc. seg. avg.	0.283	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
			Inc. frq. avg.	0.295	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
					nlags:	128	t_cohere	infinite
							ion window (TEC)	0.00 0.00

B: az 283.1 el 47.1 pa 55.9 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 8920.907 2532.621 simultaneous interpolator

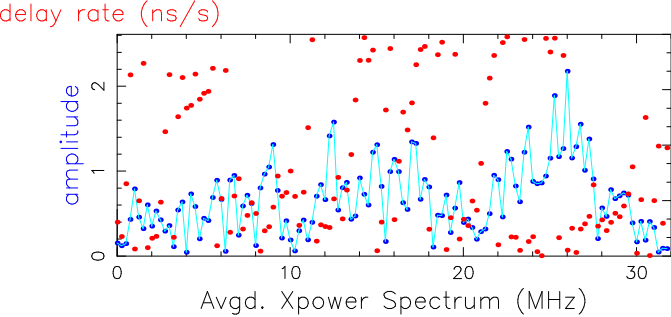
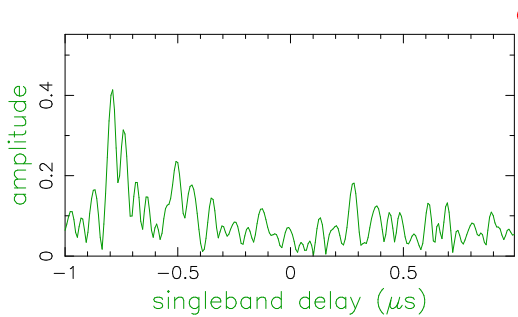
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bn.W.51.0RU2MU



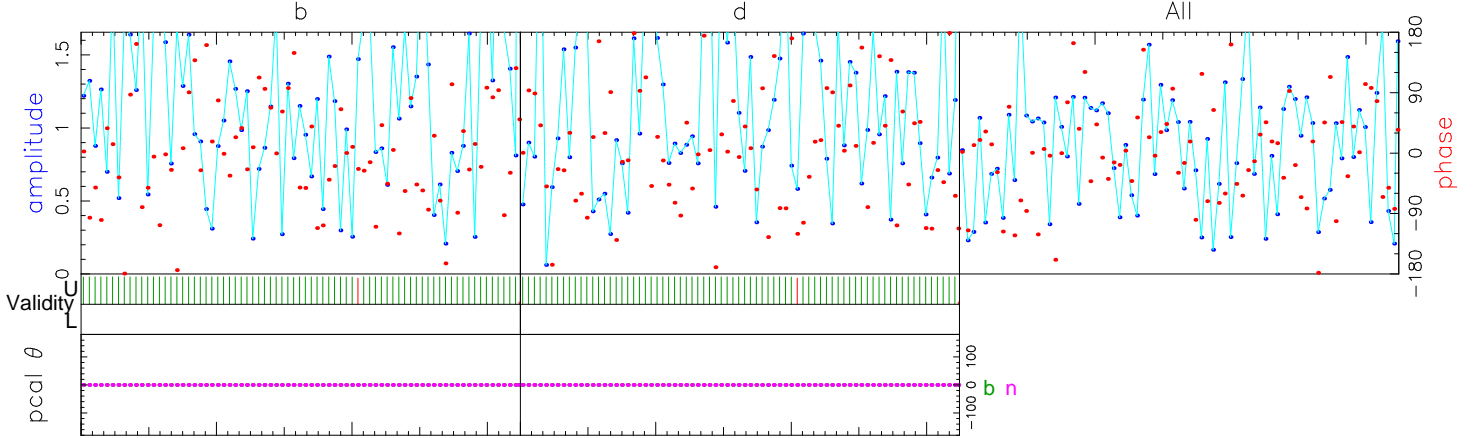
Fringe quality 0

SNR 5.6
Int time 191.924
Amp 0.552
Phase 171.6
PFD 3.1e-01
Delays (us)
SBD -0.791297
MBD -0.004575
Fringe rate (Hz)
-0.786109
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150824
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

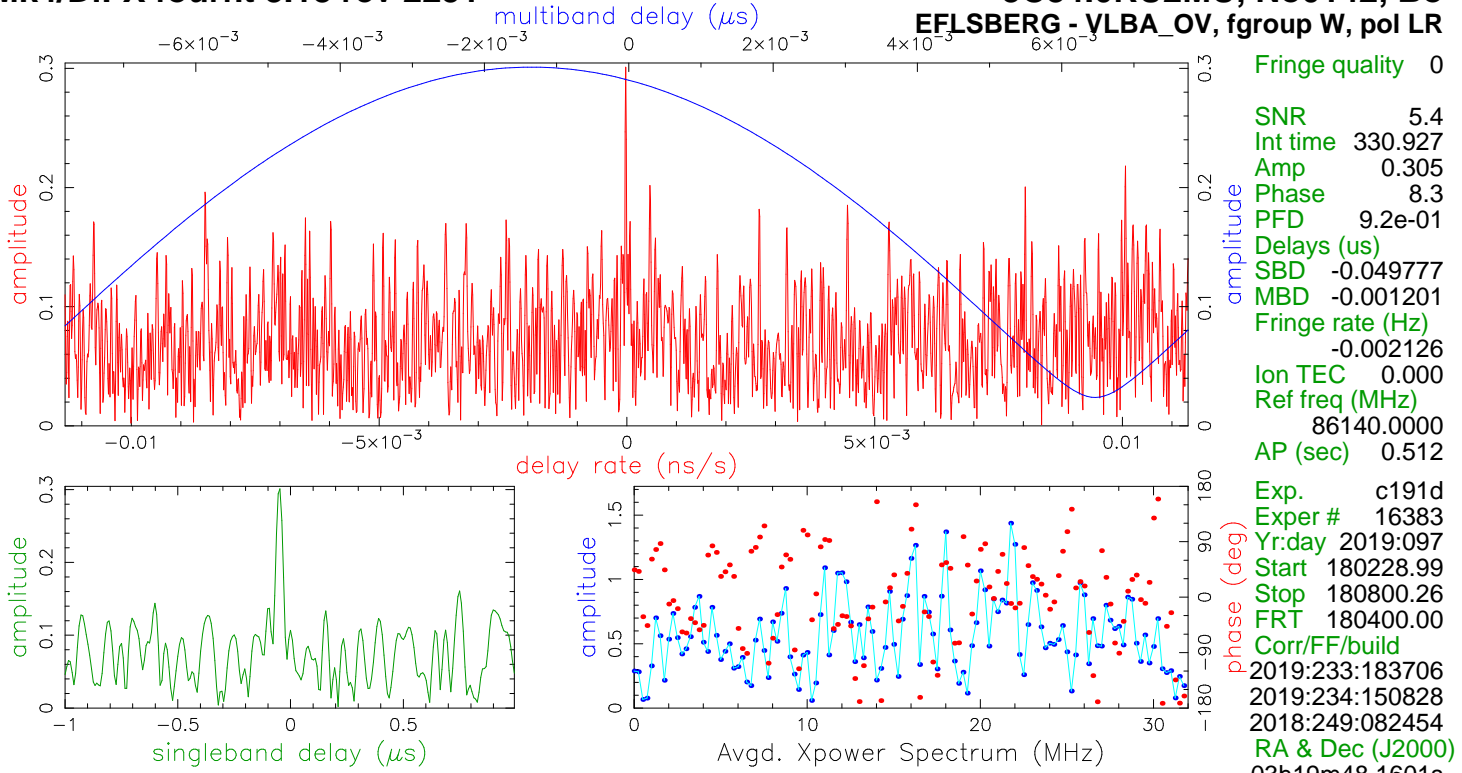


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

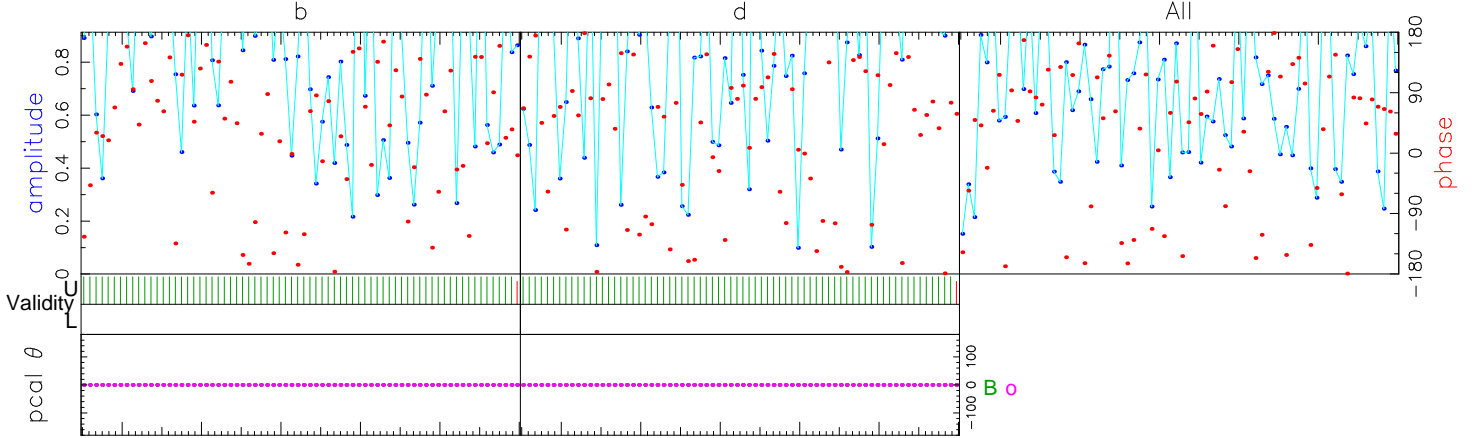


86156.00		86220.00		Freq (MHz)	All
-10.5		-6.1		Phase	-8.4
0.6		0.5		Ampl.	0.5
28.4		27.3		Sbd box	27.7
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
n 1000		1000		PC freqs	
b:n 0:0		0:0		PC phase	
b:n 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
n 1000		1000			
b W01UL		W03UL		Chan ids	
n W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-3.84517979796E+03	Apriori delay (usec)	-3.84439397297E+03	Resid mbdelay (usec)	-4.57498E-03 +/- 8.9E-04
Sband delay (usec)	-3.84518527047E+03	Apriori clock (usec)	-2.1592587E+01	Resid sbdelay (usec)	-7.91297E-01 +/- 3.1E-03
Phase delay (usec)	-3.84439397325E+03	Apriori clockrate (us/s)	-3.3299999E-07	Resid phdelay (usec)	-2.71506E-07 +/- 6.6E-07
Delay rate (us/s)	1.94197477491E-01	Apriori rate (us/s)	1.94206603437E-01	Resid rate (us/s)	-9.12595E-06 +/- 6.0E-09
Total phase (deg)	232.1	Apriori accel (us/s/s)	2.62128840734E-05	Resid phase (deg)	171.6 +/- 20.6

ph/seg (deg) 73.3 89.6 Theor. Amplitude 0.552 +/- 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 147.6 156.4 Search (1024X8) 0.408 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.4 25.4 Inc. seg. avg. 0.523 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1443.045 2361.980 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bn.W.70.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

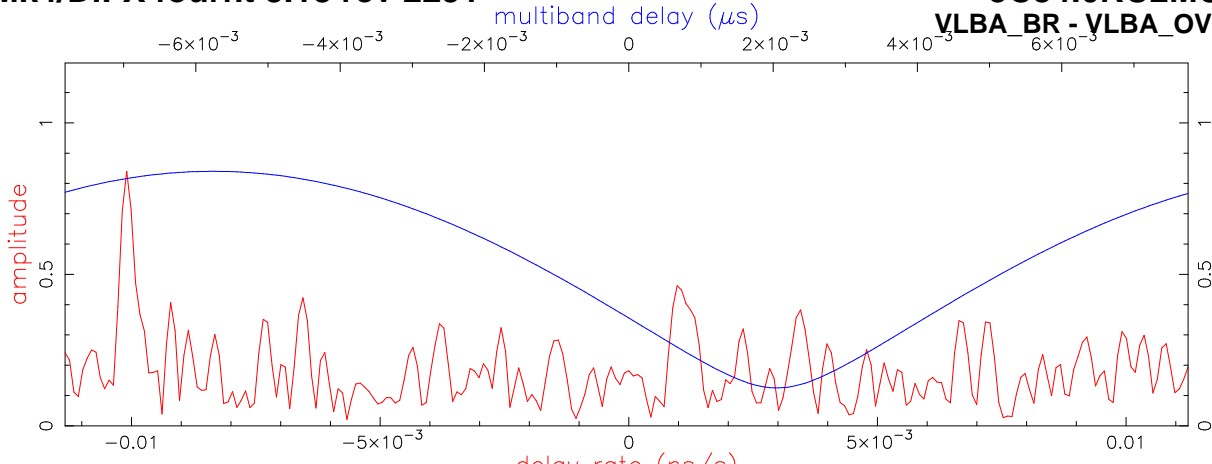


86156.00		86220.00		Freq (MHz)		All
100.1		96.7		Phase		98.3
0.3		0.3		Ampl.		0.3
121.5		123.8		Sbd box		122.6
U/L 647/0		647/0		APs used		
B 1000		1000		PC freqs		
o 1000		1000		PC freqs		
B:0 0:0		0:0		PC phase		
B:0 0:0		0:0		Manl PC		
B 1000		1000		PC amp		
o 1000		1000				
B W01UL		W03UL		Chan ids		
o W01UR		W03UR		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	9.11837200397E+02	Apriori delay (usec)	9.11885276282E+02	Resid mbdelay (usec)	-1.20088E-03	+/- 9.3E-04
Sband delay (usec)	9.11835499282E+02	Apriori clock (usec)	5.9018254E+00	Resid sbdelay (usec)	-4.97770E-02	+/- 3.2E-03
Phase delay (usec)	9.11885279450E+02	Apriori clockrate (us/s)	-3.6356001E-07	Resid phdelay (usec)	3.16865E-06	+/- 6.9E-07
Delay rate (us/s)	-1.47634787751E+00	Apriori rate (us/s)	-1.47634785283E+00	Resid rate (us/s)	-2.46819E-08	+/- 3.6E-09
Total phase (deg)	259.9	Apriori accel (us/s/s)	7.68117747659E-06	Resid phase (deg)	8.3	+/- 21.4

ph/seg (deg)	81.4	Theor.	90.8	Amplitude	0.305 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	170.3	Search (2048X8)	0.296	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.319	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	7.9	Inc. frq. avg.	0.291	Inc. frq. avg.	0.291	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
						Data rate(Mb/s): 256	ion window (TEC)	0.00	0.00	
						nlags: 128	t_cohere	infinite		

B: az 283.1 el 47.1 pa 55.9 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 11313.107 1531.059 simultaneous interpolator

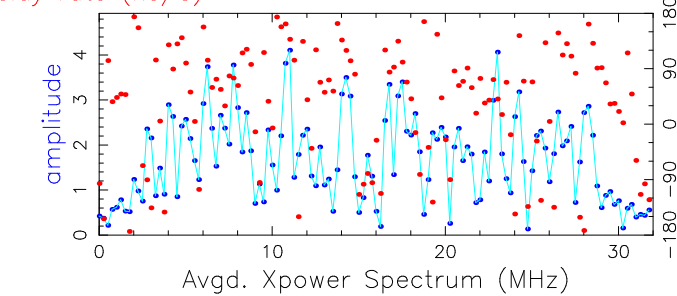
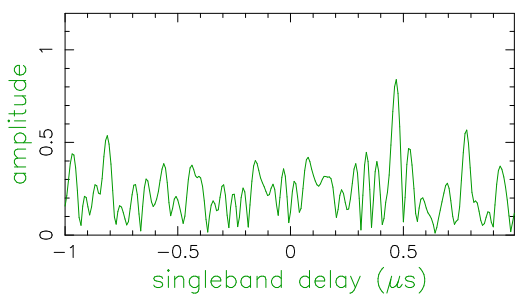
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bo.W.105.0RU2MU



Fringe quality 0

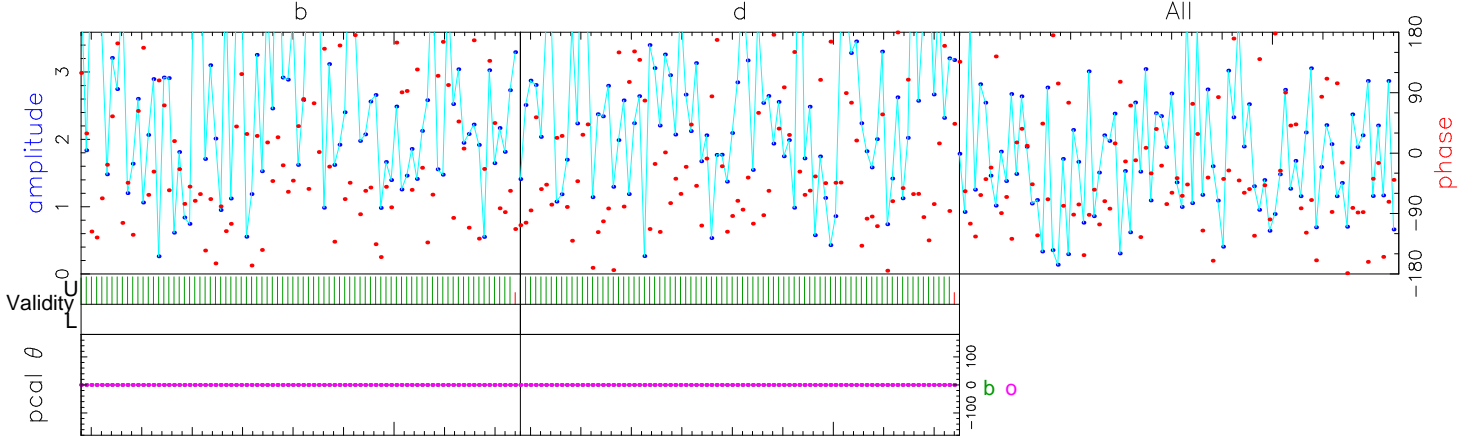
SNR 5.3
Int time 43.203
Amp 1.198
Phase -235.9
PFD 2.8e-01
Delays (us)
SBD 0.467621
MBD -0.005709
Fringe rate (Hz)
-0.872920
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150828
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



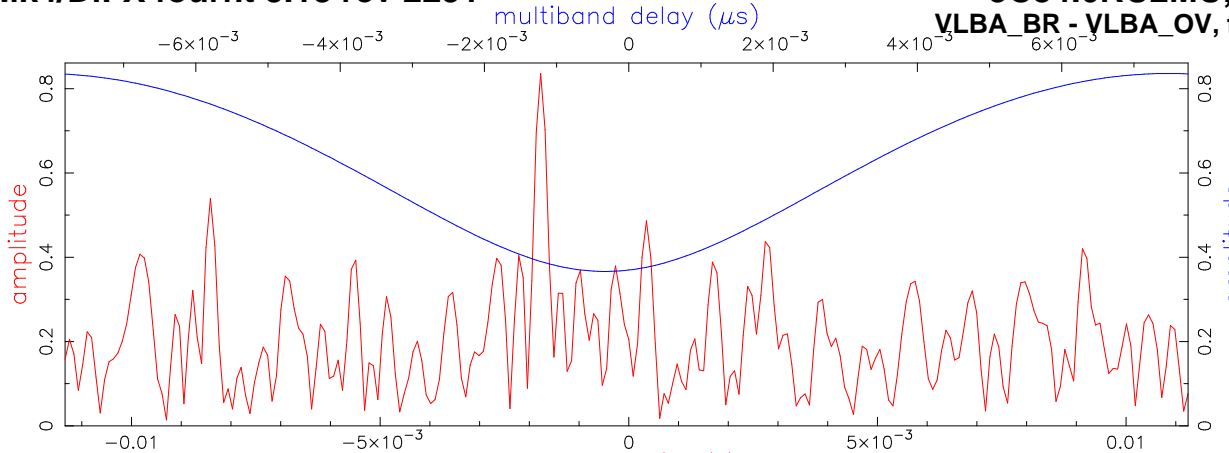
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec

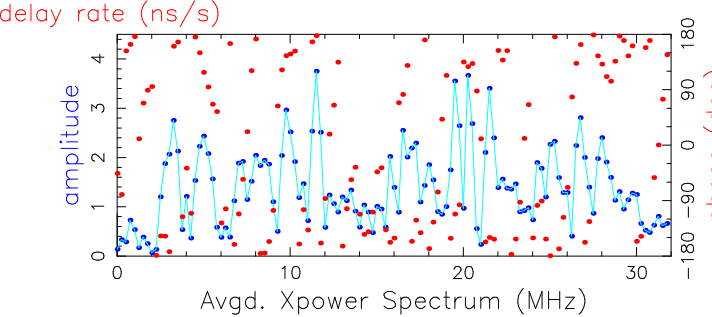
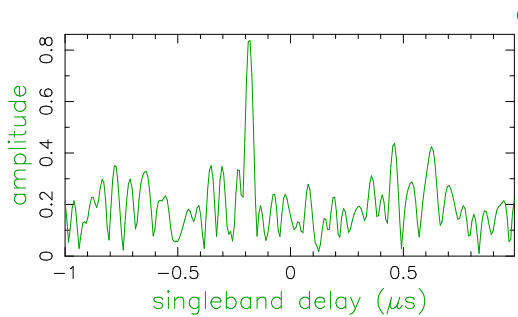


86156.00	86220.00	Freq (MHz)	All				
-55.2	-56.4	Phase	-55.9				
1.0	1.4	Ampl.	1.2				
188.1	189.1	Sbd box	188.9				
U/L 85/0	85/0	APs used					
b 1000	1000	PC freqs					
o 1000	1000	PC freqs					
b:o 0:0	0:0	PC phase					
b:o 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
o 1000	1000						
b W01UL	W03UL	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	7.54695233981E+02	Apriori delay (usec)	7.54232193049E+02	Resid mbdelay (usec)	-5.70907E-03	+/-	9.3E-04
Sband delay (usec)	7.54699814049E+02	Apriori clock (usec)	-1.3424482E+01	Resid sbdelay (usec)	4.67621E-01	+/-	3.2E-03
Phase delay (usec)	7.54232191246E+02	Apriori clockrate (us/s)	-2.3656001E-07	Resid phdelay (usec)	-1.80249E-06	+/-	6.9E-07
Delay rate (us/s)	-1.22798533451E-01	Apriori rate (us/s)	-1.22788399711E-01	Resid rate (us/s)	-1.01337E-05	+/-	2.8E-08
Total phase (deg)	-196.6	Apriori accel (us/s/s)	6.37322417024E-06	Resid phase (deg)	-235.9	+/-	21.4

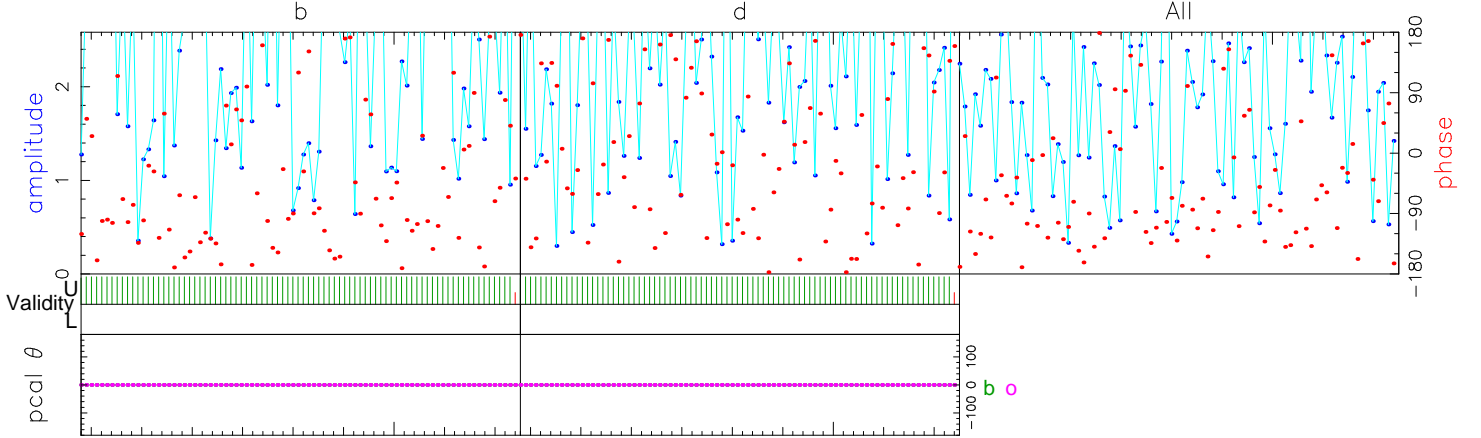
ph/seg (deg) 80.5 98.8 Theor. Amplitude 1.198 +/- 0.224 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 151.3 172.5 Search (256X8) 0.797 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.9 26.5 Inc. seg. avg. 1.006 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 949.155 1360.418 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bo.W.107.0RU2MU simultaneous interpolator



Fringe quality 0
 SNR 5.4
 Int time 43.203
 Amp 0.861
 Phase 160.8
 PFD 2.0e-01
 Delays (us)
 SBD -0.183372
 MBD -0.008129
 Fringe rate (Hz)
 -0.152041
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150830
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



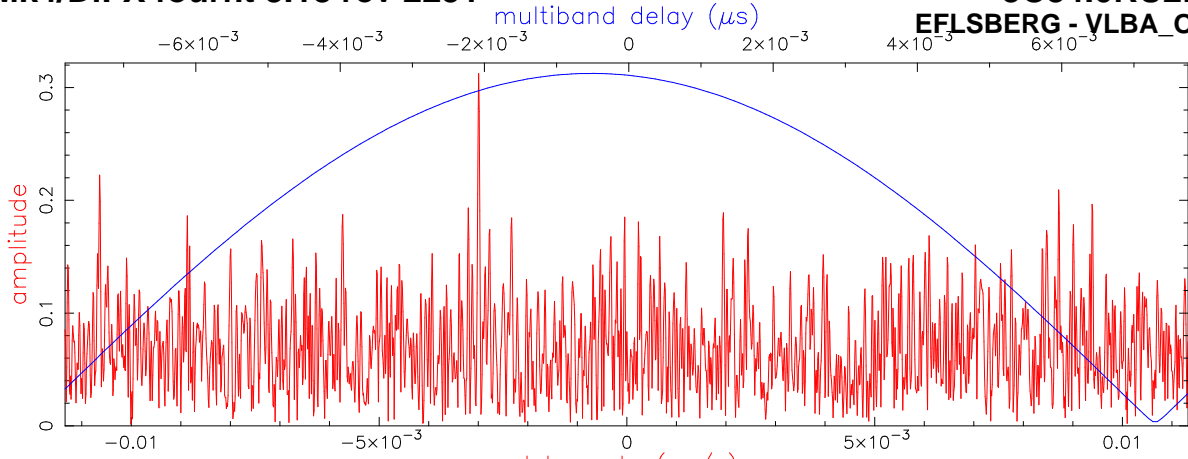
Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



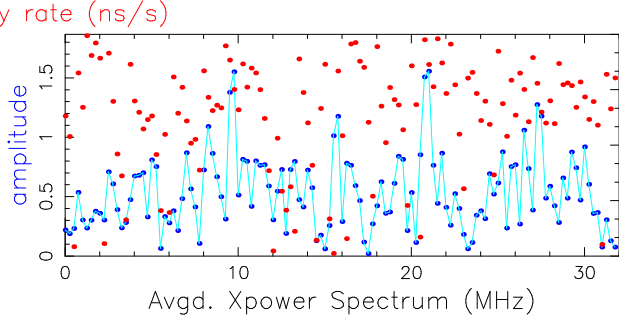
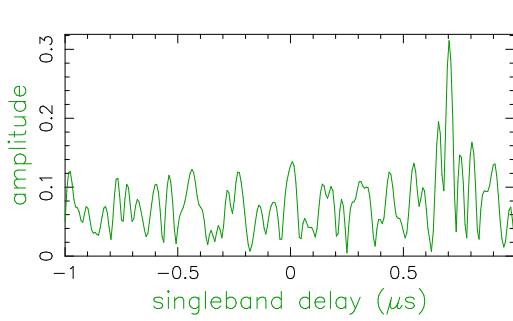
86156.00	86220.00	Freq (MHz)	All				
-109.1	-109.3	Phase	-109.2				
1.2	0.5	Ampl.	0.8				
105.0	90.4	Sbd box	105.5				
U/L 85/0	85/0	APs used					
b 1000	1000	PC freqs					
o 1000	1000	PC freqs					
b:o 0:0	0:0	PC phase					
b:o 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
o 1000	1000						
b W01UR	W03UR	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	7.54052188799E+02	Apriori delay (usec)	7.54232193049E+02	Resid mbdelay (usec)	-8.12925E-03	+/-	9.2E-04
Sband delay (usec)	7.54048820549E+02	Apriori clock (usec)	-1.3424482E+01	Resid sbdelay (usec)	-1.83372E-01	+/-	3.2E-03
Phase delay (usec)	7.54232189529E+02	Apriori clockrate (us/s)	-2.3656001E-07	Resid phdelay (usec)	-3.51996E-06	+/-	6.8E-07
Delay rate (us/s)	-1.22790164762E-01	Apriori rate (us/s)	-1.22788399711E-01	Resid rate (us/s)	-1.76505E-06	+/-	2.7E-08
Total phase (deg)	200.2	Apriori accel (us/s/s)	6.37322417024E-06	Resid phase (deg)	160.8	+/-	21.2

ph/seg (deg)	78.6	Theor.	97.5	Amplitude	0.861 +/- 0.159	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	174.2	Search (256X8)	0.834	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.796	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.0	Inc. frq. avg.	0.817	Sample rate(MSamp/s):	64	ion window (TEC)	0.00 0.00	dr window (ns/s)	-0.011 0.011

b: az 73.4 el 45.3 pa -58.8 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 949.155 1360.418 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bo.W.124.0RU2MU

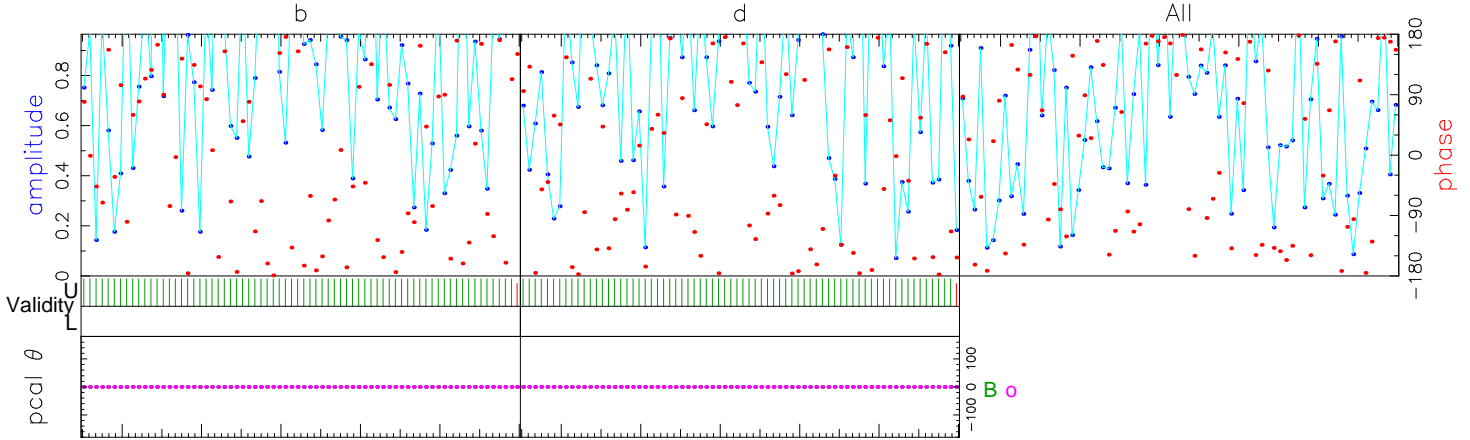


Fringe quality 0
SNR 5.5
Int time 330.927
Amp 0.322
Phase -263.9
PFD 6.8e-01
Delays (us)
SBD 0.703722
MBD -0.000466
Fringe rate (Hz)
-0.257299
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150831
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

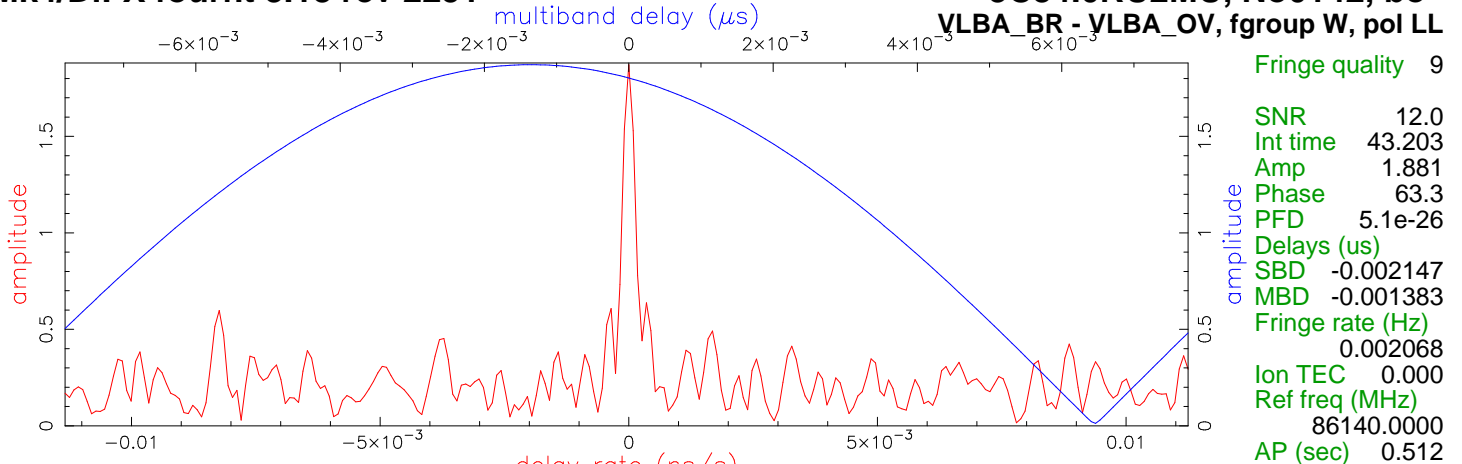


				86156.00			86220.00			Freq (MHz)			All	
				-173.3			-174.5						-173.9	
				0.3			0.3						0.3	
				219.2			219.0						219.1	
U/L	647/0						647/0						APs used	
B	1000						1000						PC freqs	
o	1000						1000						PC freqs	
B:o	0:0						0:0						PC phase	
B:o	0:0						0:0						Manl PC	
B	1000						1000						PC amp	
o	1000						1000							
B	W01UR						W03UR						Chan ids	
o	W01UL						W03UL						Tracks	
													Chan ids	
													Tracks	
Group delay (usec)(sbd)	9.12587935628E+02			Apriori delay (usec)			9.11885276282E+02			Resid mbdelay (usec)			-4.65653E-04 +/- 9.0E-04	
Sband delay (usec)	9.12588997782E+02			Apriori clock (usec)			5.9018254E+00			Resid sbdelay (usec)			7.03722E-01 +/- 3.1E-03	
Phase delay (usec)	9.11885270673E+02			Apriori clockrate (us/s)			-3.6356001E-07			Resid phdelay (usec)			-5.60862E-06 +/- 6.7E-07	
Delay rate (us/s)	-1.47635083981E+00			Apriori rate (us/s)			-1.47634785283E+00			Resid rate (us/s)			-2.98698E-06 +/- 3.5E-09	
Total phase (deg)	-12.3			Apriori accel (us/s/s)			7.68117747659E-06			Resid phase (deg)			-263.9 +/- 20.8	

ph/seg (deg) RMS 75.1 Theor. 88.4 Amplitude 0.322 +/- 0.059 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 152.5 154.3 Search (2048X8) 0.309 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.0 25.7 Inc. seg. avg. 0.304 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.311 ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 11313.107 1531.059 simultaneous interpolator

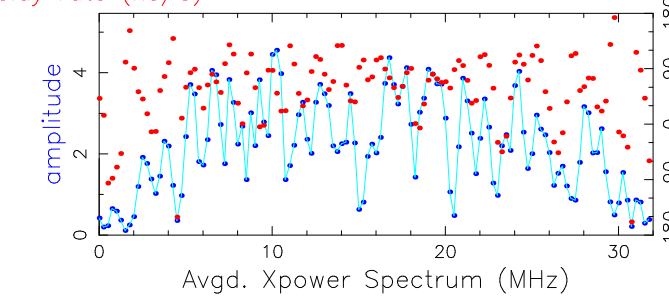
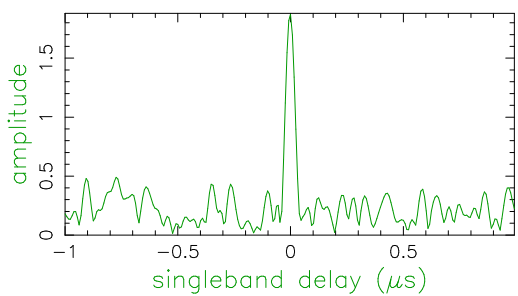
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bo.W.134.0RU2MU



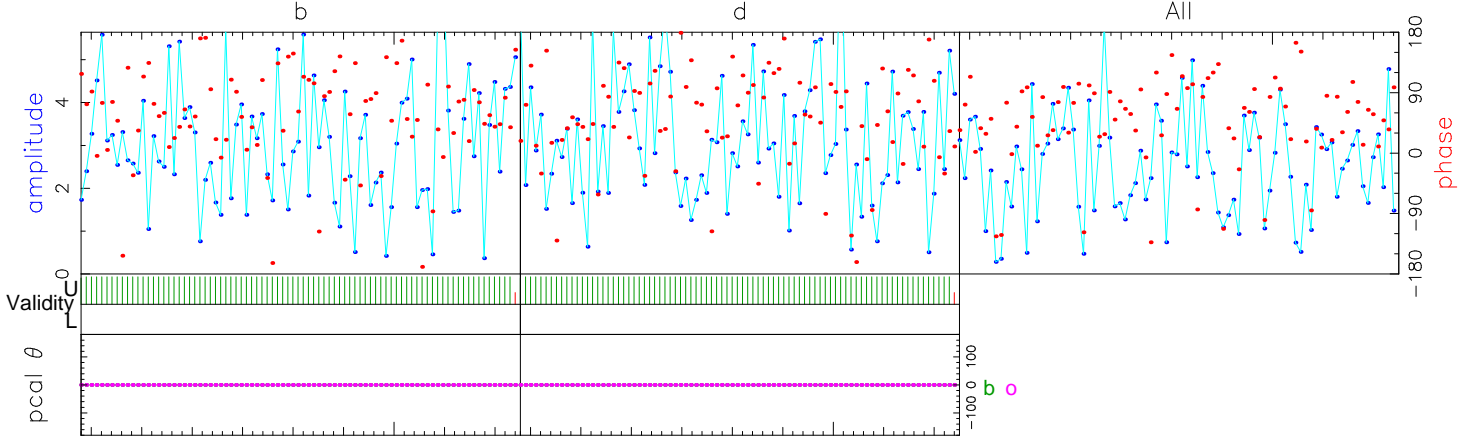
Fringe quality 9

SNR 12.0
Int time 43.203
Amp 1.881
Phase 63.3
PFD 5.1e-26
Delays (us)
SBD -0.002147
MBD -0.001383
Fringe rate (Hz) 0.002068
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150818
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

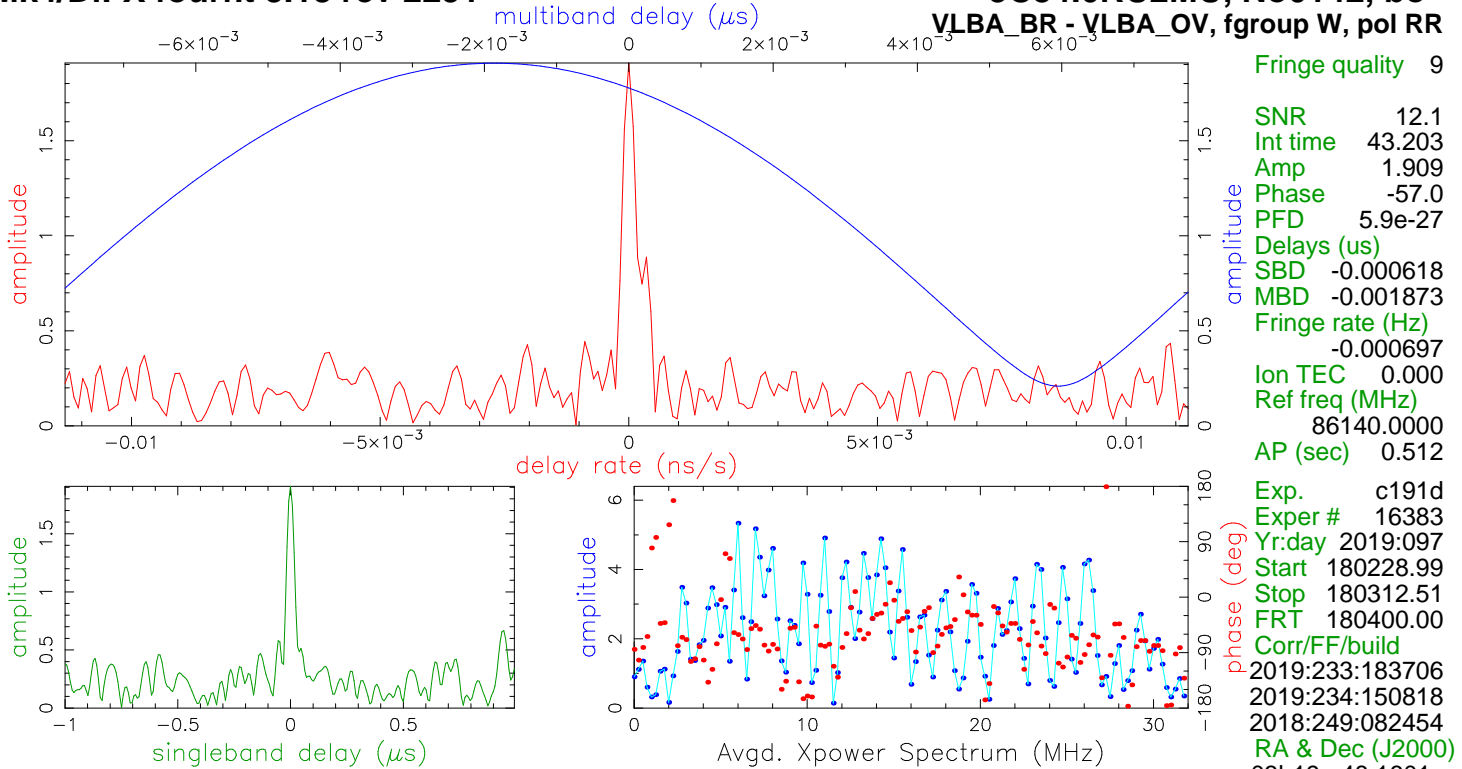


Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec

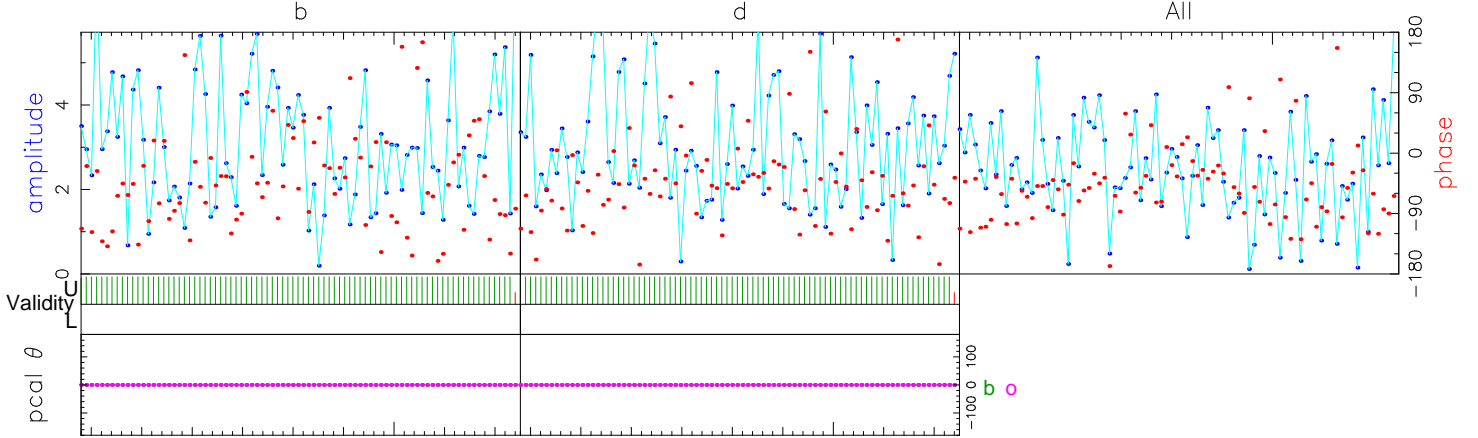


86156.00	86220.00	Freq (MHz)	All				
62.9	63.6	Phase	63.3				
1.9	1.9	Ampl.	1.9				
128.3	129.1	Sbd box	128.7				
U/L 85/0	85/0	APs used					
b 1000	1000	PC freqs					
o 1000	1000	PC freqs					
b:o 0:0	0:0	PC phase					
b:o 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
o 1000	1000						
b W01UL	W03UL	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	7.54230809674E+02	Apriori delay (usec)	7.54232193049E+02	Resid mbdelay (usec)	-1.38338E-03	+/-	4.2E-04
Sband delay (usec)	7.54230046049E+02	Apriori clock (usec)	-1.3424482E+01	Resid sbdelay (usec)	-2.14700E-03	+/-	1.4E-03
Phase delay (usec)	7.54232195089E+02	Apriori clockrate (us/s)	-2.3656001E-07	Resid phdelay (usec)	2.40009E-06	+/-	3.1E-07
Delay rate (us/s)	-1.22788375700E-01	Apriori rate (us/s)	-1.22788399711E-01	Resid rate (us/s)	2.04116E-08	+/-	1.2E-08
Total phase (deg)	102.6	Apriori accel (us/s/s)	6.37322417024E-06	Resid phase (deg)	63.3	+/-	9.6

ph/seg (deg) 63.7 44.2 Search (256X8) 1.835 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 72.0 77.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 6.8 Inc. seg. avg. 1.963 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 0.8 11.8 Inc. frq. avg. 1.859 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 949.155 1360.418 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bo.W.14.0RU2MU

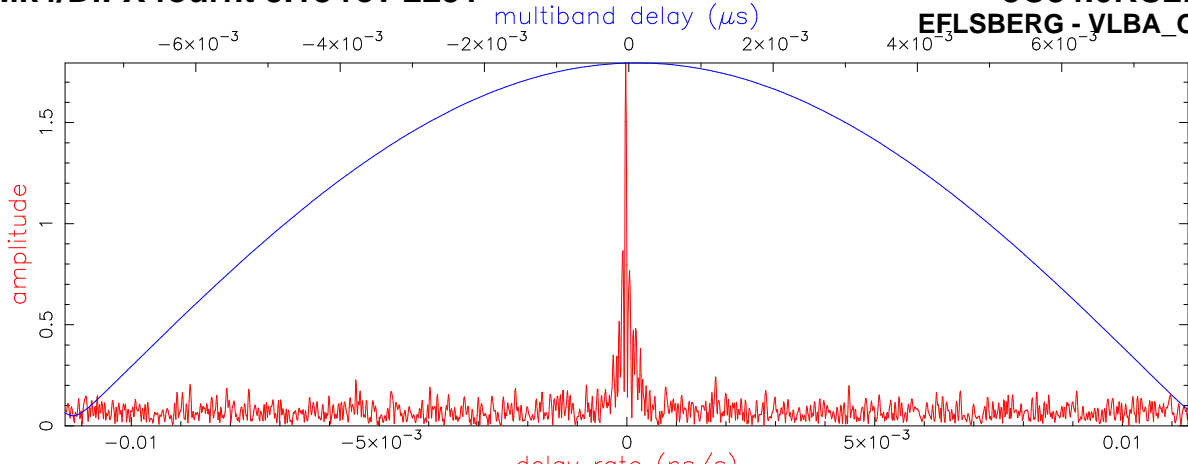


Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



86156.00		86220.00		Freq (MHz)	All
-57.2		-56.9		Phase	-57.0
1.7		2.1		Ampl.	1.9
129.0		128.9		Sbd box	128.9
U/L 85/0		85/0		APs used	
b 1000		1000		PC freqs	
o 1000		1000		PC freqs	
b:0 0:0		0:0		PC phase	
b:0 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
o 1000		1000			
b W01UR		W03UR		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	7.54230320424E+02	Apriori delay (usec)	7.54232193049E+02	Resid mbdelay (usec)	-1.87262E-03 +/- 4.1E-04
Sband delay (usec)	7.54231575049E+02	Apriori clock (usec)	-1.3424482E+01	Resid sbdelay (usec)	-6.18000E-04 +/- 1.4E-03
Phase delay (usec)	7.54232191210E+02	Apriori clockrate (us/s)	-2.3656001E-07	Resid phdelay (usec)	-1.83910E-06 +/- 3.0E-07
Delay rate (us/s)	-1.22788407806E-01	Apriori rate (us/s)	-1.22788399711E-01	Resid rate (us/s)	-8.09456E-09 +/- 1.2E-08
Total phase (deg)	-17.7	Apriori accel (us/s/s)	6.37322417024E-06	Resid phase (deg)	-57.0 +/- 9.4

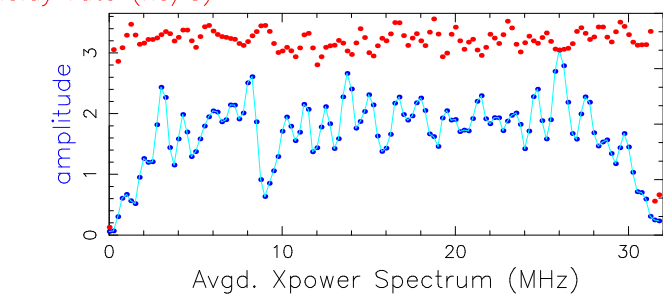
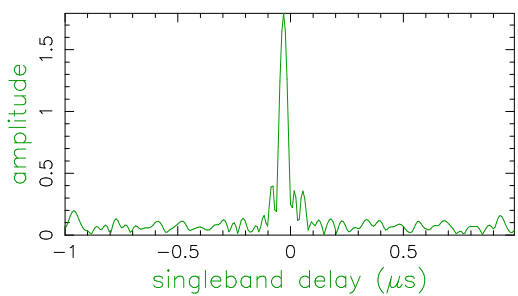
ph/seg (deg)	55.0	Theor.	43.6	Amplitude	1.909 +/- 0.157	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	65.9	Search (256X8)	1.905	Search	1.905	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	10.9	Inc. seg. avg.	1.933	Inc. seg. avg.	1.933	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	1.895	Inc. frq. avg.	1.895	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00



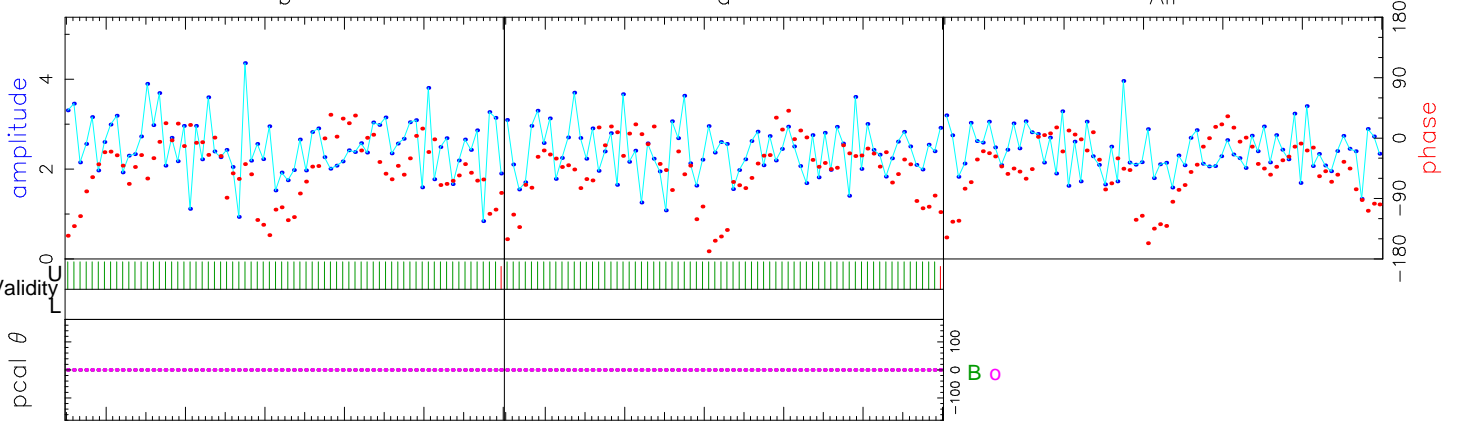
Fringe quality 9

SNR 31.6
Int time 330.927
Amp 1.795
Phase 136.9
PFD 0.0e+00
Delays (us)
SBD -0.031148
MBD 0.000114
Fringe rate (Hz)
-0.001739
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150819
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-43.1	-43.1	Phase	-43.1				
1.8	1.7	Ampl.	1.8				
124.9	125.1	Sbd box	125.0				
U/L 647/0	647/0	APs used					
B 1000	1000	PC freqs					
o 1000	1000	PC freqs					
B:o 0:0	0:0	PC phase					
B:o 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
o 1000	1000						
B W01UL	W03UL	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	9.11854140272E+02	Apriori delay (usec)	9.11885276282E+02	Resid mbdelay (usec)	1.13991E-04	+/-	1.6E-04
Sband delay (usec)	9.11854128282E+02	Apriori clock (usec)	5.9018254E+00	Resid sbdelay (usec)	-3.11480E-02	+/-	5.5E-04
Phase delay (usec)	9.11885274891E+02	Apriori clockrate (us/s)	-3.6356001E-07	Resid phdelay (usec)	-1.39059E-06	+/-	1.2E-07
Delay rate (us/s)	-1.47634787302E+00	Apriori rate (us/s)	-1.47634785283E+00	Resid rate (us/s)	-2.01847E-08	+/-	6.1E-10
Total phase (deg)	28.5	Apriori accel (us/s/s)	7.68117747659E-06	Resid phase (deg)	136.9	+/-	3.6

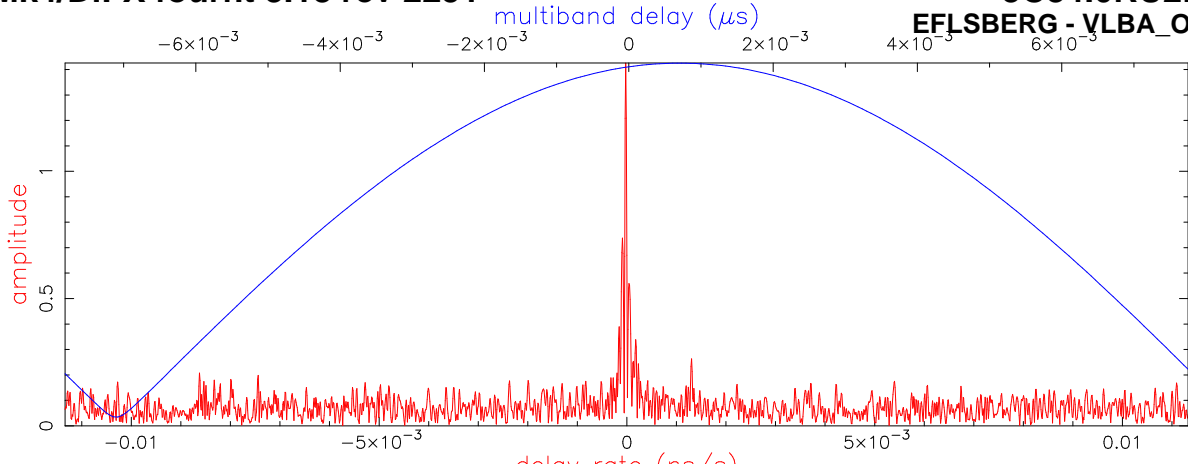
RMS Theor. Amplitude 1.795 +/- 0.057
ph/seg (deg) 44.9 15.4 Search (2048X8) 1.784
amp/seg (%) 44.1 26.9 Interp. 0.000
ph/frq (deg) 0.0 2.6 Inc. seg. avg. 2.334
amp/frq (%) 2.8 4.5 Inc. frq. avg. 1.793

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): 256 nlags: 128 t_cohere infinite

sb window (us) -1.000 1.000
mb window (us) -0.008 0.008
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

B: az 283.1 el 47.1 pa 55.9 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 11313.107 1531.059 simultaneous interpolator

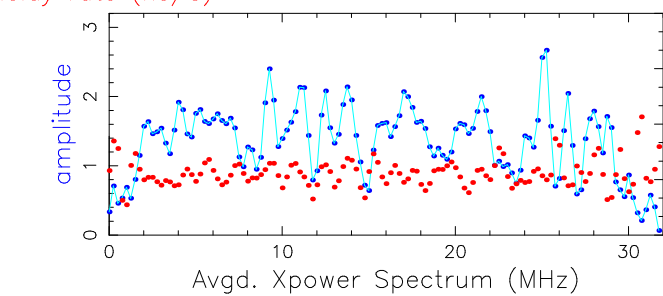
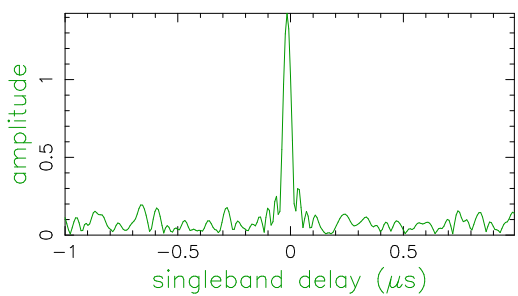
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bo.W.29.0RU2MU



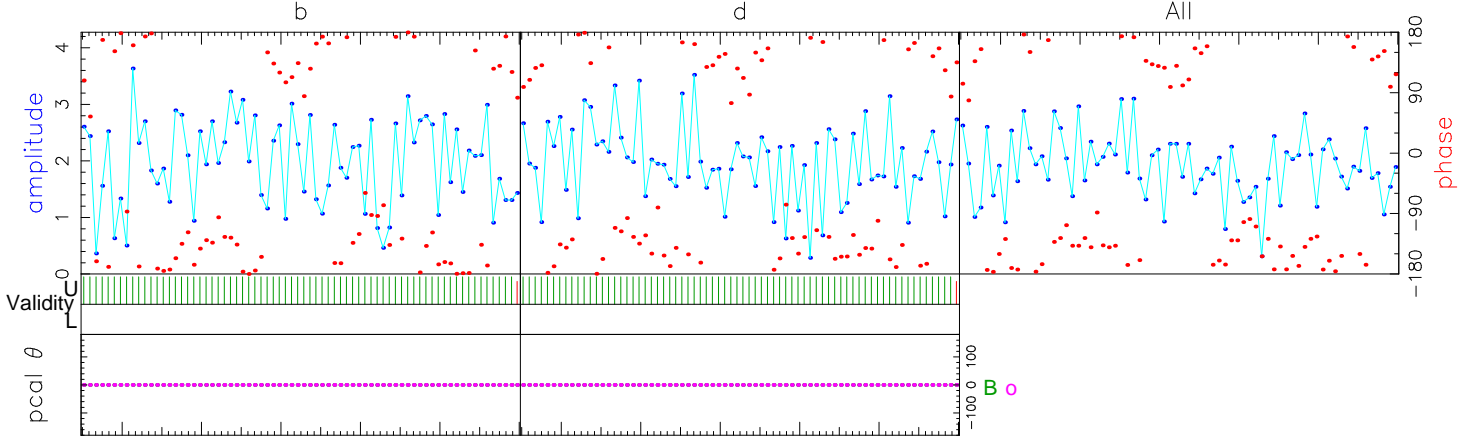
Fringe quality 9

SNR 25.1
 Int time 330.927
 Amp 1.426
 Phase -82.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.015049
 MBD 0.000695
 Fringe rate (Hz)
 -0.001825
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150823
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

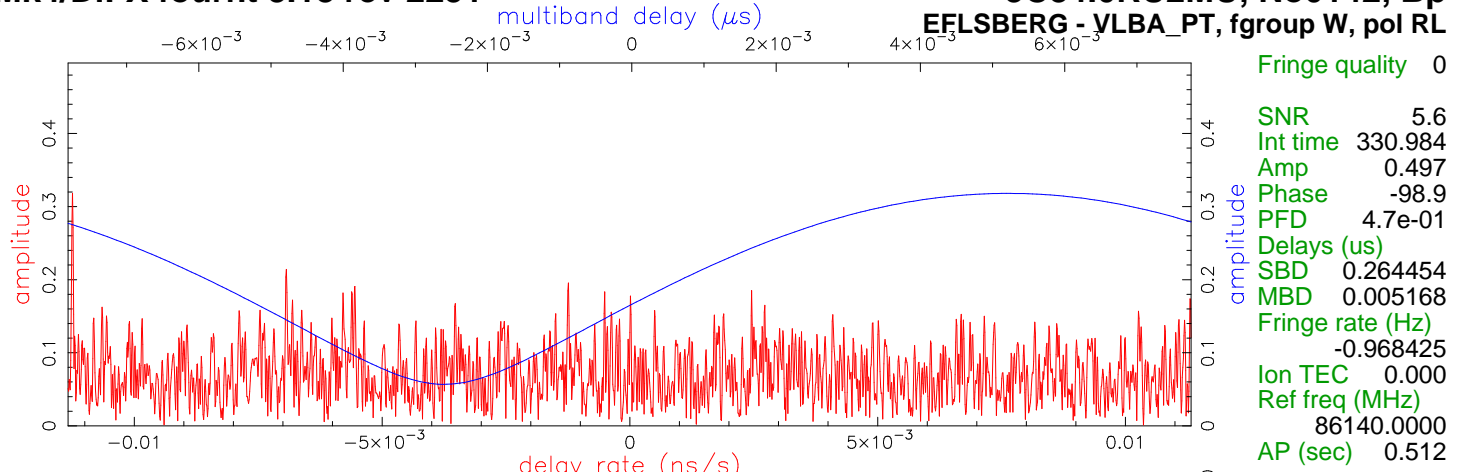


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

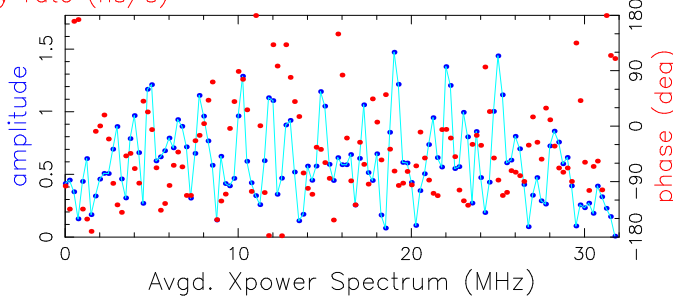
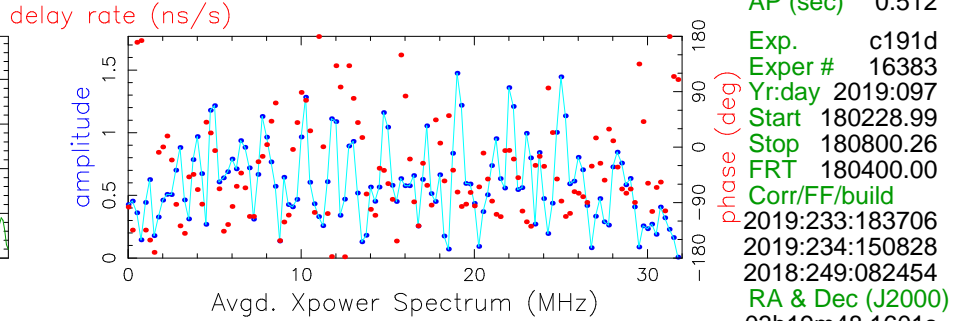
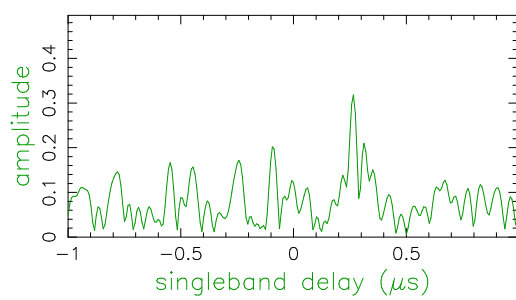


86156.00	86220.00	Freq (MHz)	All			
-172.5	-172.2	Phase	-172.4			
1.5	1.4	Ampl.	1.4			
127.1	127.1	Sbd box	127.1			
U/L 647/0	647/0	APs used				
B 1000	1000	PC freqs				
o 1000	1000	PC freqs				
B:o 0:0	0:0	PC phase				
B:o 0:0	0:0	Manl PC				
B 1000	1000	PC amp				
o 1000	1000					
B W01UR	W03UR	Chan ids				
o W01UR	W03UR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	9.11870346522E+02	Apriori delay (usec)	9.11885276282E+02	Resid mbdelay (usec)	6.95241E-04	+/- 2.0E-04
Sband delay (usec)	9.11870227782E+02	Apriori clock (usec)	5.9018254E+00	Resid sbdelay (usec)	-1.50485E-02	+/- 6.9E-04
Phase delay (usec)	9.11885270723E+02	Apriori clockrate (us/s)	-3.6356001E-07	Resid phdelay (usec)	-5.55883E-06	+/- 1.5E-07
Delay rate (us/s)	-1.47634787401E+00	Apriori rate (us/s)	-1.47634785283E+00	Resid rate (us/s)	-2.11823E-08	+/- 7.7E-10
Total phase (deg)	169.2	Apriori accel (us/s/s)	7.68117747659E-06	Resid phase (deg)	-82.4	+/- 4.6

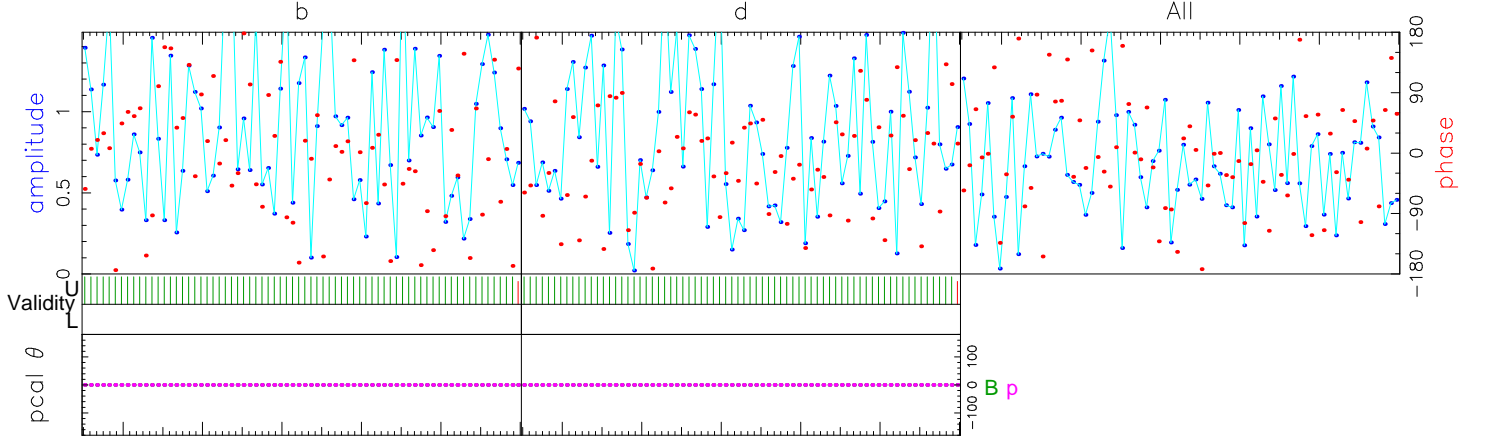
ph/seg (deg) 44.1 19.4 Theor. Amplitude 1.426 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.1 33.8 Search (2048X8) 1.409 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 3.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.4 5.6 Inc. seg. avg. 1.808 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 283.1 el 47.1 pa 55.9 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 11313.107 1531.059 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bo.W.64.0RU2MU



Fringe quality 0
 SNR 5.6
 Int time 330.984
 Amp 0.497
 Phase -98.9
 PFD 4.7e-01
 Delays (us)
 SBD 0.264454
 MBD 0.005168
 Fringe rate (Hz)
 -0.968425
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



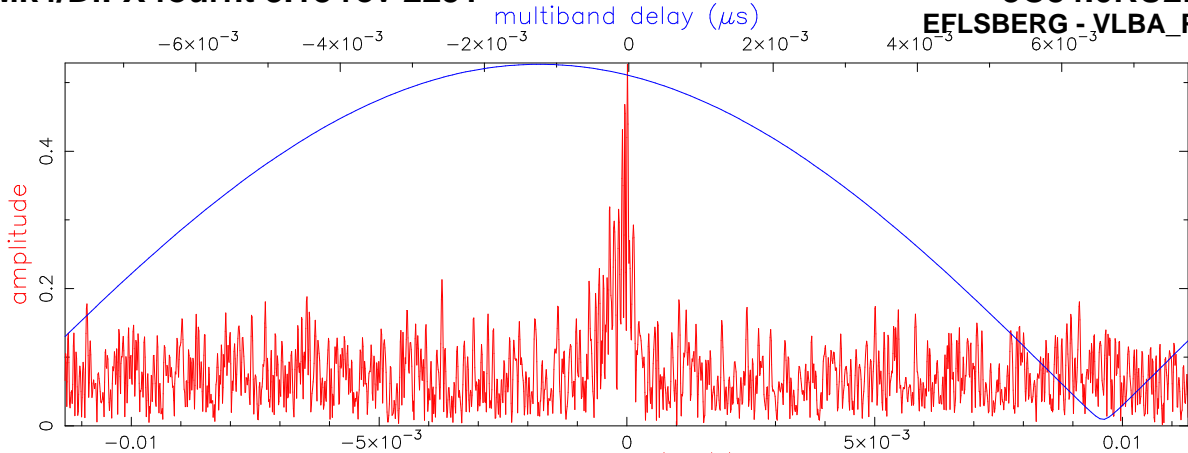
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



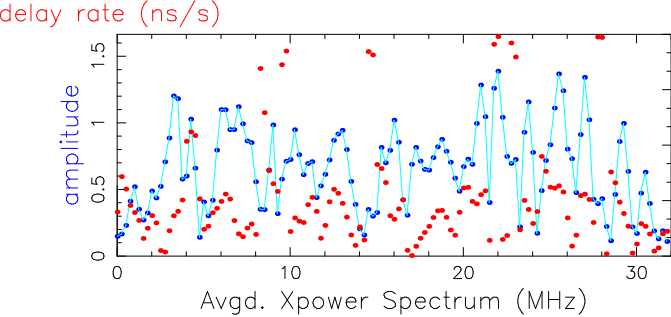
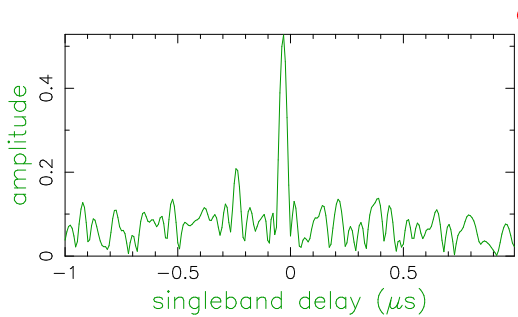
86156.00				86220.00		Freq (MHz)	All
-9.5				-8.4		Phase	-8.9
0.4				0.6		Ampl.	0.5
214.5				163.0		Sbd box	162.9
U/L 647/0				647/0		APs used	
B 1000				1000		PC freqs	
p 1000				1000		PC freqs	
B:p 0:0				0:0		PC phase	
B:p 0:0				0:0		Manl PC	
B 1000				1000		PC amp	
p 1000				1000			
B W01UR				W03UR		Chan ids	
p W01UL				W03UL		Tracks	
						Chan ids	
						Tracks	
Group delay (usec)(sbd)	-6.73478291715E+02	Apriori delay (usec)	-6.73478291715E+02	Resid mbdelay (usec)	5.16819E-03	+/-	8.9E-04
Sband delay (usec)	-6.73484631409E+02	Apriori clock (usec)	1.1931779E+01	Resid sbdelay (usec)	2.64454E-01	+/-	3.1E-03
Phase delay (usec)	-6.73749085196E+02	Apriori clockrate (us/s)	-2.8900000E-07	Resid phdelay (usec)	-2.86177E-07	+/-	6.6E-07
Delay rate (us/s)	-1.41376469612E+00	Apriori rate (us/s)	-1.41375345367E+00	Resid rate (us/s)	-1.12425E-05	+/-	3.4E-09
Total phase (deg)	-161.6	Apriori accel (us/s/s)	1.92430560794E-05	Resid phase (deg)	-98.9	+/-	20.4

pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00
 B: az 283.1 el 47.1 pa 55.9 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10853.111 2615.625 simultaneous interpolator

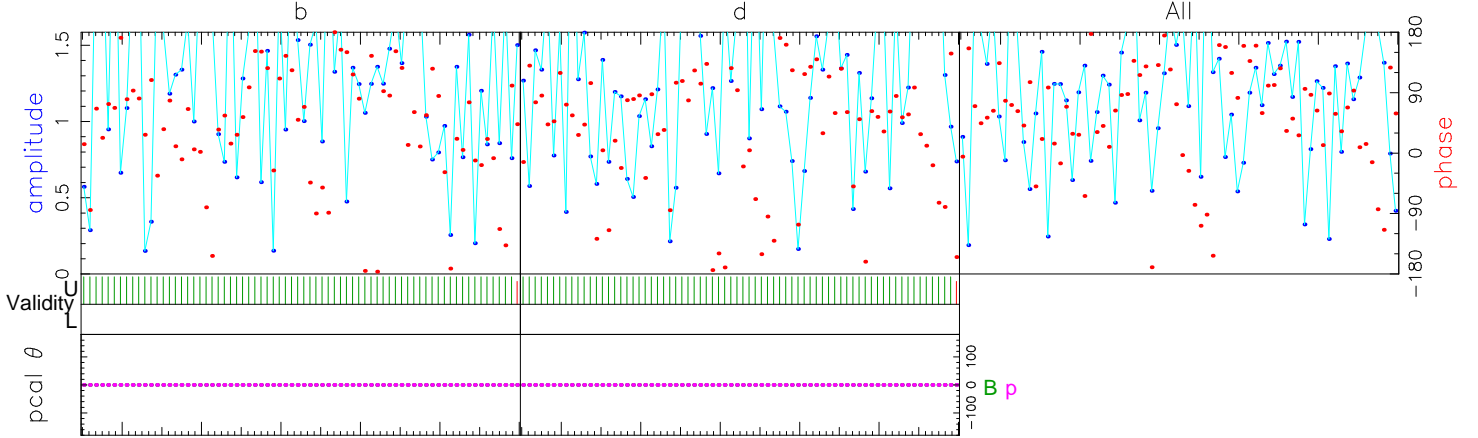
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bp.W.110.0RU2MU



Fringe quality 9
SNR 9.3
Int time 330.984
Amp 0.529
Phase 244.4
PFD 7.1e-13
Delays (us)
SBD -0.032850
MBD -0.001248
Fringe rate (Hz) 0.000733
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150819
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

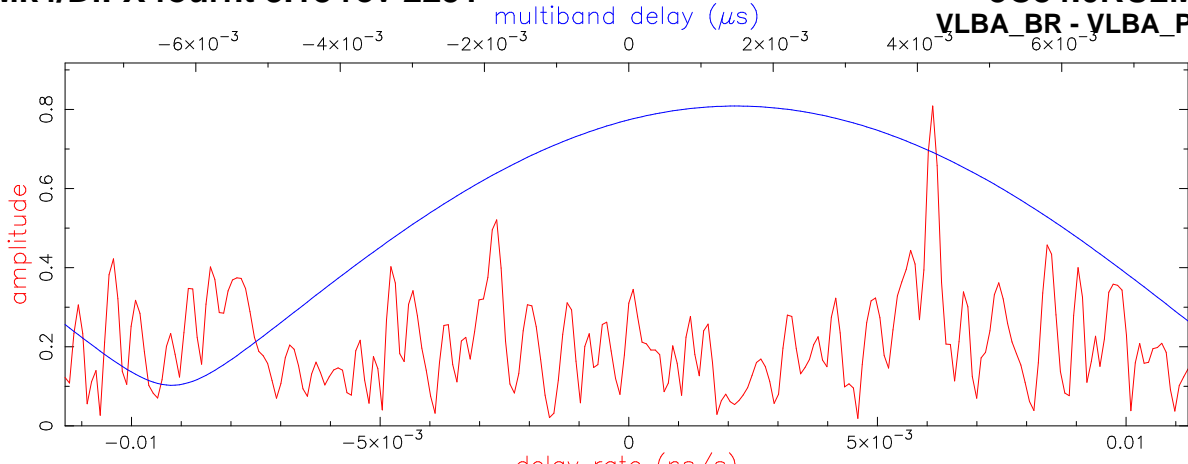


86156.00	86220.00	Freq (MHz)	All
64.3	64.5	Phase	64.4
0.5	0.5	Ampl.	0.5
124.1	125.3	Sbd box	124.8
U/L 647/0	647/0	APs used	
B 1000	1000	PC freqs	
p 1000	1000	PC freqs	
B:p 0:0	0:0	PC phase	
B:p 0:0	0:0	Mani PC	
B 1000	1000	PC amp	
p 1000	1000		
B W01UL	W03UL	Chan ids	
p W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-6.73781583030E+02	Apriori delay (usec)	-6.73749084909E+02	Resid mbdelay (usec)	-1.24812E-03	+/-	5.3E-04
Sband delay (usec)	-6.73781934409E+02	Apriori clock (usec)	1.19317779E+01	Resid sbdelay (usec)	-3.28495E-02	+/-	1.9E-03
Phase delay (usec)	-6.73749082832E+02	Apriori clockrate (us/s)	-2.8900000E-07	Resid phdelay (usec)	2.07776E-06	+/-	4.0E-07
Delay rate (us/s)	-1.41375344517E+00	Apriori rate (us/s)	-1.41375345367E+00	Resid rate (us/s)	8.50482E-09	+/-	2.1E-09
Total phase (deg)	181.8	Apriori accel (us/s/s)	1.92430560794E-05	Resid phase (deg)	244.4	+/-	12.3

RMS 71.7 Theor. 52.3 Amplitude 0.529 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 71.7 52.3 Search (2048X8) 0.517 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 157.6 91.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 8.7 Inc. seg. avg. 0.850 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 1.8 15.2 Inc. frq. avg. 0.521 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

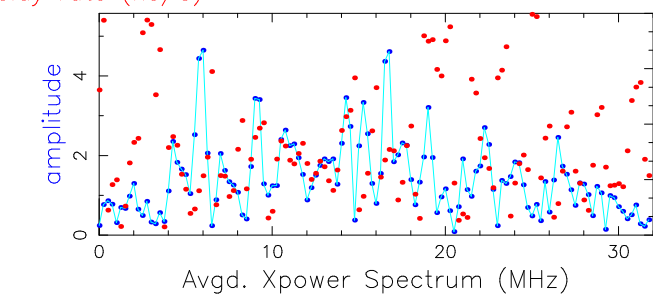
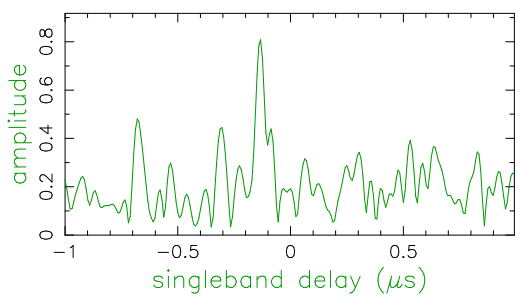
B: az 283.1 el 47.1 pa 55.9 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10853.111 2615.625 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Bp.W.25.0RU2MU



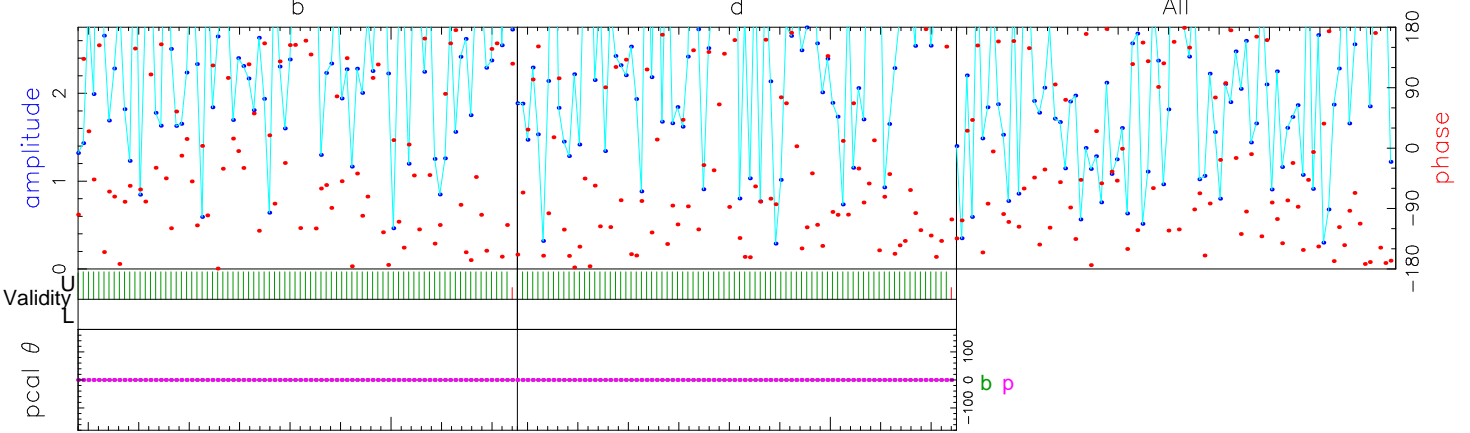
Fringe quality 0

SNR 5.2
 Int time 43.201
 Amp 0.918
 Phase 316.1
 PFD 5.8e-01
 Delays (us)
 SBD -0.134757
 MBD 0.001547
 Fringe rate (Hz)
 0.526151
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150819
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec

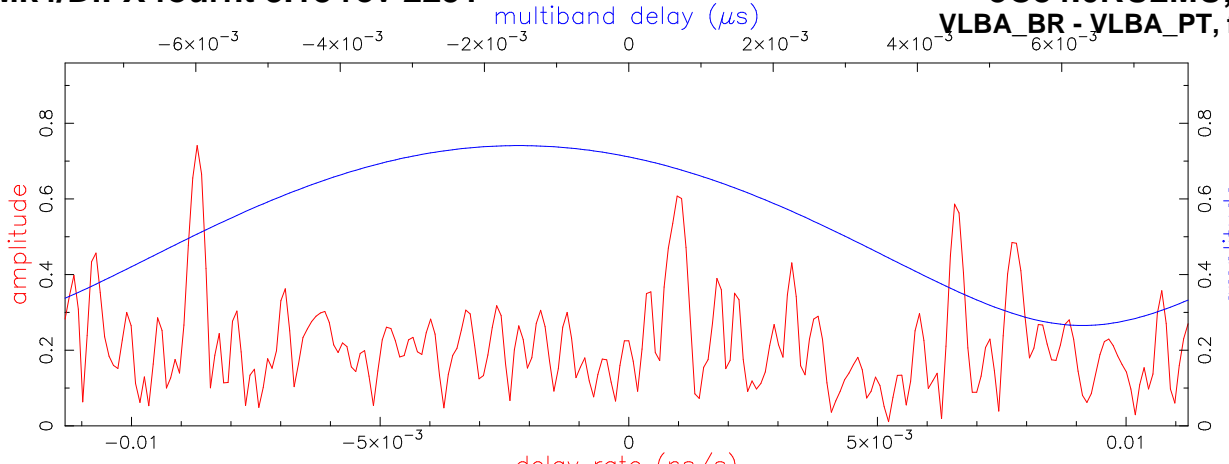


86156.00	86220.00	Freq (MHz)	All
-133.0	-134.6	Phase	-133.9
0.8	1.0	Ampl.	0.9
210.9	111.7	Sbd box	111.8
U/L 85/0	85/0	APs used	
b 1000	1000	PC freqs	
p 1000	1000	PC freqs	
b:p 0:0	0:0	PC phase	
b:p 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
p 1000	1000		
b W01UR	W03UR	Chan ids	
p W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-8.31541245654E+02	Apriori delay (usec)	-8.31402168142E+02	Resid mbdelay (usec)	1.54749E-03	+/-	9.6E-04
Sband delay (usec)	-8.31536925142E+02	Apriori clock (usec)	-7.3945284E+00	Resid sbdelay (usec)	-1.34757E-01	+/-	3.3E-03
Phase delay (usec)	-8.31402172460E+02	Apriori clockrate (us/s)	-1.6200000E-07	Resid phdelay (usec)	-4.31793E-06	+/-	7.2E-07
Delay rate (us/s)	-6.01878924556E-02	Apriori rate (us/s)	-6.01940005511E-02	Resid rate (us/s)	6.10810E-06	+/-	2.9E-08
Total phase (deg)	41.1	Apriori accel (us/s/s)	1.79351027730E-05	Resid phase (deg)	316.1	+/-	22.2

ph/seg (deg) 78.8 102.4 Amplitude 0.918 +/- 0.178 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 187.2 178.7 Search (256X8) 0.787 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 12.6 27.4 Inc. seg. avg. 0.860 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 489.159 2444.984 ion window (TEC) 0.00 0.00

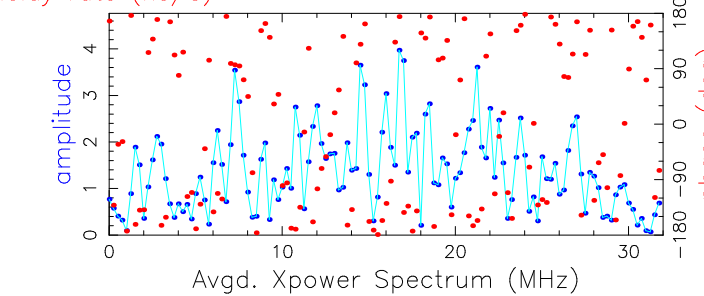
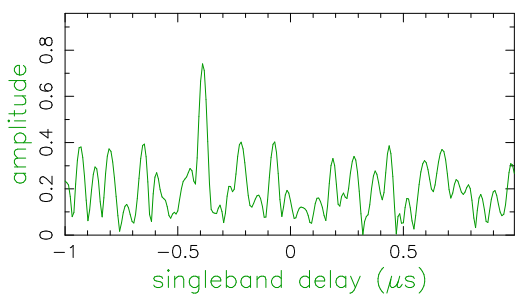
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bp.W.26.0RU2MU simultaneous interpolator



Fringe quality 0

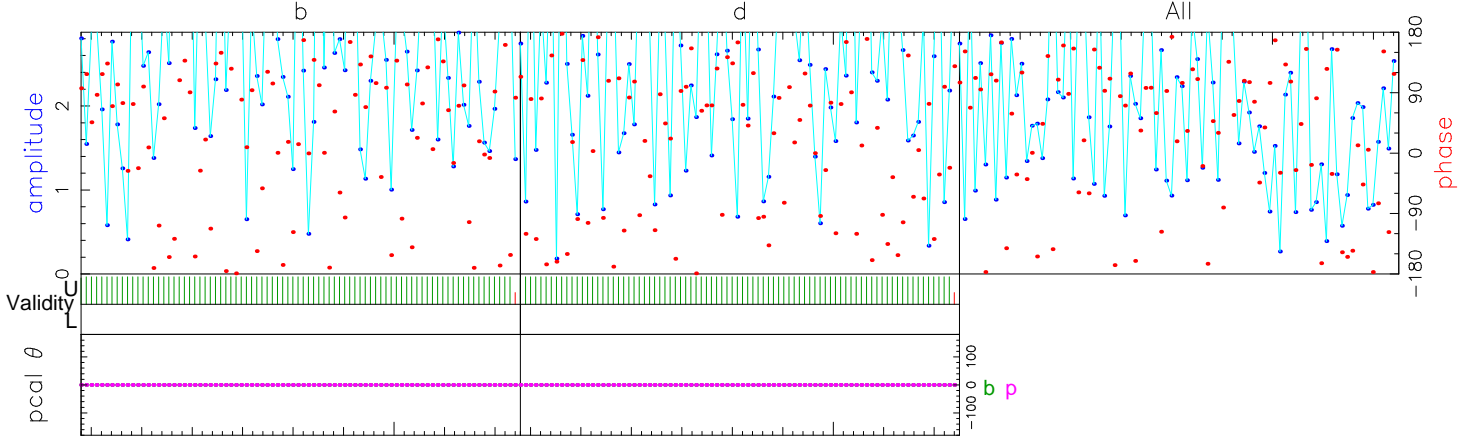
SNR 4.7
Int time 43.201
Amp 0.960
Phase 199.7
PFD 1.0e+00
Delays (us)
SBD -0.388881
MBD -0.001508
Fringe rate (Hz)
-0.748821
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150820
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



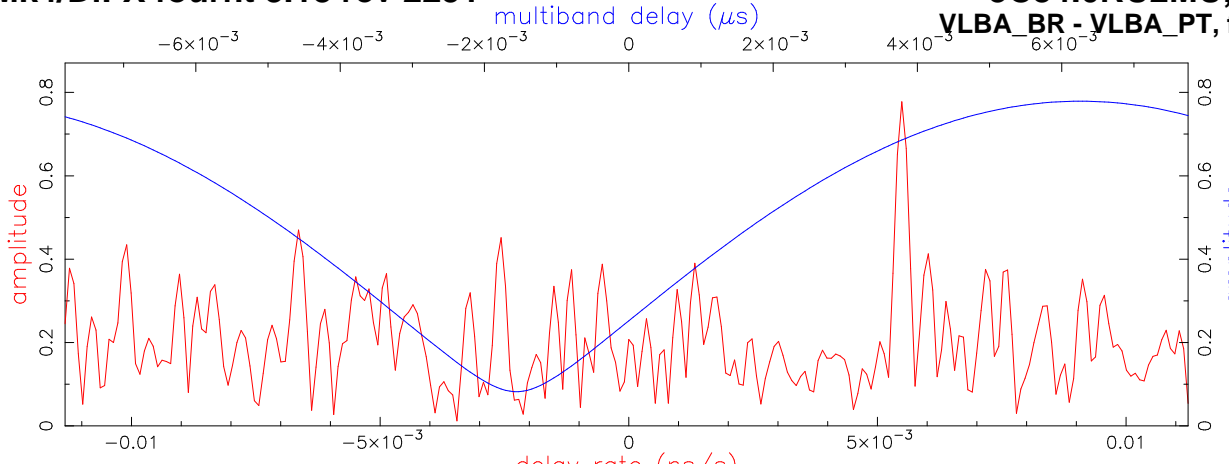
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



86156.00	86220.00	Freq (MHz)	All				
109.8	109.5	Phase	109.7				
1.3	0.6	Ampl.	0.9				
78.7	44.4	Sbd box	79.2				
U/L 85/0	85/0	APs used					
b 1000	1000	PC freqs					
p 1000	1000	PC freqs					
b:p 0:0	0:0	PC phase					
b:p 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
p 1000	1000						
b W01UL	W03UL	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-8.31794301229E+02	Apriori delay (usec)	-8.31402168142E+02	Resid mbdelay (usec)	-1.50809E-03	+/-	1.1E-03
Sband delay (usec)	-8.31791049142E+02	Apriori clock (usec)	-7.3945284E+00	Resid sbdelay (usec)	-3.88881E-01	+/-	3.6E-03
Phase delay (usec)	-8.31402164605E+02	Apriori clockrate (us/s)	-1.6200000E-07	Resid phdelay (usec)	3.53734E-06	+/-	7.8E-07
Delay rate (us/s)	-6.02026936234E-02	Apriori rate (us/s)	-6.01940005511E-02	Resid rate (us/s)	-8.69307E-06	+/-	3.1E-08
Total phase (deg)	284.7	Apriori accel (us/s/s)	1.79351027730E-05	Resid phase (deg)	199.7	+/-	24.2

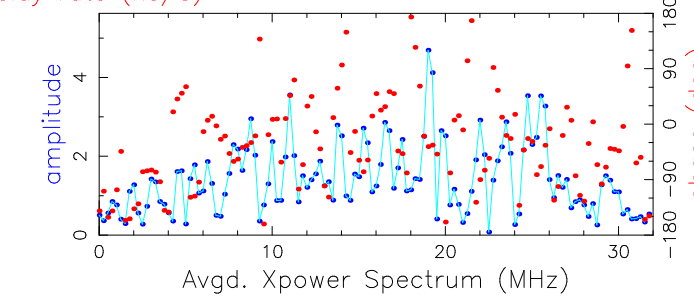
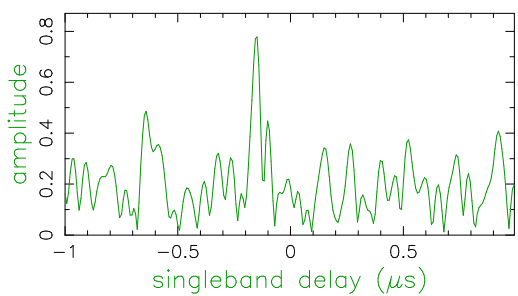
ph/seg (deg) 81.9 111.8 Search (256X8) 0.737 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 222.0 195.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 17.1 Inc. seg. avg. 0.900 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 35.7 29.9 Inc. frq. avg. 0.915 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 489.159 2444.984 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bp.W.33.0RU2MU simultaneous interpolator



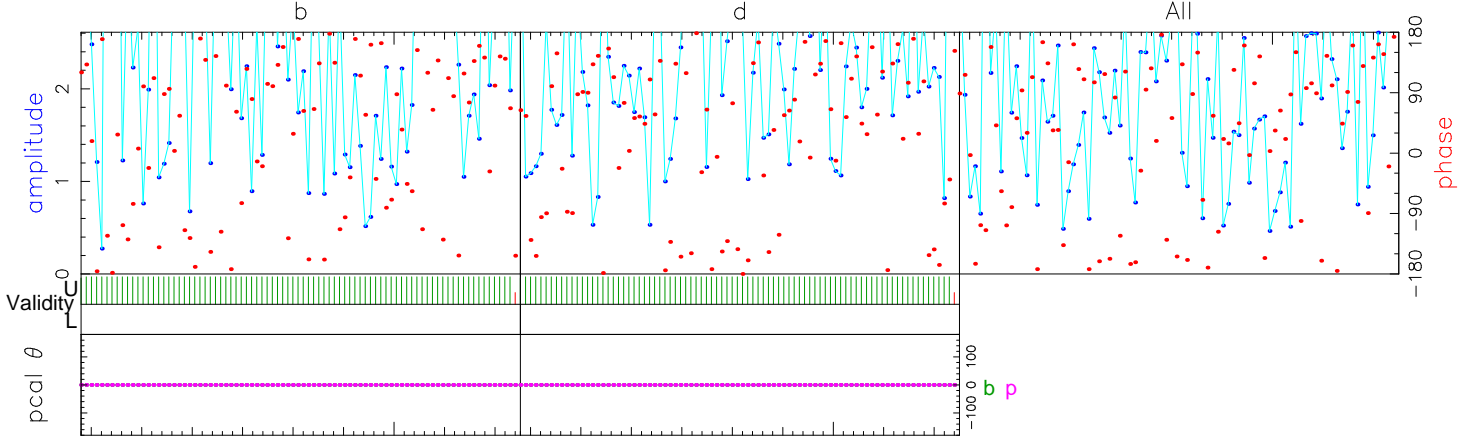
Fringe quality 0

SNR 5.0
Int time 43.201
Amp 0.871
Phase 312.6
PFD 8.4e-01
Delays (us)
SBD -0.151742
MBD 0.006529
Fringe rate (Hz)
0.475375
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150820
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec

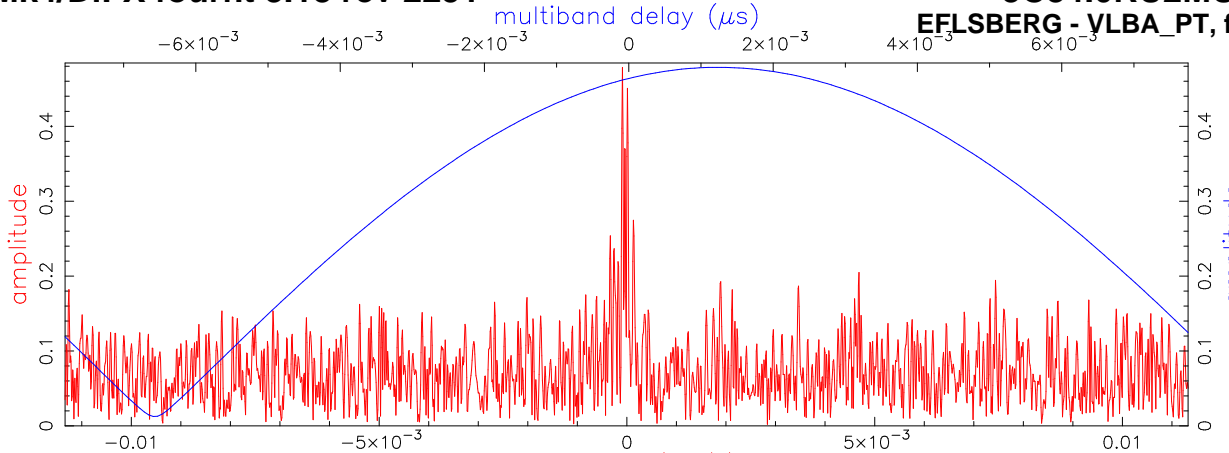


86156.00	86220.00	Freq (MHz)	All				
135.4	129.2	Phase	132.6				
1.0	0.8	Ampl.	0.8				
108.6	45.9	Sbd box	109.6				
U/L 85/0	85/0	APs used					
b 1000	1000	PC freqs					
p 1000	1000	PC freqs					
b:p 0:0	0:0	PC phase					
b:p 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
p 1000	1000						
b W01UR	W03UR	Chan ids					
p W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-8.31551888669E+02	Apriori delay (usec)	-8.31402168142E+02	Resid mbdelay (usec)	6.52947E-03	+/-	9.9E-04
Sband delay (usec)	-8.31553910142E+02	Apriori clock (usec)	-7.3945284E+00	Resid sbdelay (usec)	-1.51742E-01	+/-	3.4E-03
Phase delay (usec)	-8.31402163865E+02	Apriori clockrate (us/s)	-1.6200000E-07	Resid phdelay (usec)	4.27670E-06	+/-	7.4E-07
Delay rate (us/s)	-6.01884819189E-02	Apriori rate (us/s)	-6.01940005511E-02	Resid rate (us/s)	5.51863E-06	+/-	2.9E-08
Total phase (deg)	37.7	Apriori accel (us/s/s)	1.79351027730E-05	Resid phase (deg)	312.6	+/-	22.9

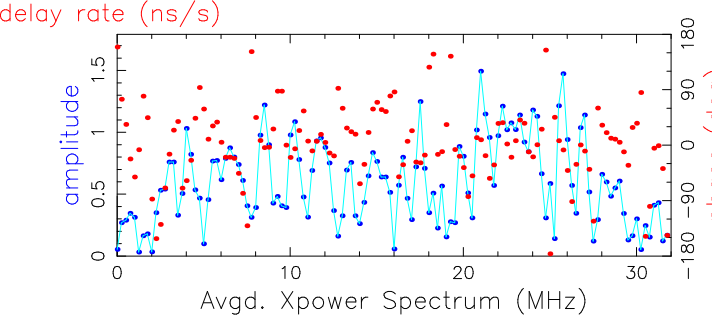
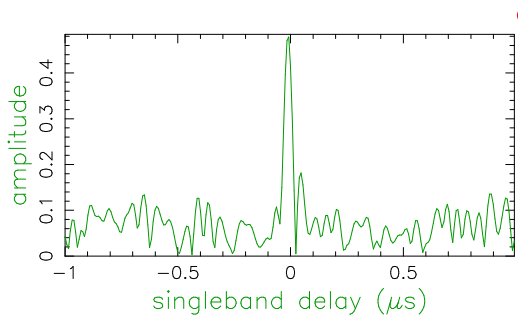
ph/seg (deg)	80.1	Theor.	105.4	Amplitude	0.871 +/- 0.174	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	186.1	Search (256X8)	0.760	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.784	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	10.5	Inc. frq. avg.	0.827	Sample rate(MSamp/s):	64	nlags:	128	dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s):	256	t_cohere	infinite	ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 489.159 2444.984 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bp.W.36.0RU2MU

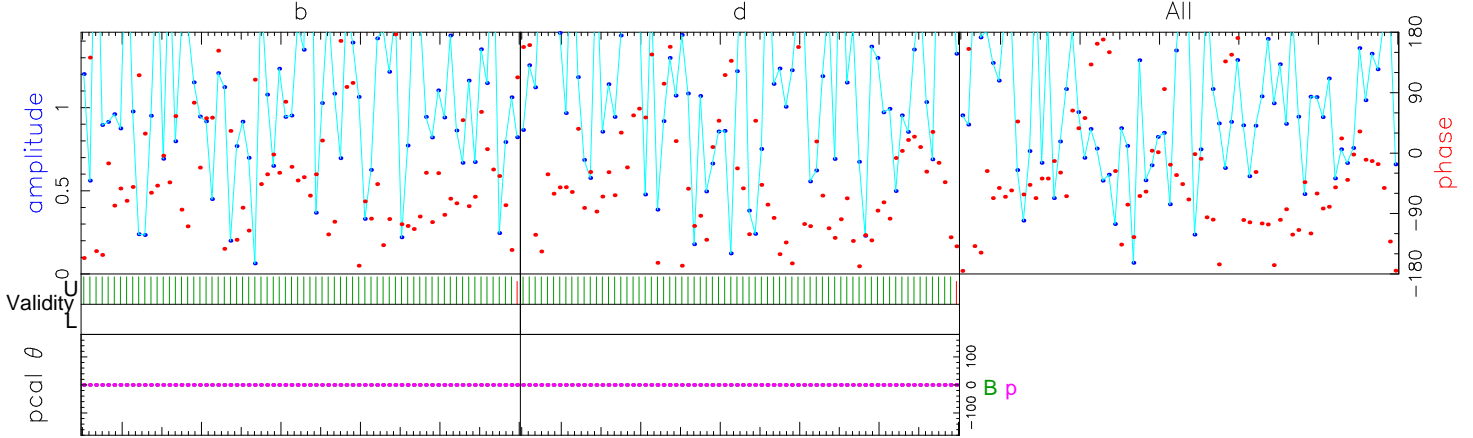


Fringe quality 9
 SNR 8.5
 Int time 330.984
 Amp 0.484
 Phase 19.6
 PFD 7.1e-10
 Delays (us)
 SBD -0.010906
 MBD 0.001275
 Fringe rate (Hz)
 -0.008045
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150820
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



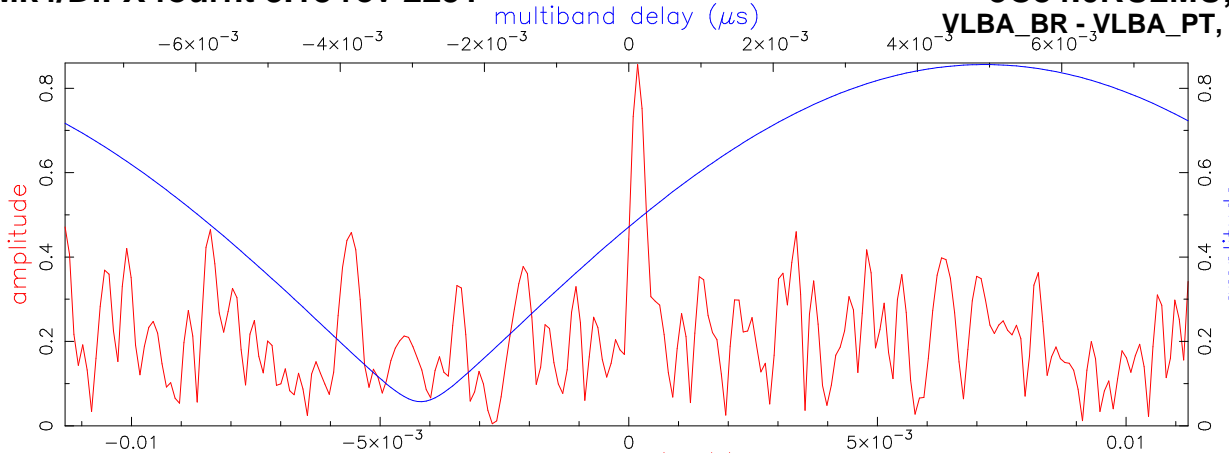
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

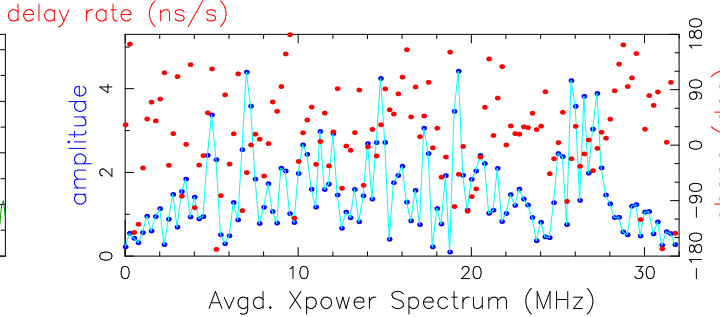
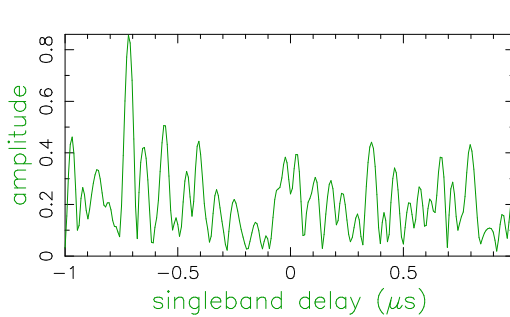


86156.00		86220.00		Freq (MHz)	All
-70.0		-70.8		Phase	-70.4
0.5		0.5		Ampl.	0.5
127.4		127.9		Sbd box	127.6
U/L 647/0		647/0		APs used	
B 1000		1000		PC freqs	
p 1000		1000		PC freqs	
B:p 0:0		0:0		PC phase	
B:p 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
p 1000		1000			
B W01UR		W03UR		Chan ids	
				Tracks	
p W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	-6.73763434447E+02	Apriori delay (usec)	-6.73749084909E+02	Resid mbdelay (usec)	1.27546E-03 +/- 5.8E-04
Sband delay (usec)	-6.73759990909E+02	Apriori clock (usec)	1.19317779E+01	Resid sbdelay (usec)	-1.09060E-02 +/- 2.0E-03
Phase delay (usec)	-6.73749087180E+02	Apriori clockrate (us/s)	-2.8900000E-07	Resid phdelay (usec)	-2.27007E-06 +/- 4.3E-07
Delay rate (us/s)	-1.41375354707E+00	Apriori rate (us/s)	-1.41375345367E+00	Resid rate (us/s)	-9.33964E-08 +/- 2.3E-09
Total phase (deg)	-43.1	Apriori accel (us/s/s)	1.92430560794E-05	Resid phase (deg)	19.6 +/- 13.4

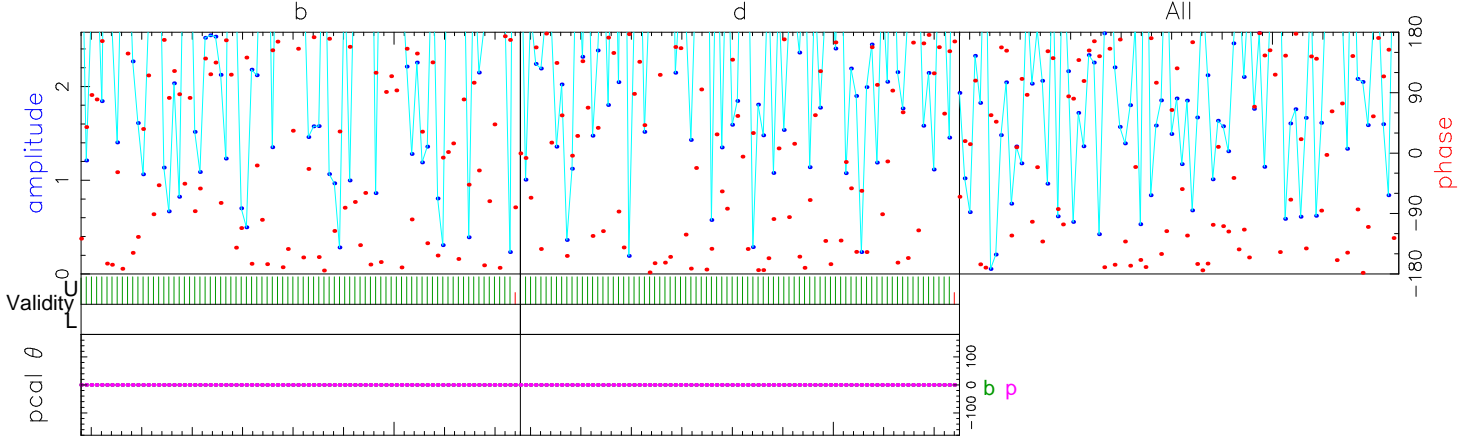
ph/seg (deg)	73.3	Theor.	57.1	Amplitude	0.484 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	134.7	Search (2048X8)	0.456	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.666	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.8	Inc. frq. avg.	0.472	Inc. frq. avg.	0.472	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00



Fringe quality 0
 SNR 5.5
 Int time 43.201
 Amp 0.860
 Phase 1.0
 PFD 1.6e-01
 Delays (us)
 SBD -0.716814
 MBD 0.004905
 Fringe rate (Hz)
 0.012325
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150817
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



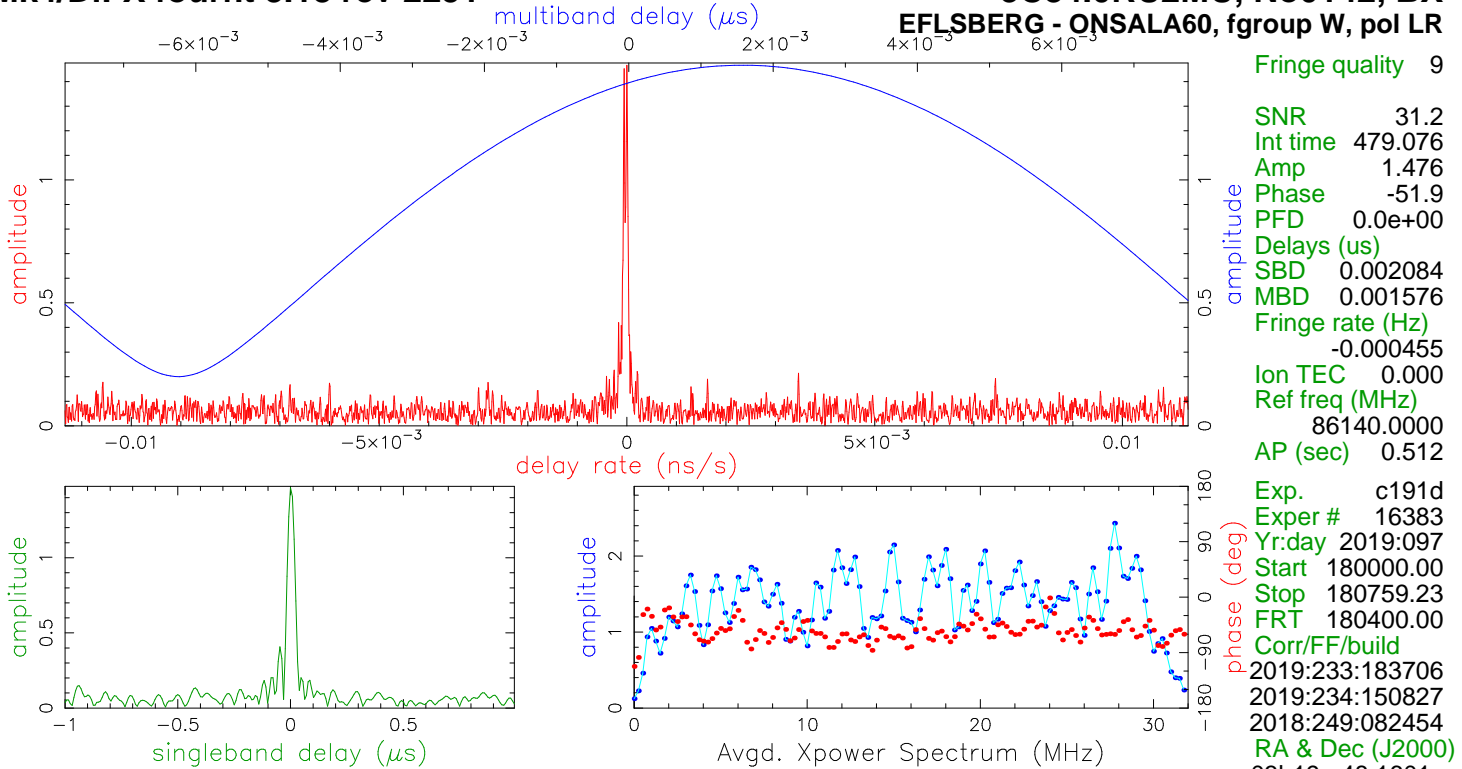
Amp. and Phase vs. time for each freq., 85 segs, 1 APs / seg (0.51 sec / seg.), time ticks 1 sec



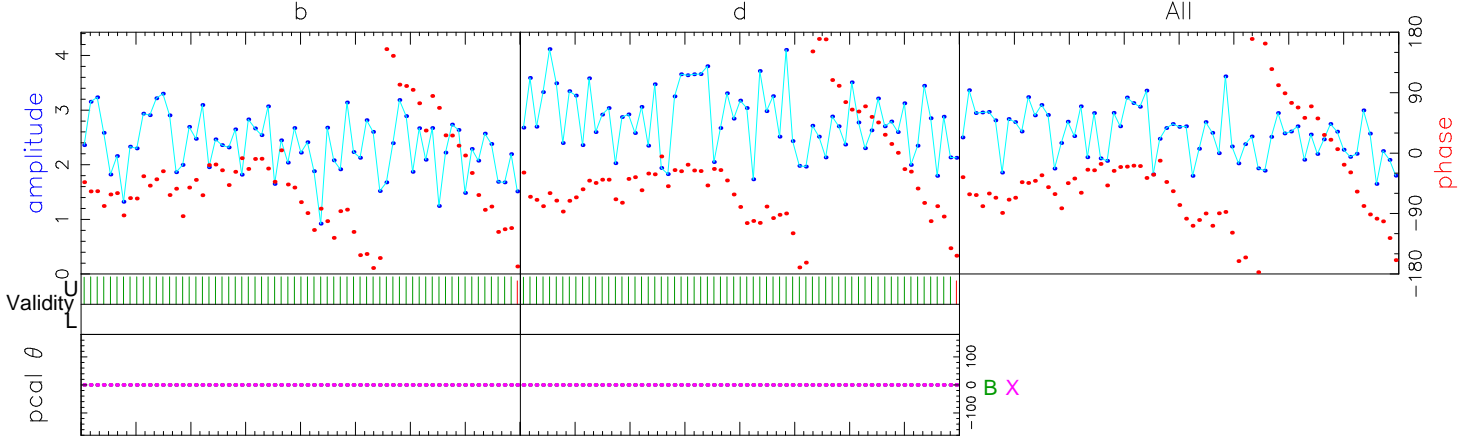
86156.00	86220.00	Freq (MHz)	All
-179.2	-178.7	Phase	-179.0
0.9	0.8	Ampl.	0.8
36.7	37.7	Sbd box	37.2
U/L 85/0	85/0	APs used	
b 1000	1000	PC freqs	
p 1000	1000	PC freqs	
b:p 0:0	0:0	PC phase	
b:p 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
p 1000	1000		
b W01UL	W03UL	Chan ids	
p W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-8.32116012816E+02	Apriori delay (usec)	-8.31402168142E+02	Resid mbdelay (usec)	4.90533E-03	+/-	9.1E-04
Sband delay (usec)	-8.32118981642E+02	Apriori clock (usec)	-7.3945284E+00	Resid sbdelay (usec)	-7.16814E-01	+/-	3.2E-03
Phase delay (usec)	-8.31402173914E+02	Apriori clockrate (us/s)	-1.6200000E-07	Resid phdelay (usec)	-5.77135E-06	+/-	6.8E-07
Delay rate (us/s)	-6.01938574678E-02	Apriori rate (us/s)	-6.01940005511E-02	Resid rate (us/s)	1.43083E-07	+/-	2.7E-08
Total phase (deg)	86.1	Apriori accel (us/s/s)	1.79351027730E-05	Resid phase (deg)	1.0	+/-	21.0

RMS Theor. Amplitude 0.860 +/- 0.157 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 80.5 96.7 Search (256X8) 0.835 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 179.1 168.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 14.8 Inc. seg. avg. 0.822 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 amp/frq (%) 6.6 25.9 Inc. frq. avg. 0.828 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 73.4 el 45.3 pa -58.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 489.159 2444.984 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bp.W.9.0RU2MU

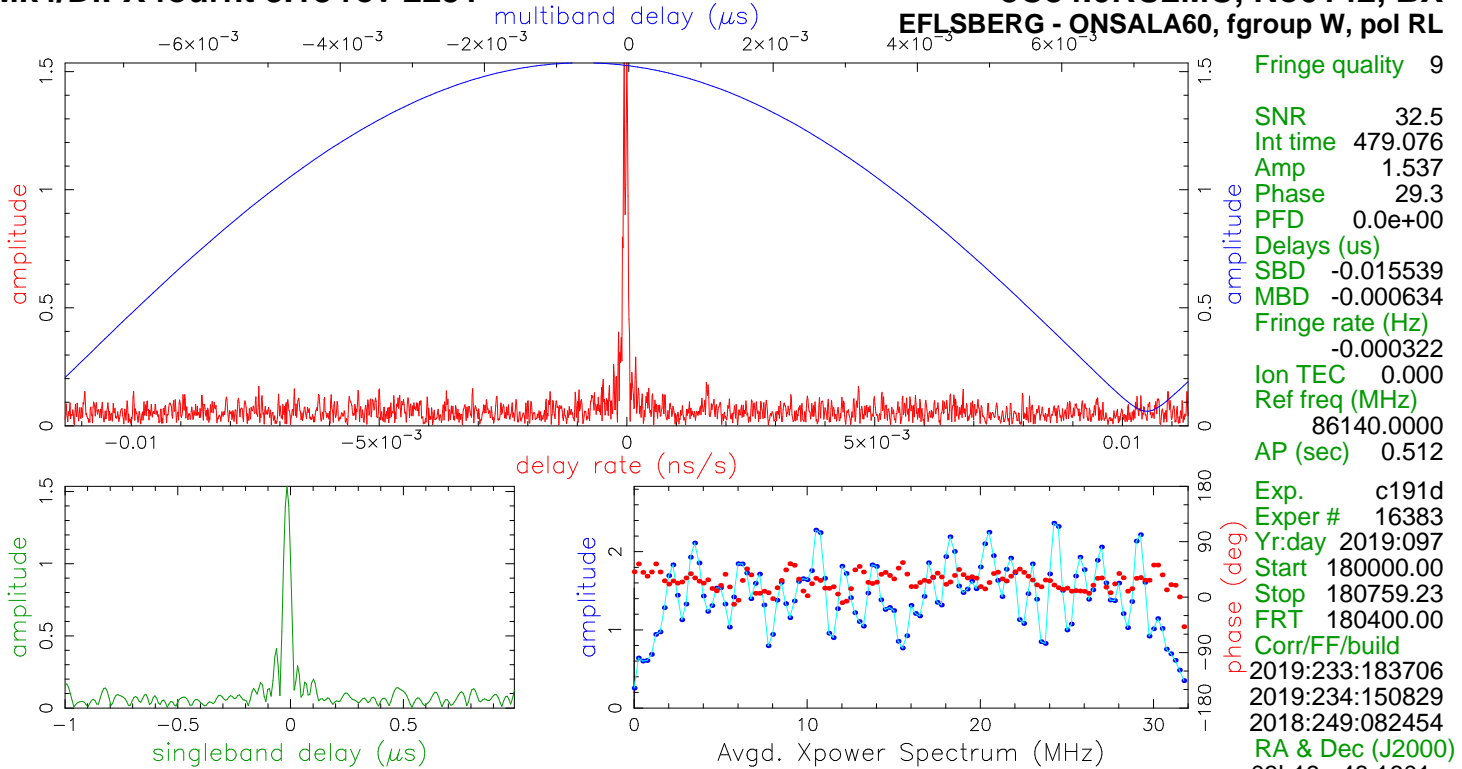


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

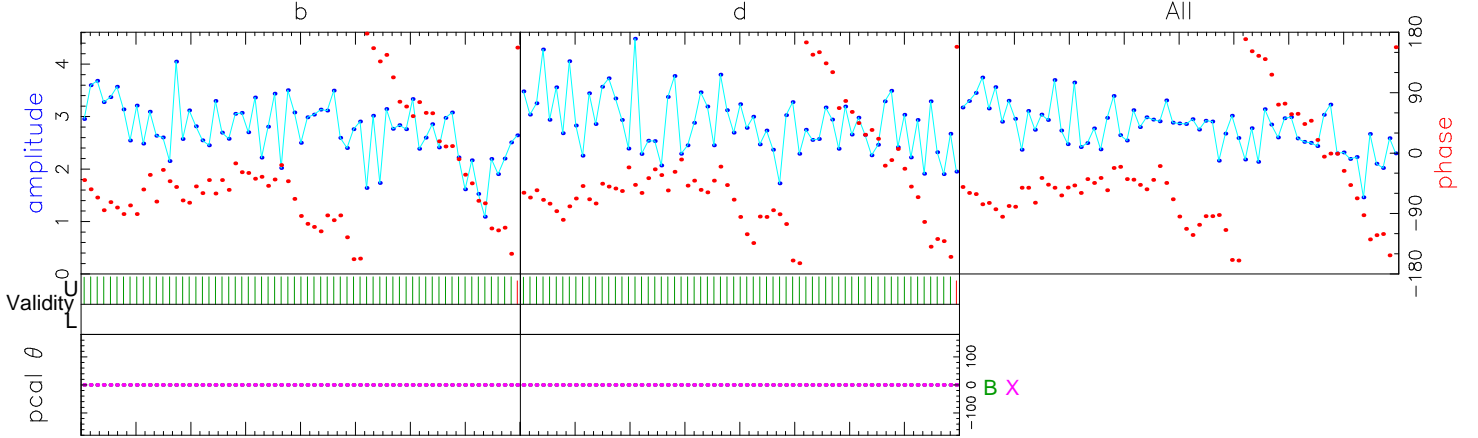


86156.00		86220.00		Freq (MHz)	All
-51.8		-51.9		Phase	-51.9
1.3		1.7		Ampl.	1.5
129.4		129.2		Sbd box	129.3
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
X 1000		1000		PC freqs	
B:X 0:0		0:0		PC phase	
B:X 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
X 1000		1000			
B W01UL		W03UL		Chan ids	
				Tracks	
X W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	3.82059530662E+02	Apriori delay (usec)	3.82057954662E+02	Resid mbdelay (usec)	1.57600E-03 +/- 1.6E-04
Sband delay (usec)	3.82060039162E+02	Apriori clock (usec)	-5.4082232E+00	Resid sbdelay (usec)	2.08450E-03 +/- 5.5E-04
Phase delay (usec)	3.82057952989E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-1.67355E-06 +/- 1.2E-07
Delay rate (us/s)	-7.79898552795E-02	Apriori rate (us/s)	-7.79898499951E-02	Resid rate (us/s)	-5.28442E-09 +/- 4.3E-10
Total phase (deg)	25.4	Apriori accel (us/s/s)	-7.35040439431E-06	Resid phase (deg)	-51.9 +/- 3.7

ph/seg (deg) 66.3 15.0 Theor. Amplitude 1.476 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.4 26.2 Search (2048X8) 1.389 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 2.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 13.6 4.5 Inc. seg. avg. 2.478 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 283.1 el 47.1 pa 55.9 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) 585.379 -986.298 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BX.W.102.0RU2MU



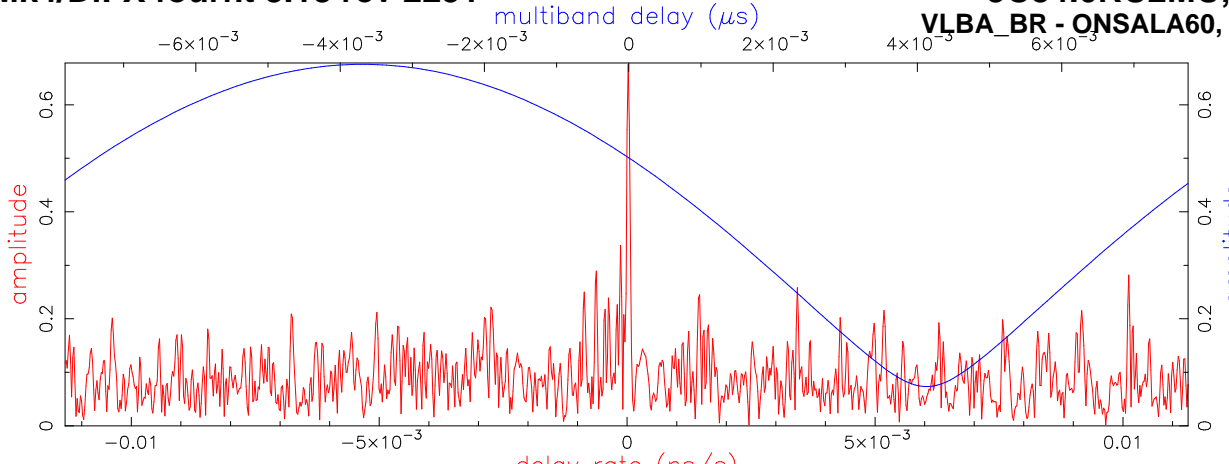
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-60.7		-60.7		Phase	-60.7
1.5		1.6		Ampl.	1.5
127.2		126.8		Sbd box	127.0
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
X 1000		1000		PC freqs	
B:X 0:0		0:0		PC phase	
B:X 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
X 1000		1000			
B W01UR		W03UR		Chan ids	
X W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	3.82041695287E+02	Apriori delay (usec)	3.82057954662E+02	Resid mbdelay (usec)	-6.34375E-04 +/- 1.5E-04
Sband delay (usec)	3.82042415162E+02	Apriori clock (usec)	-5.4082232E+00	Resid sbdelay (usec)	-1.55395E-02 +/- 5.3E-04
Phase delay (usec)	3.82057952705E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	-1.95767E-06 +/- 1.1E-07
Delay rate (us/s)	-7.79898537341E-02	Apriori rate (us/s)	-7.79898499951E-02	Resid rate (us/s)	-3.73906E-09 +/- 4.1E-10
Total phase (deg)	106.6	Apriori accel (us/s/s)	-7.35040439431E-06	Resid phase (deg)	29.3 +/- 3.5

ph/seg (deg)	68.1	Theor.	14.4	Amplitude	1.537 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	86.2	Search (2048X8)	1.494	Search	1.494	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	4.0	Inc. seg. avg.	2.702	Inc. seg. avg.	2.702	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	1.536	Inc. frq. avg.	1.536	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
B: az 283.1 el 47.1 pa 55.9		X: az 279.5 el 45.6 pa 45.3		u,v (fr/asec)	585.379 -986.298	Data rate(Mb/s):	256	ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/BX..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/BX.W.121.0RU2MU		nlags:	128	t_cohere	infinite

simultaneous interpolator



Fringe quality 9

SNR 9.1

Int time 191.950

Amp 0.678

Phase -9.1

PFD 2.5e-12

Delays (us)

SBD -0.021478

MBD -0.003574

Fringe rate (Hz) 0.001188

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180312.51

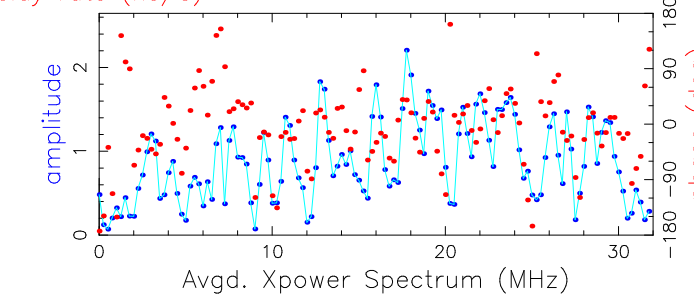
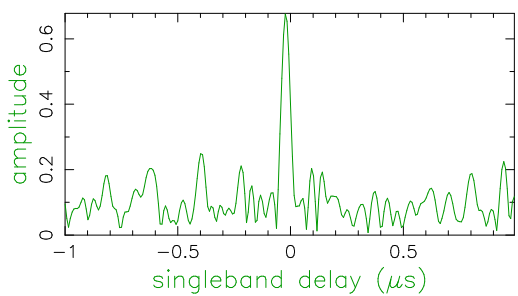
FRT 180400.00

Corr/FF/build 2019:233:183706

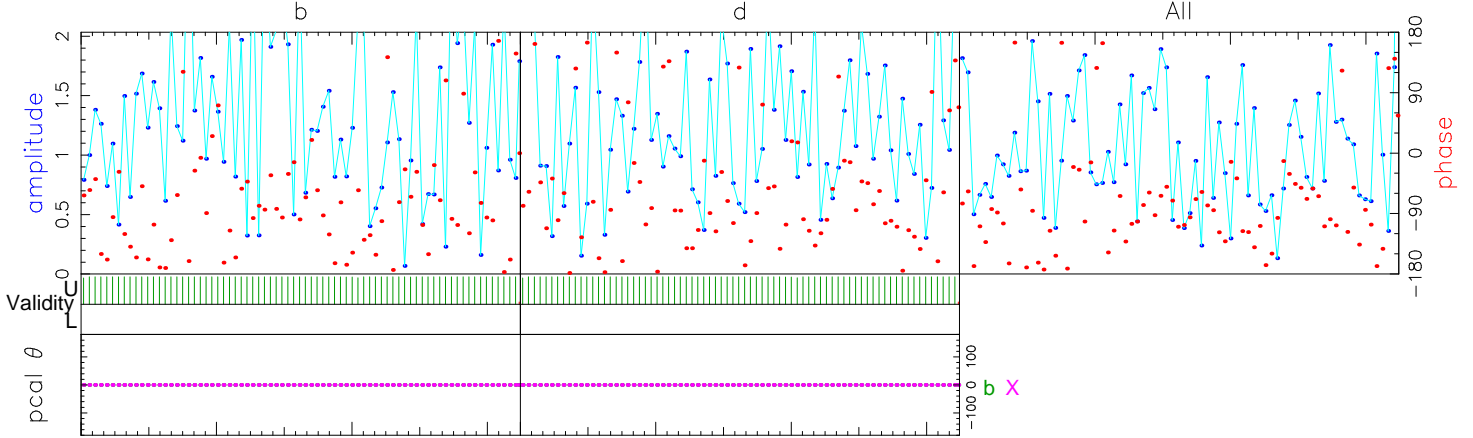
2019:234:150818

2018:249:082454

RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-98.0	-100.5	Phase	-99.1				
0.7	0.6	Ampl.	0.7				
126.8	125.7	Sbd box	126.3				
U/L 376/0	376/0	APs used					
X 1000	1000	PC freqs					
b:X 0:0	0:0	PC freqs					
b:X 0:0	0:0	PC phase					
b 1000	1000	Manl PC					
X 1000	1000	PC amp					
b W01UL	W03UL	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.24385672738E+02	Apriori delay (usec)	2.24404871430E+02	Resid mbdelay (usec)	-3.57369E-03	+/-	5.5E-04
Sband delay (usec)	2.24383393430E+02	Apriori clock (usec)	-2.4734531E+01	Resid sbdelay (usec)	-2.14780E-02	+/-	1.9E-03
Phase delay (usec)	2.24404868234E+02	Apriori clockrate (us/s)	-4.9700001E-07	Resid phdelay (usec)	-3.19580E-06	+/-	4.1E-07
Delay rate (us/s)	1.27556961692E+00	Apriori rate (us/s)	1.27556960312E+00	Resid rate (us/s)	1.37956E-08	+/-	3.7E-09
Total phase (deg)	215.9	Apriori accel (us/s/s)	-8.65835770067E-06	Resid phase (deg)	-9.1	+/-	12.6

ph/seg (deg) 55.0 55.0 Theor. Amplitude 0.678 +/- 0.075 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

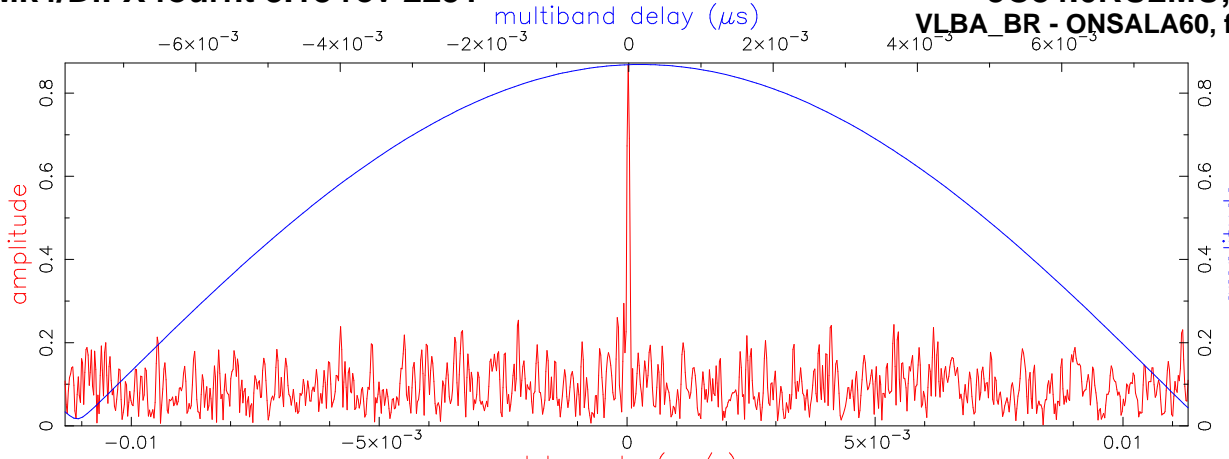
amp/seg (%) 90.9 96.0 Search (1024X8) 0.655 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 8.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

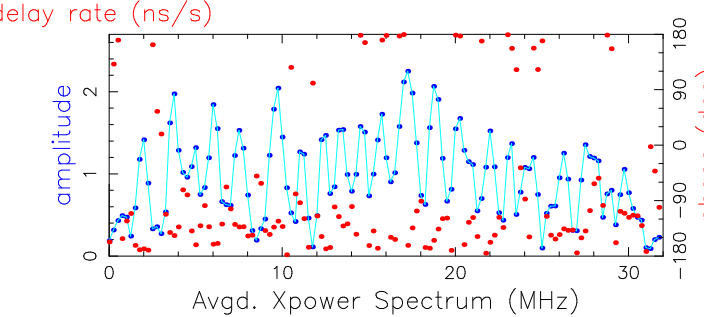
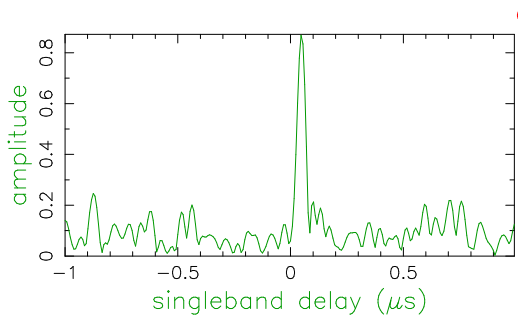
amp/frq (%) 10.8 15.6 Inc. seg. avg. 0.723 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

b: az 73.4 el 45.3 pa -58.8 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -9778.573 -1156.939 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bX.W.15.0RU2MU simultaneous interpolator

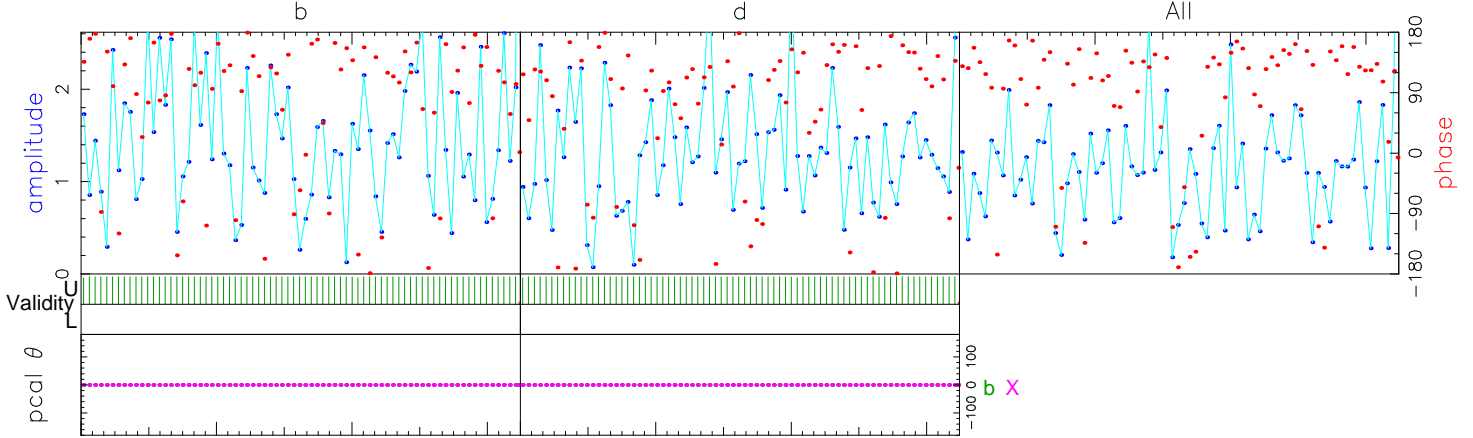


Fringe quality 9
SNR 11.7
Int time 191.950
Amp 0.873
Phase -135.4
PFD 4.5e-24
Delays (us)
SBD 0.048747
MBD 0.000132
Fringe rate (Hz) 0.001102
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



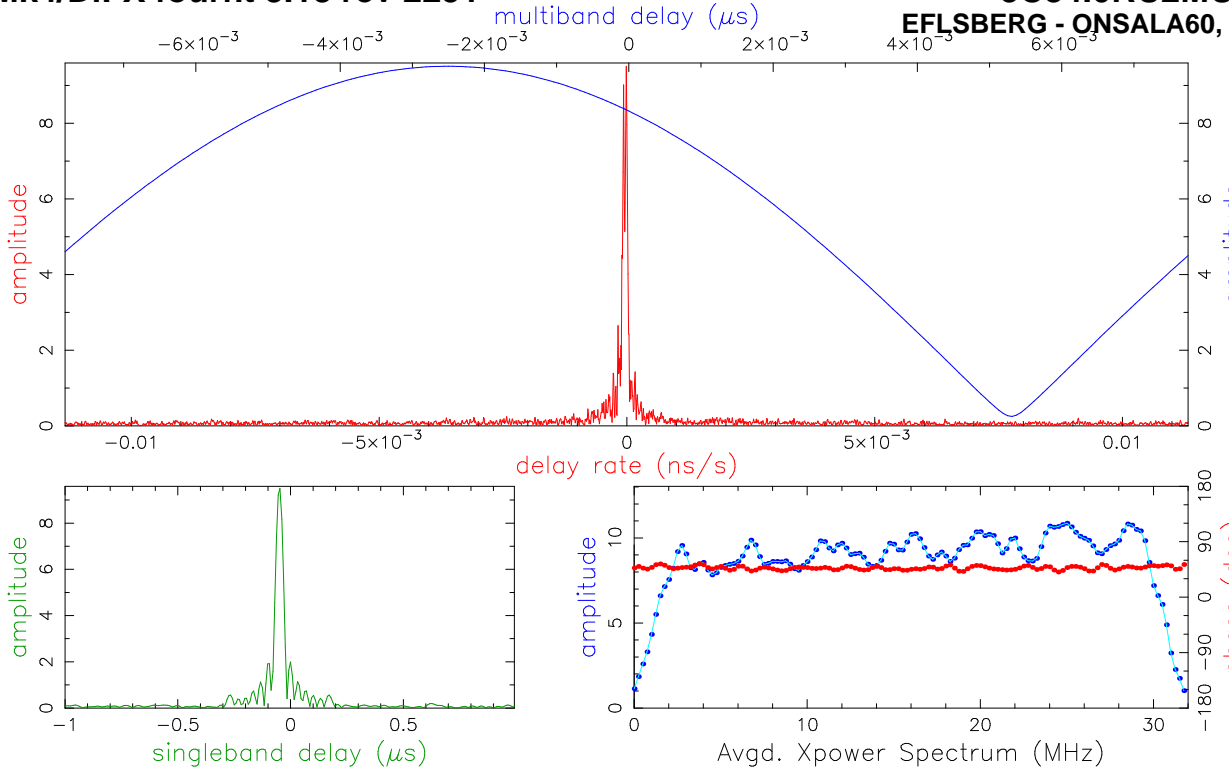
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180312.51
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150819
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



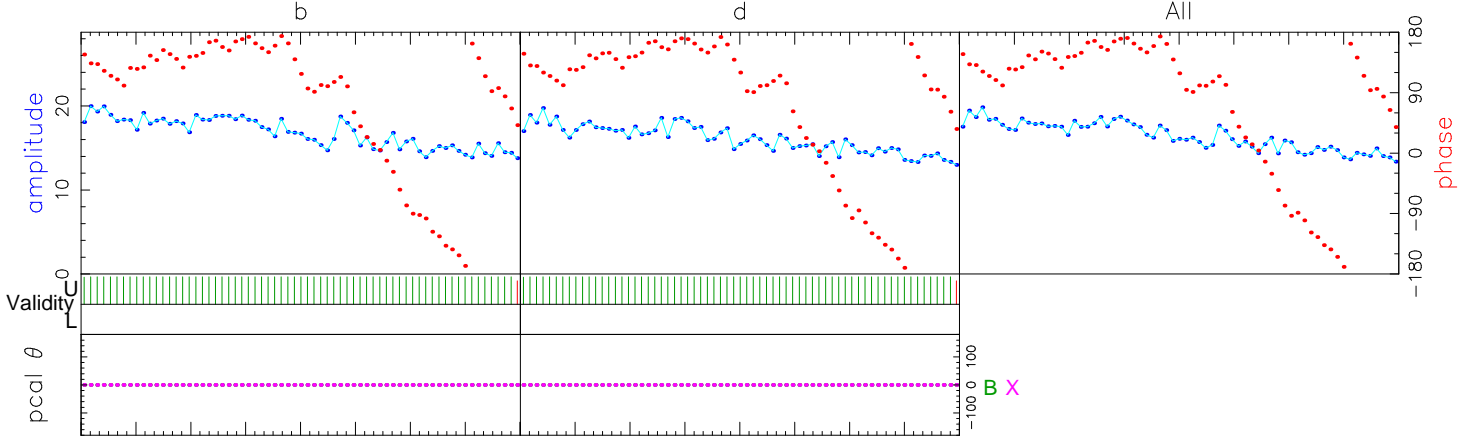
86156.00	86220.00	Freq (MHz)	All				
134.2	135.0	Phase	134.6				
0.9	0.9	Ampl.	0.9				
135.2	135.2	Sbd box	135.2				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
X 1000	1000	PC freqs					
b:X 0:0	0:0	PC phase					
b:X 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
X 1000	1000						
b W01UR	W03UR	Chan ids					
		Tracks					
X W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.24451878363E+02	Apriori delay (usec)	2.24404871430E+02	Resid mbdelay (usec)	1.31934E-04	+/-	4.3E-04
Sband delay (usec)	2.24453617930E+02	Apriori clock (usec)	-2.4734531E+01	Resid sbdelay (usec)	4.87465E-02	+/-	1.5E-03
Phase delay (usec)	2.24404875769E+02	Apriori clockrate (us/s)	-4.9700001E-07	Resid phdelay (usec)	4.33979E-06	+/-	3.2E-07
Delay rate (us/s)	1.27556961591E+00	Apriori rate (us/s)	1.27556960312E+00	Resid rate (us/s)	1.27895E-08	+/-	2.8E-09
Total phase (deg)	89.6	Apriori accel (us/s/s)	-8.65835770067E-06	Resid phase (deg)	-135.4	+/-	9.8

ph/seg (deg) 54.2 42.7 Search (1024X8) 0.836 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 72.7 74.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 6.9 Inc. seg. avg. 0.886 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 1.9 12.1 Inc. frq. avg. 0.863 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 73.4 el 45.3 pa -58.8 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -9778.573 -1156.939 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bX.W.30.0RU2MU



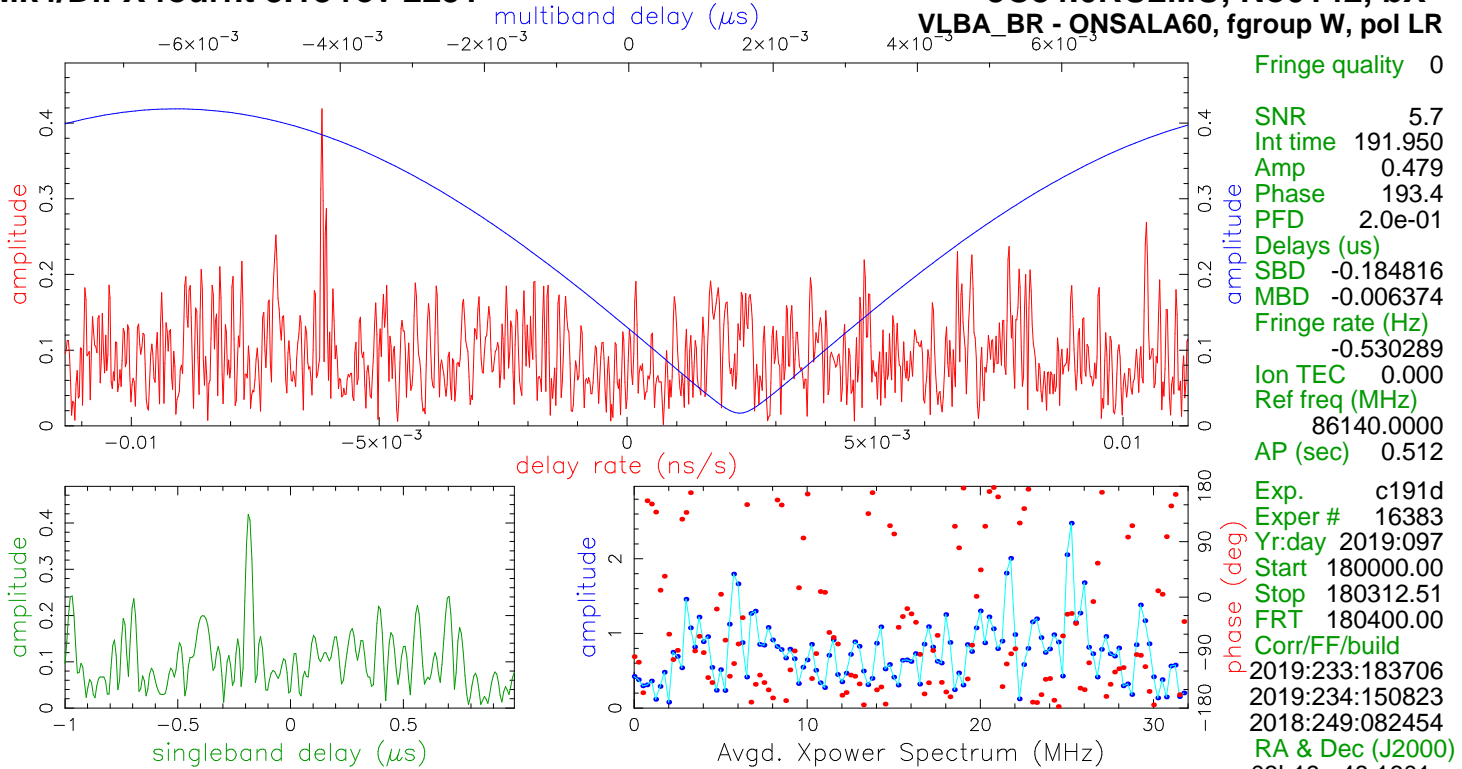
Fringe quality 5
 SNR 203.0
 Int time 479.076
 Amp 9.593
 Phase 47.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.049380
 MBD -0.002517
 Fringe rate (Hz)
 -0.000489
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150820
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

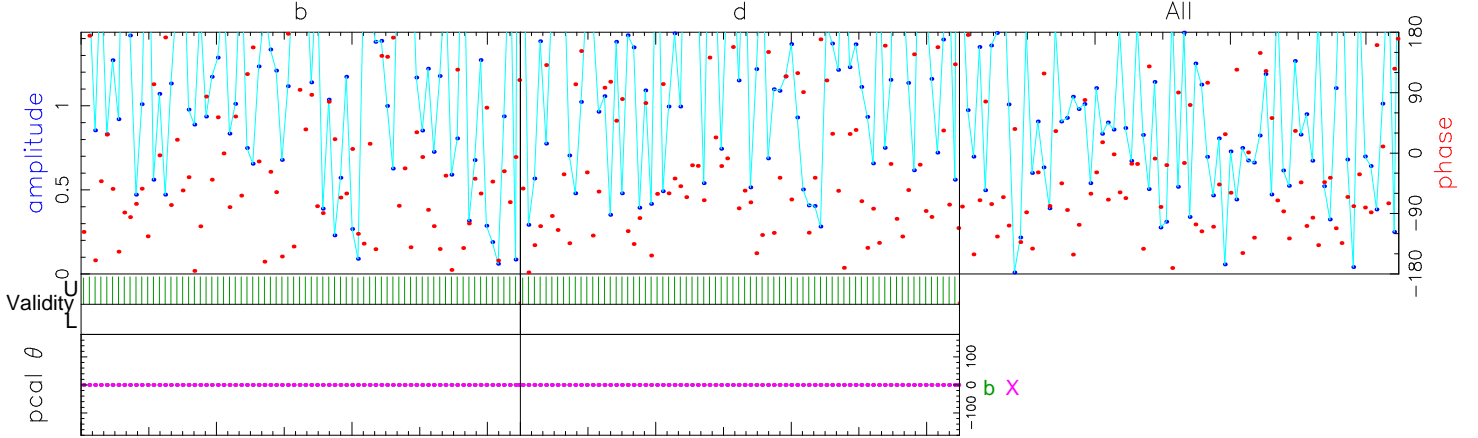


86156.00		86220.00		Freq (MHz)		All
U/L	936/0	936/0	1000	137.1	137.2	137.1
B	1000	1000	1000	9.8	9.3	9.5
X	1000	1000	1000	122.8	122.6	122.7
B:X	0:0	0:0	0:0	Sbd box		
B:X	0:0	0:0	0:0	APs used		
B	1000	1000	1000	PC freqs		
X	1000	1000	1000	PC freqs		
B	W01UL	W03UL	W03UL	PC phase		
X	W01UL	W03UL	W03UL	Manl PC		
				PC amp		
				Chan ids		
				Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	3.82008563133E+02	Apriori delay (usec)	3.82057954662E+02	Resid mbdelay (usec)	-2.51653E-03	+/- 2.5E-05
Sband delay (usec)	3.82008574662E+02	Apriori clock (usec)	-5.4082232E+00	Resid sbdelay (usec)	-4.93800E-02	+/- 8.5E-05
Phase delay (usec)	3.82057959084E+02	Apriori clockrate (us/s)	-6.2399998E-07	Resid phdelay (usec)	4.42176E-06	+/- 1.8E-08
Delay rate (us/s)	-7.79898556713E-02	Apriori rate (us/s)	-7.79898499951E-02	Resid rate (us/s)	-5.67626E-09	+/- 6.6E-11
Total phase (deg)	124.4	Apriori accel (us/s/s)	-7.35040439431E-06	Resid phase (deg)	47.1	+/- 0.6

ph/seg (deg) 66.7 2.3 Theor. Amplitude 9.593 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.3 4.0 Search (2048X8) 8.971 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.7 0.7 Inc. seg. avg. 16.415 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 283.1 el 47.1 pa 55.9 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) 585.379 -986.298 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BX.W.31.0RU2MU

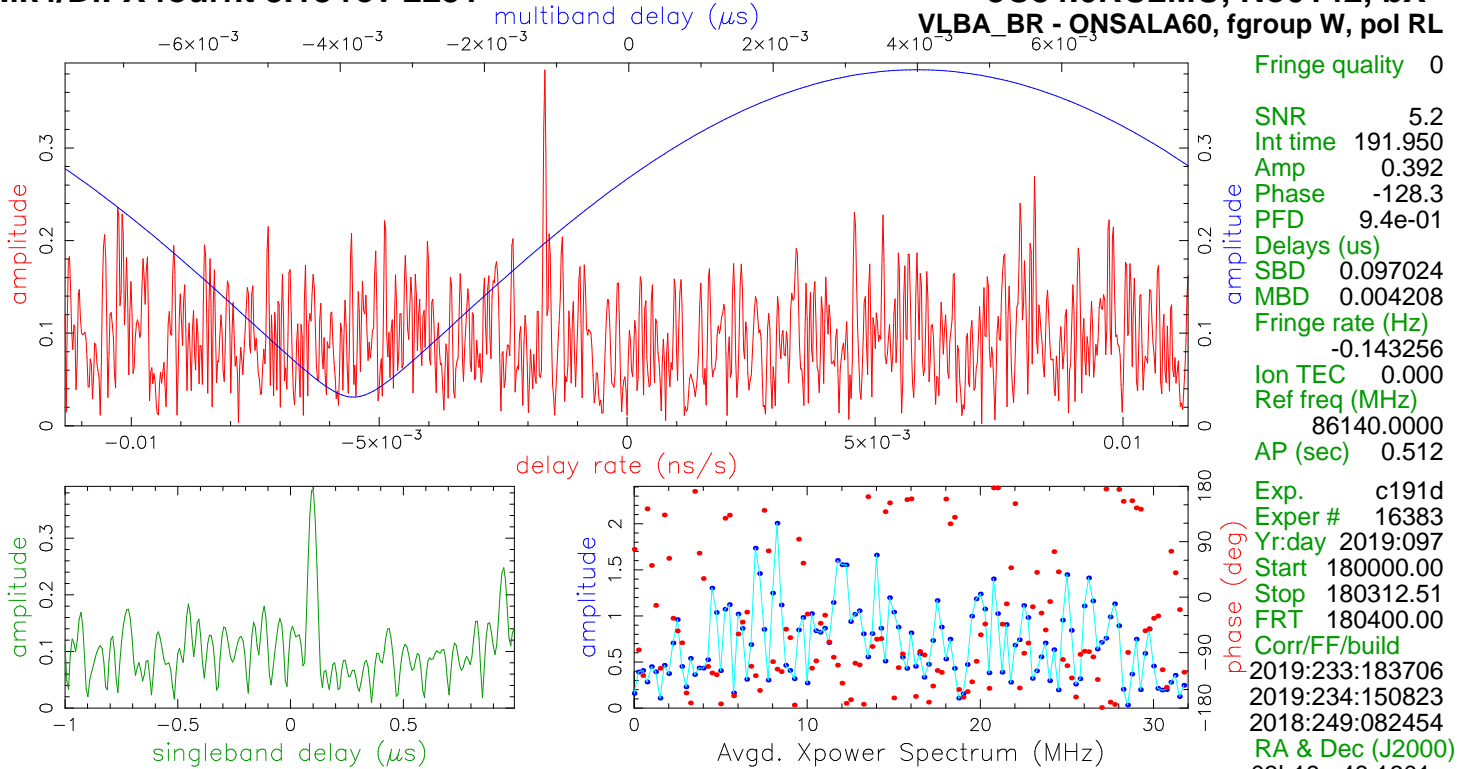


Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

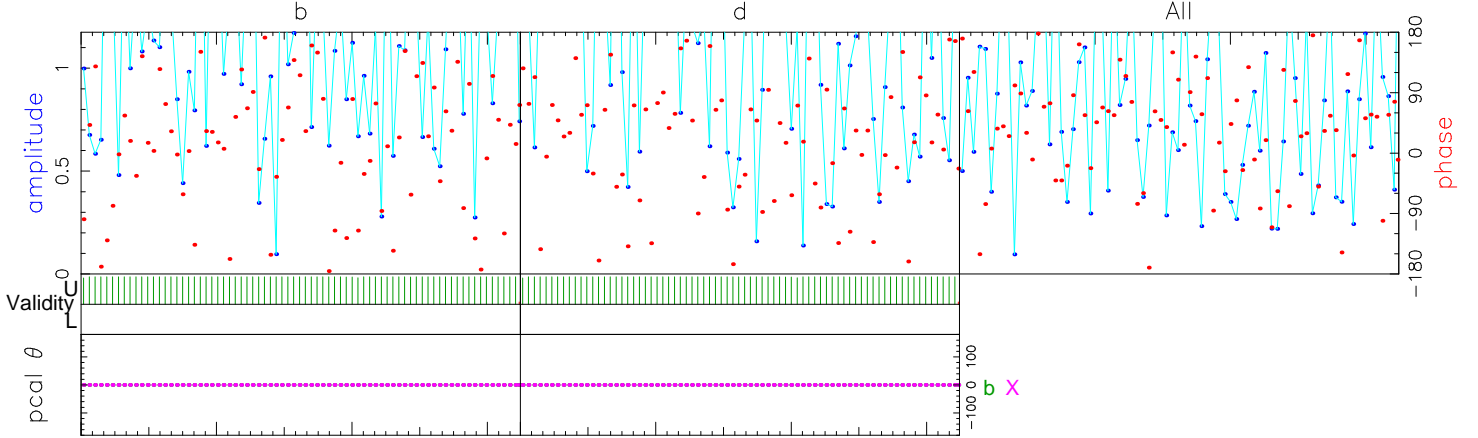


86156.00		86220.00		Freq (MHz)	All
-77.8		-75.5		Phase	-76.6
0.5		0.5		Ampl.	0.5
105.9		104.9		Sbd box	105.3
U/L 376/0		376/0		APs used	
b 1000		1000		PC freqs	
X 1000		1000		PC freqs	
b:X 0:0		0:0		PC phase	
b:X 0:0		0:0		Manl PC	
b 1000		1000		PC amp	
X 1000		1000			
b W01UL		W03UL		Chan ids	
				Tracks	
X W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	2.24226622413E+02	Apriori delay (usec)	2.24404871430E+02	Resid mbdelay (usec)	-6.37402E-03 +/- 8.8E-04
Sband delay (usec)	2.24220055430E+02	Apriori clock (usec)	-2.4734531E+01	Resid sbdelay (usec)	-1.84816E-01 +/- 3.0E-03
Phase delay (usec)	2.24404868959E+02	Apriori clockrate (us/s)	-4.9700001E-07	Resid phdelay (usec)	-2.47063E-06 +/- 6.5E-07
Delay rate (us/s)	1.27556344699E+00	Apriori rate (us/s)	1.27556960312E+00	Resid rate (us/s)	-6.15613E-06 +/- 5.9E-09
Total phase (deg)	58.4	Apriori accel (us/s/s)	-8.65835770067E-06	Resid phase (deg)	193.4 +/- 20.2

RMS Theor. Amplitude 0.479 +/- 0.085 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 80.5 88.1 Search (1024X8) 0.410 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 157.9 153.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 14.3 Inc. seg. avg. 0.464 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 4.1 24.9 Inc. frq. avg. 0.460 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 73.4 el 45.3 pa -58.8 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -9778.573 -1156.939 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bX.W.59.0RU2MU



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

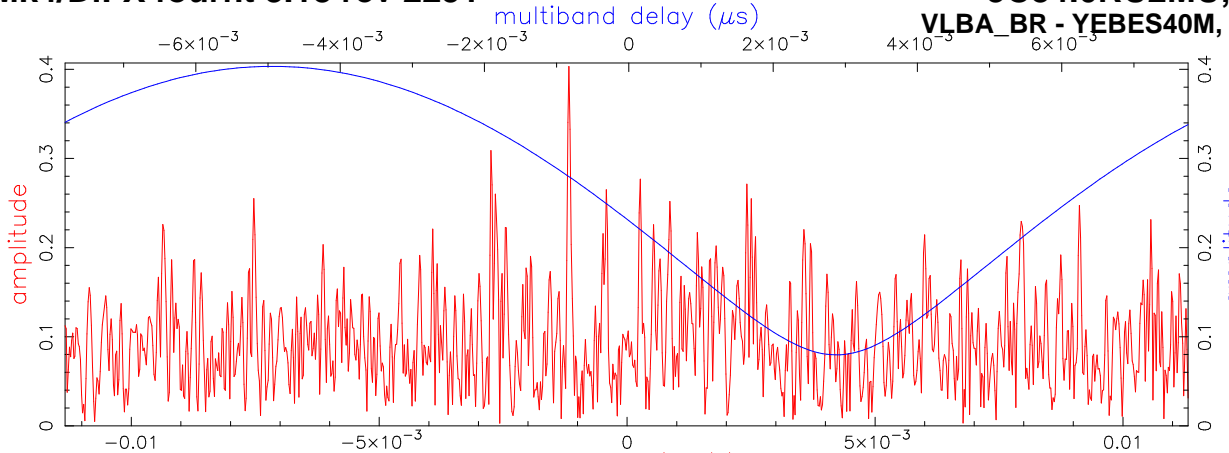


86156.00	86220.00	Freq (MHz)	All				
54.3	49.5	Phase	51.7				
0.4	0.4	Ampl.	0.4				
184.8	141.9	Sbd box	141.4				
U/L 376/0	376/0	APs used					
X 1000	1000	PC freqs					
b:X 0:0	0:0	PC freqs					
b:X 0:0	0:0	PC phase					
b 1000	1000	Manl PC					
X 1000	1000	PC amp					
b W01UR	W03UR	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.24502829666E+02	Apriori delay (usec)	2.24404871430E+02	Resid mbdelay (usec)	4.20824E-03	+/-	9.6E-04
Sband delay (usec)	2.24501894930E+02	Apriori clock (usec)	-2.4734531E+01	Resid sbdelay (usec)	9.70235E-02	+/-	3.3E-03
Phase delay (usec)	2.24404873097E+02	Apriori clockrate (us/s)	-4.9700001E-07	Resid phdelay (usec)	1.66688E-06	+/-	7.1E-07
Delay rate (us/s)	1.27556794006E+00	Apriori rate (us/s)	1.27556960312E+00	Resid rate (us/s)	-1.66307E-06	+/-	6.4E-09
Total phase (deg)	-263.3	Apriori accel (us/s/s)	-8.65835770067E-06	Resid phase (deg)	-128.3	+/-	22.0

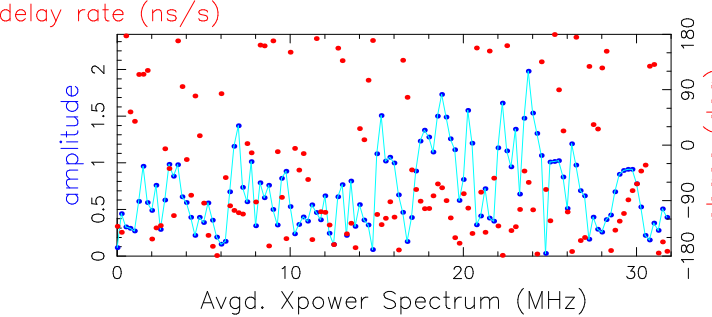
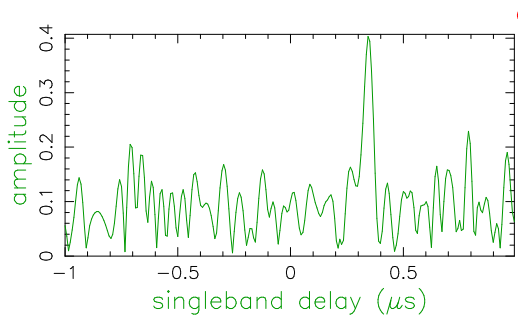
ph/seg (deg)	RMS 76.4	Theor. 96.0	Amplitude 0.392 +/- 0.075	Search (1024X8) 0.377	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	167.1	167.6	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	15.6	Inc. seg. avg. 0.359	0.374	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	8.0	27.2	Inc. frq. avg. 0.374	0.374	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 73.4 el 45.3 pa -58.8 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -9778.573 -1156.939 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bX.W.68.0RU2MU

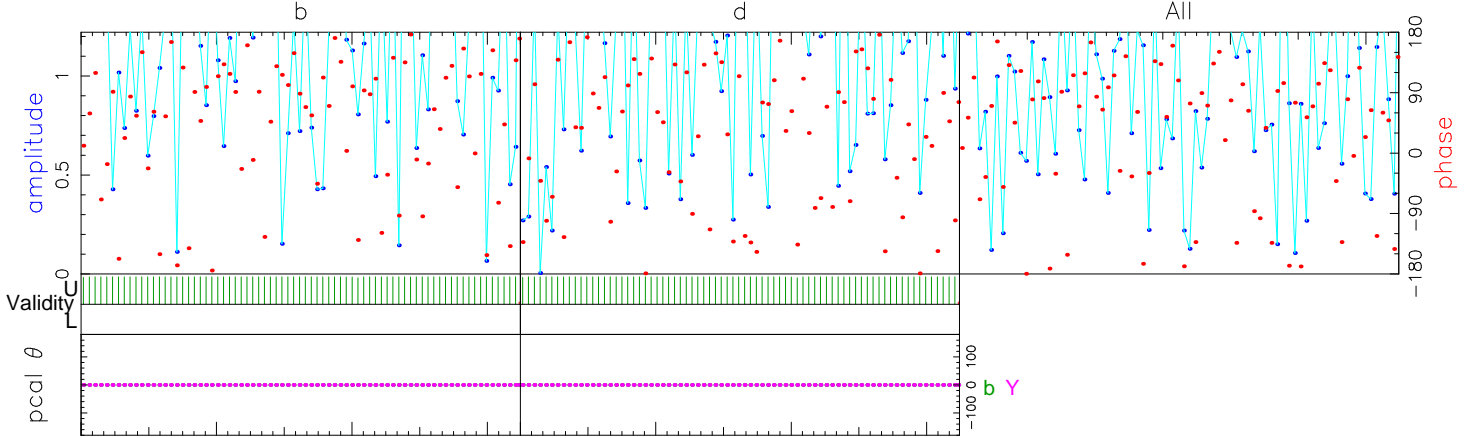


Fringe quality 0
 SNR 5.4
 Int time 191.990
 Amp 0.407
 Phase -77.2
 PFD 5.6e-01
 Delays (us)
 SBD 0.346173
 MBD -0.005082
 Fringe rate (Hz)
 -0.101810
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150818
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

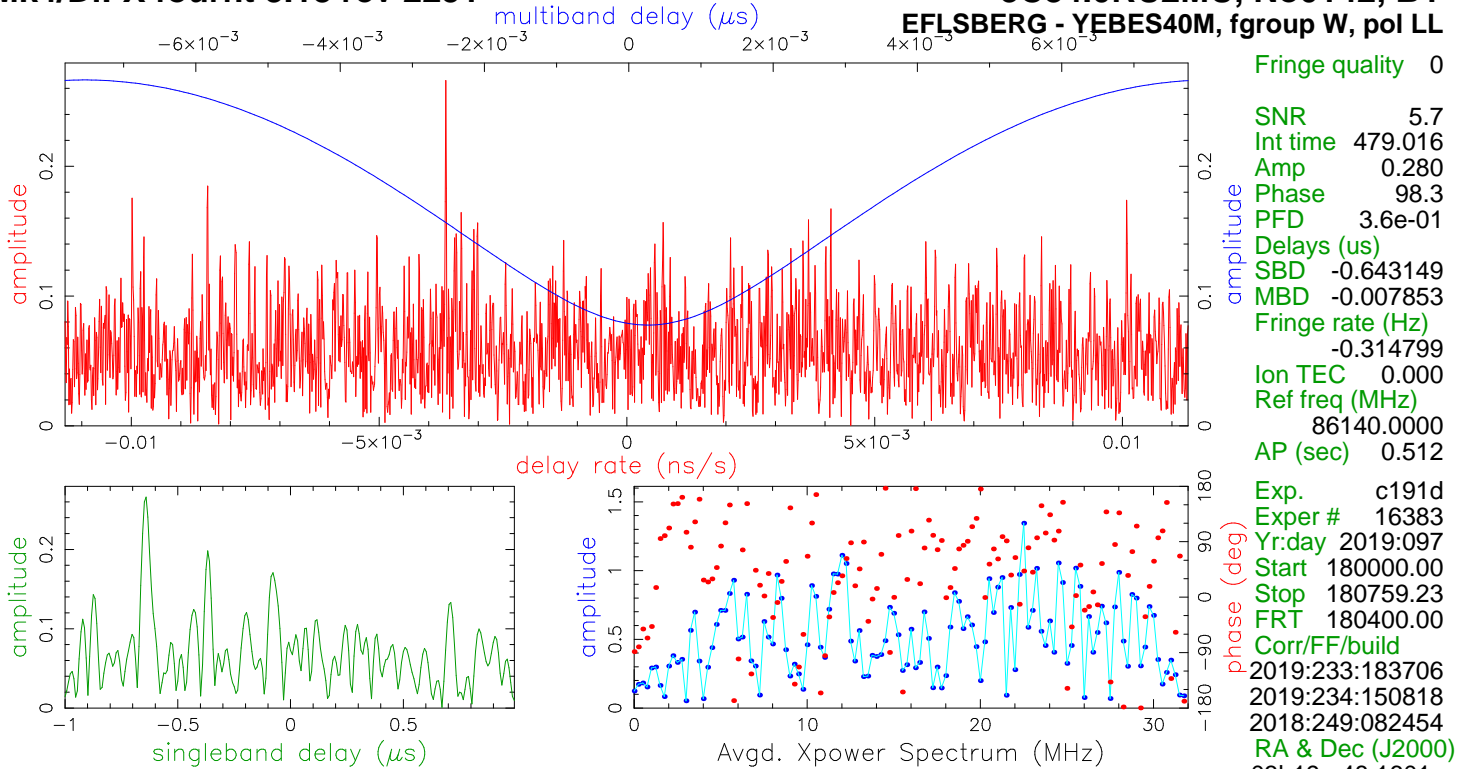


86156.00	86220.00	Freq (MHz)	All
101.5	104.8	Phase	102.8
0.5	0.3	Ampl.	0.4
173.4	173.0	Sbd box	173.3
U/L 376/0	376/0	APs used	
b 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
b:Y 0:0	0:0	PC phase	
b:Y 0:0	0:0	ManI PC	
b 1000	1000	PC amp	
Y 1000	1000		
b W01UL	W03UL	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

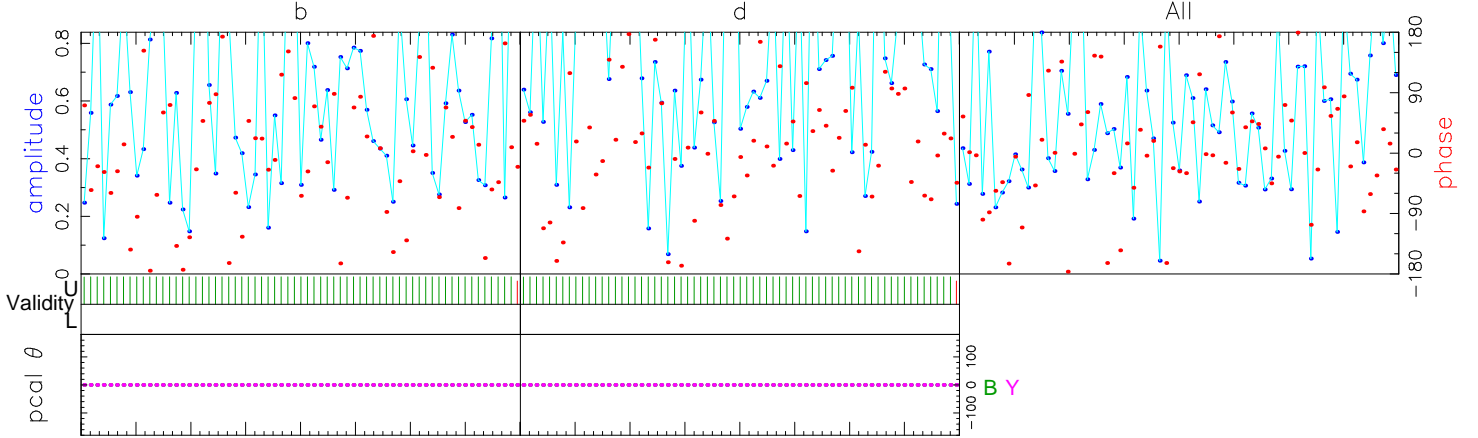
Group delay (usec)(sbd)	-1.10376412393E+03	Apriori delay (usec)	-1.10410279170E+03	Resid mbdelay (usec)	-5.08223E-03	+/-	9.2E-04
Sband delay (usec)	-1.10375661820E+03	Apriori clock (usec)	-6.5941343E+00	Resid sbdelay (usec)	3.46173E-01	+/-	3.2E-03
Phase delay (usec)	-1.10410278839E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	3.31597E-06	+/-	6.8E-07
Delay rate (us/s)	1.40188583277E+00	Apriori rate (us/s)	1.40188701468E+00	Resid rate (us/s)	-1.18192E-06	+/-	6.1E-09
Total phase (deg)	-248.9	Apriori accel (us/s/s)	1.29428934428E-05	Resid phase (deg)	-77.2	+/-	21.1

ph/seg (deg)	78.1	Theor.	92.0	Amplitude	0.407 +/- 0.075	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	178.9	Search (1024X8)	0.389	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.415	Inc. frq. avg.	0.392	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	19.7	Inc. frq. avg.	0.392			Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10711.135 1635.976 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bY.W.16.0RU2MU

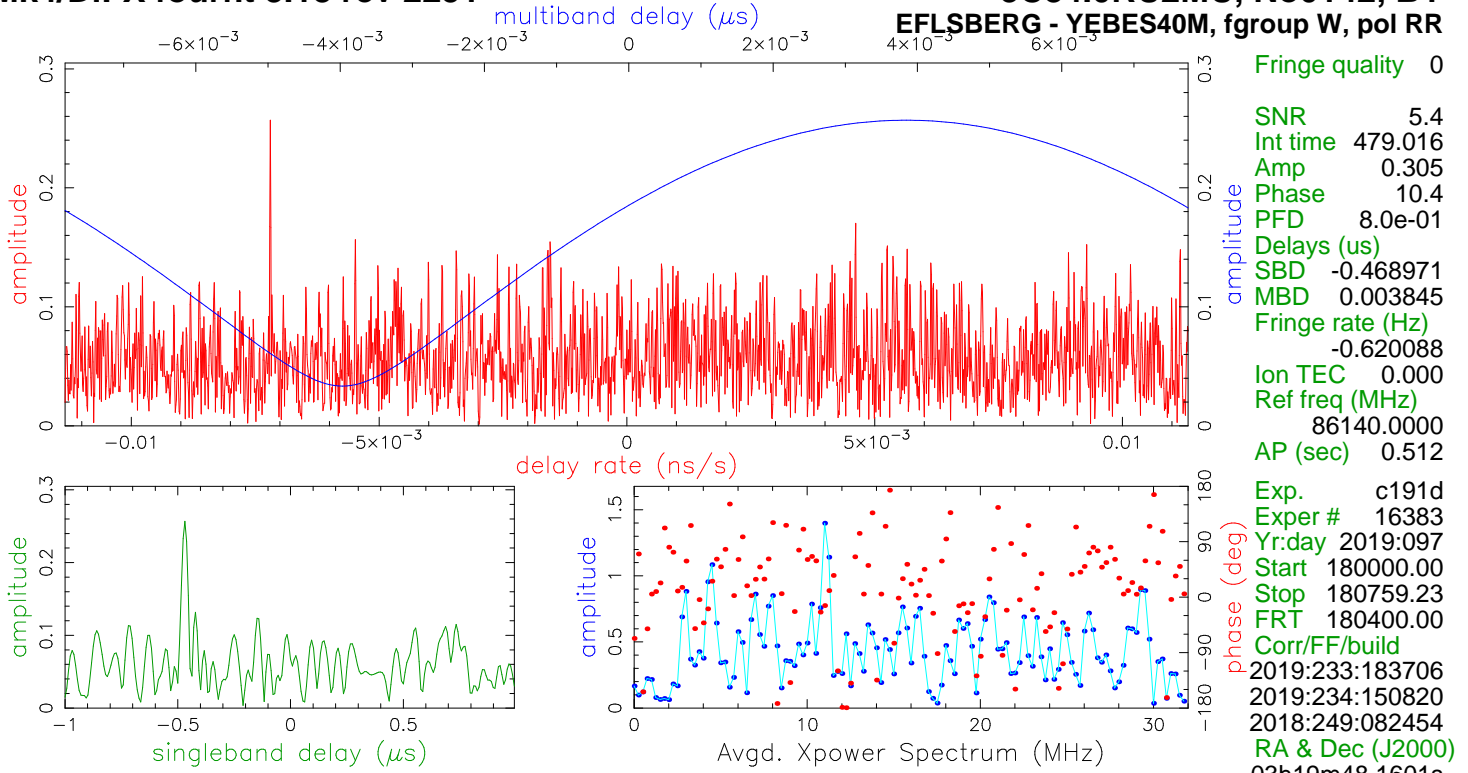


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

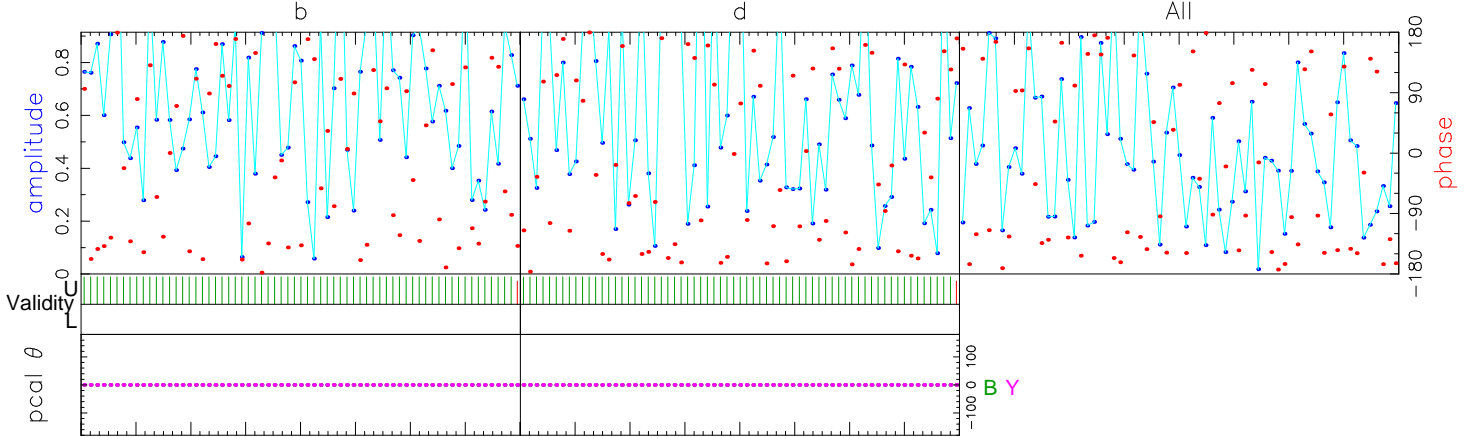


86156.00		86220.00		Freq (MHz)	All
3.8		10.8		Phase	8.3
0.2		0.4		Ampl.	0.3
82.2		46.5		Sbd box	46.7
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
B:Y 0:0		0:0		PC phase	
B:Y 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
Y 1000		1000			
B W01UL		W03UL		Chan ids	
Y W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-9.47098186498E+02	Apriori delay (usec)	-9.46449708469E+02	Resid mbdelay (usec)	-7.85303E-03 +/- 8.8E-04
Sband delay (usec)	-9.47092857469E+02	Apriori clock (usec)	1.2732173E+01	Resid sbdelay (usec)	-6.43149E-01 +/- 3.0E-03
Phase delay (usec)	-9.46449708201E+02	Apriori clockrate (us/s)	-3.6700000E-07	Resid phdelay (usec)	2.67287E-07 +/- 6.5E-07
Delay rate (us/s)	4.83239070592E-02	Apriori rate (us/s)	4.83275615641E-02	Resid rate (us/s)	-3.65451E-06 +/- 2.4E-09
Total phase (deg)	138.8	Apriori accel (us/s/s)	1.42508467491E-05	Resid phase (deg)	98.3 +/- 20.2

ph/seg (deg)	81.0	Theor.	82.8	Amplitude	0.280 +/- 0.049	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	150.3	Search (2048X8)	0.258	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	29.0	Inc. seg. avg.	0.289	Inc. seg. avg.	0.270	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.270	Inc. frq. avg.	0.270	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

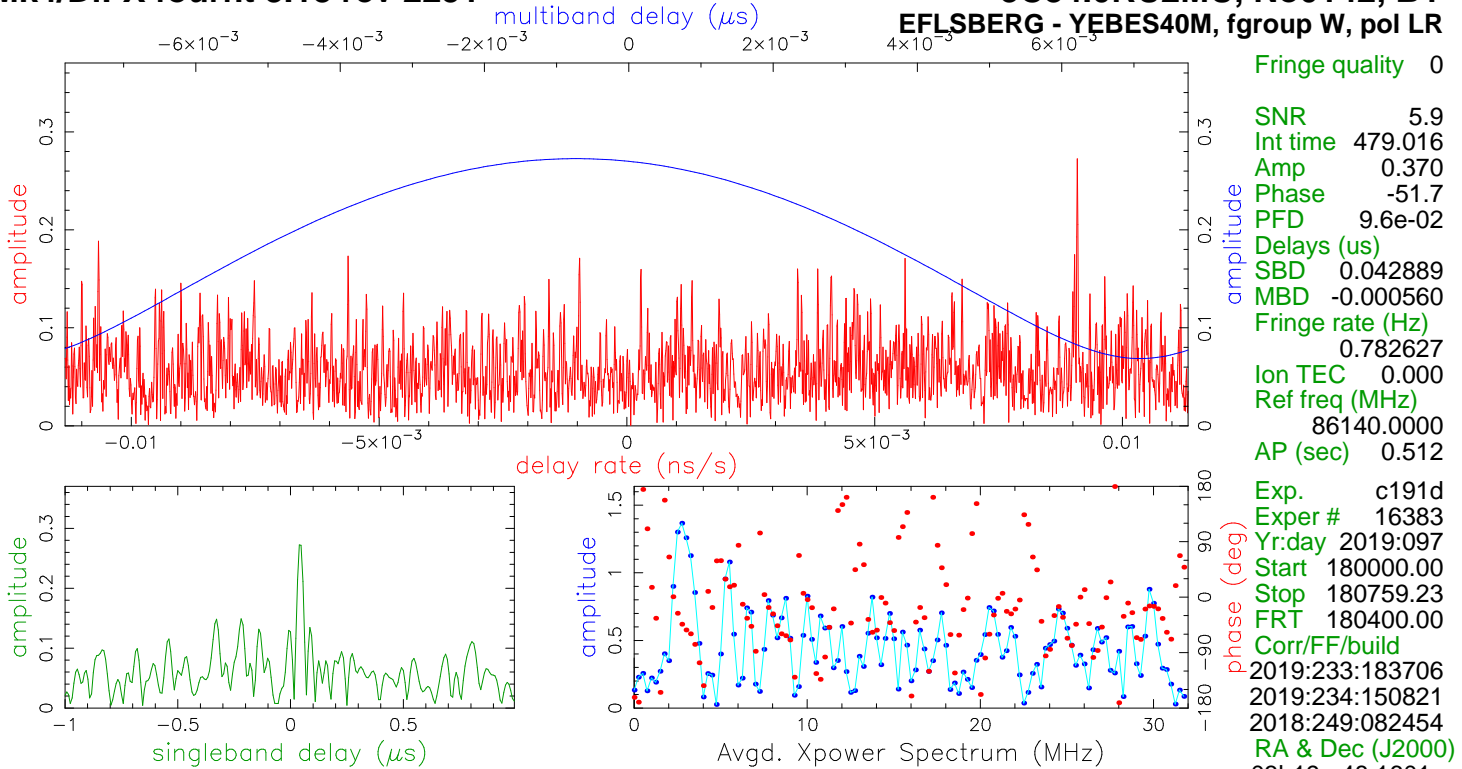


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-169.6		-169.6		Phase	-169.6
0.3		0.3		Ampl.	0.3
68.8		69.0		Sbd box	69.0
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
B:Y 0:0		0:0		PC phase	
B:Y 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
Y 1000		1000			
B W01UR		W03UR		Chan ids	
Y W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-9.46914613611E+02	Apriori delay (usec)	-9.46449708469E+02	Resid mbdelay (usec)	3.84486E-03 +/- 9.2E-04
Sband delay (usec)	-9.46918679969E+02	Apriori clock (usec)	1.2732173E+01	Resid sbdelay (usec)	-4.68971E-01 +/- 3.2E-03
Phase delay (usec)	-9.46449713936E+02	Apriori clockrate (us/s)	-3.6700000E-07	Resid phdelay (usec)	-5.46773E-06 +/- 6.8E-07
Delay rate (us/s)	4.83203629525E-02	Apriori rate (us/s)	4.83275615641E-02	Resid rate (us/s)	-7.19861E-06 +/- 2.5E-09
Total phase (deg)	50.9	Apriori accel (us/s/s)	1.42508467491E-05	Resid phase (deg)	10.4 +/- 21.1

ph/seg (deg)	RMS 70.9	Theor. 86.3	Amplitude Search (2048X8)	0.305 +/- 0.056	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	127.1	150.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.9	Inc. seg. avg.	0.254	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	13.0	26.0	Inc. frq. avg.	0.295	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 283.1 el 47.1 pa 55.9			Y: az 289.3 el 51.1 pa 73.9			u,v (fr/asec) -347.183 1806.617			simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BY.W.35.0RU2MU									



Fringe quality 0

SNR 5.9

Int time 479.016

Amp 0.370

Phase -51.7

PFD 9.6e-02

Delays (us)

SBD 0.042889

MBD -0.000560

Fringe rate (Hz)

