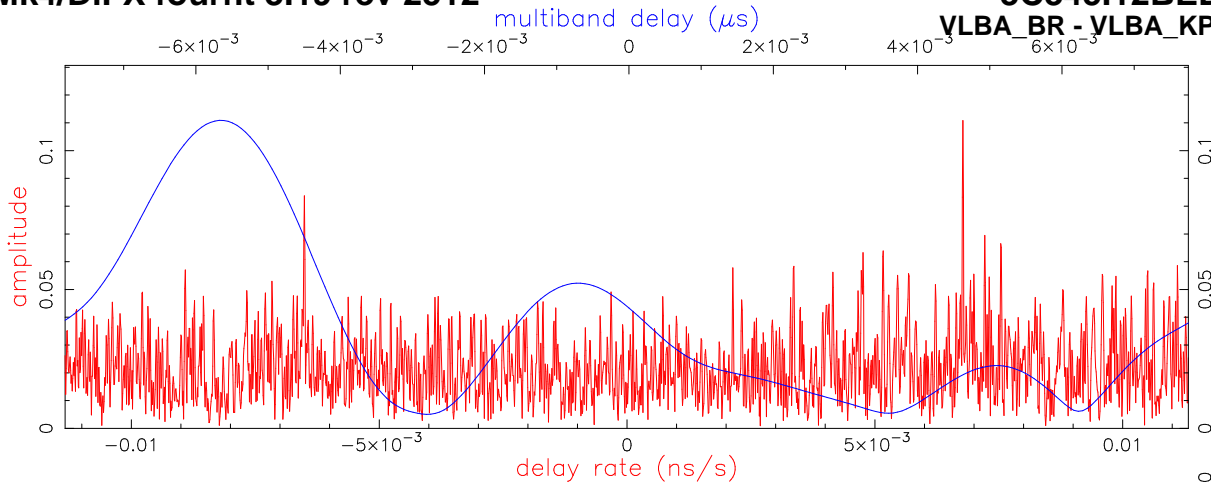
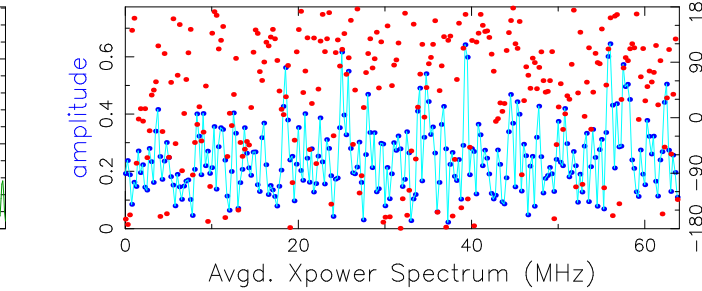
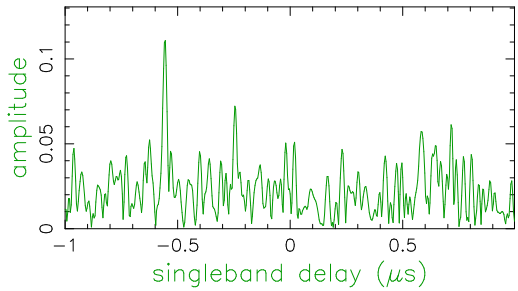


Mk4/DiFX fourfit 3.19 rev 2512

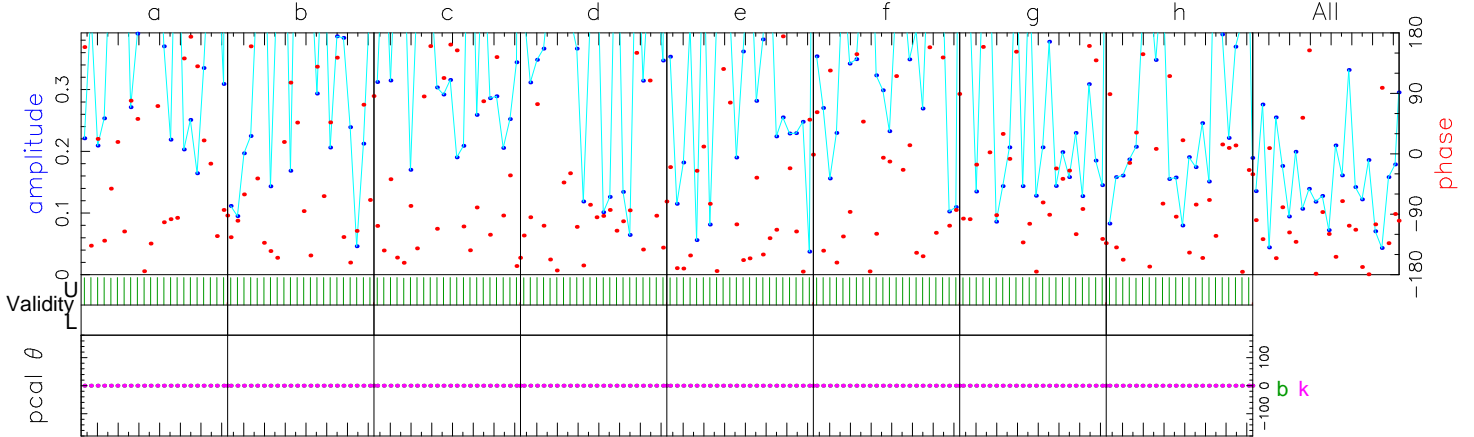
3C345.12BED8, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol LL



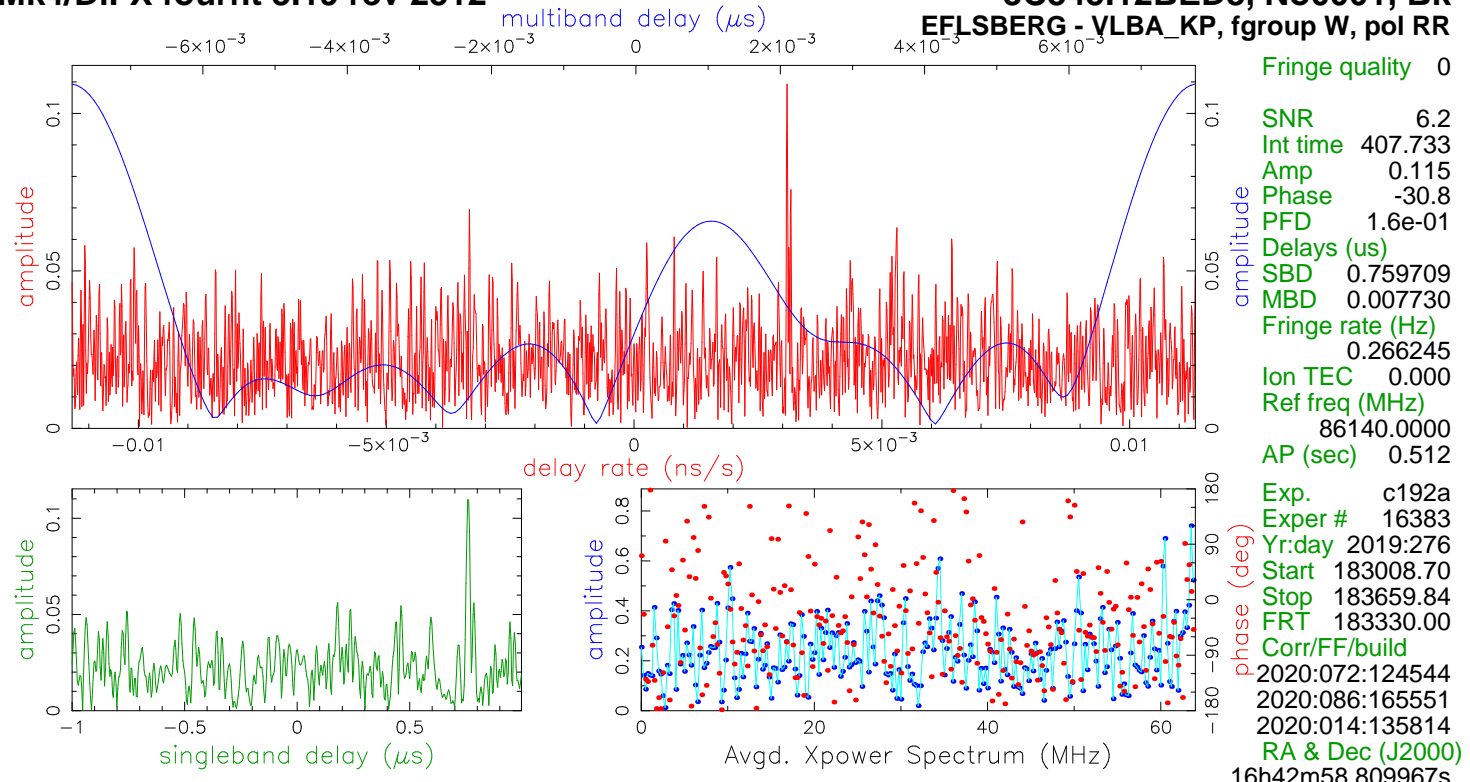
Fringe quality 0
SNR 6.2
Int time 406.536
Amp 0.131
Phase -126.4
PFD 1.5e-01
Delays (us)
SBD -0.556303
MBD -0.005688
Fringe rate (Hz) 0.584659
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165547
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"



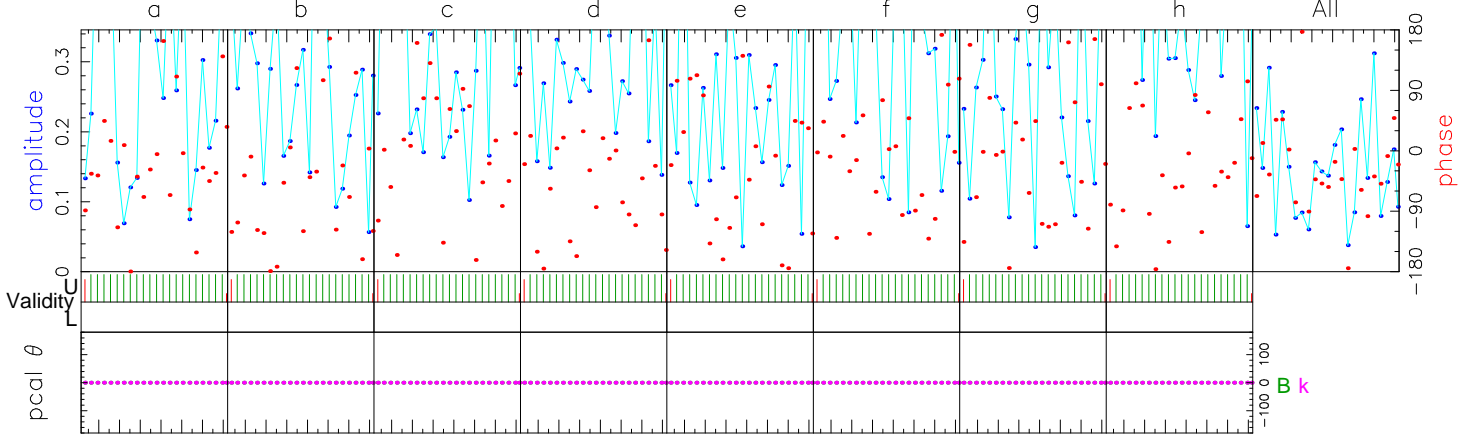
Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-103.2	-105.2	-155.4	-119.1	-145.7	-166.3	-103.1	-83.6	Phase	-126.4	
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1	
	262.5	349.6	114.4	114.1	255.9	196.3	376.5	403.0	Sbd box	114.6	
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec)(sbd)	5.14017659863E+02		Apriori delay (usec)		5.14570222991E+02		Resid mbdelay (usec)		-5.68813E-03	+/- 1.8E-04	
Sband delay (usec)	5.14013919741E+02		Apriori clock (usec)		-2.1077624E-01		Resid sbdelay (usec)		-5.56303E-01	+/- 1.4E-03	
Phase delay (usec)	5.14570218915E+02		Apriori clockrate (us/s)		-4.7816091E-08		Resid phdelay (usec)		-4.07641E-06	+/- 6.0E-07	
Delay rate (us/s)	-1.77847559692E-01		Apriori rate (us/s)		-1.77854347007E-01		Resid rate (us/s)		6.78732E-06	+/- 2.5E-09	
Total phase (deg)			Apriori accel (us/s/s)		1.28049038570E-05		Resid phase (deg)		-126.4	+/- 18.5	
	RMS	Theor.	Amplitude	0.131 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	65.4	44.4	Search (2048X32)	0.109		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	73.2	77.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	32.2	26.2	Inc. seg. avg.	0.137		Sample rate(MISamp/s): 128				dr window (ns/s)	-0.011 0.011
amp/frq (%)	45.1	45.7	Inc. frq. avg.	0.129		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-23.7	-105.0	-8.2	-47.7	4.9	-26.8	-35.5	-28.5	Phase	-30.8
	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	Ampl.	0.1
	350.7	297.6	41.2	452.2	375.7	451.3	318.0	173.3	Sbd box	451.5
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.17952769380E+03		Apriori delay (usec)		6.17876996376E+03		Resid mbdelay (usec)		7.73003E-03	+/- 1.8E-04
Sband delay (usec)	6.17952967326E+03		Apriori clock (usec)		1.7240984E+01		Resid sbdelay (usec)		7.59709E-01	+/- 1.4E-03
Phase delay (usec)	6.17876996277E+03		Apriori clockrate (us/s)		-5.4210100E-09		Resid phdelay (usec)		-9.93285E-07	+/- 6.0E-07
Delay rate (us/s)	-1.51428628786E+00		Apriori rate (us/s)		-1.51428937870E+00		Resid rate (us/s)		3.09084E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.52513005341E-05		Resid phase (deg)		-30.8	+/- 18.6

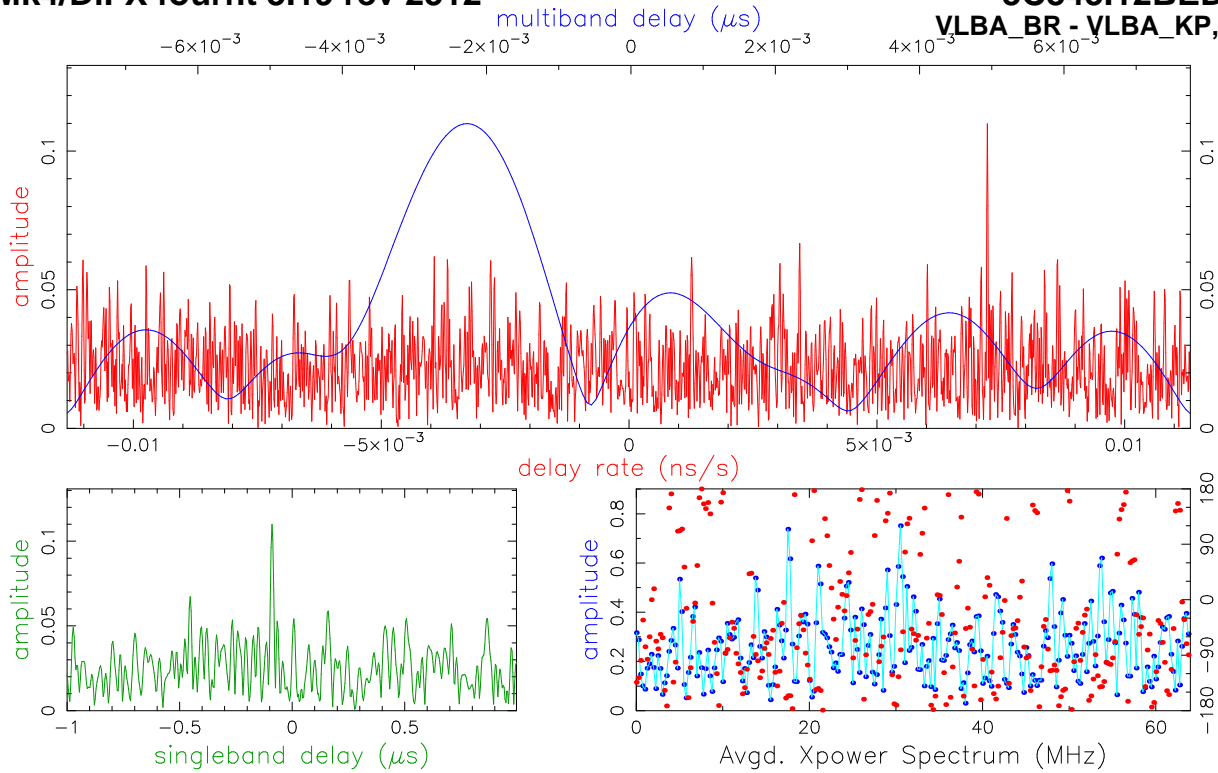
	RMS	Theor.	Amplitude	0.115 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	60.2	44.5	Search (2048X32)	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	75.2	77.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	35.7	26.3	Inc. seg. avg.	0.119	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	34.2	45.8	Inc. frq. avg.	0.112	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 269.2 el 56.7 pa 55.8 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 11261.152 517.591 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/Bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/Bk.W.28.12BED8

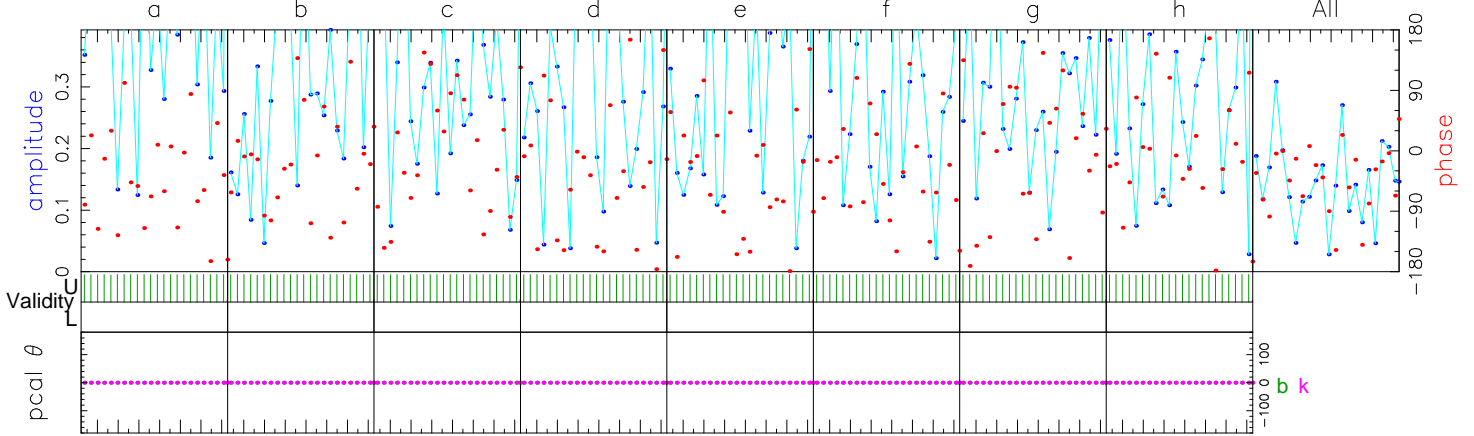
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, bk
VLBA_BR - VLBA_KP, fgroup W, pol RR



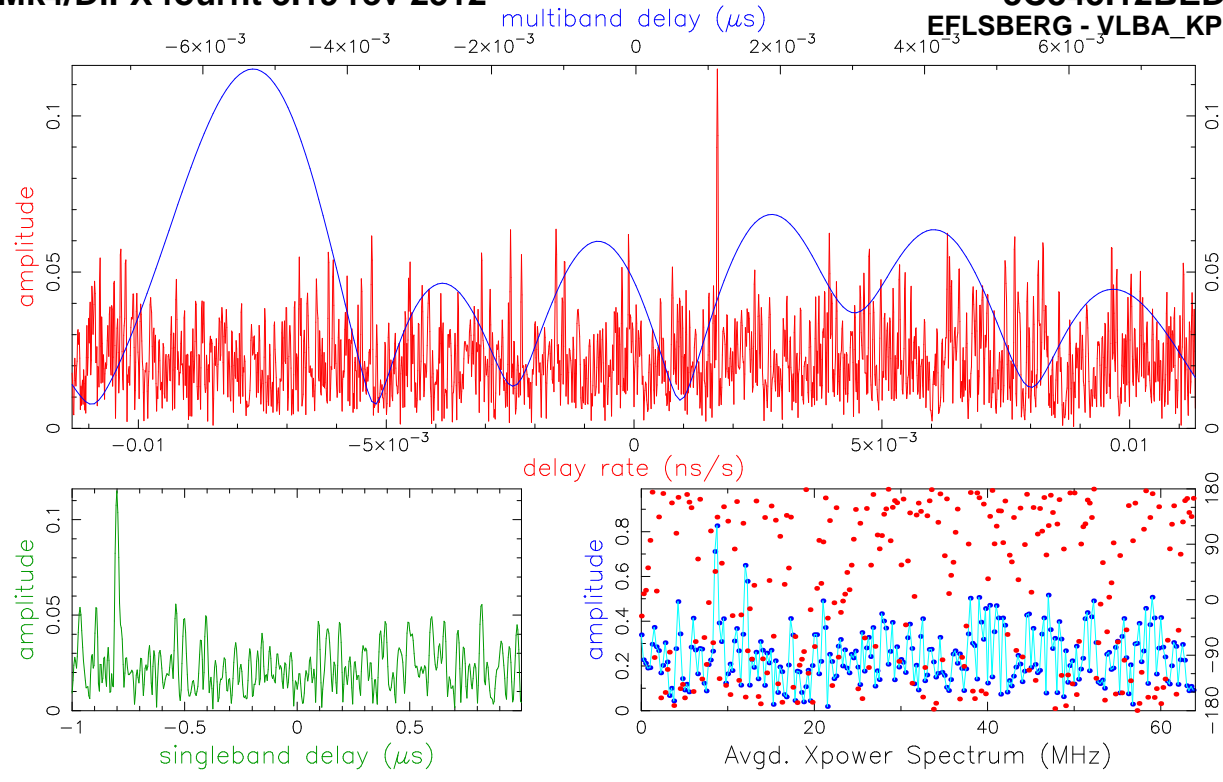
Fringe quality 0
SNR 6.1
Int time 406.536
Amp 0.131
Phase -32.3
PFD 2.9e-01
Delays (us)
SBD -0.089398
MBD -0.002247
Fringe rate (Hz) 0.623666
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165552
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-30.2	-25.2	-21.9	-28.4	-73.8	-45.0	17.1	-23.4	Phase	-32.3
	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.1	Ampl.	0.1
	233.7	328.7	151.6	140.3	299.3	253.2	510.3	170.6	Sbd box	234.1
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.14474226322E+02		Apriori delay (usec)		5.14570222991E+02		Resid mbdelay (usec)		-2.24667E-03	+/- 1.8E-04
Sband delay (usec)	5.14480825241E+02		Apriori clock (usec)		-2.1077624E-01		Resid sbdelay (usec)		-8.93978E-02	+/- 1.4E-03
Phase delay (usec)	5.14570221949E+02		Apriori clockrate (us/s)		-4.7816091E-08		Resid phdelay (usec)		-1.04262E-06	+/- 6.1E-07
Delay rate (us/s)	-1.77847106868E-01		Apriori rate (us/s)		-1.77854347007E-01		Resid rate (us/s)		7.24014E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		1.28049038570E-05		Resid phase (deg)		-32.3	+/- 18.9

ph/seg (deg) 46.8 45.3 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 69.5 79.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 27.7 26.7 Inc. seg. avg. 0.133 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 44.1 46.6 Inc. frq. avg. 0.124 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 66.1 el 33.9 pa -52.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 1350.630 2287.184 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/bk.W.34.12BED8

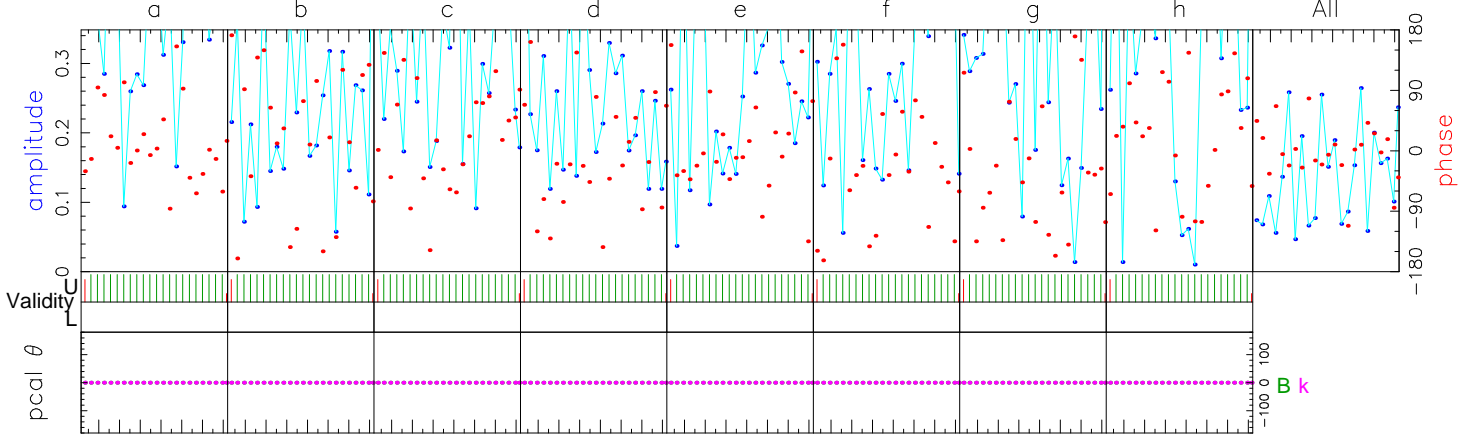


Fringe quality 0

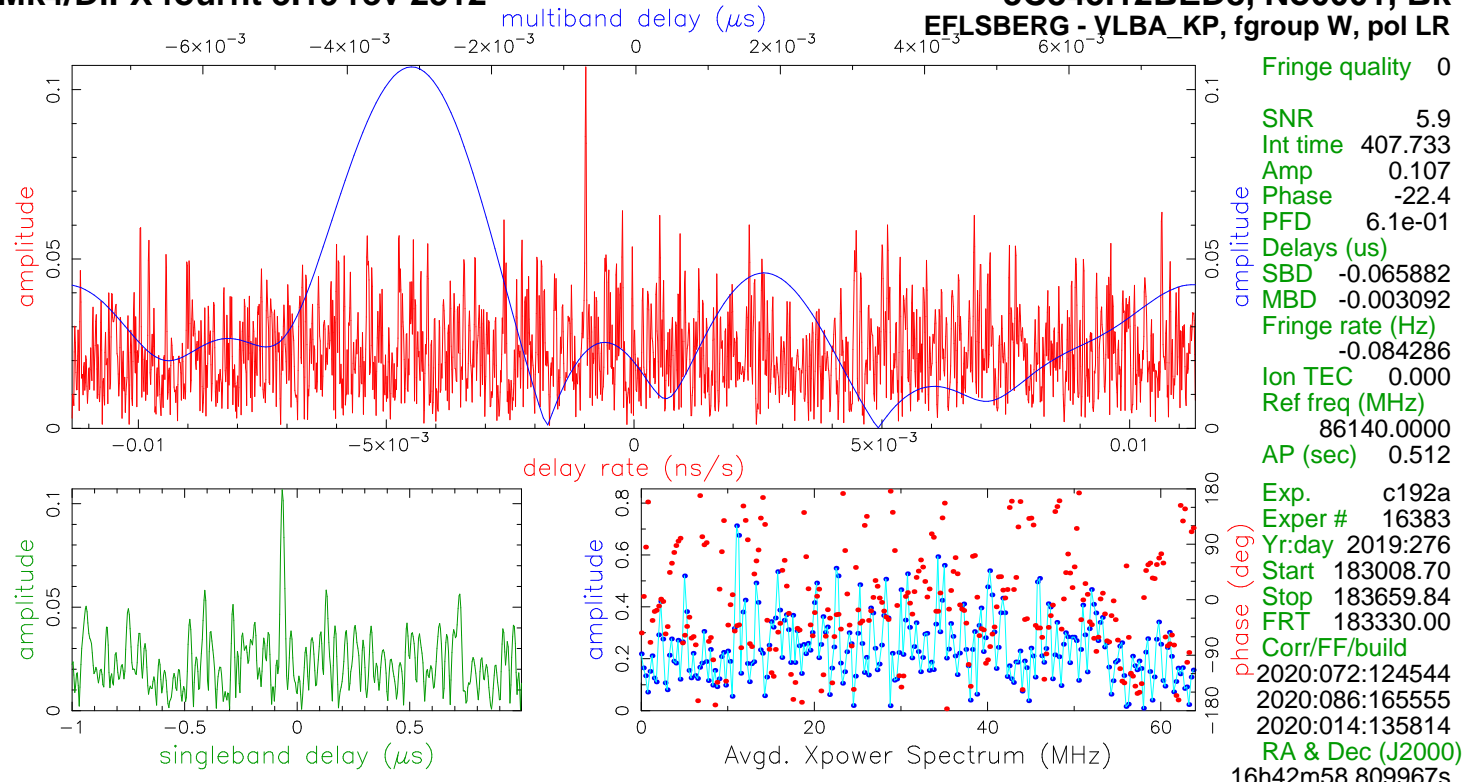
SNR 6.4
Int time 407.733
Amp 0.116
Phase -4.5
PFD 5.5e-02
Delays (us)
SBD -0.801248
MBD -0.005331
Fringe rate (Hz) 0.144806
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165546
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

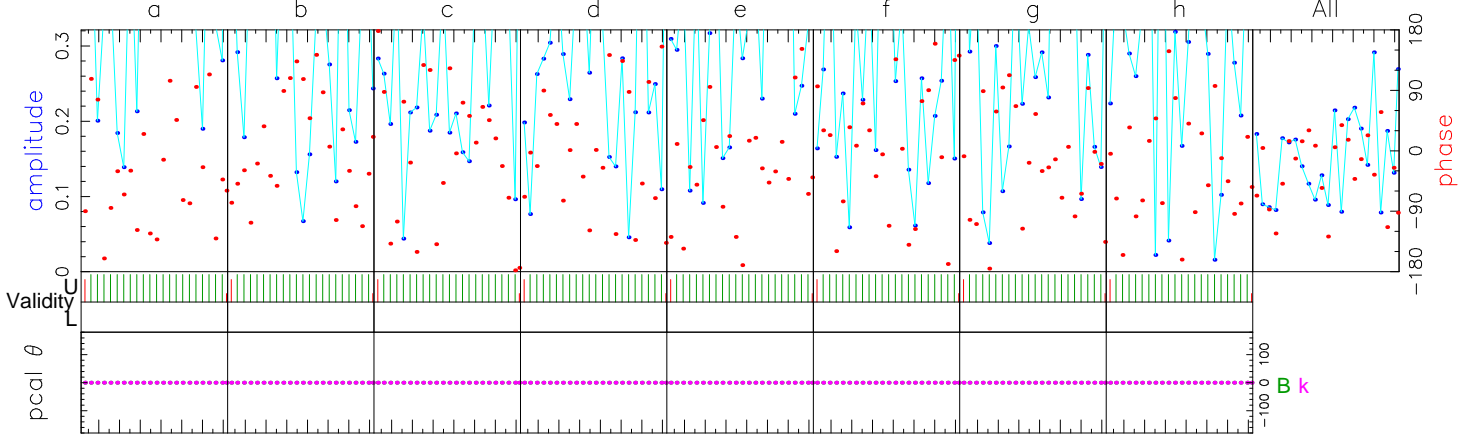
Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	6.17796775730E+03				6.17876996376E+03					
Sband delay (usec)	6.17796871601E+03				1.7240984E+01					
Phase delay (usec)	6.17876996362E+03				-5.4210100E-09					
Delay rate (us/s)	-1.51428769765E+00				-1.51428937870E+00					
Total phase (deg)			239.8		-1.52513005341E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	41.9	43.2			0.111					
Theor.										
Amplitude					0.116 +/- 0.018					
Search (2048X32)					0.111					
Interp.					0.000					
Inc. seg. avg.					0.106					
Inc. frq. avg.					0.125					
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

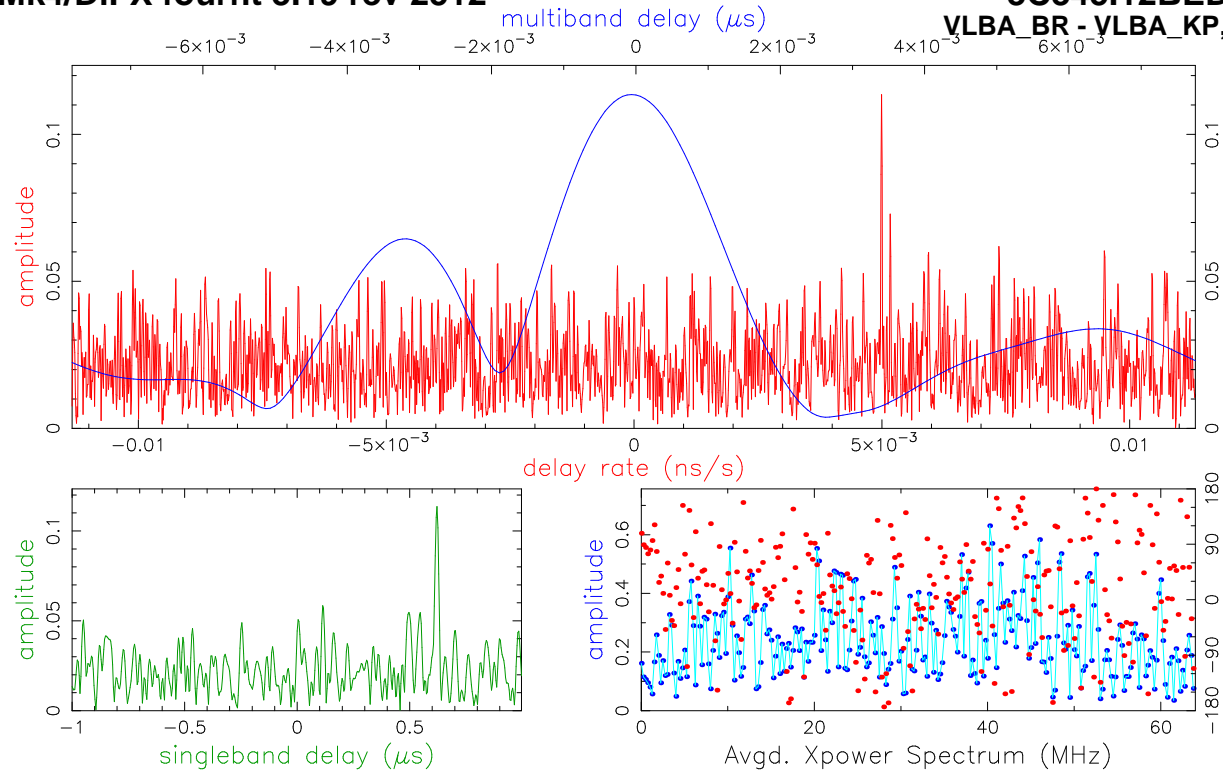


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-55.7	-9.2	12.3	-16.5	-30.5	24.6	-17.5	-42.2	Phase	-22.4
	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.2	Ampl.	0.1
	12.4	273.8	287.1	153.5	337.4	94.1	308.0	32.9	Sbd box	240.1
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.17870437205E+03		Apriori delay (usec)		6.17876996376E+03		Resid mbdelay (usec)		-3.09171E-03	+/- 1.8E-04
Sband delay (usec)	6.17870408126E+03		Apriori clock (usec)		1.7240984E+01		Resid sbdelay (usec)		-6.58825E-02	+/- 1.5E-03
Phase delay (usec)	6.17876996304E+03		Apriori clockrate (us/s)		-5.4210100E-09		Resid phdelay (usec)		-7.21310E-07	+/- 6.3E-07
Delay rate (us/s)	-1.51429035718E+00		Apriori rate (us/s)		-1.51428937870E+00		Resid rate (us/s)		-9.78481E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.52513005341E-05		Resid phase (deg)		-22.4	+/- 19.4

	RMS	Theor.	Amplitude	0.107 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	52.5	46.5	Search (2048X32)	0.102	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	67.3	81.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	29.4	27.5	Inc. seg. avg.	0.113	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.4	47.9	Inc. frq. avg.	0.103	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

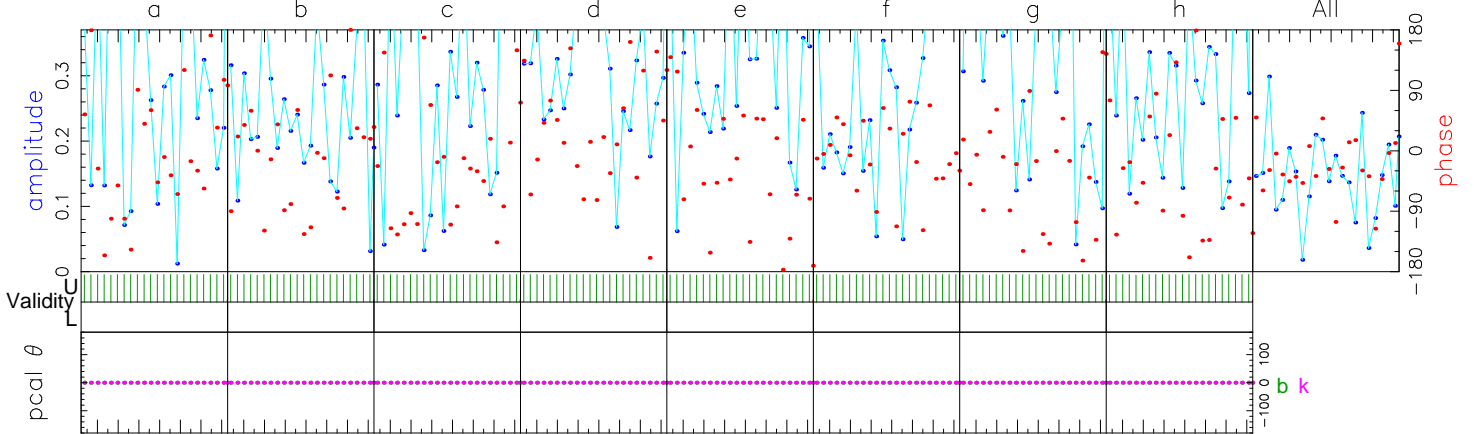
B: az 269.2 el 56.7 pa 55.8 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 11261.152 517.591 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/Bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/Bk.W.48.12BED8