0.782627

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180759.23

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150821

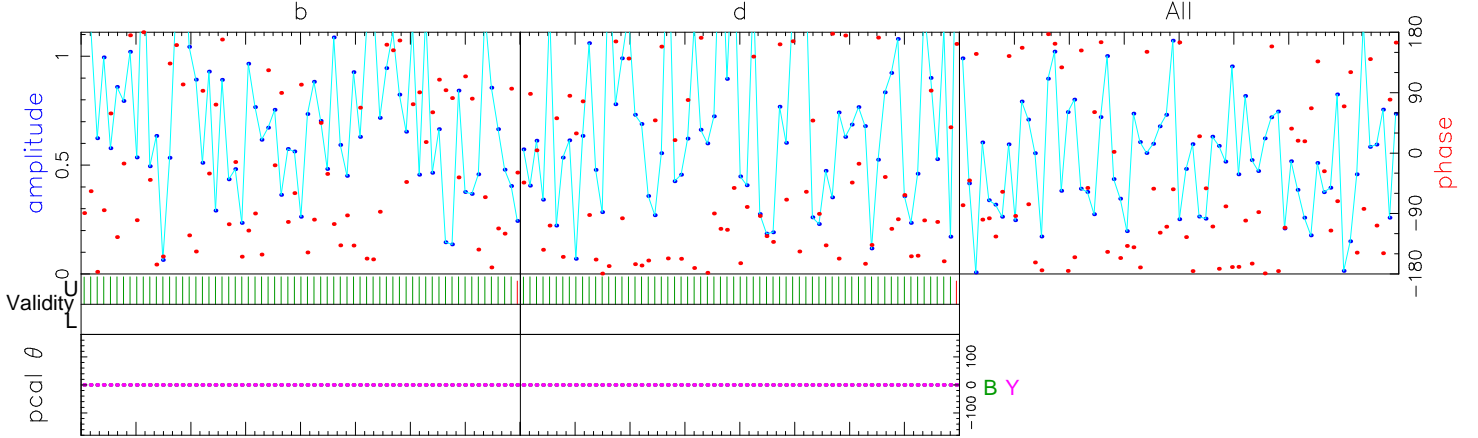
2018:249:082454

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

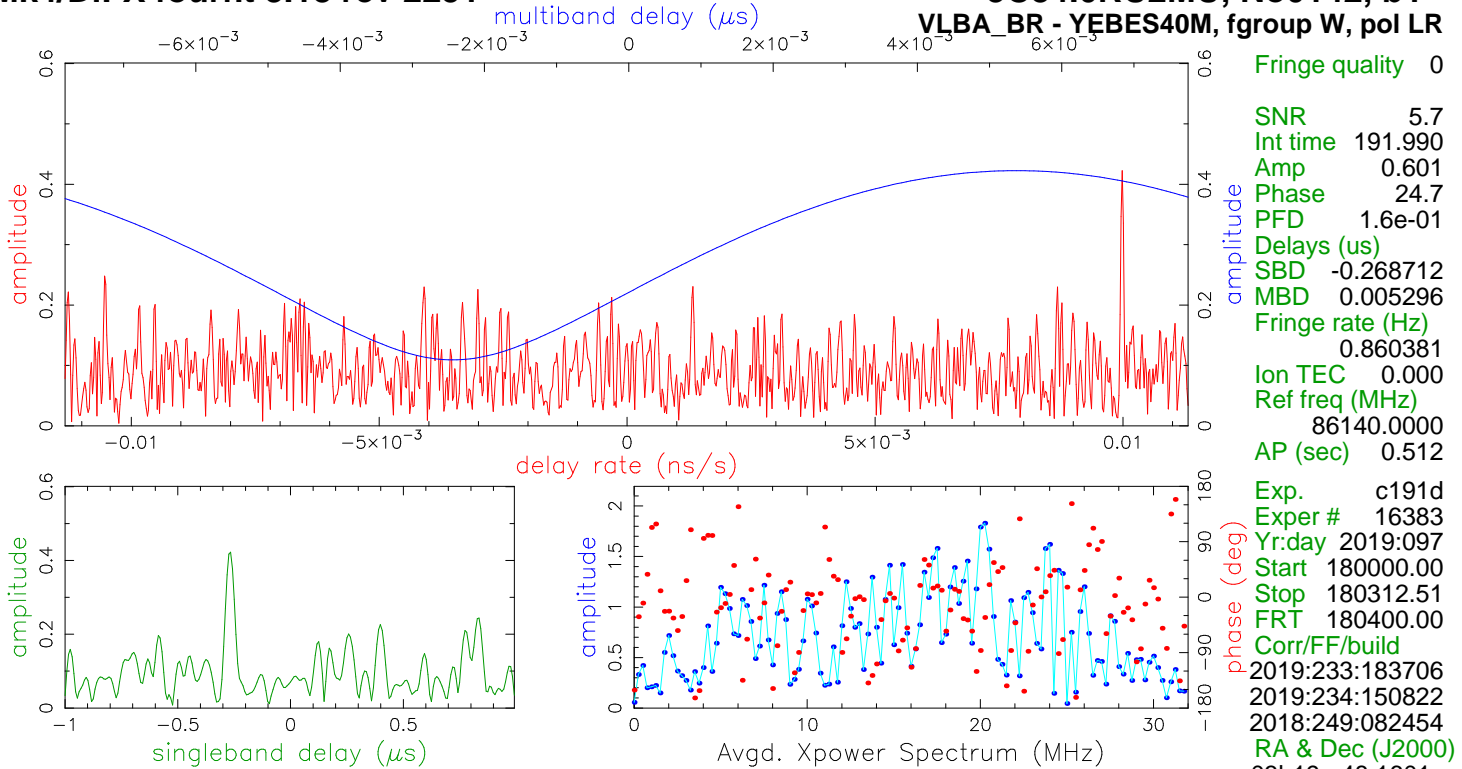


86156.00		86220.00		Freq (MHz)	All
-139.2		-143.1		Phase	-141.7
0.3		0.5		Ampl.	0.4
134.8		134.3		Sbd box	134.5
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
B:Y 0:0		0:0		PC phase	
B:Y 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
Y 1000		1000			
B W01UL		W03UL		Chan ids	
Y W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-9.46403393699E+02	Apriori delay (usec)	-9.46449708469E+02	Resid mbdelay (usec)	-5.60230E-04 +/- 8.4E-04
Sband delay (usec)	-9.46406819469E+02	Apriori clock (usec)	1.2732173E+01	Resid sbdelay (usec)	4.28890E-02 +/- 2.9E-03
Phase delay (usec)	-9.46449713037E+02	Apriori clockrate (us/s)	-3.6700000E-07	Resid phdelay (usec)	-4.56852E-06 +/- 6.2E-07
Delay rate (us/s)	4.83366470889E-02	Apriori rate (us/s)	4.83275615641E-02	Resid rate (us/s)	9.08552E-06 +/- 2.3E-09
Total phase (deg)	-11.2	Apriori accel (us/s/s)	1.42508467491E-05	Resid phase (deg)	-51.7 +/- 19.3

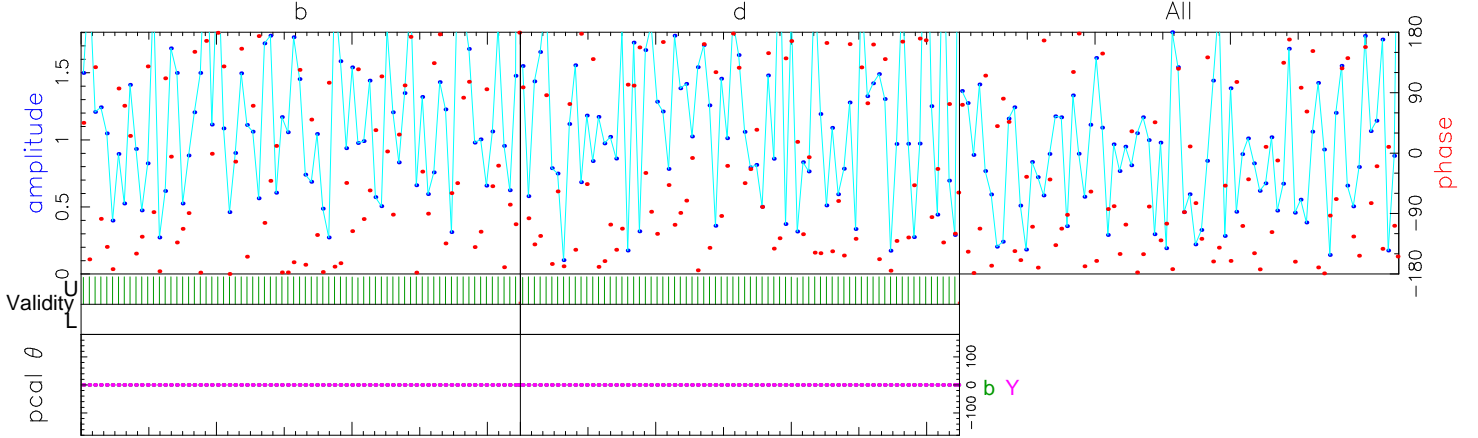
ph/seg (deg)	RMS 77.4	Theor. 79.2	Amplitude Search (2048X8)	0.370 +/- 0.063	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	129.4	138.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.7	Inc. seg. avg.	0.362	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.7	23.9	Inc. frq. avg.	0.351	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 283.1 el 47.1 pa 55.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -347.183 1806.617 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BY.W.48.0RU2MU



Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec

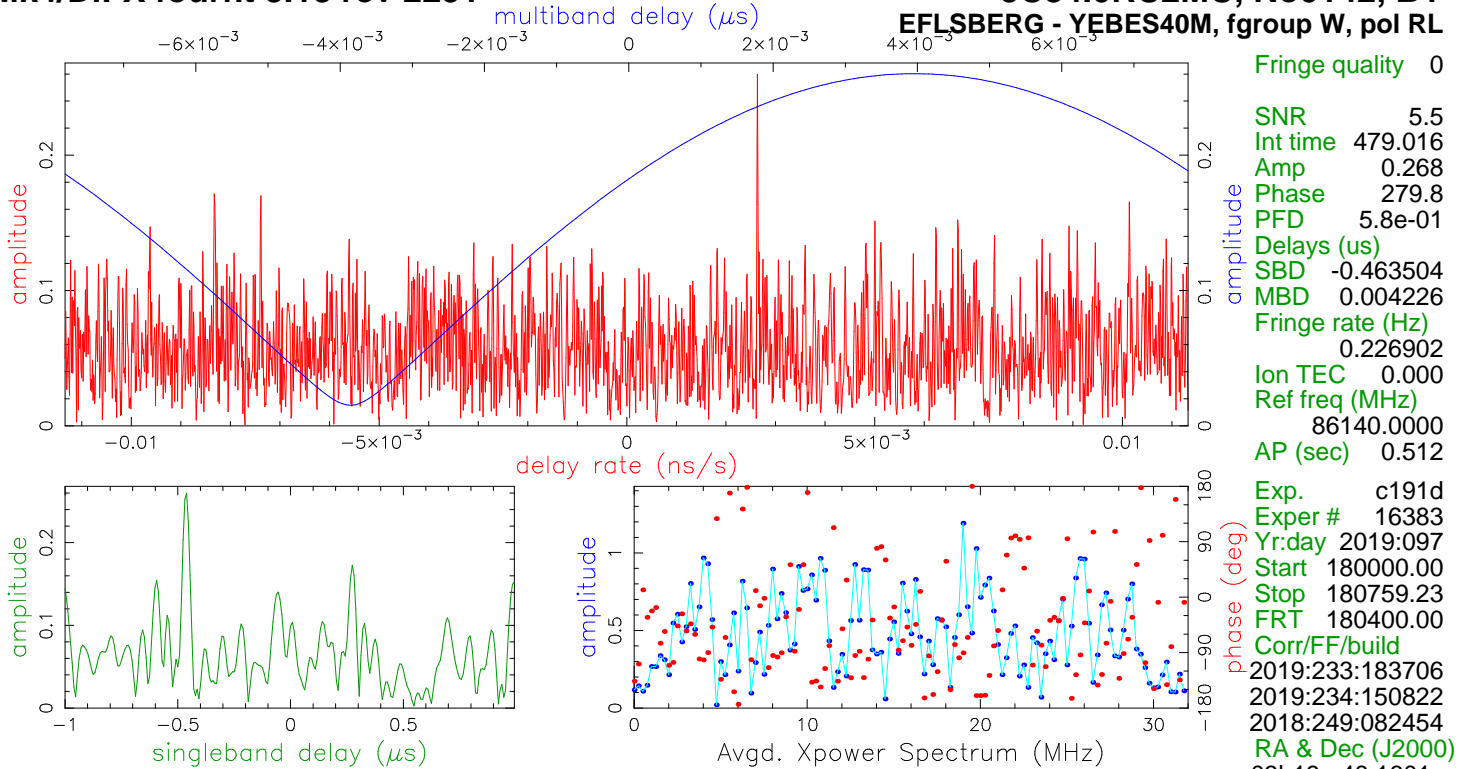


86156.00	86220.00	Freq (MHz)	All				
-156.4	-154.6	Phase	-155.3				
0.4	0.7	Ampl.	0.6				
93.0	95.2	Sbd box	94.6				
U/L 376/0	376/0	APs used					
b 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
b:Y 0:0	0:0	PC phase					
b:Y 0:0	0:0	ManI PC					
b 1000	1000	PC amp					
Y 1000	1000						
b W01UL	W03UL	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.10437874569E+03	Apriori delay (usec)	-1.10410279170E+03	Resid mbdelay (usec)	5.29601E-03	+/-	8.7E-04
Sband delay (usec)	-1.10437150370E+03	Apriori clock (usec)	-6.5941343E+00	Resid sbdelay (usec)	-2.68712E-01	+/-	3.0E-03
Phase delay (usec)	-1.10410279671E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-5.00698E-06	+/-	6.5E-07
Delay rate (us/s)	1.40189700286E+00	Apriori rate (us/s)	1.40188701468E+00	Resid rate (us/s)	9.98818E-06	+/-	5.8E-09
Total phase (deg)	213.0	Apriori accel (us/s/s)	1.29428934428E-05	Resid phase (deg)	24.7	+/-	20.0

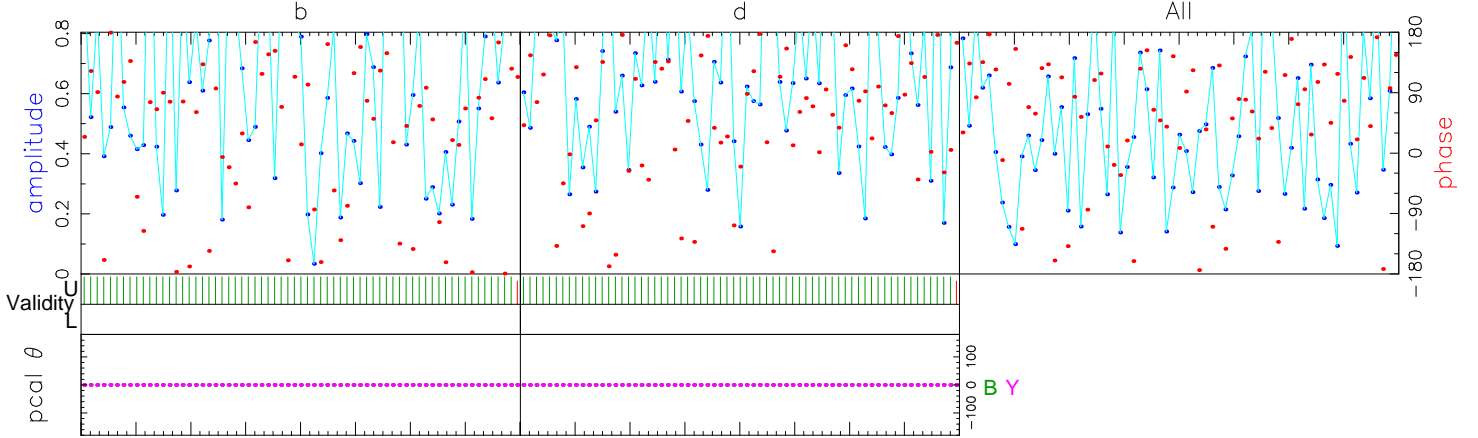
ph/seg (deg)	80.7	Theor.	87.4	Amplitude	0.601 +/- 0.105	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	151.7	Search (1024X8)	0.411	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.578	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	25.6	Inc. frq. avg.	0.578	Inc. frq. avg.	0.578	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

b: az 73.4 el 45.3 pa -58.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10711.135 1635.976 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bY.W.55.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

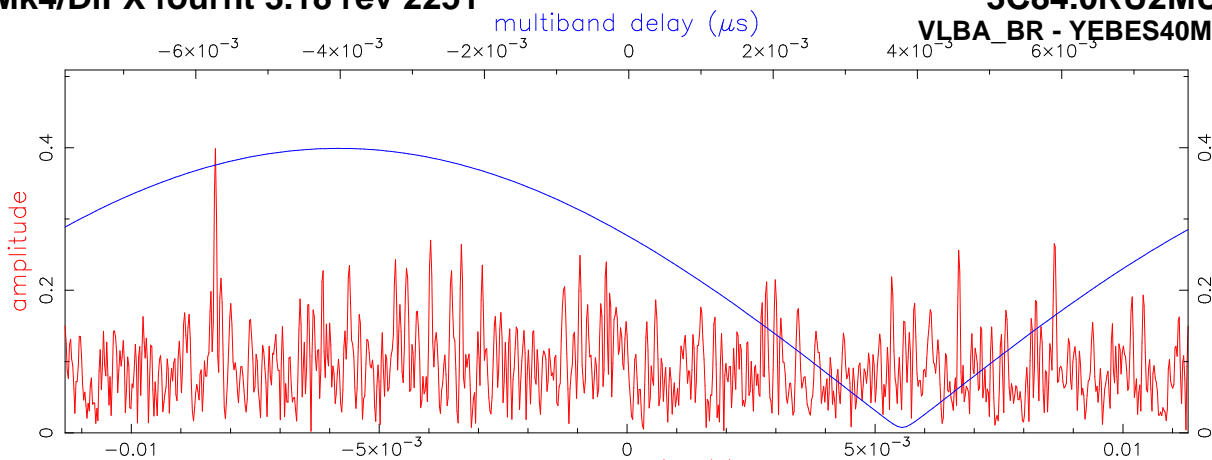


86156.00		86220.00		Freq (MHz)	All
102.7		96.5		Phase	99.8
0.3		0.3		Ampl.	0.3
70.0		146.6		Sbd box	69.7
U/L 936/0		936/0		APs used	
B 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
B:Y 0:0		0:0		PC phase	
B:Y 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
Y 1000		1000			
B W01UR		W03UR		Chan ids	
Y W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-9.46914232006E+02	Apriori delay (usec)	-9.46449708469E+02	Resid mbdelay (usec)	4.22646E-03 +/- 9.0E-04
Sband delay (usec)	-9.46913211969E+02	Apriori clock (usec)	1.2732173E+01	Resid sbdelay (usec)	-4.63504E-01 +/- 3.1E-03
Phase delay (usec)	-9.46449705251E+02	Apriori clockrate (us/s)	-3.6700000E-07	Resid phdelay (usec)	3.21786E-06 +/- 6.7E-07
Delay rate (us/s)	4.83301956689E-02	Apriori rate (us/s)	4.83275615641E-02	Resid rate (us/s)	2.63410E-06 +/- 2.4E-09
Total phase (deg)	320.3	Apriori accel (us/s/s)	1.42508467491E-05	Resid phase (deg)	279.8 +/- 20.6

ph/seg (deg)	68.7	Theor.	84.5	Amplitude	0.268 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	134.6	Search (2048X8)	0.254	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.245	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	5.8	Inc. frq. avg.	0.258	Inc. frq. avg.	0.258	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00
B: az 283.1 el 47.1 pa 55.9		Y: az 289.3 el 51.1 pa 73.9		u,v (fr/asec)	-347.183 1806.617				

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BY.W.57.0RU2MU

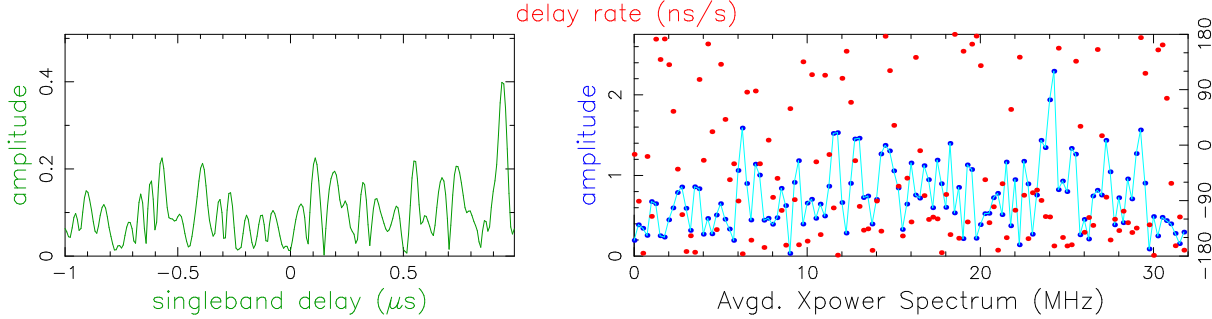
simultaneous interpolator



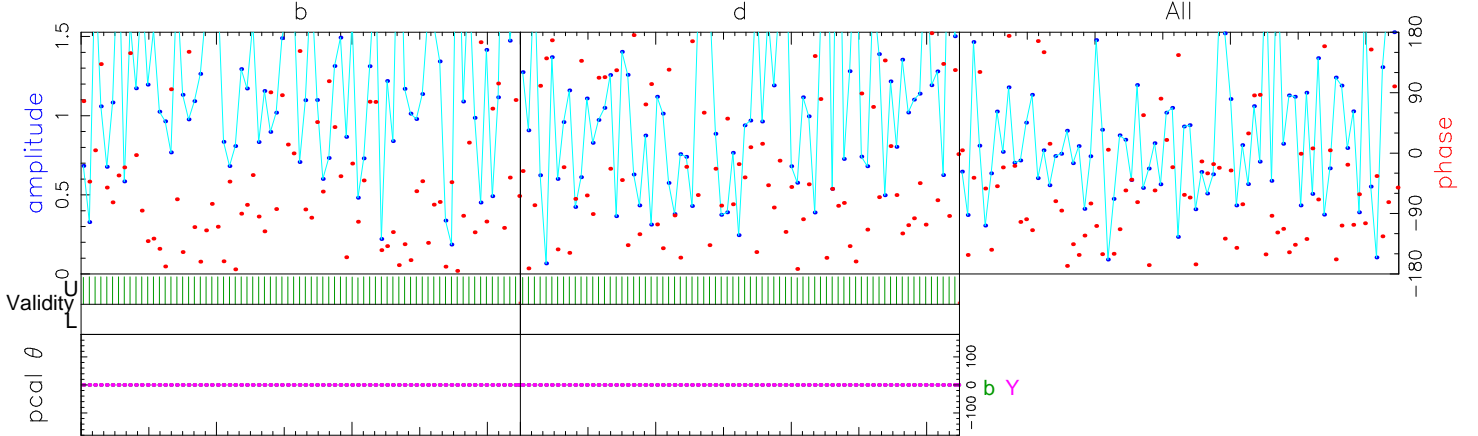
Fringe quality 0

SNR 5.4
 Int time 191.990
 Amp 0.509
 Phase -93.9
 PFD 5.9e-01
 Delays (us)
 SBD 0.940956
 MBD -0.003825
 Fringe rate (Hz)
 -0.714783
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150823
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



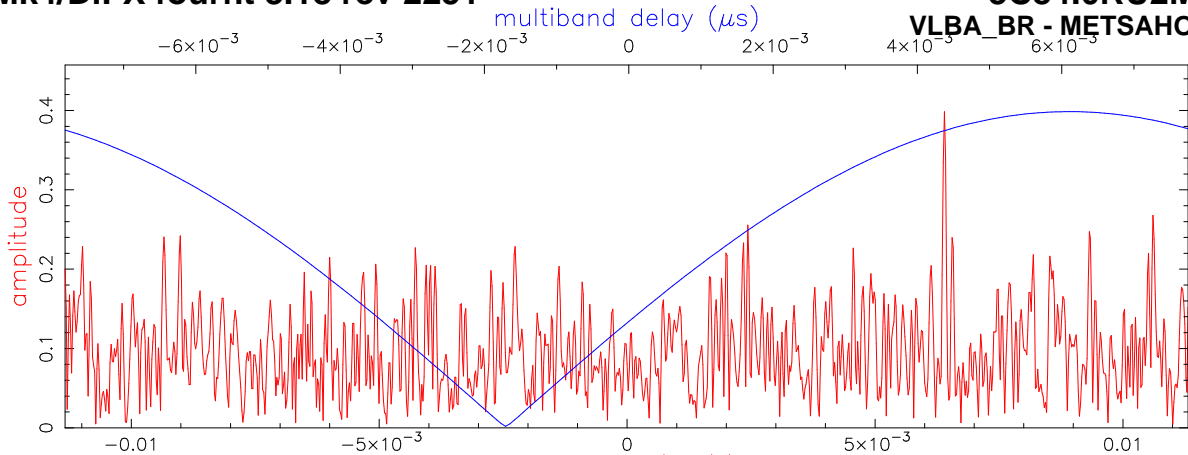
Amp. and Phase vs. time for each freq., 76 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All
-91.7	-96.2	Phase	-93.9
0.5	0.5	Ampl.	0.5
249.5	249.4	Sbd box	249.4
U/L 376/0	376/0	APs used	
Y 1000	1000	PC freqs	
b:Y 0:0	0:0	PC freqs	
b:Y 0:0	0:0	PC phase	
b 1000	1000	Manl PC	
Y 1000	1000	PC amp	
b W01UR	W03UR	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.10316911714E+03	Apriori delay (usec)	-1.10410279170E+03	Resid mbdelay (usec)	-3.82544E-03	+/-	9.2E-04
Sband delay (usec)	-1.10316183620E+03	Apriori clock (usec)	-6.5941343E+00	Resid sbdelay (usec)	9.40956E-01	+/-	3.2E-03
Phase delay (usec)	-1.10410279473E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-3.02803E-06	+/-	6.8E-07
Delay rate (us/s)	1.40187871677E+00	Apriori rate (us/s)	1.40188701468E+00	Resid rate (us/s)	-8.29792E-06	+/-	6.1E-09
Total phase (deg)	-265.7	Apriori accel (us/s/s)	1.29428934428E-05	Resid phase (deg)	-93.9	+/-	21.2

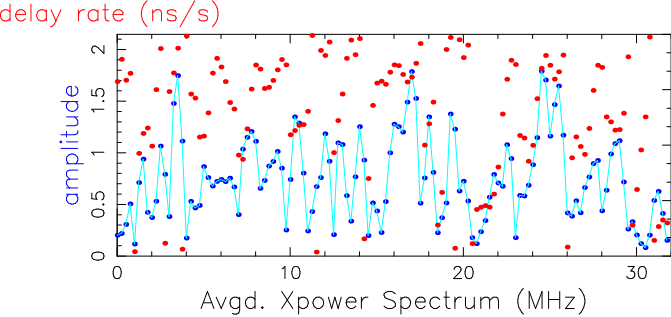
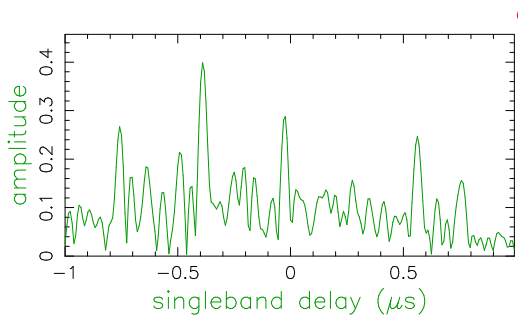
ph/seg (deg) 77.4 92.3 Search (1024X8) 0.393 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 155.9 161.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.0 Inc. seg. avg. 0.476 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.2 26.1 Inc. frq. avg. 0.486 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10711.135 1635.976 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bY.W.67.0RU2MU simultaneous interpolator



Fringe quality 0

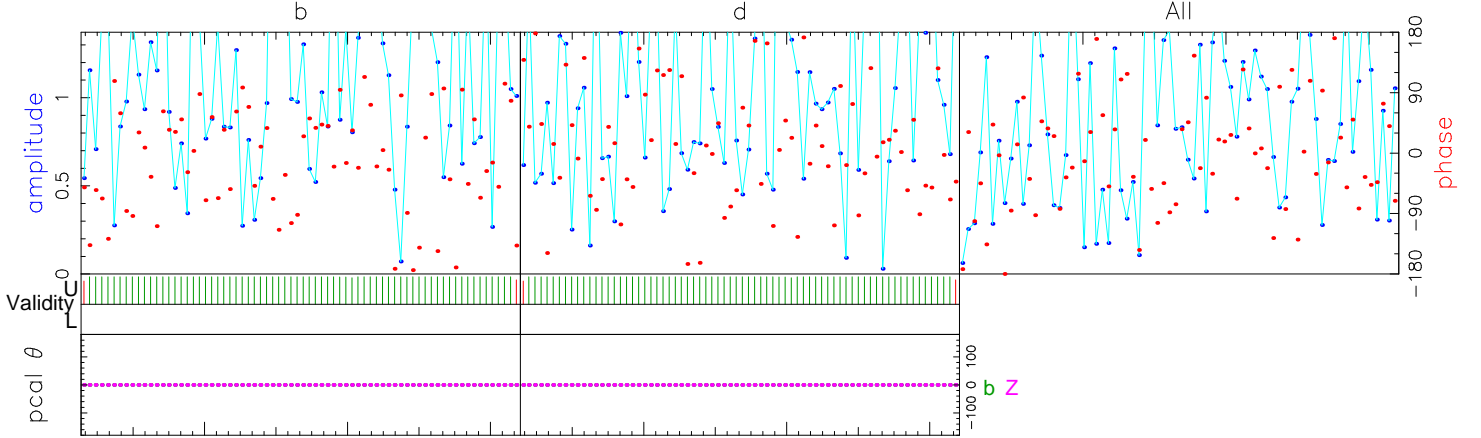
SNR 5.2
 Int time 183.439
 Amp 0.457
 Phase 78.1
 PFD 9.1e-01
 Delays (us)
 SBD -0.389095
 MBD 0.006050
 Fringe rate (Hz)
 0.551831
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 72 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-12.6	-11.3	Phase	-11.9				
0.5	0.5	Ampl.	0.4				
79.0	79.3	Sbd box	79.2				
U/L 360/0	360/0	APs used					
b 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
b:Z 0:0	0:0	PC phase					
b:Z 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
Z 1000	1000						
b W01UR	W03UR	Chan ids					
Z W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.79513822054E+03	Apriori delay (usec)	1.79552279581E+03	Resid mbdelay (usec)	6.04974E-03	+/-	9.5E-04
Sband delay (usec)	1.79513370131E+03	Apriori clock (usec)	3.3695793E-01	Resid sbdelay (usec)	-3.89095E-01	+/-	3.3E-03
Phase delay (usec)	1.79552279542E+03	Apriori clockrate (us/s)	-4.7000002E-08	Resid phdelay (usec)	-3.84470E-07	+/-	7.1E-07
Delay rate (us/s)	1.26337914917E+00	Apriori rate (us/s)	1.26337274297E+00	Resid rate (us/s)	6.40621E-06	+/-	6.6E-09
Total phase (deg)	305.1	Apriori accel (us/s/s)	-1.87959275332E-05	Resid phase (deg)	78.1	+/-	21.9

ph/seg (deg)	80.1	Theor.	92.9	Amplitude	0.457 +/- 0.087	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	164.2	Search (1024X8)	0.384	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.5	Inc. seg. avg.	0.424	Inc. seg. avg.	0.440	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.440	Inc. frq. avg.	0.440	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

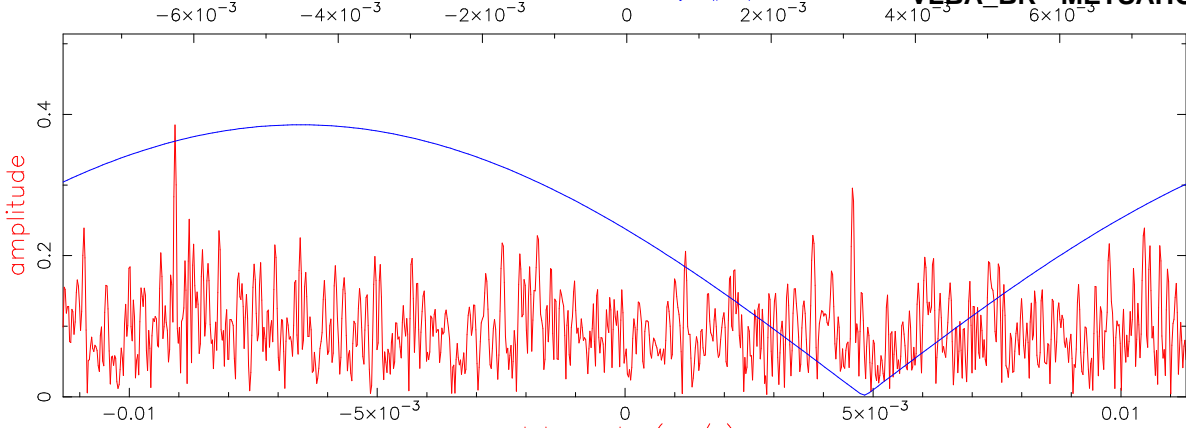
b: az 73.4 el 45.3 pa -58.8 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9702.151 -2033.865 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bZ.W.112.0RU2MU

Mk4/DiFX fourfit 3.18 rev 2251

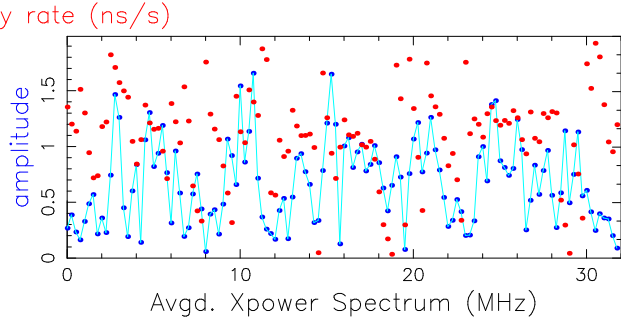
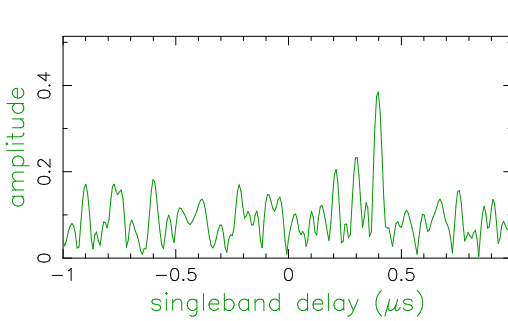
3C84.0RU2MU, No0142, bZ
VLBA_BR - METSAHOV, fgroup W, pol LL

multiband delay (μs)



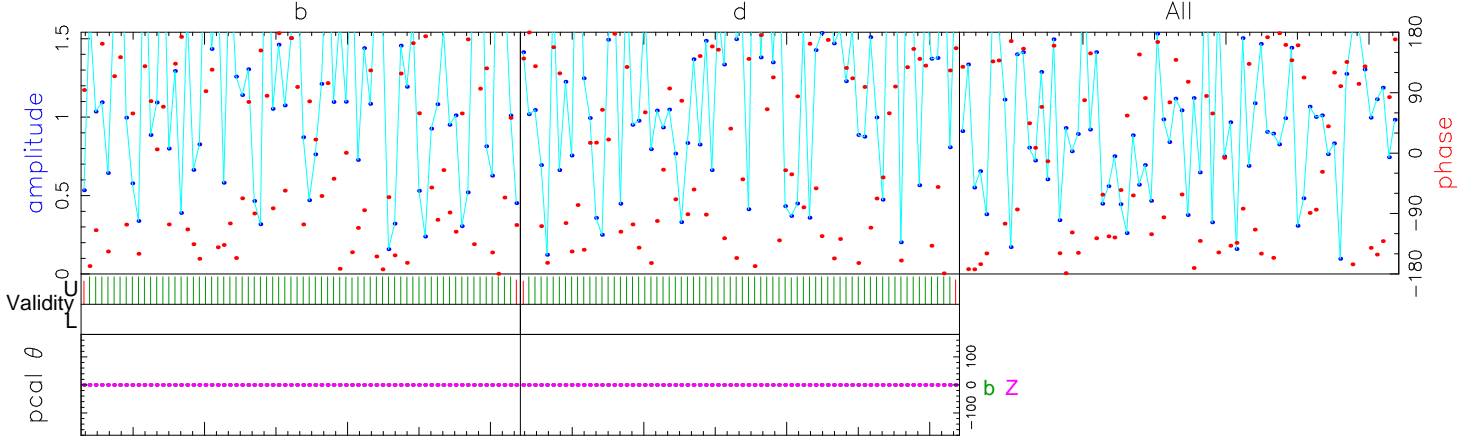
Fringe quality 0

SNR 5.1
Int time 183.439
Amp 0.514
Phase -1.3
PFD 9.9e-01
Delays (us)
SBD 0.395743
MBD -0.004736
Fringe rate (Hz)
-0.782085
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180008.19
Stop 180312.51
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150818
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



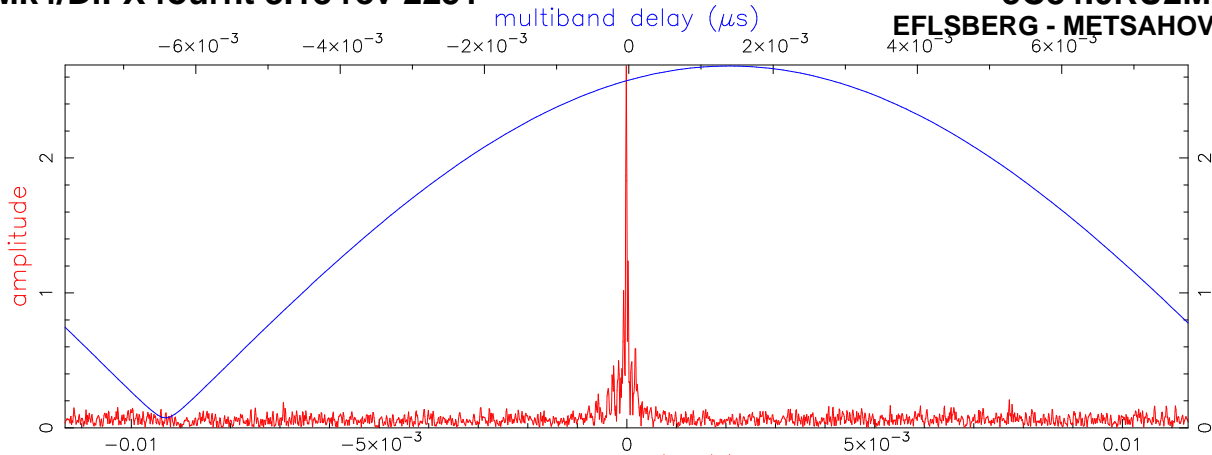
86156.00	86220.00	Freq (MHz)	All
176.3	-178.8	Phase	178.7
0.5	0.5	Ampl.	0.5
179.9	179.4	Sbd box	179.7
U/L 360/0	360/0	APs used	
b 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
b:Z 0:0	0:0	PC phase	
b:Z 0:0	0:0	ManI PC	
b 1000	1000	PC amp	
Z 1000	1000		
b W01UL	W03UL	Chan ids	
Z W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.79592431018E+03	Apriori delay (usec)	1.79552279581E+03	Resid mbdelay (usec)	-4.73562E-03	+/-	9.8E-04
Sband delay (usec)	1.79591853831E+03	Apriori clock (usec)	3.3695793E-01	Resid sbdelay (usec)	3.95743E-01	+/-	3.4E-03
Phase delay (usec)	1.79552280157E+03	Apriori clockrate (us/s)	-4.7000002E-08	Resid phdelay (usec)	5.76291E-06	+/-	7.3E-07
Delay rate (us/s)	1.26336366373E+00	Apriori rate (us/s)	1.26337274297E+00	Resid rate (us/s)	-9.07923E-06	+/-	6.8E-09
Total phase (deg)	-134.2	Apriori accel (us/s/s)	-1.87959275332E-05	Resid phase (deg)	-1.3	+/-	22.5

ph/seg (deg)	RMS 77.6	Theor. 95.5	Amplitude 0.514 +/- 0.101	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	183.2	166.7	Search (1024X8) 0.379	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.0	27.8	Inc. seg. avg. 0.525	Sample rate(MSamp/s): 64	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.490	Data rate(Mb/s): 256				

b: az 73.4 el 45.3 pa -58.8 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9702.151 -2033.865 simultaneous interpolator

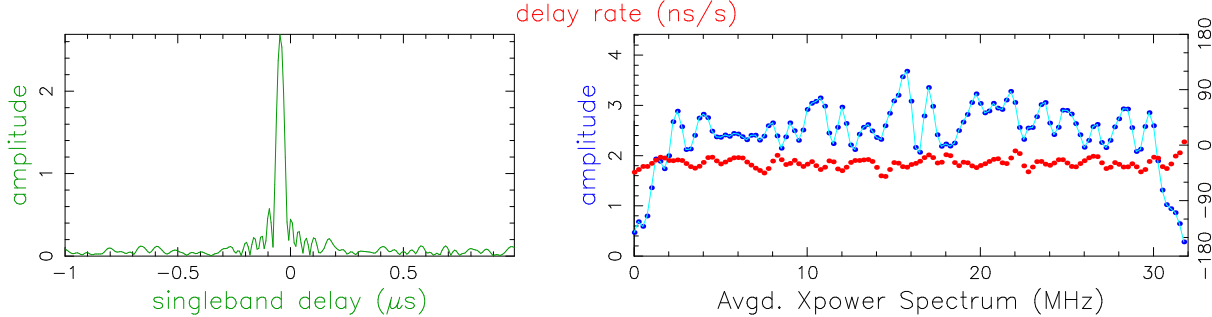
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bZ.W.20.0RU2MU



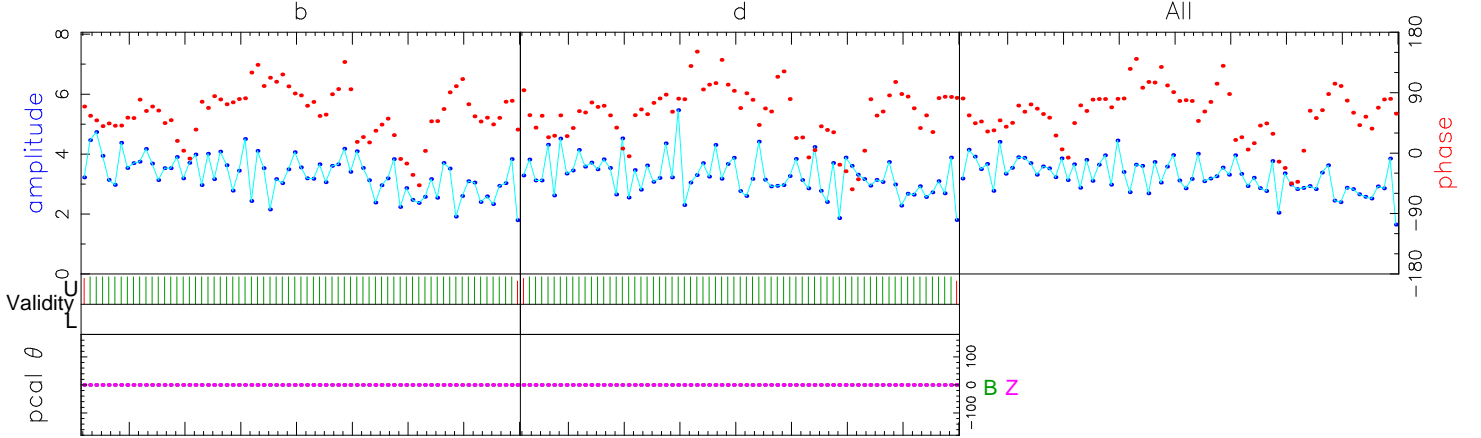
Fringe quality 8

SNR 56.4
 Int time 471.087
 Amp 2.690
 Phase 331.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.045440
 MBD 0.001406
 Fringe rate (Hz)
 -0.000867
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150821
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

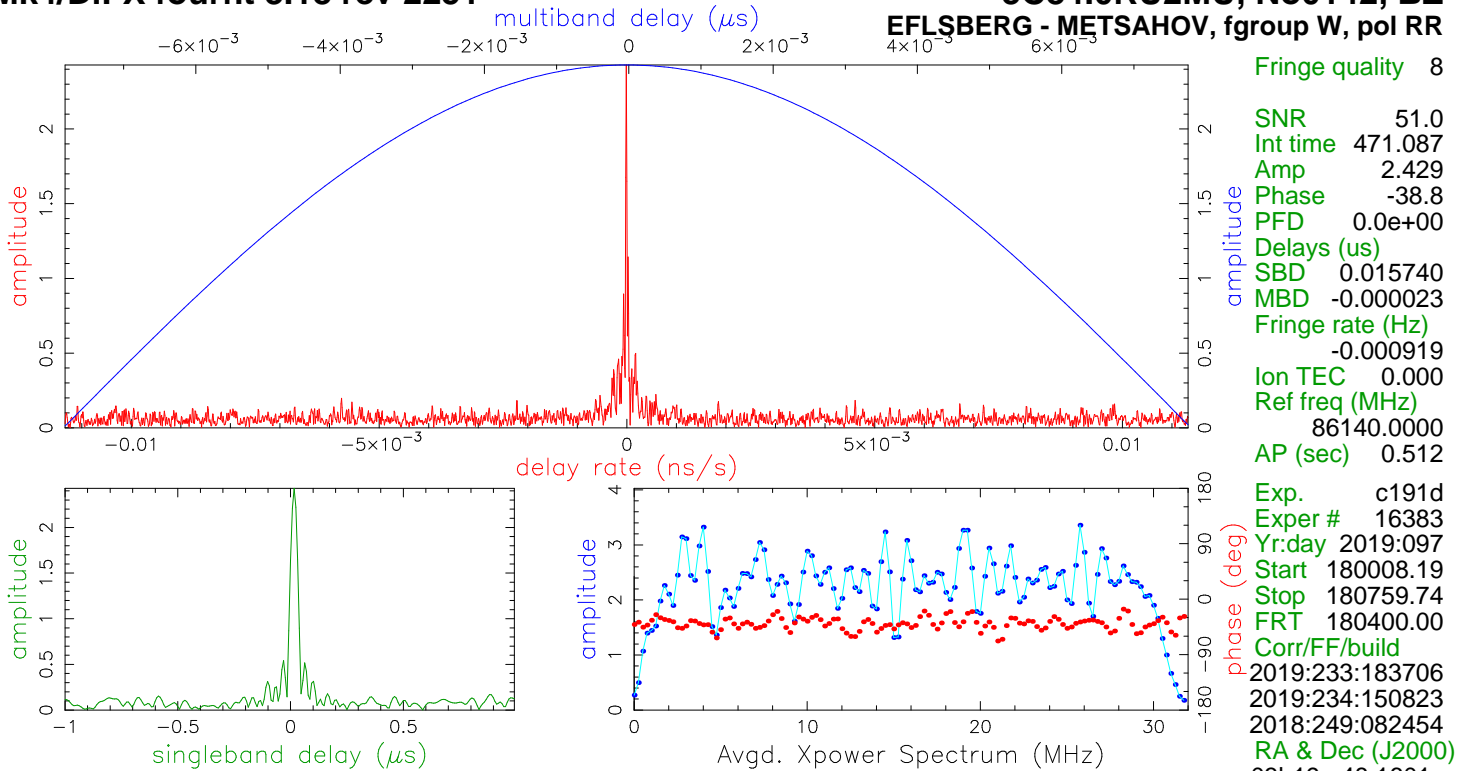


86156.00	86220.00	Freq (MHz)	All				
61.3	61.0	Phase	61.1				
2.8	2.6	Ampl.	2.7				
123.2	123.2	Sbd box	123.2				
U/L 921/0	921/0	APs used					
B 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
B:Z 0:0	0:0	PC phase					
B:Z 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
Z 1000	1000						
B W01UL	W03UL	Chan ids					
Z W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.95313041047E+03	Apriori delay (usec)	1.95317587904E+03	Resid mbdelay (usec)	1.40644E-03	+/-	8.8E-05
Sband delay (usec)	1.95313043904E+03	Apriori clock (usec)	1.9663265E+01	Resid sbdelay (usec)	-4.54400E-02	+/-	3.1E-04
Phase delay (usec)	1.95317588101E+03	Apriori clockrate (us/s)	-1.7400000E-07	Resid phdelay (usec)	1.97092E-06	+/-	6.5E-08
Delay rate (us/s)	-9.01867202113E-02	Apriori rate (us/s)	-9.01867101519E-02	Resid rate (us/s)	-1.00594E-08	+/-	2.4E-10
Total phase (deg)	50.4	Apriori accel (us/s/s)	-1.74879742269E-05	Resid phase (deg)	331.1	+/-	2.0

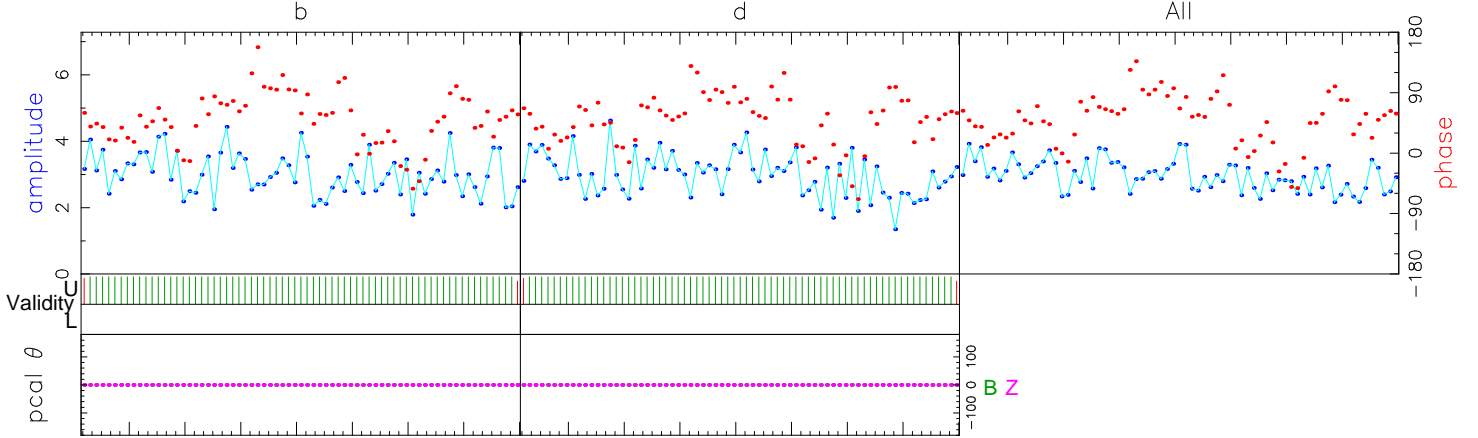
ph/seg (deg)	RMS 37.6	Theor. 8.6	Amplitude 2.690 +/- 0.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	29.3	14.9	Search (2048X8) 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	1.4	Inc. seg. avg. 3.241	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.7	2.5	Inc. frq. avg. 2.681	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 283.1 el 47.1 pa 55.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 661.801 -1863.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BZ.W.49.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

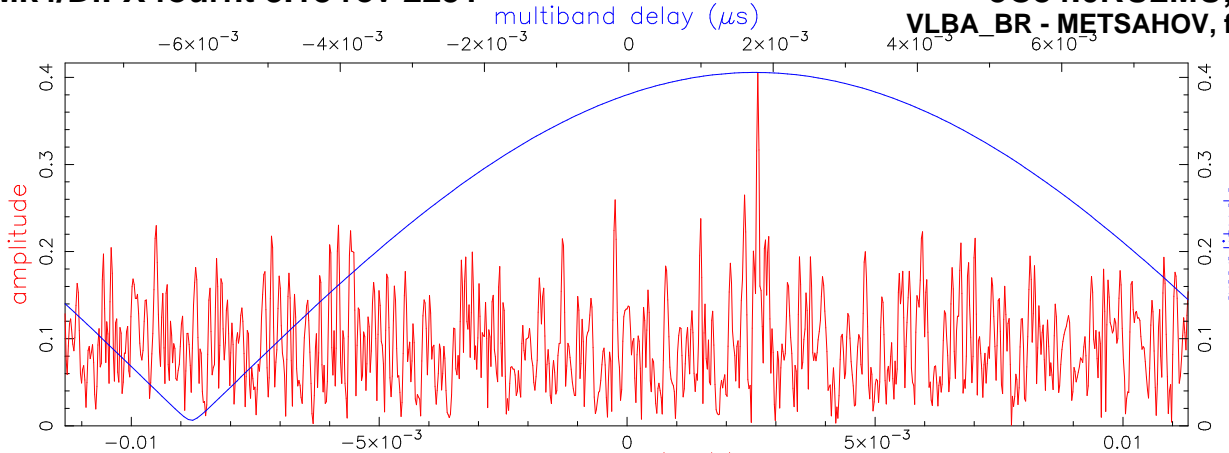


86156.00		86220.00		Freq (MHz)	All
51.2		51.2		Phase	51.2
2.4		2.4		Ampl.	2.4
131.0		131.1		Sbd box	131.0
U/L 921/0		921/0		APs used	
B 1000		1000		PC freqs	
Z 1000		1000		PC freqs	
B:Z 0:0		0:0		PC phase	
B:Z 0:0		0:0		Manl PC	
B 1000		1000		PC amp	
Z 1000		1000			
B W01UR		W03UR		Chan ids	
Z W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.95319148072E+03	Apriori delay (usec)	1.95317587904E+03	Resid mbdelay (usec)	-2.33136E-05 +/- 9.8E-05
Sband delay (usec)	1.95319161904E+03	Apriori clock (usec)	1.9663265E+01	Resid sbdelay (usec)	1.57400E-02 +/- 3.4E-04
Phase delay (usec)	1.95317588069E+03	Apriori clockrate (us/s)	-1.7400000E-07	Resid phdelay (usec)	1.65217E-06 +/- 7.3E-08
Delay rate (us/s)	-9.01867208157E-02	Apriori rate (us/s)	-9.01867101519E-02	Resid rate (us/s)	-1.06638E-08 +/- 2.7E-10
Total phase (deg)	40.6	Apriori accel (us/s/s)	-1.74879742269E-05	Resid phase (deg)	-38.8 +/- 2.2

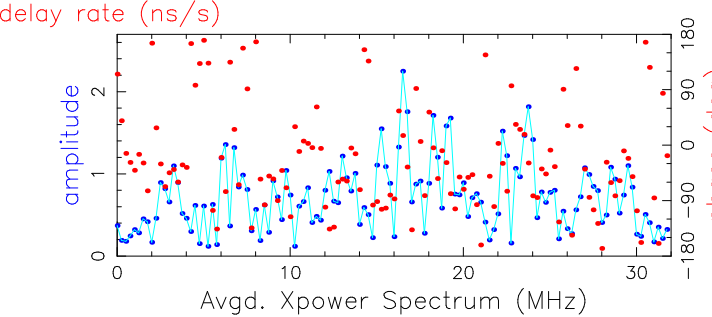
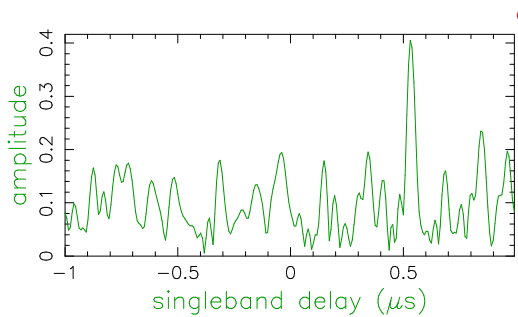
ph/seg (deg)	38.0	RMS	38.0	Theor.	9.5	Amplitude	2.429 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	29.4		29.4		16.5	Search (2048X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0		0.0		1.6	Interp.	2.938	Bits/sample:	2x2	dr window (ns/s)	-0.011	0.011			
amp/frq (%)	0.3		0.3		2.8	Inc. seg. avg.	2.428	Sample rate(MSamp/s):	64	ion window (TEC)	0.00	0.00			
						Inc. frq. avg.	2.428	Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite		

B: az 283.1 el 47.1 pa 55.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 661.801 -1863.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BZ.W.61.0RU2MU

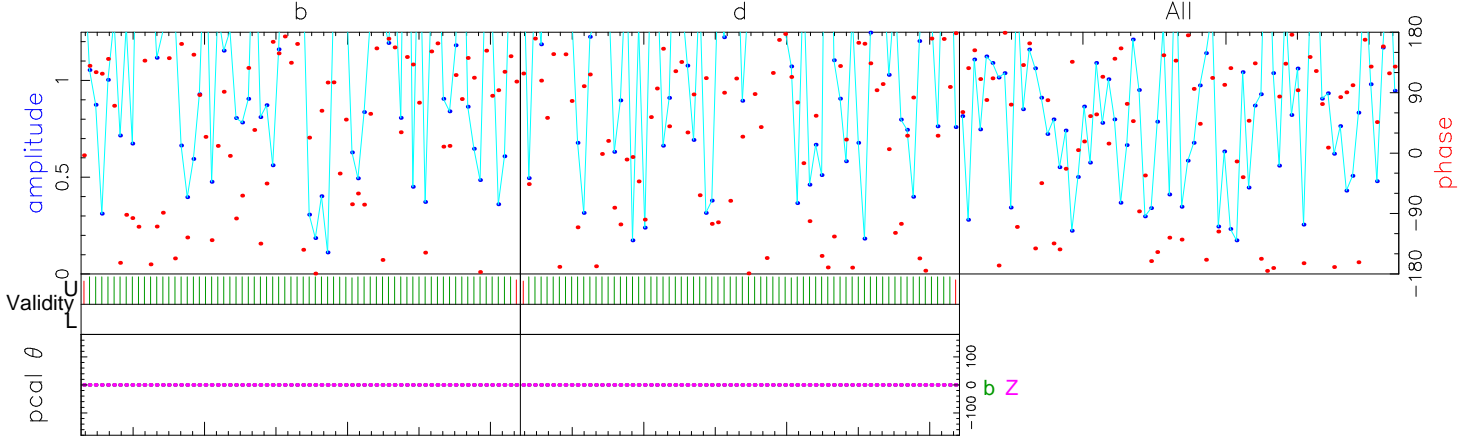


Fringe quality 0
 SNR 5.3
 Int time 183.439
 Amp 0.416
 Phase -45.2
 PFD 7.5e-01
 Delays (us)
 SBD 0.533272
 MBD 0.001965
 Fringe rate (Hz)
 0.227387
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



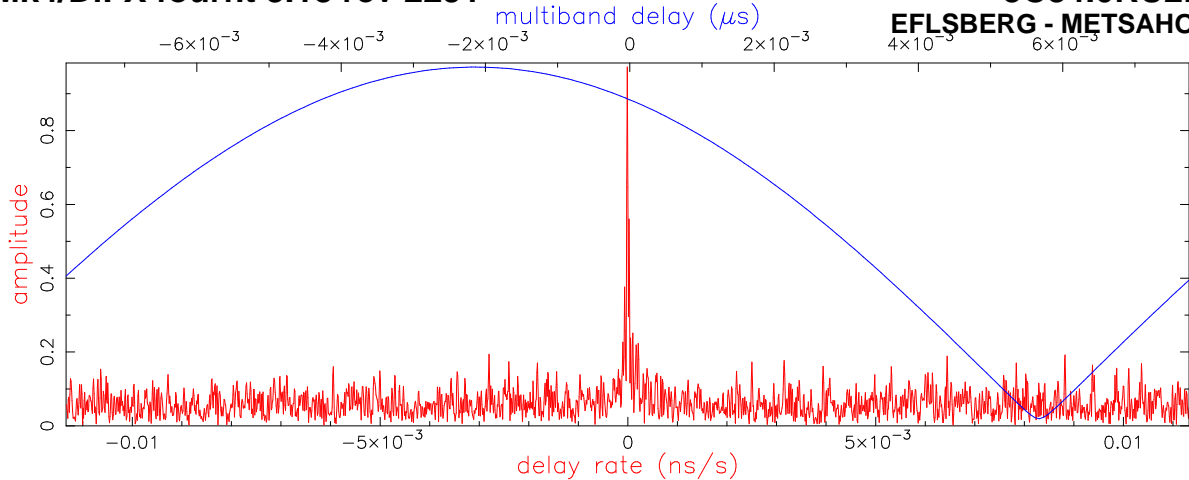
Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150823
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



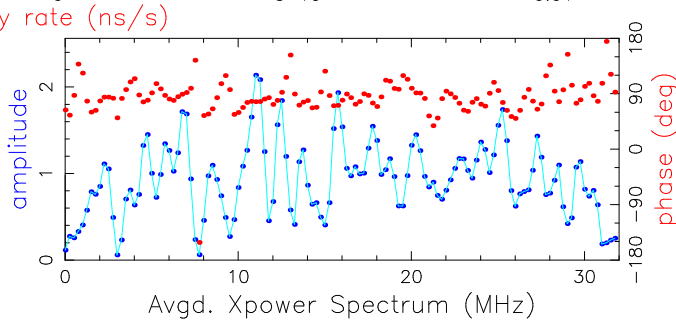
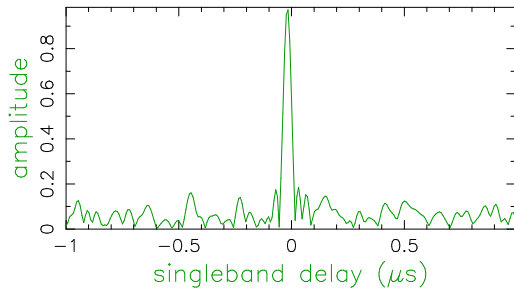
86156.00	86220.00	Freq (MHz)	All				
137.2	132.3	Phase	134.8				
0.4	0.4	Ampl.	0.4				
197.9	196.8	Sbd box	197.3				
U/L 360/0	360/0	APs used					
b 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
b:Z 0:0	0:0	PC phase					
b:Z 0:0	0:0	Manl PC					
b 1000	1000	PC amp					
Z 1000	1000						
b W01UR	W03UR	Chan ids					
Z W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.79605601081E+03	Apriori delay (usec)	1.79552279581E+03	Resid mbdelay (usec)	1.96500E-03	+/-	9.3E-04
Sband delay (usec)	1.79605606781E+03	Apriori clock (usec)	3.3695793E-01	Resid sbdelay (usec)	5.33272E-01	+/-	3.2E-03
Phase delay (usec)	1.79552280015E+03	Apriori clockrate (us/s)	-4.7000002E-08	Resid phdelay (usec)	4.34551E-06	+/-	6.9E-07
Delay rate (us/s)	1.26337538271E+00	Apriori rate (us/s)	1.26337274297E+00	Resid rate (us/s)	2.63974E-06	+/-	6.5E-09
Total phase (deg)	-178.2	Apriori accel (us/s/s)	-1.87959275332E-05	Resid phase (deg)	-45.2	+/-	21.5

ph/seg (deg) 75.8 91.2 Theor. Amplitude 0.416 +/- 0.078 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 152.8 159.1 Search (1024X8) 0.390 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.6 26.5 Inc. seg. avg. 0.389 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 73.4 el 45.3 pa -58.8 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9702.151 -2033.865 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bZ.W.63.0RU2MU simultaneous interpolator



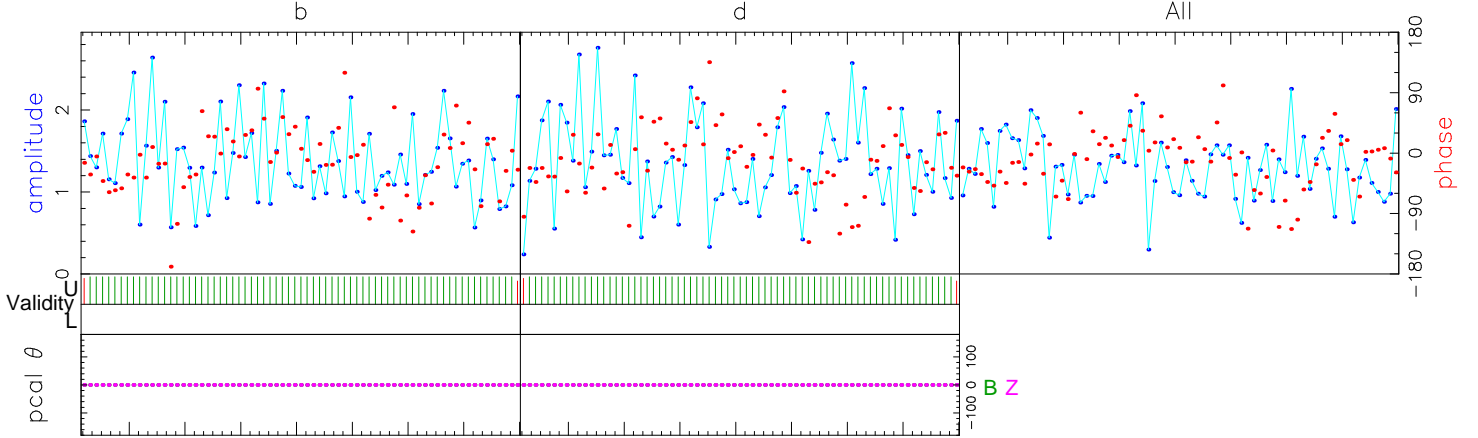
Fringe quality 9

SNR 20.6
 Int time 471.087
 Amp 0.983
 Phase 79.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.018511
 MBD -0.002109
 Fringe rate (Hz)
 -0.000934
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



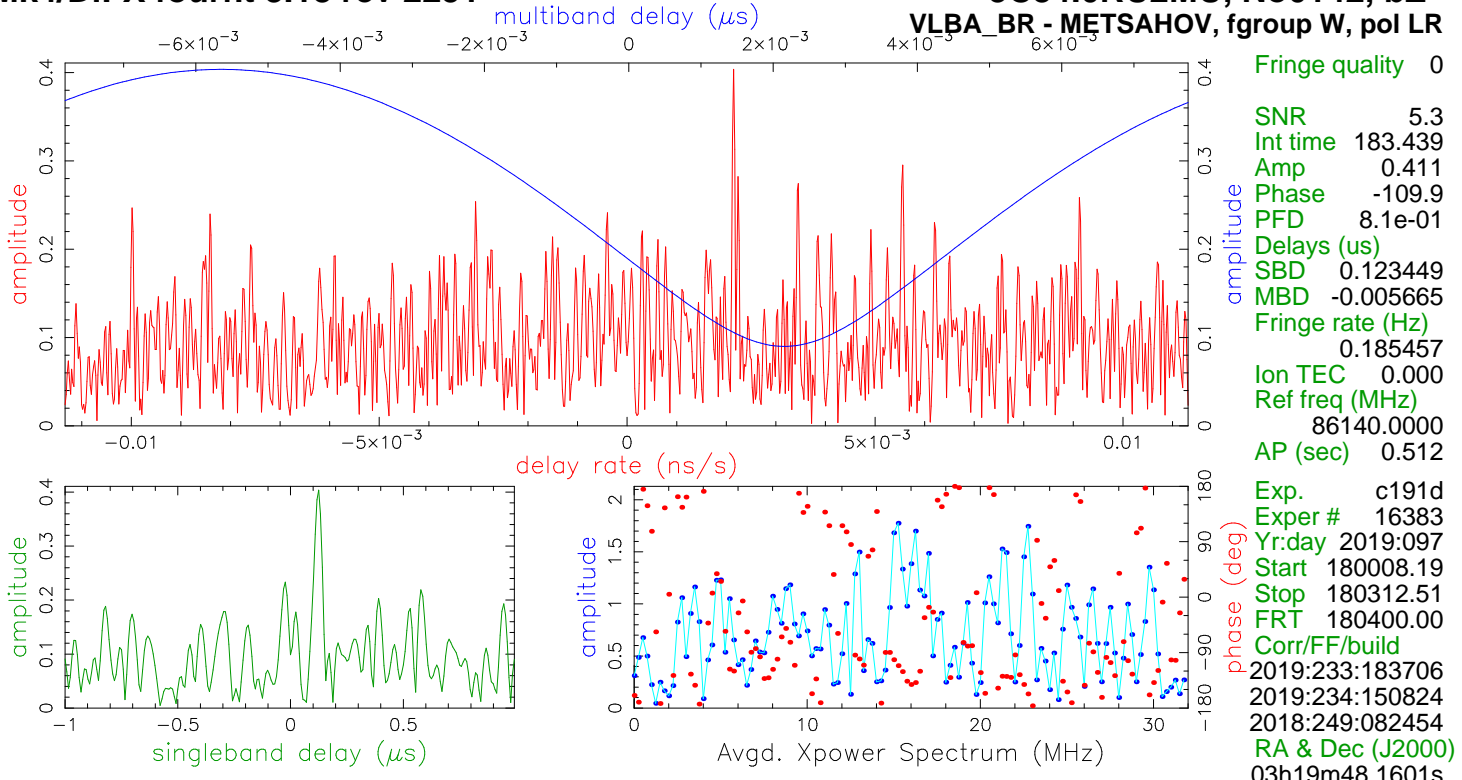
86156.00	86220.00	Freq (MHz)	All
-10.4	-11.1	Phase	-10.8
1.0	1.0	Ampl.	1.0
126.6	126.7	Sbd box	126.6
U/L 921/0	921/0	APs used	
B 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
B:Z 0:0	0:0	PC phase	
B:Z 0:0	0:0	Manl PC	
B 1000	1000	PC amp	
Z 1000	1000		
B W01UL	W03UL	Chan ids	
Z W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.95315814460E+03	Apriori delay (usec)	1.95317587904E+03	Resid mbdelay (usec)	-2.10944E-03	+/-	2.4E-04
Sband delay (usec)	1.95315736804E+03	Apriori clock (usec)	1.9663265E+01	Resid sbdelay (usec)	-1.85110E-02	+/-	8.3E-04
Phase delay (usec)	1.95317587869E+03	Apriori clockrate (us/s)	-1.7400000E-07	Resid phdelay (usec)	-3.47039E-07	+/-	1.8E-07
Delay rate (us/s)	-9.01867209929E-02	Apriori rate (us/s)	-9.01867101519E-02	Resid rate (us/s)	-1.08409E-08	+/-	6.6E-10
Total phase (deg)	158.6	Apriori accel (us/s/s)	-1.74879742269E-05	Resid phase (deg)	79.2	+/-	5.6

ph/seg (deg)	42.5	RMS	23.4	Theor.	23.4	Amplitude	0.983 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	50.6	Search (2048X8)	0.971	Inc. seg. avg.	1.196	Inc. frq. avg.	0.970	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	1.196	Inc. frq. avg.	0.970	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.3	Inc. seg. avg.	1.196	Inc. frq. avg.	0.970	Inc. frq. avg.	0.970	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.970	Inc. frq. avg.	0.970	Inc. frq. avg.	0.970	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
								nlags:	128	ion window (TEC)	0.00 0.00

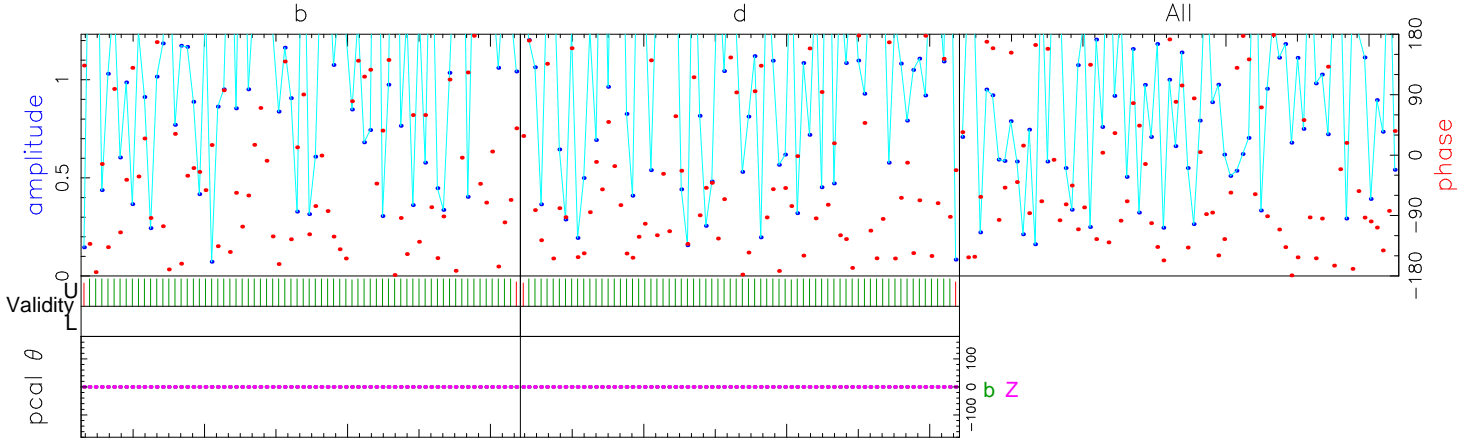
B: az 283.1 el 47.1 pa 55.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 661.801 -1863.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BZ.W.71.0RU2MU



Fringe quality 0
 SNR 5.3
 Int time 183.439
 Amp 0.411
 Phase -109.9
 PFD 8.1e-01
 Delays (us)
 SBD 0.123449
 MBD -0.005665
 Fringe rate (Hz) 0.185457
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180312.51
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 5 APs / seg (2.56 sec / seg.), time ticks 5 sec



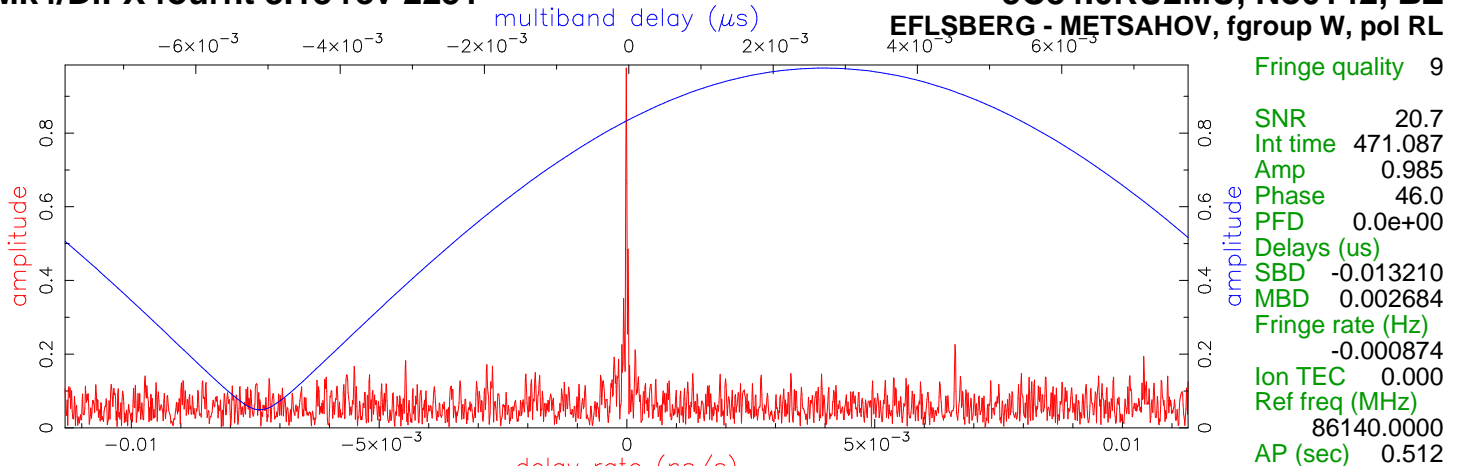
86156.00	86220.00	Freq (MHz)	All
-110.1	-109.8	Phase	-109.9
0.3	0.5	Ampl.	0.4
144.8	144.8	Sbd box	144.8
U/L 360/0	360/0	APs used	
b 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
b:Z 0:0	0:0	PC phase	
b:Z 0:0	0:0	Manl PC	
b 1000	1000	PC amp	
Z 1000	1000		
b W01UL	W03UL	Chan ids	
		Tracks	
Z W01UR	W03UR	Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.79564213039E+03	Apriori delay (usec)	1.79552279581E+03	Resid mbdelay (usec)	-5.66542E-03	+/-	9.4E-04
Sband delay (usec)	1.79564624481E+03	Apriori clock (usec)	3.3695793E-01	Resid sbdelay (usec)	1.23449E-01	+/-	3.3E-03
Phase delay (usec)	1.79552279226E+03	Apriori clockrate (us/s)	-4.7000002E-08	Resid phdelay (usec)	-3.54438E-06	+/-	7.0E-07
Delay rate (us/s)	1.26337489593E+00	Apriori rate (us/s)	1.26337274297E+00	Resid rate (us/s)	2.15297E-06	+/-	6.6E-09
Total phase (deg)	-242.9	Apriori accel (us/s/s)	-1.87959275332E-05	Resid phase (deg)	-109.9	+/-	21.6

ph/seg (deg)	83.7	Theor.	91.7	Amplitude	0.411 +/- 0.078	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	171.9	Search (1024X8)	0.394	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.410	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	22.2	Inc. frq. avg.	0.396	Inc. frq. avg.	0.396	Sample rate (MSamp/s):	64	mb window (us)	-0.008 0.008

b: az 73.4 el 45.3 pa -58.8 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9702.151 -2033.865 simultaneous interpolator

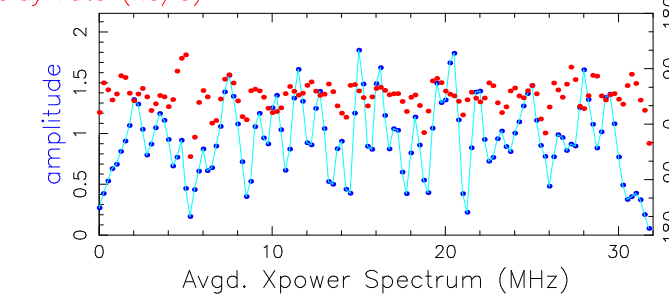
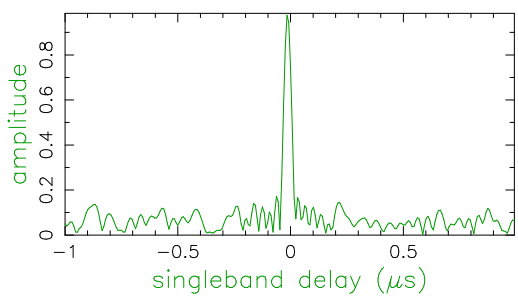
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/bZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/bZ.W.77.0RU2MU



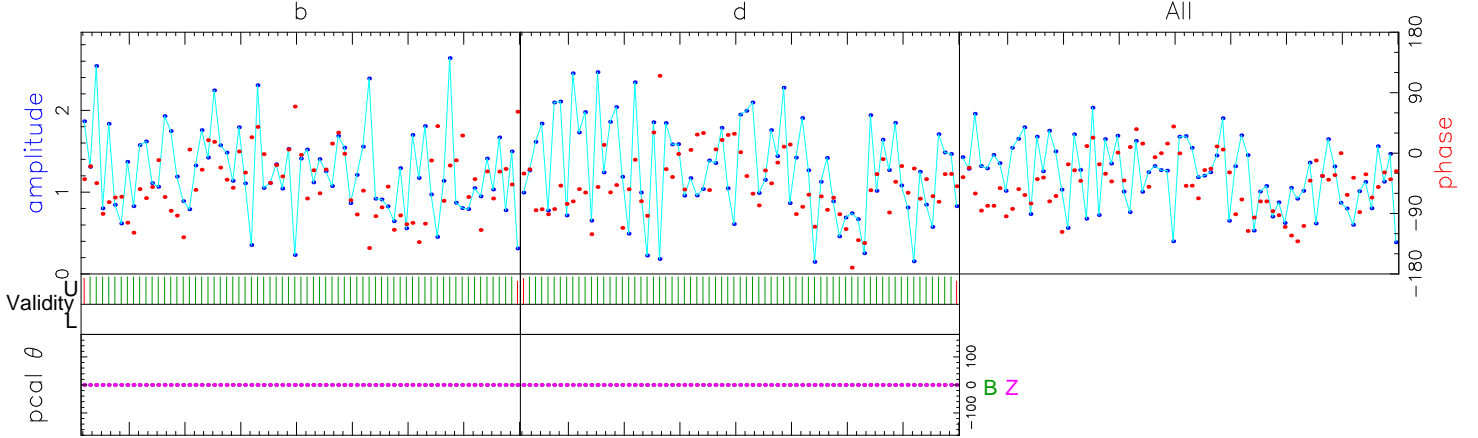
Fringe quality 9

SNR 20.7
 Int time 471.087
 Amp 0.985
 Phase 46.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.013210
 MBD 0.002684
 Fringe rate (Hz)
 -0.000874
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

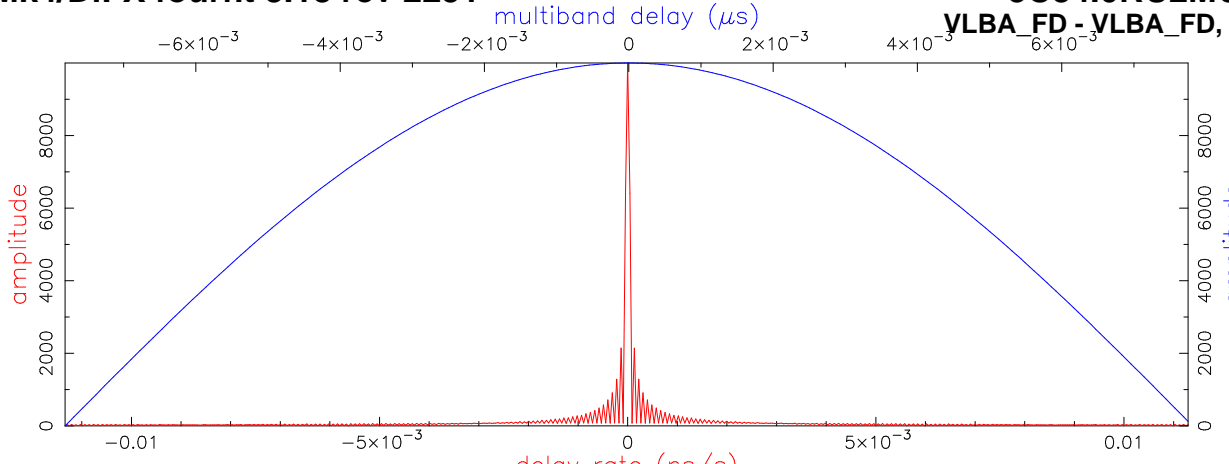


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-44.2	-43.8	Phase	-44.0				
0.9	1.0	Ampl.	1.0				
127.4	127.2	Sbd box	127.3				
U/L 921/0	921/0	APs used					
B 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
B:Z 0:0	0:0	PC phase					
B:Z 0:0	0:0	Manl PC					
B 1000	1000	PC amp					
Z 1000	1000						
B W01UR	W03UR	Chan ids					
Z W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.95316293810E+03	Apriori delay (usec)	1.95317587904E+03	Resid mbdelay (usec)	2.68406E-03	+/-	2.4E-04
Sband delay (usec)	1.95316266854E+03	Apriori clock (usec)	1.9663265E+01	Resid sbdelay (usec)	-1.32105E-02	+/-	8.3E-04
Phase delay (usec)	1.95317587762E+03	Apriori clockrate (us/s)	-1.7400000E-07	Resid phdelay (usec)	-1.41973E-06	+/-	1.8E-07
Delay rate (us/s)	-9.01867202928E-02	Apriori rate (us/s)	-9.01867101519E-02	Resid rate (us/s)	-1.01409E-08	+/-	6.6E-10
Total phase (deg)	125.3	Apriori accel (us/s/s)	-1.74879742269E-05	Resid phase (deg)	46.0	+/-	5.5

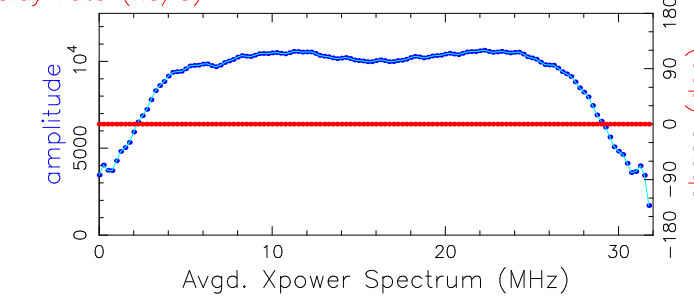
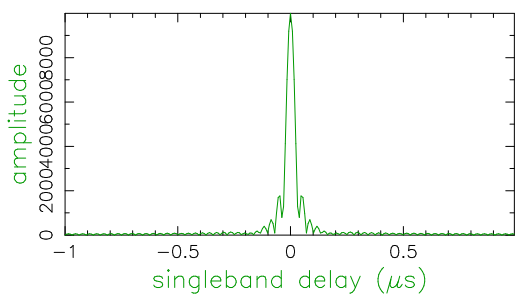
ph/seg (deg) 39.3 23.4 Search (2048X8) 0.962 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.4 40.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 3.9 Inc. seg. avg. 1.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.0 6.8 Inc. frq. avg. 0.974 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 283.1 el 47.1 pa 55.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 661.801 -1863.224 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/BZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/BZ.W.87.0RU2MU simultaneous interpolator



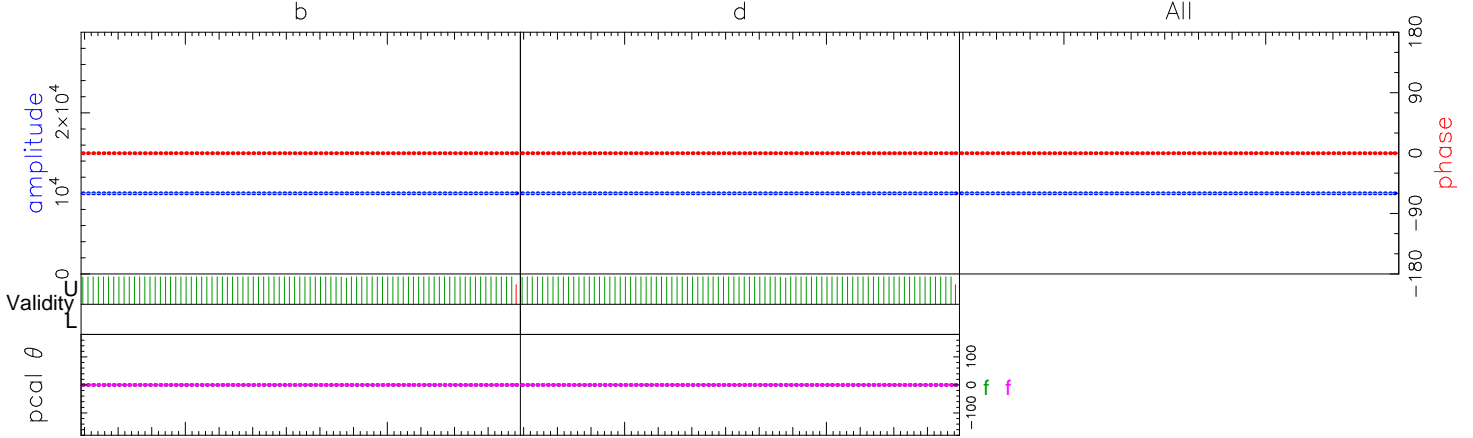
Fringe quality 9

SNR 110239.0
 Int time 130.007
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150822
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



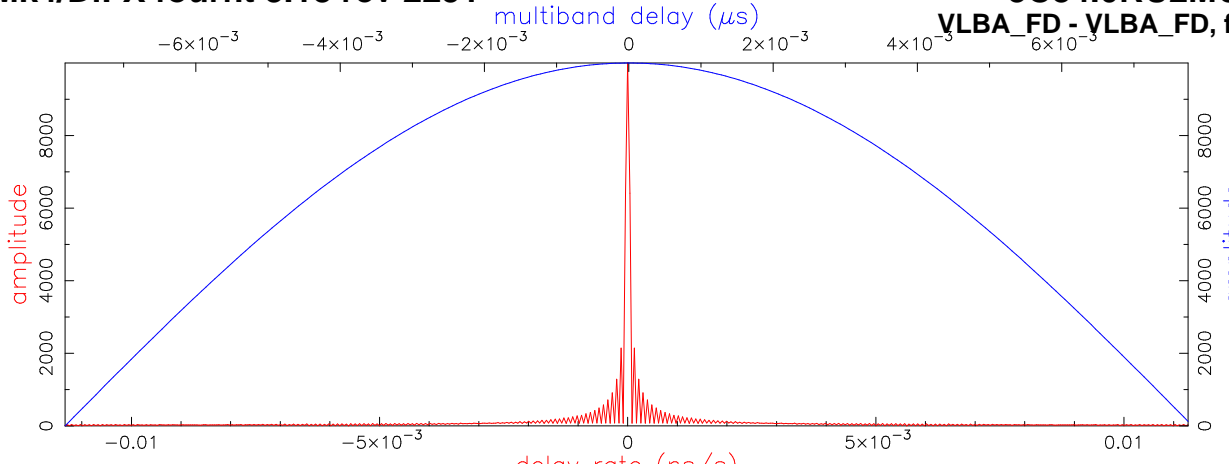
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
f 1000	1000	PC freqs	
f:f 0:0	0:0	PC phase	
f:f 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
f 1000	1000		
f W01UL	W03UL	Chan ids	
f W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	4.5E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.6E-07
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	3.4E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.4E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

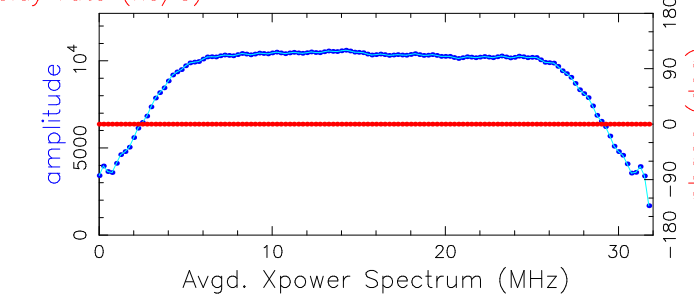
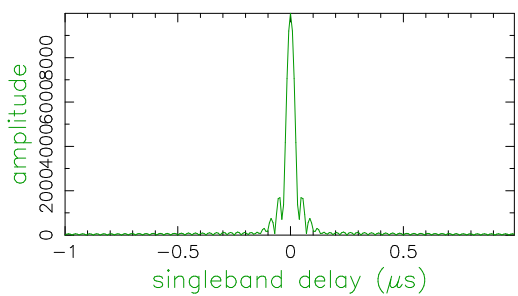
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	Search (512X8)	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
				Inc. frq. avg.	9999.999	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

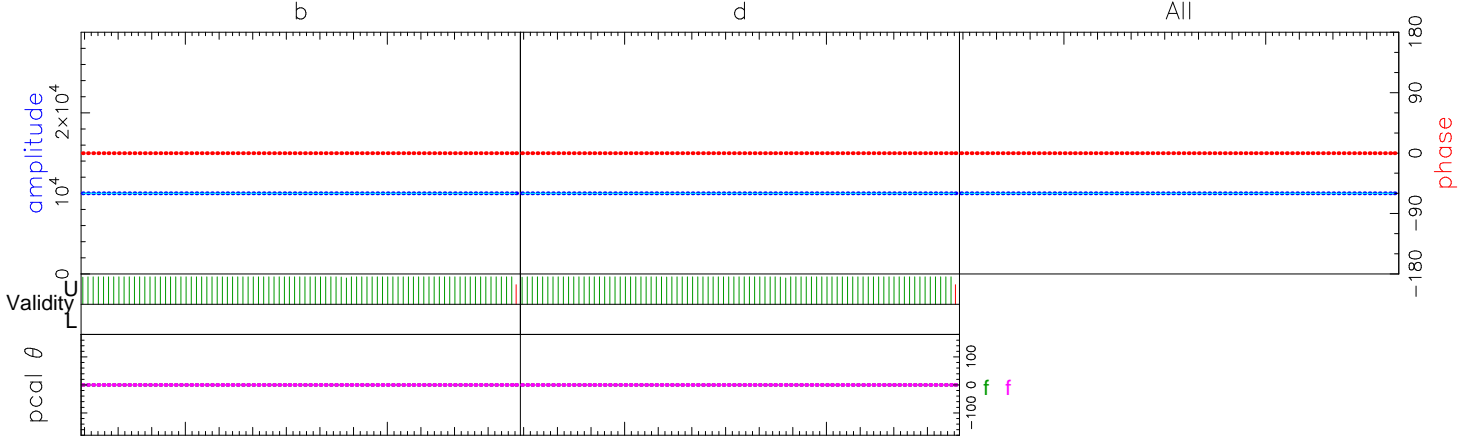
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ff..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ff.W.56.0RU2MU



Fringe quality 9
 SNR 110239.0
 Int time 130.007
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

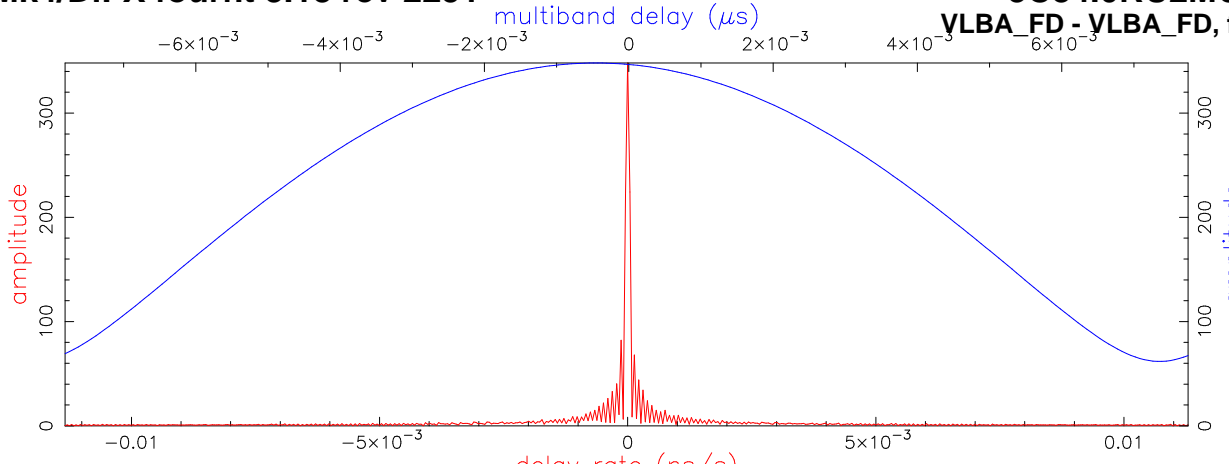


86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
f 1000	1000	PC freqs	
f:f 0:0	0:0	PC phase	
f:f 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
f 1000	1000		
f W01UR	W03UR	Chan ids	
		Tracks	
f W01UR	W03UR	Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	4.5E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.6E-07
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	3.4E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.4E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	9999.999 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	Search (512X8)	9999.999	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
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	mb window (us)	-0.008 0.008
				Inc. frq. avg.	9999.999	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ff..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ff.W.72.0RU2MU



Fringe quality 9

SNR 3837.0

Int time 130.007

Amp 348.066

Phase -51.9

PFD 0.0e+00

Delays (us)

SBD -0.015815

MBD -0.000456

Fringe rate (Hz)

0.000044

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180228.99

Stop 180439.55

FRT 180400.00

Corr/FF/build

2019:233:183706

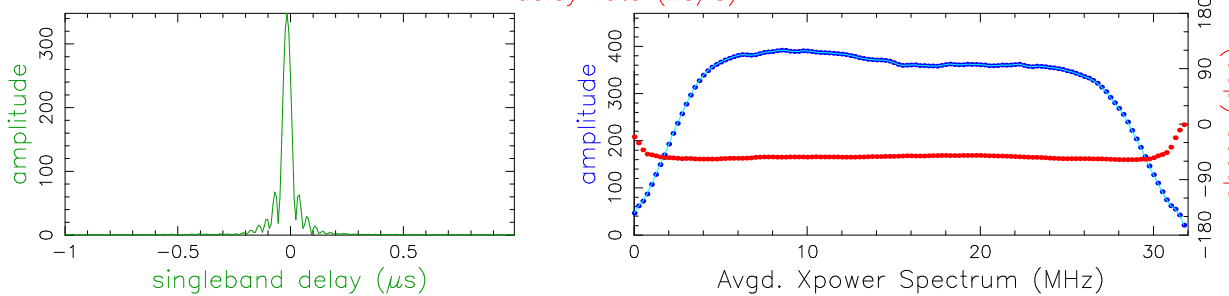
2019:234:150825

2018:249:082454

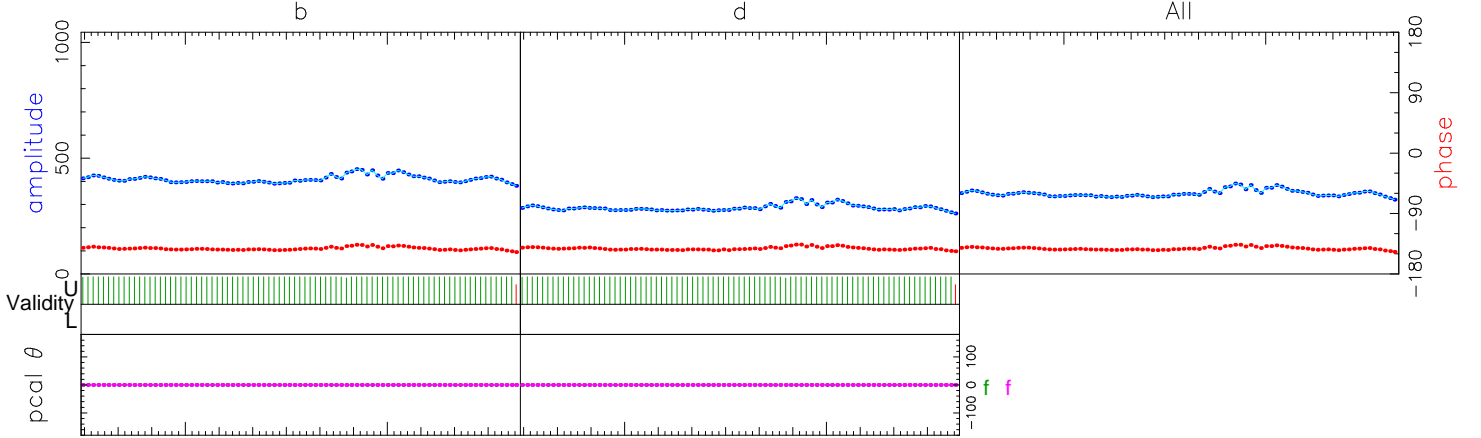
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

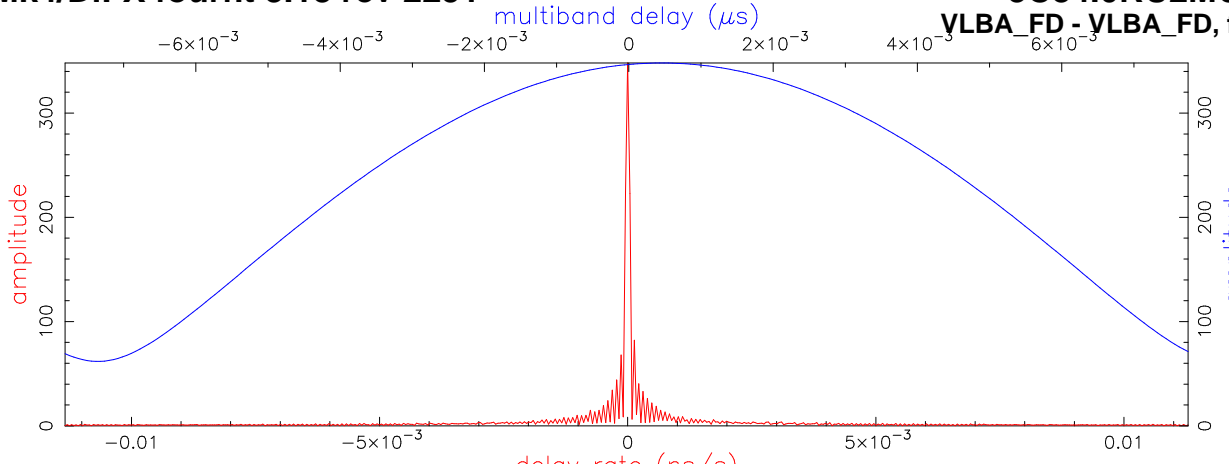


86156.00	86220.00	Freq (MHz)	All				
-141.9	-141.9	Phase	-141.9				
409.8	286.3	Ampl.	348.1				
127.0	126.9	Sbd box	127.0				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
f 1000	1000	PC freqs					
f:f 0:0	0:0	PC phase					
f:f 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
f 1000	1000						
f W01UL	W03UL	Chan ids					
		Tracks					
f W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.60808750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.55875E-04	+/-	1.3E-06
Sband delay (usec)	-1.58150000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.58150E-02	+/-	4.5E-06
Phase delay (usec)	-4.57562714601E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.57563E-06	+/-	9.6E-10
Delay rate (us/s)	5.15829947057E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.15830E-10	+/-	1.3E-11
Total phase (deg)	-51.9	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-51.9	+/-	0.0

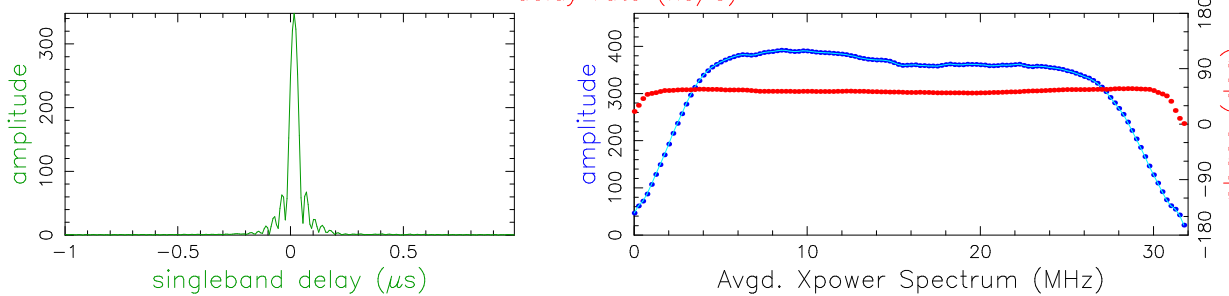
ph/seg (deg)	2.1	0.1	Amplitude	348.066 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	4.1	0.2	Search (512X8)	346.625	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.7	0.0	Inc. seg. avg.	348.293	Sample rate(MSamp/s): 64	nlags: 128 t_cohere infinite	dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.	348.050	Data rate(Mb/s): 256		ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

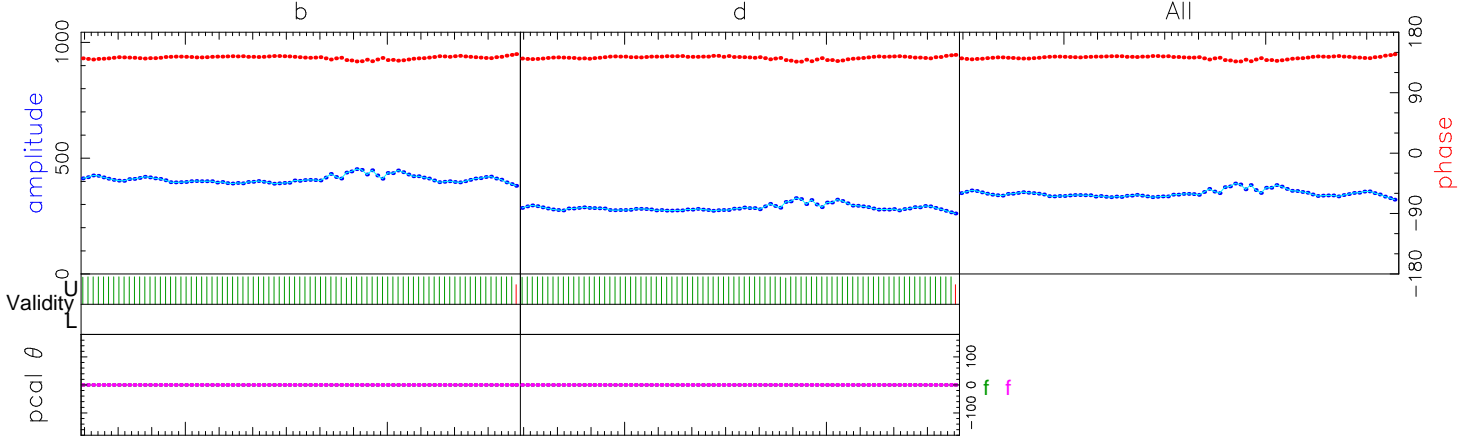
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ff..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ff.W.79.0RU2MU



Fringe quality 9
 SNR 3837.0
 Int time 130.007
 Amp 348.066
 Phase 51.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.015815
 MBD 0.000456
 Fringe rate (Hz)
 -0.000044
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150825
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

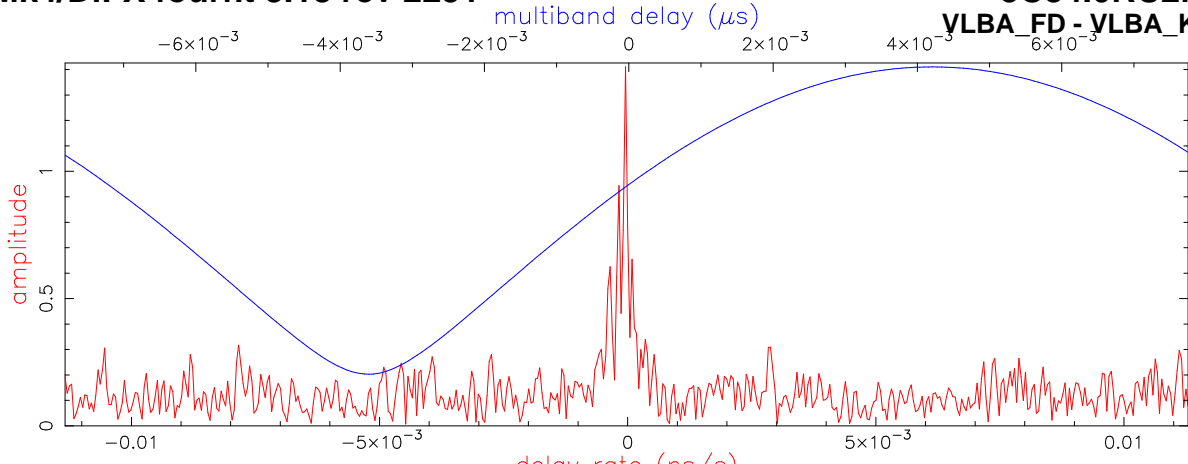


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

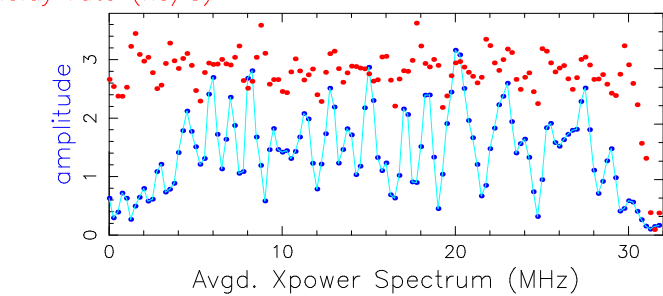
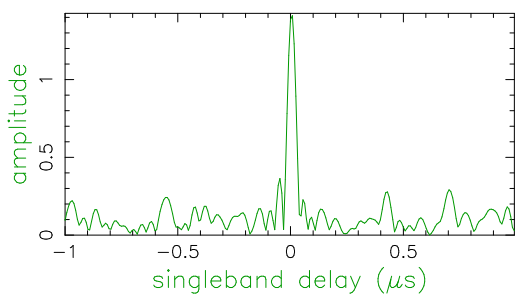


86156.00	86220.00	Freq (MHz)	All				
141.9	141.9	Phase	141.9				
409.8	286.3	Ampl.	348.1				
131.0	131.1	Sbd box	131.0				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
f 1000	1000	PC freqs					
f:f 0:0	0:0	PC phase					
f:f 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
f 1000	1000						
f W01UR	W03UR	Chan ids					
		Tracks					
f W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.60808750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	4.55875E-04	+/-	1.3E-06
Sband delay (usec)	1.58150000000E-02	Apriori clock (usec)	0.00000000000E+00	Resid sbdelay (usec)	1.58150E-02	+/-	4.5E-06
Phase delay (usec)	4.57562714629E-06	Apriori clockrate (us/s)	0.00000000000E+00	Resid phdelay (usec)	4.57563E-06	+/-	9.6E-10
Delay rate (us/s)	-5.15829947057E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.15830E-10	+/-	1.3E-11
Total phase (deg)	51.9	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	51.9	+/-	0.0

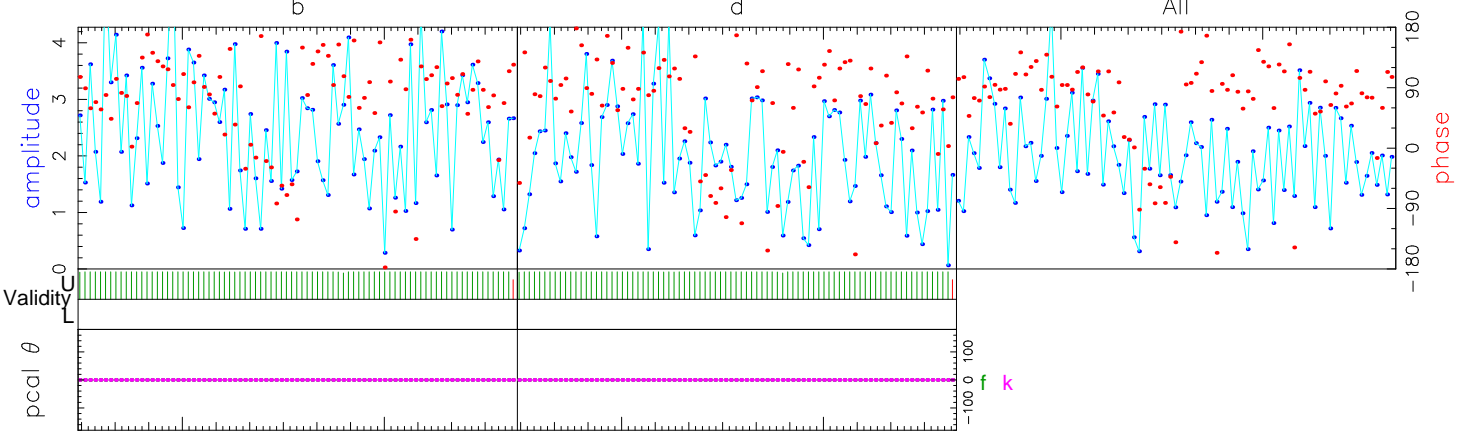
ph/seg (deg) 2.1 0.1 Theor. Amplitude 348.066 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 4.1 0.2 Search (512X8) 346.625 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.7 0.0 Inc. seg. avg. 348.293 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 f: az 60.4 el 49.9 pa -89.2 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ff..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ff.W.86.0RU2MU simultaneous interpolator



Fringe quality 9
 SNR 15.7
 Int time 129.988
 Amp 1.426
 Phase 92.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.004848
 MBD 0.004166
 Fringe rate (Hz)
 -0.002031
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

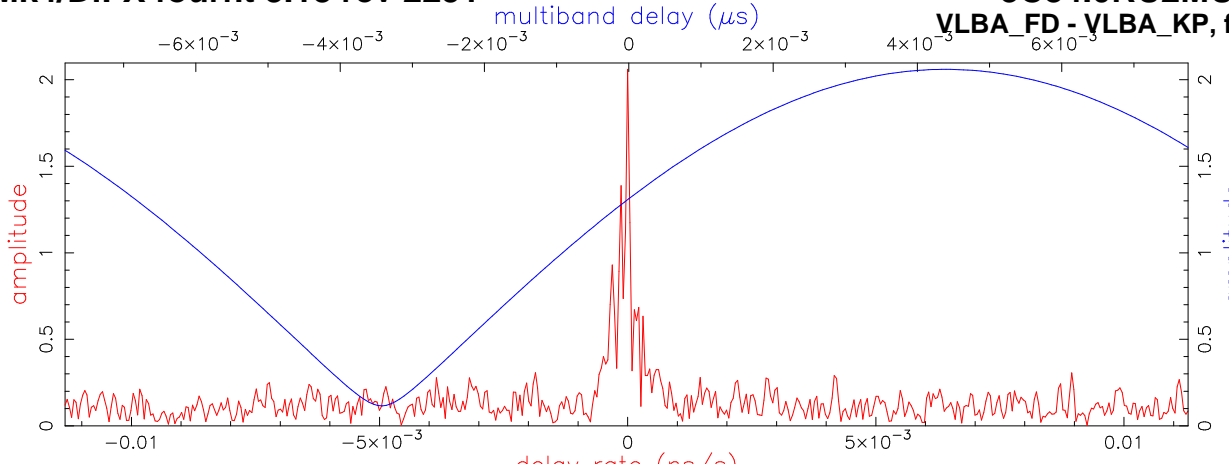


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
92.1	93.0	Phase	92.5				
1.6	1.2	Ampl.	1.4				
129.7	129.6	Sbd box	129.6				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
k 1000	1000	PC freqs					
f:k 0:0	0:0	PC phase					
f:k 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
k 1000	1000						
f W01UL	W03UL	Chan ids					
k W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.26888676603E+03	Apriori delay (usec)	1.26888260030E+03	Resid mbdelay (usec)	4.16573E-03	+/-	3.2E-04
Sband delay (usec)	1.26888744830E+03	Apriori clock (usec)	7.1705704E+00	Resid sbdelay (usec)	4.84800E-03	+/-	1.1E-03
Phase delay (usec)	1.26888260328E+03	Apriori clockrate (us/s)	1.0166000E-07	Resid phdelay (usec)	2.98288E-06	+/-	2.4E-07
Delay rate (us/s)	-7.22211540759E-02	Apriori rate (us/s)	-7.22211304923E-02	Resid rate (us/s)	-2.35836E-08	+/-	3.1E-09
Total phase (deg)	160.9	Apriori accel (us/s/s)	-8.18483933995E-06	Resid phase (deg)	92.5	+/-	7.3

ph/seg (deg) 59.8 33.6 Theor. Amplitude 1.426 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.9 58.7 Search (512X8) 1.258 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 5.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.3 9.0 Inc. seg. avg. 1.728 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 539.183 -706.346 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fk.W.73.0RU2MU



Fringe quality 9

SNR 23.1

Int time 129.988

Amp 2.097

Phase -156.7

PFD 0.0e+00

Delays (us)

SBD 0.003878

MBD 0.004473

Fringe rate (Hz)

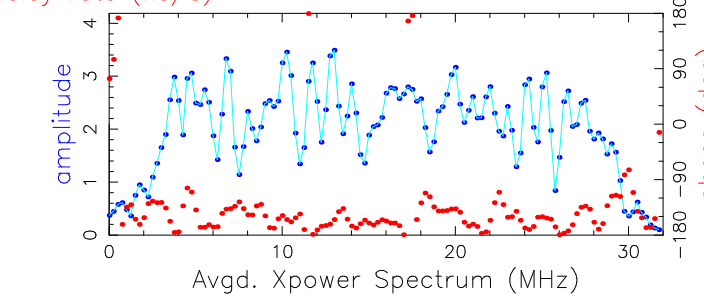
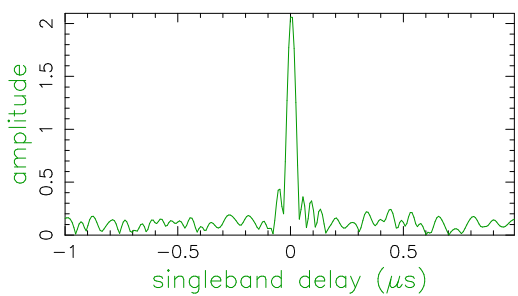
-0.001531

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512



Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180228.99

Stop 180439.55

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150825

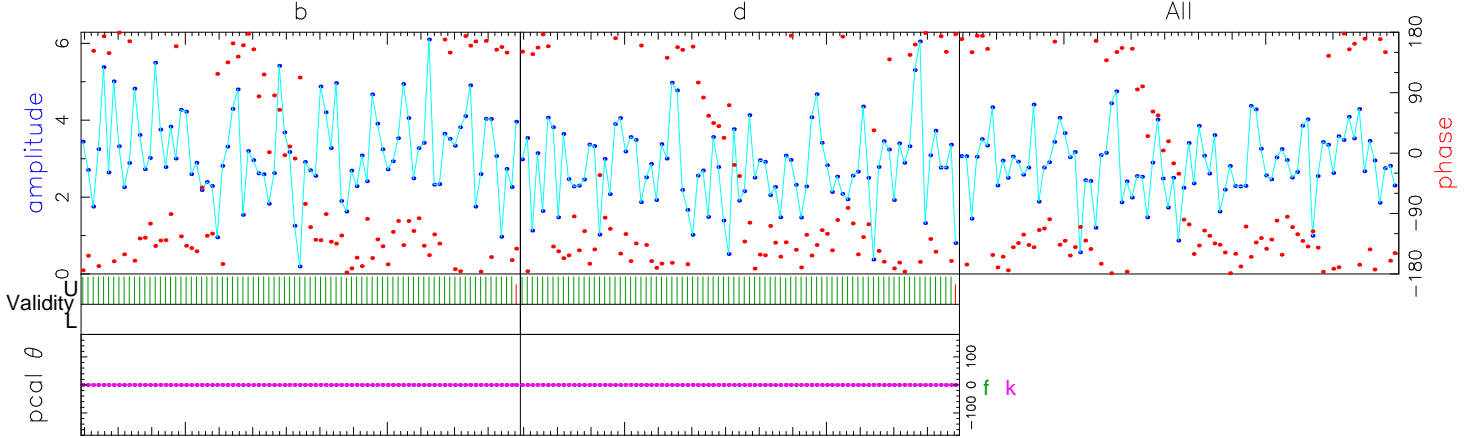
2018:249:082454

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All
-155.8	-157.8	Phase	-156.7
2.2	1.9	Ampl.	2.1
129.6	129.3	Sbd box	129.5
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
k 1000	1000	PC freqs	
f:k 0:0	0:0	PC phase	
f:k 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
k 1000	1000		
f W01UR	W03UR	Chan ids	
k W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.26888707280E+03	Apriori delay (usec)	1.26888260030E+03	Resid mbdelay (usec)	4.47250E-03	+/-	2.2E-04
Sband delay (usec)	1.26888647780E+03	Apriori clock (usec)	7.1705704E+00	Resid sbdelay (usec)	3.87750E-03	+/-	7.5E-04
Phase delay (usec)	1.26888259525E+03	Apriori clockrate (us/s)	1.0166000E-07	Resid phdelay (usec)	-5.05386E-06	+/-	1.6E-07
Delay rate (us/s)	-7.22211482657E-02	Apriori rate (us/s)	-7.22211304923E-02	Resid rate (us/s)	-1.77735E-08	+/-	2.1E-09
Total phase (deg)	-88.3	Apriori accel (us/s/s)	-8.18483933995E-06	Resid phase (deg)	-156.7	+/-	5.0

ph/seg (deg) 56.4 22.9 Search (512X8) 1.895 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

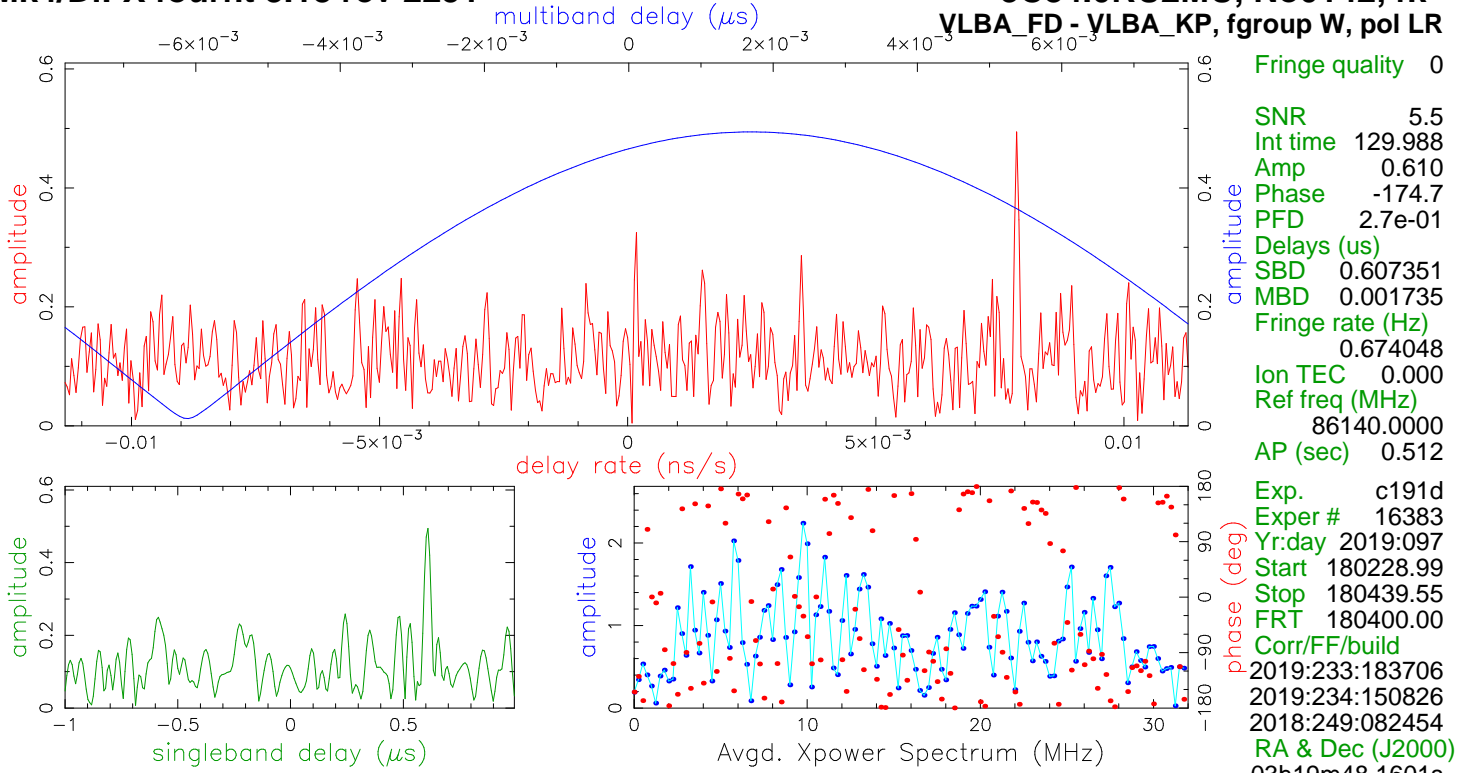
amp/seg (%) 54.8 39.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 3.5 Inc. seg. avg. 2.664 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

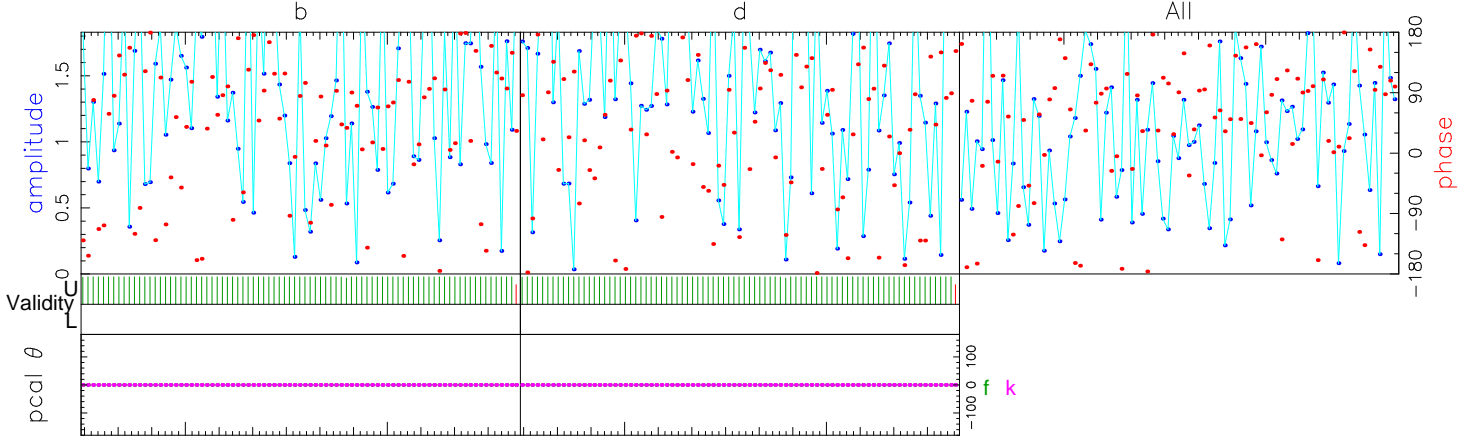
amp/frq (%) 5.8 6.1 Inc. frq. avg. 2.056 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

f: az 60.4 el 49.9 pa -89.2 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 539.183 -706.346 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fk.W.83.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



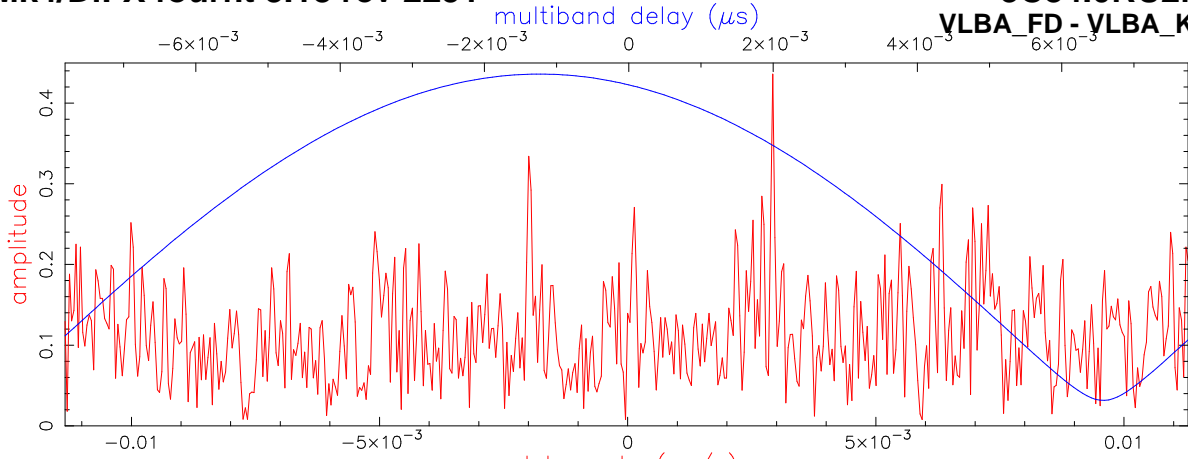
86156.00	86220.00	Freq (MHz)	All
95.8	94.9	Phase	95.3
0.6	0.6	Ampl.	0.6
206.2	207.6	Sbd box	206.7
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
k 1000	1000	PC freqs	
f:k 0:0	0:0	PC phase	
f:k 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
k 1000	1000		
f W01UL	W03UL	Chan ids	
k W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.26949371053E+03	Apriori delay (usec)	1.26888260030E+03	Resid mbdelay (usec)	1.73523E-03	+/-	9.1E-04
Sband delay (usec)	1.26948995180E+03	Apriori clock (usec)	7.1705704E+00	Resid sbdelay (usec)	6.07351E-01	+/-	3.1E-03
Phase delay (usec)	1.26888260338E+03	Apriori clockrate (us/s)	1.0166000E-07	Resid phdelay (usec)	3.07424E-06	+/-	6.7E-07
Delay rate (us/s)	-7.22133054682E-02	Apriori rate (us/s)	-7.22211304923E-02	Resid rate (us/s)	7.82502E-06	+/-	8.9E-09
Total phase (deg)	-106.3	Apriori accel (us/s/s)	-8.18483933995E-06	Resid phase (deg)	-174.7	+/-	20.9

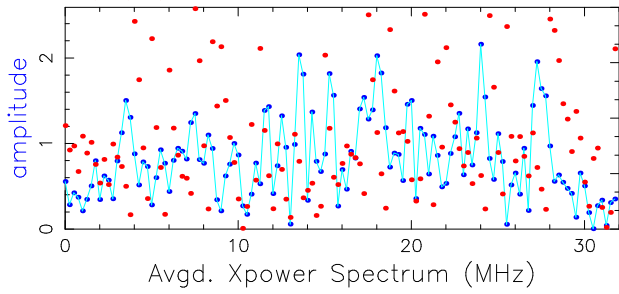
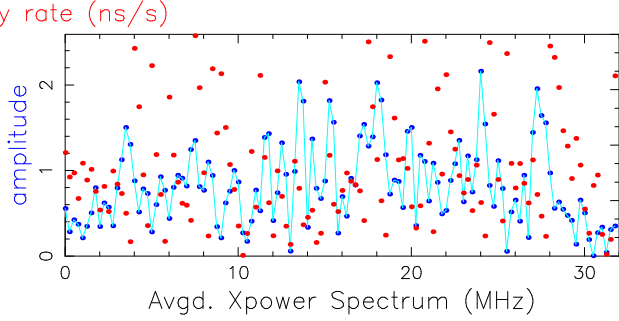
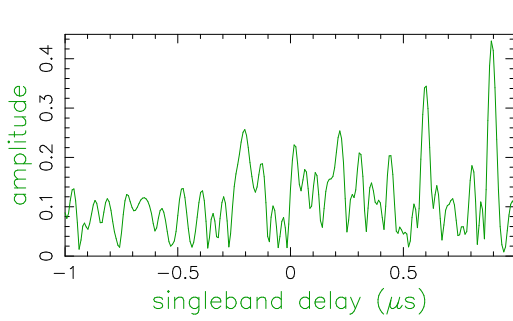
ph/seg (deg)	73.1	Theor.	96.4	Amplitude	0.610 +/- 0.111	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	167.2	Search (512X8)		Search	0.462	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.		Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.5	Inc. seg. avg.	0.551	Inc. seg. avg.	0.551	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.587	Inc. frq. avg.	0.587	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 539.183 -706.346 simultaneous interpolator

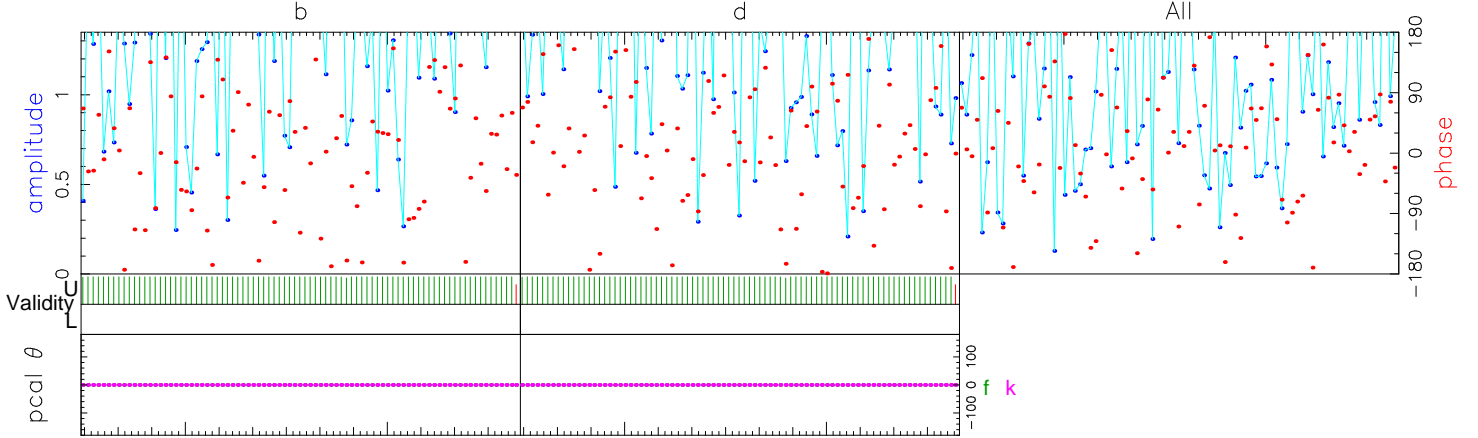
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fk.W.92.0RU2MU



Fringe quality 0
 SNR 4.8
 Int time 129.988
 Amp 0.450
 Phase -67.0
 PFD 1.0e+00
 Delays (us)
 SBD 0.892303
 MBD -0.001295
 Fringe rate (Hz)
 0.251756
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150827
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



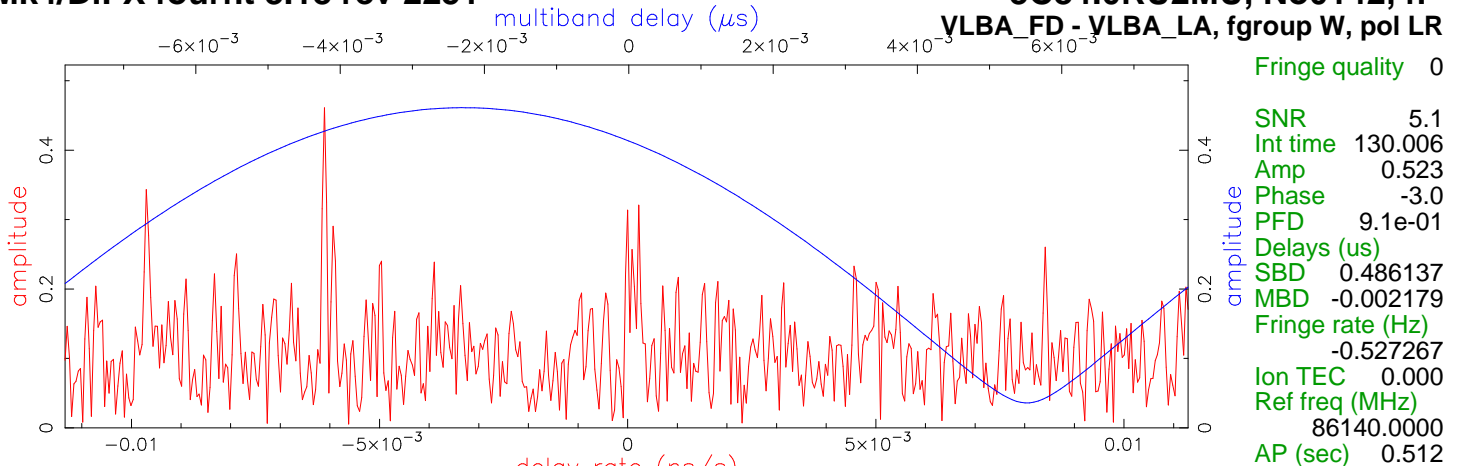
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
22.3	23.6	Phase	23.0				
0.4	0.5	Ampl.	0.4				
243.1	243.3	Sbd box	243.2				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
k 1000	1000	PC freqs					
f:k 0:0	0:0	PC phase					
f:k 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
k 1000	1000						
f W01UR	W03UR	Chan ids					
k W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.26977193030E+03	Apriori delay (usec)	1.26888260030E+03	Resid mbdelay (usec)	-1.29500E-03	+/-	1.0E-03
Sband delay (usec)	1.26977490280E+03	Apriori clock (usec)	7.1705704E+00	Resid sbdelay (usec)	8.92303E-01	+/-	3.6E-03
Phase delay (usec)	1.26888260104E+03	Apriori clockrate (us/s)	1.0166000E-07	Resid phdelay (usec)	7.40892E-07	+/-	7.7E-07
Delay rate (us/s)	-7.22182078536E-02	Apriori rate (us/s)	-7.22211304923E-02	Resid rate (us/s)	2.92264E-06	+/-	1.0E-08
Total phase (deg)	-358.6	Apriori accel (us/s/s)	-8.18483933995E-06	Resid phase (deg)	-67.0	+/-	23.8

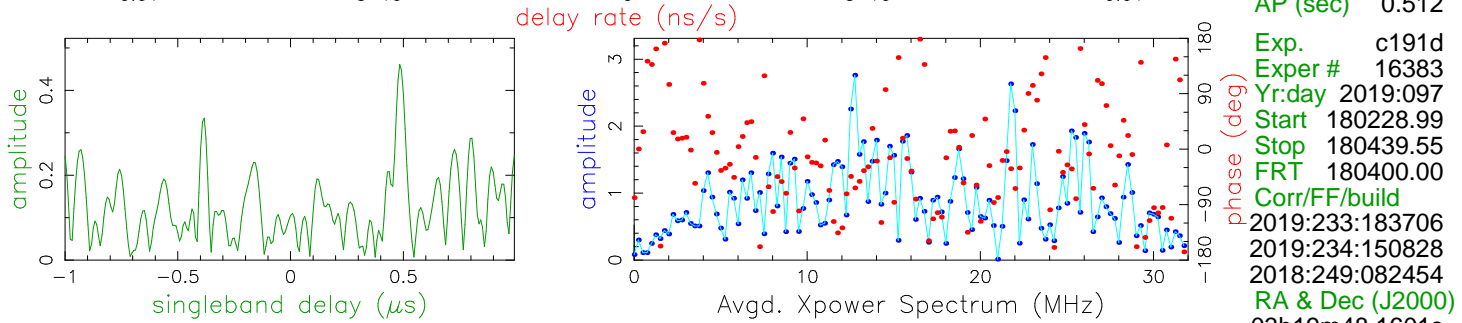
ph/seg (deg)	85.0	Theor.	109.5	Amplitude	0.450 +/- 0.093	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	200.8	Search (512X8)	0.429	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.399	Inc. seg. avg.	0.399	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	7.2	Inc. frq. avg.	0.430	Inc. frq. avg.	0.430	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 539.183 -706.346 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fk.W.98.0RU2MU



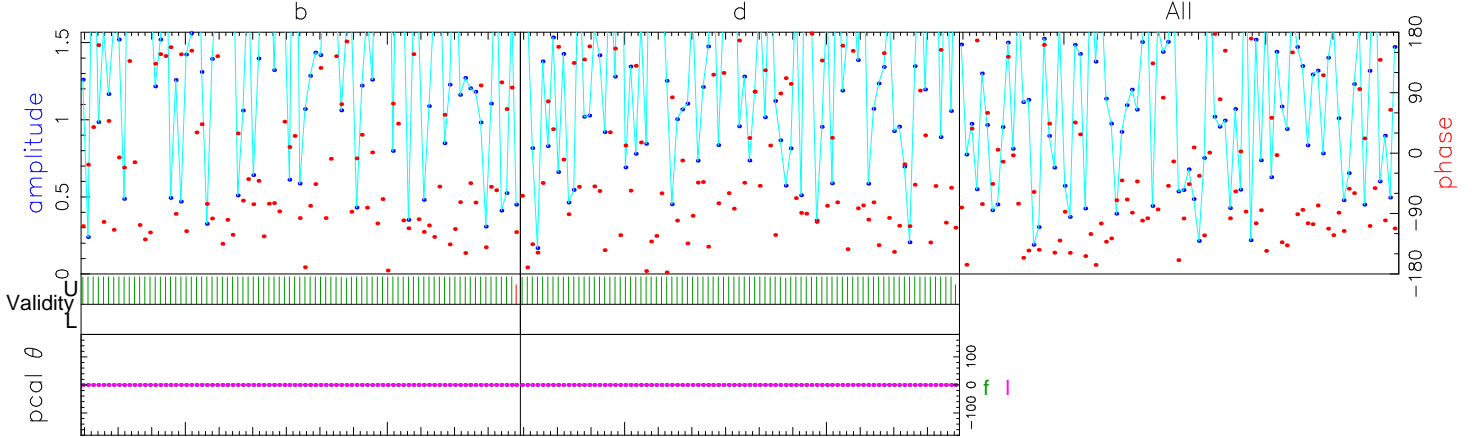
Fringe quality 0

SNR 5.1
 Int time 130.006
 Amp 0.523
 Phase -3.0
 PFD 9.1e-01
 Delays (us)
 SBD 0.486137
 MBD -0.002179
 Fringe rate (Hz)
 -0.527267
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



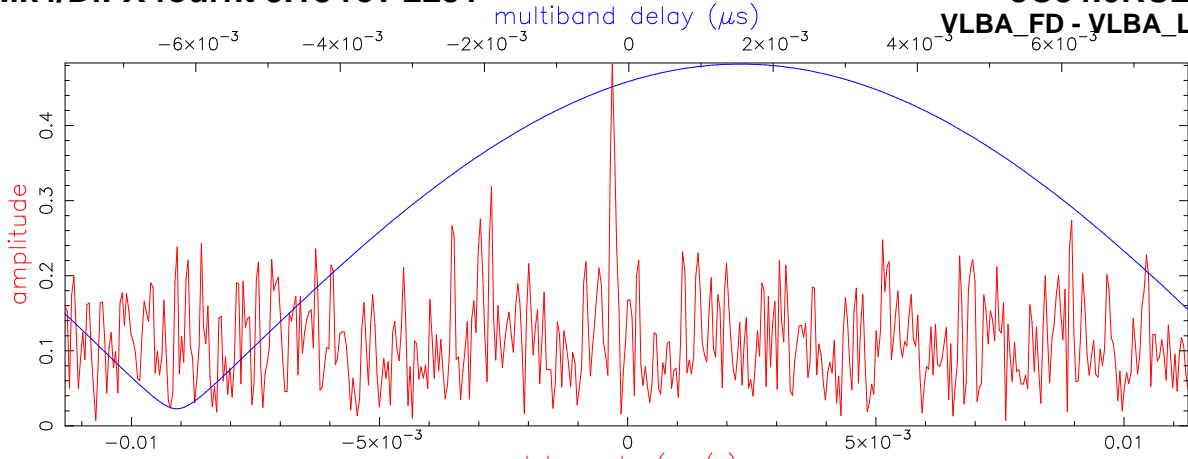
Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00		86220.00		Freq (MHz)	All
-91.5		-94.2		Phase	-93.0
0.5		0.6		Ampl.	0.5
190.7		191.6		Sbd box	191.2
U/L 255/0		255/0		APs used	
f 1000		1000		PC freqs	
l 1000		1000		PC freqs	
f:l 0:0		0:0		PC phase	
f:l 0:0		0:0		Manl PC	
f 1000		1000		PC amp	
l 1000		1000			
f W01UL		W03UL		Chan ids	
l W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.30662080403E+02	Apriori delay (usec)	-1.31144276540E+02	Resid mbdelay (usec)	-2.17886E-03 +/- 9.8E-04
Sband delay (usec)	-1.30658139540E+02	Apriori clock (usec)	9.5585079E+00	Resid sbdelay (usec)	4.86137E-01 +/- 3.4E-03
Phase delay (usec)	-1.31144279538E+02	Apriori clockrate (us/s)	2.5800000E-07	Resid phdelay (usec)	-2.99839E-06 +/- 7.3E-07
Delay rate (us/s)	1.68022022548E-02	Apriori rate (us/s)	1.68083233055E-02	Resid rate (us/s)	-6.12105E-06 +/- 9.6E-09
Total phase (deg)	-356.2	Apriori accel (us/s/s)	-4.86862964153E-06	Resid phase (deg)	-3.0 +/- 22.5

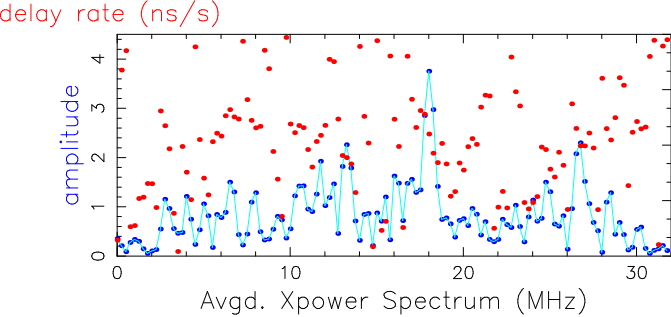
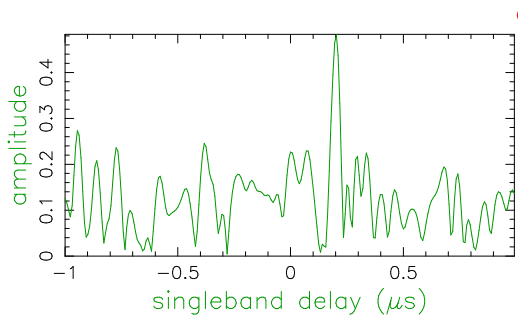
ph/seg (deg) 78.3 103.7 Theor. Amplitude 0.523 +/- 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 175.6 180.9 Search (512X8) 0.445 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.7 27.8 Inc. seg. avg. 0.463 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -136.054 -835.202 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fl.W.108.0RU2MU simultaneous interpolator



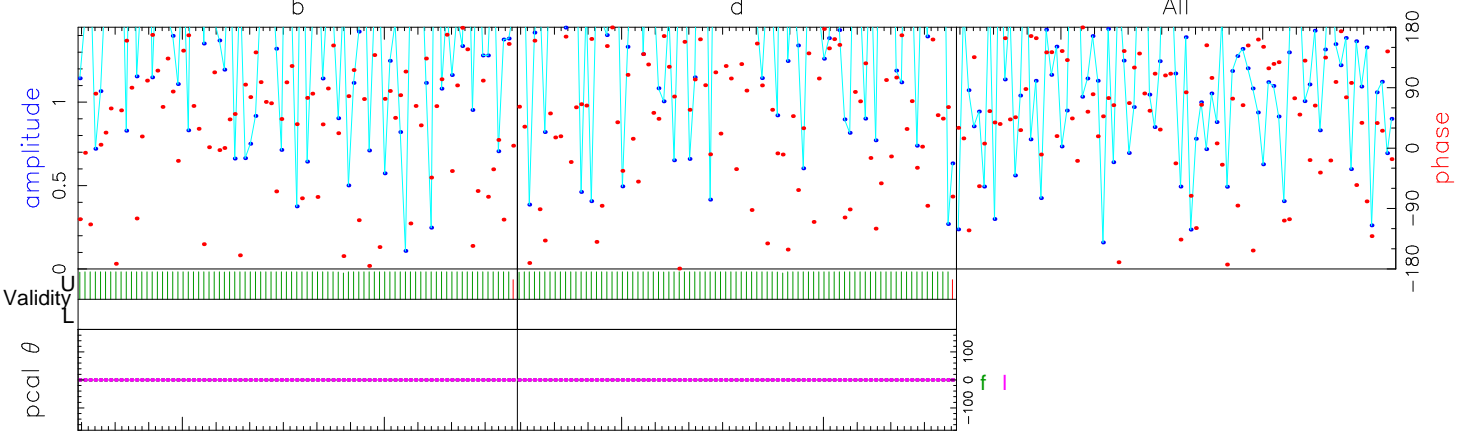
Fringe quality 0

SNR 5.3
Int time 130.006
Amp 0.483
Phase -11.2
PFD 5.2e-01
Delays (us)
SBD 0.201507
MBD 0.001564
Fringe rate (Hz)
-0.027255
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150829
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



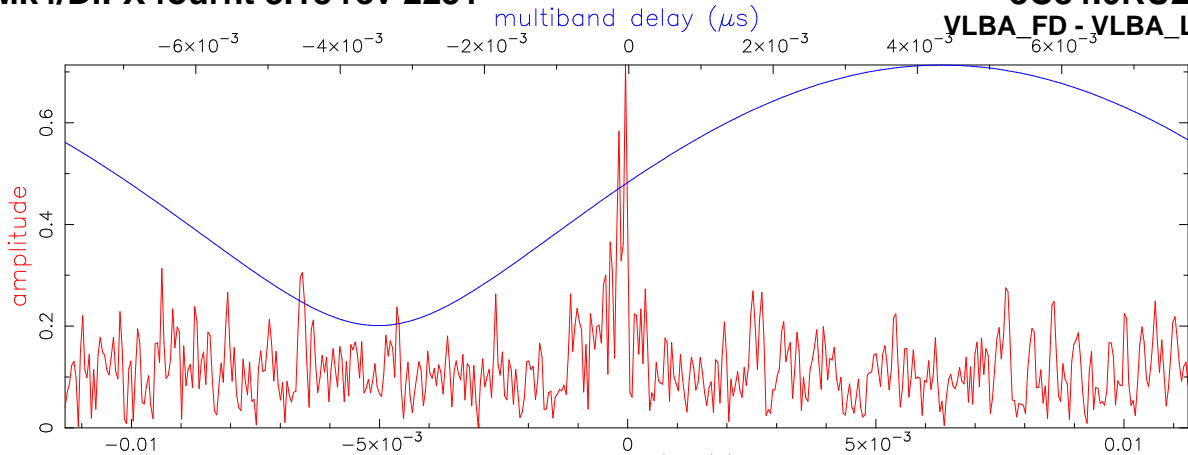
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All
79.0	78.6	Phase	78.8
0.5	0.5	Ampl.	0.5
154.1	155.6	Sbd box	154.8
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
l 1000	1000	PC freqs	
f:l 0:0	0:0	PC phase	
f:l 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
l 1000	1000		
f W01UR	W03UR	Chan ids	
l W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.30939587047E+02	Apriori delay (usec)	-1.31144276540E+02	Resid mbdelay (usec)	1.56449E-03	+/-	9.3E-04
Sband delay (usec)	-1.30942769540E+02	Apriori clock (usec)	9.5585079E+00	Resid sbdelay (usec)	2.01507E-01	+/-	3.2E-03
Phase delay (usec)	-1.31144273997E+02	Apriori clockrate (us/s)	2.5800000E-07	Resid phdelay (usec)	2.54249E-06	+/-	6.9E-07
Delay rate (us/s)	1.68080069033E-02	Apriori rate (us/s)	1.68083233055E-02	Resid rate (us/s)	-3.16402E-07	+/-	9.2E-09
Total phase (deg)	-4.4	Apriori accel (us/s/s)	-4.86862964153E-06	Resid phase (deg)	-11.2	+/-	21.5

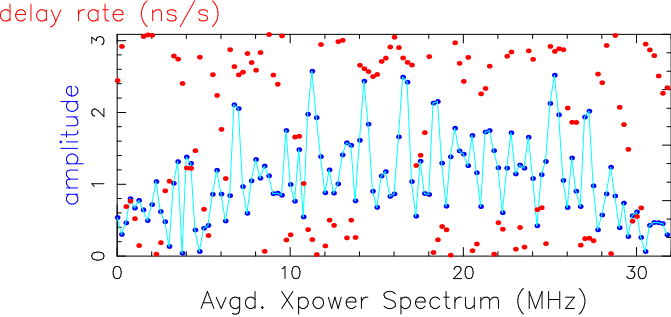
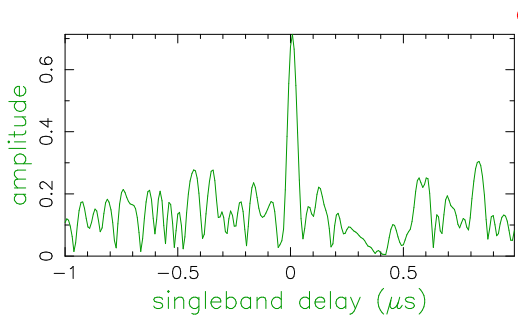
ph/seg (deg) 80.2 99.2 Theor. Amplitude 0.483 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 177.2 173.1 Search (512X8) 0.476 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.7 26.6 Inc. seg. avg. 0.464 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -136.054 -835.202 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fl.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fl.W.120.0RU2MU



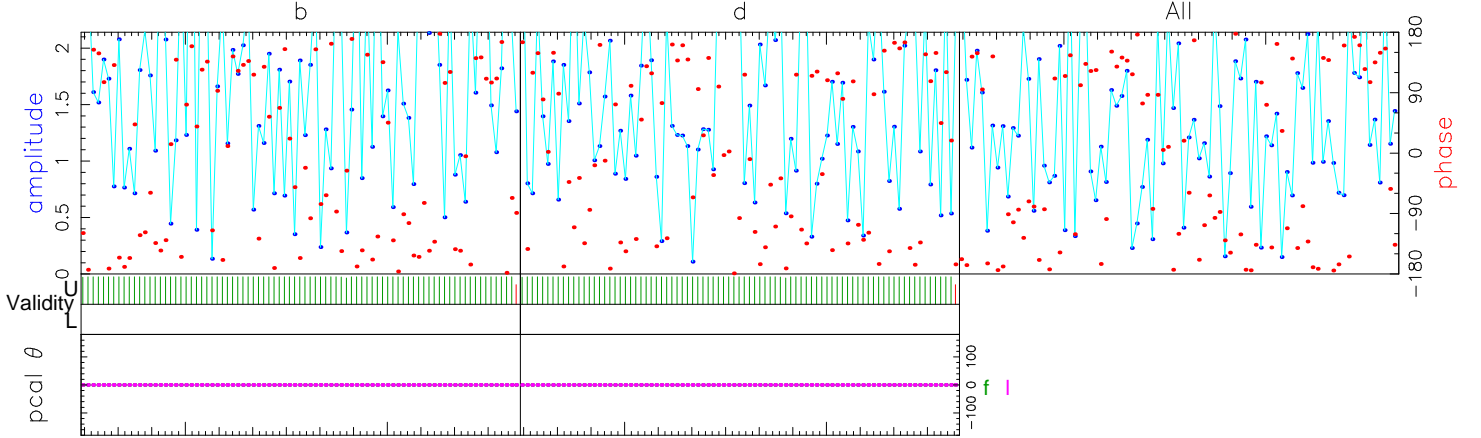
Fringe quality 9

SNR 7.9
 Int time 130.006
 Amp 0.714
 Phase -177.3
 PFD 3.8e-08
 Delays (us)
 SBD 0.007362
 MBD 0.004334
 Fringe rate (Hz)
 -0.003571
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150824
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

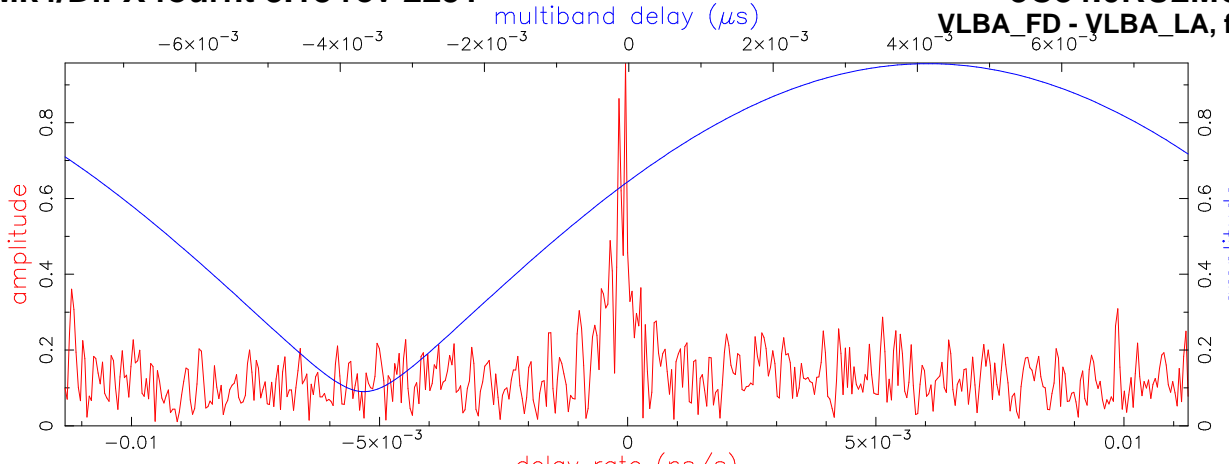


86156.00	86220.00	Freq (MHz)	All				
-177.4	-177.3	Phase	-177.3				
0.9	0.5	Ampl.	0.7				
129.8	130.3	Sbd box	129.9				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
l 1000	1000	PC freqs					
f:l 0:0	0:0	PC phase					
f:l 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
l 1000	1000						
f W01UL	W03UL	Chan ids					
l W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.31139942059E+02	Apriori delay (usec)	-1.31144276540E+02	Resid mbdelay (usec)	4.33448E-03	+/-	6.3E-04
Sband delay (usec)	-1.31136915040E+02	Apriori clock (usec)	9.5585079E+00	Resid sbdelay (usec)	7.36150E-03	+/-	2.2E-03
Phase delay (usec)	-1.31144282258E+02	Apriori clockrate (us/s)	2.5800000E-07	Resid phdelay (usec)	-5.71890E-06	+/-	4.7E-07
Delay rate (us/s)	1.68082818549E-02	Apriori rate (us/s)	1.68083233055E-02	Resid rate (us/s)	-4.14506E-08	+/-	6.2E-09
Total phase (deg)	-170.5	Apriori accel (us/s/s)	-4.86862964153E-06	Resid phase (deg)	-177.3	+/-	14.6

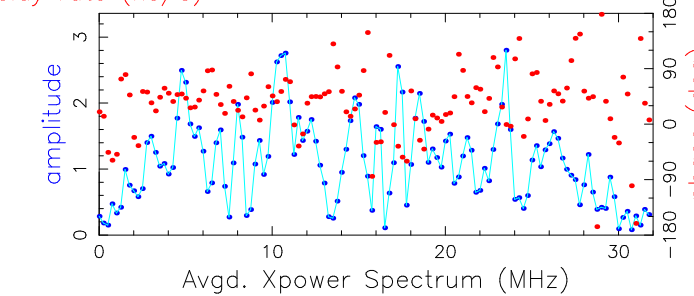
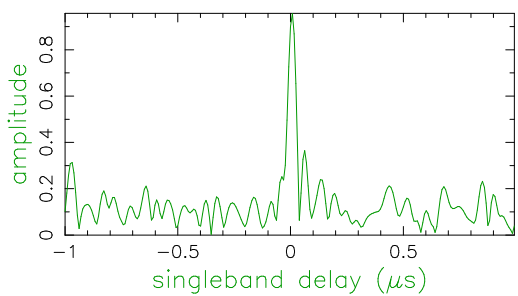
ph/seg (deg)	68.7	Theor.	67.1	Amplitude	0.714 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	129.4	Search (512X8)	0.709	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.793	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
amp/frq (%)	28.2	Inc. frq. avg.	0.702	Inc. frq. avg.	0.702	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
						Data rate(Mb/s):	256	ion window (TEC)	0.00	0.00		

f: az 60.4 el 49.9 pa -89.2 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -136.054 -835.202 simultaneous interpolator

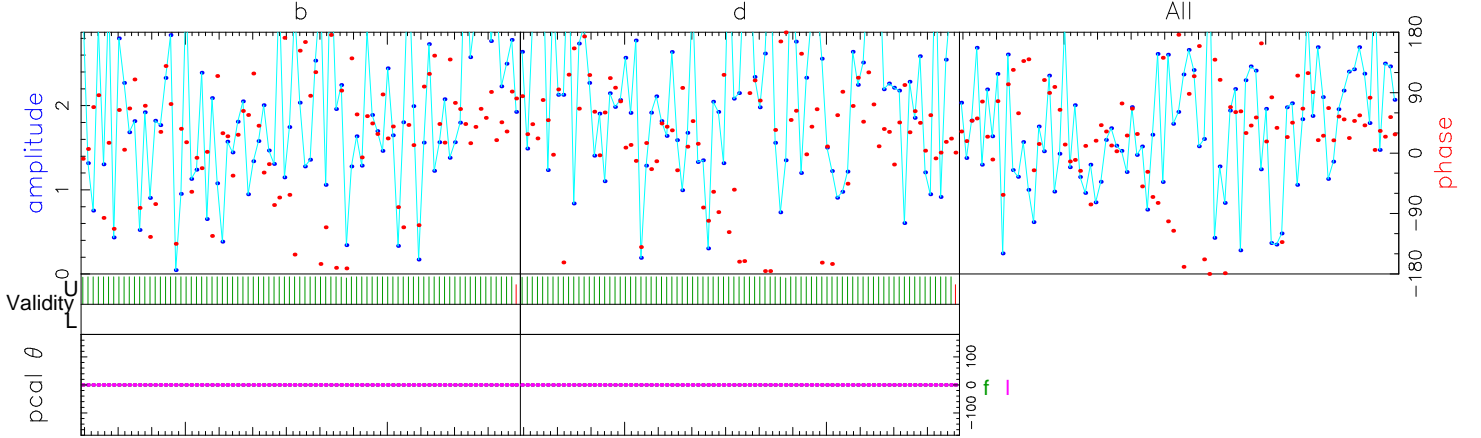
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fl.W.69.0RU2MU



Fringe quality 9
SNR 10.6
Int time 130.006
Amp 0.958
Phase 50.5
PFD 6.6e-19
Delays (us)
SBD 0.006989
MBD 0.004145
Fringe rate (Hz)
-0.002799
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150824
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

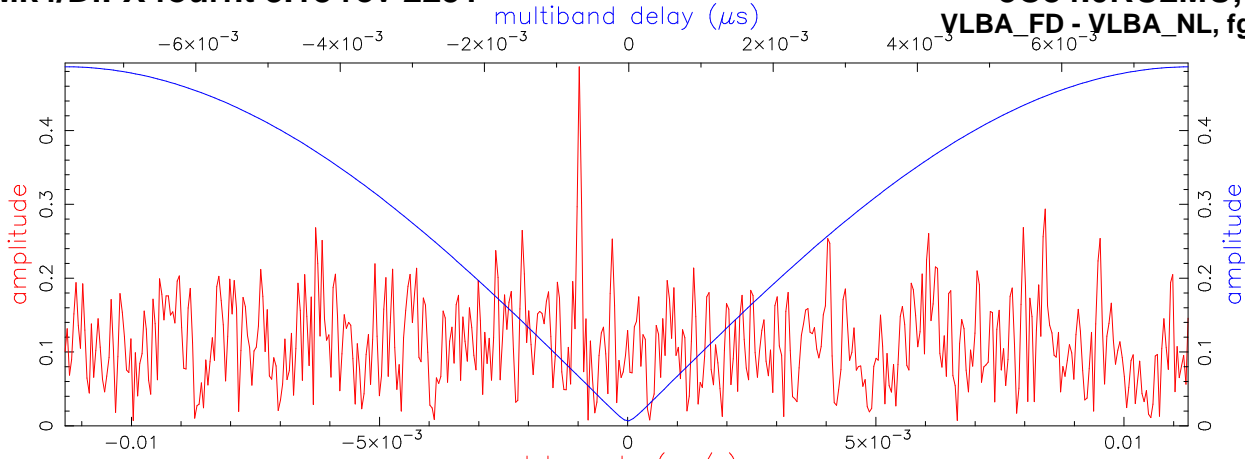


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

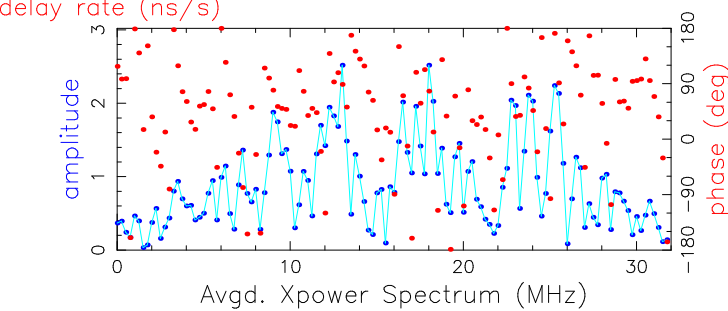
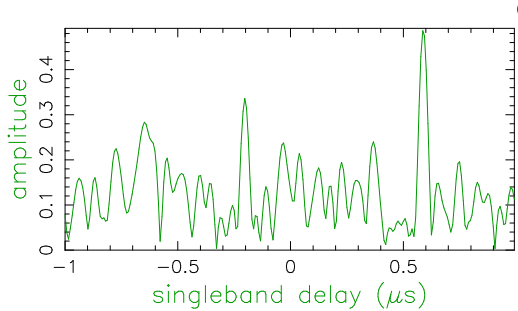


86156.00		86220.00		Freq (MHz)	All
50.5		50.5		Phase	50.5
0.9		1.0		Ampl.	0.9
129.6		130.1		Sbd box	129.9
U/L 255/0		255/0		APs used	
f 1000		1000		PC freqs	
l 1000		1000		PC freqs	
f:l 0:0		0:0		PC phase	
f:l 0:0		0:0		Manl PC	
f 1000		1000		PC amp	
l 1000		1000			
f W01UR		W03UR		Chan ids	
l W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.31140131309E+02	Apriori delay (usec)	-1.31144276540E+02	Resid mbdelay (usec)	4.14523E-03 +/- 4.7E-04
Sband delay (usec)	-1.31137287540E+02	Apriori clock (usec)	9.5585079E+00	Resid sbdelay (usec)	6.98900E-03 +/- 1.6E-03
Phase delay (usec)	-1.31144274911E+02	Apriori clockrate (us/s)	2.5800000E-07	Resid phdelay (usec)	1.62825E-06 +/- 3.5E-07
Delay rate (us/s)	1.68082908110E-02	Apriori rate (us/s)	1.68083233055E-02	Resid rate (us/s)	-3.24945E-08 +/- 4.6E-09
Total phase (deg)	-302.7	Apriori accel (us/s/s)	-4.86862964153E-06	Resid phase (deg)	50.5 +/- 10.9

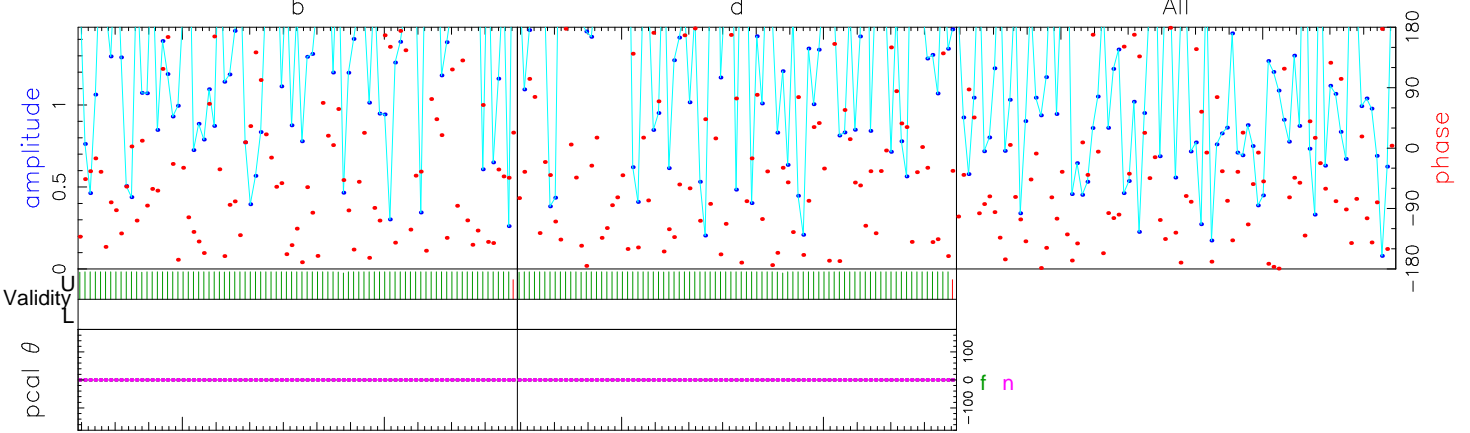
ph/seg (deg) 67.8 50.0 Search (512X8) 0.916 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 112.4 87.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 7.7 Inc. seg. avg. 1.263 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 9.4 13.4 Inc. frq. avg. 0.947 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 60.4 el 49.9 pa -89.2 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -136.054 -835.202 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fl.W.76.0RU2MU



Fringe quality 0
 SNR 5.4
 Int time 129.978
 Amp 0.492
 Phase -272.1
 PFD 3.9e-01
 Delays (us)
 SBD 0.588514
 MBD -0.007680
 Fringe rate (Hz)
 -0.085219
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150827
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

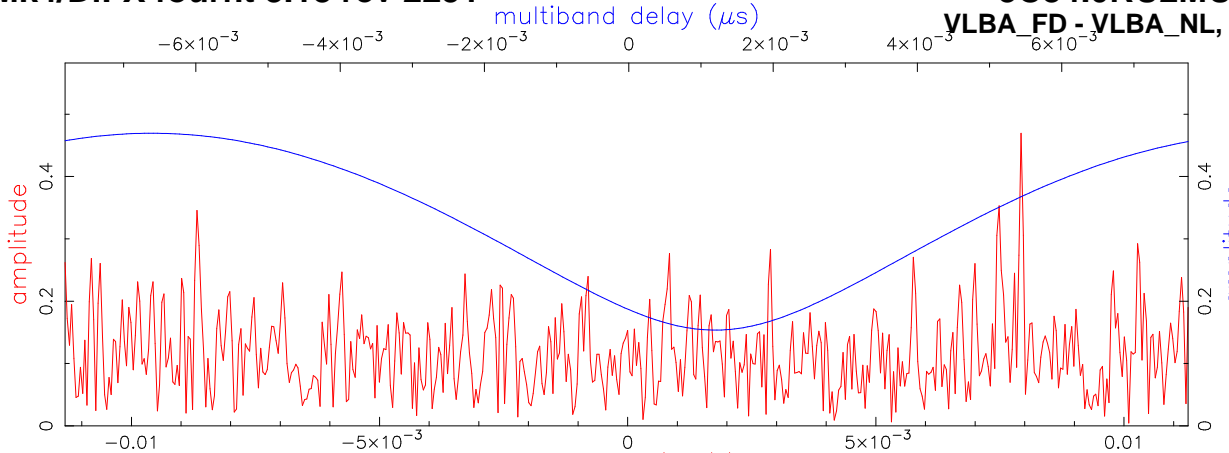


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)		All			
-90.4	-93.8	Phase		-92.1			
0.5	0.5	Ampl.		0.5			
204.3	204.4	Sbd box		204.3			
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
n 1000	1000	PC freqs					
f:n 0:0	0:0	PC phase					
f:n 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
n 1000	1000						
f W01UR	W03UR	Chan ids					
n W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.67635282612E+03	Apriori delay (usec)	-2.67693889612E+03	Resid mbdelay (usec)	-7.68000E-03	+/-	9.2E-04
Sband delay (usec)	-2.67635038212E+03	Apriori clock (usec)	-1.4848855E+01	Resid sbdelay (usec)	5.88514E-01	+/-	3.2E-03
Phase delay (usec)	-2.67693889909E+03	Apriori clockrate (us/s)	-2.4499998E-07	Resid phdelay (usec)	-2.97103E-06	+/-	6.8E-07
Delay rate (us/s)	2.38237546402E-01	Apriori rate (us/s)	2.38238535713E-01	Resid rate (us/s)	-9.89311E-07	+/-	9.1E-09
Total phase (deg)	-96.4	Apriori accel (us/s/s)	2.44451252985E-06	Resid phase (deg)	-272.1	+/-	21.2

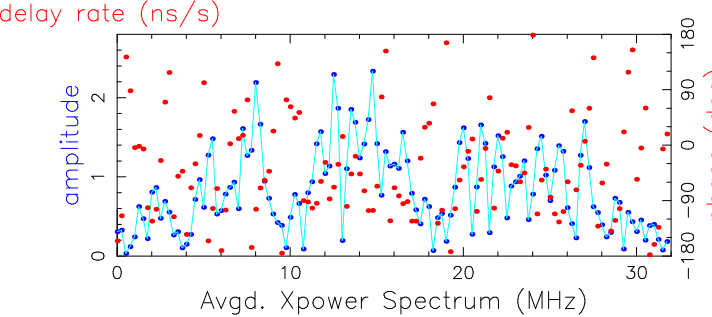
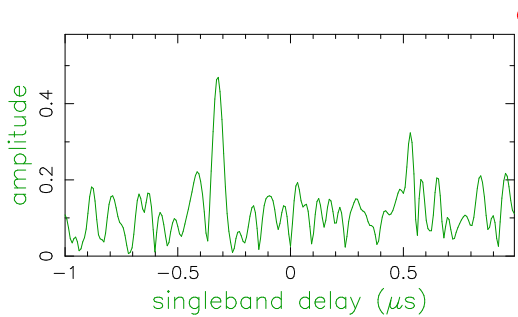
ph/seg (deg) 77.0 97.8 Amplitude 0.492 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 165.0 170.7 Search (512X8) 0.462 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.5 26.2 Inc. seg. avg. 0.437 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1817.757 -848.554 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fn.W.103.0RU2MU simultaneous interpolator



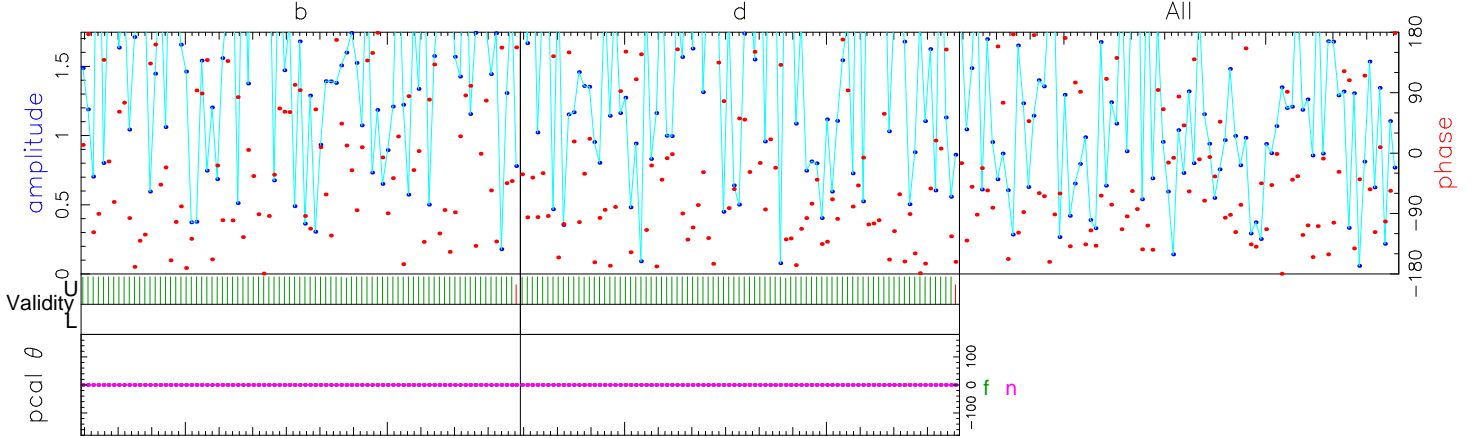
Fringe quality 0

SNR 5.2
Int time 129.978
Amp 0.582
Phase 271.1
PFD 7.4e-01
Delays (us)
SBD -0.323148
MBD -0.006577
Fringe rate (Hz)
0.681774
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150825
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



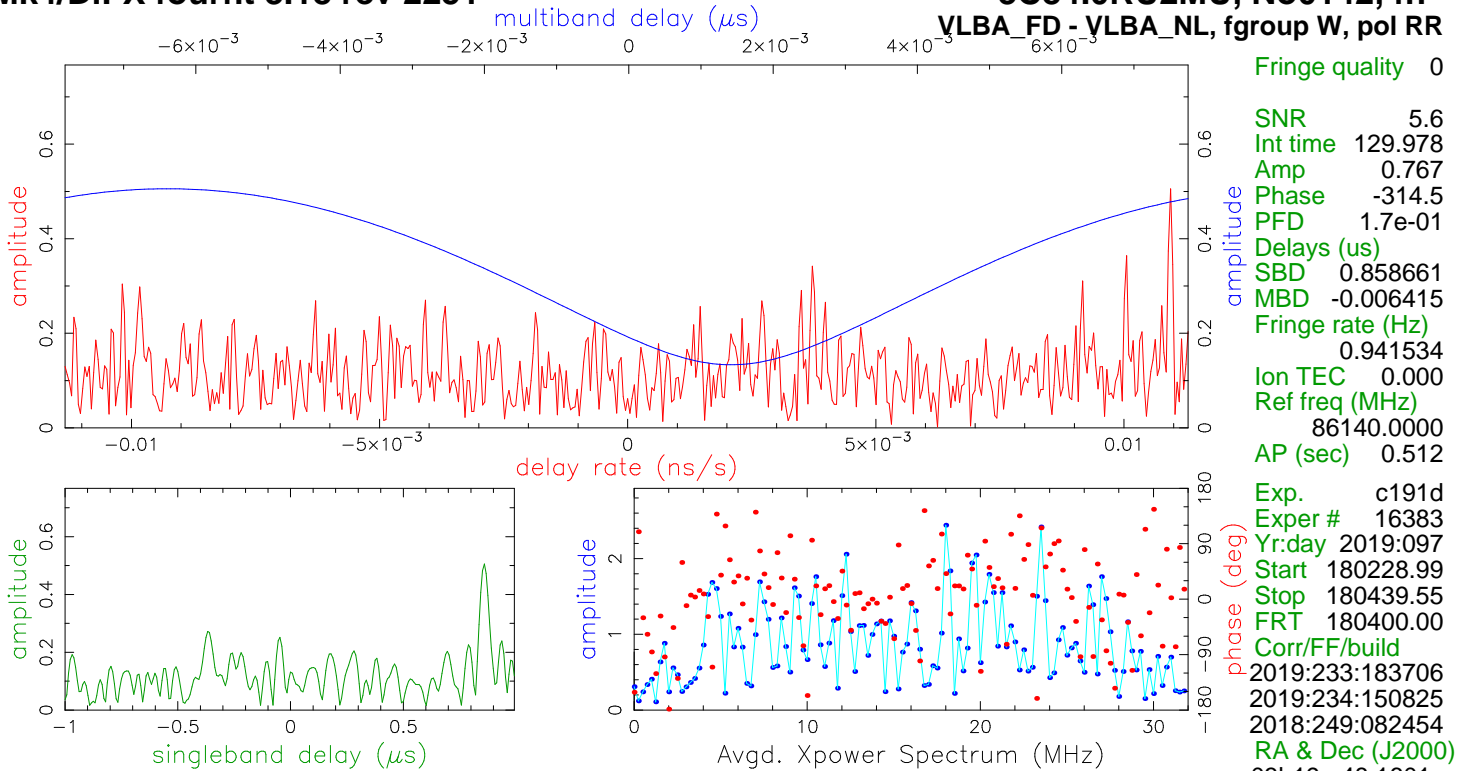
86156.00	86220.00	Freq (MHz)	All
-88.3	-89.2	Phase	-88.9
0.4	0.8	Ampl.	0.6
131.8	87.7	Sbd box	87.6
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
n 1000	1000	PC freqs	
f:n 0:0	0:0	PC phase	
f:n 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
n 1000	1000		
f W01UL	W03UL	Chan ids	
n W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.67725797286E+03	Apriori delay (usec)	-2.67693889612E+03	Resid mbdelay (usec)	-6.57674E-03	+/-	9.6E-04
Sband delay (usec)	-2.67726204412E+03	Apriori clock (usec)	-1.4848855E+01	Resid sbdelay (usec)	-3.23148E-01	+/-	3.3E-03
Phase delay (usec)	-2.67693889899E+03	Apriori clockrate (us/s)	-2.4499998E-07	Resid phdelay (usec)	-2.86694E-06	+/-	7.1E-07
Delay rate (us/s)	2.38246450435E-01	Apriori rate (us/s)	2.38238535713E-01	Resid rate (us/s)	7.91472E-06	+/-	9.4E-09
Total phase (deg)	86.9	Apriori accel (us/s/s)	2.44451252985E-06	Resid phase (deg)	271.1	+/-	22.0

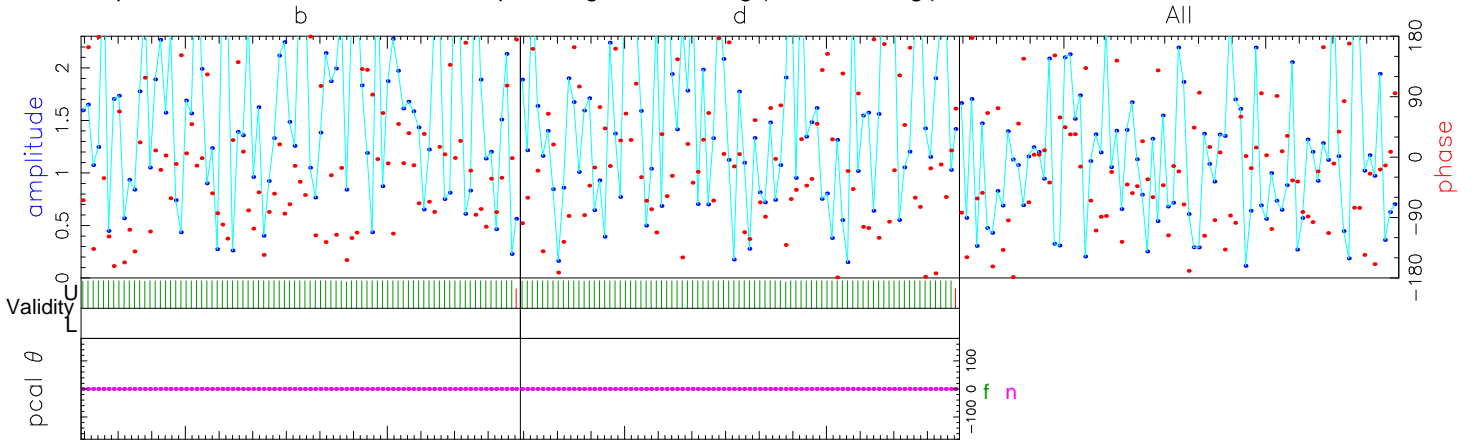
ph/seg (deg)	83.8	Theor.	101.5	Amplitude	0.582 +/- 0.112	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	184.2	Search (512X8)	0.448	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.530	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.5	Inc. frq. avg.	0.558	Sample rate(MSamp/s):	64	nlags:	128	dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s):	256	t_cohere	infinite	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1817.757 -848.554 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fn.W.78.0RU2MU



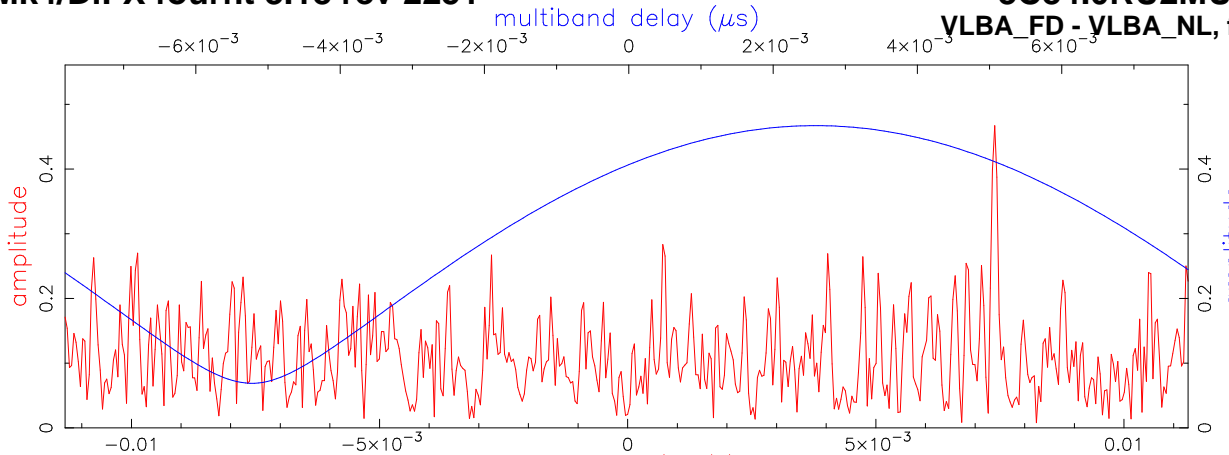
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



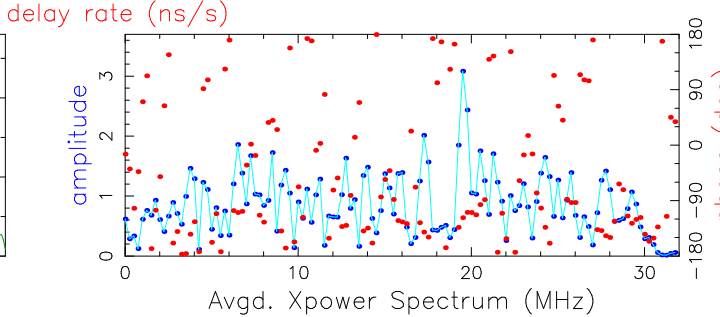
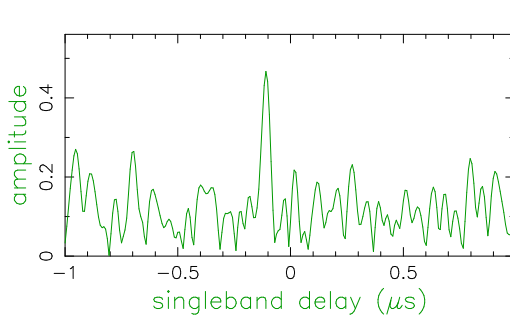
86156.00	86220.00	Freq (MHz)	All				
-44.7	-44.2	Phase	-44.5				
1.0	0.6	Ampl.	0.7				
239.1	82.5	Sbd box	238.9				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
n 1000	1000	PC freqs					
f:n 0:0	0:0	PC phase					
f:n 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
n 1000	1000						
f W01UR	W03UR	Chan ids					
n W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.67608593632E+03	Apriori delay (usec)	-2.67693889612E+03	Resid mbdelay (usec)	-6.41520E-03	+/-	8.9E-04
Sband delay (usec)	-2.67608023462E+03	Apriori clock (usec)	-1.4848855E+01	Resid sbdelay (usec)	8.58661E-01	+/-	3.1E-03
Phase delay (usec)	-2.67693889756E+03	Apriori clockrate (us/s)	-2.4499998E-07	Resid phdelay (usec)	-1.43516E-06	+/-	6.6E-07
Delay rate (us/s)	2.38249465988E-01	Apriori rate (us/s)	2.38238535713E-01	Resid rate (us/s)	1.09303E-05	+/-	8.8E-09
Total phase (deg)	-138.8	Apriori accel (us/s/s)	2.44451252985E-06	Resid phase (deg)	-314.5	+/-	20.5

ph/seg (deg)	83.4	Theor.	94.7	Amplitude	0.767 +/- 0.138	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	178.8	Search (512X8)	0.491	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.731	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	26.3	Inc. seg. avg.	0.743	Inc. frq. avg.	0.743	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00
f: az 60.4 el 49.9 pa -89.2	n: az 78.2 el 63.2 pa -77.1	u,v (fr/asec)	-1817.757 -848.554						

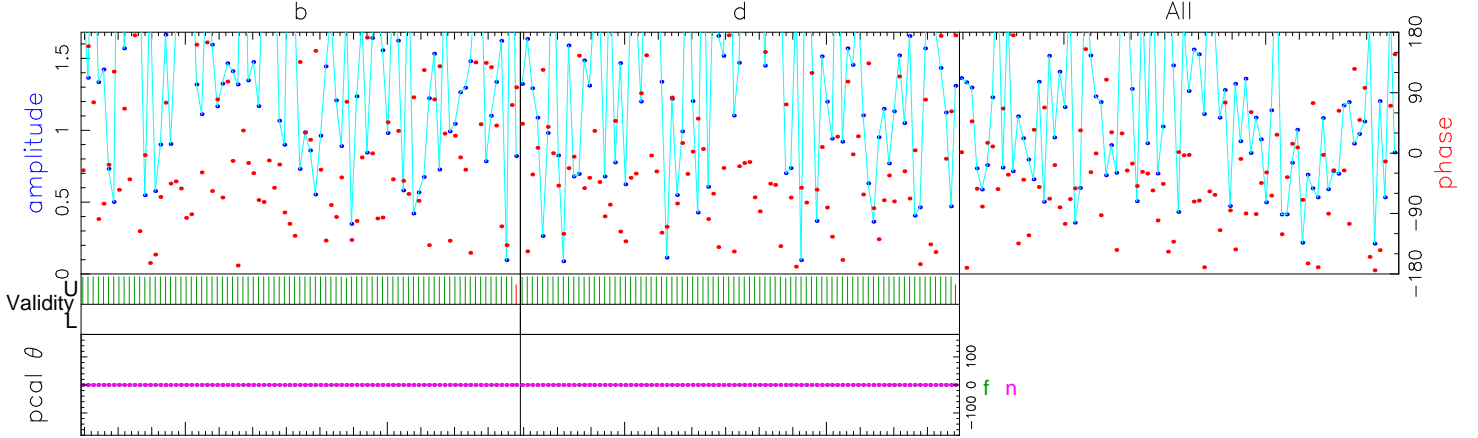
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fn.W.84.0RU2MU simultaneous interpolator



Fringe quality 0
 SNR 5.2
 Int time 129.978
 Amp 0.561
 Phase 225.1
 PFD 8.4e-01
 Delays (us)
 SBD -0.108667
 MBD 0.002604
 Fringe rate (Hz)
 0.638487
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

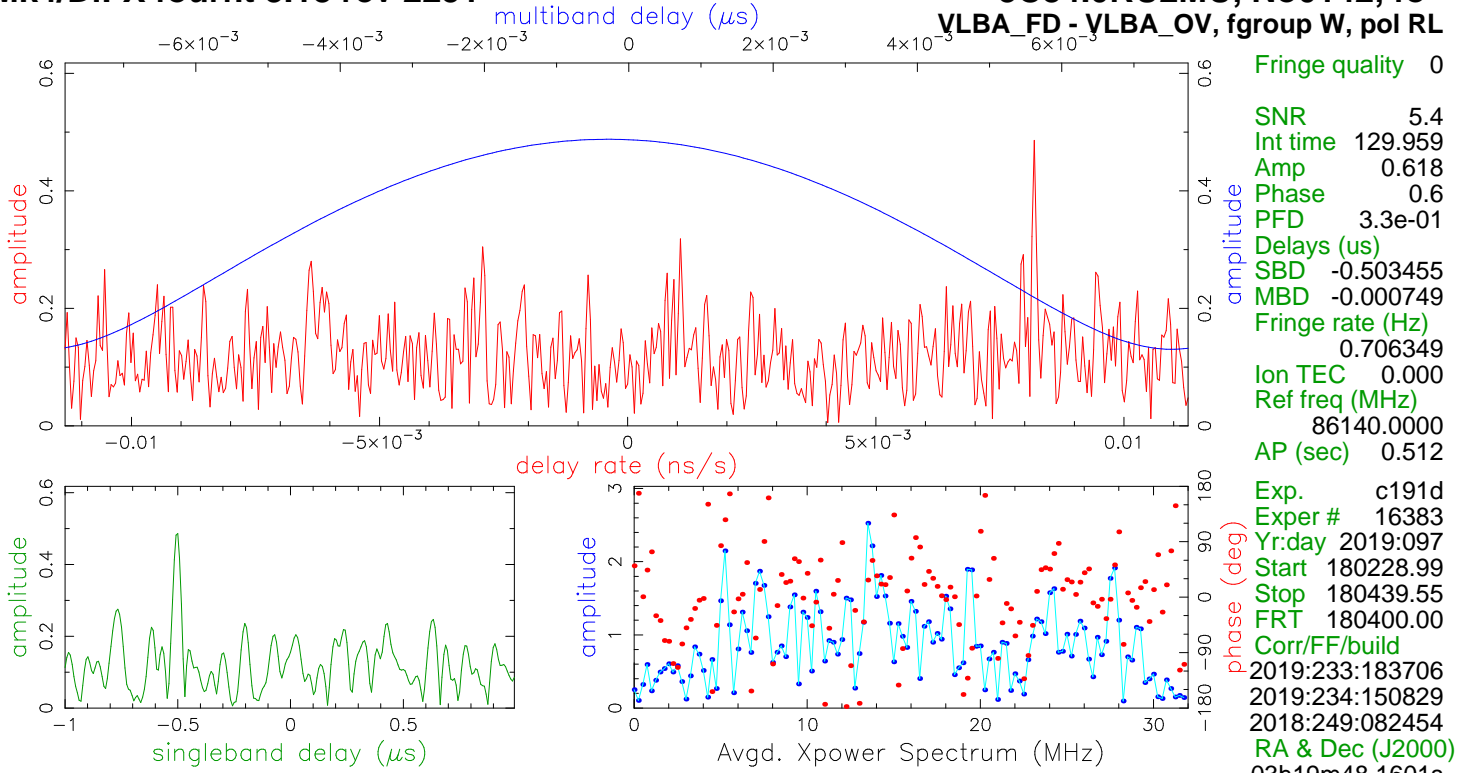


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

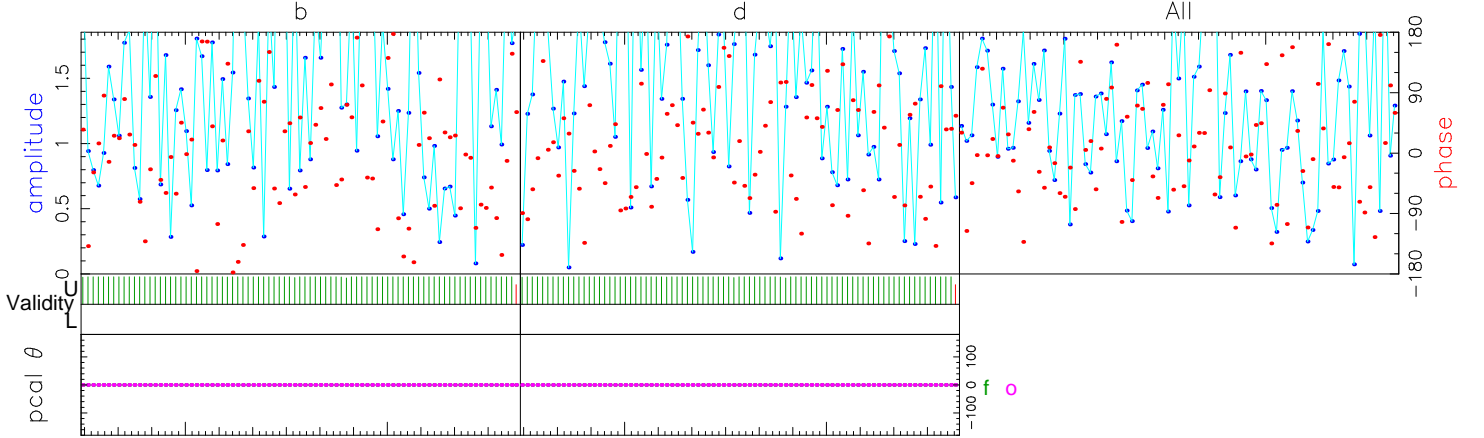


86156.00	86220.00	Freq (MHz)	All				
-44.7	-45.1	Phase	-44.9				
0.5	0.6	Ampl.	0.5				
114.6	115.4	Sbd box	115.1				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
n 1000	1000	PC freqs					
f:n 0:0	0:0	PC phase					
f:n 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
n 1000	1000						
f W01UL	W03UL	Chan ids					
n W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.67704566683E+03	Apriori delay (usec)	-2.67693889612E+03	Resid mbdelay (usec)	2.60429E-03	+/-	9.7E-04
Sband delay (usec)	-2.67704756262E+03	Apriori clock (usec)	-1.4848855E+01	Resid sbdelay (usec)	-1.08667E-01	+/-	3.3E-03
Phase delay (usec)	-2.67693889757E+03	Apriori clockrate (us/s)	-2.4499998E-07	Resid phdelay (usec)	-1.44879E-06	+/-	7.2E-07
Delay rate (us/s)	2.38245947908E-01	Apriori rate (us/s)	2.38238535713E-01	Resid rate (us/s)	7.41220E-06	+/-	9.5E-09
Total phase (deg)	40.8	Apriori accel (us/s/s)	2.44451252985E-06	Resid phase (deg)	225.1	+/-	22.2