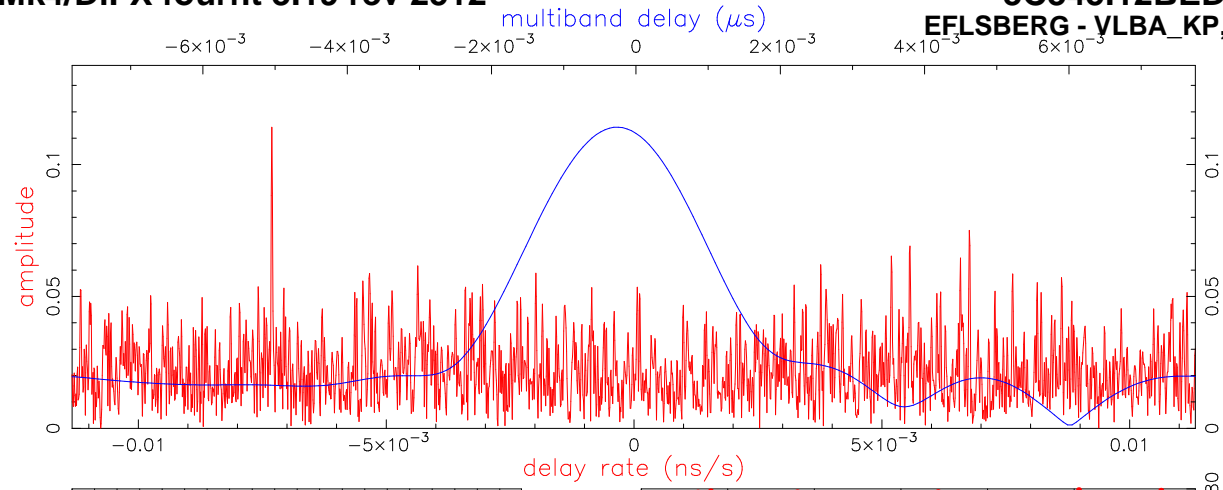
Fringe quality 0
SNR 6.3
Int time 406.536
Amp 0.123
Phase -23.1
PFD 9.1e-02
Delays (us)
SBD 0.620443
MBD -0.000063
Fringe rate (Hz) 0.431018
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165556
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.2	-20.9	-71.8	9.3	-6.5	-7.4	-28.9	-48.2	Phase	-23.1
	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	396.5	13.1	122.2	249.5	15.2	415.7	197.0	192.2	Sbd box	415.8
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.15195159911E+02		Apriori delay (usec)		5.14570222991E+02		Resid mbdelay (usec)		-6.30802E-05	+/- 1.7E-04
Sband delay (usec)	5.15190666241E+02		Apriori clock (usec)		-2.1077624E-01		Resid sbdelay (usec)		6.20443E-01	+/- 1.4E-03
Phase delay (usec)	5.14570222245E+02		Apriori clockrate (us/s)		-4.7816091E-08		Resid phdelay (usec)		-7.45945E-07	+/- 5.9E-07
Delay rate (us/s)	-1.77849343317E-01		Apriori rate (us/s)		-1.77854347007E-01		Resid rate (us/s)		5.00369E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.28049038570E-05		Resid phase (deg)		-23.1	+/- 18.3

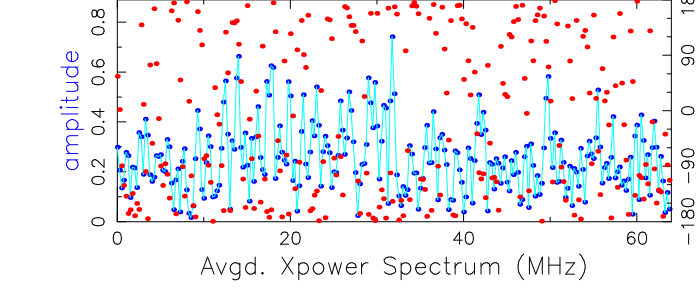
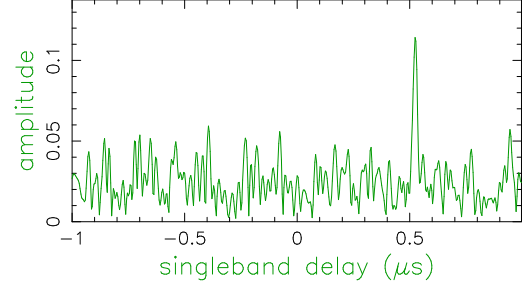
ph/seg (deg) 41.4 43.8 Search (2048X32) 0.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.3 76.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 29.0 25.8 Inc. seg. avg. 0.121 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 41.5 45.1 Inc. frq. avg. 0.125 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 66.1 el 33.9 pa -52.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 1350.630 2287.184 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/bk.W.53.12BED8



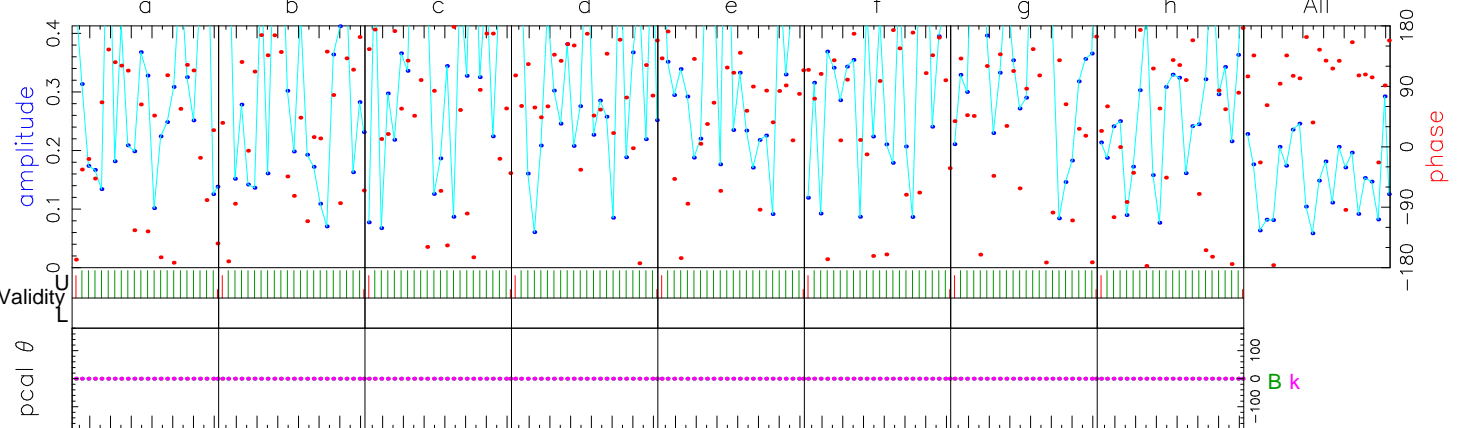
Fringe quality 0

SNR 6.4
Int time 407.733
Amp 0.138
Phase 116.7
PFD 5.3e-02
Delays (us)
SBD 0.524857
MBD -0.000240
Fringe rate (Hz)
-0.630333
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165559
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

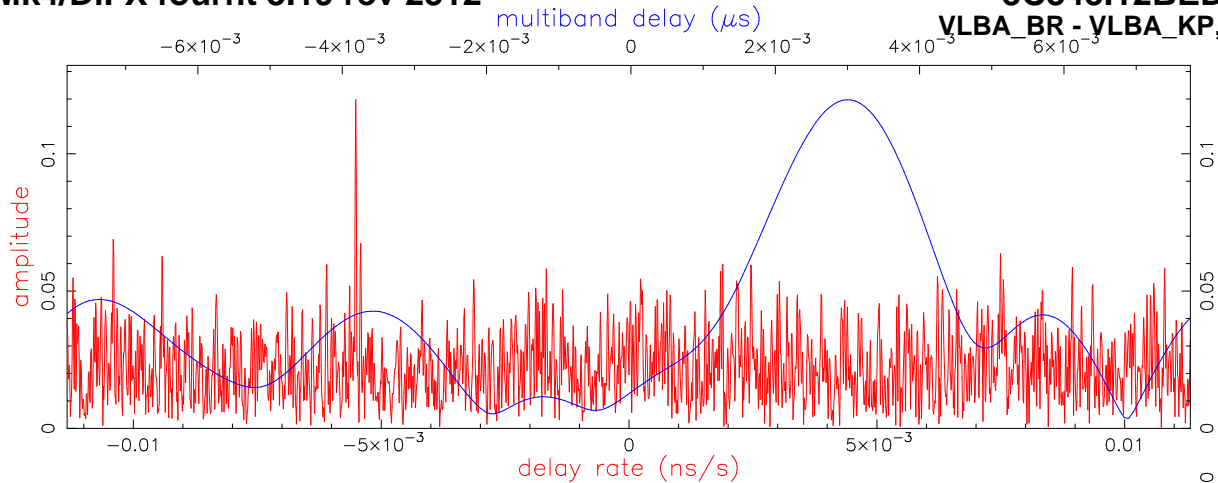


Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



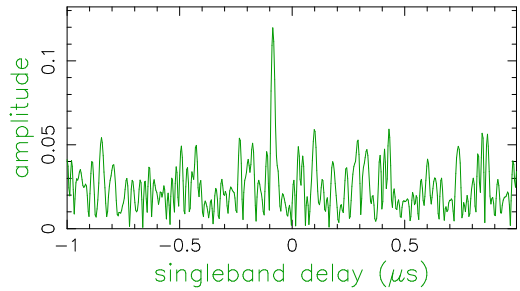
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	125.9	143.2	119.4	107.3	89.1	127.5	113.8	145.3	Phase	116.7
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	444.0	58.0	154.1	391.8	157.5	454.1	386.0	74.7	Sbd box	391.4
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.17930097329E+03		Apriori delay (usec)		6.17876996376E+03		Resid mbdelay (usec)		-2.40475E-04	+/- 1.7E-04
Sband delay (usec)	6.17929482101E+03		Apriori clock (usec)		1.7240984E-01		Resid sbdelay (usec)		5.24857E-01	+/- 1.4E-03
Phase delay (usec)	6.17876996753E+03		Apriori clockrate (us/s)		-5.4210100E-09		Resid phdelay (usec)		3.76417E-06	+/- 5.8E-07
Delay rate (us/s)	-1.51429669624E+00		Apriori rate (us/s)		-1.51428937870E+00		Resid rate (us/s)		-7.31754E-06	+/- 2.5E-09
Total phase (deg)	1.0		Apriori accel (us/s/s)		-1.52513005341E-05		Resid phase (deg)		116.7	+/- 18.0

ph/seg (deg) 61.5 43.2 Search (2048X32) 0.112 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.2 75.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.8 25.5 Inc. seg. avg. 0.144 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.1 44.5 Inc. frq. avg. 0.130 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 269.2 el 56.7 pa 55.8 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 11261.152 517.591 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/Bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/Bk.W.67.12BED8

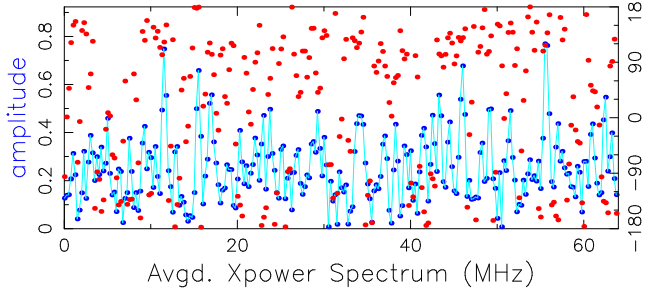


Fringe quality 0

SNR 6.6
Int time 406.536
Amp 0.132
Phase -169.5
PFD 1.2e-02
Delays (us)
SBD -0.085770
MBD 0.003005
Fringe rate (Hz)
-0.475183
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

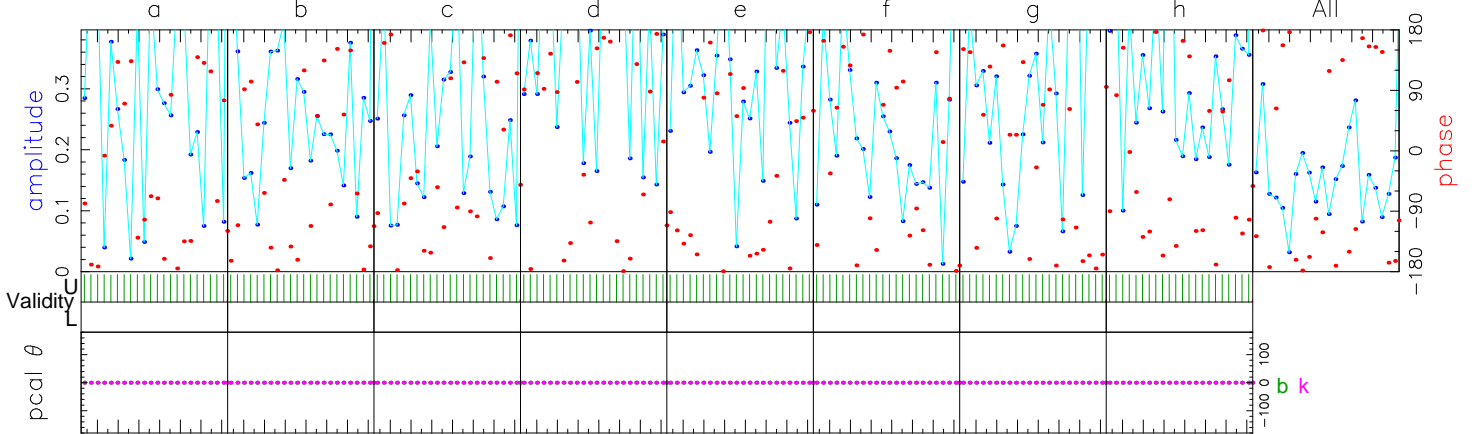


delay rate (ns/s)



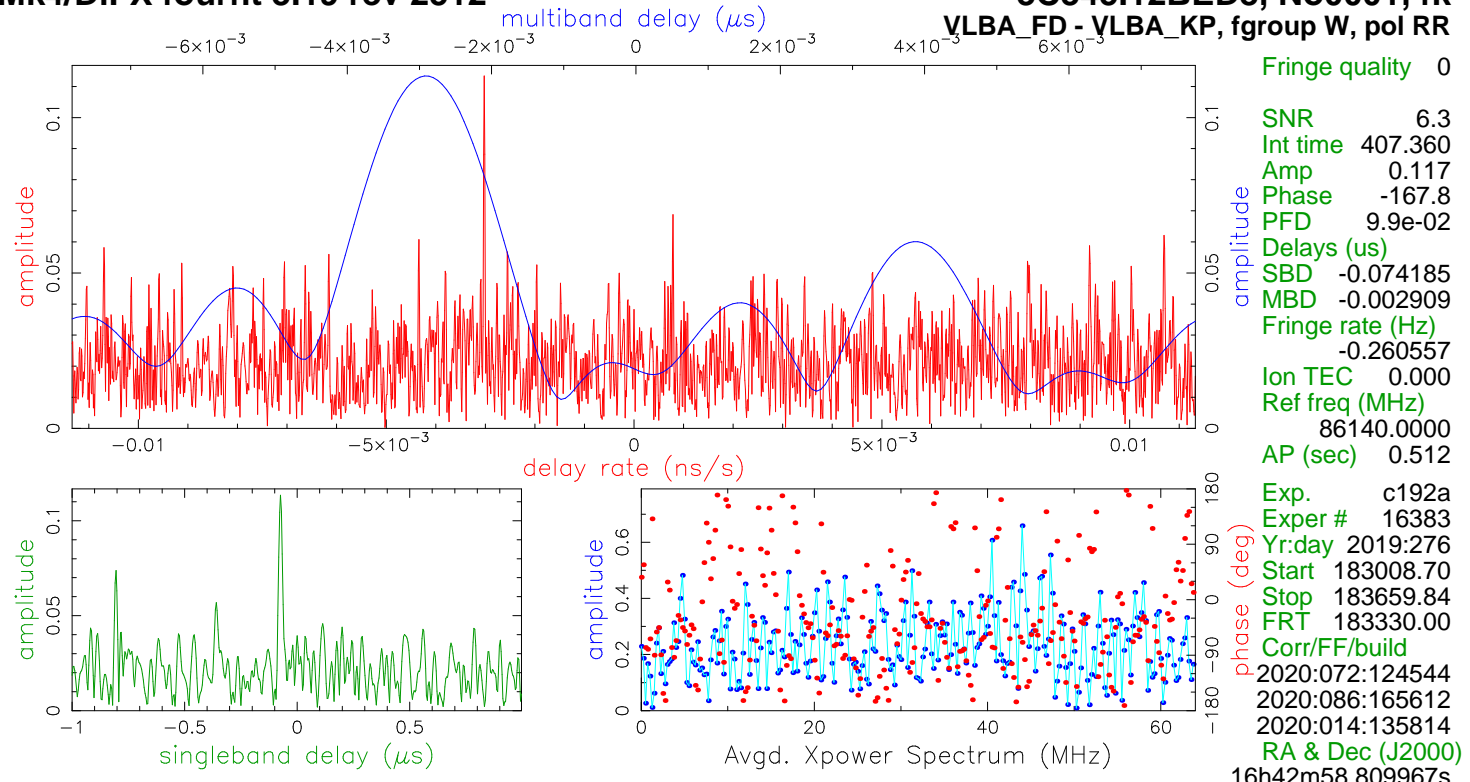
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165600
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-156.4	-161.5	-127.8	157.0	-169.3	164.6	179.0	-122.1	Phase	-169.5
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	422.0	368.2	266.1	233.9	107.0	468.4	315.1	302.3	Sbd box	235.0
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.14479478179E+02		Apriori delay (usec)		5.14570222991E+02		Resid mbdelay (usec)		3.00519E-03	+/- 1.6E-04
Sband delay (usec)	5.14484453241E+02		Apriori clock (usec)		-2.1077624E-01		Resid sbdelay (usec)		-8.57698E-02	+/- 1.3E-03
Phase delay (usec)	5.14570217524E+02		Apriori clockrate (us/s)		-4.7816091E-08		Resid phdelay (usec)		-5.46690E-06	+/- 5.6E-07
Delay rate (us/s)	-1.77859863411E-01		Apriori rate (us/s)		-1.77854347007E-01		Resid rate (us/s)		-5.51640E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		1.28049038570E-05		Resid phase (deg)		-169.5	+/- 17.4

ph/seg (deg) 44.5 41.6 Search (2048X32) 0.116 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.4 72.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.0 24.6 Inc. seg. avg. 0.135 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.6 42.9 Inc. frq. avg. 0.137 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 66.1 el 33.9 pa -52.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 1350.630 2287.184 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/bk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/bk.W.71.12BED8



Fringe quality 0

SNR 6.3

Int time 407.360

Amp 0.117

Phase -167.8

PFD 9.9e-02

Delays (us)

SBD -0.074185

MBD -0.002909

Fringe rate (Hz)

-0.260557

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183008.70

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:072:124544

2020:086:165612

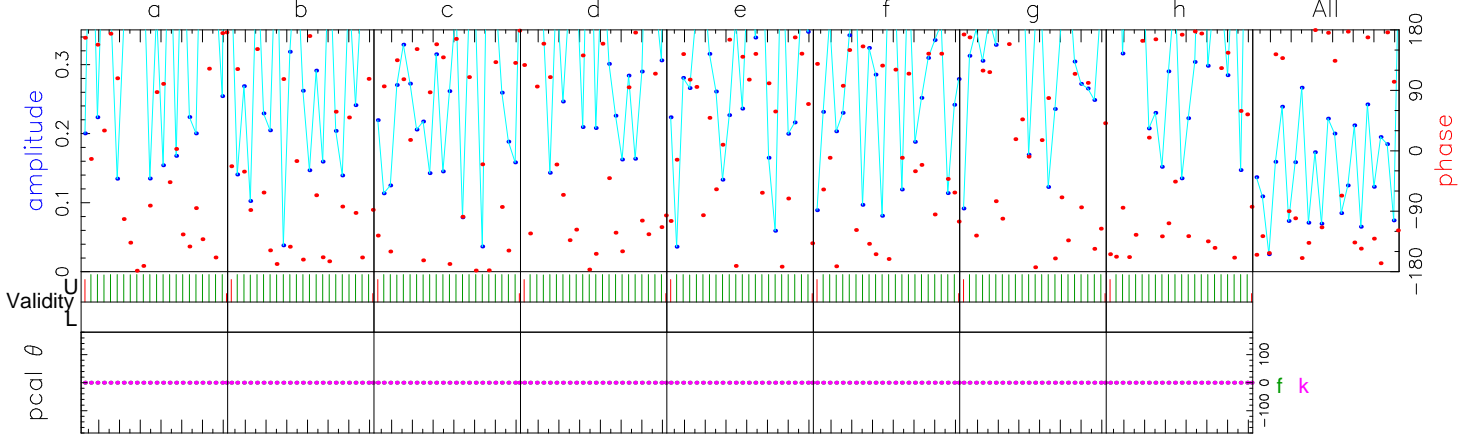
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-151.9	-139.3	160.5	-156.9	154.6	-168.0	-155.8	-159.6	Phase	-167.8
	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
	52.9	225.0	238.1	239.4	401.0	50.9	256.2	237.9	Sbd box	238.0
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.54133648065E+03		Apriori delay (usec)		1.54141751422E+03		Resid mbdelay (usec)		-2.90857E-03	+/- 1.7E-04
Sband delay (usec)	1.54134332947E+03		Apriori clock (usec)		8.5670185E-01		Resid sbdelay (usec)		-7.41848E-02	+/- 1.4E-03
Phase delay (usec)	1.54141750881E+03		Apriori clockrate (us/s)		1.0362949E-07		Resid phdelay (usec)		-5.41080E-06	+/- 5.9E-07
Delay rate (us/s)	-3.76585488541E-02		Apriori rate (us/s)		-3.76555240401E-02		Resid rate (us/s)		-3.02481E-06	+/- 2.5E-09
Total phase (deg)	75.1		Apriori accel (us/s/s)		-9.61461128275E-06		Resid phase (deg)		-167.8	+/- 18.3

RMS Theor. Amplitude 0.117 +/- 0.019

ph/seg (deg) 46.8 43.9 Search (2048X32) 0.109

amp/seg (%) 72.0 76.5 Interp. 0.000

ph/frq (deg) 25.2 25.9 Inc. seg. avg. 0.119

amp/frq (%) 45.3 45.2 Inc. frq. avg. 0.114

Group delay (usec)(sbd) 1.54133648065E+03 Apriori delay (usec) 1.54141751422E+03 Resid mbdelay (usec) -2.90857E-03 +/- 1.7E-04

Sband delay (usec) 1.54134332947E+03 Apriori clock (usec) 8.5670185E-01 Resid sbdelay (usec) -7.41848E-02 +/- 1.4E-03

Phase delay (usec) 1.54141750881E+03 Apriori clockrate (us/s) 1.0362949E-07 Resid phdelay (usec) -5.41080E-06 +/- 5.9E-07

Delay rate (us/s) -3.76585488541E-02 Apriori rate (us/s) -3.76555240401E-02 Resid rate (us/s) -3.02481E-06 +/- 2.5E-09

Total phase (deg) 75.1 Apriori accel (us/s/s) -9.61461128275E-06 Resid phase (deg) -167.8 +/- 18.3

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

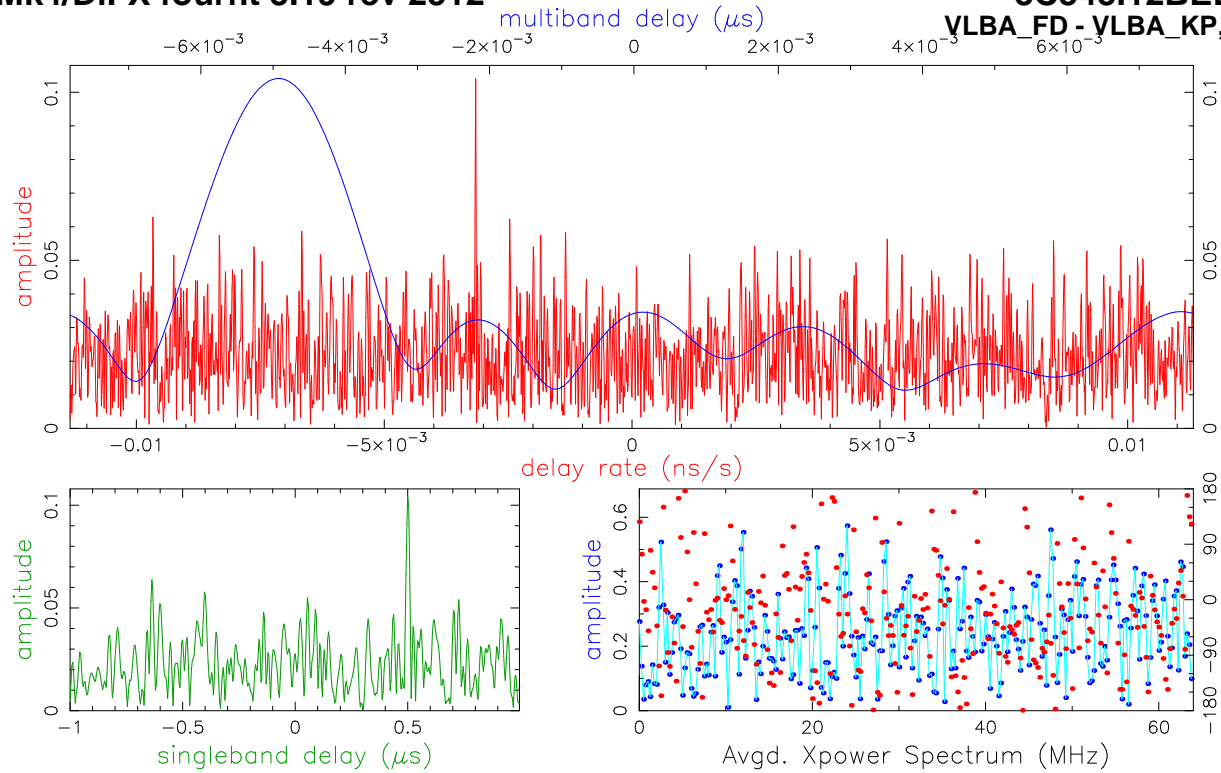
Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011

Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 61.0 el 37.1 pa -78.2 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 263.798 -766.247 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, fk
VLBA_FD - VLBA_KP, fgroup W, pol LR

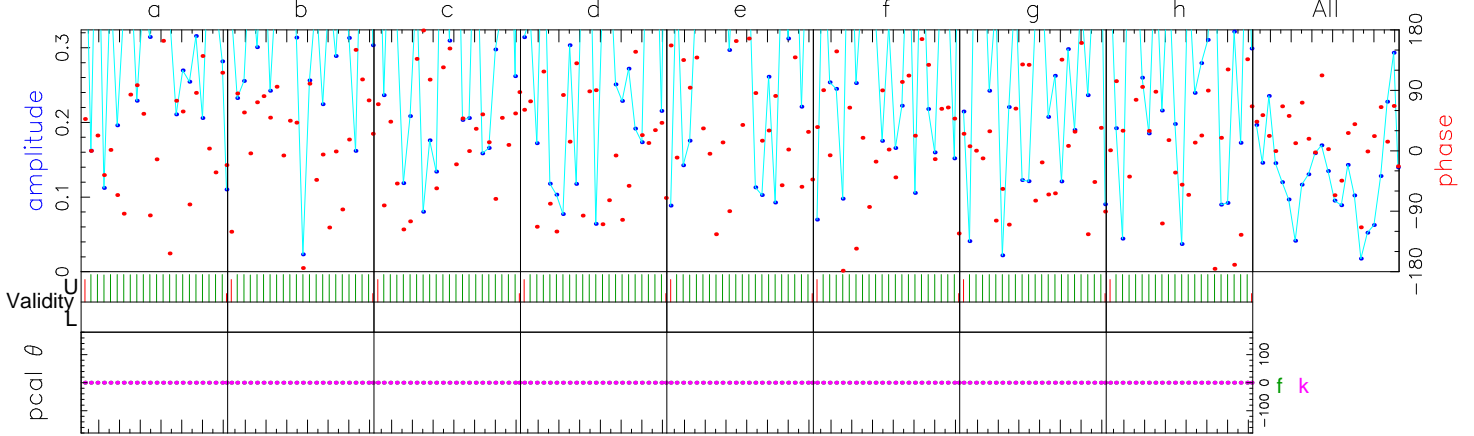


Fringe quality 0

SNR 5.8
Int time 407.360
Amp 0.108
Phase 32.1
PFD 8.6e-01
Delays (us)
SBD 0.500967
MBD -0.004880
Fringe rate (Hz)
-0.272512
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165616
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



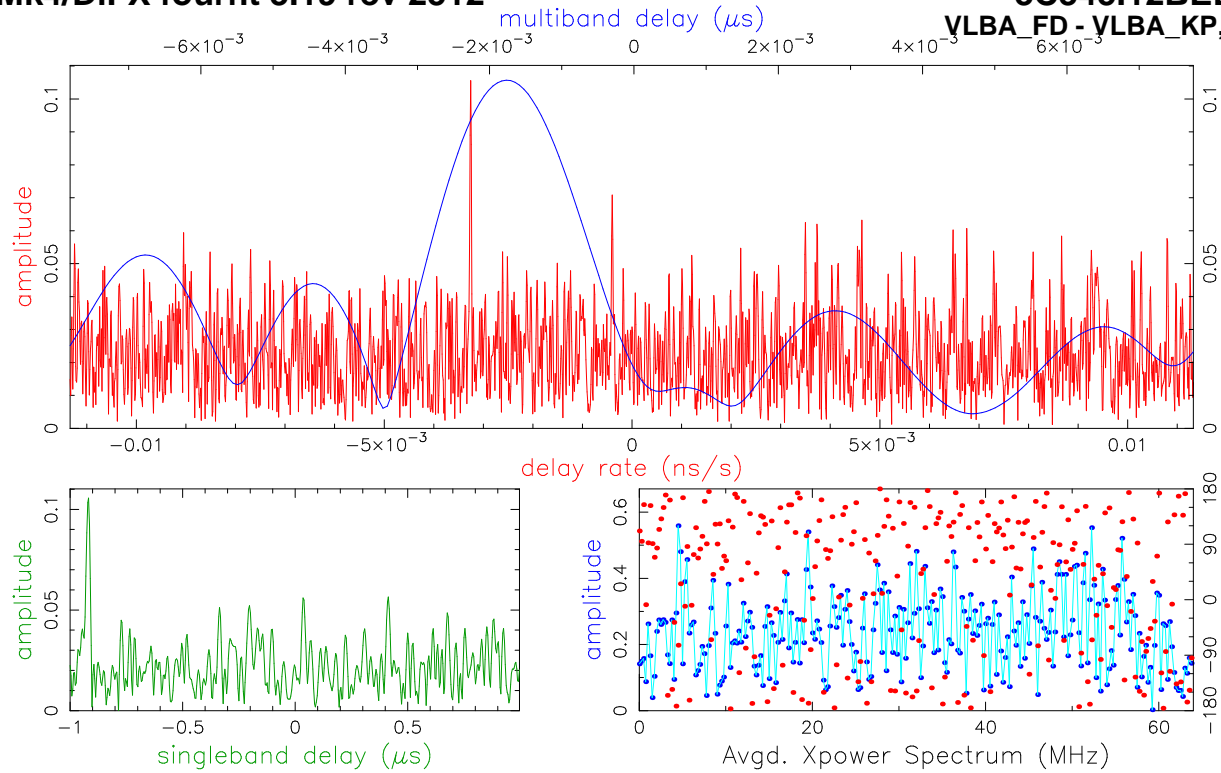
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.54191263443E+03	Apriori delay (usec)		1.54141751422E+03	Resid mbdelay (usec)		-4.87979E-03	+/-	1.9E-04	
Sband delay (usec)	1.54191848147E+03	Apriori clock (usec)		8.5670185E-01	Resid sbdelay (usec)		5.00967E-01	+/-	1.5E-03	
Phase delay (usec)	1.54141751525E+03	Apriori clockrate (us/s)		1.0362949E-07	Resid phdelay (usec)		1.03515E-06	+/-	6.4E-07	
Delay rate (us/s)	-3.76586876358E-02	Apriori rate (us/s)		-3.76555240401E-02	Resid rate (us/s)		-3.16360E-06	+/-	2.7E-09	
Total phase (deg)		274.9	Apriori accel (us/s/s)		-9.61461128275E-06	Resid phase (deg)		32.1	+/-	19.9

ph/seg (deg)	50.2	47.6	Search (2048X32)		0.101	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	66.3	83.0	Interp.		0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	27.5	28.1	Inc. seg. avg.		0.101	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.8	49.0	Inc. frq. avg.		0.105	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 61.0 el 37.1 pa -78.2 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 263.798 -766.247 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/fk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/fk.W.136.12BED8

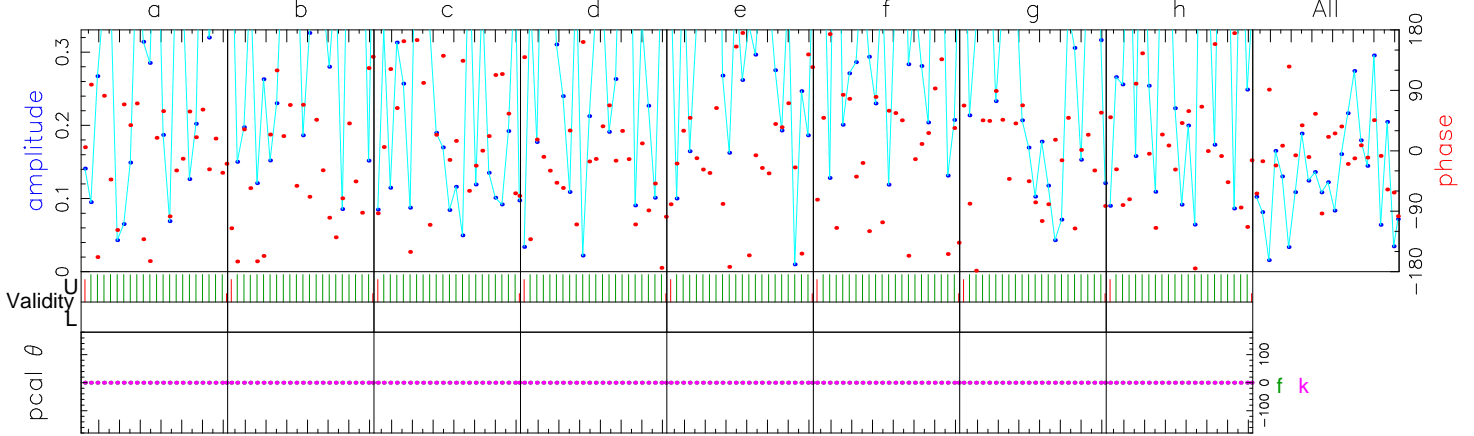


Fringe quality 0

SNR 5.9
Int time 407.360
Amp 0.110
Phase 0.4
PFD 6.5e-01
Delays (us)
SBD -0.919316
MBD -0.001821
Fringe rate (Hz)
-0.280626
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165621
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

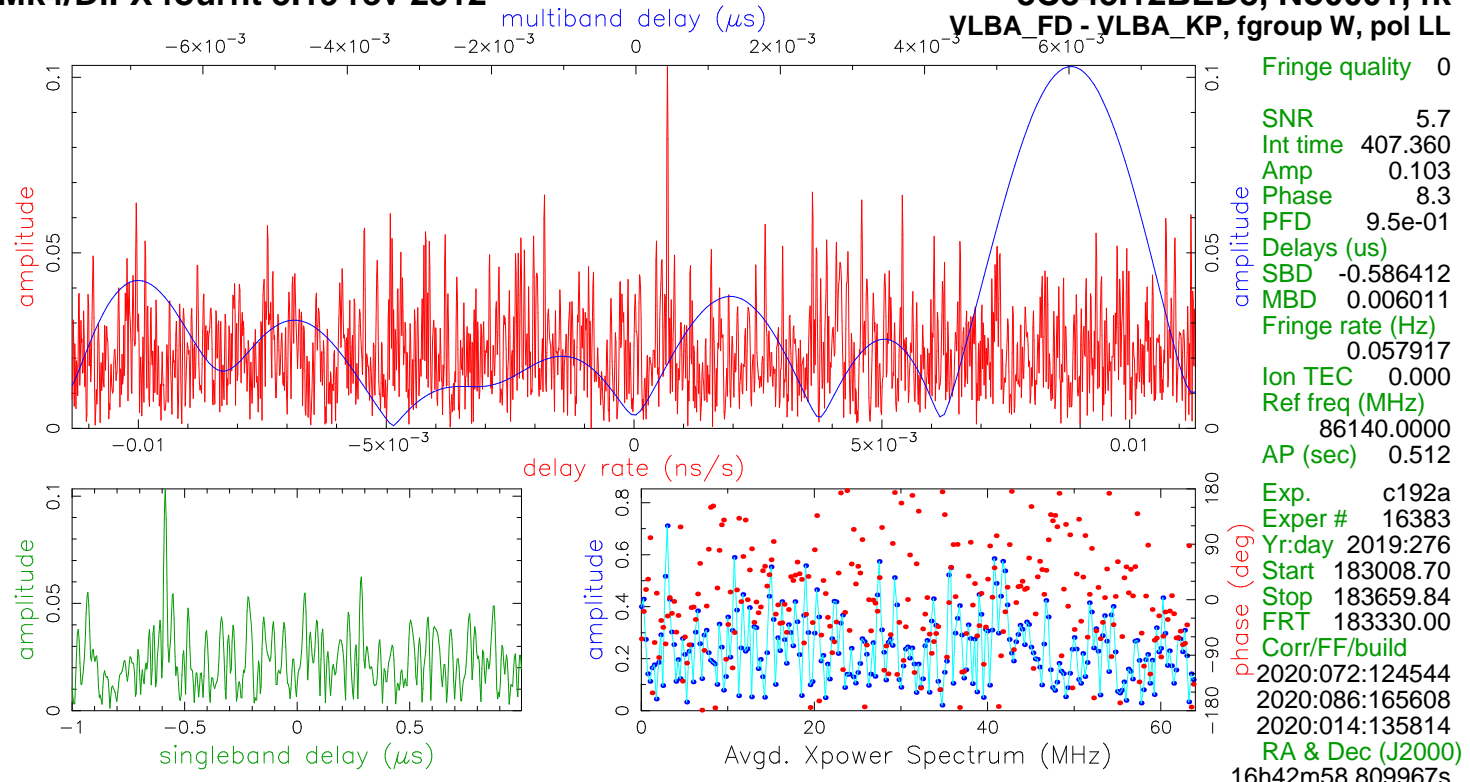


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)		1.54049381812E+03		Apriori delay (usec)	1.54141751422E+03		Resid mbdelay (usec)	-1.82109E-03	+/-	1.8E-04
Sband delay (usec)		1.54049819772E+03		Apriori clock (usec)	8.5670185E-01		Resid sbdelay (usec)	-9.19316E-01	+/-	1.5E-03
Phase delay (usec)		1.54141751423E+03		Apriori clockrate (us/s)	1.0362949E-07		Resid phdelay (usec)	1.14591E-08	+/-	6.3E-07
Delay rate (us/s)		-3.76587818307E-02		Apriori rate (us/s)	-3.76555240401E-02		Resid rate (us/s)	-3.25779E-06	+/-	2.7E-09
Total phase (deg)			243.2	Apriori accel (us/s/s)	-9.61461128275E-06		Resid phase (deg)	0.4	+/-	19.5

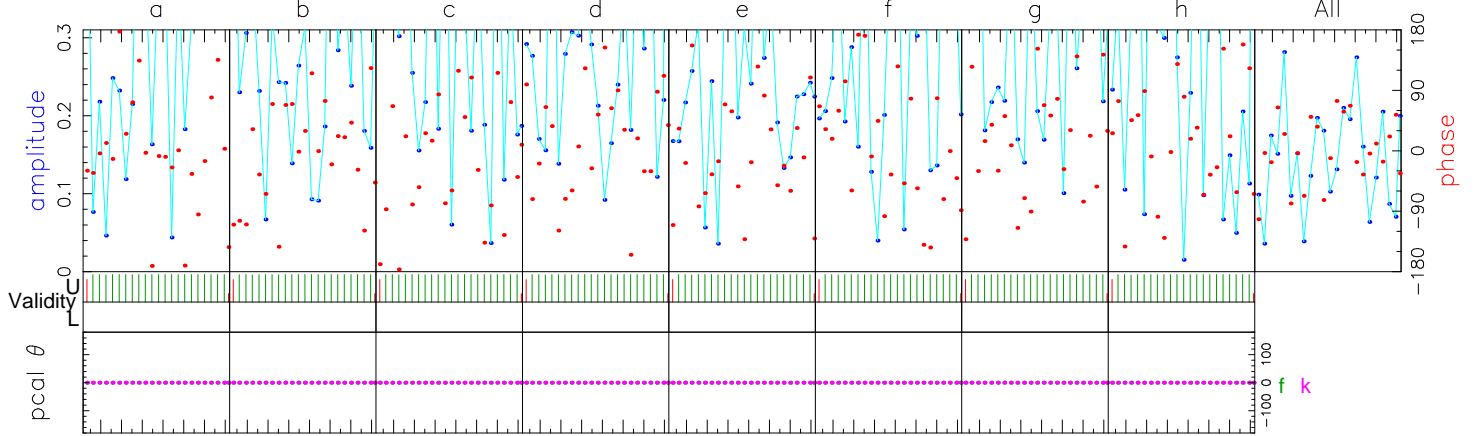
ph/seg (deg) 50.6 46.7 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.9 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.3 27.6 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.3 48.1 Inc. frq. avg. 0.105 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 61.0 el 37.1 pa -78.2 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 263.798 -766.247 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/fk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/fk.W.155.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, fk
VLBA_FD - VLBA_KP, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