RMS Theor. Amplitude 0.561 +/- 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 76.4 102.6 Search (512X8) 0.451 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 183.5 179.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 15.7 Inc. seg. avg. 0.521 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 14.7 27.5 Inc. frq. avg. 0.540 simultaneous interpolator

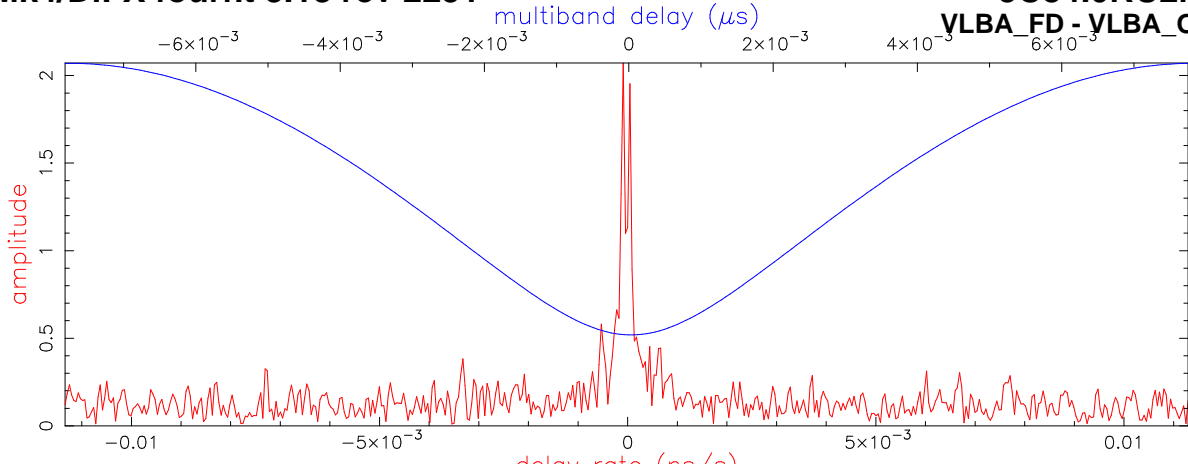


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

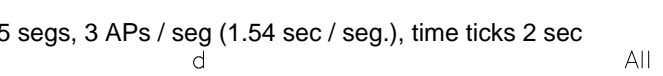
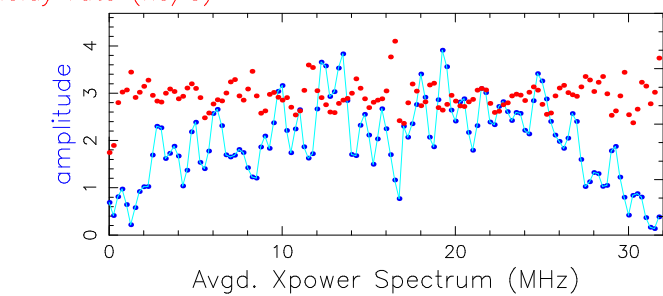
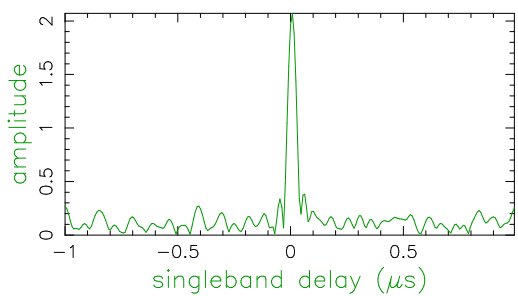


86156.00	86220.00	Freq (MHz)	All				
-6.2	4.4	Phase	0.6				
0.4	0.8	Ampl.	0.6				
66.3	64.0	Sbd box	64.6				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
o 1000	1000	PC freqs					
f:0 0:0	0:0	PC phase					
f:0 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
o 1000	1000						
f W01UR	W03UR	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.92118652091E+03	Apriori delay (usec)	1.92168726990E+03	Resid mbdelay (usec)	-7.48996E-04	+/-	9.2E-04
Sband delay (usec)	1.92118381490E+03	Apriori clock (usec)	-6.6807513E+00	Resid sbdelay (usec)	-5.03455E-01	+/-	3.2E-03
Phase delay (usec)	1.92168726992E+03	Apriori clockrate (us/s)	-1.4856001E-07	Resid phdelay (usec)	1.78862E-08	+/-	6.8E-07
Delay rate (us/s)	-7.87482674202E-02	Apriori rate (us/s)	-7.87564674357E-02	Resid rate (us/s)	8.20002E-06	+/-	9.0E-09
Total phase (deg)	155.2	Apriori accel (us/s/s)	-1.73951473733E-05	Resid phase (deg)	0.6	+/-	21.1

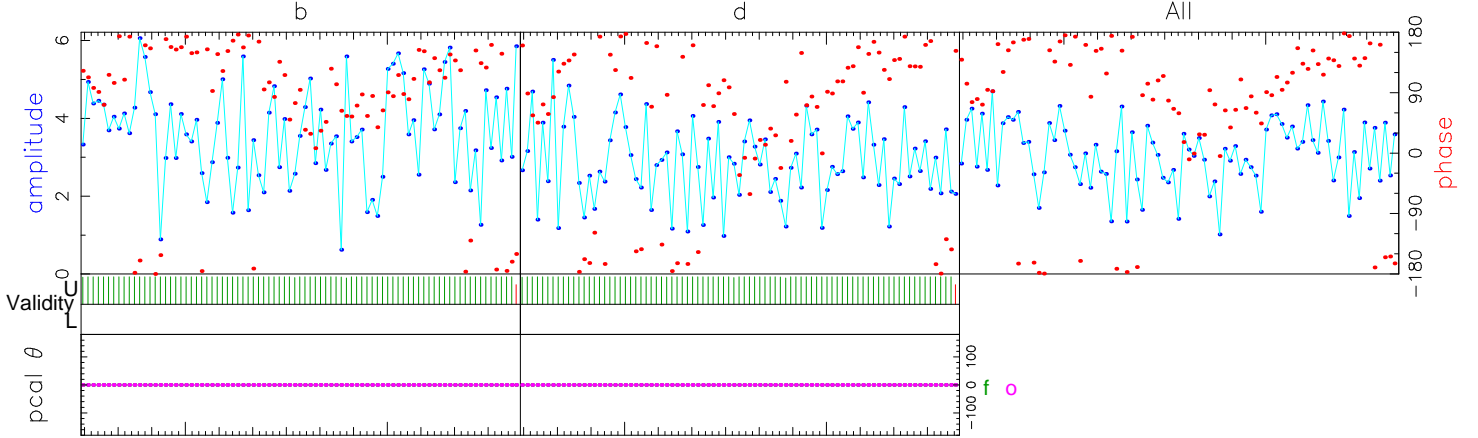
ph/seg (deg)	RMS 77.5	Theor. 97.2	Amplitude Search (512X8)	0.618 +/- 0.114	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	187.3	169.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.9	Inc. seg. avg.	0.628	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	26.4	26.0	Inc. frq. avg.	0.591	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00



Fringe quality 8
 SNR 22.8
 Int time 129.959
 Amp 2.072
 Phase 36.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.006819
 MBD -0.007794
 Fringe rate (Hz)
 -0.006667
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150825
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

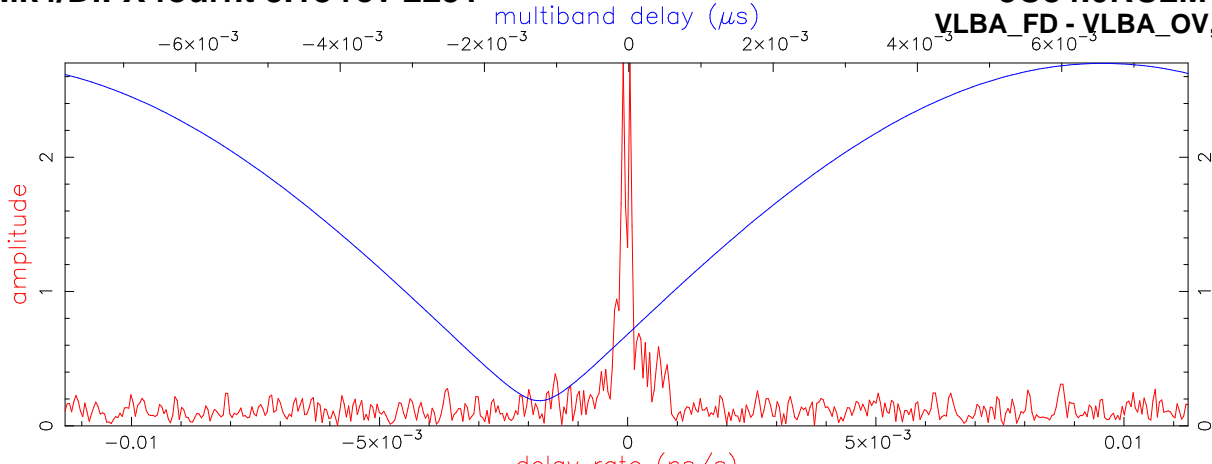


86156.00	86220.00	Freq (MHz)	All
126.8	127.1	Phase	126.9
2.6	1.6	Ampl.	2.1
130.0	129.6	Sbd box	129.9
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
o 1000	1000	PC freqs	
f:0 0:0	0:0	PC phase	
f:0 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
o 1000	1000		
f W01UL	W03UL	Chan ids	
o W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

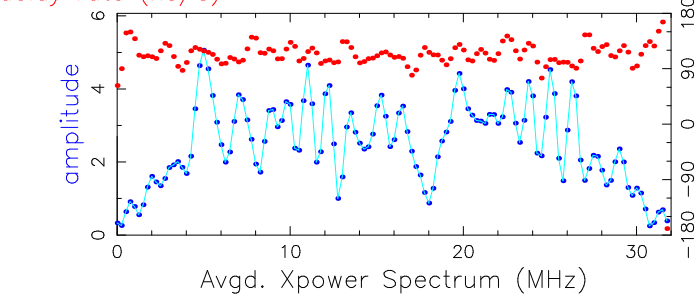
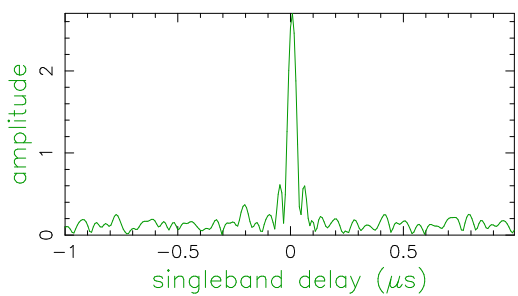
Group delay (usec)(sbd)	1.92169510040E+03	Apriori delay (usec)	1.92168726990E+03	Resid mbdelay (usec)	-7.79450E-03	+/-	2.2E-04
Sband delay (usec)	1.92169408890E+03	Apriori clock (usec)	-6.6807513E+00	Resid sbdelay (usec)	6.81900E-03	+/-	7.5E-04
Phase delay (usec)	1.92168727399E+03	Apriori clockrate (us/s)	-1.4856001E-07	Resid phdelay (usec)	4.09175E-06	+/-	1.6E-07
Delay rate (us/s)	-7.87565448357E-02	Apriori rate (us/s)	-7.87564674357E-02	Resid rate (us/s)	-7.74000E-08	+/-	2.1E-09
Total phase (deg)	191.5	Apriori accel (us/s/s)	-1.73951473733E-05	Resid phase (deg)	36.9	+/-	5.0

ph/seg (deg)	52.8	Theor.	23.1	Amplitude	2.072 +/- 0.091	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	63.1	Search (512X8)	2.009	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	
ph/frq (deg)	0.0	Inc. seg. avg.	2.854	Inc. frq. avg.	2.066	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	25.1	Inc. frq. avg.	2.066			Sample rate(MSamp/s):	64	mb window (us)	-1.000 1.000
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 574.443 -1850.116 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fo.W.82.0RU2MU

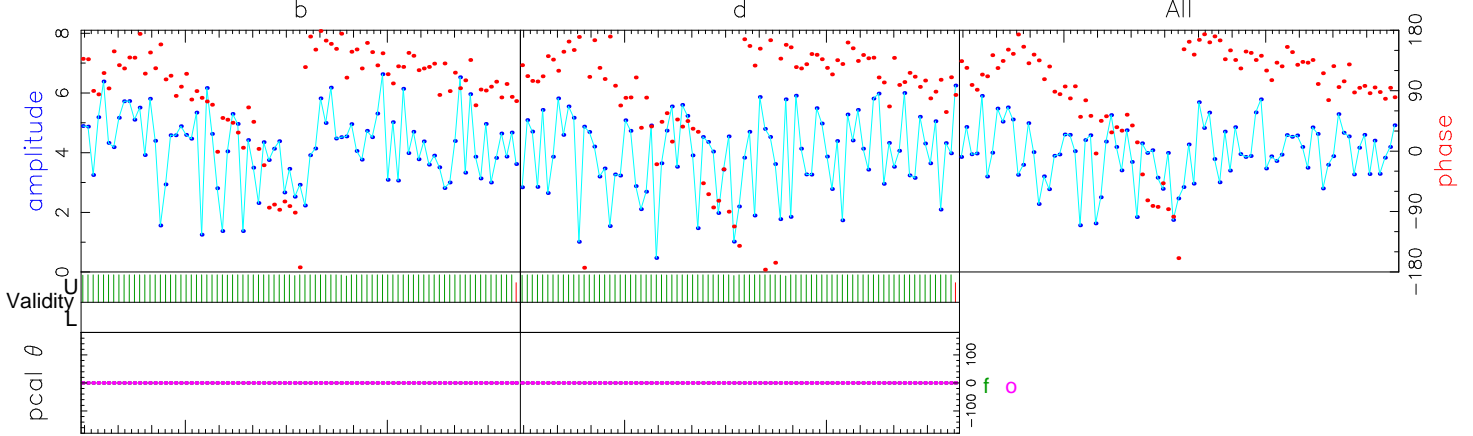


Fringe quality 9
 SNR 29.8
 Int time 129.959
 Amp 2.702
 Phase 116.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.007136
 MBD 0.006562
 Fringe rate (Hz) 0.004646
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

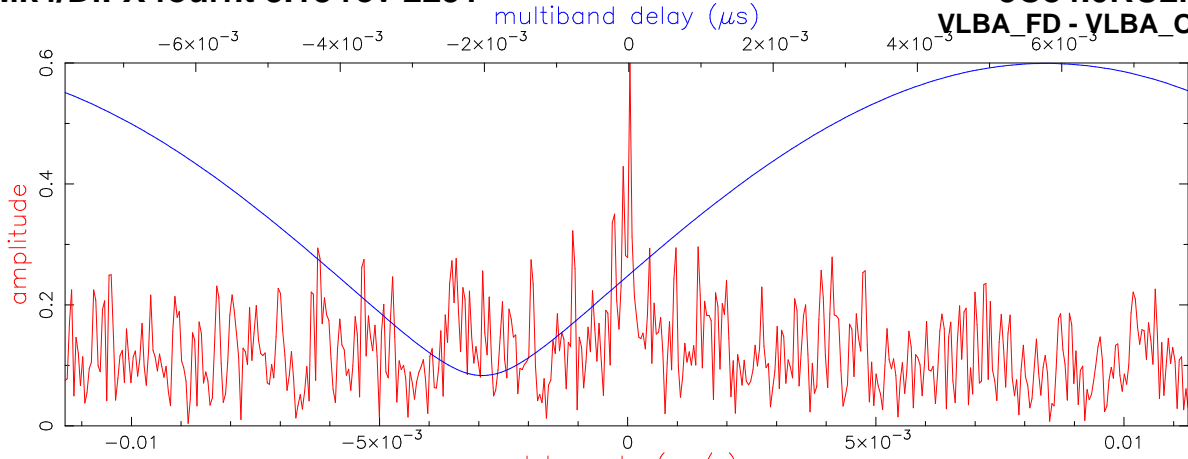
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



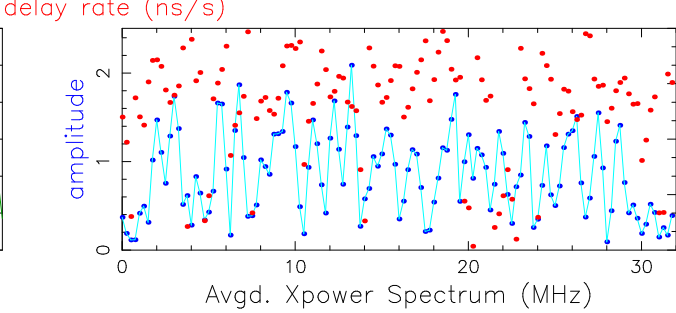
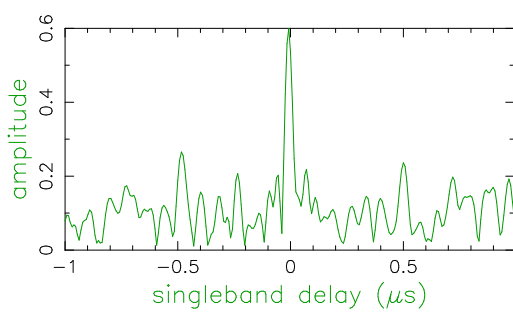
86156.00	86220.00	Freq (MHz)	All
116.6	116.8	Phase	116.7
2.9	2.5	Ampl.	2.7
129.9	129.9	Sbd box	129.9
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
o 1000	1000	PC freqs	
f:0 0:0	0:0	PC phase	
f:0 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
o 1000	1000		
f W01UR	W03UR	Chan ids	
o W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.92169383230E+03	Apriori delay (usec)	1.92168726990E+03	Resid mbdelay (usec)	6.56239E-03	+/-	1.7E-04
Sband delay (usec)	1.92169440590E+03	Apriori clock (usec)	-6.6807513E+00	Resid sbdelay (usec)	7.13600E-03	+/-	5.8E-04
Phase delay (usec)	1.92168727367E+03	Apriori clockrate (us/s)	-1.4856001E-07	Resid phdelay (usec)	3.76271E-06	+/-	1.2E-07
Delay rate (us/s)	-7.87564135031E-02	Apriori rate (us/s)	-7.87564674357E-02	Resid rate (us/s)	5.39326E-08	+/-	1.6E-09
Total phase (deg)	271.3	Apriori accel (us/s/s)	-1.73951473733E-05	Resid phase (deg)	116.7	+/-	3.8

ph/seg (deg) 60.5 17.7 Theor. Amplitude 2.702 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.4 31.0 Search (512X8) 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 2.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 6.9 4.7 Inc. seg. avg. 3.814 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 574.443 -1850.116 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fo.W.90.0RU2MU

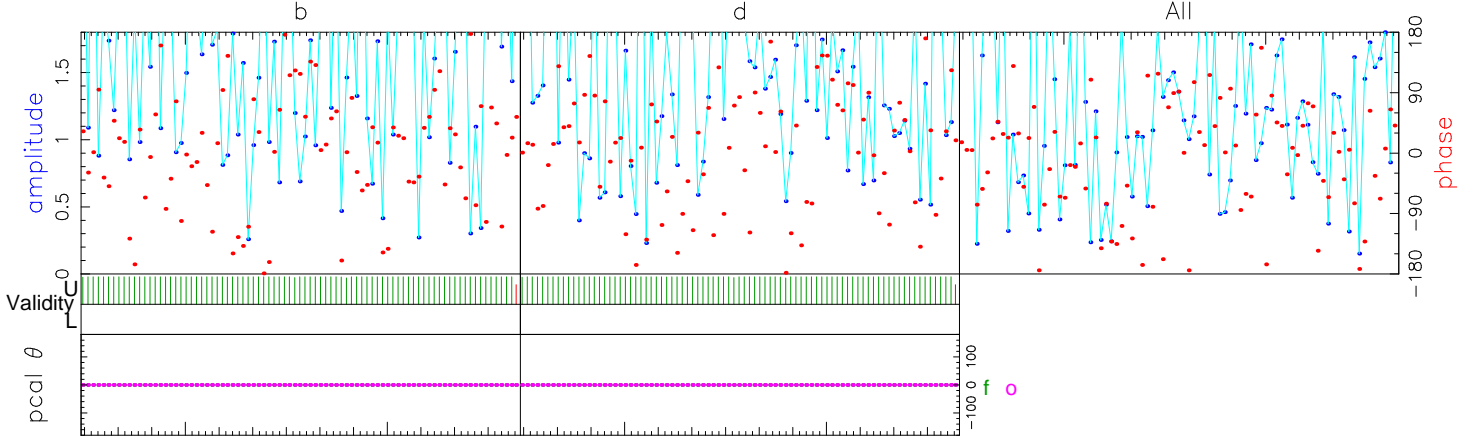


Fringe quality 0
SNR 6.6
Int time 129.959
Amp 0.600
Phase 98.4
PFD 3.3e-04
Delays (us)
SBD -0.008762
MBD 0.005747
Fringe rate (Hz) 0.004136
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150827
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



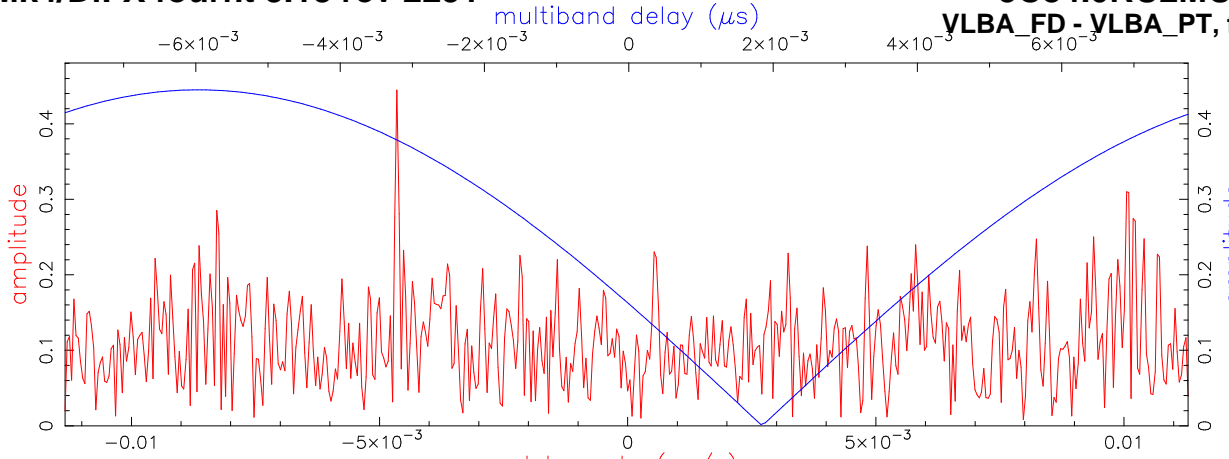
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
8.0	8.9	Phase	8.4				
0.7	0.5	Ampl.	0.6				
128.3	127.1	Sbd box	127.9				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
o 1000	1000	PC freqs					
f:o 0:0	0:0	PC phase					
f:o 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
o 1000	1000						
f W01UL	W03UL	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.92167739180E+03	Apriori delay (usec)	1.92168726990E+03	Resid mbdelay (usec)	5.74689E-03	+/-	7.5E-04
Sband delay (usec)	1.92167850840E+03	Apriori clock (usec)	-6.6807513E+00	Resid sbdelay (usec)	-8.76150E-03	+/-	2.6E-03
Phase delay (usec)	1.92168727017E+03	Apriori clockrate (us/s)	-1.4856001E-07	Resid phdelay (usec)	2.70976E-07	+/-	5.6E-07
Delay rate (us/s)	-7.87564194153E-02	Apriori rate (us/s)	-7.87564674357E-02	Resid rate (us/s)	4.80204E-08	+/-	7.4E-09
Total phase (deg)	253.0	Apriori accel (us/s/s)	-1.73951473733E-05	Resid phase (deg)	98.4	+/-	17.3

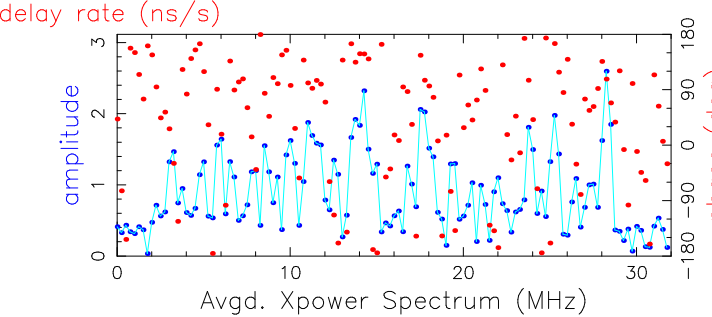
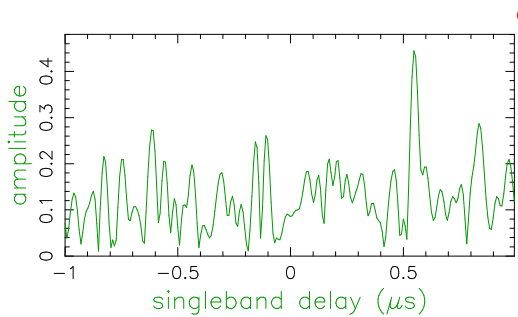
ph/seg (deg) 83.0 79.9 Theor. Amplitude 0.600 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 163.7 139.4 Search (512X8) 0.596 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 12.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 13.9 21.4 Inc. seg. avg. 0.645 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 60.4 el 49.9 pa -89.2 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 574.443 -1850.116 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fo.W.99.0RU2MU



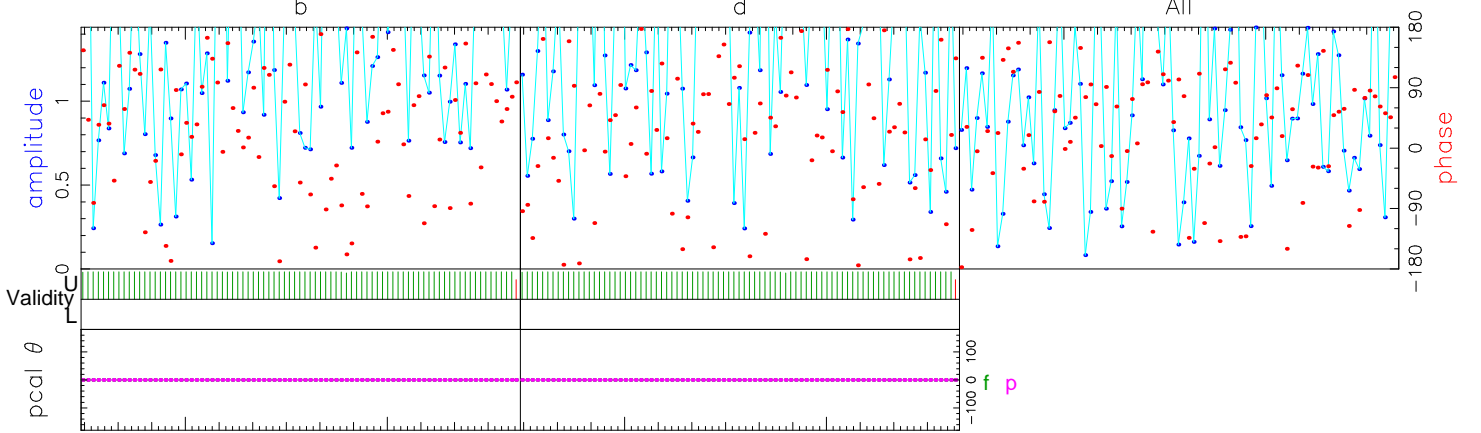
Fringe quality 0

SNR 4.9
 Int time 130.006
 Amp 0.481
 Phase -293.7
 PFD 9.9e-01
 Delays (us)
 SBD 0.549342
 MBD -0.006150
 Fringe rate (Hz)
 -0.399763
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150827
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

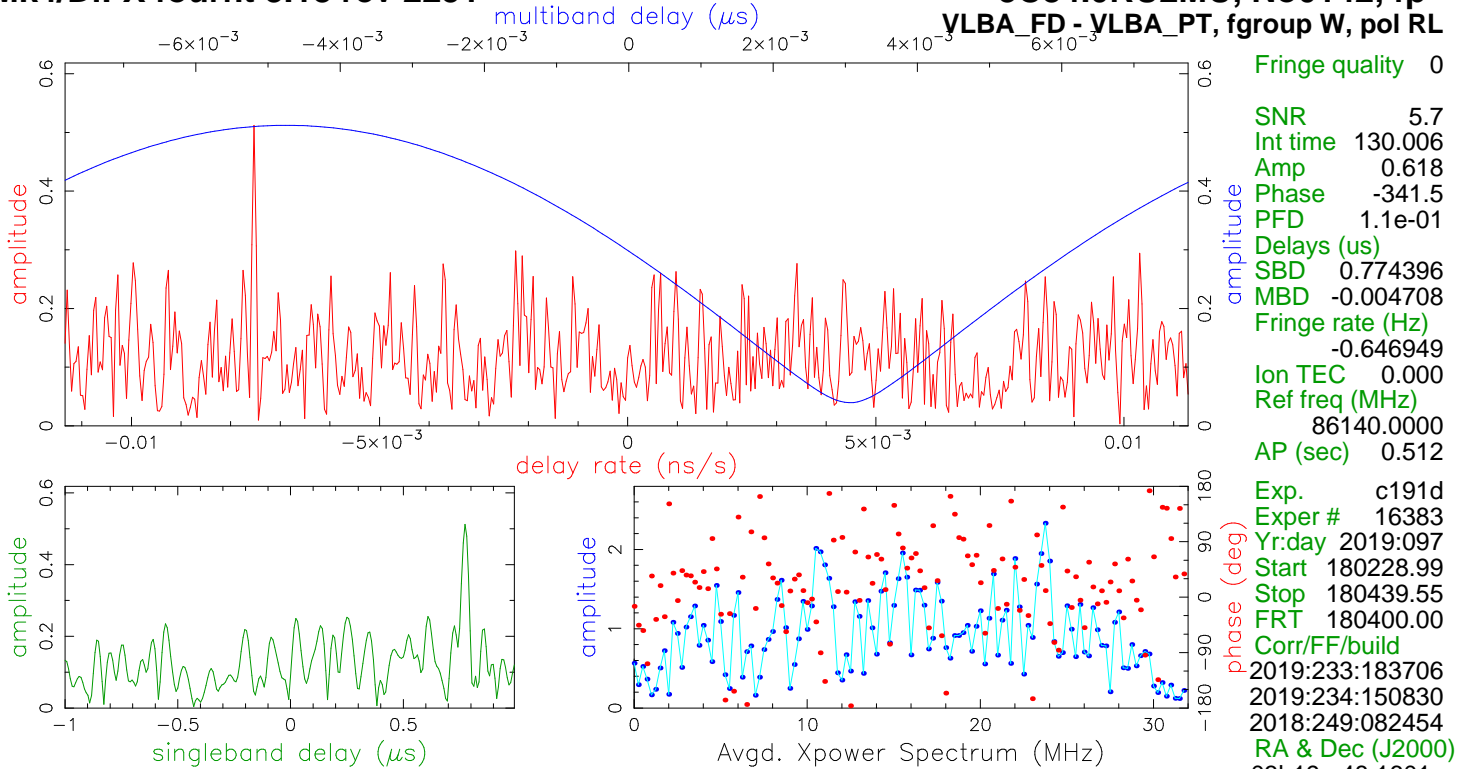


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

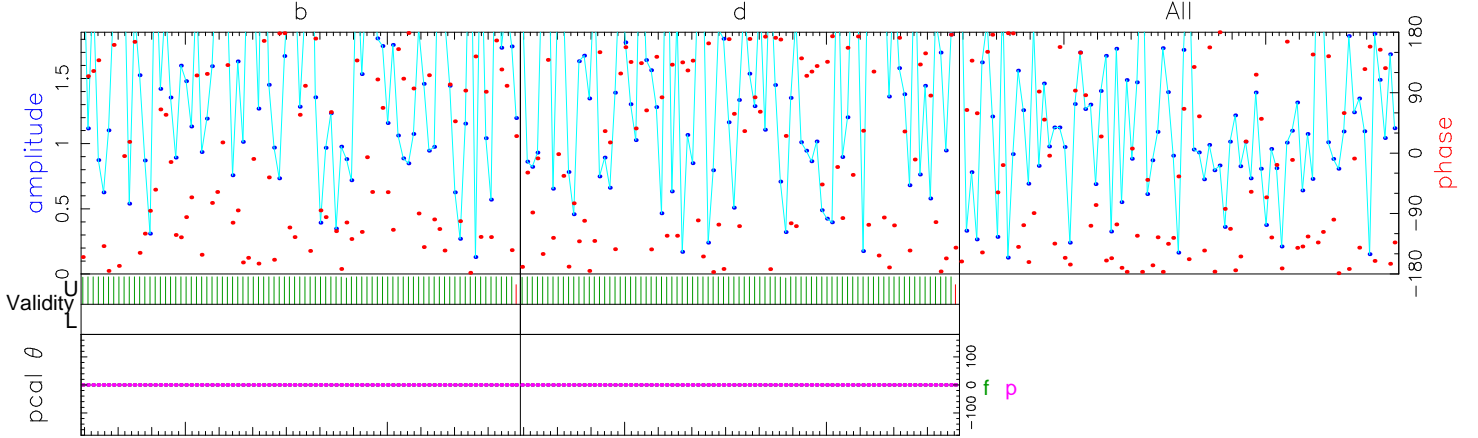


86156.00	86220.00	Freq (MHz)	All			
64.2	68.5	Phase	66.3			
0.5	0.5	Ampl.	0.5			
199.2	199.5	Sbd box	199.3			
U/L 255/0	255/0	APs used				
f 1000	1000	PC freqs				
p 1000	1000	PC freqs				
f:p 0:0	0:0	PC phase				
f:p 0:0	0:0	Manl PC				
f 1000	1000	PC amp				
p 1000	1000					
f W01UL	W03UL	Chan ids				
p W01UR	W03UR	Tracks				
		Chan ids				
		Tracks				
Group delay (usec)(sbd)	3.36609258599E+02	Apriori delay (usec)	3.36052908712E+02	Resid mbdelay (usec)	-6.15011E-03	+/- 1.0E-03
Sband delay (usec)	3.36602250712E+02	Apriori clock (usec)	-6.5079784E-01	Resid sbdelay (usec)	5.49342E-01	+/- 3.5E-03
Phase delay (usec)	3.36052910852E+02	Apriori clockrate (us/s)	-7.3999997E-08	Resid phdelay (usec)	2.13931E-06	+/- 7.5E-07
Delay rate (us/s)	-1.61667091296E-02	Apriori rate (us/s)	-1.61620682756E-02	Resid rate (us/s)	-4.64085E-06	+/- 9.9E-09
Total phase (deg)	-93.3	Apriori accel (us/s/s)	-5.83326877053E-06	Resid phase (deg)	-293.7	+/- 23.2

ph/seg (deg) 82.4 106.9 Theor. Amplitude 0.481 +/- 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 185.8 186.6 Search (512X8) 0.427 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 16.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.7 28.6 Inc. seg. avg. 0.403 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 114.447 -765.550 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fp.W.104.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00				86220.00				Freq (MHz)	All
-161.0				-161.9				Phase	-161.5
0.6				0.7				Ampl.	0.6
228.2				228.1				Sbd box	228.1
U/L 255/0				255/0				APs used	
f 1000				1000				PC freqs	
p 1000				1000				PC freqs	
f:p 0:0				0:0				PC phase	
f:p 0:0				0:0				Manl PC	
f 1000				1000				PC amp	
p 1000				1000					
f W01UR				W03UR				Chan ids	
p W01UL				W03UL				Tracks	
								Chan ids	
								Tracks	
Group delay (usec)(sbd)	3.36829450243E+02			Apriori delay (usec)	3.36052908712E+02			Resid mbdelay (usec)	-4.70847E-03 +/- 8.8E-04
Sband delay (usec)	3.36827305212E+02			Apriori clock (usec)	-6.5079784E-01			Resid sbdelay (usec)	7.74396E-01 +/- 3.0E-03
Phase delay (usec)	3.36052903503E+02			Apriori clockrate (us/s)	-7.3999997E-08			Resid phdelay (usec)	-5.20876E-06 +/- 6.5E-07
Delay rate (us/s)	-1.61695787143E-02			Apriori rate (us/s)	-1.61620682756E-02			Resid rate (us/s)	-7.51044E-06 +/- 8.7E-09
Total phase (deg)	-141.2			Apriori accel (us/s/s)	-5.83326877053E-06			Resid phase (deg)	-341.5 +/- 20.3

ph/seg (deg) 79.4 93.5 Search (512X8) 0.465 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

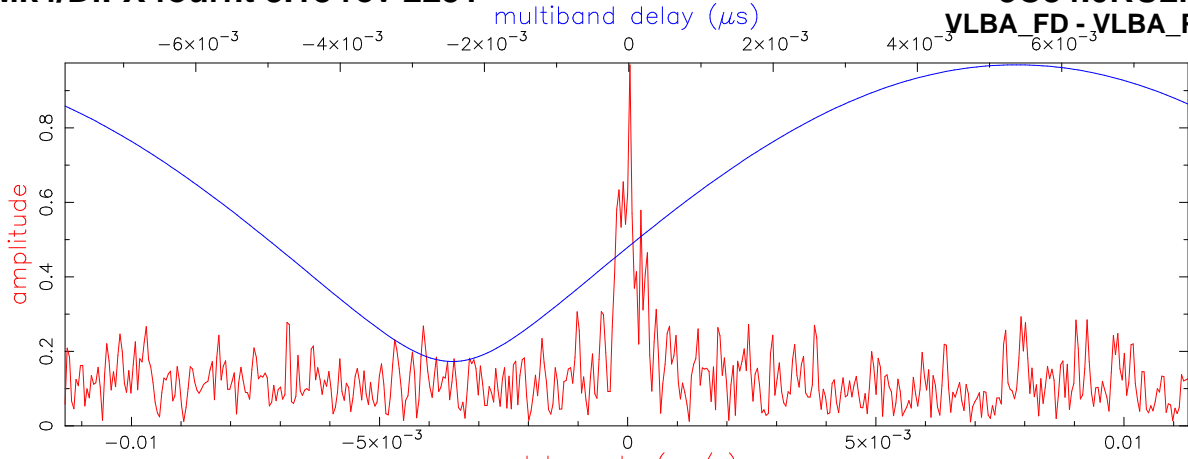
amp/seg (%) 164.7 163.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 14.3 Inc. seg. avg. 0.585 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 7.7 25.0 Inc. frq. avg. 0.599 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

f: az 60.4 el 49.9 pa -89.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 114.447 -765.550 ion window (TEC) 0.00 0.00

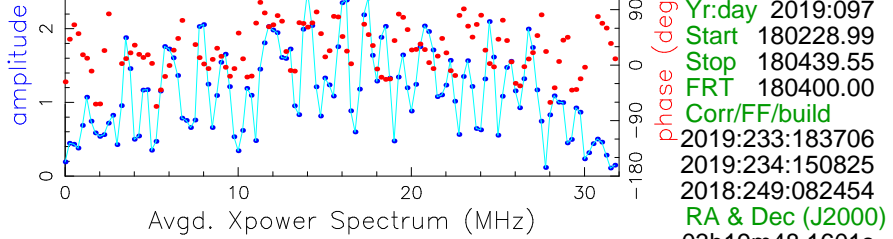
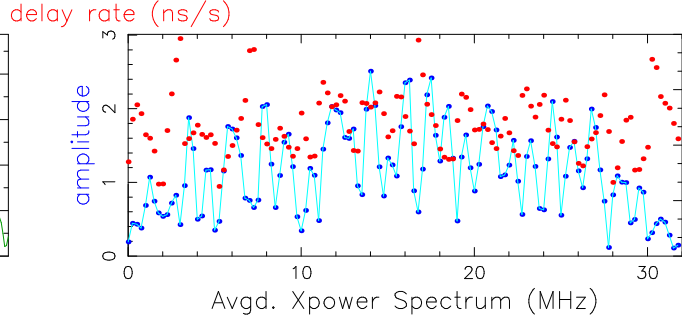
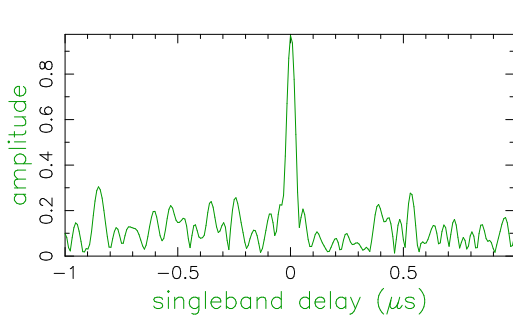
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fp.W.128.0RU2MU simultaneous interpolator



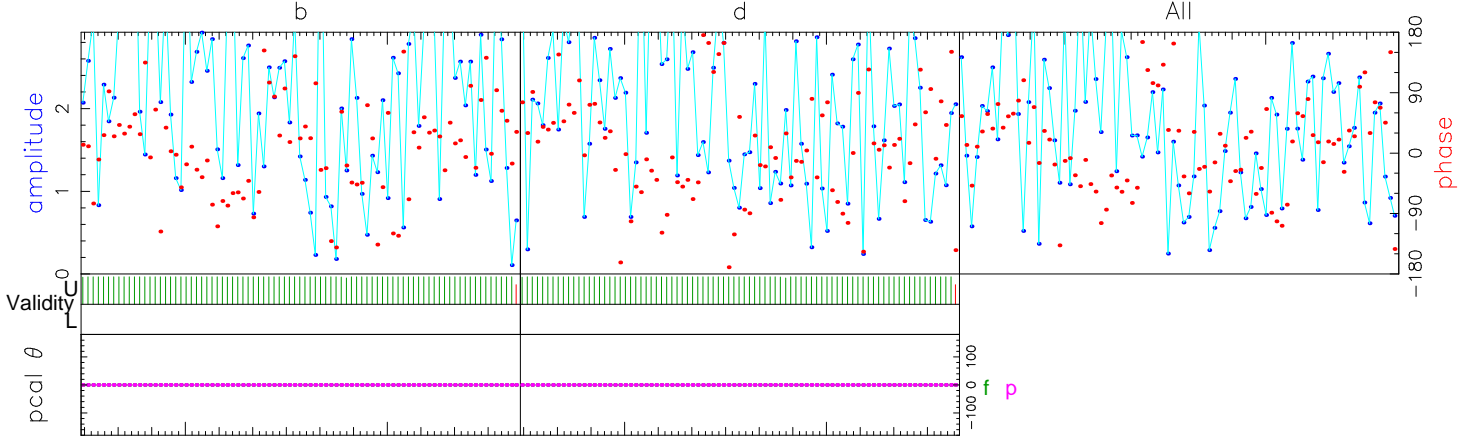
Fringe quality 9

SNR 10.7
Int time 130.006
Amp 0.975
Phase 9.1
PFD 9.1e-20
Delays (us)
SBD 0.002034
MBD 0.005381
Fringe rate (Hz) 0.005036
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150825
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

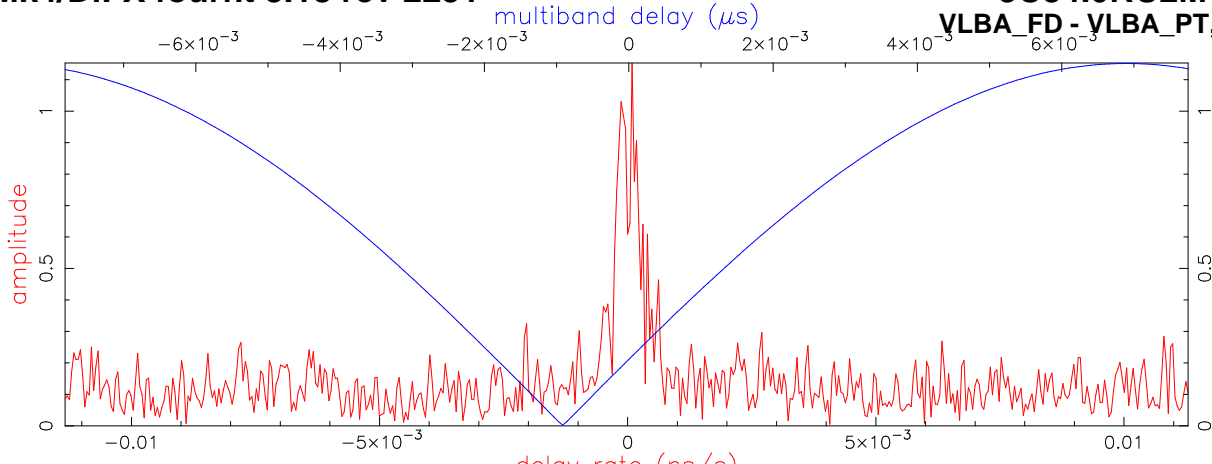


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
9.2	9.0	Phase	9.1				
1.1	0.8	Ampl.	1.0				
129.5	128.8	Sbd box	129.3				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
p 1000	1000	PC freqs					
f:p 0:0	0:0	PC phase					
f:p 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
p 1000	1000						
f W01UL	W03UL	Chan ids					
p W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	3.36058289481E+02	Apriori delay (usec)	3.36052908712E+02	Resid mbdelay (usec)	5.38077E-03	+/-	4.6E-04
Sband delay (usec)	3.36054942212E+02	Apriori clock (usec)	-6.5079784E-01	Resid sbdelay (usec)	2.03350E-03	+/-	1.6E-03
Phase delay (usec)	3.36052909006E+02	Apriori clockrate (us/s)	-7.3999997E-08	Resid phdelay (usec)	2.93936E-07	+/-	3.4E-07
Delay rate (us/s)	-1.61620098139E-02	Apriori rate (us/s)	-1.61620682756E-02	Resid rate (us/s)	5.84617E-08	+/-	4.6E-09
Total phase (deg)	209.4	Apriori accel (us/s/s)	-5.83326877053E-06	Resid phase (deg)	9.1	+/-	10.7

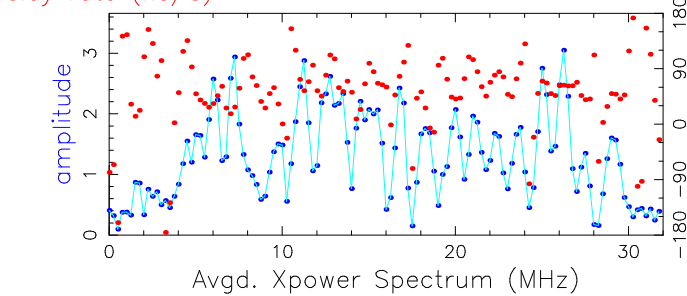
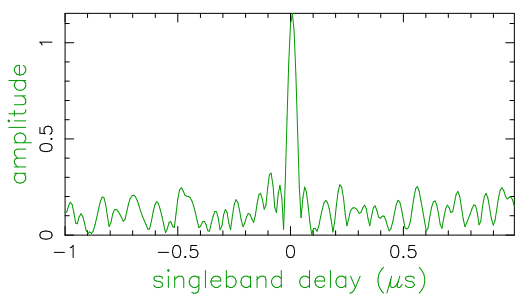
ph/seg (deg) 65.6 49.2 Search (512X8) 0.975 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 121.1 85.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 7.5 Inc. seg. avg. 1.306 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.7 13.2 Inc. frq. avg. 0.961 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 114.447 -765.550 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fp.W.85.0RU2MU simultaneous interpolator



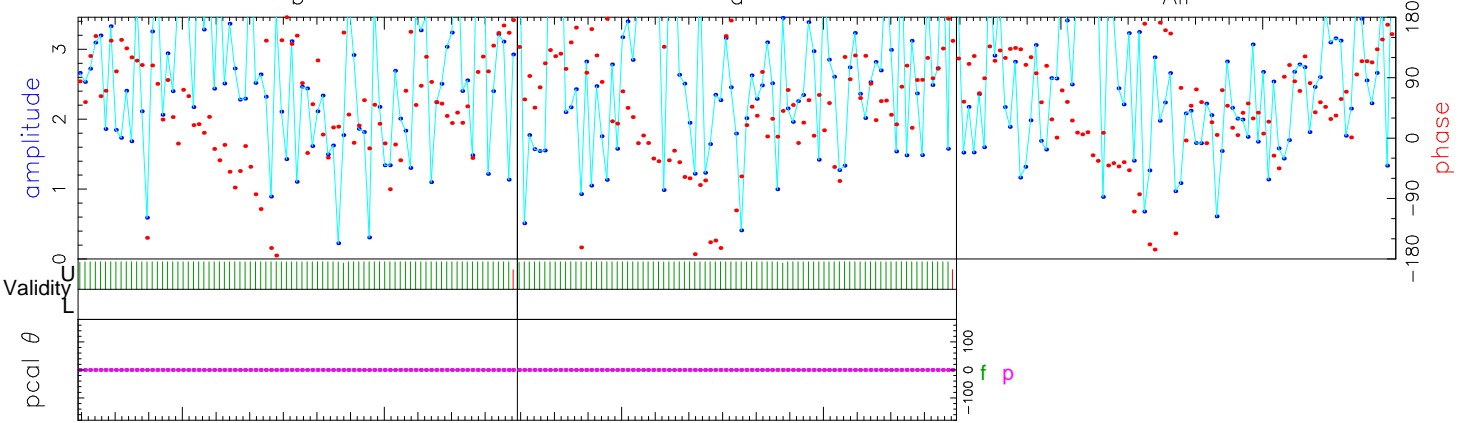
Fringe quality 9

SNR 12.7
Int time 130.006
Amp 1.153
Phase 60.4
PFD 8.5e-30
Delays (us)
SBD 0.006741
MBD 0.006897
Fringe rate (Hz) 0.006247
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150826
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

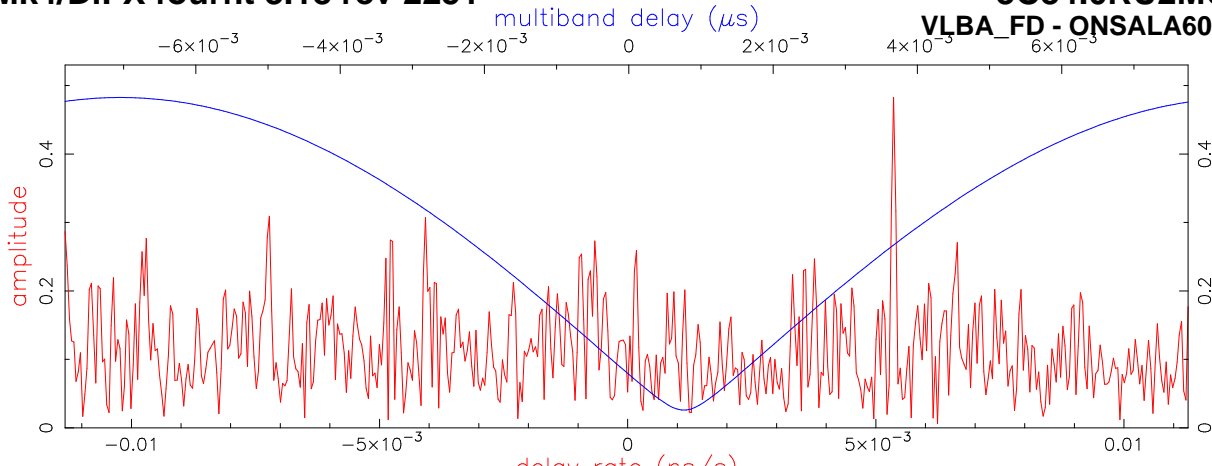


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



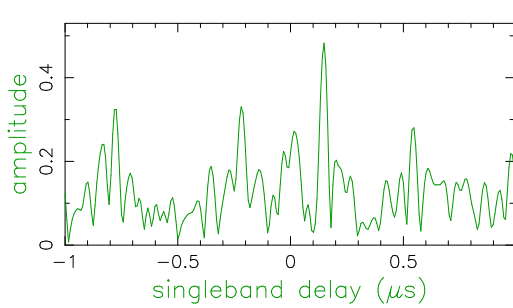
86156.00	86220.00	Freq (MHz)	All				
60.4	60.4	Phase	60.4				
1.2	1.1	Ampl.	1.1				
129.3	130.4	Sbd box	129.9				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
p 1000	1000	PC freqs					
f:p 0:0	0:0	PC phase					
f:p 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
p 1000	1000						
f W01UR	W03UR	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	3.36059805375E+02	Apriori delay (usec)	3.36052908712E+02	Resid mbdelay (usec)	6.89666E-03	+/-	3.9E-04
Sband delay (usec)	3.36059650212E+02	Apriori clock (usec)	-6.5079784E-01	Resid sbdelay (usec)	6.74150E-03	+/-	1.4E-03
Phase delay (usec)	3.36052910660E+02	Apriori clockrate (us/s)	-7.3999997E-08	Resid phdelay (usec)	1.94733E-06	+/-	2.9E-07
Delay rate (us/s)	-1.61619957561E-02	Apriori rate (us/s)	-1.61620682756E-02	Resid rate (us/s)	7.25195E-08	+/-	3.9E-09
Total phase (deg)	260.7	Apriori accel (us/s/s)	-5.83326877053E-06	Resid phase (deg)	60.4	+/-	9.0

ph/seg (deg) 68.1 41.6 Search (512X8) 1.153 +/- 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 137.2 72.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 6.4 Inc. seg. avg. 1.930 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.2 11.1 Inc. frq. avg. 1.145 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 114.447 -765.550 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fp.W.94.0RU2MU

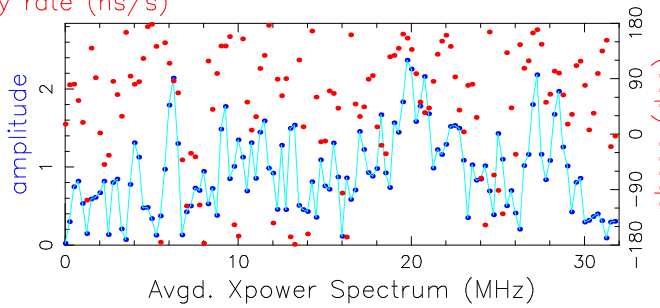


Fringe quality 0

SNR 5.3
 Int time 130.006
 Amp 0.530
 Phase -266.5
 PFD 5.2e-01
 Delays (us)
 SBD 0.147553
 MBD -0.007074
 Fringe rate (Hz)
 0.459615
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

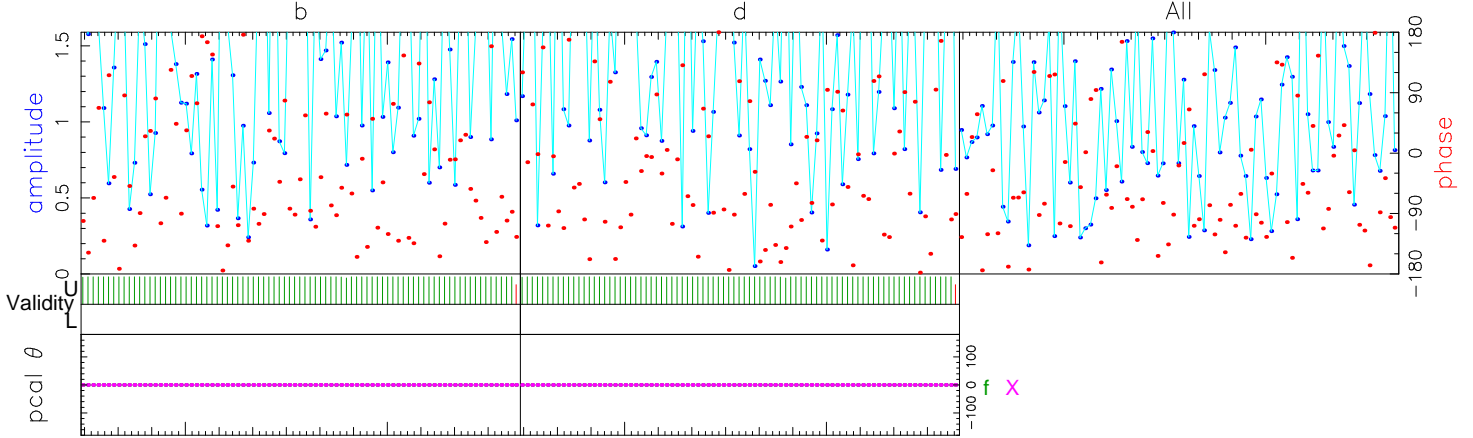


delay rate (ns/s)



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

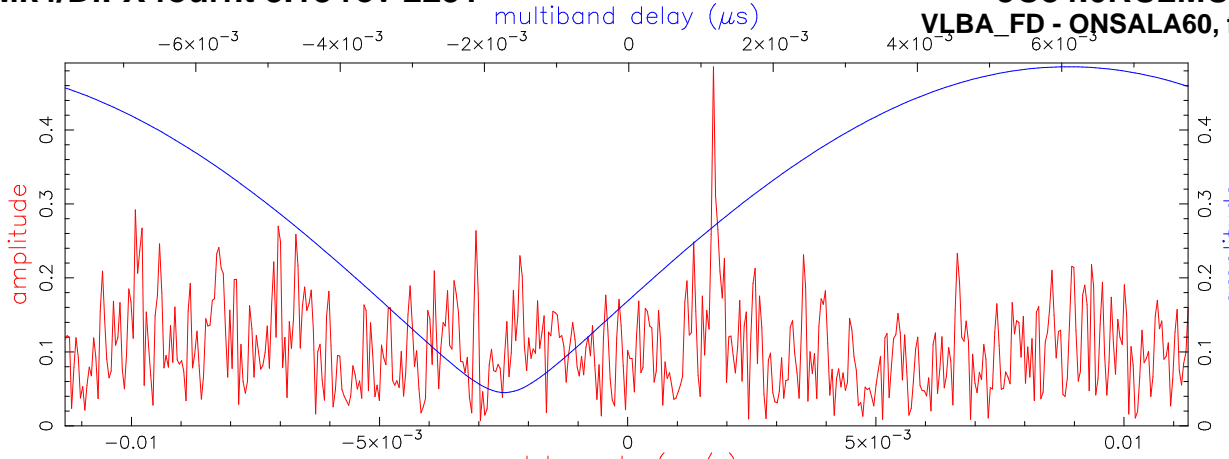


86156.00	86220.00	Freq (MHz)	All
-86.8	-86.2	Phase	-86.5
0.6	0.5	Ampl.	0.5
28.8	147.9	Sbd box	147.9
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
X 1000	1000	PC freqs	
f:X 0:0	0:0	PC phase	
f:X 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
X 1000	1000		
f W01UL	W03UL	Chan ids	
X W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

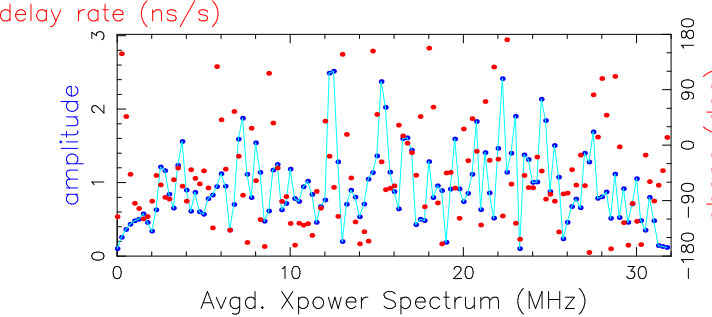
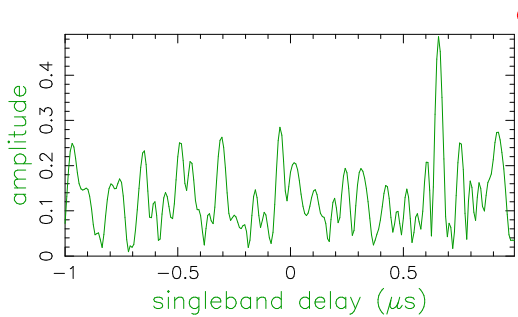
Group delay (usec)(sbd)	1.39200912468E+03	Apriori delay (usec)	1.39185994828E+03	Resid mbdelay (usec)	-7.07360E-03	+/-	9.3E-04
Sband delay (usec)	1.39200750128E+03	Apriori clock (usec)	-1.7990799E+01	Resid sbdelay (usec)	1.47553E-01	+/-	3.2E-03
Phase delay (usec)	1.39185994549E+03	Apriori clockrate (us/s)	-4.0899998E-07	Resid phdelay (usec)	-2.79042E-06	+/-	6.9E-07
Delay rate (us/s)	1.31960687107E+00	Apriori rate (us/s)	1.31960153540E+00	Resid rate (us/s)	5.33567E-06	+/-	9.2E-09
Total phase (deg)	-286.3	Apriori accel (us/s/s)	-3.24267292442E-05	Resid phase (deg)	-266.5	+/-	21.5

ph/seg (deg)	82.1	Theor.	99.2	Amplitude	0.530 +/- 0.100	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	161.3	Search (512X8)	0.435	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.456	Inc. seg. avg.	0.456	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	5.3	Inc. frq. avg.	0.511	Inc. frq. avg.	0.511	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10153.285 -4367.473 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fx..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fx.W.106.0RU2MU

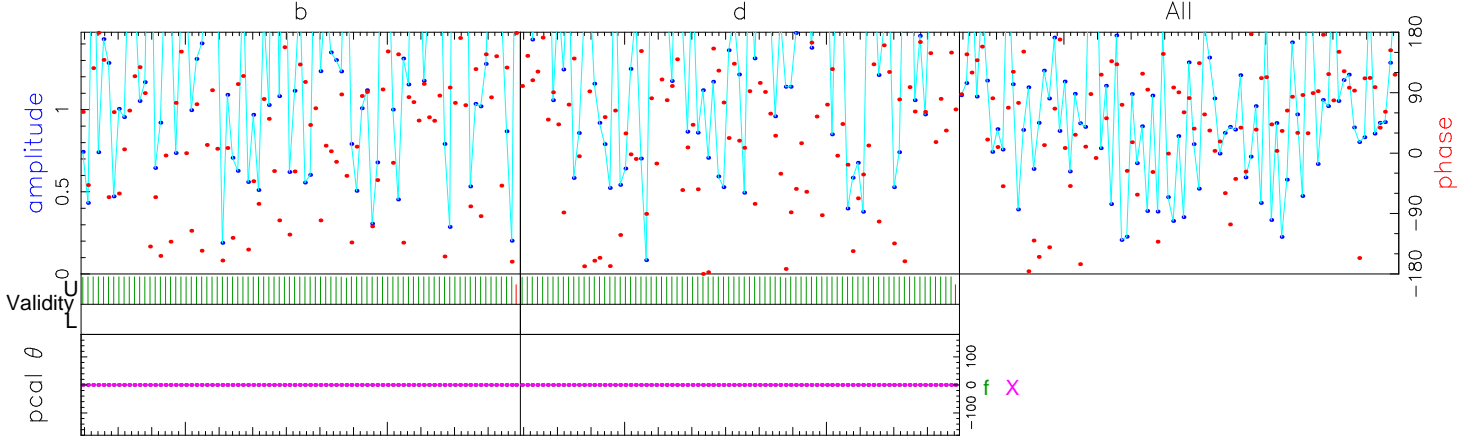


Fringe quality 0
 SNR 5.4
 Int time 130.006
 Amp 0.491
 Phase -98.0
 PFD 4.6e-01
 Delays (us)
 SBD 0.656992
 MBD 0.006099
 Fringe rate (Hz)
 0.148277
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150829
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Avgd. Xpower Spectrum (MHz)

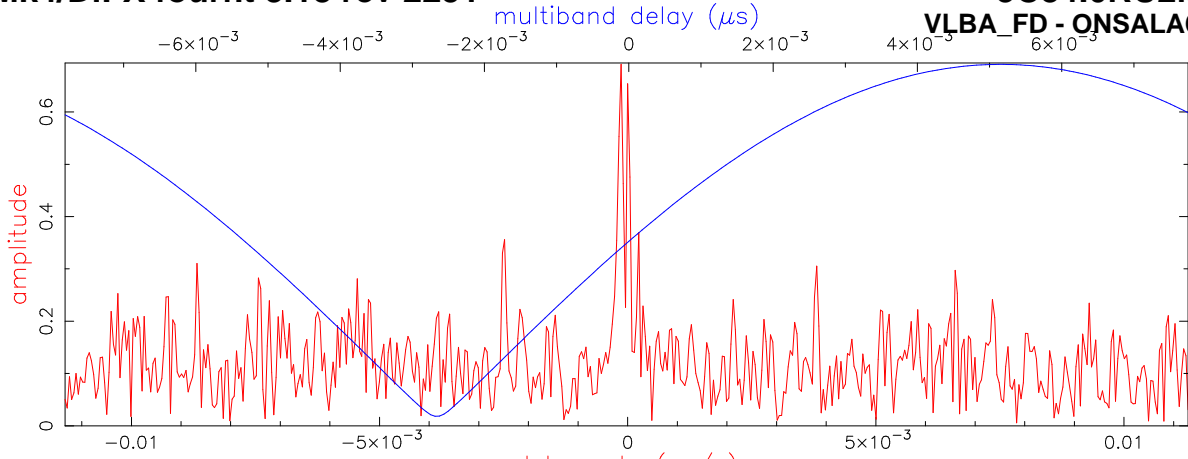
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
82.1	81.9	Phase	82.0				
0.4	0.5	Ampl.	0.5				
213.0	213.2	Sbd box	213.1				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
X 1000	1000	PC freqs					
f:X 0:0	0:0	PC phase					
f:X 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
X 1000	1000						
f W01UR	W03UR	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.39252229752E+03	Apriori delay (usec)	1.39185994828E+03	Resid mbdelay (usec)	6.09924E-03	+/-	9.3E-04
Sband delay (usec)	1.39251694078E+03	Apriori clock (usec)	-1.7990799E+01	Resid sbdelay (usec)	6.56992E-01	+/-	3.2E-03
Phase delay (usec)	1.39185995093E+03	Apriori clockrate (us/s)	-4.0899998E-07	Resid phdelay (usec)	2.64326E-06	+/-	6.9E-07
Delay rate (us/s)	1.31960325675E+00	Apriori rate (us/s)	1.31960153540E+00	Resid rate (us/s)	1.72135E-06	+/-	9.2E-09
Total phase (deg)	-117.8	Apriori accel (us/s/s)	-3.24267292442E-05	Resid phase (deg)	-98.0	+/-	21.4

ph/seg (deg)	RMS 71.8	Theor. 98.6	Amplitude Search (512X8)	0.491 +/- 0.092	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	142.9	172.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.1	Inc. seg. avg.	0.409	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	9.3	26.4	Inc. frq. avg.	0.474	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

f: az 60.4 el 49.9 pa -89.2 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10153.285 -4367.473 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fx..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fx.W.119.0RU2MU



Fringe quality 9

SNR 7.6

Int time 130.006

Amp 0.694

Phase 184.2

PFD 2.1e-07

Delays (us)

SBD -0.014105

MBD 0.005151

Fringe rate (Hz)

-0.010153

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180228.99

Stop 180439.55

FRT 180400.00

Corr/FF/build

2019:233:183706

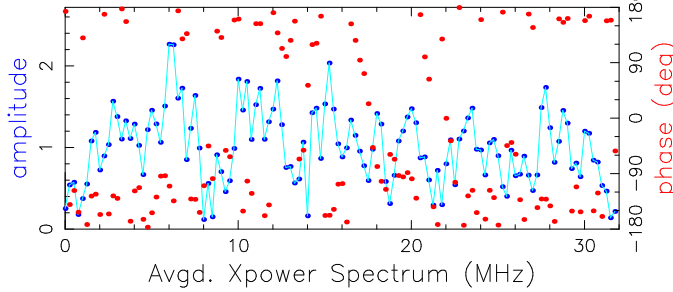
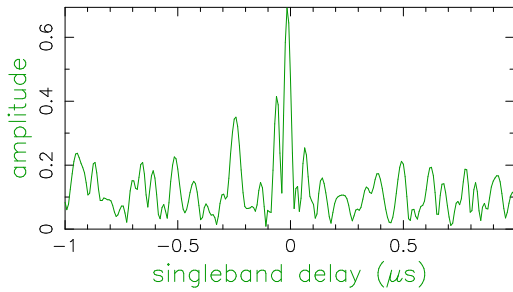
2019:234:150825

2018:249:082454

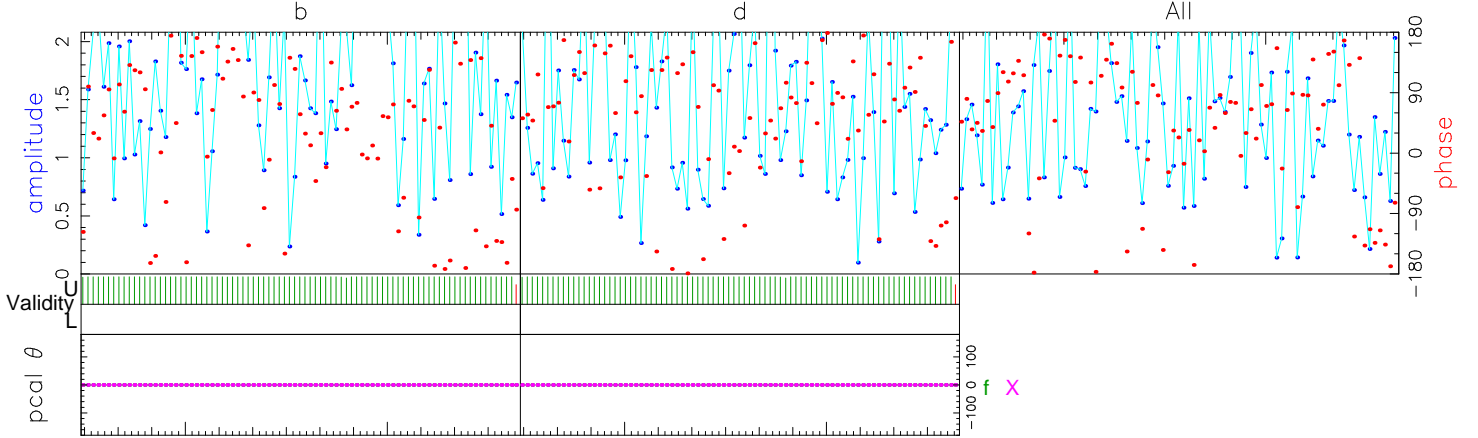
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

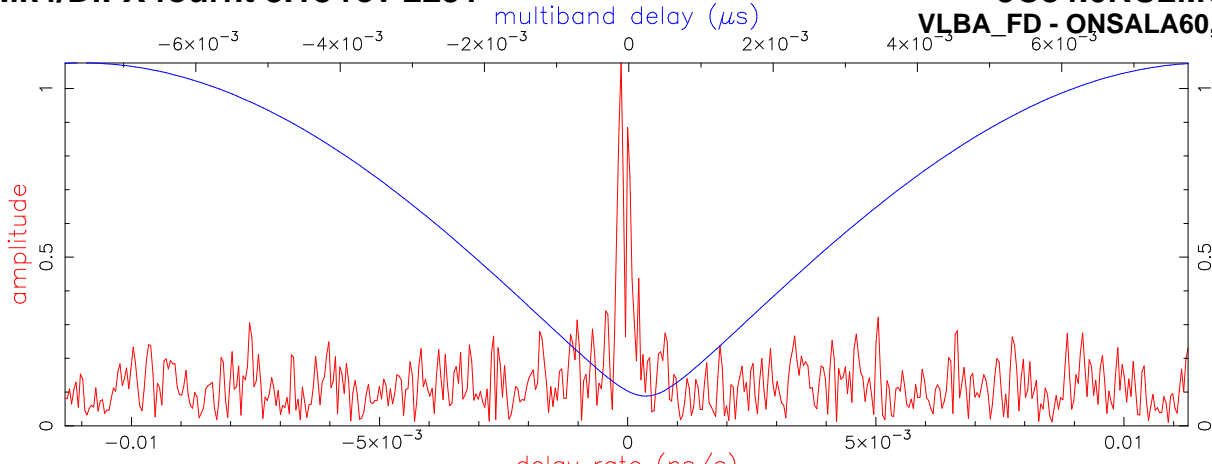


86156.00				86220.00		Freq (MHz)	All
94.2				94.2		Phase	94.2
0.7				0.7		Ampl.	0.7
127.2				127.2		Sbd box	127.2
U/L 255/0				255/0		APs used	
f 1000				1000		PC freqs	
X 1000				1000		PC freqs	
f:X 0:0				0:0		PC phase	
f:X 0:0				0:0		Manl PC	
f 1000				1000		PC amp	
X 1000				1000			
f W01UL				W03UL		Chan ids	
						Tracks	
X W01UL				W03UL		Chan ids	
						Tracks	
Group delay (usec)(sbd)	1.39184947423E+03	Apriori delay (usec)	1.39185994828E+03	Resid mbdelay (usec)	5.15094E-03	+/-	6.5E-04
Sband delay (usec)	1.39184584378E+03	Apriori clock (usec)	-1.7990799E+01	Resid sbdelay (usec)	-1.41045E-02	+/-	2.3E-03
Phase delay (usec)	1.39185995132E+03	Apriori clockrate (us/s)	-4.0899998E-07	Resid phdelay (usec)	3.03627E-06	+/-	4.8E-07
Delay rate (us/s)	1.31960141754E+00	Apriori rate (us/s)	1.31960153540E+00	Resid rate (us/s)	-1.17861E-07	+/-	6.4E-09
Total phase (deg)	164.4	Apriori accel (us/s/s)	-3.24267292442E-05	Resid phase (deg)	184.2	+/-	15.0

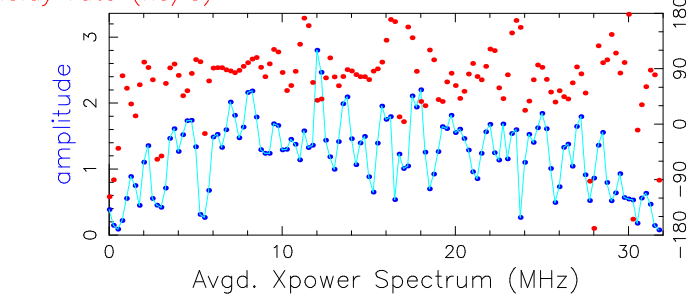
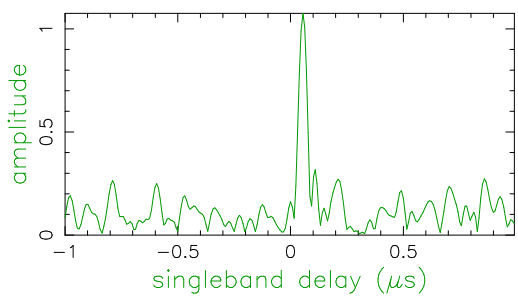
ph/seg (deg)	RMS 76.5	Theor. 69.1	Amplitude Search (512X8)	0.694 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	136.2	120.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	10.6	Inc. seg. avg.	0.797	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.6	18.5	Inc. frq. avg.	0.679	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 60.4 el 49.9 pa -89.2 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10153.285 -4367.473 simultaneous interpolator

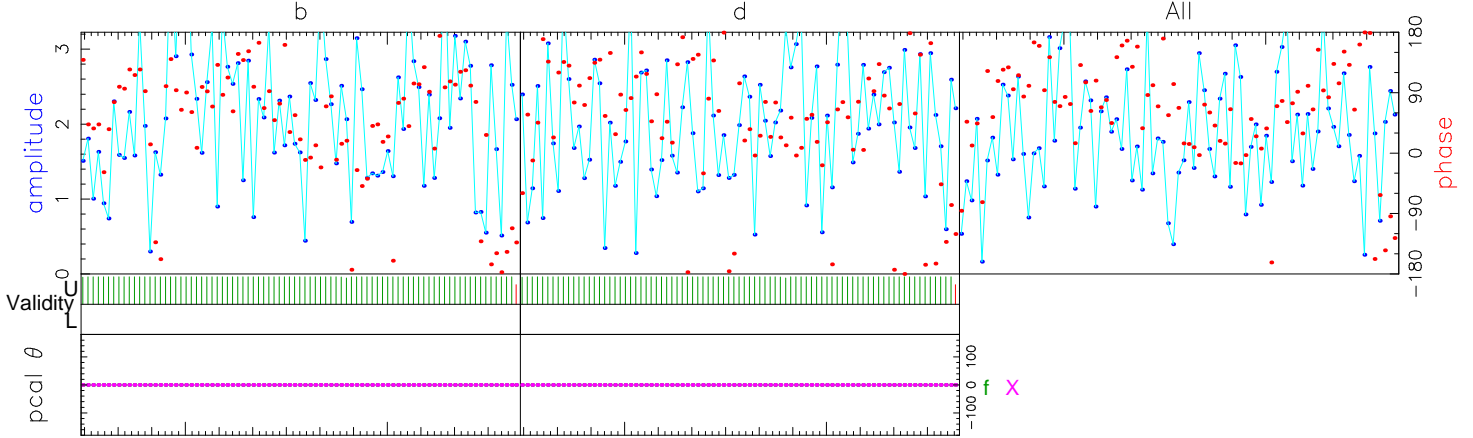
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fx..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fx.W.80.0RU2MU



Fringe quality 9
 SNR 11.9
 Int time 130.006
 Amp 1.076
 Phase -274.9
 PFD 3.1e-25
 Delays (us)
 SBD 0.055220
 MBD -0.007563
 Fringe rate (Hz)
 -0.010079
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

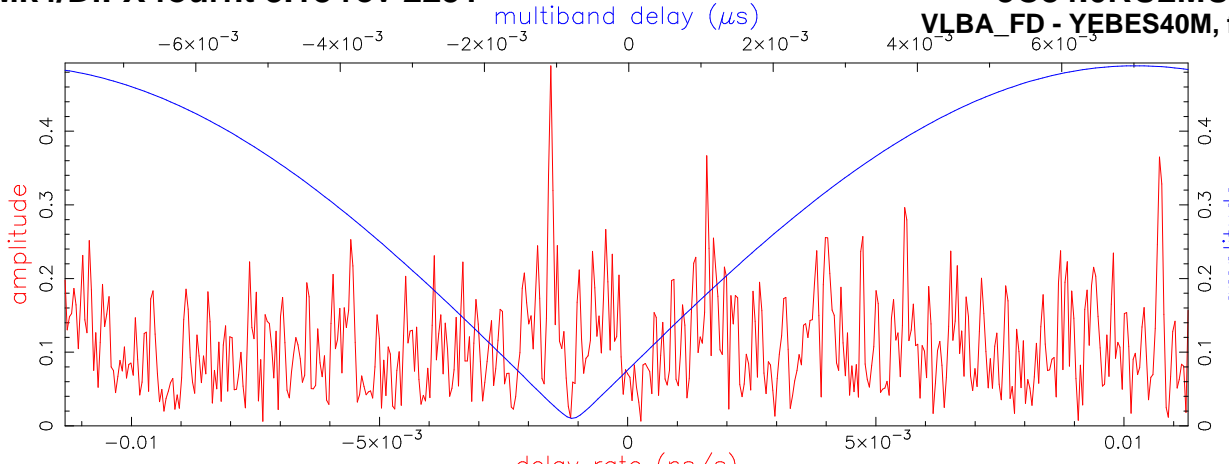


86156.00	86220.00	Freq (MHz)	All
85.2	84.9	Phase	85.1
1.2	1.0	Ampl.	1.1
135.9	136.2	Sbd box	136.1
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
X 1000	1000	PC freqs	
f:X 0:0	0:0	PC phase	
f:X 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
X 1000	1000		
f W01UR	W03UR	Chan ids	
X W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

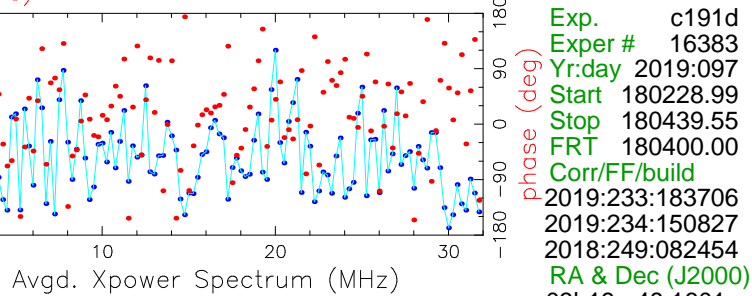
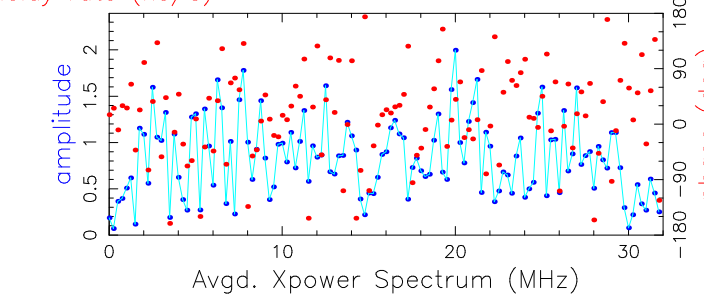
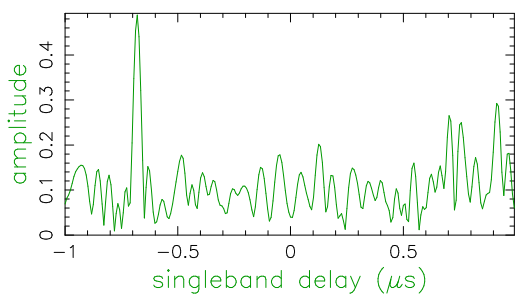
Group delay (usec)(sbd)	1.39191488528E+03	Apriori delay (usec)	1.39185994828E+03	Resid mbdelay (usec)	-7.56300E-03	+/- 4.2E-04
Sband delay (usec)	1.39191516878E+03	Apriori clock (usec)	-1.7990799E+01	Resid sbdelay (usec)	5.52205E-02	+/- 1.5E-03
Phase delay (usec)	1.39185995103E+03	Apriori clockrate (us/s)	-4.0899998E-07	Resid phdelay (usec)	2.74336E-06	+/- 3.1E-07
Delay rate (us/s)	1.31960141839E+00	Apriori rate (us/s)	1.31960153540E+00	Resid rate (us/s)	-1.17011E-07	+/- 4.1E-09
Total phase (deg)	-294.7	Apriori accel (us/s/s)	-3.24267292442E-05	Resid phase (deg)	-274.9	+/- 9.7

ph/seg (deg)	65.6	Theor.	44.5	Amplitude	1.076 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	103.6	Search (512X8)	1.040	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	1.438	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	8.2	Inc. frq. avg.	1.068	Inc. frq. avg.	1.068	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
						Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
						nlags: 128	ion window (TEC) 0.00 0.00

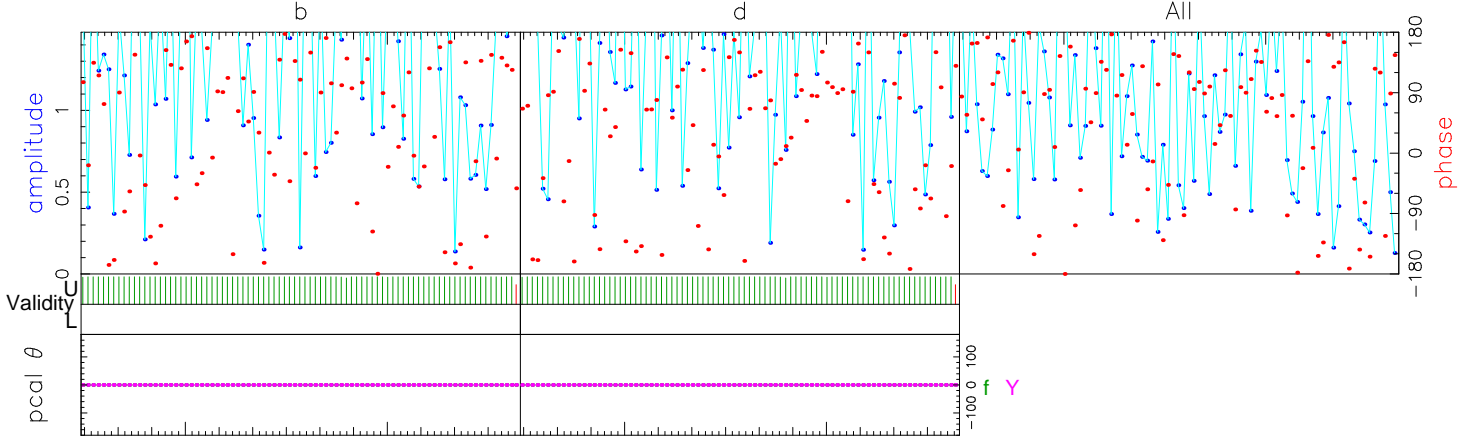
f: az 60.4 el 49.9 pa -89.2 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10153.285 -4367.473 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fx..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fx.W.88.0RU2MU



Fringe quality 0
 SNR 5.4
 Int time 129.952
 Amp 0.493
 Phase 26.1
 PFD 4.1e-01
 Delays (us)
 SBD -0.680278
 MBD -0.008598
 Fringe rate (Hz)
 -0.132516
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150827
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



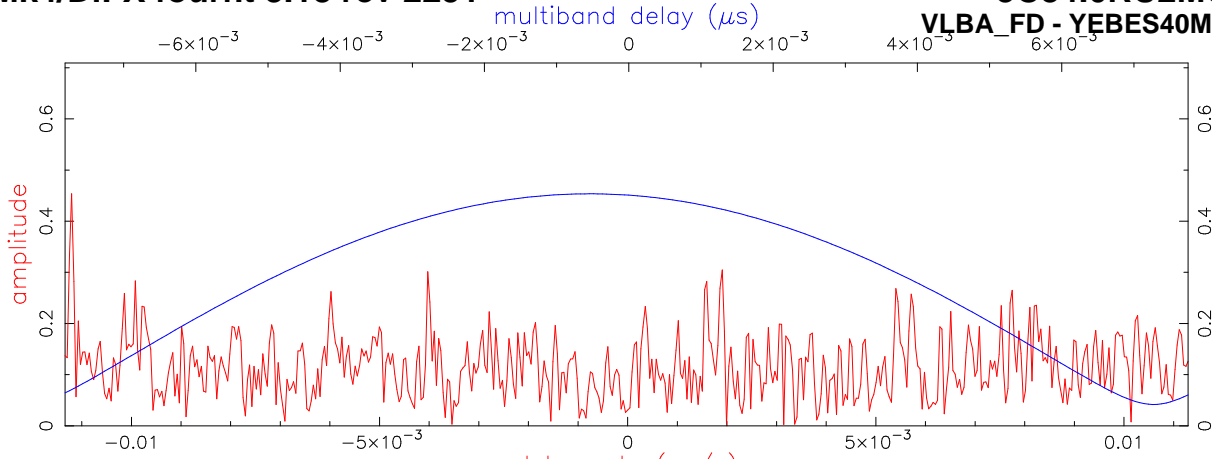
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All
116.1	116.1	Phase	116.1
0.5	0.5	Ampl.	0.5
42.3	41.6	Sbd box	41.9
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
f:Y 0:0	0:0	PC phase	
f:Y 0:0	0:0	ManI PC	
f 1000	1000	PC amp	
Y 1000	1000		
f W01UL	W03UL	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	6.26718122779E+01	Apriori delay (usec)	6.33522851529E+01	Resid mbdelay (usec)	-8.59788E-03	+/-	9.2E-04
Sband delay (usec)	6.26720076529E+01	Apriori clock (usec)	1.4959621E-01	Resid sbdelay (usec)	-6.80278E-01	+/-	3.2E-03
Phase delay (usec)	6.33522888970E+01	Apriori clockrate (us/s)	-1.5199999E-07	Resid phdelay (usec)	3.74406E-06	+/-	6.9E-07
Delay rate (us/s)	1.44591740858E+00	Apriori rate (us/s)	1.44591894696E+00	Resid rate (us/s)	-1.53838E-06	+/-	9.1E-09
Total phase (deg)	329.6	Apriori accel (us/s/s)	-1.08254781008E-05	Resid phase (deg)	26.1	+/-	21.3

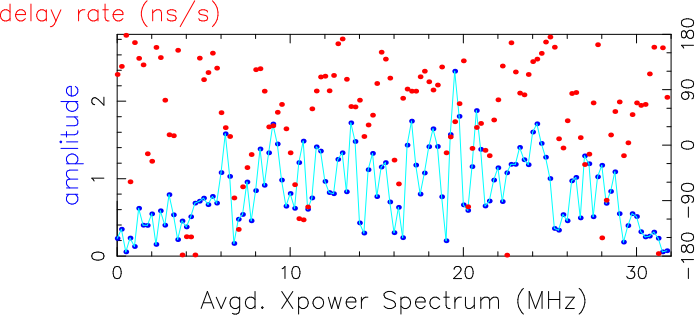
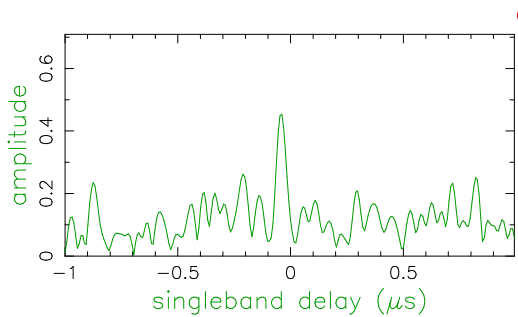
f: az 60.4 el 49.9 pa -89.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11085.847 -1574.558 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fy..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fy.W.100.0RU2MU



Fringe quality 0

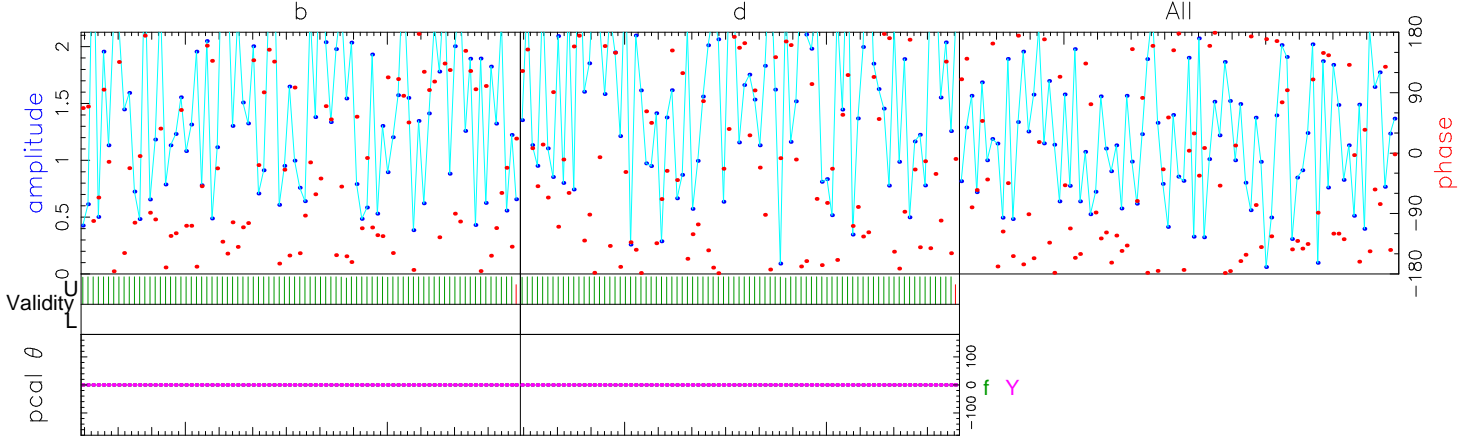
SNR 5.0
Int time 129.952
Amp 0.709
Phase 114.1
PFD 9.6e-01
Delays (us)
SBD -0.042117
MBD -0.000570
Fringe rate (Hz)
-0.964269
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150828
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



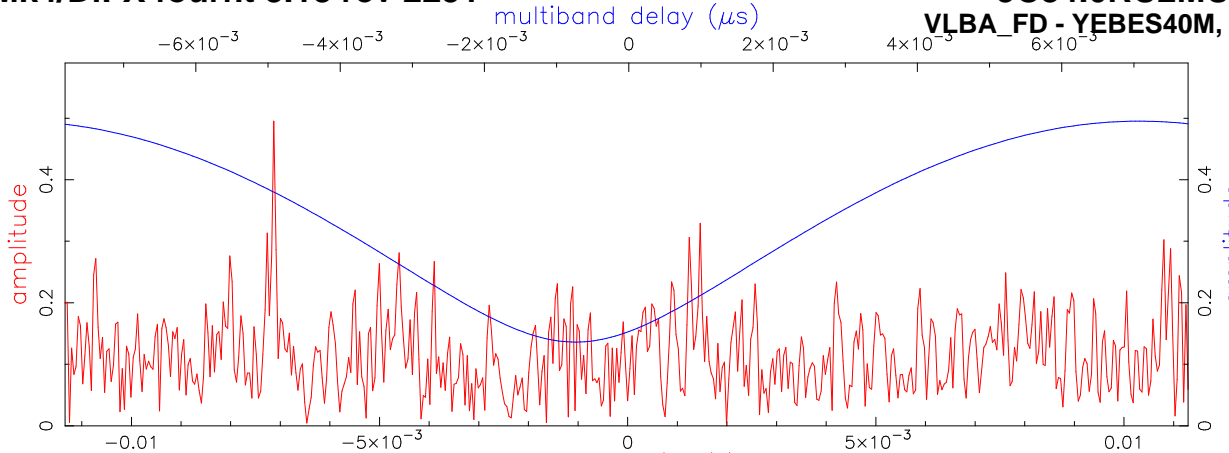
86156.00	86220.00	Freq (MHz)	All
-156.3	-155.6	Phase	-155.9
0.6	0.8	Ampl.	0.7
123.2	124.0	Sbd box	123.6
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
f:Y 0:0	0:0	PC phase	
f:Y 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
Y 1000	1000		
f W01UR	W03UR	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	6.33048397365E+01	Apriori delay (usec)	6.33522851529E+01	Resid mbdelay (usec)	-5.70416E-04	+/-	9.9E-04
Sband delay (usec)	6.33101676529E+01	Apriori clock (usec)	1.4959621E-01	Resid sbdelay (usec)	-4.21175E-02	+/-	3.4E-03
Phase delay (usec)	6.33522801249E+01	Apriori clockrate (us/s)	-1.5199999E-07	Resid phdelay (usec)	-5.02804E-06	+/-	7.3E-07
Delay rate (us/s)	1.44590775275E+00	Apriori rate (us/s)	1.44591894696E+00	Resid rate (us/s)	-1.11942E-05	+/-	9.7E-09
Total phase (deg)	57.6	Apriori accel (us/s/s)	-1.08254781008E-05	Resid phase (deg)	114.1	+/-	22.7

ph/seg (deg)	80.3	Theor.	104.8	Amplitude	0.709 +/- 0.141	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	197.7	Search (512X8)	0.443	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	
ph/frq (deg)	0.0	Inc. seg. avg.	0.686	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-1.000 1.000
amp/frq (%)	9.2	Inc. frq. avg.	0.677	Sample rate(MSamp/s):	64	dr window (ns/s)		ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11085.847 -1574.558 simultaneous interpolator

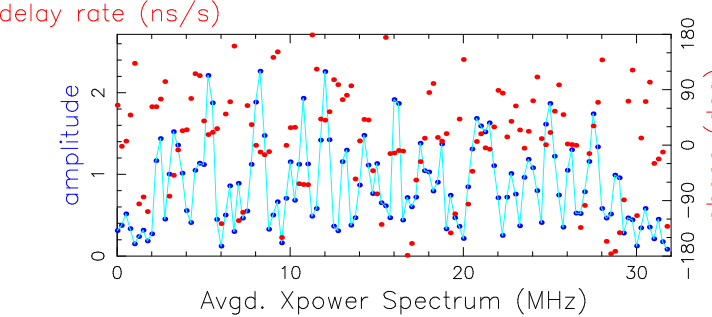
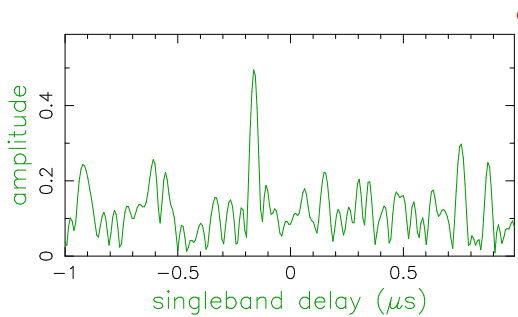
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fY.W.113.0RU2MU



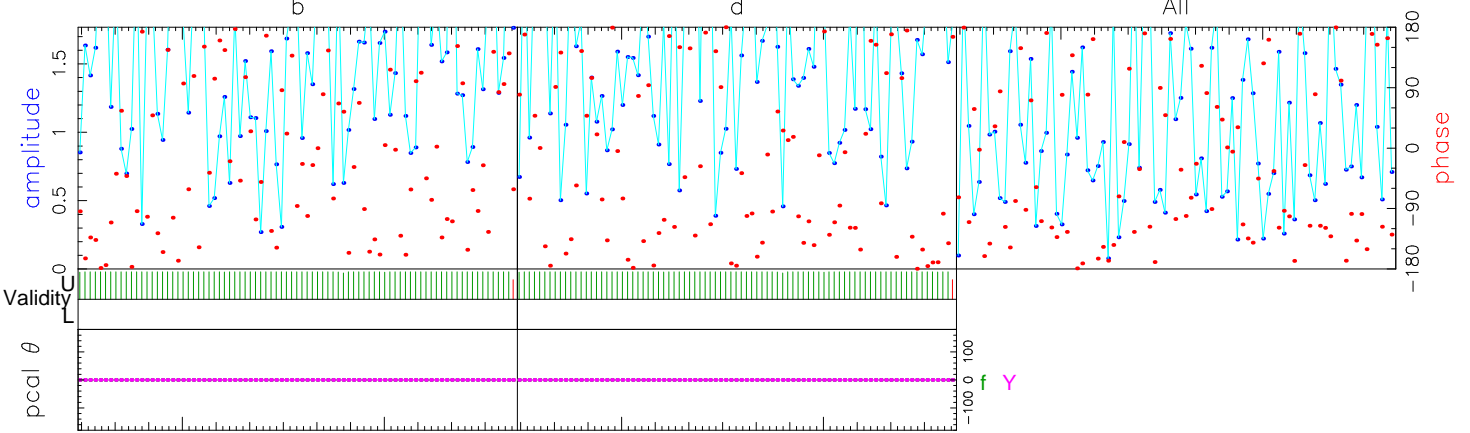
Fringe quality 0

SNR 5.5
 Int time 129.952
 Amp 0.590
 Phase 35.1
 PFD 2.6e-01
 Delays (us)
 SBD -0.161773
 MBD -0.008474
 Fringe rate (Hz)
 -0.614437
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150825
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



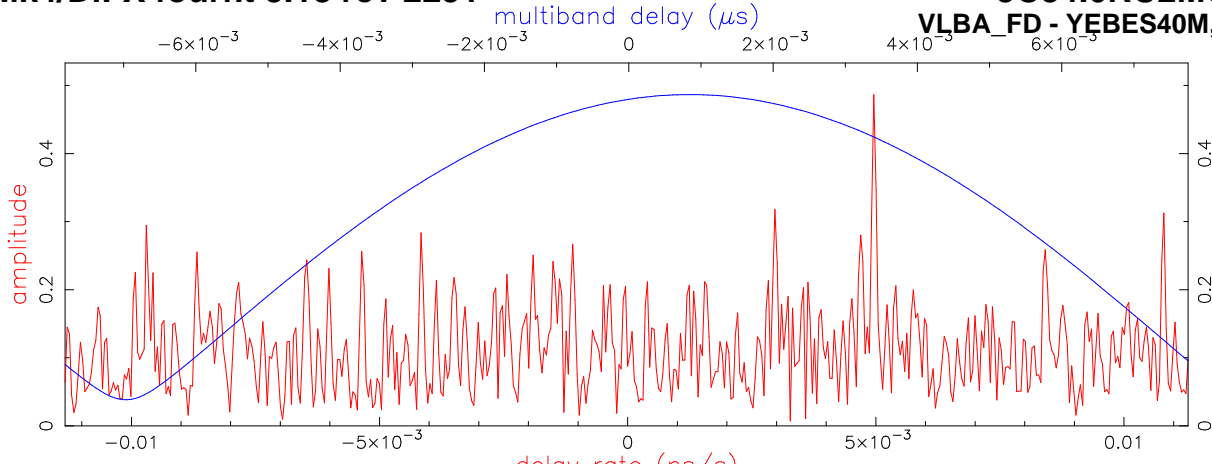
86156.00	86220.00	Freq (MHz)	All
-143.8	-145.6	Phase	-144.9
0.4	0.7	Ampl.	0.6
106.8	109.2	Sbd box	108.3
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
f:Y 0:0	0:0	PC phase	
f:Y 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
Y 1000	1000		
f W01UL	W03UL	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	6.31875614029E+01	Apriori delay (usec)	6.33522851529E+01	Resid mbdelay (usec)	-8.47375E-03	+/-	9.1E-04
Sband delay (usec)	6.31905126529E+01	Apriori clock (usec)	1.4959621E-01	Resid sbdelay (usec)	-1.61773E-01	+/-	3.1E-03
Phase delay (usec)	6.33522804790E+01	Apriori clockrate (us/s)	-1.5199999E-07	Resid phdelay (usec)	-4.67394E-06	+/-	6.7E-07
Delay rate (us/s)	1.44591181395E+00	Apriori rate (us/s)	1.44591894696E+00	Resid rate (us/s)	-7.13301E-06	+/-	8.9E-09
Total phase (deg)	338.6	Apriori accel (us/s/s)	-1.08254781008E-05	Resid phase (deg)	35.1	+/-	20.9

ph/seg (deg)	83.6	Theor.	96.2	Amplitude	0.590 +/- 0.107	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	170.8	Search (512X8)	0.482	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	Inc. seg. avg.	0.526	Inc. seg. avg.	0.526	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.3	Inc. frq. avg.	0.567	Inc. frq. avg.	0.567	Sample rate(MSamp/s):	64	ion window (TEC)	0.00 0.00	dr window (ns/s)	-0.011 0.011

f: az 60.4 el 49.9 pa -89.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11085.847 -1574.558 simultaneous interpolator

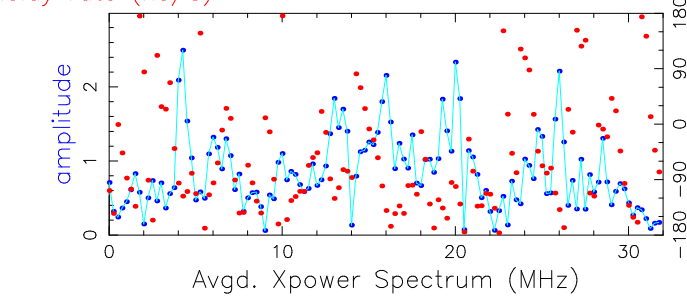
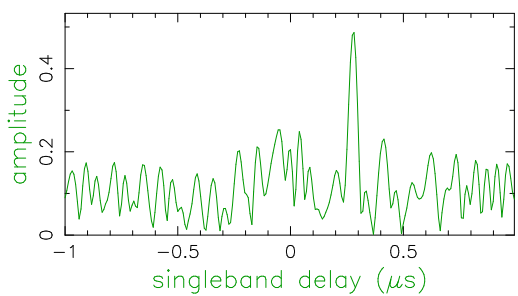
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fy..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fy.W.81.0RU2MU



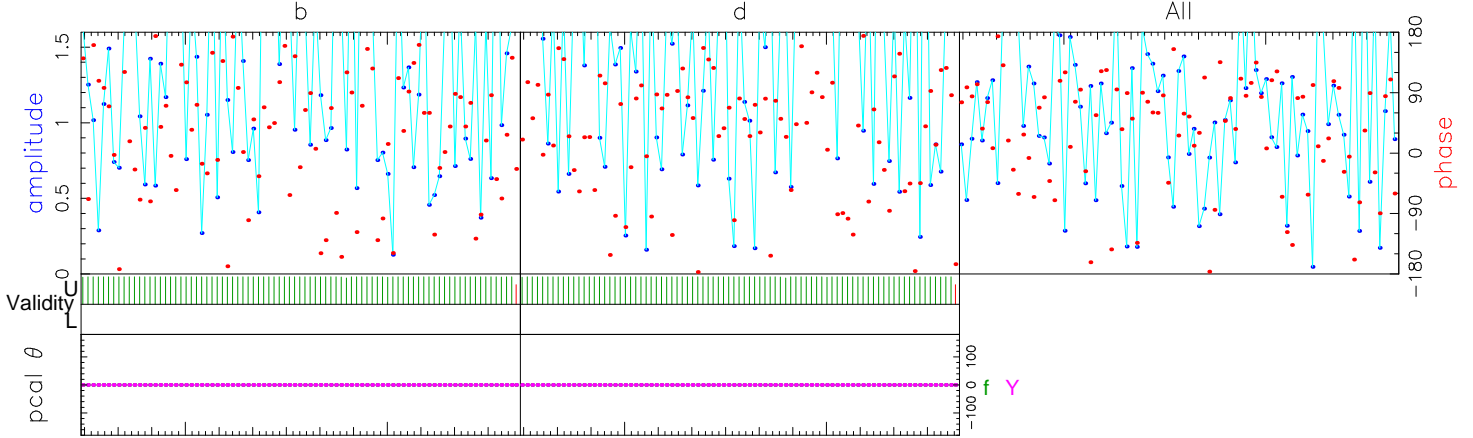
Fringe quality 0

SNR 5.4
Int time 129.952
Amp 0.533
Phase -119.9
PFD 3.5e-01
Delays (us)
SBD 0.278093
MBD 0.000842
Fringe rate (Hz)
0.427059
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180439.55
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150826
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

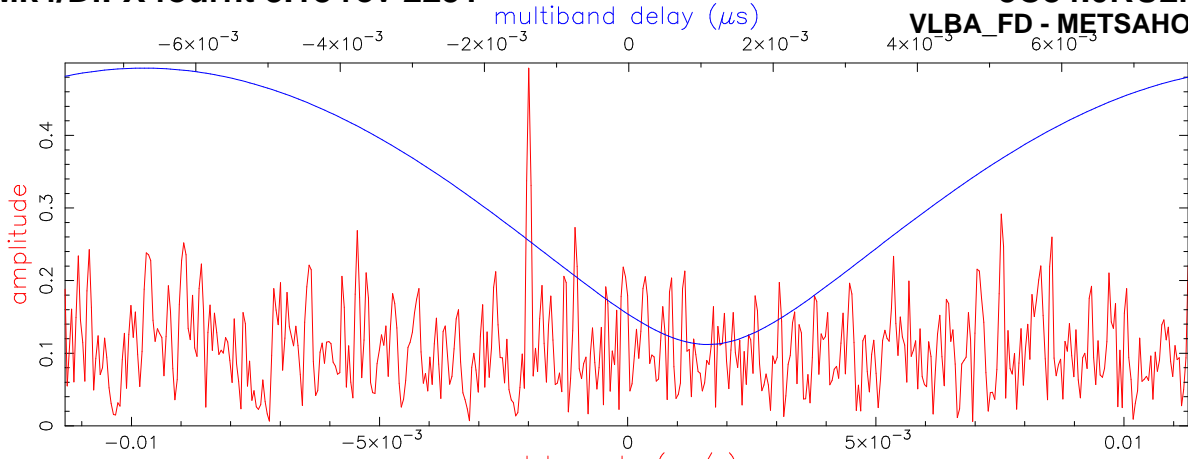


Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



86156.00	86220.00	Freq (MHz)	All				
60.1	60.1	Phase	60.1				
0.5	0.6	Ampl.	0.5				
164.4	164.8	Sbd box	164.6				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
f:Y 0:0	0:0	PC phase					
f:Y 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
Y 1000	1000						
f W01UR	W03UR	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	6.36343770240E+01	Apriori delay (usec)	6.33522851529E+01	Resid mbdelay (usec)	8.41871E-04	+/-	9.2E-04
Sband delay (usec)	6.36303786529E+01	Apriori clock (usec)	1.4959621E-01	Resid sbdelay (usec)	2.78093E-01	+/-	3.2E-03
Phase delay (usec)	6.33522870896E+01	Apriori clockrate (us/s)	-1.5199999E-07	Resid phdelay (usec)	1.93668E-06	+/-	6.8E-07
Delay rate (us/s)	1.44592390469E+00	Apriori rate (us/s)	1.44591894696E+00	Resid rate (us/s)	4.95773E-06	+/-	9.0E-09
Total phase (deg)	-176.4	Apriori accel (us/s/s)	-1.08254781008E-05	Resid phase (deg)	-119.9	+/-	21.1

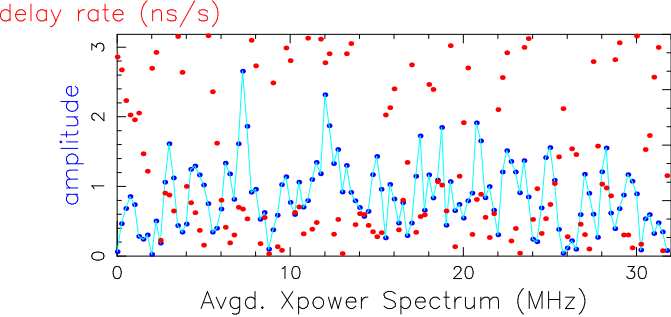
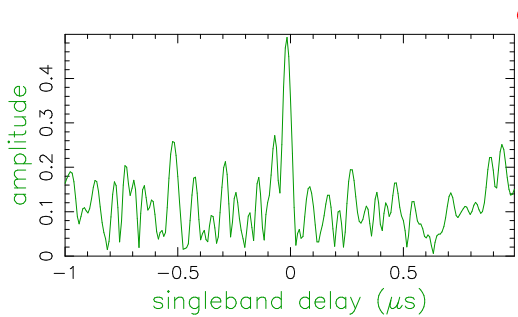
ph/seg (deg) 76.0 97.4 Search (512X8) 0.478 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 161.9 170.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.9 Inc. seg. avg. 0.485 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.8 26.1 Inc. frq. avg. 0.510 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 60.4 el 49.9 pa -89.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11085.847 -1574.558 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fy..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fy.W.89.0RU2MU simultaneous interpolator



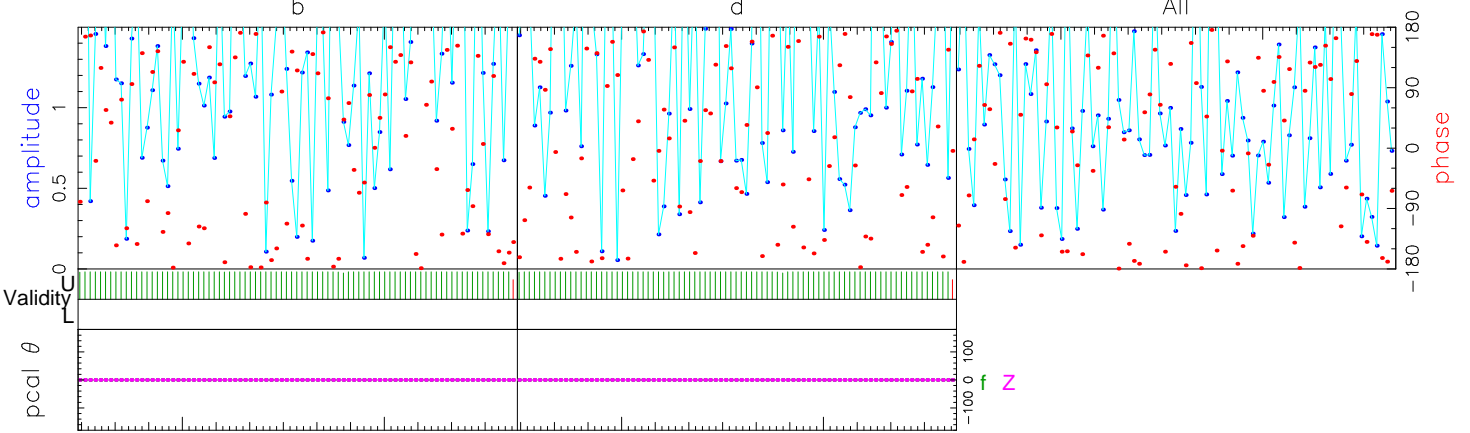
Fringe quality 0

SNR 5.4
 Int time 130.003
 Amp 0.500
 Phase 249.5
 PFD 3.3e-01
 Delays (us)
 SBD -0.016824
 MBD -0.006728
 Fringe rate (Hz)
 -0.171434
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



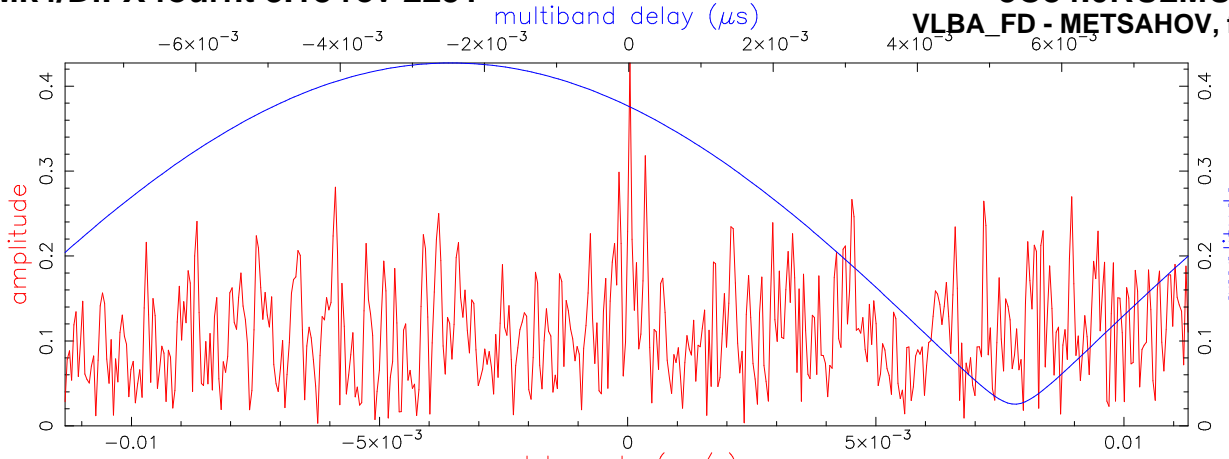
86156.00	86220.00	Freq (MHz)	All
159.4	159.6	Phase	159.5
0.6	0.4	Ampl.	0.5
126.6	62.2	Sbd box	126.8
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
f:Z 0:0	0:0	PC phase	
f:Z 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
Z 1000	1000		
f W01UR	W03UR	Chan ids	
		Tracks	
Z W01UR	W03UR	Chan ids	
		Tracks	

Group delay (usec)(sbd)	2.96295551968E+03	Apriori delay (usec)	2.96297787266E+03	Resid mbdelay (usec)	-6.72798E-03	+/-	9.1E-04
Sband delay (usec)	2.96296104916E+03	Apriori clock (usec)	7.0806885E+00	Resid sbdelay (usec)	-1.68235E-02	+/-	3.2E-03
Phase delay (usec)	2.96297787780E+03	Apriori clockrate (us/s)	4.1000000E-08	Resid phdelay (usec)	5.14270E-06	+/-	6.8E-07
Delay rate (us/s)	1.30740268507E+00	Apriori rate (us/s)	1.30740467524E+00	Resid rate (us/s)	-1.99017E-06	+/-	9.0E-09
Total phase (deg)	231.8	Apriori accel (us/s/s)	-4.25642990767E-05	Resid phase (deg)	249.5	+/-	21.1

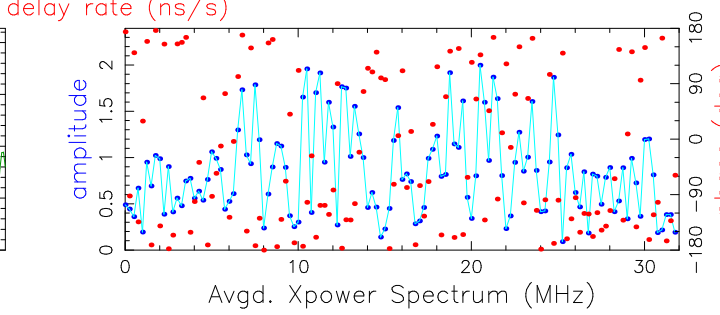
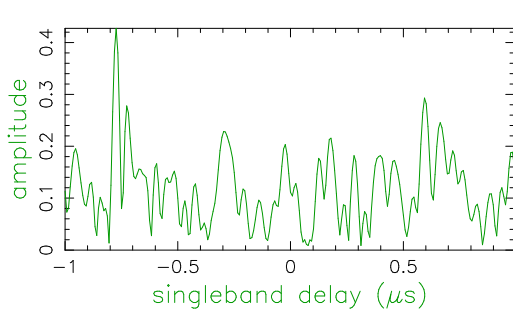
ph/seg (deg)	83.7	Theor.	97.1	Amplitude	0.500 +/- 0.092	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	159.2	Search (512X8)	0.484	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.417	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	22.7	Inc. frq. avg.	0.483	Inc. frq. avg.	0.483	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10076.863 -5244.399 simultaneous interpolator

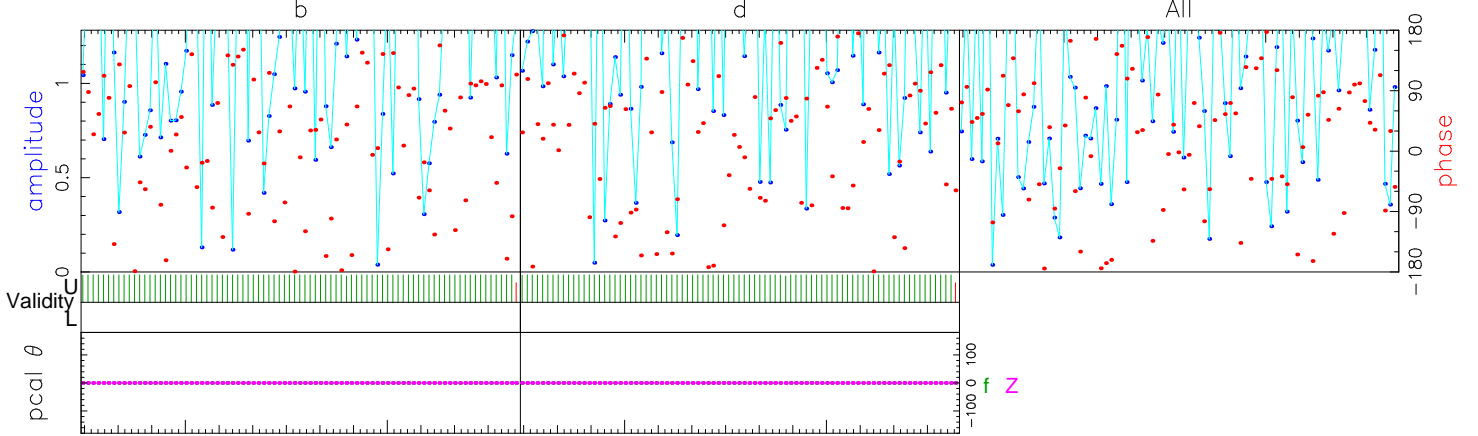
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fZ.W.109.0RU2MU



Fringe quality 0
 SNR 4.7
 Int time 130.003
 Amp 0.427
 Phase 171.4
 PFD 1.0e+00
 Delays (us)
 SBD -0.773435
 MBD -0.002462
 Fringe rate (Hz) 0.003725
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150829
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



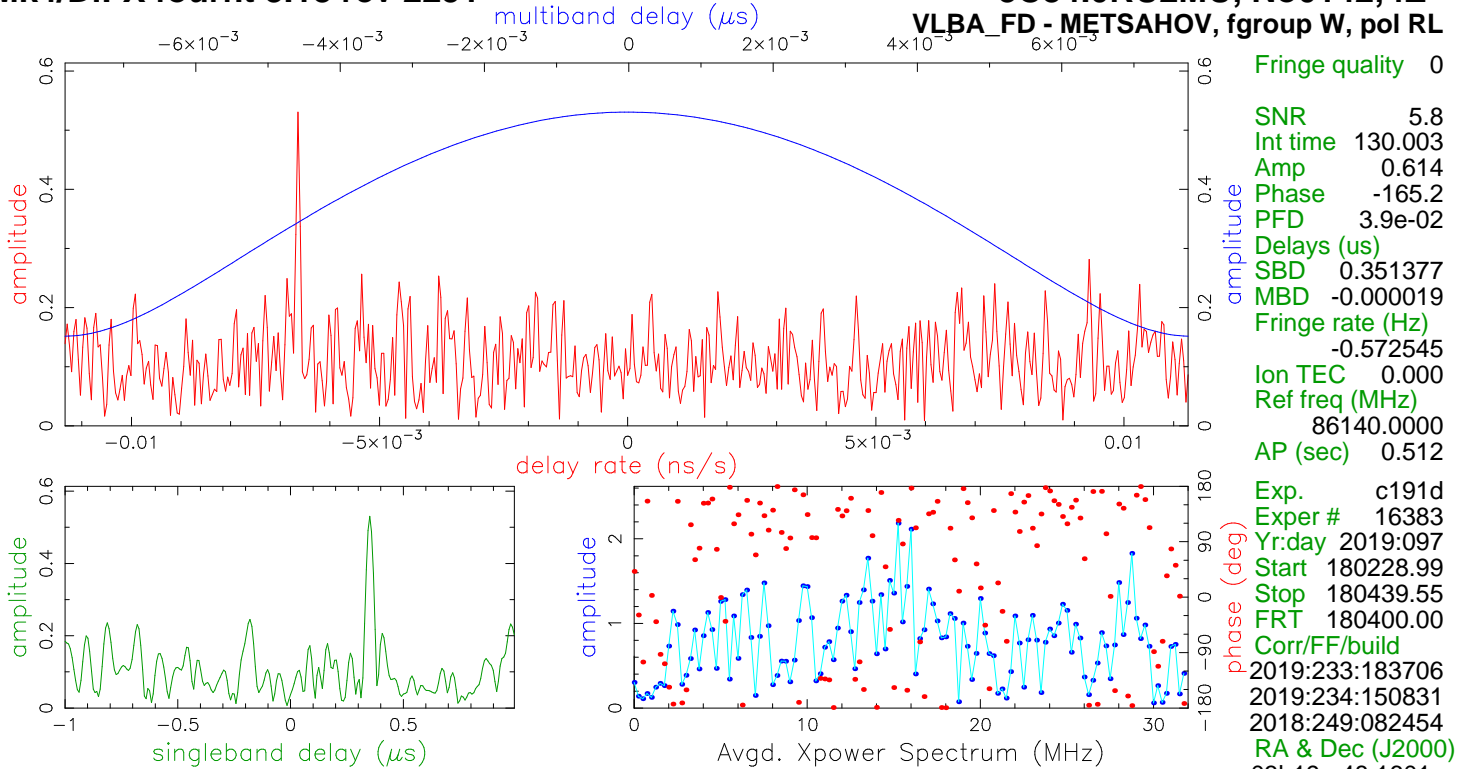
Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



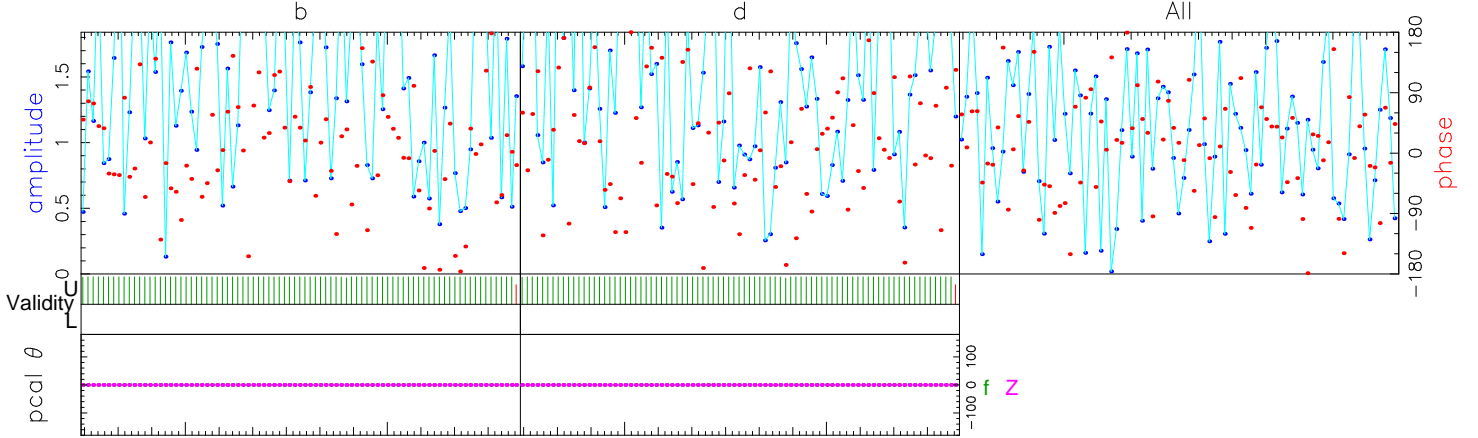
86156.00	86220.00	Freq (MHz)	All				
81.4	81.4	Phase	81.4				
0.5	0.4	Ampl.	0.4				
30.2	29.7	Sbd box	30.0				
U/L 255/0	255/0	APs used					
f 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
f:Z 0:0	0:0	PC phase					
f:Z 0:0	0:0	Manl PC					
f 1000	1000	PC amp					
Z 1000	1000						
f W01UL	W03UL	Chan ids					
Z W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.96220978555E+03	Apriori delay (usec)	2.96297787266E+03	Resid mbdelay (usec)	-2.46211E-03	+/-	1.1E-03
Sband delay (usec)	2.96220443766E+03	Apriori clock (usec)	7.0806885E+00	Resid sbdelay (usec)	-7.73435E-01	+/-	3.7E-03
Phase delay (usec)	2.96297787529E+03	Apriori clockrate (us/s)	4.1000000E-08	Resid phdelay (usec)	2.62535E-06	+/-	7.8E-07
Delay rate (us/s)	1.30740471848E+00	Apriori rate (us/s)	1.30740467524E+00	Resid rate (us/s)	4.32419E-08	+/-	1.0E-08
Total phase (deg)	153.7	Apriori accel (us/s/s)	-4.25642990767E-05	Resid phase (deg)	171.4	+/-	24.3

ph/seg (deg)	RMS 87.9	Theor. 112.1	Amplitude Search (512X8)	0.427 +/- 0.091	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	213.4	195.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	17.2	Inc. seg. avg.	0.377	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	6.0	30.0	Inc. frq. avg.	0.409	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
					Data rate(Mb/s): 256	nlags: 128	t_cohere	infinite	

f: az 60.4 el 49.9 pa -89.2 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10076.863 -5244.399 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fz..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fz.W.118.0RU2MU



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



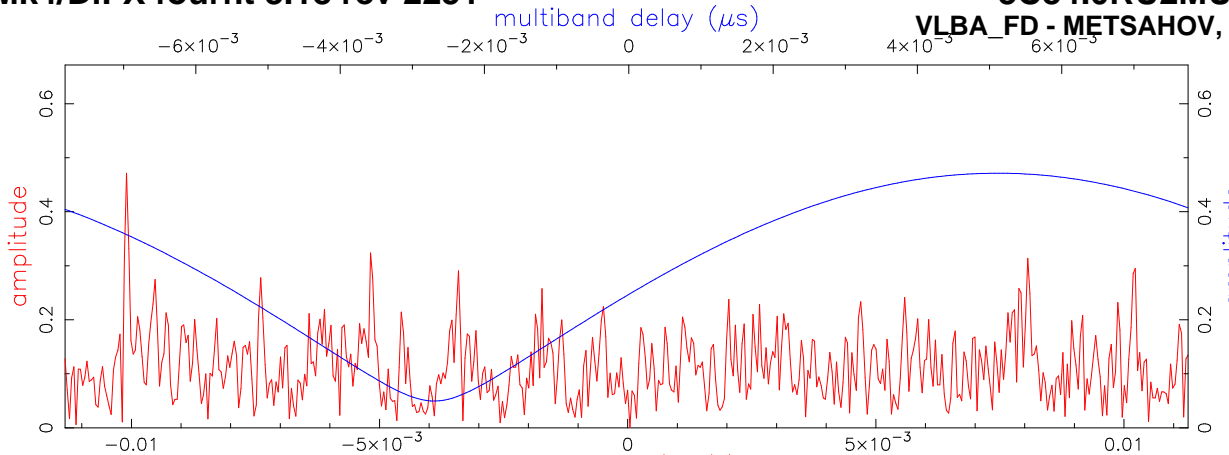
86156.00	86220.00	Freq (MHz)	All
14.8	14.9	Phase	14.8
0.8	0.4	Ampl.	0.6
174.4	102.8	Sbd box	174.0
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
f:Z 0:0	0:0	PC phase	
f:Z 0:0	0:0	Mani PC	
f 1000	1000	PC amp	
Z 1000	1000		
f W01UR	W03UR	Chan ids	
Z W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	2.96332160344E+03	Apriori delay (usec)	2.96297787266E+03	Resid mbdelay (usec)	-1.92158E-05	+/-	8.5E-04
Sband delay (usec)	2.96332924966E+03	Apriori clock (usec)	7.0806885E+00	Resid sbdelay (usec)	3.51377E-01	+/-	2.9E-03
Phase delay (usec)	2.96297787314E+03	Apriori clockrate (us/s)	4.1000000E-08	Resid phdelay (usec)	4.78846E-07	+/-	6.3E-07
Delay rate (us/s)	1.30739802856E+00	Apriori rate (us/s)	1.30740467524E+00	Resid rate (us/s)	-6.64668E-06	+/-	8.4E-09
Total phase (deg)	-182.8	Apriori accel (us/s/s)	-4.25642990767E-05	Resid phase (deg)	-165.2	+/-	19.6

ph/seg (deg)	RMS 73.5	Theor. 90.3	Amplitude Search (512X8)	0.614 +/- 0.105	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	151.3	157.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	13.9	Inc. seg. avg.	0.580	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	28.6	24.2	Inc. frq. avg.	0.596	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

f: az 60.4 el 49.9 pa -89.2 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10076.863 -5244.399 simultaneous interpolator

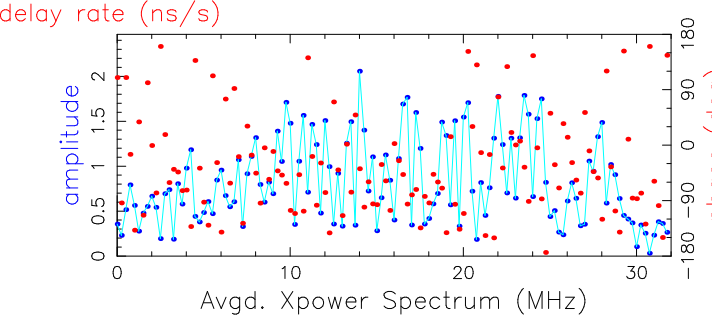
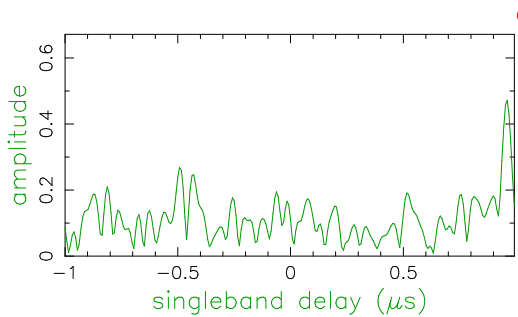
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fz..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fz.W.133.0RU2MU



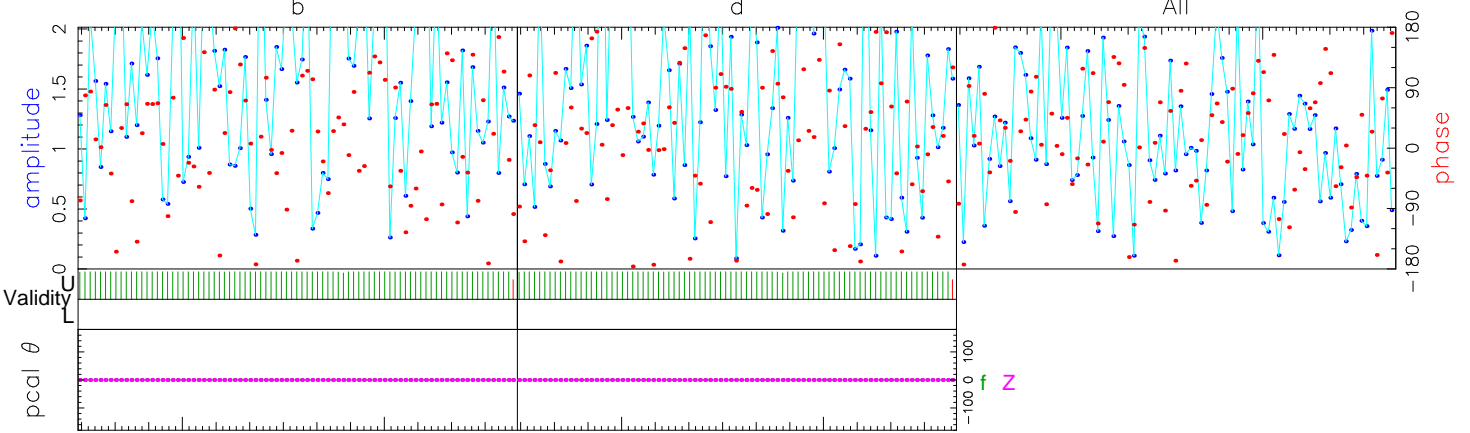
Fringe quality 0

SNR 5.2
 Int time 130.003
 Amp 0.672
 Phase -60.5
 PFD 7.2e-01
 Delays (us)
 SBD 0.958818
 MBD 0.005142
 Fringe rate (Hz)
 -0.869023
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180439.55
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150827
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 85 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



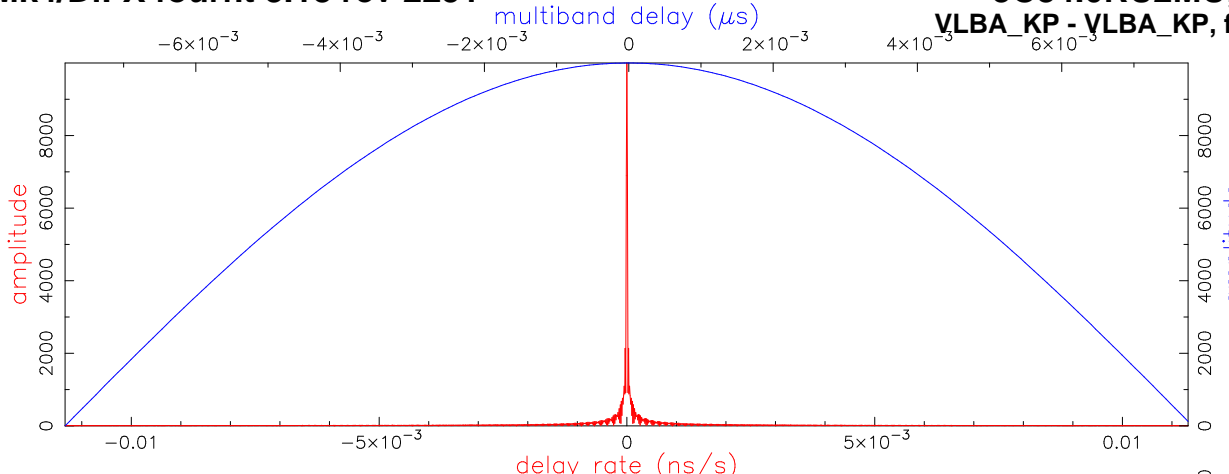
86156.00	86220.00	Freq (MHz)	All
29.7	29.1	Phase	29.5
0.7	0.6	Ampl.	0.6
252.1	251.0	Sbd box	251.7
U/L 255/0	255/0	APs used	
f 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
f:Z 0:0	0:0	PC phase	
f:Z 0:0	0:0	Manl PC	
f 1000	1000	PC amp	
Z 1000	1000		
f W01UL	W03UL	Chan ids	
		Tracks	
Z W01UL	W03UL	Chan ids	
		Tracks	

Group delay (usec)(sbd)	2.96393613959E+03	Apriori delay (usec)	2.96297787266E+03	Resid mbdelay (usec)	5.14193E-03	+/-	9.5E-04
Sband delay (usec)	2.96393669066E+03	Apriori clock (usec)	7.0806885E+00	Resid sbdelay (usec)	9.58818E-01	+/-	3.3E-03
Phase delay (usec)	2.96297787361E+03	Apriori clockrate (us/s)	4.1000000E-08	Resid phdelay (usec)	9.50289E-07	+/-	7.1E-07
Delay rate (us/s)	1.30739458674E+00	Apriori rate (us/s)	1.30740467524E+00	Resid rate (us/s)	-1.00885E-05	+/-	9.4E-09
Total phase (deg)	-78.2	Apriori accel (us/s/s)	-4.25642990767E-05	Resid phase (deg)	-60.5	+/-	22.0

ph/seg (deg)	81.1	Theor.	101.2	Amplitude	0.672 +/- 0.129	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	182.2	Search (512X8)	0.460	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.615	Inc. frq. avg.	0.645	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	10.5	Inc. frq. avg.	0.645			Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

f: az 60.4 el 49.9 pa -89.2 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10076.863 -5244.399 simultaneous interpolator

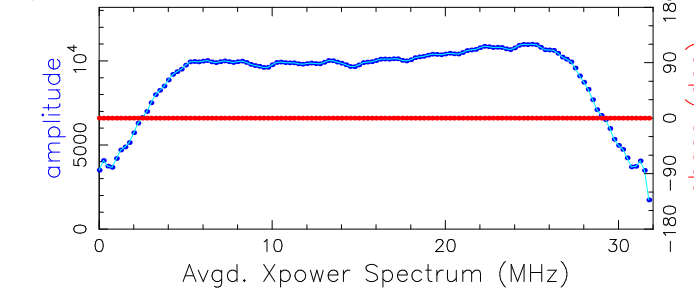
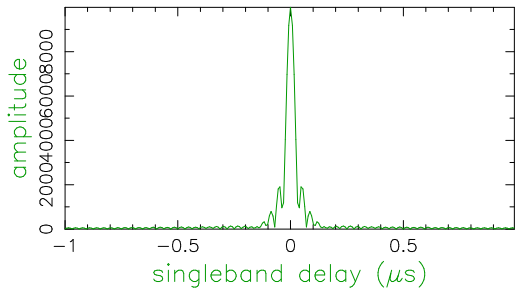
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/fz..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/fz.W.97.0RU2MU



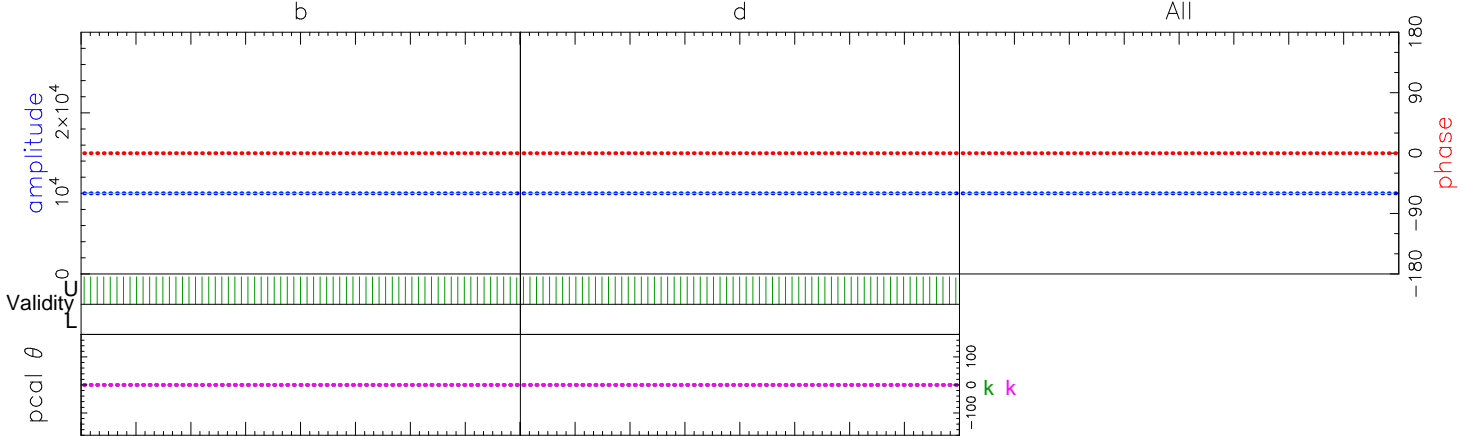
Fringe quality 9

SNR 211780.0
Int time 479.805
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150827
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



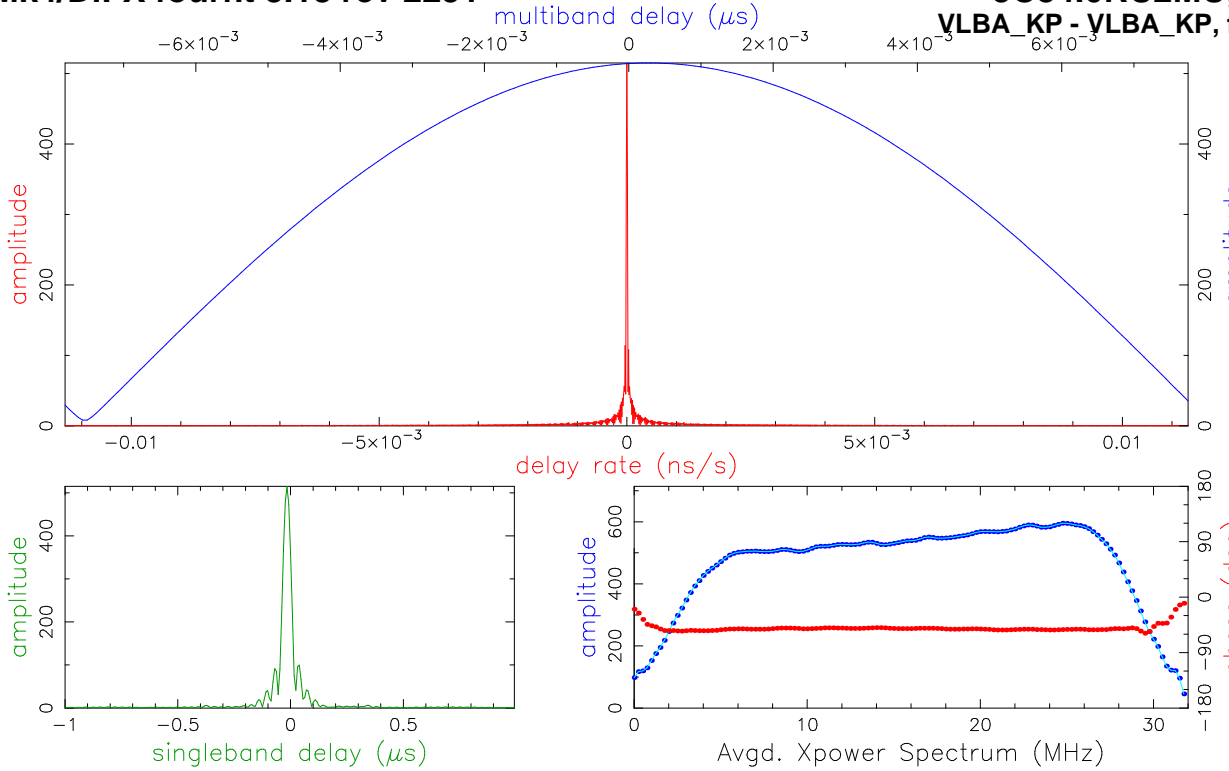
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 938/0	938/0	APs used	
k 1000	1000	PC freqs	
k 1000	1000	PC freqs	
k:k 0:0	0:0	PC phase	
k:k 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
k 1000	1000		
k W01UR	W03UR	Chan ids	
k		Tracks	
k W01UR	W03UR	Chan ids	
k		Tracks	

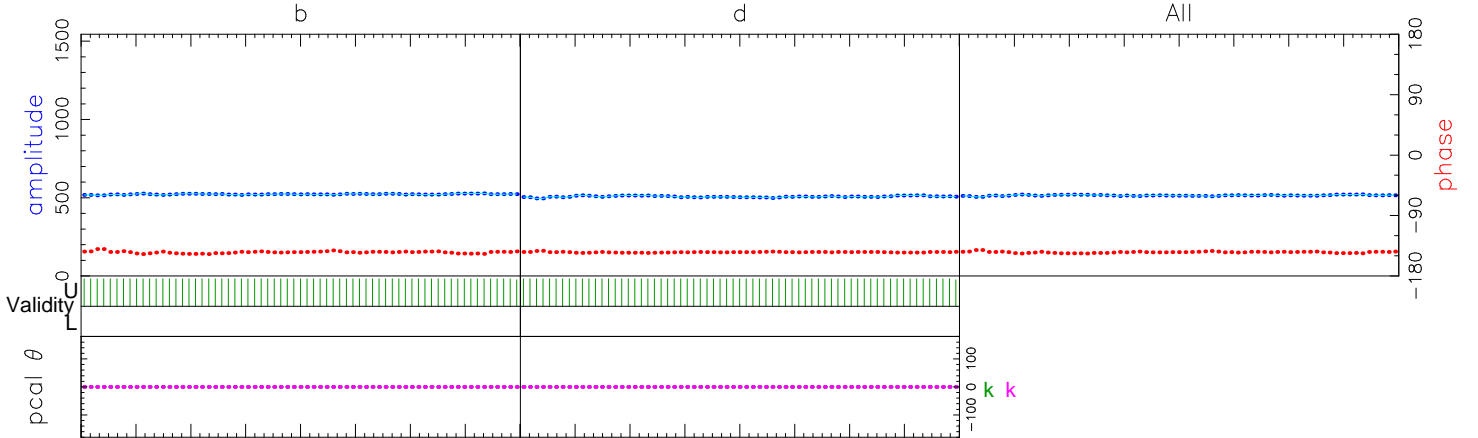
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.047 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) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kk.W.101.0RU2MU simultaneous interpolator



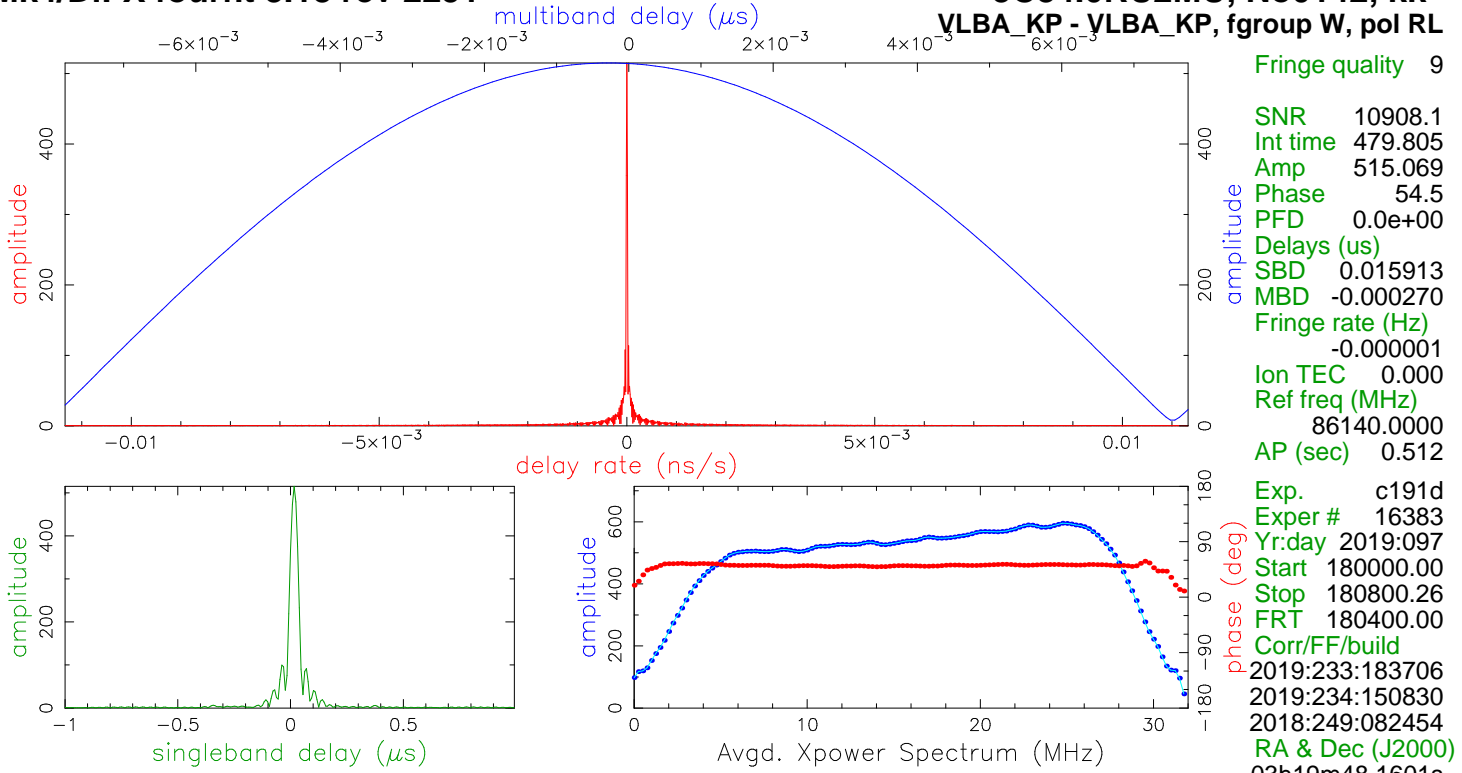
Fringe quality 9
 SNR 10908.1
 Int time 479.805
 Amp 515.069
 Phase -54.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.015913
 MBD 0.000270
 Fringe rate (Hz)
 0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150828
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

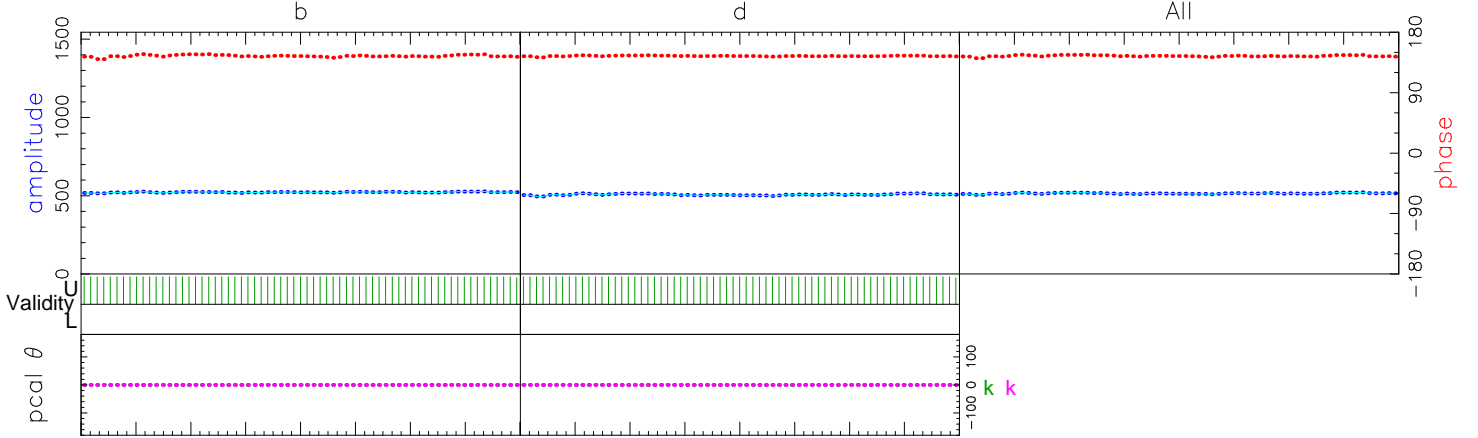


86156.00				86220.00				Freq (MHz)				All	
-144.6				-144.5				Phase				-144.5	
522.4				507.6				Ampl.				515.0	
127.0				127.0				Sbd box				127.0	
U/L 938/0				938/0				APs used					
k 1000				1000				PC freqs					
k 1000				1000				PC freqs					
k:k 0:0				0:0				PC phase					
k:k 0:0				0:0				Mani PC					
k 1000				1000				PC amp					
k 1000				1000									
k W01UL				W03UL				Chan ids					
k W01UR				W03UR				Tracks					
								Chan ids					
								Tracks					
Group delay (usec)(sbd)		-1.53547500000E-02		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		2.70250E-04		+/- 4.6E-07	
Sband delay (usec)		-1.59130000000E-02		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.59130E-02		+/- 1.6E-06	
Phase delay (usec)		-4.66123238445E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-4.66123E-06		+/- 3.4E-10	
Delay rate (us/s)		1.13369219133E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		1.13369E-11		+/- 1.2E-12	
Total phase (deg)		-54.5		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-54.5		+/- 0.0	

ph/seg (deg)		1.0		RMS		Theor.		Amplitude		515.069 +/- 0.047		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
amp/seg (%)		0.7		0.1		0.0		Search (2048X8)		514.236		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000	
ph/frq (deg)		0.0		0.0		0.0		Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008	
amp/frq (%)		1.4		0.0		0.0		Inc. seg. avg.		515.099		Sample rate(MSamp/s): 64		dr window (ns/s) -0.011 0.011	
								Inc. frq. avg.		515.015		Data rate(Mb/s): 256		ion window (TEC) 0.00 0.00	
												nlags: 128 t_cohere infinite		simultaneous interpolator	

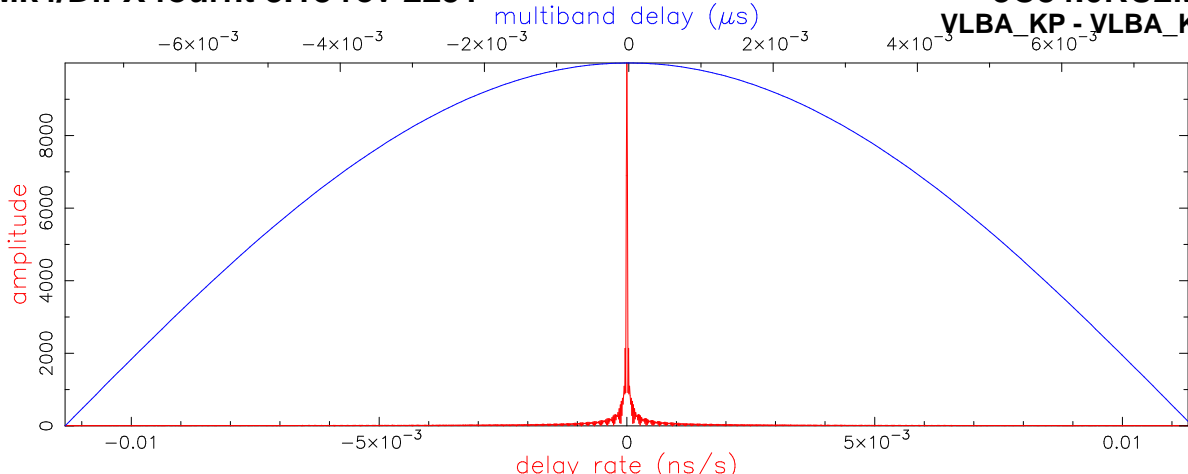


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
144.6	144.5	Phase	144.5				
522.4	507.6	Ampl.	515.0				
131.0	131.0	Sbd box	131.0				
U/L 938/0	938/0	APs used					
k 1000	1000	PC freqs					
k 1000	1000	PC freqs					
k:k 0:0	0:0	PC phase					
k:k 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
k 1000	1000						
k W01UR	W03UR	Chan ids					
		Tracks					
k W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.53547500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.70250E-04	+/-	4.6E-07
Sband delay (usec)	1.59130000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.59130E-02	+/-	1.6E-06
Phase delay (usec)	4.66123238453E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.66123E-06	+/-	3.4E-10
Delay rate (us/s)	-1.13369219133E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.13369E-11	+/-	1.2E-12
Total phase (deg)	54.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	54.5	+/-	0.0

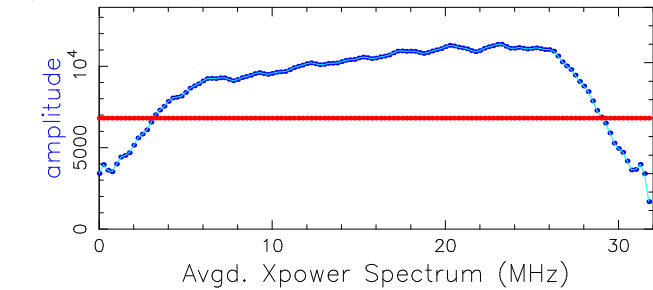
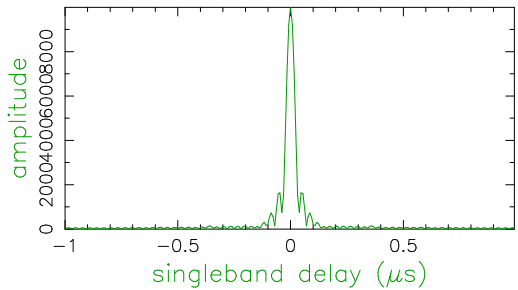
ph/seg (deg)	1.0	0.0	Search (2048X8)	514.236	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	0.7	0.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	515.099	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.4	0.0	Inc. frq. avg.	515.015	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00



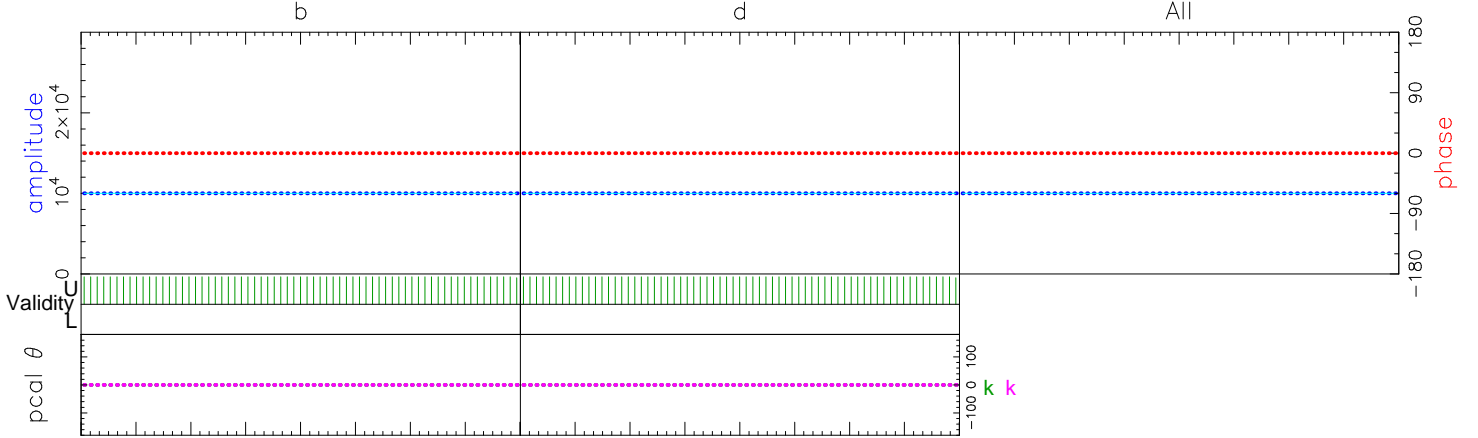
Fringe quality 9

SNR 211780.0
 Int time 479.805
 Amp 9999.999
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150826
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

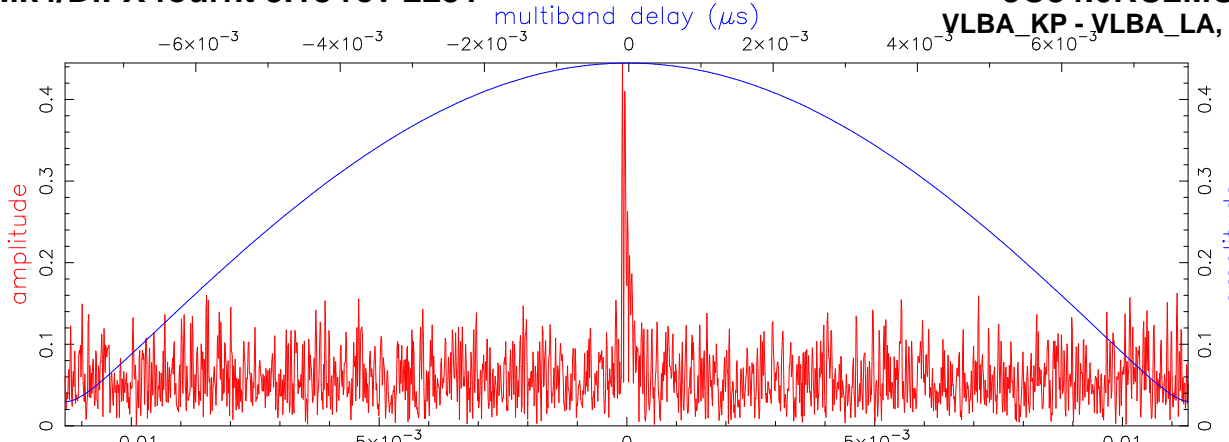


86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 938/0	938/0	APs used	
k 1000	1000	PC freqs	
k 1000	1000	PC freqs	
k:k 0:0	0:0	PC phase	
k:k 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
k 1000	1000		
k W01UL	W03UL	Chan ids	
k		Tracks	
k W01UL	W03UL	Chan ids	
k		Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 8.1E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.7E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 6.3E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.047 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) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 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): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

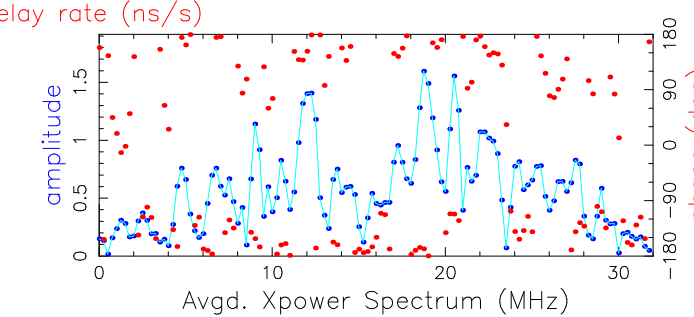
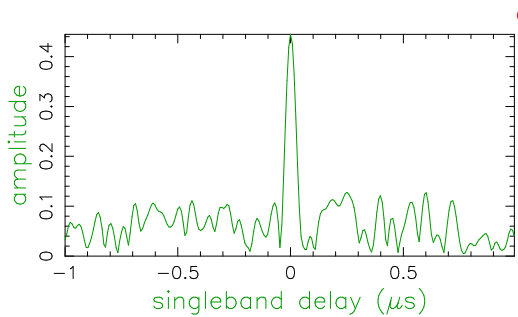
k: az 61.1 el 44.8 pa -83.9 k: az 61.1 el 44.8 pa -83.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kk..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kk.W.93.0RU2MU



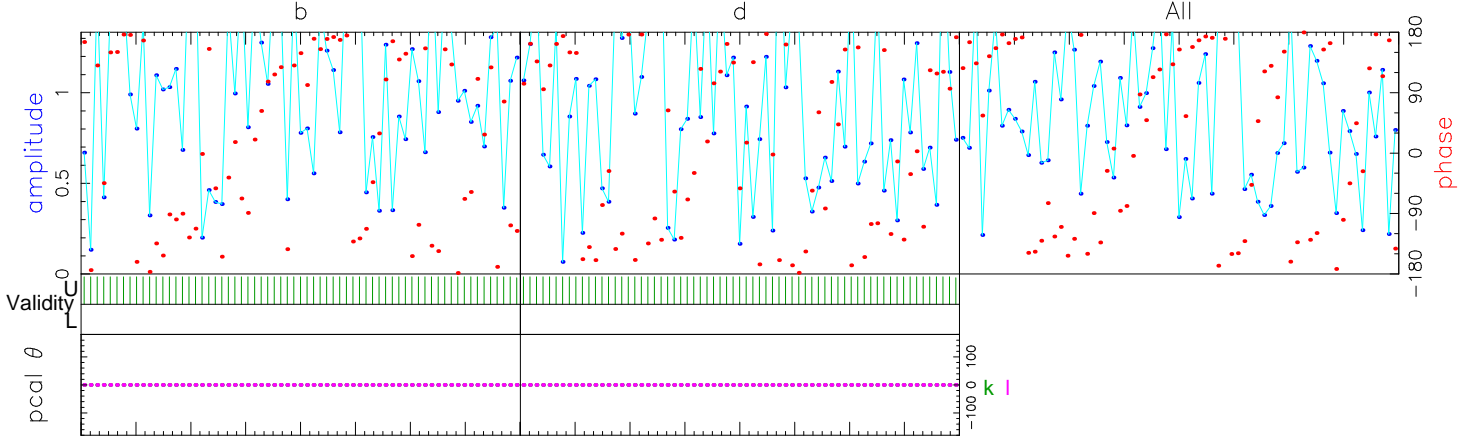
Fringe quality 9

SNR 9.4
 Int time 479.744
 Amp 0.445
 Phase -176.0
 PFD 2.3e-13
 Delays (us)
 SBD 0.000552
 MBD 0.000005
 Fringe rate (Hz)
 -0.007797
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150830
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



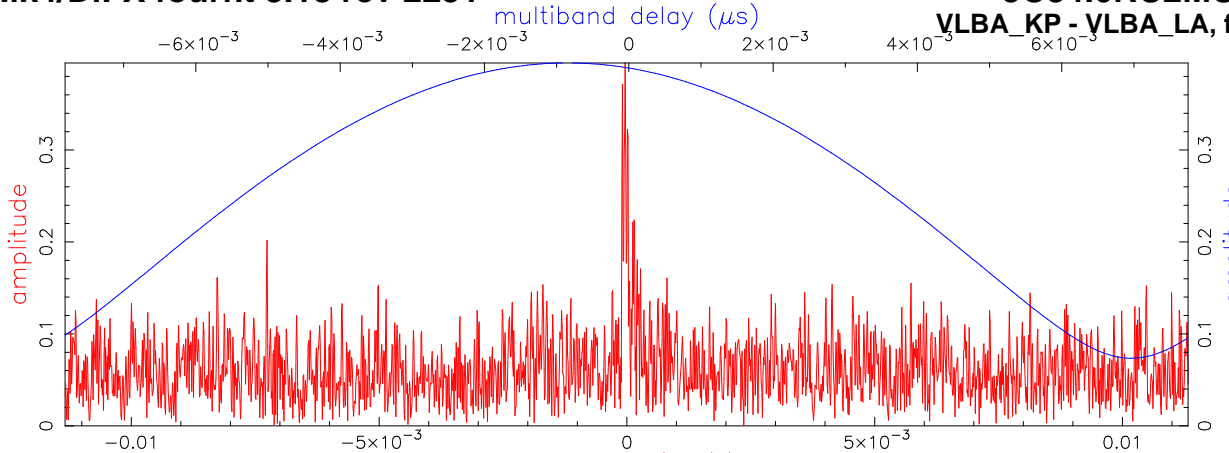
86156.00	86220.00	86220.00	Freq (MHz)	All
-175.8	-176.3	-176.3	Phase	-176.0
0.5	0.4	0.4	Ampl.	0.4
129.1	129.1	129.1	Sbd box	129.1
U/L 938/0	938/0	938/0	APs used	
k 1000	1000	1000	PC freqs	
l 1000	1000	1000	PC freqs	
k:l 0:0	0:0	0:0	PC phase	
k:l 0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	PC amp	
l 1000	1000	1000		
k W01UL	W03UL	W03UL	Chan ids	
l W01UL	W03UL	W03UL	Tracks	
			Chan ids	
			Tracks	

Group delay (usec)(sbd)	-1.40002687158E+03	Apriori delay (usec)	-1.40002687684E+03	Resid mbdelay (usec)	5.26595E-06	+/-	5.3E-04
Sband delay (usec)	-1.40002632534E+03	Apriori clock (usec)	2.3879375E+00	Resid sbdelay (usec)	5.51500E-04	+/-	1.8E-03
Phase delay (usec)	-1.40002688252E+03	Apriori clockrate (us/s)	1.5634000E-07	Resid phdelay (usec)	-5.67567E-06	+/-	3.9E-07
Delay rate (us/s)	8.90293632781E-02	Apriori rate (us/s)	8.90294537978E-02	Resid rate (us/s)	-9.05197E-08	+/-	1.4E-09
Total phase (deg)	-237.6	Apriori accel (us/s/s)	3.31620969842E-06	Resid phase (deg)	-176.0	+/-	12.2

ph/seg (deg)	73.2	Theor.	49.8	Amplitude	0.445 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	128.5		86.9	Search (2048X8)	0.439	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0		8.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	6.6		15.0	Inc. seg. avg.	0.637	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
				Inc. frq. avg.	0.440	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

k: az 61.1 el 44.8 pa -83.9 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -675.238 -128.856 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kl.W.125.0RU2MU



Fringe quality 9

SNR 8.4

Int time 479.744

Amp 0.395

Phase -110.1

PFD 2.8e-09

Delays (us)

SBD -0.000418

MBD -0.000858

Fringe rate (Hz)

-0.003158

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180800.26

FRT 180400.00

Corr/FF/build

2019:233:183706

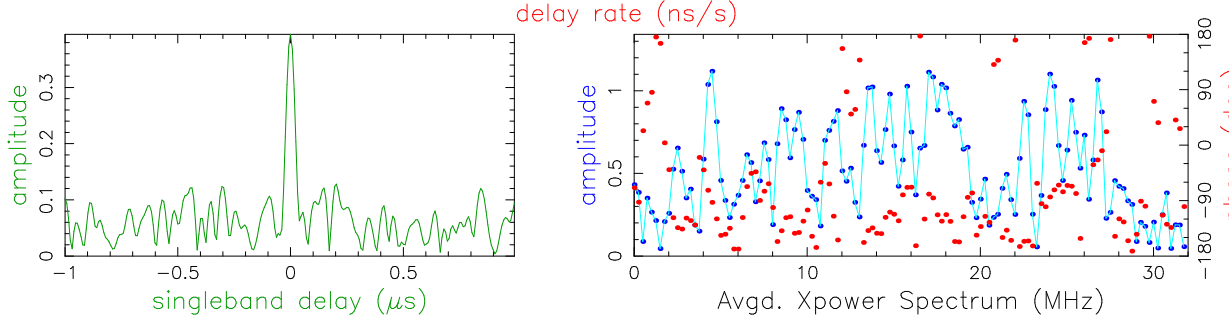
2019:234:150830

2018:249:082454

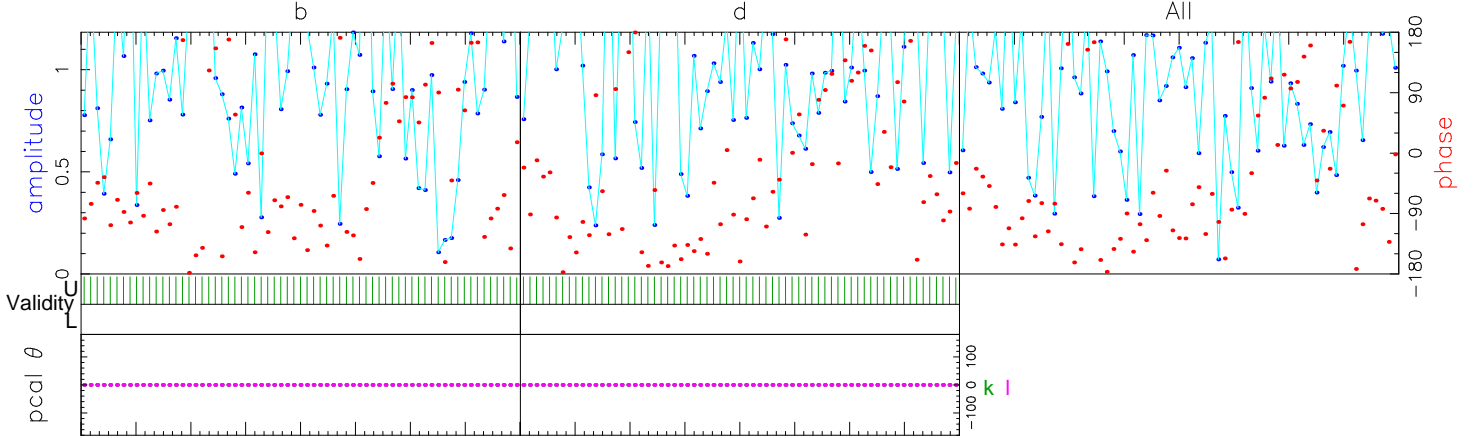
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

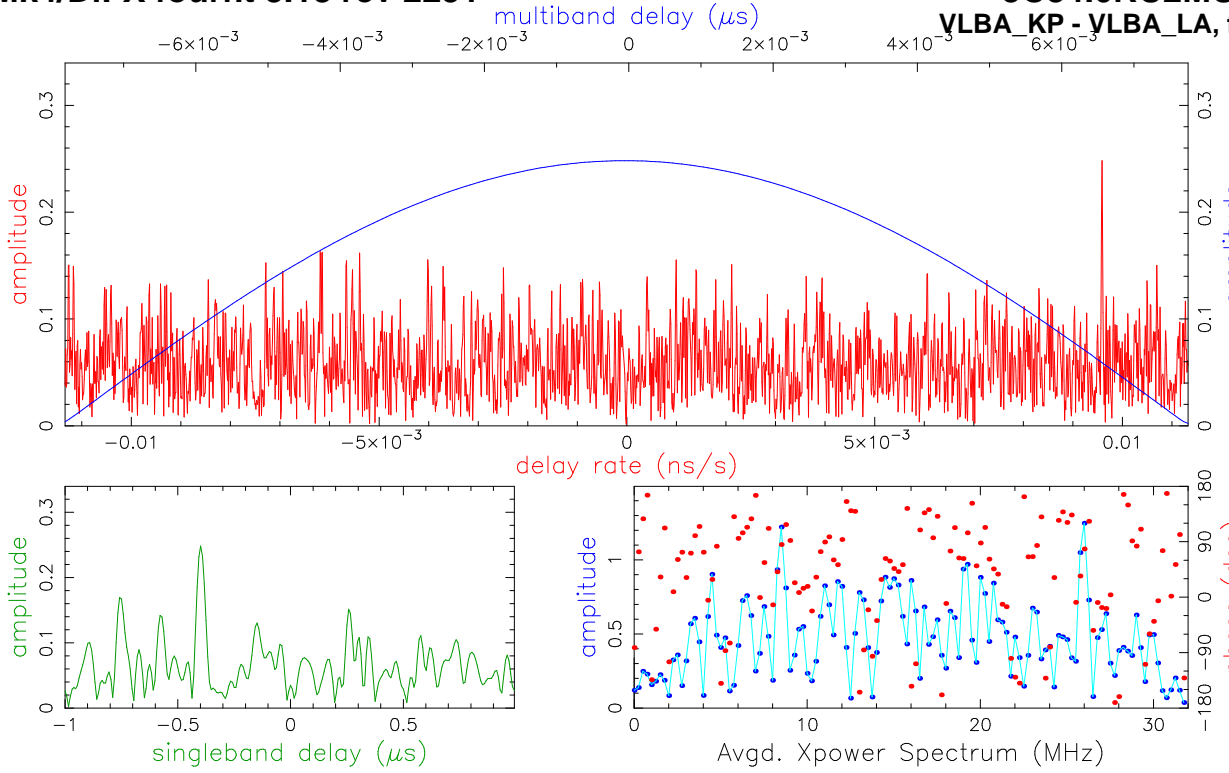


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-110.1		-109.9		Phase	-110.1
0.5		0.3		Ampl.	0.4
129.1		128.7		Sbd box	128.9
U/L 938/0		938/0		APs used	
k 1000		1000		PC freqs	
l 1000		1000		PC freqs	
k:l 0:0		0:0		PC phase	
k:l 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
l 1000		1000			
k W01UR		W03UR		Chan ids	
l W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.40002773455E+03	Apriori delay (usec)	-1.40002687684E+03	Resid mbdelay (usec)	-8.57713E-04 +/- 6.0E-04
Sband delay (usec)	-1.40002729434E+03	Apriori clock (usec)	2.3879375E+00	Resid sbdelay (usec)	-4.17500E-04 +/- 2.1E-03
Phase delay (usec)	-1.40002688039E+03	Apriori clockrate (us/s)	1.5634000E-07	Resid phdelay (usec)	-3.54896E-06 +/- 4.4E-07
Delay rate (us/s)	8.90294171412E-02	Apriori rate (us/s)	8.90294537978E-02	Resid rate (us/s)	-3.66565E-08 +/- 1.6E-09
Total phase (deg)	-171.7	Apriori accel (us/s/s)	3.31620969842E-06	Resid phase (deg)	-110.1 +/- 13.7

ph/seg (deg)	RMS 75.9	Theor. 56.1	Amplitude Search (2048X8) 0.395 +/- 0.047	0.380	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	160.1	97.9	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	9.7	Inc. seg. avg. 0.618	0.618	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	18.6	16.9	Inc. frq. avg. 0.389	0.389	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00



Fringe quality 0

SNR 5.3

Int time 479.744

Amp 0.340

Phase 30.9

PFD 9.9e-01

Delays (us)

SBD -0.398452

MBD -0.000060

Fringe rate (Hz) 0.826118

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180800.26

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150832

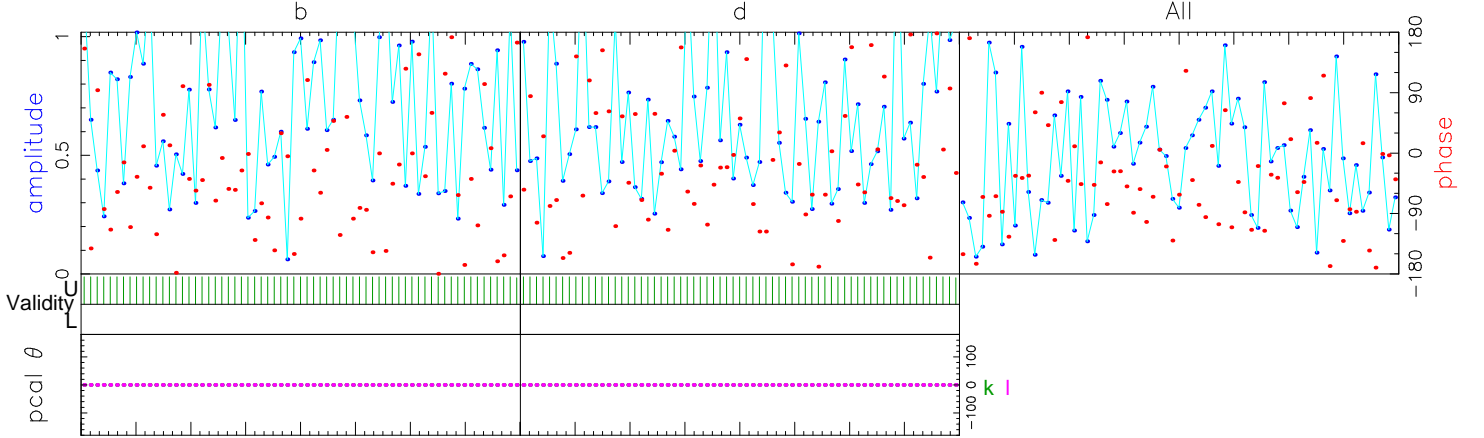
2018:249:082454

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

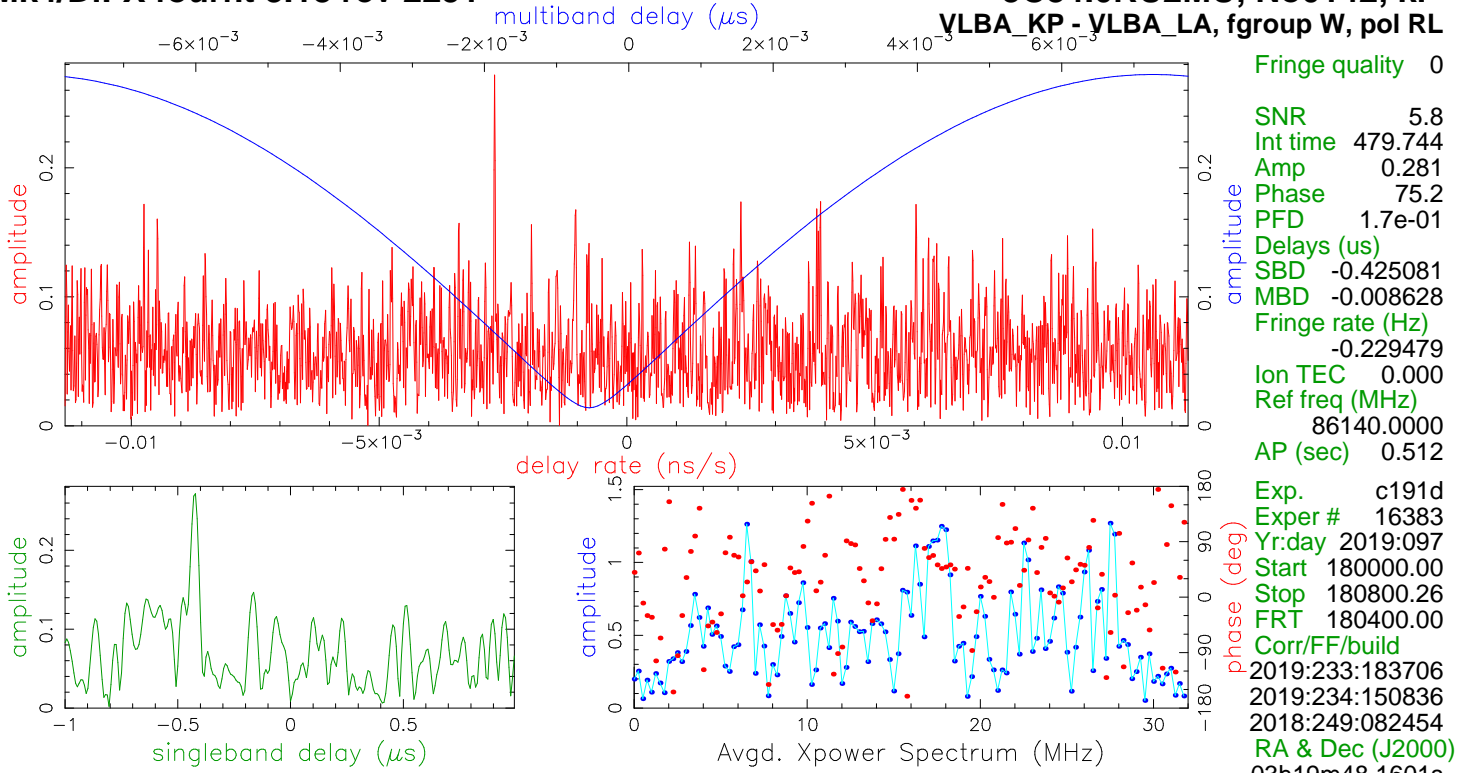


86156.00		86220.00		Freq (MHz)	All
-59.1		-59.1		Phase	-59.1
0.3		0.3		Ampl.	0.3
78.2		77.6		Sbd box	78.0
U/L 938/0		938/0		APs used	
k 1000		1000		PC freqs	
l 1000		1000		PC freqs	
k:l 0:0		0:0		PC phase	
k:l 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
l 1000		1000			
k W01UL		W03UL		Chan ids	
				Tracks	
l W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.40041756175E+03	Apriori delay (usec)	-1.40002687684E+03	Resid mbdelay (usec)	-5.99136E-05 +/- 9.5E-04
Sband delay (usec)	-1.40042532834E+03	Apriori clock (usec)	2.3879375E+00	Resid sbdelay (usec)	-3.98452E-01 +/- 3.3E-03
Phase delay (usec)	-1.40002687875E+03	Apriori clockrate (us/s)	1.5634000E-07	Resid phdelay (usec)	-1.90586E-06 +/- 7.0E-07
Delay rate (us/s)	8.90390442059E-02	Apriori rate (us/s)	8.90294537978E-02	Resid rate (us/s)	9.59041E-06 +/- 2.5E-09
Total phase (deg)	329.3	Apriori accel (us/s/s)	3.31620969842E-06	Resid phase (deg)	30.9 +/- 21.8

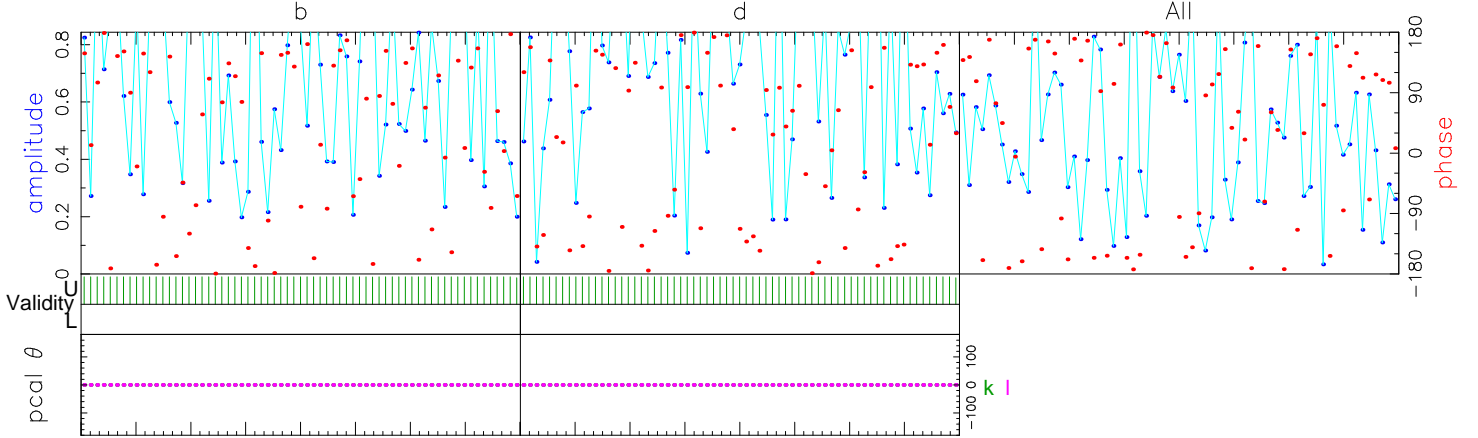
ph/seg (deg)	RMS 72.7	Theor. 89.2	Amplitude Search (2048X8)	0.340 +/- 0.065	0.241	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	137.4	155.8	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.4	Inc. seg. avg.	0.301	0.301	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.0	26.9	Inc. frq. avg.	0.328	0.328	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 61.1 el 44.8 pa -83.9 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -675.238 -128.856 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kl.W.150.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

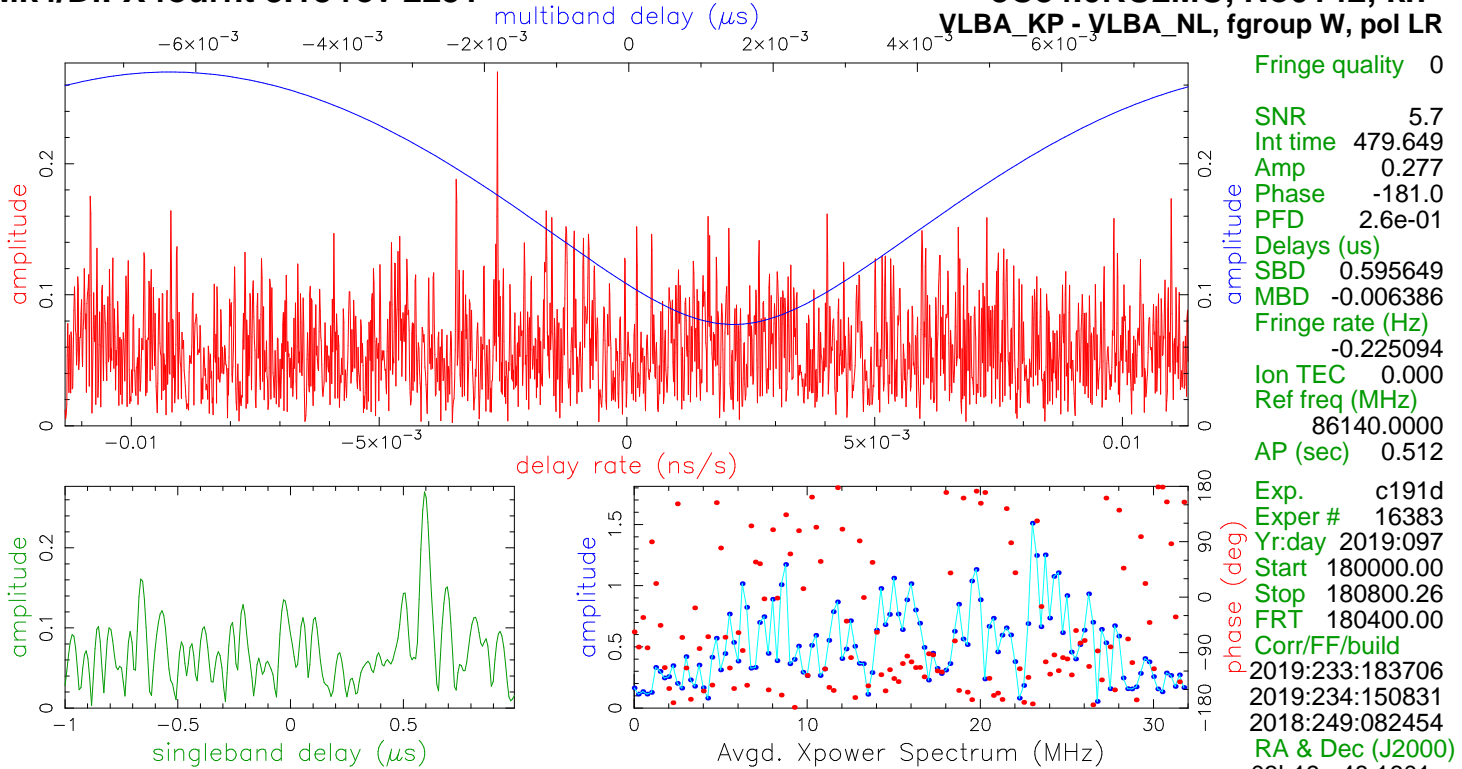


86156.00	86220.00	Freq (MHz)	All				
162.0	168.1	Phase	165.2				
0.3	0.3	Ampl.	0.3				
74.4	74.8	Sbd box	74.6				
U/L 938/0	938/0	APs used					
k 1000	1000	PC freqs					
l 1000	1000	PC freqs					
k:l 0:0	0:0	PC phase					
k:l 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
l 1000	1000						
k W01UR	W03UR	Chan ids					
l W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.40045738022E+03	Apriori delay (usec)	-1.40002687684E+03	Resid mbdelay (usec)	-8.62837E-03	+/-	8.5E-04
Sband delay (usec)	-1.40045195784E+03	Apriori clock (usec)	2.3879375E+00	Resid sbdelay (usec)	-4.25081E-01	+/-	3.0E-03
Phase delay (usec)	-1.40002687151E+03	Apriori clockrate (us/s)	1.5634000E-07	Resid phdelay (usec)	5.32826E-06	+/-	6.3E-07
Delay rate (us/s)	8.90267897784E-02	Apriori rate (us/s)	8.90294537978E-02	Resid rate (us/s)	-2.66402E-06	+/-	2.3E-09
Total phase (deg)	13.6	Apriori accel (us/s/s)	3.31620969842E-06	Resid phase (deg)	75.2	+/-	19.7

ph/seg (deg)	RMS 70.2	Theor. 80.6	Amplitude Search (2048X8)	0.281 +/- 0.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	136.9	140.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	13.9	Inc. seg. avg.	0.263	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.2	24.3	Inc. frq. avg.	0.271	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

k: az 61.1 el 44.8 pa -83.9 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) -675.238 -128.856 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kl..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kl.W.180.0RU2MU



Fringe quality 0

SNR 5.7

Int time 479.649

Amp 0.277

Phase -181.0

PFD 2.6e-01

Delays (us)

SBD 0.595649

MBD -0.006386

Fringe rate (Hz)

-0.225094

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180800.26

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150831

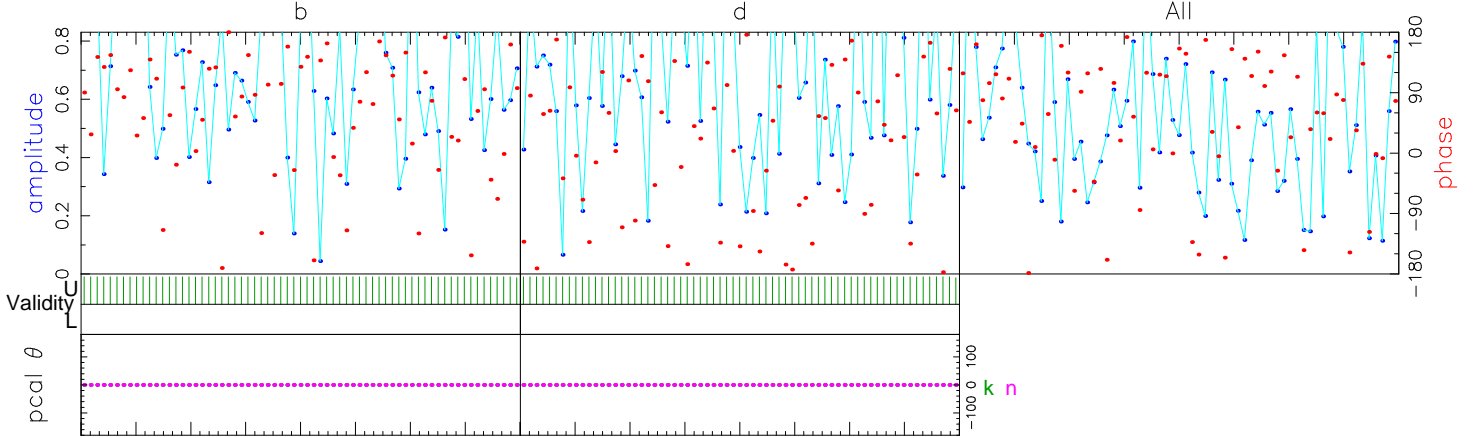
2018:249:082454

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

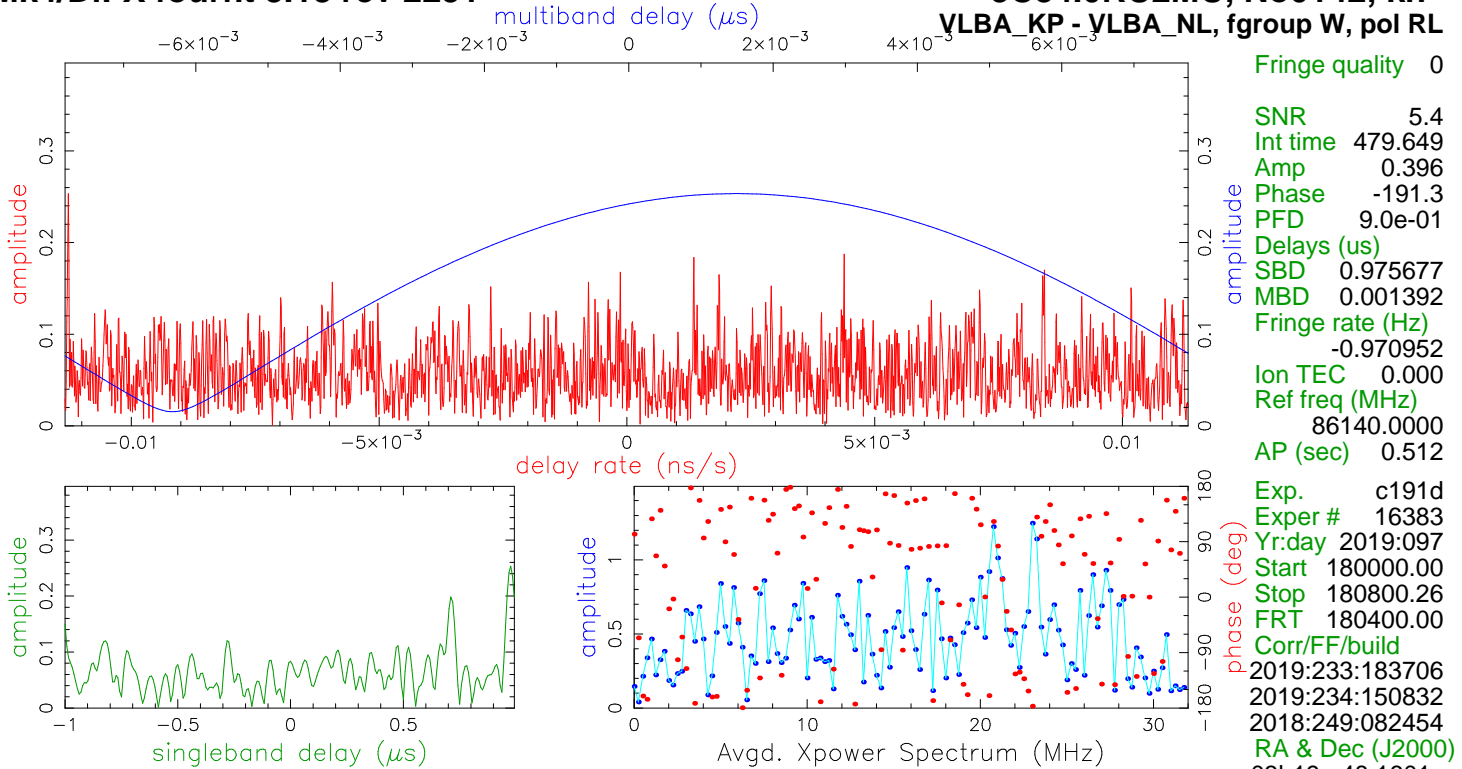


86156.00				86220.00		Freq (MHz)	All
88.8				89.3		Phase	89.0
0.4				0.2		Ampl.	0.3
205.1				54.9		Sbd box	205.2
U/L 938/0				938/0		APs used	
k 1000				1000		PC freqs	
n 1000				1000		PC freqs	
k:n 0:0				0:0		PC phase	
k:n 0:0				0:0		Manl PC	
k 1000				1000		PC amp	
n 1000				1000			
k W01UL				W03UL		Chan ids	
						Tracks	
n W01UR				W03UR		Chan ids	
						Tracks	
Group delay (usec)(sbd)	-3.94521850733E+03	Apriori delay (usec)	-3.94582149642E+03	Resid mbdelay (usec)	-6.38590E-03	+/-	8.7E-04
Sband delay (usec)	-3.94522584692E+03	Apriori clock (usec)	-2.2019424E+01	Resid sbdelay (usec)	5.95649E-01	+/-	3.0E-03
Phase delay (usec)	-3.94582149355E+03	Apriori clockrate (us/s)	-3.4665998E-07	Resid phdelay (usec)	2.86934E-06	+/-	6.4E-07
Delay rate (us/s)	3.10457053084E-01	Apriori rate (us/s)	3.10459666205E-01	Resid rate (us/s)	-2.61312E-06	+/-	2.3E-09
Total phase (deg)	-73.7	Apriori accel (us/s/s)	1.06293518698E-05	Resid phase (deg)	-181.0	+/-	20.0

ph/seg (deg)	RMS 74.3	Theor. 81.8	Amplitude 0.277 +/- 0.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	139.2	142.7	Search (2048X8) 0.267	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.6	24.7	Inc. seg. avg. 0.269	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.268	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

k: az 61.1 el 44.8 pa -83.9 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -2356.940 -142.208 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kn.W.139.0RU2MU

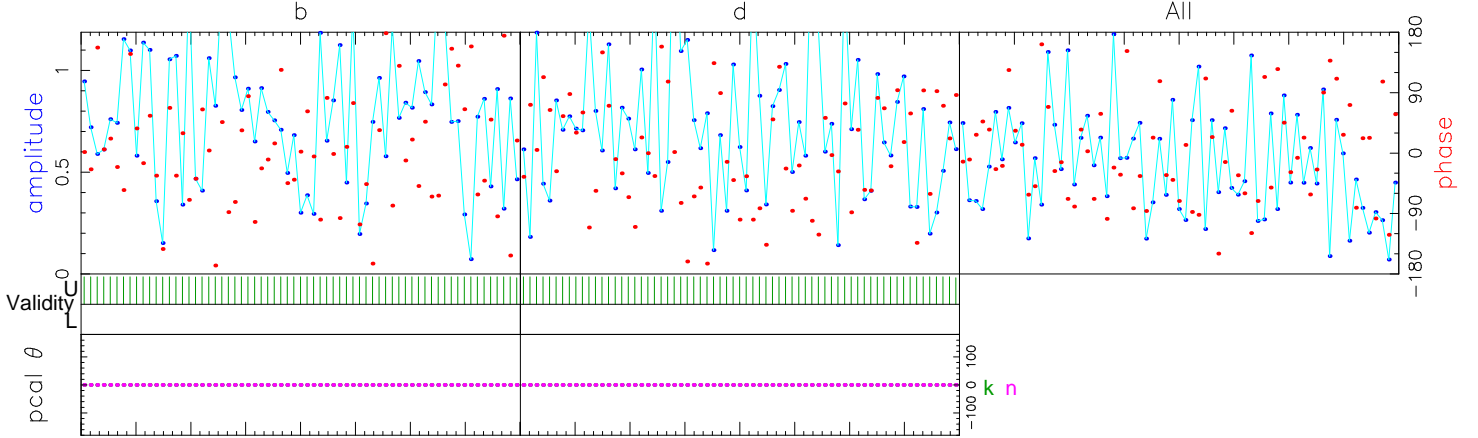


Fringe quality 0

SNR 5.4
Int time 479.649
Amp 0.396
Phase -191.3
PFD 9.0e-01
Delays (us)
SBD 0.975677
MBD 0.001392
Fringe rate (Hz)
-0.970952
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

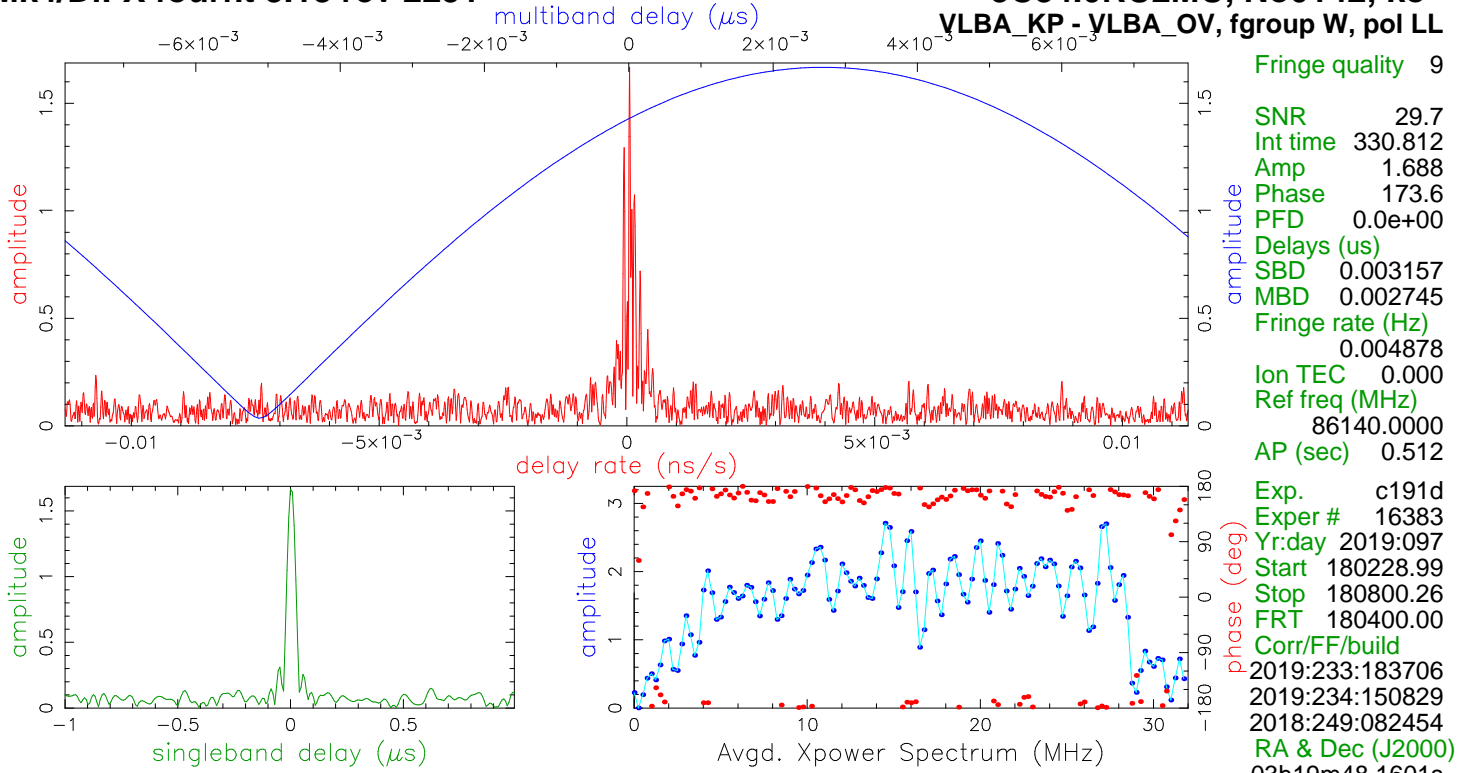
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150832
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

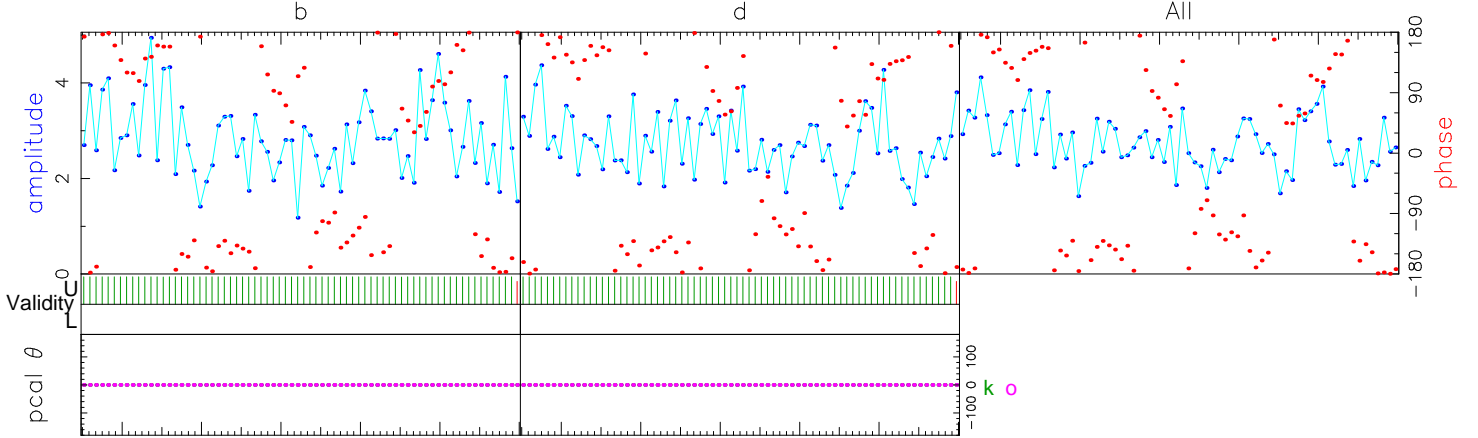


86156.00				86220.00				Freq (MHz)	All
-12.4				-10.1				Phase	-11.3
0.4				0.4				Ampl.	0.4
254.5				252.6				Sbd box	253.9
U/L 938/0				938/0				APs used	
k 1000				1000				PC freqs	
n 1000				1000				PC freqs	
k:n 0:0				0:0				PC phase	
k:n 0:0				0:0				Manl PC	
k 1000				1000				PC amp	
n 1000				1000					
k W01UR				W03UR				Chan ids	
n W01UL				W03UL				Tracks	
								Chan ids	
								Tracks	
Group delay (usec)(sbd)	-3.94485135471E+03			Apriori delay (usec)	-3.94582149642E+03			Resid mbdelay (usec)	1.39172E-03 +/- 9.3E-04
Sband delay (usec)	-3.94484581892E+03			Apriori clock (usec)	-2.2019424E+01			Resid sbdelay (usec)	9.75677E-01 +/- 3.2E-03
Phase delay (usec)	-3.94582149679E+03			Apriori clockrate (us/s)	-3.4665998E-07			Resid phdelay (usec)	-3.65036E-07 +/- 6.9E-07
Delay rate (us/s)	3.10448394410E-01			Apriori rate (us/s)	3.10459666205E-01			Resid rate (us/s)	-1.12718E-05 +/- 2.5E-09
Total phase (deg)	-84.0			Apriori accel (us/s/s)	1.06293518698E-05			Resid phase (deg)	-191.3 +/- 21.3

ph/seg (deg) 74.2 87.4 Search (2048X8) 0.249 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 154.7 152.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.1 Inc. seg. avg. 0.395 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 6.1 26.3 Inc. frq. avg. 0.382 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -2356.940 -142.208 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kn.W.147.0RU2MU simultaneous interpolator

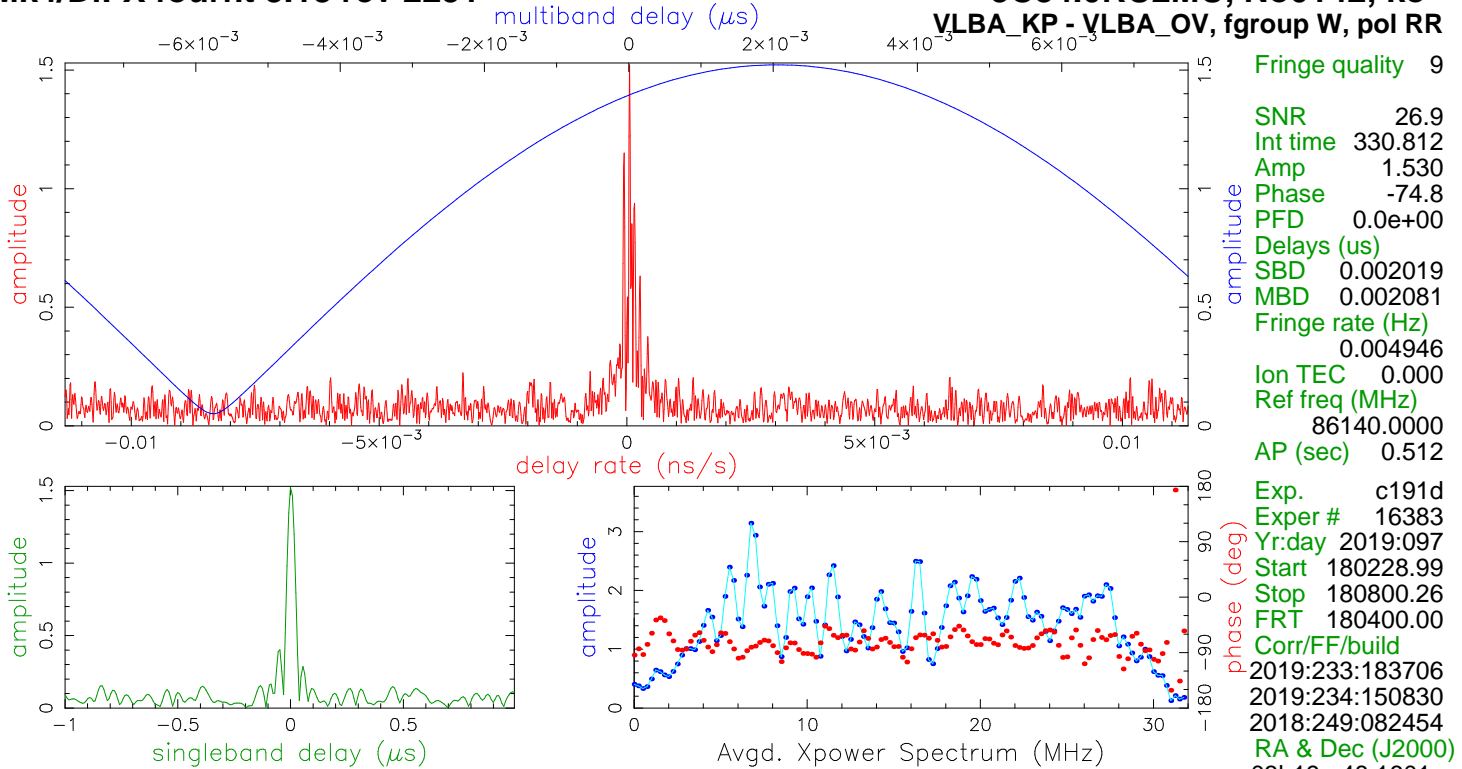


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

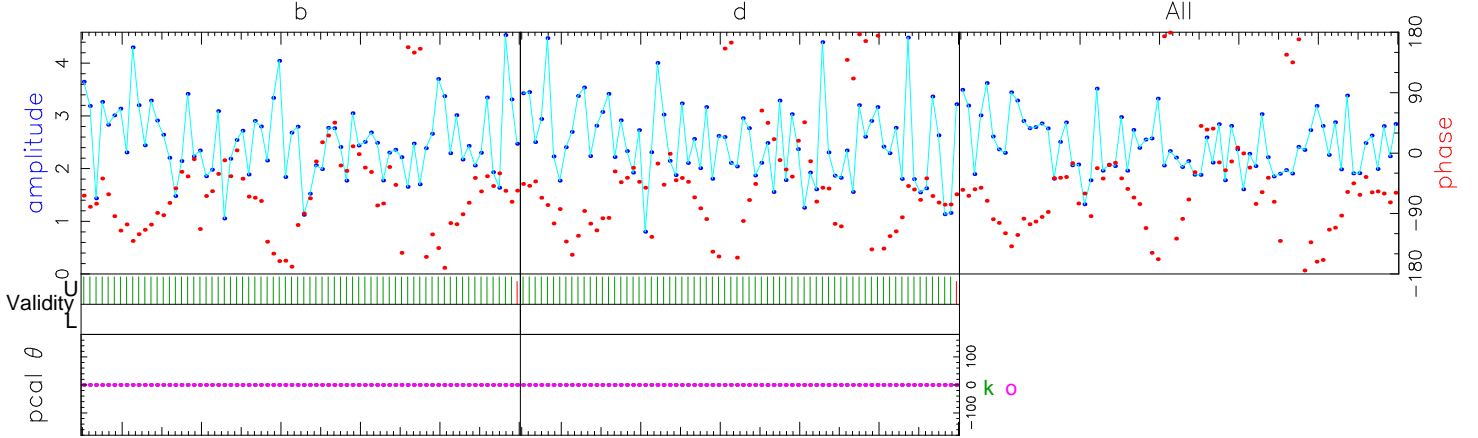


86156.00	86220.00	Freq (MHz)	All				
174.2	173.0	Phase	173.6				
1.7	1.6	Ampl.	1.7				
129.5	129.3	Sbd box	129.4				
U/L 647/0	647/0	APs used					
k 1000	1000	PC freqs					
o 1000	1000	PC freqs					
k:o 0:0	0:0	PC phase					
ko 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
o 1000	1000						
k W01UL	W03UL	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	6.52807414625E+02	Apriori delay (usec)	6.52804669602E+02	Resid mbdelay (usec)	2.74502E-03	+/-	1.7E-04
Sband delay (usec)	6.52807826602E+02	Apriori clock (usec)	-1.3851322E+01	Resid sbdelay (usec)	3.15700E-03	+/-	5.8E-04
Phase delay (usec)	6.52804675200E+02	Apriori clockrate (us/s)	-2.5022001E-07	Resid phdelay (usec)	5.59832E-06	+/-	1.2E-07
Delay rate (us/s)	-6.53528031409E-03	Apriori rate (us/s)	-6.53533694343E-03	Resid rate (us/s)	5.66293E-08	+/-	6.5E-10
Total phase (deg)	259.8	Apriori accel (us/s/s)	-9.21030803335E-06	Resid phase (deg)	173.6	+/-	3.9

ph/seg (deg)	58.2	RMS	16.4	Theor.	16.4	Amplitude	1.688 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	70.7		28.6	Search (2048X8)	1.644	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000				
ph/frq (deg)	0.0		2.7	Inc. seg. avg.	2.637	Inc. seg. avg.	2.637	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	2.4		4.8	Inc. frq. avg.	1.666	Inc. frq. avg.	1.666	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011				
								Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite	ion window (TEC)	0.00 0.00

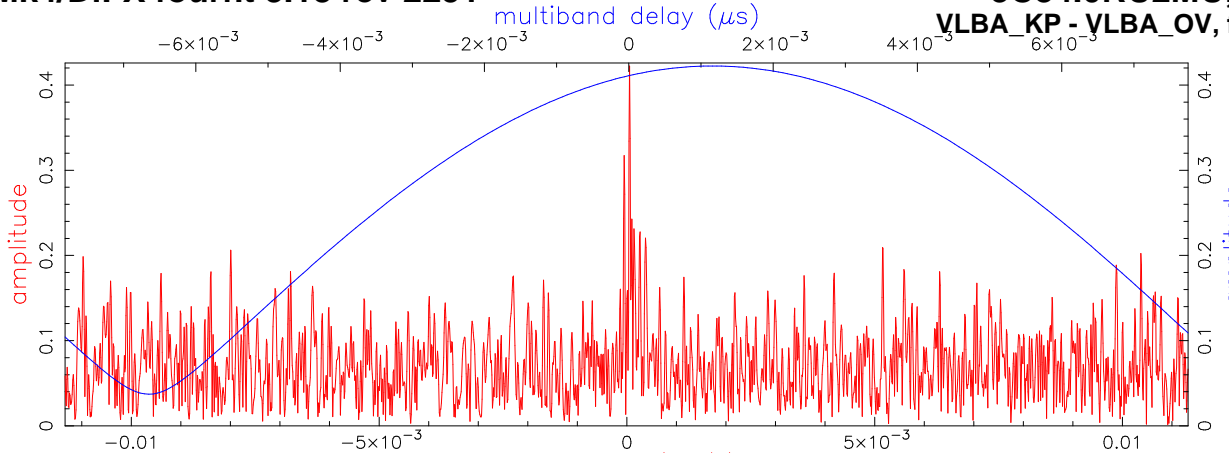


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

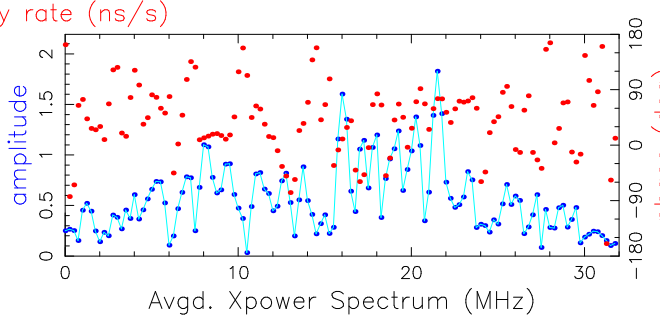
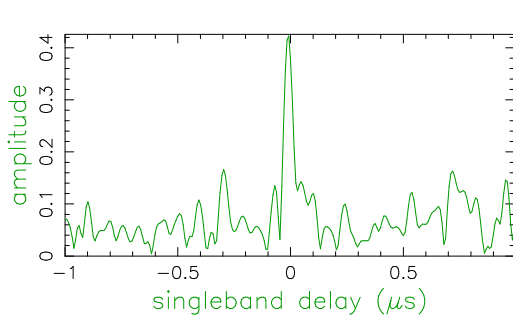


86156.00	86220.00	Freq (MHz)	All
-74.5	-75.2	Phase	-74.8
1.6	1.5	Ampl.	1.5
129.2	129.3	Sbd box	129.3
U/L 647/0	647/0	APs used	
k 1000	1000	PC freqs	
o 1000	1000	PC freqs	
k:o 0:0	0:0	PC phase	
k:o 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
o 1000	1000		
k W01UR	W03UR	Chan ids	
o W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

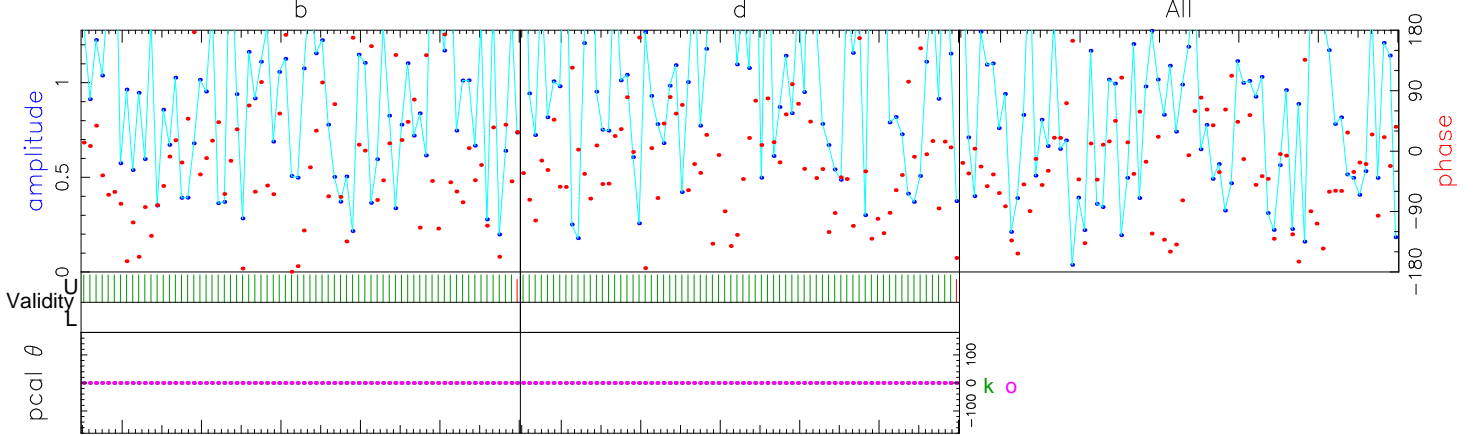
Group delay (usec)(sbd)	6.52806751000E+02	Apriori delay (usec)	6.52804669602E+02	Resid mbdelay (usec)	2.08140E-03	+/-	1.8E-04
Sband delay (usec)	6.52806688602E+02	Apriori clock (usec)	-1.3851322E+01	Resid sbdelay (usec)	2.01900E-03	+/-	6.4E-04
Phase delay (usec)	6.52804667189E+02	Apriori clockrate (us/s)	-2.5022001E-07	Resid phdelay (usec)	-2.41277E-06	+/-	1.4E-07
Delay rate (us/s)	-6.53527952972E-03	Apriori rate (us/s)	-6.53533694343E-03	Resid rate (us/s)	5.74137E-08	+/-	7.2E-10
Total phase (deg)	11.4	Apriori accel (us/s/s)	-9.21030803335E-06	Resid phase (deg)	-74.8	+/-	4.3
RMS	57.4	Amplitude	1.530 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
ph/seg (deg)	57.4	Search (2048X8)	1.510	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
amp/seg (%)	69.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
ph/frq (deg)	0.0	Inc. seg. avg.	2.335	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
amp/frq (%)	3.4	Inc. frq. avg.	1.520	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						ion window (TEC)	0.00 0.00
						nlags:	128 t_cohere infinite



Fringe quality 9
 SNR 7.5
 Int time 330.812
 Amp 0.426
 Phase 63.2
 PFD 2.8e-06
 Delays (us)
 SBD -0.010637
 MBD 0.001106
 Fringe rate (Hz) 0.004738
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150830
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



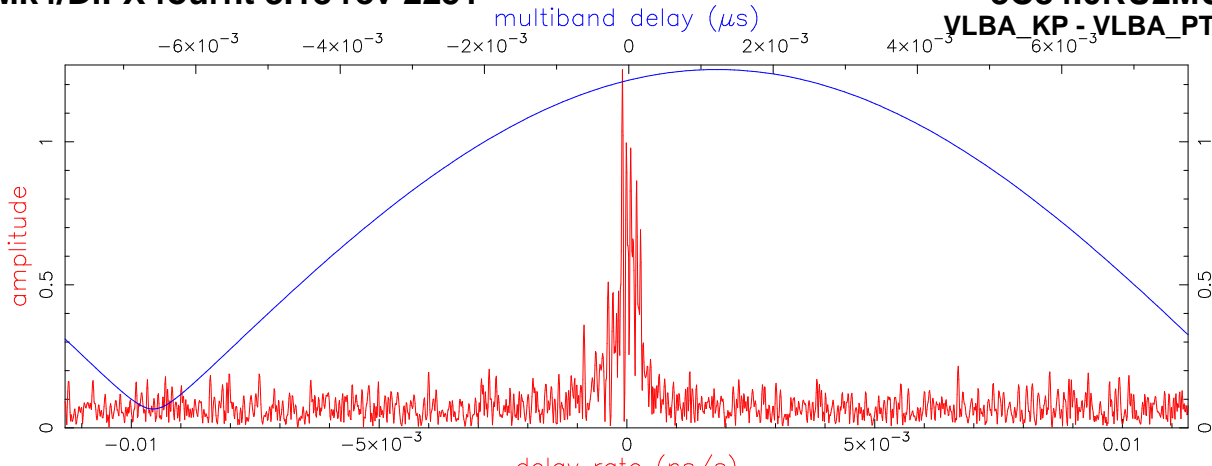
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



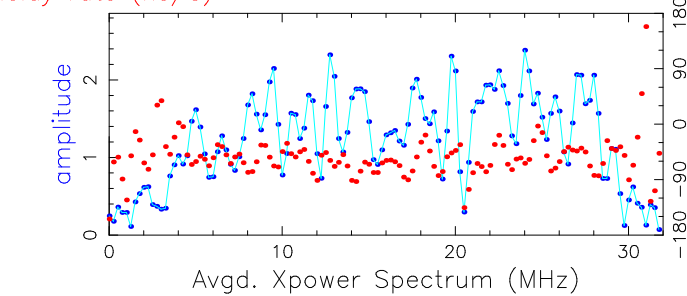
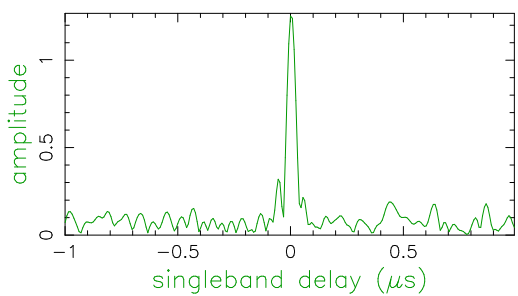
86156.00	86220.00	Freq (MHz)	All				
-27.5	-26.2	Phase	-26.8				
0.4	0.5	Ampl.	0.4				
127.9	127.5	Sbd box	127.6				
U/L 647/0	647/0	APs used					
k 1000	1000	PC freqs					
o 1000	1000	PC freqs					
k:o 0:0	0:0	PC phase					
k:o 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
o 1000	1000						
k W01UL	W03UL	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	6.52790150500E+02	Apriori delay (usec)	6.52804669602E+02	Resid mbdelay (usec)	1.10590E-03	+/-	6.6E-04
Sband delay (usec)	6.52794033102E+02	Apriori clock (usec)	-1.3851322E+01	Resid sbdelay (usec)	-1.06365E-02	+/-	2.3E-03
Phase delay (usec)	6.52804668739E+02	Apriori clockrate (us/s)	-2.5022001E-07	Resid phdelay (usec)	-8.63030E-07	+/-	4.9E-07
Delay rate (us/s)	-6.53528194377E-03	Apriori rate (us/s)	-6.53533694343E-03	Resid rate (us/s)	5.49997E-08	+/-	2.6E-09
Total phase (deg)	149.4	Apriori accel (us/s/s)	-9.21030803335E-06	Resid phase (deg)	63.2	+/-	15.3

ph/seg (deg)	RMS 71.2	Theor. 64.9	Amplitude Search (2048X8)	0.426 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	130.5	113.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	10.8	Inc. seg. avg.	0.488	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	8.8	18.9	Inc. frq. avg.	0.415	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00

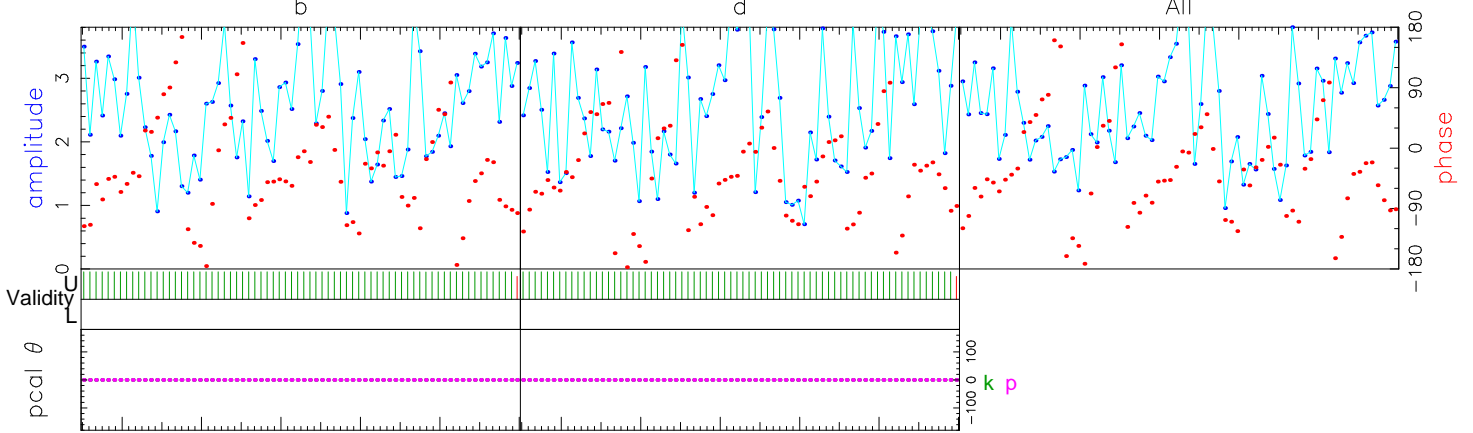
k: az 61.1 el 44.8 pa -83.9 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 35.260 -1143.769 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ko..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ko.W.132.0RU2MU



Fringe quality 9
SNR 22.3
Int time 330.869
Amp 1.268
Phase -43.9
PFD 0.0e+00
Delays (us)
SBD 0.003307
MBD 0.001273
Fringe rate (Hz) -0.007232
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150829
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

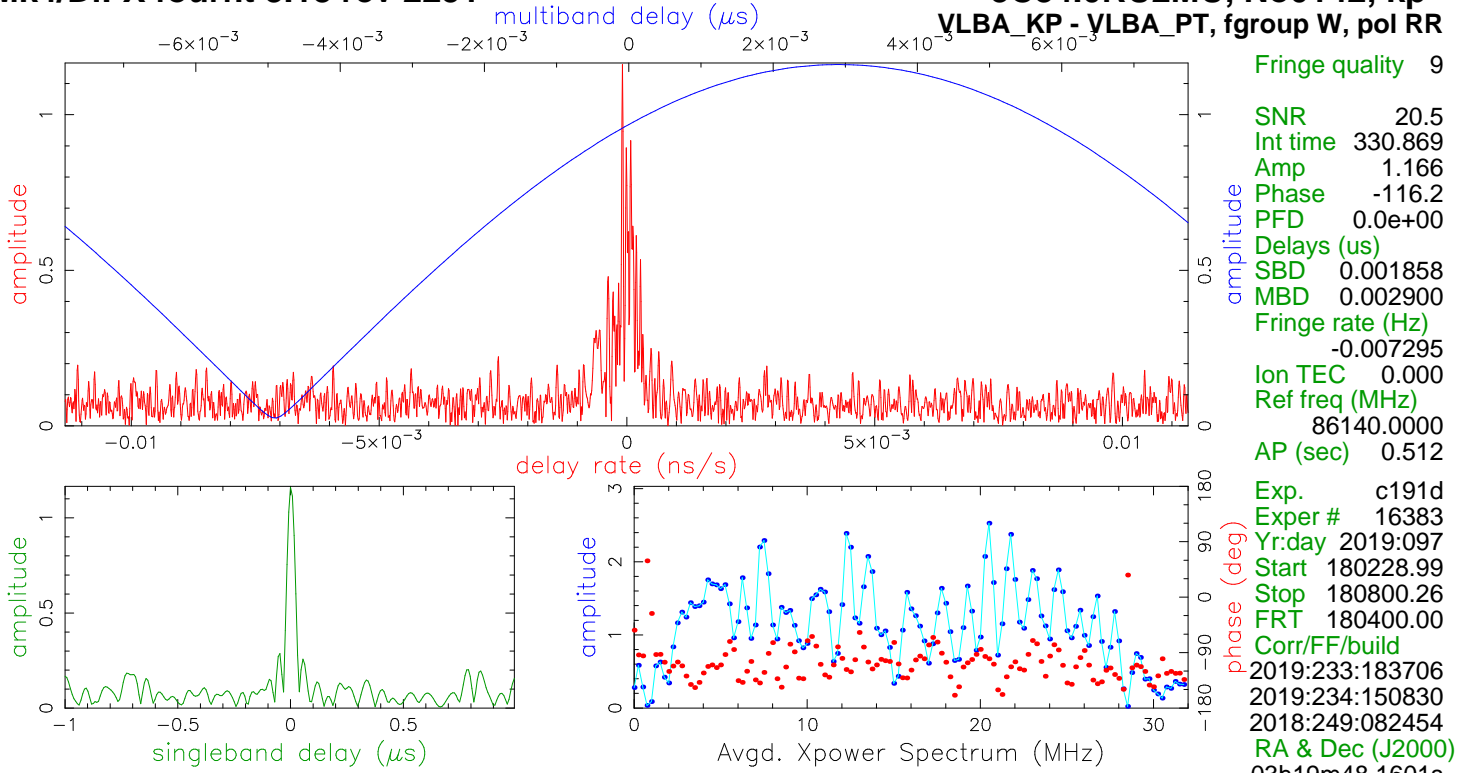


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

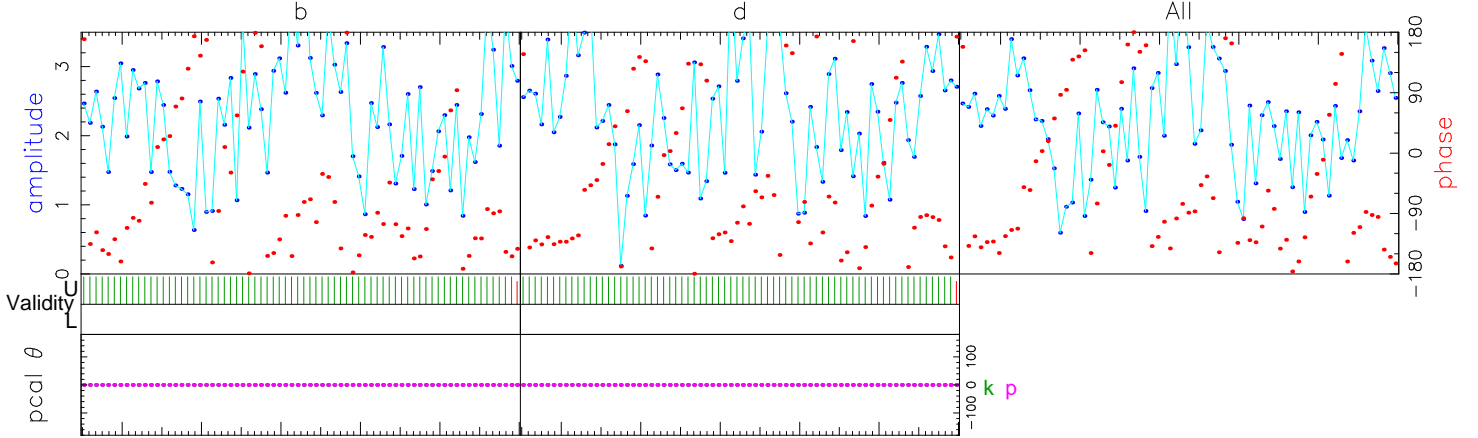


86156.00	86220.00	Freq (MHz)	All				
-43.4	-44.6	Phase	-43.9				
1.3	1.2	Ampl.	1.2				
129.2	129.6	Sbd box	129.4				
U/L 647/0	647/0	APs used					
k 1000	1000	PC freqs					
p 1000	1000	PC freqs					
k:p 0:0	0:0	PC phase					
kp 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
p 1000	1000						
k W01UL	W03UL	Chan ids					
		Tracks					
p W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-9.32828418627E+02	Apriori delay (usec)	-9.32829691589E+02	Resid mbdelay (usec)	1.27296E-03	+/-	2.2E-04
Sband delay (usec)	-9.32826384589E+02	Apriori clock (usec)	-7.8213682E+00	Resid sbdelay (usec)	3.30700E-03	+/-	7.7E-04
Phase delay (usec)	-9.32829693006E+02	Apriori clockrate (us/s)	-1.7566000E-07	Resid phdelay (usec)	-1.41684E-06	+/-	1.7E-07
Delay rate (us/s)	5.60589782555E-02	Apriori rate (us/s)	5.60590622167E-02	Resid rate (us/s)	-8.39612E-08	+/-	8.7E-10
Total phase (deg)	-272.0	Apriori accel (us/s/s)	2.35157056941E-06	Resid phase (deg)	-43.9	+/-	5.1

ph/seg (deg) 71.5 21.8 Search (2048X8) 1.201 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 117.9 38.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 3.6 Inc. seg. avg. 2.359 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.3 6.3 Inc. frq. avg. 1.250 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -424.736 -59.204 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kp.W.117.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

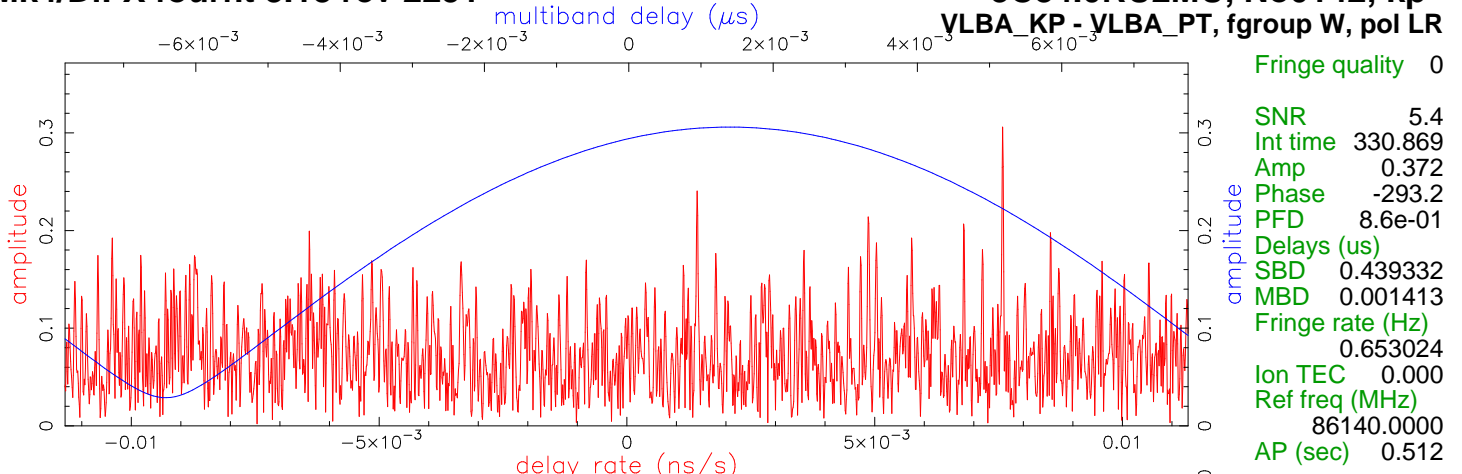


86156.00		86220.00		Freq (MHz)	All
-116.3		-116.1		Phase	-116.2
1.2		1.1		Ampl.	1.2
129.1		129.4		Sbd box	129.2
U/L 647/0		647/0		APs used	
k 1000		1000		PC freqs	
p 1000		1000		PC freqs	
k:p 0:0		0:0		PC phase	
kp 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
p 1000		1000			
k W01UR		W03UR		Chan ids	
				Tracks	
p W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	-9.32826791627E+02	Apriori delay (usec)	-9.32829691589E+02	Resid mbdelay (usec)	2.89996E-03 +/- 2.4E-04
Sband delay (usec)	-9.32827834089E+02	Apriori clock (usec)	-7.8213682E+00	Resid sbdelay (usec)	1.85750E-03 +/- 8.4E-04
Phase delay (usec)	-9.32829695335E+02	Apriori clockrate (us/s)	-1.7566000E-07	Resid phdelay (usec)	-3.74605E-06 +/- 1.8E-07
Delay rate (us/s)	5.60589775256E-02	Apriori rate (us/s)	5.60590622167E-02	Resid rate (us/s)	-8.46911E-08 +/- 9.4E-10
Total phase (deg)	-344.2	Apriori accel (us/s/s)	2.35157056941E-06	Resid phase (deg)	-116.2 +/- 5.6

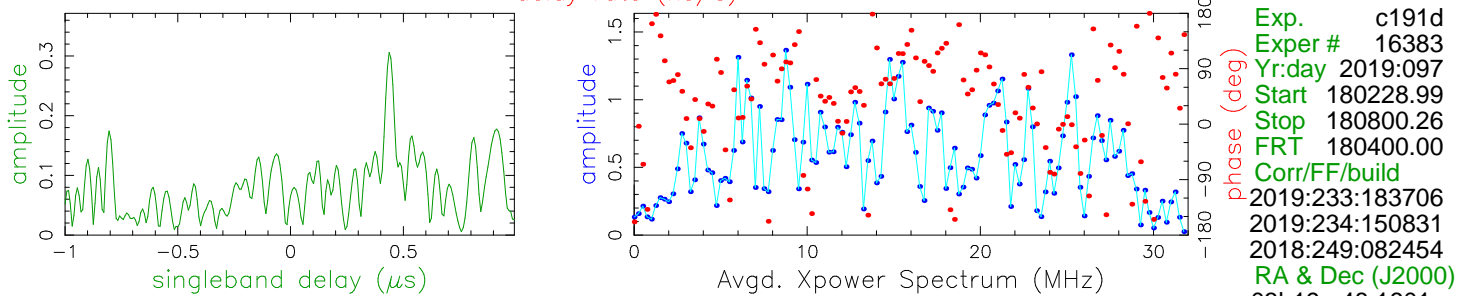
ph/seg (deg)	RMS 74.1	Theor. 23.7	Amplitude Search (2048X8)	1.115	1.166 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	115.0	41.4	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	4.0	Inc. seg. avg.	2.070		Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.2	6.9	Inc. frq. avg.	1.158		Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 61.1 el 44.8 pa -83.9 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -424.736 -59.204 simultaneous interpolator

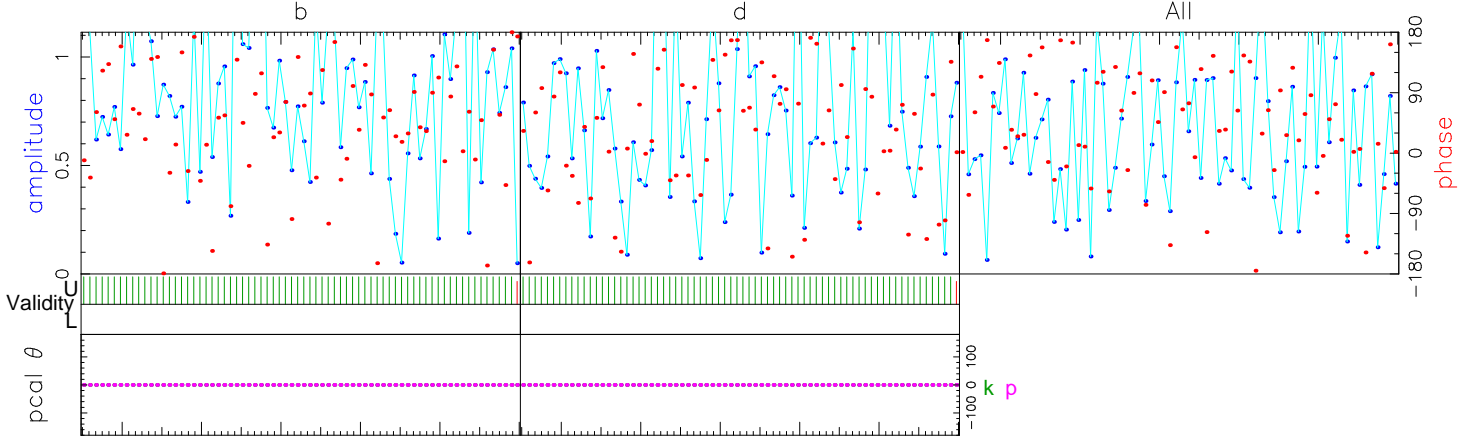
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kp.W.129.0RU2MU



Fringe quality 0
 SNR 5.4
 Int time 330.869
 Amp 0.372
 Phase -293.2
 PFD 8.6e-01
 Delays (us)
 SBD 0.439332
 MBD 0.001413
 Fringe rate (Hz)
 0.653024
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150831
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

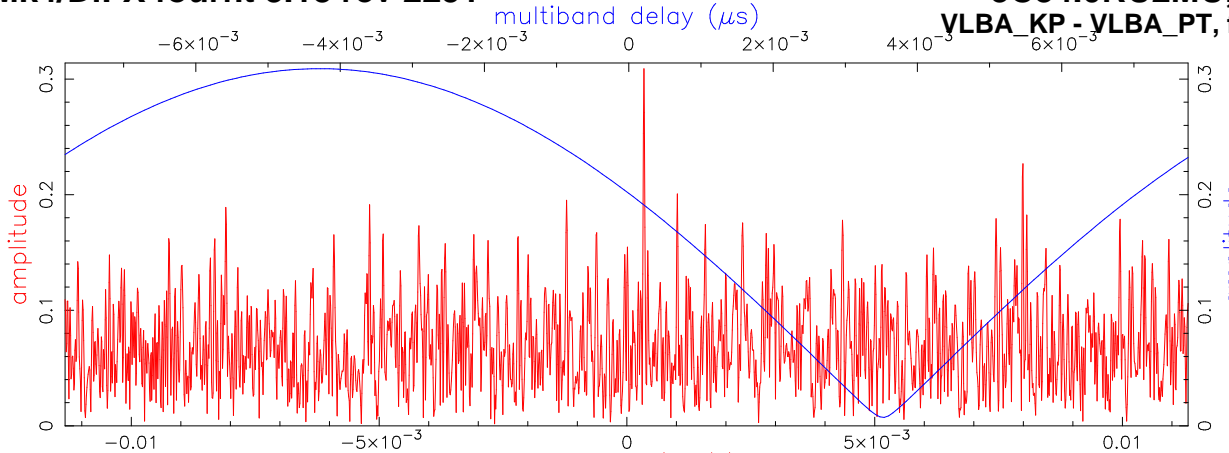


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

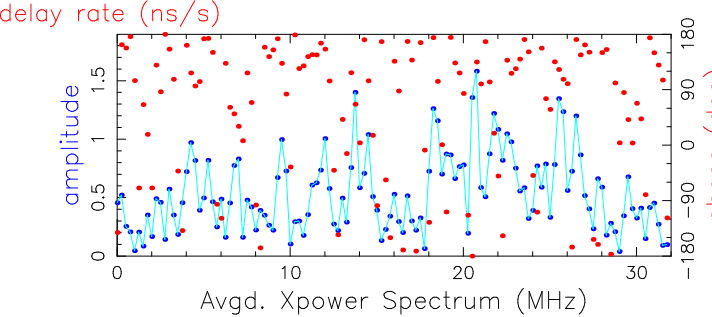
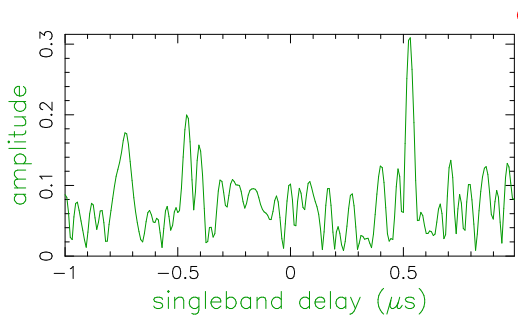


86156.00	86220.00	Freq (MHz)	All				
67.0	66.6	Phase	66.8				
0.4	0.3	Ampl.	0.4				
183.8	186.1	Sbd box	185.2				
U/L 647/0	647/0	APs used					
k 1000	1000	PC freqs					
p 1000	1000	PC freqs					
k:p 0:0	0:0	PC phase					
kp 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
p 1000	1000						
k W01UL	W03UL	Chan ids					
		Tracks					
p W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-9.32390778346E+02	Apriori delay (usec)	-9.32829691589E+02	Resid mbdelay (usec)	1.41324E-03	+/-	9.2E-04
Sband delay (usec)	-9.32390360089E+02	Apriori clock (usec)	-7.8213682E+00	Resid sbdelay (usec)	4.39332E-01	+/-	3.2E-03
Phase delay (usec)	-9.32829689434E+02	Apriori clockrate (us/s)	-1.7566000E-07	Resid phdelay (usec)	2.15537E-06	+/-	6.8E-07
Delay rate (us/s)	5.60666431753E-02	Apriori rate (us/s)	5.60590622167E-02	Resid rate (us/s)	7.58096E-06	+/-	3.6E-09
Total phase (deg)	-161.2	Apriori accel (us/s/s)	2.35157056941E-06	Resid phase (deg)	-293.2	+/-	21.2

ph/seg (deg)	RMS 77.0	Theor. 90.1	Amplitude 0.372 +/- 0.069	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	162.4	157.2	Search (2048X8) 0.299	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.0	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	9.4	26.2	Inc. seg. avg. 0.366	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.358	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

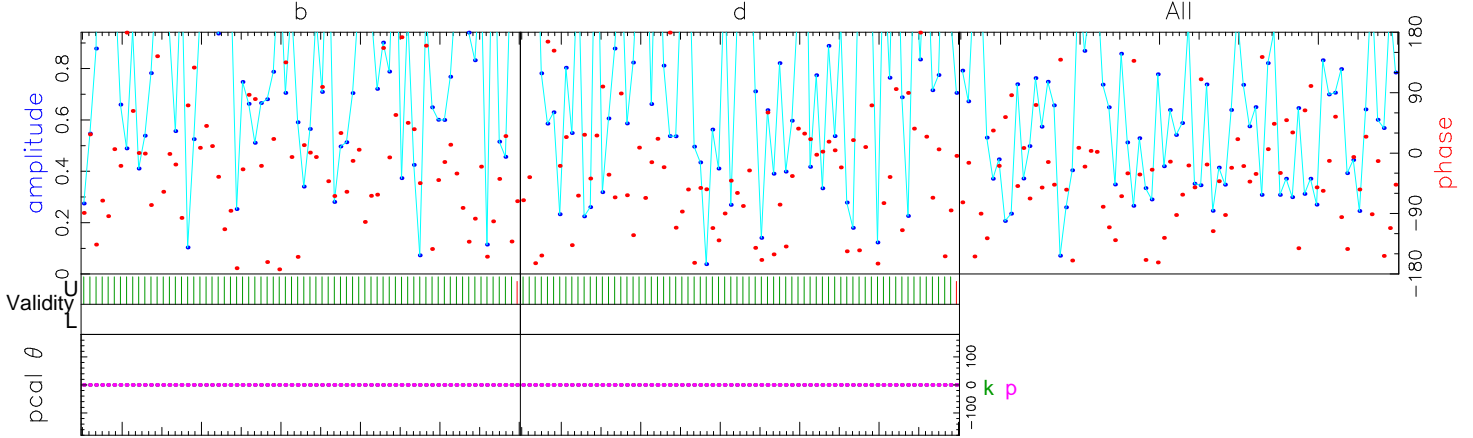


Fringe quality 0
 SNR 5.5
 Int time 330.869
 Amp 0.314
 Phase -219.7
 PFD 6.4e-01
 Delays (us)
 SBD 0.527849
 MBD -0.004374
 Fringe rate (Hz)
 0.029464
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150832
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

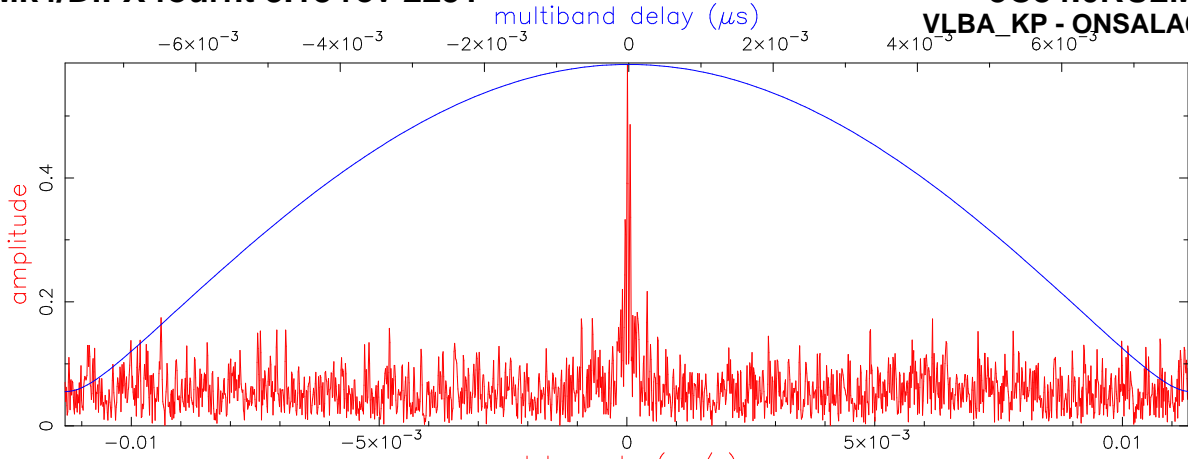
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-40.7	-38.7	Phase	-39.7				
0.3	0.3	Ampl.	0.3				
196.9	196.1	Sbd box	196.6				
U/L 647/0	647/0	APs used					
k 1000	1000	PC freqs					
p 1000	1000	PC freqs					
k:p 0:0	0:0	PC phase					
kp 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
p 1000	1000						
k W01UR	W03UR	Chan ids					
p W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-9.32302815443E+02	Apriori delay (usec)	-9.32829691589E+02	Resid mbdelay (usec)	-4.37385E-03	+/-	9.0E-04
Sband delay (usec)	-9.32301842089E+02	Apriori clock (usec)	-7.8213682E+00	Resid sbdelay (usec)	5.27849E-01	+/-	3.1E-03
Phase delay (usec)	-9.32829692870E+02	Apriori clockrate (us/s)	-1.7566000E-07	Resid phdelay (usec)	-1.28089E-06	+/-	6.7E-07
Delay rate (us/s)	5.60594042616E-02	Apriori rate (us/s)	5.60590622167E-02	Resid rate (us/s)	3.42045E-07	+/-	3.5E-09
Total phase (deg)	-87.8	Apriori accel (us/s/s)	2.35157056941E-06	Resid phase (deg)	-219.7	+/-	20.8

ph/seg (deg)	RMS 74.0	Theor. 88.1	Amplitude 0.314 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	125.3	153.7	Search (2048X8) 0.308	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.7	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.8	25.6	Inc. seg. avg. 0.274	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.299	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

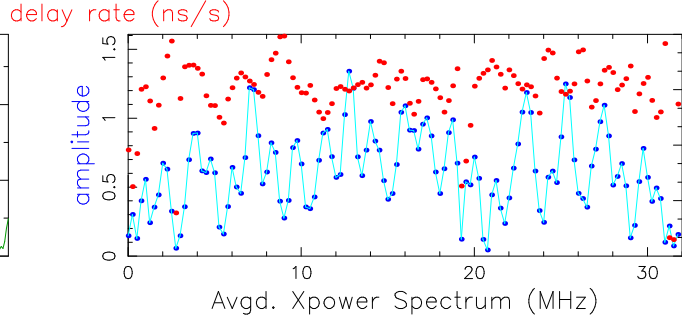
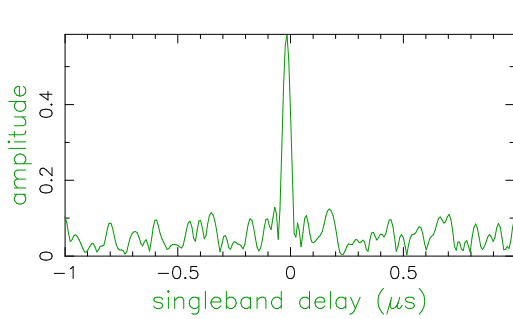
k: az 61.1 el 44.8 pa -83.9 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -424.736 -59.204 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kp.W.148.0RU2MU



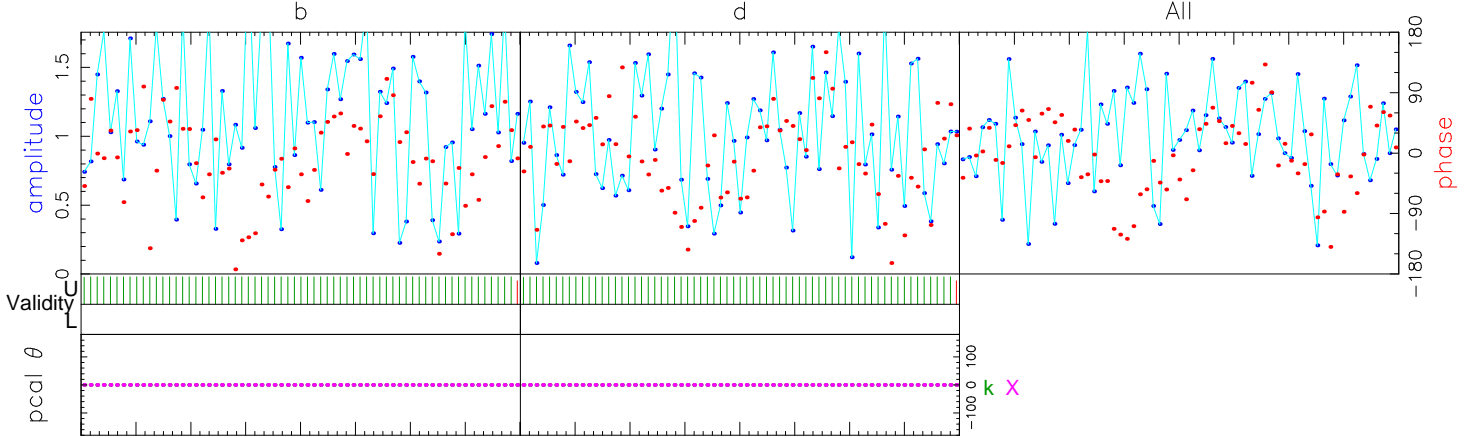
Fringe quality 9

SNR 12.4
Int time 478.897
Amp 0.585
Phase 87.4
PFD 2.0e-27
Delays (us)
SBD -0.017408
MBD -0.000074
Fringe rate (Hz) 0.001108
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150831
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

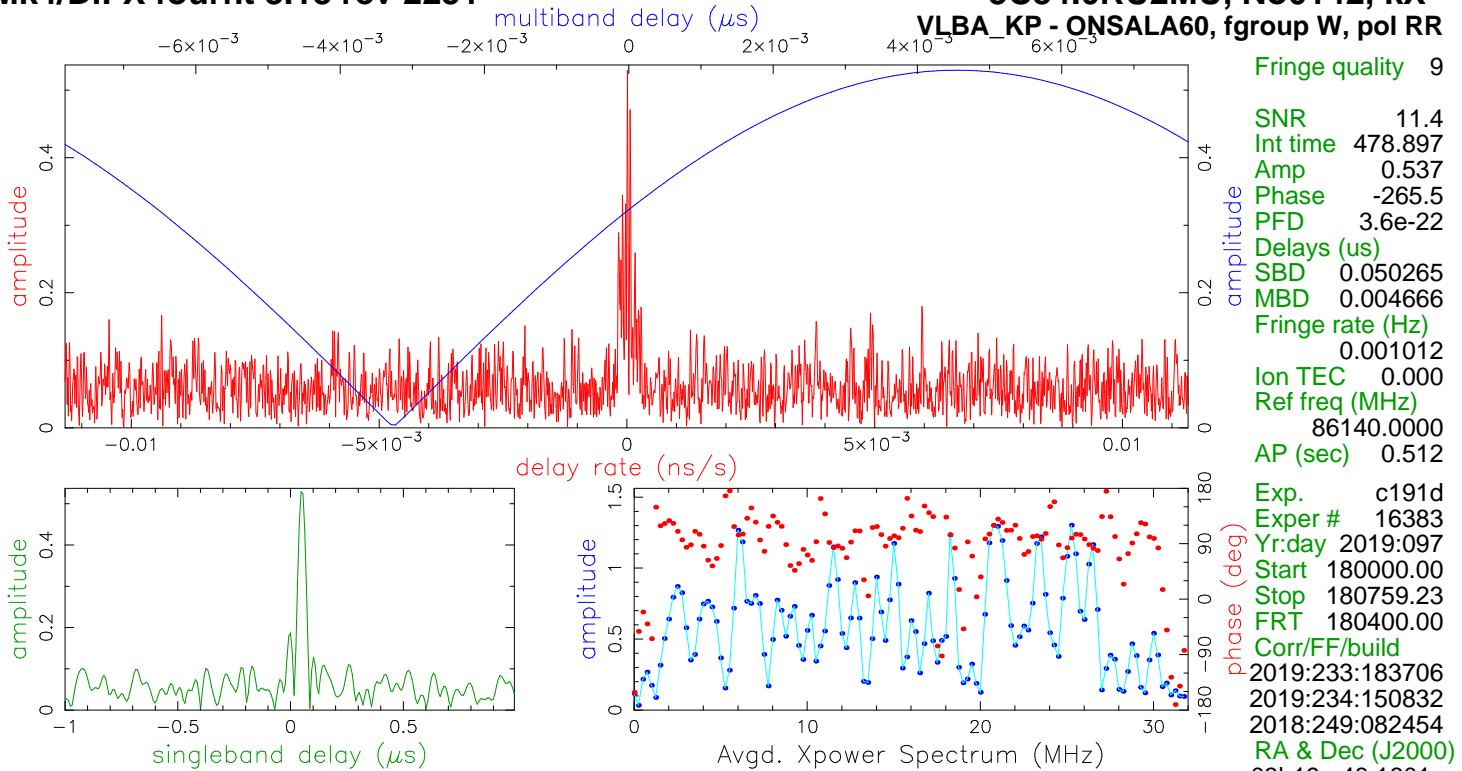


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-3.4	-1.7	Phase	-2.6				
0.6	0.5	Ampl.	0.6				
127.1	126.3	Sbd box	126.8				
U/L 936/0	936/0	APs used					
k 1000	1000	PC freqs					
X 1000	1000	PC freqs					
k:X 0:0	0:0	PC phase					
k:X 0:0	0:0	ManI PC					
k 1000	1000	PC amp					
X 1000	1000						
k W01UL	W03UL	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.22961649262E+02	Apriori delay (usec)	1.22977347982E+02	Resid mbdelay (usec)	-7.37207E-05	+/-	4.0E-04
Sband delay (usec)	1.22959939982E+02	Apriori clock (usec)	-2.5161369E+01	Resid sbdelay (usec)	-1.74080E-02	+/-	1.4E-03
Phase delay (usec)	1.22977347898E+02	Apriori clockrate (us/s)	-5.1065998E-07	Resid phdelay (usec)	-8.46080E-08	+/-	3.0E-07
Delay rate (us/s)	1.39182267875E+00	Apriori rate (us/s)	1.39182266589E+00	Resid rate (us/s)	1.28610E-08	+/-	1.1E-09
Total phase (deg)	359.2	Apriori accel (us/s/s)	-2.42418899043E-05	Resid phase (deg)	87.4	+/-	9.3

ph/seg (deg) 58.1 37.9 Theor. Amplitude 0.585 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 91.7 66.1 Search (2048X8) 0.578 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 6.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 9.4 11.4 Inc. seg. avg. 0.828 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10692.468 -3661.127 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kX.W.136.0RU2MU

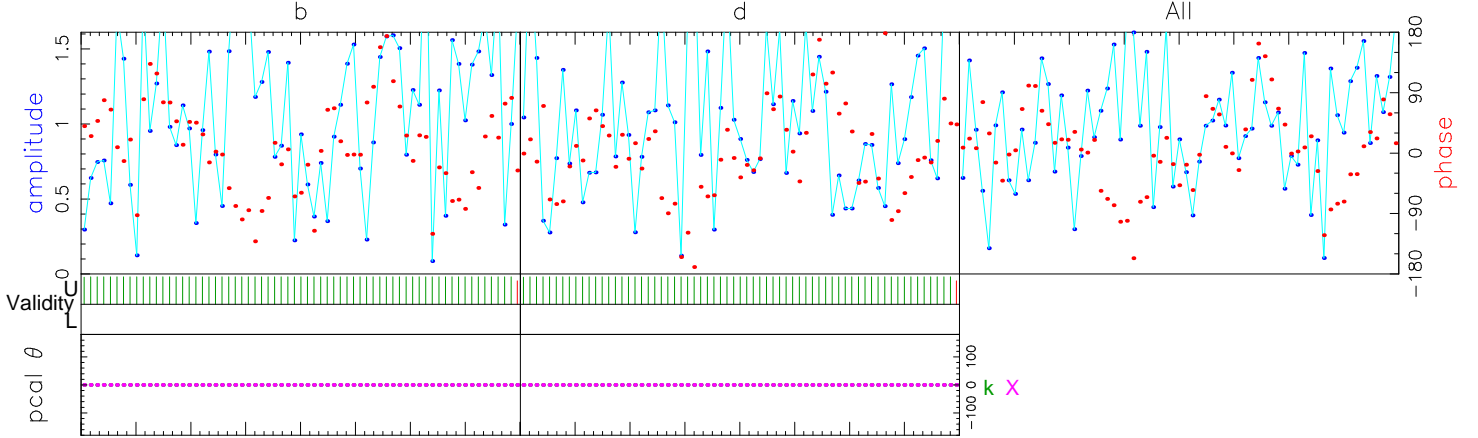


Fringe quality 9

SNR 11.4
 Int time 478.897
 Amp 0.537
 Phase -265.5
 PFD 3.6e-22
 Delays (us)
 SBD 0.050265
 MBD 0.004666
 Fringe rate (Hz) 0.001012
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150832
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
5.8	3.2	Phase	4.5				
0.5	0.5	Ampl.	0.5				
135.5	135.4	Sbd box	135.4				
U/L 936/0	936/0	APs used					
k 1000	1000	PC freqs					
X 1000	1000	PC freqs					
k:X 0:0	0:0	PC phase					
k:X 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
X 1000	1000						
k W01UR	W03UR	Chan ids					
X W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.23028888637E+02	Apriori delay (usec)	1.22977347982E+02	Resid mbdelay (usec)	4.66565E-03	+/-	4.4E-04
Sband delay (usec)	1.23027613482E+02	Apriori clock (usec)	-2.5161369E+01	Resid sbdelay (usec)	5.02655E-02	+/-	1.5E-03
Phase delay (usec)	1.22977348127E+02	Apriori clockrate (us/s)	-5.1065998E-07	Resid phdelay (usec)	1.44869E-07	+/-	3.3E-07
Delay rate (us/s)	1.39182267764E+00	Apriori rate (us/s)	1.39182266589E+00	Resid rate (us/s)	1.17521E-08	+/-	1.2E-09
Total phase (deg)	6.4	Apriori accel (us/s/s)	-2.42418899043E-05	Resid phase (deg)	-265.5	+/-	10.1

RMS Theor. Amplitude 0.537 +/- 0.047
 ph/seg (deg) 61.9 41.3 Search (2048X8) 0.524
 amp/seg (%) 109.7 72.0 Interp. 0.000
 ph/frq (deg) 0.0 7.1 Inc. seg. avg. 0.791
 amp/frq (%) 1.6 12.4 Inc. frq. avg. 0.525

Group delay (usec)(sbd) 1.23028888637E+02
 Sband delay (usec) 1.23027613482E+02
 Phase delay (usec) 1.22977348127E+02
 Delay rate (us/s) 1.39182267764E+00
 Total phase (deg) 6.4

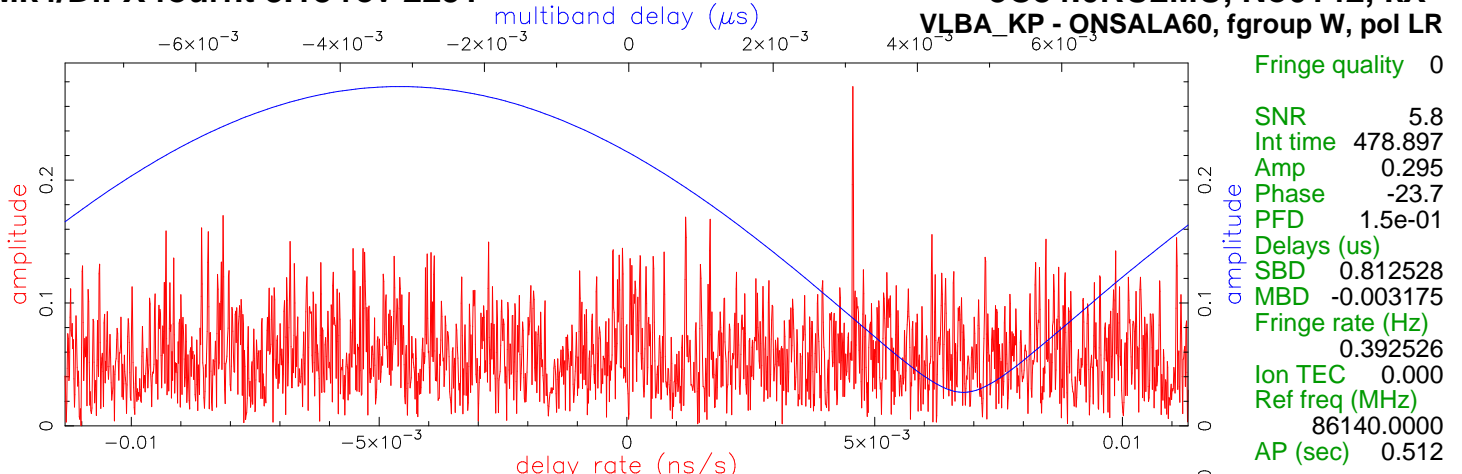
Apriori delay (usec) 1.22977347982E+02
 Apriori clock (usec) -2.5161369E+01
 Apriori clockrate (us/s) -5.1065998E-07
 Apriori rate (us/s) 1.39182266589E+00
 Apriori accel (us/s/s) -2.42418899043E-05

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): 256 nlags: 128 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

k: az 61.1 el 44.8 pa -83.9 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10692.468 -3661.127 simultaneous interpolator

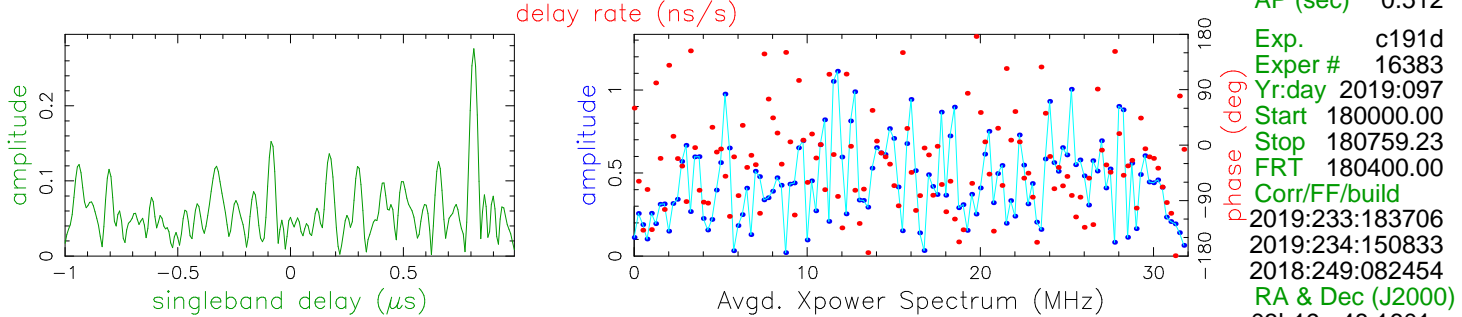
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kX.W.146.0RU2MU



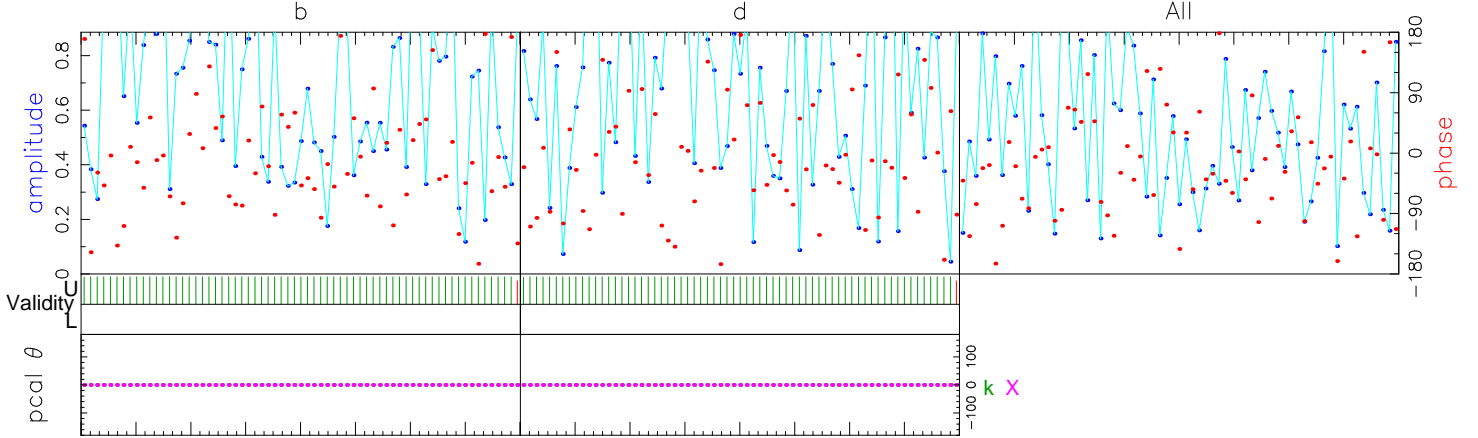
Fringe quality 0

SNR 5.8
 Int time 478.897
 Amp 0.295
 Phase -23.7
 PFD 1.5e-01
 Delays (us)
 SBD 0.812528
 MBD -0.003175
 Fringe rate (Hz) 0.392526
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150833
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

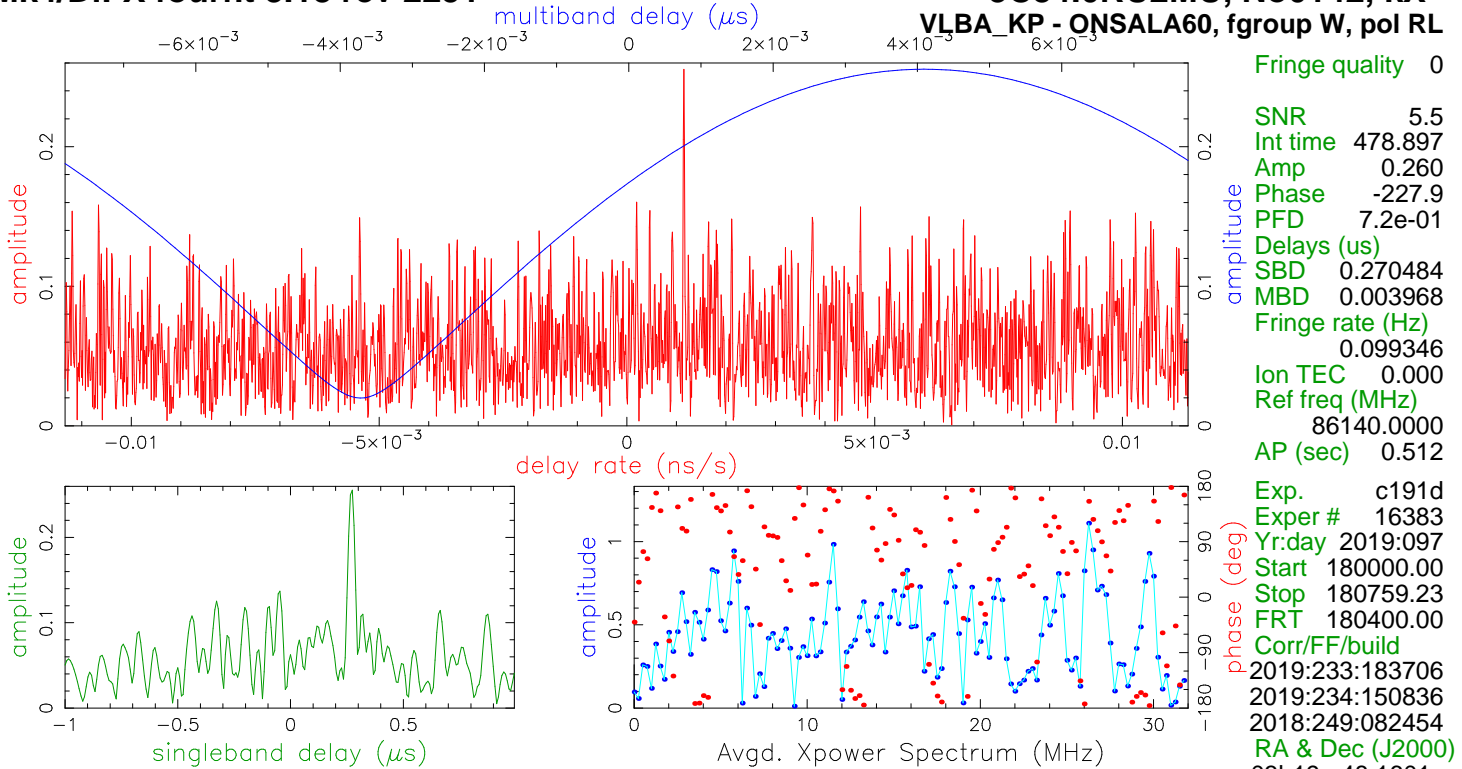


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

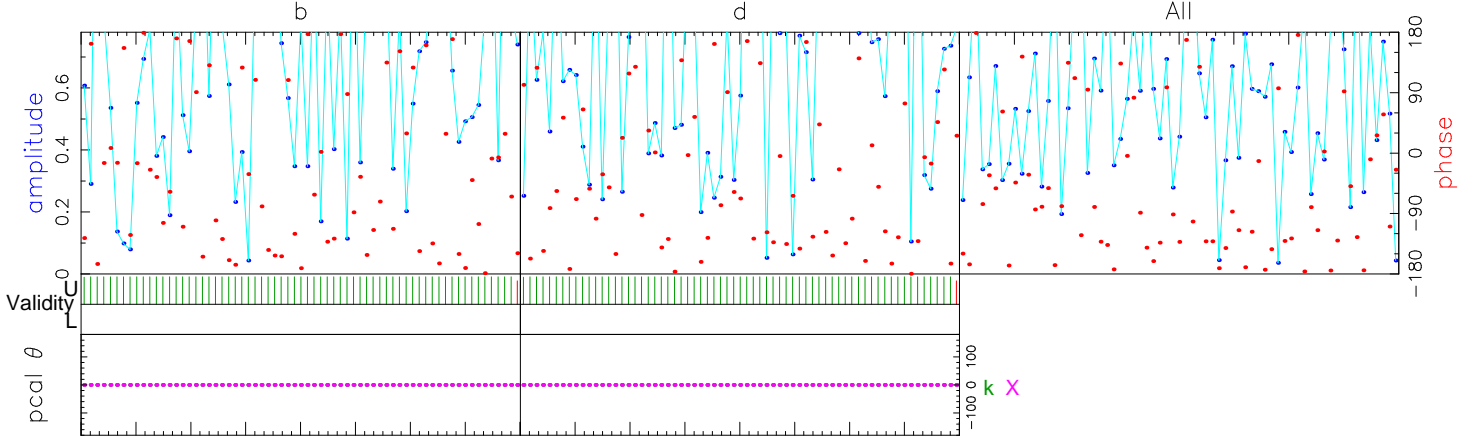


86156.00		86220.00		Freq (MHz)	All
-23.7		-23.7		Phase	-23.7
0.3		0.3		Ampl.	0.3
233.3		232.7		Sbd box	233.0
U/L 936/0		936/0		APs used	
k 1000		1000		PC freqs	
X 1000		1000		PC freqs	
k:X 0:0		0:0		PC phase	
k:X 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
X 1000		1000			
k W01UL		W03UL		Chan ids	
X W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.23786673036E+02	Apriori delay (usec)	1.22977347982E+02	Resid mbdelay (usec)	-3.17495E-03 +/- 8.5E-04
Sband delay (usec)	1.23789875982E+02	Apriori clock (usec)	-2.5161369E+01	Resid sbdelay (usec)	8.12528E-01 +/- 3.0E-03
Phase delay (usec)	1.22977347219E+02	Apriori clockrate (us/s)	-5.1065998E-07	Resid phdelay (usec)	-7.63347E-07 +/- 6.3E-07
Delay rate (us/s)	1.39182722273E+00	Apriori rate (us/s)	1.39182266589E+00	Resid rate (us/s)	4.55684E-06 +/- 2.3E-09
Total phase (deg)	-111.8	Apriori accel (us/s/s)	-2.42418899043E-05	Resid phase (deg)	-23.7 +/- 19.6

ph/seg (deg) 75.1 80.3 Theor. Amplitude 0.295 +/- 0.051 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 133.5 140.2 Search (2048X8) 0.255 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 13.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 9.9 24.2 Inc. seg. avg. 0.284 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10692.468 -3661.127 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kX.W.158.0RU2MU

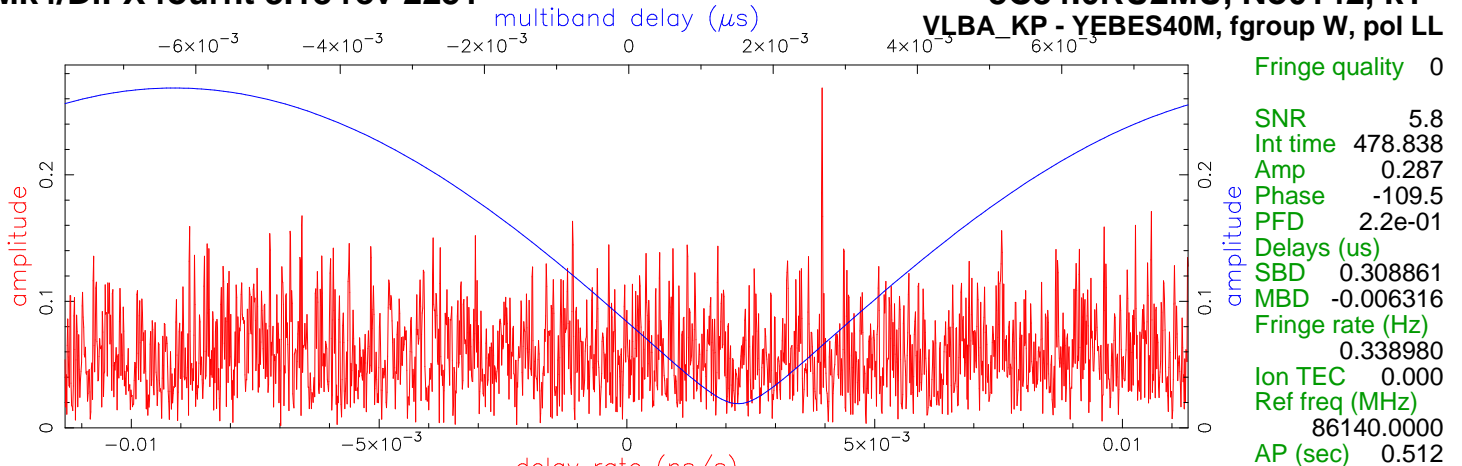


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-139.3		-136.3		Phase	-137.9
0.3		0.2		Ampl.	0.2
163.4		215.2		Sbd box	163.6
U/L 936/0		936/0		APs used	
k 1000		1000		PC freqs	
X 1000		1000		PC freqs	
k:X 0:0		0:0		PC phase	
k:X 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
X 1000		1000			
k W01UR		W03UR		Chan ids	
X W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.23246940775E+02	Apriori delay (usec)	1.22977347982E+02	Resid mbdelay (usec)	3.96779E-03 +/- 9.1E-04
Sband delay (usec)	1.23247831982E+02	Apriori clock (usec)	-2.5161369E+01	Resid sbdelay (usec)	2.70484E-01 +/- 3.1E-03
Phase delay (usec)	1.22977343535E+02	Apriori clockrate (us/s)	-5.1065998E-07	Resid phdelay (usec)	-4.44729E-06 +/- 6.7E-07
Delay rate (us/s)	1.39182381920E+00	Apriori rate (us/s)	1.39182266589E+00	Resid rate (us/s)	1.15331E-06 +/- 2.4E-09
Total phase (deg)	-316.0	Apriori accel (us/s/s)	-2.42418899043E-05	Resid phase (deg)	-227.9 +/- 20.9

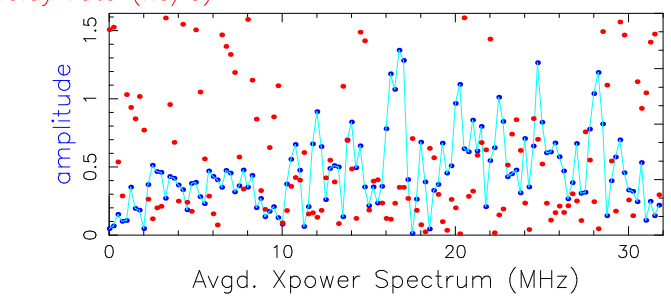
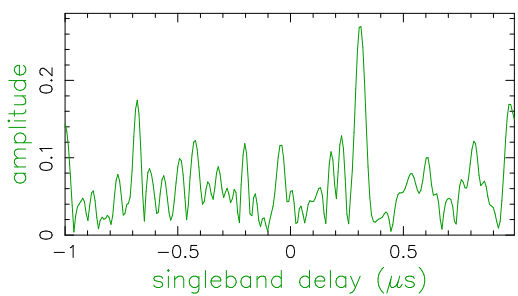
ph/seg (deg)	RMS 76.6	Theor. 85.6	Amplitude 0.260 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	161.5	149.4	Search (2048X8) 0.251	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	7.8	25.8	Inc. seg. avg. 0.273	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.248	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
k: az 61.1 el 44.8 pa -83.9		X: az 279.5 el 45.6 pa 45.3	u,v (fr/asec) -10692.468 -3661.127	nlags: 128 t_cohere infinite	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/kX..0RU2MU			simultaneous interpolator
					Output file: /Exps/c191d/v1/1234/No0142/kX.W.186.0RU2MU



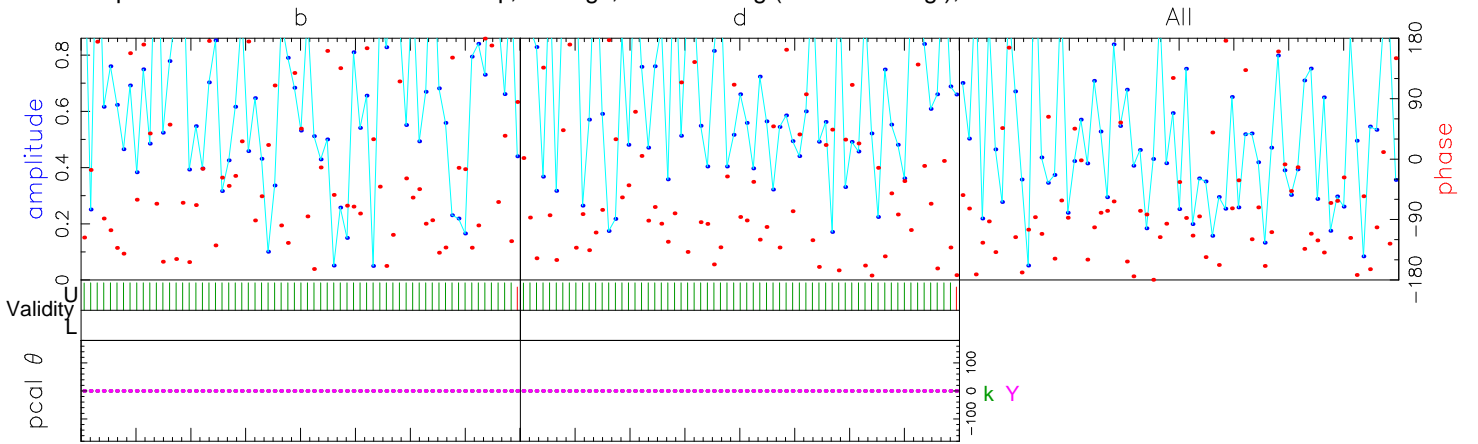
Fringe quality 0

SNR 5.8
 Int time 478.838
 Amp 0.287
 Phase -109.5
 PFD 2.2e-01
 Delays (us)
 SBD 0.308861
 MBD -0.006316
 Fringe rate (Hz)
 0.338980
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150830
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

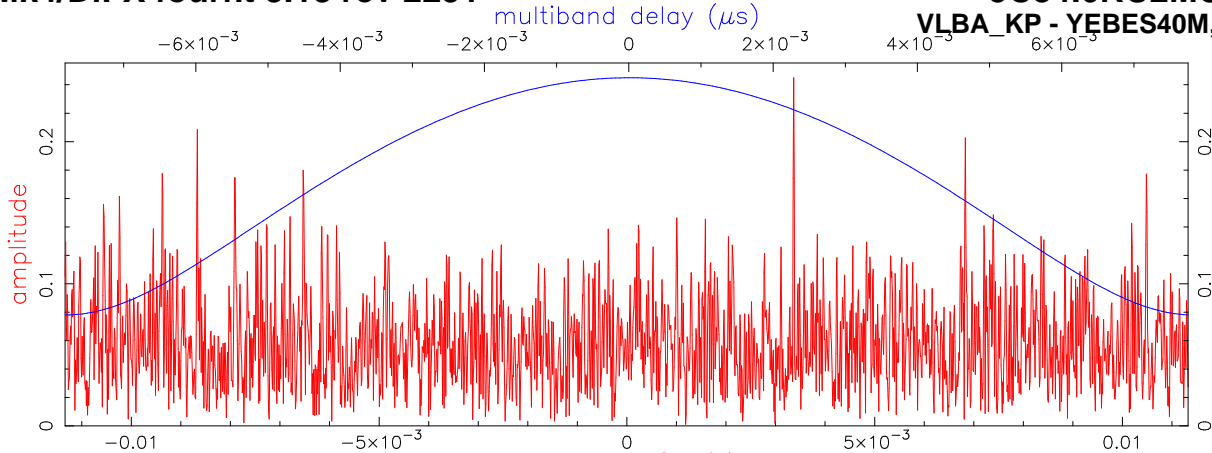


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
-109.7		-109.2		Phase	-109.5
0.3		0.3		Ampl.	0.3
168.4		168.6		Sbd box	168.5
U/L 936/0		936/0		APs used	
k 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
k:Y 0:0		0:0		PC phase	
k:Y 0:0		0:0		Manl PC	
k 1000		1000		PC amp	
Y 1000		1000			
k W01UL		W03UL		Chan ids	
Y W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.20522413114E+03	Apriori delay (usec)	-1.20553031515E+03	Resid mbdelay (usec)	-6.31599E-03 +/- 8.6E-04
Sband delay (usec)	-1.20522145465E+03	Apriori clock (usec)	-7.0209742E+00	Resid sbdelay (usec)	3.08861E-01 +/- 3.0E-03
Phase delay (usec)	-1.20553031868E+03	Apriori clockrate (us/s)	-2.5365999E-07	Resid phdelay (usec)	-3.52968E-06 +/- 6.4E-07
Delay rate (us/s)	1.51814401267E+00	Apriori rate (us/s)	1.51814007745E+00	Resid rate (us/s)	3.93522E-06 +/- 2.3E-09
Total phase (deg)	-234.3	Apriori accel (us/s/s)	-2.64063876082E-06	Resid phase (deg)	-109.5 +/- 19.9

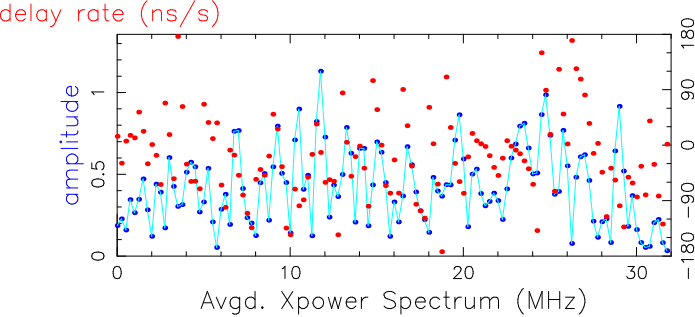
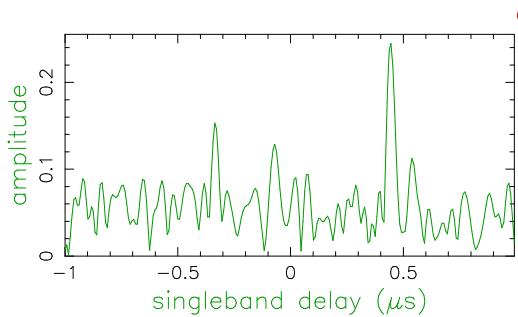
ph/seg (deg) 69.0 81.3 Theor. Amplitude 0.287 +/- 0.050 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 127.7 141.8 Search (2048X8) 0.248 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.1 24.5 Inc. seg. avg. 0.263 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11625.030 -868.212 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kY.W.130.0RU2MU simultaneous interpolator



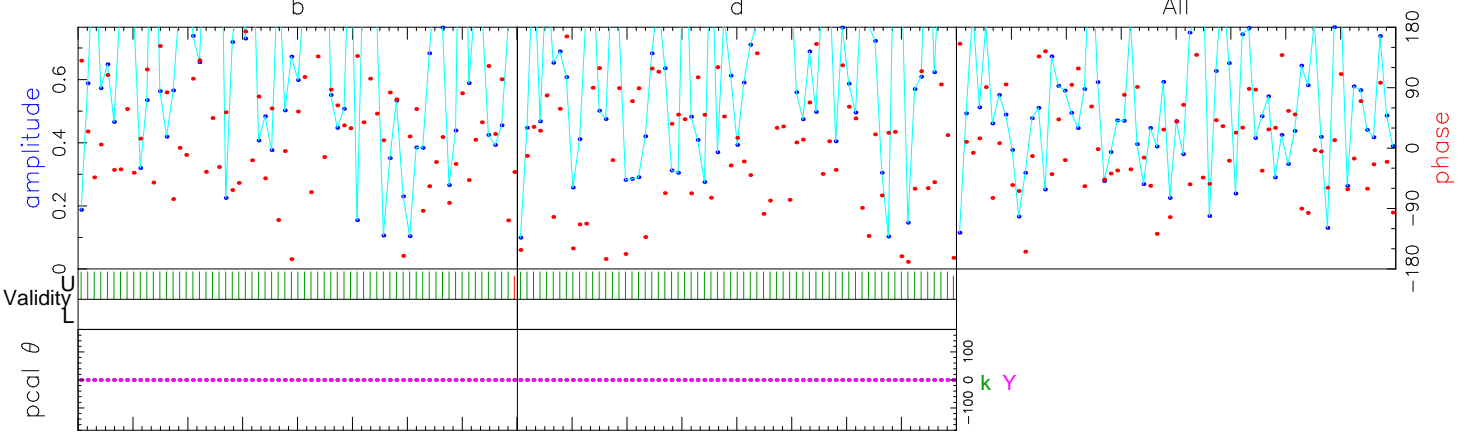
Fringe quality 0

SNR 5.2
 Int time 478.838
 Amp 0.255
 Phase -347.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.443258
 MBD -0.000044
 Fringe rate (Hz)
 0.289948
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150831
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

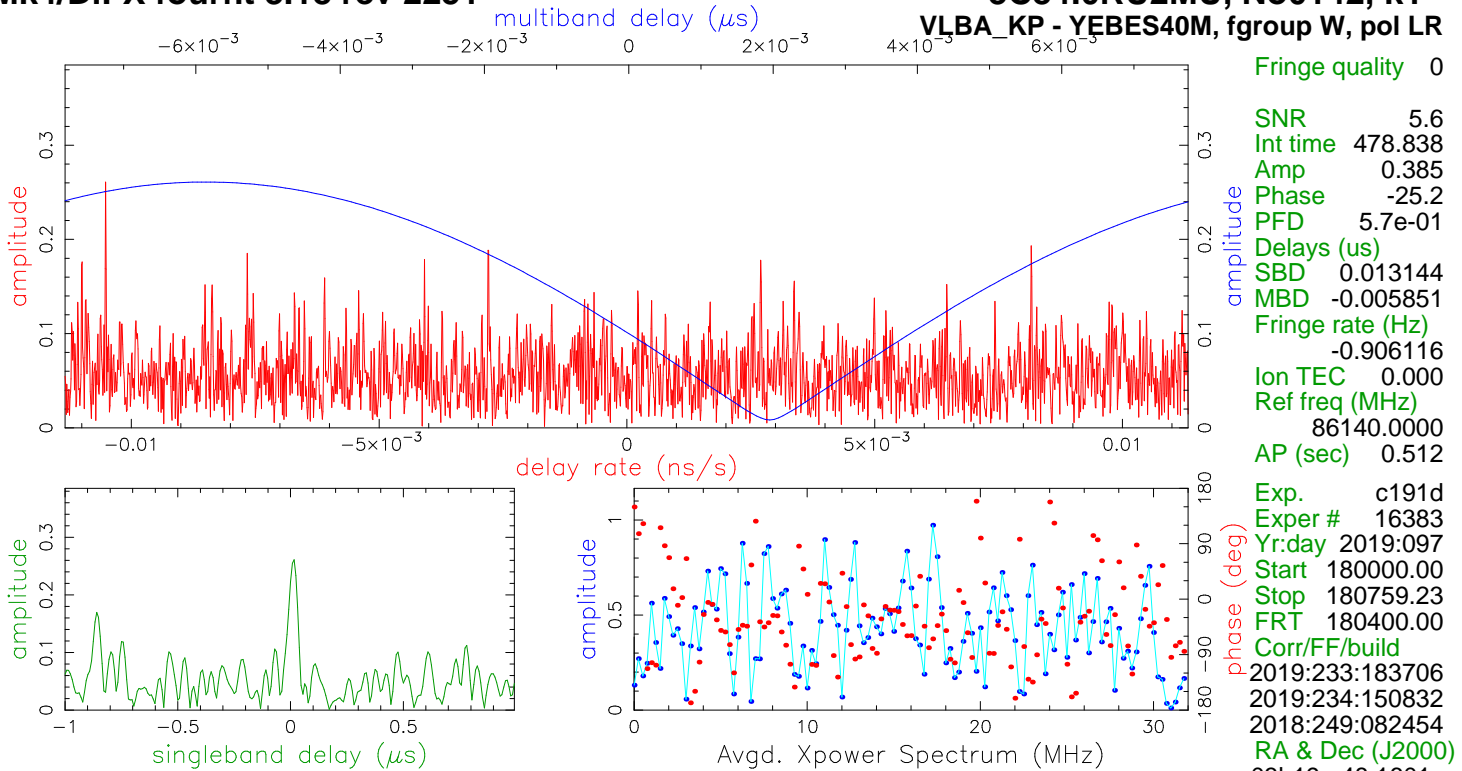


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

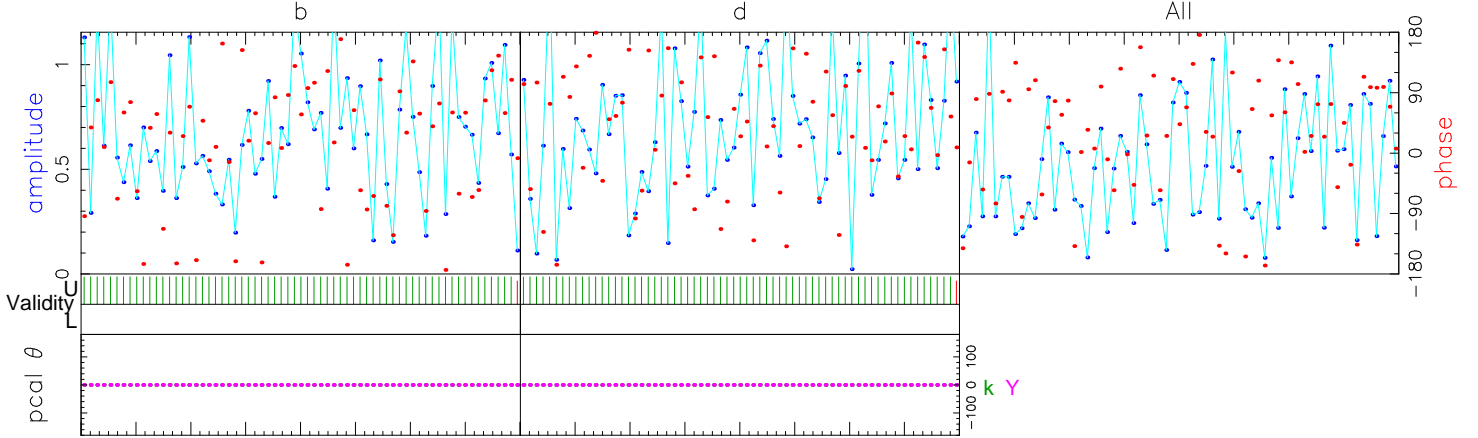


86156.00	86220.00	Freq (MHz)	All				
12.2	13.5	Phase	12.6				
0.3	0.2	Ampl.	0.2				
185.6	118.2	Sbd box	185.7				
U/L 936/0	936/0	APs used					
k 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
k:Y 0:0	0:0	PC phase					
k:Y 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
Y 1000	1000						
k W01UR	W03UR	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.20509285925E+03	Apriori delay (usec)	-1.20553031515E+03	Resid mbdelay (usec)	-4.41059E-05	+/-	9.5E-04
Sband delay (usec)	-1.20508705665E+03	Apriori clock (usec)	-7.0209742E+00	Resid sbdelay (usec)	4.43258E-01	+/-	3.3E-03
Phase delay (usec)	-1.20553031474E+03	Apriori clockrate (us/s)	-2.5365999E-07	Resid phdelay (usec)	4.07587E-07	+/-	7.1E-07
Delay rate (us/s)	1.51814344346E+00	Apriori rate (us/s)	1.51814007745E+00	Resid rate (us/s)	3.36601E-06	+/-	2.6E-09
Total phase (deg)	-112.2	Apriori accel (us/s/s)	-2.64063876082E-06	Resid phase (deg)	-347.4	+/-	22.0

ph/seg (deg) 71.4 90.0 Search (2048X8) 0.239 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 138.6 157.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.6 Inc. seg. avg. 0.239 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.7 27.2 Inc. frq. avg. 0.245 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11625.030 -868.212 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kY.W.141.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



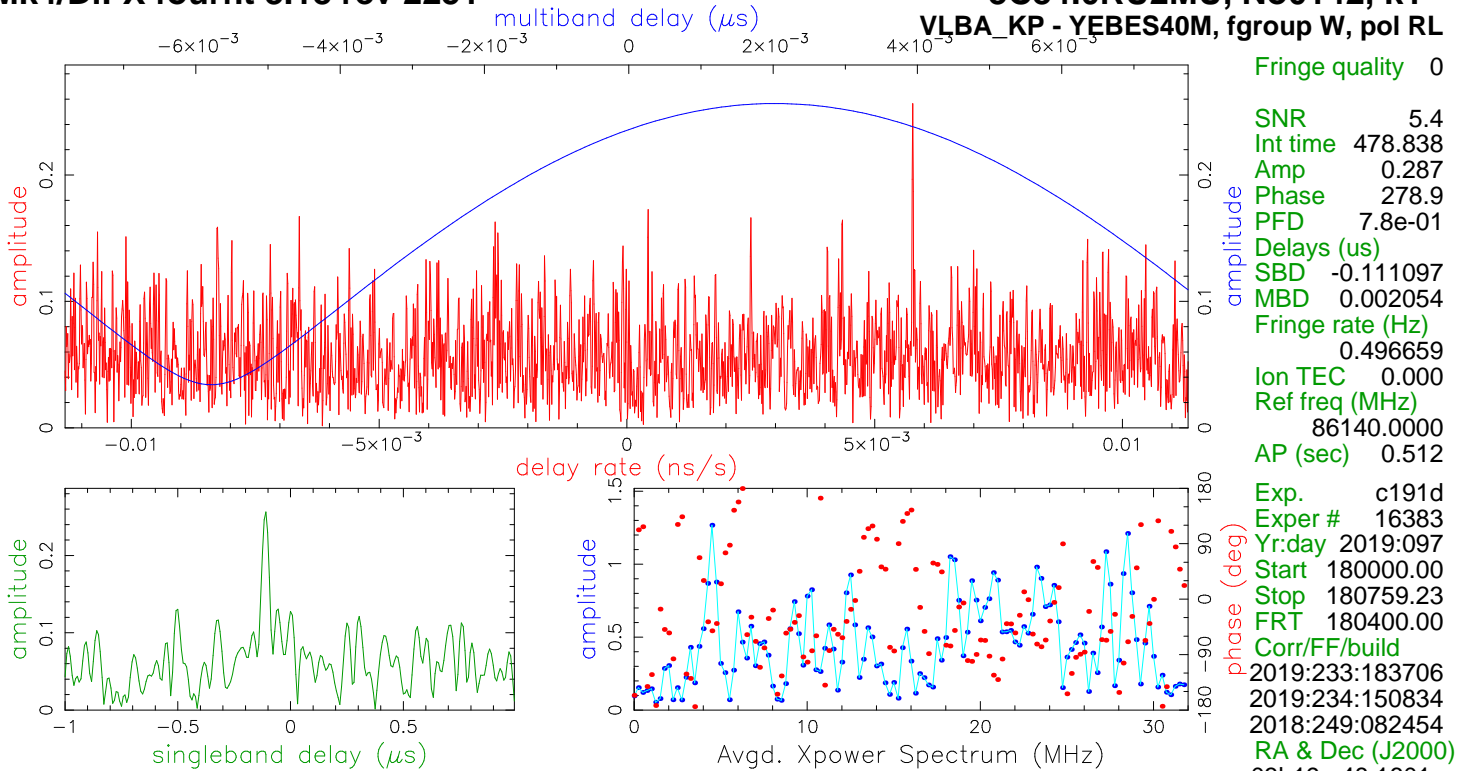
86156.00	86220.00	Freq (MHz)	All
64.9	64.7	Phase	64.8
0.4	0.4	Ampl.	0.4
130.0	131.2	Sbd box	130.7
U/L 936/0	936/0	APs used	
k 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
k:Y 0:0	0:0	PC phase	
k:Y 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
Y 1000	1000		
k W01UL	W03UL	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.20552054082E+03	Apriori delay (usec)	-1.20553031515E+03	Resid mbdelay (usec)	-5.85067E-03	+/-	9.0E-04
Sband delay (usec)	-1.20551717165E+03	Apriori clock (usec)	-7.0209742E+00	Resid sbdelay (usec)	1.31435E-02	+/-	3.1E-03
Phase delay (usec)	-1.20553031306E+03	Apriori clockrate (us/s)	-2.5365999E-07	Resid phdelay (usec)	2.09002E-06	+/-	6.7E-07
Delay rate (us/s)	1.51812955834E+00	Apriori rate (us/s)	1.51814007745E+00	Resid rate (us/s)	-1.05191E-05	+/-	2.4E-09
Total phase (deg)	-150.1	Apriori accel (us/s/s)	-2.64063876082E-06	Resid phase (deg)	-25.2	+/-	20.6

ph/seg (deg)	78.3	Theor.	84.4	Amplitude	0.385 +/- 0.069	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	148.7	Search (2048X8)	0.251	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.369	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	3.3	Inc. frq. avg.	0.371	Inc. frq. avg.	0.371	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

k: az 61.1 el 44.8 pa -83.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11625.030 -868.212 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kY.W.149.0RU2MU

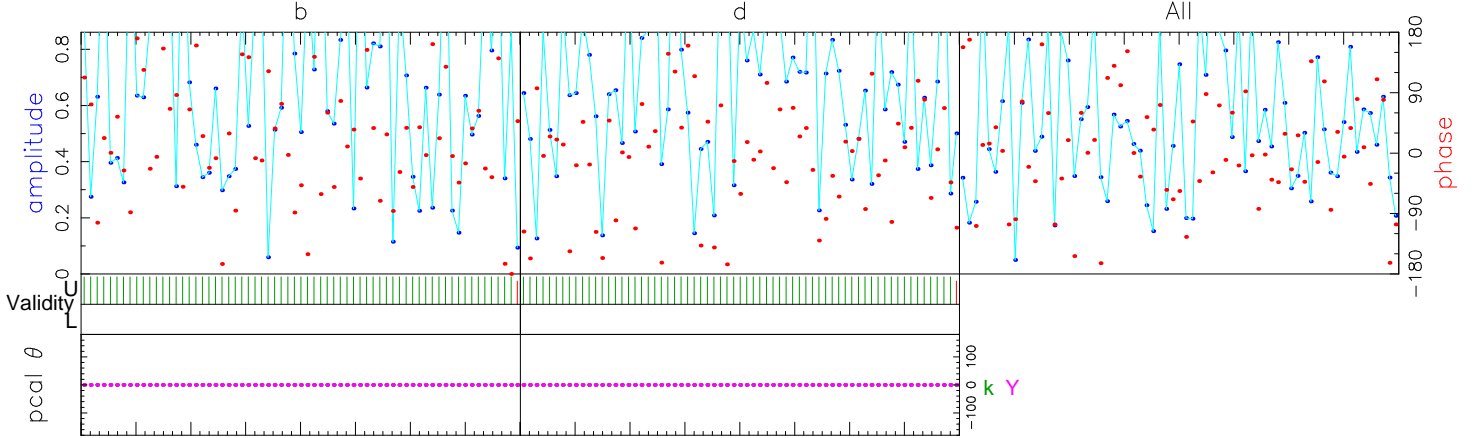


Fringe quality 0

SNR 5.4
 Int time 478.838
 Amp 0.287
 Phase 278.9
 PFD 7.8e-01
 Delays (us)
 SBD -0.111097
 MBD 0.002054
 Fringe rate (Hz)
 0.496659
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150834
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

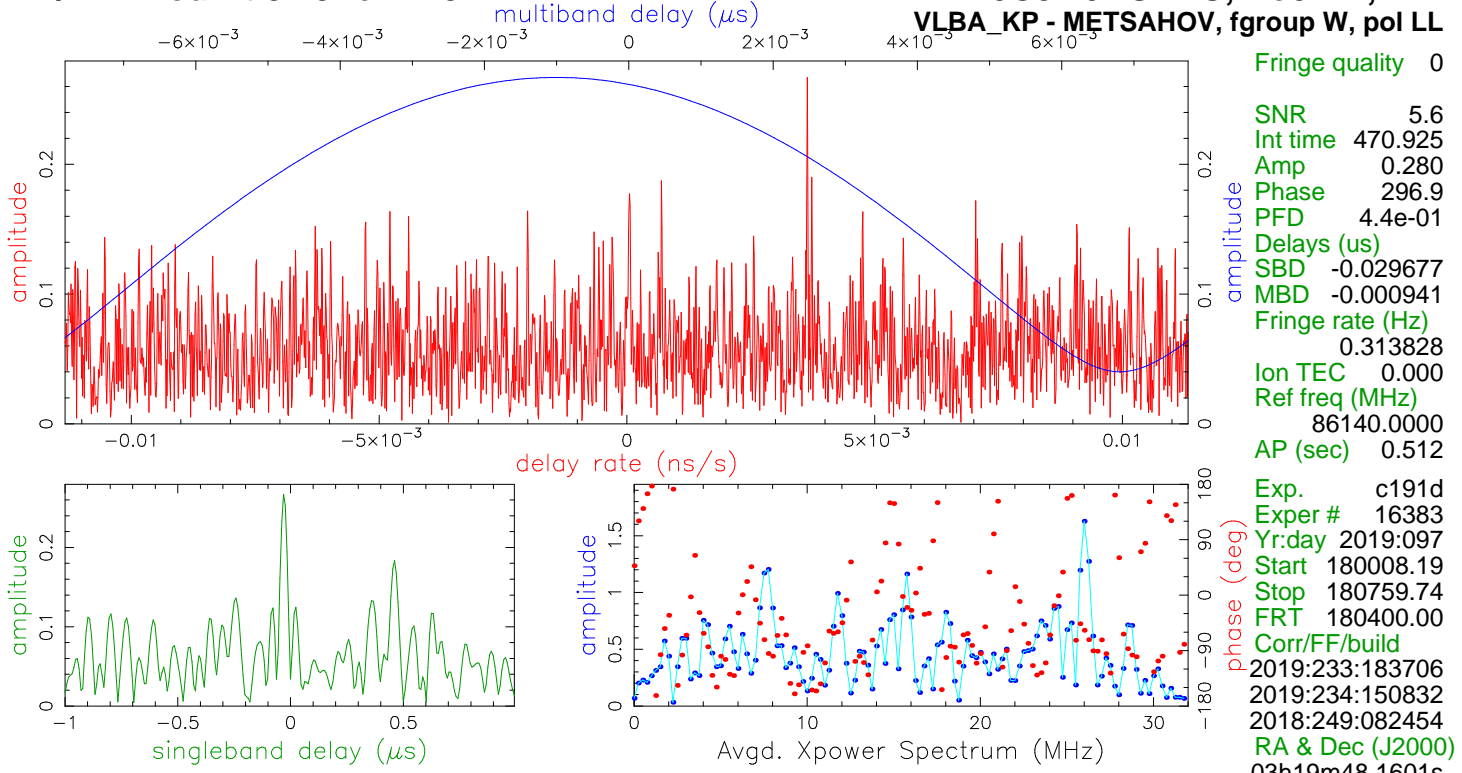


86156.00	86220.00	Freq (MHz)	All				
9.3	8.6	Phase	8.9				
0.2	0.3	Ampl.	0.3				
115.3	114.3	Sbd box	114.8				
U/L 936/0	936/0	APs used					
k 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
k:Y 0:0	0:0	PC phase					
k:Y 0:0	0:0	Manl PC					
k 1000	1000	PC amp					
Y 1000	1000						
k W01UR	W03UR	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.20563763566E+03	Apriori delay (usec)	-1.20553031515E+03	Resid mbdelay (usec)	2.05449E-03	+/-	9.1E-04
Sband delay (usec)	-1.20564141215E+03	Apriori clock (usec)	-7.0209742E+00	Resid sbdelay (usec)	-1.11097E-01	+/-	3.2E-03
Phase delay (usec)	-1.20553031486E+03	Apriori clockrate (us/s)	-2.5365999E-07	Resid phdelay (usec)	2.87078E-07	+/-	6.8E-07
Delay rate (us/s)	1.51814584317E+00	Apriori rate (us/s)	1.51814007745E+00	Resid rate (us/s)	5.76572E-06	+/-	2.5E-09
Total phase (deg)	154.0	Apriori accel (us/s/s)	-2.64063876082E-06	Resid phase (deg)	278.9	+/-	21.0

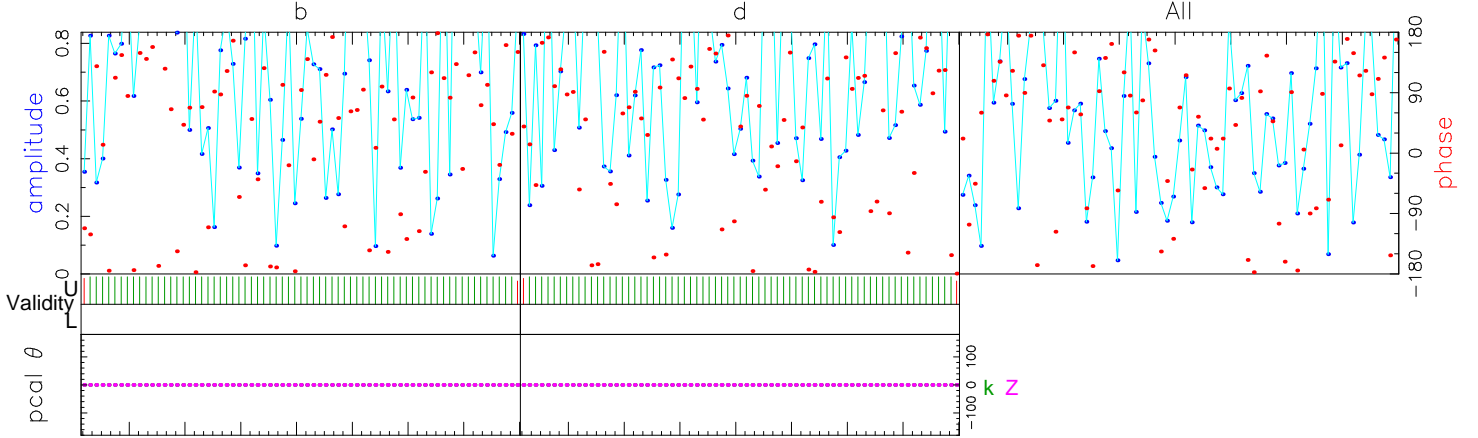
ph/seg (deg)	80.7	Theor.	86.1	Amplitude	0.287 +/- 0.053	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	148.3	Search (2048X8)	0.248	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	13.2	Inc. seg. avg.	0.284	Inc. seg. avg.	0.284	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.277	Inc. frq. avg.	0.277	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

k: az 61.1 el 44.8 pa -83.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11625.030 -868.212 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kY.W.168.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



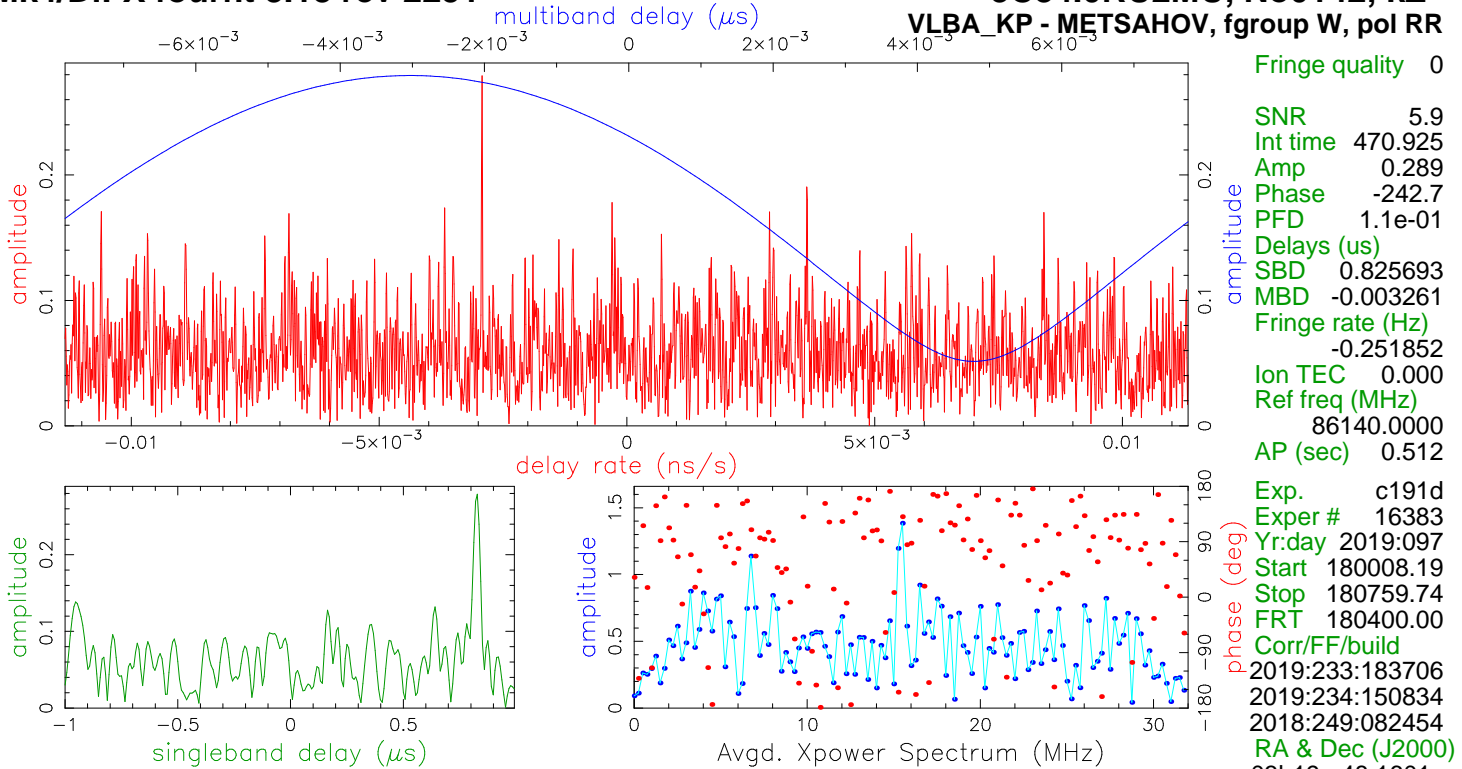
86156.00	86220.00	Freq (MHz)	All
117.5	116.0	Phase	116.9
0.3	0.2	Ampl.	0.3
125.0	125.6	Sbd box	125.2
U/L 921/0	921/0	APs used	
k 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
k:Z 0:0	0:0	PC phase	
k:Z 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
Z 1000	1000		
k W01UL	W03UL	Chan ids	
Z W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.69406308139E+03	Apriori delay (usec)	1.69409527236E+03	Resid mbdelay (usec)	-9.40963E-04	+/-	8.8E-04
Sband delay (usec)	1.69406559486E+03	Apriori clock (usec)	-8.9881897E-02	Resid sbdelay (usec)	-2.96775E-02	+/-	3.1E-03
Phase delay (usec)	1.69409527613E+03	Apriori clockrate (us/s)	-6.0660000E-08	Resid phdelay (usec)	3.76945E-06	+/-	6.6E-07
Delay rate (us/s)	1.37962944896E+00	Apriori rate (us/s)	1.37962580574E+00	Resid rate (us/s)	3.64323E-06	+/-	2.4E-09
Total phase (deg)	210.8	Apriori accel (us/s/s)	-3.43794597368E-05	Resid phase (deg)	296.9	+/-	20.4

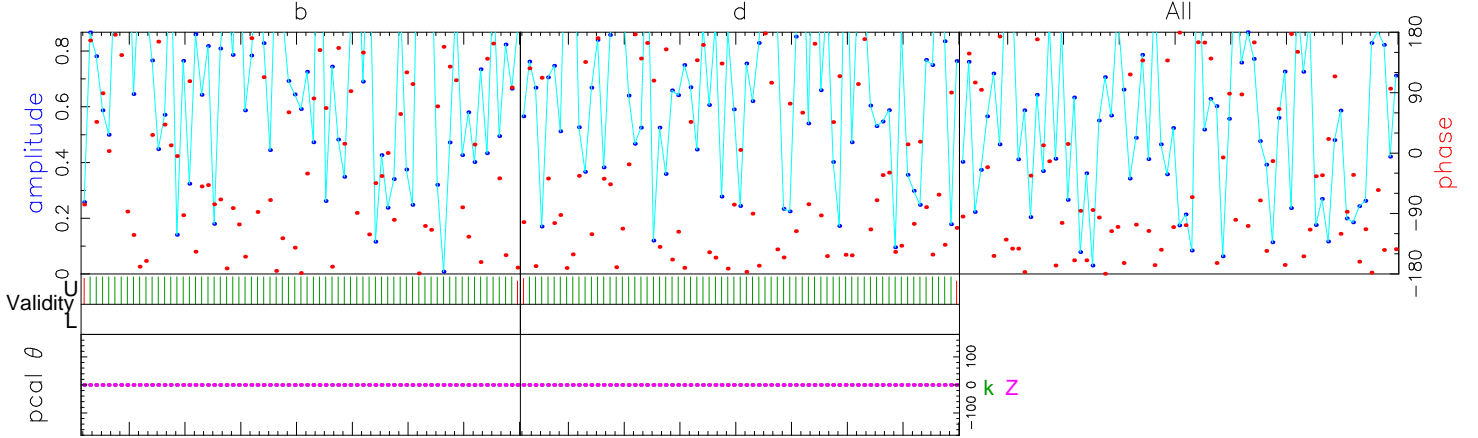
ph/seg (deg)	83.3	Theor.	85.9	Amplitude	0.280 +/- 0.050	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	153.3	Search (2048X8)	0.263	Search	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.272	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	15.0	Inc. frq. avg.	0.270	Inc. frq. avg.	0.270	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s): 256	ion window (TEC)	0.00 0.00	

k: az 61.1 el 44.8 pa -83.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10616.046 -4538.053 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kZ.W.144.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

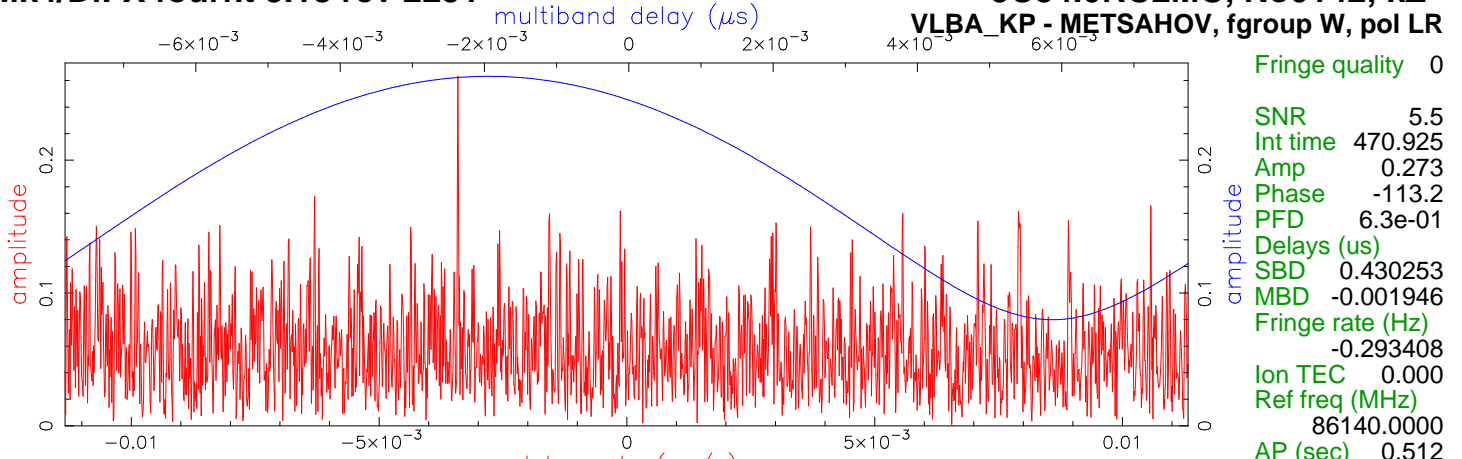


86156.00		86220.00		Freq (MHz)		All
-155.9		-150.6		Phase		-152.7
0.2		0.3		Ampl.		0.3
235.2		234.4		Sbd box		234.7
U/L 921/0		921/0		APs used		
k 1000		1000		PC freqs		
Z 1000		1000		PC freqs		
k:Z 0:0		0:0		PC phase		
k:Z 0:0		0:0		Mani PC		
k 1000		1000		PC amp		
Z 1000		1000				
k W01UR		W03UR		Chan ids		
Z W01UR		W03UR		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	1.69492013645E+03	Apriori delay (usec)	1.69409527236E+03	Resid mbdelay (usec)	-3.26091E-03	+/- 8.4E-04
Sband delay (usec)	1.69492096536E+03	Apriori clock (usec)	-8.9881897E-02	Resid sbdelay (usec)	8.25693E-01	+/- 2.9E-03
Phase delay (usec)	1.69409526743E+03	Apriori clockrate (us/s)	-6.0660000E-08	Resid phdelay (usec)	-4.92475E-06	+/- 6.3E-07
Delay rate (us/s)	1.37962288198E+00	Apriori rate (us/s)	1.37962580574E+00	Resid rate (us/s)	-2.92375E-06	+/- 2.3E-09
Total phase (deg)	-328.8	Apriori accel (us/s/s)	-3.43794597368E-05	Resid phase (deg)	-242.7	+/- 19.4

ph/seg (deg)	RMS 77.1	Theor. 81.8	Amplitude 0.289 +/- 0.049	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	137.8	142.7	Search (2048X8) 0.276	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	13.7	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	18.3	23.9	Inc. seg. avg. 0.274	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.279	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

k: az 61.1 el 44.8 pa -83.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10616.046 -4538.053 simultaneous interpolator

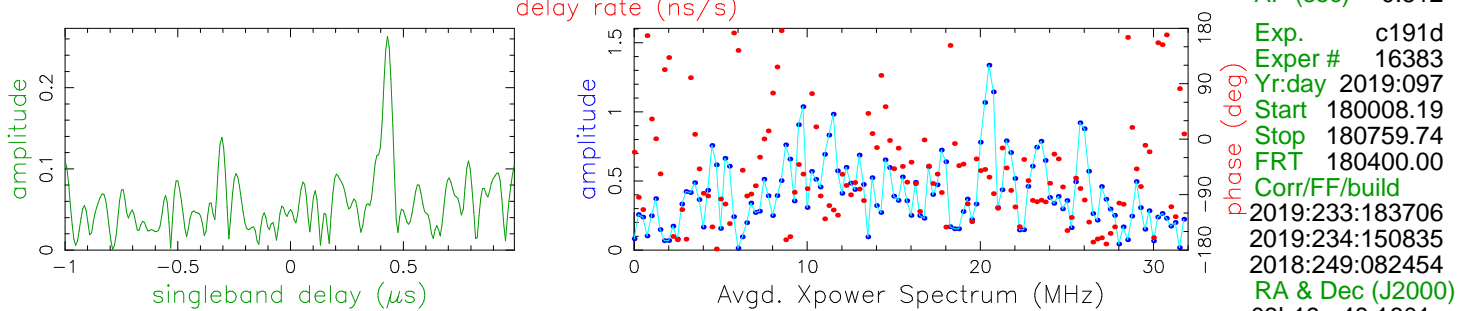
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kZ.W.162.0RU2MU



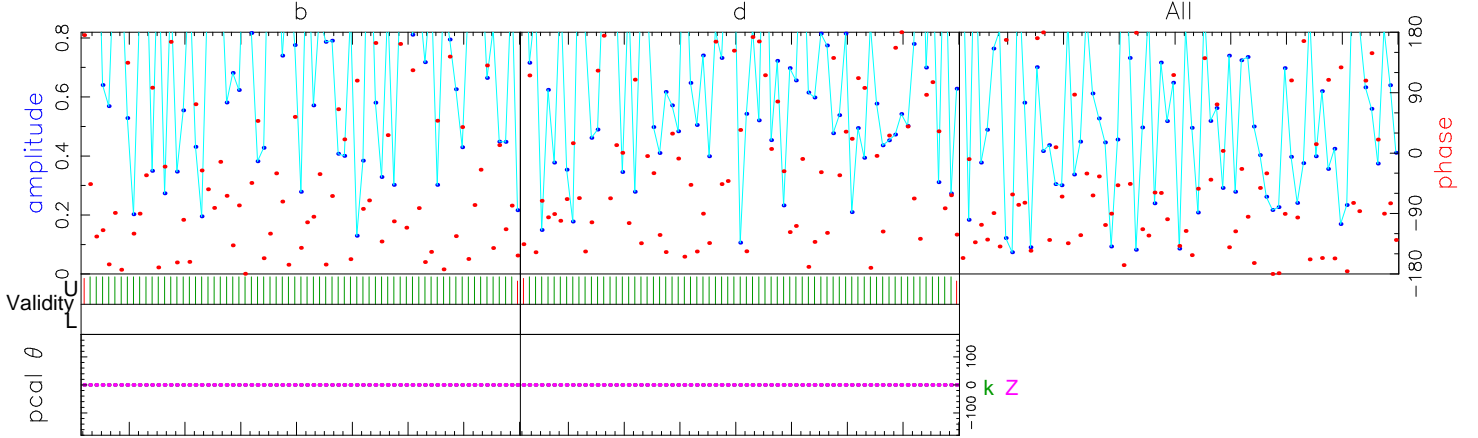
Fringe quality 0

SNR 5.5
 Int time 470.925
 Amp 0.273
 Phase -113.2
 PFD 6.3e-01
 Delays (us)
 SBD 0.430253
 MBD -0.001946
 Fringe rate (Hz)
 -0.293408
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150835
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



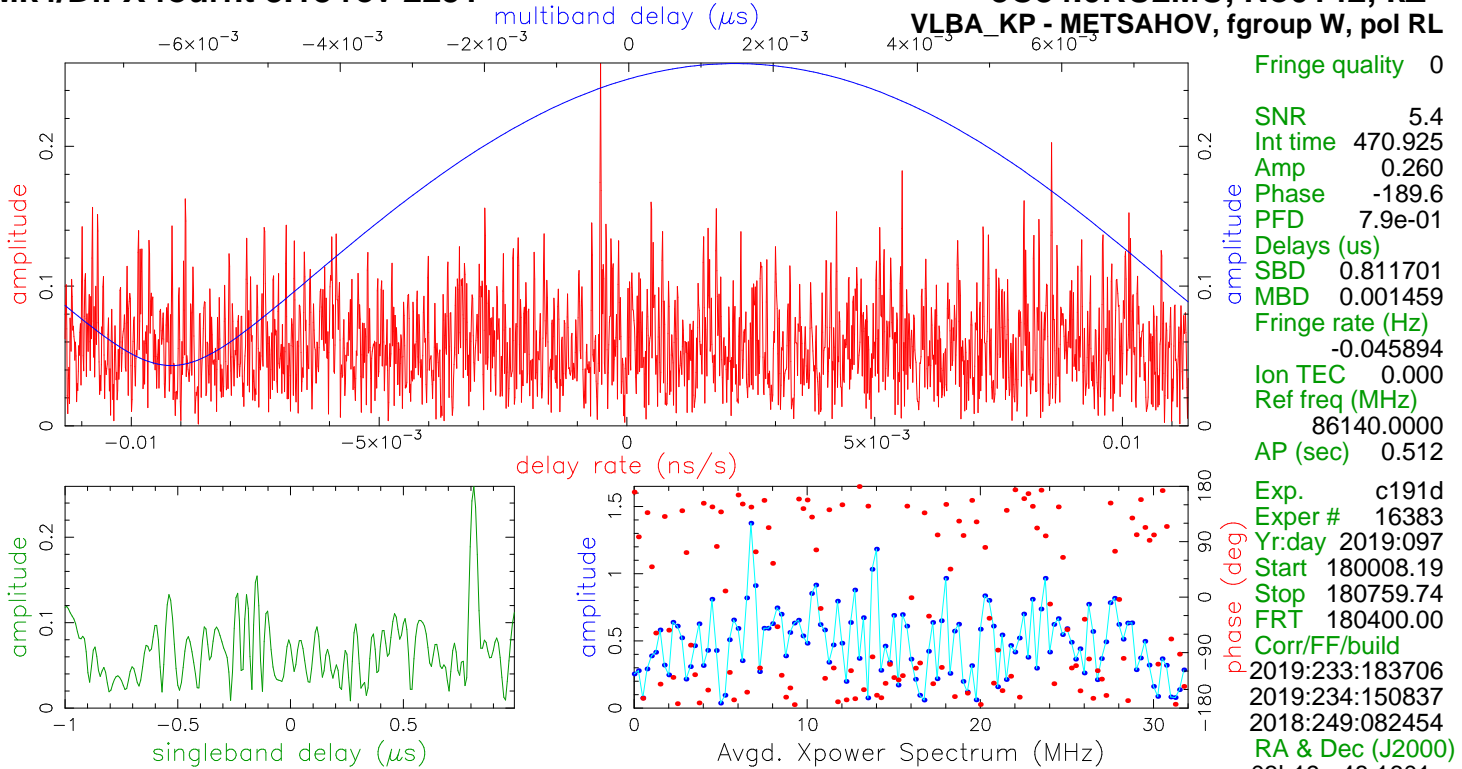
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



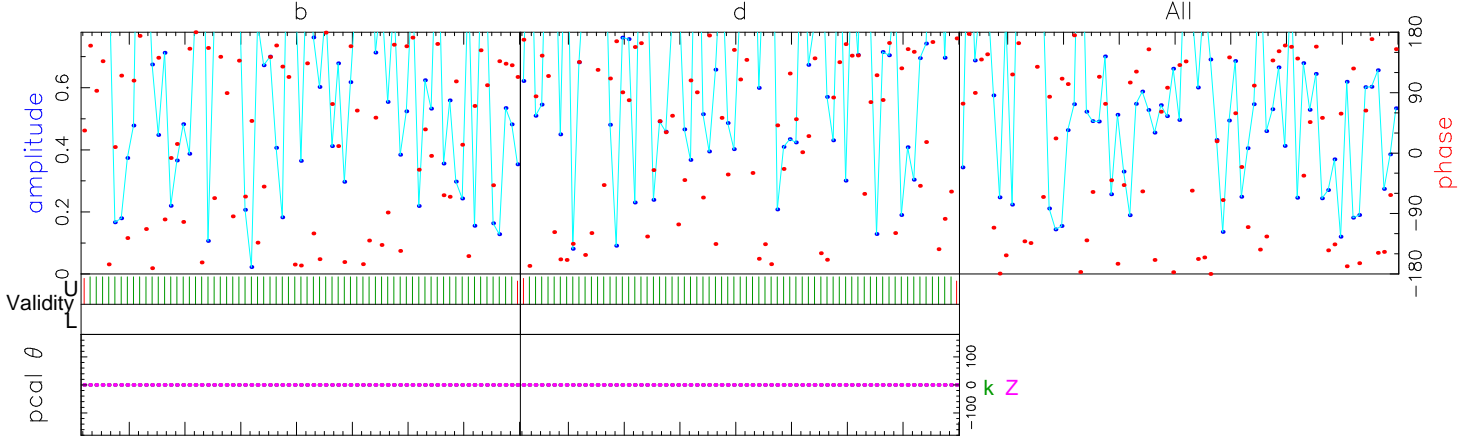
86156.00	86220.00	Freq (MHz)	All
-113.2	-113.1	Phase	-113.2
0.4	0.2	Ampl.	0.3
183.5	185.7	Sbd box	184.1
U/L 921/0	921/0	APs used	
k 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
k:Z 0:0	0:0	PC phase	
k:Z 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
Z 1000	1000		
k W01UL	W03UL	Chan ids	
Z W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.69453082641E+03	Apriori delay (usec)	1.69409527236E+03	Resid mbdelay (usec)	-1.94595E-03	+/-	9.0E-04
Sband delay (usec)	1.69452552536E+03	Apriori clock (usec)	-8.9881897E-02	Resid sbdelay (usec)	4.30253E-01	+/-	3.1E-03
Phase delay (usec)	1.69409526871E+03	Apriori clockrate (us/s)	-6.0660000E-08	Resid phdelay (usec)	-3.65083E-06	+/-	6.7E-07
Delay rate (us/s)	1.37962239956E+00	Apriori rate (us/s)	1.37962580574E+00	Resid rate (us/s)	-3.40618E-06	+/-	2.5E-09
Total phase (deg)	-199.3	Apriori accel (us/s/s)	-3.43794597368E-05	Resid phase (deg)	-113.2	+/-	20.8

ph/seg (deg) 72.3 87.4 Search (2048X8) 0.273 +/- 0.049 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 147.6 152.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.7 Inc. seg. avg. 0.253 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.4 25.6 Inc. frq. avg. 0.264 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 61.1 el 44.8 pa -83.9 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -10616.046 -4538.053 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/kZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/kZ.W.175.0RU2MU



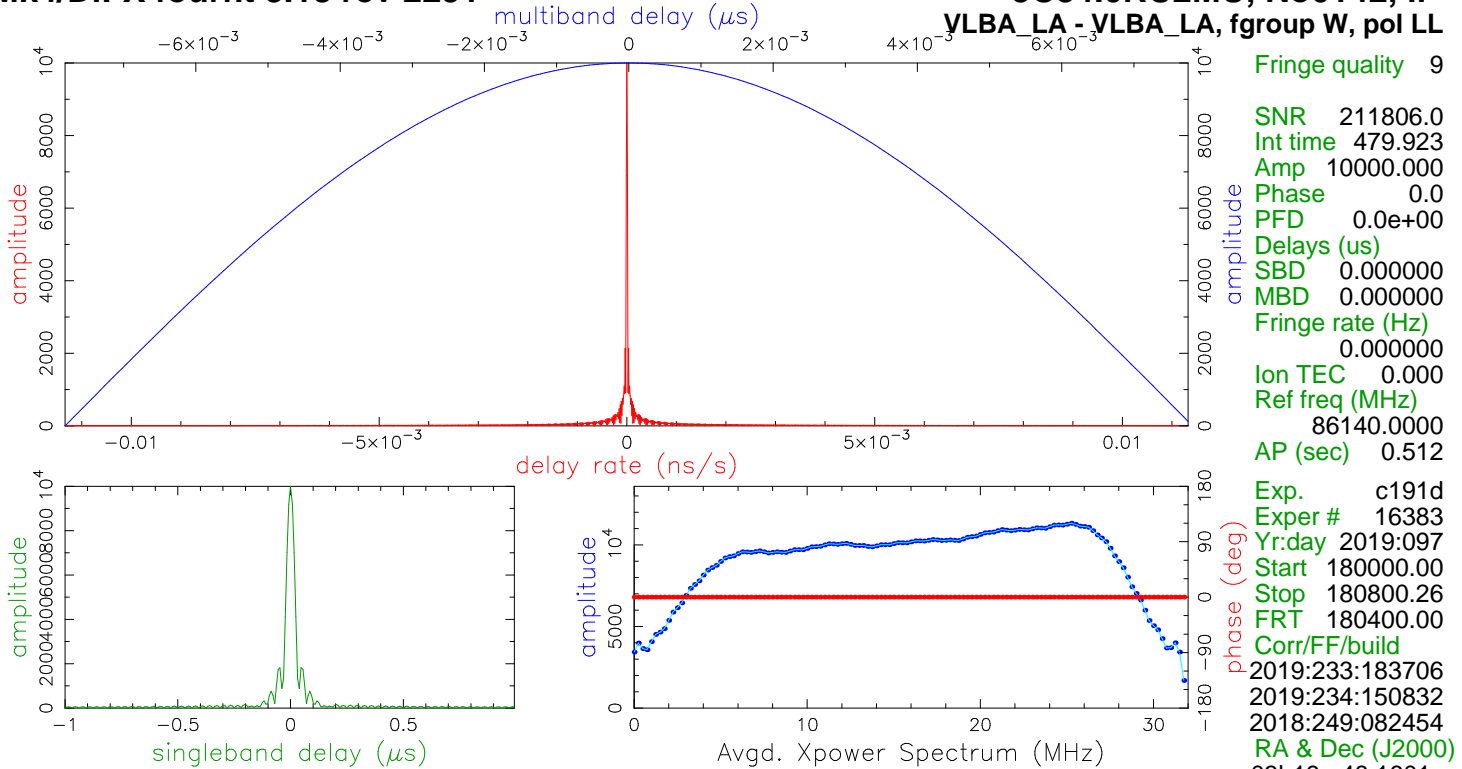
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



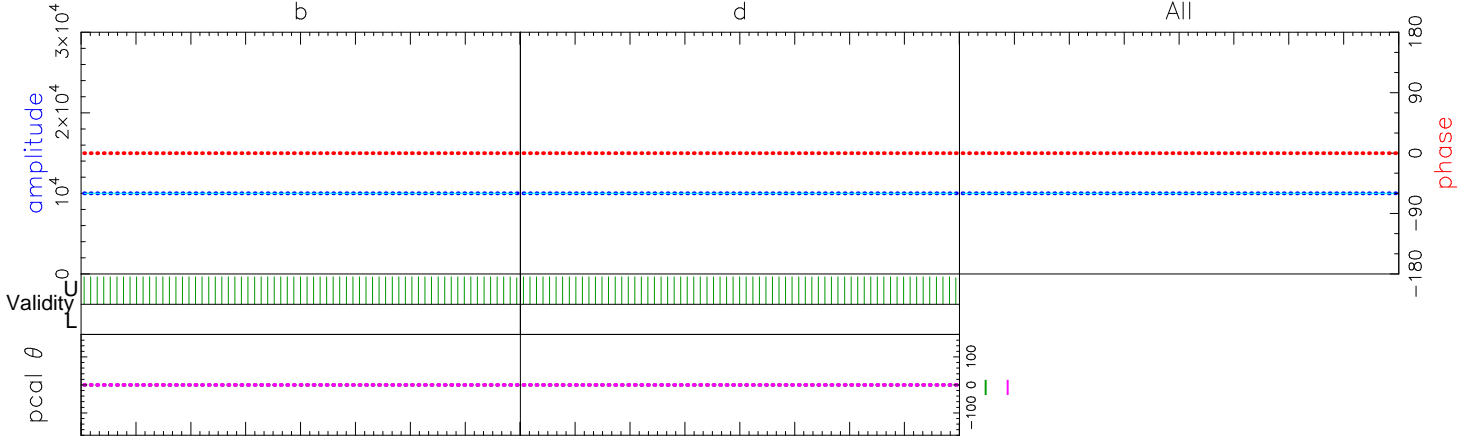
86156.00	86220.00	Freq (MHz)	All
170.3	170.6	Phase	170.4
0.3	0.2	Ampl.	0.3
232.5	164.9	Sbd box	232.9
U/L 921/0	921/0	APs used	
k 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
k:Z 0:0	0:0	PC phase	
k:Z 0:0	0:0	Manl PC	
k 1000	1000	PC amp	
Z 1000	1000		
k W01UR	W03UR	Chan ids	
Z W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.69490923118E+03	Apriori delay (usec)	1.69409527236E+03	Resid mbdelay (usec)	1.45882E-03	+/-	9.1E-04
Sband delay (usec)	1.69490697336E+03	Apriori clock (usec)	-8.9881897E-02	Resid sbdelay (usec)	8.11701E-01	+/-	3.2E-03
Phase delay (usec)	1.69409527785E+03	Apriori clockrate (us/s)	-6.0660000E-08	Resid phdelay (usec)	5.49627E-06	+/-	6.8E-07
Delay rate (us/s)	1.37962527295E+00	Apriori rate (us/s)	1.37962580574E+00	Resid rate (us/s)	-5.32786E-07	+/-	2.5E-09
Total phase (deg)	-275.6	Apriori accel (us/s/s)	-3.43794597368E-05	Resid phase (deg)	-189.6	+/-	21.1

ph/seg (deg)	RMS 78.5	Theor. 88.7	Amplitude Search (2048X8) 0.260 +/- 0.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	162.2	154.8	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.9	Inc. seg. avg. 0.257	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.6	26.0	Inc. frq. avg. 0.251	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

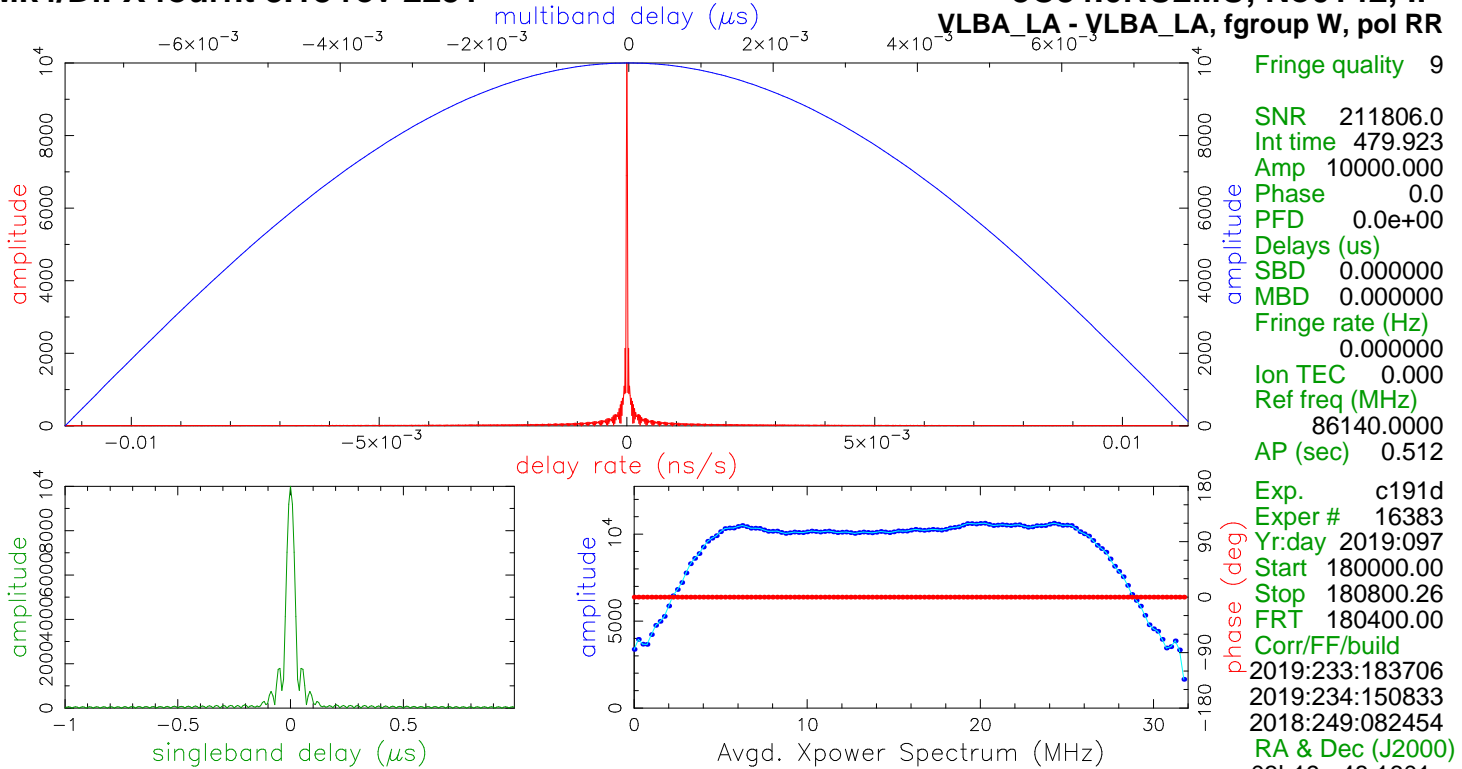


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 938/0	938/0	APs used					
1000	1000	PC freqs					
1000	1000	PC freqs					
:l 0:0	0:0	PC phase					
:l 0:0	0:0	Manl PC					
1000	1000	PC amp					
1000	1000						
W01UL	W03UL	Chan ids					
		Tracks					
W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

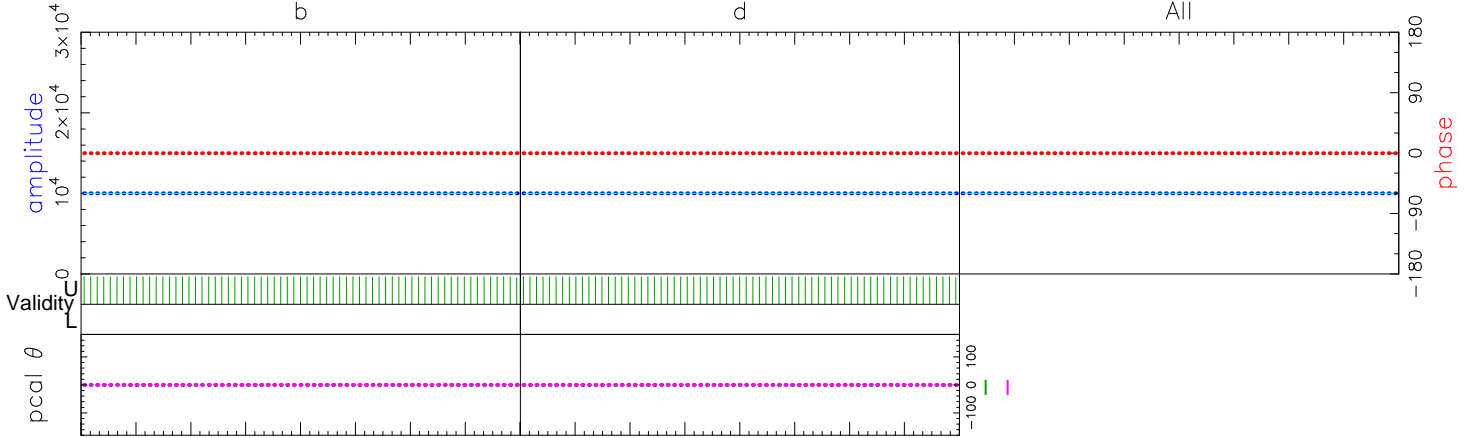
ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0		0.0	Search (2048X8)	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	0.0		0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
				Inc. frq. avg.	10000.000	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

l: az 65.7 el 50.5 pa -81.7 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/II..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/II.W.145.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

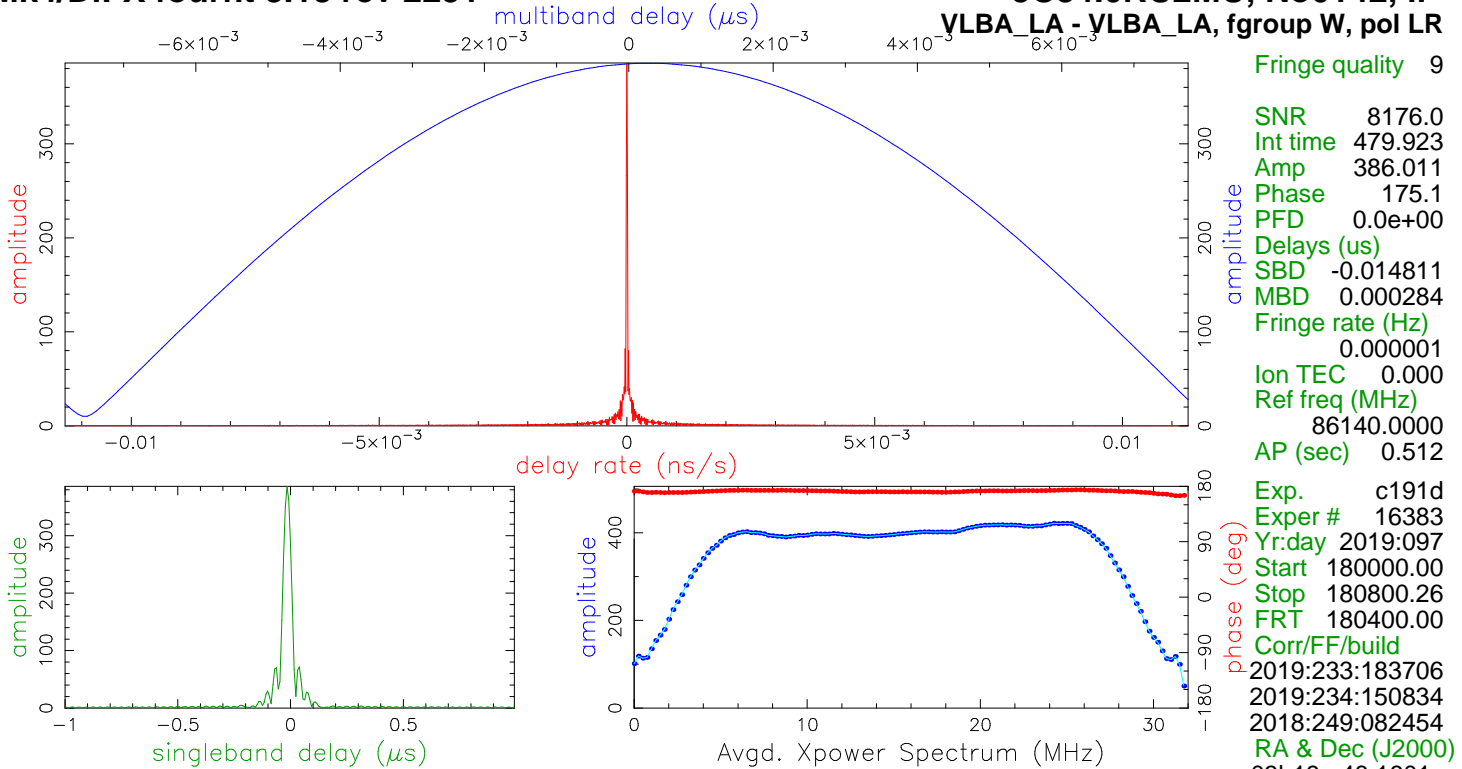


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 938/0	938/0	APs used					
1000	1000	PC freqs					
1000	1000	PC freqs					
:l 0:0	0:0	PC phase					
:l 0:0	0:0	Manl PC					
1000	1000	PC amp					
1000	1000						
W01UR	W03UR	Chan ids					
		Tracks					
W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

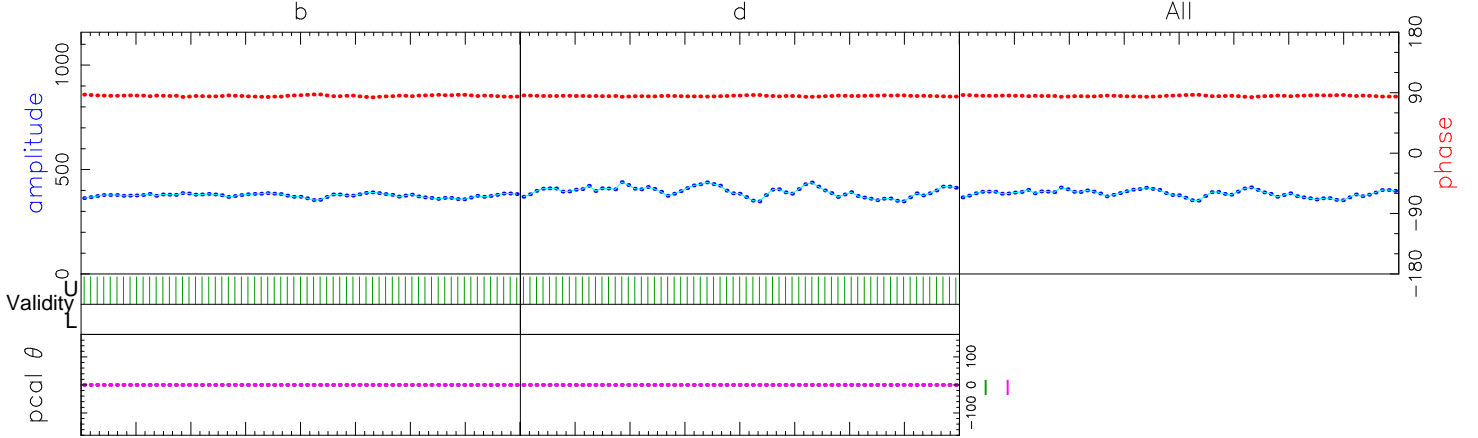
ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	0.0		0.0	Search (2048X8)		Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000				
ph/frq (deg)	0.0		0.0	Inc. seg. avg.		Inc. frq. avg.	10000.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	0.0		0.0	Inc. frq. avg.		Inc. frq. avg.	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)		-0.011 0.011			
								Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite	ion window (TEC)	0.00 0.00

l: az 65.7 el 50.5 pa -81.7 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/II..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/II.W.152.0RU2MU

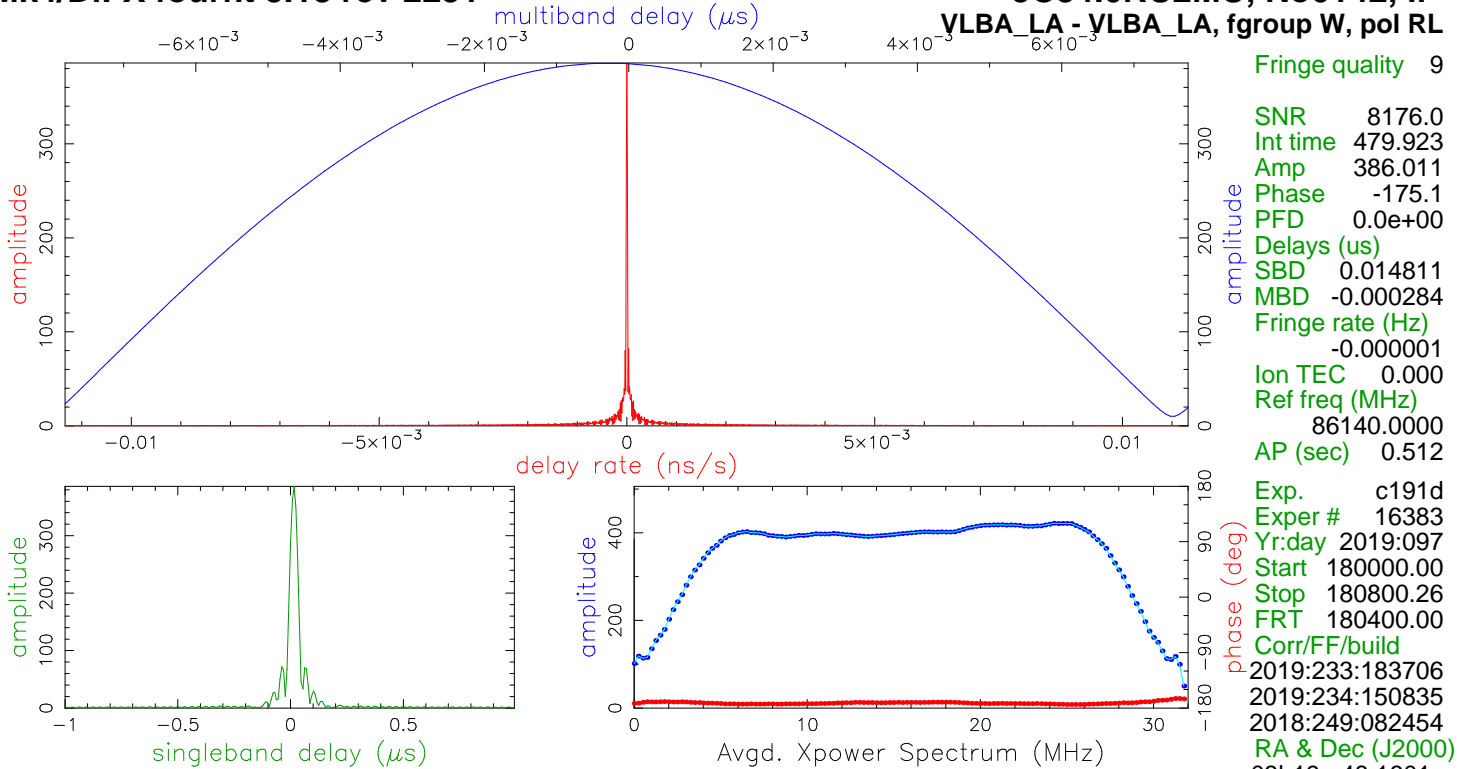


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

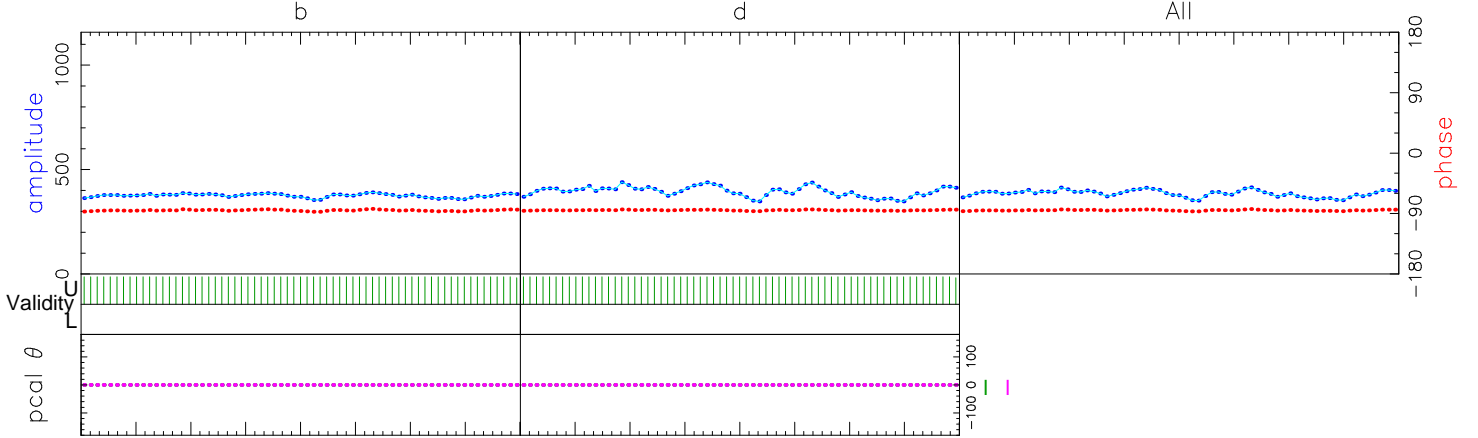


86156.00	86220.00	Freq (MHz)	All				
85.2	85.0	Phase	85.1				
375.8	395.6	Ampl.	385.7				
127.1	127.1	Sbd box	127.1				
U/L 938/0	938/0	APs used					
1000	1000	PC freqs					
1000	1000	PC freqs					
: 0:0	0:0	PC phase					
: 0:0	0:0	Manl PC					
1000	1000	PC amp					
1000	1000						
W01UL	W03UL	Chan ids					
		Tracks					
W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.53413750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.83625E-04	+/-	6.1E-07
Sband delay (usec)	-1.48115000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.48115E-02	+/-	2.1E-06
Phase delay (usec)	2.74336266992E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.74336E-06	+/-	4.5E-10
Delay rate (us/s)	7.79413381543E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.79413E-12	+/-	1.6E-12
Total phase (deg)	175.1	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	175.1	+/-	0.0

ph/seg (deg)	0.8	0.1	Amplitude	386.011 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	4.1	0.1	Search (2048X8)	385.092	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.6	0.0	Inc. seg. avg.	385.710	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
			Inc. frq. avg.	385.678	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
							ion window (TEC)	0.00 0.00



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

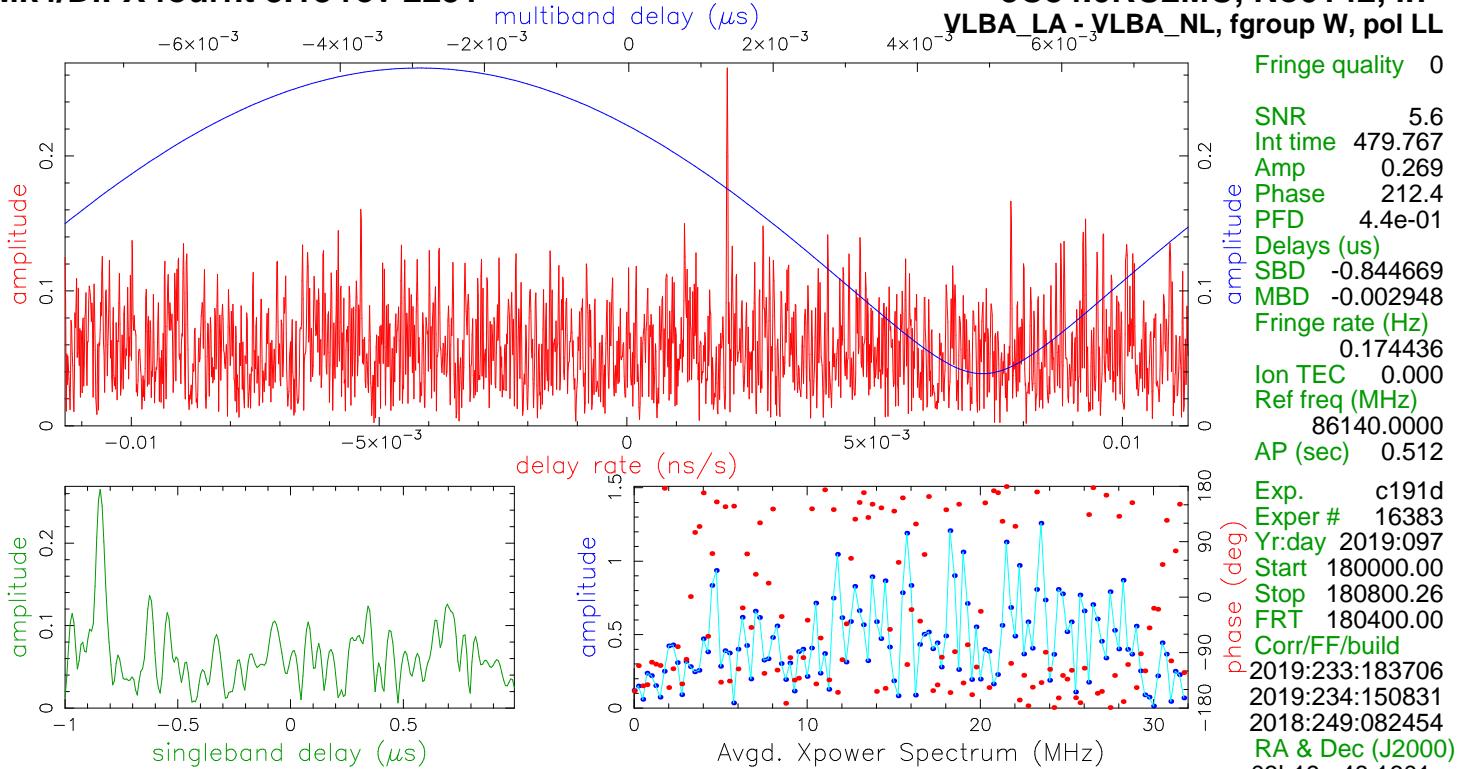


86156.00	86220.00	Freq (MHz)	All				
-85.2	-85.0	Phase	-85.1				
375.8	395.6	Ampl.	385.7				
130.9	130.9	Sbd box	130.9				
U/L 938/0	938/0	APs used					
1000	1000	PC freqs					
1000	1000	PC freqs					
: 0:0	0:0	PC phase					
: 0:0	0:0	Manl PC					
1000	1000	PC amp					
1000	1000						
W01UR	W03UR	Chan ids					
		Tracks					
W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.53413750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.83625E-04	+/-	6.1E-07
Sband delay (usec)	1.48115000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.48115E-02	+/-	2.1E-06
Phase delay (usec)	-2.74336266997E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.74336E-06	+/-	4.5E-10
Delay rate (us/s)	-7.79413381543E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-7.79413E-12	+/-	1.6E-12
Total phase (deg)	-175.1	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-175.1	+/-	0.0

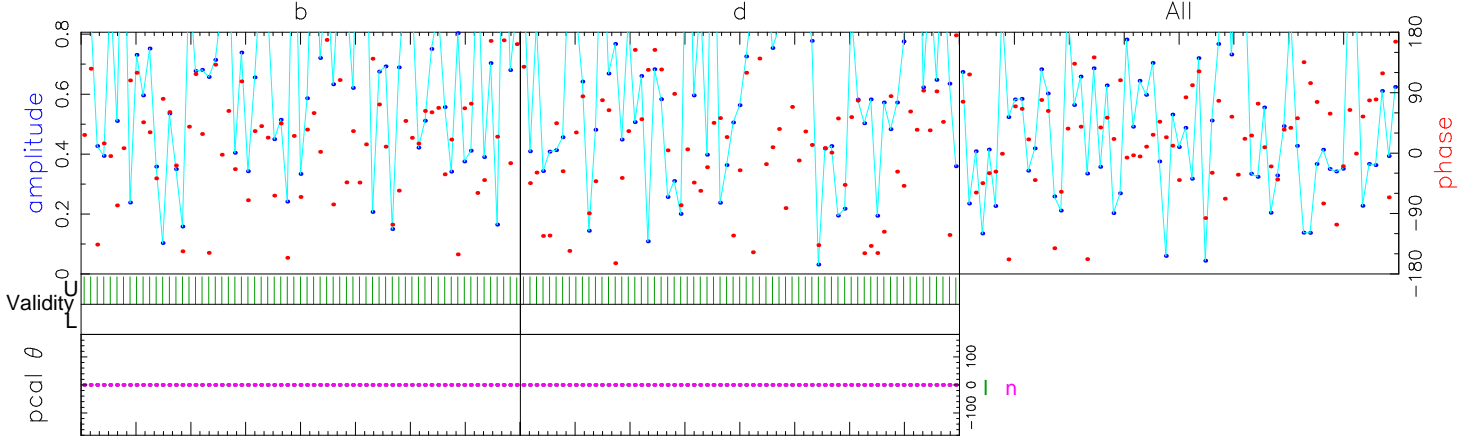
ph/seg (deg)	0.8	0.1	Amplitude	386.011 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	4.1	0.1	Search (2048X8)	385.092	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	2.6	0.0	Inc. seg. avg.	385.710	Sample rate(MSamp/s): 64	nlags: 128	dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.	385.678	Data rate(Mb/s): 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 65.7 el 50.5 pa -81.7 l: az 65.7 el 50.5 pa -81.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IL.0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IL.W.173.0RU2MU

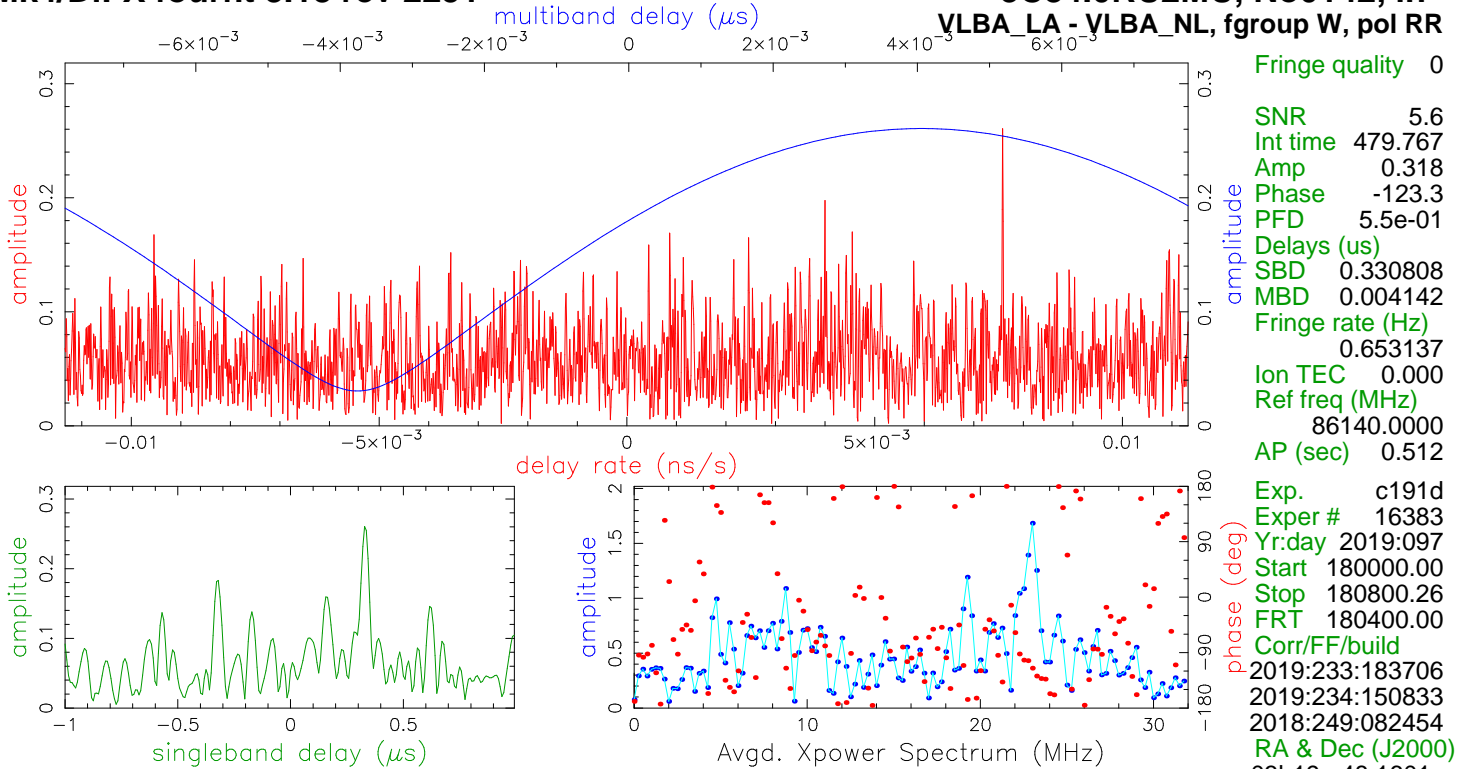


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

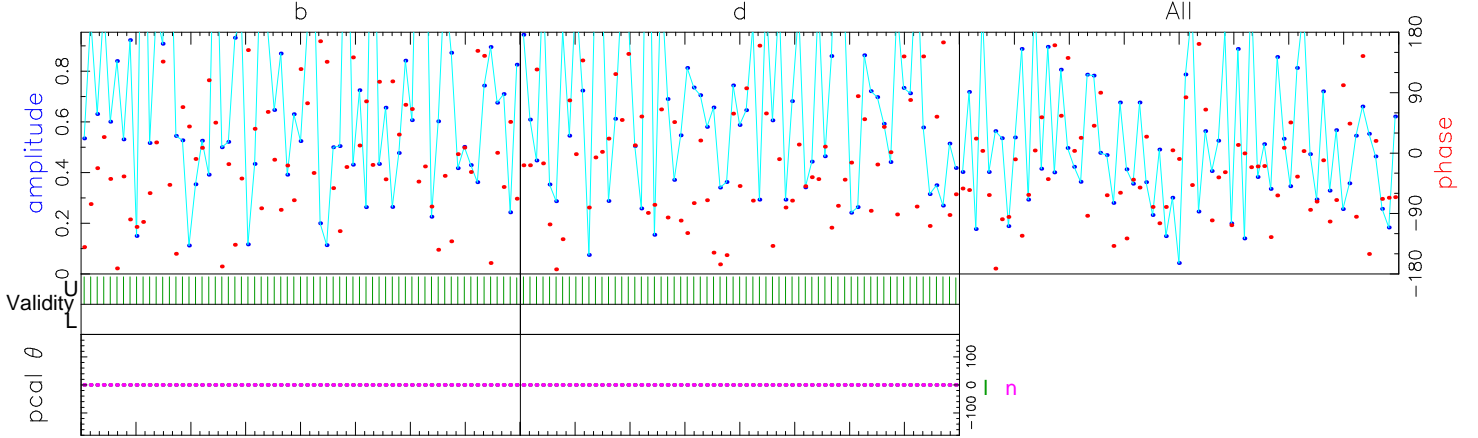


86156.00		86220.00		Freq (MHz)	All
32.0		32.9		Phase	32.4
0.3		0.2		Ampl.	0.3
20.8		21.1		Sbd box	20.9
U/L 938/0		938/0		APs used	
l 1000		1000		PC freqs	
n 1000		1000		PC freqs	
l:n 0:0		0:0		PC phase	
l:n 0:0		0:0		Manl PC	
l 1000		1000		PC amp	
n 1000		1000			
l W01UL		W03UL		Chan ids	
n W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.54664131735E+03	Apriori delay (usec)	-2.54579461958E+03	Resid mbdelay (usec)	-2.94777E-03 +/- 8.8E-04
Sband delay (usec)	-2.54663928808E+03	Apriori clock (usec)	-2.4407364E+01	Resid sbdelay (usec)	-8.44669E-01 +/- 3.1E-03
Phase delay (usec)	-2.54579461854E+03	Apriori clockrate (us/s)	-5.0299999E-07	Resid phdelay (usec)	1.04510E-06 +/- 6.6E-07
Delay rate (us/s)	2.21432237433E-01	Apriori rate (us/s)	2.21430212407E-01	Resid rate (us/s)	2.02503E-06 +/- 2.4E-09
Total phase (deg)	21.4	Apriori accel (us/s/s)	7.31314217138E-06	Resid phase (deg)	212.4 +/- 20.4

ph/seg (deg) 70.7 83.4 Amplitude 0.269 +/- 0.048 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 131.5 145.6 Search (2048X8) 0.260 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.5 25.2 Inc. seg. avg. 0.247 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 65.7 el 50.5 pa -81.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1681.703 -13.352 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/In..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/In.W.140.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