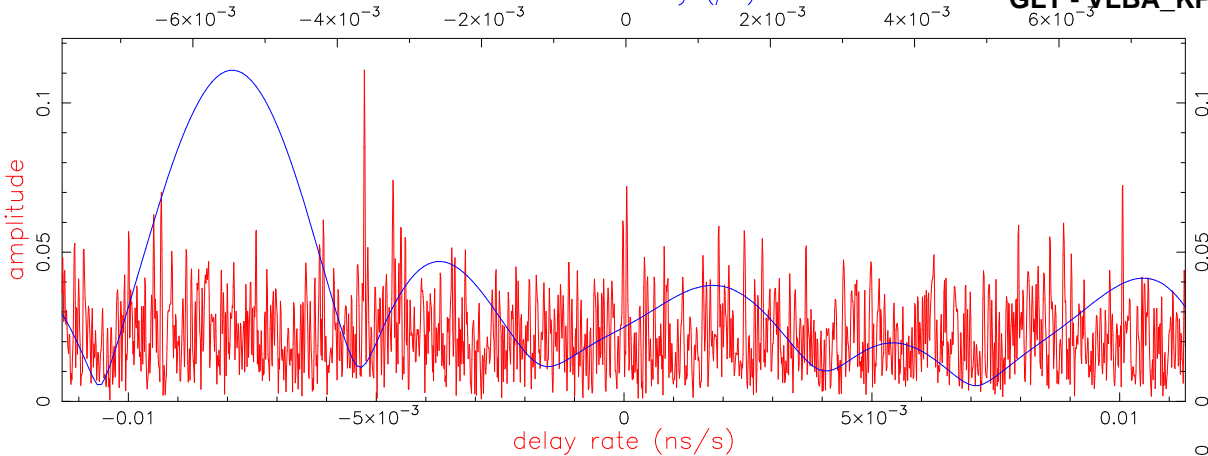
86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
2.4	-4.4	25.7	19.2	21.8	-14.2	3.0	9.9	Phase	8.3	
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1	
386.9	261.9	314.7	324.8	181.1	236.1	201.1	383.5	Sbd box	106.9	
U/L 802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used		
f 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
k 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
f:k 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:k 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
f 1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
k 1000	1000	1000	1000	1000	1000	1000	1000			
f W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
k W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
								Tracks		
Group delay (usec)(sbd)	1.54082977558E+03	Apriori delay (usec)		1.54141751422E+03	Resid mbdelay (usec)		6.01136E-03	+/-	1.9E-04	
Sband delay (usec)	1.54083110247E+03	Apriori clock (usec)		8.5670185E-01	Resid sbdelay (usec)		-5.86412E-01	+/-	1.5E-03	
Phase delay (usec)	1.54141751448E+03	Apriori clockrate (us/s)		1.0362949E-07	Resid phdelay (usec)		2.67460E-07	+/-	6.5E-07	
Delay rate (us/s)	-3.76548516806E-02	Apriori rate (us/s)		-3.76555240401E-02	Resid rate (us/s)		6.72360E-07	+/-	2.7E-09	
Total phase (deg)		251.1	Apriori accel (us/s/s)		-9.61461128275E-06	Resid phase (deg)		8.3	+/-	20.1

ph/seg (deg) 49.1 48.2 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.8 84.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.9 28.4 Inc. seg. avg. 0.107 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.2 49.6 Inc. frq. avg. 0.094 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 61.0 el 37.1 pa -78.2 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 263.798 -766.247 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/fk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/fk.W.94.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

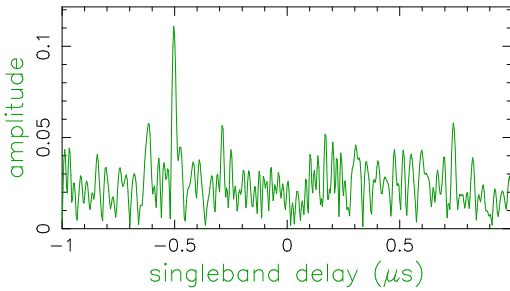
3C345.12BED8, No0001, gk
GLT - VLBA_KP, fgroup W, pol LL

multiband delay (μs)



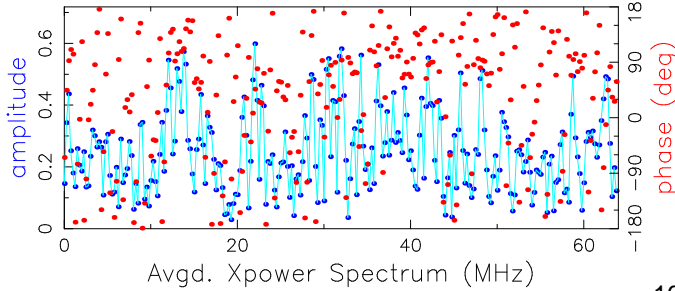
Fringe quality 0

SNR 6.1
Int time 407.593
Amp 0.122
Phase 119.3
PFD 2.0e-01
Delays (us)
SBD -0.503299
MBD -0.005437
Fringe rate (Hz)
-0.452198
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



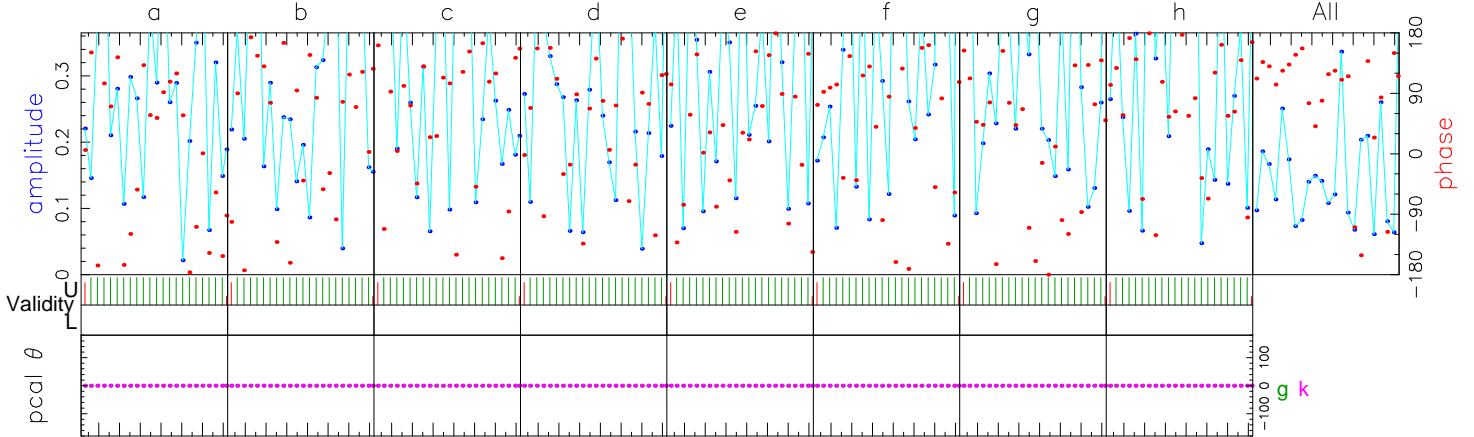
singleband delay (μs)

delay rate (ns/s)



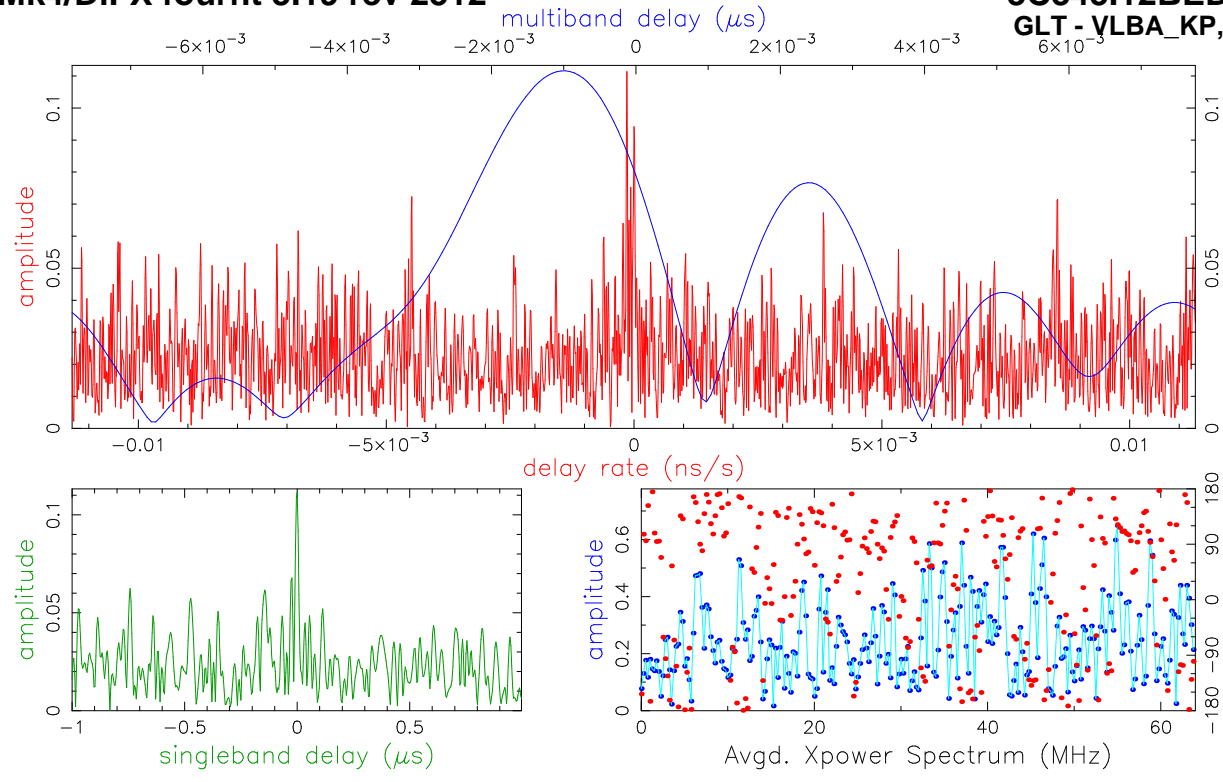
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165609
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



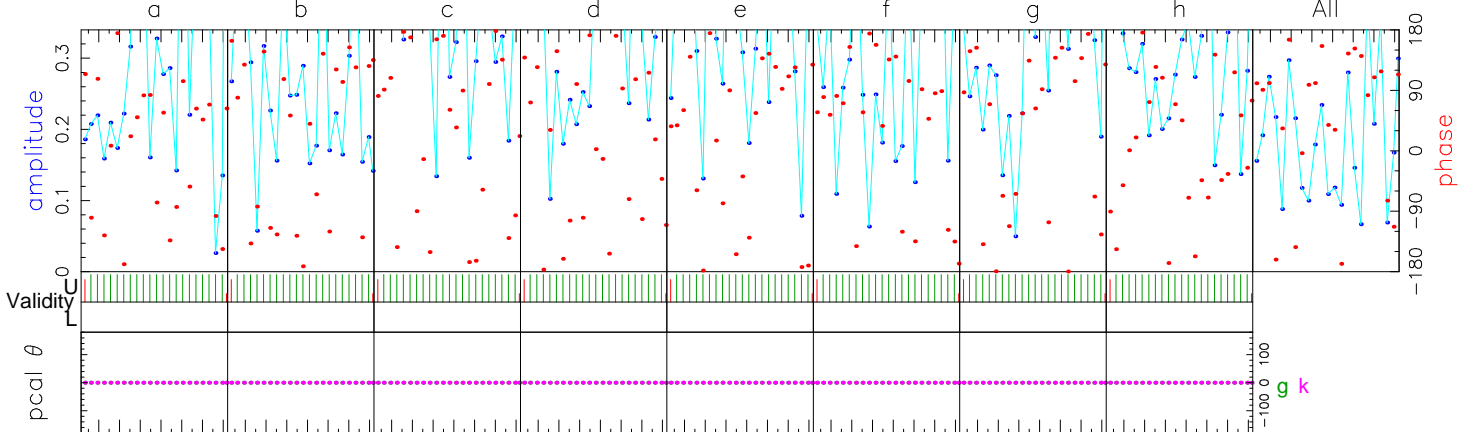
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
g	0	0	0	0	0	0	0	0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	5.06799403189E+03		Apriori delay (usec)		5.06849946893E+03		Resid mbdelay (usec)		-5.43704E-03	+/- 1.8E-04
Sband delay (usec)	5.06799616993E+03		Apriori clock (usec)		1.6980423E+00		Resid sbdelay (usec)		-5.03299E-01	+/- 1.4E-03
Phase delay (usec)	5.06849947277E+03		Apriori clockrate (us/s)		2.6957898E-07		Resid phdelay (usec)		3.84630E-06	+/- 6.0E-07
Delay rate (us/s)	-8.27903378264E-01		Apriori rate (us/s)		-8.27898128691E-01		Resid rate (us/s)		-5.24957E-06	+/- 2.5E-09
Total phase (deg)	210.4		Apriori accel (us/s/s)		5.10295219994E-06		Resid phase (deg)		119.3	+/- 18.7

ph/seg (deg) 54.4 44.7 Search (2048X32) 0.110 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.7 78.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.9 26.4 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.3 46.1 Inc. frq. avg. 0.115 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 142.5 el 51.0 pa -10.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 6184.763 3281.461 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/gk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/gk.W.104.12BED8



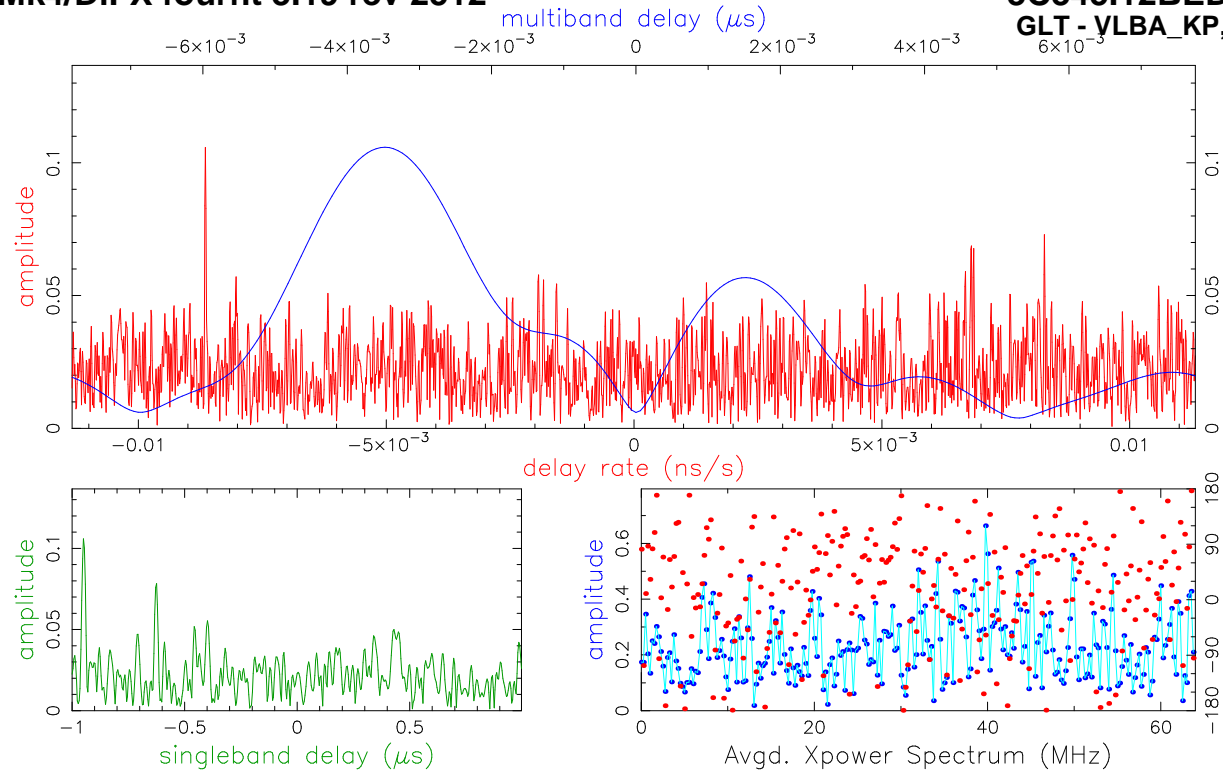
Fringe quality 0
SNR 6.3
Int time 407.634
Amp 0.113
Phase 124.7
PFD 1.0e-01
Delays (us)
SBD -0.001545
MBD -0.001084
Fringe rate (Hz)
-0.012470
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165614
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	69.4	145.6	161.3	133.9	116.2	103.6	141.6	-44.2	Phase	124.7
	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.0	Ampl.	0.1
	414.4	219.3	396.7	90.4	256.8	388.1	257.2	39.2	Sbd box	256.6
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.06849838527E+03		Apriori delay (usec)		5.06849946893E+03		Resid mbdelay (usec)		-1.08365E-03	+/- 1.7E-04
Sband delay (usec)	5.06849792368E+03		Apriori clock (usec)		1.6980423E+00		Resid sbdelay (usec)		-1.54525E-03	+/- 1.4E-03
Phase delay (usec)	5.06849947295E+03		Apriori clockrate (us/s)		2.6957898E-07		Resid phdelay (usec)		4.02122E-06	+/- 5.9E-07
Delay rate (us/s)	-8.27898273457E-01		Apriori rate (us/s)		-8.27898128691E-01		Resid rate (us/s)		-1.44767E-07	+/- 2.5E-09
Total phase (deg)	215.9		Apriori accel (us/s/s)		5.10295219994E-06		Resid phase (deg)		124.7	+/- 18.3

ph/seg (deg) 70.5 43.9 Search (2048X32) 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 103.5 76.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 75.6 25.9 Inc. seg. avg. 0.145 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 48.3 45.2 Inc. frq. avg. 0.125 Data rate (Mbit/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
g: az 142.5 el 51.0 pa -10.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 6184.763 3281.461 simultaneous interpolator

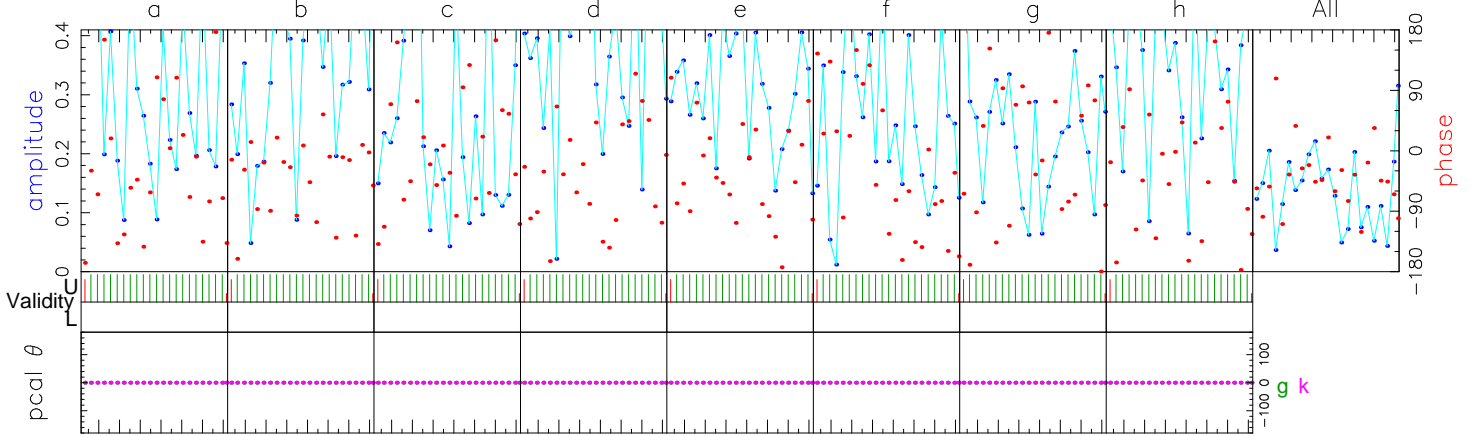


Fringe quality 0

SNR 5.9
Int time 407.593
Amp 0.137
Phase -43.4
PFD 6.9e-01
Delays (us)
SBD -0.948468
MBD -0.003448
Fringe rate (Hz)
-0.745922
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165618
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