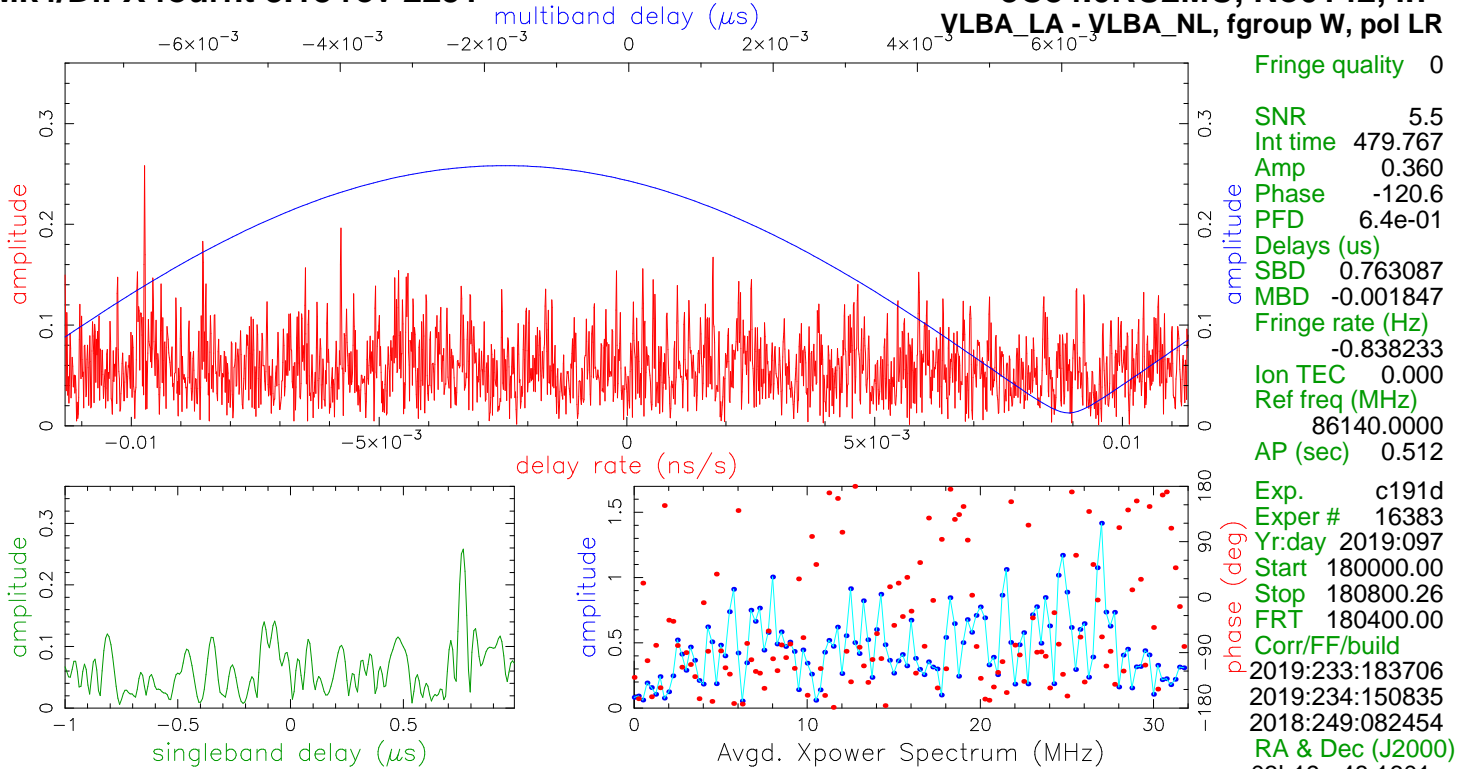


86156.00		86220.00		Freq (MHz)	All
-32.4		-34.4		Phase	-33.3
0.4		0.3		Ampl.	0.3
171.9		170.8		Sbd box	171.3
U/L 938/0		938/0		APs used	
l 1000		1000		PC freqs	
n 1000		1000		PC freqs	
l:n 0:0		0:0		PC phase	
l:n 0:0		0:0		Manl PC	
l 1000		1000		PC amp	
n 1000		1000			
l W01UR		W03UR		Chan ids	
n W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.54546235304E+03	Apriori delay (usec)	-2.54579461958E+03	Resid mbdelay (usec)	4.14154E-03 +/- 8.9E-04
Sband delay (usec)	-2.54546381158E+03	Apriori clock (usec)	-2.4407364E+01	Resid sbdelay (usec)	3.30808E-01 +/- 3.1E-03
Phase delay (usec)	-2.54579462065E+03	Apriori clockrate (us/s)	-5.0299999E-07	Resid phdelay (usec)	-1.07256E-06 +/- 6.6E-07
Delay rate (us/s)	2.21437794684E-01	Apriori rate (us/s)	2.21430212407E-01	Resid rate (us/s)	7.58228E-06 +/- 2.4E-09
Total phase (deg)	-314.3	Apriori accel (us/s/s)	7.31314217138E-06	Resid phase (deg)	-123.3 +/- 20.6

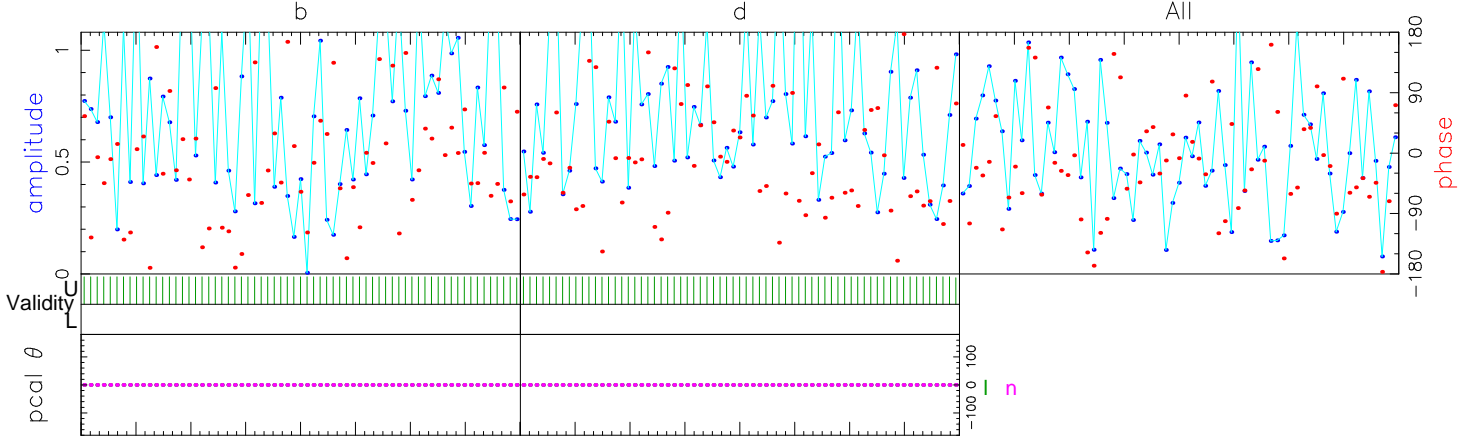
ph/seg (deg)	RMS 72.8	Theor. 84.3	Amplitude Search (2048X8) 0.318 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	141.5	147.1	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.6	Inc. seg. avg. 0.306	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.6	25.4	Inc. frq. avg. 0.306	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

l: az 65.7 el 50.5 pa -81.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1681.703 -13.352 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/In..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/In.W.156.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

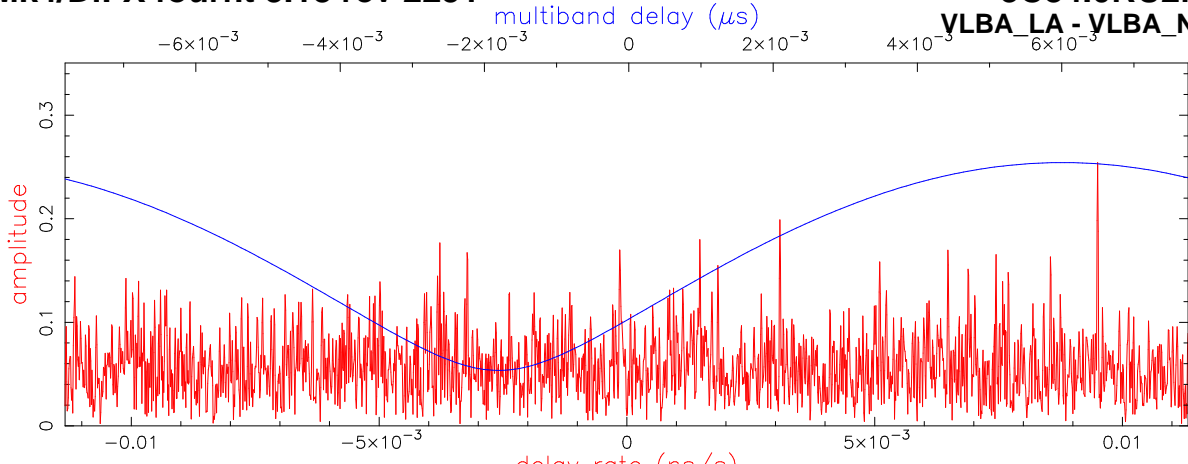


86156.00		86220.00		Freq (MHz)	All
-32.0		-29.0		Phase	-30.6
0.4		0.3		Ampl.	0.3
226.6		226.7		Sbd box	226.7
U/L 938/0		938/0		APs used	
l 1000		1000		PC freqs	
n 1000		1000		PC freqs	
l:n 0:0		0:0		PC phase	
l:n 0:0		0:0		Manl PC	
l 1000		1000		PC amp	
n 1000		1000			
l W01UL		W03UL		Chan ids	
n W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.54503084117E+03	Apriori delay (usec)	-2.54579461958E+03	Resid mbdelay (usec)	-1.84659E-03 +/- 9.0E-04
Sband delay (usec)	-2.54503153258E+03	Apriori clock (usec)	-2.4407364E+01	Resid sbdelay (usec)	7.63087E-01 +/- 3.1E-03
Phase delay (usec)	-2.54579462057E+03	Apriori clockrate (us/s)	-5.0299999E-07	Resid phdelay (usec)	-9.85288E-07 +/- 6.7E-07
Delay rate (us/s)	2.21420481350E-01	Apriori rate (us/s)	2.21430212407E-01	Resid rate (us/s)	-9.73106E-06 +/- 2.4E-09
Total phase (deg)	-311.6	Apriori accel (us/s/s)	7.31314217138E-06	Resid phase (deg)	-120.6 +/- 20.8

ph/seg (deg)	RMS 80.4	Theor. 85.0	Amplitude	0.360 +/- 0.065	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	152.4	148.3	Search (2048X8)	0.251	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.0	25.6	Inc. seg. avg.	0.368	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg.	0.346	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128 t_cohere infinite	ion window (TEC) 0.00 0.00

l: az 65.7 el 50.5 pa -81.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1681.703 -13.352 simultaneous interpolator

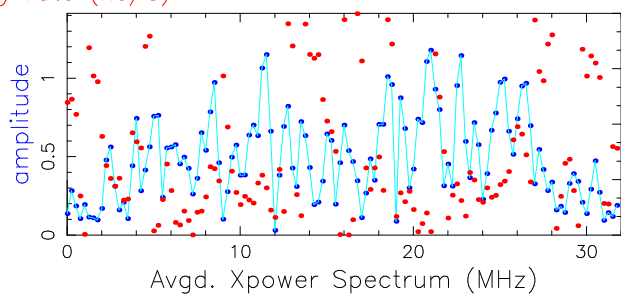
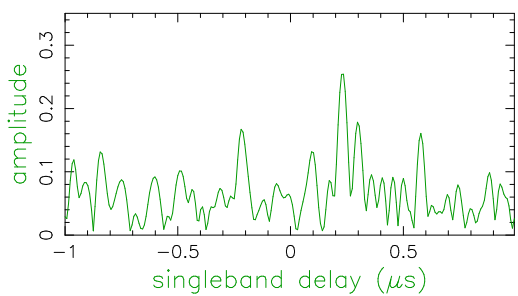
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/In..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/In.W.170.0RU2MU



Fringe quality 0

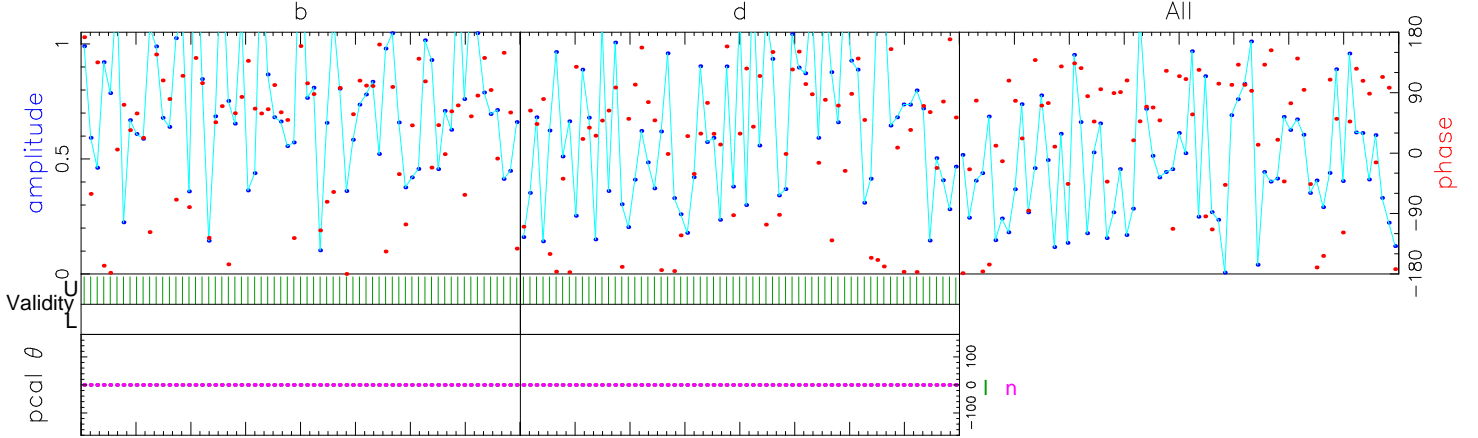
SNR 5.5
Int time 479.767
Amp 0.350
Phase -87.8
PFD 7.6e-01
Delays (us)
SBD 0.230580
MBD 0.005995
Fringe rate (Hz)
0.818529
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150836
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

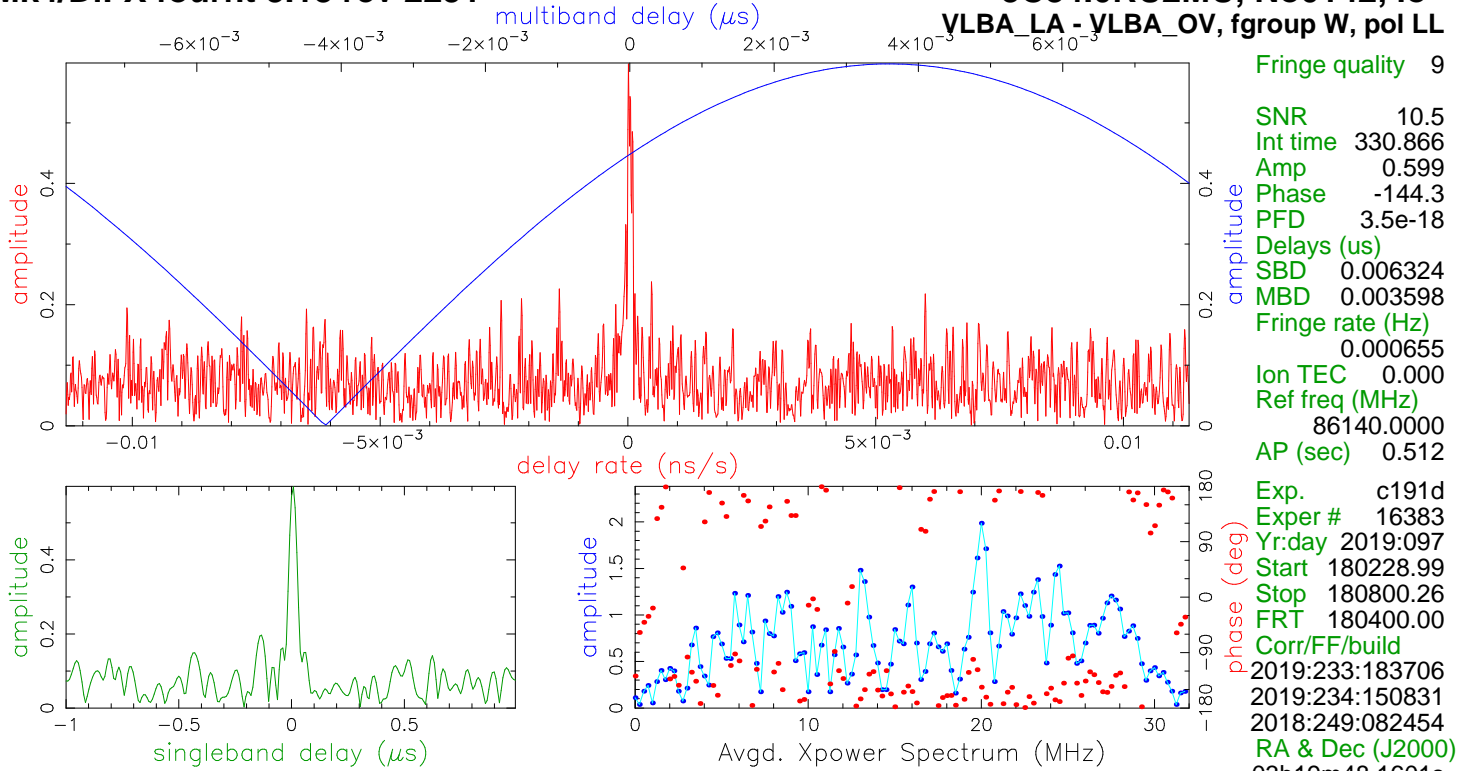


86156.00	86220.00	Freq (MHz)	All				
92.0	92.4	Phase	92.2				
0.4	0.3	Ampl.	0.3				
158.3	100.8	Sbd box	158.5				
U/L 938/0	938/0	APs used					
l 1000	1000	PC freqs					
n 1000	1000	PC freqs					
l:n 0:0	0:0	PC phase					
l:n 0:0	0:0	Manl PC					
l 1000	1000	PC amp					
n 1000	1000						
l W01UR	W03UR	Chan ids					
n W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.54556987410E+03	Apriori delay (usec)	-2.54579461958E+03	Resid mbdelay (usec)	5.99548E-03	+/-	9.1E-04
Sband delay (usec)	-2.54556403908E+03	Apriori clock (usec)	-2.4407364E+01	Resid sbdelay (usec)	2.30580E-01	+/-	3.2E-03
Phase delay (usec)	-2.54579461661E+03	Apriori clockrate (us/s)	-5.0299999E-07	Resid phdelay (usec)	2.97214E-06	+/-	6.8E-07
Delay rate (us/s)	2.21439714718E-01	Apriori rate (us/s)	2.21430212407E-01	Resid rate (us/s)	9.50231E-06	+/-	2.4E-09
Total phase (deg)	-278.9	Apriori accel (us/s/s)	7.31314217138E-06	Resid phase (deg)	-87.8	+/-	21.0

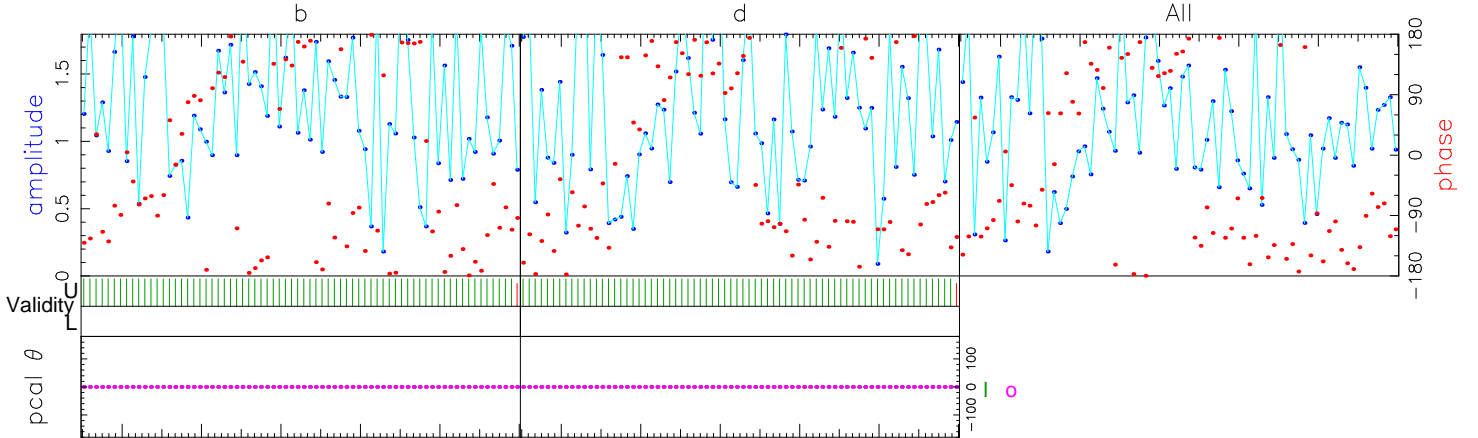
ph/seg (deg)	RMS 76.3	Theor. 86.0	Amplitude 0.350 +/- 0.064	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	132.1	150.0	Search (2048X8) 0.247	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.8	25.9	Inc. seg. avg. 0.309	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.335	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

l: az 65.7 el 50.5 pa -81.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) -1681.703 -13.352 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/In..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/In.W.182.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

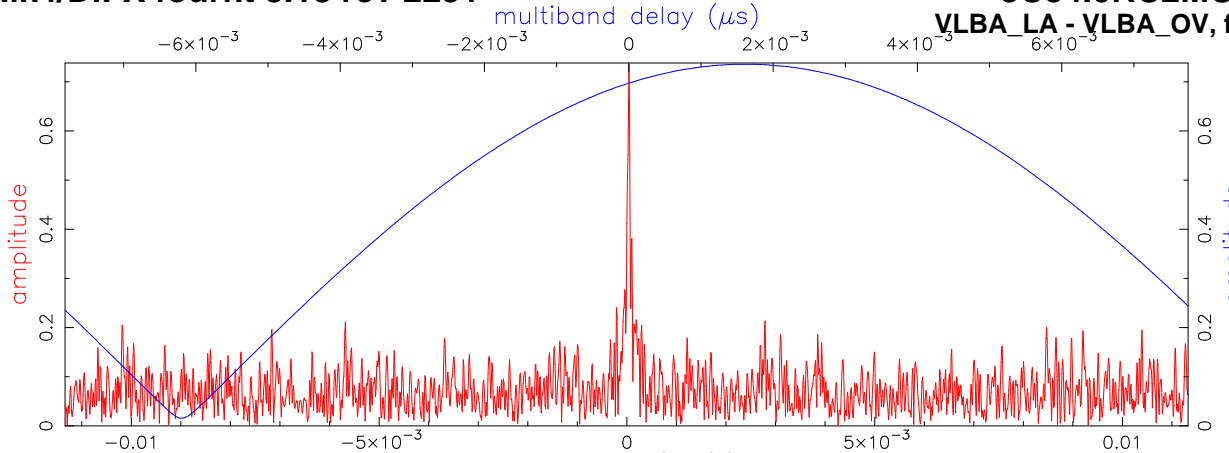


86156.00	86220.00	Freq (MHz)	All
-144.2	-144.3	Phase	-144.3
0.6	0.6	Ampl.	0.6
129.7	129.9	Sbd box	129.8
U/L 647/0	647/0	APs used	
l 1000	1000	PC freqs	
o 1000	1000	PC freqs	
l:o 0:0	0:0	PC phase	
l:o 0:0	0:0	Manl PC	
l 1000	1000	PC amp	
o 1000	1000		
l W01UL	W03UL	Chan ids	
o W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

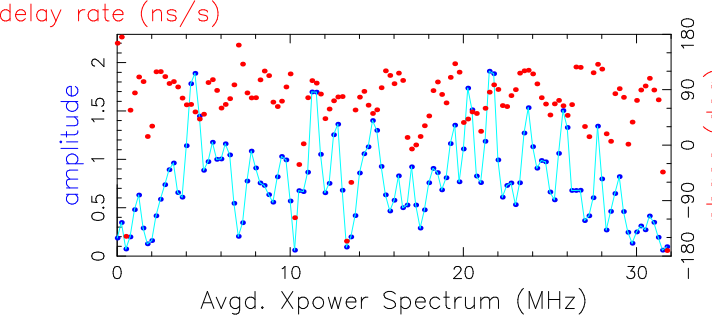
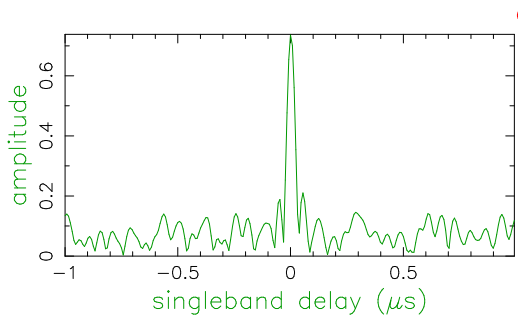
Group delay (usec)(sbd)	2.05283514420E+03	Apriori delay (usec)	2.05283154644E+03	Resid mbdelay (usec)	3.59775E-03	+/-	4.7E-04
Sband delay (usec)	2.05283786994E+03	Apriori clock (usec)	-1.6239260E+01	Resid sbdelay (usec)	6.32350E-03	+/-	1.6E-03
Phase delay (usec)	2.05283154179E+03	Apriori clockrate (us/s)	-4.0656001E-07	Resid phdelay (usec)	-4.65210E-06	+/-	3.5E-07
Delay rate (us/s)	-9.55647831419E-02	Apriori rate (us/s)	-9.55647907412E-02	Resid rate (us/s)	7.59928E-09	+/-	1.8E-09
Total phase (deg)	3.5	Apriori accel (us/s/s)	-1.25265177318E-05	Resid phase (deg)	-144.3	+/-	10.9

ph/seg (deg)	RMS 70.4	Theor. 46.2	Amplitude Search (2048X8) 0.599 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	120.9	80.6	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	7.7	Inc. seg. avg. 0.863	Bits/sample: 2x2		dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.3	13.4	Inc. frq. avg. 0.592	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
				Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

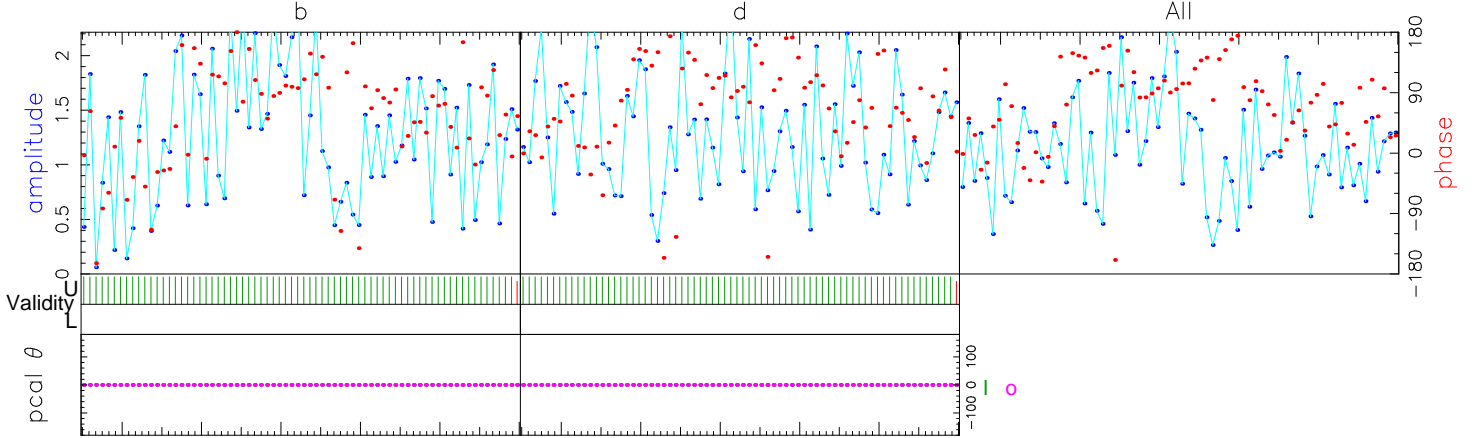
l: az 65.7 el 50.5 pa -81.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 710.498 -1014.914 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lo.W.135.0RU2MU



Fringe quality 9
SNR 13.0
Int time 330.866
Amp 0.738
Phase 79.9
PFD 1.0e-30
Delays (us)
SBD 0.001611
MBD 0.001634
Fringe rate (Hz) 0.003504
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150831
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

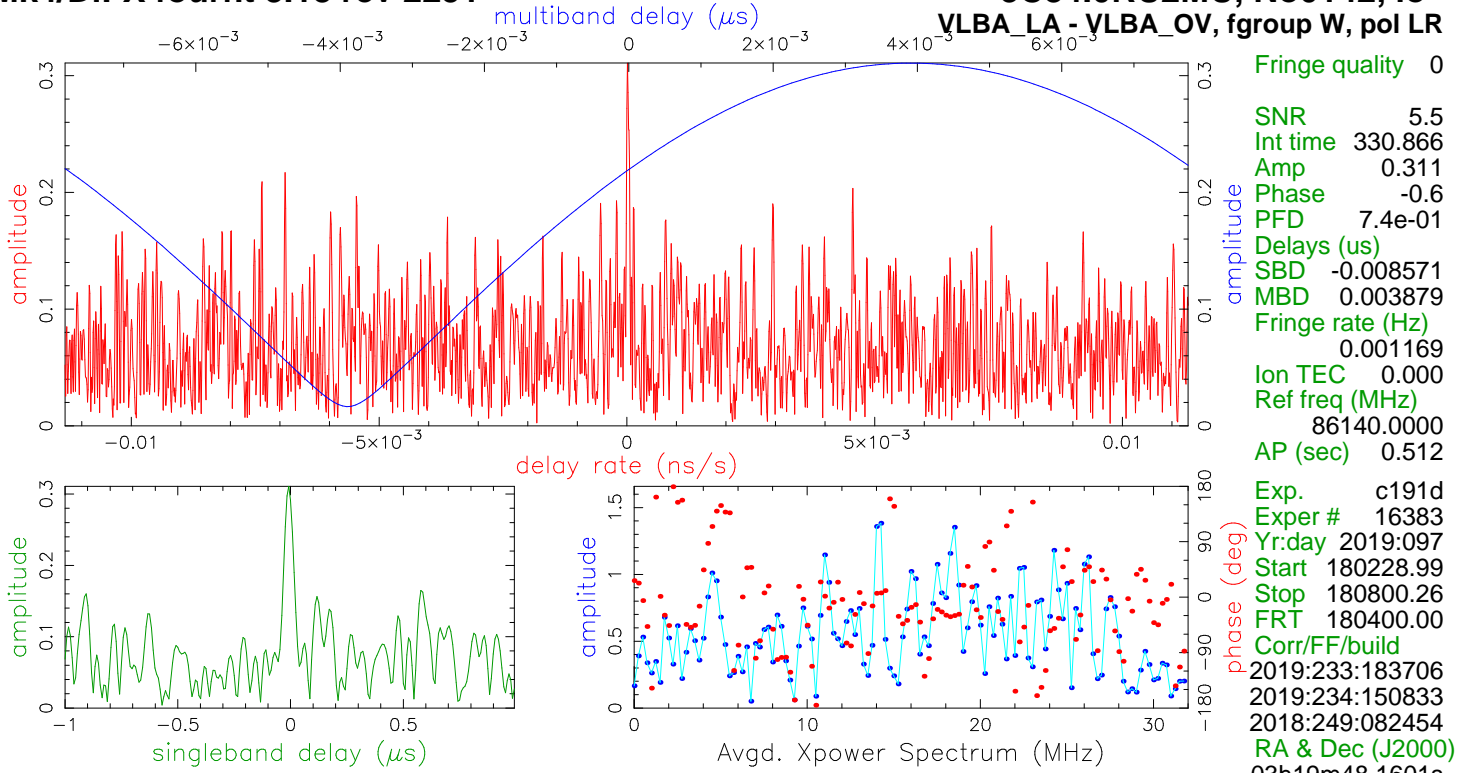


86156.00	86220.00	Freq (MHz)		All			
80.1	79.7	Phase		79.9			
0.7	0.8	Ampl.		0.7			
129.5	129.0	Sbd box		129.2			
U/L 647/0	647/0	APs used					
l 1000	1000	PC freqs					
o 1000	1000	PC freqs					
l:o 0:0	0:0	PC phase					
l:o 0:0	0:0	Manl PC					
l 1000	1000	PC amp					
o 1000	1000	Chan ids					
l W01UR	W03UR	Tracks					
o W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.05283318034E+03	Apriori delay (usec)	2.05283154644E+03	Resid mbdelay (usec)	1.63389E-03	+/-	3.8E-04
Sband delay (usec)	2.05283315744E+03	Apriori clock (usec)	-1.6239260E+01	Resid sbdelay (usec)	1.61100E-03	+/-	1.3E-03
Phase delay (usec)	2.05283154902E+03	Apriori clockrate (us/s)	-4.0656001E-07	Resid phdelay (usec)	2.57504E-06	+/-	2.8E-07
Delay rate (us/s)	-9.55647500636E-02	Apriori rate (us/s)	-9.55647907412E-02	Resid rate (us/s)	4.06776E-08	+/-	1.5E-09
Total phase (deg)	227.7	Apriori accel (us/s/s)	-1.25265177318E-05	Resid phase (deg)	79.9	+/-	8.8

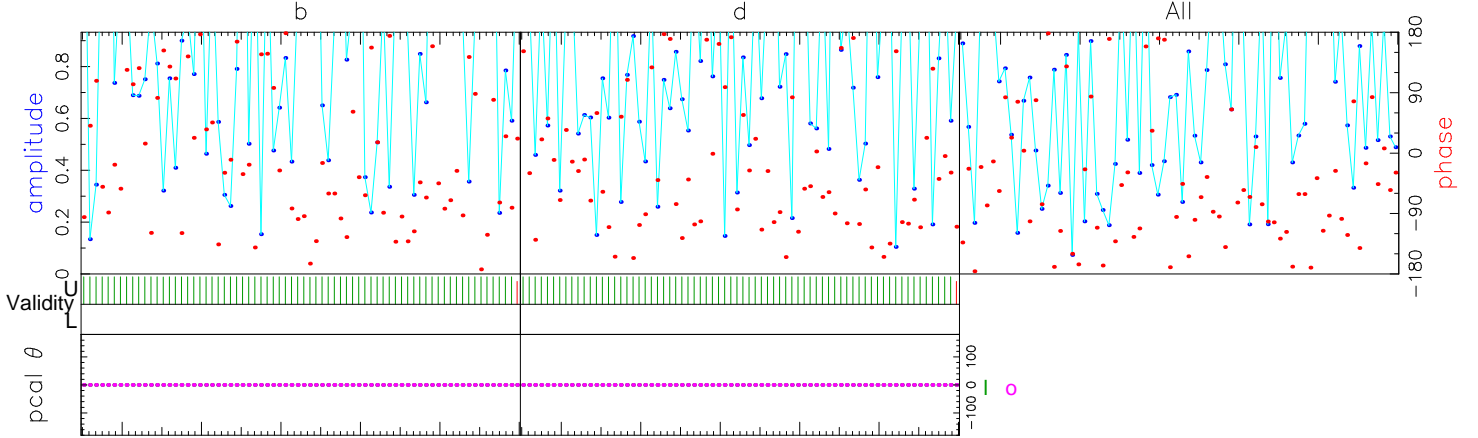
ph/seg (deg)	55.2	RMS	55.2	Theor.	37.4	Amplitude	0.738 +/- 0.057	Search (2048X8)	0.725	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	84.5	Interp.	0.000	Inc. seg. avg.	0.963	Inc. frq. avg.	0.731	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	0.0	Sample rate (MSamp/s):	64	Data rate (Mb/s):	256	nlags:	128	t_cohere	infinite	ion window (TEC)	0.00	0.00	
amp/frq (%)	2.1	ion window (TEC)	0.00	0.00									

l: az 65.7 el 50.5 pa -81.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 710.498 -1014.914 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lo.W.142.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

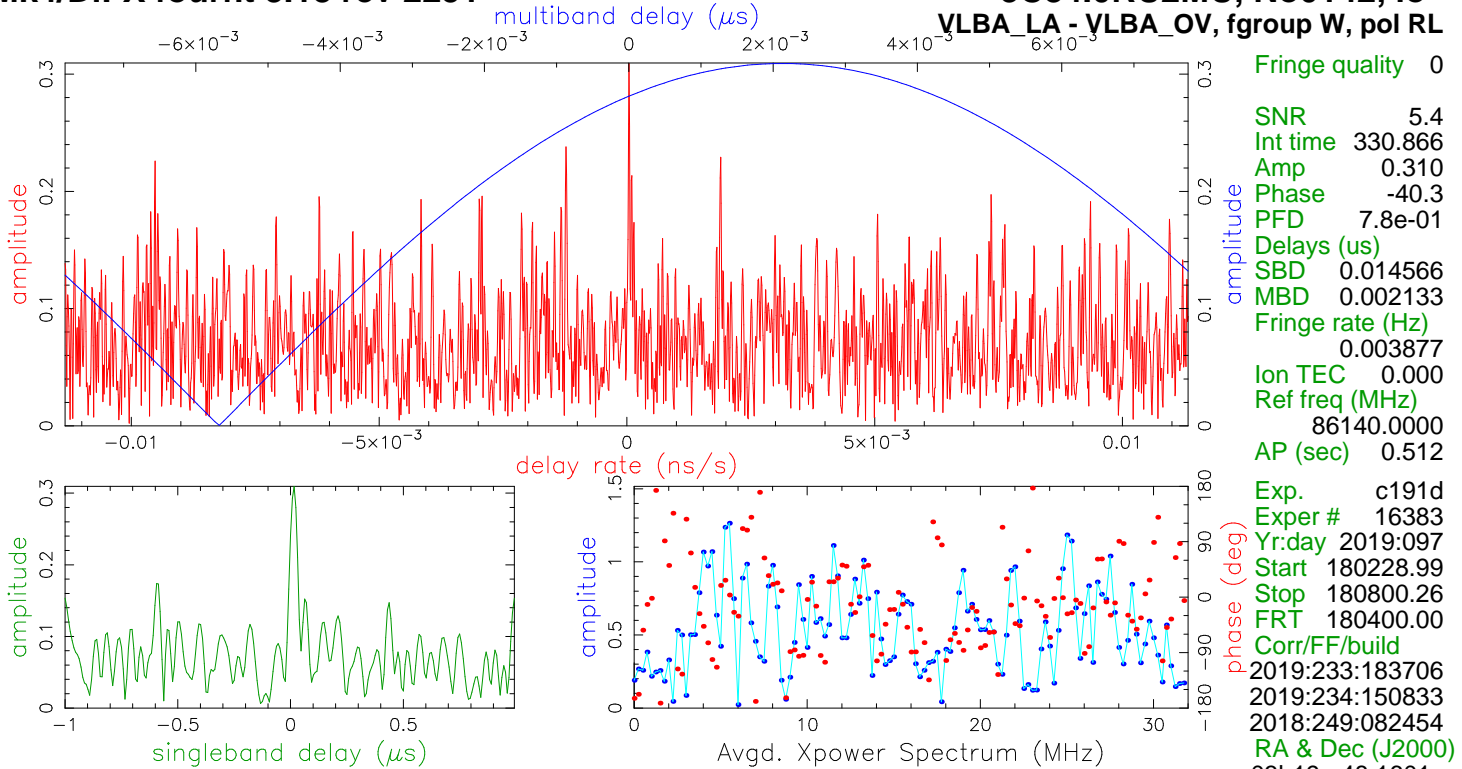


86156.00		86220.00		Freq (MHz)	All
-91.1		-90.2		Phase	-90.6
0.3		0.3		Ampl.	0.3
128.3		127.8		Sbd box	127.9
U/L 647/0		647/0		APs used	
l 1000		1000		PC freqs	
o 1000		1000		PC freqs	
l:o 0:0		0:0		PC phase	
l:o 0:0		0:0		Manl PC	
l 1000		1000		PC amp	
o 1000		1000			
l W01UL		W03UL		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	2.05281980057E+03	Apriori delay (usec)	2.05283154644E+03	Resid mbdelay (usec)	3.87913E-03 +/- 9.1E-04
Sband delay (usec)	2.05282297494E+03	Apriori clock (usec)	-1.6239260E+01	Resid sbdelay (usec)	-8.57150E-03 +/- 3.2E-03
Phase delay (usec)	2.05283154352E+03	Apriori clockrate (us/s)	-4.0656001E-07	Resid phdelay (usec)	-2.92207E-06 +/- 6.8E-07
Delay rate (us/s)	-9.55647771659E-02	Apriori rate (us/s)	-9.55647907412E-02	Resid rate (us/s)	1.35753E-08 +/- 3.5E-09
Total phase (deg)	147.2	Apriori accel (us/s/s)	-1.25265177318E-05	Resid phase (deg)	-0.6 +/- 21.0

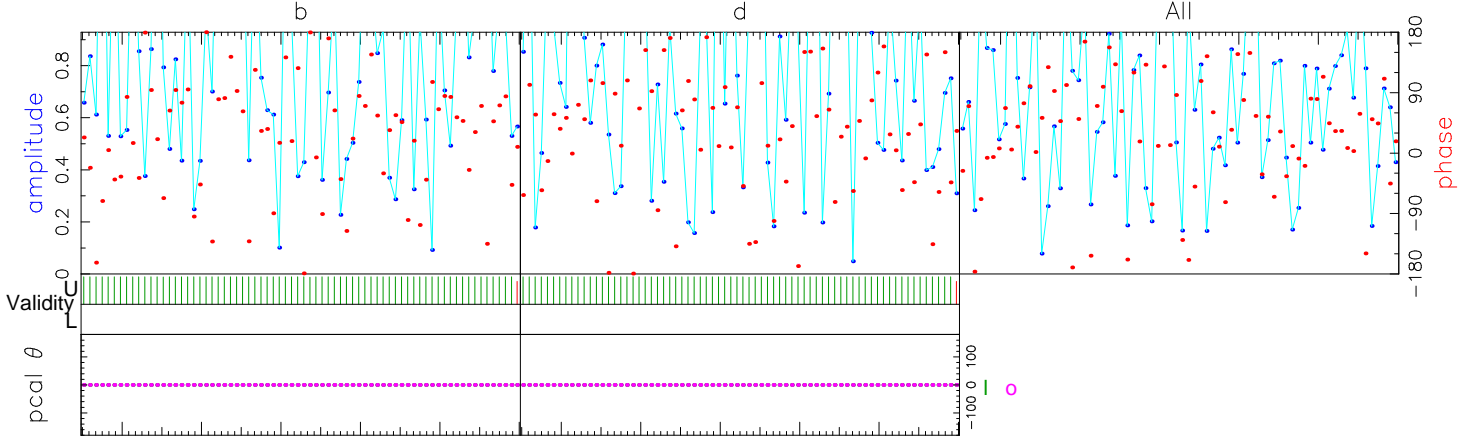
ph/seg (deg)	RMS 79.1	Theor. 88.9	Amplitude Search (2048X8) 0.311 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	178.5	155.2	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.8	Inc. seg. avg. 0.323	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.3	25.9	Inc. frq. avg. 0.301	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

l: az 65.7 el 50.5 pa -81.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 710.498 -1014.914 simultaneous interpolator

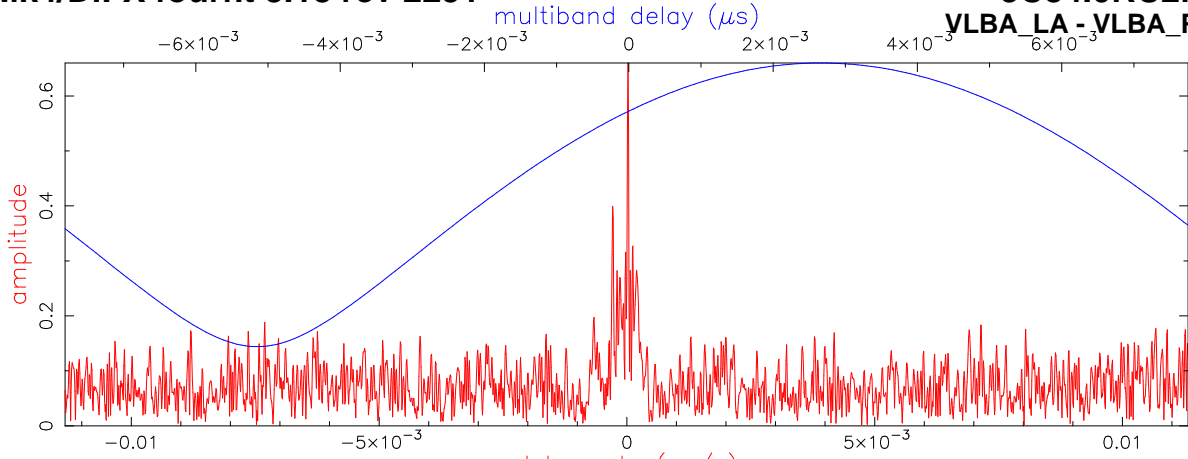
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lo.W.151.0RU2MU



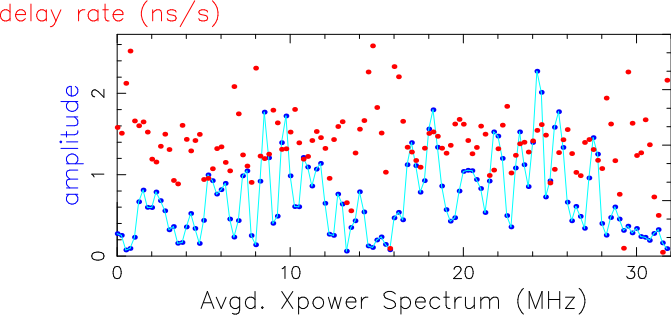
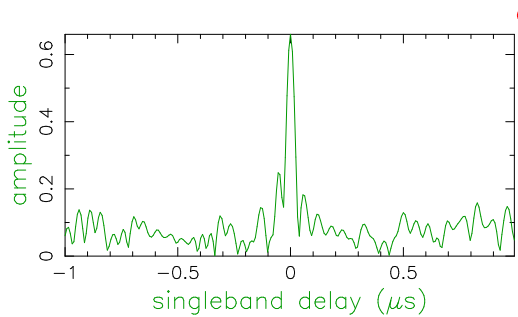
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



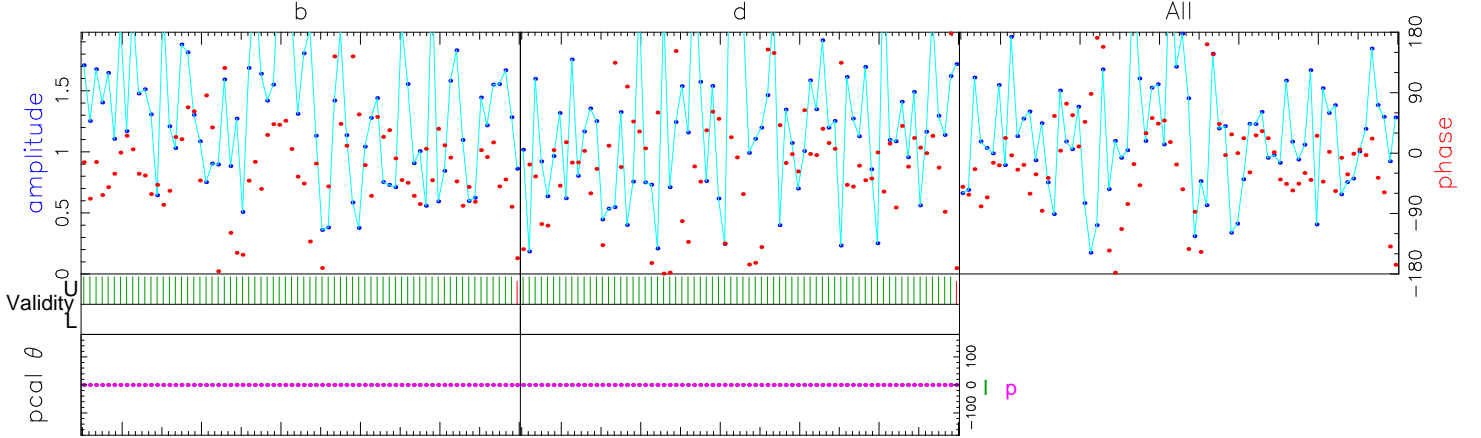
86156.00		86220.00		Freq (MHz)		All
49.7		49.7		Phase		49.7
0.3		0.3		Ampl.		0.3
130.9		130.8		Sbd box		130.9
U/L 647/0		647/0		APs used		
l 1000		1000		PC freqs		
o 1000		1000		PC freqs		
l:o 0:0		0:0		PC phase		
l:o 0:0		0:0		Manl PC		
l 1000		1000		PC amp		
o 1000		1000				
l W01UR		W03UR		Chan ids		
o W01UL		W03UL		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	2.05284930409E+03	Apriori delay (usec)	2.05283154644E+03	Resid mbdelay (usec)	2.13264E-03	+/- 9.1E-04
Sband delay (usec)	2.05284611194E+03	Apriori clock (usec)	-1.6239260E+01	Resid sbdelay (usec)	1.45655E-02	+/- 3.2E-03
Phase delay (usec)	2.05283154805E+03	Apriori clockrate (us/s)	-4.0656001E-07	Resid phdelay (usec)	1.60393E-06	+/- 6.8E-07
Delay rate (us/s)	-9.55647457364E-02	Apriori rate (us/s)	-9.55647907412E-02	Resid rate (us/s)	4.50047E-08	+/- 3.5E-09
Total phase (deg)	107.5	Apriori accel (us/s/s)	-1.25265177318E-05	Resid phase (deg)	-40.3	+/- 21.0
RMS	75.3	Theor.	89.3	Amplitude	0.310 +/- 0.057	
ph/seg (deg)	166.0	Search (2048X8)	0.000	PCal mode:	MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.0	Interp.	0.308	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.2	Inc. seg. avg.	0.299	Bits/sample:	2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)		Inc. frq. avg.		Sample rate(MSamp/s):	64	dr window (ns/s) -0.011 0.011
				Data rate(Mb/s):	256	ion window (TEC) 0.00 0.00
				nlags:	128	t_cohere infinite



Fringe quality 9
 SNR 11.6
 Int time 330.923
 Amp 0.660
 Phase -17.2
 PFD 2.3e-23
 Delays (us)
 SBD -0.000208
 MBD 0.002661
 Fringe rate (Hz) 0.002192
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150831
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

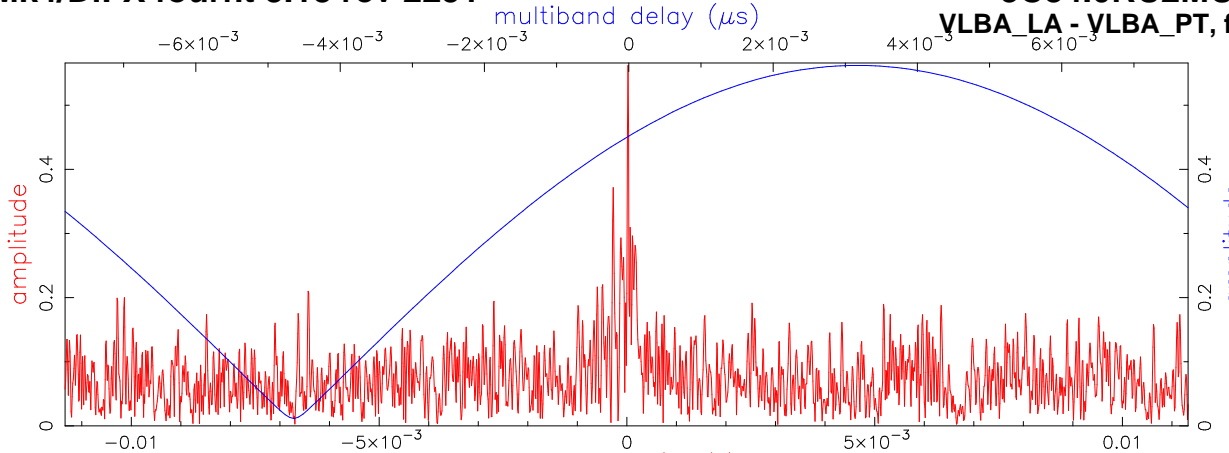


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

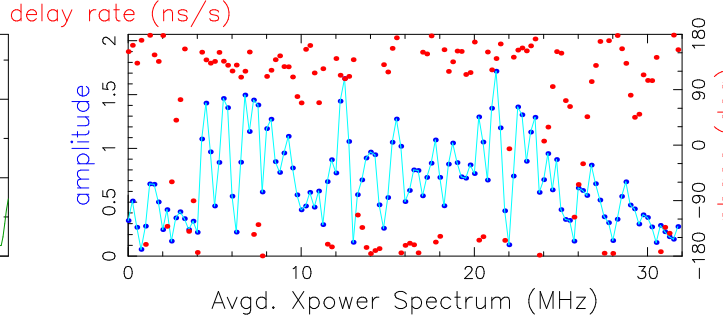
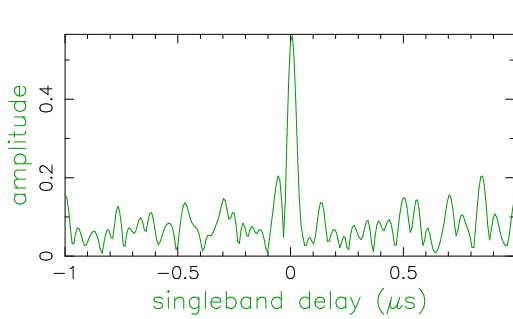


86156.00	-17.2	0.8	129.1	U/L 647/0	l 1000	p 1000	l:p 0:0	l:p 0:0	l 1000	p 1000	W01UL	p W01UL	86220.00	-17.3	0.5	128.8	647/0	1000	1000	0:0	0:0	1000	1000	W03UL	p W03UL	Freq (MHz)	All												
Group delay (usec)(sbd)	4.67199846261E+02	Apriori delay (usec)	4.67197185252E+02	Resid mbdelay (usec)	2.66101E-03	+/-	4.3E-04	Sband delay (usec)	4.67196977252E+02	Apriori clock (usec)	-1.0209306E+01	Resid sbdelay (usec)	-2.08000E-04	+/-	1.5E-03	Phase delay (usec)	4.67197184696E+02	Apriori clockrate (us/s)	-3.3200000E-07	Resid phdelay (usec)	-5.56233E-07	+/-	3.2E-07	Delay rate (us/s)	-3.29703661353E-02	Apriori rate (us/s)	-3.29703915811E-02	Resid rate (us/s)	2.54457E-08	+/-	1.7E-09	Total phase (deg)	176.3	Apriori accel (us/s/s)	-9.64639129003E-07	Resid phase (deg)	-17.2	+/-	9.9

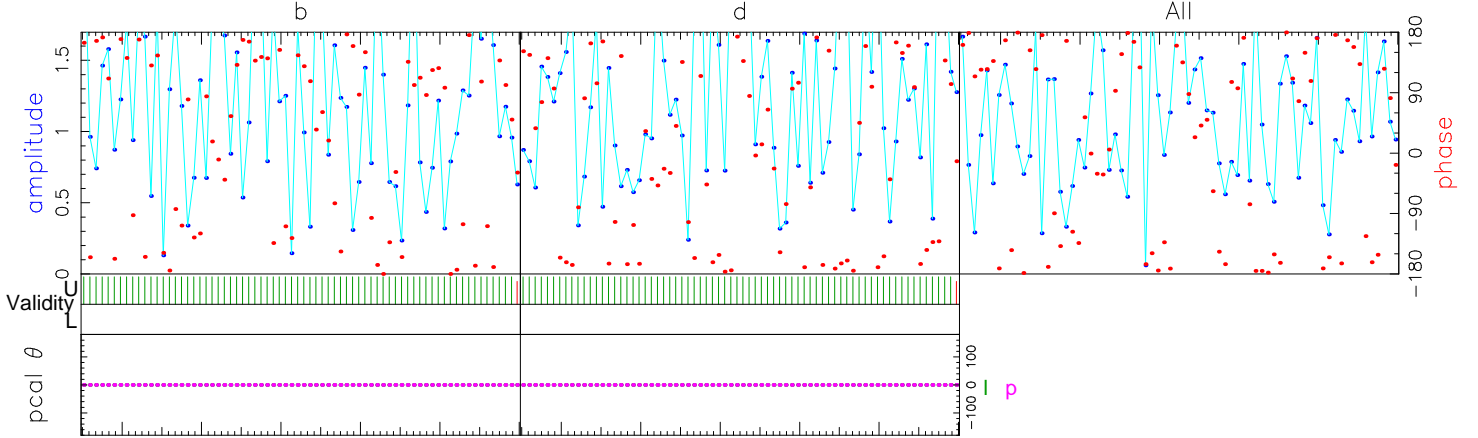
ph/seg (deg) 69.2 41.9 Search (2048X8) 0.641 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 102.1 73.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 7.0 Inc. seg. avg. 0.901 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.8 12.2 Inc. frq. avg. 0.655 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 65.7 el 50.5 pa -81.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 250.502 69.652 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lp.W.138.0RU2MU simultaneous interpolator



Fringe quality 9
SNR 10.0
Int time 330.923
Amp 0.566
Phase 164.7
PFD 1.3e-15
Delays (us)
SBD 0.005383
MBD 0.003132
Fringe rate (Hz) 0.002365
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150833
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

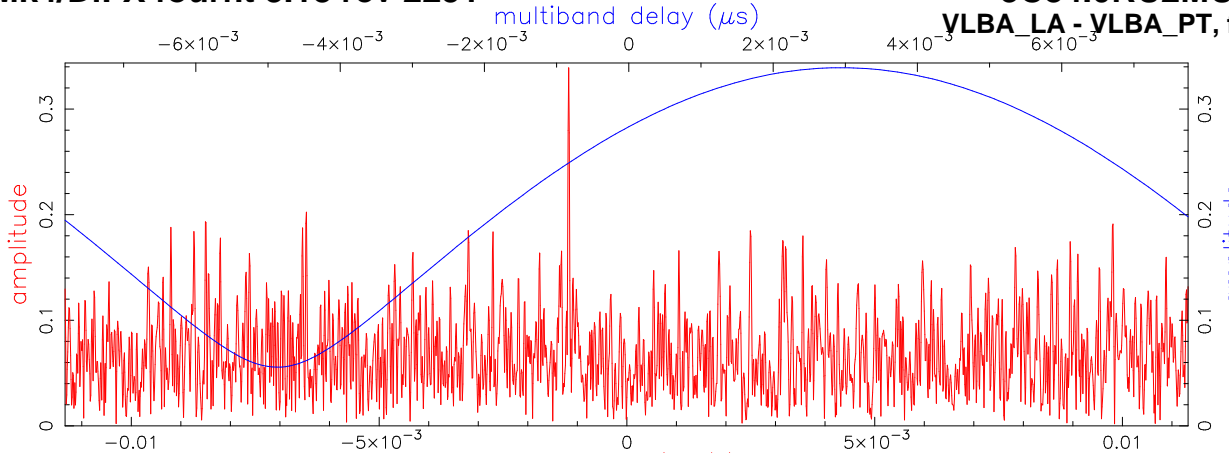


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

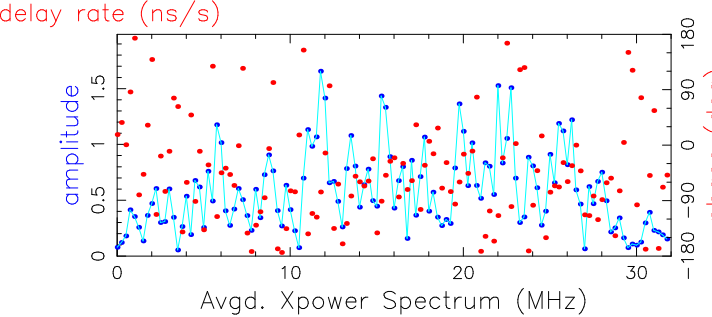
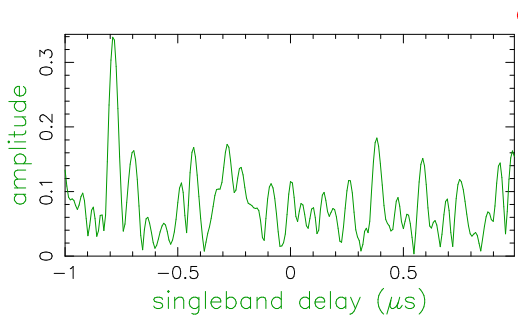


86156.00	86220.00	Freq (MHz)	All				
164.3	165.1	Phase	164.7				
0.6	0.6	Ampl.	0.6				
129.6	129.8	Sbd box	129.7				
U/L 647/0	647/0	APs used					
l 1000	1000	PC freqs					
p 1000	1000	PC freqs					
l:p 0:0	0:0	PC phase					
l:p 0:0	0:0	Manl PC					
l 1000	1000	PC amp					
p 1000	1000						
l W01UR	W03UR	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.67200316886E+02	Apriori delay (usec)	4.67197185252E+02	Resid mbdelay (usec)	3.13163E-03	+/-	5.0E-04
Sband delay (usec)	4.67202568252E+02	Apriori clock (usec)	-1.0209306E+01	Resid sbdelay (usec)	5.38300E-03	+/-	1.7E-03
Phase delay (usec)	4.67197190563E+02	Apriori clockrate (us/s)	-3.3200000E-07	Resid phdelay (usec)	5.31133E-06	+/-	3.7E-07
Delay rate (us/s)	-3.29703641308E-02	Apriori rate (us/s)	-3.29703915811E-02	Resid rate (us/s)	2.74502E-08	+/-	1.9E-09
Total phase (deg)	358.2	Apriori accel (us/s/s)	-9.64639129003E-07	Resid phase (deg)	164.7	+/-	11.5

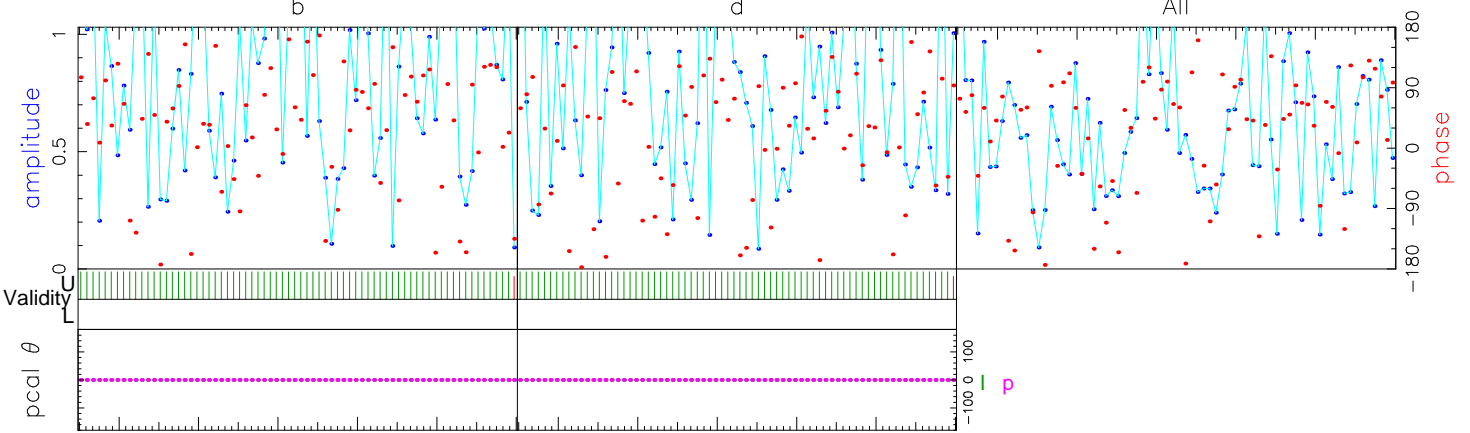
ph/seg (deg) 68.5 48.8 Theor. Amplitude 0.566 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 126.0 85.2 Search (2048X8) 0.535 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 8.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 2.1 14.2 Inc. seg. avg. 0.804 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
l: az 65.7 el 50.5 pa -81.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 250.502 69.652 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lp.W.153.0RU2MU



Fringe quality 0
 SNR 6.0
 Int time 330.923
 Amp 0.344
 Phase 244.9
 PFD 5.6e-02
 Delays (us)
 SBD -0.786061
 MBD 0.002892
 Fringe rate (Hz)
 -0.100893
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150834
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

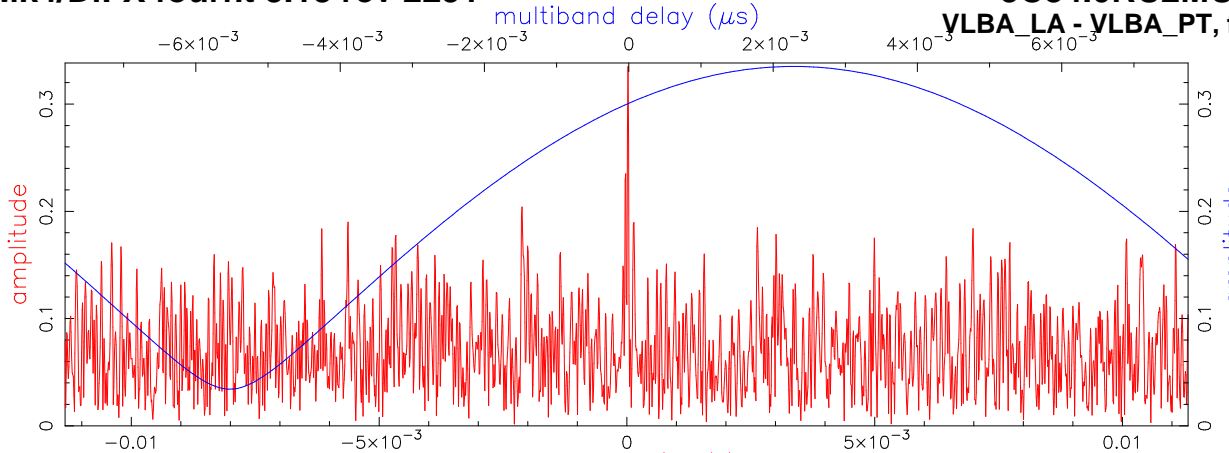


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

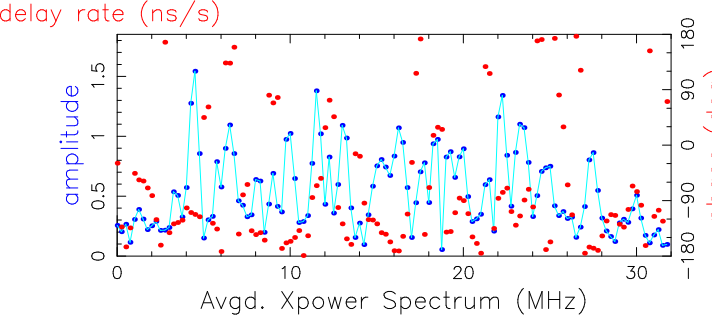
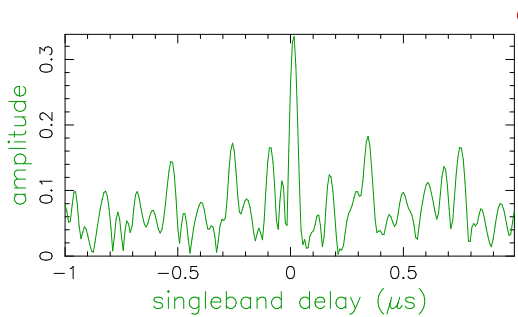


86156.00	86220.00	Freq (MHz)	All				
64.4	65.6	Phase	64.9				
0.4	0.3	Ampl.	0.3				
28.0	29.2	Sbd box	28.4				
U/L 647/0	647/0	APs used					
l 1000	1000	PC freqs					
p 1000	1000	PC freqs					
l:p 0:0	0:0	PC phase					
l:p 0:0	0:0	Manl PC					
l 1000	1000	PC amp					
p 1000	1000						
l W01UL	W03UL	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.66418827500E+02	Apriori delay (usec)	4.67197185252E+02	Resid mbdelay (usec)	2.89225E-03	+/-	8.3E-04
Sband delay (usec)	4.66411124752E+02	Apriori clock (usec)	-1.0209306E+01	Resid sbdelay (usec)	-7.86061E-01	+/-	2.9E-03
Phase delay (usec)	4.67197187345E+02	Apriori clockrate (us/s)	-3.3200000E-07	Resid phdelay (usec)	2.09281E-06	+/-	6.1E-07
Delay rate (us/s)	-3.29715628523E-02	Apriori rate (us/s)	-3.29703915811E-02	Resid rate (us/s)	-1.17127E-06	+/-	3.2E-09
Total phase (deg)	78.4	Apriori accel (us/s/s)	-9.64639129003E-07	Resid phase (deg)	244.9	+/-	19.0

ph/seg (deg) RMS Theor. Amplitude 0.344 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 118.5 141.0 Search (2048X8) 0.330 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 13.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.3 23.5 Inc. seg. avg. 0.306 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 65.7 el 50.5 pa -81.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 250.502 69.652 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lp.W.164.0RU2MU simultaneous interpolator

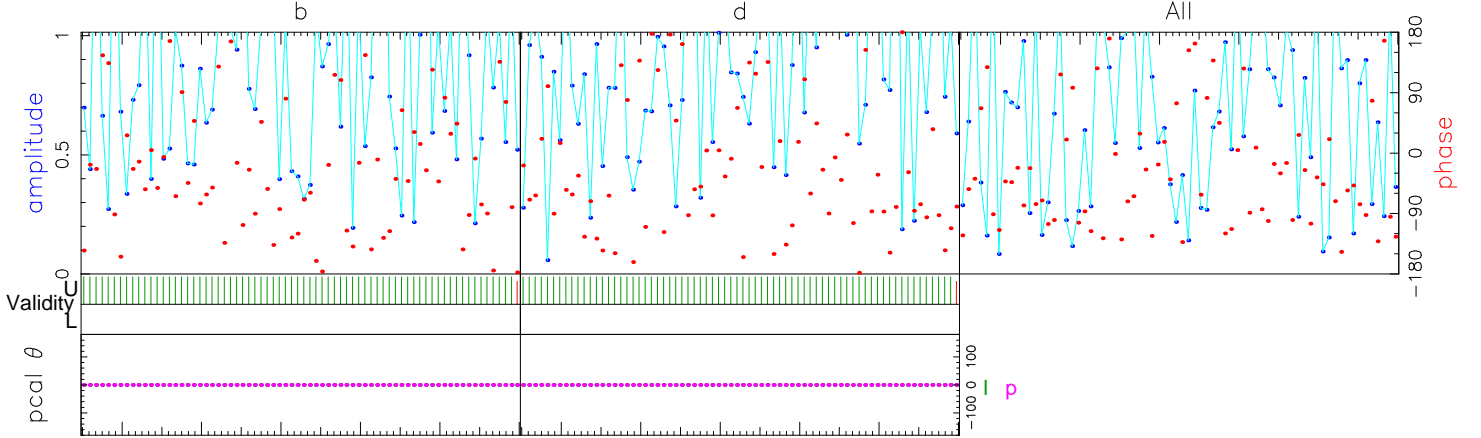


Fringe quality 0
 SNR 6.0
 Int time 330.923
 Amp 0.338
 Phase -158.2
 PFD 8.2e-02
 Delays (us)
 SBD 0.012926
 MBD 0.002137
 Fringe rate (Hz) 0.002242
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



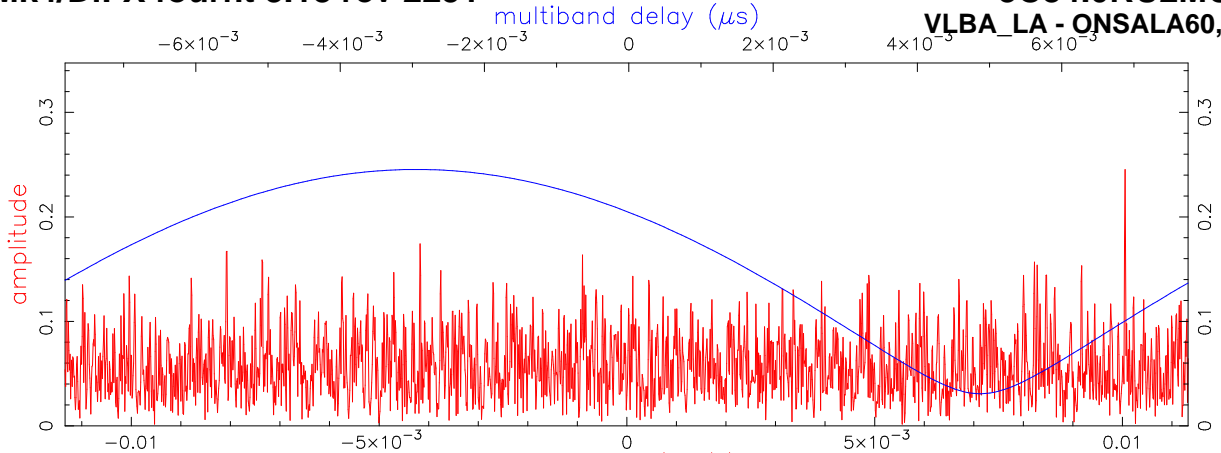
Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150835
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

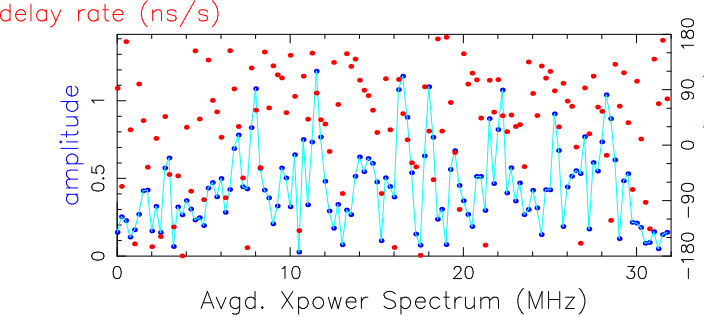
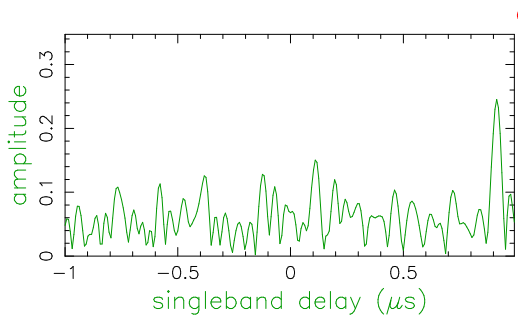


86156.00	86220.00	Freq (MHz)	All				
-70.1	-66.7	Phase	-68.2				
0.3	0.4	Ampl.	0.3				
131.6	130.1	Sbd box	130.7				
U/L 647/0	647/0	APs used					
p 1000	1000	PC freqs					
l:p 0:0	0:0	PC phase					
l:p 0:0	0:0	Manl PC					
l 1000	1000	PC amp					
p 1000	1000						
l W01UR	W03UR	Chan ids					
p W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.67214947011E+02	Apriori delay (usec)	4.67197185252E+02	Resid mbdelay (usec)	2.13676E-03	+/-	8.4E-04
Sband delay (usec)	4.67210111252E+02	Apriori clock (usec)	-1.0209306E+01	Resid sbdelay (usec)	1.29260E-02	+/-	2.9E-03
Phase delay (usec)	4.67197183052E+02	Apriori clockrate (us/s)	-3.3200000E-07	Resid phdelay (usec)	-2.19947E-06	+/-	6.2E-07
Delay rate (us/s)	-3.29703655536E-02	Apriori rate (us/s)	-3.29703915811E-02	Resid rate (us/s)	2.60274E-08	+/-	3.2E-09
Total phase (deg)	35.3	Apriori accel (us/s/s)	-9.64639129003E-07	Resid phase (deg)	-158.2	+/-	19.3

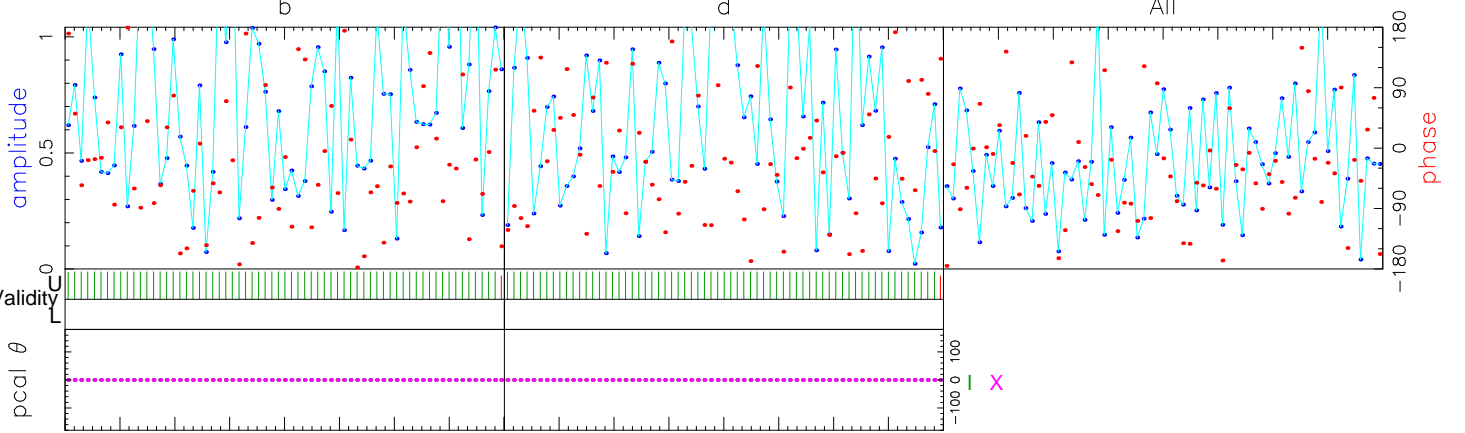
ph/seg (deg) 79.5 81.7 Theor. Amplitude 0.338 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 150.1 142.6 Search (2048X8) 0.328 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 13.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 10.1 23.8 Inc. seg. avg. 0.336 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 65.7 el 50.5 pa -81.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 250.502 69.652 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/lp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/lp.W.174.0RU2MU simultaneous interpolator



Fringe quality 0
SNR 5.2
Int time 479.015
Amp 0.347
Phase -314.8
PFD 1.0e+00
Delays (us)
SBD 0.914487
MBD -0.002939
Fringe rate (Hz) 0.865993
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150836
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

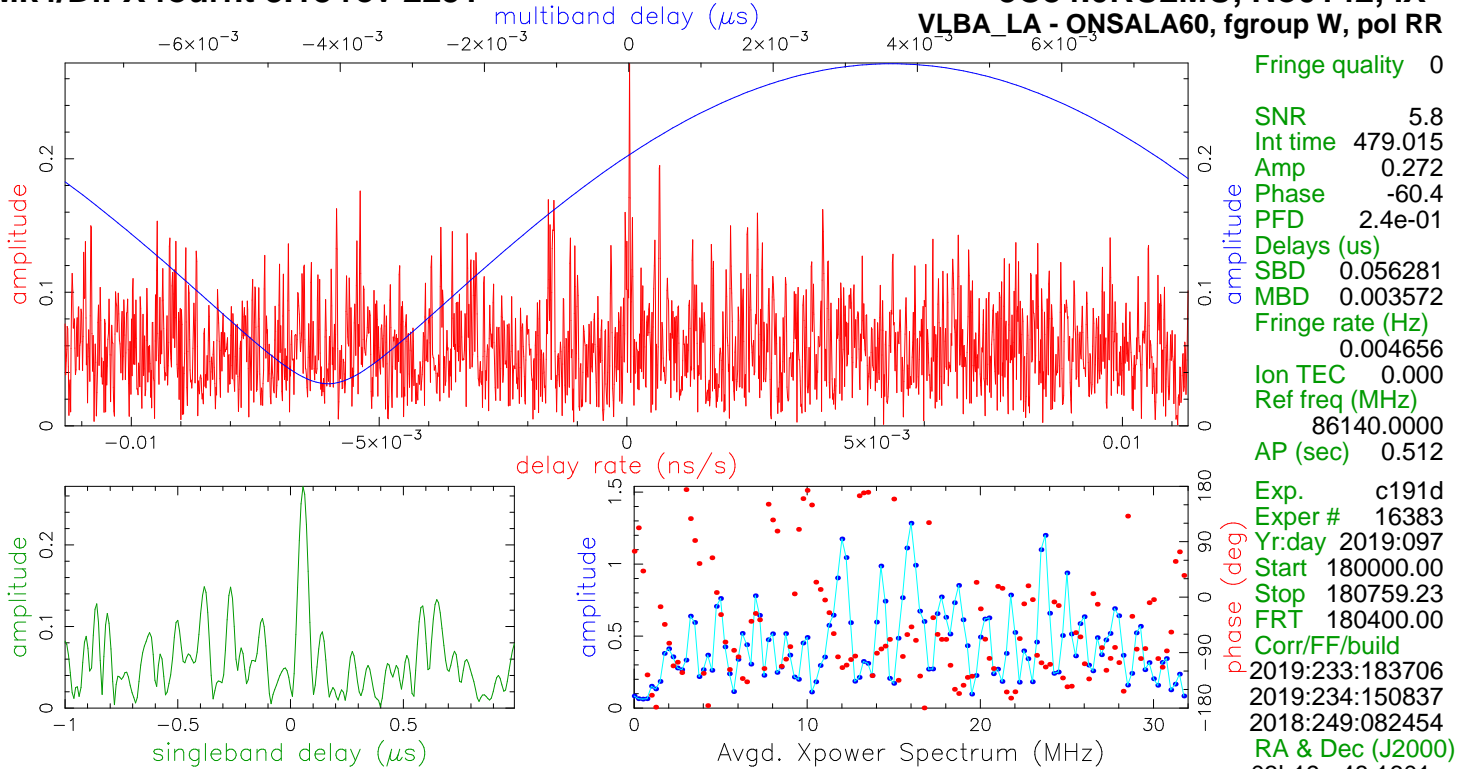


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

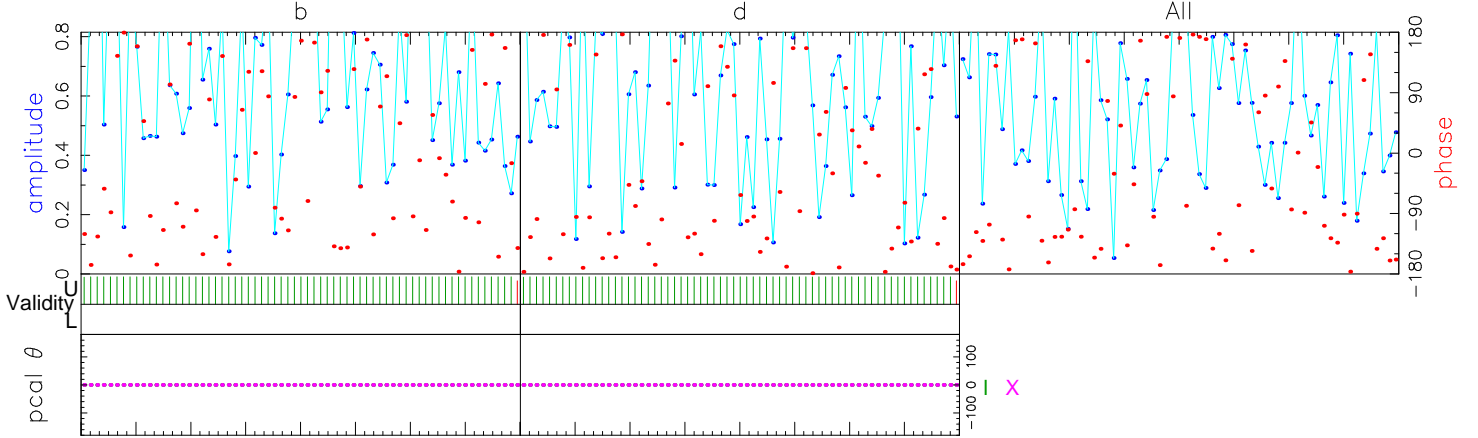


86156.00	86220.00	Freq (MHz)	All				
-44.8	-44.8	Phase	-44.8				
0.4	0.3	Ampl.	0.3				
246.0	113.3	Sbd box	246.1				
U/L 936/0	936/0	APs used					
I 1000	1000	PC freqs					
X 1000	1000	PC freqs					
I:X 0:0	0:0	PC phase					
I:X 0:0	0:0	ManI PC					
I 1000	1000	PC amp					
X 1000	1000						
I W01UL	W03UL	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.52392316076E+03	Apriori delay (usec)	1.52300422482E+03	Resid mbdelay (usec)	-2.93906E-03	+/-	9.6E-04
Sband delay (usec)	1.52391871132E+03	Apriori clock (usec)	-2.7549309E+01	Resid sbdelay (usec)	9.14487E-01	+/-	3.3E-03
Phase delay (usec)	1.52300422338E+03	Apriori clockrate (us/s)	-6.6699998E-07	Resid phdelay (usec)	-1.44412E-06	+/-	7.1E-07
Delay rate (us/s)	1.30280326541E+00	Apriori rate (us/s)	1.30279321209E+00	Resid rate (us/s)	1.00533E-05	+/-	2.6E-09
Total phase (deg)	-341.3	Apriori accel (us/s/s)	-2.75580996027E-05	Resid phase (deg)	-314.8	+/-	22.1

ph/seg (deg) 77.6 90.3 Theor. Amplitude 0.347 +/- 0.067 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 132.7 157.6 Search (2048X8) 0.239 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 15.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 12.5 27.2 Inc. seg. avg. 0.296 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
I: az 65.7 el 50.5 pa -81.7 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10017.231 -3532.271 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IX.W.181.0RU2MU simultaneous interpolator



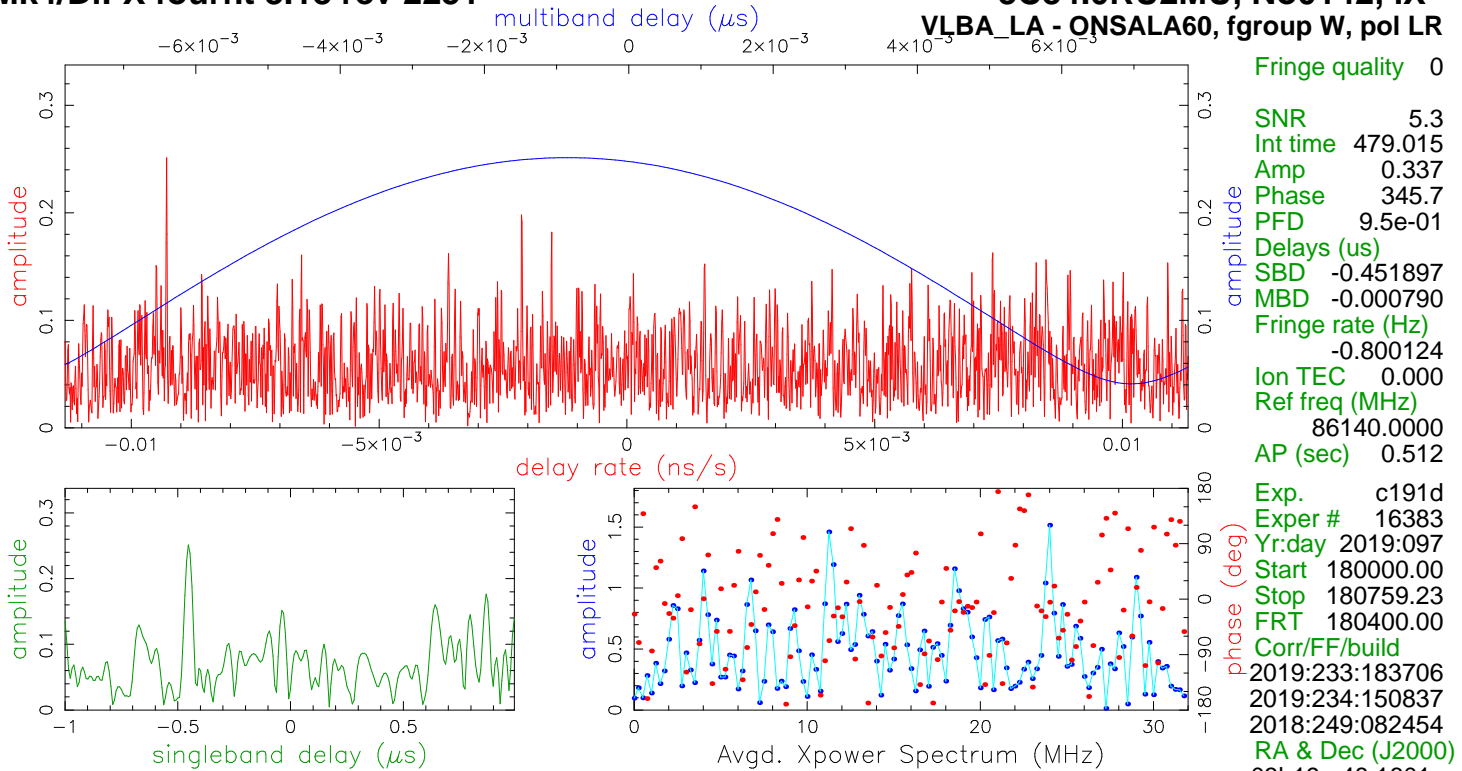
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



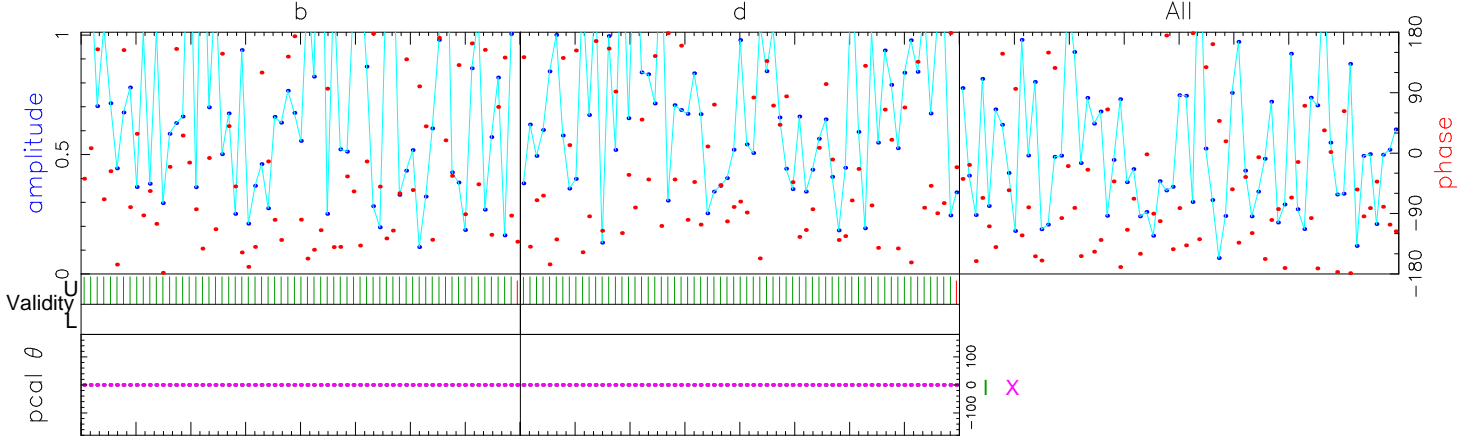
86156.00		86220.00		Freq (MHz)	All
-151.3		-149.7		Phase	-150.4
0.2		0.3		Ampl.	0.3
136.0		136.5		Sbd box	136.2
U/L 936/0		936/0		APs used	
I 1000		1000		PC freqs	
X 1000		1000		PC freqs	
I:X 0:0		0:0		PC phase	
I:X 0:0		0:0		ManI PC	
I 1000		1000		PC amp	
X 1000		1000			
I W01UR		W03UR		Chan ids	
X W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.52305467222E+03	Apriori delay (usec)	1.52300422482E+03	Resid mbdelay (usec)	3.57240E-03 +/- 8.6E-04
Sband delay (usec)	1.52306050532E+03	Apriori clock (usec)	-2.7549309E+01	Resid sbdelay (usec)	5.62805E-02 +/- 3.0E-03
Phase delay (usec)	1.52300421997E+03	Apriori clockrate (us/s)	-6.6699998E-07	Resid phdelay (usec)	-4.85044E-06 +/- 6.4E-07
Delay rate (us/s)	1.30279326614E+00	Apriori rate (us/s)	1.30279321209E+00	Resid rate (us/s)	5.40502E-08 +/- 2.3E-09
Total phase (deg)	-86.9	Apriori accel (us/s/s)	-2.75580996027E-05	Resid phase (deg)	-60.4 +/- 19.9

ph/seg (deg)	RMS 70.3	Theor. 81.6	Amplitude 0.272 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	140.7	142.3	Search (2048X8) 0.269	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.1	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.6	24.6	Inc. seg. avg. 0.276	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.263	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
I: az 65.7 el 50.5 pa -81.7		X: az 279.5 el 45.6 pa 45.3	u,v (fr/asec) -10017.231 -3532.271		ion window (TEC) 0.00 0.00

simultaneous interpolator



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

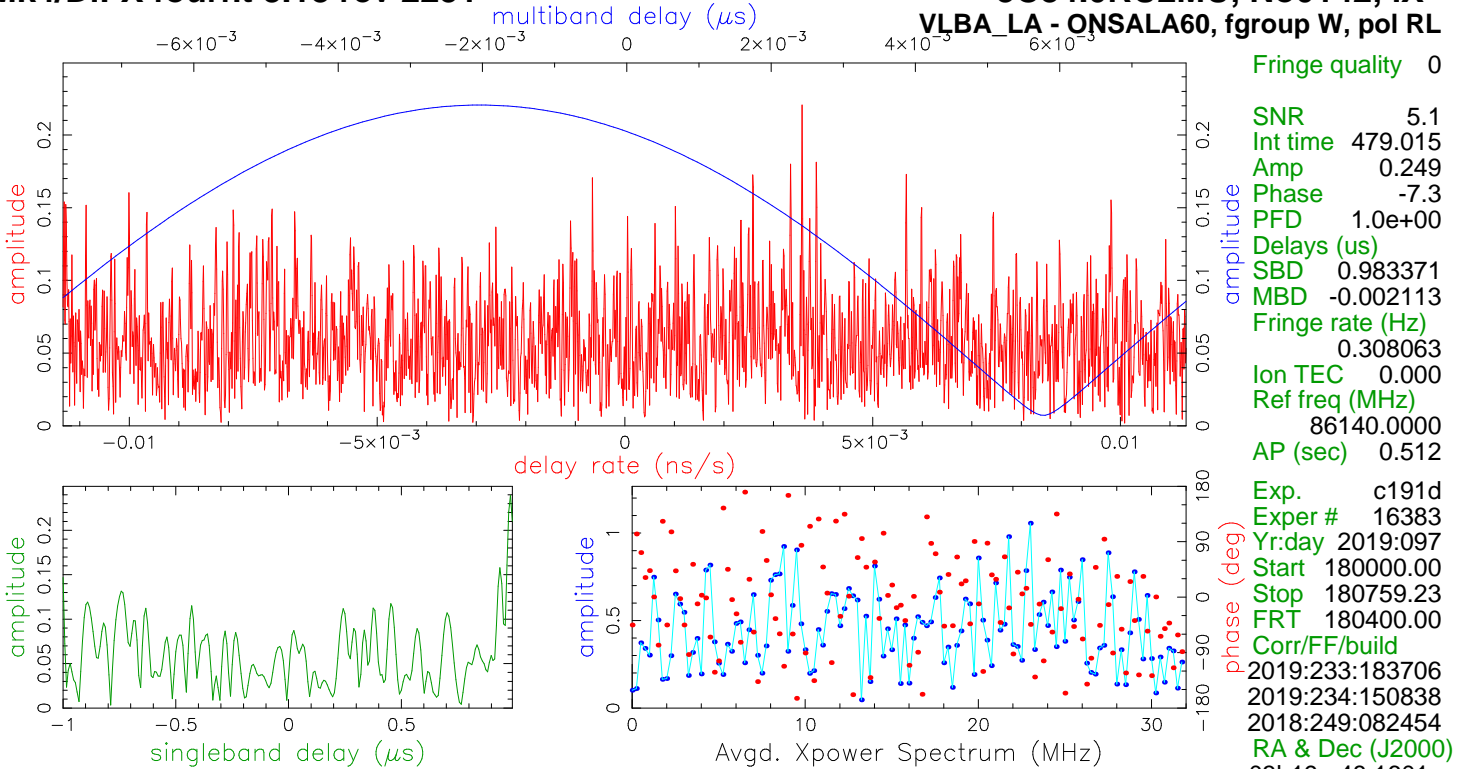


86156.00		86220.00		Freq (MHz)	All
-103.7		-105.1		Phase	-104.3
0.4		0.3		Ampl.	0.3
70.8		71.4		Sbd box	71.2
U/L 936/0		936/0		APs used	
I 1000		1000		PC freqs	
X 1000		1000		PC freqs	
I:X 0:0		0:0		PC phase	
I:X 0:0		0:0		ManI PC	
I 1000		1000		PC amp	
X 1000		1000			
I W01UL		W03UL		Chan ids	
X W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	1.52255030965E+03	Apriori delay (usec)	1.52300422482E+03	Resid mbdelay (usec)	-7.90171E-04 +/- 9.3E-04
Sband delay (usec)	1.52255232782E+03	Apriori clock (usec)	-2.7549309E+01	Resid sbdelay (usec)	-4.51897E-01 +/- 3.2E-03
Phase delay (usec)	1.52300422146E+03	Apriori clockrate (us/s)	-6.6699998E-07	Resid phdelay (usec)	-3.36313E-06 +/- 6.9E-07
Delay rate (us/s)	1.30278392345E+00	Apriori rate (us/s)	1.30279321209E+00	Resid rate (us/s)	-9.28864E-06 +/- 2.5E-09
Total phase (deg)	319.2	Apriori accel (us/s/s)	-2.75580996027E-05	Resid phase (deg)	345.7 +/- 21.5

ph/seg (deg)	RMS 76.2	Theor. 88.1	Amplitude Search (2048X8) 0.337 +/- 0.063	0.246	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	157.1	153.7	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.2	Inc. seg. avg. 0.320	0.320	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.2	26.6	Inc. frq. avg. 0.325	0.325	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

I: az 65.7 el 50.5 pa -81.7 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -10017.231 -3532.271 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IX.W.197.0RU2MU



Fringe quality 0

SNR 5.1

Int time 479.015

Amp 0.249

Phase -7.3

PFD 1.0e+00

Delays (us)

SBD 0.983371

MBD -0.002113

Fringe rate (Hz) 0.308063

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180759.23

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150838

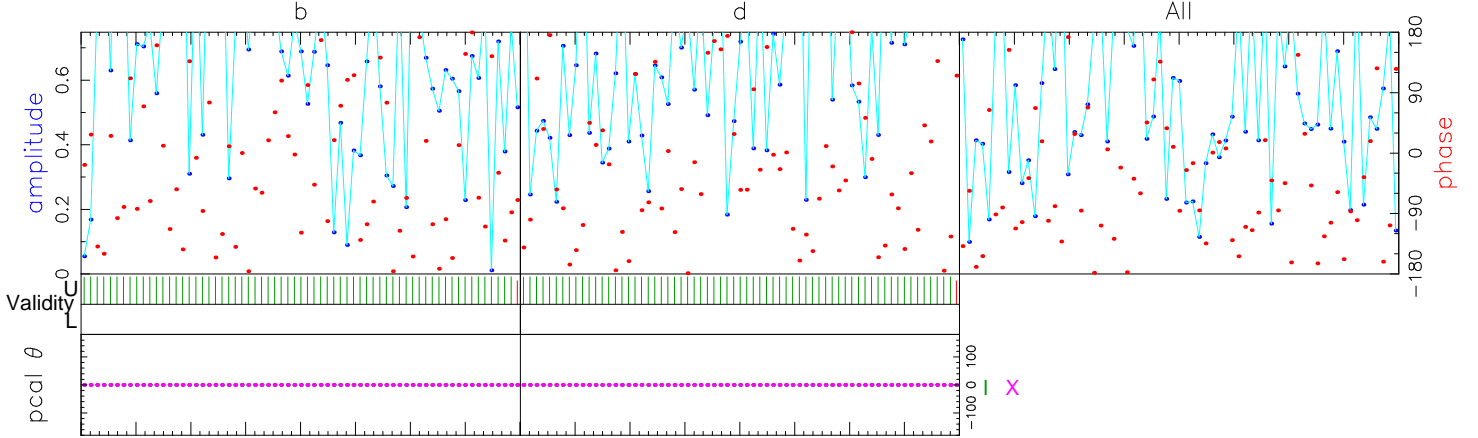
2018:249:082454

RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"

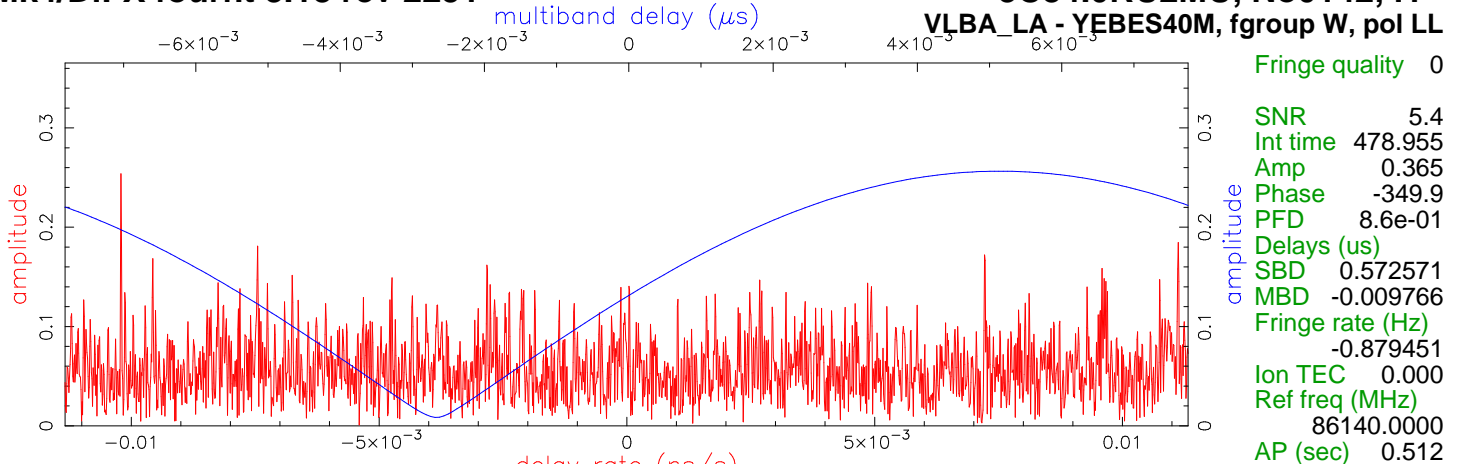
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-98.1	-96.4	Phase	-97.3				
0.2	0.2	Ampl.	0.2				
254.9	186.9	Sbd box	254.9				
U/L 936/0	936/0	APs used					
I 1000	1000	PC freqs					
X 1000	1000	PC freqs					
I:X 0:0	0:0	PC phase					
I:X 0:0	0:0	Manl PC					
I 1000	1000	PC amp					
X 1000	1000						
I W01UR	W03UR	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.52398648690E+03	Apriori delay (usec)	1.52300422482E+03	Resid mbdelay (usec)	-2.11293E-03	+/-	9.8E-04
Sband delay (usec)	1.52398759582E+03	Apriori clock (usec)	-2.7549309E+01	Resid sbdelay (usec)	9.83371E-01	+/-	3.4E-03
Phase delay (usec)	1.52300422169E+03	Apriori clockrate (us/s)	-6.6699998E-07	Resid phdelay (usec)	-3.13825E-06	+/-	7.3E-07
Delay rate (us/s)	1.30279678840E+00	Apriori rate (us/s)	1.30279321209E+00	Resid rate (us/s)	3.57631E-06	+/-	2.6E-09
Total phase (deg)	-33.8	Apriori accel (us/s/s)	-2.75580996027E-05	Resid phase (deg)	-7.3	+/-	22.6

ph/seg (deg)	81.6	Theor.	92.6	Amplitude	0.249 +/- 0.049	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	164.7	Search (2048X8)	0.231			Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000			Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	8.4	Inc. seg. avg.	0.245			Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.221			Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
I: az 65.7 el 50.5 pa -81.7	X: az 279.5 el 45.6 pa 45.3	u,v (fr/asec)	-10017.231 -3532.271					ion window (TEC)	0.00 0.00

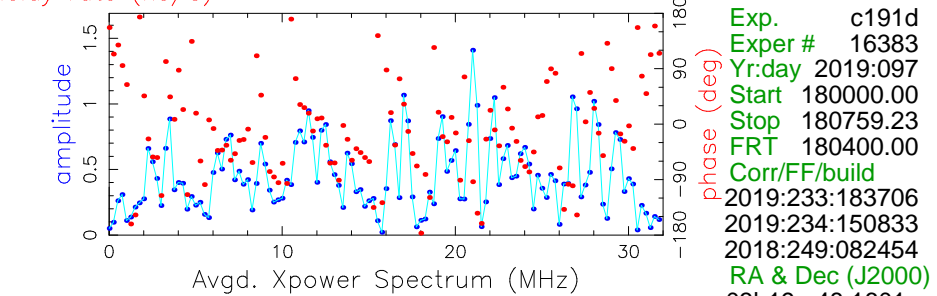
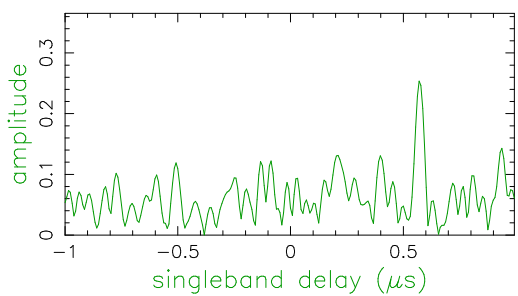
simultaneous interpolator



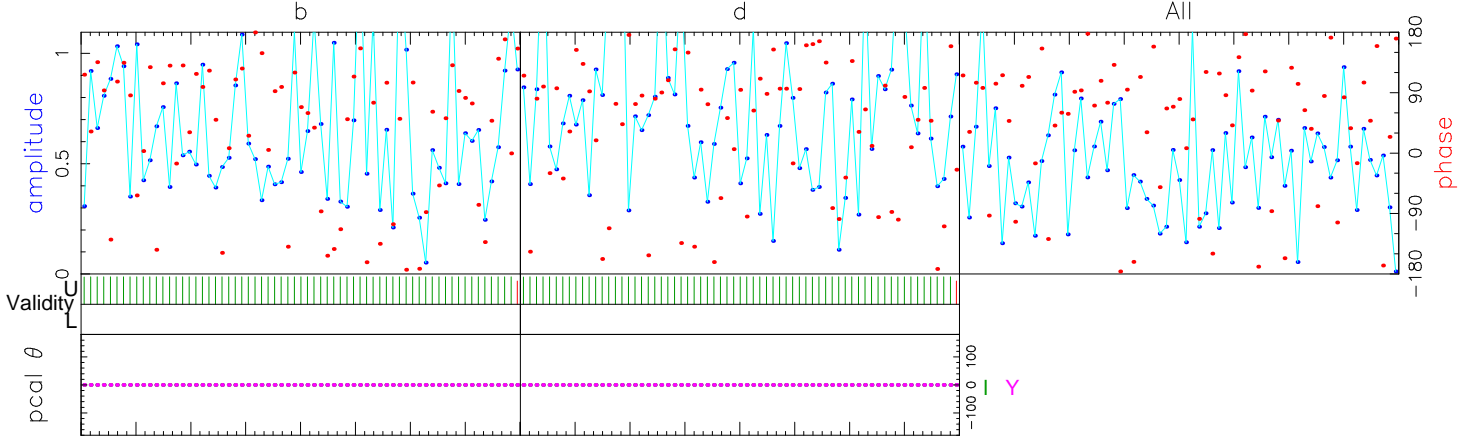
Fringe quality 0

SNR 5.4
 Int time 478.955
 Amp 0.365
 Phase -349.9
 PFD 8.6e-01
 Delays (us)
 SBD 0.572571
 MBD -0.009766
 Fringe rate (Hz)
 -0.879451
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150833
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

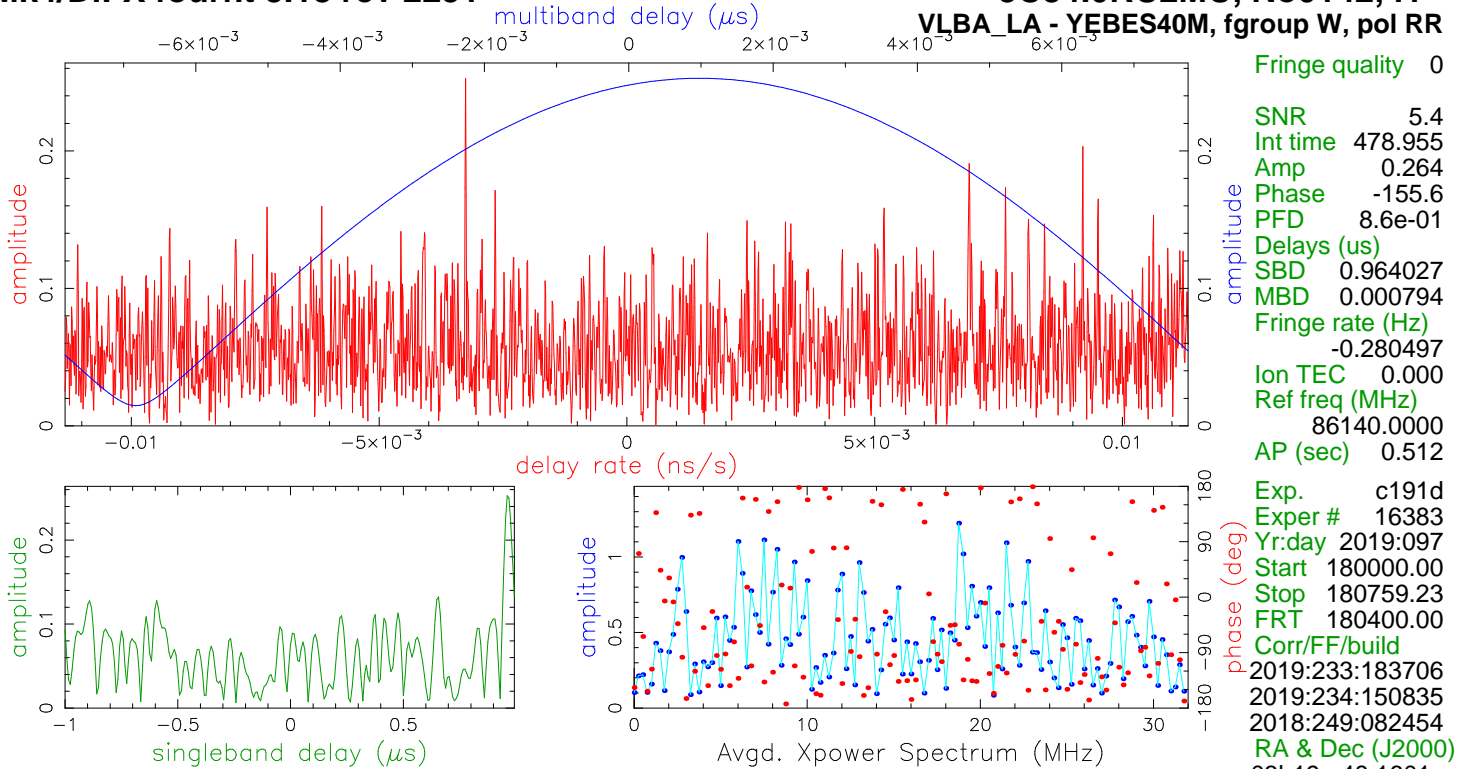


86156.00	86220.00	Freq (MHz)	All				
108.1	91.6	Phase	100.1				
0.4	0.4	Ampl.	0.4				
201.4	203.0	Sbd box	202.3				
U/L 936/0	936/0	APs used					
I 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
I:Y 0:0	0:0	PC phase					
I:Y 0:0	0:0	ManI PC					
I 1000	1000	PC amp					
Y 1000	1000						
I W01UL	W03UL	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.95064921068E+02	Apriori delay (usec)	1.94496561693E+02	Resid mbdelay (usec)	-9.76562E-03	+/-	9.2E-04
Sband delay (usec)	1.95069132693E+02	Apriori clock (usec)	-9.4089117E+00	Resid sbdelay (usec)	5.72571E-01	+/-	3.2E-03
Phase delay (usec)	1.94496564920E+02	Apriori clockrate (us/s)	-4.1000000E-07	Resid phdelay (usec)	3.22735E-06	+/-	6.8E-07
Delay rate (us/s)	1.42910041410E+00	Apriori rate (us/s)	1.42911062365E+00	Resid rate (us/s)	-1.02096E-05	+/-	2.5E-09
Total phase (deg)	-53.2	Apriori accel (us/s/s)	-5.95684845924E-06	Resid phase (deg)	-349.9	+/-	21.2

ph/seg (deg)	RMS 75.9	Theor. 86.9	Amplitude Search (2048X8)	0.365 +/- 0.068	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	135.0	151.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.0	Inc. seg. avg.	0.335	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	3.3	26.2	Inc. frq. avg.	0.355	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 65.7 el 50.5 pa -81.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10949.792 -739.356 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IY.W.154.0RU2MU

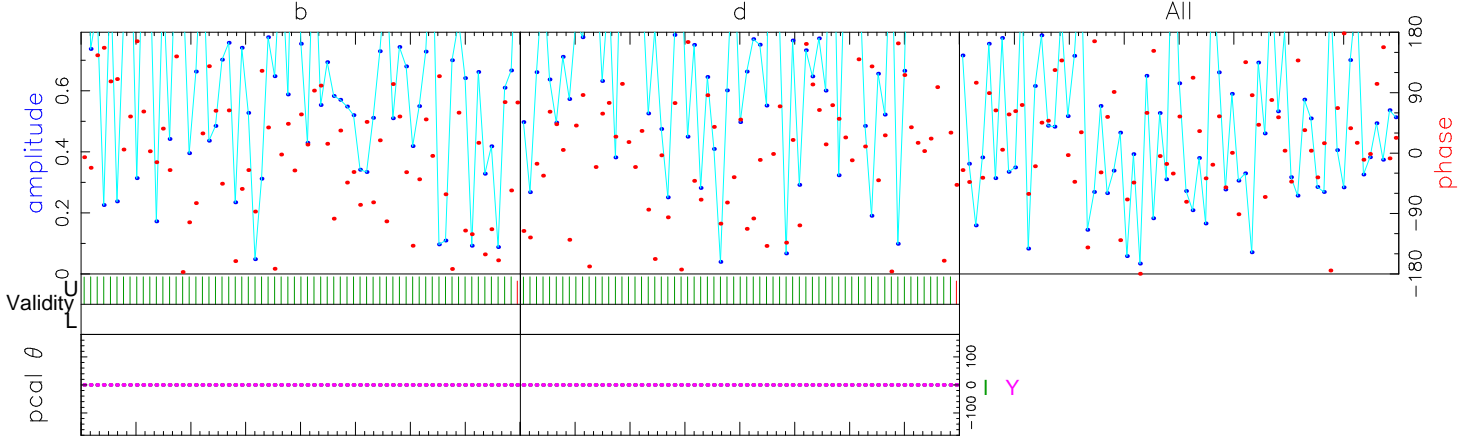


Fringe quality 0

SNR 5.4
Int time 478.955
Amp 0.264
Phase -155.6
PFD 8.6e-01
Delays (us)
SBD 0.964027
MBD 0.000794
Fringe rate (Hz)
-0.280497
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

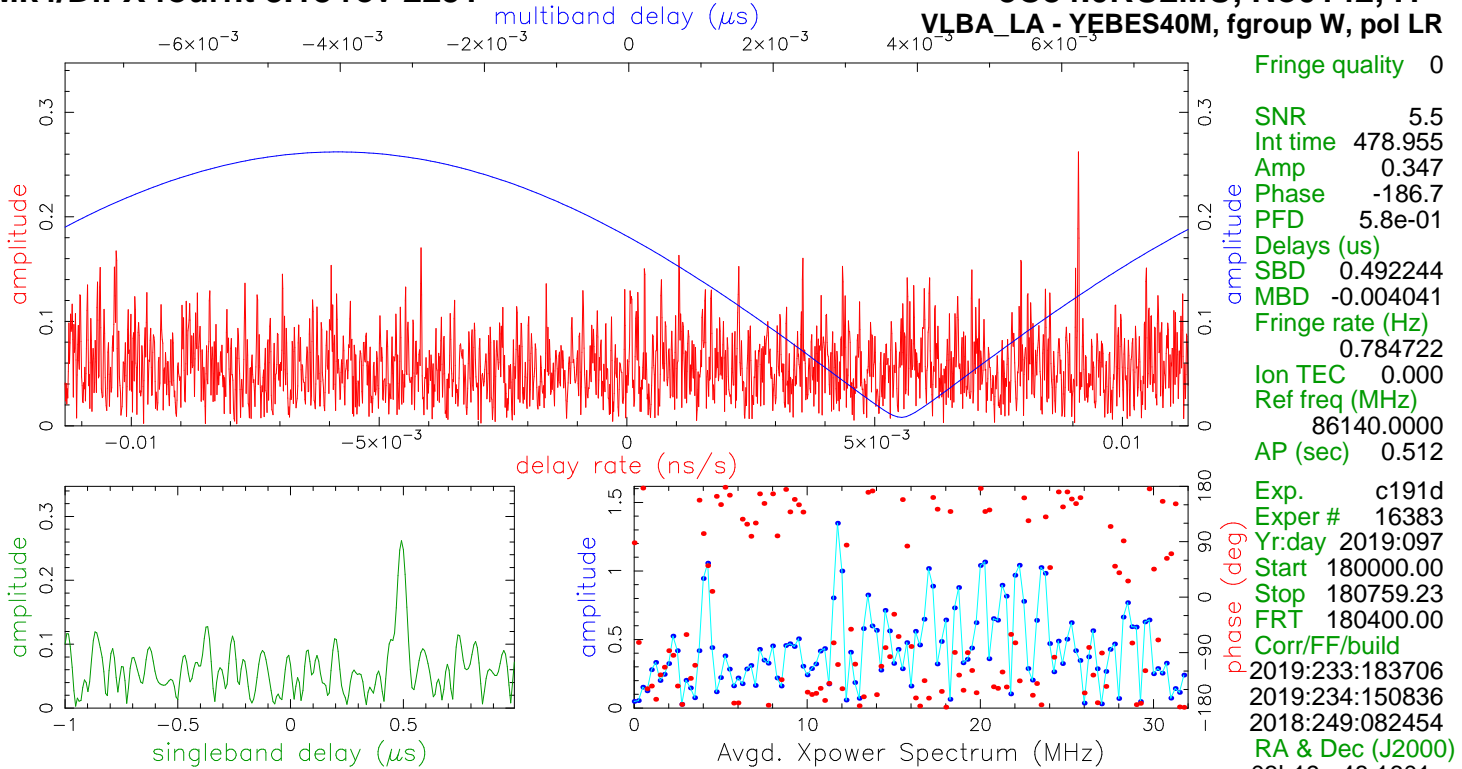
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150835
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

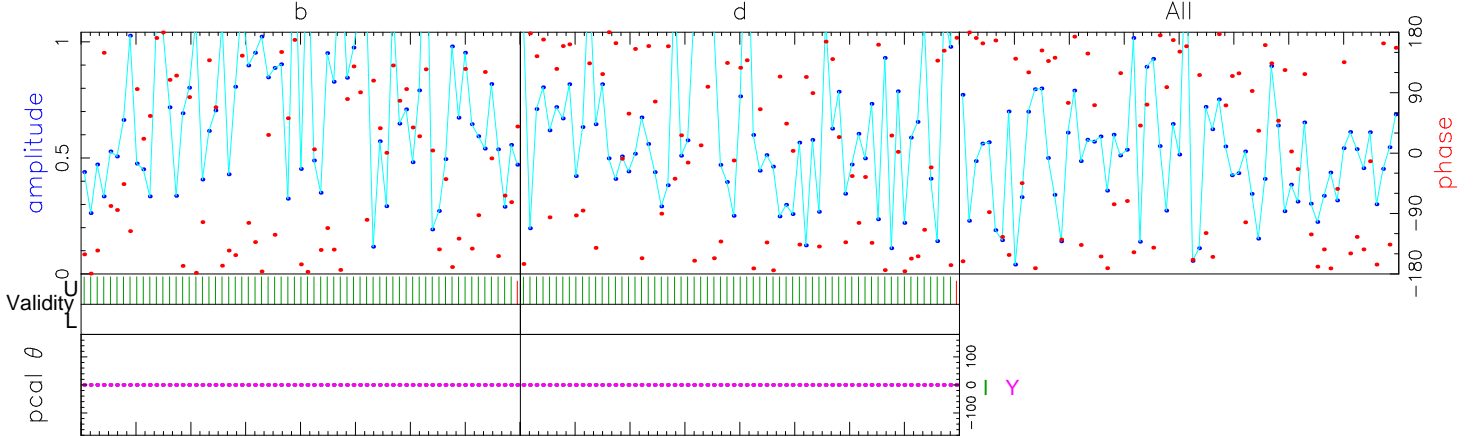


86156.00				86220.00				Freq (MHz)	All
22.1				26.4				Phase	24.4
0.2				0.3				Ampl.	0.3
253.0				252.2				Sbd box	252.4
U/L 936/0				936/0				APs used	
I 1000				1000				PC freqs	
Y 1000				1000				PC freqs	
I:Y 0:0				0:0				PC phase	
I:Y 0:0				0:0				Manl PC	
I 1000				1000				PC amp	
Y 1000				1000					
I W01UR				W03UR				Chan ids	
Y W01UR				W03UR				Tracks	
								Chan ids	
								Tracks	
Group delay (usec)(sbd)	1.95466106091E+02			Apriori delay (usec)	1.94496561693E+02			Resid mbdelay (usec)	7.94398E-04 +/- 9.2E-04
Sband delay (usec)	1.95460588693E+02			Apriori clock (usec)	-9.4089117E+00			Resid sbdelay (usec)	9.64027E-01 +/- 3.2E-03
Phase delay (usec)	1.94496562478E+02			Apriori clockrate (us/s)	-4.1000000E-07			Resid phdelay (usec)	7.85604E-07 +/- 6.8E-07
Delay rate (us/s)	1.42910736736E+00			Apriori rate (us/s)	1.42911062365E+00			Resid rate (us/s)	-3.25629E-06 +/- 2.5E-09
Total phase (deg)	-218.9			Apriori accel (us/s/s)	-5.95684845924E-06			Resid phase (deg)	-155.6 +/- 21.2

ph/seg (deg) 75.3 86.9 Search (2048X8) 0.248 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 138.1 151.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.0 Inc. seg. avg. 0.234 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.8 26.2 Inc. frq. avg. 0.253 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 65.7 el 50.5 pa -81.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10949.792 -739.356 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IY.W.171.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

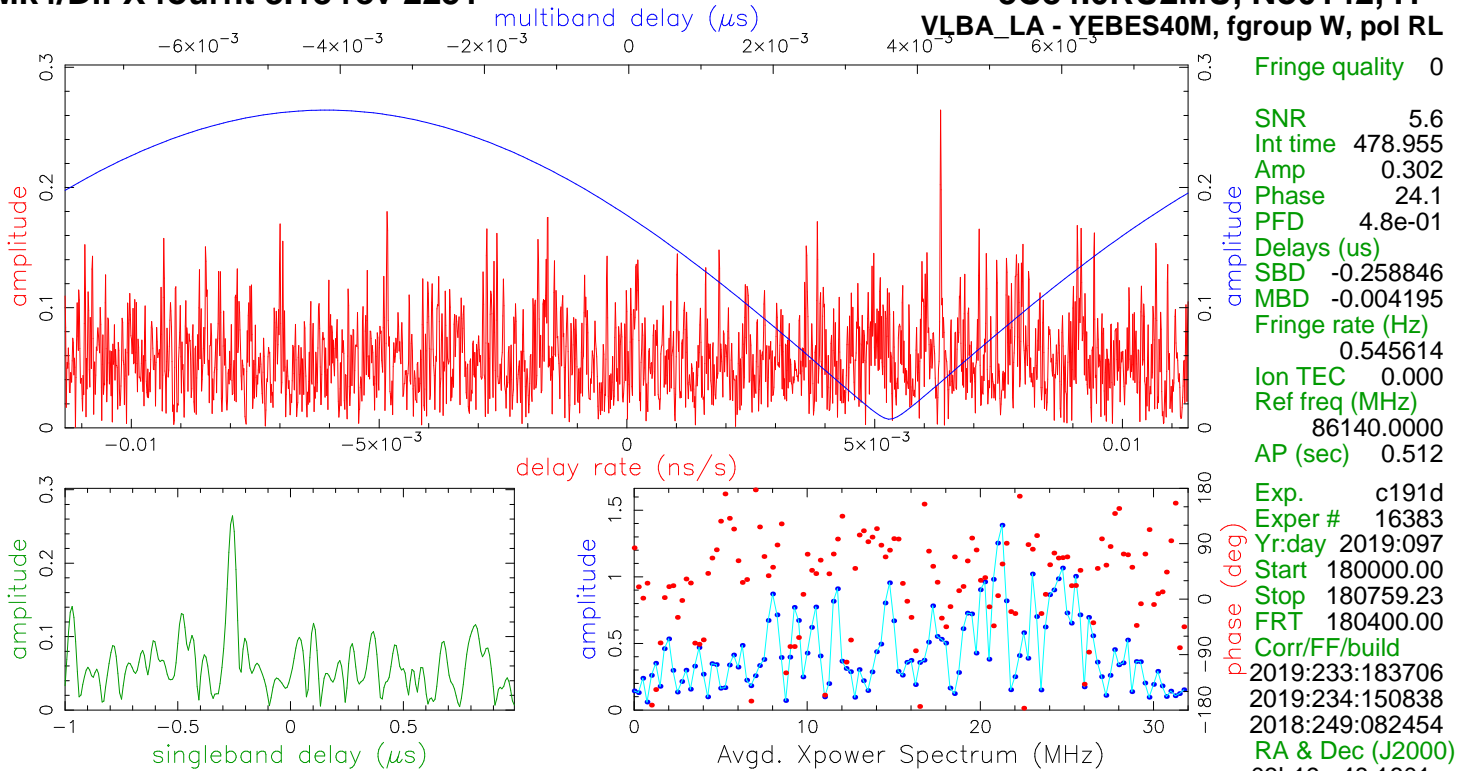


86156.00	86220.00	Freq (MHz)	All				
173.3	173.4	Phase	173.3				
0.4	0.3	Ampl.	0.3				
191.9	192.3	Sbd box	192.0				
U/L 936/0	936/0	APs used					
I 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
I:Y 0:0	0:0	PC phase					
I:Y 0:0	0:0	ManI PC					
I 1000	1000	PC amp					
Y 1000	1000						
I W01UL	W03UL	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.94992520521E+02	Apriori delay (usec)	1.94496561693E+02	Resid mbdelay (usec)	-4.04117E-03	+/-	9.0E-04
Sband delay (usec)	1.94988805693E+02	Apriori clock (usec)	-9.4089117E+00	Resid sbdelay (usec)	4.92244E-01	+/-	3.1E-03
Phase delay (usec)	1.94496567282E+02	Apriori clockrate (us/s)	-4.1000000E-07	Resid phdelay (usec)	5.58956E-06	+/-	6.7E-07
Delay rate (us/s)	1.42911973350E+00	Apriori rate (us/s)	1.42911062365E+00	Resid rate (us/s)	9.10985E-06	+/-	2.4E-09
Total phase (deg)	-250.0	Apriori accel (us/s/s)	-5.95684845924E-06	Resid phase (deg)	-186.7	+/-	20.7

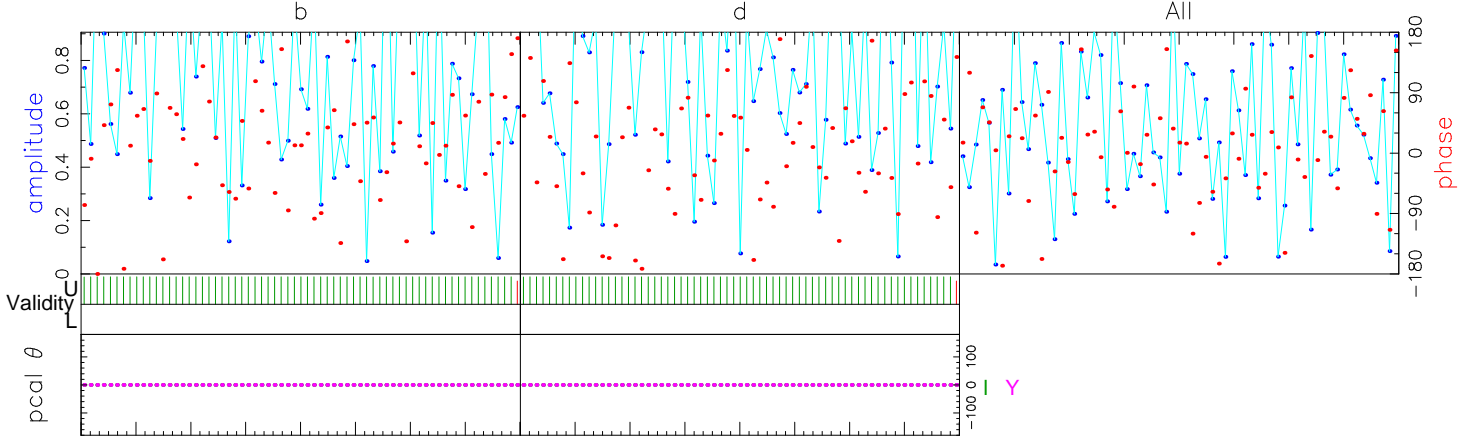
ph/seg (deg)	RMS 71.5	Theor. 84.6	Amplitude Search (2048X8)	0.347 +/- 0.063	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	133.0	147.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.6	Inc. seg. avg.	0.321	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	3.1	25.5	Inc. frq. avg.	0.336	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 65.7 el 50.5 pa -81.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10949.792 -739.356 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IY.W.184.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

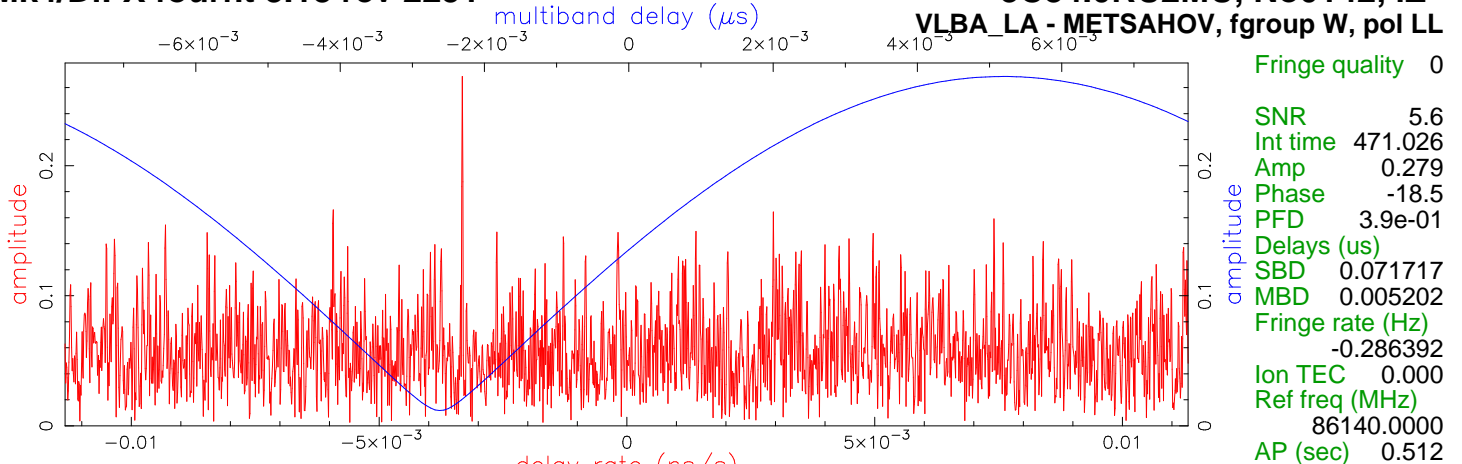


86156.00	86220.00	Freq (MHz)	All				
24.1	24.1	Phase	24.1				
0.3	0.3	Ampl.	0.3				
96.6	94.8	Sbd box	95.9				
U/L 936/0	936/0	APs used					
I 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
I:Y 0:0	0:0	PC phase					
I:Y 0:0	0:0	ManI PC					
I 1000	1000	PC amp					
Y 1000	1000						
I W01UR	W03UR	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	1.94242367052E+02	Apriori delay (usec)	1.94496561693E+02	Resid mbdelay (usec)	-4.19464E-03	+/-	8.9E-04
Sband delay (usec)	1.94237715693E+02	Apriori clock (usec)	-9.4089117E+00	Resid sbdelay (usec)	-2.58846E-01	+/-	3.1E-03
Phase delay (usec)	1.94496562469E+02	Apriori clockrate (us/s)	-4.1000000E-07	Resid phdelay (usec)	7.76756E-07	+/-	6.6E-07
Delay rate (us/s)	1.42911695769E+00	Apriori rate (us/s)	1.42911062365E+00	Resid rate (us/s)	6.33404E-06	+/-	2.4E-09
Total phase (deg)	320.8	Apriori accel (us/s/s)	-5.95684845924E-06	Resid phase (deg)	24.1	+/-	20.5

ph/seg (deg)	RMS 77.3	Theor. 83.7	Amplitude 0.302 +/- 0.054	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	154.7	146.2	Search (2048X8) 0.260	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	2.7	25.3	Inc. seg. avg. 0.311	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.292	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

I: az 65.7 el 50.5 pa -81.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -10949.792 -739.356 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IY.W.199.0RU2MU



Fringe quality 0

SNR 5.6

Int time 471.026

Amp 0.279

Phase -18.5

PFD 3.9e-01

Delays (us)

SBD 0.071717

MBD 0.005202

Fringe rate (Hz)

-0.286392

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180008.19

Stop 180759.74

FRT 180400.00

Corr/FF/build

2019:233:183706

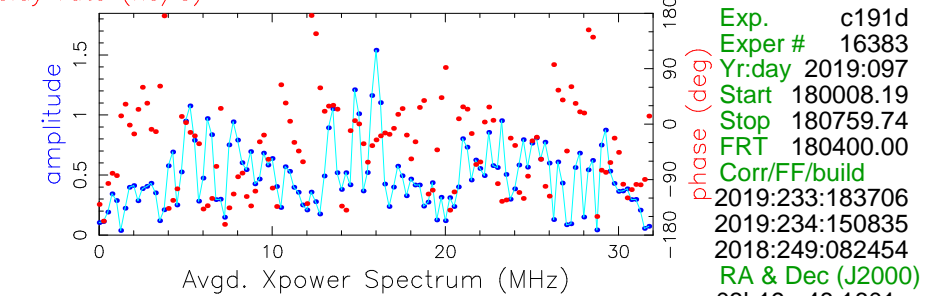
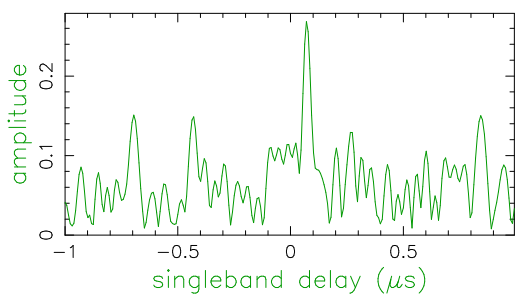
2019:234:150835

2018:249:082454

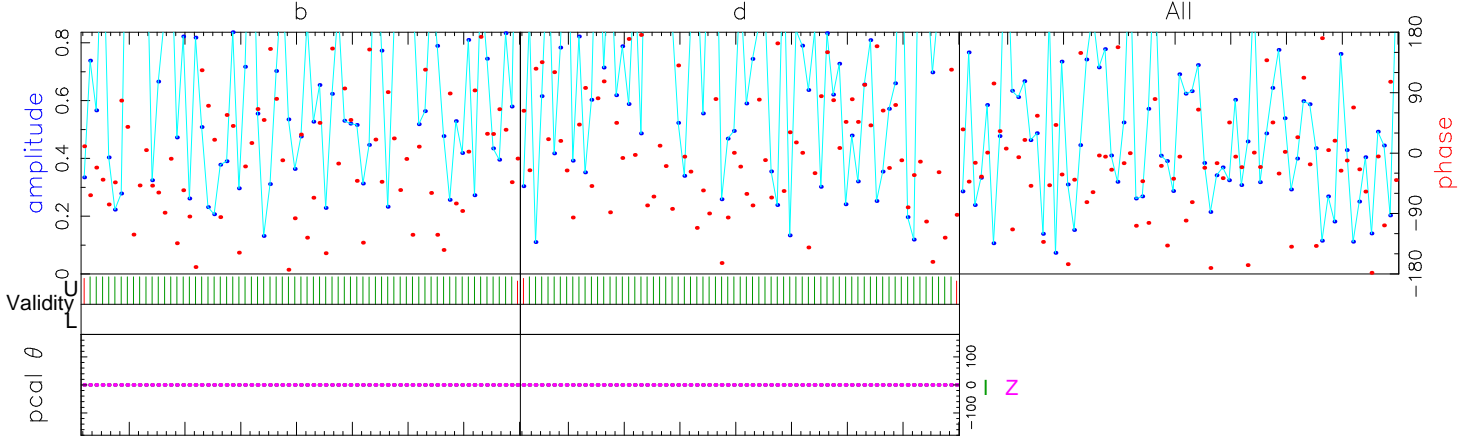
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00				86220.00		Freq (MHz)	All
-18.4				-18.6		Phase	-18.5
0.3				0.3		Ampl.	0.3
138.8				137.6		Sbd box	138.2
U/L 921/0				921/0		APs used	
I 1000				1000		PC freqs	
Z 1000				1000		PC freqs	
I:Z 0:0				0:0		PC phase	
I:Z 0:0				0:0		ManI PC	
I 1000				1000		PC amp	
Z 1000				1000			
I W01UL				W03UL		Chan ids	
Z W01UL				W03UL		Tracks	
						Chan ids	
						Tracks	
Group delay (usec)(sbd)	3.09418985101E+03	Apriori delay (usec)	3.09412214920E+03	Resid mbdelay (usec)	5.20181E-03	+/-	8.8E-04
Sband delay (usec)	3.09419386620E+03	Apriori clock (usec)	-2.4778194E+00	Resid sbdelay (usec)	7.17170E-02	+/-	3.1E-03
Phase delay (usec)	3.09412214860E+03	Apriori clockrate (us/s)	-2.1700000E-07	Resid phdelay (usec)	-5.96904E-07	+/-	6.5E-07
Delay rate (us/s)	1.29059302721E+00	Apriori rate (us/s)	1.29059635194E+00	Resid rate (us/s)	-3.32473E-06	+/-	2.4E-09
Total phase (deg)	-43.0	Apriori accel (us/s/s)	-3.76956694352E-05	Resid phase (deg)	-18.5	+/-	20.3

ph/seg (deg) 76.8 85.5 Search (2048X8) 0.257 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

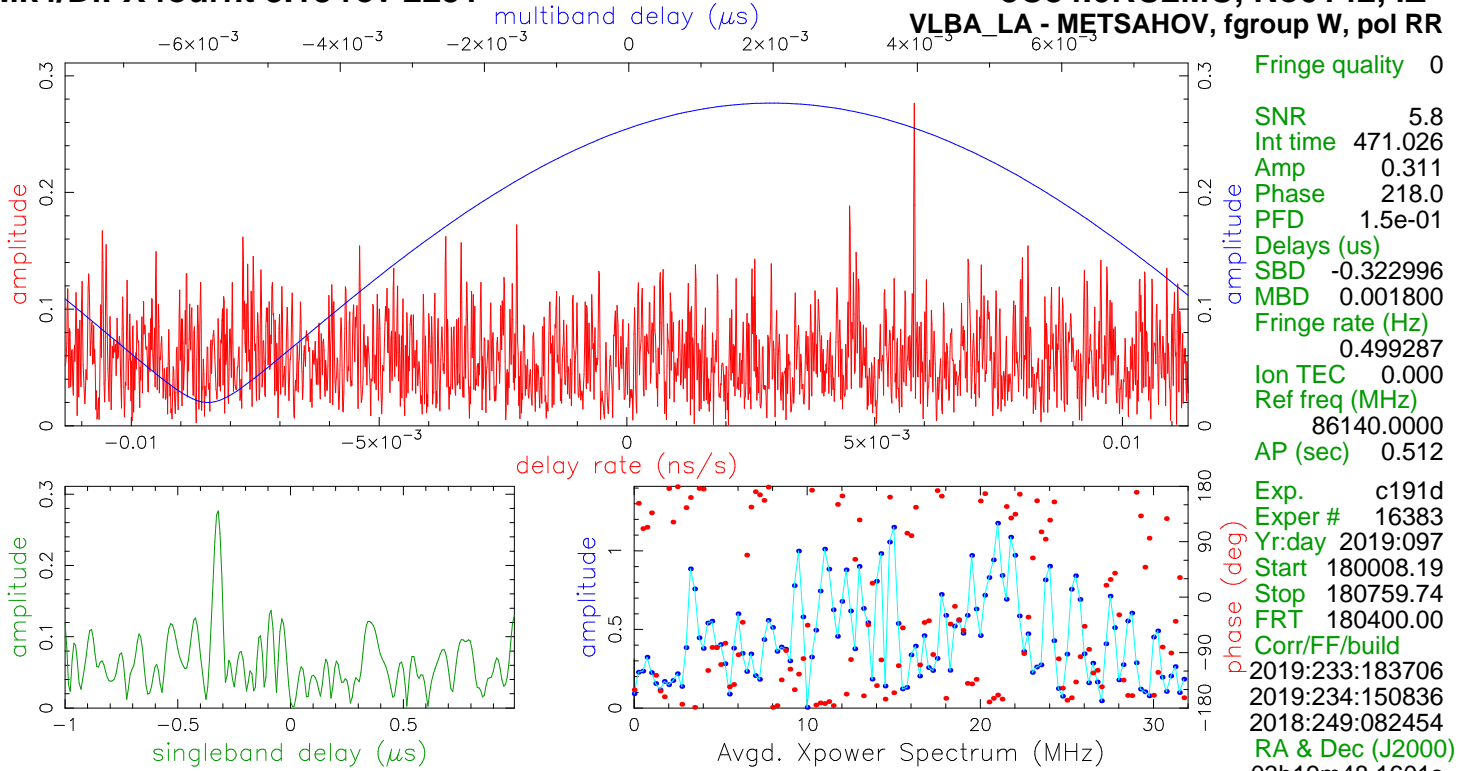
amp/seg (%) 127.4 149.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 14.3 Inc. seg. avg. 0.241 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 4.4 25.0 Inc. frq. avg. 0.270 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

I: az 65.7 el 50.5 pa -81.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9940.809 -4409.197 ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IZ.W.177.0RU2MU simultaneous interpolator

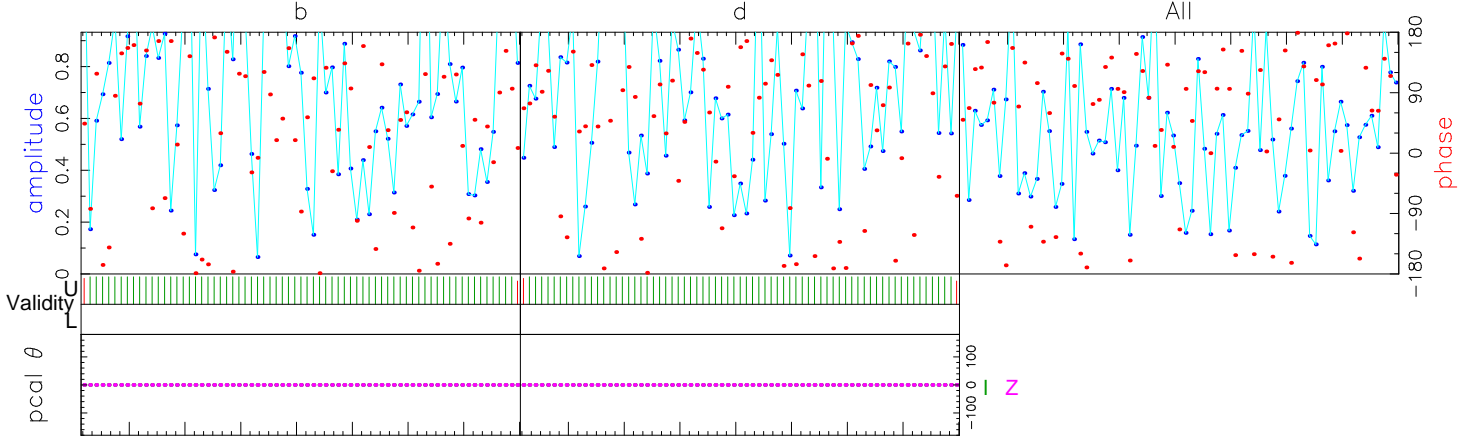


Fringe quality 0

SNR 5.8
 Int time 471.026
 Amp 0.311
 Phase 218.0
 PFD 1.5e-01
 Delays (us)
 SBD -0.322996
 MBD 0.001800
 Fringe rate (Hz)
 0.499287
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

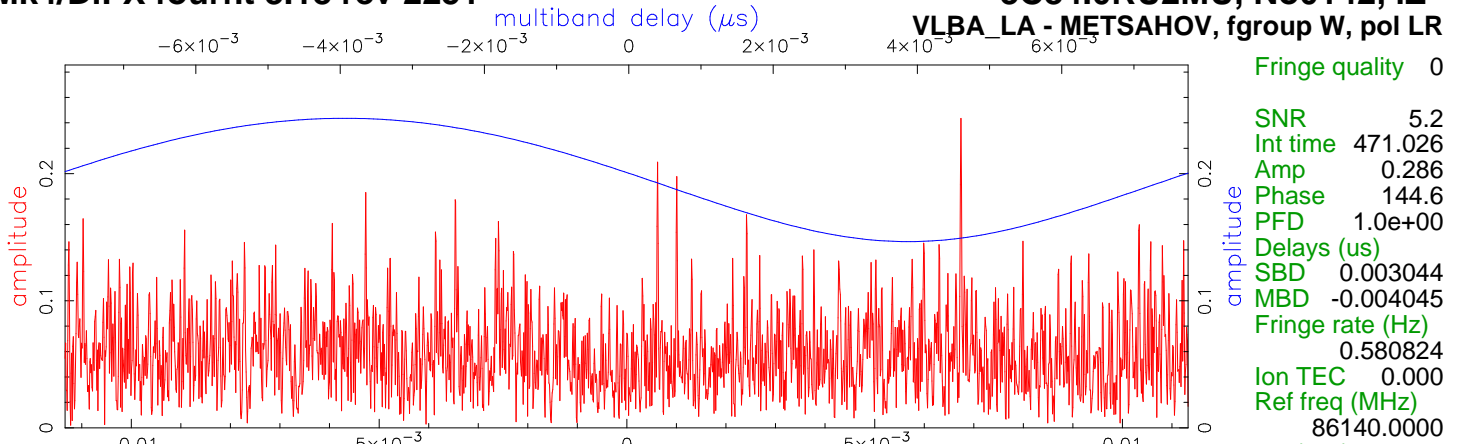
Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150836
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)	All
125.8		129.9		Phase	128.0
0.3		0.3		Ampl.	0.3
87.7		87.6		Sbd box	87.7
U/L 921/0		921/0		APs used	
I 1000		1000		PC freqs	
Z 1000		1000		PC freqs	
I:Z 0:0		0:0		PC phase	
I:Z 0:0		0:0		ManI PC	
I 1000		1000		PC amp	
Z 1000		1000			
I W01UR		W03UR		Chan ids	
				Tracks	
Z W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	3.09379582401E+03	Apriori delay (usec)	3.09412214920E+03	Resid mbdelay (usec)	1.79981E-03 +/- 8.5E-04
Sband delay (usec)	3.09379915370E+03	Apriori clock (usec)	-2.4778194E+00	Resid sbdelay (usec)	-3.22996E-01 +/- 2.9E-03
Phase delay (usec)	3.09412215333E+03	Apriori clockrate (us/s)	-2.1700000E-07	Resid phdelay (usec)	4.12724E-06 +/- 6.3E-07
Delay rate (us/s)	1.29060214817E+00	Apriori rate (us/s)	1.29059635194E+00	Resid rate (us/s)	5.79623E-06 +/- 2.3E-09
Total phase (deg)	193.5	Apriori accel (us/s/s)	-3.76956694352E-05	Resid phase (deg)	218.0 +/- 19.6

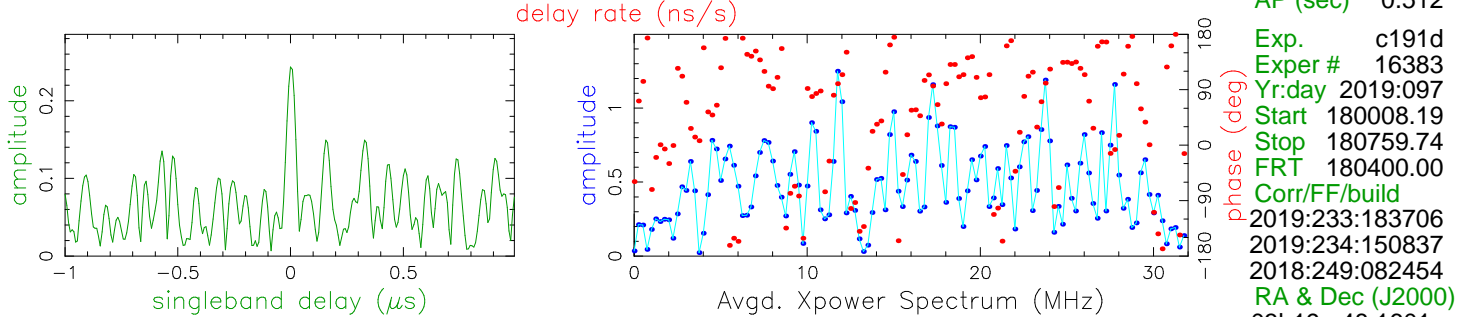
ph/seg (deg) 66.8 82.6 Theor. Amplitude 0.311 +/- 0.053 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 131.1 144.1 Search (2048X8) 0.253 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 13.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.2 24.2 Inc. seg. avg. 0.299 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 65.7 el 50.5 pa -81.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9940.809 -4409.197 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IZ.W.188.0RU2MU simultaneous interpolator



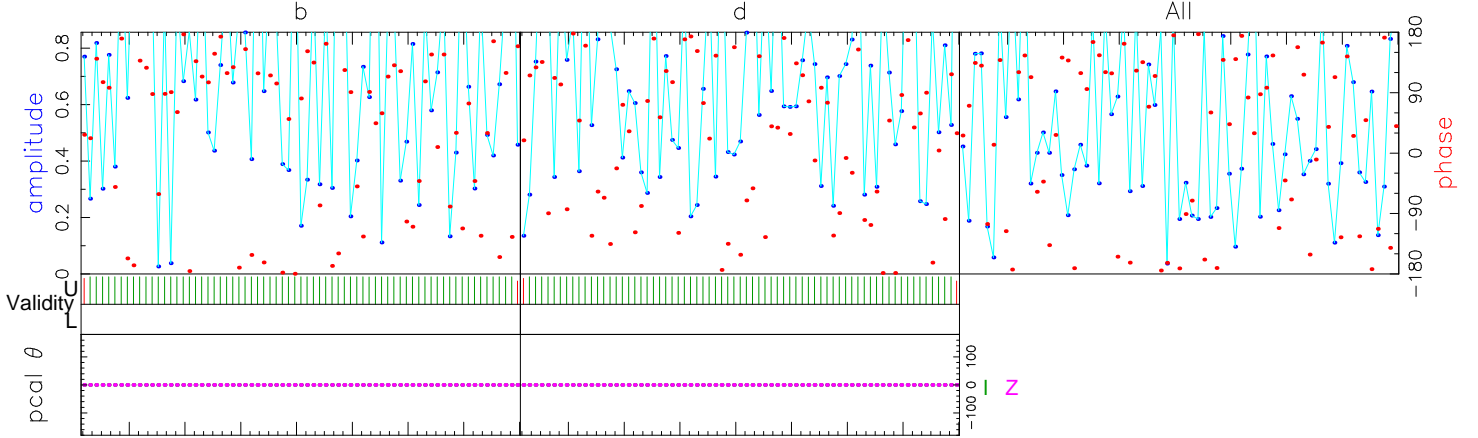
Fringe quality 0

SNR 5.2
 Int time 471.026
 Amp 0.286
 Phase 144.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.003044
 MBD -0.004045
 Fringe rate (Hz)
 0.580824
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150837
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

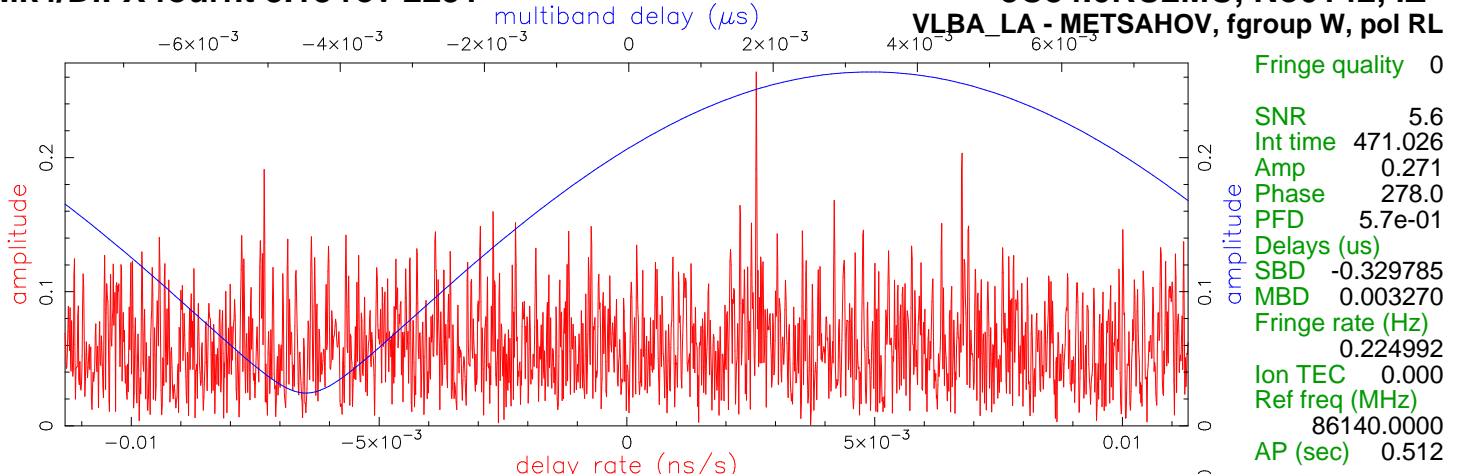


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

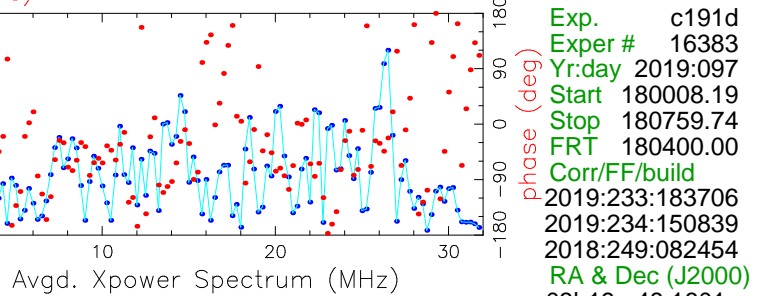
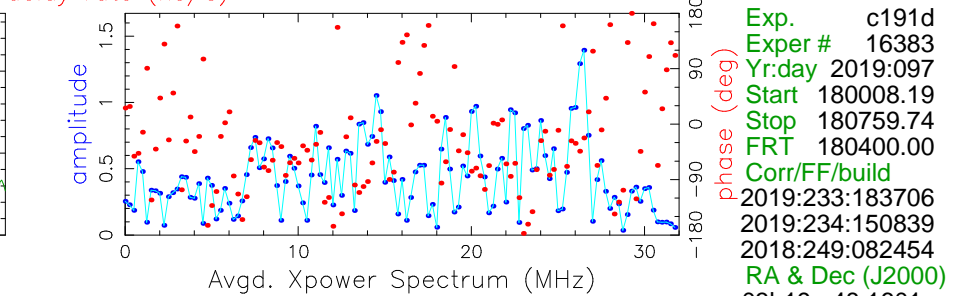
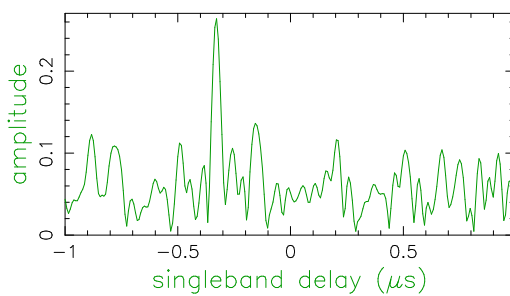


86156.00	86220.00	Freq (MHz)	All				
144.2	146.6	Phase	144.6				
0.5	0.1	Ampl.	0.3				
128.9	149.2	Sbd box	129.4				
U/L 921/0	921/0	APs used					
I 1000	1000	PC freqs					
Z 1000	1000	PC freqs					
I:Z 0:0	0:0	PC phase					
I:Z 0:0	0:0	ManI PC					
I 1000	1000	PC amp					
Z 1000	1000						
I W01UL	W03UL	Chan ids					
Z W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	3.09411810428E+03	Apriori delay (usec)	3.09412214920E+03	Resid mbdelay (usec)	-4.04492E-03	+/-	9.6E-04
Sband delay (usec)	3.09412519270E+03	Apriori clock (usec)	-2.4778194E+00	Resid sbdelay (usec)	3.04350E-03	+/-	3.3E-03
Phase delay (usec)	3.09412215386E+03	Apriori clockrate (us/s)	-2.1700000E-07	Resid phdelay (usec)	4.66415E-06	+/-	7.2E-07
Delay rate (us/s)	1.29060309473E+00	Apriori rate (us/s)	1.29059635194E+00	Resid rate (us/s)	6.74280E-06	+/-	2.6E-09
Total phase (deg)	120.2	Apriori accel (us/s/s)	-3.76956694352E-05	Resid phase (deg)	144.6	+/-	22.2

ph/seg (deg) 77.0 93.6 Search (2048X8) 0.240 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 166.0 163.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.7 Inc. seg. avg. 0.261 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 59.6 27.4 Inc. frq. avg. 0.273 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 I: az 65.7 el 50.5 pa -81.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9940.809 -4409.197 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IZ.W.195.0RU2MU simultaneous interpolator

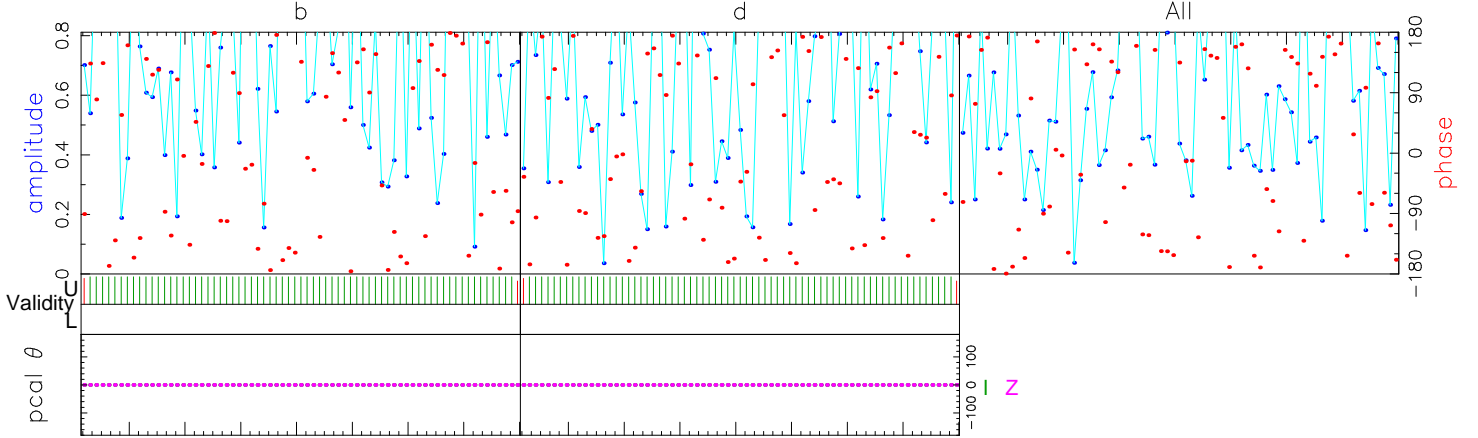


Fringe quality 0
 SNR 5.6
 Int time 471.026
 Amp 0.271
 Phase 278.0
 PFD 5.7e-01
 Delays (us)
 SBD -0.329785
 MBD 0.003270
 Fringe rate (Hz)
 0.224992
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150839
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

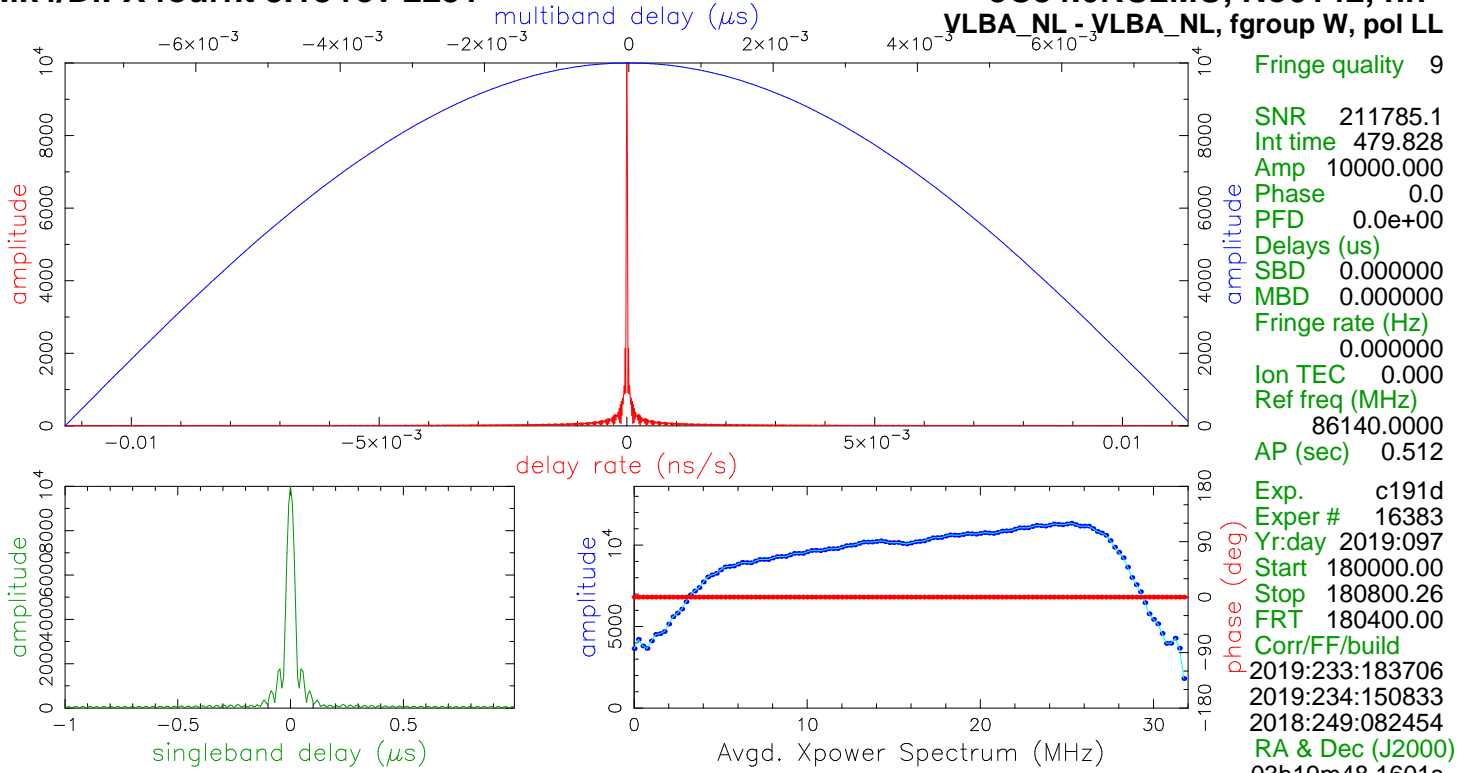


86156.00	86220.00	Freq (MHz)	All
-172.8	-171.1	Phase	-172.0
0.3	0.2	Ampl.	0.3
86.2	87.7	Sbd box	86.8
U/L 921/0	921/0	APs used	
I 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
I:Z 0:0	0:0	PC phase	
I:Z 0:0	0:0	ManI PC	
I 1000	1000	PC amp	
Z 1000	1000		
I W01UR	W03UR	Chan ids	
Z W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	3.09379729382E+03	Apriori delay (usec)	3.09412214920E+03	Resid mbdelay (usec)	3.26963E-03	+/-	9.0E-04
Sband delay (usec)	3.09379236420E+03	Apriori clock (usec)	-2.4778194E+00	Resid sbdelay (usec)	-3.29785E-01	+/-	3.1E-03
Phase delay (usec)	3.09412214365E+03	Apriori clockrate (us/s)	-2.170000E-07	Resid phdelay (usec)	-5.54771E-06	+/-	6.7E-07
Delay rate (us/s)	1.29059896388E+00	Apriori rate (us/s)	1.29059635194E+00	Resid rate (us/s)	2.61194E-06	+/-	2.4E-09
Total phase (deg)	253.5	Apriori accel (us/s/s)	-3.76956694352E-05	Resid phase (deg)	278.0	+/-	20.6

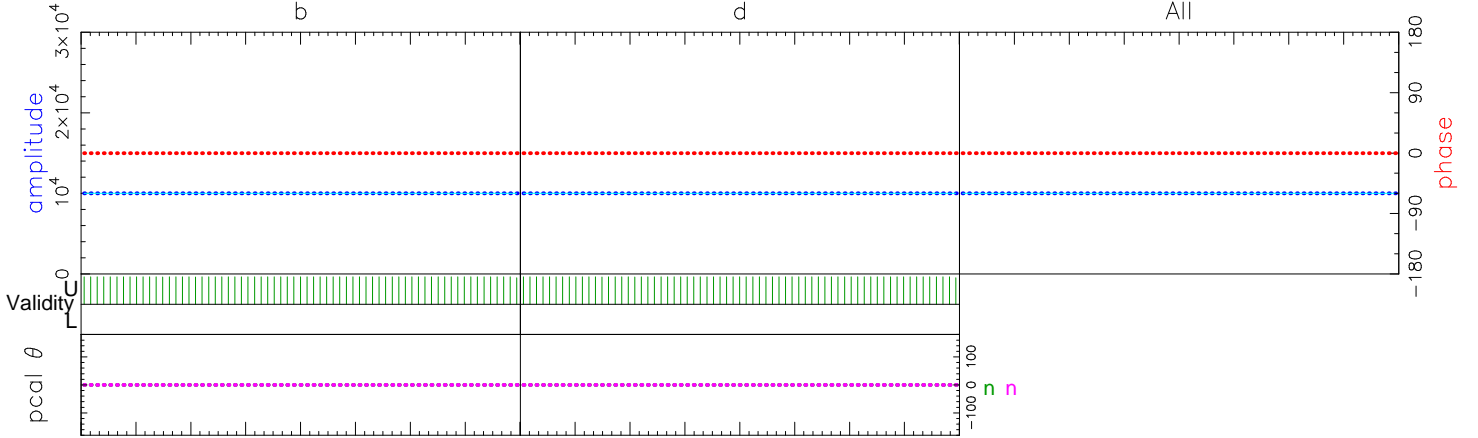
ph/seg (deg)	RMS 78.1	Theor. 86.9	Amplitude Search (2048X8)	0.271 +/- 0.049	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	175.3	151.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.6	Inc. seg. avg.	0.294	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	9.2	25.5	Inc. frq. avg.	0.261	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00

I: az 65.7 el 50.5 pa -81.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) -9940.809 -4409.197 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/IZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/IZ.W.210.0RU2MU



Fringe quality 9
 SNR 211785.1
 Int time 479.828
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150833
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

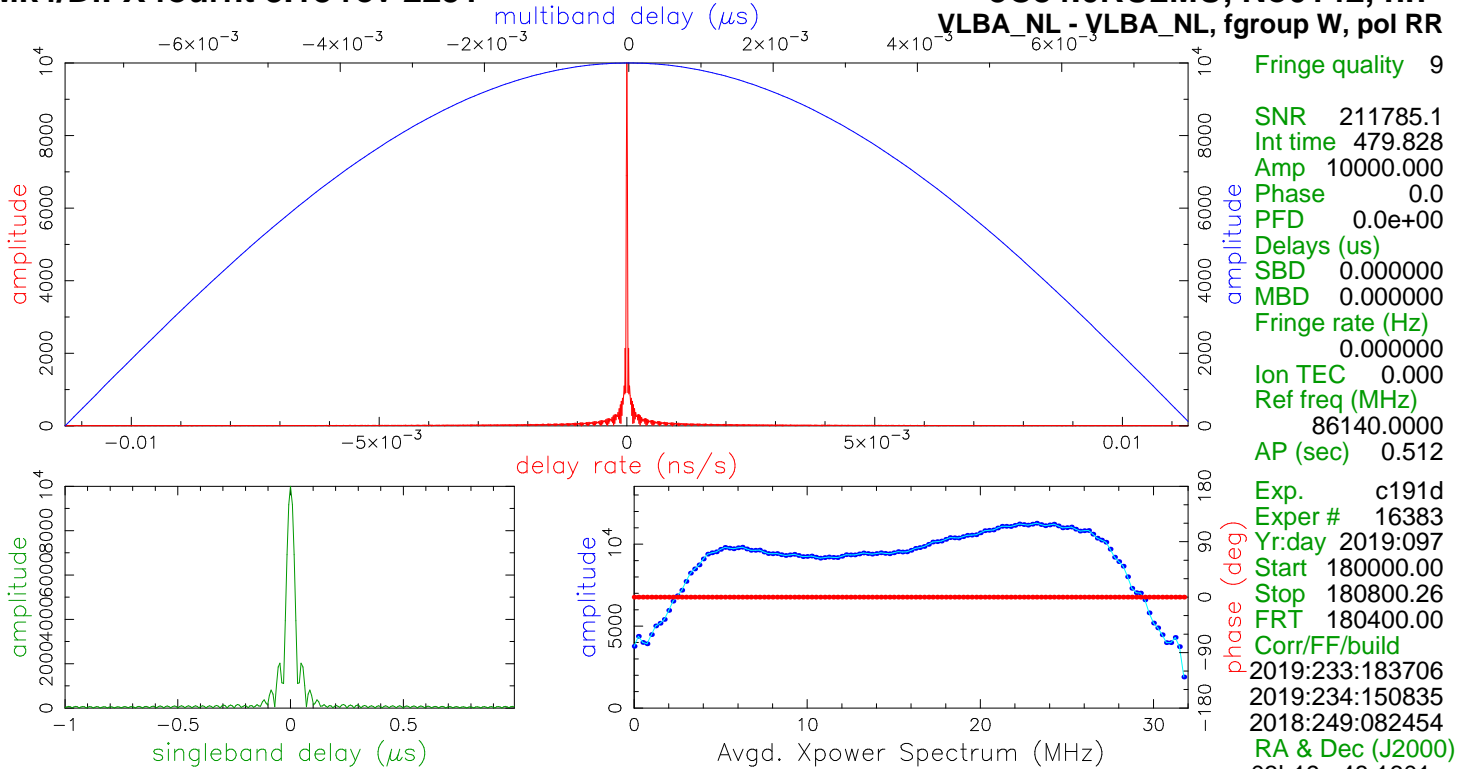
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



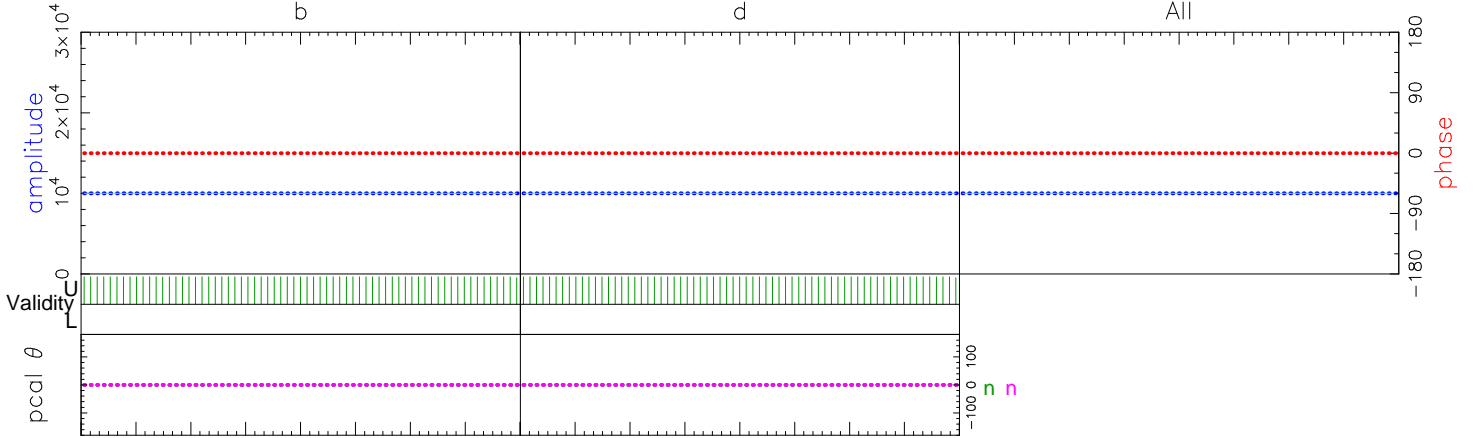
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 938/0	938/0	APs used	
n 1000	1000	PC freqs	
n 1000	1000	PC freqs	
n:n 0:0	0:0	PC phase	
n:n 0:0	0:0	Manl PC	
n 1000	1000	PC amp	
n 1000	1000		
n W01UL	W03UL	Chan ids	
n		Tracks	
n W01UL	W03UL	Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

RMS	Theor.	Amplitude	10000.000 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	0.0	Search (2048X8)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
amp/seg (%)	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.011 0.011
amp/frq (%)	0.0	Inc. frq. avg.	10000.000	Data rate(Mb/s): 256		ion window (TEC)	0.00 0.00

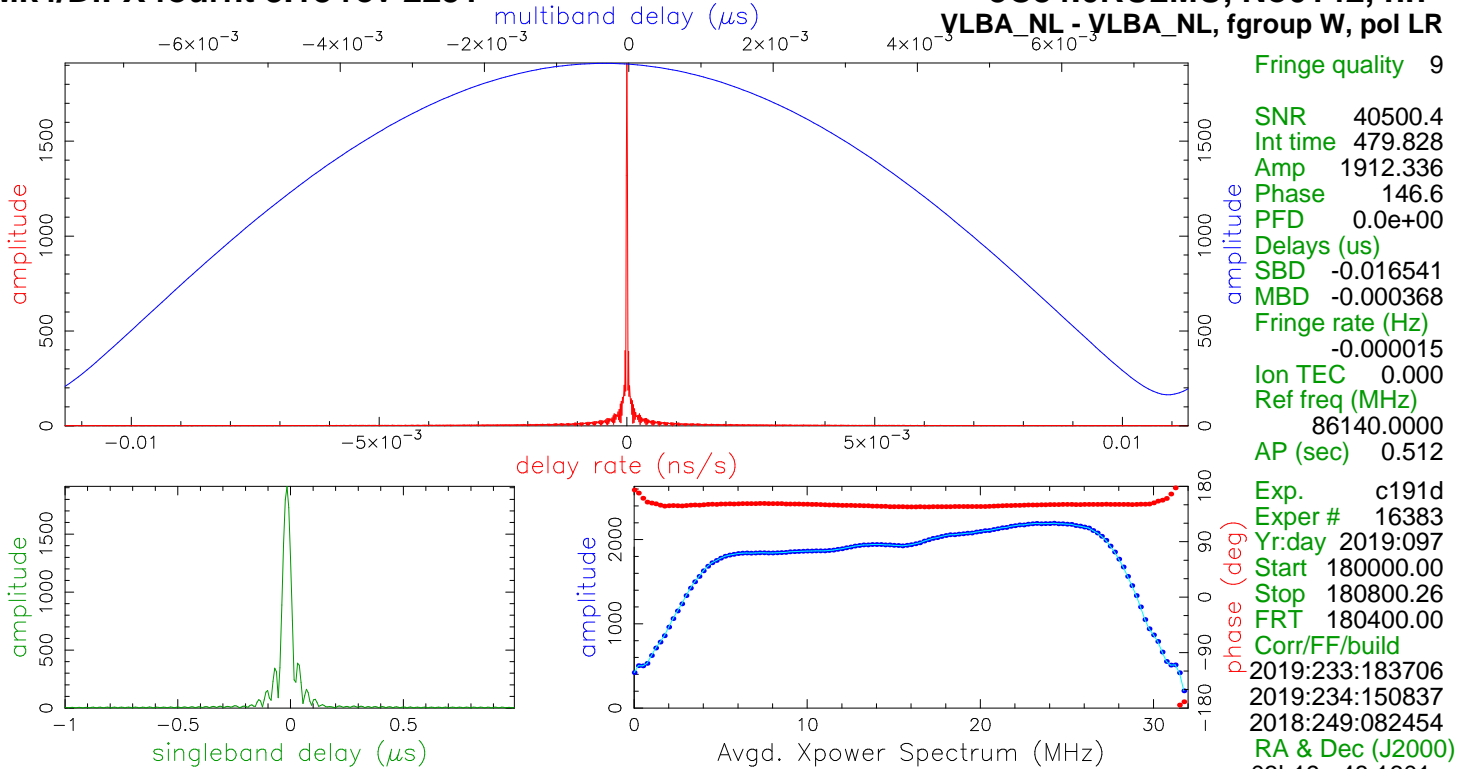


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

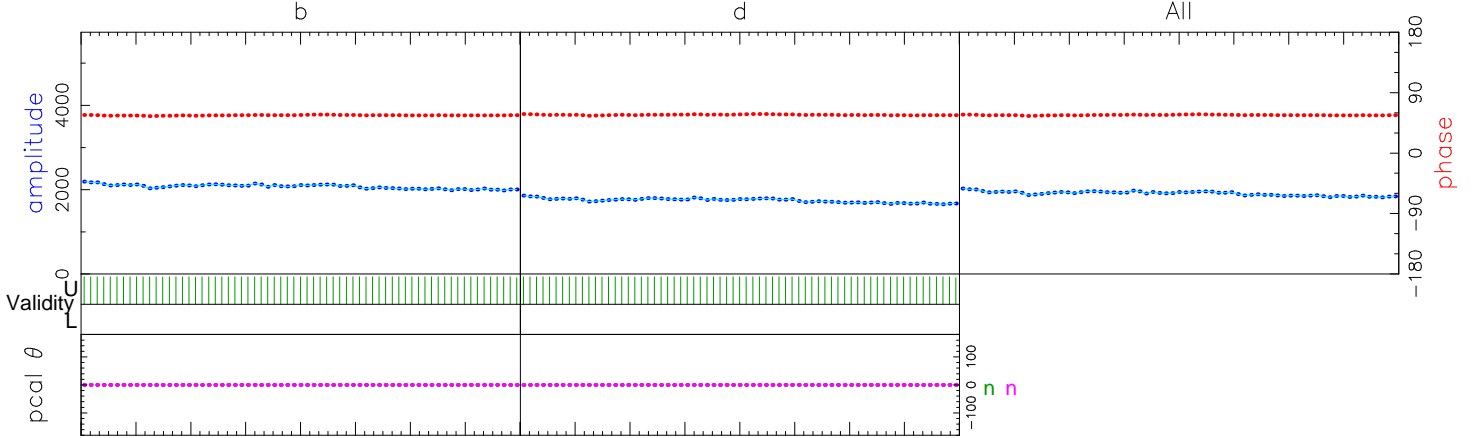


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 938/0	938/0	APs used					
n 1000	1000	PC freqs					
n 1000	1000	PC freqs					
n:n 0:0	0:0	PC phase					
n:n 0:0	0:0	Manl PC					
n 1000	1000	PC amp					
n 1000	1000						
n W01UR	W03UR	Chan ids					
n		Tracks					
n W01UR	W03UR	Chan ids					
n		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.047 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) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 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. 10000.000 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 n: az 78.2 el 63.2 pa -77.1 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nn.W.176.0RU2MU

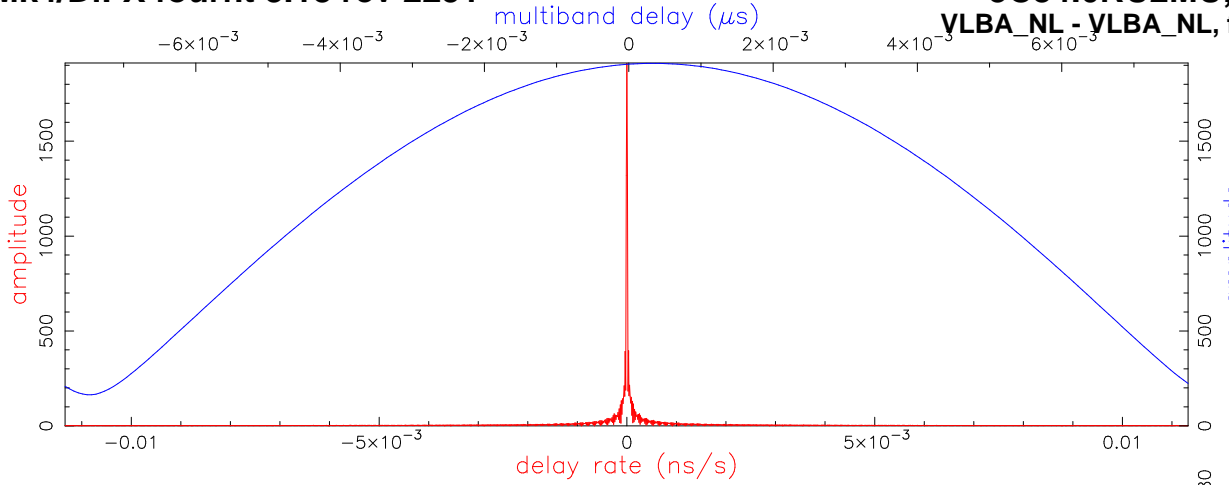


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
56.3	57.0	Phase	56.6				
2073.8	1746.7	Ampl.	1910.3				
127.0	126.8	Sbd box	126.9				
U/L 938/0	938/0	APs used					
n 1000	1000	PC freqs					
n 1000	1000	PC freqs					
n:n 0:0	0:0	PC phase					
n:n 0:0	0:0	Manl PC					
n 1000	1000	PC amp					
n 1000	1000						
n W01UL	W03UL	Chan ids					
n W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.59927500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.67750E-04	+/-	1.2E-07
Sband delay (usec)	-1.65410000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.65410E-02	+/-	4.3E-07
Phase delay (usec)	1.82480727696E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.82481E-06	+/-	9.1E-11
Delay rate (us/s)	-1.69345271081E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.69345E-10	+/-	3.3E-13
Total phase (deg)	146.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	146.6	+/-	0.0

ph/seg (deg)	0.5	0.0	Amplitude	1912.336 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	2.6	0.0	Search (2048X8)	1905.753	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	8.6	0.0	Inc. seg. avg.	1910.311	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg.	1910.281	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
n: az 78.2 el 63.2 pa -77.1	n: az 78.2 el 63.2 pa -77.1	u,v (fr/asec)	0.000 0.000	nlags: 128	t_cohere infinite	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva	Input file: /Exps/c191d/v1/1234/No0142/nn..0RU2MU	Output file: /Exps/c191d/v1/1234/No0142/nn.W.194.0RU2MU				simultaneous interpolator



Fringe quality 9

SNR 40500.4

Int time 479.828

Amp 1912.336

Phase -146.6

PFD 0.0e+00

Delays (us)

SBD 0.016541

MBD 0.000368

Fringe rate (Hz)

0.000015

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180800.26

FRT 180400.00

Corr/FF/build

2019:233:183706

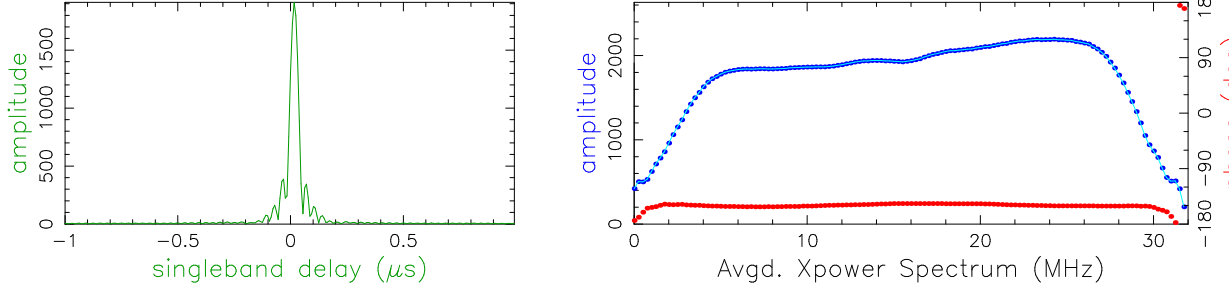
2019:234:150838

2018:249:082454

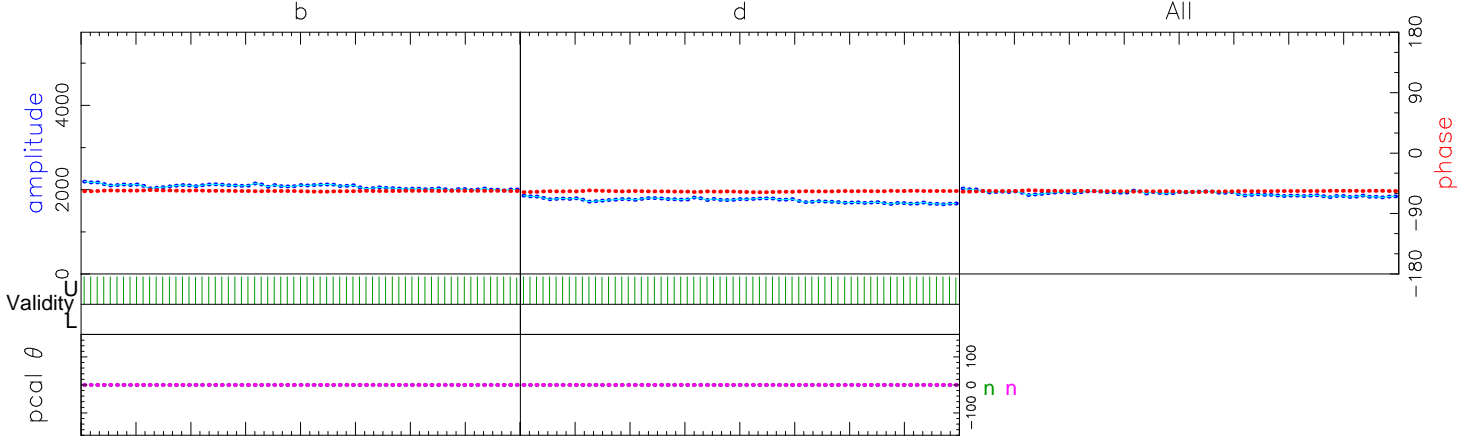
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All
-56.3	-57.0	Phase	-56.6
2073.8	1746.7	Ampl.	1910.3
131.0	131.2	Sbd box	131.1
U/L 938/0	938/0	APs used	
n 1000	1000	PC freqs	
n 1000	1000	PC freqs	
n:n 0:0	0:0	PC phase	
n:n 0:0	0:0	Manl PC	
n 1000	1000	PC amp	
n 1000	1000		
n W01UR	W03UR	Chan ids	
n		Tracks	
n W01UL	W03UL	Chan ids	
n		Tracks	

Group delay (usec)(sbd)	1.59927500000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.67750E-04	+/-	1.2E-07
Sband delay (usec)	1.65410000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.65410E-02	+/-	4.3E-07
Phase delay (usec)	-1.82480727694E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.82481E-06	+/-	9.1E-11
Delay rate (us/s)	1.69345271081E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.69345E-10	+/-	3.3E-13
Total phase (deg)	-146.6	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-146.6	+/-	0.0

ph/seg (deg) 0.5 0.0 Theor. Amplitude 1912.336 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

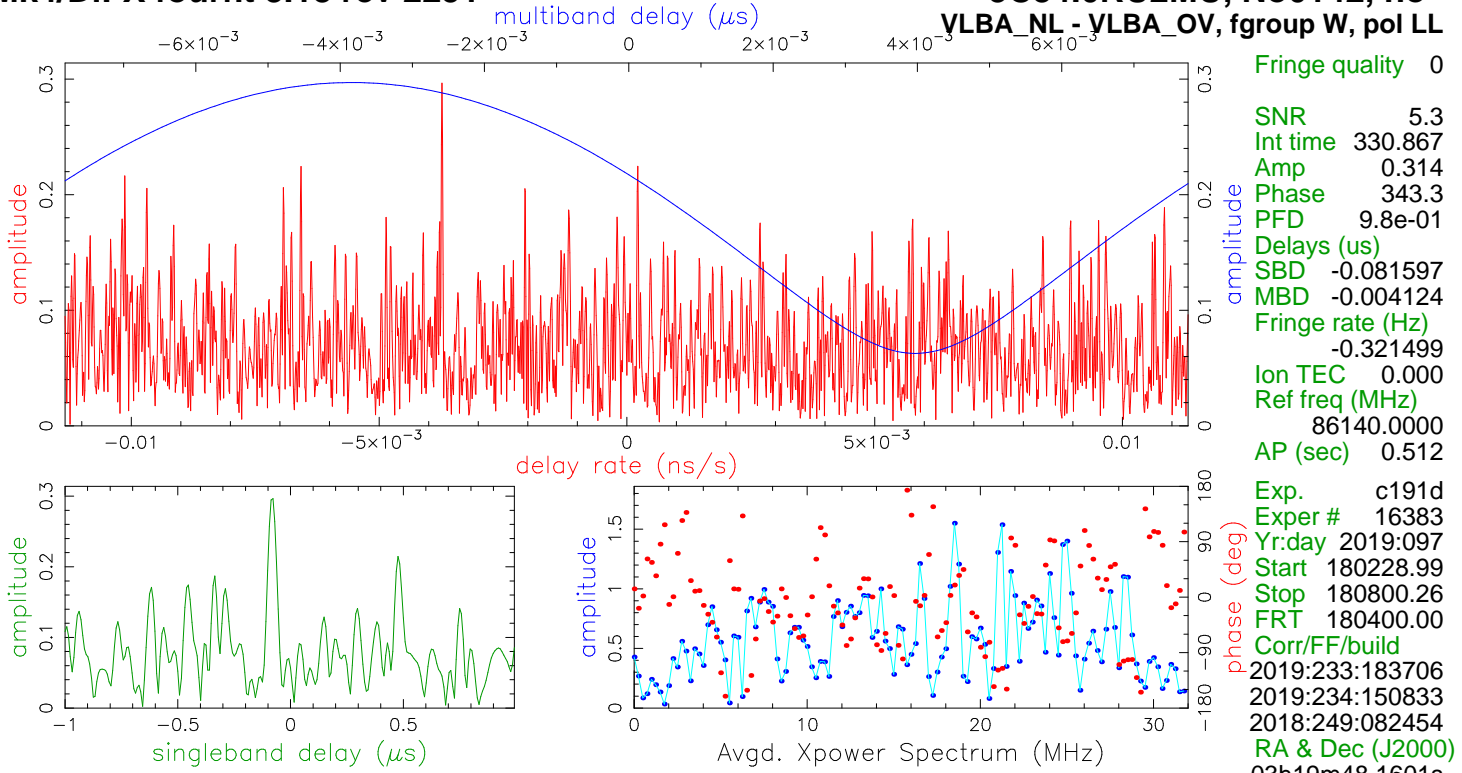
amp/seg (%) 2.6 0.0 Search (2048X8) 1905.753 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

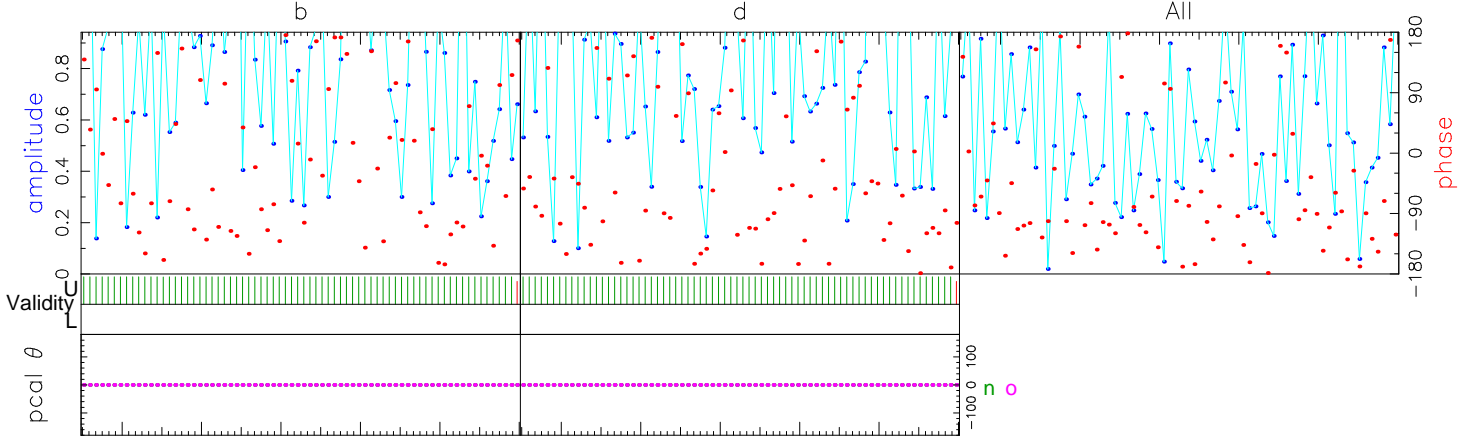
amp/frq (%) 8.6 0.0 Inc. seg. avg. 1910.311 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011

n: az 78.2 el 63.2 pa -77.1 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nn.W.201.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

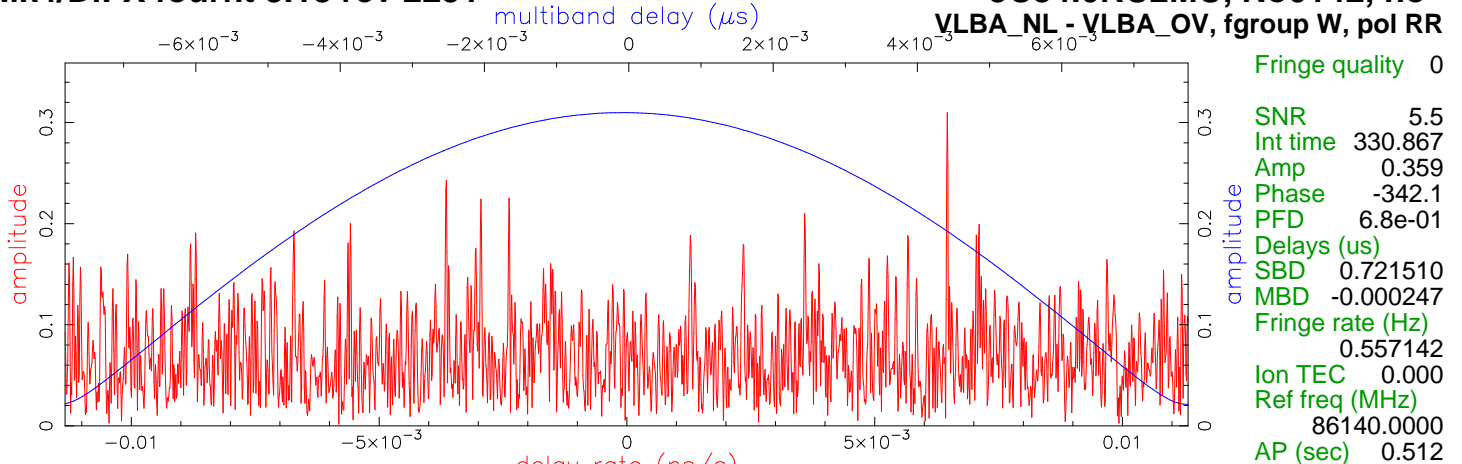


86156.00		86220.00		Freq (MHz)		All
-110.6		-104.1		Phase		-106.7
0.2		0.4		Ampl.		0.3
91.3		118.7		Sbd box		118.6
U/L 647/0		647/0		APs used		
n 1000		1000		PC freqs		
o 1000		1000		PC freqs		
n:0 0:0		0:0		PC phase		
n:0 0:0		0:0		Manl PC		
n 1000		1000		PC amp		
o 1000		1000				
n W01UL		W03UL		Chan ids		
o W01UL		W03UL		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	4.59854391680E+03	Apriori delay (usec)	4.59862616602E+03	Resid mbdelay (usec)	-4.12422E-03	+/- 9.4E-04
Sband delay (usec)	4.59854456902E+03	Apriori clock (usec)	8.1681042E+00	Resid sbdelay (usec)	-8.15970E-02	+/- 3.3E-03
Phase delay (usec)	4.59862616258E+03	Apriori clockrate (us/s)	9.6439973E-08	Resid phdelay (usec)	-3.44020E-06	+/- 7.0E-07
Delay rate (us/s)	-3.16998735430E-01	Apriori rate (us/s)	-3.16995003148E-01	Resid rate (us/s)	-3.73228E-06	+/- 3.7E-09
Total phase (deg)	322.2	Apriori accel (us/s/s)	-1.98396599031E-05	Resid phase (deg)	343.3	+/- 21.7

ph/seg (deg)	RMS 66.7	Theor. 92.1	Amplitude 0.314 +/- 0.059	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	143.5	160.7	Search (2048X8) 0.293	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.3	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.9	26.8	Inc. seg. avg. 0.267	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.300	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

n: az 78.2 el 63.2 pa -77.1 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 2392.200 -1001.561 simultaneous interpolator

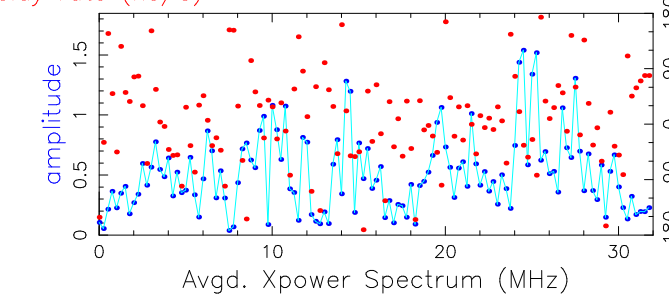
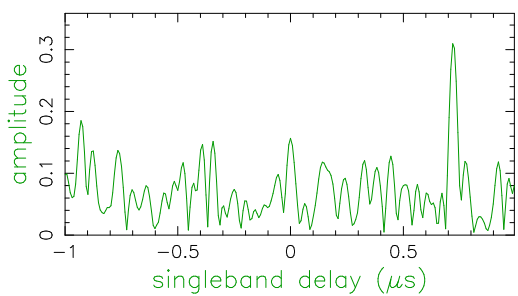
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/no..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/no.W.155.0RU2MU



Fringe quality 0

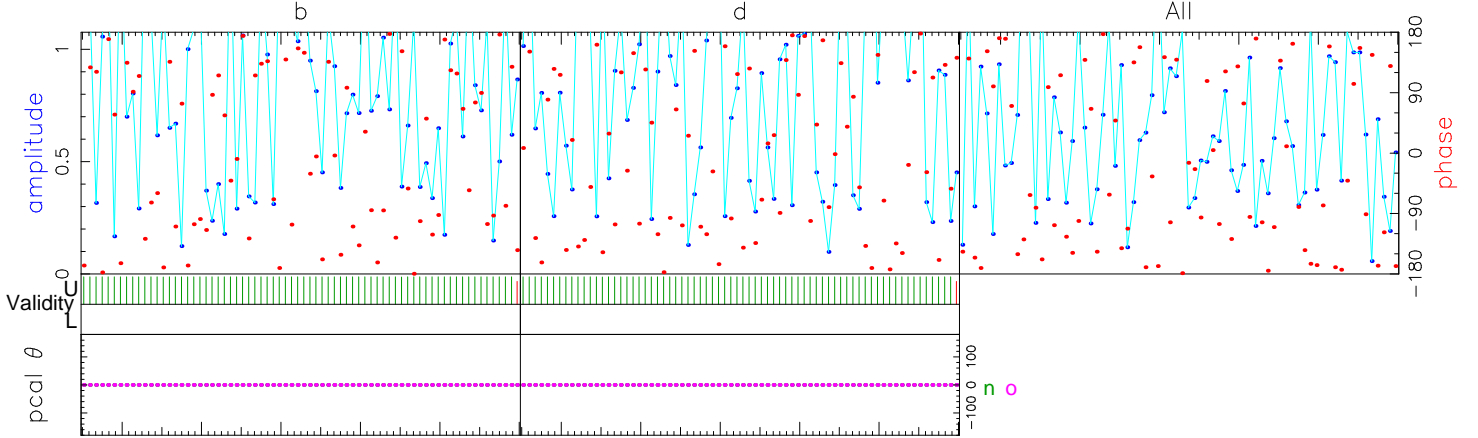
SNR 5.5
 Int time 330.867
 Amp 0.359
 Phase -342.1
 PFD 6.8e-01
 Delays (us)
 SBD 0.721510
 MBD -0.000247
 Fringe rate (Hz) 0.557142
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150834
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"



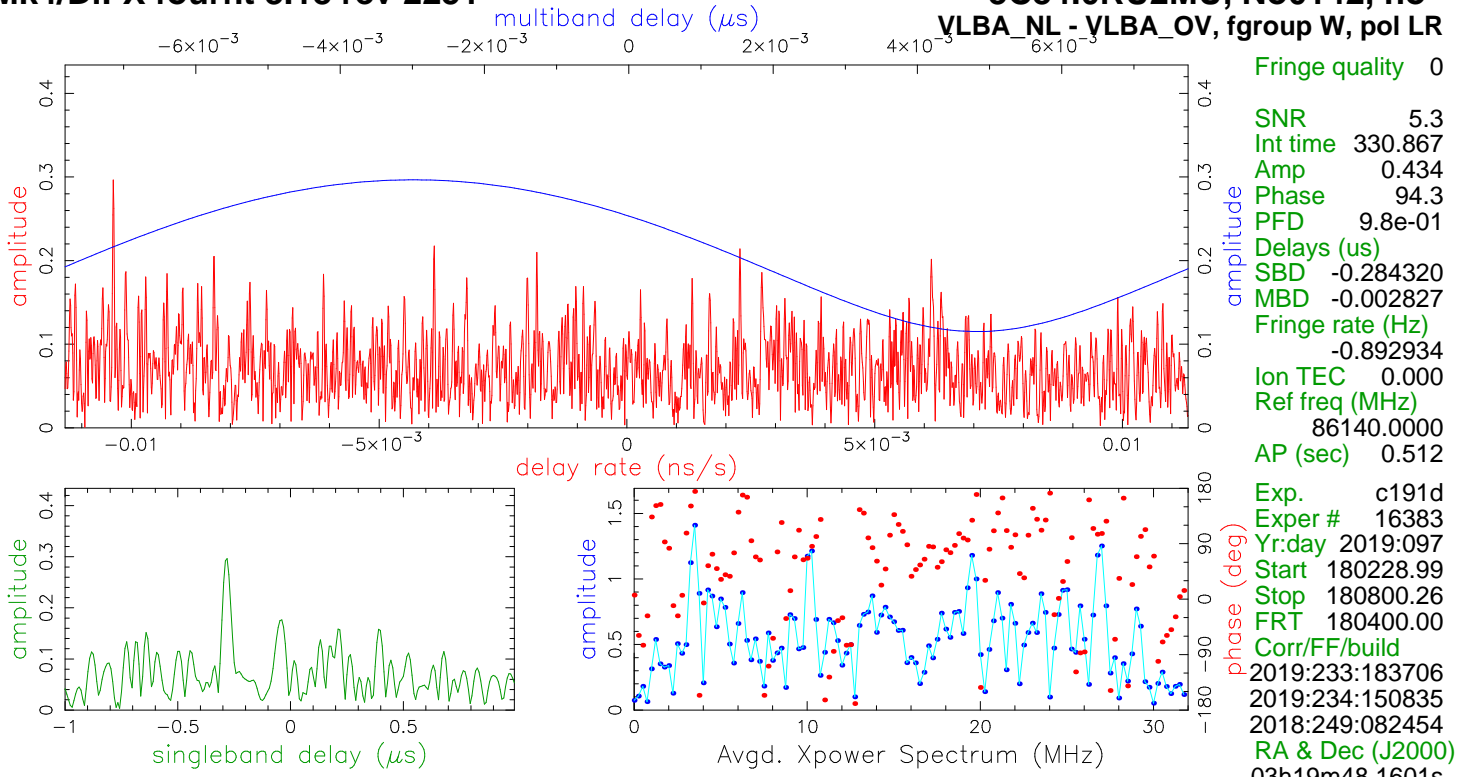
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

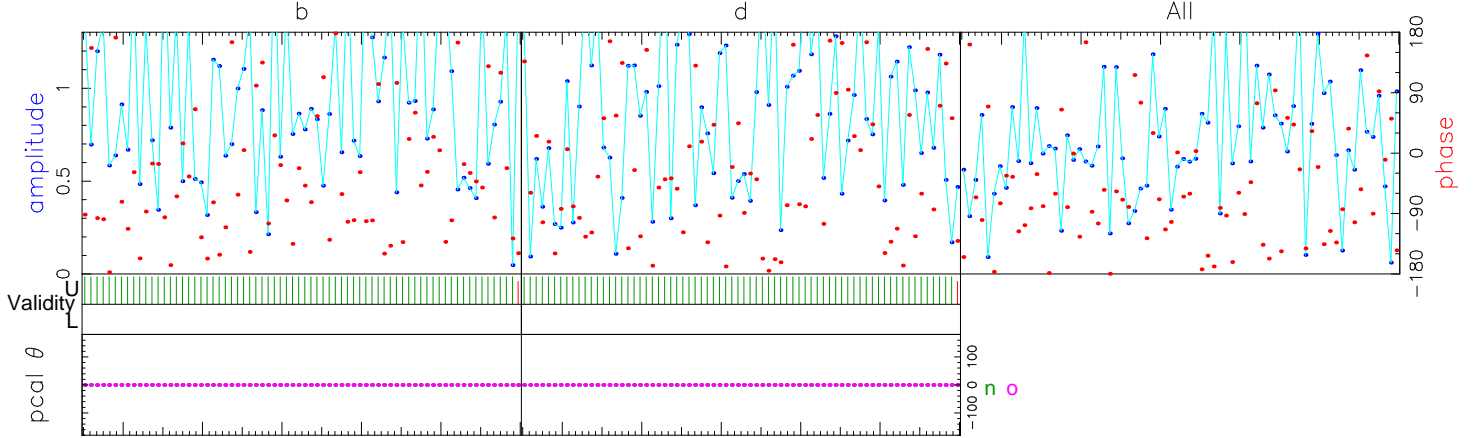


86156.00		86220.00		Freq (MHz)	All
-164.2		-160.4		Phase	-162.1
0.3		0.4		Ampl.	0.3
222.0		220.7		Sbd box	221.4
U/L 647/0		647/0		APs used	
n 1000		1000		PC freqs	
o 1000		1000		PC freqs	
n:0 0:0		0:0		PC phase	
n:0 0:0		0:0		Manl PC	
n 1000		1000		PC amp	
o 1000		1000			
n W01UR		W03UR		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	4.59934466879E+03	Apriori delay (usec)	4.59862616602E+03	Resid mbdelay (usec)	-2.47235E-04 +/- 9.0E-04
Sband delay (usec)	4.59934767602E+03	Apriori clock (usec)	8.1681042E+00	Resid sbdelay (usec)	7.21510E-01 +/- 3.1E-03
Phase delay (usec)	4.59862616079E+03	Apriori clockrate (us/s)	9.6439973E-08	Resid phdelay (usec)	-5.22863E-06 +/- 6.7E-07
Delay rate (us/s)	-3.16988535276E-01	Apriori rate (us/s)	-3.16995003148E-01	Resid rate (us/s)	6.46787E-06 +/- 3.5E-09
Total phase (deg)	-3.3	Apriori accel (us/s/s)	-1.98396599031E-05	Resid phase (deg)	-342.1 +/- 20.8

ph/seg (deg) 72.6 88.4 Search (2048X8) 0.359 +/- 0.065 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 153.9 154.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.7 Inc. seg. avg. 0.341 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 6.8 25.7 Inc. frq. avg. 0.344 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 78.2 el 63.2 pa -77.1 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 2392.200 -1001.561 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/no..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/no.W.163.0RU2MU



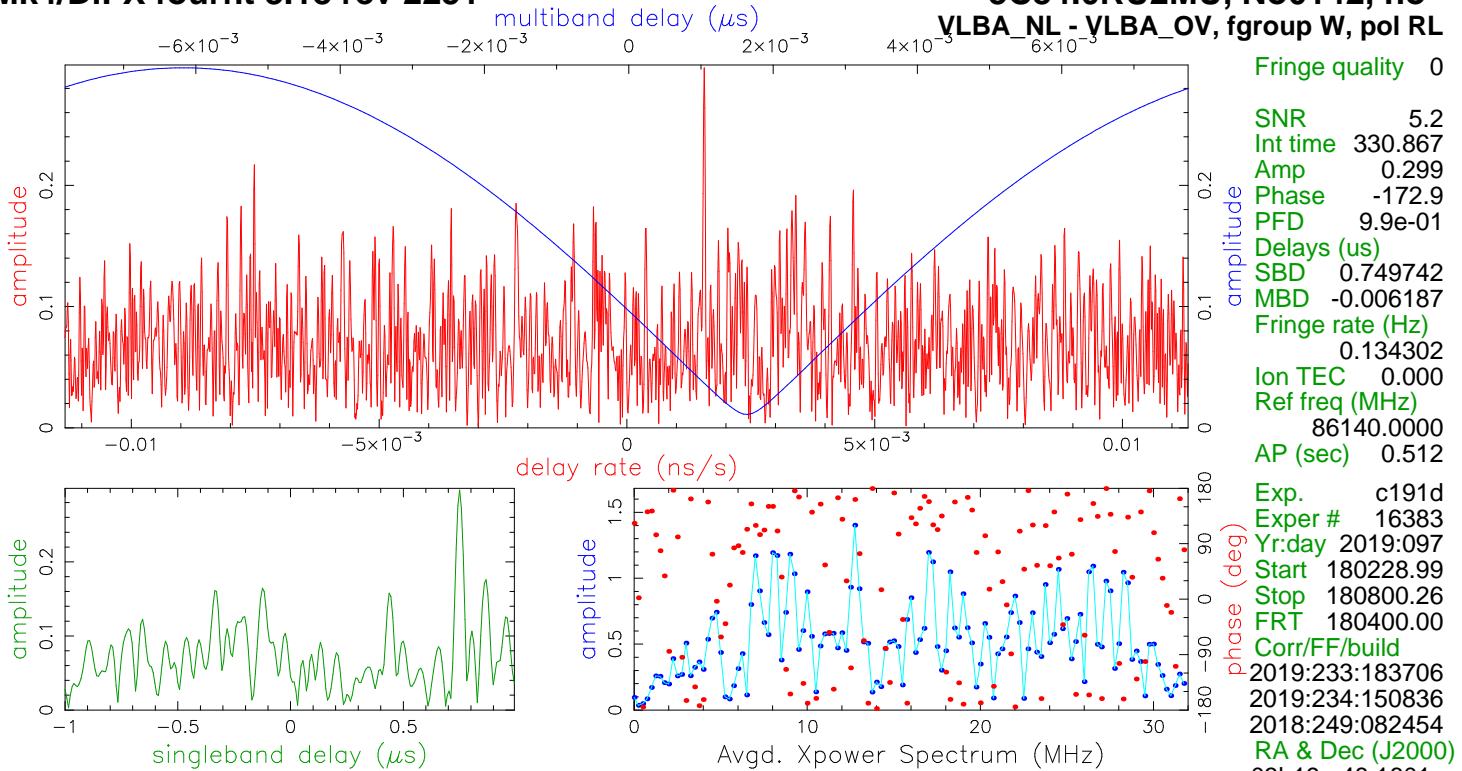
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



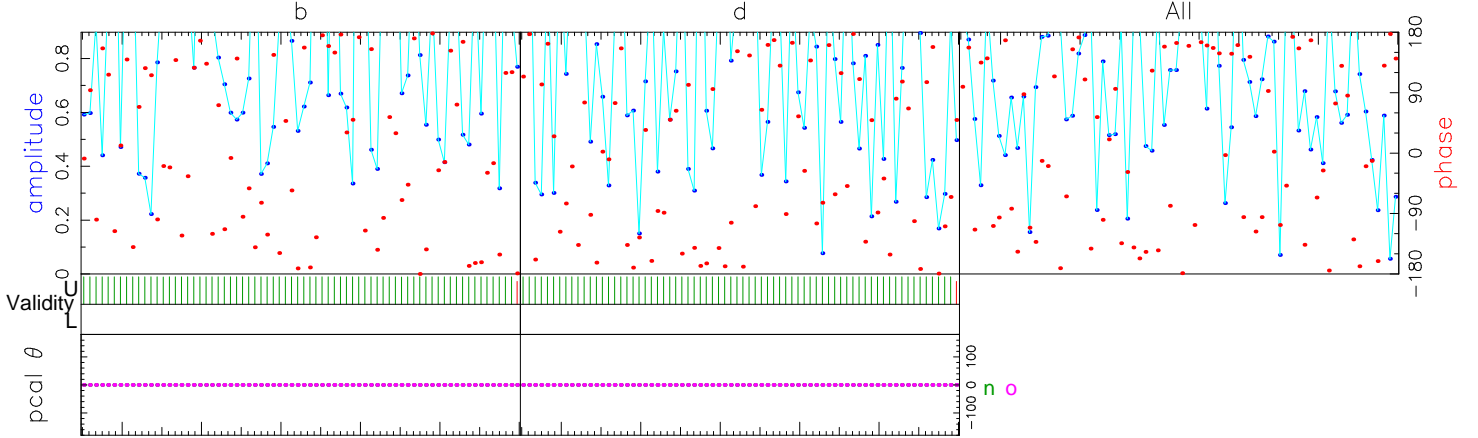
86156.00	86220.00	Freq (MHz)	All				
-84.6	-88.2	Phase	-85.7				
0.6	0.3	Ampl.	0.4				
92.6	180.4	Sbd box	92.6				
U/L 647/0	647/0	APs used					
n 1000	1000	PC freqs					
o 1000	1000	PC freqs					
n:o 0:0	0:0	PC phase					
n:o 0:0	0:0	Manl PC					
n 1000	1000	PC amp					
o 1000	1000						
n W01UL	W03UL	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.59834208947E+03	Apriori delay (usec)	4.59862616602E+03	Resid mbdelay (usec)	-2.82656E-03	+/-	9.4E-04
Sband delay (usec)	4.59834184602E+03	Apriori clock (usec)	8.1681042E+00	Resid sbdelay (usec)	-2.84320E-01	+/-	3.3E-03
Phase delay (usec)	4.59862616326E+03	Apriori clockrate (us/s)	9.6439973E-08	Resid phdelay (usec)	-2.76309E-06	+/-	7.0E-07
Delay rate (us/s)	-3.17005369225E-01	Apriori rate (us/s)	-3.16995003148E-01	Resid rate (us/s)	-1.03661E-05	+/-	3.7E-09
Total phase (deg)	73.2	Apriori accel (us/s/s)	-1.98396599031E-05	Resid phase (deg)	94.3	+/-	21.8

ph/seg (deg)	80.2	Theor.	92.3	Amplitude	0.434 +/- 0.082	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	181.0	Search (2048X8)	0.292	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	(us/s)	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.456	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	38.5	Inc. frq. avg.	0.415	Inc. frq. avg.	0.415	Sample rate (MSamp/s):	64	mb window (us)	-1.000 1.000
n: az 78.2 el 63.2 pa -77.1		o: az 64.2 el 42.3 pa -73.2		u,v (fr/asec)	2392.200 -1001.561	Data rate (Mb/s):	256	dr window (ns/s)	-0.008 0.008
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/no..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/no.W.172.0RU2MU		nlags:	128	t_cohere	infinite
						ion window (TEC)	0.00	0.00	0.00

simultaneous interpolator



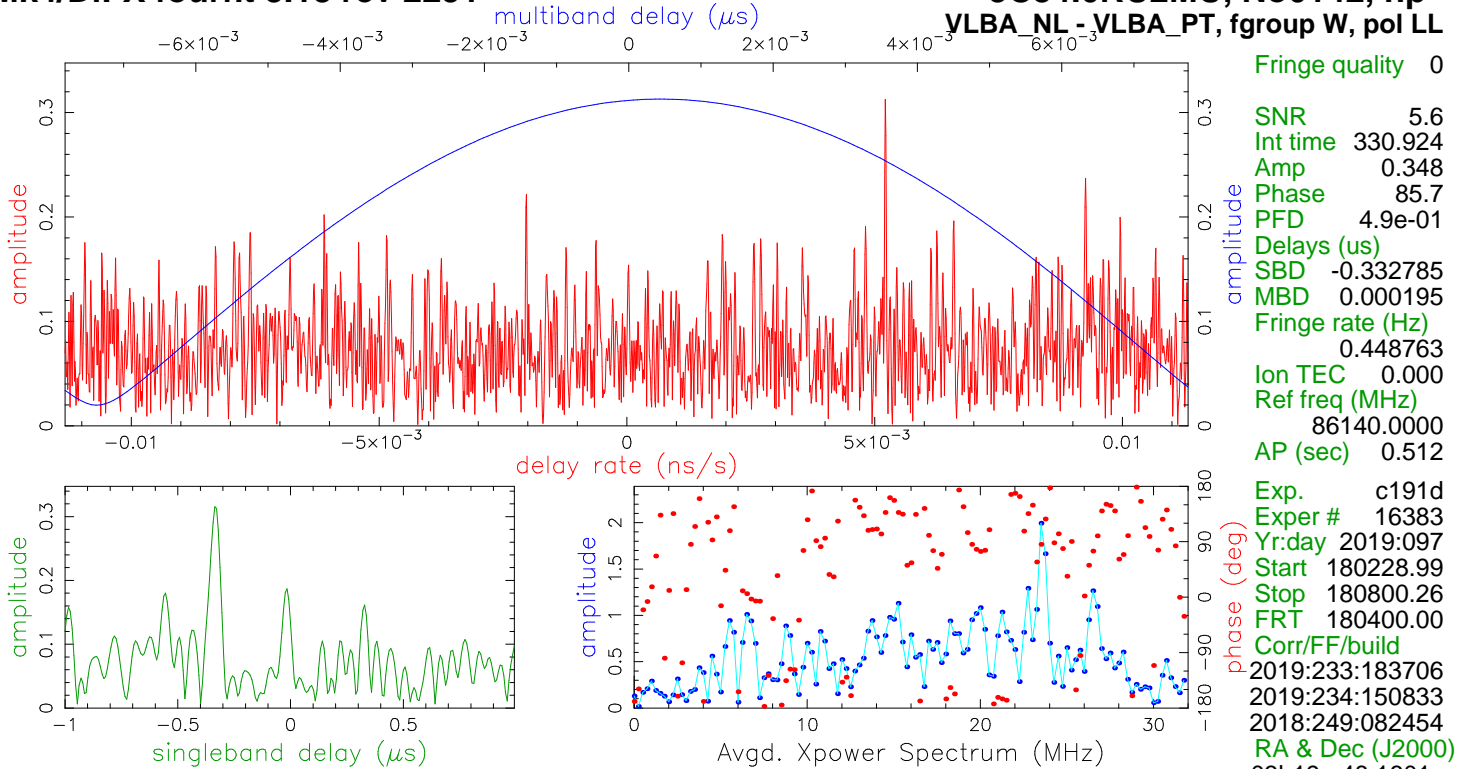
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



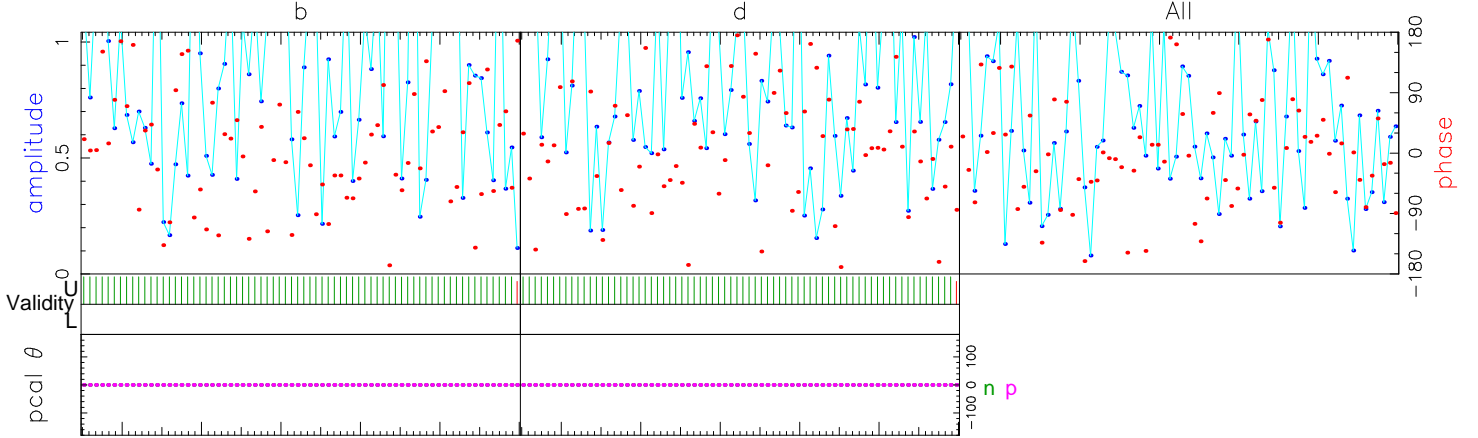
86156.00		86220.00		Freq (MHz)	All
-173.0		-172.8		Phase	-172.9
0.3		0.3		Ampl.	0.3
225.5		224.6		Sbd box	225.0
U/L 647/0		647/0		APs used	
n 1000		1000		PC freqs	
o 1000		1000		PC freqs	
n:0 0:0		0:0		PC phase	
o:0 0:0		0:0		Manl PC	
n 1000		1000		PC amp	
o 1000		1000			
n W01UR		W03UR		Chan ids	
o W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	4.59936997882E+03	Apriori delay (usec)	4.59862616602E+03	Resid mbdelay (usec)	-6.18721E-03 +/- 9.5E-04
Sband delay (usec)	4.59937590802E+03	Apriori clock (usec)	8.1681042E+00	Resid sbdelay (usec)	7.49742E-01 +/- 3.3E-03
Phase delay (usec)	4.59862616045E+03	Apriori clockrate (us/s)	9.6439973E-08	Resid phdelay (usec)	-5.57640E-06 +/- 7.1E-07
Delay rate (us/s)	-3.16993444041E-01	Apriori rate (us/s)	-3.16995003148E-01	Resid rate (us/s)	1.55911E-06 +/- 3.7E-09
Total phase (deg)	-194.1	Apriori accel (us/s/s)	-1.98396599031E-05	Resid phase (deg)	-172.9 +/- 21.9

ph/seg (deg)	80.1	Theor.	93.1	Amplitude	0.299 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	171.5	Search (2048X8)	0.293	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.307	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	3.7	Inc. frq. avg.	0.289	Inc. frq. avg.	0.289	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
n: az 78.2 el 63.2 pa -77.1		o: az 64.2 el 42.3 pa -73.2		u,v (fr/asec)	2392.200 -1001.561	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/no..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/no.W.185.0RU2MU		nlags:	128	t_cohere	infinite
						ion window (TEC)	0.00	0.00	

simultaneous interpolator

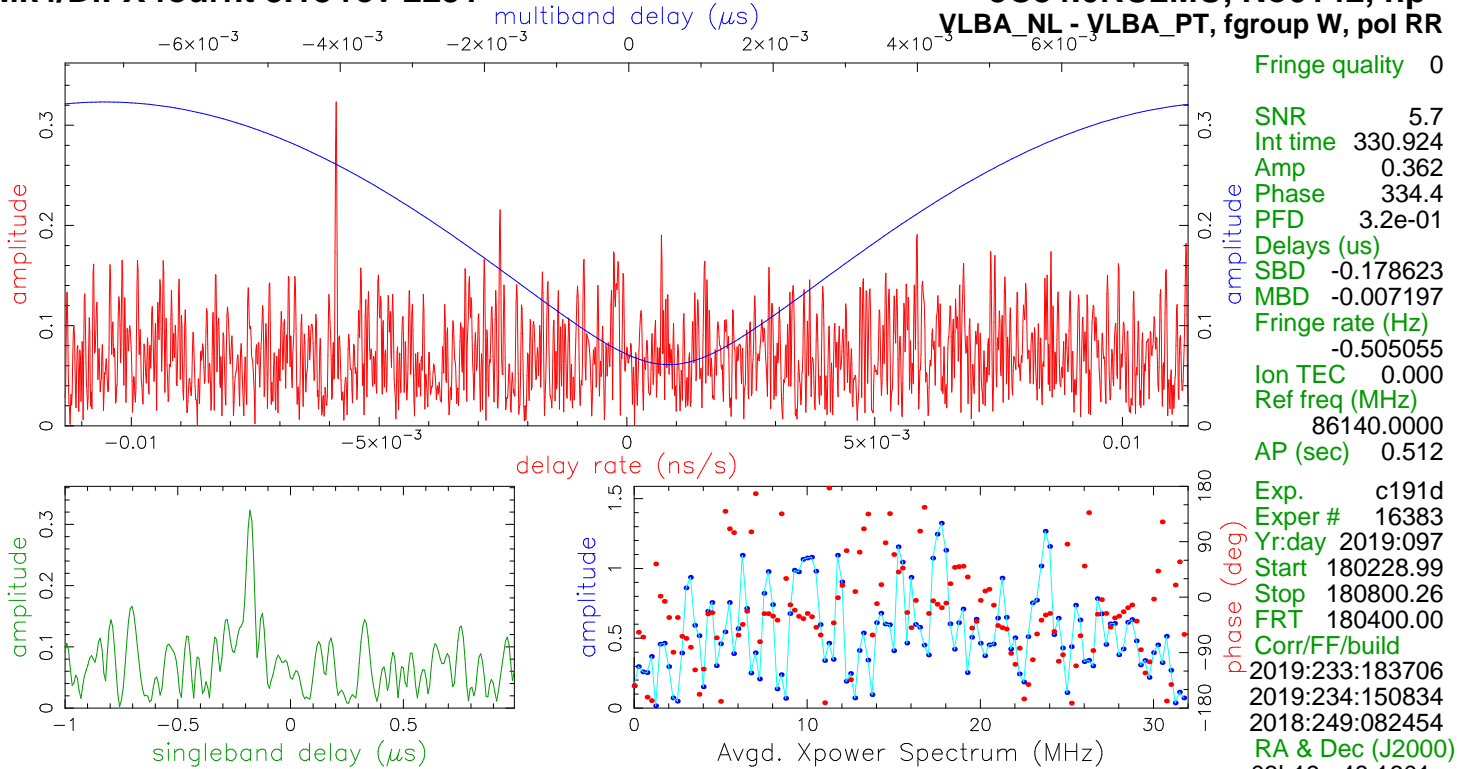


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

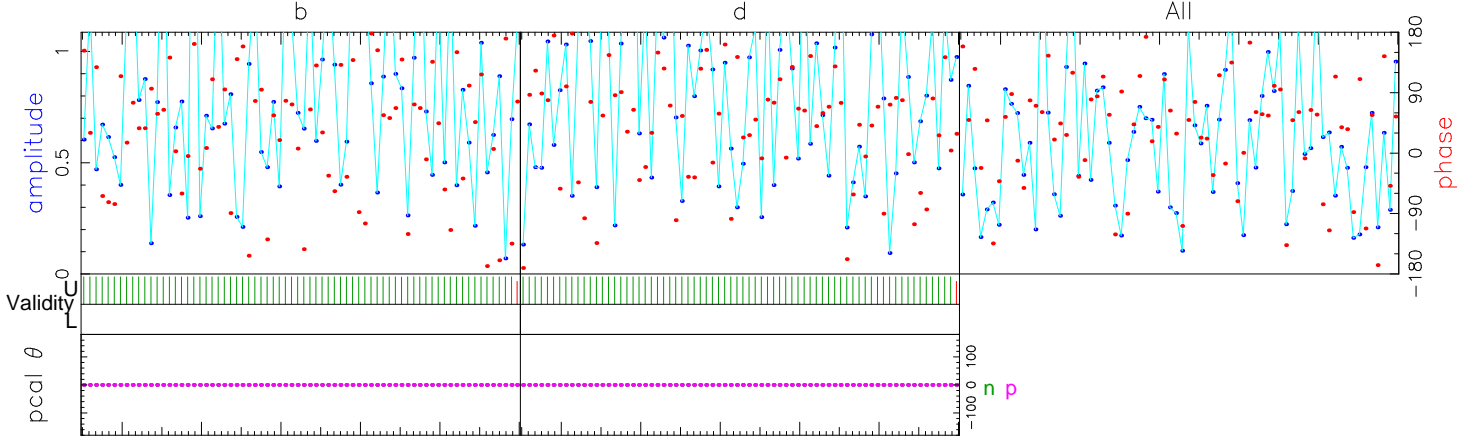


86156.00		86220.00		Freq (MHz)	All
-7.3		-1.6		Phase	-4.3
0.3		0.4		Ampl.	0.3
126.7		86.3		Sbd box	86.4
U/L 647/0		647/0		APs used	
n 1000		1000		PC freqs	
p 1000		1000		PC freqs	
n:p 0:0		0:0		PC phase	
n:p 0:0		0:0		Manl PC	
n 1000		1000		PC amp	
p 1000		1000			
n W01UL		W03UL		Chan ids	
p W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	3.01266387456E+03	Apriori delay (usec)	3.01299180483E+03	Resid mbdelay (usec)	1.94730E-04 +/- 8.9E-04
Sband delay (usec)	3.01265902033E+03	Apriori clock (usec)	1.4198057E+01	Resid sbdelay (usec)	-3.32785E-01 +/- 3.1E-03
Phase delay (usec)	3.01299180469E+03	Apriori clockrate (us/s)	1.7099999E-07	Resid phdelay (usec)	-1.38124E-07 +/- 6.6E-07
Delay rate (us/s)	-2.54395394297E-01	Apriori rate (us/s)	-2.54400603988E-01	Resid rate (us/s)	5.20969E-06 +/- 3.5E-09
Total phase (deg)	110.3	Apriori accel (us/s/s)	-8.27778130038E-06	Resid phase (deg)	85.7 +/- 20.5

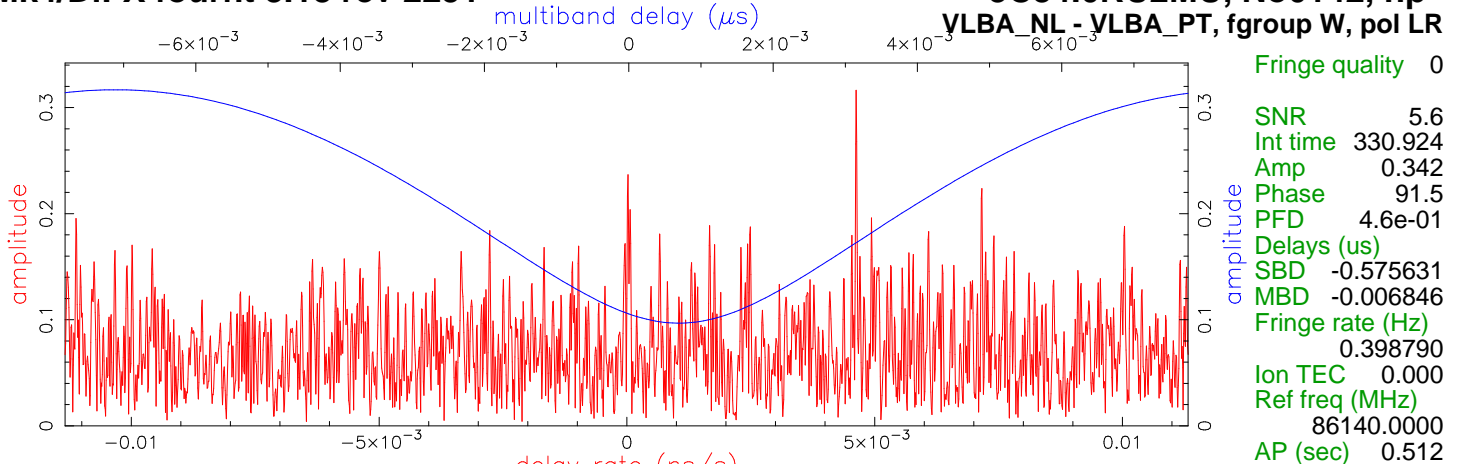
ph/seg (deg)	RMS 75.7	Theor. 86.9	Amplitude 0.348 +/- 0.062	Search (2048X8) 0.307	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	148.7	151.7	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.5	Inc. seg. avg. 0.336	0.336	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	6.4	25.3	Inc. frq. avg. 0.331	0.331	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
n: az 78.2 el 63.2 pa -77.1		p: az 63.8 el 48.5 pa -82.8		u,v (fr/asec) 1932.204 83.004	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite			
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/np..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/np.W.157.0RU2MU					simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



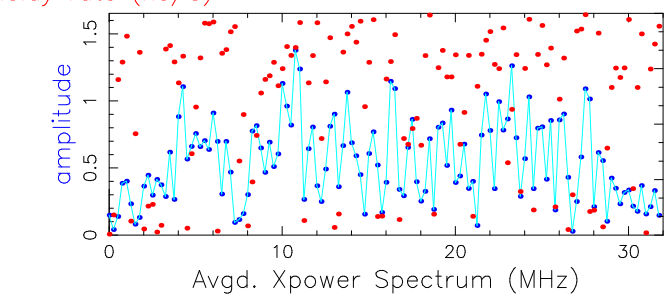
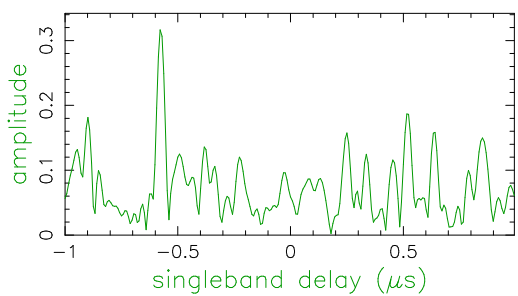
86156.00				86220.00		Freq (MHz)	All		
65.2				63.8		Phase	64.4		
0.3				0.4		Ampl.	0.4		
105.7				106.3		Sbd box	106.1		
U/L 647/0				647/0		APs used			
n 1000				1000		PC freqs			
p 1000				1000		PC freqs			
n:p 0:0				0:0		PC phase			
n:p 0:0				0:0		Manl PC			
n 1000				1000		PC amp			
p 1000				1000					
n W01UR				W03UR		Chan ids			
p W01UR				W03UR		Tracks			
						Chan ids			
						Tracks			
Group delay (usec)(sbd)	3.01281273270E+03			Apriori delay (usec)	3.01299180483E+03	Resid mbdelay (usec)	-7.19713E-03 +/- 8.7E-04		
Sband delay (usec)	3.01281318183E+03			Apriori clock (usec)	1.4198057E+01	Resid sbdelay (usec)	-1.78623E-01 +/- 3.0E-03		
Phase delay (usec)	3.01299180691E+03			Apriori clockrate (us/s)	1.70999999E-07	Resid phdelay (usec)	2.07566E-06 +/- 6.5E-07		
Delay rate (us/s)	-2.54406467174E-01			Apriori rate (us/s)	-2.54400603988E-01	Resid rate (us/s)	-5.86319E-06 +/- 3.4E-09		
Total phase (deg)	358.9			Apriori accel (us/s/s)	-8.27778130038E-06	Resid phase (deg)	334.4 +/- 20.1		
	RMS	Theor.	Amplitude	0.362 +/- 0.064					
ph/seg (deg)	79.8	85.4	Search (2048X8)	0.313	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	135.0	149.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	14.2	Inc. seg. avg.	0.322	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	18.9	24.8	Inc. frq. avg.	0.351	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.011 0.011	
					Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00 0.00
n: az 78.2 el 63.2 pa -77.1			p: az 63.8 el 48.5 pa -82.8						simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c191d/v1/1234/No0142/np..0RU2MU						Output file: /Exps/c191d/v1/1234/No0142/np.W.167.0RU2MU



Fringe quality 0

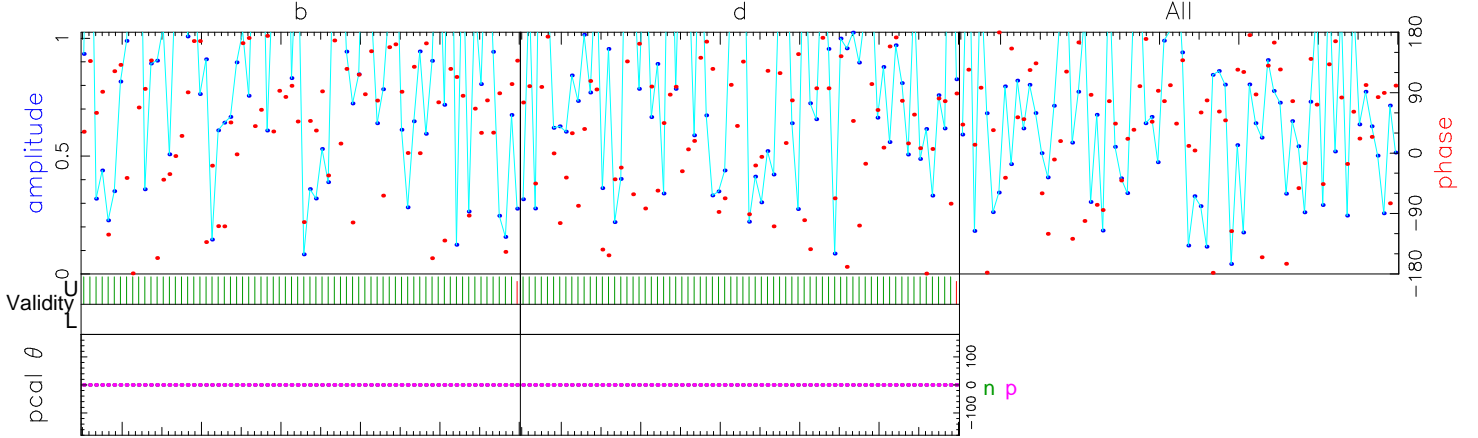
SNR 5.6
Int time 330.924
Amp 0.342
Phase 91.5
PFD 4.6e-01
Delays (us)
SBD -0.575631
MBD -0.006846
Fringe rate (Hz) 0.398790
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150836
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Avgd. Xpower Spectrum (MHz)

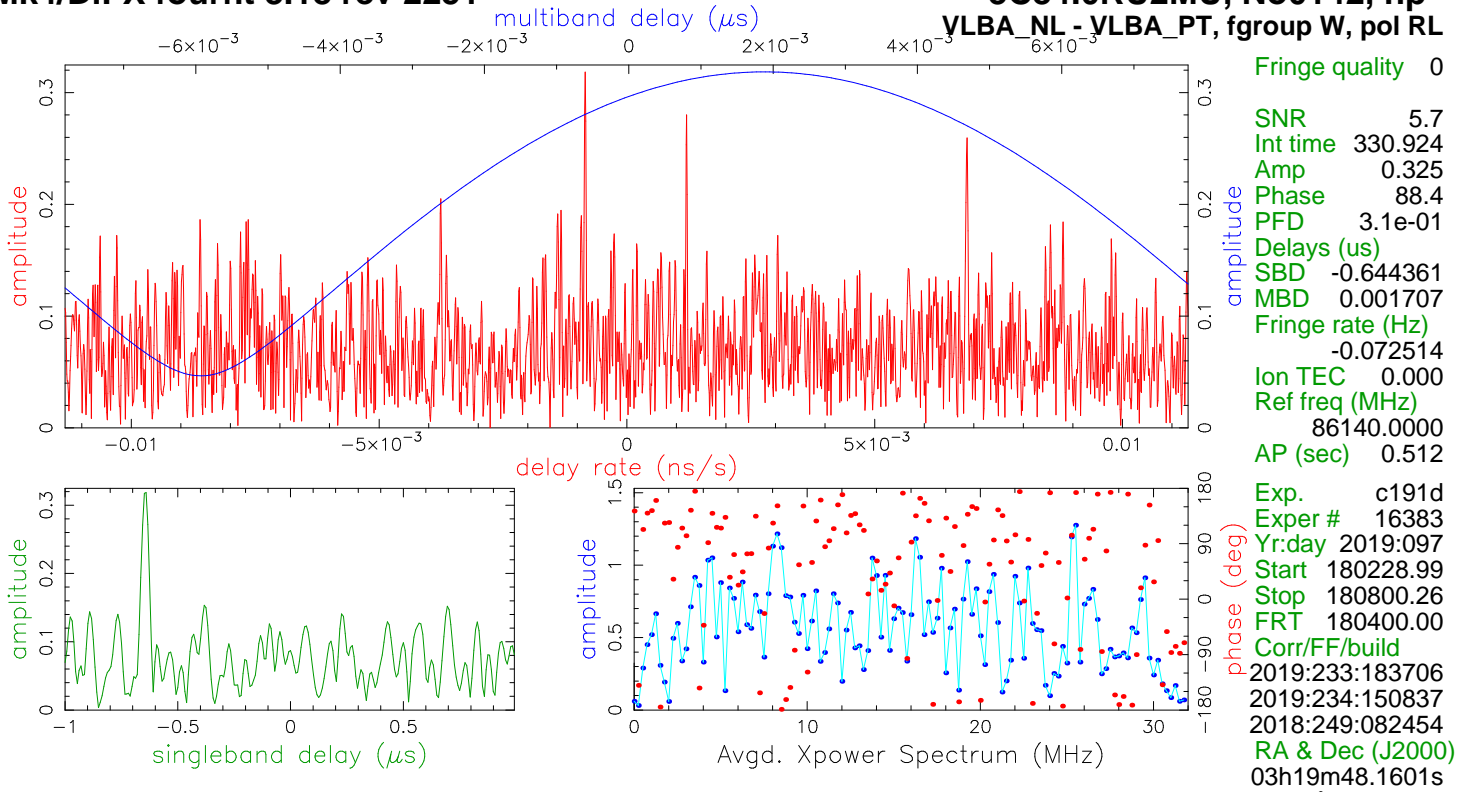
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



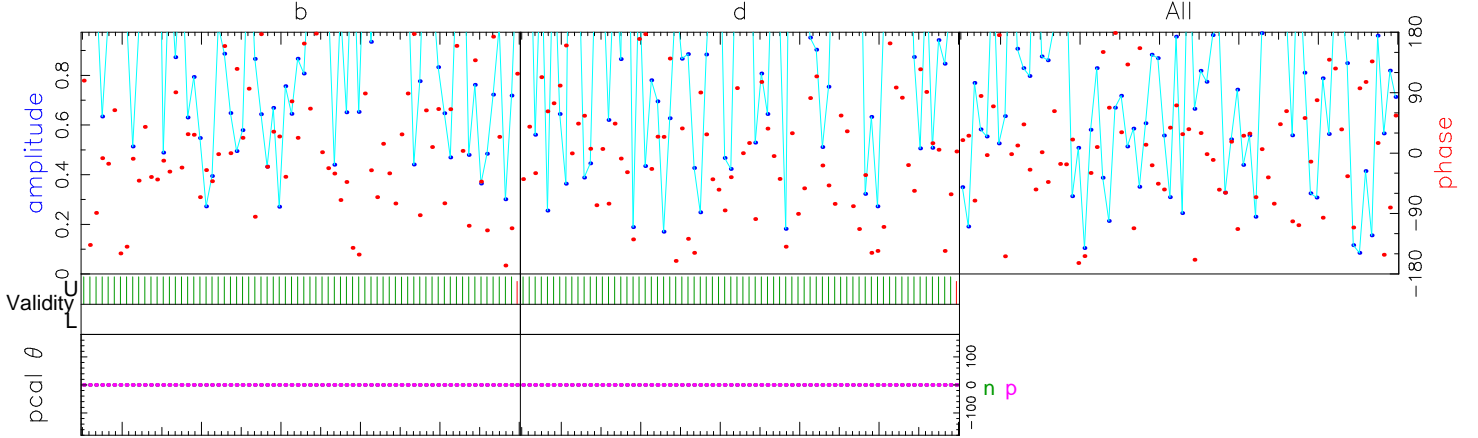
86156.00	86220.00	Freq (MHz)	All
93.7	87.4	Phase	91.5
0.4	0.2	Ampl.	0.3
55.6	14.2	Sbd box	55.3
U/L 647/0	647/0	APs used	
n 1000	1000	PC freqs	
p 1000	1000	PC freqs	
n:p 0:0	0:0	PC phase	
n:p 0:0	0:0	Manl PC	
n 1000	1000	PC amp	
p 1000	1000		
n W01UL	W03UL	Chan ids	
p W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	3.01242245881E+03	Apriori delay (usec)	3.01299180483E+03	Resid mbdelay (usec)	-6.84602E-03	+/- 8.9E-04
Sband delay (usec)	3.01241617333E+03	Apriori clock (usec)	1.4198057E+01	Resid sbdelay (usec)	-5.75631E-01	+/- 3.1E-03
Phase delay (usec)	3.01299180778E+03	Apriori clockrate (us/s)	1.7099999E-07	Resid phdelay (usec)	2.95081E-06	+/- 6.6E-07
Delay rate (us/s)	-2.54395974430E-01	Apriori rate (us/s)	-2.54400603988E-01	Resid rate (us/s)	4.62956E-06	+/- 3.4E-09
Total phase (deg)	116.1	Apriori accel (us/s/s)	-8.27778130038E-06	Resid phase (deg)	91.5	+/- 20.4

ph/seg (deg) 81.0 86.6 Search (2048X8) 0.312 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 159.7 151.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 14.4 Inc. seg. avg. 0.341 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 30.3 25.2 Inc. frq. avg. 0.329 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
n: az 78.2 el 63.2 pa -77.1 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 1932.204 83.004 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/np..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/np.W.183.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



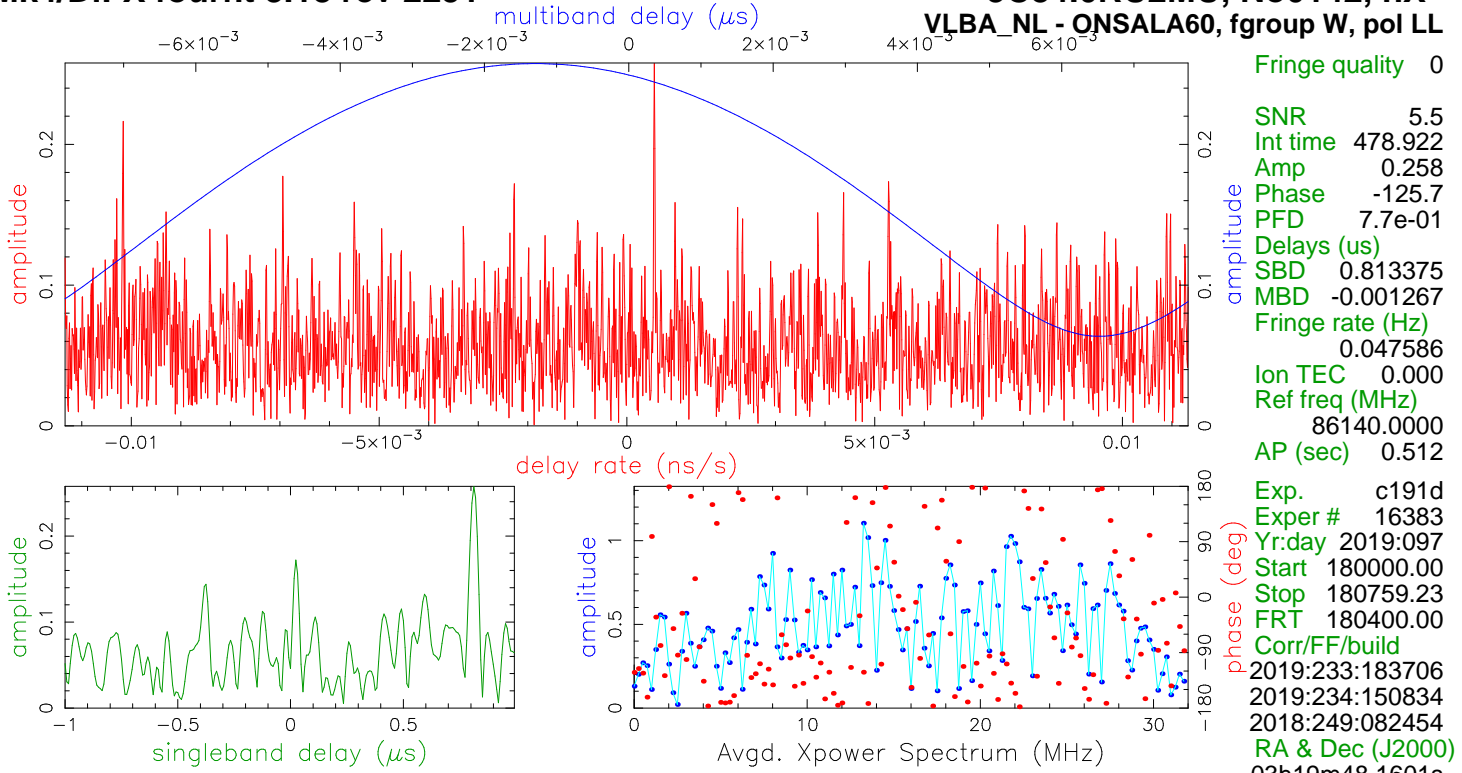
86156.00	86220.00	Freq (MHz)	All
-3.9	0.1	Phase	-1.6
0.3	0.4	Ampl.	0.3
81.0	46.3	Sbd box	46.5
U/L 647/0	647/0	APs used	
n 1000	1000	PC freqs	
p 1000	1000	PC freqs	
n:p 0:0	0:0	PC phase	
n:p 0:0	0:0	Manl PC	
n 1000	1000	PC amp	
p 1000	1000		
n W01UR	W03UR	Chan ids	
p W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	3.01235288722E+03	Apriori delay (usec)	3.01299180483E+03	Resid mbdelay (usec)	1.70739E-03	+/-	8.7E-04
Sband delay (usec)	3.01234744333E+03	Apriori clock (usec)	1.4198057E+01	Resid sbdelay (usec)	-6.44361E-01	+/-	3.0E-03
Phase delay (usec)	3.01299180478E+03	Apriori clockrate (us/s)	1.7099999E-07	Resid phdelay (usec)	-5.07335E-08	+/-	6.5E-07
Delay rate (us/s)	-2.54401445802E-01	Apriori rate (us/s)	-2.54400603988E-01	Resid rate (us/s)	-8.41814E-07	+/-	3.4E-09
Total phase (deg)	113.0	Apriori accel (us/s/s)	-8.27778130038E-06	Resid phase (deg)	88.4	+/-	20.1

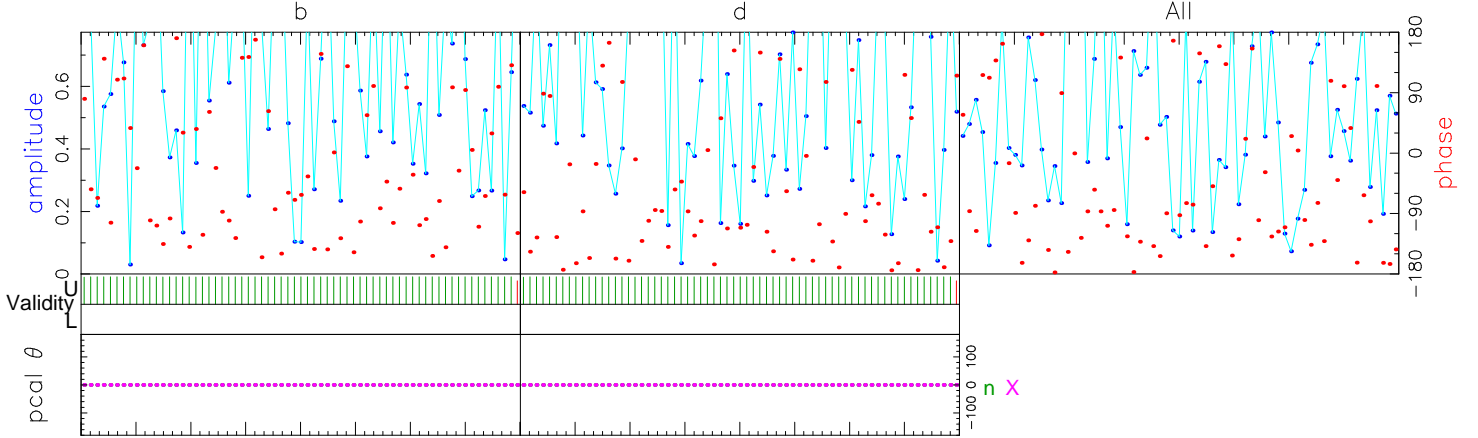
ph/seg (deg)	RMS 82.7	Theor. 85.3	Amplitude Search (2048X8) 0.325 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	167.9	148.9	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.2	Inc. seg. avg. 0.344	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	14.5	24.8	Inc. frq. avg. 0.310	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	ion window (TEC) 0.00 0.00
				t_cohere infinite	

n: az 78.2 el 63.2 pa -77.1 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 1932.204 83.004 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/np..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/np.W.193.0RU2MU



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



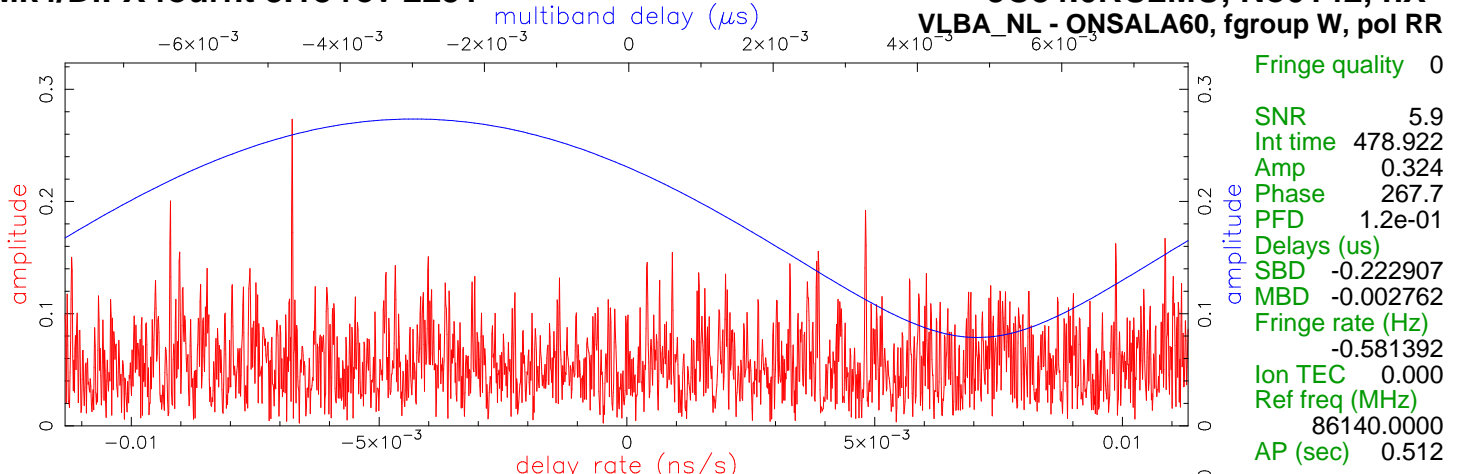
86156.00		86220.00		Freq (MHz)	All
-125.3		-125.9		Phase	-125.7
0.2		0.3		Ampl.	0.2
234.0		232.5		Sbd box	233.1
U/L 936/0		936/0		APs used	
n 1000		1000		PC freqs	
X 1000		1000		PC freqs	
n:X 0:0		0:0		PC phase	
n:X 0:0		0:0		Manl PC	
n 1000		1000		PC amp	
X 1000		1000			
n W01UL		W03UL		Chan ids	
X W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	4.06961007699E+03	Apriori delay (usec)	4.06879884440E+03	Resid mbdelay (usec)	-1.26741E-03	+/-	9.1E-04
Sband delay (usec)	4.06961221940E+03	Apriori clock (usec)	-3.1419449E+00	Resid sbdelay (usec)	8.13375E-01	+/-	3.2E-03
Phase delay (usec)	4.06879884035E+03	Apriori clockrate (us/s)	-1.6400000E-07	Resid phdelay (usec)	-4.05227E-06	+/-	6.8E-07
Delay rate (us/s)	1.08136355212E+00	Apriori rate (us/s)	1.08136299969E+00	Resid rate (us/s)	5.52430E-07	+/-	2.5E-09
Total phase (deg)	-321.2	Apriori accel (us/s/s)	-3.48712417740E-05	Resid phase (deg)	-125.7	+/-	21.0

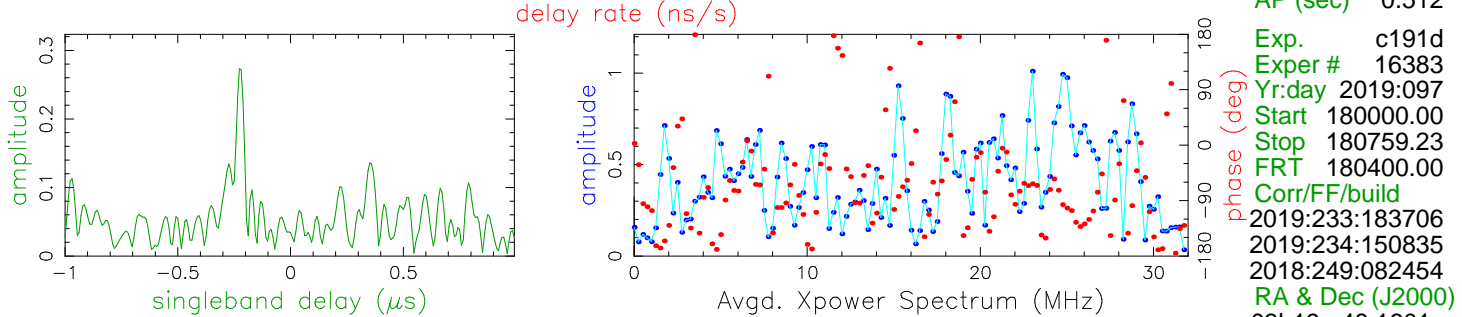
ph/seg (deg)	RMS 77.3	Theor. 86.0	Amplitude 0.258 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	154.7	150.2	Search (2048X8) 0.253	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	24.7	25.9	Inc. seg. avg. 0.246	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.249	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

n: az 78.2 el 63.2 pa -77.1 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -8335.528 -3518.918 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nX.W.165.0RU2MU

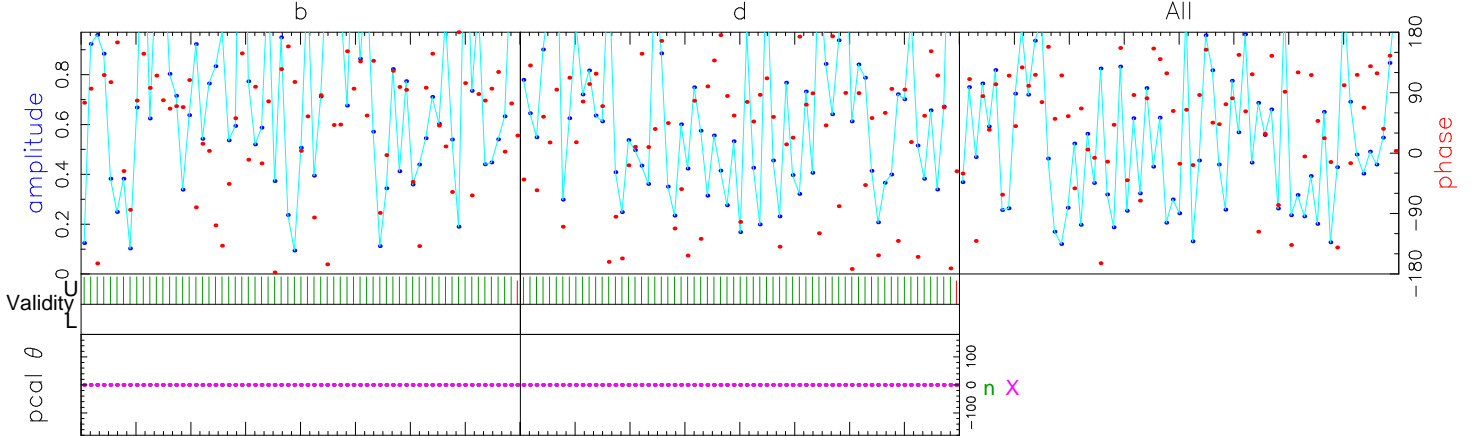


Fringe quality 0
SNR 5.9
Int time 478.922
Amp 0.324
Phase 267.7
PFD 1.2e-01
Delays (us)
SBD -0.222907
MBD -0.002762
Fringe rate (Hz)
-0.581392
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



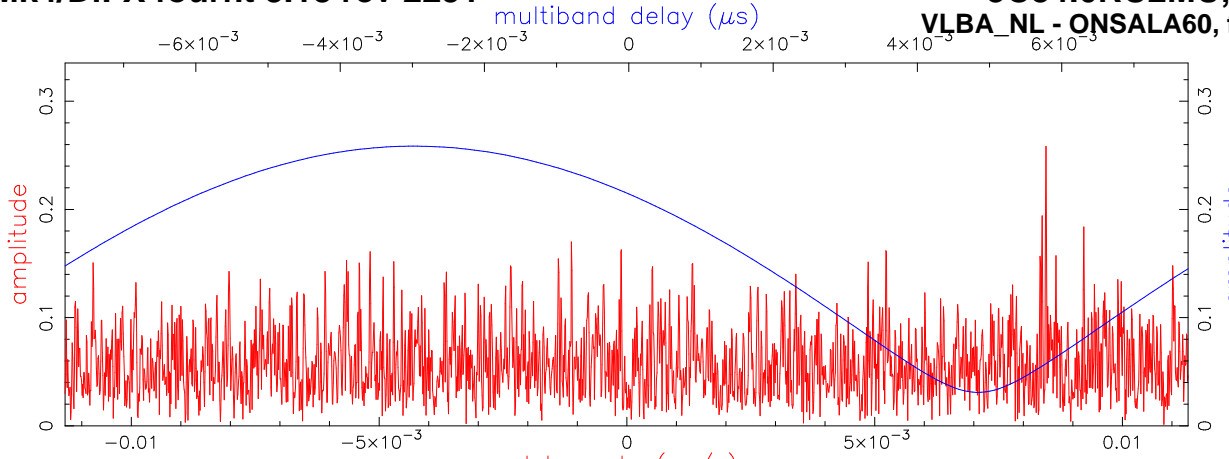
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150835
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

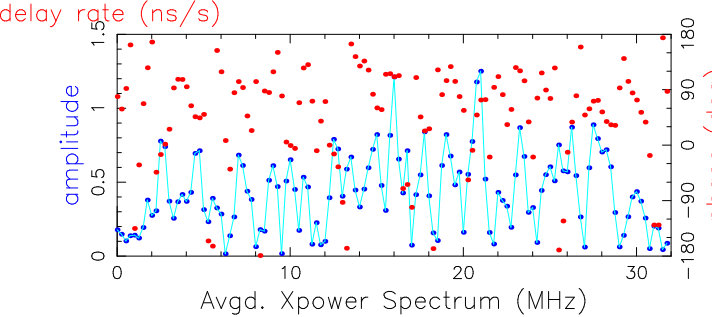
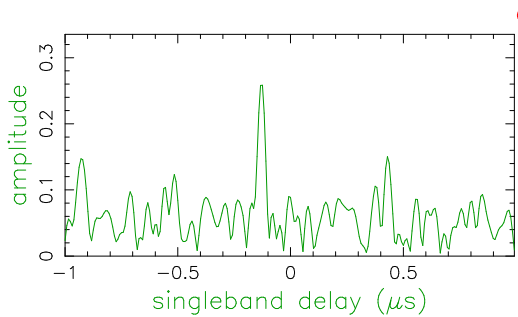


86156.00		86220.00		86156.00		86220.00					
89.5		84.4		89.5		84.4					
0.4		0.2		0.4		0.2					
100.5		173.8		100.5		173.8					
U/L 936/0		936/0		U/L 936/0		936/0					
n 1000		1000		n 1000		1000					
X 1000		1000		X 1000		1000					
n:X 0:0		0:0		n:X 0:0		0:0					
n:X 0:0		0:0		n:X 0:0		0:0					
n 1000		1000		n 1000		1000					
X 1000		1000		X 1000		1000					
n W01UR		W03UR		n W01UR		W03UR					
X W01UR		W03UR		X W01UR		W03UR					
Group delay (usec)(sbd)	4.06857733281E+03	Apriori delay (usec)	4.06879884440E+03	Group delay (usec)(sbd)	4.06857733281E+03	Apriori delay (usec)	4.06879884440E+03				
Sband delay (usec)	4.06857593790E+03	Apriori clock (usec)	-3.1419449E+00	Sband delay (usec)	4.06857593790E+03	Apriori clock (usec)	-3.1419449E+00				
Phase delay (usec)	4.06879884723E+03	Apriori clockrate (us/s)	-1.6400000E-07	Phase delay (usec)	4.06879884723E+03	Apriori clockrate (us/s)	-1.6400000E-07				
Delay rate (us/s)	1.08135625031E+00	Apriori rate (us/s)	1.08136299969E+00	Delay rate (us/s)	1.08135625031E+00	Apriori rate (us/s)	1.08136299969E+00				
Total phase (deg)	72.2	Apriori accel (us/s/s)	-3.48712417740E-05	Total phase (deg)	72.2	Apriori accel (us/s/s)	-3.48712417740E-05				

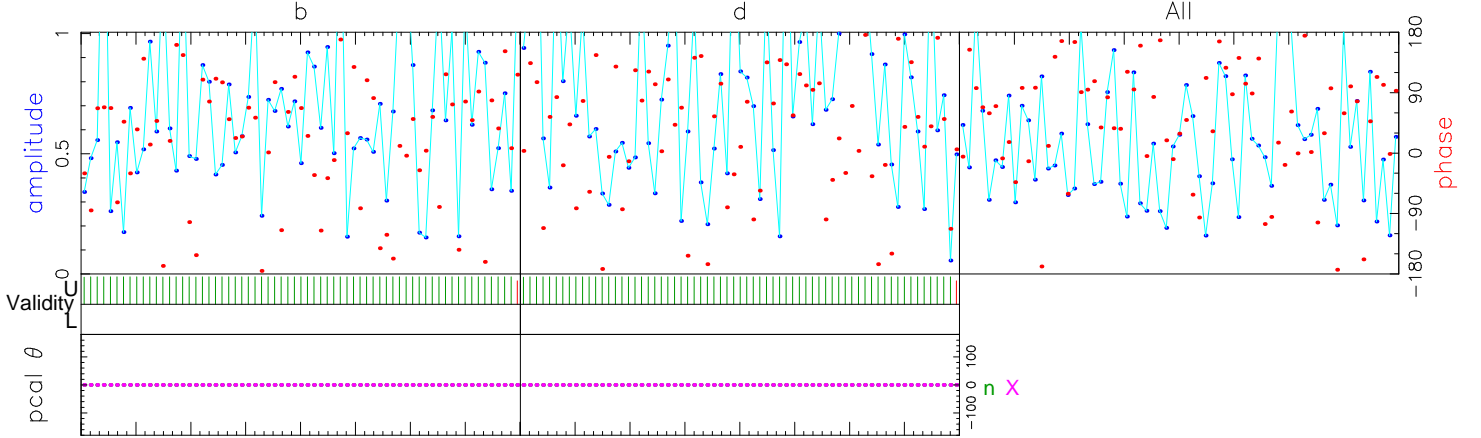
ph/seg (deg)	RMS 74.5	Theor. 79.6	Amplitude 0.324 +/- 0.055	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	135.9	139.0	Search (2048X8) 0.260	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	0.0	13.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	28.3	24.0	Inc. seg. avg. 0.318	Sample rate(MSamp/s): 64		dr window (ns/s)	-0.011	0.011	
			Inc. frq. avg. 0.309	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	ion window (TEC)	0.00	0.00



Fringe quality 0
SNR 5.6
Int time 478.922
Amp 0.335
Phase 69.2
PFD 5.2e-01
Delays (us)
SBD -0.128813
MBD -0.003118
Fringe rate (Hz) 0.728790
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build 2019:233:183706
2019:234:150838
2018:249:082454
RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

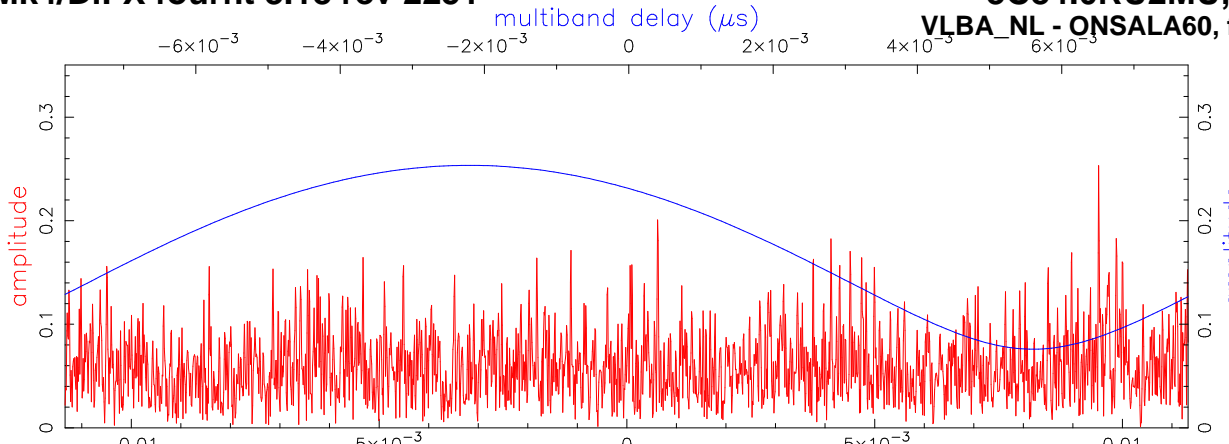


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
67.3	70.6	Phase	69.2				
0.3	0.4	Ampl.	0.3				
112.4	112.6	Sbd box	112.5				
U/L 936/0	936/0	APs used					
n 1000	1000	PC freqs					
X 1000	1000	PC freqs					
n:X 0:0	0:0	PC phase					
n:1000	1000	Manl PC					
X 1000	1000	PC amp					
n W01UL	W03UL	Chan ids					
X W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.06867072626E+03	Apriori delay (usec)	4.06879884440E+03	Resid mbdelay (usec)	-3.11815E-03	+/-	8.9E-04
Sband delay (usec)	4.06867003140E+03	Apriori clock (usec)	-3.1419449E+00	Resid sbdelay (usec)	-1.28813E-01	+/-	3.1E-03
Phase delay (usec)	4.06879884664E+03	Apriori clockrate (us/s)	-1.6400000E-07	Resid phdelay (usec)	2.23114E-06	+/-	6.6E-07
Delay rate (us/s)	1.08137146021E+00	Apriori rate (us/s)	1.08136299969E+00	Resid rate (us/s)	8.46053E-06	+/-	2.4E-09
Total phase (deg)	233.7	Apriori accel (us/s/s)	-3.48712417740E-05	Resid phase (deg)	69.2	+/-	20.5

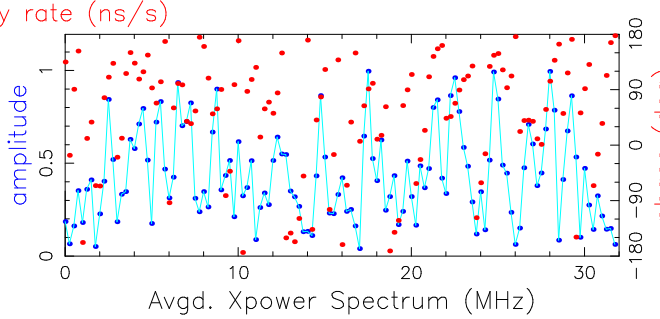
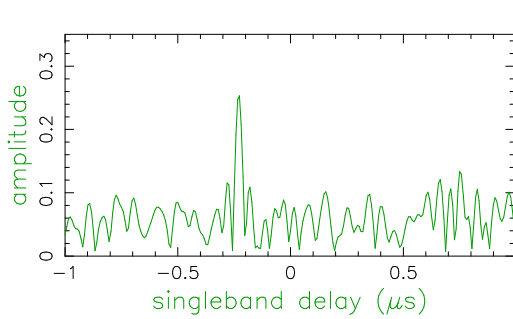
ph/seg (deg) RMS Theor. Amplitude 0.335 +/- 0.060 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 75.4 84.1 Search (2048X8) 0.250 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 150.2 146.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 0.0 14.5 Inc. seg. avg. 0.342 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
amp/frq (%) 11.9 25.3 Inc. frq. avg. 0.319 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
n: az 78.2 el 63.2 pa -77.1 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -8335.528 -3518.918 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nX.W.204.0RU2MU



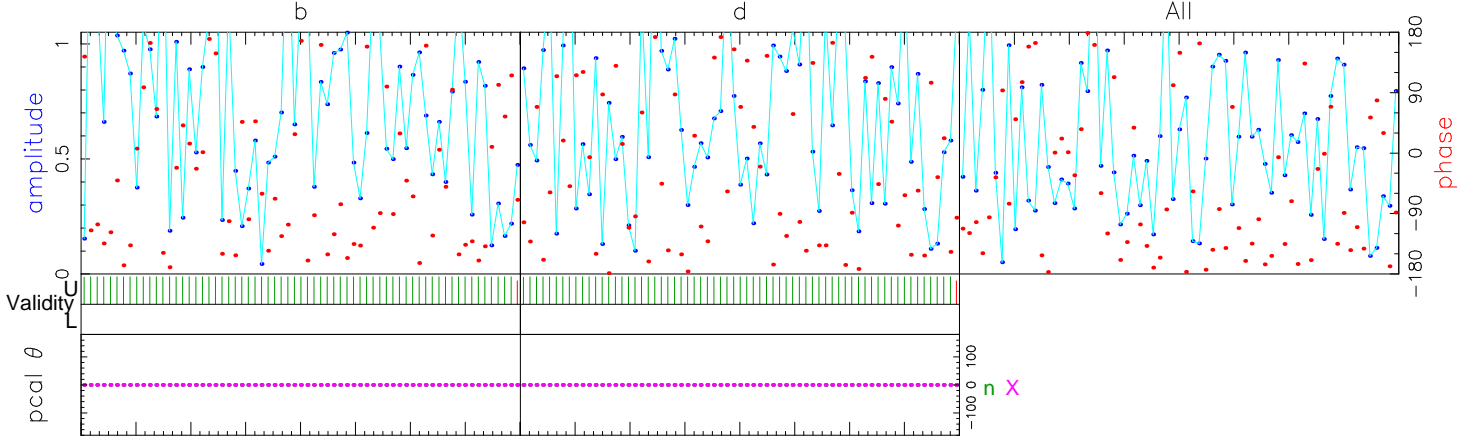
Fringe quality 0

SNR 5.4
Int time 478.922
Amp 0.350
Phase 139.4
PFD 7.9e-01
Delays (us)
SBD -0.229568
MBD -0.002390
Fringe rate (Hz)
0.820164
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150841
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

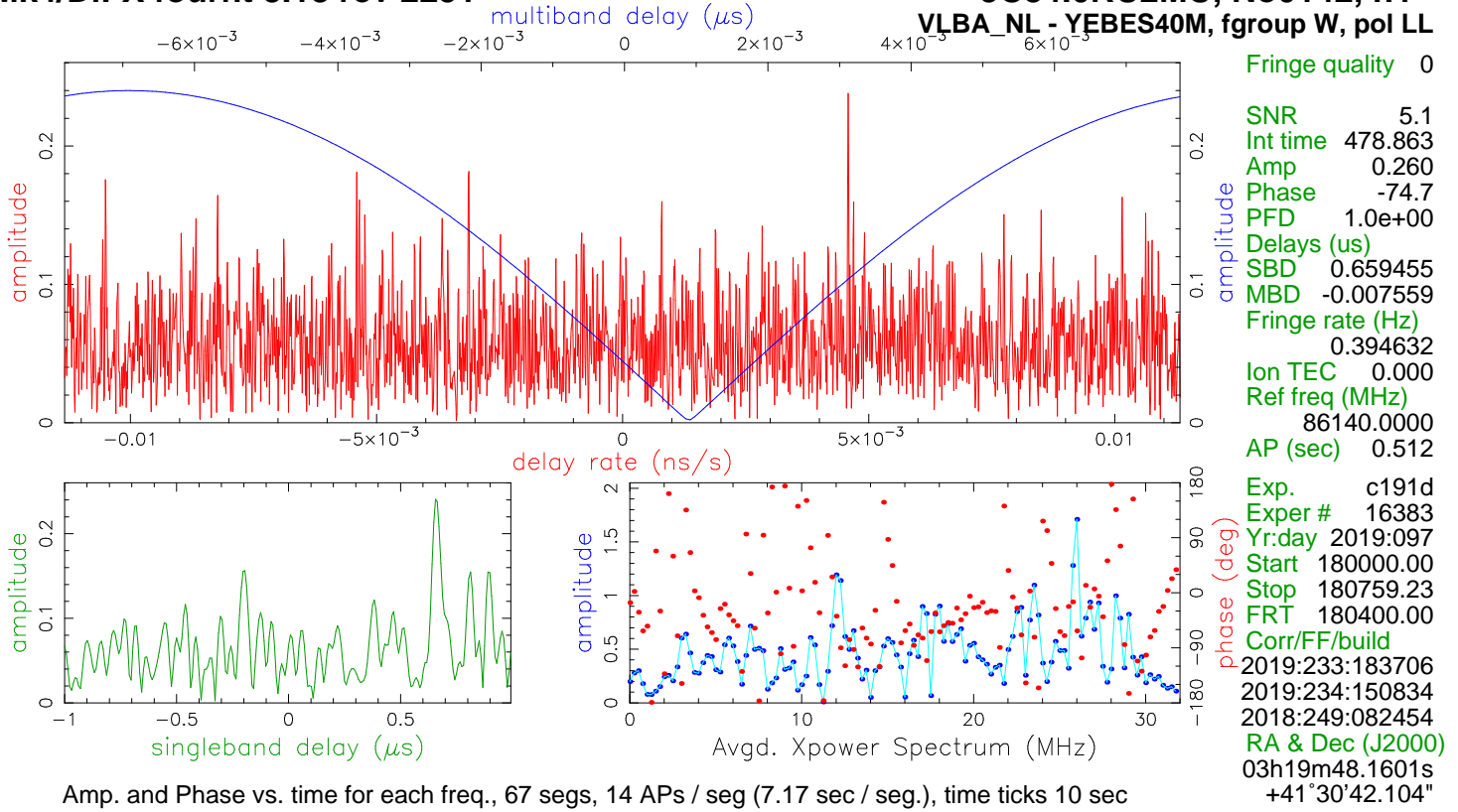


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

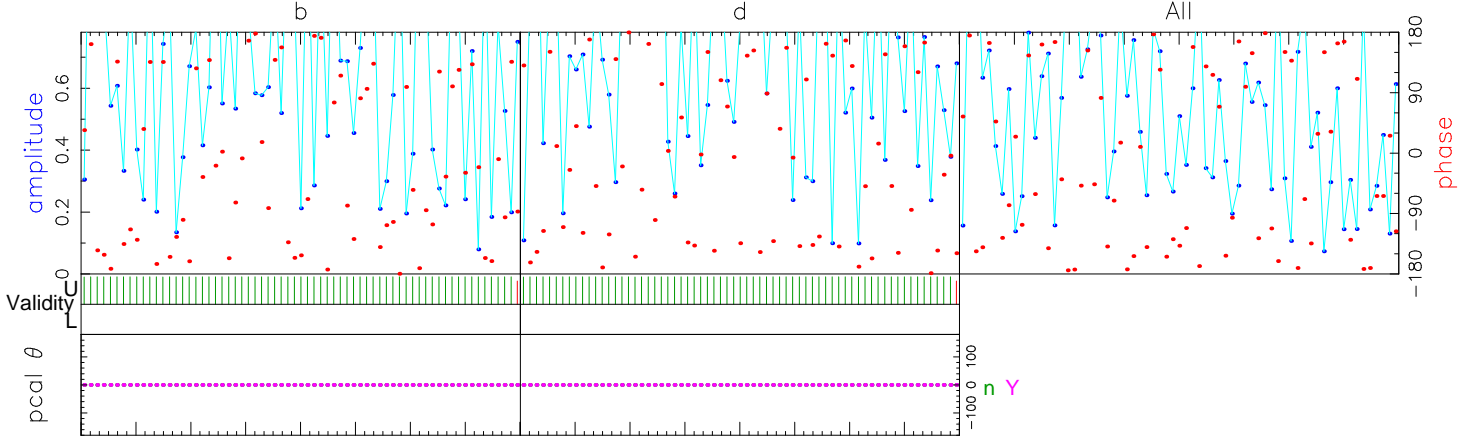


86156.00	86220.00	Freq (MHz)		All			
-132.0	-127.9	Phase		-130.6			
0.4	0.2	Ampl.		0.3			
100.1	99.1	Sbd box		99.6			
U/L 936/0	936/0	APs used					
n 1000	1000	PC freqs					
X 1000	1000	PC freqs					
n:X 0:0	0:0	PC phase					
n:X 0:0	0:0	Manl PC					
n 1000	1000	PC amp					
X 1000	1000	Chan ids					
n W01UR	W03UR	Tracks					
X W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	4.06856207969E+03	Apriori delay (usec)	4.06879884440E+03	Resid mbdelay (usec)	-2.38971E-03	+/-	9.1E-04
Sband delay (usec)	4.06856927640E+03	Apriori clock (usec)	-3.1419449E+00	Resid sbdelay (usec)	-2.29568E-01	+/-	3.2E-03
Phase delay (usec)	4.06879884019E+03	Apriori clockrate (us/s)	-1.6400000E-07	Resid phdelay (usec)	-4.21107E-06	+/-	6.8E-07
Delay rate (us/s)	1.08137252098E+00	Apriori rate (us/s)	1.08136299969E+00	Resid rate (us/s)	9.52129E-06	+/-	2.5E-09
Total phase (deg)	303.9	Apriori accel (us/s/s)	-3.48712417740E-05	Resid phase (deg)	139.4	+/-	21.1

ph/seg (deg)	RMS 85.3	Theor. 86.2	Amplitude Search (2048X8)	0.350 +/- 0.064	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	179.4	150.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.9	Inc. seg. avg.	0.366	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	29.6	26.0	Inc. frq. avg.	0.334	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00

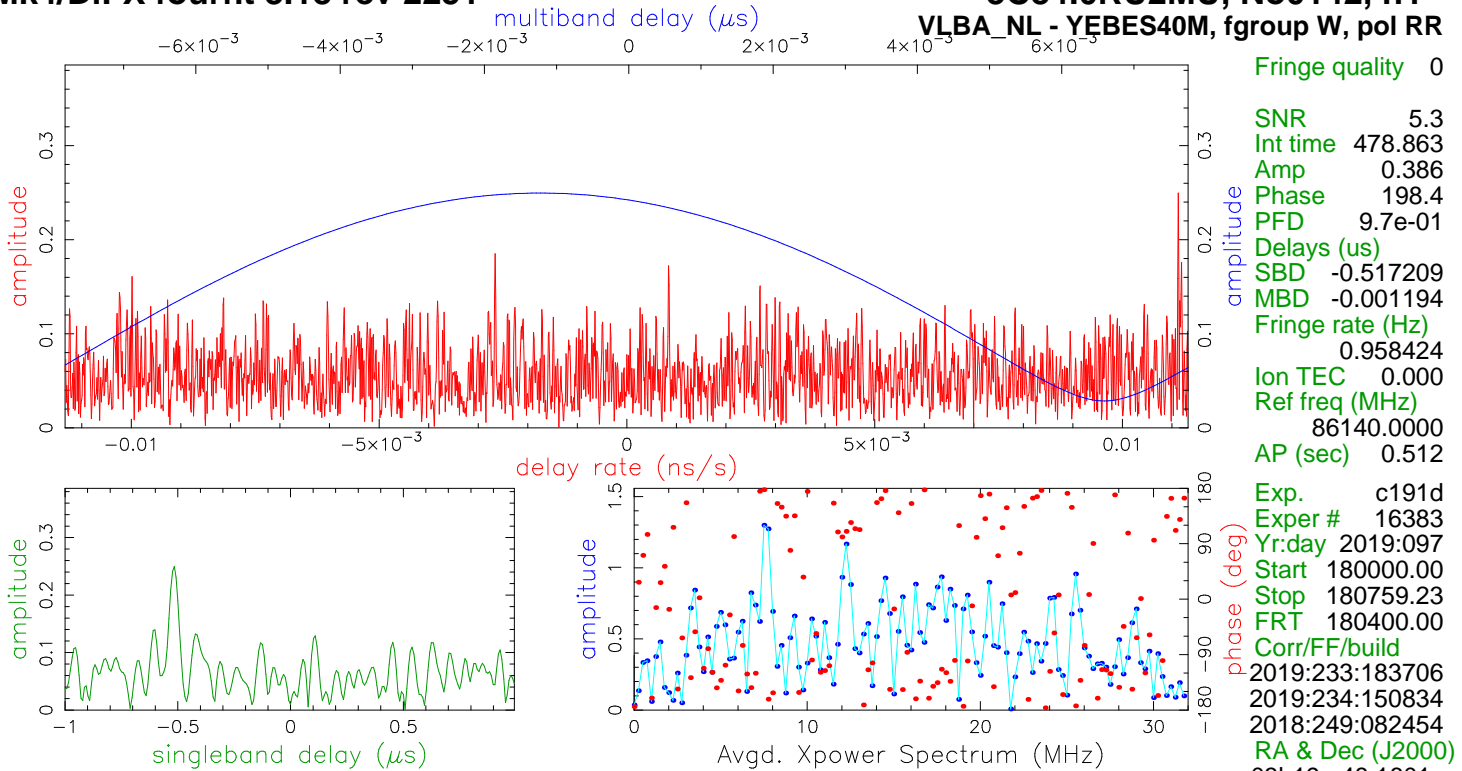


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

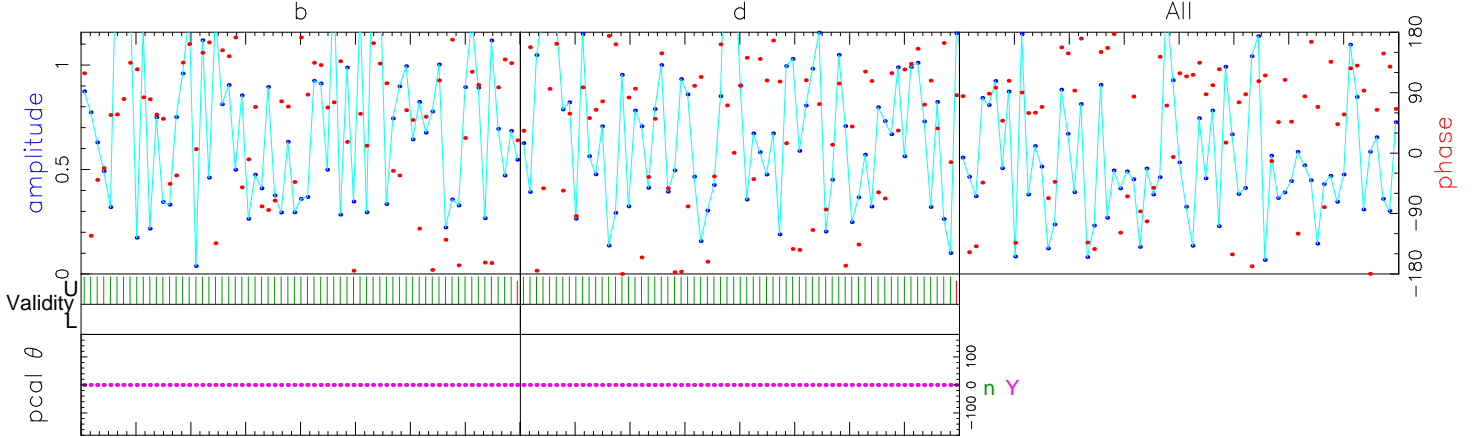


86156.00	86220.00	Freq (MHz)		All	
-172.2	-157.3	Phase		-164.7	
0.3	0.3	Ampl.		0.2	
212.8	213.8	Sbd box		213.4	
U/L 936/0	936/0	APs used			
n 1000	1000	PC freqs			
Y 1000	1000	PC freqs			
n:Y 0:0	0:0	PC phase			
n:Y 0:0	0:0	Manl PC			
n 1000	1000	PC amp			
Y 1000	1000				
n W01UL	W03UL	Chan ids			
Y W01UL	W03UL	Tracks			
		Chan ids			
		Tracks			
Group delay (usec)(sbd)	2.74095549714E+03	Apriori delay (usec)	2.74029118127E+03	Resid mbdelay (usec)	-7.55914E-03 +/- 9.7E-04
Sband delay (usec)	2.74095063627E+03	Apriori clock (usec)	1.4998451E+01	Resid sbdelay (usec)	6.59455E-01 +/- 3.3E-03
Phase delay (usec)	2.74029117596E+03	Apriori clockrate (us/s)	9.2999989E-08	Resid phdelay (usec)	-5.31081E-06 +/- 7.2E-07
Delay rate (us/s)	1.20768499254E+00	Apriori rate (us/s)	1.20768041125E+00	Resid rate (us/s)	4.58129E-06 +/- 2.6E-09
Total phase (deg)	-306.9	Apriori accel (us/s/s)	-1.32699906306E-05	Resid phase (deg)	-74.7 +/- 22.3

ph/seg (deg)	RMS 79.9	Theor. 91.1	Amplitude 0.260 +/- 0.051	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	165.1	159.1	Search (2048X8) 0.232	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	15.7	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	1.5	27.5	Inc. seg. avg. 0.248	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.248	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite			
n: az 78.2 el 63.2 pa -77.1	Y: az 289.3 el 51.1 pa 73.9		u,v (fr/asec) -9268.090 -726.004		simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c191d/v1/1234/No0142/nY..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/nY.W.161.0RU2MU					



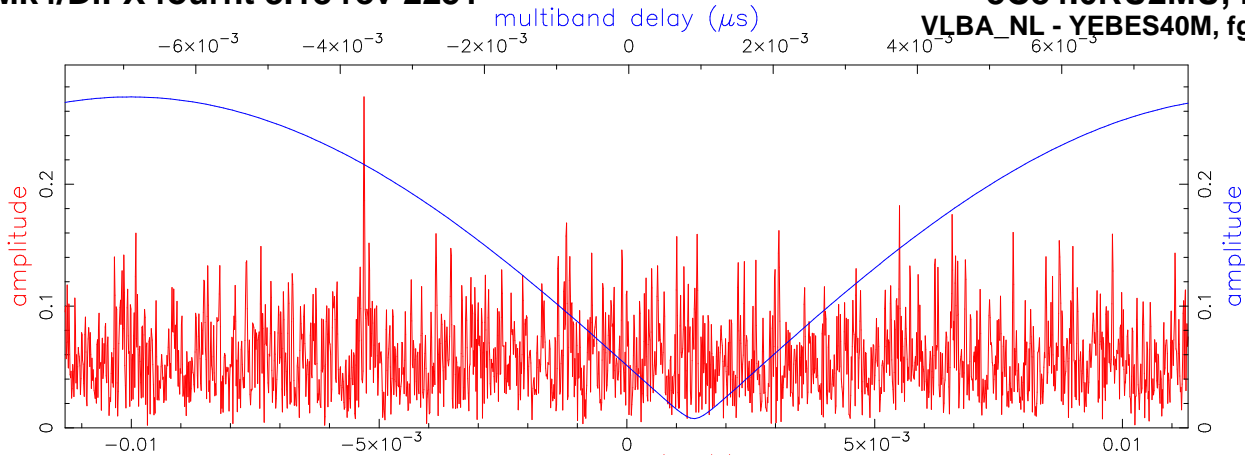
Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



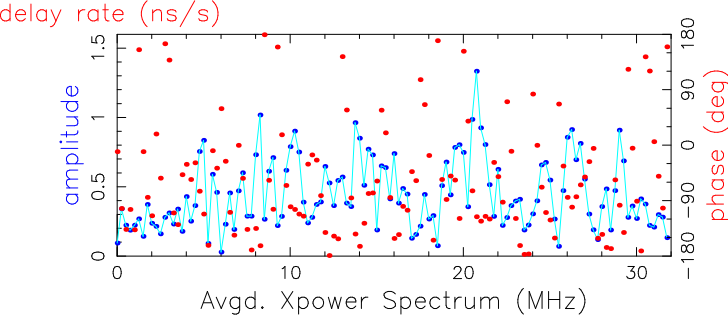
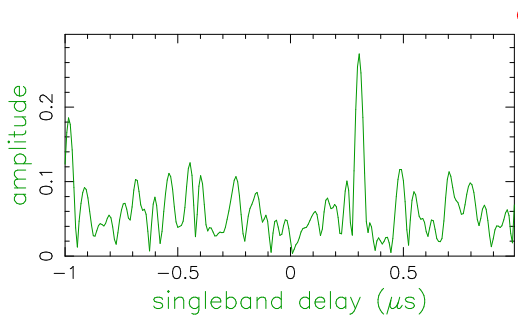
86156.00		86220.00		Freq (MHz)	All
108.7		108.0		Phase	108.4
0.4		0.3		Ampl.	0.4
63.9		61.0		Sbd box	62.8
U/L 936/0		936/0		APs used	
n 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
n:Y 0:0		0:0		PC phase	
n:Y 0:0		0:0		ManI PC	
n 1000		1000		PC amp	
Y 1000		1000			
n W01UR		W03UR		Chan ids	
Y W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	2.73977436230E+03	Apriori delay (usec)	2.74029118127E+03	Resid mbdelay (usec)	-1.19397E-03 +/- 9.4E-04
Sband delay (usec)	2.73977397227E+03	Apriori clock (usec)	1.4998451E+01	Resid sbdelay (usec)	-5.17209E-01 +/- 3.3E-03
Phase delay (usec)	2.74029118477E+03	Apriori clockrate (us/s)	9.2999989E-08	Resid phdelay (usec)	3.49615E-06 +/- 7.0E-07
Delay rate (us/s)	1.20769153760E+00	Apriori rate (us/s)	1.20768041125E+00	Resid rate (us/s)	1.11264E-05 +/- 2.5E-09
Total phase (deg)	326.2	Apriori accel (us/s/s)	-1.32699906306E-05	Resid phase (deg)	198.4 +/- 21.7

ph/seg (deg)	80.2	Theor.	88.6	Amplitude	0.386 +/- 0.073	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	162.5	Search (2048X8)	0.245	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.379	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	11.4	Inc. frq. avg.	0.372	Inc. frq. avg.	0.372	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
n: az 78.2 el 63.2 pa -77.1		Y: az 289.3 el 51.1 pa 73.9		u,v (fr/asec)	-9268.090 -726.004	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/nY..0RU2MU		Output file: /Exps/c191d/v1/1234/No0142/nY.W.169.0RU2MU		nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

simultaneous interpolator

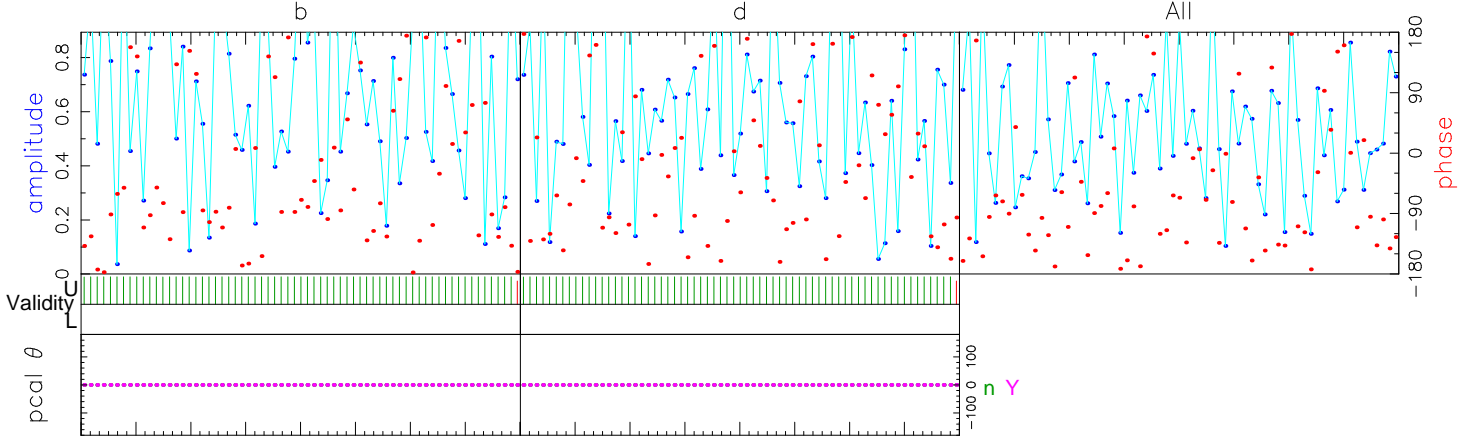


Fringe quality 0
 SNR 5.8
 Int time 478.863
 Amp 0.298
 Phase -109.3
 PFD 2.4e-01
 Delays (us)
 SBD 0.303881
 MBD -0.006940
 Fringe rate (Hz)
 -0.456587
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150836
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



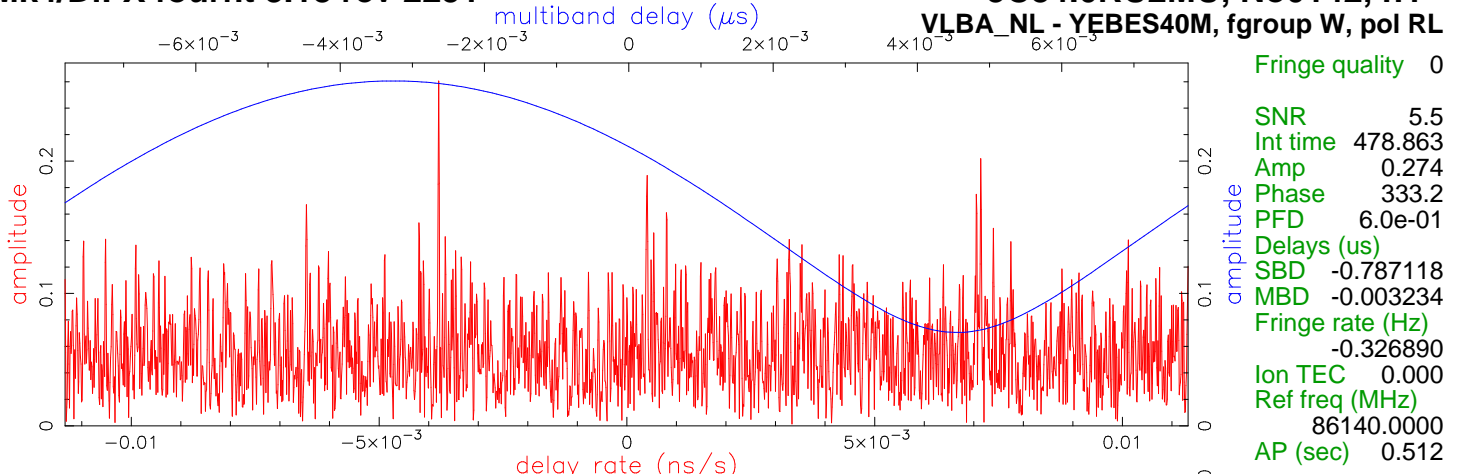
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	-109.7	0.3	167.7	U/L 936/0	n 1000	Y 1000	n:Y 0:0	n:Y 0:0	n 1000	Y 1000	n W01UL	Y W01UR	86220.00	-108.9	0.3	168.0	U/L 936/0	n 1000	Y 1000	n:Y 0:0	n:Y 0:0	n 1000	Y 1000	n W03UL	Y W03UR	86140.00	-109.3	0.3	167.9	All							
Group delay (usec)(sbd)	2.74059674126E+03	Apriori delay (usec)	2.74029118127E+03	Resid mbdelay (usec)	-6.94001E-03	+/-	8.6E-04	Sband delay (usec)	2.74059506227E+03	Apriori clock (usec)	1.4998451E+01	+/-	3.0E-03	Phase delay (usec)	2.74029117775E+03	Apriori clockrate (us/s)	9.2999989E-08	Resid sbdelay (usec)	3.03881E-01	+/-	6.4E-07	Delay rate (us/s)	1.20767511073E+00	Apriori rate (us/s)	1.20768041125E+00	Resid phdelay (usec)	-3.52533E-06	+/-	2.3E-09	Total phase (deg)	-341.6	Apriori accel (us/s/s)	-1.32699906306E-05	Resid rate (us/s)	-5.30052E-06	+/-	19.9

ph/seg (deg) 69.5 81.5 Theor. Amplitude 0.298 +/- 0.052 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 134.6 142.3 Search (2048X8) 0.262 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.8 24.6 Inc. seg. avg. 0.293 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 78.2 el 63.2 pa -77.1 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -9268.090 -726.004 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nY.W.179.0RU2MU



Fringe quality 0

SNR 5.5

Int time 478.863

Amp 0.274

Phase 333.2

PFD 6.0e-01

Delays (us)

SBD -0.787118

MBD -0.003234

Fringe rate (Hz)

-0.326890

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180000.00

Stop 180759.23

FRT 180400.00

Corr/FF/build

2019:233:183706

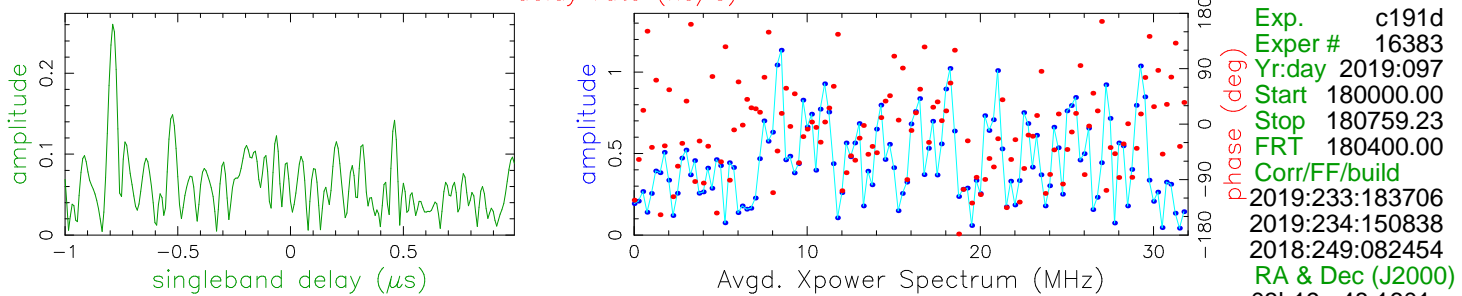
2019:234:150838

2018:249:082454

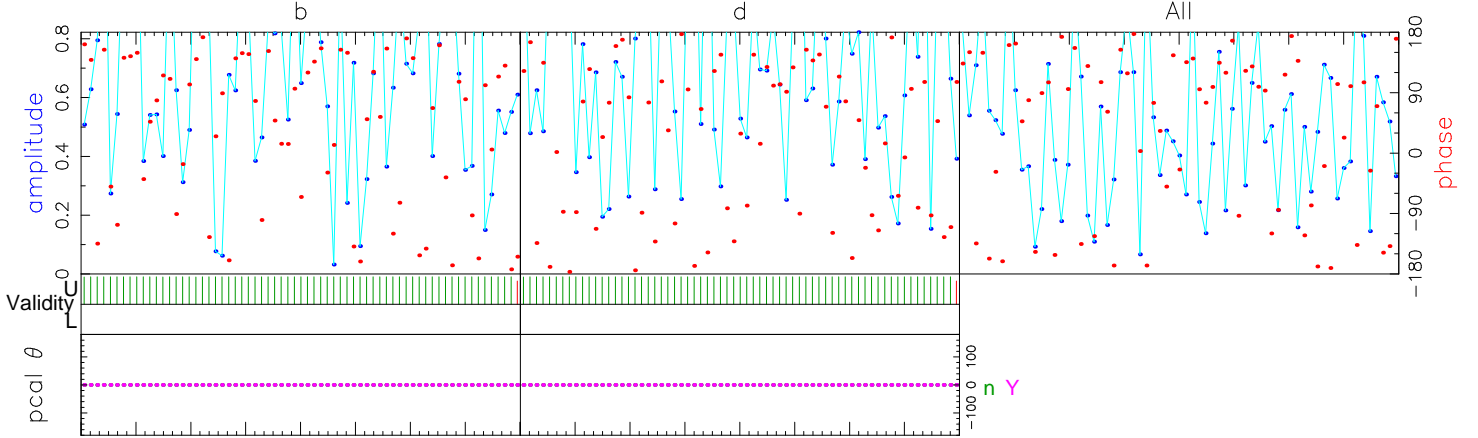
RA & Dec (J2000)

03h19m48.1601s

+41°30'42.104"



Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

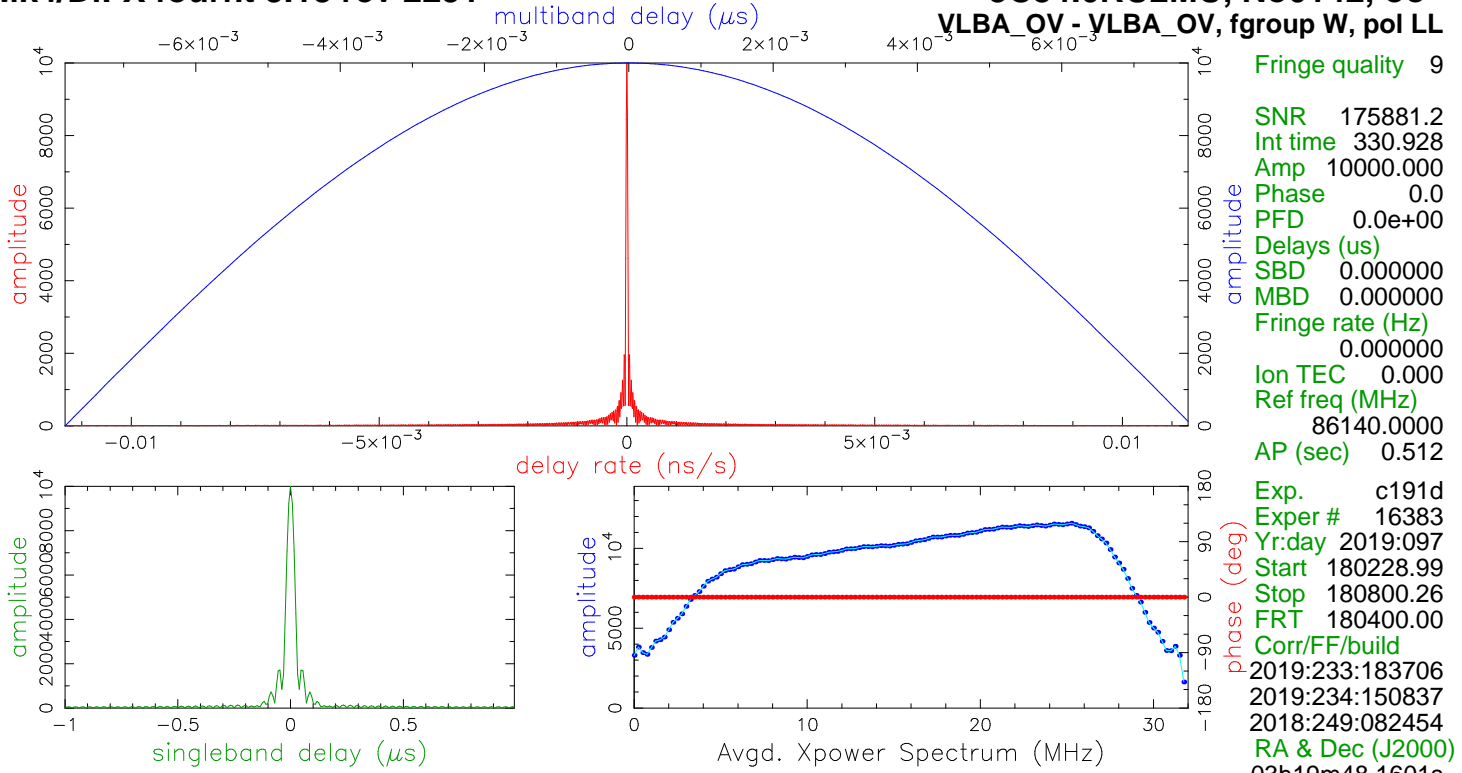


86156.00	86220.00	Freq (MHz)	All				
153.5	152.8	Phase	153.2				
0.3	0.2	Ampl.	0.3				
27.9	169.5	Sbd box	28.2				
U/L 936/0	936/0	APs used					
n 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
n:Y 0:0	0:0	PC phase					
n:Y 0:0	0:0	Manl PC					
n 1000	1000	PC amp					
Y 1000	1000						
n W01UR	W03UR	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	2.73950669736E+03	Apriori delay (usec)	2.74029118127E+03	Resid mbdelay (usec)	-3.23391E-03	+/-	9.0E-04
Sband delay (usec)	2.73950406327E+03	Apriori clock (usec)	1.4998451E+01	Resid sbdelay (usec)	-7.87118E-01	+/-	3.1E-03
Phase delay (usec)	2.74029118621E+03	Apriori clockrate (us/s)	9.2999989E-08	Resid phdelay (usec)	4.94142E-06	+/-	6.7E-07
Delay rate (us/s)	1.20767661637E+00	Apriori rate (us/s)	1.20768041125E+00	Resid rate (us/s)	-3.79487E-06	+/-	2.4E-09
Total phase (deg)	101.0	Apriori accel (us/s/s)	-1.32699906306E-05	Resid phase (deg)	333.2	+/-	20.7

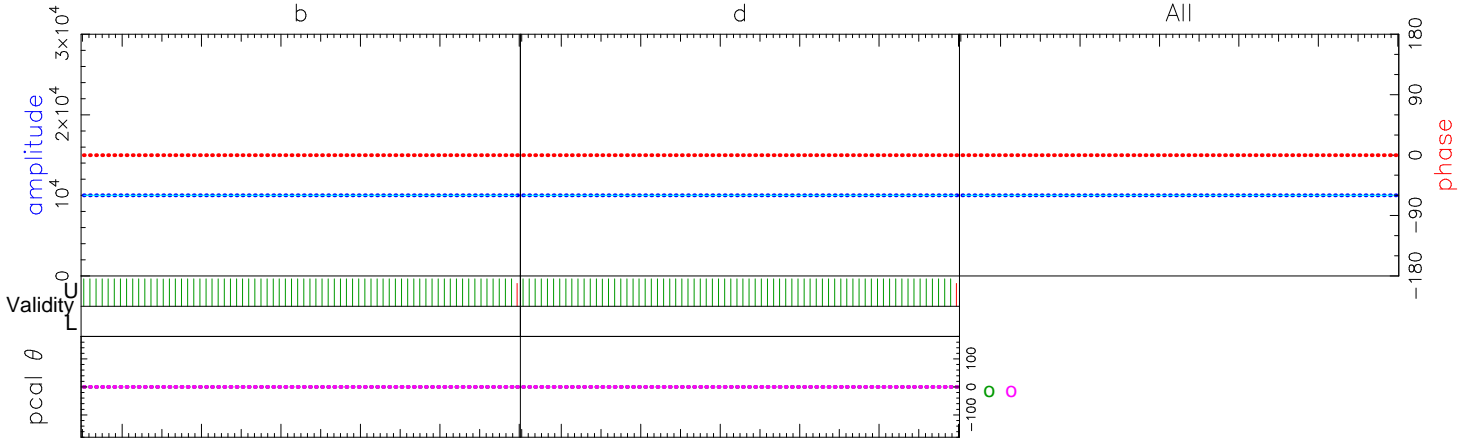
ph/seg (deg)	RMS 77.1	Theor. 84.7	Amplitude Search (2048X8)	0.274 +/- 0.050	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	141.2	147.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	14.6	Inc. seg. avg.	0.257	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	27.0	25.5	Inc. frq. avg.	0.264	Sample rate(MSamp/s): 64	Data rate(Mb/s): 256	ion window (TEC)	0.00	0.00

n: az 78.2 el 63.2 pa -77.1 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -9268.090 -726.004 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/nY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/nY.W.203.0RU2MU

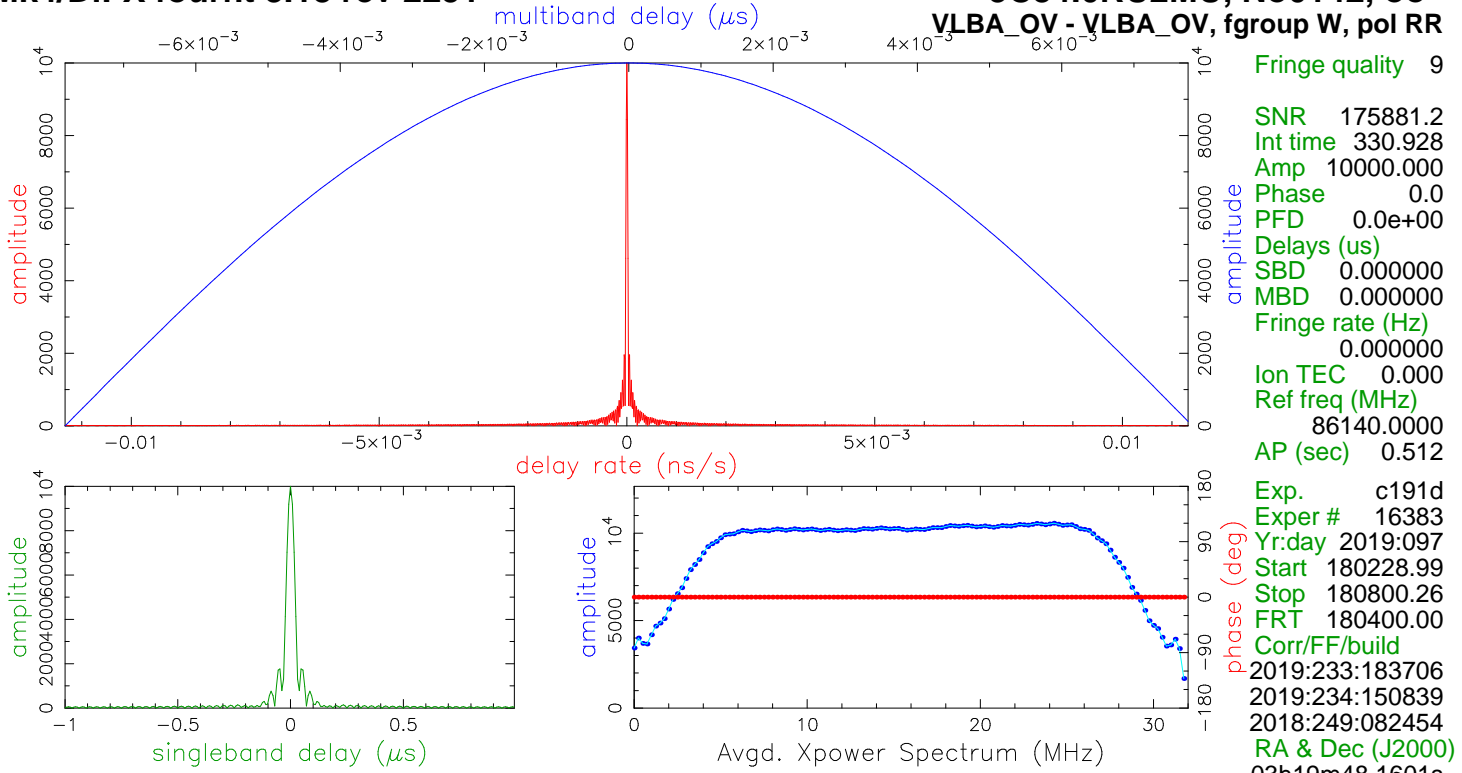


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

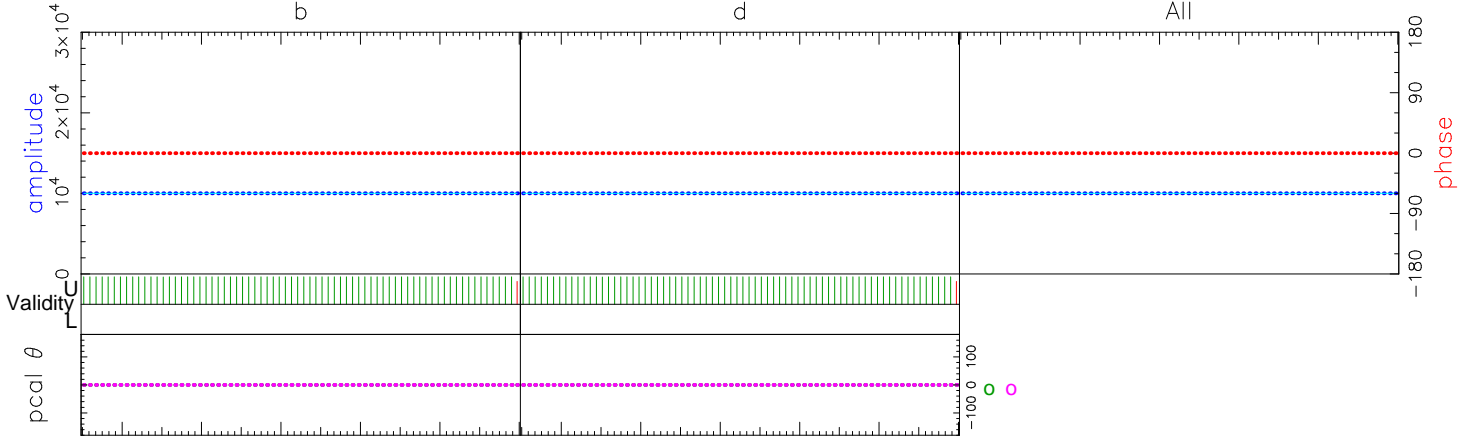


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 647/0	647/0	APs used					
o 1000	1000	PC freqs					
o 1000	1000	PC freqs					
o:0 0:0	0:0	PC phase					
o:0 0:0	0:0	Manl PC					
o 1000	1000	PC amp					
o 1000	1000						
o W01UL	W03UL	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.1E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	0.0	Amplitude	10000.000 +/- 0.057	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) -1.000 1.000
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	mb window (us) -0.008 0.008
			Inc. frq. avg.	10000.000	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

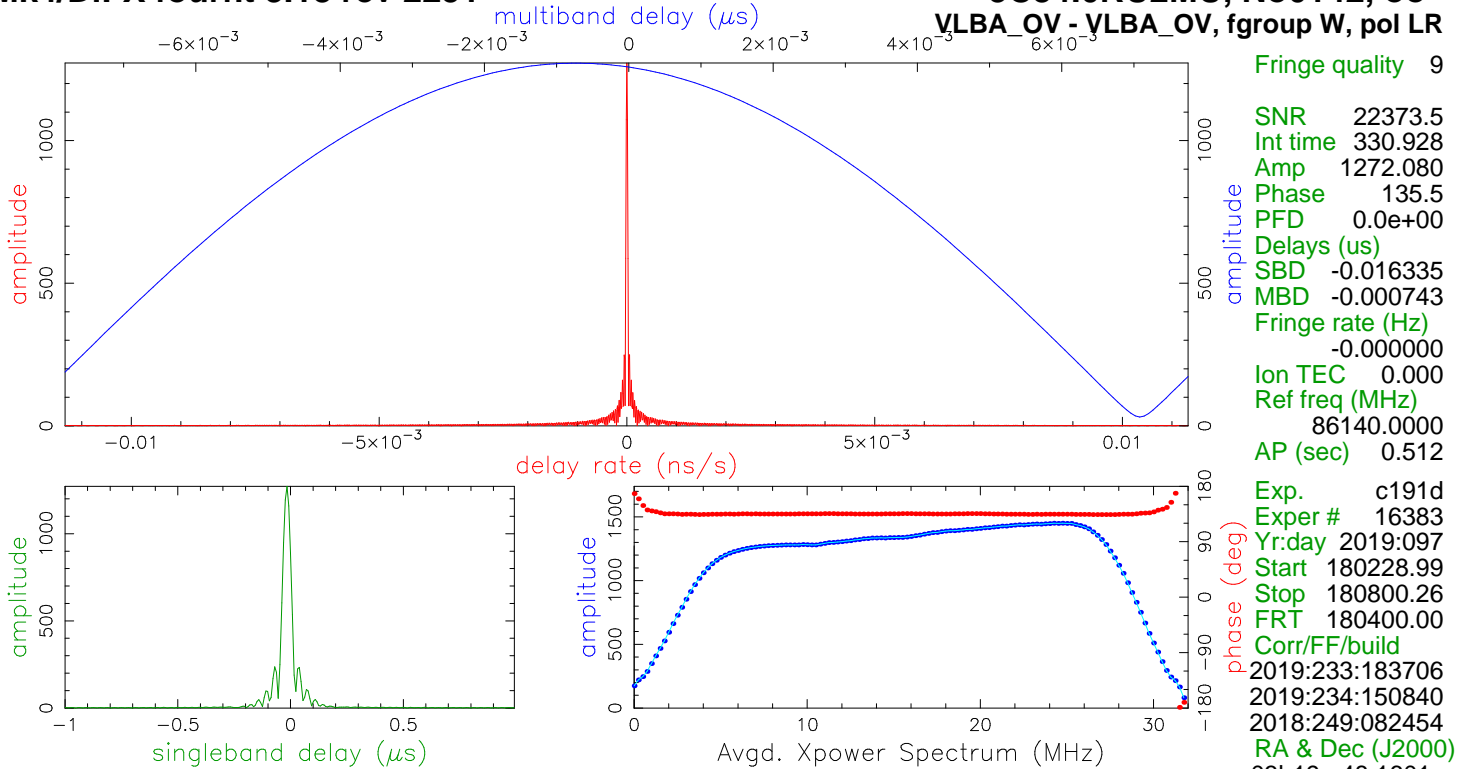


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

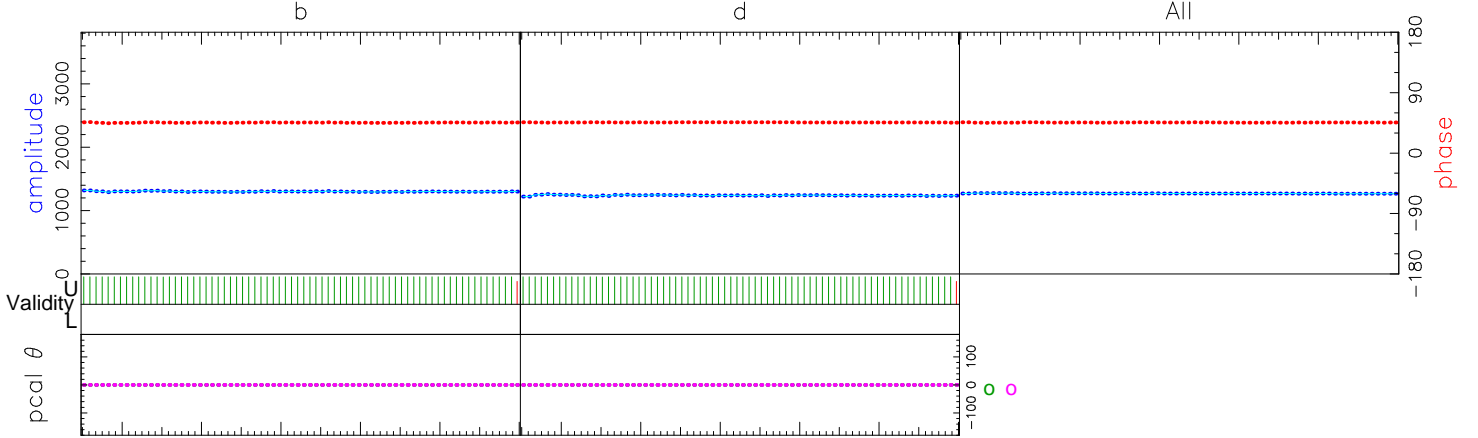


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 647/0	647/0	APs used					
o 1000	1000	PC freqs					
o 1000	1000	PC freqs					
o:0 0:0	0:0	PC phase					
o:0 0:0	0:0	Mani PC					
o 1000	1000	PC amp					
o 1000	1000						
o W01UR	W03UR	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.1E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	Search (2048X8)	10000.000	10000.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	Interp.	0.000	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	10000.000	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	10000.000	10000.000	Data rate(Mb/s):	256	ion window (TEC)	0.00 0.00		
						nlags:	128	t_cohere	infinite		



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
45.4	45.7	Phase	45.5				
1301.9	1240.7	Ampl.	1271.3				
126.9	126.9	Sbd box	126.9				
U/L 647/0	647/0	APs used					
o 1000	1000	PC freqs					
o 1000	1000	PC freqs					
o:0 0:0	0:0	PC phase					
o:0 0:0	0:0	Manl PC					
o 1000	1000	PC amp					
o 1000	1000						
o W01UL	W03UL	Chan ids					
o W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.63683750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-7.43375E-04	+/-	2.2E-07
Sband delay (usec)	-1.63345000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.63345E-02	+/-	7.7E-07
Phase delay (usec)	1.46752695643E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.46753E-06	+/-	1.7E-10
Delay rate (us/s)	-1.41711523917E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.41712E-12	+/-	8.6E-13
Total phase (deg)	135.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	135.5	+/-	0.0

ph/seg (deg) 0.2 0.0 Search (2048X8) 1257.628 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

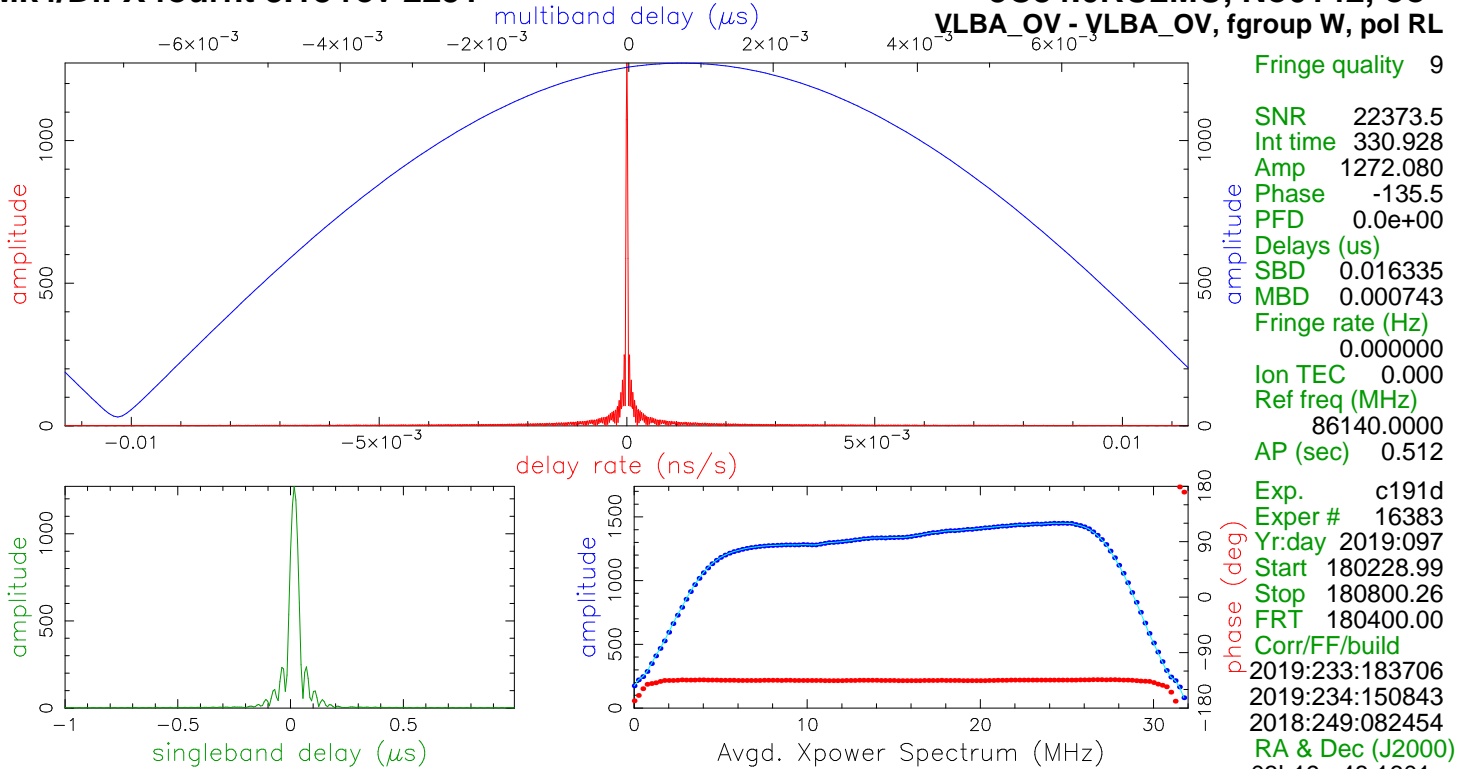
amp/seg (%) 0.2 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Inc. seg. avg. 1271.287 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 2.4 0.0 Inc. frq. avg. 1271.285 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

o: az 64.2 el 42.3 pa -73.2 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/oo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/oo.W.223.0RU2MU

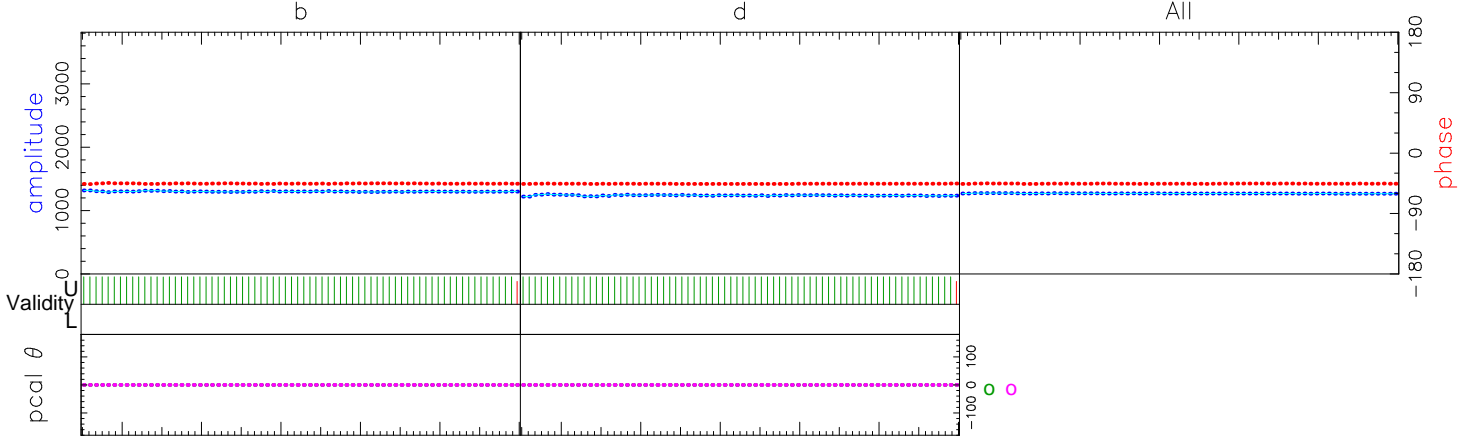


Fringe quality 9

SNR 22373.5
 Int time 330.928
 Amp 1272.080
 Phase -135.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.016335
 MBD 0.000743
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

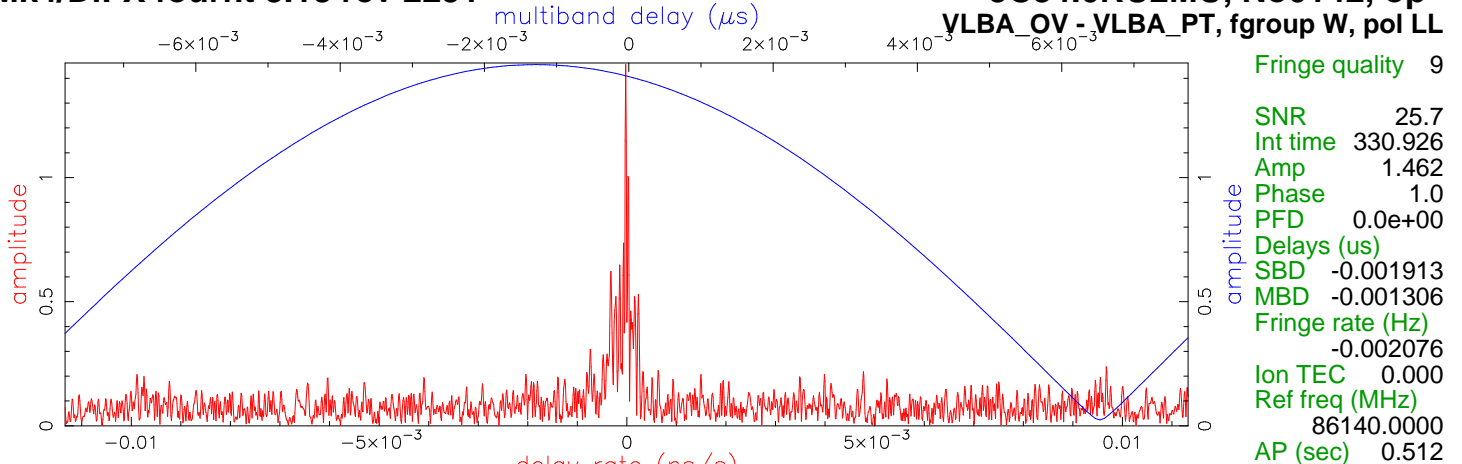
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



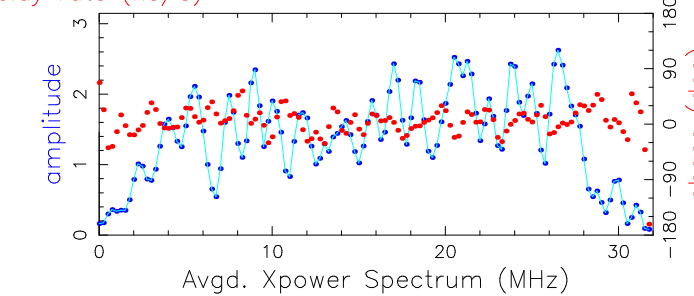
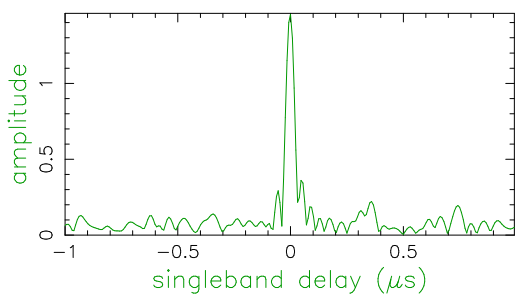
86156.00	86220.00	Freq (MHz)	All
-45.4	-45.7	Phase	-45.5
1301.9	1240.7	Ampl.	1271.3
131.1	131.1	Sbd box	131.1
U/L 647/0	647/0	APs used	
o 1000	1000	PC freqs	
o 1000	1000	PC freqs	
o:0 0:0	0:0	PC phase	
o:0 0:0	0:0	Manl PC	
o 1000	1000	PC amp	
o 1000	1000		
o W01UR	W03UR	Chan ids	
o W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	1.63683750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	7.43375E-04	+/- 2.2E-07
Sband delay (usec)	1.63345000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.63345E-02	+/- 7.7E-07
Phase delay (usec)	-1.46752695614E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.46753E-06	+/- 1.7E-10
Delay rate (us/s)	1.41711523917E-12	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.41712E-12	+/- 8.6E-13
Total phase (deg)	-135.5	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-135.5	+/- 0.0

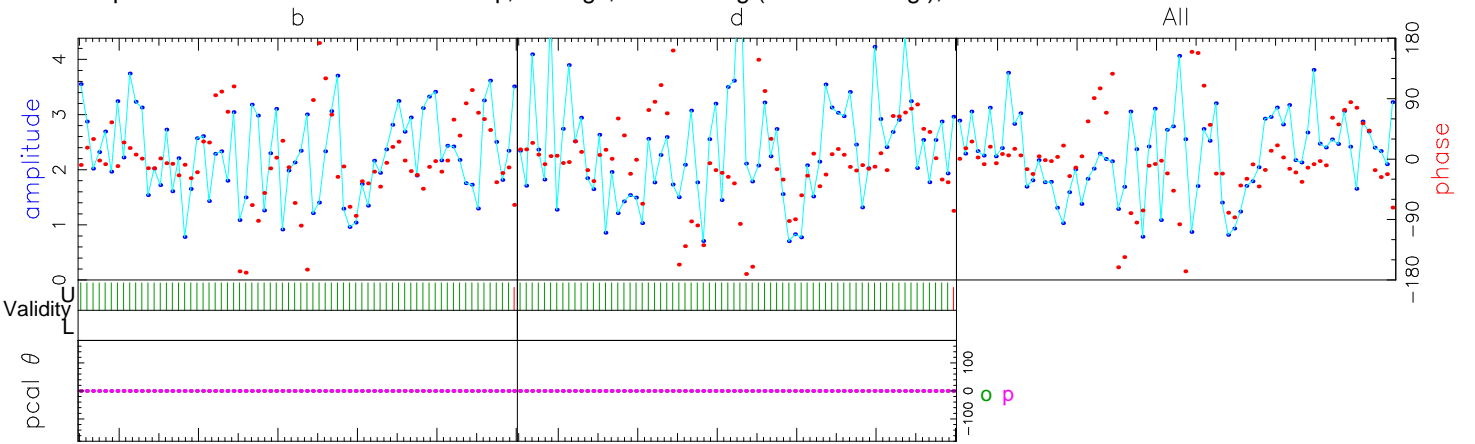
ph/seg (deg) 0.2 0.0 Search (2048X8) 1257.628 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.2 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 1271.287 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.4 0.0 Inc. frq. avg. 1271.285 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 64.2 el 42.3 pa -73.2 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/oo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/oo.W.248.0RU2MU simultaneous interpolator



Fringe quality 9
SNR 25.7
Int time 330.926
Amp 1.462
Phase 1.0
PFD 0.0e+00
Delays (us)
SBD -0.001913
MBD -0.001306
Fringe rate (Hz)
-0.002076
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150836
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

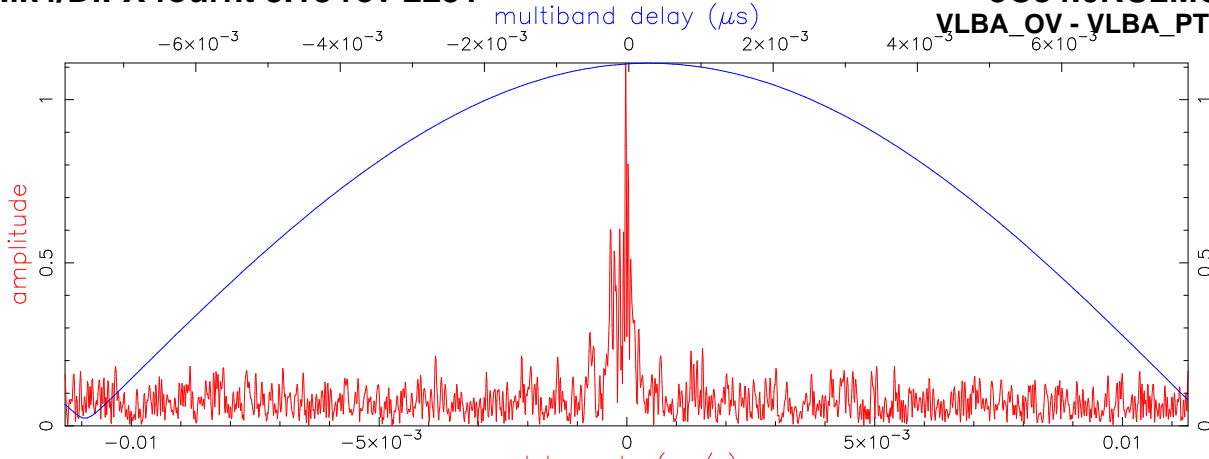


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
0.8	1.3	Phase	1.0				
1.5	1.4	Ampl.	1.5				
129.0	128.5	Sbd box	128.8				
U/L 647/0	647/0	APs used					
o 1000	1000	PC freqs					
p 1000	1000	PC freqs					
o:p 0:0	0:0	PC phase					
o:p 0:0	0:0	Manl PC					
o 1000	1000	PC amp					
p 1000	1000						
o W01UL	W03UL	Chan ids					
p W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.58563566733E+03	Apriori delay (usec)	-1.58563436119E+03	Resid mbdelay (usec)	-1.30613E-03	+/-	1.9E-04
Sband delay (usec)	-1.58563627419E+03	Apriori clock (usec)	6.0299535E+00	Resid sbdelay (usec)	-1.91300E-03	+/-	6.7E-04
Phase delay (usec)	-1.58563436116E+03	Apriori clockrate (us/s)	7.4560014E-08	Resid phdelay (usec)	3.32236E-08	+/-	1.4E-07
Delay rate (us/s)	6.25943750635E-02	Apriori rate (us/s)	6.25943991601E-02	Resid rate (us/s)	-2.40966E-08	+/-	7.5E-10
Total phase (deg)	-313.2	Apriori accel (us/s/s)	1.15618786028E-05	Resid phase (deg)	1.0	+/-	4.5

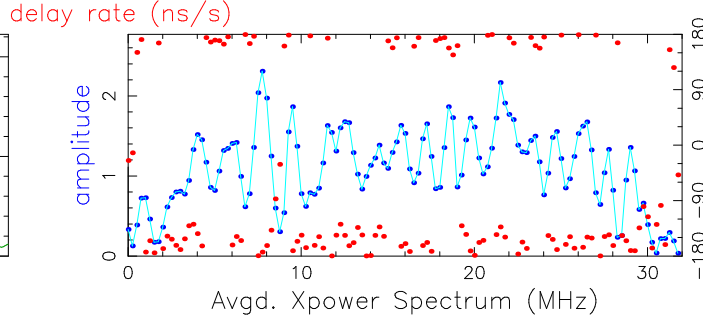
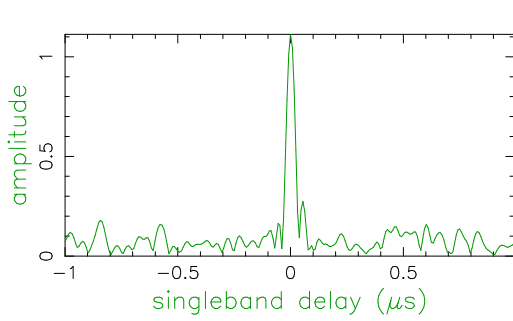
ph/seg (deg) 62.2 18.9 Theor. Amplitude 1.462 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.9 33.0 Search (2048X8) 1.432 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 3.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.7 5.5 Inc. seg. avg. 2.166 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 64.2 el 42.3 pa -73.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -459.996 1084.566 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/op..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/op.W.187.0RU2MU simultaneous interpolator



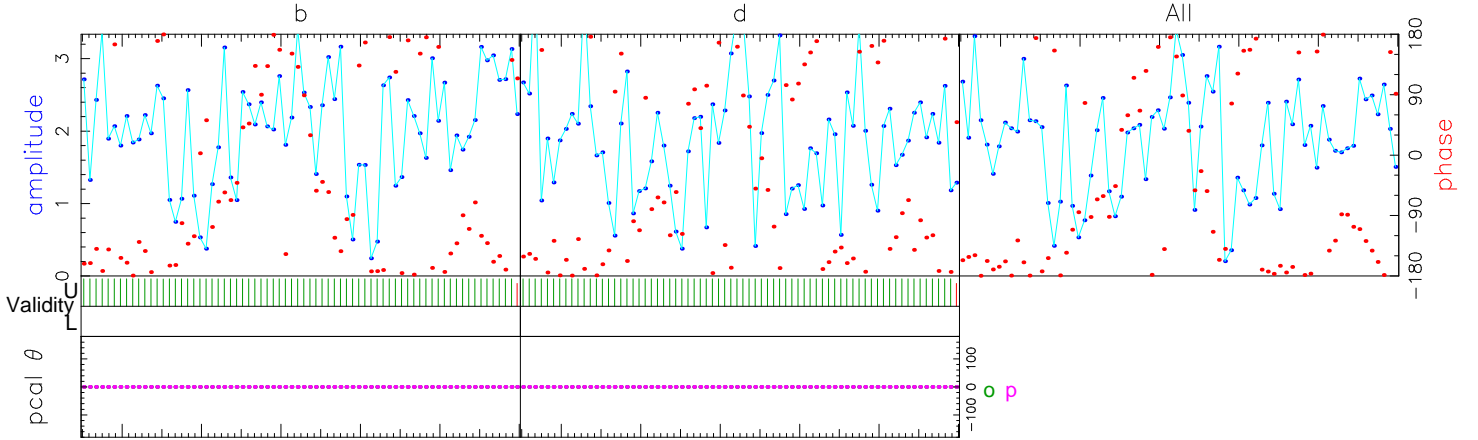
Fringe quality 9

SNR 19.6
Int time 330.926
Amp 1.113
Phase -163.7
PFD 0.0e+00
Delays (us)
SBD 0.000808
MBD 0.000275
Fringe rate (Hz)
-0.002099
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150839
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

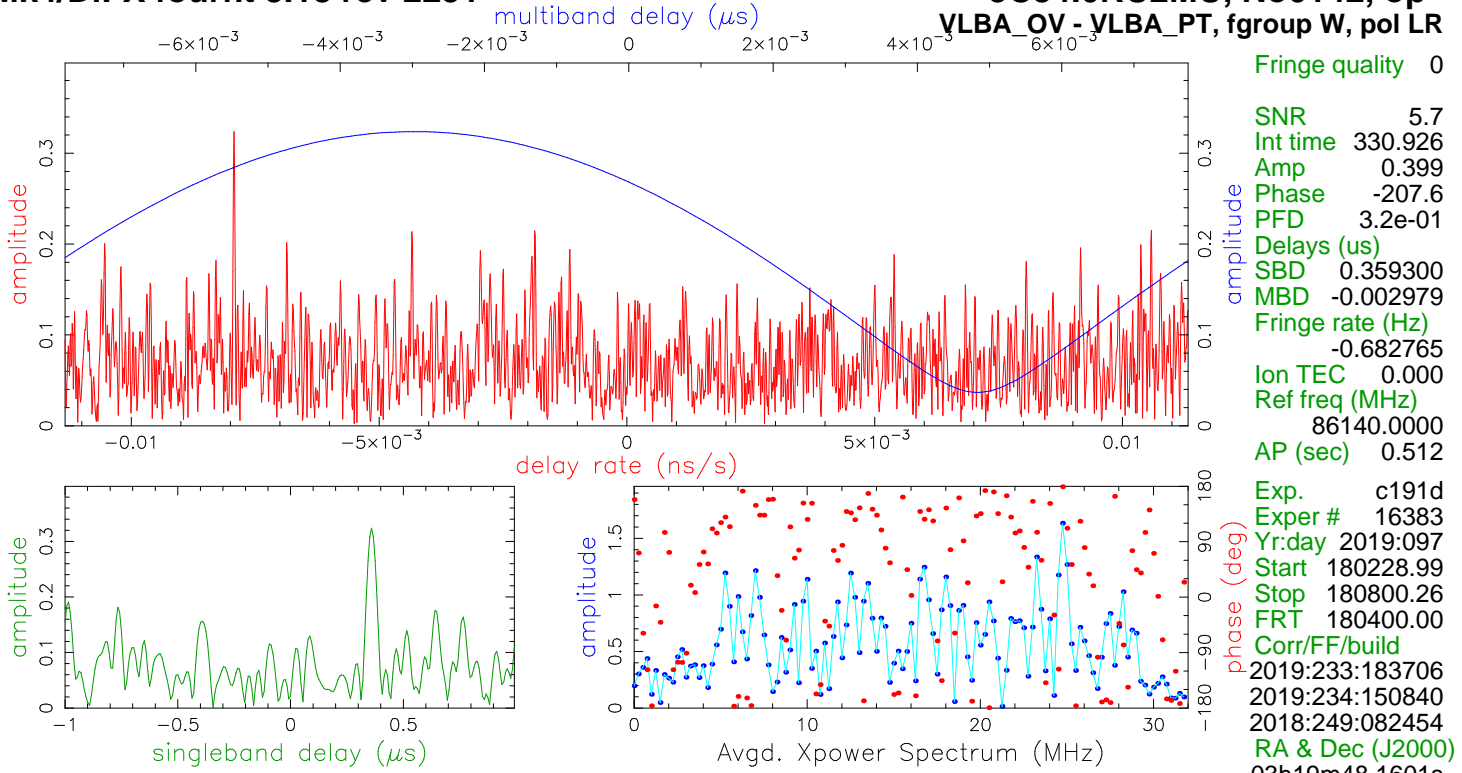


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

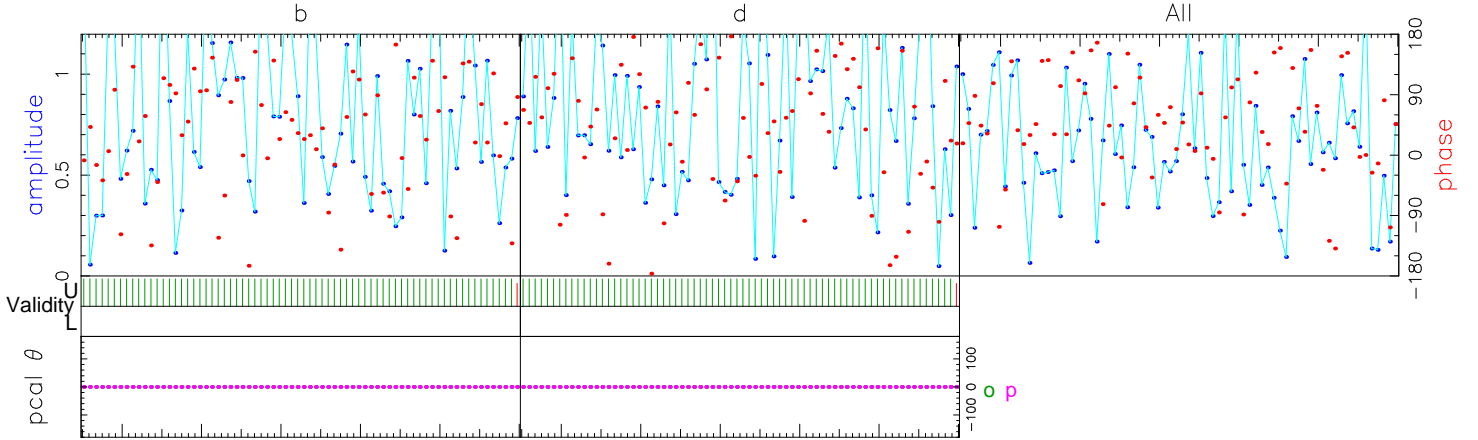


86156.00		86220.00		Freq (MHz)	All
-163.8		-163.7		Phase	-163.7
1.1		1.1		Ampl.	1.1
129.0		129.2		Sbd box	129.1
U/L 647/0		647/0		APs used	
o 1000		1000		PC freqs	
p 1000		1000		PC freqs	
o:p 0:0		0:0		PC phase	
o:p 0:0		0:0		Manl PC	
o 1000		1000		PC amp	
p 1000		1000			
o W01UR		W03UR		Chan ids	
p W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.58563408645E+03	Apriori delay (usec)	-1.58563436119E+03	Resid mbdelay (usec)	2.74741E-04 +/- 2.5E-04
Sband delay (usec)	-1.58563355269E+03	Apriori clock (usec)	6.0299535E+00	Resid sbdelay (usec)	8.08500E-04 +/- 8.8E-04
Phase delay (usec)	-1.58563436647E+03	Apriori clockrate (us/s)	7.4560014E-08	Resid phdelay (usec)	-5.28014E-06 +/- 1.9E-07
Delay rate (us/s)	6.25943747921E-02	Apriori rate (us/s)	6.25943991601E-02	Resid rate (us/s)	-2.43680E-08 +/- 9.9E-10
Total phase (deg)	-118.0	Apriori accel (us/s/s)	1.15618786028E-05	Resid phase (deg)	-163.7 +/- 5.9

ph/seg (deg)	64.1	RMS	24.8	Theor.	24.8	Amplitude	1.113 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	94.0	Search (2048X8)	1.099	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	0.0	Inc. seg. avg.	1.713	Inc. frq. avg.	1.109	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
amp/frq (%)	2.1	u, v (fr/asec)	-459.996	1084.566		Sample rate (MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Control file:	cf_1234_gmva	Input file:	/Exps/c191d/v1/1234/No0142/op..0RU2MU	Data rate (Mb/s):	256	ion window (TEC)	0.00	0.00		



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

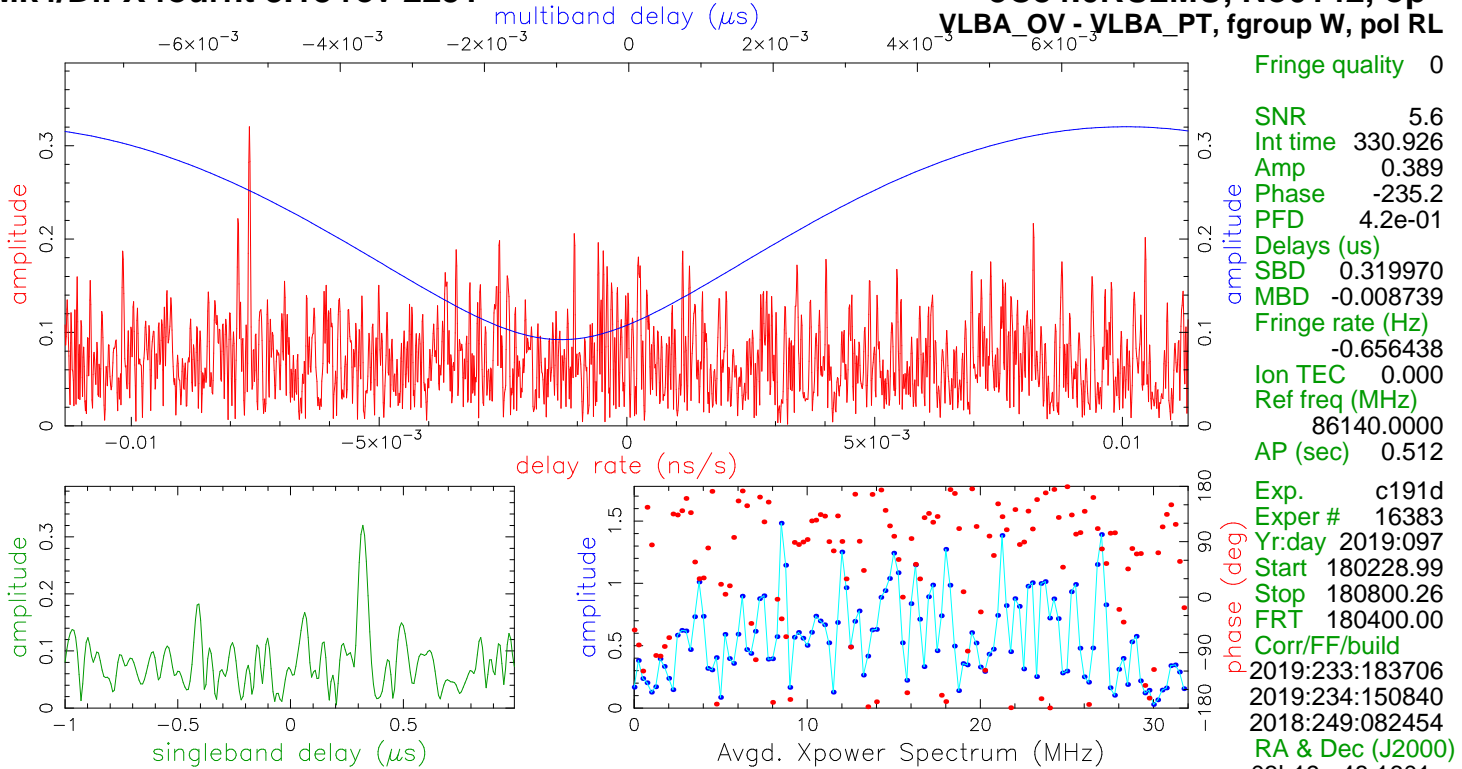


86156.00		86220.00		Freq (MHz)	All
62.4		62.4		Phase	62.4
0.4		0.4		Ampl.	0.4
175.2		174.5		Sbd box	175.0
U/L 647/0		647/0		APs used	
o 1000		1000		PC freqs	
p 1000		1000		PC freqs	
o:p 0:0		0:0		PC phase	
o:p 0:0		0:0		Manl PC	
o 1000		1000		PC amp	
p 1000		1000			
o W01UL		W03UL		Chan ids	
p W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.58527796546E+03	Apriori delay (usec)	-1.58563436119E+03	Resid mbdelay (usec)	-2.97927E-03 +/- 8.7E-04
Sband delay (usec)	-1.58527506169E+03	Apriori clock (usec)	6.0299535E+00	Resid sbdelay (usec)	3.59300E-01 +/- 3.0E-03
Phase delay (usec)	-1.58563435918E+03	Apriori clockrate (us/s)	7.4560014E-08	Resid phdelay (usec)	2.01279E-06 +/- 6.5E-07
Delay rate (us/s)	6.25864729363E-02	Apriori rate (us/s)	6.25943991601E-02	Resid rate (us/s)	-7.92622E-06 +/- 3.4E-09
Total phase (deg)	-161.9	Apriori accel (us/s/s)	1.15618786028E-05	Resid phase (deg)	-207.6 +/- 20.1

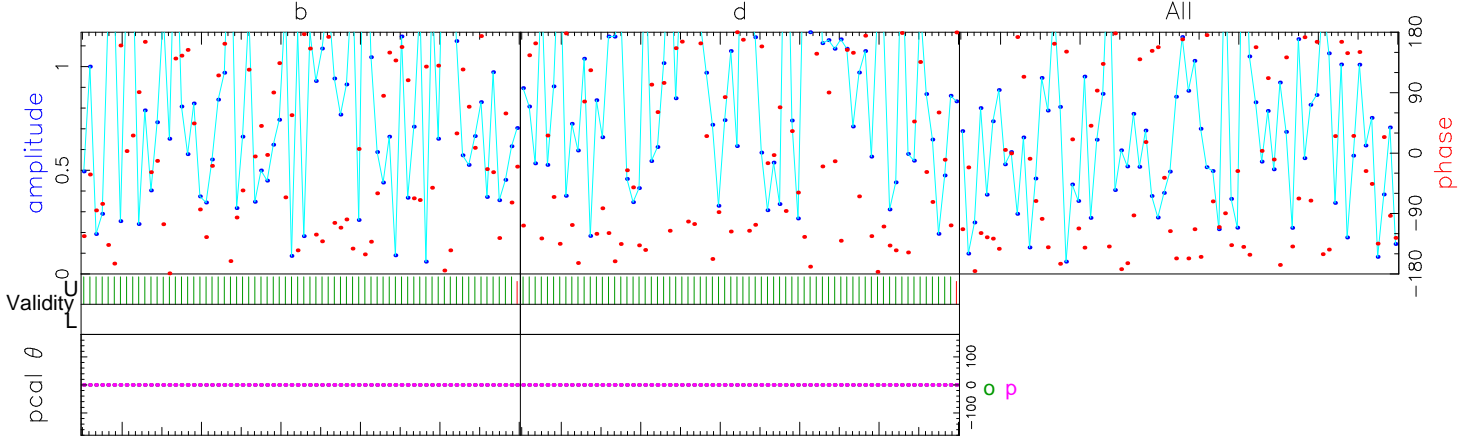
ph/seg (deg)	RMS 73.9	Theor. 85.4	Amplitude Search (2048X8)	0.399 +/- 0.070	0.320	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	141.4	149.0	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.2	Inc. seg. avg.	0.384		Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.4	24.8	Inc. frq. avg.	0.387		Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
						Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
						nlags: 128	t_cohere infinite
							ion window (TEC) 0.00 0.00

o: az 64.2 el 42.3 pa -73.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -459.996 1084.566 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/op..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/op.W.220.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

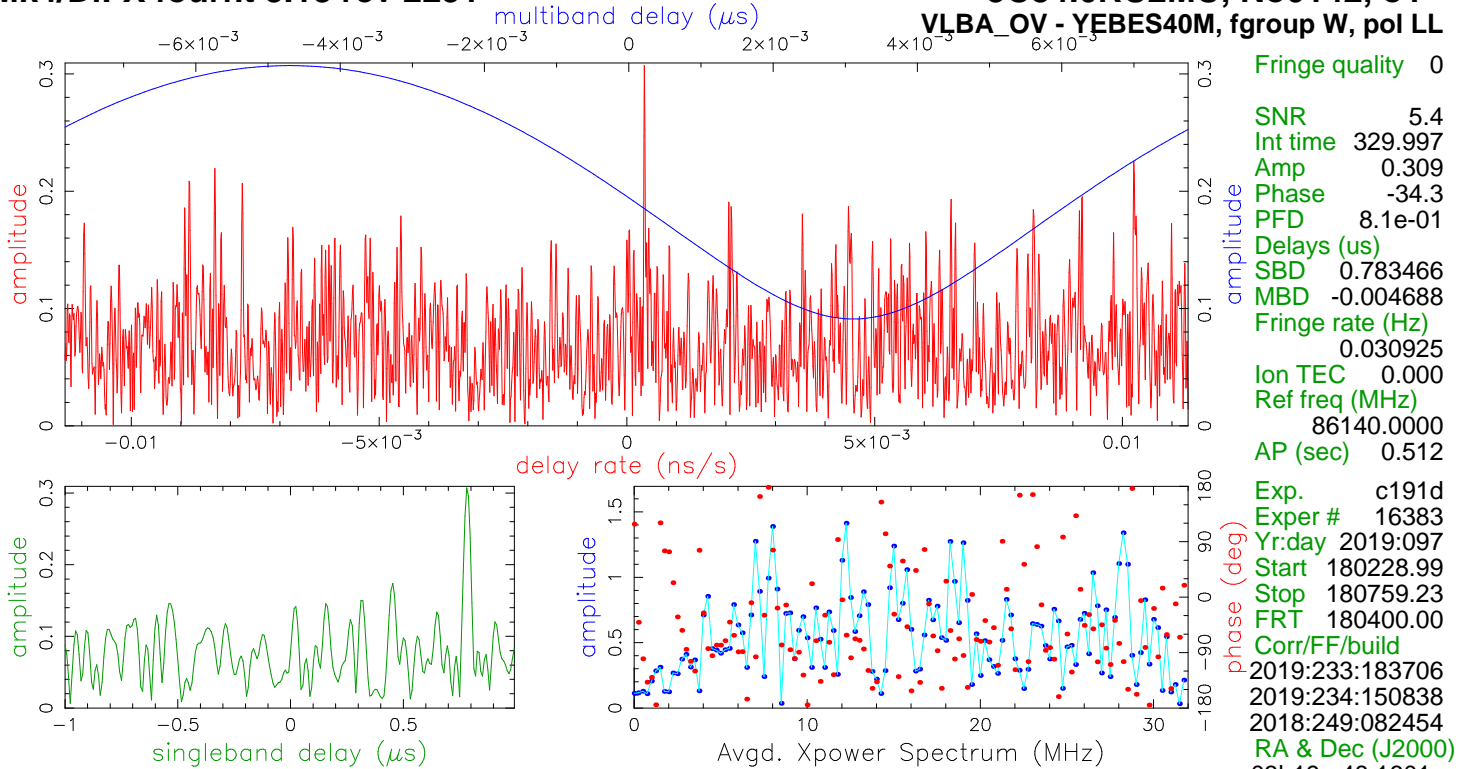


86156.00		86220.00		Freq (MHz)	All
-145.1		-145.2		Phase	-145.2
0.3		0.5		Ampl.	0.4
169.0		170.0		Sbd box	170.0
U/L 647/0		647/0		APs used	
o 1000		1000		PC freqs	
p 1000		1000		PC freqs	
o:p 0:0		0:0		PC phase	
o:p 0:0		0:0		Manl PC	
o 1000		1000		PC amp	
p 1000		1000			
o W01UR		W03UR		Chan ids	
p W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.58531497507E+03	Apriori delay (usec)	-1.58563436119E+03	Resid mbdelay (usec)	-8.73888E-03 +/- 8.8E-04
Sband delay (usec)	-1.58531439169E+03	Apriori clock (usec)	6.0299535E+00	Resid sbdelay (usec)	3.19970E-01 +/- 3.1E-03
Phase delay (usec)	-1.58563436587E+03	Apriori clockrate (us/s)	7.4560014E-08	Resid phdelay (usec)	-4.68159E-06 +/- 6.6E-07
Delay rate (us/s)	6.25867785684E-02	Apriori rate (us/s)	6.25943991601E-02	Resid rate (us/s)	-7.62059E-06 +/- 3.4E-09
Total phase (deg)	-189.5	Apriori accel (us/s/s)	1.15618786028E-05	Resid phase (deg)	-235.2 +/- 20.3

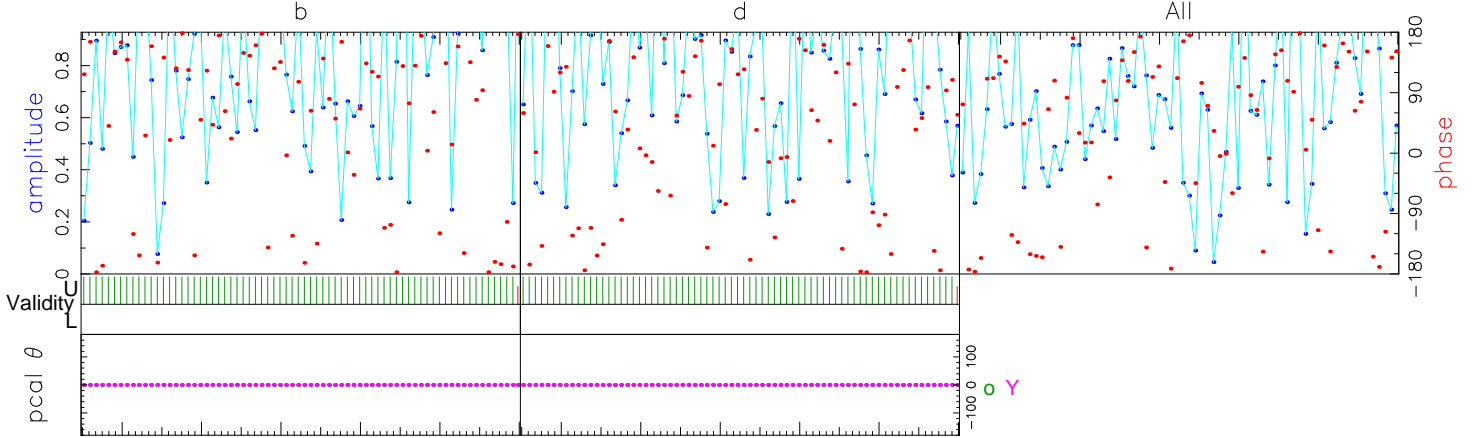
ph/seg (deg)	RMS 81.3	Theor. 86.3	Amplitude Search (2048X8)	0.389 +/- 0.069	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	157.4	150.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.4	Inc. seg. avg.	0.376	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	28.8	25.1	Inc. frq. avg.	0.377	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

o: az 64.2 el 42.3 pa -73.2 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) -459.996 1084.566 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/op..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/op.W.225.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



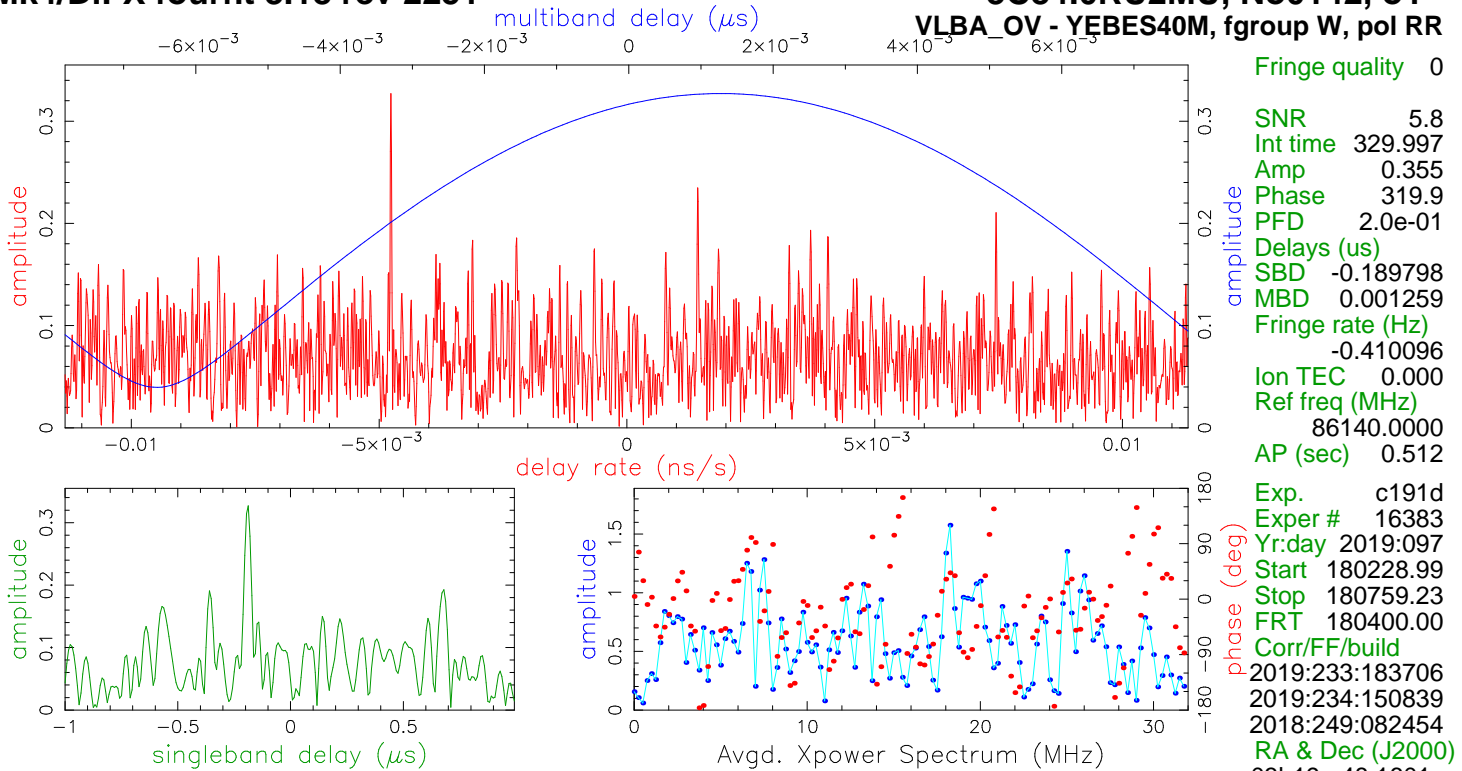
86156.00	86220.00	Freq (MHz)	All
145.8	145.5	Phase	145.7
0.4	0.2	Ampl.	0.3
228.9	36.8	Sbd box	229.3
U/L 645/0	645/0	APs used	
o 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
o:Y 0:0	0:0	PC phase	
o:Y 0:0	0:0	Manl PC	
o 1000	1000	PC amp	
Y 1000	1000		
o W01UL	W03UL	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-1.85755842260E+03	Apriori delay (usec)	-1.85833498475E+03	Resid mbdelay (usec)	-4.68785E-03	+/-	9.2E-04
Sband delay (usec)	-1.85755151925E+03	Apriori clock (usec)	6.8303475E+00	Resid sbdelay (usec)	7.83466E-01	+/-	3.2E-03
Phase delay (usec)	-1.85833498005E+03	Apriori clockrate (us/s)	-3.4399838E-09	Resid phdelay (usec)	4.69705E-06	+/-	6.8E-07
Delay rate (us/s)	1.52467577340E+00	Apriori rate (us/s)	1.52467541439E+00	Resid rate (us/s)	3.59009E-07	+/-	3.6E-09
Total phase (deg)	-245.4	Apriori accel (us/s/s)	6.56966927253E-06	Resid phase (deg)	-34.3	+/-	21.1

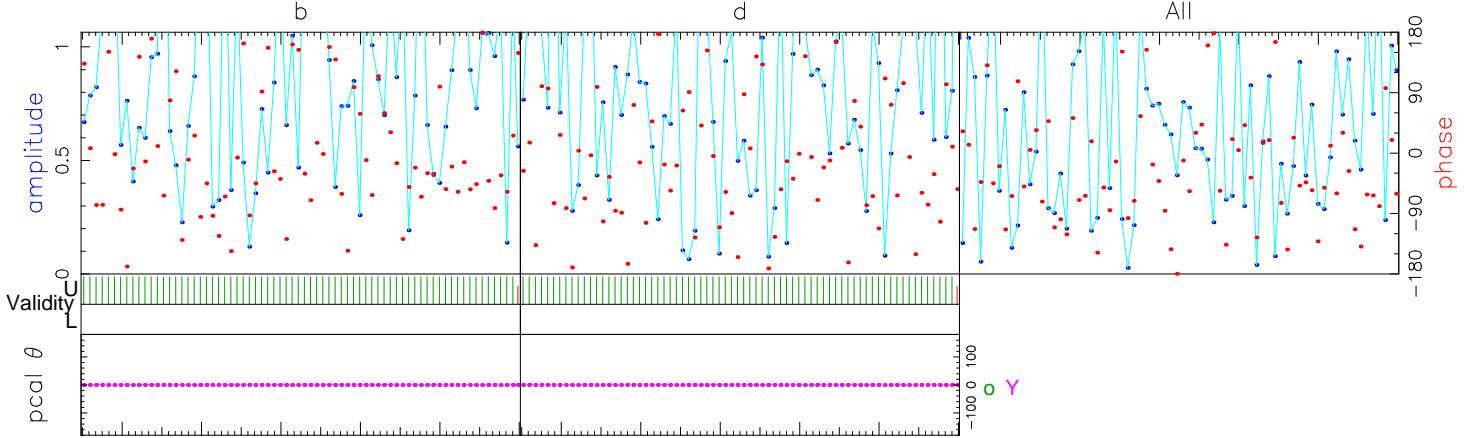
ph/seg (deg)	79.2	Theor.	89.5	Amplitude	0.309 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	152.4	Search (2048X8)	0.291	Search	0.291	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	29.5	Inc. seg. avg.	0.298	Inc. seg. avg.	0.298	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.297	Inc. frq. avg.	0.297	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

o: az 64.2 el 42.3 pa -73.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11660.290 275.558 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/oY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/oY.W.200.0RU2MU