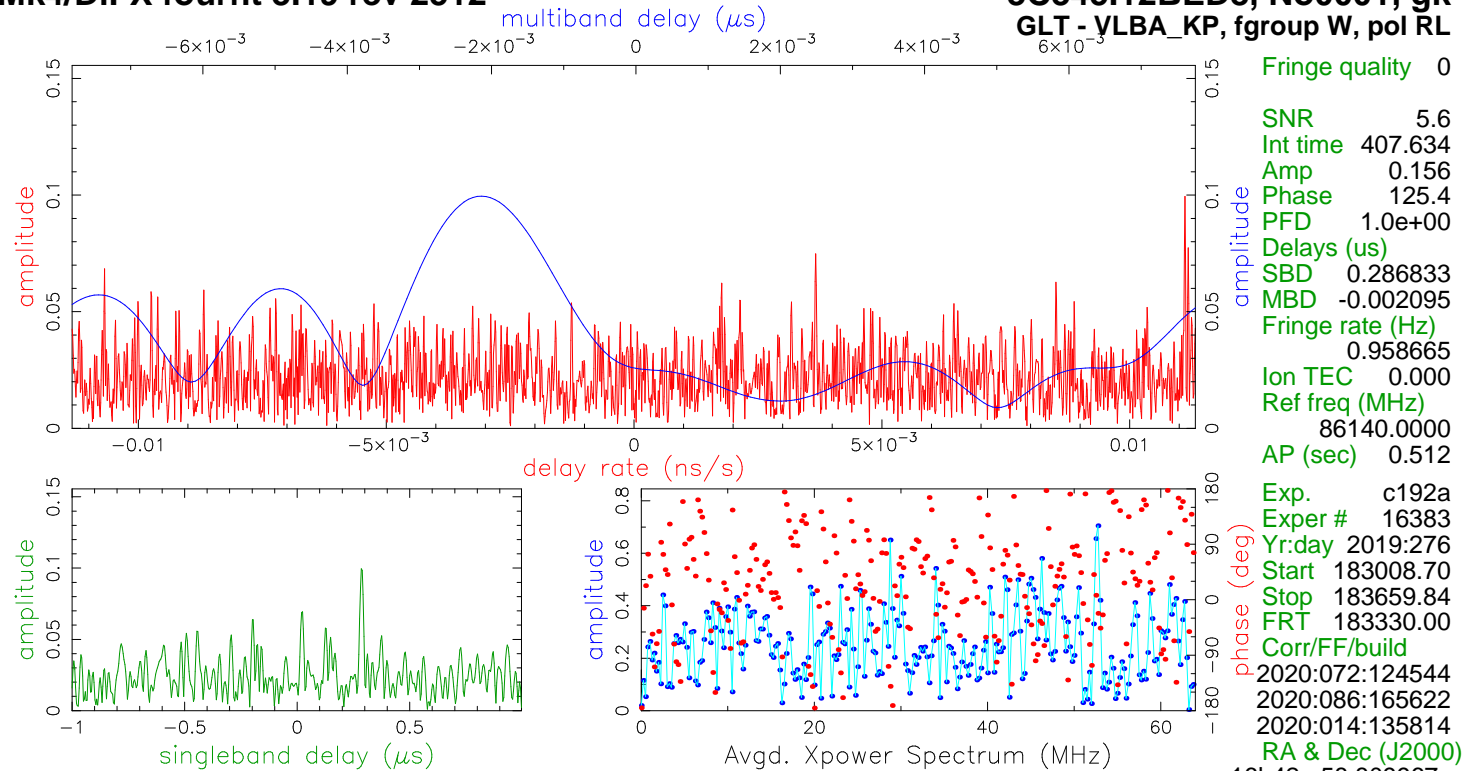


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-65.0	-29.3	-37.5	-50.8	-25.3	-65.0	-102.9	-39.6	Phase	-43.4
	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	313.9	13.6	141.4	370.9	15.0	140.7	336.1	278.9	Sbd box	14.2
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.06755852079E+03		Apriori delay (usec)		5.06849946893E+03		Resid mbdelay (usec)		-3.44814E-03	+/- 1.9E-04
Sband delay (usec)	5.06755100118E+03		Apriori clock (usec)		1.6980423E+00		Resid sbdelay (usec)		-9.48468E-01	+/- 1.5E-03
Phase delay (usec)	5.06849946752E+03		Apriori clockrate (us/s)		2.6957898E-07		Resid phdelay (usec)		-1.40038E-06	+/- 6.3E-07
Delay rate (us/s)	-8.27906788101E-01		Apriori rate (us/s)		-8.27898128691E-01		Resid rate (us/s)		-8.65941E-06	+/- 2.7E-09
Total phase (deg)	47.7		Apriori accel (us/s/s)		5.10295219994E-06		Resid phase (deg)		-43.4	+/- 19.5

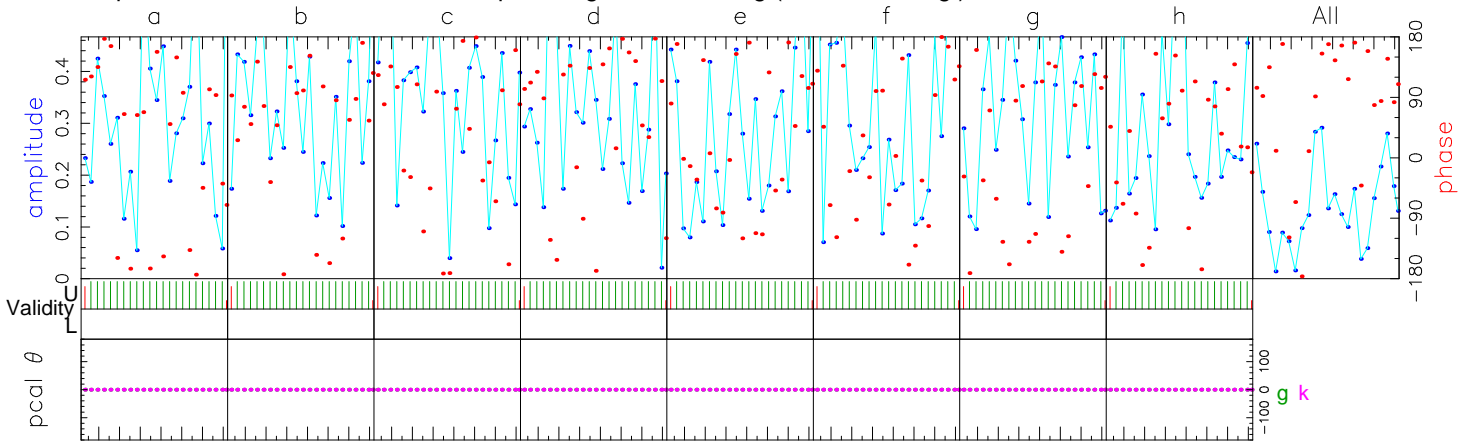
ph/seg (deg) 50.9 46.8 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.5 81.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 29.1 27.6 Inc. seg. avg. 0.129 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.1 48.3 Inc. frq. avg. 0.129 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 g: az 142.5 el 51.0 pa -10.6 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 6184.763 3281.461 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/gk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/gk.W.142.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, gk
GLT - VLBA_KP, fgroup W, pol RL

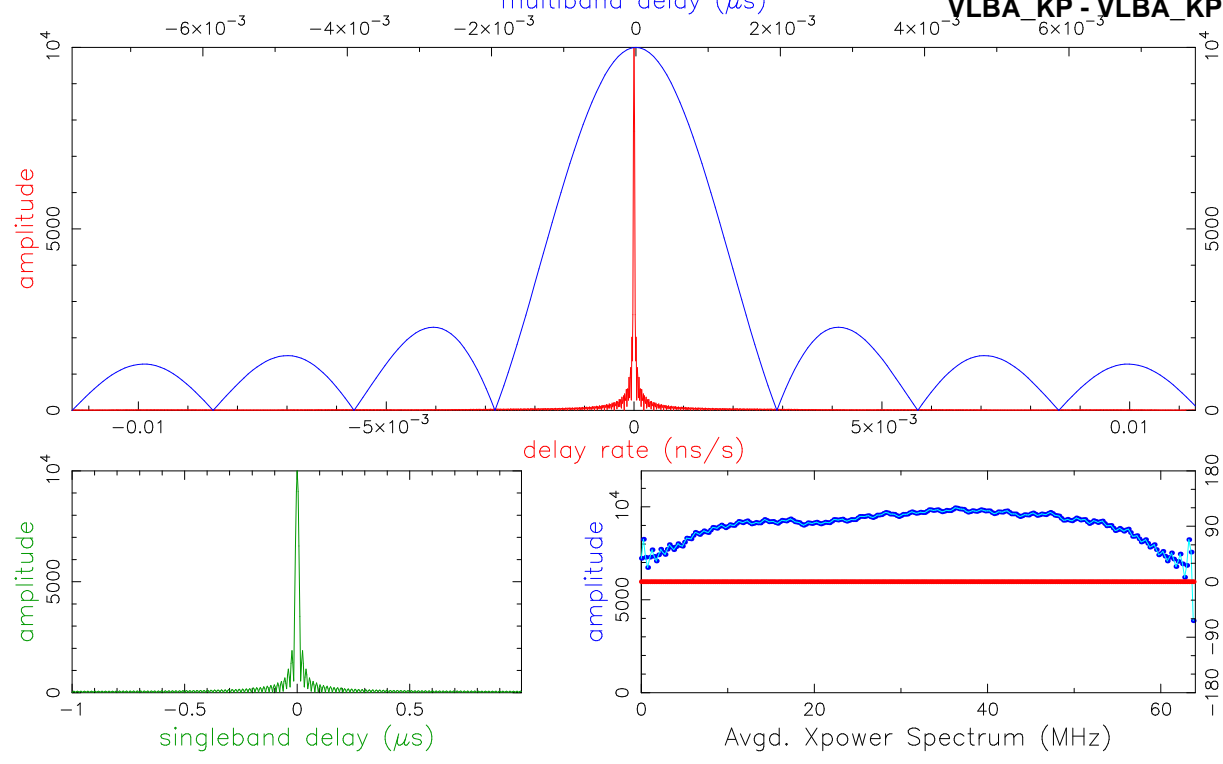


Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
158.3	95.9	99.8	155.4	96.1	149.4	144.7	144.7	85.4	Phase	125.4		
0.2	0.3	0.2	0.2	0.0	0.0	0.1	0.1	0.1	Ampl.	0.2		
182.7	329.8	417.2	56.1	458.1	376.4	185.7	185.7	186.6	Sbd box	330.4		
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used			
g	0	0	0	0	0	0	0	0	PC freqs			
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
k	1000	1000	1000	1000	1000	1000	1000	1000				
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	5.06877862344E+03		Apriori delay (usec)		5.06849946893E+03		Resid mbdelay (usec)		-2.09549E-03	+/- 1.9E-04		
Sband delay (usec)	5.06878630143E+03		Apriori clock (usec)		1.6980423E+00		Resid sbdelay (usec)		2.86833E-01	+/- 1.5E-03		
Phase delay (usec)	5.06849947297E+03		Apriori clockrate (us/s)		2.6957898E-07		Resid phdelay (usec)		4.04480E-06	+/- 6.6E-07		
Delay rate (us/s)	-8.27886999543E-01		Apriori rate (us/s)		-8.27898128691E-01		Resid rate (us/s)		1.11291E-05	+/- 2.8E-09		
Total phase (deg)	216.6		Apriori accel (us/s/s)		5.10295219994E-06		Resid phase (deg)		125.4	+/- 20.6		
RMS	Theor.	Amplitude	0.156 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5					
ph/seg (deg)	73.3	49.3	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000		
amp/seg (%)	90.1	86.1	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008	
ph/frq (deg)	34.0	29.1	Inc. seg. avg.	0.159	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011		
amp/frq (%)	53.6	50.8	Inc. frq. avg.	0.156	Data rate(Mb/s): 2048		nlags: 256		t_cohere infinite	ion window (TEC)	0.00	0.00
g: az 142.5 el 51.0 pa -10.6	k: az 60.1 el 32.1 pa -73.4		u, v (fr/asec) 6184.763 3281.461								simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/gk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/gk.W.160.12BED8

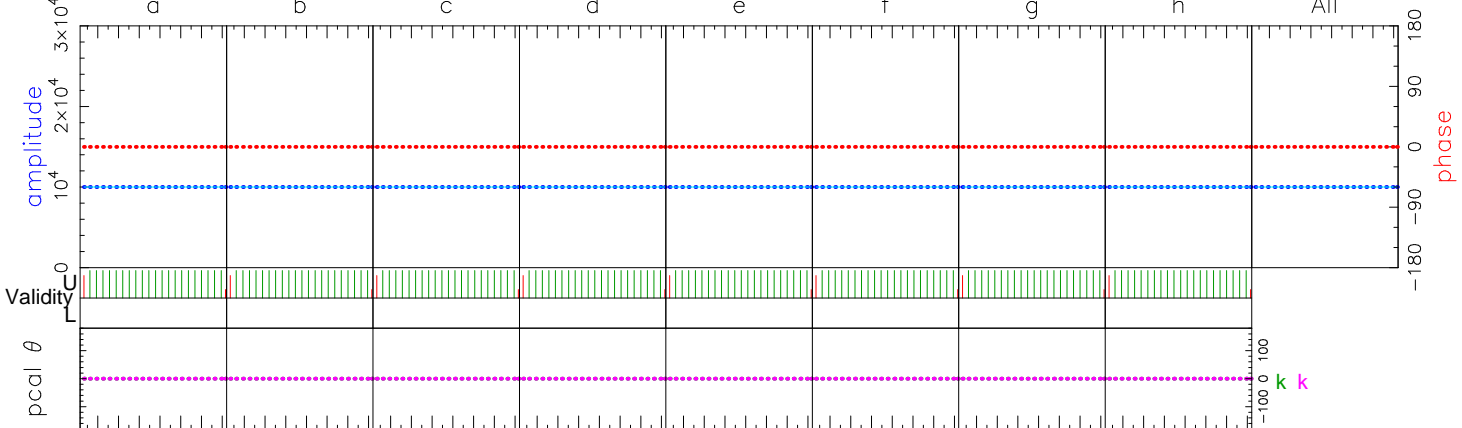


Fringe quality 9

SNR 552186.4
 Int time 407.733
 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

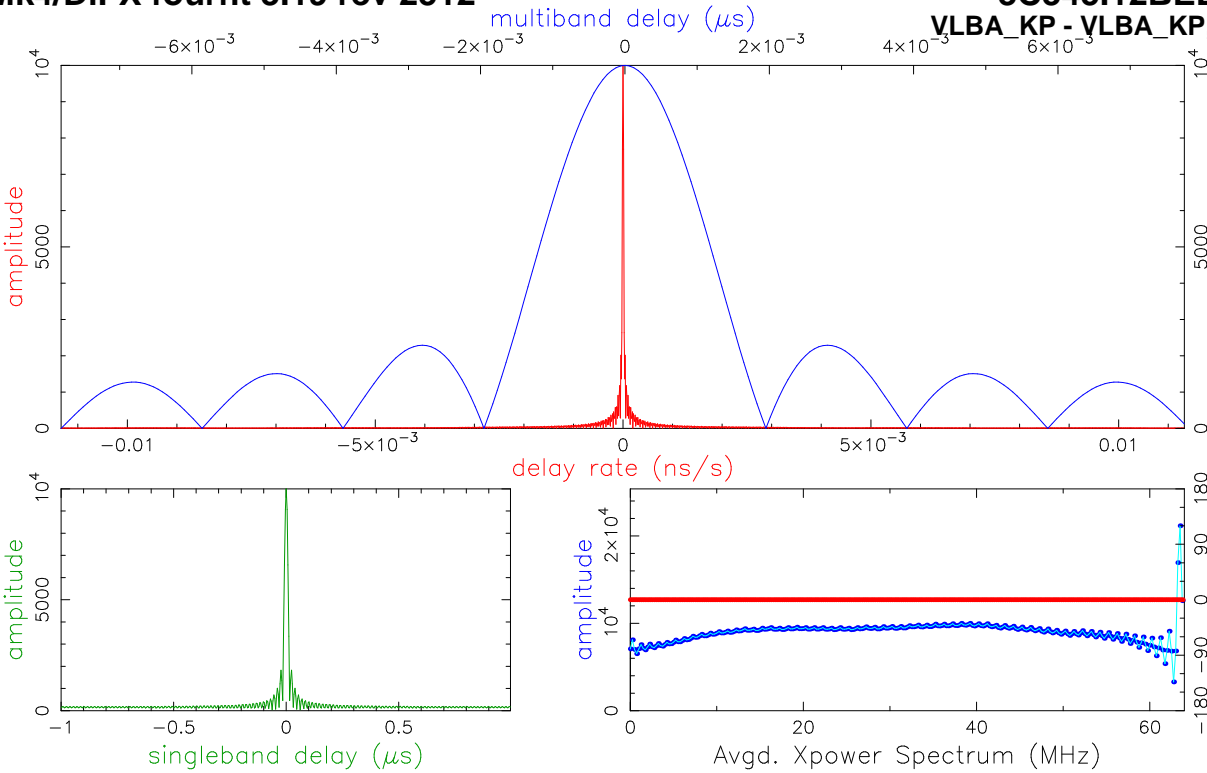
Exp. c192a
 Yr:day 16383
 Start 2019:276
 Stop 2019:276
 FRT 183330.00
 Corr/FF/build
 2020:072:124544
 2020:086:165626
 2020:014:135814
 RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	0.0000000000E+00		Apriori delay (usec)		0.0000000000E+00		Resid mbdelay (usec)		0.00000E+00	+/- 2.0E-09
Sband delay (usec)	0.0000000000E+00		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		0.00000E+00	+/- 1.6E-08
Phase delay (usec)	5.33981885003E-20		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		5.33982E-20	+/- 6.7E-12
Delay rate (us/s)	0.0000000000E+00		Apriori rate (us/s)		0.0000000000E+00		Resid rate (us/s)		0.00000E+00	+/- 2.8E-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 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.002 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(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kk.W.172.12BED8 simultaneous interpolator