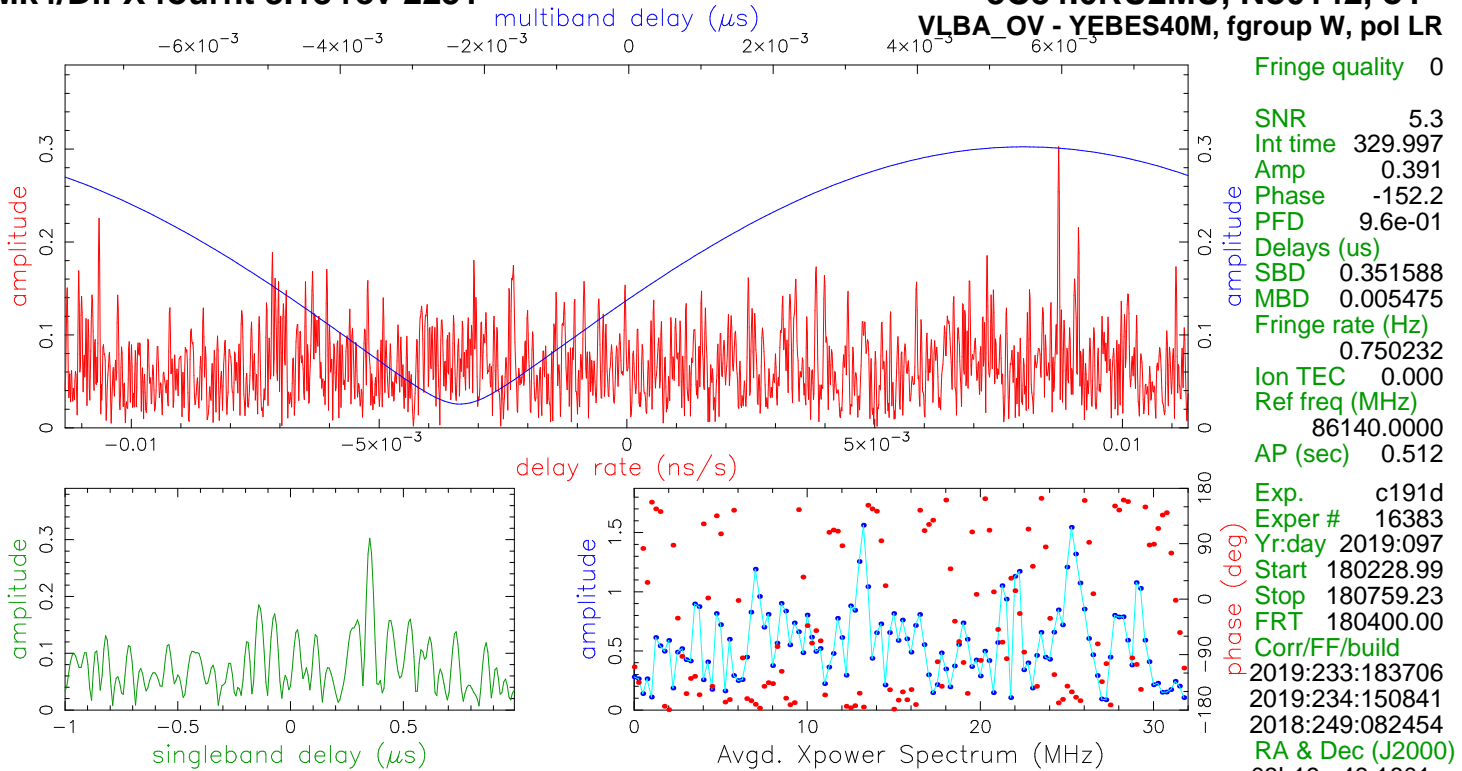


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

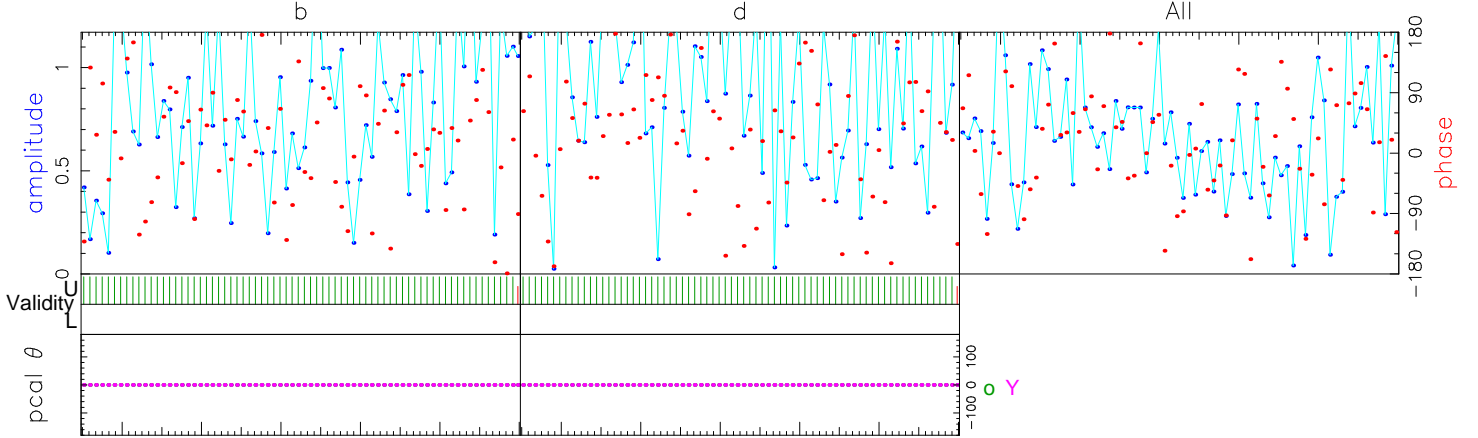


86156.00				86220.00				Freq (MHz)	All
-40.2				-40.0				Phase	-40.1
0.4				0.3				Ampl.	0.3
105.3				104.3				Sbd box	104.7
U/L 645/0				645/0				APs used	
o 1000				1000				PC freqs	
Y 1000				1000				PC freqs	
o:Y 0:0				0:0				PC phase	
o:Y 0:0				0:0				Manl PC	
o 1000				1000				PC amp	
Y 1000				1000					
o W01UR				W03UR				Chan ids	
Y W01UR				W03UR				Tracks	
								Chan ids	
								Tracks	
Group delay (usec)(sbd)	-1.85852122554E+03			Apriori delay (usec)	-1.85833498475E+03			Resid mbdelay (usec)	1.25921E-03 +/- 8.6E-04
Sband delay (usec)	-1.85852478275E+03			Apriori clock (usec)	6.8303475E+00			Resid sbdelay (usec)	-1.89798E-01 +/- 3.0E-03
Phase delay (usec)	-1.85833498604E+03			Apriori clockrate (us/s)	-3.4399838E-09			Resid phdelay (usec)	-1.29398E-06 +/- 6.4E-07
Delay rate (us/s)	1.52467065358E+00			Apriori rate (us/s)	1.52467541439E+00			Resid rate (us/s)	-4.76081E-06 +/- 3.3E-09
Total phase (deg)	108.8			Apriori accel (us/s/s)	6.56966927253E-06			Resid phase (deg)	319.9 +/- 19.8

ph/seg (deg)	76.8	83.9	Search (2048X8)	0.323	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	142.4	146.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.0	Inc. seg. avg.	0.322	Bits/sample: 2x2	Sample rate(MSamp/s): 64	dr window (ns/s)	-0.011	0.011
amp/frq (%)	12.0	24.4	Inc. frq. avg.	0.342	Data rate(Mb/s): 256	nlags: 128 t_cohere infinite	ion window (TEC)	0.00	0.00
o: az 64.2 el 42.3 pa -73.2			Y: az 289.3 el 51.1 pa 73.9						
			u,v (fr/asec) -11660.290 275.558						simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c191d/v1/1234/No0142/oY..0RU2MU						Output file: /Exps/c191d/v1/1234/No0142/oY.W.216.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

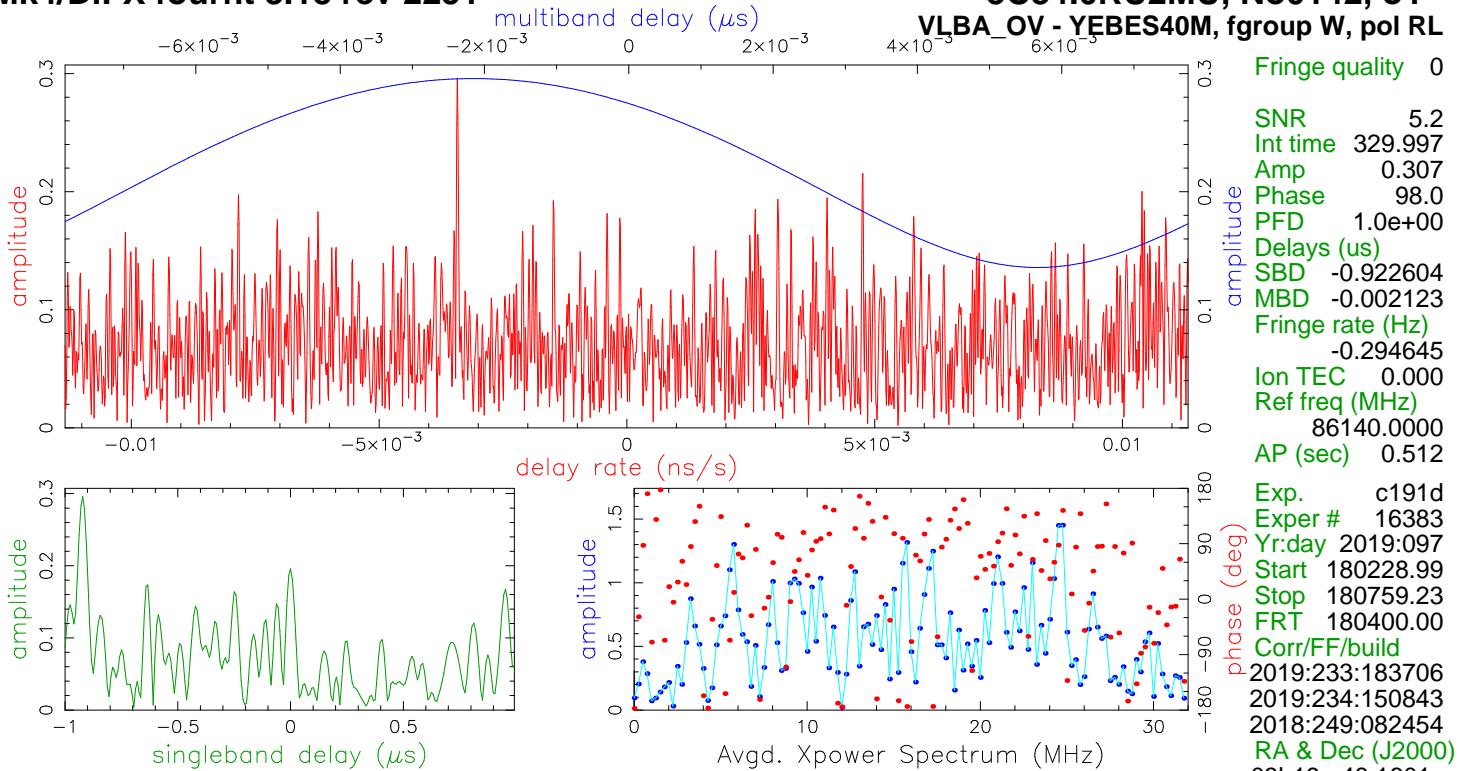


86156.00		86220.00		Freq (MHz)	All
27.8		27.8		Phase	27.8
0.4		0.4		Ampl.	0.4
174.0		174.0		Sbd box	174.0
U/L 645/0		645/0		APs used	
o 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
o:Y 0:0		0:0		PC phase	
o:Y 0:0		0:0		Manl PC	
o 1000		1000		PC amp	
Y 1000		1000			
o W01UL		W03UL		Chan ids	
Y W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.85798575952E+03	Apriori delay (usec)	-1.85833498475E+03	Resid mbdelay (usec)	5.47523E-03 +/- 9.4E-04
Sband delay (usec)	-1.85798339675E+03	Apriori clock (usec)	6.8303475E+00	Resid sbdelay (usec)	3.51588E-01 +/- 3.2E-03
Phase delay (usec)	-1.85833498385E+03	Apriori clockrate (us/s)	-3.4399838E-09	Resid phdelay (usec)	8.95675E-07 +/- 7.0E-07
Delay rate (us/s)	1.52468412385E+00	Apriori rate (us/s)	1.52467541439E+00	Resid rate (us/s)	8.70945E-06 +/- 3.6E-09
Total phase (deg)	-3.3	Apriori accel (us/s/s)	6.56966927253E-06	Resid phase (deg)	-152.2 +/- 21.6

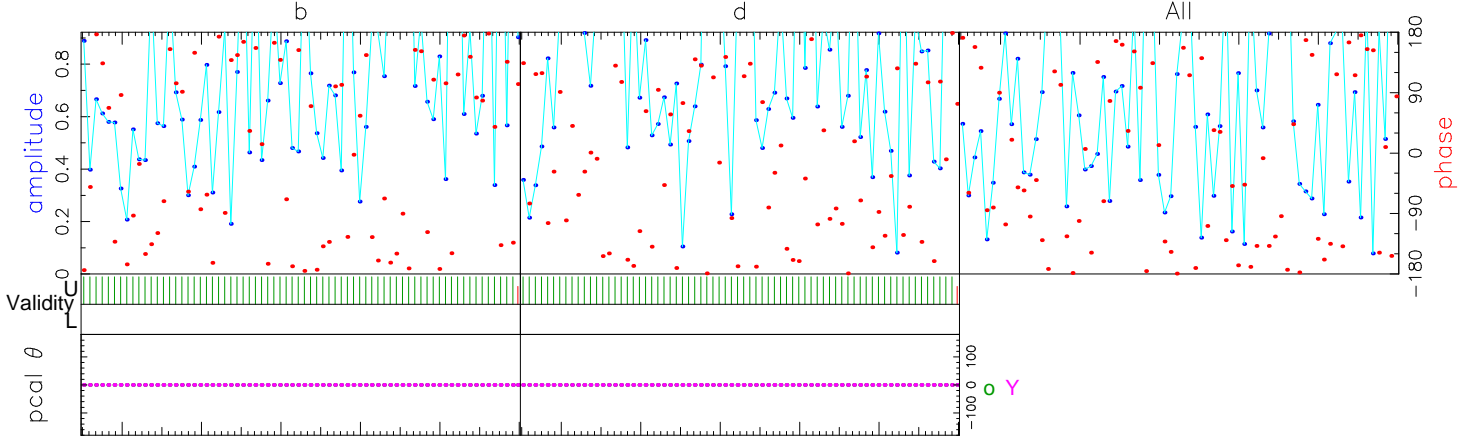
ph/seg (deg)	RMS 79.0	Theor. 91.5	Amplitude Search (2048X8) 0.391 +/- 0.074	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	158.7	159.8	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	15.3	Inc. seg. avg. 0.384	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	8.4	26.6	Inc. frq. avg. 0.377	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	ion window (TEC) 0.00 0.00
				t_cohere infinite	

o: az 64.2 el 42.3 pa -73.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11660.290 275.558 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/oY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/oY.W.232.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00		86220.00		Freq (MHz)	All
-171.8		-172.3		Phase	-172.0
0.4		0.2		Ampl.	0.3
11.1		96.1		Sbd box	10.9
U/L 645/0		645/0		APs used	
o 1000		1000		PC freqs	
Y 1000		1000		PC freqs	
o:Y 0:0		0:0		PC phase	
o:Y 0:0		0:0		Mani PC	
o 1000		1000		PC amp	
Y 1000		1000			
o W01UR		W03UR		Chan ids	
Y W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.85925898296E+03	Apriori delay (usec)	-1.85833498475E+03	Resid mbdelay (usec)	-2.12321E-03 +/- 9.6E-04
Sband delay (usec)	-1.85925758875E+03	Apriori clock (usec)	6.8303475E+00	Resid sbdelay (usec)	-9.22604E-01 +/- 3.3E-03
Phase delay (usec)	-1.85833499030E+03	Apriori clockrate (us/s)	-3.4399838E-09	Resid phdelay (usec)	-5.54566E-06 +/- 7.1E-07
Delay rate (us/s)	1.52467199386E+00	Apriori rate (us/s)	1.52467541439E+00	Resid rate (us/s)	-3.42053E-06 +/- 3.7E-09
Total phase (deg)	246.9	Apriori accel (us/s/s)	6.56966927253E-06	Resid phase (deg)	98.0 +/- 22.0

ph/seg (deg) 82.6 93.5 Search (2048X8) 0.293 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

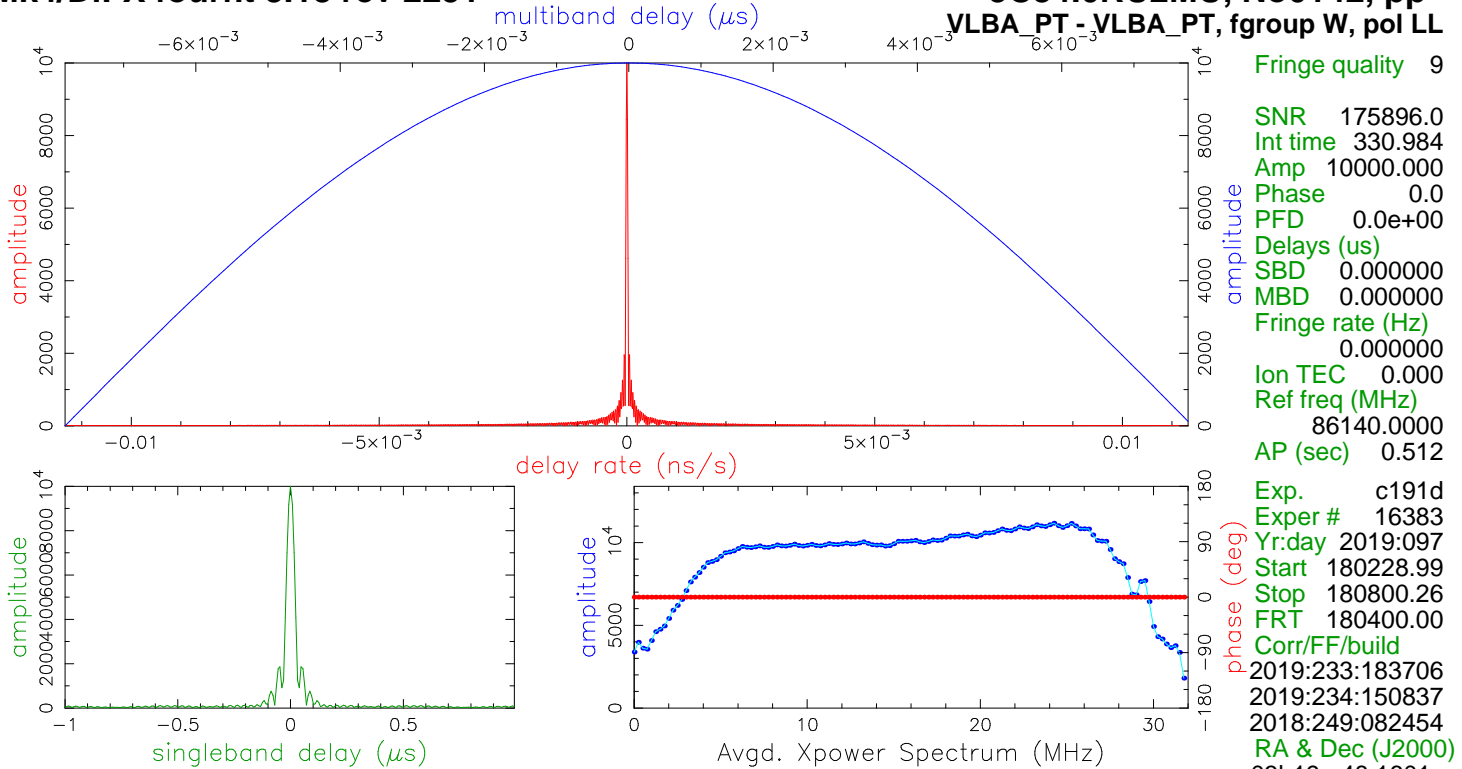
amp/seg (%) 168.9 163.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 15.6 Inc. seg. avg. 0.291 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

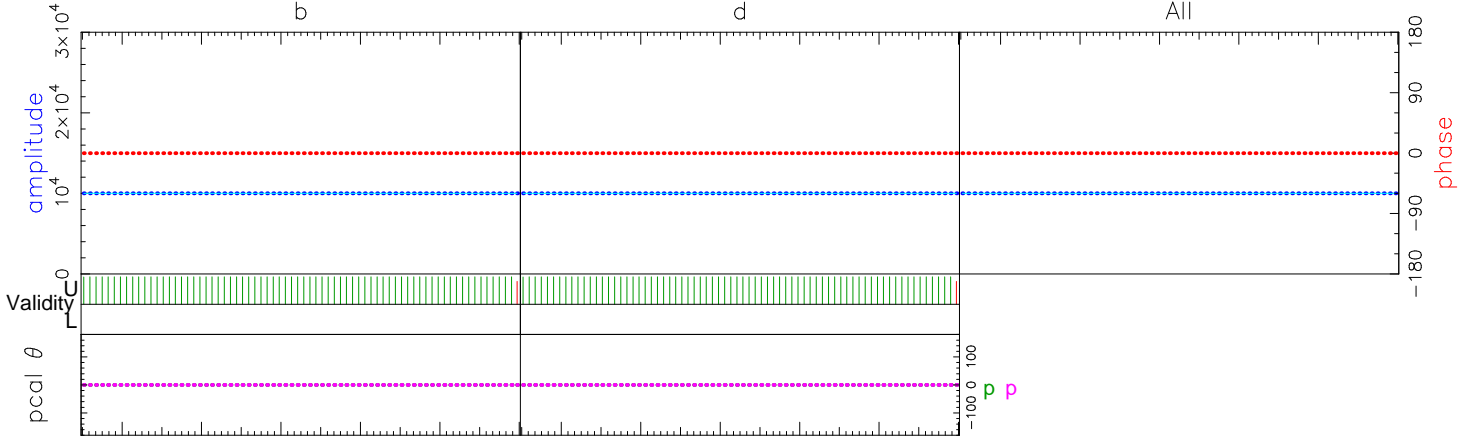
amp/frq (%) 45.9 27.2 Inc. frq. avg. 0.296 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

o: az 64.2 el 42.3 pa -73.2 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11660.290 275.558 ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/oY...0RU2MU Output file: /Exps/c191d/v1/1234/No0142/oY.W.249.0RU2MU simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 647/0	647/0	APs used					
p 1000	1000	PC freqs					
p 1000	1000	PC freqs					
p:p 0:0	0:0	PC phase					
p:p 0:0	0:0	Manl PC					
p 1000	1000	PC amp					
p 1000	1000						
p W01UL	W03UL	Chan ids					
p		Tracks					
p W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.1E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

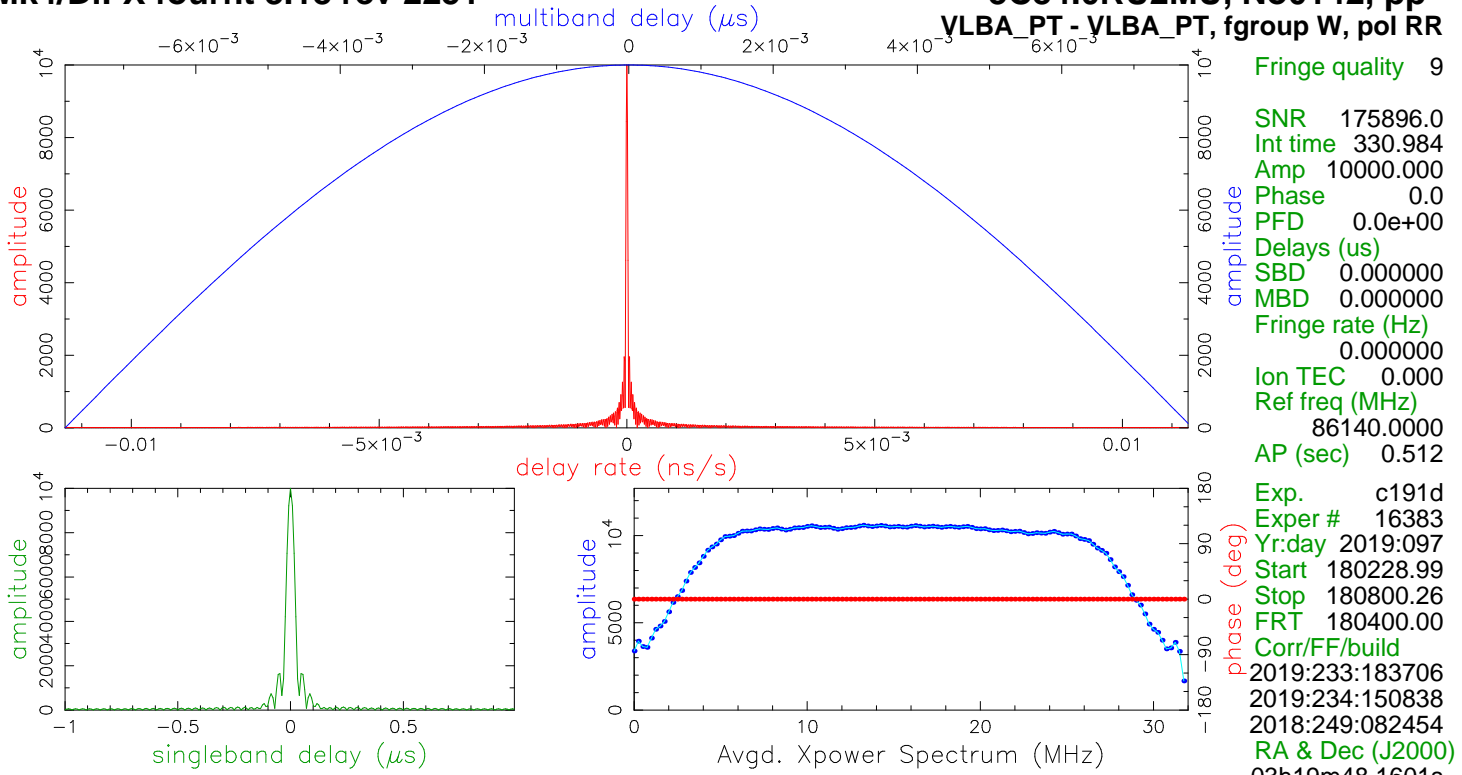
amp/seg (%) 0.0 0.0 Search (2048X8) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

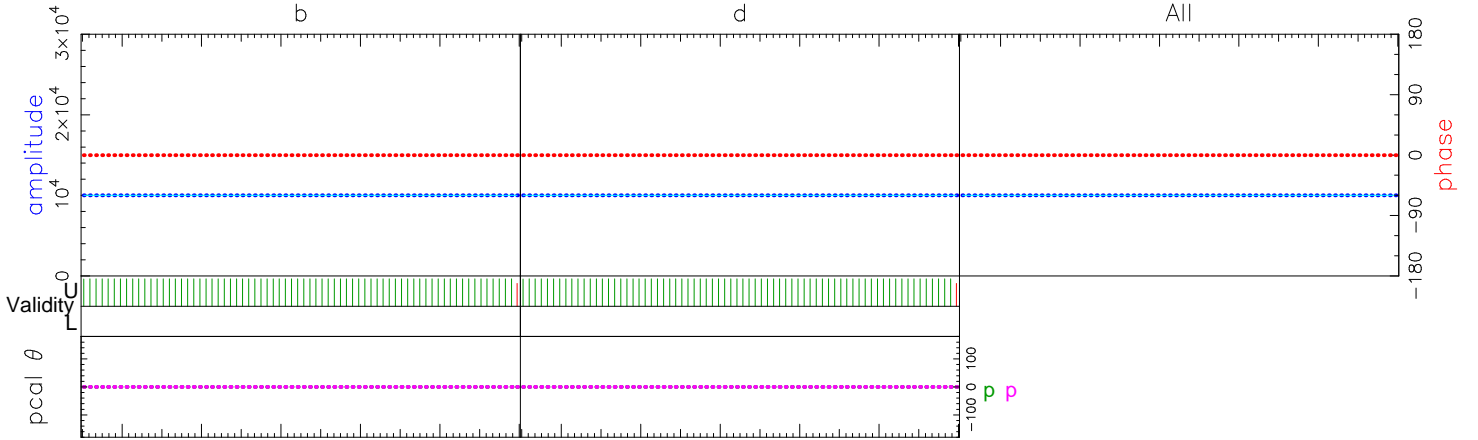
amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

p: az 63.8 el 48.5 pa -82.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pp.W.189.0RU2MU

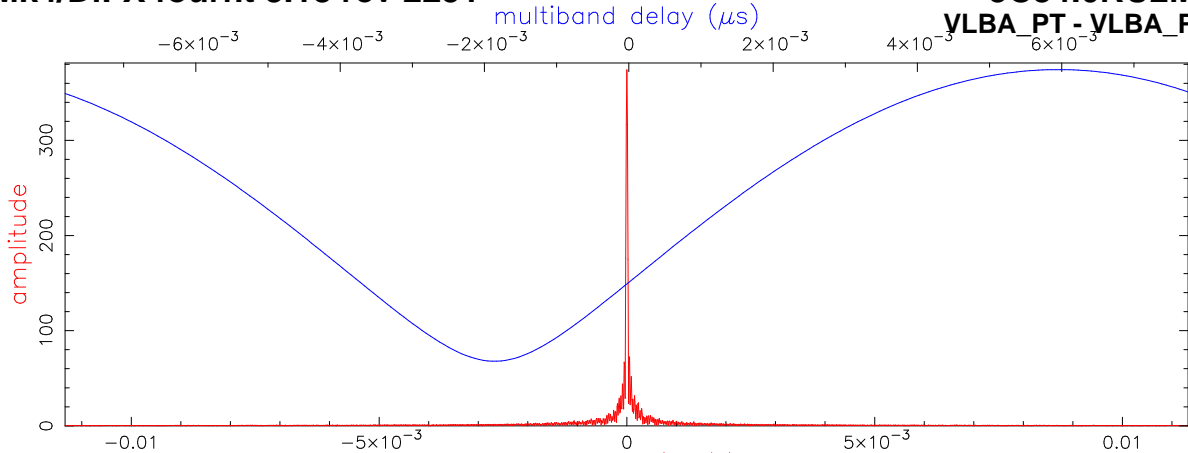


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 647/0	647/0	APs used					
p 1000	1000	PC freqs					
p 1000	1000	PC freqs					
p:p 0:0	0:0	PC phase					
p:p 0:0	0:0	Mani PC					
p 1000	1000	PC amp					
p 1000	1000						
p W01UR	W03UR	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.8E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	9.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.1E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

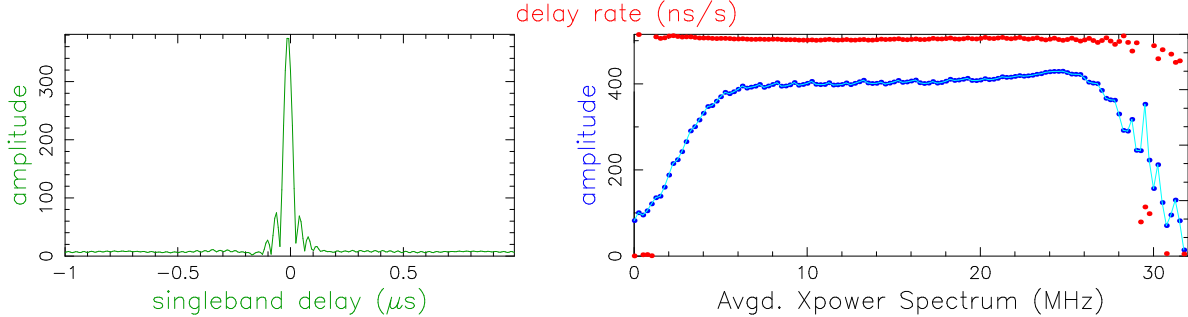
ph/seg (deg)	0.0	0.0	Amplitude	10000.000 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.0	0.0	Search (2048X8)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg.	10000.000	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00



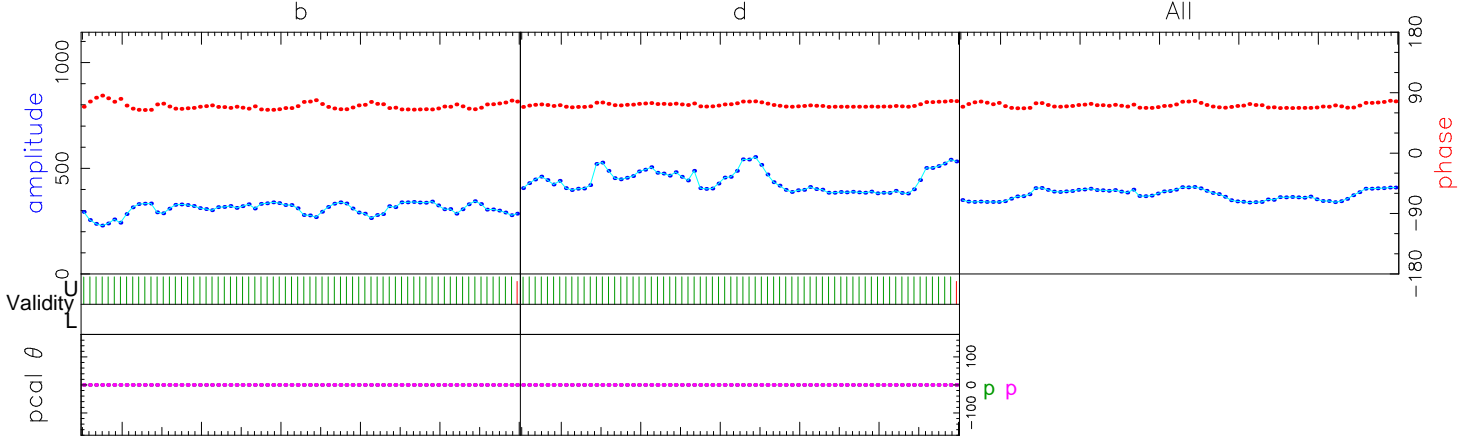
Fringe quality 9

SNR 6707.9
Int time 330.984
Amp 381.356
Phase 161.0
PFD 0.0e+00
Delays (us)
SBD -0.011769
MBD 0.005844
Fringe rate (Hz)
-0.000022
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180800.26
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150839
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

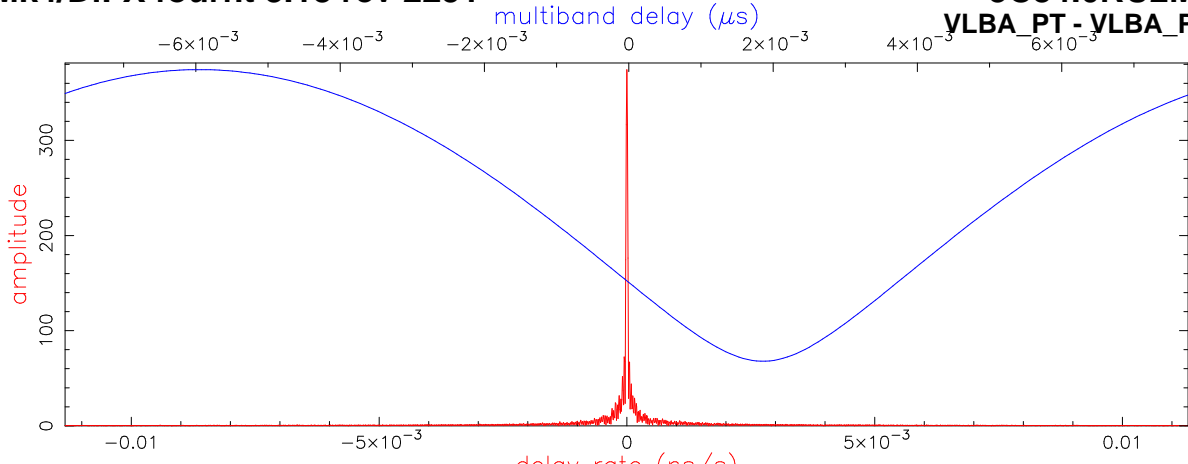


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

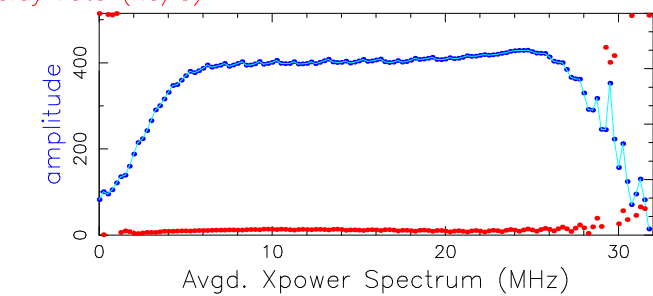
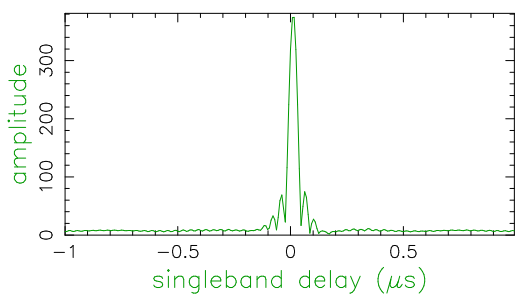


86156.00	86220.00	Freq (MHz)	All				
69.5	72.0	Phase	71.0				
306.5	442.3	Ampl.	374.4				
127.6	127.4	Sbd box	127.5				
U/L 647/0	647/0	APs used					
p 1000	1000	PC freqs					
p 1000	1000	PC freqs					
p:p 0:0	0:0	PC phase					
p:p 0:0	0:0	Manl PC					
p 1000	1000	PC amp					
p 1000	1000						
p W01UL	W03UL	Chan ids					
p		Tracks					
p W01UR	W03UR	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-9.78150000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	5.84350E-03	+/-	7.4E-07
Sband delay (usec)	-1.17690000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.17690E-02	+/-	2.6E-06
Phase delay (usec)	2.28875591184E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.28876E-06	+/-	5.5E-10
Delay rate (us/s)	-2.57206415909E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-2.57206E-10	+/-	2.9E-12
Total phase (deg)	161.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	161.0	+/-	0.0

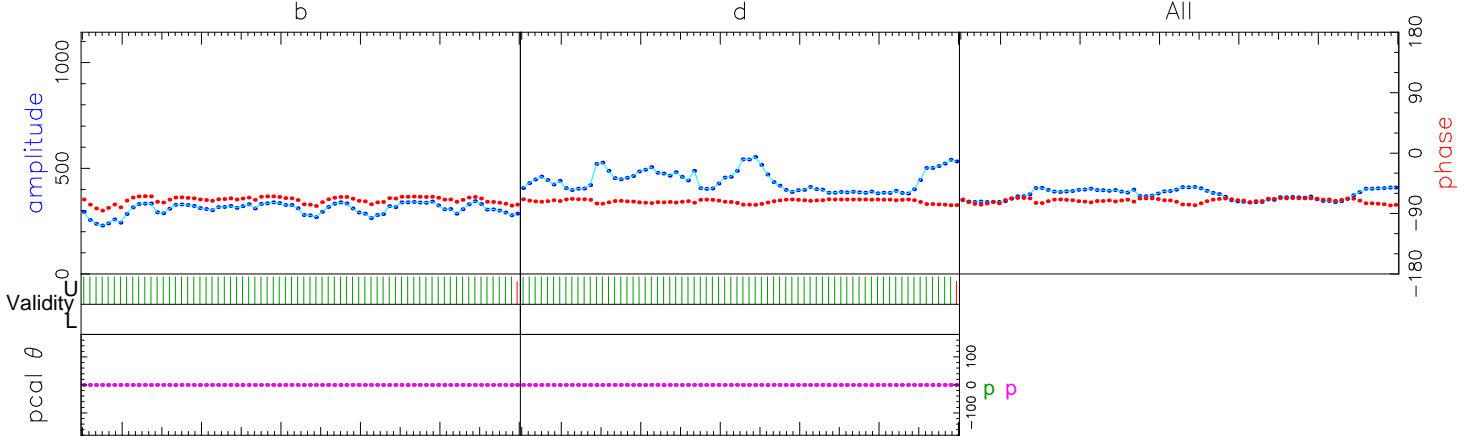
ph/seg (deg) 3.1 0.1 Theor. Amplitude 381.356 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.6 0.1 Search (2048X8) 374.266 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.9 0.0 Inc. seg. avg. 374.845 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 p: az 63.8 el 48.5 pa -82.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pp.W.215.0RU2MU simultaneous interpolator



Fringe quality 9
 SNR 6707.9
 Int time 330.984
 Amp 381.356
 Phase -161.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.011769
 MBD -0.005844
 Fringe rate (Hz) 0.000022
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180800.26
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150840
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

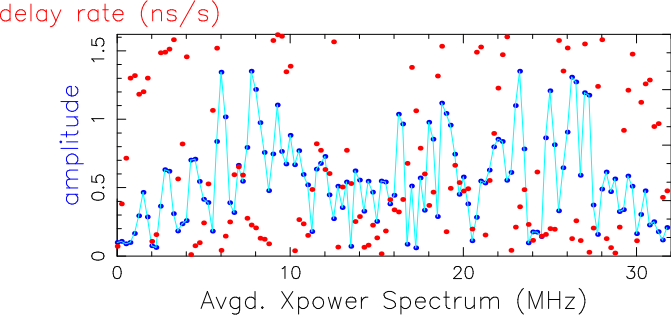
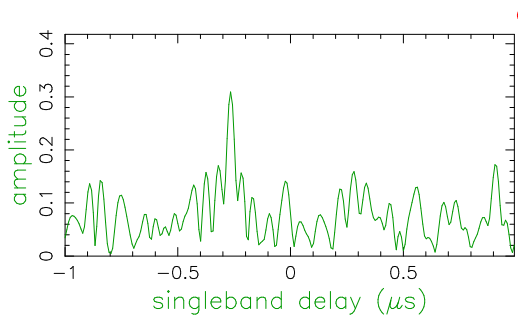
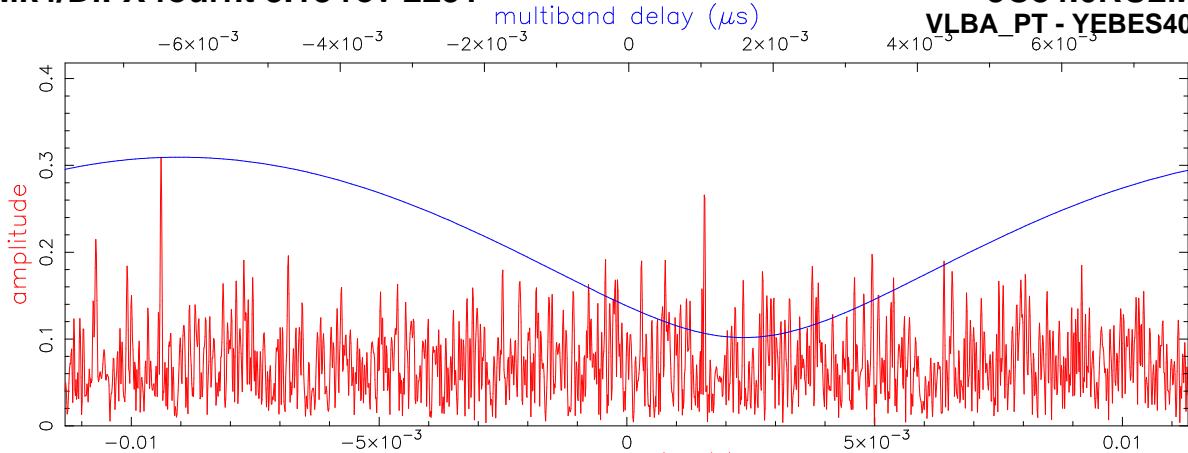


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



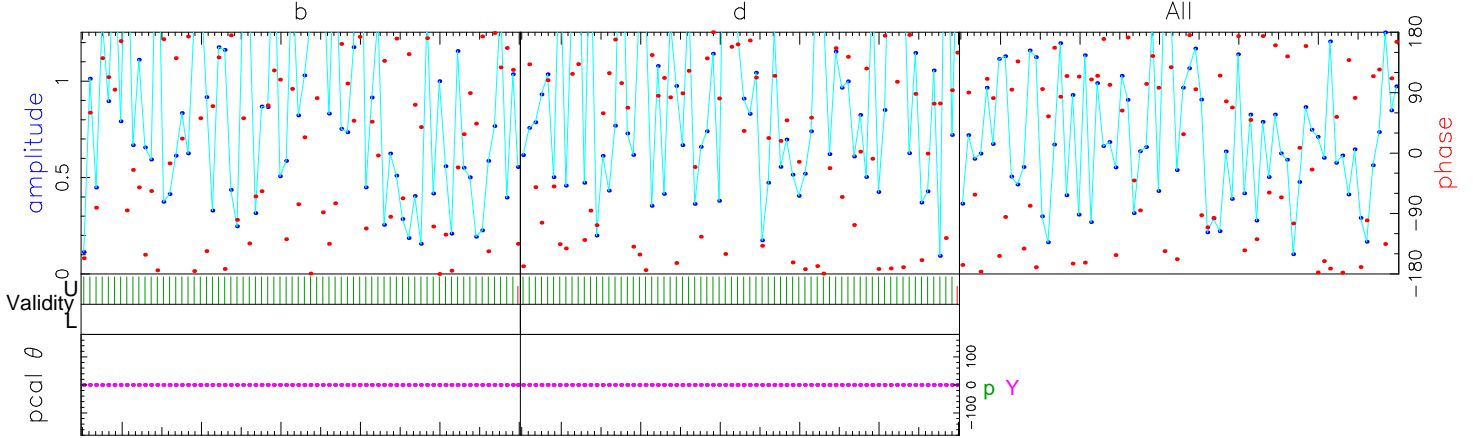
86156.00	86220.00	Freq (MHz)	All				
-69.5	-72.0	Phase	-71.0				
306.5	442.3	Ampl.	374.4				
130.4	130.6	Sbd box	130.5				
U/L 647/0	647/0	APs used					
p 1000	1000	PC freqs					
p 1000	1000	PC freqs					
p:p 0:0	0:0	PC phase					
p:p 0:0	0:0	Mani PC					
p 1000	1000	PC amp					
p 1000	1000						
p W01UR	W03UR	Chan ids					
		Tracks					
p W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	9.78150000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-5.84350E-03	+/-	7.4E-07
Sband delay (usec)	1.17690000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.17690E-02	+/-	2.6E-06
Phase delay (usec)	-2.28875591193E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.28876E-06	+/-	5.5E-10
Delay rate (us/s)	2.57206415909E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	2.57206E-10	+/-	2.9E-12
Total phase (deg)	-161.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-161.0	+/-	0.0

ph/seg (deg) 3.1 0.1 Theor. Amplitude 381.356 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.6 0.1 Search (2048X8) 374.266 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.9 0.0 Inc. seg. avg. 374.845 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 p: az 63.8 el 48.5 pa -82.8 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pp.W.221.0RU2MU simultaneous interpolator



Fringe quality 0
 SNR 5.4
 Int time 330.055
 Amp 0.418
 Phase 248.2
 PFD 8.0e-01
 Delays (us)
 SBD -0.265650
 MBD -0.006222
 Fringe rate (Hz)
 -0.809768
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150837
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

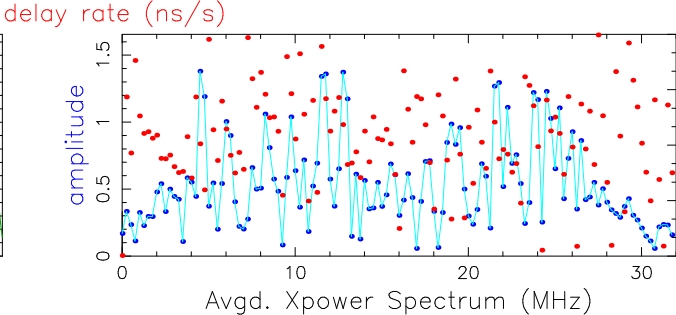
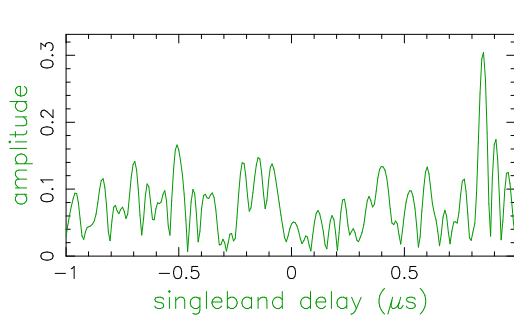
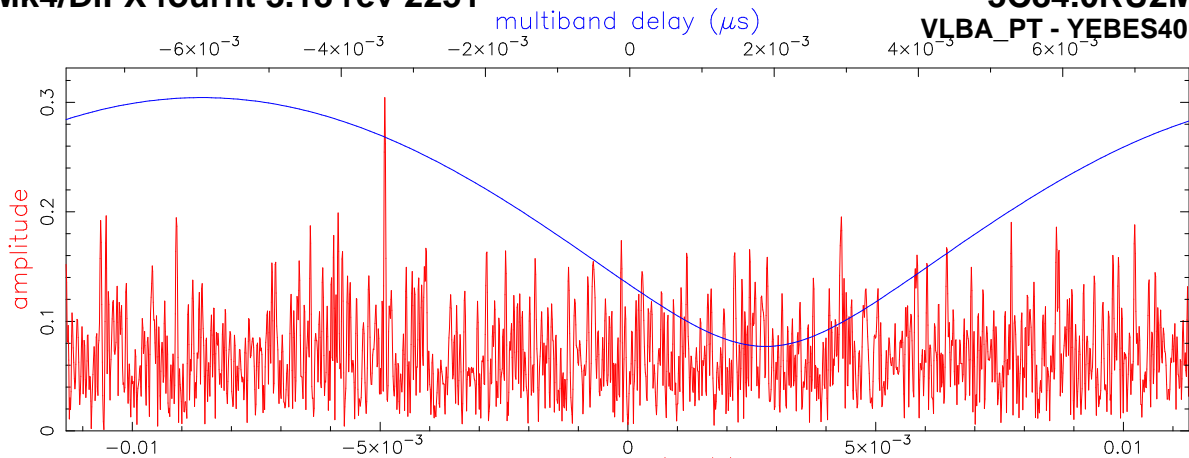


86156.00	86220.00	Freq (MHz)	All
158.2	158.2	Phase	158.2
0.3	0.6	Ampl.	0.4
80.6	94.7	Sbd box	95.0
U/L 645/0	645/0	APs used	
p 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
p:Y 0:0	0:0	PC phase	
p:Y 0:0	0:0	Manl PC	
p 1000	1000	PC amp	
Y 1000	1000		
p W01UL	W03UL	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.72972470454E+02	Apriori delay (usec)	-2.72700623559E+02	Resid mbdelay (usec)	-6.22189E-03	+/-	9.2E-04
Sband delay (usec)	-2.72966273559E+02	Apriori clock (usec)	8.0039406E-01	Resid sbdelay (usec)	-2.65650E-01	+/-	3.2E-03
Phase delay (usec)	-2.72700618459E+02	Apriori clockrate (us/s)	-7.7999998E-08	Resid phdelay (usec)	5.10047E-06	+/-	6.8E-07
Delay rate (us/s)	1.46207161463E+00	Apriori rate (us/s)	1.46208101523E+00	Resid rate (us/s)	-9.40060E-06	+/-	3.6E-09
Total phase (deg)	351.3	Apriori accel (us/s/s)	-4.99220933024E-06	Resid phase (deg)	248.2	+/-	21.1

ph/seg (deg)	RMS 75.3	Theor. 89.5	Amplitude 0.418 +/- 0.077	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	166.3	156.1	Search (2048X8) 0.305	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	14.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	32.9	26.0	Inc. seg. avg. 0.428	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.404	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

p: az 63.8 el 48.5 pa -82.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11200.294 -809.008 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pY.W.196.0RU2MU

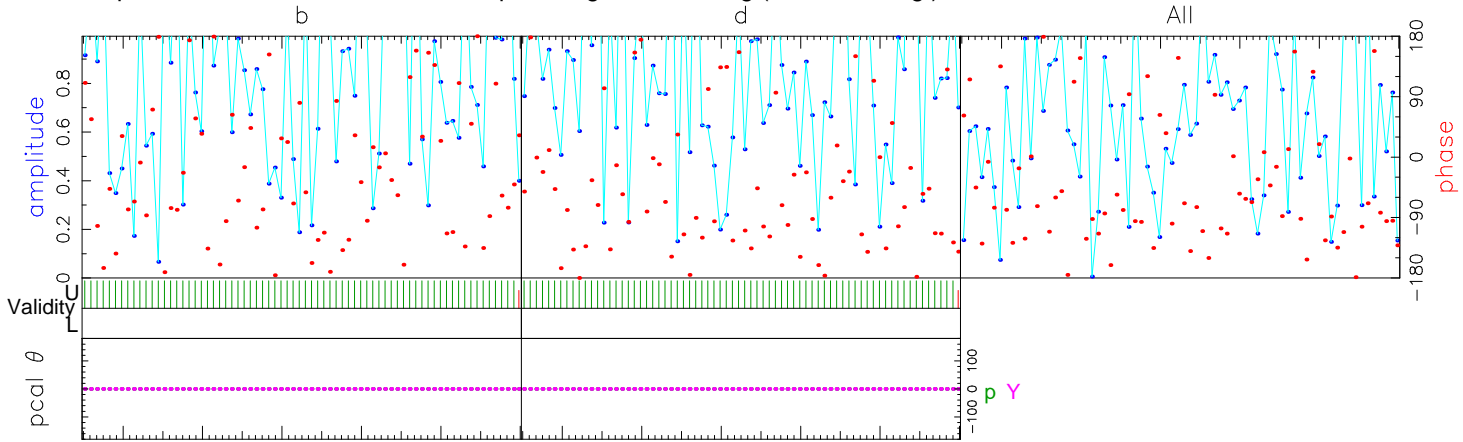


Fringe quality 0

SNR 5.4
 Int time 330.055
 Amp 0.331
 Phase -3.3
 PFD 8.8e-01
 Delays (us)
 SBD 0.849258
 MBD -0.005971
 Fringe rate (Hz)
 -0.422405
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150839
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



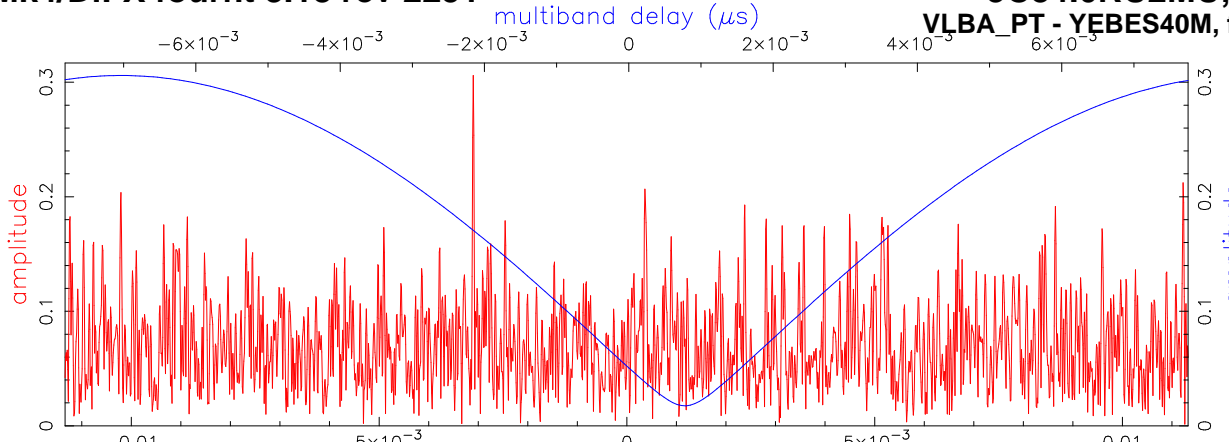
86156.00	86220.00	Freq (MHz)	All
-93.9	-93.0	Phase	-93.3
0.2	0.4	Ampl.	0.3
40.7	238.1	Sbd box	237.7
U/L 645/0	645/0	APs used	
p 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
p:Y 0:0	0:0	PC phase	
p:Y 0:0	0:0	Manl PC	
p 1000	1000	PC amp	
Y 1000	1000		
p W01UR	W03UR	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.71847219907E+02	Apriori delay (usec)	-2.72700623559E+02	Resid mbdelay (usec)	-5.97135E-03	+/-	9.2E-04
Sband delay (usec)	-2.71851366059E+02	Apriori clock (usec)	8.0039406E-01	Resid sbdelay (usec)	8.49258E-01	+/-	3.2E-03
Phase delay (usec)	-2.72700626569E+02	Apriori clockrate (us/s)	-7.7999998E-08	Resid phdelay (usec)	-3.00997E-06	+/-	6.9E-07
Delay rate (us/s)	1.46207611153E+00	Apriori rate (us/s)	1.46208101523E+00	Resid rate (us/s)	-4.90370E-06	+/-	3.6E-09
Total phase (deg)	-260.2	Apriori accel (us/s/s)	-4.99220933024E-06	Resid phase (deg)	-3.3	+/-	21.3

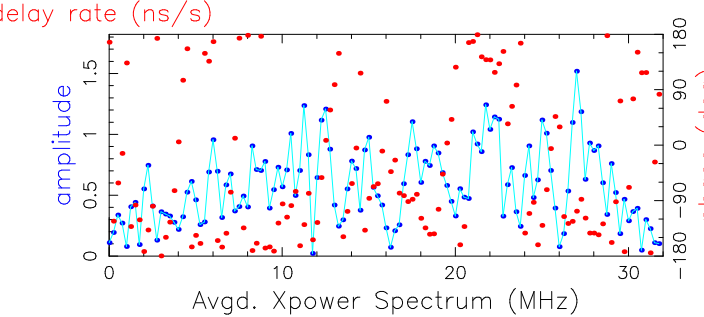
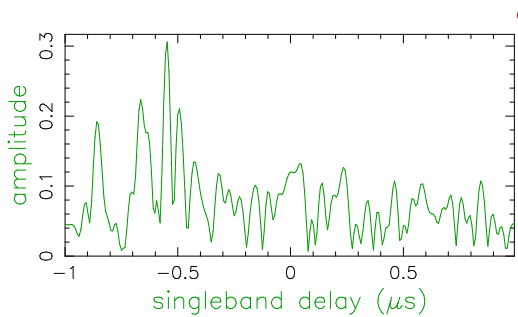
ph/seg (deg)	77.2	Theor.	90.3	Amplitude	0.331 +/- 0.062	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	148.6	Search (2048X8)	0.300			Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000			Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	25.2	Inc. seg. avg.	0.307			Sample rate (MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.318			Data rate (Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

p: az 63.8 el 48.5 pa -82.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11200.294 -809.008 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pY...0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pY.W.209.0RU2MU

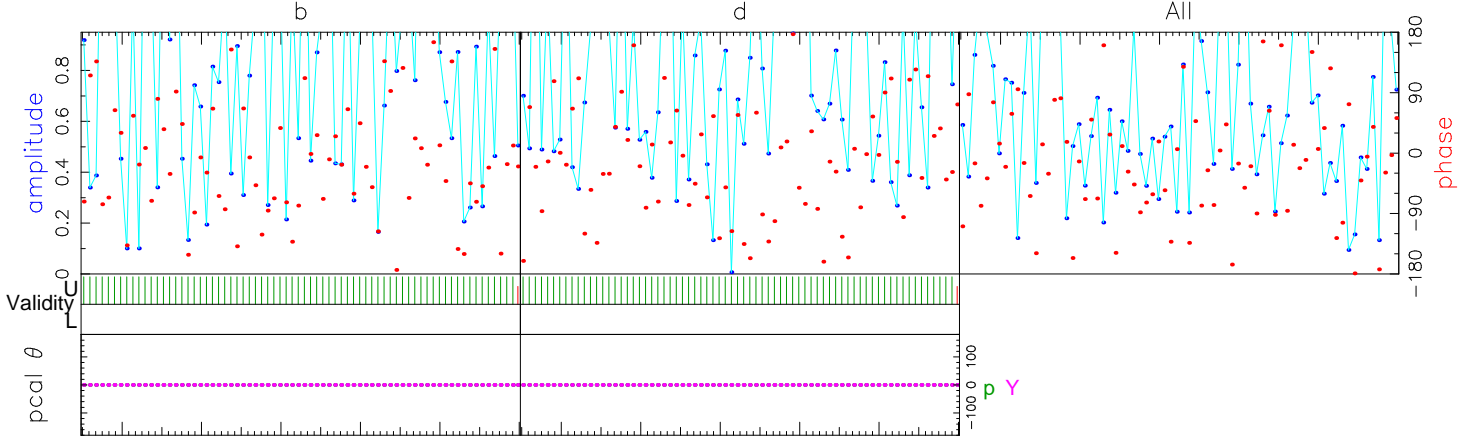


Fringe quality 0
 SNR 5.4
 Int time 330.055
 Amp 0.317
 Phase 254.9
 PFD 8.6e-01
 Delays (us)
 SBD -0.548521
 MBD -0.006968
 Fringe rate (Hz)
 -0.266727
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150840
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



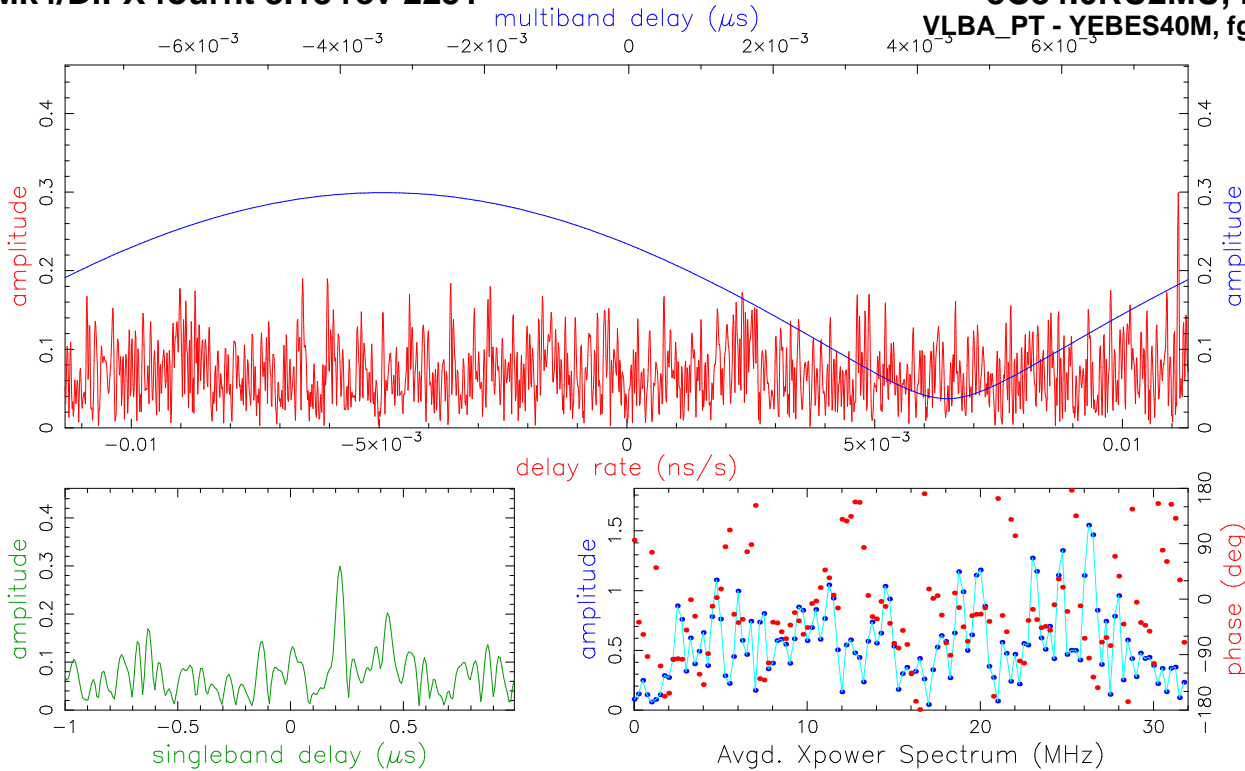
86156.00	86220.00	Freq (MHz)	All
-14.3	-15.8	Phase	-15.1
0.3	0.3	Ampl.	0.3
58.5	59.0	Sbd box	58.8
U/L 645/0	645/0	APs used	
p 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
p:Y 0:0	0:0	PC phase	
p:Y 0:0	0:0	Manl PC	
p 1000	1000	PC amp	
Y 1000	1000		
p W01UL	W03UL	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.73254466760E+02	Apriori delay (usec)	-2.72700623559E+02	Resid mbdelay (usec)	-6.96820E-03	+/-	9.2E-04
Sband delay (usec)	-2.73249144059E+02	Apriori clock (usec)	8.0039406E-01	Resid sbdelay (usec)	-5.48521E-01	+/-	3.2E-03
Phase delay (usec)	-2.72700624045E+02	Apriori clockrate (us/s)	-7.7999998E-08	Resid phdelay (usec)	-4.85986E-07	+/-	6.8E-07
Delay rate (us/s)	1.46207791880E+00	Apriori rate (us/s)	1.46208101523E+00	Resid rate (us/s)	-3.09644E-06	+/-	3.6E-09
Total phase (deg)	358.1	Apriori accel (us/s/s)	-4.99220933024E-06	Resid phase (deg)	254.9	+/-	21.2

ph/seg (deg)	83.4	Theor.	90.1	Amplitude	0.317 +/- 0.059	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	155.6	Search (2048X8)	0.294	Search	0.294	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	5.7	Inc. seg. avg.	0.301	Inc. seg. avg.	0.301	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.305	Inc. frq. avg.	0.305	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

p: az 63.8 el 48.5 pa -82.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11200.294 -809.008 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pY.W.224.0RU2MU

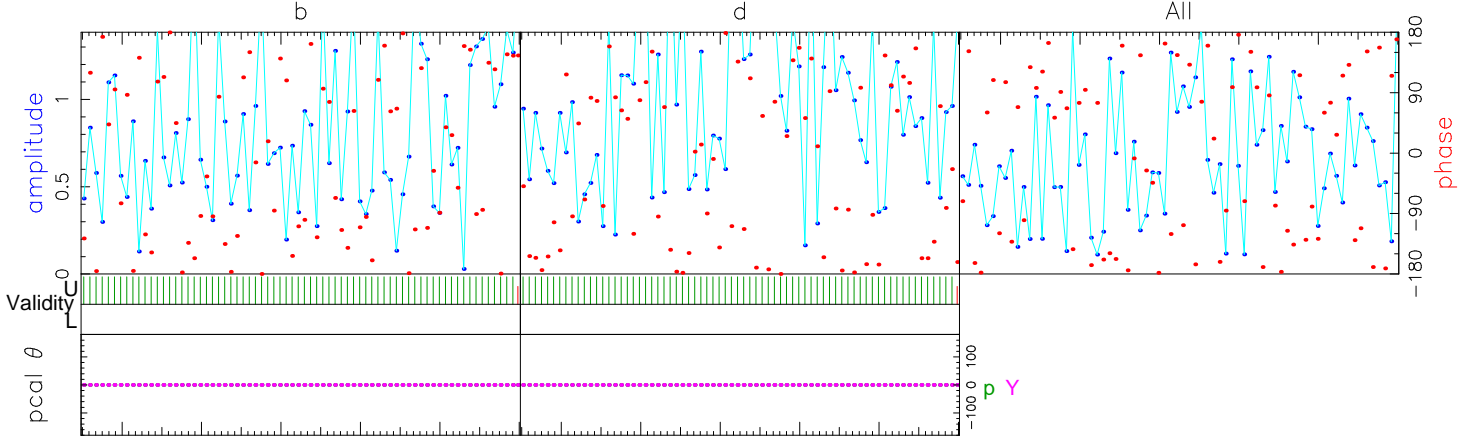


Fringe quality 0

SNR 5.3
Int time 330.055
Amp 0.462
Phase -11.8
PFD 9.8e-01
Delays (us)
SBD 0.219357
MBD -0.003400
Fringe rate (Hz) 0.958377
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150841
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



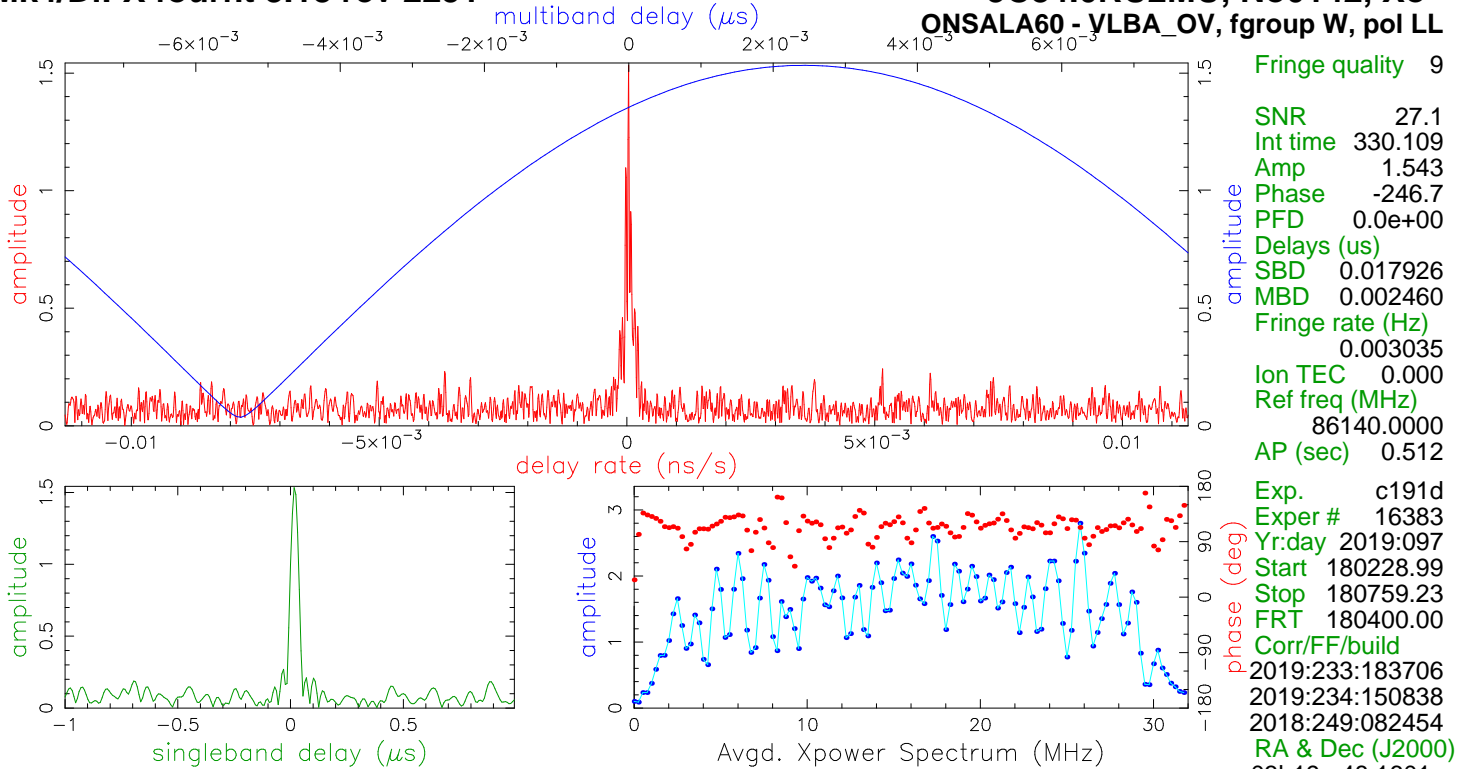
	86156.00	86220.00		86156.00	86220.00	86220.00	Freq (MHz)	All
U/L	645/0	645/0		168.3	168.2	168.2	Phase	168.2
p	1000	1000		0.4	0.5	0.5	Ampl.	0.4
Y	1000	1000		158.1	156.4	156.4	Sbd box	157.1
p:Y	0:0	0:0		0.4	0.5	0.5	APs used	
p:Y	0:0	0:0		158.1	156.4	156.4	PC freqs	
p	1000	1000		0.4	0.5	0.5	PC phase	
Y	1000	1000		158.1	156.4	156.4	ManI PC	
p	W01UR	W03UR		0.4	0.5	0.5	PC amp	
Y	W01UL	W03UL		158.1	156.4	156.4	Chan ids	
				0.4	0.5	0.5	Tracks	
				158.1	156.4	156.4	Chan ids	
				0.4	0.5	0.5	Tracks	

Group delay (usec)(sbd)	-2.72485274051E+02	Apriori delay (usec)	-2.72700623559E+02	Resid mbdelay (usec)	-3.40049E-03	+/-	9.5E-04
Sband delay (usec)	-2.72481267059E+02	Apriori clock (usec)	8.0039406E-01	Resid sbdelay (usec)	2.19357E-01	+/-	3.3E-03
Phase delay (usec)	-2.72700618134E+02	Apriori clockrate (us/s)	-7.7999998E-08	Resid phdelay (usec)	5.42545E-06	+/-	7.0E-07
Delay rate (us/s)	1.46209214104E+00	Apriori rate (us/s)	1.46208101523E+00	Resid rate (us/s)	1.11258E-05	+/-	3.7E-09
Total phase (deg)	-268.6	Apriori accel (us/s/s)	-4.99220933024E-06	Resid phase (deg)	-11.8	+/-	21.8

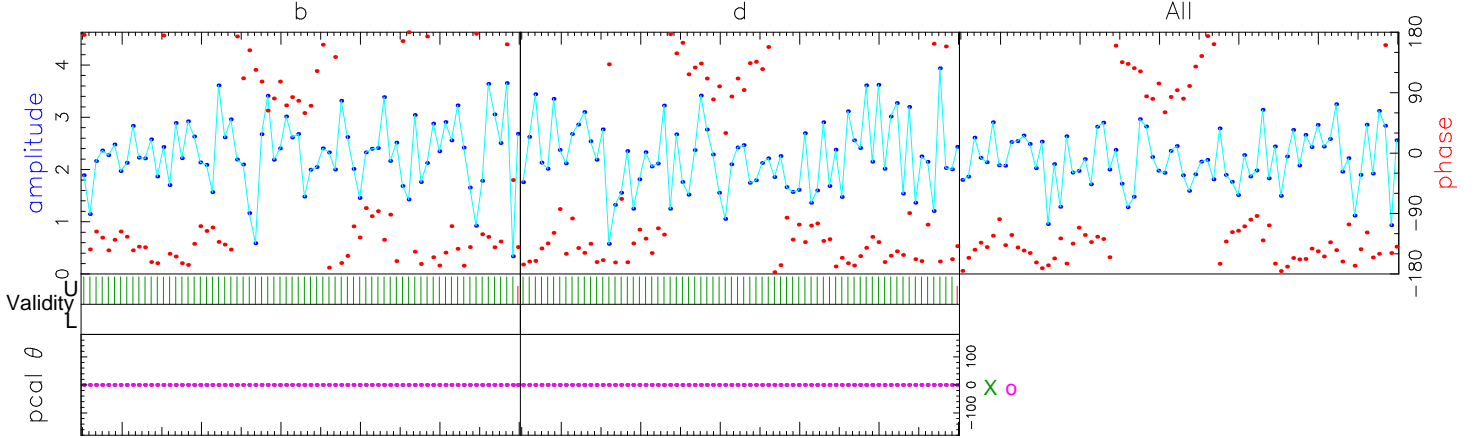
ph/seg (deg)	75.2	Theor.	92.4	Amplitude	0.462 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	168.3	Search (2048X8)	0.295	Search	0.295	Pcal rate:	0.000E+00, 0.000E+00	(us/s)	
ph/frq (deg)	0.0	Inc. seg. avg.	0.446	Inc. seg. avg.	0.446	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	12.4	Inc. frq. avg.	0.446	Inc. frq. avg.	0.446	Sample rate(MSamp/s):	64	mb window (us)	-1.000 1.000
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

p: az 63.8 el 48.5 pa -82.8 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -11200.294 -809.008 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/pY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/pY.W.233.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All				
-156.3	-157.2	Phase	-156.7				
1.5	1.6	Ampl.	1.5				
131.0	131.6	Sbd box	131.3				
U/L 645/0	645/0	APs used					
X 1000	1000	PC freqs					
o 1000	1000	PC freqs					
X:o 0:0	0:0	PC phase					
X:o 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
o 1000	1000						
X W01UL	W03UL	Chan ids					
o W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	5.29845406633E+02	Apriori delay (usec)	5.29827321619E+02	Resid mbdelay (usec)	2.46001E-03	+/-	1.8E-04
Sband delay (usec)	5.29845247119E+02	Apriori clock (usec)	1.1310049E+01	Resid sbdelay (usec)	1.79255E-02	+/-	6.4E-04
Phase delay (usec)	5.29827316564E+02	Apriori clockrate (us/s)	2.6043997E-07	Resid phdelay (usec)	-5.05471E-06	+/-	1.4E-07
Delay rate (us/s)	-1.39835796761E+00	Apriori rate (us/s)	-1.39835800284E+00	Resid rate (us/s)	3.52288E-08	+/-	7.1E-10
Total phase (deg)	-72.4	Apriori accel (us/s/s)	1.50315818709E-05	Resid phase (deg)	-246.7	+/-	4.2

ph/seg (deg) 51.1 17.9 Theor. Amplitude 1.543 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

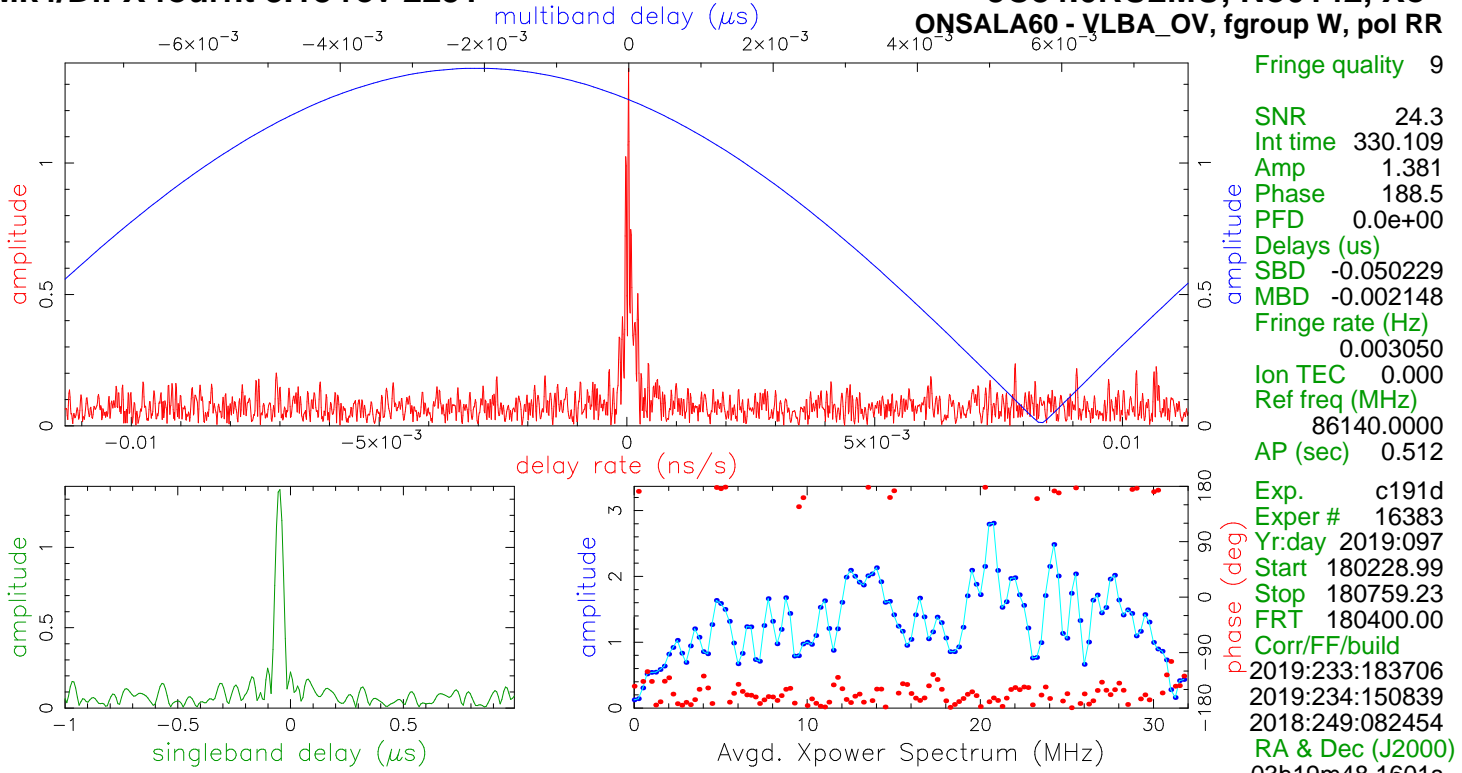
amp/seg (%) 53.6 31.3 Search (2048X8) 1.515 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 0.0 3.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

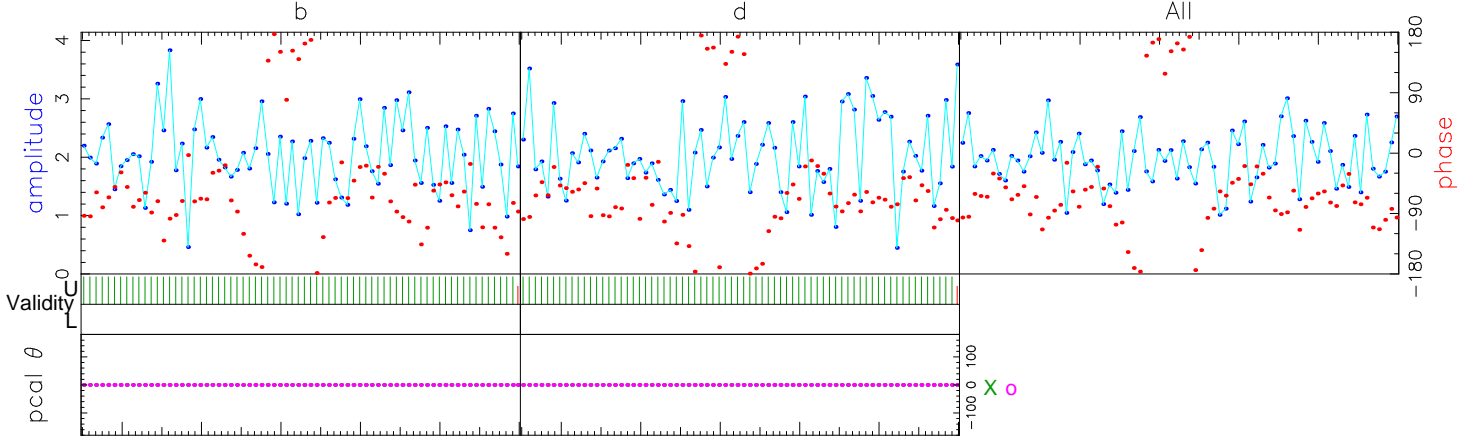
amp/frq (%) 2.4 5.2 Inc. seg. avg. 2.089 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011

X: az 279.5 el 45.6 pa 45.3 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10727.728 2517.357 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xo.W.202.0RU2MU



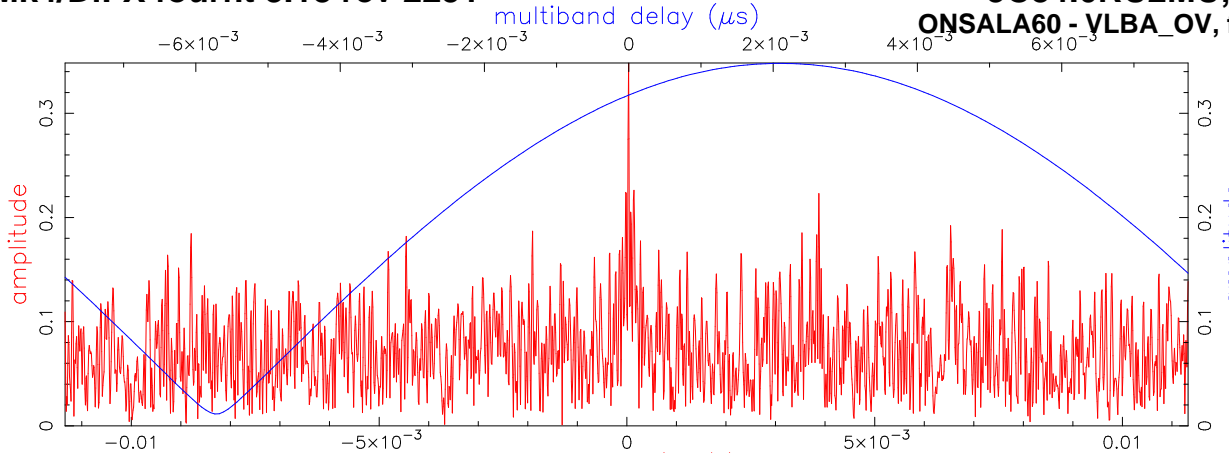
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



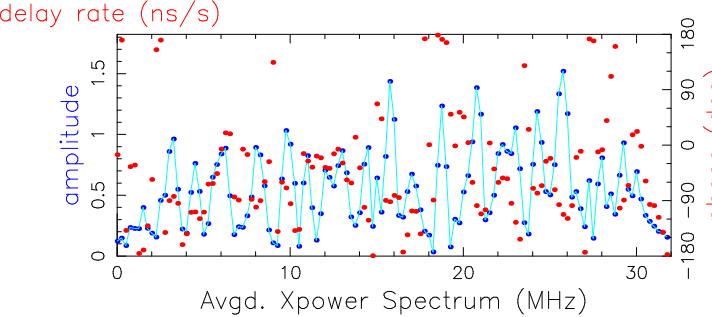
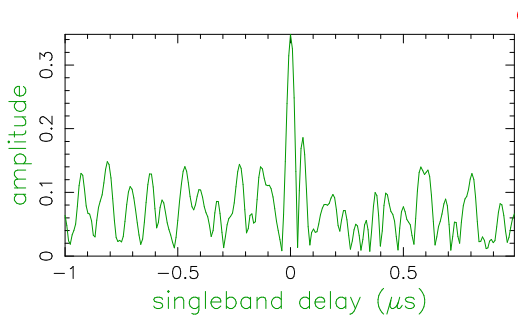
86156.00		86220.00		Freq (MHz)	All
-82.0		-80.9		Phase	-81.5
1.4		1.4		Ampl.	1.4
122.6		122.6		Sbd box	122.6
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
o 1000		1000		PC freqs	
X:o 0:0		0:0		PC phase	
X:o 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
o 1000		1000			
X W01UR		W03UR		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	5.29778298883E+02	Apriori delay (usec)	5.29827321619E+02	Resid mbdelay (usec)	-2.14774E-03 +/- 2.1E-04
Sband delay (usec)	5.29777092619E+02	Apriori clock (usec)	1.1310049E+01	Resid sbdelay (usec)	-5.02290E-02 +/- 7.1E-04
Phase delay (usec)	5.29827318992E+02	Apriori clockrate (us/s)	2.6043997E-07	Resid phdelay (usec)	-2.62685E-06 +/- 1.5E-07
Delay rate (us/s)	-1.39835796743E+00	Apriori rate (us/s)	-1.39835800284E+00	Resid rate (us/s)	3.54102E-08 +/- 8.0E-10
Total phase (deg)	2.9	Apriori accel (us/s/s)	1.50315818709E-05	Resid phase (deg)	188.5 +/- 4.7

ph/seg (deg)	53.7	Theor.	20.0	Amplitude	1.381 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	54.8	Search (2048X8)	1.348	Search	1.348	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.6	Inc. seg. avg.	1.872	Inc. seg. avg.	1.872	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	1.359	Inc. frq. avg.	1.359	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

X: az 279.5 el 45.6 pa 45.3 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10727.728 2517.357 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xo.W.212.0RU2MU

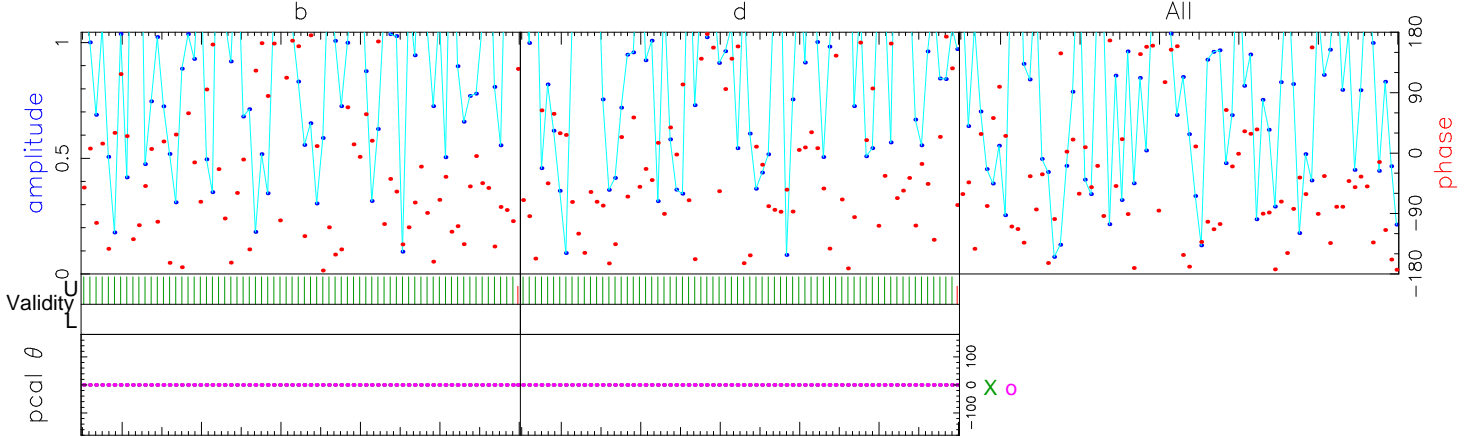


Fringe quality 0
SNR 6.1
Int time 330.109
Amp 0.348
Phase -83.6
PFD 3.1e-02
Delays (us)
SBD 0.000927
MBD 0.002095
Fringe rate (Hz)
0.003090
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



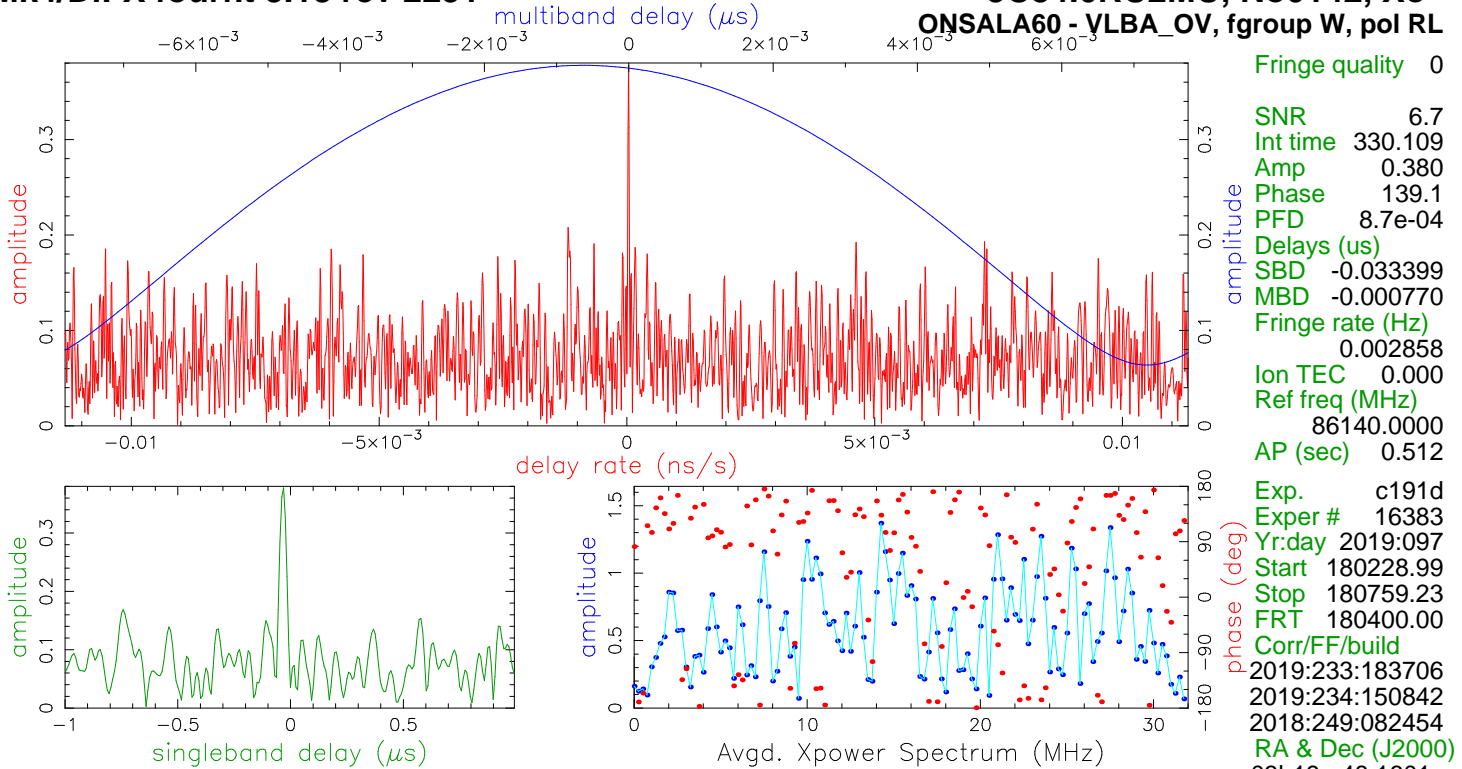
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150841
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

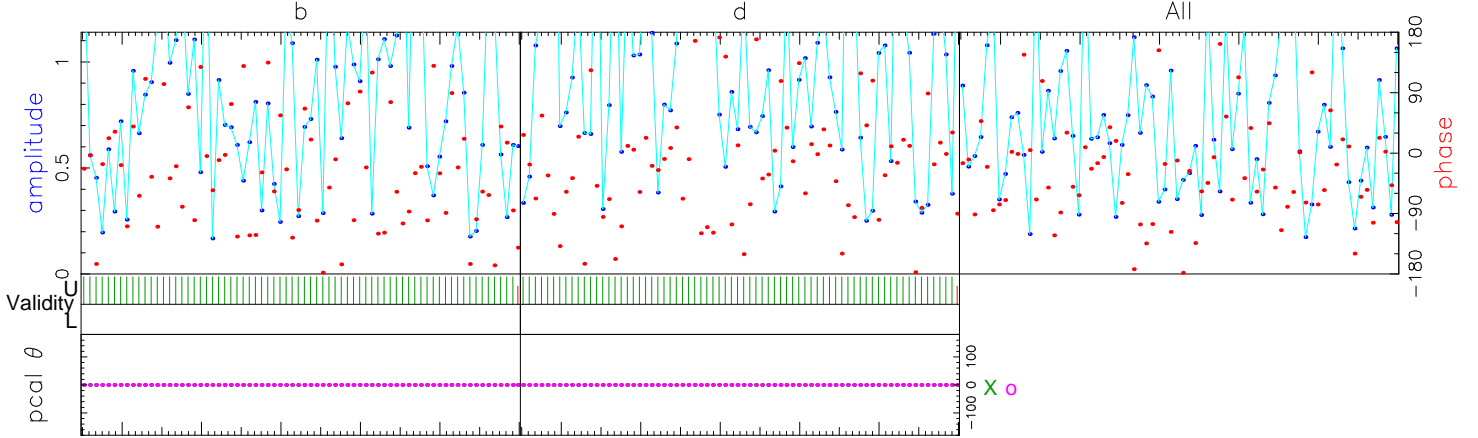


86156.00		86220.00		Freq (MHz)	All
-83.6		-83.6		Phase	-83.6
0.4		0.3		Ampl.	0.3
128.6		129.7		Sbd box	129.1
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
o 1000		1000		PC freqs	
X:o 0:0		0:0		PC phase	
X:o 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
o 1000		1000			
X W01UL		W03UL		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	5.29829416508E+02	Apriori delay (usec)	5.29827321619E+02	Resid mbdelay (usec)	2.09489E-03 +/- 8.1E-04
Sband delay (usec)	5.29828248119E+02	Apriori clock (usec)	1.1310049E+01	Resid sbdelay (usec)	9.26500E-04 +/- 2.8E-03
Phase delay (usec)	5.29827318924E+02	Apriori clockrate (us/s)	2.6043997E-07	Resid phdelay (usec)	-2.69513E-06 +/- 6.0E-07
Delay rate (us/s)	-1.39835796697E+00	Apriori rate (us/s)	-1.39835800284E+00	Resid rate (us/s)	3.58679E-08 +/- 3.2E-09
Total phase (deg)	90.8	Apriori accel (us/s/s)	1.50315818709E-05	Resid phase (deg)	-83.6 +/- 18.7

ph/seg (deg) 78.0 79.5 Search (2048X8) 0.344 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 165.0 138.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 0.0 13.2 Inc. seg. avg. 0.391 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 3.2 23.1 Inc. frq. avg. 0.339 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
X: az 279.5 el 45.6 pa 45.3 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10727.728 2517.357 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xo.W.227.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

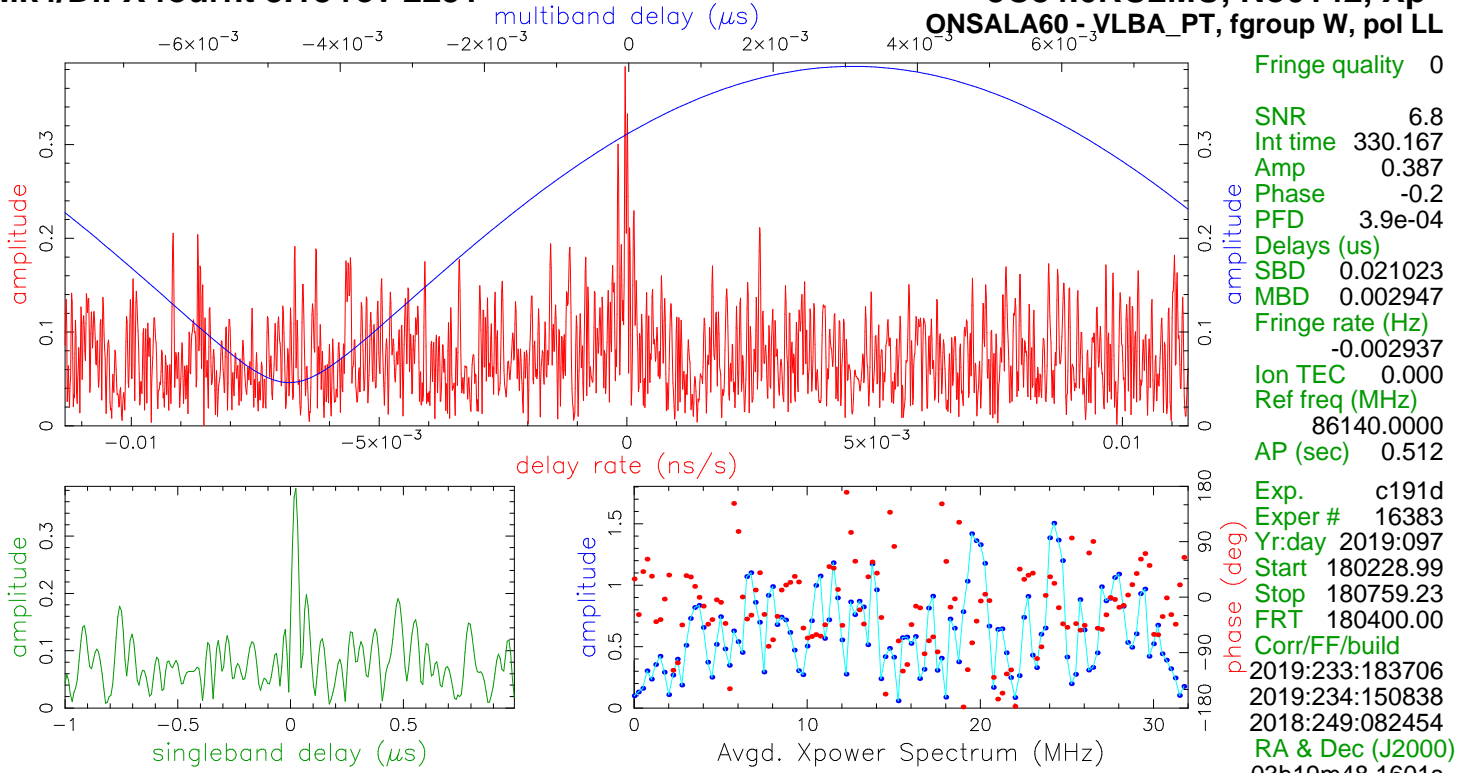


86156.00		86220.00		Freq (MHz)	All
-42.7		-39.5		Phase	-40.9
0.3		0.4		Ampl.	0.4
124.7		124.8		Sbd box	124.7
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
o 1000		1000		PC freqs	
X:o 0:0		0:0		PC phase	
X:o 0:0		0:0		Mani PC	
X 1000		1000		PC amp	
o 1000		1000			
X W01UR		W03UR		Chan ids	
o W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	5.29795301258E+02	Apriori delay (usec)	5.29827321619E+02	Resid mbdelay (usec)	-7.70361E-04 +/- 7.4E-04
Sband delay (usec)	5.29793922119E+02	Apriori clock (usec)	1.1310049E+01	Resid sbdelay (usec)	-3.33995E-02 +/- 2.6E-03
Phase delay (usec)	5.29827320301E+02	Apriori clockrate (us/s)	2.6043997E-07	Resid phdelay (usec)	-1.31780E-06 +/- 5.5E-07
Delay rate (us/s)	-1.39835796965E+00	Apriori rate (us/s)	-1.39835800284E+00	Resid rate (us/s)	3.31818E-08 +/- 2.9E-09
Total phase (deg)	313.5	Apriori accel (us/s/s)	1.50315818709E-05	Resid phase (deg)	139.1 +/- 17.2

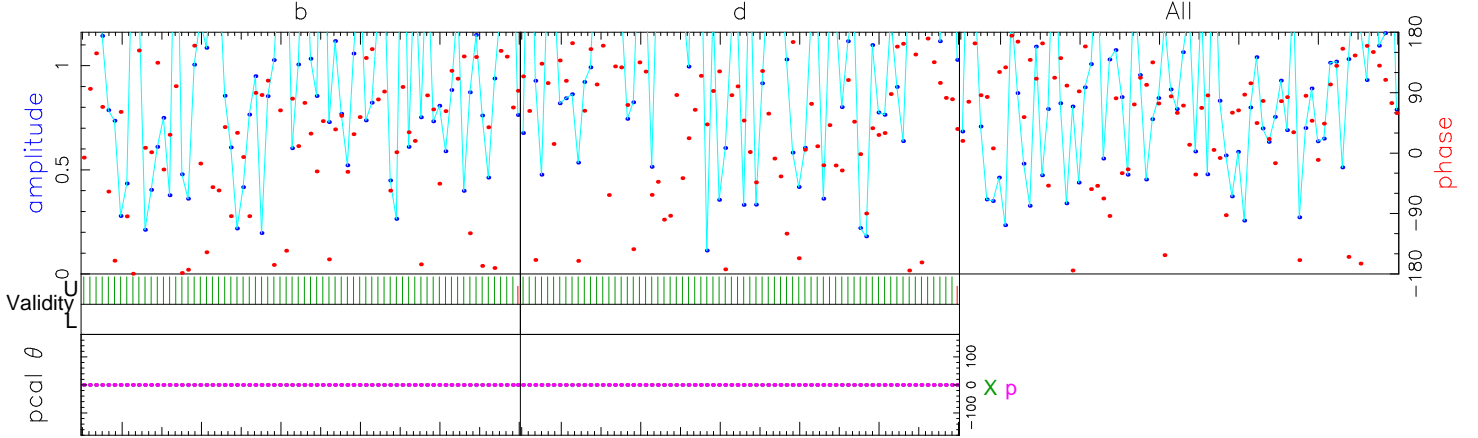
ph/seg (deg)	RMS 70.5	Theor. 72.8	Amplitude Search (2048X8) 0.380 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	130.1	127.1	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	12.1	Inc. seg. avg. 0.398	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.8	21.2	Inc. frq. avg. 0.369	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

X: az 279.5 el 45.6 pa 45.3 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10727.728 2517.357 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xo.W.239.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

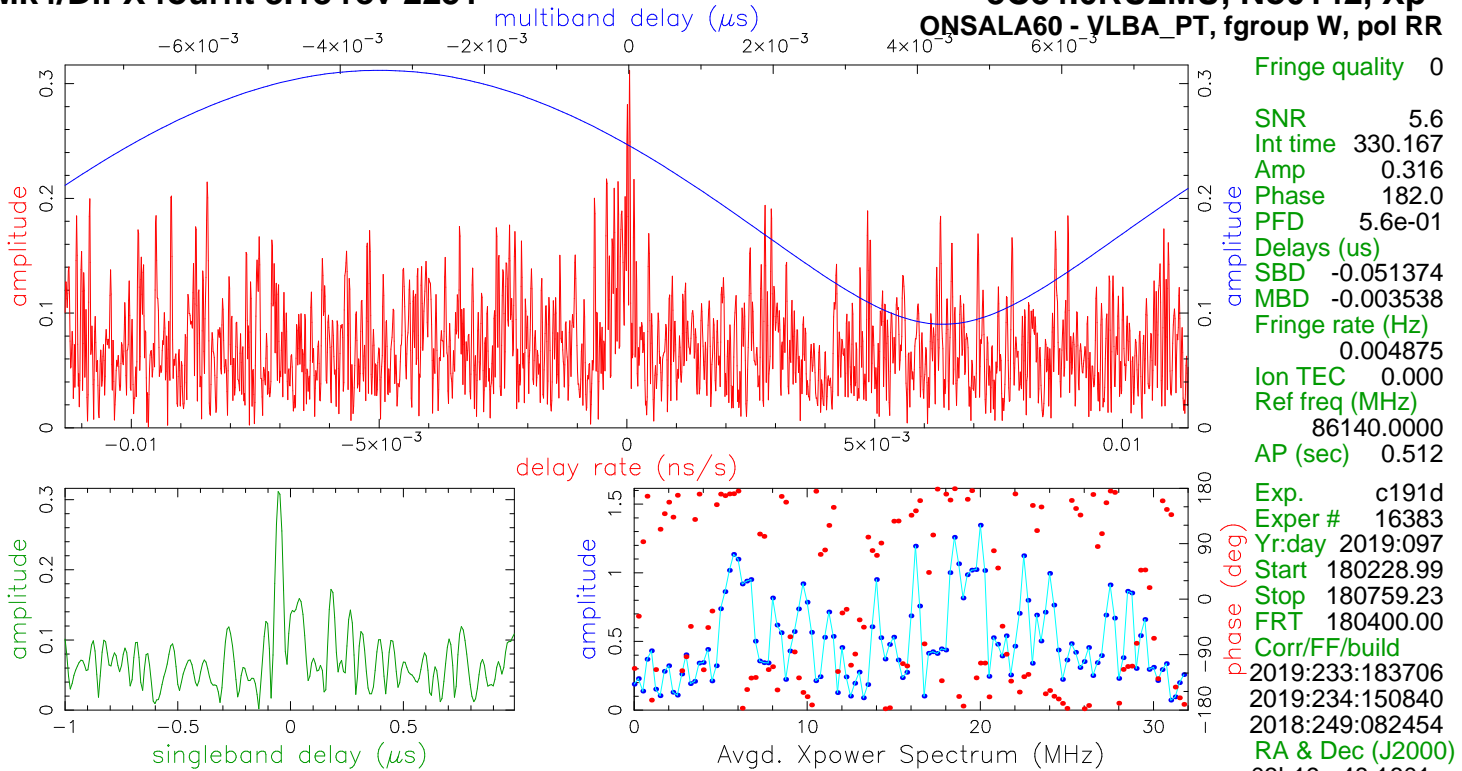


86156.00		86220.00		Freq (MHz)	All
87.7		91.4		Phase	89.8
0.3		0.4		Ampl.	0.4
132.0		131.5		Sbd box	131.7
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
p 1000		1000		PC freqs	
X:p 0:0		0:0		PC phase	
X:p 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
p 1000		1000			
X W01UL		W03UL		Chan ids	
p W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.05578846721E+03	Apriori delay (usec)	-1.05580703957E+03	Resid mbdelay (usec)	2.94736E-03 +/- 7.3E-04
Sband delay (usec)	-1.05578601707E+03	Apriori clock (usec)	1.7340002E+01	Resid sbdelay (usec)	2.10225E-02 +/- 2.5E-03
Phase delay (usec)	-1.05580703668E+03	Apriori clockrate (us/s)	3.3499999E-07	Resid phdelay (usec)	2.89470E-06 +/- 5.4E-07
Delay rate (us/s)	-1.33576363778E+00	Apriori rate (us/s)	-1.33576360368E+00	Resid rate (us/s)	-3.41015E-08 +/- 2.9E-09
Total phase (deg)	-140.2	Apriori accel (us/s/s)	2.65934604737E-05	Resid phase (deg)	-0.2 +/- 16.9

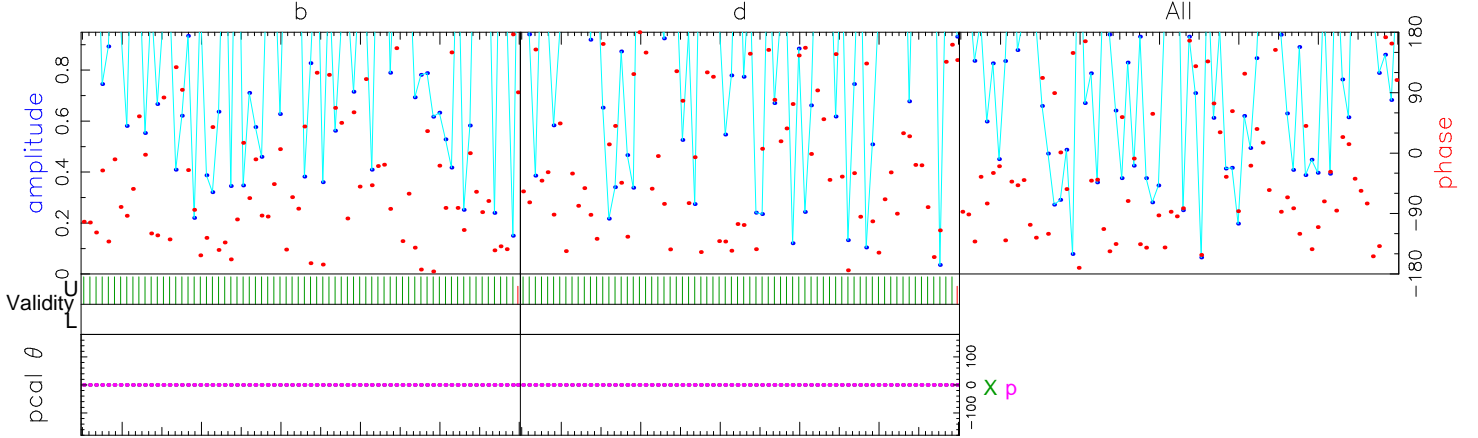
ph/seg (deg)	RMS 73.3	Theor. 71.5	Amplitude Search (2048X8) 0.378	0.387 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	163.0	124.8	Interp. 0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	11.9	Inc. seg. avg. 0.493	0.493	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.9	20.8	Inc. frq. avg. 0.375	0.375	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
					Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00

X: az 279.5 el 45.6 pa 45.3 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10267.733 3601.923 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xp.W.206.0RU2MU

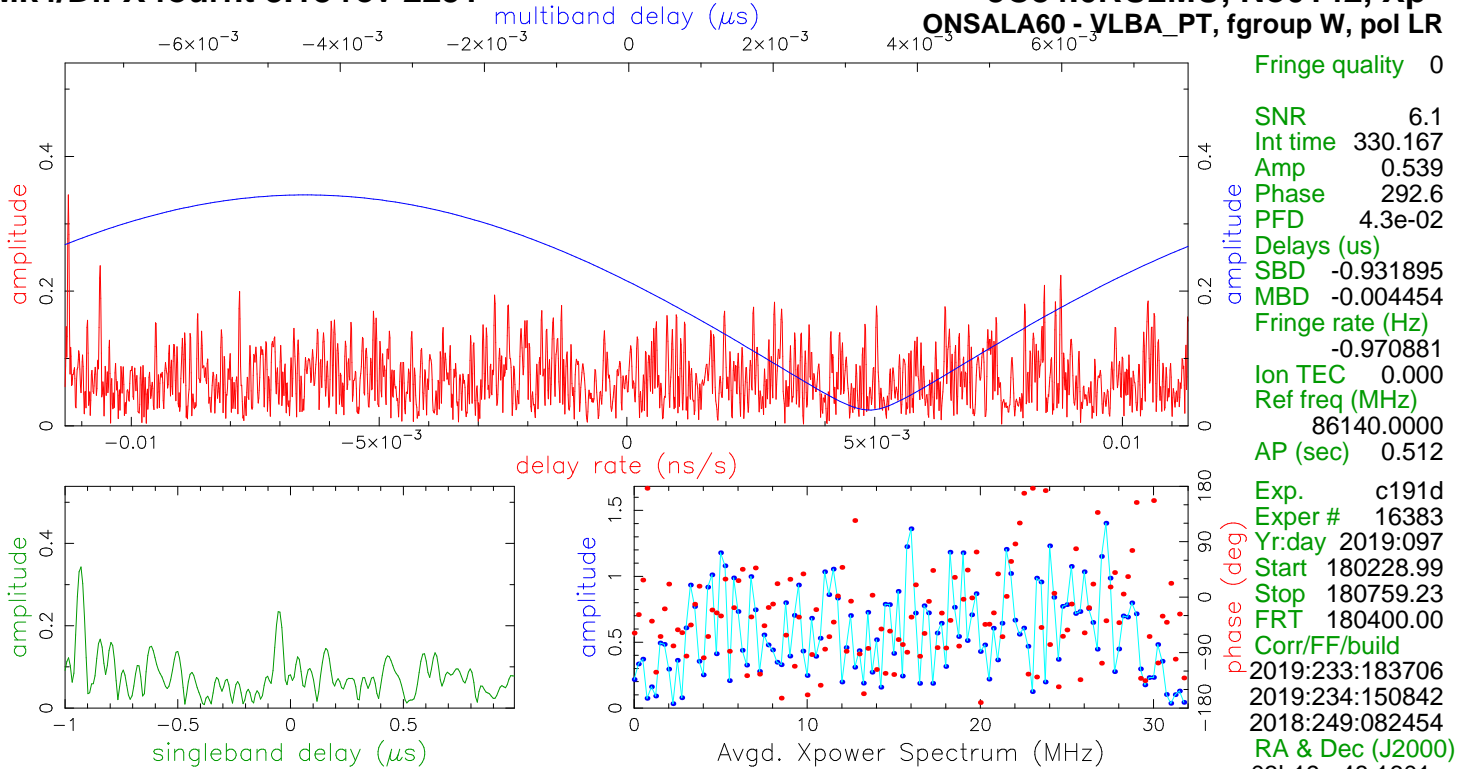


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

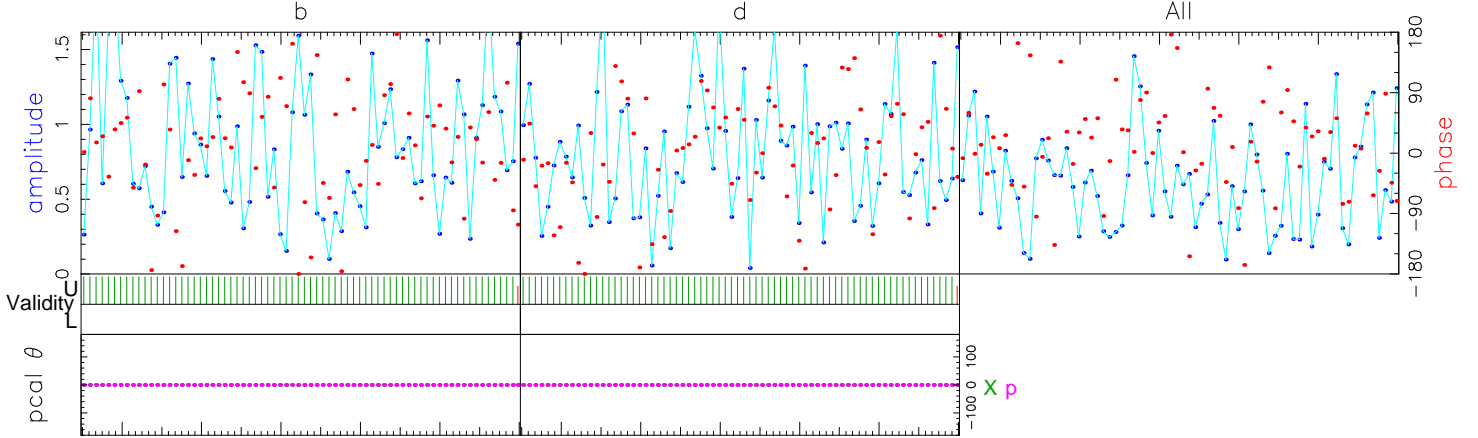


86156.00		86220.00		Freq (MHz)	All
-88.7		-86.8		Phase	-88.0
0.4		0.2		Ampl.	0.3
122.0		92.3		Sbd box	122.4
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
p 1000		1000		PC freqs	
X:p 0:0		0:0		PC phase	
X:p 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
p 1000		1000			
X W01UR		W03UR		Chan ids	
				Tracks	
p W01UR		W03UR		Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.05585745267E+03	Apriori delay (usec)	-1.05580703957E+03	Resid mbdelay (usec)	-3.53810E-03 +/- 9.0E-04
Sband delay (usec)	-1.05585841307E+03	Apriori clock (usec)	1.7340002E+01	Resid sbdelay (usec)	-5.13735E-02 +/- 3.1E-03
Phase delay (usec)	-1.05580704241E+03	Apriori clockrate (us/s)	3.3499999E-07	Resid phdelay (usec)	-2.83852E-06 +/- 6.6E-07
Delay rate (us/s)	-1.33576354708E+00	Apriori rate (us/s)	-1.33576360368E+00	Resid rate (us/s)	5.65918E-08 +/- 3.5E-09
Total phase (deg)	42.0	Apriori accel (us/s/s)	2.65934604737E-05	Resid phase (deg)	182.0 +/- 20.6

ph/seg (deg)	81.6	Theor.	87.5	Amplitude	0.316 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	187.5	Search (2048X8)	0.310	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.358	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	28.6	Inc. frq. avg.	0.302	Inc. frq. avg.	0.302	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00
X: az 279.5 el 45.6 pa 45.3		p: az 63.8 el 48.5 pa -82.8		u,v (fr/asec)	10267.733 3601.923				simultaneous interpolator



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

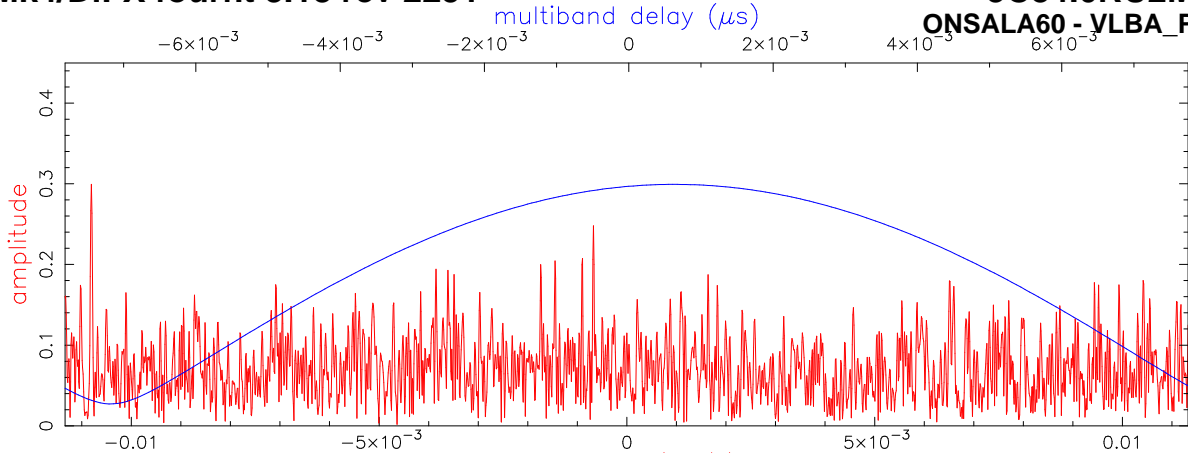


86156.00		86220.00		Freq (MHz)	All
22.8		22.3		Phase	22.6
0.6		0.5		Ampl.	0.5
9.6		9.9		Sbd box	9.7
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
p 1000		1000		PC freqs	
X:p 0:0		0:0		PC phase	
X:p 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
p 1000		1000			
X W01UL		W03UL		Chan ids	
p W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.05673336877E+03	Apriori delay (usec)	-1.05580703957E+03	Resid mbdelay (usec)	-4.45420E-03 +/- 8.2E-04
Sband delay (usec)	-1.05673893507E+03	Apriori clock (usec)	1.7340002E+01	Resid sbdelay (usec)	-9.31895E-01 +/- 2.8E-03
Phase delay (usec)	-1.05580703884E+03	Apriori clockrate (us/s)	3.3499999E-07	Resid phdelay (usec)	7.27712E-07 +/- 6.1E-07
Delay rate (us/s)	-1.33577487464E+00	Apriori rate (us/s)	-1.33576360368E+00	Resid rate (us/s)	-1.12710E-05 +/- 3.2E-09
Total phase (deg)	152.6	Apriori accel (us/s/s)	2.65934604737E-05	Resid phase (deg)	292.6 +/- 18.9

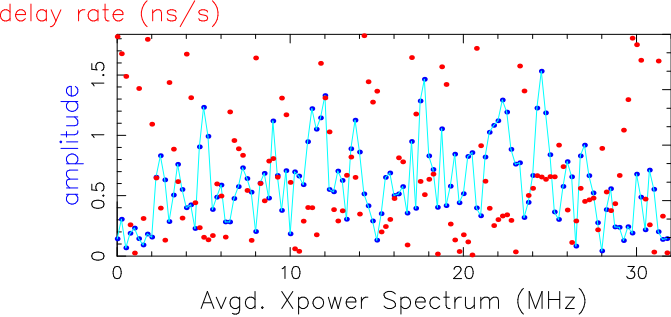
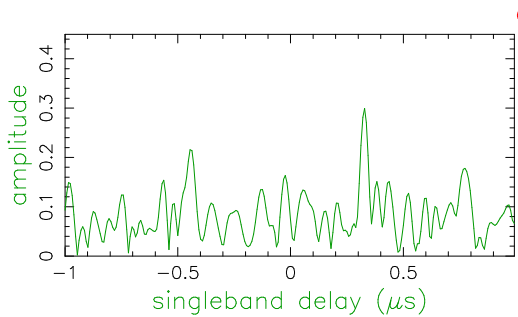
ph/seg (deg)	RMS 70.1	Theor. 80.2	Amplitude Search (2048X8) 0.539 +/- 0.089	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	123.0	140.0	Interp. 0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	13.4	Inc. seg. avg. 0.484	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	6.8	23.3	Inc. frq. avg. 0.521	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
				Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
				nlags: 128	t_cohere infinite
					ion window (TEC) 0.00 0.00

X: az 279.5 el 45.6 pa 45.3 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10267.733 3601.923 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xp.W.243.0RU2MU

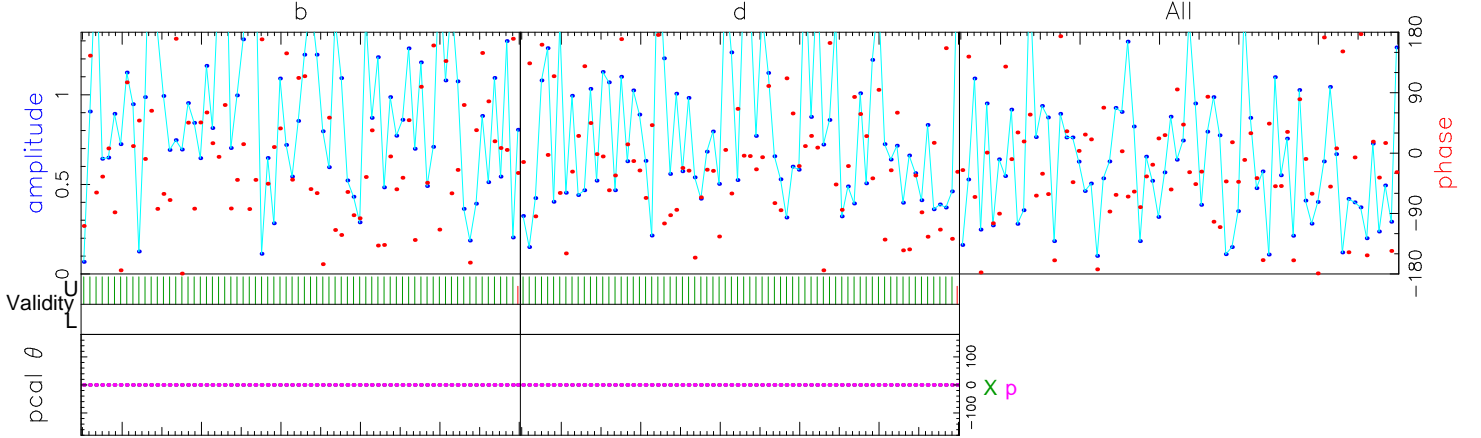


Fringe quality 0
 SNR 5.3
 Int time 330.167
 Amp 0.450
 Phase -113.3
 PFD 9.8e-01
 Delays (us)
 SBD 0.327245
 MBD 0.000621
 Fringe rate (Hz)
 -0.930893
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Avgd. Xpower Spectrum (MHz)

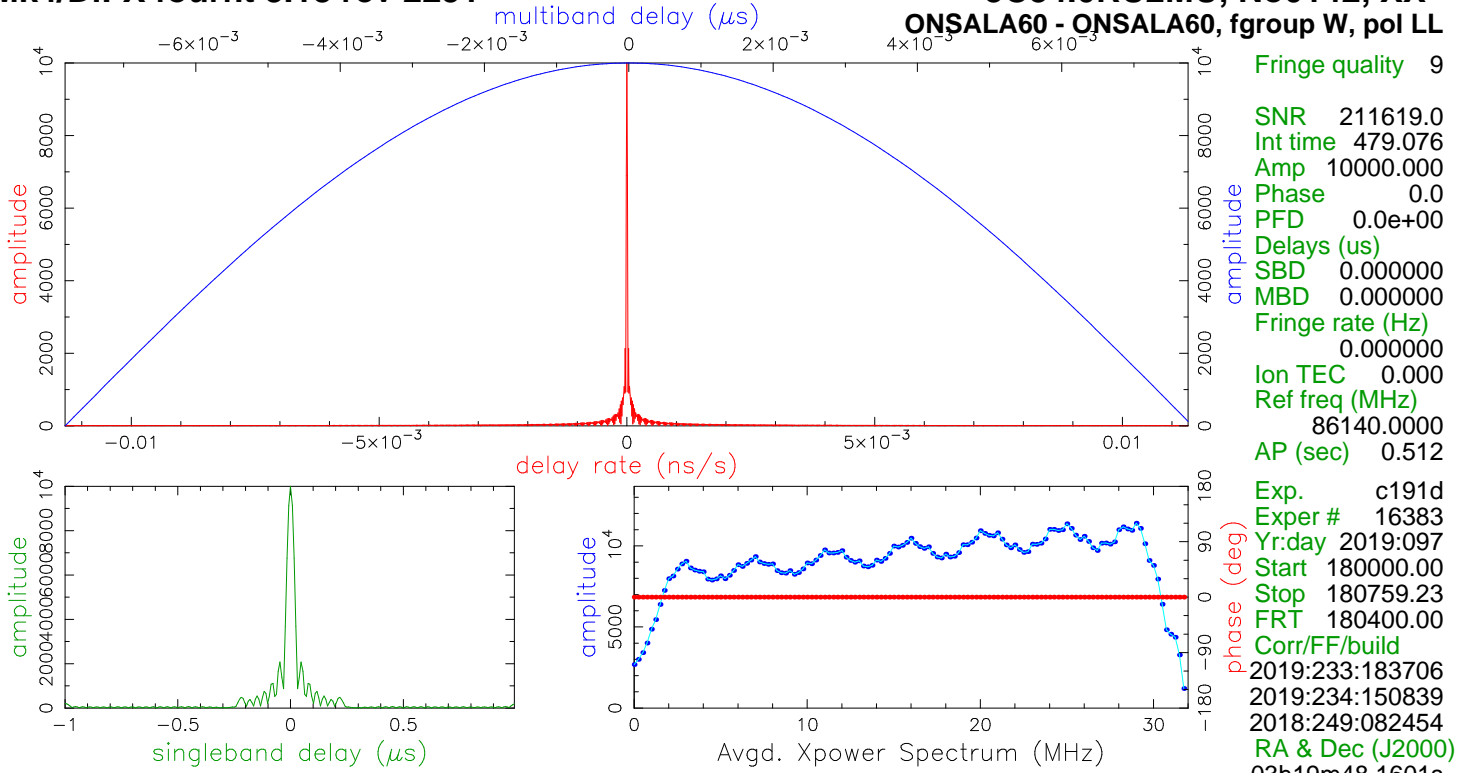
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



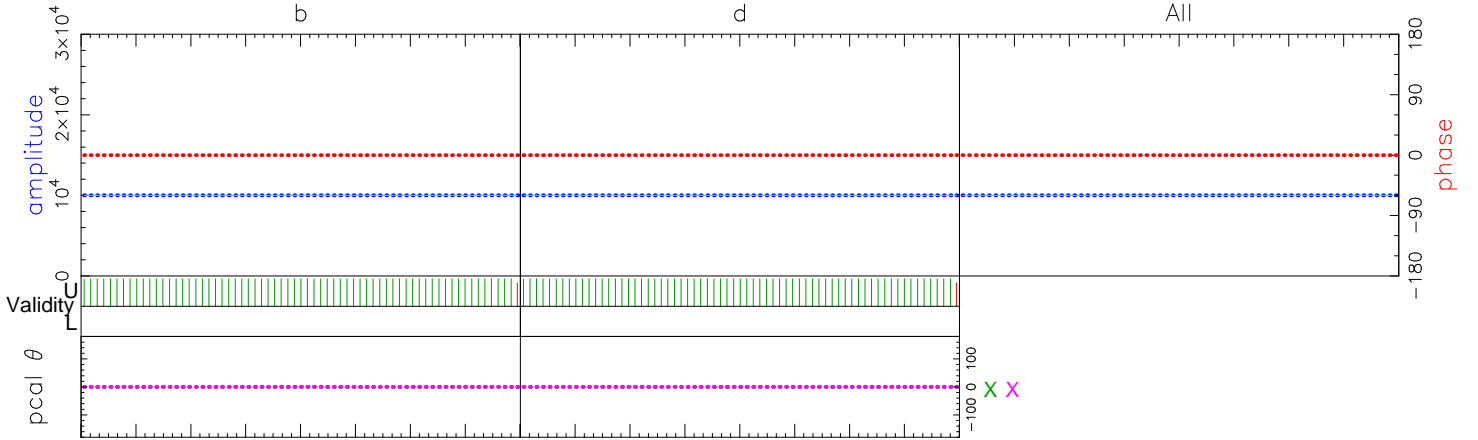
86156.00		86220.00		Freq (MHz)	All
-23.4		-23.1		Phase	-23.3
0.4		0.5		Ampl.	0.4
170.0		171.6		Sbd box	170.9
U/L 645/0		645/0		APs used	
X 1000		1000		PC freqs	
p 1000		1000		PC freqs	
X:p 0:0		0:0		PC phase	
X:p 0:0		0:0		Manl PC	
X 1000		1000		PC amp	
p 1000		1000			
X W01UR		W03UR		Chan ids	
				Tracks	
p W01UL		W03UL		Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.05547829394E+03	Apriori delay (usec)	-1.05580703957E+03	Resid mbdelay (usec)	6.20629E-04 +/- 9.5E-04
Sband delay (usec)	-1.05547979457E+03	Apriori clock (usec)	1.7340002E+01	Resid sbdelay (usec)	3.27245E-01 +/- 3.3E-03
Phase delay (usec)	-1.05580704032E+03	Apriori clockrate (us/s)	3.3499999E-07	Resid phdelay (usec)	-7.50569E-07 +/- 7.0E-07
Delay rate (us/s)	-1.33577441042E+00	Apriori rate (us/s)	-1.33576360368E+00	Resid rate (us/s)	-1.08067E-05 +/- 3.7E-09
Total phase (deg)	-253.2	Apriori accel (us/s/s)	2.65934604737E-05	Resid phase (deg)	-113.3 +/- 21.8

ph/seg (deg)	81.2	Theor.	92.4	Amplitude	0.450 +/- 0.085	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	159.3	Search (2048X8)	0.296	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.408	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	9.1	Inc. frq. avg.	0.434	Inc. frq. avg.	0.434	Sample rate (MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate (Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

X: az 279.5 el 45.6 pa 45.3 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10267.733 3601.923 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Xp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Xp.W.250.0RU2MU

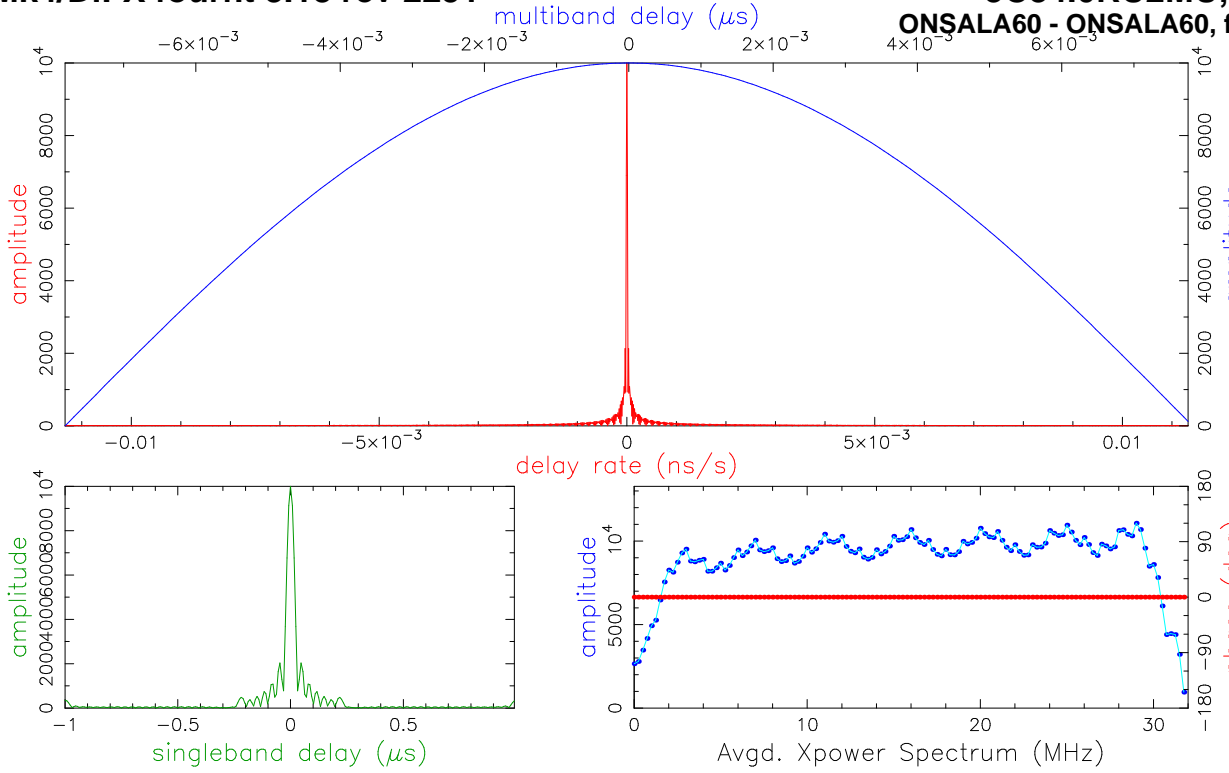


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



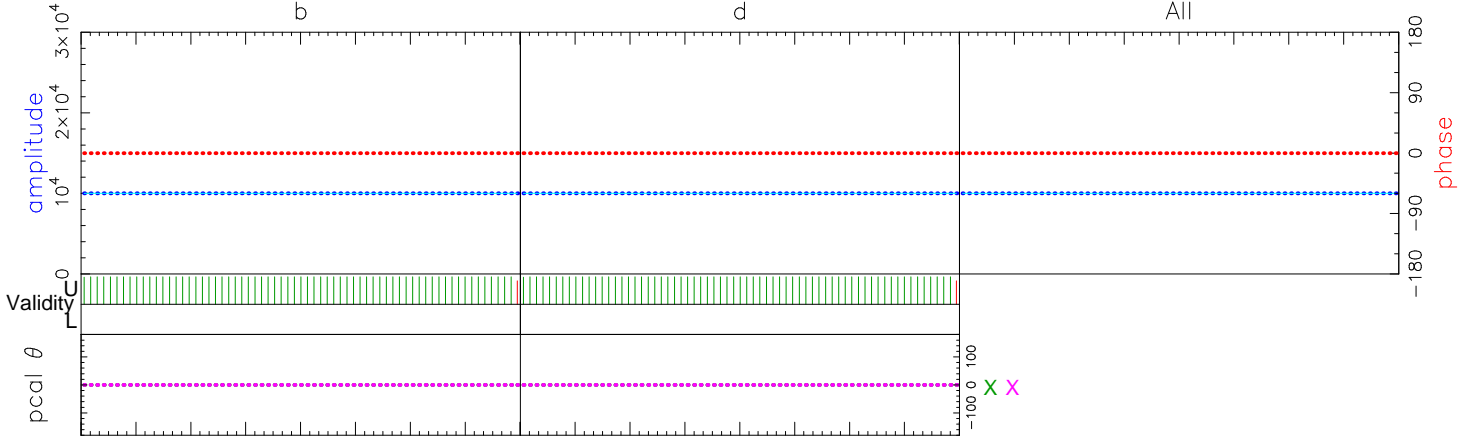
86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
X 1000	1000	PC freqs					
X:X 0:0	0:0	PC phase					
X:X 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
X 1000	1000						
X W01UL	W03UL	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	Theor.	0.0	Amplitude	10000.000 +/- 0.047	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)	-1.000 1.000
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			Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011 0.011
						Data rate(Mb/s):	256	ion window (TEC)	0.00 0.00



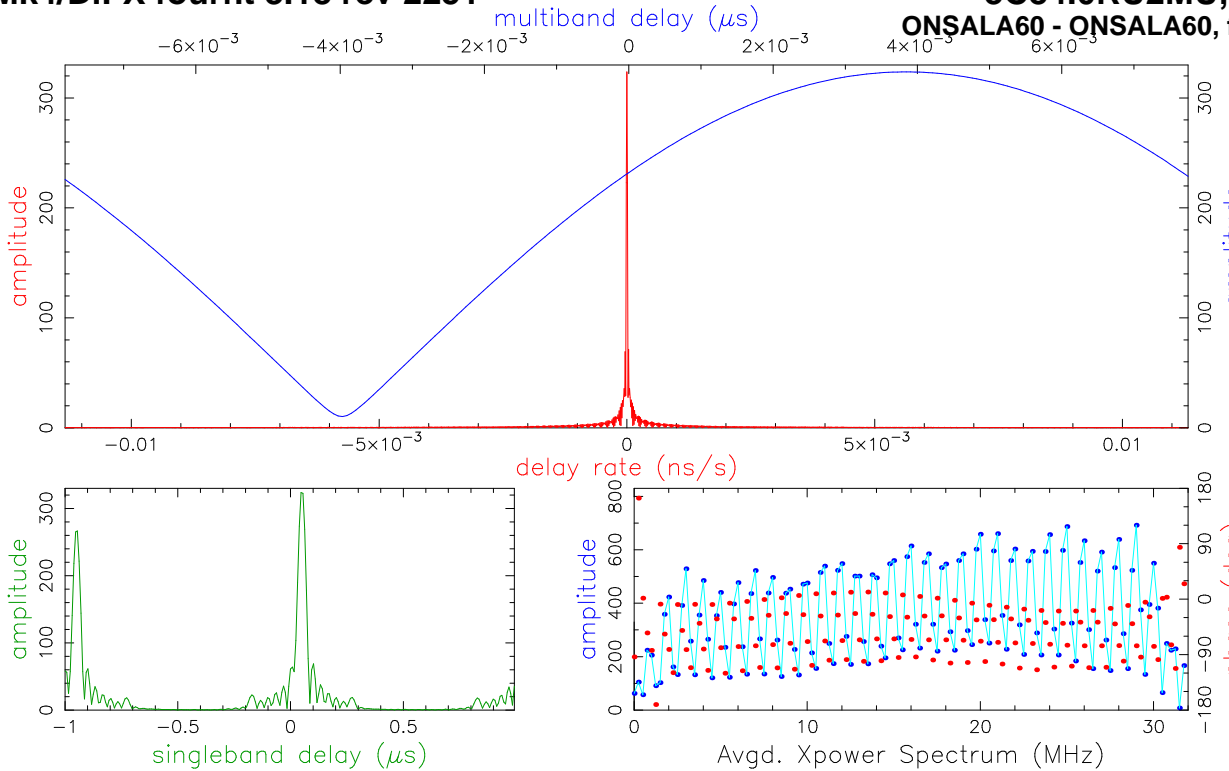
Fringe quality 9
 SNR 211619.0
 Int time 479.076
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150841
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
X 1000	1000	PC freqs					
X:X 0:0	0:0	PC phase					
X:X 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
X 1000	1000						
X W01UR	W03UR	Chan ids					
X W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	0.0	Amplitude	10000.000 +/- 0.047	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)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
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): 256	ion window (TEC)	0.00 0.00	

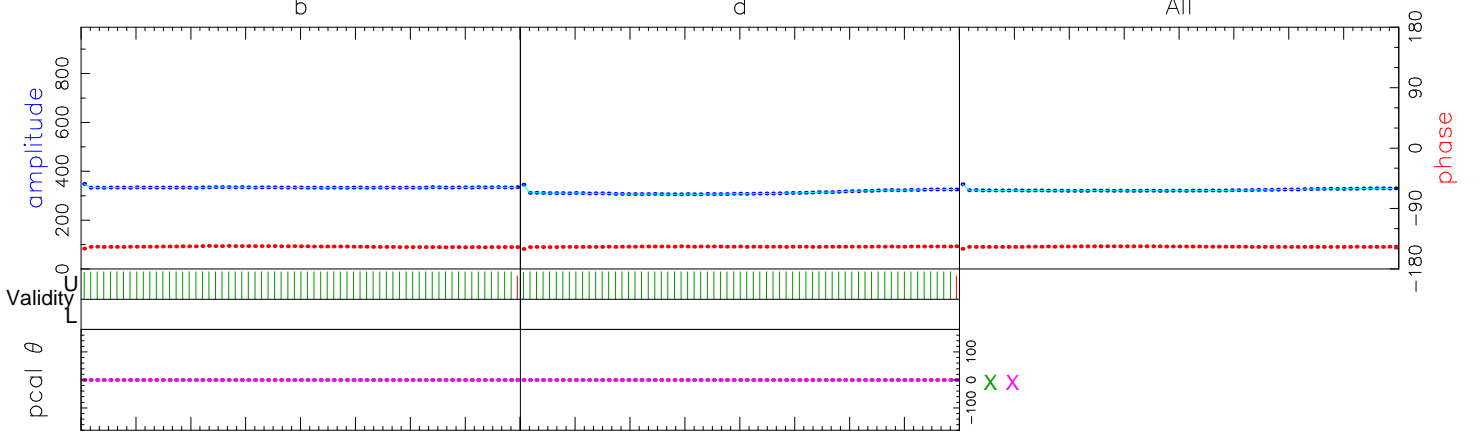


Fringe quality 9

SNR 6983.8
 Int time 479.076
 Amp 330.016
 Phase -56.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.050630
 MBD 0.003842
 Fringe rate (Hz)
 -0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150842
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

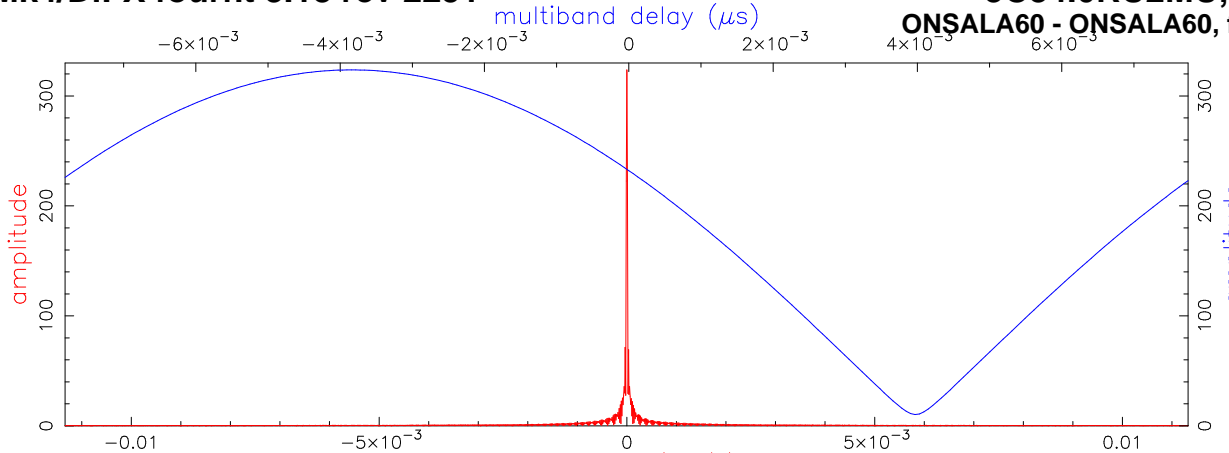


86156.00	86220.00	Freq (MHz)	All
-146.7	-146.8	Phase	-146.7
333.9	313.5	Ampl.	323.7
135.6	135.3	Sbd box	135.5
U/L 936/0	936/0	APs used	
X 1000	1000	PC freqs	
X 1000	1000	PC freqs	
X:X 0:0	0:0	PC phase	
X:X 0:0	0:0	Manl PC	
X 1000	1000	PC amp	
X 1000	1000		
X W01UL	W03UL	Chan ids	
X W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	
Group delay (usec)(sbd)	5.07170000000E-02	Apriori delay (usec)	0.00000000000E+00
Sband delay (usec)	5.06295000000E-02	Apriori clock (usec)	0.0000000E+00
Phase delay (usec)	-4.73216456896E-06	Apriori clockrate (us/s)	0.0000000E+00
Delay rate (us/s)	-4.25134571751E-11	Apriori rate (us/s)	0.00000000000E+00
Total phase (deg)	-56.7	Apriori accel (us/s/s)	0.00000000000E+00
		Resid mbdelay (usec)	3.84200E-03 +/- 7.1E-07
		Resid sbdelay (usec)	5.06295E-02 +/- 2.5E-06
		Resid phdelay (usec)	-4.73216E-06 +/- 5.3E-10
		Resid rate (us/s)	-4.25135E-11 +/- 1.9E-12
		Resid phase (deg)	-56.7 +/- 0.0

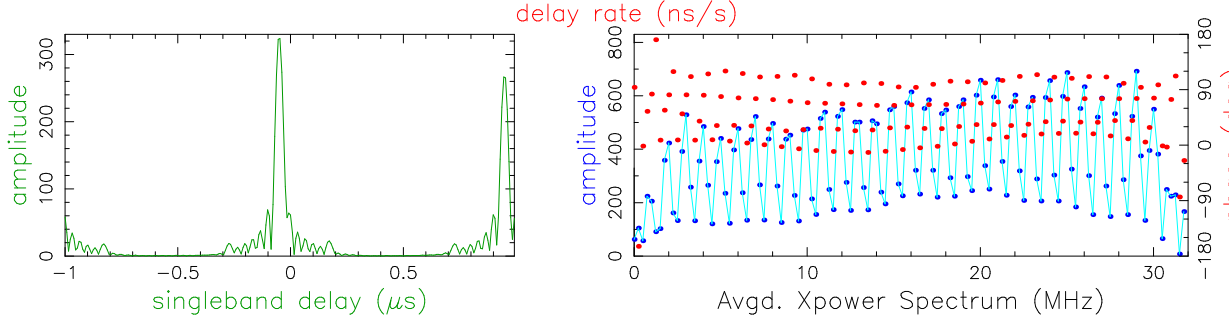
ph/seg (deg) 0.5 0.1 Theor. Amplitude 330.016 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.3 0.1 Search (2048X8) 323.669 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 3.6 0.0 Inc. seg. avg. 323.715 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 323.702 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

X: az 279.5 el 45.6 pa 45.3 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

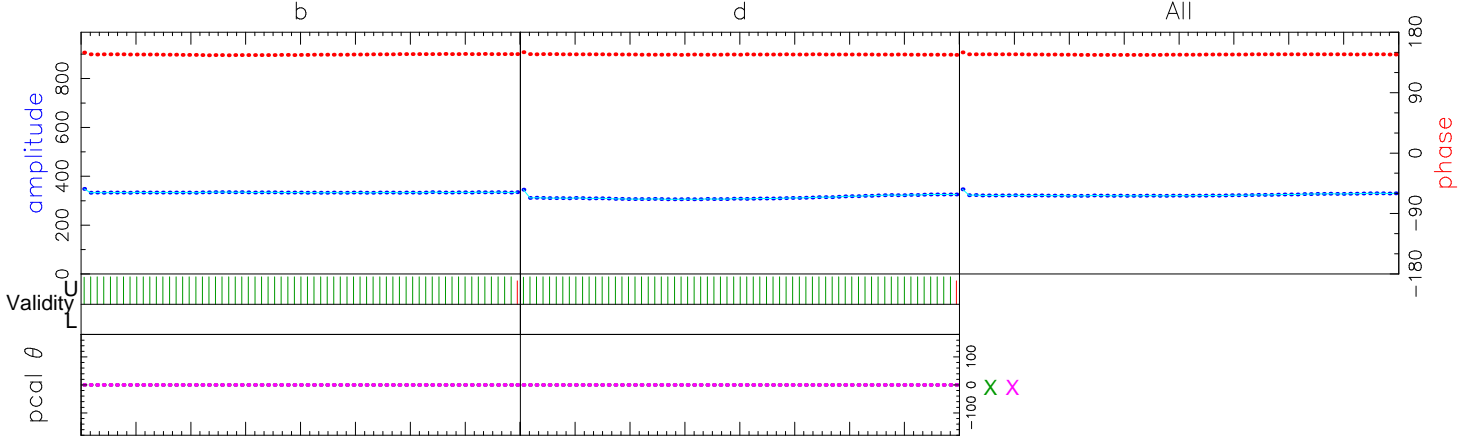
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/XX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/XX.W.242.0RU2MU



Fringe quality 9
 SNR 6983.8
 Int time 479.076
 Amp 330.016
 Phase 56.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.050630
 MBD -0.003842
 Fringe rate (Hz) 0.000004
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build 2019:233:183706
 2019:234:150844
 2018:249:082454
 RA & Dec (J2000) 03h19m48.1601s +41°30'42.104"

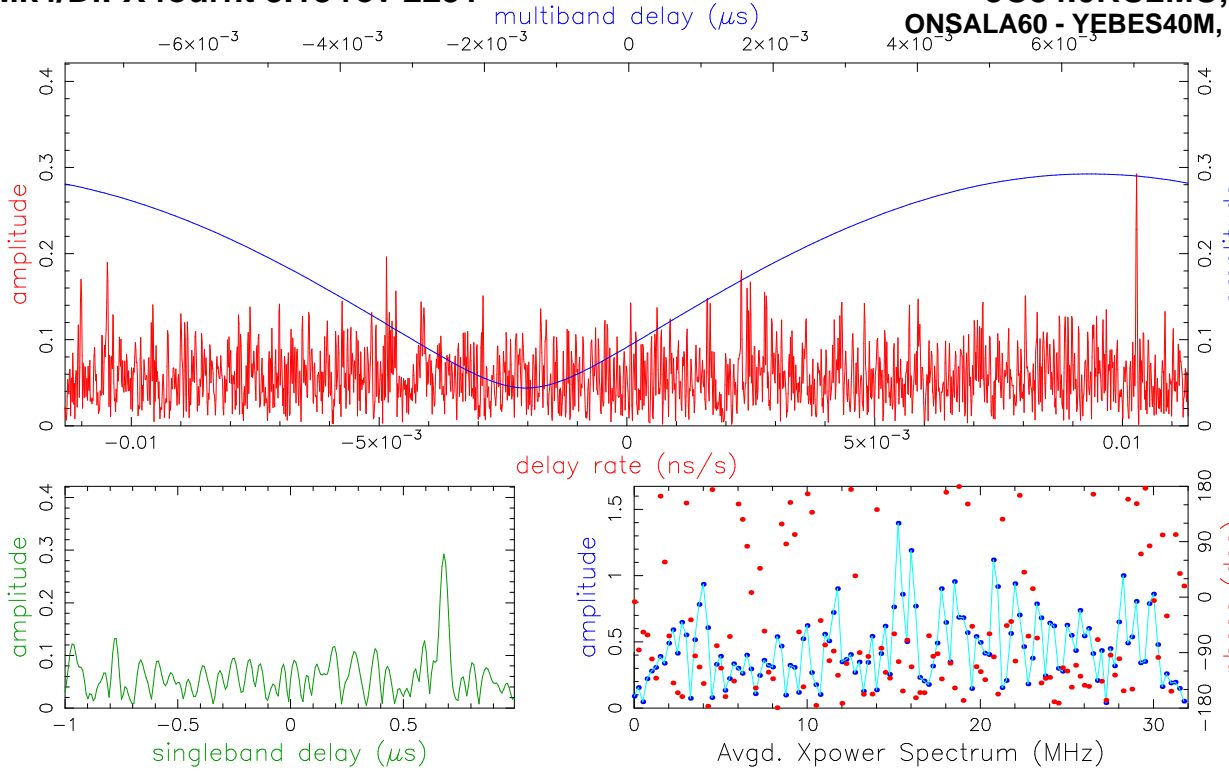


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



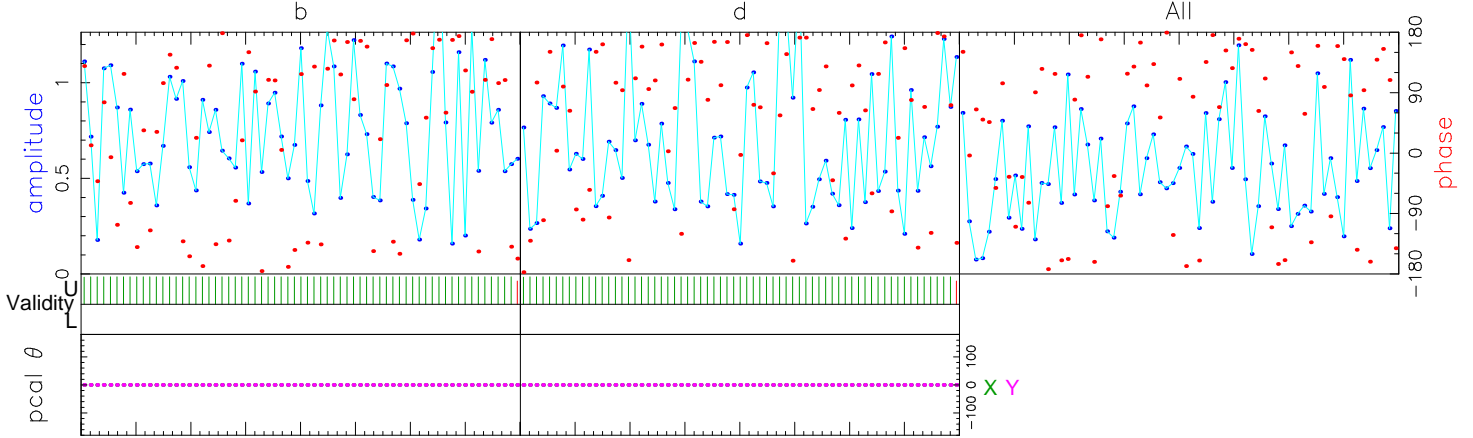
86156.00	86220.00	Freq (MHz)	All				
146.7	146.8	Phase	146.7				
333.9	313.5	Ampl.	323.7				
122.4	122.7	Sbd box	122.5				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
X 1000	1000	PC freqs					
X:X 0:0	0:0	PC phase					
X:X 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
X 1000	1000						
X W01UR	W03UR	Chan ids					
		Tracks					
X W01UL	W03UL	Chan ids					
		Tracks					
Group delay (usec)(sbd)	-5.07170000000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.84200E-03	+/-	7.1E-07
Sband delay (usec)	-5.06295000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-5.06295E-02	+/-	2.5E-06
Phase delay (usec)	4.73216456906E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.73216E-06	+/-	5.3E-10
Delay rate (us/s)	4.25134571751E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	4.25135E-11	+/-	1.9E-12
Total phase (deg)	56.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	56.7	+/-	0.0

ph/seg (deg) 0.5 0.1 Theor. Amplitude 330.016 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.3 0.1 Search (2048X8) 323.669 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 3.6 0.0 Inc. seg. avg. 323.715 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 323.702 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 X: az 279.5 el 45.6 pa 45.3 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/XX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/XX.W.254.0RU2MU



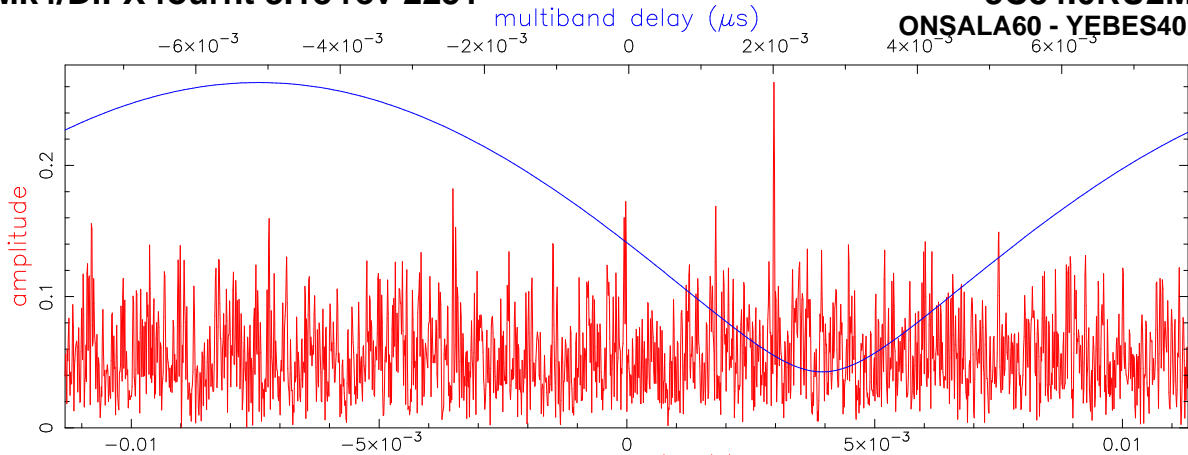
Fringe quality 0
 SNR 6.2
 Int time 478.964
 Amp 0.421
 Phase -120.6
 PFD 2.0e-02
 Delays (us)
 SBD 0.680368
 MBD 0.006382
 Fringe rate (Hz)
 0.885721
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150840
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

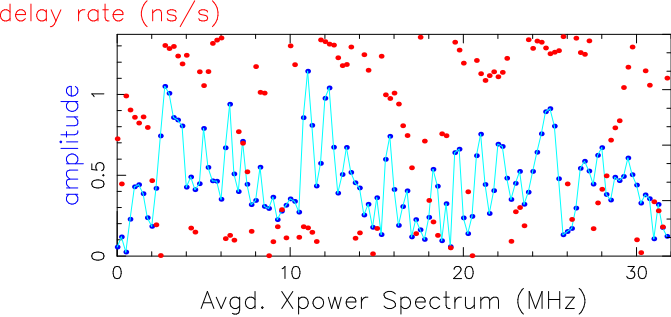
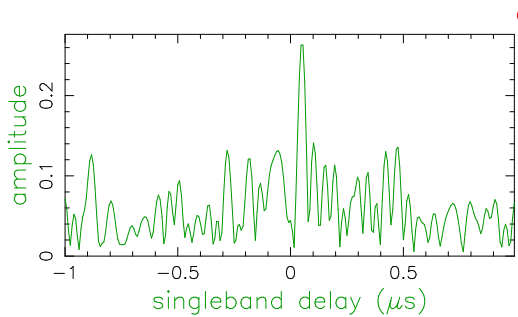


86156.00	86220.00	Freq (MHz)	All				
149.3	149.5	Phase	149.4				
0.5	0.4	Ampl.	0.4				
216.3	215.7	Sbd box	216.1				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
X:Y 0:0	0:0	PC phase					
X:Y 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
Y 1000	1000						
X W01UL	W03UL	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.32782940633E+03	Apriori delay (usec)	-1.32850766313E+03	Resid mbdelay (usec)	6.38180E-03	+/-	8.0E-04
Sband delay (usec)	-1.32782729563E+03	Apriori clock (usec)	1.8140396E+01	Resid sbdelay (usec)	6.80368E-01	+/-	2.8E-03
Phase delay (usec)	-1.32850765831E+03	Apriori clockrate (us/s)	2.5699999E-07	Resid phdelay (usec)	4.81806E-06	+/-	6.0E-07
Delay rate (us/s)	1.26327693897E-01	Apriori rate (us/s)	1.26317411559E-01	Resid rate (us/s)	1.02823E-05	+/-	2.2E-09
Total phase (deg)	-157.3	Apriori accel (us/s/s)	2.16012511434E-05	Resid phase (deg)	-120.6	+/-	18.5

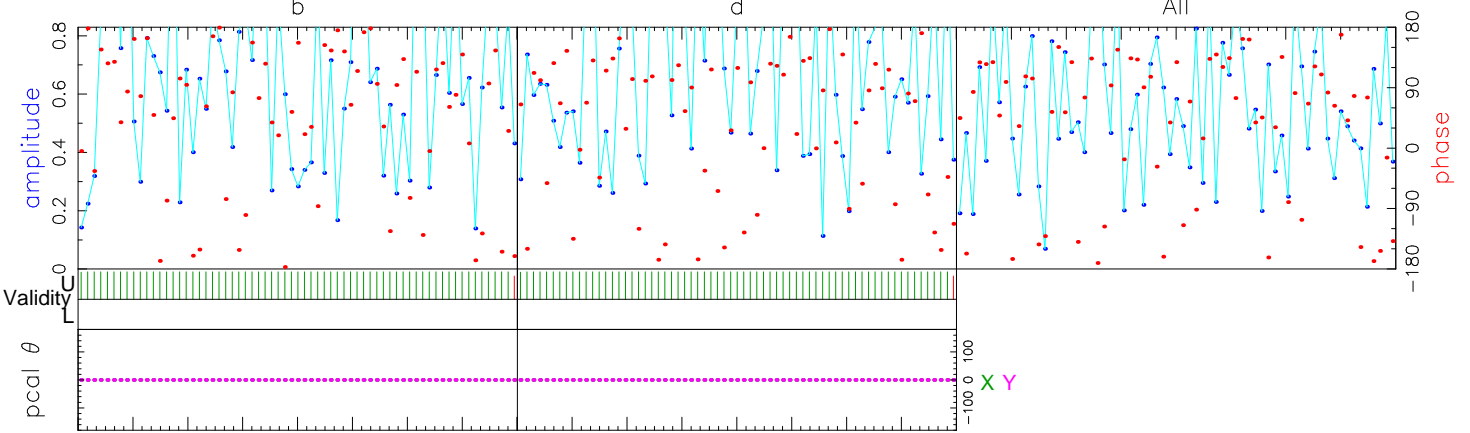
ph/seg (deg) 75.0 75.7 Search (2048X8) 0.281 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 124.5 132.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 13.1 Inc. seg. avg. 0.416 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.0 22.8 Inc. frq. avg. 0.410 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 X: az 279.5 el 45.6 pa 45.3 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -932.562 2792.915 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/XY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/XY.W.222.0RU2MU



Fringe quality 0
 SNR 5.7
 Int time 478.964
 Amp 0.277
 Phase -236.7
 PFD 3.3e-01
 Delays (us)
 SBD 0.050788
 MBD -0.005122
 Fringe rate (Hz)
 0.255101
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150841
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

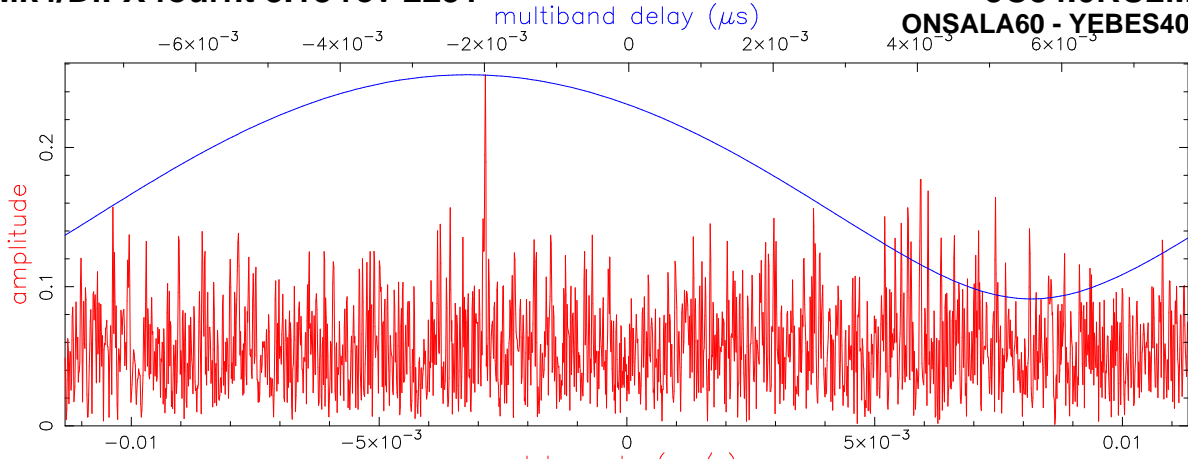


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
123.4	123.1	Phase	123.3				
0.3	0.2	Ampl.	0.3				
136.0	134.7	Sbd box	135.5				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
X:Y 0:0	0:0	PC phase					
X:Y 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
Y 1000	1000						
X W01UR	W03UR	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.32845028479E+03	Apriori delay (usec)	-1.32850766313E+03	Resid mbdelay (usec)	-5.12166E-03	+/-	8.7E-04
Sband delay (usec)	-1.32845687463E+03	Apriori clock (usec)	1.8140396E+01	Resid sbdelay (usec)	5.07885E-02	+/-	3.0E-03
Phase delay (usec)	-1.32850765916E+03	Apriori clockrate (us/s)	2.5699999E-07	Resid phdelay (usec)	3.97497E-06	+/-	6.5E-07
Delay rate (us/s)	1.26320373025E-01	Apriori rate (us/s)	1.26317411559E-01	Resid rate (us/s)	2.96147E-06	+/-	2.3E-09
Total phase (deg)	-273.5	Apriori accel (us/s/s)	2.16012511434E-05	Resid phase (deg)	-236.7	+/-	20.1

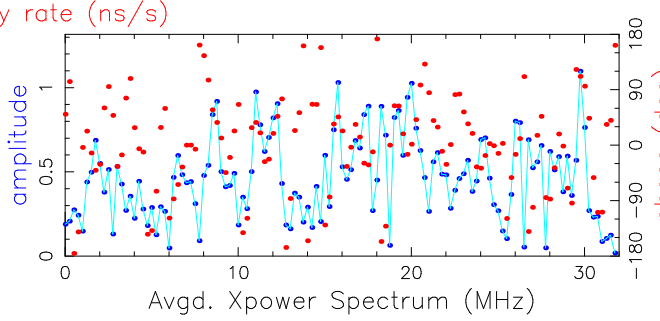
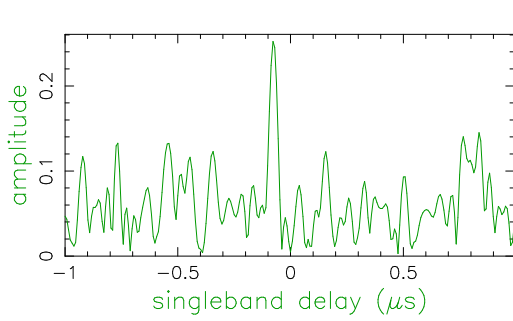
RMS Theor. Amplitude 0.277 +/- 0.049 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 72.3 82.4 Search (2048X8) 0.244 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 142.1 143.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 14.2 Inc. seg. avg. 0.282 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 16.0 24.9 Inc. frq. avg. 0.263 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 X: az 279.5 el 45.6 pa 45.3 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -932.562 2792.915 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/XY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/XY.W.231.0RU2MU



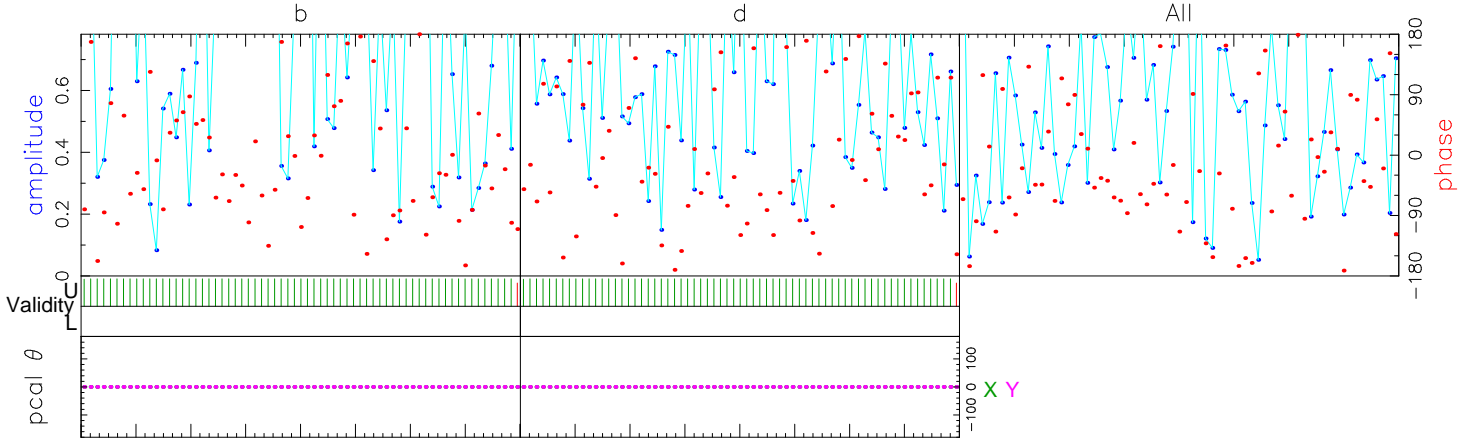
Fringe quality 0

SNR 5.4
 Int time 478.964
 Amp 0.261
 Phase 39.4
 PFD 9.0e-01
 Delays (us)
 SBD -0.075759
 MBD -0.002222
 Fringe rate (Hz)
 -0.246258
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180000.00
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

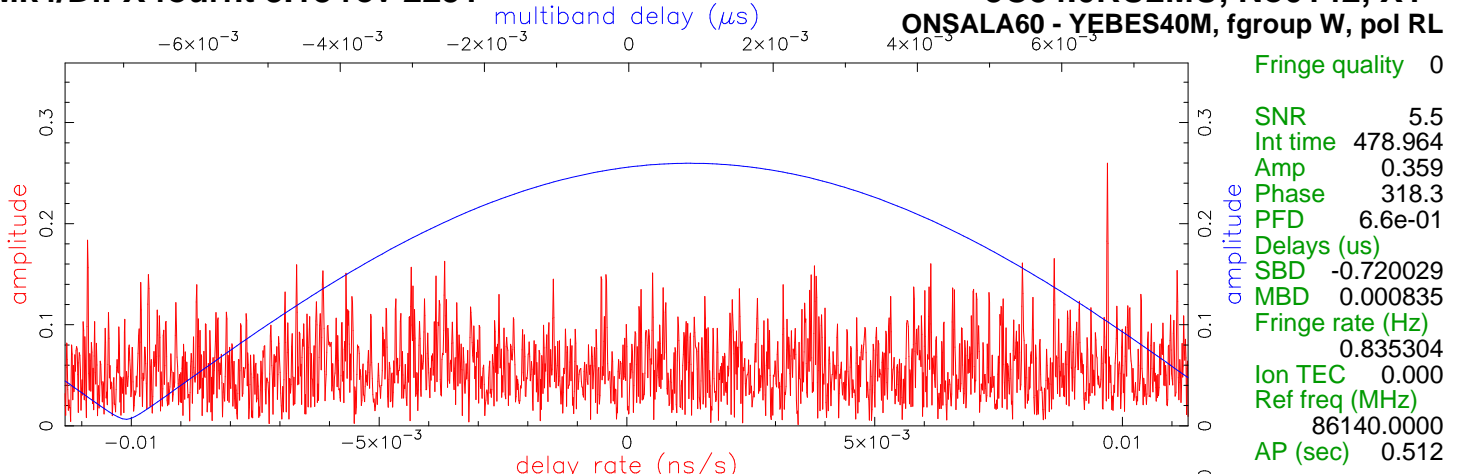


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-50.5	-50.8	Phase	-50.6				
0.4	0.2	Ampl.	0.3				
119.3	11.1	Sbd box	119.3				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
X:Y 0:0	0:0	PC phase					
X:Y 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
Y 1000	1000						
X W01UL	W03UL	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.32858801030E+03	Apriori delay (usec)	-1.32850766313E+03	Resid mbdelay (usec)	-2.22217E-03	+/-	9.3E-04
Sband delay (usec)	-1.32858342163E+03	Apriori clock (usec)	1.8140396E+01	Resid sbdelay (usec)	-7.57585E-02	+/-	3.2E-03
Phase delay (usec)	-1.32850766476E+03	Apriori clockrate (us/s)	2.5699999E-07	Resid phdelay (usec)	-1.63229E-06	+/-	6.9E-07
Delay rate (us/s)	1.26314552749E-01	Apriori rate (us/s)	1.26317411559E-01	Resid rate (us/s)	-2.85881E-06	+/-	2.5E-09
Total phase (deg)	2.6	Apriori accel (us/s/s)	2.16012511434E-05	Resid phase (deg)	39.4	+/-	21.3

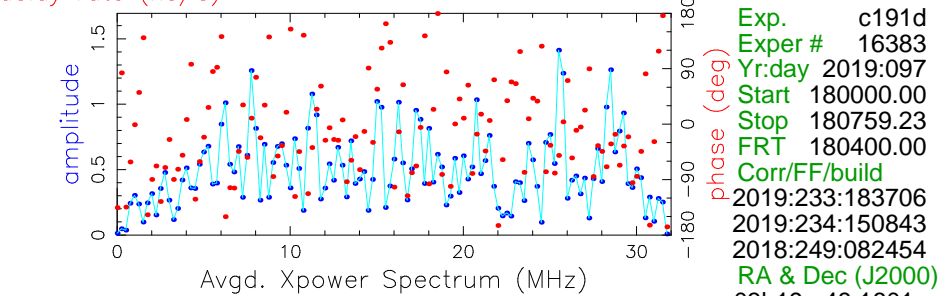
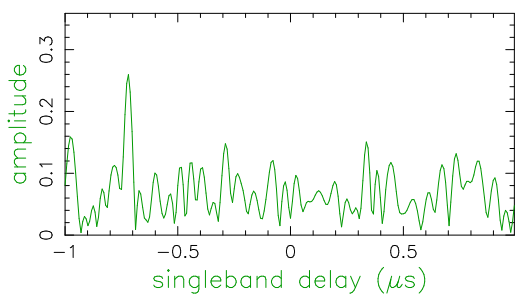
ph/seg (deg)	88.5	Theor.	87.3	Amplitude	0.261 +/- 0.049	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	163.0	Search (2048X8)	0.247	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	35.9	Inc. seg. avg.	0.259	Inc. seg. avg.	0.259	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.250	Inc. frq. avg.	0.250	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00



Fringe quality 0

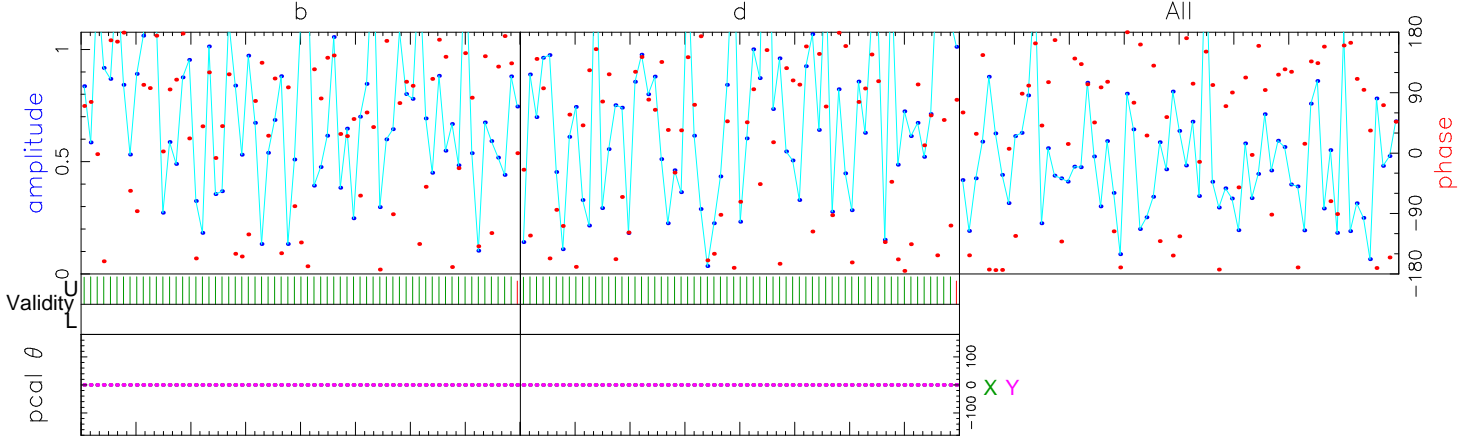
SNR 5.5
Int time 478.964
Amp 0.359
Phase 318.3
PFD 6.6e-01
Delays (us)
SBD -0.720029
MBD 0.000835
Fringe rate (Hz)
0.835304
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180000.00
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150843
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



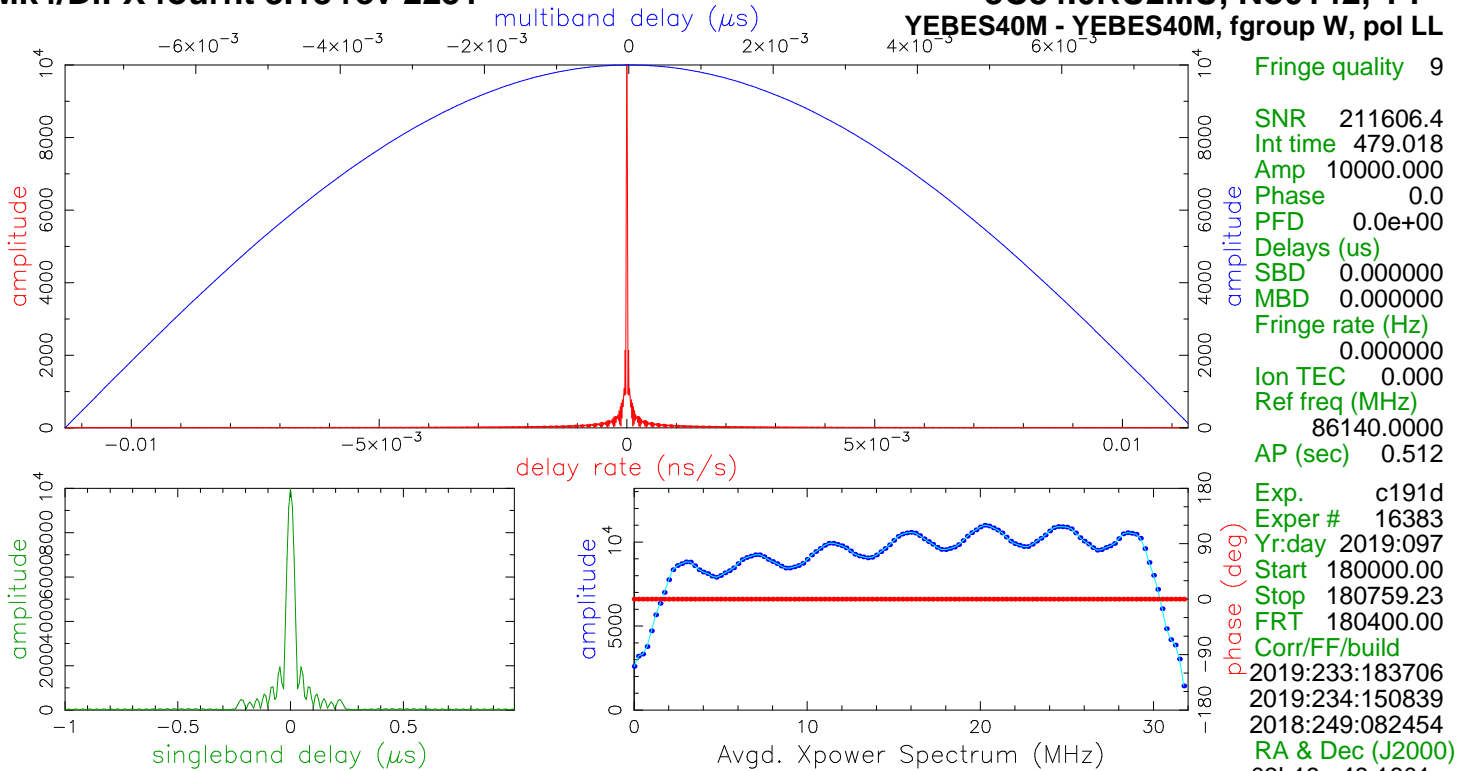
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

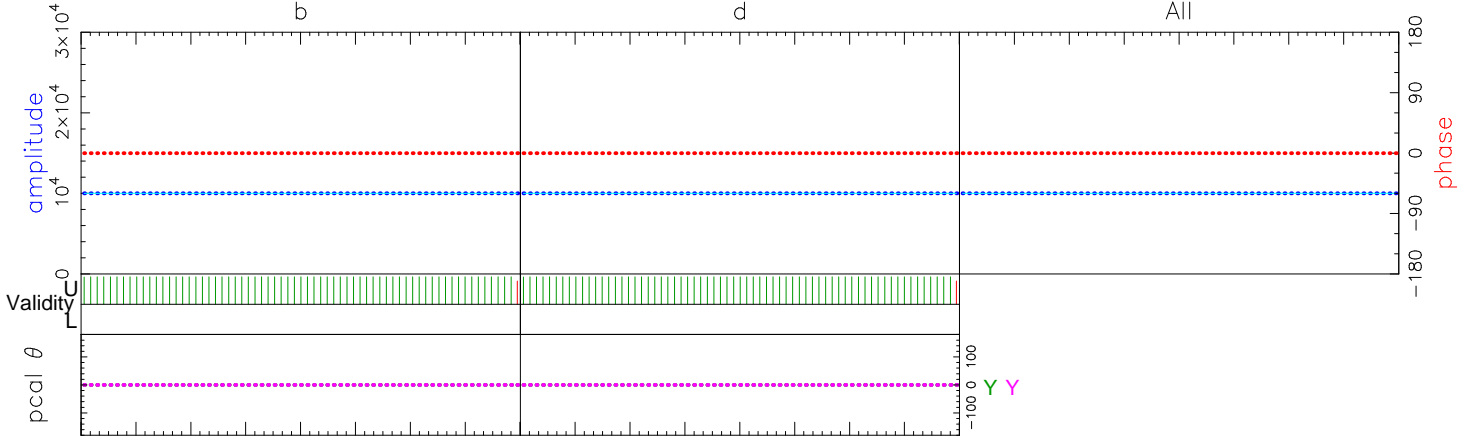


86156.00	86220.00	Freq (MHz)	All				
138.2	138.5	Phase	138.3				
0.3	0.4	Ampl.	0.3				
36.8	36.9	Sbd box	36.8				
U/L 936/0	936/0	APs used					
X 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
X:Y 0:0	0:0	PC phase					
X:Y 0:0	0:0	Manl PC					
X 1000	1000	PC amp					
Y 1000	1000						
X W01UR	W03UR	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.32922557850E+03	Apriori delay (usec)	-1.32850766313E+03	Resid mbdelay (usec)	8.34629E-04	+/-	9.0E-04
Sband delay (usec)	-1.32922769263E+03	Apriori clock (usec)	1.8140396E+01	Resid sbdelay (usec)	-7.20029E-01	+/-	3.1E-03
Phase delay (usec)	-1.32850765867E+03	Apriori clockrate (us/s)	2.5699999E-07	Resid phdelay (usec)	4.46060E-06	+/-	6.7E-07
Delay rate (us/s)	1.26327108616E-01	Apriori rate (us/s)	1.26317411559E-01	Resid rate (us/s)	9.69706E-06	+/-	2.4E-09
Total phase (deg)	281.6	Apriori accel (us/s/s)	2.16012511434E-05	Resid phase (deg)	318.3	+/-	20.8

ph/seg (deg) 74.4 85.1 Search (2048X8) 0.253 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 138.1 148.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 14.7 Inc. seg. avg. 0.333 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.5 25.7 Inc. frq. avg. 0.347 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 X: az 279.5 el 45.6 pa 45.3 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -932.562 2792.915 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/XY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/XY.W.252.0RU2MU

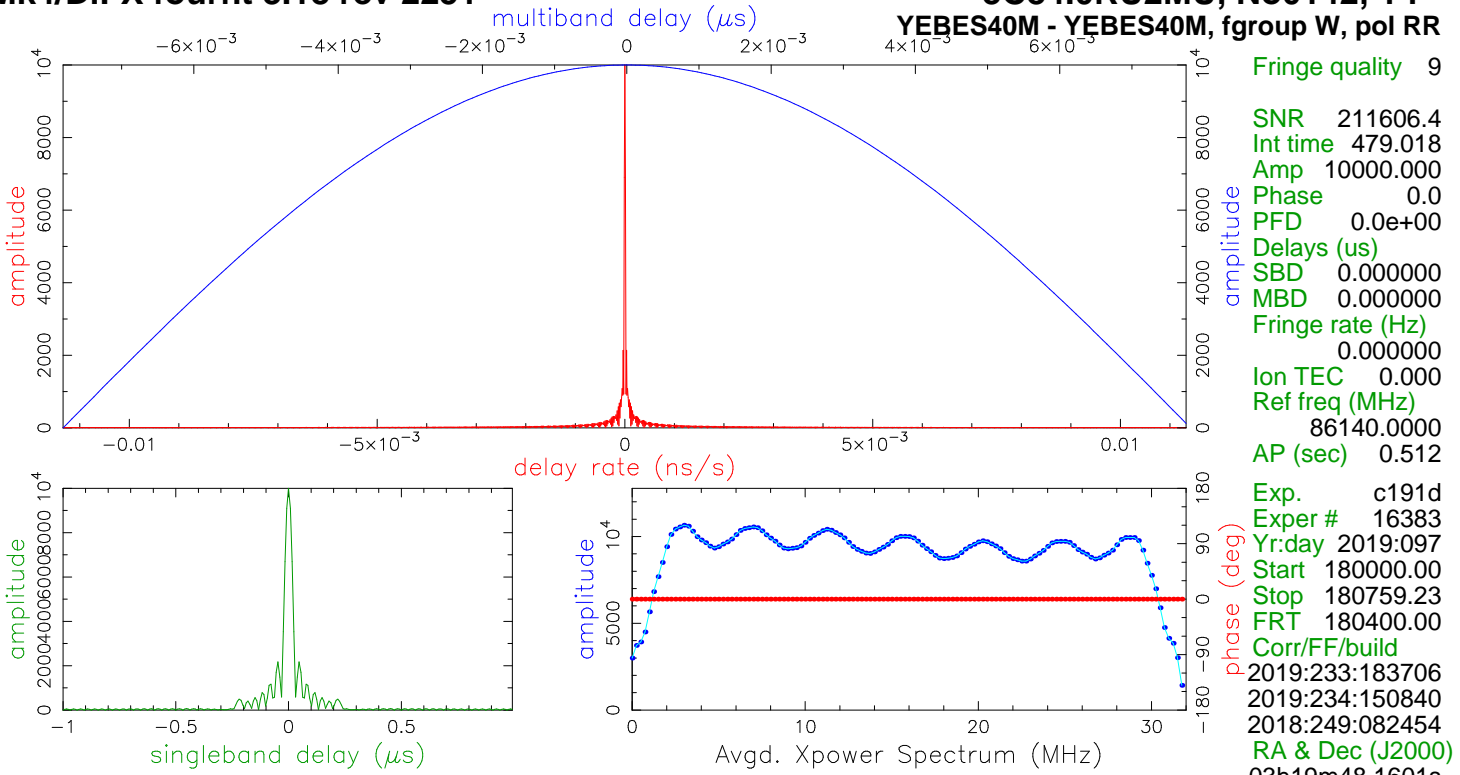


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

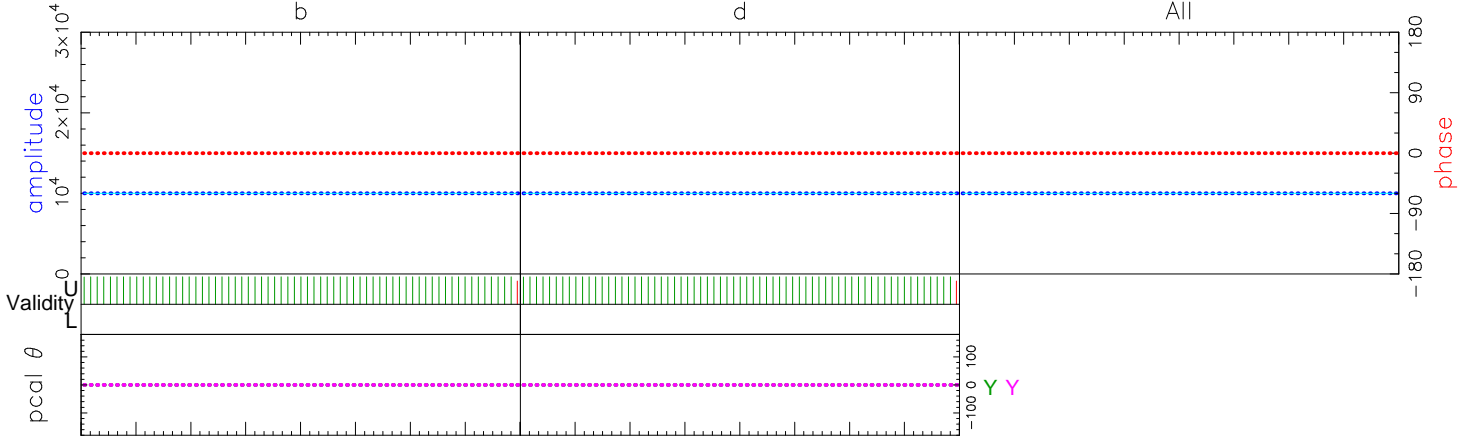


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 936/0	936/0	APs used					
Y 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
Y:Y 0:0	0:0	PC phase					
Y:Y 0:0	0:0	Mani PC					
Y 1000	1000	PC amp					
Y 1000	1000						
Y W01UL	W03UL	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	0.0	Amplitude	10000.000 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.0	0.0	Search (2048X8)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
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	mb window (us) -0.008 0.008
			Inc. frq. avg.	10000.001	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128 t_cohere infinite	ion window (TEC) 0.00 0.00