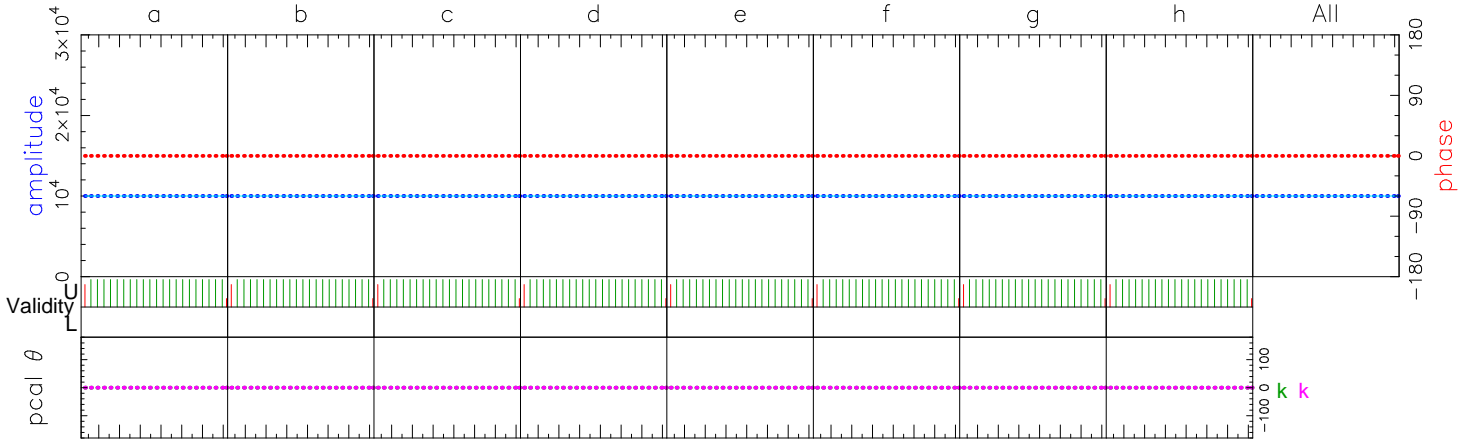


Fringe quality 9

SNR 552186.5
Int time 407.733
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. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165631
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

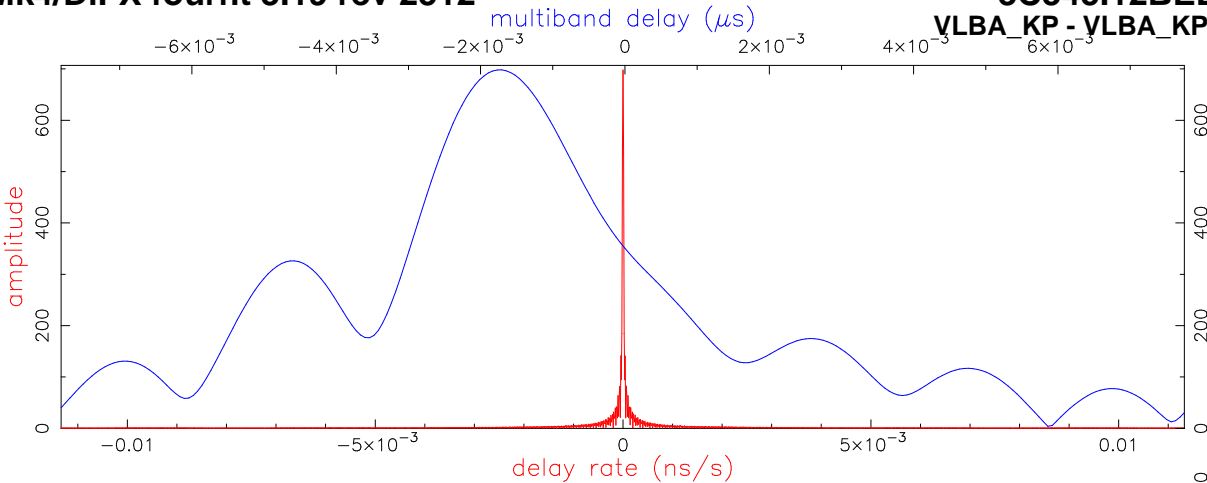


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	801.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	801.0	10000.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
k	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	Tracks
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	Tracks
Group delay (usec)(sbd)	0.0000000000E+00		Apriori delay (usec)		0.0000000000E+00		Resid mbdelay (usec)		0.00000E+00	+/- 2.0E-09
Sband delay (usec)	0.0000000000E+00		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		0.00000E+00	+/- 1.6E-08
Phase delay (usec)	8.14005391453E-20		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		8.14005E-20	+/- 6.7E-12
Delay rate (us/s)	0.0000000000E+00		Apriori rate (us/s)		0.0000000000E+00		Resid rate (us/s)		0.00000E+00	+/- 2.8E-14
Total phase (deg)	0.0		Apriori accel (us/s/s)		0.0000000000E+00		Resid phase (deg)		0.0	+/- 0.0

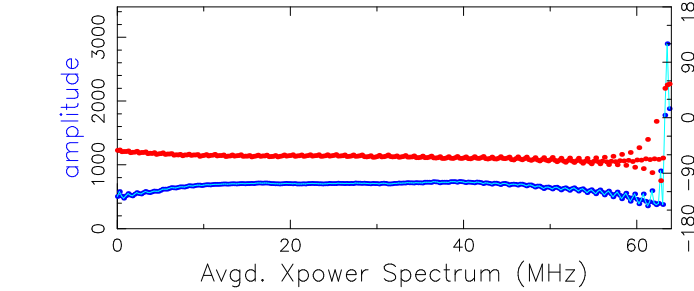
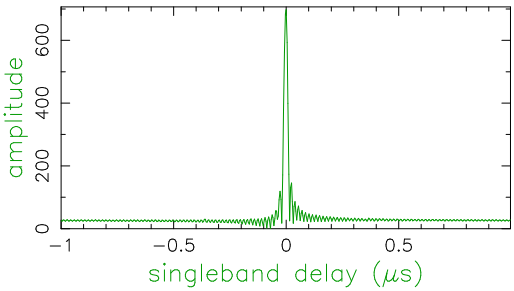
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.002 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kk.W.193.12BED8 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

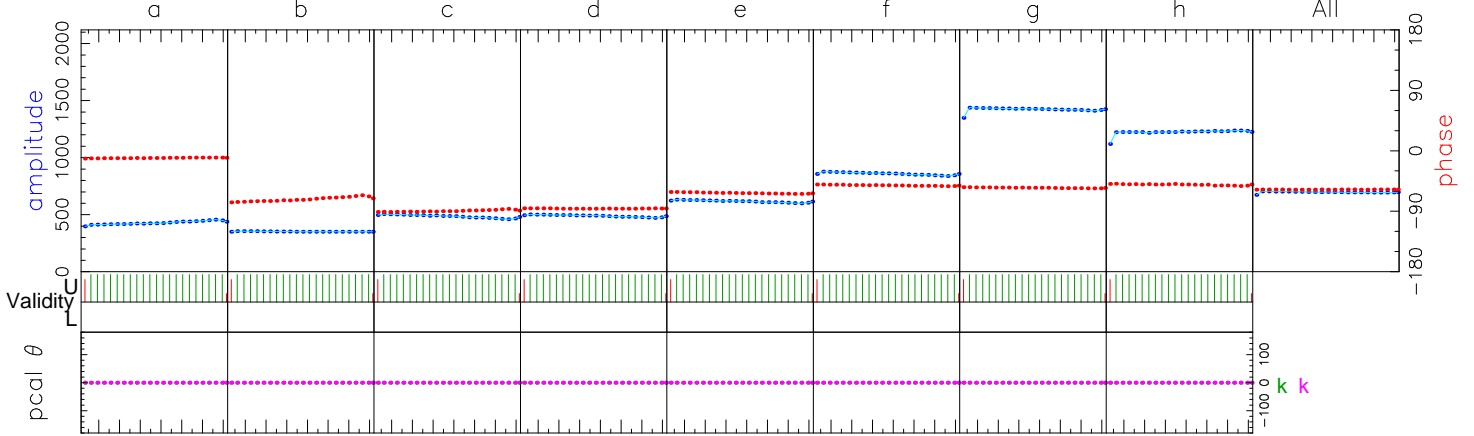
3C345.12BED8, No0001, kk
VLBA_KP - VLBA_KP, fgroup W, pol LR



Fringe quality 5
SNR 39028.9
Int time 407.733
Amp 706.807
Phase -57.7
PFD 0.0e+00
Delays (us)
SBD -0.001504
MBD -0.001779
Fringe rate (Hz) 0.000004
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:072:124544
2020:086:165634
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

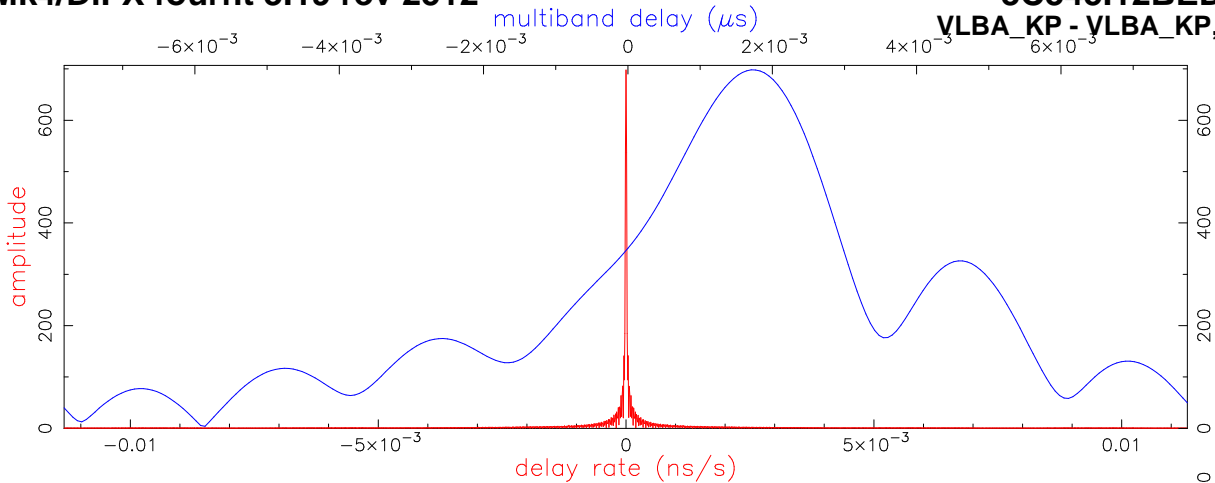


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-10.7	-72.2	-89.5	-85.9	-62.8	-51.4	-55.0	-50.5	Phase	-57.7
	428.9	351.7	485.6	489.6	617.1	859.7	1423.2	1223.8	Ampl.	734.9
	256.1	255.8	256.6	256.5	256.9	256.4	256.7	257.1	Sbd box	256.6
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.77896875000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.77897E-03	+/- 2.8E-08
Sband delay (usec)	-1.50425000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.50425E-03	+/- 2.2E-07
Phase delay (usec)	-1.86139218089E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.86139E-06	+/- 9.5E-11
Delay rate (us/s)	4.25134571751E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		4.25135E-11	+/- 4.0E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-57.7	+/- 0.0

ph/seg (deg) 0.1 0.0 Amplitude 706.807 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 1.5 0.0 Search (2048X32) 686.241 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 26.9 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 52.7 0.0 Inc. seg. avg. 697.739 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kk.W.210.12BED8 simultaneous interpolator

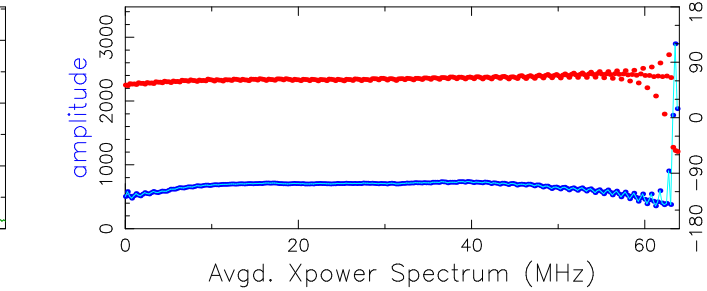
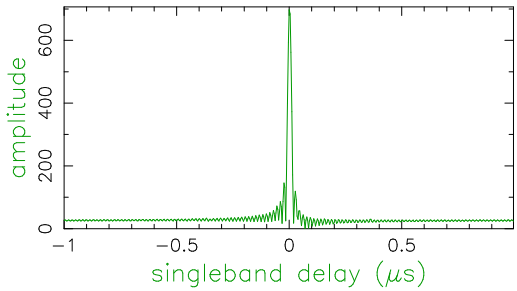
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kk
VLBA_KP - VLBA_KP, fgroup W, pol RL



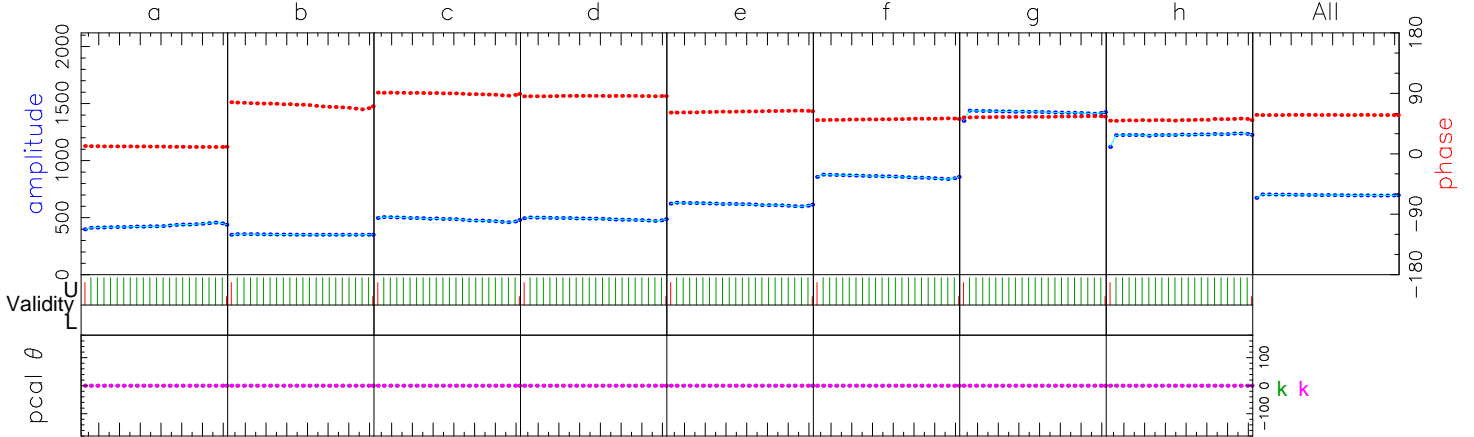
Fringe quality 5

SNR 39028.9
Int time 407.733
Amp 706.807
Phase 57.7
PFD 0.0e+00
Delays (us)
SBD 0.001504
MBD 0.001779
Fringe rate (Hz)
-0.000004
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165638
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



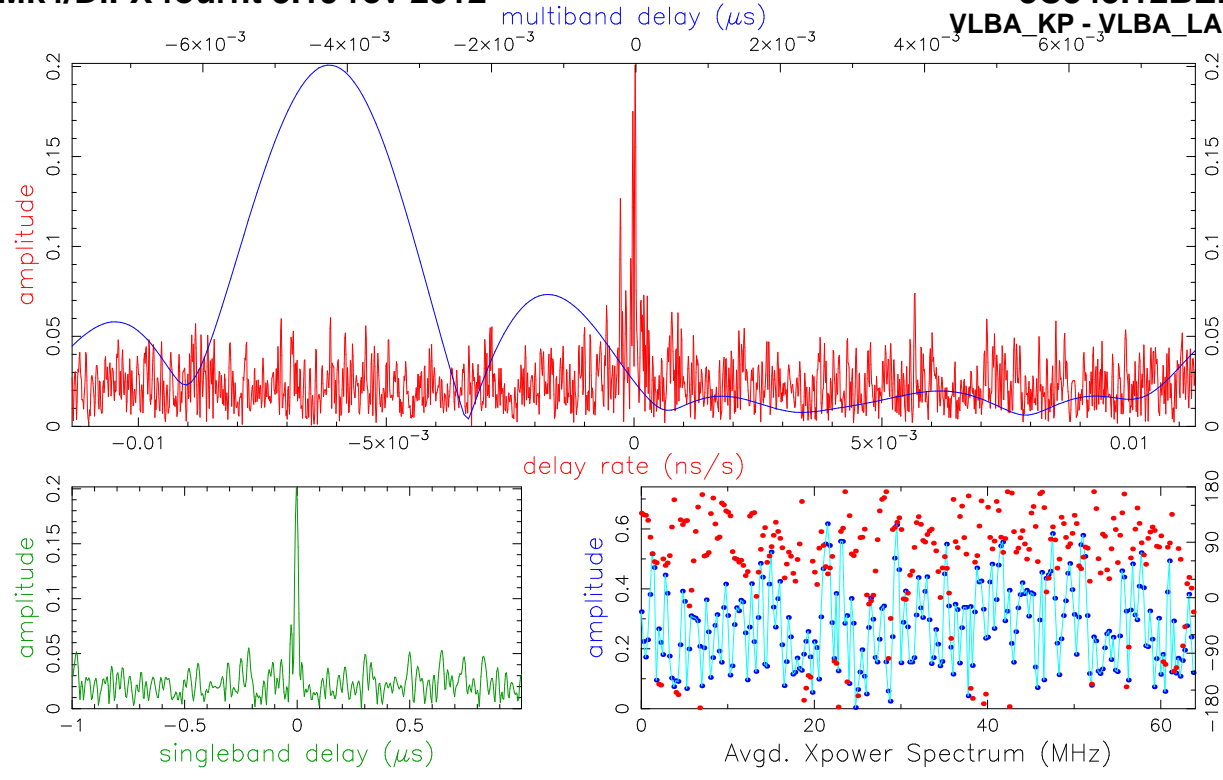
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.77896875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.77897E-03	+/-	2.8E-08
Sband delay (usec)	1.50425000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.50425E-03	+/-	2.2E-07
Phase delay (usec)	1.86139218083E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.86139E-06	+/-	9.5E-11
Delay rate (us/s)	-4.25134571751E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-4.25135E-11	+/-	4.0E-13
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	57.7	+/-	0.0

ph/seg (deg)	0.1	0.0	Amplitude	706.807 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	1.5	0.0	Search (2048X32)	686.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.9	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	52.7	0.0	Inc. seg. avg.	697.739	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	734.935	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 60.1 el 32.1 pa -73.4 k: az 60.1 el 32.1 pa -73.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kk..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kk.W.227.12BED8

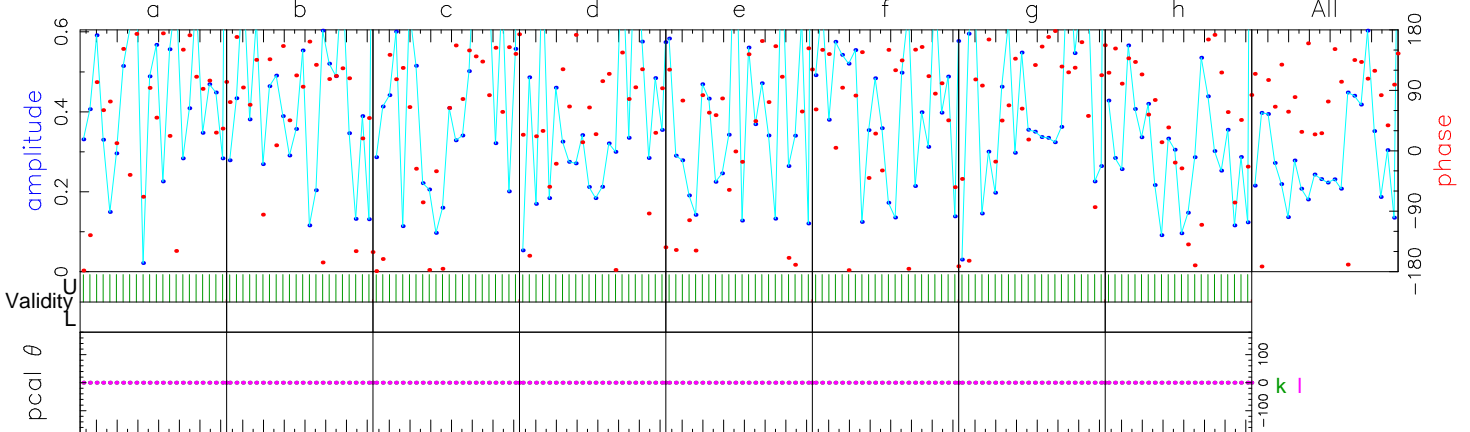


Fringe quality 9

SNR 11.1
Int time 406.934
Amp 0.202
Phase 108.8
PFD 4.3e-20
Delays (us)
SBD -0.003058
MBD -0.004233
Fringe rate (Hz) 0.002231
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165627
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.72674203582E+03	Apriori delay (usec)	-1.72673780302E+03	Resid mbdelay (usec)	-4.23280E-03	+/-	9.8E-05
Sband delay (usec)	-1.72674086152E+03	Apriori clock (usec)	3.3833367E-01	Resid sbdelay (usec)	-3.05850E-03	+/-	7.7E-04
Phase delay (usec)	-1.72673779951E+03	Apriori clockrate (us/s)	1.5689301E-07	Resid phdelay (usec)	3.50984E-06	+/-	3.3E-07
Delay rate (us/s)	7.40331326919E-02	Apriori rate (us/s)	7.40331067955E-02	Resid rate (us/s)	2.58964E-08	+/-	1.4E-09
Total phase (deg)	-18.0	Apriori accel (us/s/s)	5.19110597338E-06	Resid phase (deg)	108.8	+/-	10.3