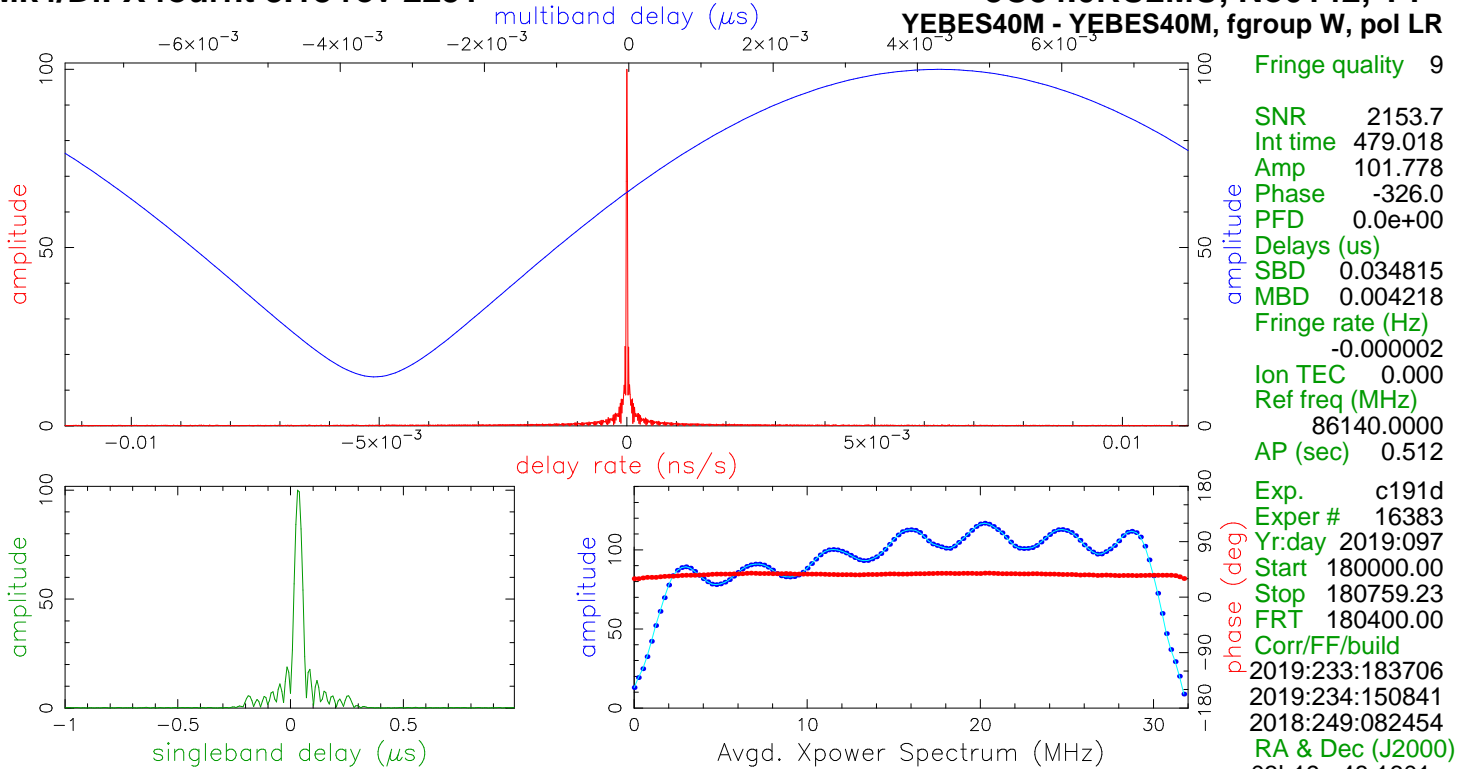


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

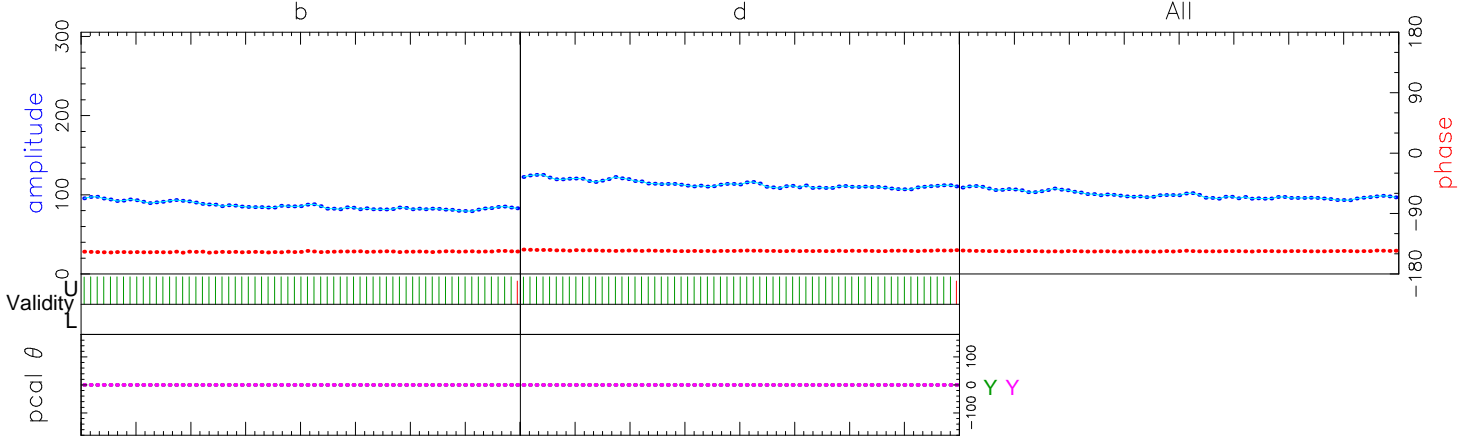


86156.00	86220.00	Freq (MHz)	All				
0.0	0.0	Phase	0.0				
10000.0	10000.0	Ampl.	10000.0				
129.0	129.0	Sbd box	129.0				
U/L 936/0	936/0	APs used					
Y 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
Y:Y 0:0	0:0	PC phase					
Y:Y 0:0	0:0	Manl PC					
Y 1000	1000	PC amp					
Y 1000	1000						
Y W01UR	W03UR	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.1E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.7E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.3E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.047 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X8) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 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. 10000.001 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Y: az 289.3 el 51.1 pa 73.9 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/YY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/YY.W.219.0RU2MU

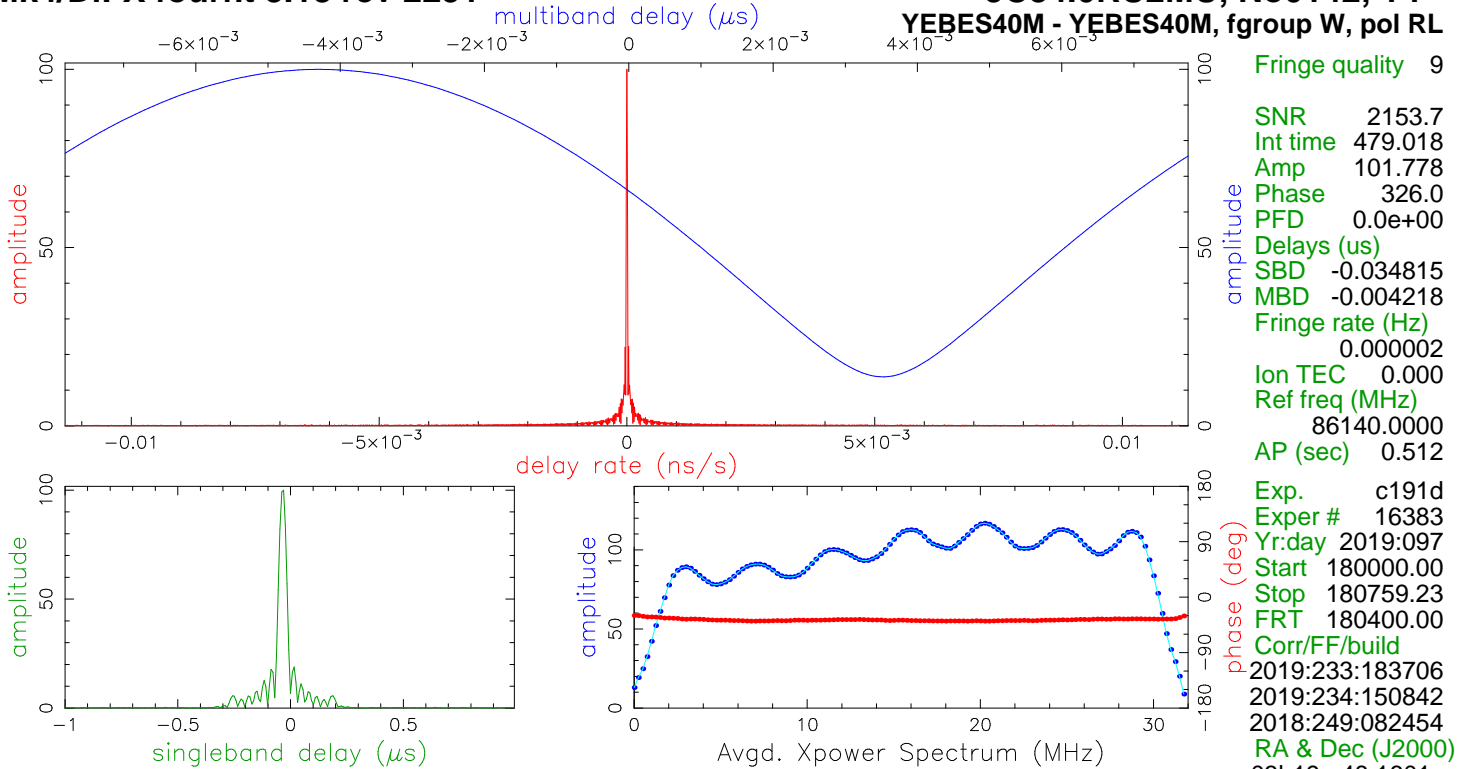


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

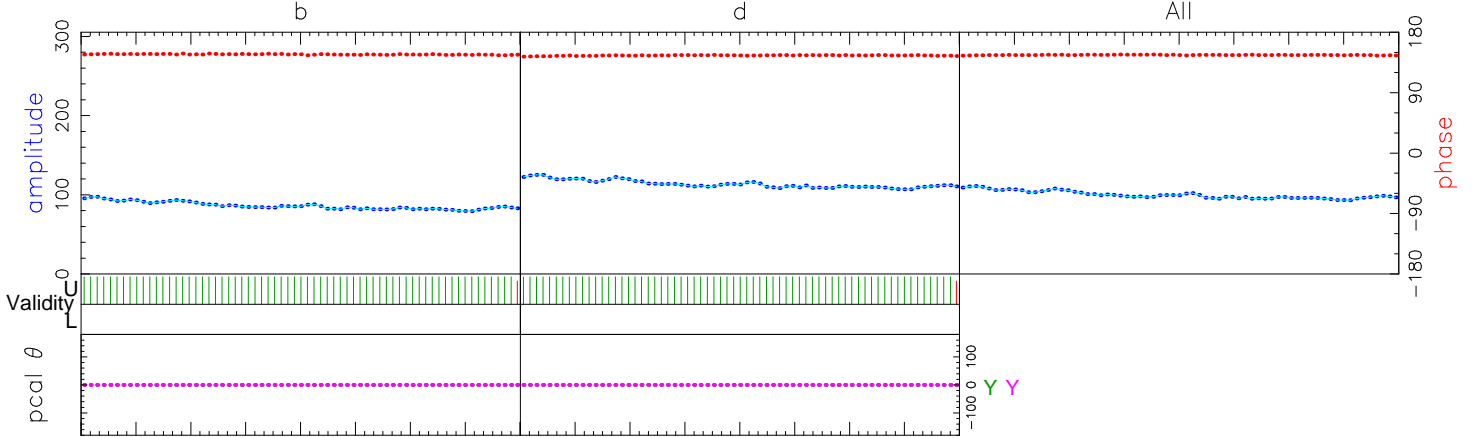


86156.00	86220.00	Freq (MHz)	All				
-146.9	-145.3	Phase	-146.0				
86.3	113.7	Ampl.	100.0				
133.7	133.3	Sbd box	133.5				
U/L 936/0	936/0	APs used					
Y 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
Y:Y 0:0	0:0	PC phase					
Y:Y 0:0	0:0	Mani PC					
Y 1000	1000	PC amp					
Y 1000	1000						
Y W01UL	W03UL	Chan ids					
Y W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	3.54678750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	4.21788E-03	+/-	2.3E-06
Sband delay (usec)	3.48150000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.48150E-02	+/-	8.0E-06
Phase delay (usec)	-4.70777627182E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.70778E-06	+/-	1.7E-09
Delay rate (us/s)	-2.55080743050E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-2.55081E-11	+/-	6.2E-12
Total phase (deg)	-326.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-326.0	+/-	0.1

ph/seg (deg)	0.4	0.2	Amplitude	101.778 +/- 0.047	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	5.0	0.4	Search (2048X8)	99.690	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	13.6	0.1	Inc. seg. avg.	99.973	Sample rate(MSamp/s): 64	ion window (TEC)	0.00 0.00	
			Inc. frq. avg.	99.981	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite	

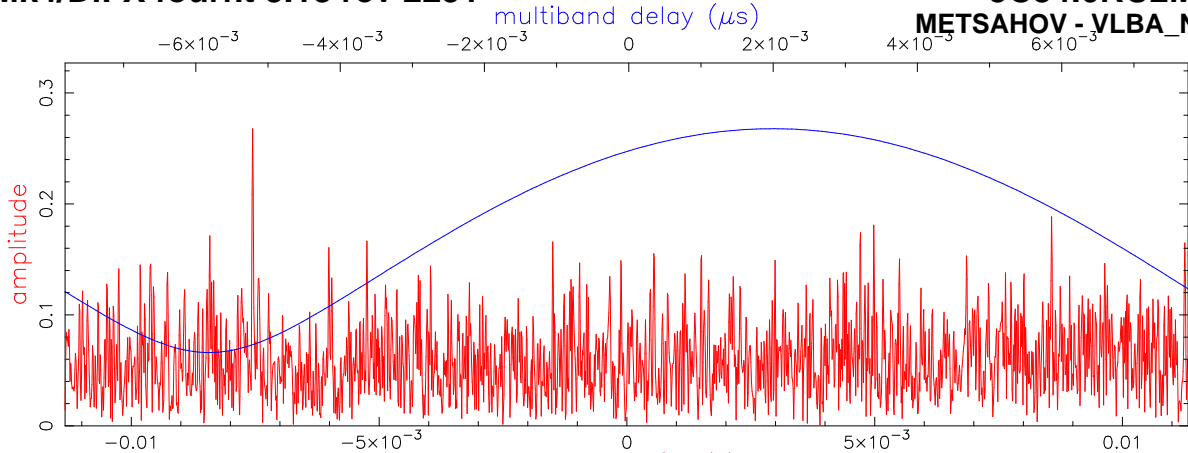


Amp. and Phase vs. time for each freq., 67 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

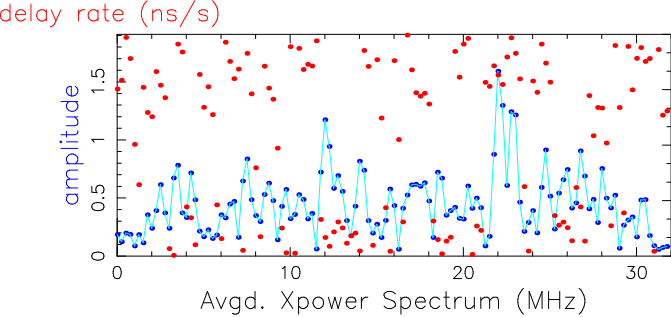
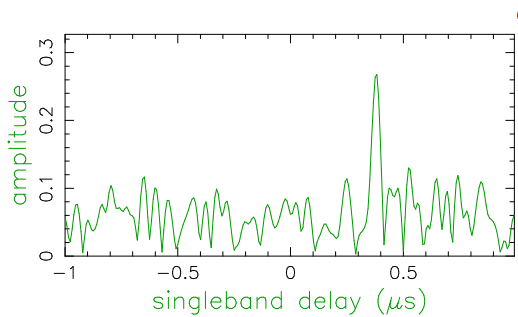


86156.00	86220.00	Freq (MHz)	All				
146.9	145.3	Phase	146.0				
86.3	113.7	Ampl.	100.0				
124.3	124.7	Sbd box	124.5				
U/L 936/0	936/0	APs used					
Y 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
Y:Y 0:0	0:0	PC phase					
Y:Y 0:0	0:0	Mani PC					
Y 1000	1000	PC amp					
Y 1000	1000						
Y W01UR	W03UR	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-3.54678750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.21788E-03	+/-	2.3E-06
Sband delay (usec)	-3.48150000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.48150E-02	+/-	8.0E-06
Phase delay (usec)	4.70777627178E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.70778E-06	+/-	1.7E-09
Delay rate (us/s)	2.55080743050E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	2.55081E-11	+/-	6.2E-12
Total phase (deg)	326.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	326.0	+/-	0.1

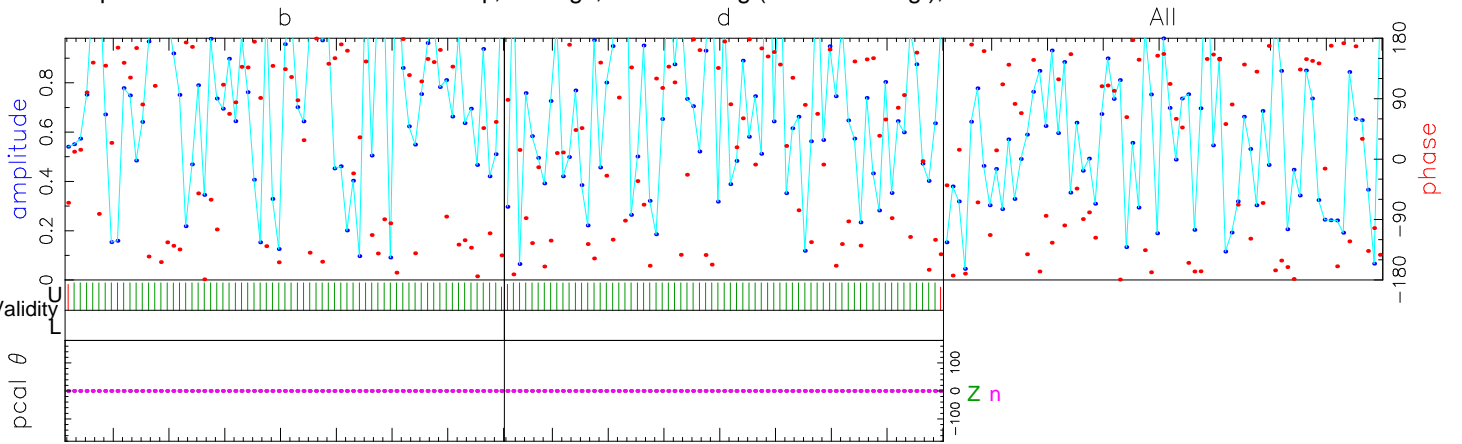
ph/seg (deg)	0.4	0.2	Theor.	Amplitude	101.778 +/- 0.047	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	5.0	0.4	Search (2048X8)	99.690	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	13.6	0.1	Inc. seg. avg.	99.973	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011	
			Inc. frq. avg.	99.981	Data rate(Mb/s):	256	ion window (TEC)	0.00	0.00	
					nlags:	128	t_cohere	infinite		



Fringe quality 0
 SNR 5.7
 Int time 470.933
 Amp 0.327
 Phase -182.9
 PFD 3.4e-01
 Delays (us)
 SBD 0.379782
 MBD 0.001919
 Fringe rate (Hz)
 -0.650051
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150839
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



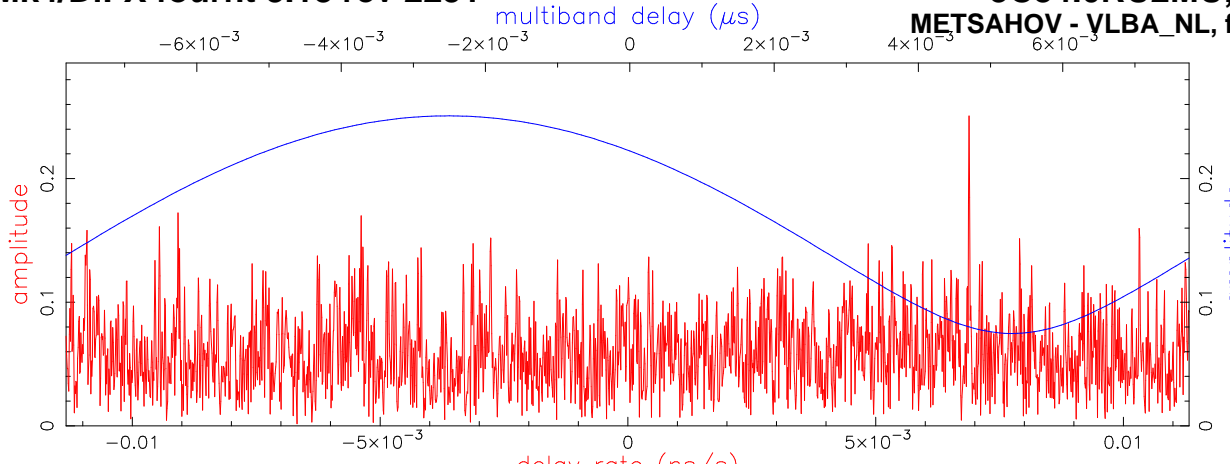
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



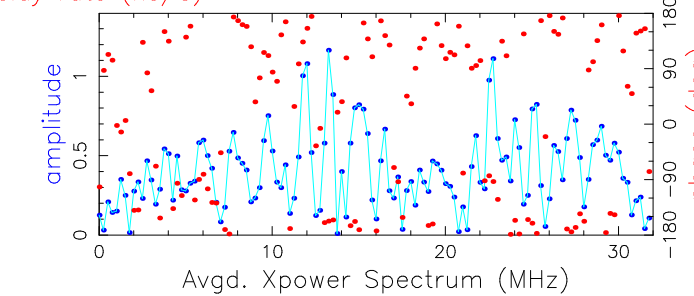
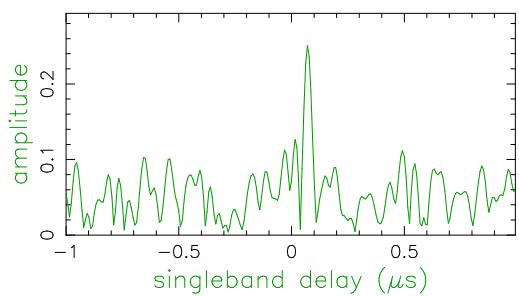
86156.00	86220.00	Freq (MHz)	All				
176.4	178.2	Phase	177.1				
0.4	0.2	Ampl.	0.3				
177.6	74.1	Sbd box	177.6				
U/L 921/0	921/0	APs used					
Z 1000	1000	PC freqs					
n 1000	1000	PC freqs					
Z:n 0:0	0:0	PC phase					
Z:n 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
n 1000	1000						
Z W01UL	W03UL	Chan ids					
n W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-5.63953985013E+03	Apriori delay (usec)	-5.63991676878E+03	Resid mbdelay (usec)	1.91865E-03	+/-	8.8E-04
Sband delay (usec)	-5.63953698678E+03	Apriori clock (usec)	-2.1929543E+01	Resid sbdelay (usec)	3.79782E-01	+/-	3.0E-03
Phase delay (usec)	-5.63991676307E+03	Apriori clockrate (us/s)	-2.8599998E-07	Resid phdelay (usec)	5.71166E-06	+/-	6.5E-07
Delay rate (us/s)	-1.06917368598E+00	Apriori rate (us/s)	-1.06916613953E+00	Resid rate (us/s)	-7.54645E-06	+/-	2.4E-09
Total phase (deg)	-349.4	Apriori accel (us/s/s)	4.50088116066E-05	Resid phase (deg)	-182.9	+/-	20.2

ph/seg (deg)	74.3	85.0	Amplitude	0.327 +/- 0.058	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	146.7	148.4	Search (2048X8)	0.253	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	14.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	24.4	24.9	Inc. seg. avg.	0.315	Sample rate(MSamp/s): 64	nlags: 128	t_cohere infinite	dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.	0.314	Data rate(Mb/s): 256			ion window (TEC)	0.00 0.00

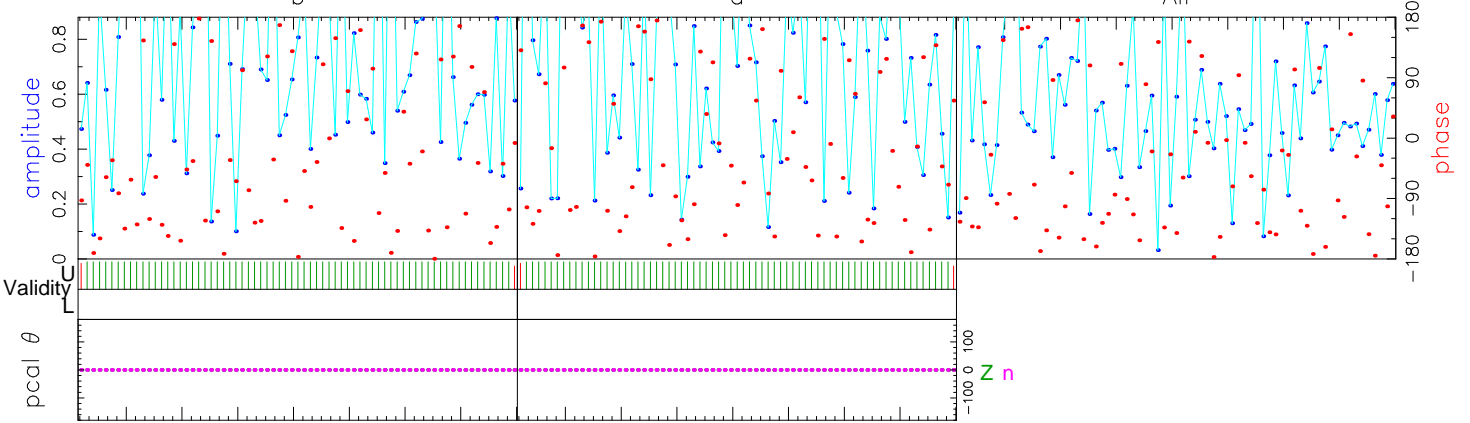
Z: az 286.3 el 39.9 pa 39.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 8259.106 4395.845 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zn.W.214.0RU2MU



Fringe quality 0
 SNR 5.3
 Int time 470.933
 Amp 0.294
 Phase -215.1
 PFD 9.8e-01
 Delays (us)
 SBD 0.071201
 MBD -0.002466
 Fringe rate (Hz)
 0.593249
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150842
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

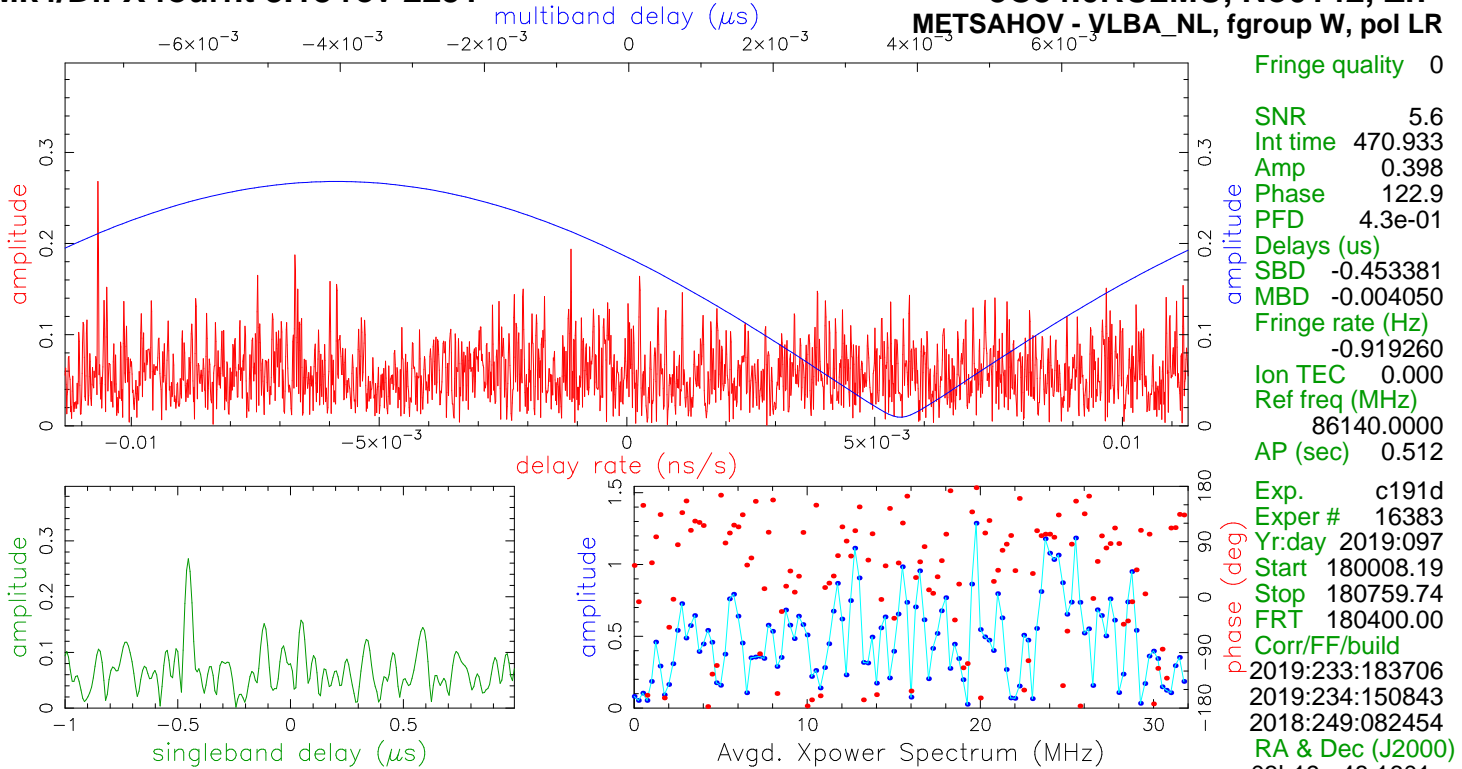


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-124.7	-125.9	Phase	-125.1				
0.4	0.2	Ampl.	0.3				
137.9	75.5	Sbd box	138.1				
U/L 921/0	921/0	APs used					
Z 1000	1000	PC freqs					
n 1000	1000	PC freqs					
Z:n 0:0	0:0	PC phase					
Z:n 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
n 1000	1000						
Z W01UR	W03UR	Chan ids					
n W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-5.63984110937E+03	Apriori delay (usec)	-5.63991676878E+03	Resid mbdelay (usec)	-2.46559E-03	+/-	9.4E-04
Sband delay (usec)	-5.63984556778E+03	Apriori clock (usec)	-2.1929543E+01	Resid sbdelay (usec)	7.12010E-02	+/-	3.3E-03
Phase delay (usec)	-5.63991677282E+03	Apriori clockrate (us/s)	-2.8599998E-07	Resid phdelay (usec)	-4.03553E-06	+/-	7.0E-07
Delay rate (us/s)	-1.06915925249E+00	Apriori rate (us/s)	-1.06916613953E+00	Resid rate (us/s)	6.88704E-06	+/-	2.6E-09
Total phase (deg)	-21.7	Apriori accel (us/s/s)	4.50088116066E-05	Resid phase (deg)	-215.1	+/-	21.8

ph/seg (deg) 80.8 91.7 Search (2048X8) 0.247 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 170.4 160.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.4 Inc. seg. avg. 0.292 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.8 26.9 Inc. frq. avg. 0.283 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 286.3 el 39.9 pa 39.7 n: az 78.2 el 63.2 pa -77.1 u,v (fr/asec) 8259.106 4395.845 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zn..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zn.W.238.0RU2MU simultaneous interpolator



Fringe quality 0

SNR 5.6

Int time 470.933

Amp 0.398

Phase 122.9

PFD 4.3e-01

Delays (us)

SBD -0.453381

MBD -0.004050

Fringe rate (Hz)

-0.919260

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c191d

Exper # 16383

Yr:day 2019:097

Start 180008.19

Stop 180759.74

FRT 180400.00

Corr/FF/build

2019:233:183706

2019:234:150843

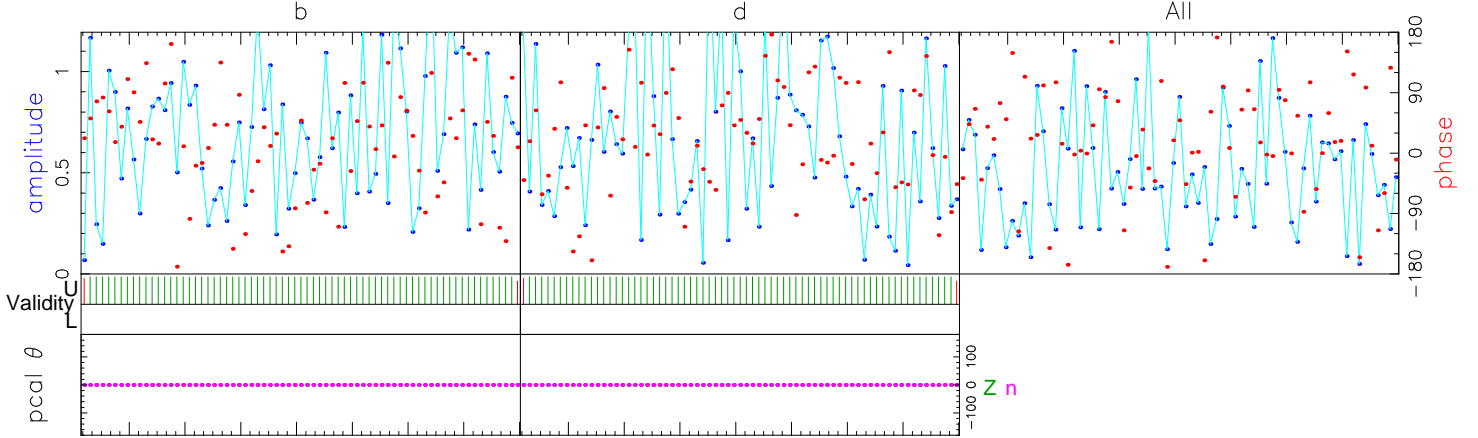
2018:249:082454

RA & Dec (J2000)

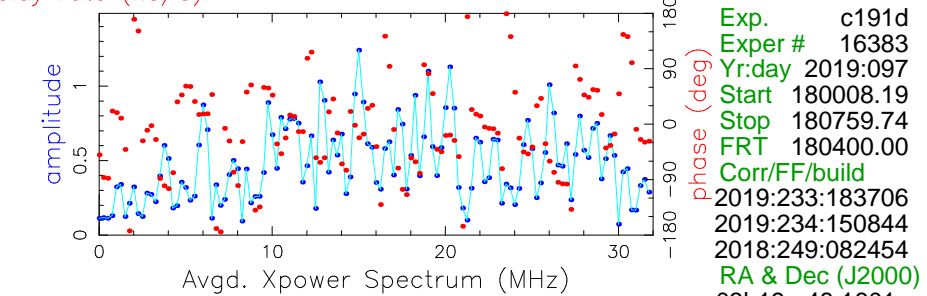
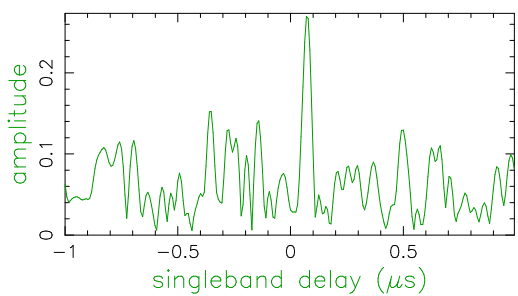
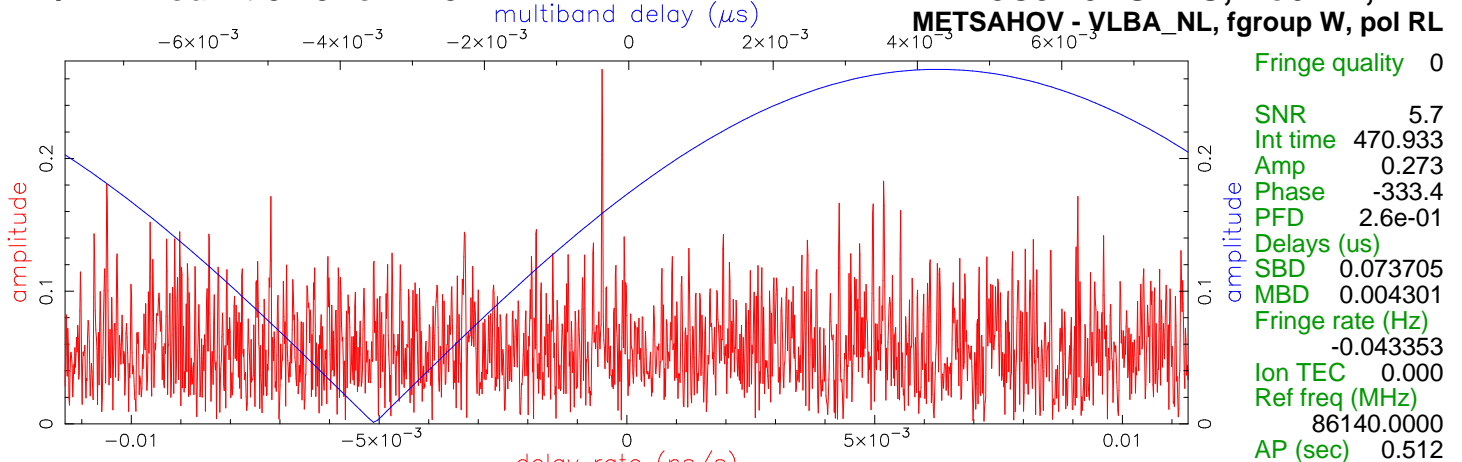
03h19m48.1601s

+41°30'42.104"

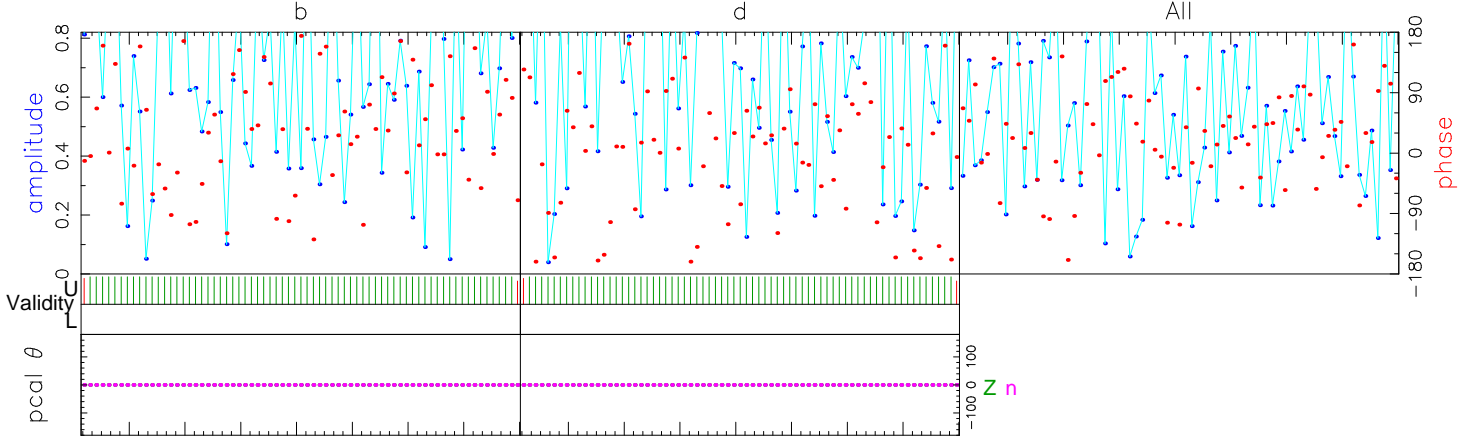
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00				86220.00		Freq (MHz)	All
32.8				32.9		Phase	32.9
0.4				0.4		Ampl.	0.4
71.5				70.5		Sbd box	71.0
U/L 921/0				921/0		APs used	
Z 1000				1000		PC freqs	
n 1000				1000		PC freqs	
Z:n 0:0				0:0		PC phase	
Z:n 0:0				0:0		Manl PC	
Z 1000				1000		PC amp	
n 1000				1000			
Z W01UL				W03UL		Chan ids	
n W01UR				W03UR		Tracks	
						Chan ids	
						Tracks	
Group delay (usec)(sbd)	-5.64037394355E+03	Apriori delay (usec)	-5.63991676878E+03	Resid mbdelay (usec)	-4.04977E-03	+/-	8.8E-04
Sband delay (usec)	-5.64037014978E+03	Apriori clock (usec)	-2.1929543E+01	Resid sbdelay (usec)	-4.53381E-01	+/-	3.1E-03
Phase delay (usec)	-5.63991676772E+03	Apriori clockrate (us/s)	-2.8599998E-07	Resid phdelay (usec)	1.06030E-06	+/-	6.6E-07
Delay rate (us/s)	-1.06917681122E+00	Apriori rate (us/s)	-1.06916613953E+00	Resid rate (us/s)	-1.06717E-05	+/-	2.4E-09
Total phase (deg)	316.3	Apriori accel (us/s/s)	4.50088116066E-05	Resid phase (deg)	122.9	+/-	20.4
RMS	78.3	Theor.	85.8	Amplitude	0.398 +/- 0.071	Pcal mode:	MANUAL, MANUAL
ph/seg (deg)	78.3	Search (2048X8)	0.262	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	PC period (AP's)	5, 5
amp/seg (%)	139.5	Interp.	0.000	Bits/sample:	2x2	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.363	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
amp/frq (%)	3.5	Inc. frq. avg.	0.386	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
Z: az 286.3 el 39.9 pa 39.7	n: az 78.2 el 63.2 pa -77.1	u,v (fr/asec)	8259.106 4395.845	nlags:	128	ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva	Input file: /Exps/c191d/v1/1234/No0142/Zn..0RU2MU	Output file: /Exps/c191d/v1/1234/No0142/Zn.W.246.0RU2MU		simultaneous interpolator			

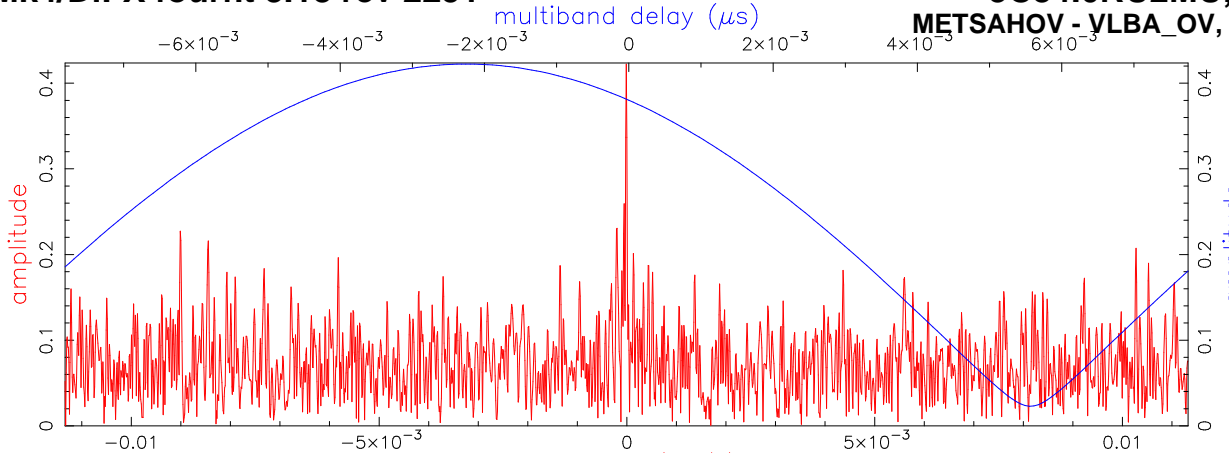


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

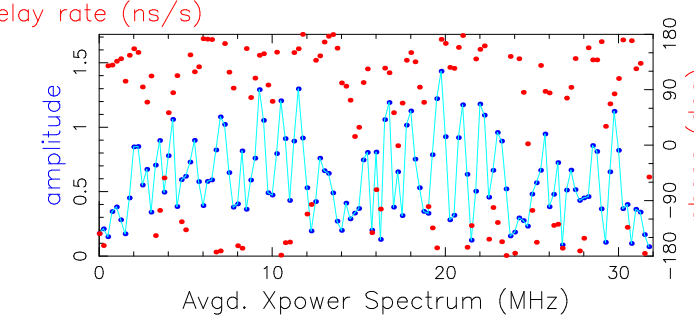
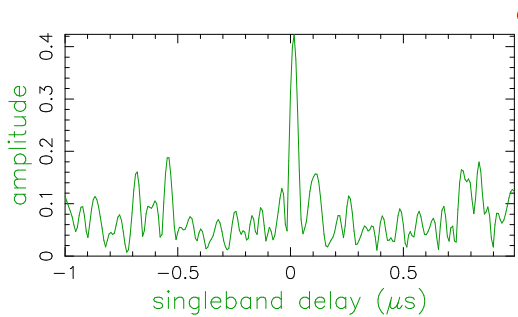


86156.00	86220.00	Freq (MHz)		All	
26.8	26.4	Phase		26.6	
0.3	0.3	Ampl.		0.3	
138.8	137.9	Sbd box		138.4	
U/L 921/0	921/0	APs used			
Z 1000	1000	PC freqs			
n 1000	1000	PC freqs			
Z:n 0:0	0:0	PC phase			
Z:n 0:0	0:0	Manl PC			
Z 1000	1000	PC amp			
n 1000	1000				
Z W01UR	W03UR	Chan ids			
n W01UL	W03UL	Tracks			
		Chan ids			
		Tracks			
Group delay (usec)(sbd)	-5.63984996764E+03	Apriori delay (usec)	-5.63991676878E+03	Resid mbdelay (usec)	4.30114E-03 +/- 8.7E-04
Sband delay (usec)	-5.63984306378E+03	Apriori clock (usec)	-2.1929543E+01	Resid sbdelay (usec)	7.37050E-02 +/- 3.0E-03
Phase delay (usec)	-5.63991676792E+03	Apriori clockrate (us/s)	-2.8599998E-07	Resid phdelay (usec)	8.58088E-07 +/- 6.4E-07
Delay rate (us/s)	-1.06916664281E+00	Apriori rate (us/s)	-1.06916613953E+00	Resid rate (us/s)	-5.03285E-07 +/- 2.4E-09
Total phase (deg)	-140.0	Apriori accel (us/s/s)	4.50088116066E-05	Resid phase (deg)	-333.4 +/- 20.0

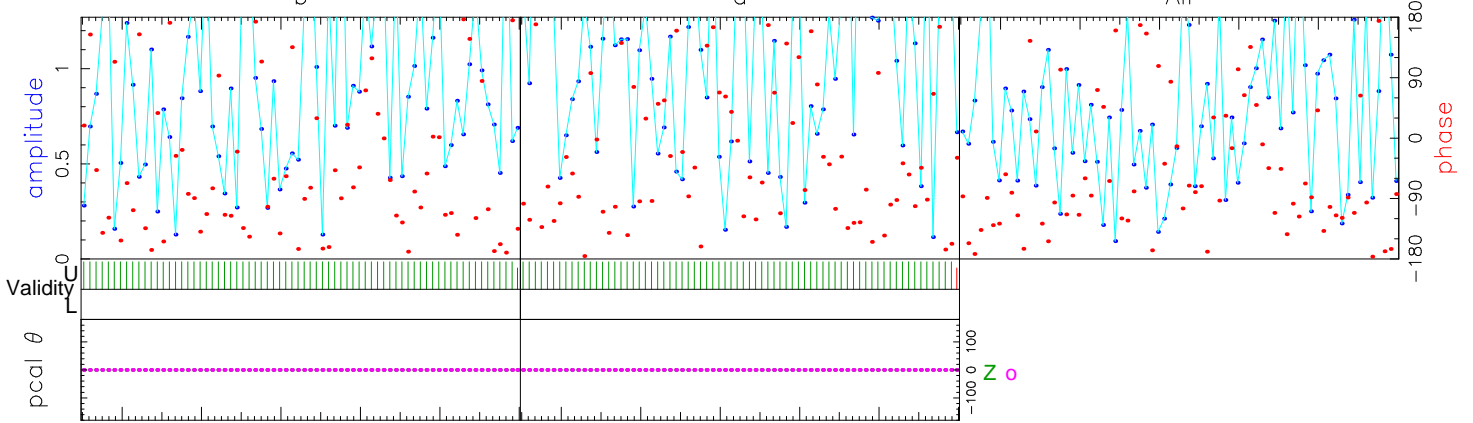
ph/seg (deg)	68.3	Theor.	84.2	Amplitude	0.273 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	148.2	Search (2048X8)	0.250	Search	0.250	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.269	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	2.3	Inc. frq. avg.	0.260	Inc. frq. avg.	0.260	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
Z: az 286.3 el 39.9 pa 39.7						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
n: az 78.2 el 63.2 pa -77.1						nlags:	128	ion window (TEC)	0.00 0.00
u,v (fr/asec) 8259.106 4395.845						simultaneous interpolator			



Fringe quality 9
SNR 7.4
Int time 330.628
Amp 0.424
Phase -201.5
PFD 3.8e-06
Delays (us)
SBD 0.014144
MBD -0.002305
Fringe rate (Hz)
-0.000974
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180228.99
Stop 180759.74
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150840
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

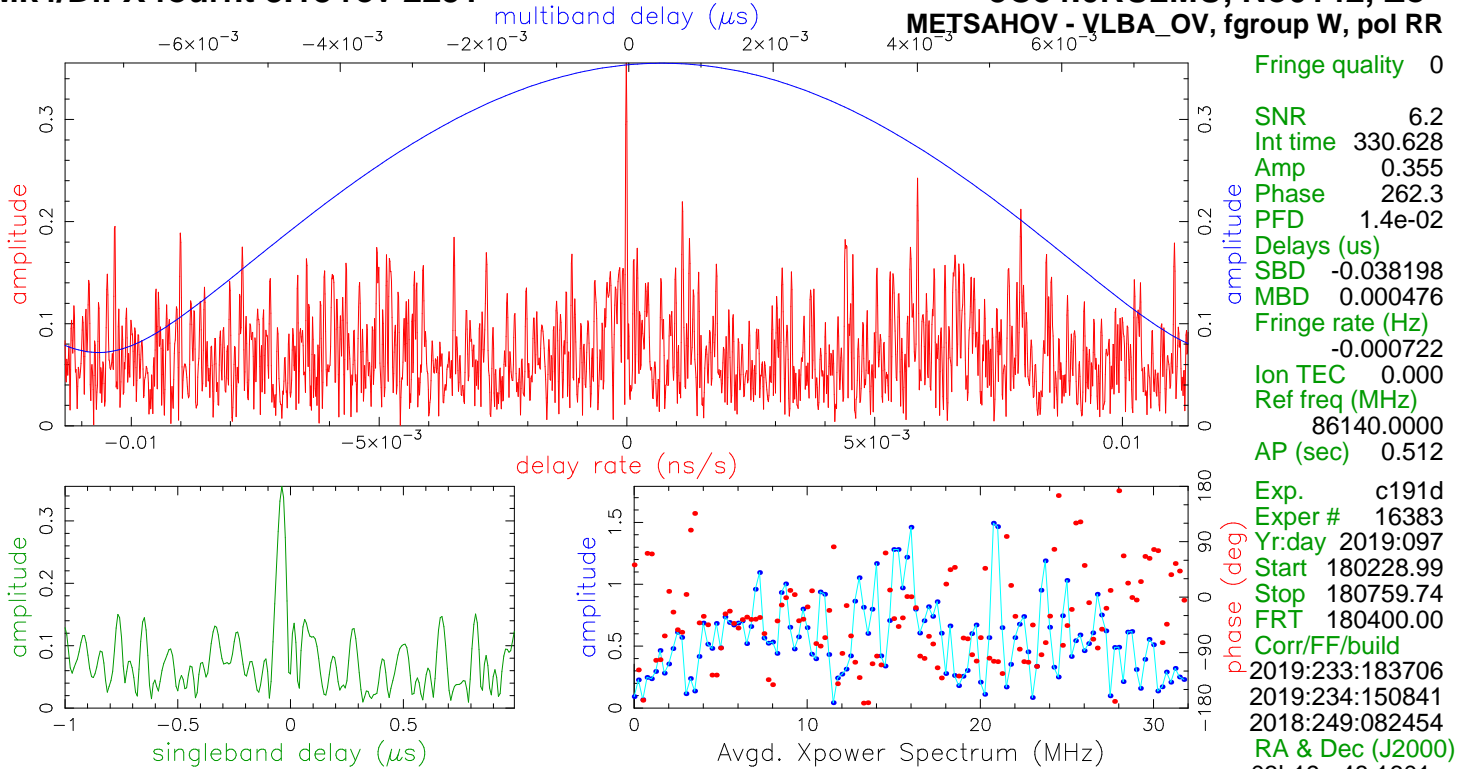


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

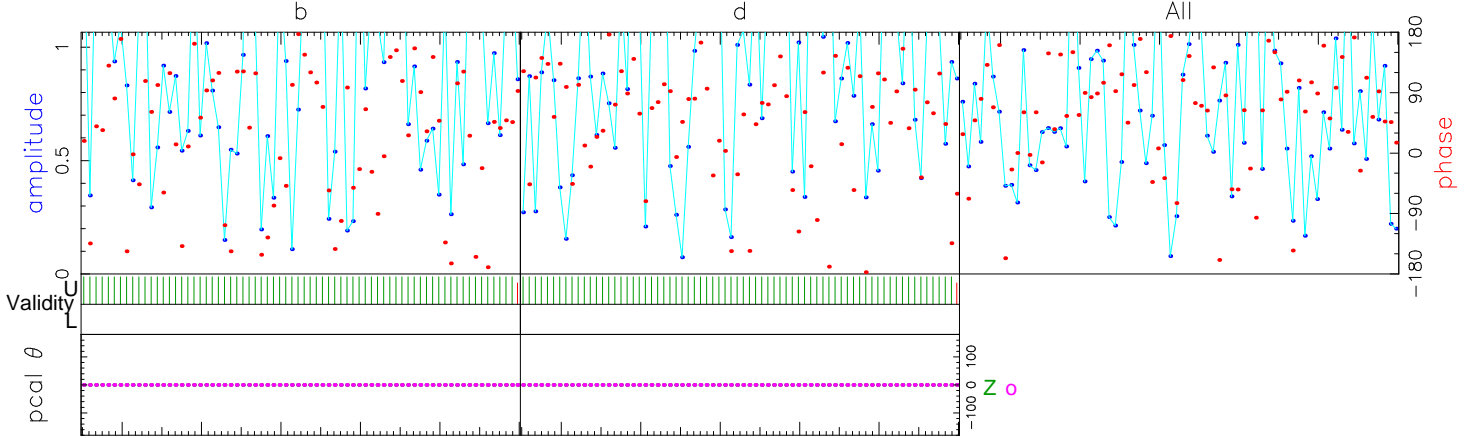


86156.00	-112.2	0.4	130.4	U/L 646/0	Z 1000	o 1000	Z:o 0:0	Z:o 0:0	Z 1000	o 1000	Z W01UL	o W01UL
86220.00	-110.9	0.4	131.2	646/0	1000	1000	0:0	0:0	1000	1000	W03UL	W03UL
Group delay (usec)(sbd)	-1.04127728301E+03	Apriori delay (usec)	-1.04129060276E+03	Resid mbdelay (usec)	-2.30525E-03	+/-	6.7E-04					
Sband delay (usec)	-1.04127645876E+03	Apriori clock (usec)	-1.3761440E+01	Resid sbdelay (usec)	1.41440E-02	+/-	2.3E-03					
Phase delay (usec)	-1.04129060635E+03	Apriori clockrate (us/s)	-1.8956001E-07	Resid phdelay (usec)	-3.59544E-06	+/-	5.0E-07					
Delay rate (us/s)	-1.38616115398E+00	Apriori rate (us/s)	-1.38616114268E+00	Resid rate (us/s)	-1.13022E-08	+/-	2.6E-09					
Total phase (deg)	-29.2	Apriori accel (us/s/s)	2.51691517035E-05	Resid phase (deg)	-201.5	+/-	15.4					

ph/seg (deg) 80.1 65.3
amp/seg (%) 128.8 113.9
ph/frq (deg) 0.0 10.9
amp/frq (%) 5.4 19.0
RMS 80.1
Theor. 65.3
Amplitude 0.424 +/- 0.057
Search (2048X8) 0.421
Interp. 0.000
Inc. seg. avg. 0.474
Inc. frq. avg. 0.415
Pcal mode: MANUAL, MANUAL
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2
Sample rate(MSamp/s): 64
Data rate(Mb/s): 256
nlags: 128 t_cohere infinite
PC period (AP's) 5, 5
sb window (us) -1.000 1.000
mb window (us) -0.008 0.008
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00
simultaneous interpolator

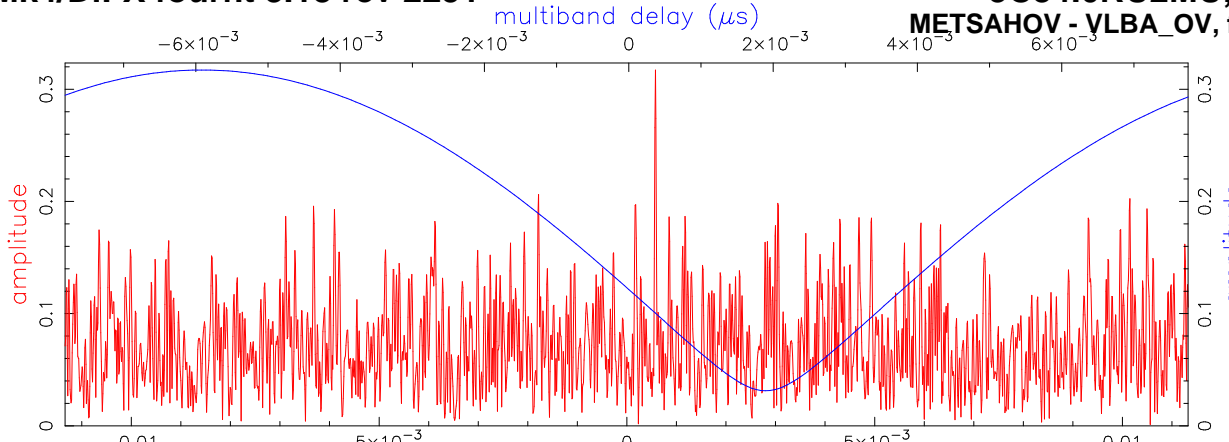


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

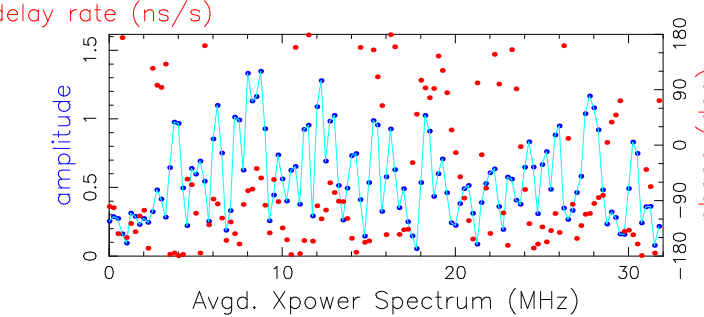
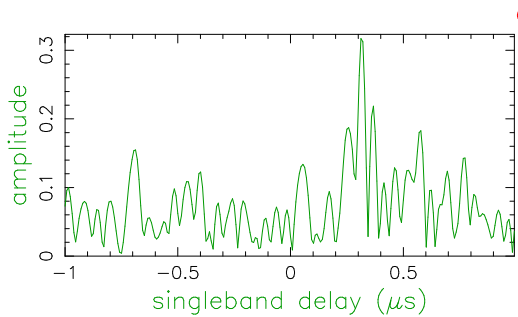


86156.00		86220.00		Freq (MHz)	All
82.5		82.2		Phase	82.3
0.3		0.4		Ampl.	0.3
124.5		123.8		Sbd box	124.1
U/L 646/0		646/0		APs used	
Z 1000		1000		PC freqs	
o 1000		1000		PC freqs	
Z:o 0:0		0:0		PC phase	
Z:o 0:0		0:0		Manl PC	
Z 1000		1000		PC amp	
o 1000		1000			
Z W01UR		W03UR		Chan ids	
o W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.04132137676E+03	Apriori delay (usec)	-1.04129060276E+03	Resid mbdelay (usec)	4.75995E-04 +/- 8.0E-04
Sband delay (usec)	-1.04132880076E+03	Apriori clock (usec)	-1.3761440E+01	Resid sbdelay (usec)	-3.81980E-02 +/- 2.8E-03
Phase delay (usec)	-1.04129060010E+03	Apriori clockrate (us/s)	-1.8956001E-07	Resid phdelay (usec)	2.65500E-06 +/- 5.9E-07
Delay rate (us/s)	-1.38616115106E+00	Apriori rate (us/s)	-1.38616114268E+00	Resid rate (us/s)	-8.38365E-09 +/- 3.1E-09
Total phase (deg)	74.6	Apriori accel (us/s/s)	2.51691517035E-05	Resid phase (deg)	262.3 +/- 18.3

RMS Theor. Amplitude 0.355 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 71.2 77.8 Search (2048X8) 0.350 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 150.8 135.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 13.0 Inc. seg. avg. 0.386 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 20.2 22.6 Inc. frq. avg. 0.346 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 286.3 el 39.9 pa 39.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10651.306 3394.283 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zo.W.230.0RU2MU

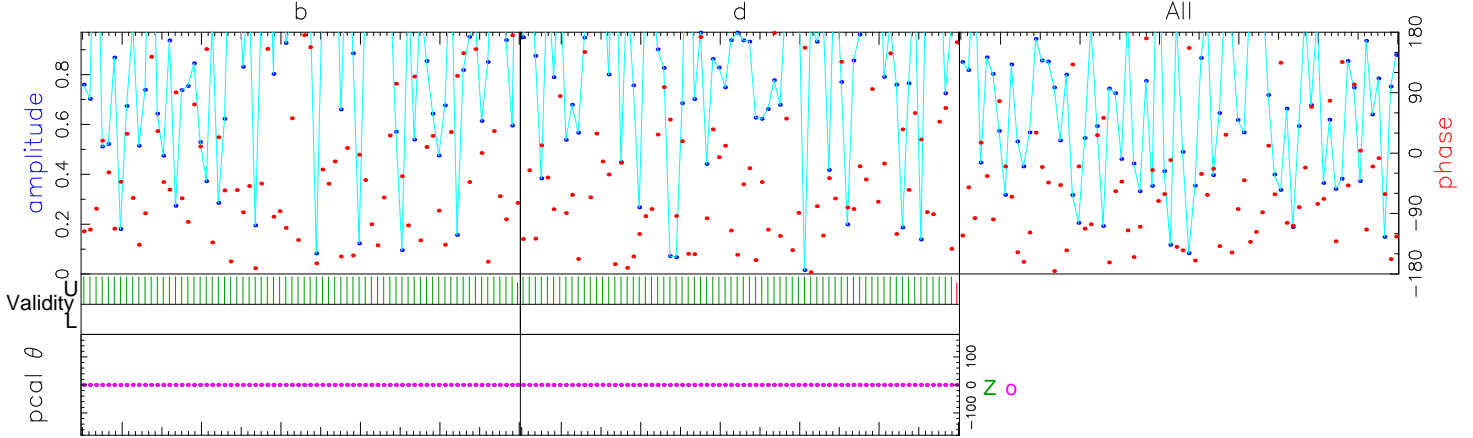


Fringe quality 0
 SNR 5.7
 Int time 330.628
 Amp 0.323
 Phase -172.6
 PFD 3.4e-01
 Delays (us)
 SBD 0.315884
 MBD -0.005814
 Fringe rate (Hz)
 0.049413
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150844
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

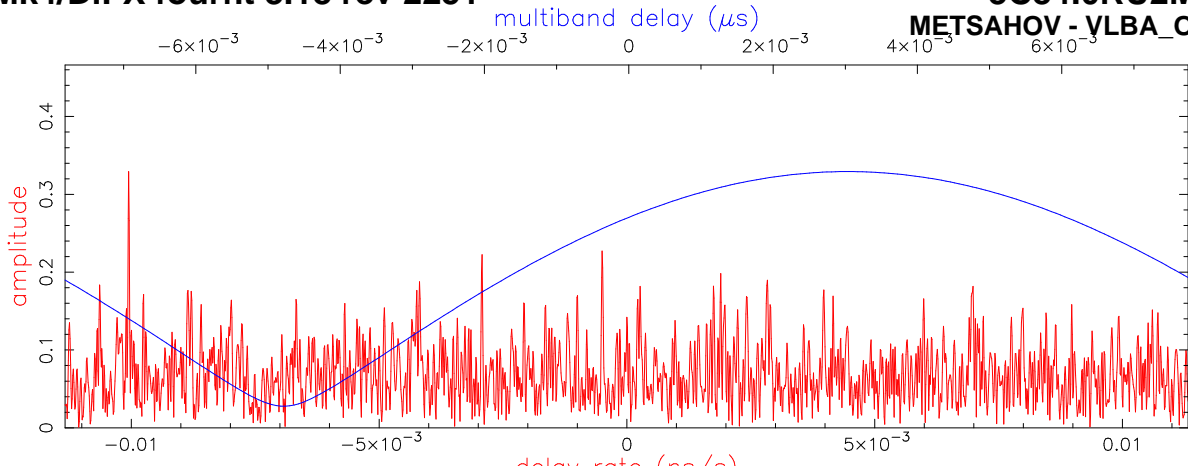


86156.00	86220.00	Freq (MHz)	All
-81.5	-83.9	Phase	-82.6
0.3	0.3	Ampl.	0.3
169.6	201.4	Sbd box	169.4
U/L 646/0	646/0	APs used	
Z 1000	1000	PC freqs	
o 1000	1000	PC freqs	
Z:o 0:0	0:0	PC phase	
Z:o 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
o 1000	1000		
Z W01UL	W03UL	Chan ids	
o W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

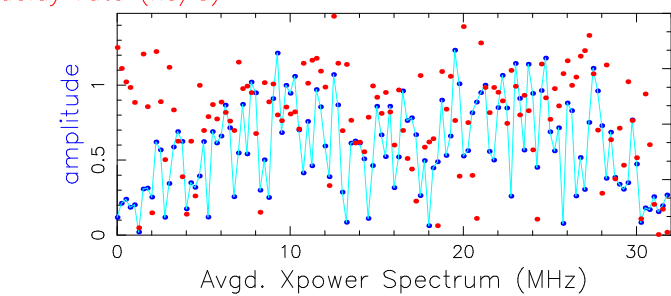
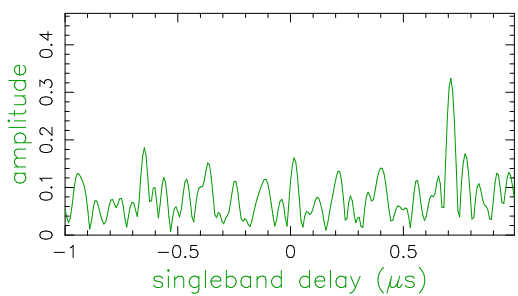
Group delay (usec)(sbd)	-1.04096829164E+03	Apriori delay (usec)	-1.04129060276E+03	Resid mbdelay (usec)	-5.81388E-03	+/-	8.8E-04
Sband delay (usec)	-1.04097471876E+03	Apriori clock (usec)	-1.3761440E+01	Resid sbdelay (usec)	3.15884E-01	+/-	3.0E-03
Phase delay (usec)	-1.04129060542E+03	Apriori clockrate (us/s)	-1.8956001E-07	Resid phdelay (usec)	-2.66318E-06	+/-	6.5E-07
Delay rate (us/s)	-1.38616056904E+00	Apriori rate (us/s)	-1.38616114268E+00	Resid rate (us/s)	5.73640E-07	+/-	3.4E-09
Total phase (deg)	-0.3	Apriori accel (us/s/s)	2.51691517035E-05	Resid phase (deg)	-172.6	+/-	20.2

ph/seg (deg)	75.0	Theor.	85.6	Amplitude	0.323 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	142.1	Search (2048X8)	0.315	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.315	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
amp/frq (%)	9.8	Inc. frq. avg.	0.308	Inc. frq. avg.	0.308	Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
						Data rate(Mb/s):	256	ion window (TEC)	0.00	0.00		

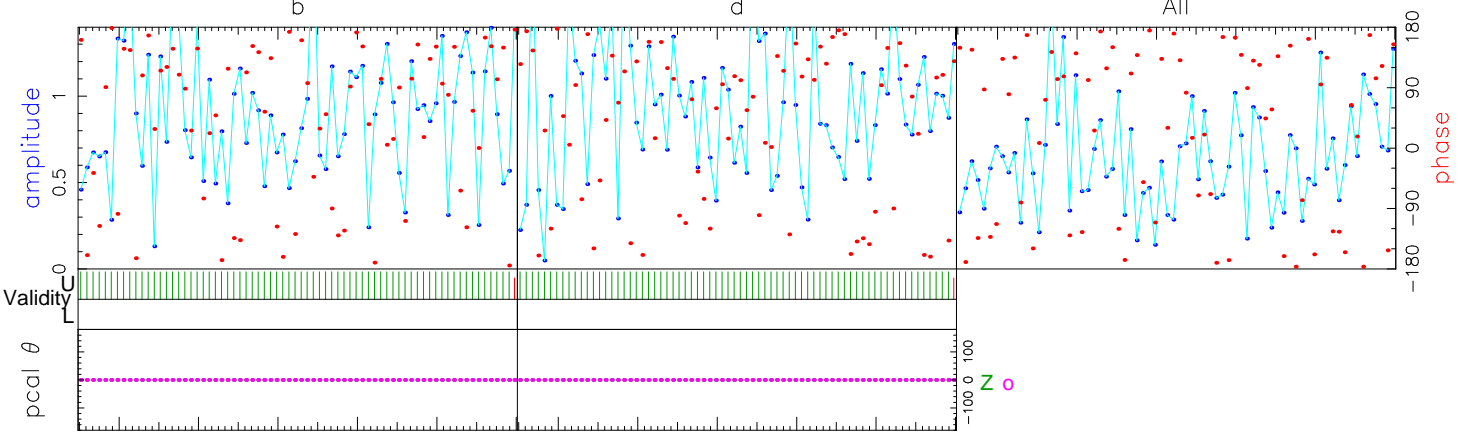
Z: az 286.3 el 39.9 pa 39.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10651.306 3394.283 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zo.W.257.0RU2MU



Fringe quality 0
 SNR 5.8
 Int time 330.628
 Amp 0.466
 Phase -304.0
 PFD 2.0e-01
 Delays (us)
 SBD 0.710127
 MBD 0.003000
 Fringe rate (Hz)
 -0.865777
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150845
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

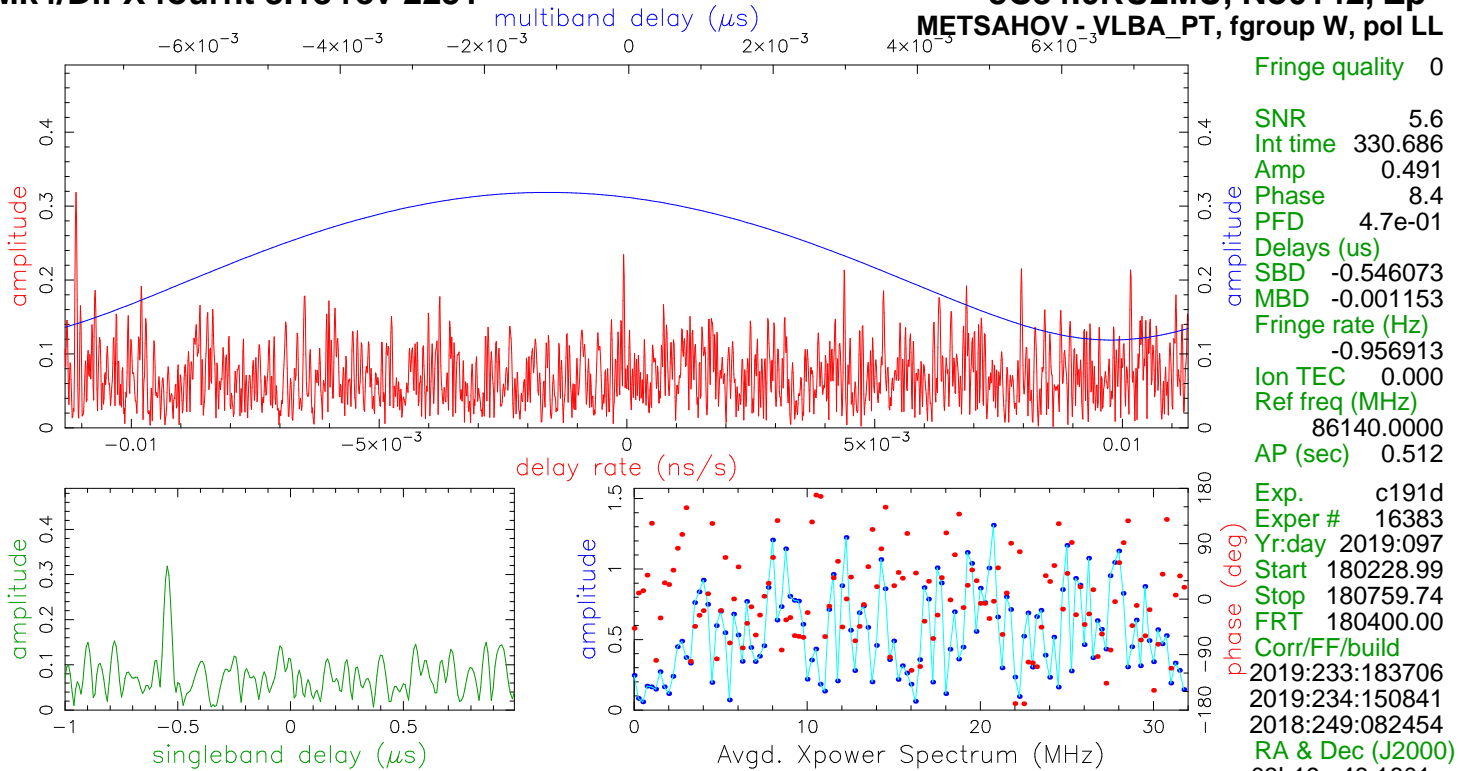


86156.00	86220.00	Freq (MHz)	All
145.6	146.4	Phase	146.0
0.5	0.4	Ampl.	0.5
220.0	219.8	Sbd box	219.9
U/L 646/0	646/0	APs used	
Z 1000	1000	PC freqs	
o 1000	1000	PC freqs	
Z:o 0:0	0:0	PC phase	
Z:o 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
o 1000	1000		
Z W01UR	W03UR	Chan ids	
o W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

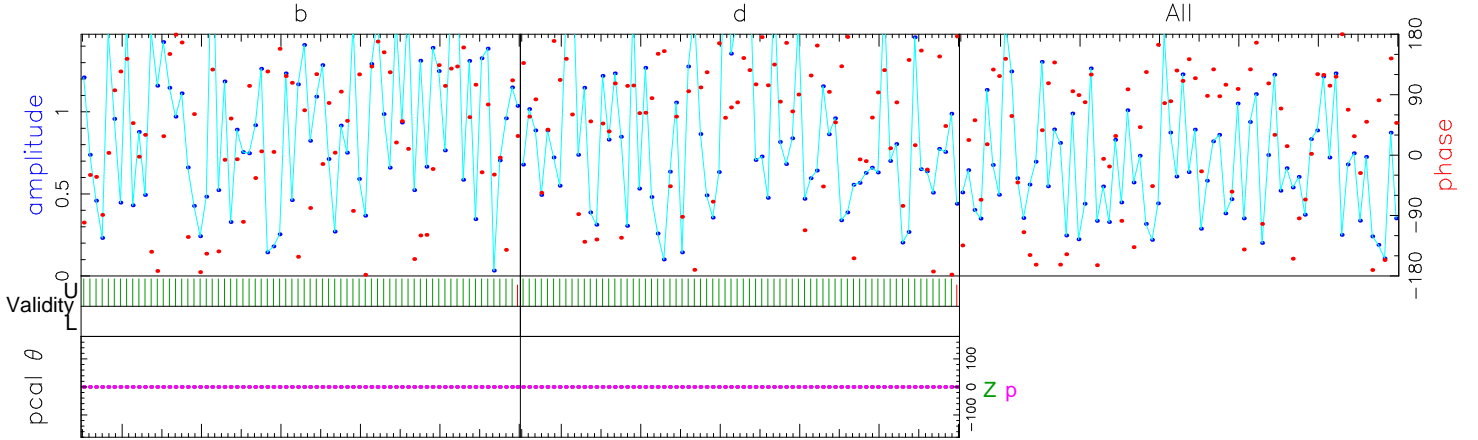
Group delay (usec)(sbd)	-1.04058447818E+03	Apriori delay (usec)	-1.04129060276E+03	Resid mbdelay (usec)	2.99958E-03	+/-	8.6E-04
Sband delay (usec)	-1.04058047626E+03	Apriori clock (usec)	-1.3761440E+01	Resid sbdelay (usec)	7.10127E-01	+/-	3.0E-03
Phase delay (usec)	-1.04129059805E+03	Apriori clockrate (us/s)	-1.8956001E-07	Resid phdelay (usec)	4.70678E-06	+/-	6.4E-07
Delay rate (us/s)	-1.38617119349E+00	Apriori rate (us/s)	-1.38616114268E+00	Resid rate (us/s)	-1.00508E-05	+/-	3.3E-09
Total phase (deg)	-131.8	Apriori accel (us/s/s)	2.51691517035E-05	Resid phase (deg)	-304.0	+/-	19.8

ph/seg (deg)	71.6	Theor.	83.9	Amplitude	0.466 +/- 0.080	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	131.3	Search (2048X8)	0.324	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00	us/s)	
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.439	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	8.4	Inc. frq. avg.	0.452	Inc. frq. avg.	0.452	Sample rate(MSamp/s):	64	mb window (us)	-1.000 1.000
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00

Z: az 286.3 el 39.9 pa 39.7 o: az 64.2 el 42.3 pa -73.2 u,v (fr/asec) 10651.306 3394.283 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zo..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zo.W.262.0RU2MU



Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



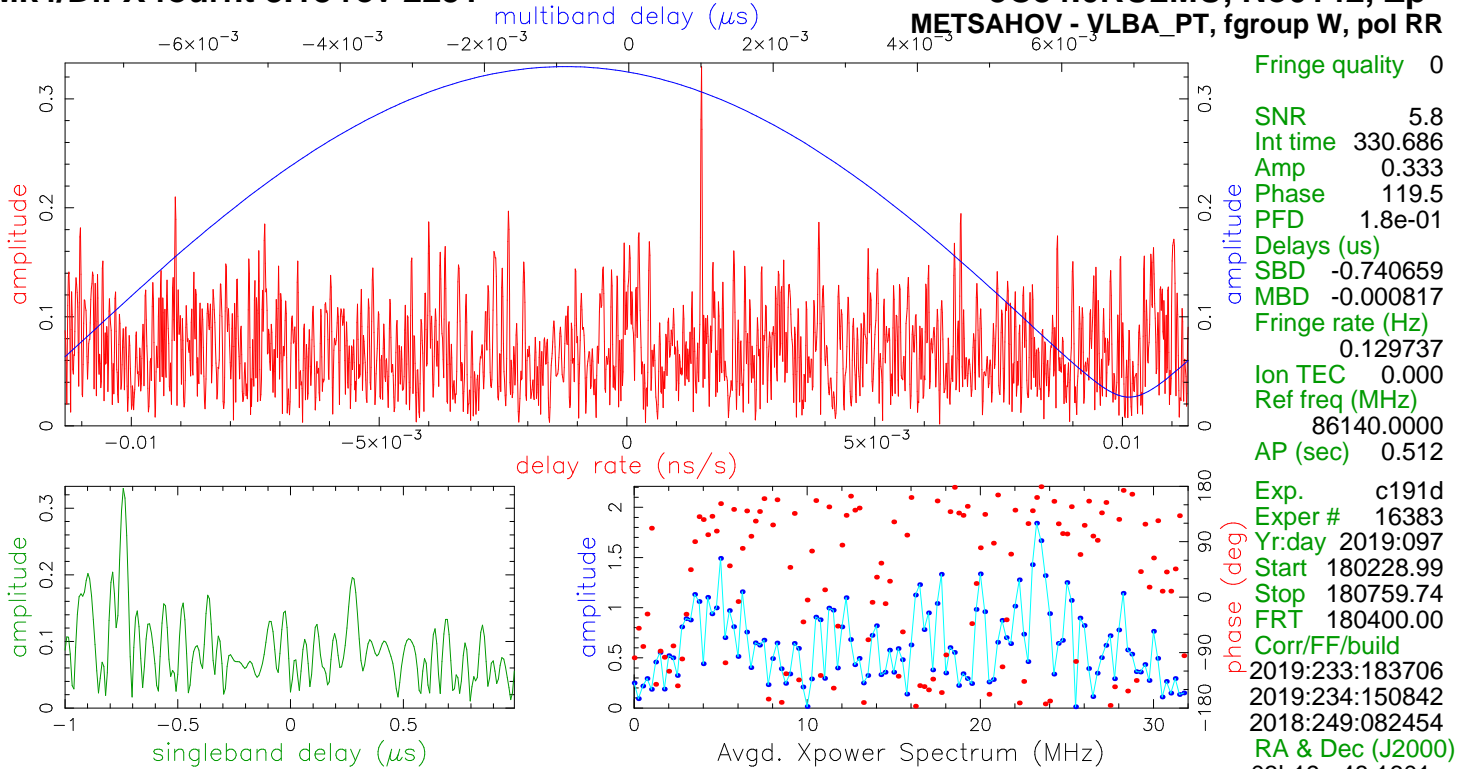
86156.00		86220.00		Freq (MHz)	All
98.0		98.6		Phase	98.4
0.3		0.7		Ampl.	0.5
106.4		58.9		Sbd box	59.1
U/L 646/0		646/0		APs used	
Z 1000		1000		PC freqs	
p 1000		1000		PC freqs	
Z:p 0:0		0:0		PC phase	
Z:p 0:0		0:0		Manl PC	
Z 1000		1000		PC amp	
p 1000		1000			
Z W01UL		W03UL		Chan ids	
p W01UL		W03UL		Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-2.62747299182E+03	Apriori delay (usec)	-2.62692496395E+03	Resid mbdelay (usec)	-1.15287E-03	+/-	8.9E-04
Sband delay (usec)	-2.62747103695E+03	Apriori clock (usec)	-7.7314863E+00	Resid sbdelay (usec)	-5.46073E-01	+/-	3.1E-03
Phase delay (usec)	-2.62692496077E+03	Apriori clockrate (us/s)	-1.1500000E-07	Resid phdelay (usec)	3.17333E-06	+/-	6.6E-07
Delay rate (us/s)	-1.32357785233E+00	Apriori rate (us/s)	-1.32356674352E+00	Resid rate (us/s)	-1.11088E-05	+/-	3.5E-09
Total phase (deg)	226.4	Apriori accel (us/s/s)	3.67310303062E-05	Resid phase (deg)	8.4	+/-	20.4

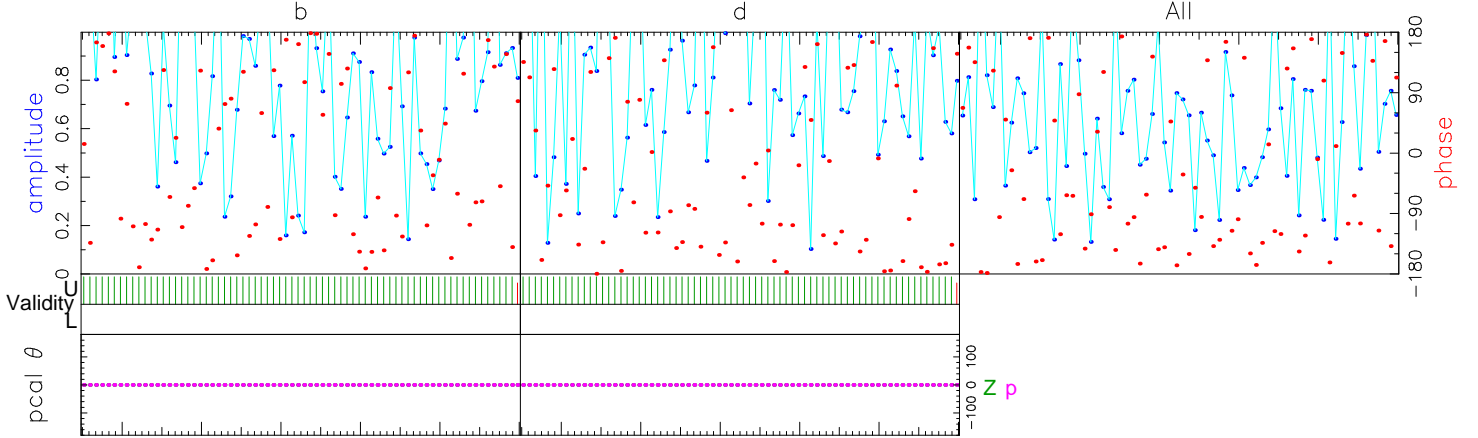
ph/seg (deg)	83.3	Theor.	86.7	Amplitude	0.491 +/- 0.088	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	154.4	Search (2048X8)	0.310	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	37.3	Inc. seg. avg.	0.485	Inc. seg. avg.	0.485	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.	0.476	Inc. frq. avg.	0.476	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	t_cohere	infinite
								ion window (TEC)	0.00 0.00

Z: az 286.3 el 39.9 pa 39.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10191.311 4478.849 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zp.W.228.0RU2MU

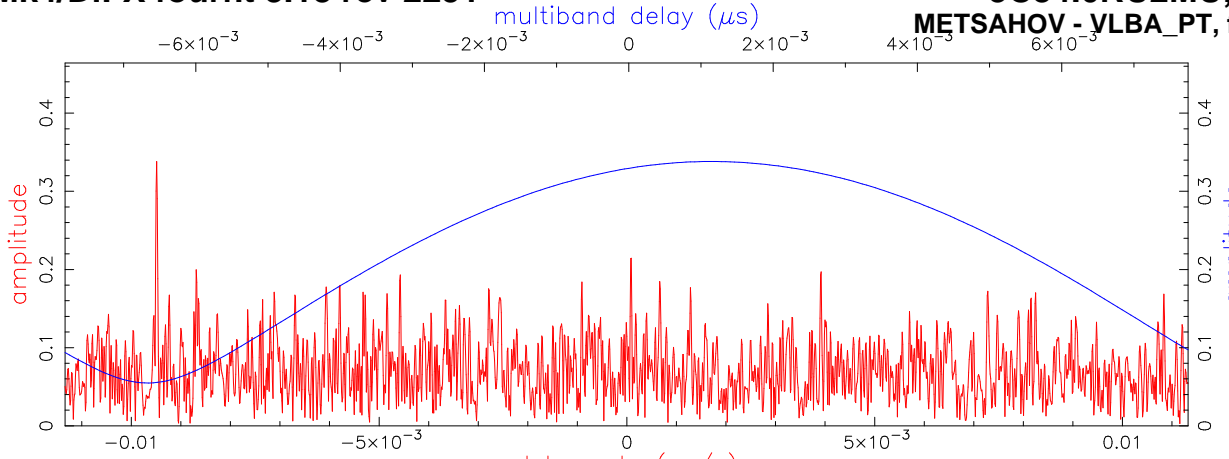


Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

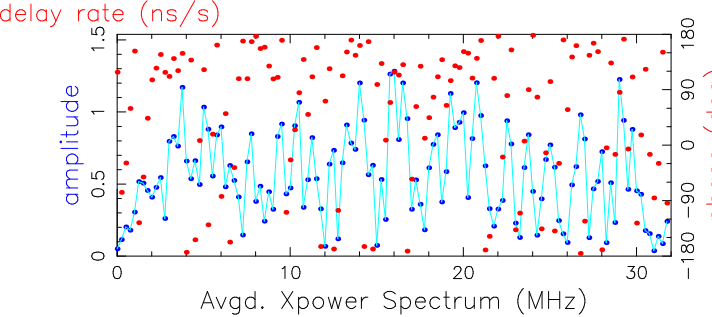
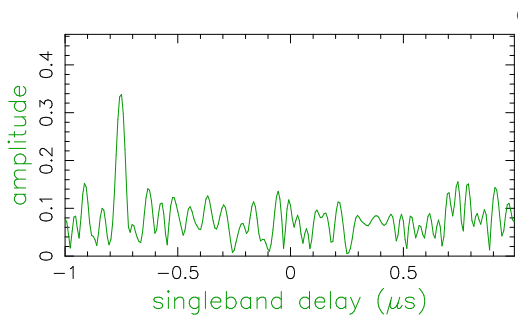


86156.00		86220.00		Freq (MHz)	All
-149.7		-151.1		Phase	-150.5
0.3		0.4		Ampl.	0.3
34.0		34.4		Sbd box	34.2
U/L 646/0		646/0		APs used	
Z 1000		1000		PC freqs	
p 1000		1000		PC freqs	
Z:p 0:0		0:0		PC phase	
Z:p 0:0		0:0		Manl PC	
Z 1000		1000		PC amp	
p 1000		1000			
Z W01UR		W03UR		Chan ids	
p W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-2.62766015580E+03	Apriori delay (usec)	-2.62692496395E+03	Resid mbdelay (usec)	-8.16856E-04 +/- 8.6E-04
Sband delay (usec)	-2.62766562295E+03	Apriori clock (usec)	-7.7314863E+00	Resid sbdelay (usec)	-7.40659E-01 +/- 3.0E-03
Phase delay (usec)	-2.62692496880E+03	Apriori clockrate (us/s)	-1.1500000E-07	Resid phdelay (usec)	-4.85204E-06 +/- 6.4E-07
Delay rate (us/s)	-1.32356523740E+00	Apriori rate (us/s)	-1.32356674352E+00	Resid rate (us/s)	1.50612E-06 +/- 3.3E-09
Total phase (deg)	337.5	Apriori accel (us/s/s)	3.67310303062E-05	Resid phase (deg)	119.5 +/- 19.7

ph/seg (deg)	RMS 76.1	Theor. 83.7	Amplitude 0.333 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	139.1	146.0	Search (2048X8) 0.321	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	13.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	8.0	24.3	Inc. seg. avg. 0.321	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg. 0.322	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
Z: az 286.3 el 39.9 pa 39.7		p: az 63.8 el 48.5 pa -82.8	u,v (fr/asec) 10191.311 4478.849	nlags: 128	t_cohere infinite
Control file: cf_1234_gmva		Input file: /Exps/c191d/v1/1234/No0142/Zp..0RU2MU			ion window (TEC) 0.00 0.00
					simultaneous interpolator

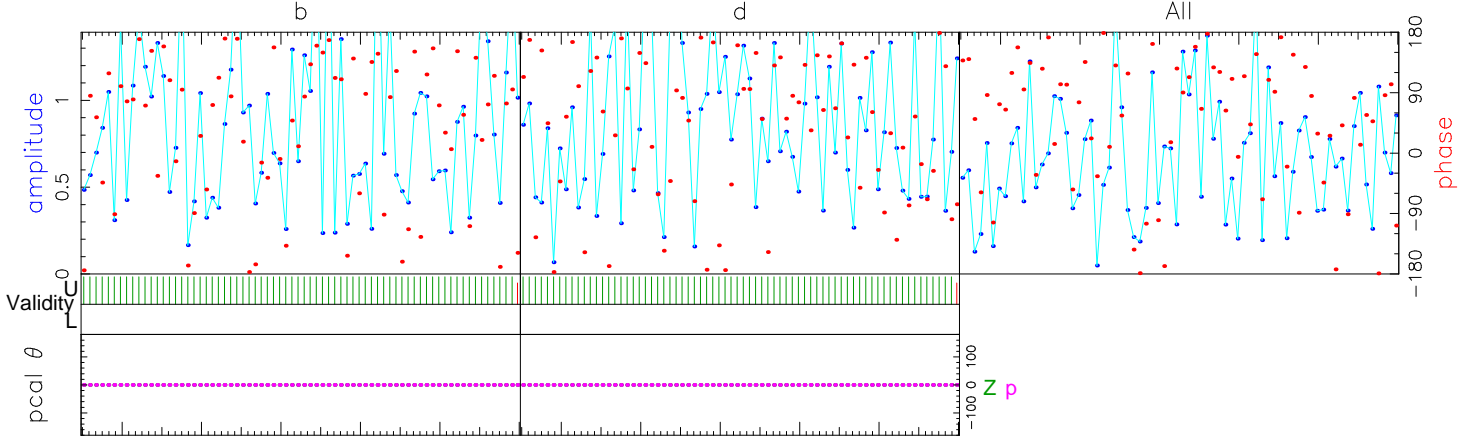


Fringe quality 0
 SNR 6.0
 Int time 330.686
 Amp 0.464
 Phase 112.9
 PFD 6.0e-02
 Delays (us)
 SBD -0.753029
 MBD 0.001226
 Fringe rate (Hz)
 -0.817184
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150842
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



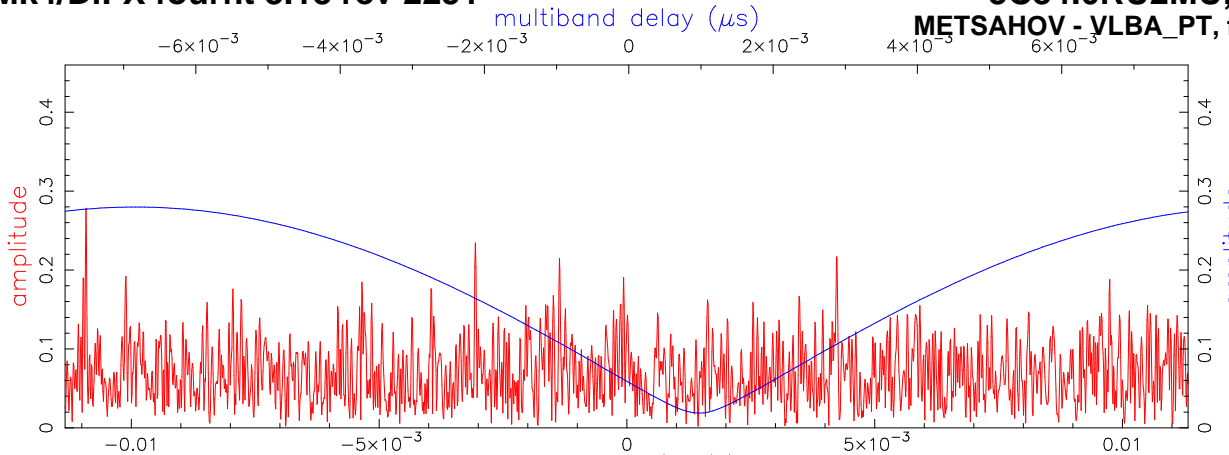
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec

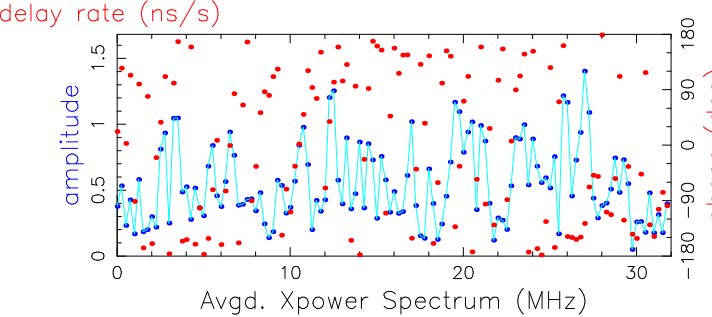
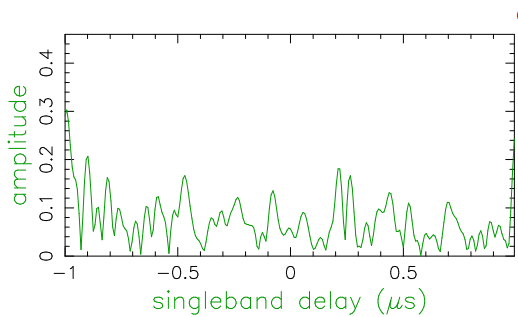


86156.00	86220.00	Freq (MHz)	All				
113.6	111.8	Phase	112.9				
0.5	0.4	Ampl.	0.4				
33.3	31.7	Sbd box	32.6				
U/L 646/0	646/0	APs used					
Z 1000	1000	PC freqs					
p 1000	1000	PC freqs					
Z:p 0:0	0:0	PC phase					
Z:p 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
p 1000	1000						
Z W01UL	W03UL	Chan ids					
p W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.62767373838E+03	Apriori delay (usec)	-2.62692496395E+03	Resid mbdelay (usec)	1.22557E-03	+/-	8.3E-04
Sband delay (usec)	-2.62767799245E+03	Apriori clock (usec)	-7.7314863E+00	Resid sbdelay (usec)	-7.53029E-01	+/-	2.9E-03
Phase delay (usec)	-2.62692496031E+03	Apriori clockrate (us/s)	-1.1500000E-07	Resid phdelay (usec)	3.63994E-06	+/-	6.2E-07
Delay rate (us/s)	-1.32357623022E+00	Apriori rate (us/s)	-1.32356674352E+00	Resid rate (us/s)	-9.48670E-06	+/-	3.2E-09
Total phase (deg)	330.9	Apriori accel (us/s/s)	3.67310303062E-05	Resid phase (deg)	112.9	+/-	19.1

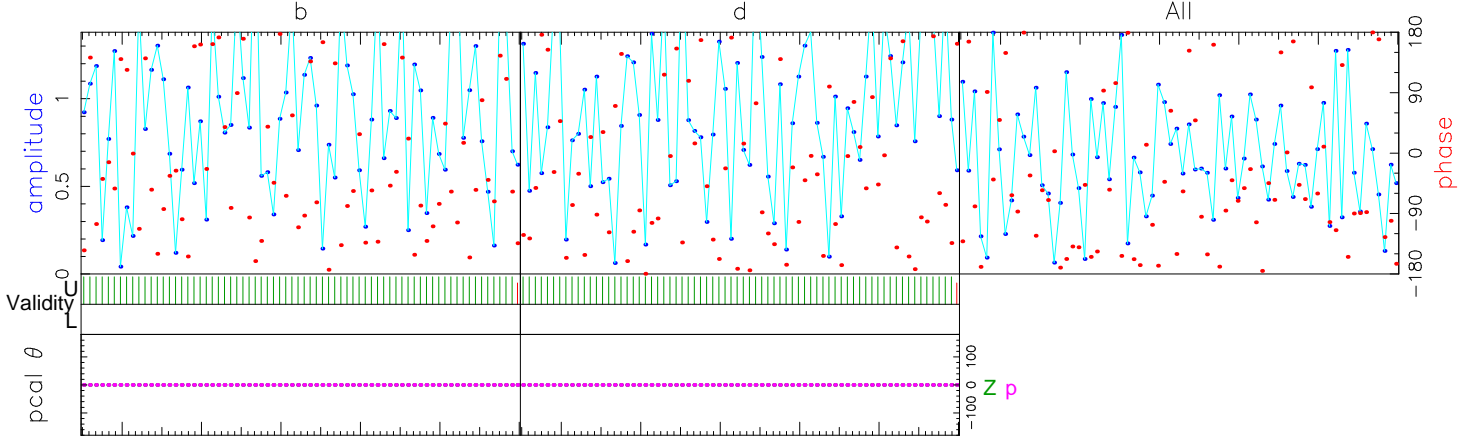
ph/seg (deg)	81.5	Theor.	80.9	Amplitude	0.464 +/- 0.077	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	140.6	Search (2048X8)	0.336	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Inc. seg. avg.	0.457	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
amp/frq (%)	16.1	Inc. frq. avg.	0.447	Sample rate(MSamp/s):	64	nlags:	128	dr window (ns/s)	-0.011 0.011
Z: az 286.3 el 39.9 pa 39.7		p: az 63.8 el 48.5 pa -82.8		Data rate(Mb/s):	256	t_cohere	infinite	ion window (TEC)	0.00 0.00



Fringe quality 0
 SNR 5.3
 Int time 330.686
 Amp 0.460
 Phase 152.6
 PFD 9.4e-01
 Delays (us)
 SBD -0.993726
 MBD -0.007339
 Fringe rate (Hz)
 -0.940420
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180228.99
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150844
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



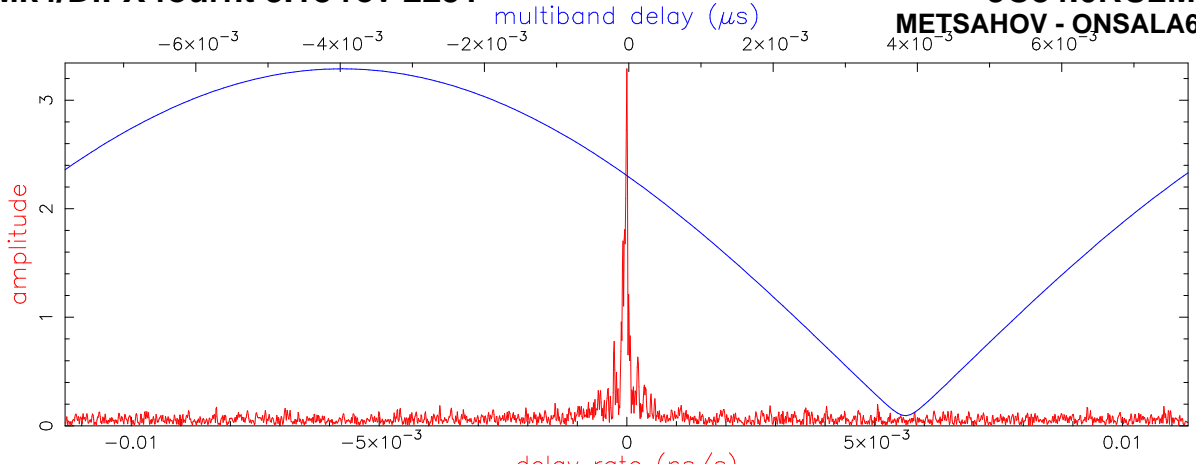
Amp. and Phase vs. time for each freq., 72 segs, 9 APs / seg (4.61 sec / seg.), time ticks 5 sec



86156.00	86220.00	Freq (MHz)	All
-122.8	-111.2	Phase	-117.4
0.5	0.4	Ampl.	0.4
2.2	1.6	Sbd box	1.8
U/L 646/0	646/0	APs used	
Z 1000	1000	PC freqs	
p 1000	1000	PC freqs	
Z:p 0:0	0:0	PC phase	
Z:p 0:0	0:0	ManI PC	
Z 1000	1000	PC amp	
p 1000	1000		
Z W01UR	W03UR	Chan ids	
p W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.62791667749E+03	Apriori delay (usec)	-2.62692496395E+03	Resid mbdelay (usec)	-7.33854E-03	+/-	9.3E-04
Sband delay (usec)	-2.62791869045E+03	Apriori clock (usec)	-7.7314863E+00	Resid sbdelay (usec)	-9.93726E-01	+/-	3.2E-03
Phase delay (usec)	-2.62692496773E+03	Apriori clockrate (us/s)	-1.1500000E-07	Resid phdelay (usec)	-3.78484E-06	+/-	6.9E-07
Delay rate (us/s)	-1.32357766086E+00	Apriori rate (us/s)	-1.32356674352E+00	Resid rate (us/s)	-1.09173E-05	+/-	3.6E-09
Total phase (deg)	10.6	Apriori accel (us/s/s)	3.67310303062E-05	Resid phase (deg)	152.6	+/-	21.5

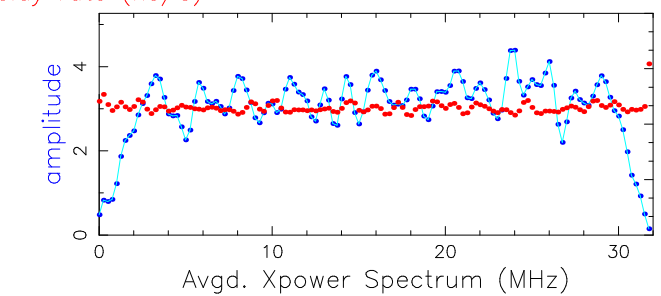
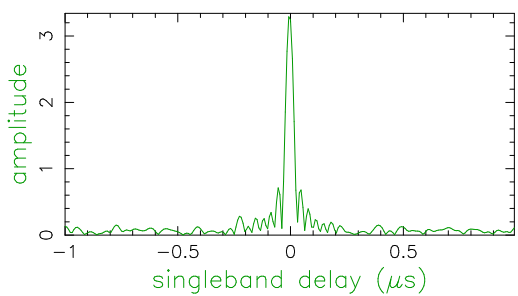
RMS 76.9 Theor. 91.1 Amplitude 0.460 +/- 0.086 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 76.9 91.1 Search (2048X8) 0.299 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 157.3 159.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 15.2 Inc. seg. avg. 0.445 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 9.9 26.5 Inc. frq. avg. 0.410 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 286.3 el 39.9 pa 39.7 p: az 63.8 el 48.5 pa -82.8 u,v (fr/asec) 10191.311 4478.849 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/Zp..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/Zp.W.256.0RU2MU



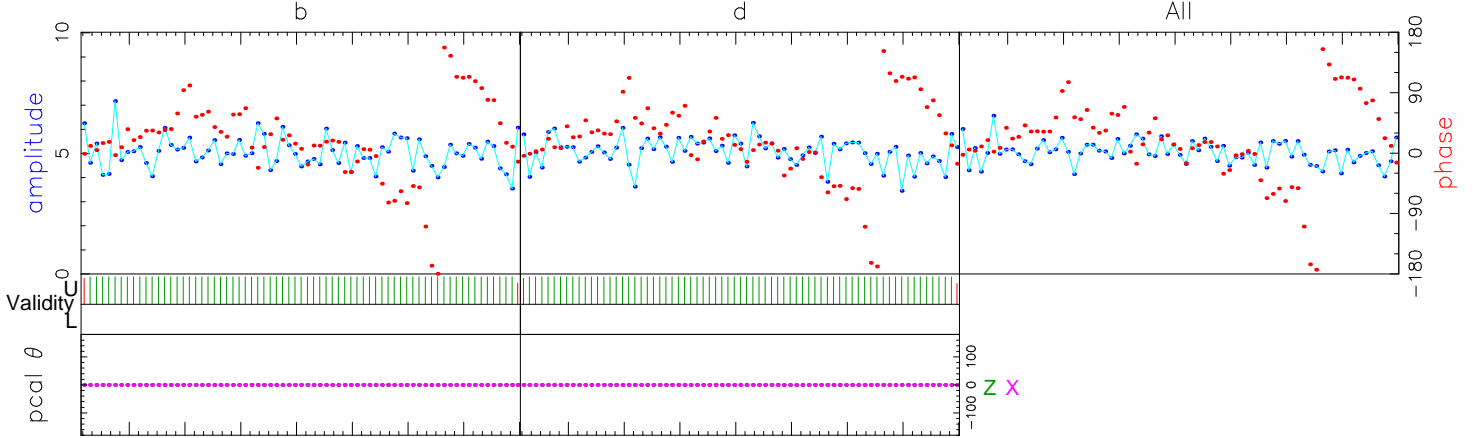
Fringe quality 7

SNR 70.1
 Int time 470.541
 Amp 3.343
 Phase 23.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.004471
 MBD -0.003962
 Fringe rate (Hz)
 -0.000108
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150842
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

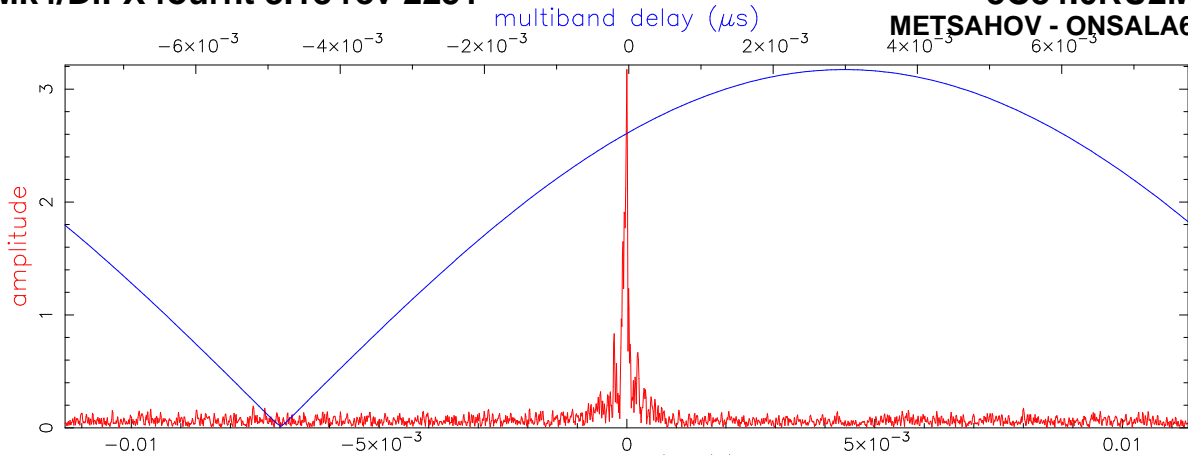


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
23.5	23.1	Phase	23.3				
3.2	3.4	Ampl.	3.3				
128.5	128.3	Sbd box	128.4				
U/L 920/0	920/0	APs used					
Z 1000	1000	PC freqs					
X 1000	1000	PC freqs					
Z:X 0:0	0:0	PC phase					
Z:X 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
X 1000	1000						
Z W01UL	W03UL	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.57112188625E+03	Apriori delay (usec)	-1.57111792438E+03	Resid mbdelay (usec)	-3.96188E-03	+/-	7.1E-05
Sband delay (usec)	-1.57112239488E+03	Apriori clock (usec)	-2.5071487E+01	Resid sbdelay (usec)	-4.47050E-03	+/-	2.5E-04
Phase delay (usec)	-1.57111792363E+03	Apriori clockrate (us/s)	-4.4999998E-07	Resid phdelay (usec)	7.50529E-07	+/-	5.3E-08
Delay rate (us/s)	1.21968589027E-02	Apriori rate (us/s)	1.21968601569E-02	Resid rate (us/s)	-1.25415E-09	+/-	1.9E-10
Total phase (deg)	21.2	Apriori accel (us/s/s)	1.01375698325E-05	Resid phase (deg)	23.3	+/-	1.6

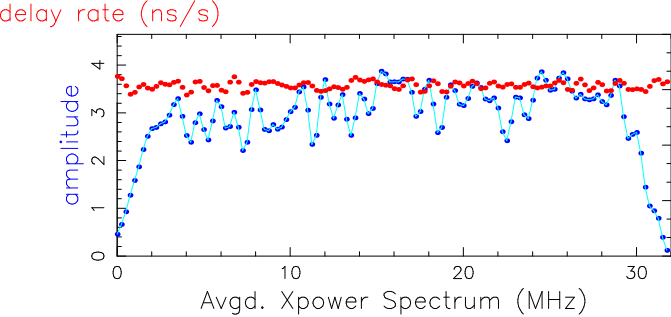
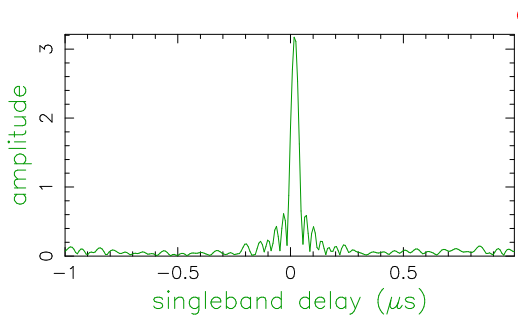
ph/seg (deg)	56.8	RMS	56.8	Theor.	6.9	Amplitude	3.343 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	52.8	Search (2048X8)	3.277	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	0.0	Inc. seg. avg.	5.008	Inc. frq. avg.	3.288	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
amp/frq (%)	3.2	u,v (fr/asec)	-76.422	876.926		Sample rate(MSamp/s):	64	dr window (ns/s)	-0.011	0.011		
		Z: az 286.3 el 39.9 pa 39.7	X: az 279.5 el 45.6 pa 45.3			Data rate(Mb/s):	256	ion window (TEC)	0.00	0.00		



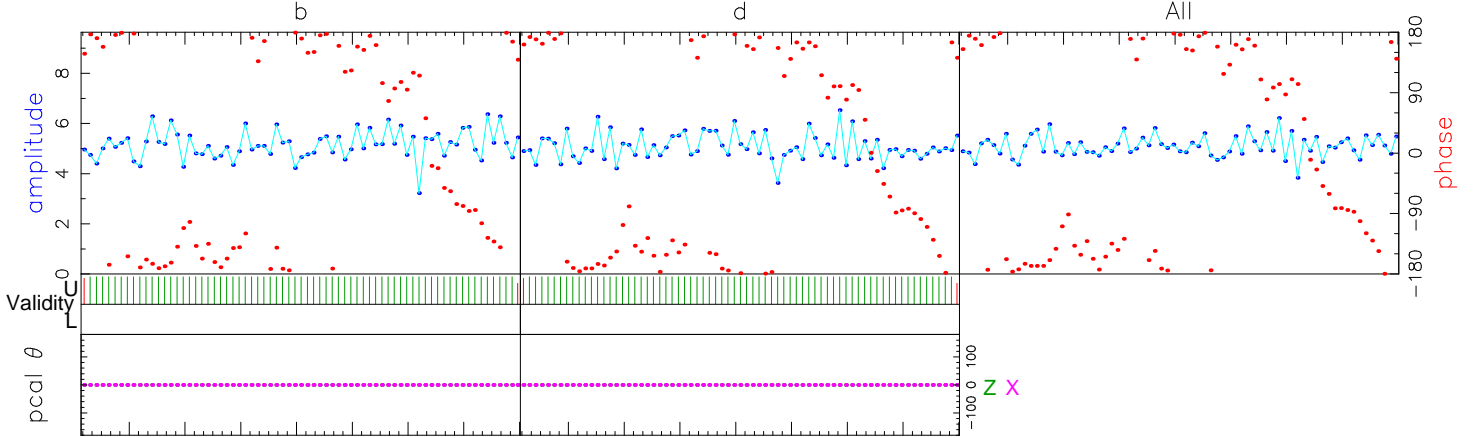
Fringe quality 7

SNR 67.4
 Int time 470.541
 Amp 3.214
 Phase -263.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.018624
 MBD 0.003021
 Fringe rate (Hz)
 -0.000093
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

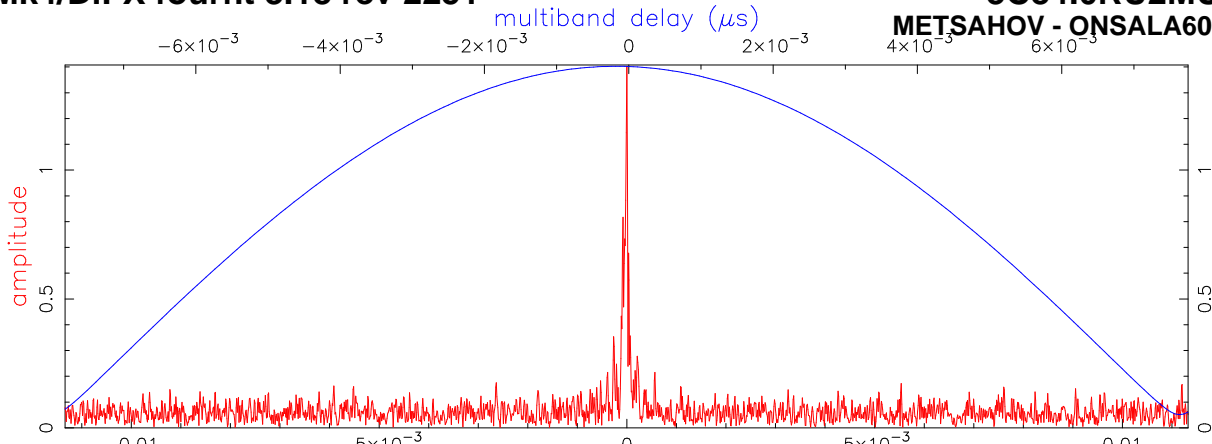


86156.00	86220.00	Freq (MHz)	All				
-172.6	-173.4	Phase	-173.0				
3.2	3.2	Ampl.	3.2				
131.4	131.3	Sbd box	131.4				
U/L 920/0	920/0	APs used					
Z 1000	1000	PC freqs					
X 1000	1000	PC freqs					
Z:X 0:0	0:0	PC phase					
Z:X 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
X 1000	1000						
Z W01UR	W03UR	Chan ids					
X W01UR	W03UR	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.57109927863E+03	Apriori delay (usec)	-1.57111792438E+03	Resid mbdelay (usec)	3.02075E-03	+/-	7.4E-05
Sband delay (usec)	-1.57109929988E+03	Apriori clock (usec)	-2.5071487E+01	Resid sbdelay (usec)	1.86245E-02	+/-	2.6E-04
Phase delay (usec)	-1.57111792995E+03	Apriori clockrate (us/s)	-4.4999998E-07	Resid phdelay (usec)	-5.57805E-06	+/-	5.5E-08
Delay rate (us/s)	1.21968590827E-02	Apriori rate (us/s)	1.21968601569E-02	Resid rate (us/s)	-1.07417E-09	+/-	2.0E-10
Total phase (deg)	-265.0	Apriori accel (us/s/s)	1.01375698325E-05	Resid phase (deg)	-263.0	+/-	1.7

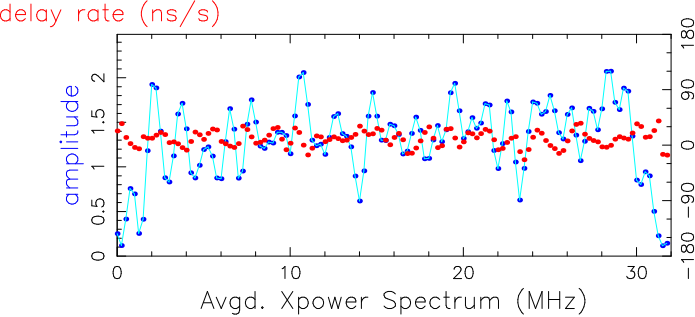
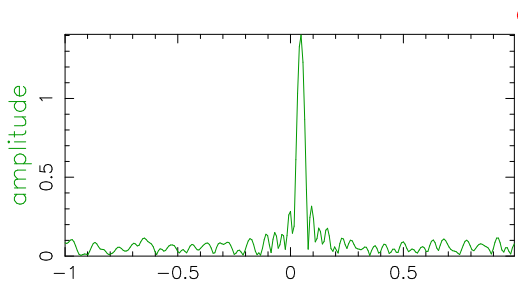
ph/seg (deg)	57.8	Theor.	7.2	Amplitude	3.214 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	60.2	Search (2048X8)		Search	3.113	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.		Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	1.3	Inc. seg. avg.		Inc. seg. avg.	5.061	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
		Inc. frq. avg.		Inc. frq. avg.	3.172	Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
Z: az 286.3 el 39.9 pa 39.7				X: az 279.5 el 45.6 pa 45.3		u,v (fr/asec)	-76.422 876.926	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZX.W.245.0RU2MU

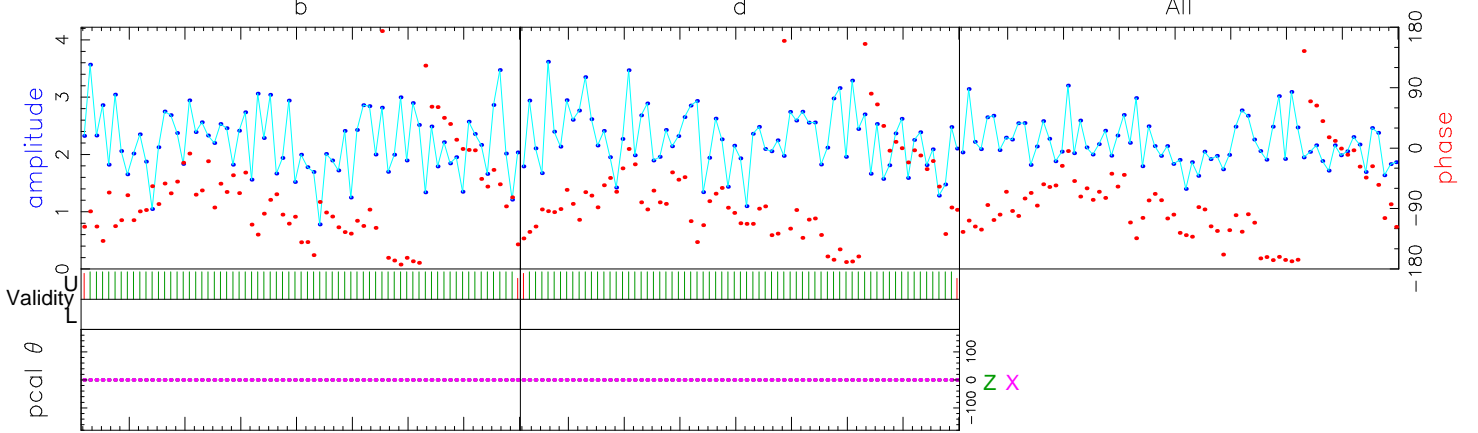
simultaneous interpolator



Fringe quality 9
 SNR 29.5
 Int time 470.541
 Amp 1.408
 Phase -358.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.045304
 MBD -0.000198
 Fringe rate (Hz)
 -0.000065
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150844
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

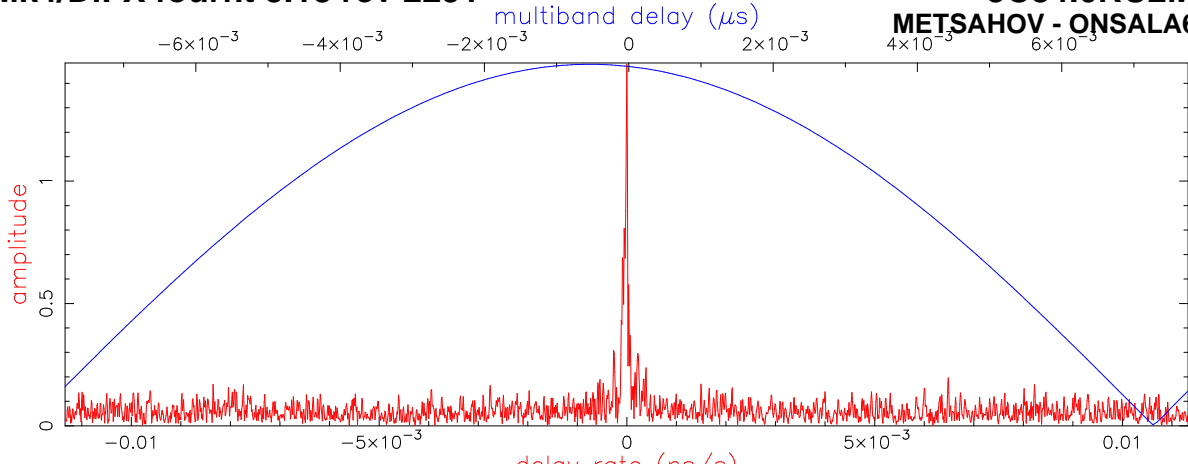


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00		86220.00		86156.00	
-88.2		-87.8		-88.2	
1.4		1.5		1.4	
134.9		134.7		134.8	
U/L 920/0		920/0		APs used	134.8
Z 1000		1000		PC freqs	
X 1000		1000		PC freqs	
Z:X 0:0		0:0		PC phase	
Z:X 0:0		0:0		Manl PC	
Z 1000		1000		PC amp	
X 1000		1000			
Z W01UL		W03UL		Chan ids	
X W01UR		W03UR		Tracks	
				Chan ids	
				Tracks	
Group delay (usec)(sbd)	-1.57107124775E+03	Apriori delay (usec)	-1.57111792438E+03	Resid mbdelay (usec)	-1.98375E-04 +/- 1.7E-04
Sband delay (usec)	-1.57107262088E+03	Apriori clock (usec)	-2.5071487E+01	Resid sbdelay (usec)	4.53035E-02 +/- 5.8E-04
Phase delay (usec)	-1.57111792721E+03	Apriori clockrate (us/s)	-4.4999998E-07	Resid phdelay (usec)	-2.83691E-06 +/- 1.3E-07
Delay rate (us/s)	1.21968594037E-02	Apriori rate (us/s)	1.21968601569E-02	Resid rate (us/s)	-7.53197E-10 +/- 4.6E-10
Total phase (deg)	-0.0	Apriori accel (us/s/s)	1.01375698325E-05	Resid phase (deg)	-358.0 +/- 3.9

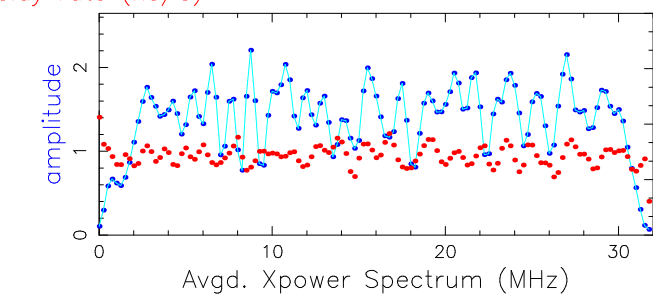
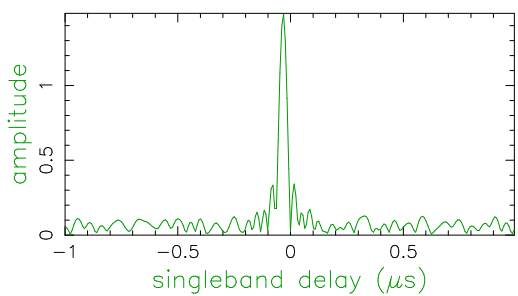
RMS Theor. Amplitude 1.408 +/- 0.048
 ph/seg (deg) 56.1 16.4 Search (2048X8) 1.400
 amp/seg (%) 62.6 28.5 Interp. 0.000
 ph/frq (deg) 0.0 2.7 Inc. seg. avg. 2.117
 amp/frq (%) 3.7 4.8 Inc. frq. avg. 1.401
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 286.3 el 39.9 pa 39.7 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -76.422 876.926 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZX.W.255.0RU2MU



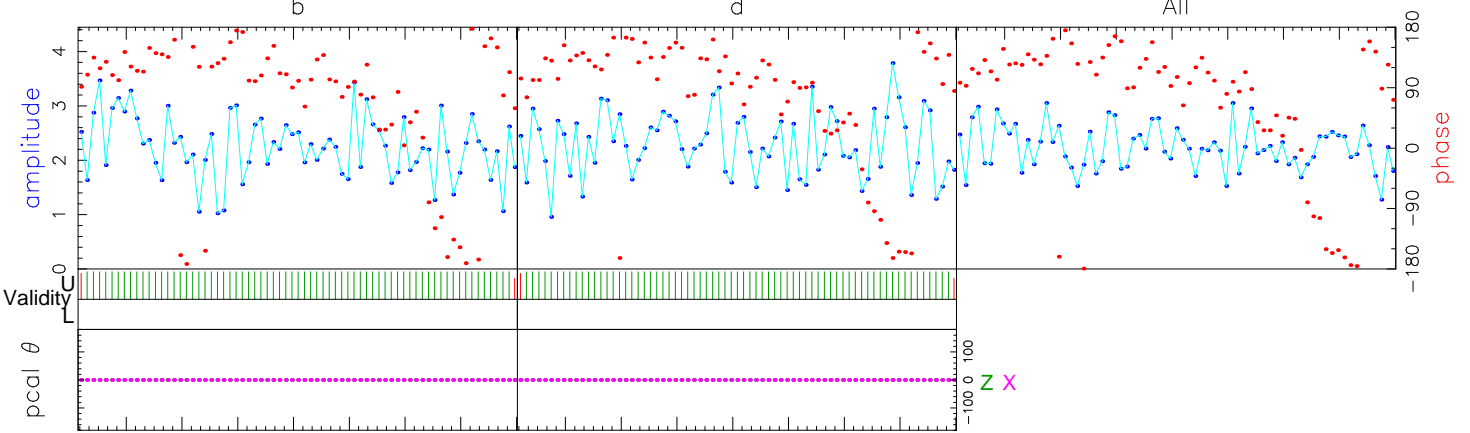
Fringe quality 9

SNR 31.1
Int time 470.541
Amp 1.483
Phase 303.5
PFD 0.0e+00
Delays (us)
SBD -0.032826
MBD -0.000575
Fringe rate (Hz)
-0.000044
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180008.19
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150845
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"

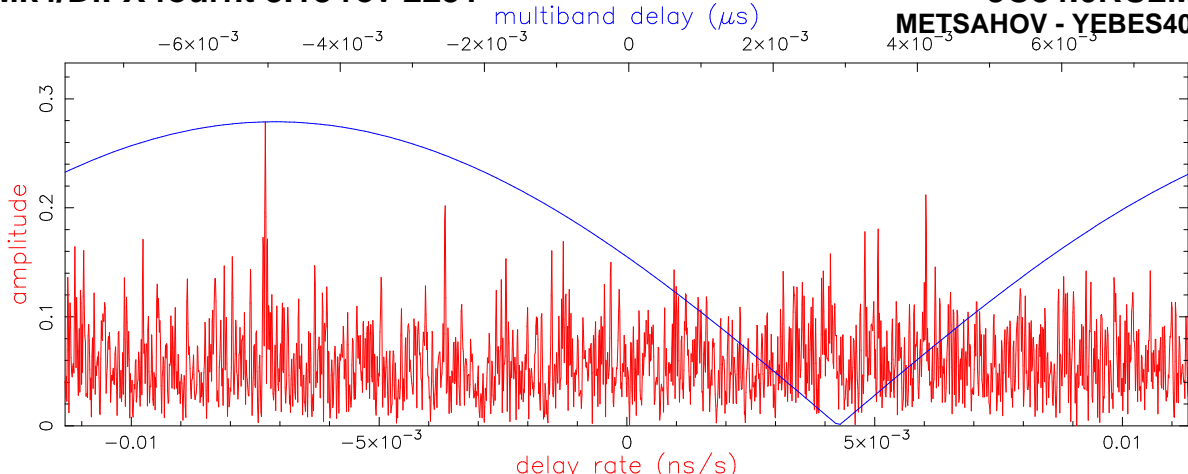


Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

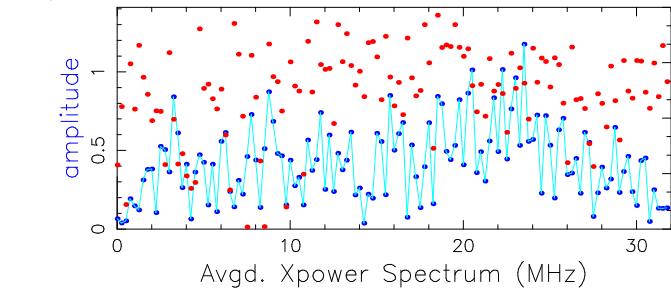
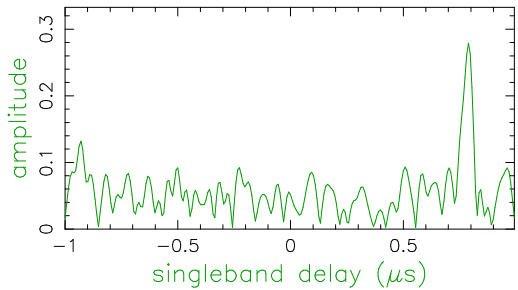


86156.00	86220.00	Freq (MHz)	All				
123.1	123.9	Phase	123.5				
1.5	1.5	Ampl.	1.5				
125.0	124.6	Sbd box	124.8				
U/L 920/0	920/0	APs used					
Z 1000	1000	PC freqs					
X 1000	1000	PC freqs					
Z:X 0:0	0:0	PC phase					
Z:X 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
X 1000	1000						
Z W01UR	W03UR	Chan ids					
X W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-1.57114974925E+03	Apriori delay (usec)	-1.57111792438E+03	Resid mbdelay (usec)	-5.74875E-04	+/-	1.6E-04
Sband delay (usec)	-1.57115075088E+03	Apriori clock (usec)	-2.5071487E+01	Resid sbdelay (usec)	-3.28265E-02	+/-	5.5E-04
Phase delay (usec)	-1.57111792039E+03	Apriori clockrate (us/s)	-4.4999998E-07	Resid phdelay (usec)	3.98260E-06	+/-	1.2E-07
Delay rate (us/s)	1.21968596453E-02	Apriori rate (us/s)	1.21968601569E-02	Resid rate (us/s)	-5.11579E-10	+/-	4.4E-10
Total phase (deg)	301.4	Apriori accel (us/s/s)	1.01375698325E-05	Resid phase (deg)	303.5	+/-	3.7

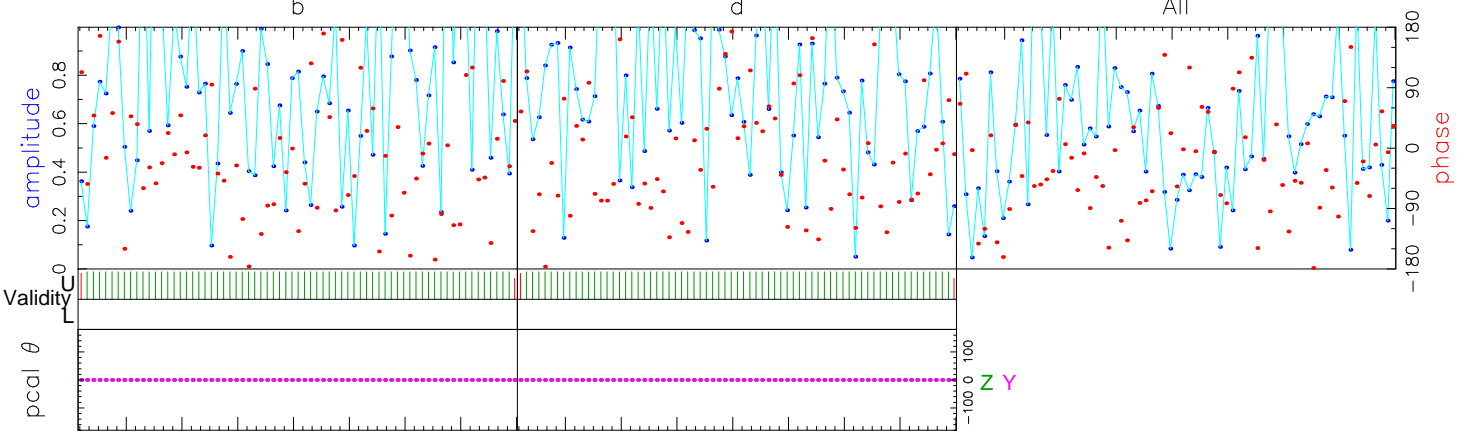
ph/seg (deg) 54.7 15.5 Theor. Amplitude 1.483 +/- 0.048 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.9 27.1 Search (2048X8) 1.468 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 2.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.4 4.5 Inc. seg. avg. 2.163 Sample rate(MSamp/s): 64 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 286.3 el 39.9 pa 39.7 X: az 279.5 el 45.6 pa 45.3 u,v (fr/asec) -76.422 876.926 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZX..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZX.W.261.0RU2MU simultaneous interpolator



Fringe quality 0
 SNR 5.9
 Int time 470.429
 Amp 0.333
 Phase -307.2
 PFD 1.4e-01
 Delays (us)
 SBD 0.789607
 MBD -0.004911
 Fringe rate (Hz)
 -0.628392
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



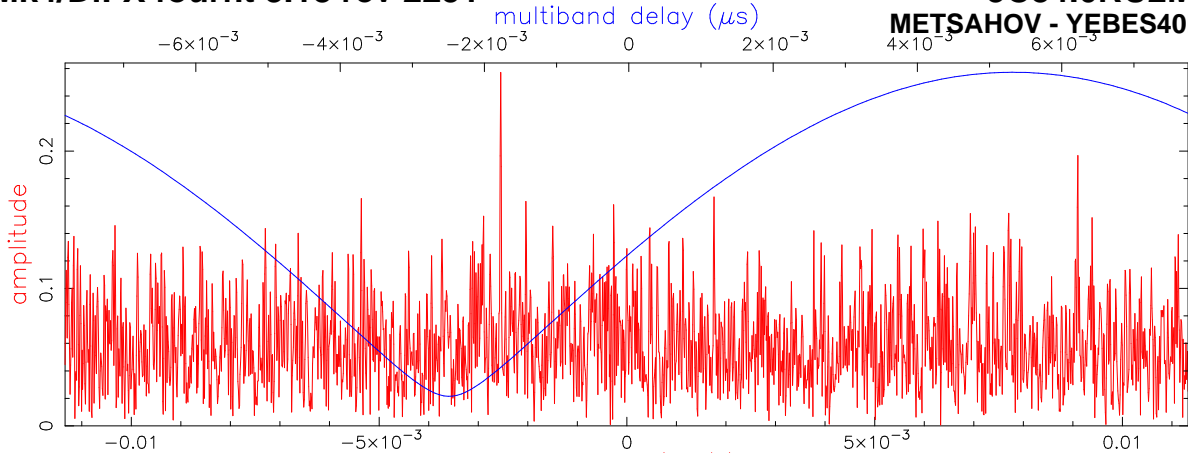
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All				
-37.3	-37.2	Phase	-37.2				
0.3	0.3	Ampl.	0.3				
229.7	230.2	Sbd box	230.1				
U/L 920/0	920/0	APs used					
Z 1000	1000	PC freqs					
Y 1000	1000	PC freqs					
Z:Y 0:0	0:0	PC phase					
Z:Y 0:0	0:0	Manl PC					
Z 1000	1000	PC amp					
Y 1000	1000						
Z W01UL	W03UL	Chan ids					
Y W01UL	W03UL	Tracks					
		Chan ids					
		Tracks					
Group delay (usec)(sbd)	-2.89883362327E+03	Apriori delay (usec)	-2.89962558751E+03	Resid mbdelay (usec)	-4.91076E-03	+/-	8.5E-04
Sband delay (usec)	-2.89883598051E+03	Apriori clock (usec)	-6.9310923E+00	Resid sbdelay (usec)	7.89607E-01	+/-	2.9E-03
Phase delay (usec)	-2.89962558871E+03	Apriori clockrate (us/s)	-1.9299999E-07	Resid phdelay (usec)	-1.20002E-06	+/-	6.3E-07
Delay rate (us/s)	1.38506976707E-01	Apriori rate (us/s)	1.38514271716E-01	Resid rate (us/s)	-7.29501E-06	+/-	2.3E-09
Total phase (deg)	-346.0	Apriori accel (us/s/s)	3.17388209760E-05	Resid phase (deg)	-307.2	+/-	19.6

ph/seg (deg)	RMS 78.1	Theor. 82.5	Amplitude 0.333 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	157.6	144.0	Search (2048X8) 0.270	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	13.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	0.1	24.2	Inc. seg. avg. 0.349	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.323	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

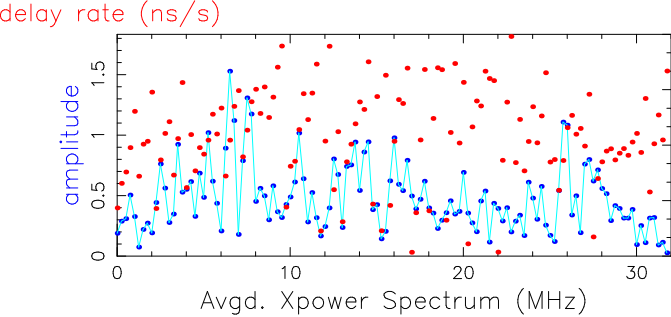
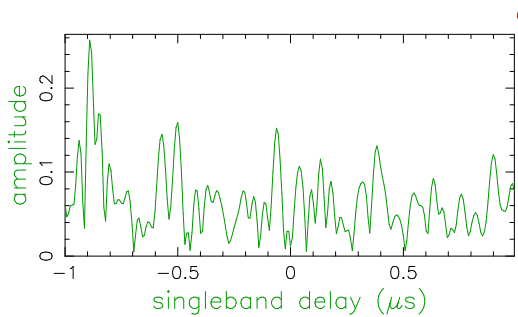
Z: az 286.3 el 39.9 pa 39.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -1008.984 3669.841 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZY.W.247.0RU2MU



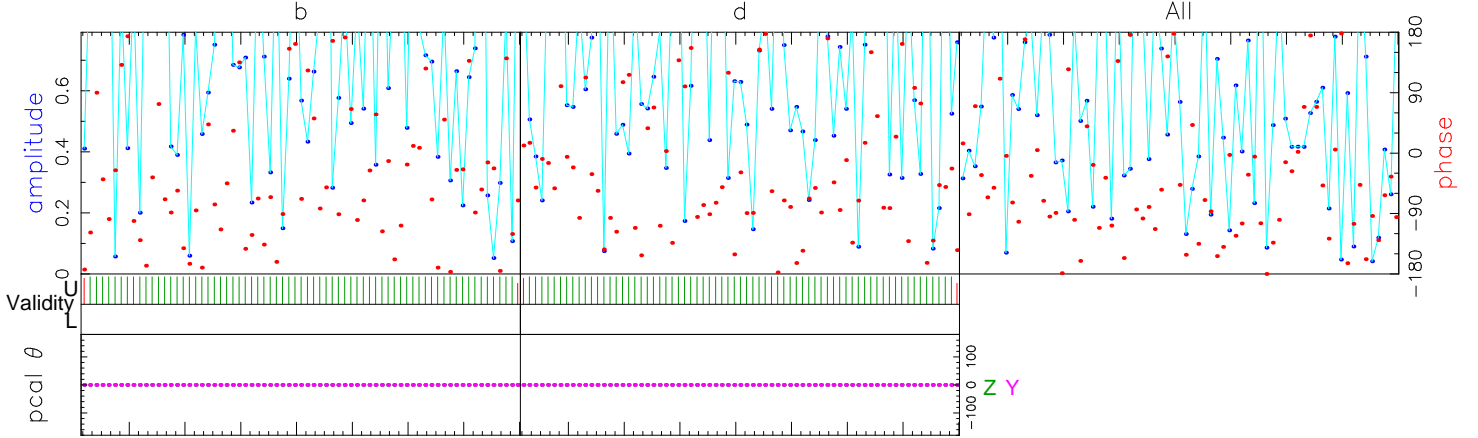
Fringe quality 0

SNR 5.4
Int time 470.429
Amp 0.264
Phase 2.0
PFD 8.2e-01
Delays (us)
SBD -0.888886
MBD 0.005239
Fringe rate (Hz)
-0.218887
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c191d
Exper # 16383
Yr:day 2019:097
Start 180008.19
Stop 180759.23
FRT 180400.00
Corr/FF/build
2019:233:183706
2019:234:150844
2018:249:082454
RA & Dec (J2000)
03h19m48.1601s
+41°30'42.104"



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



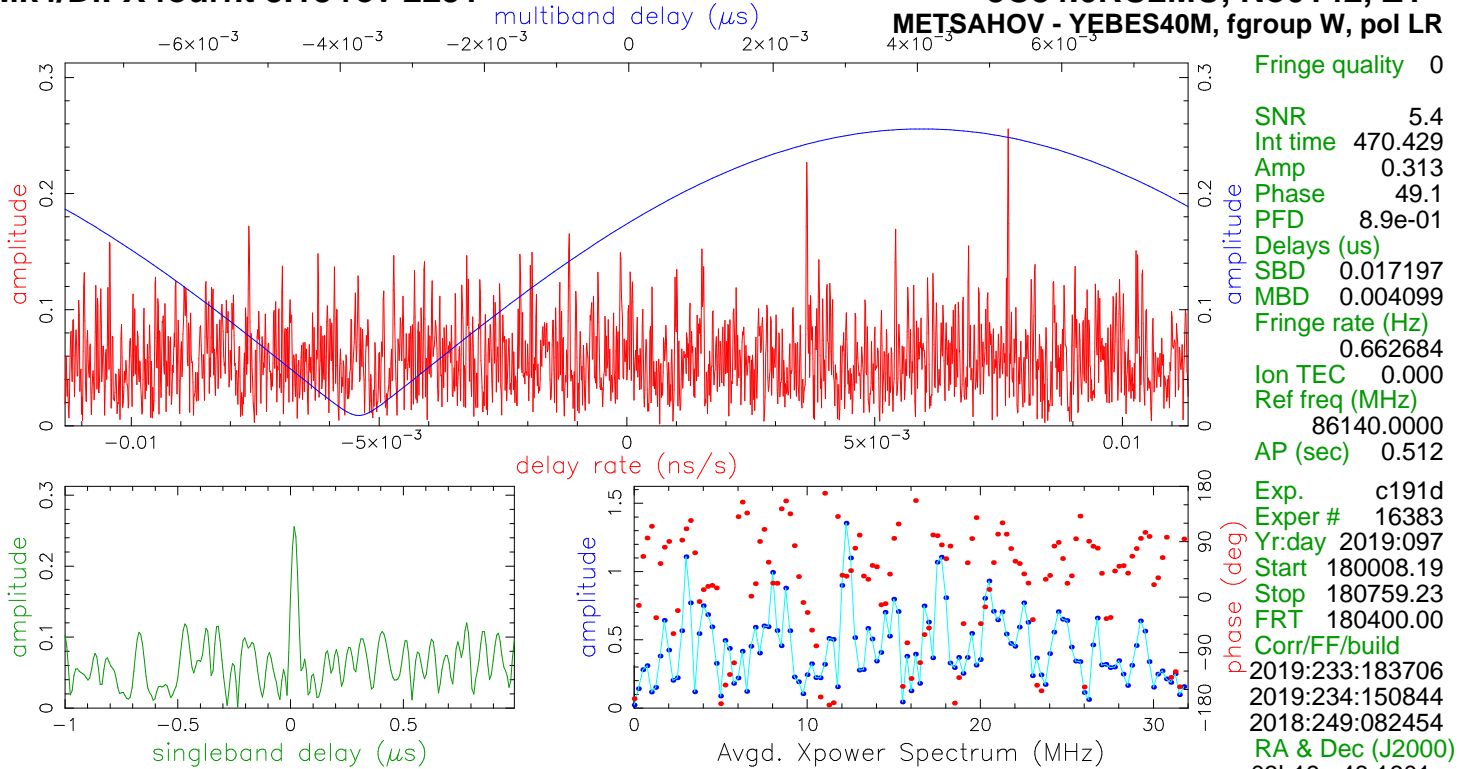
86156.00	86220.00	Freq (MHz)	All
-88.9	-87.0	Phase	-88.0
0.3	0.2	Ampl.	0.3
19.7	15.1	Sbd box	15.2
U/L 920/0	920/0	APs used	
Z 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
Z:Y 0:0	0:0	PC phase	
Z:Y 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
Y 1000	1000		
Z W01UR	W03UR	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.90051097363E+03	Apriori delay (usec)	-2.89962558751E+03	Resid mbdelay (usec)	5.23888E-03	+/-	9.2E-04
Sband delay (usec)	-2.90051447351E+03	Apriori clock (usec)	-6.9310923E+00	Resid sbdelay (usec)	-8.88886E-01	+/-	3.2E-03
Phase delay (usec)	-2.89962559035E+03	Apriori clockrate (us/s)	-1.9299999E-07	Resid phdelay (usec)	-2.83829E-06	+/-	6.8E-07
Delay rate (us/s)	1.38511730659E-01	Apriori rate (us/s)	1.38514271716E-01	Resid rate (us/s)	-2.54106E-06	+/-	2.5E-09
Total phase (deg)	323.2	Apriori accel (us/s/s)	3.17388209760E-05	Resid phase (deg)	2.0	+/-	21.1

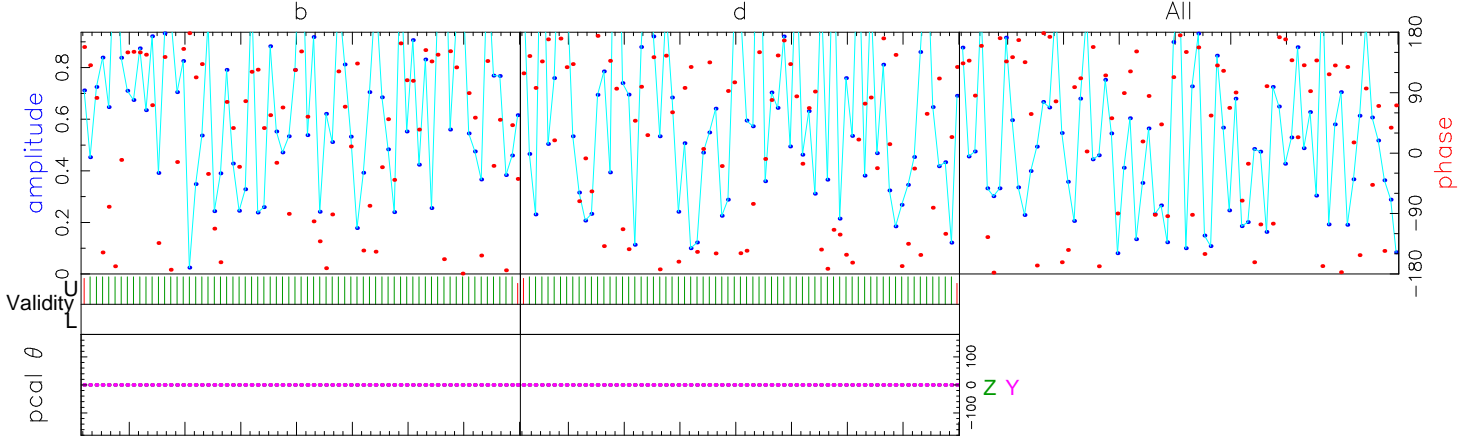
ph/seg (deg)	RMS 74.4	Theor. 89.0	Amplitude 0.264 +/- 0.049	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	169.9	155.3	Search (2048X8) 0.242	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	14.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	8.3	26.1	Inc. seg. avg. 0.258	Sample rate(MSamp/s): 64		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 0.254	Data rate(Mb/s): 256	nlags: 128	t_cohere infinite		

Z: az 286.3 el 39.9 pa 39.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -1008.984 3669.841 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZY.W.253.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



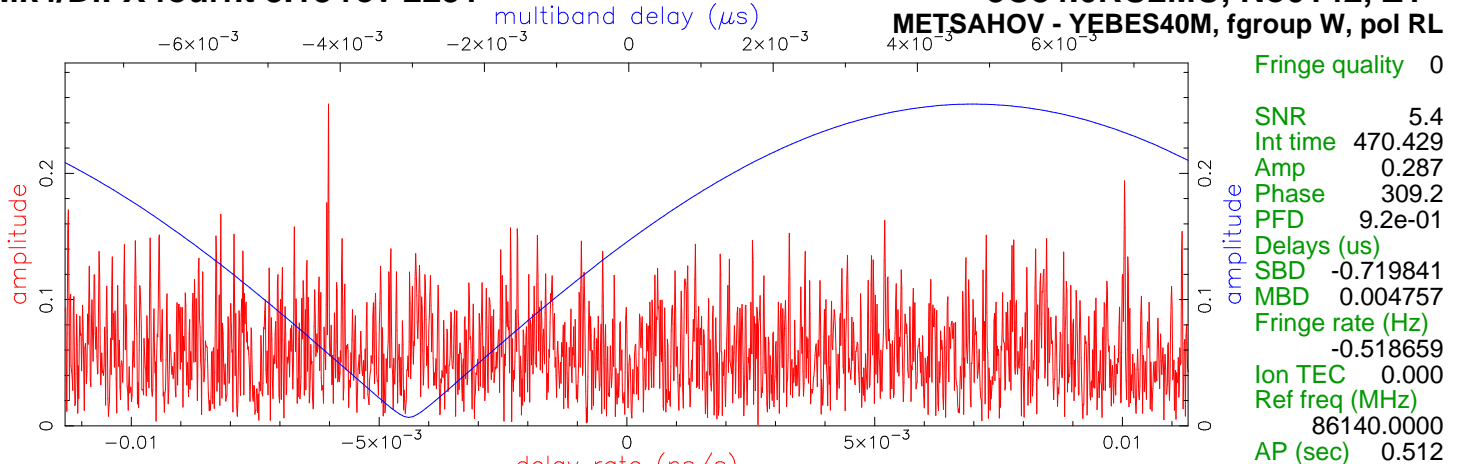
86156.00	86220.00	Freq (MHz)	All
139.4	138.7	Phase	139.1
0.3	0.3	Ampl.	0.3
130.6	131.7	Sbd box	131.2
U/L 920/0	920/0	APs used	
Z 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
Z:Y 0:0	0:0	PC phase	
Z:Y 0:0	0:0	Mani PC	
Z 1000	1000	PC amp	
Y 1000	1000		
Z W01UL	W03UL	Chan ids	
Y W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.89960586371E+03	Apriori delay (usec)	-2.89962558751E+03	Resid mbdelay (usec)	4.09880E-03	+/-	9.2E-04
Sband delay (usec)	-2.89960839101E+03	Apriori clock (usec)	-6.9310923E+00	Resid sbdelay (usec)	1.71965E-02	+/-	3.2E-03
Phase delay (usec)	-2.89962558302E+03	Apriori clockrate (us/s)	-1.9299999E-07	Resid phdelay (usec)	4.48438E-06	+/-	6.9E-07
Delay rate (us/s)	1.38521964821E-01	Apriori rate (us/s)	1.38514271716E-01	Resid rate (us/s)	7.69310E-06	+/-	2.5E-09
Total phase (deg)	10.2	Apriori accel (us/s/s)	3.17388209760E-05	Resid phase (deg)	49.1	+/-	21.3

ph/seg (deg)	72.4	Theor.	89.7	Amplitude	0.313 +/- 0.058	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	146.0	Search (2048X8)	0.249	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	Interp.	0.000	Inc. seg. avg.	0.279	Bits/sample:	2x2	SampCntNorm:	enabled
amp/frq (%)	3.4	Inc. frq. avg.	0.301	Inc. frq. avg.	0.301	Sample rate(MSamp/s):	64	mb window (us)	-0.008 0.008
						Data rate(Mb/s):	256	dr window (ns/s)	-0.011 0.011
						nlags:	128	ion window (TEC)	0.00 0.00
						t_cohere:	infinite		

Z: az 286.3 el 39.9 pa 39.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -1008.984 3669.841 simultaneous interpolator

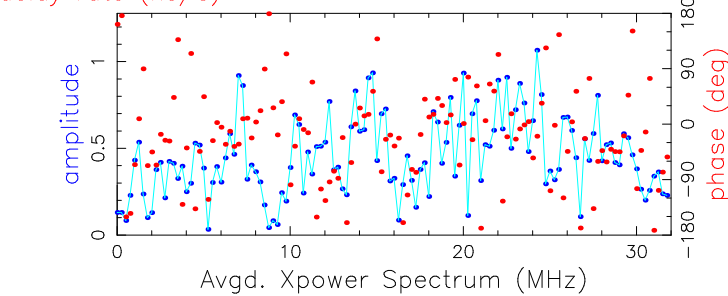
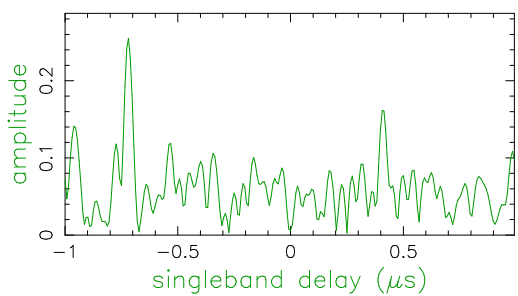
Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZY.W.260.0RU2MU



Fringe quality 0

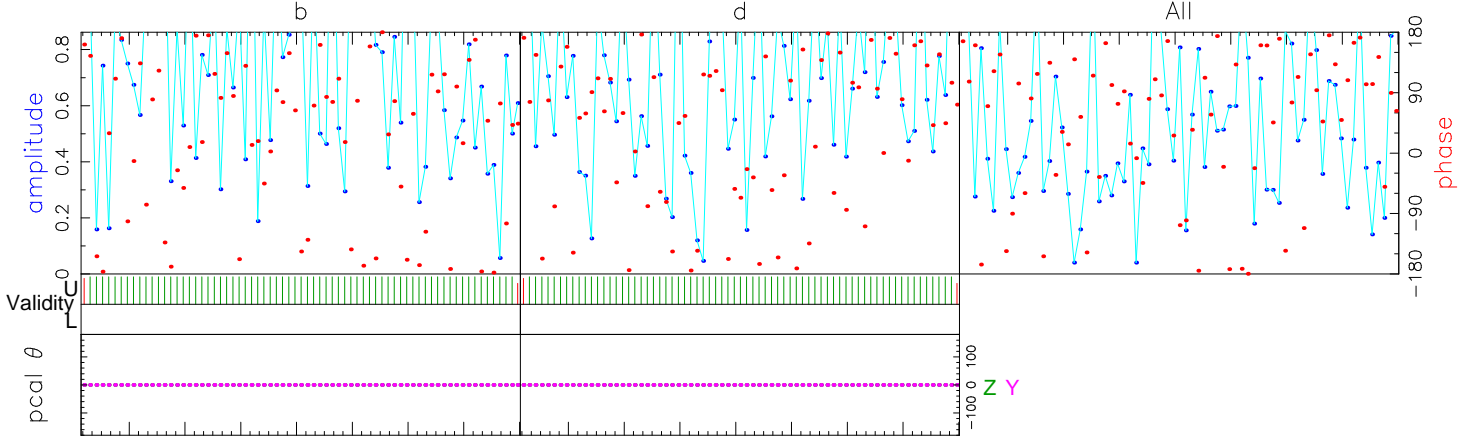
SNR 5.4
 Int time 470.429
 Amp 0.287
 Phase 309.2
 PFD 9.2e-01
 Delays (us)
 SBD -0.719841
 MBD 0.004757
 Fringe rate (Hz)
 -0.518659
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.23
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150845
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"



Avgd. Xpower Spectrum (MHz)

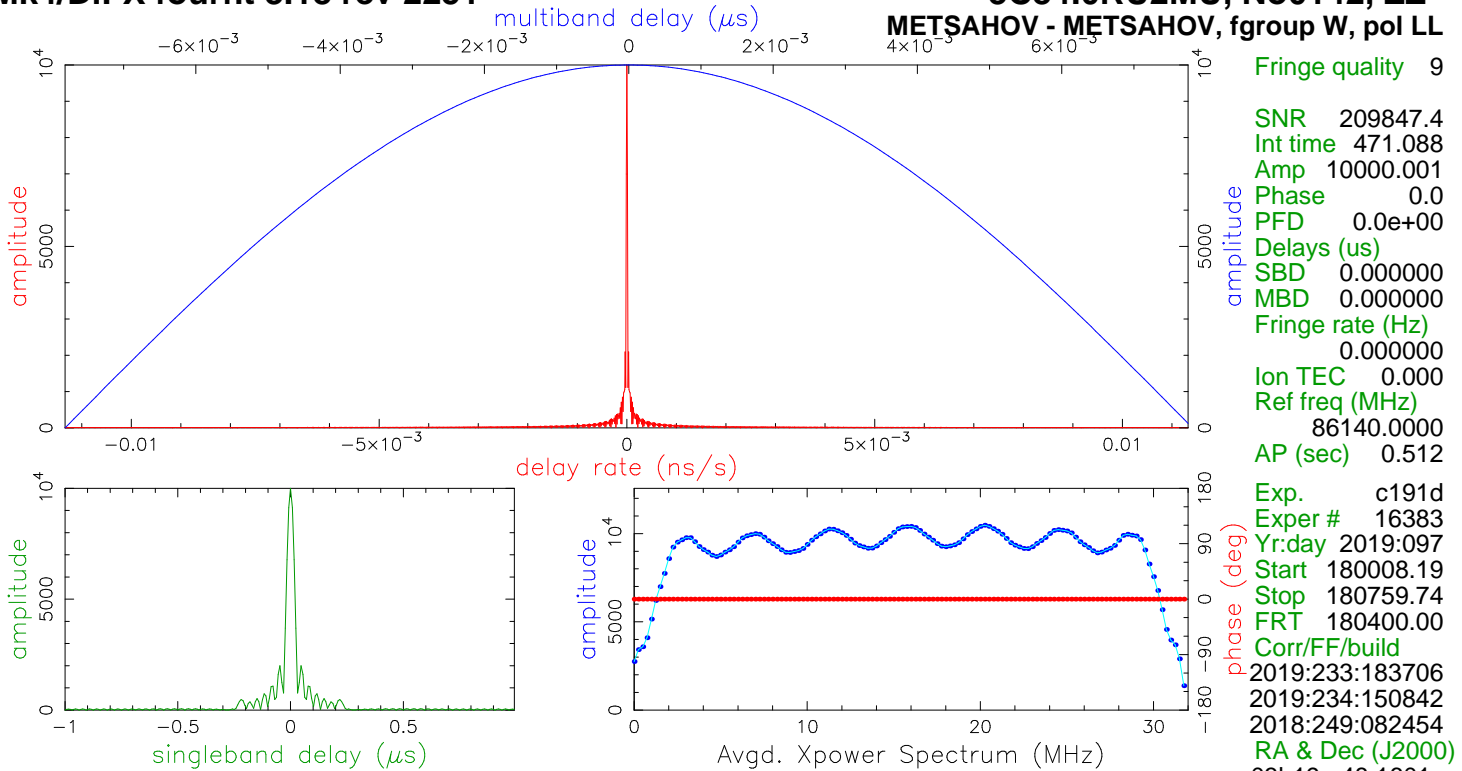
Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



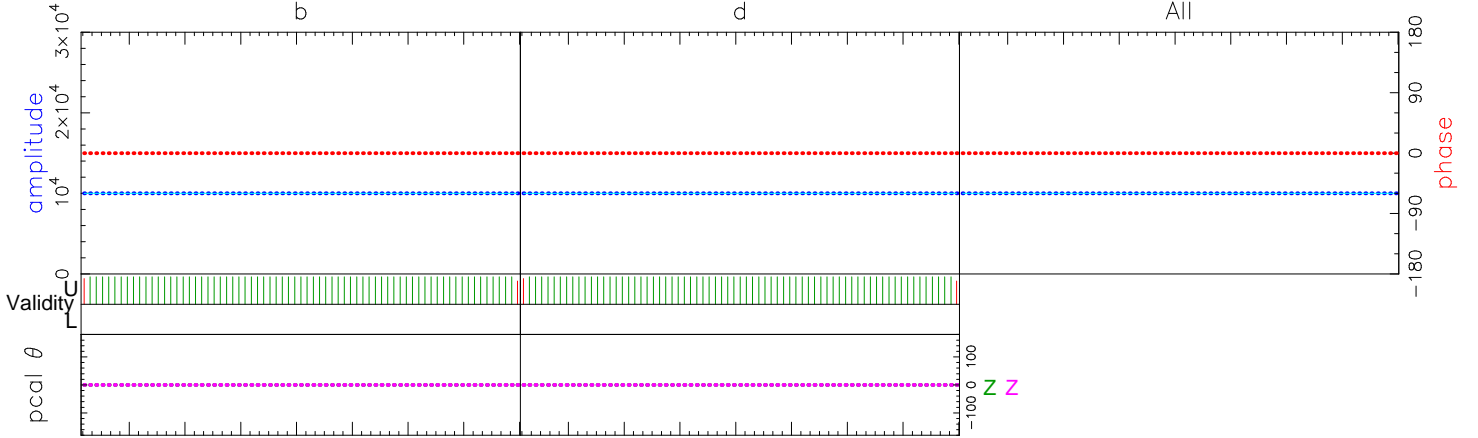
86156.00	86220.00	Freq (MHz)	All
129.1	129.3	Phase	129.2
0.3	0.3	Ampl.	0.3
35.8	38.0	Sbd box	36.9
U/L 920/0	920/0	APs used	
Z 1000	1000	PC freqs	
Y 1000	1000	PC freqs	
Z:Y 0:0	0:0	PC phase	
Z:Y 0:0	0:0	ManI PC	
Z 1000	1000	PC amp	
Y 1000	1000		
Z W01UR	W03UR	Chan ids	
Y W01UL	W03UL	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	-2.90033958058E+03	Apriori delay (usec)	-2.89962558751E+03	Resid mbdelay (usec)	4.75692E-03	+/-	9.3E-04
Sband delay (usec)	-2.90034542801E+03	Apriori clock (usec)	-6.9310923E+00	Resid sbdelay (usec)	-7.19841E-01	+/-	3.2E-03
Phase delay (usec)	-2.89962558334E+03	Apriori clockrate (us/s)	-1.9299999E-07	Resid phdelay (usec)	4.16573E-06	+/-	6.9E-07
Delay rate (us/s)	1.38508250595E-01	Apriori rate (us/s)	1.38514271716E-01	Resid rate (us/s)	-6.02112E-06	+/-	2.5E-09
Total phase (deg)	270.4	Apriori accel (us/s/s)	3.17388209760E-05	Resid phase (deg)	309.2	+/-	21.4

ph/seg (deg) 79.9 90.2 Search (2048X8) 0.249 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 161.0 157.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 15.1 Inc. seg. avg. 0.273 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.6 26.4 Inc. frq. avg. 0.277 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 286.3 el 39.9 pa 39.7 Y: az 289.3 el 51.1 pa 73.9 u,v (fr/asec) -1008.984 3669.841 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZY..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZY.W.264.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



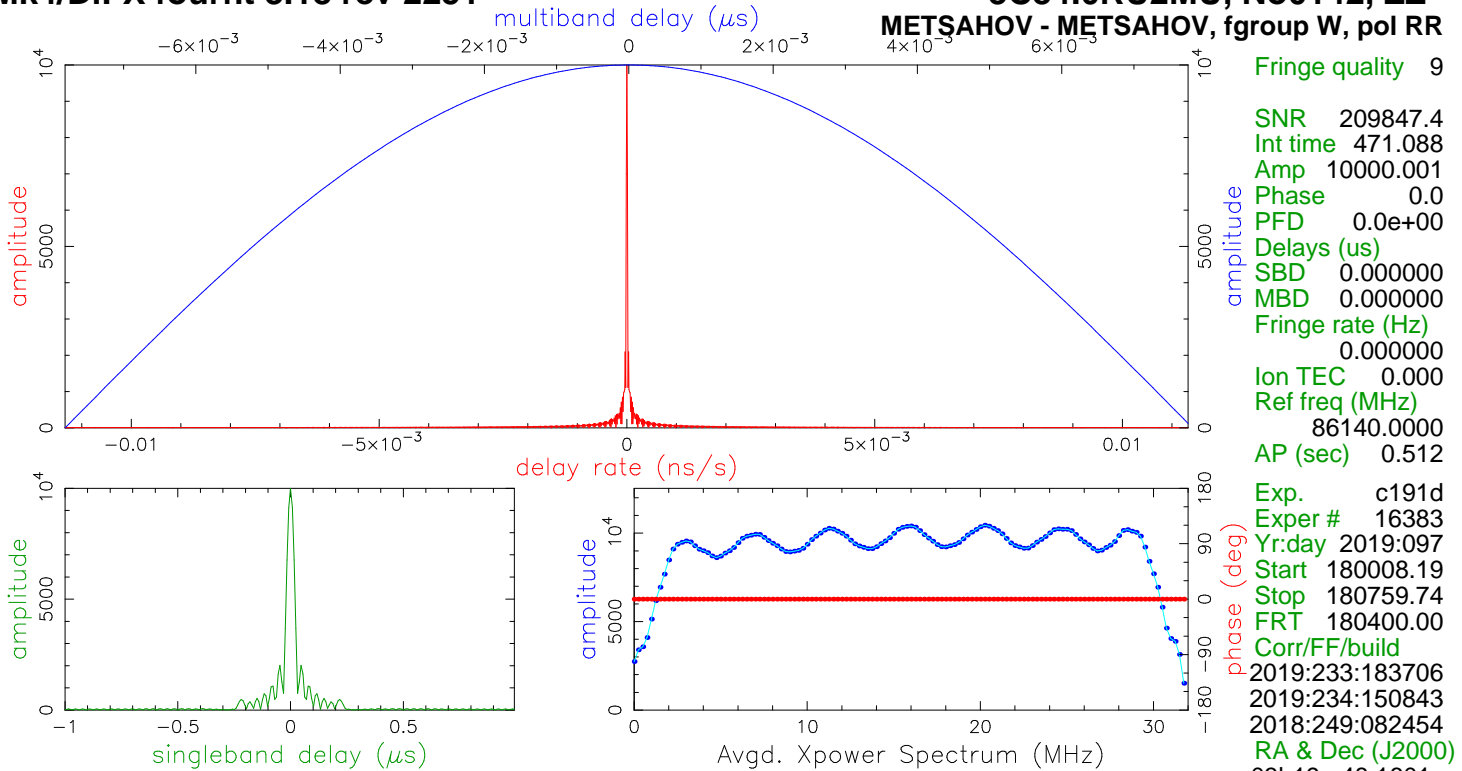
86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 921/0	921/0	APs used	
Z 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
Z:Z 0:0	0:0	PC phase	
Z:Z 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
Z 1000	1000		
Z W01UL	W03UL	Chan ids	
Z		Tracks	
Z W01UL	W03UL	Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.001 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
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)	-0.008	0.008
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
			0.0		0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s):	256	nlags:	128	t_cohere	infinite	

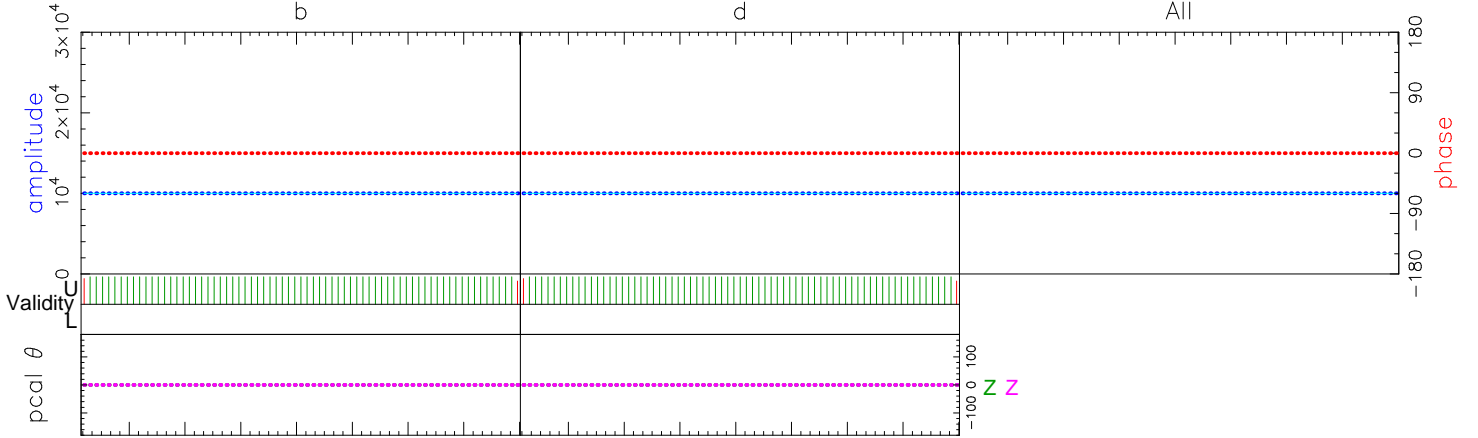
Z: az 286.3 el 39.9 pa 39.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZZ.W.237.0RU2MU



Fringe quality 9
 SNR 209847.4
 Int time 471.088
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150843
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec

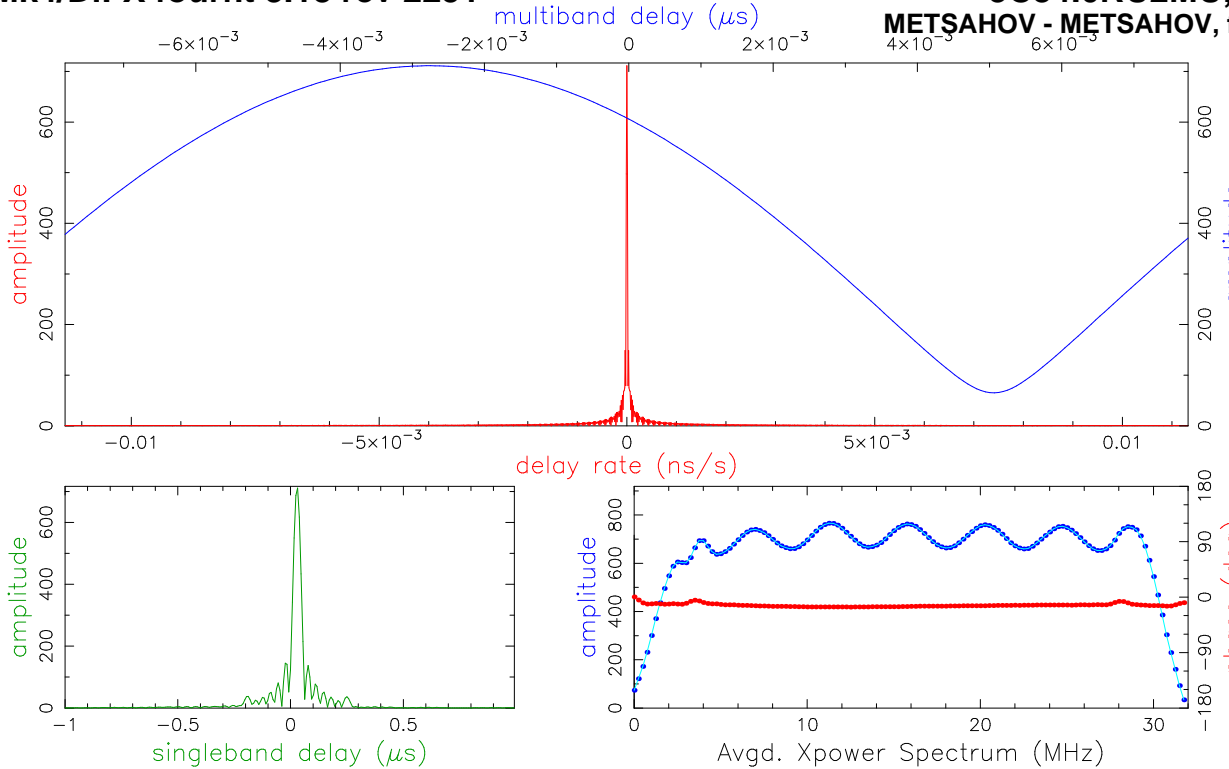


86156.00	86220.00	Freq (MHz)	All
0.0	0.0	Phase	0.0
10000.0	10000.0	Ampl.	10000.0
129.0	129.0	Sbd box	129.0
U/L 921/0	921/0	APs used	
Z 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
Z:Z 0:0	0:0	PC phase	
Z:Z 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
Z 1000	1000		
Z W01UR	W03UR	Chan ids	
Z W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.4E-08
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	8.2E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.8E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	10000.001 +/- 0.048	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
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)	-0.008	0.008
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):	256	nlags:	128	t_cohere	infinite	

Z: az 286.3 el 39.9 pa 39.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZZ.W.251.0RU2MU

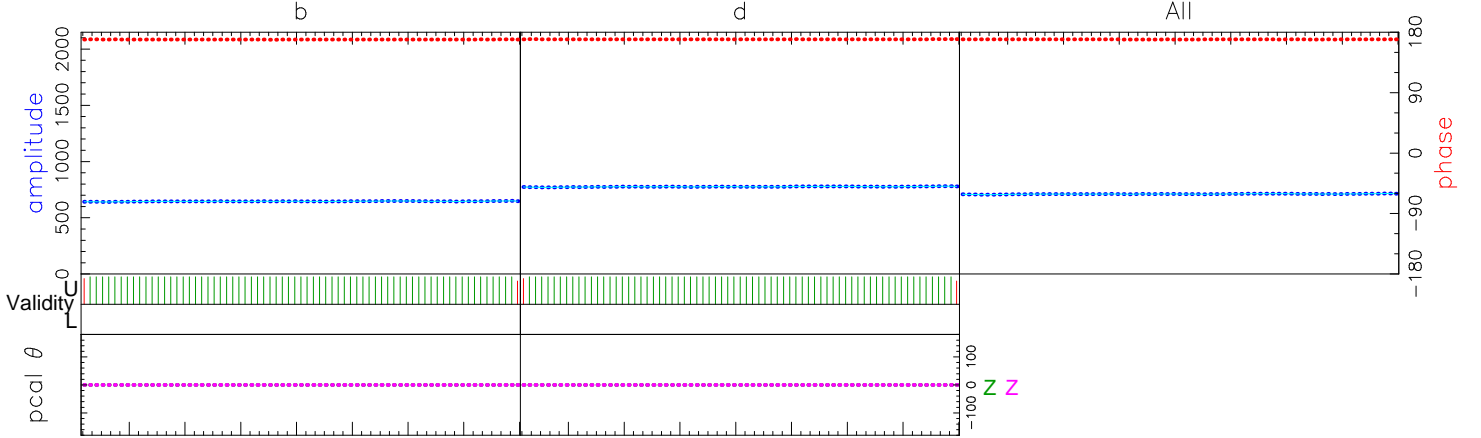


Fringe quality 9

SNR 15040.5
 Int time 471.088
 Amp 716.735
 Phase -10.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.028925
 MBD -0.002769
 Fringe rate (Hz)
 0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c191d
 Exper # 16383
 Yr:day 2019:097
 Start 180008.19
 Stop 180759.74
 FRT 180400.00
 Corr/FF/build
 2019:233:183706
 2019:234:150844
 2018:249:082454
 RA & Dec (J2000)
 03h19m48.1601s
 +41°30'42.104"

Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00	86220.00	Freq (MHz)	All
169.0	169.4	Phase	169.2
646.2	776.3	Ampl.	711.3
132.8	132.7	Sbd box	132.7
U/L 921/0	921/0	APs used	
Z 1000	1000	PC freqs	
Z 1000	1000	PC freqs	
Z:Z 0:0	0:0	PC phase	
Z:Z 0:0	0:0	Manl PC	
Z 1000	1000	PC amp	
Z 1000	1000		
Z W01UL	W03UL	Chan ids	
Z W01UR	W03UR	Tracks	
		Chan ids	
		Tracks	

Group delay (usec)(sbd) 2.84813750000E-02 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -2.76863E-03 +/- 3.3E-07

Sband delay (usec) 2.89245000000E-02 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 2.89245E-02 +/- 1.1E-06

Phase delay (usec) 5.45674307002E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 5.45674E-06 +/- 2.5E-10

Delay rate (us/s) 1.20454795329E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 1.20455E-11 +/- 9.0E-13

Total phase (deg) -10.8 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -10.8 +/- 0.0

RMS Theor. Amplitude 716.735 +/- 0.048 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

ph/seg (deg) 0.1 0.0 Search (2048X8) 702.133 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

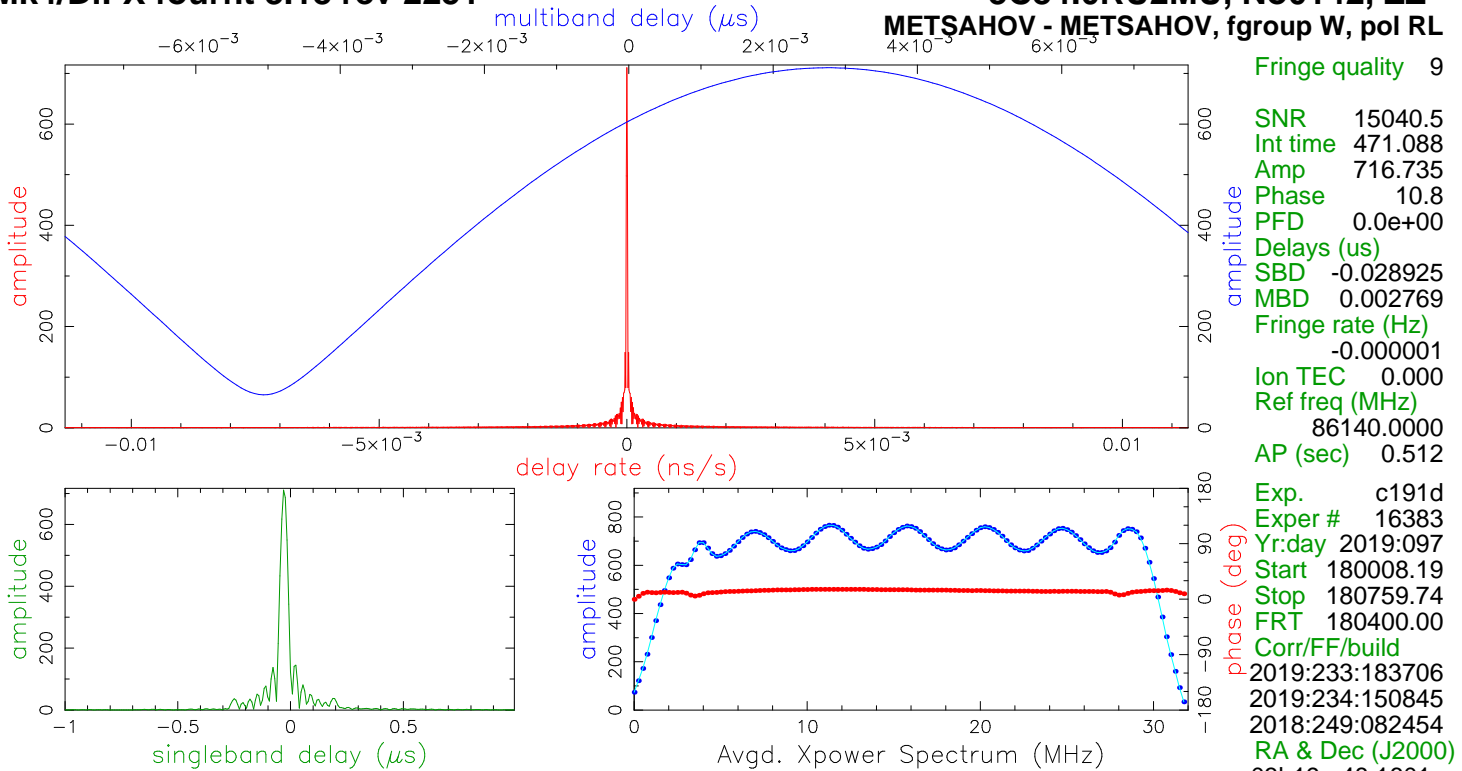
amp/seg (%) 0.8 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

ph/frq (deg) 0.0 0.0 Inc. seg. avg. 711.270 Sample rate(MSamp/s): 64 dr window (ns/s) -0.011 0.011

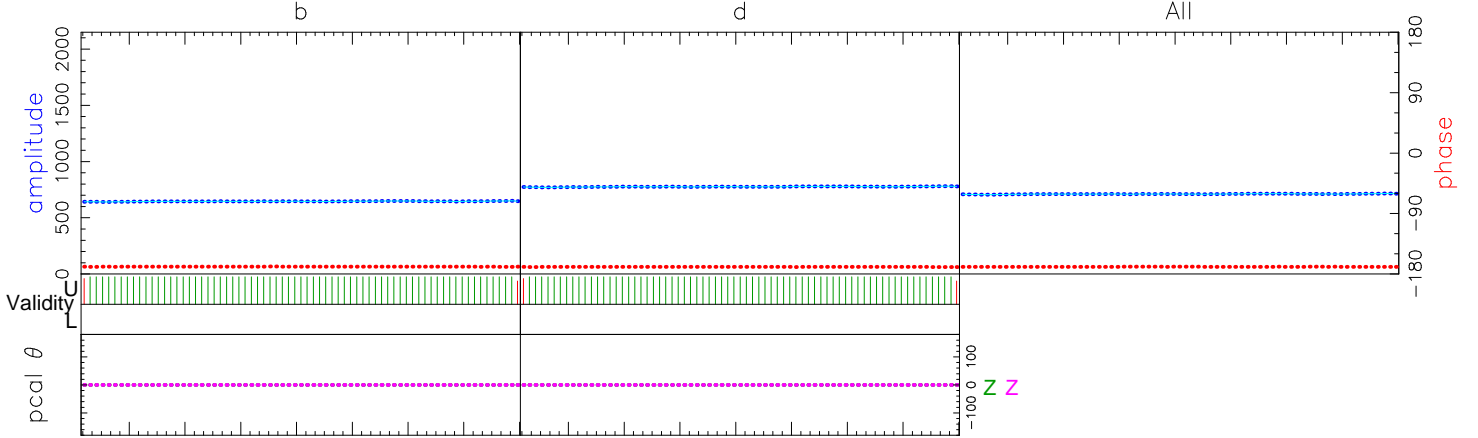
amp/frq (%) 9.1 0.0 Inc. frq. avg. 711.273 Data rate(Mb/s): 256 nlags: 128 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 286.3 el 39.9 pa 39.7 Z: az 286.3 el 39.9 pa 39.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c191d/v1/1234/No0142/ZZ..0RU2MU Output file: /Exps/c191d/v1/1234/No0142/ZZ.W.259.0RU2MU



Amp. and Phase vs. time for each freq., 71 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



86156.00		86220.00		Freq (MHz)		All
-169.0		-169.4		Phase		-169.2
646.2		776.3		Ampl.		711.3
125.2		125.3		Sbd box		125.3
U/L 921/0		921/0		APs used		
Z 1000		1000		PC freqs		
Z 1000		1000		PC freqs		
Z:Z 0:0		0:0		PC phase		
Z:Z 0:0		0:0		Mani PC		
Z 1000		1000		PC amp		
Z 1000		1000				
Z W01UR		W03UR		Chan ids		
Z W01UL		W03UL		Tracks		
				Chan ids		
				Tracks		
Group delay (usec)(sbd)	-2.84813750000E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.76863E-03	+/- 3.3E-07
Sband delay (usec)	-2.89245000000E-02	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.89245E-02	+/- 1.1E-06
Phase delay (usec)	-5.45674307011E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-5.45674E-06	+/- 2.5E-10
Delay rate (us/s)	-1.20454795329E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.20455E-11	+/- 9.0E-13
Total phase (deg)	10.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	10.8	+/- 0.0

ph/seg (deg)	0.1	0.0	Amplitude	716.735 +/- 0.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.8	0.1	Search (2048X8)	702.133	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	9.1	0.0	Inc. seg. avg.	711.270	Sample rate(MSamp/s): 64	mb window (us) -0.008 0.008
			Inc. frq. avg.	711.273	Data rate(Mb/s): 256	dr window (ns/s) -0.011 0.011
					nlags: 128	t_cohere infinite
						ion window (TEC) 0.00 0.00