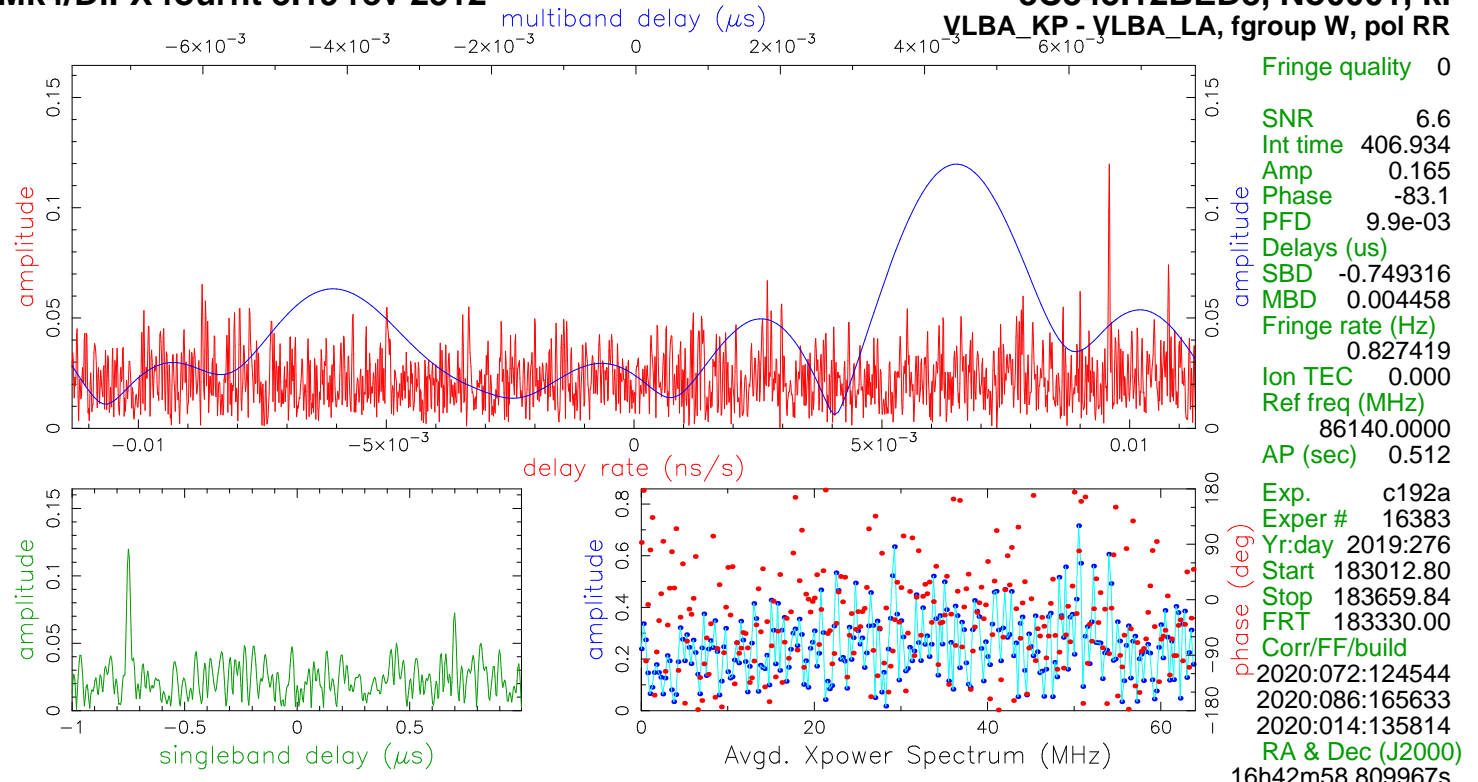
ph/seg (deg)	48.6	Theor.	24.7	Amplitude	0.202 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	75.0	Search (2048X32)	0.194	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	12.4	Inc. seg. avg.	0.266	Inc. frq. avg.	0.198	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	24.6	Inc. frq. avg.	0.198			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 60.1 el 32.1 pa -73.4 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) -543.636 -30.495 simultaneous interpolator

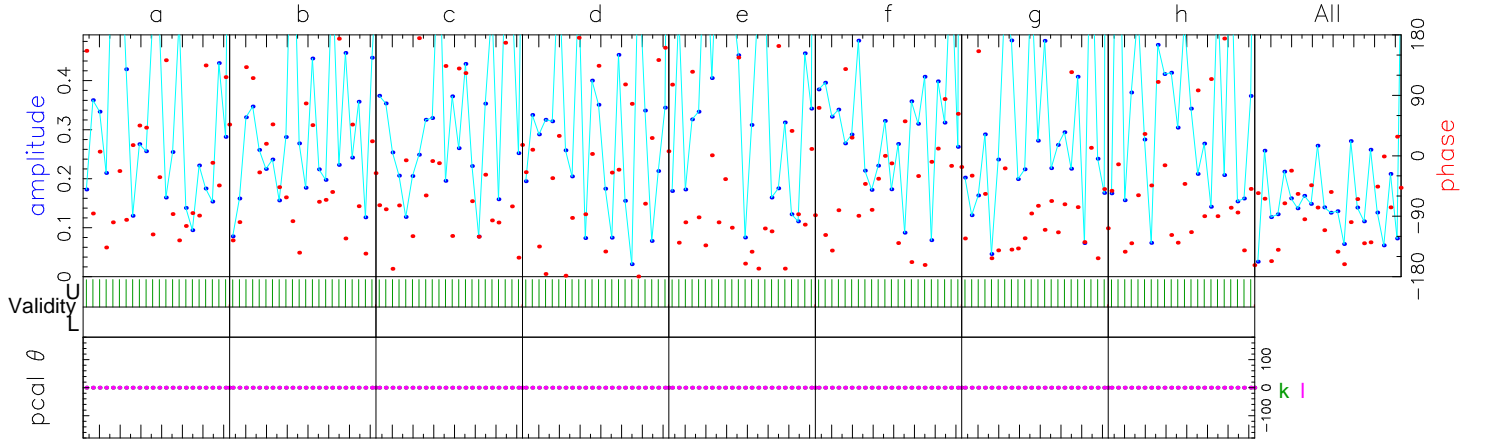
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kl..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kl.W.175.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kl
VLBA_KP - VLBA_LA, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

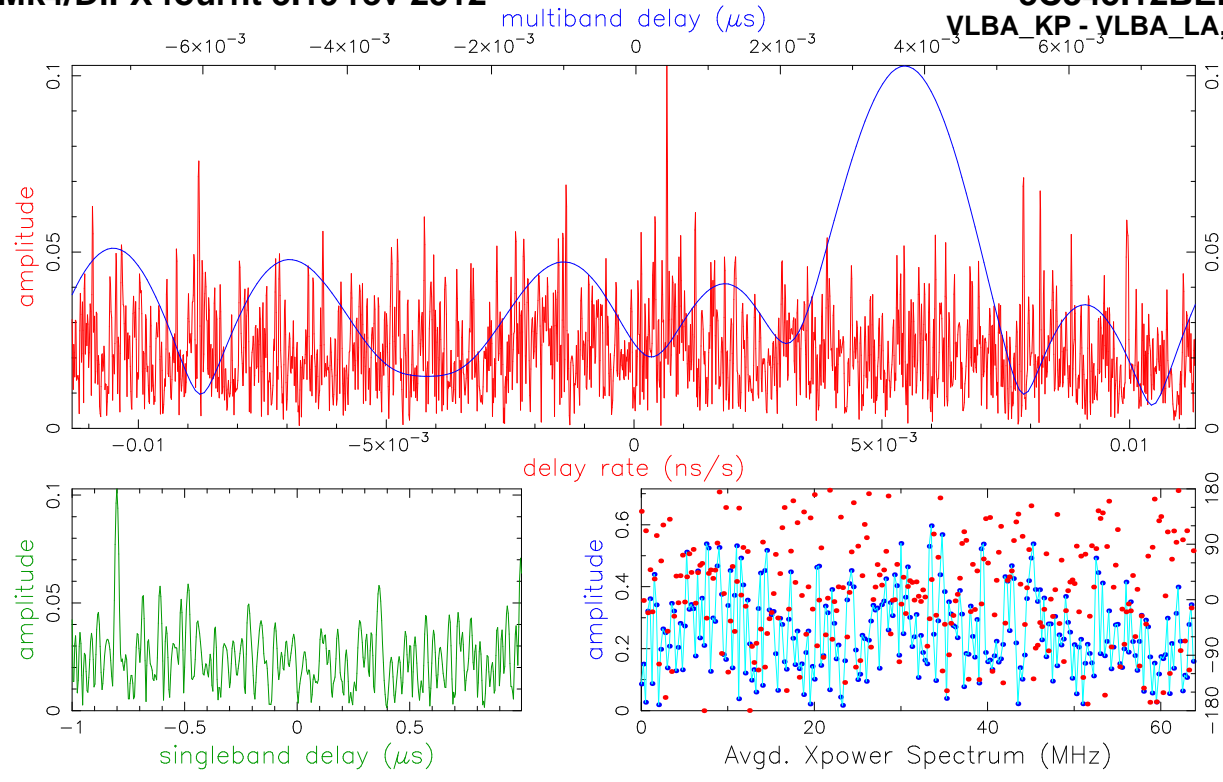


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.9	-57.5	-92.9	-150.5	-117.5	-40.6	-86.8	-71.4	Phase	-83.1
	0.2	0.1	0.2	0.0	0.3	0.1	0.2	0.2	Ampl.	0.2
	14.8	157.4	138.9	197.7	65.4	293.5	8.9	65.5	Sbd box	65.2
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.72748334464E+03		Apriori delay (usec)	-1.72673780302E+03	Resid mbdelay (usec)	4.45838E-03	+/-	1.6E-04		
Sband delay (usec)	-1.72748711852E+03		Apriori clock (usec)	3.3833367E-01	Resid sbdelay (usec)	-7.49316E-01	+/-	1.3E-03		
Phase delay (usec)	-1.72673780570E+03		Apriori clockrate (us/s)	1.5689301E-07	Resid phdelay (usec)	-2.67861E-06	+/-	5.6E-07		
Delay rate (us/s)	7.40427123052E-02		Apriori rate (us/s)	7.40331067955E-02	Resid rate (us/s)	9.60551E-06	+/-	2.4E-09		
Total phase (deg)		-209.9	Apriori accel (us/s/s)	5.19110597338E-06	Resid phase (deg)	-83.1	+/-	17.3		

	RMS	Theor.	Amplitude	0.165 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	48.9	41.5	Search (2048X32)	0.114	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	67.3	72.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	37.9	24.5	Inc. seg. avg.	0.169	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	47.6	42.7	Inc. frq. avg.	0.165	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

k: az 60.1 el 32.1 pa -73.4 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) -543.636 -30.495 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kl..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kl.W.203.12BED8

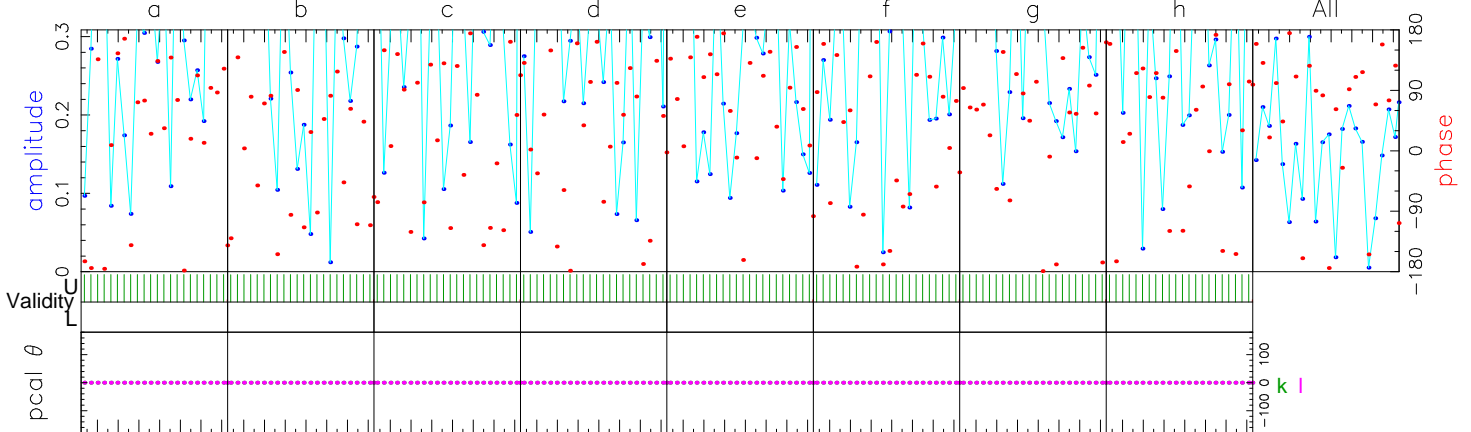


Fringe quality 0

SNR 5.7
Int time 406.934
Amp 0.103
Phase 108.8
PFD 9.7e-01
Delays (us)
SBD -0.801081
MBD 0.003722
Fringe rate (Hz) 0.057273
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165637
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

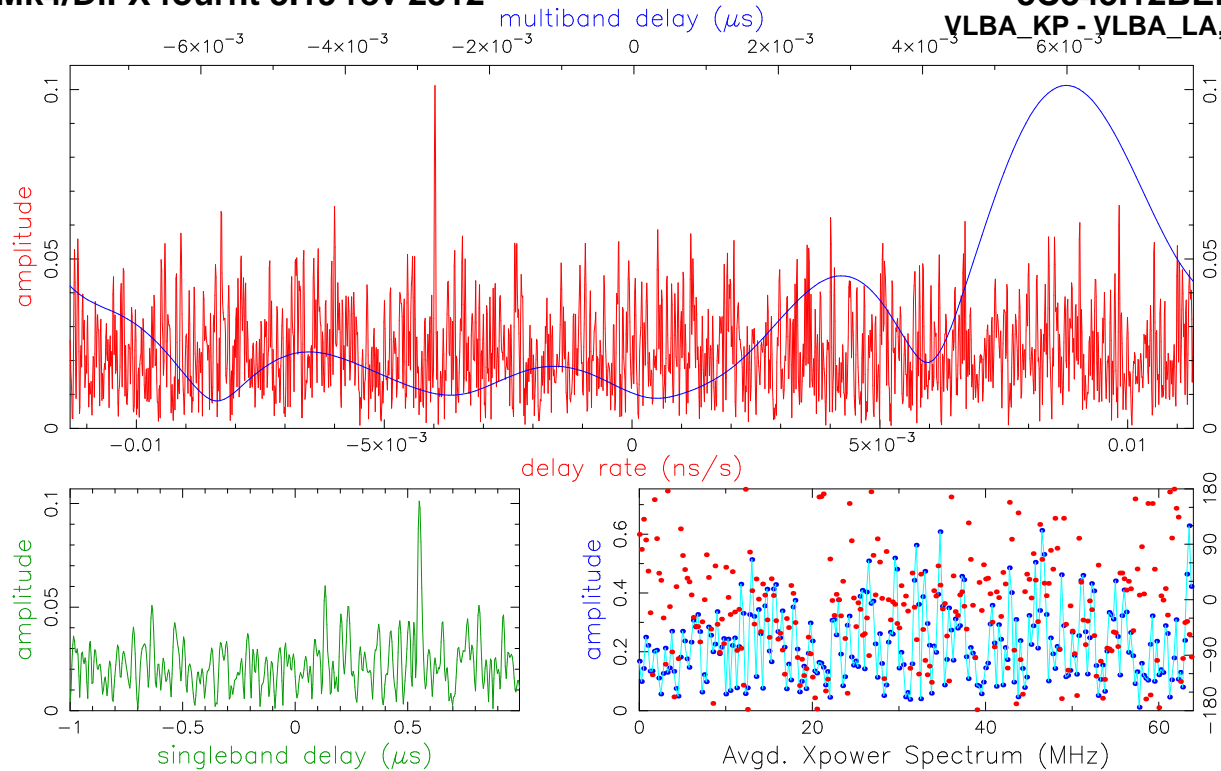
Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.72754658070E+03								3.72232E-03	+/- 1.9E-04
Sband delay (usec)	-1.72753888452E+03								-8.01081E-01	+/- 1.5E-03
Phase delay (usec)	-1.72673779951E+03								3.50859E-06	+/- 6.5E-07
Delay rate (us/s)	7.40337716840E-02								6.64888E-07	+/- 2.8E-09
Total phase (deg)			-18.0						108.8	+/- 20.2
	RMS	Theor.	Amplitude	0.103 +/- 0.018						
ph/seg (deg)	57.2	48.5	Search (2048X32)	0.100						
amp/seg (%)	87.7	84.6	Interp.	0.000						
ph/frq (deg)	34.4	28.6	Inc. seg. avg.	0.113						
amp/frq (%)	57.8	49.9	Inc. frq. avg.	0.098						
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(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite										

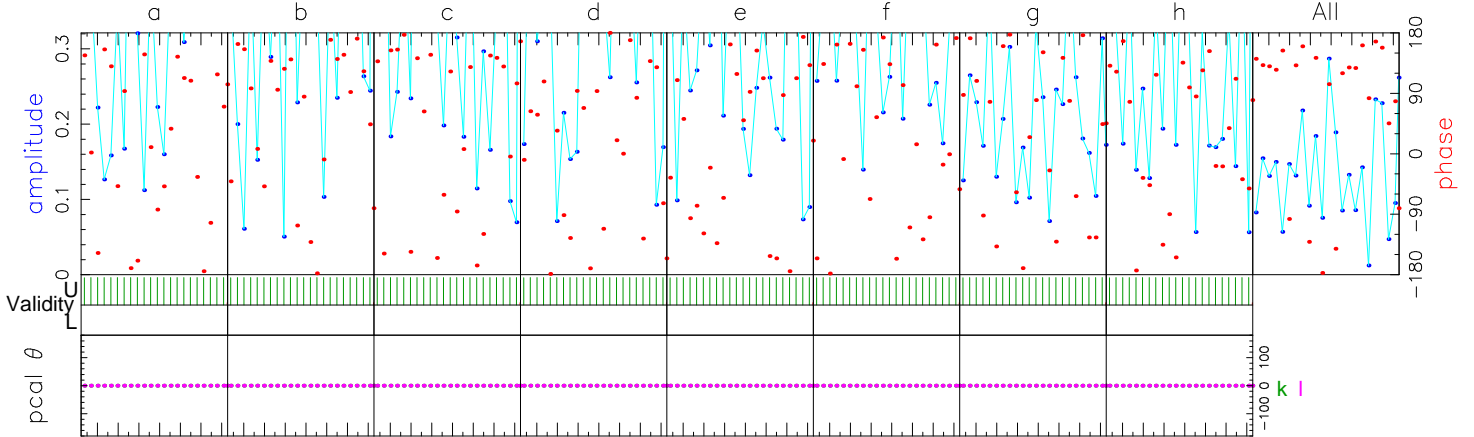
k: az 60.1 el 32.1 pa -73.4 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) -543.636 -30.495 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kl..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kl.W.219.12BED8



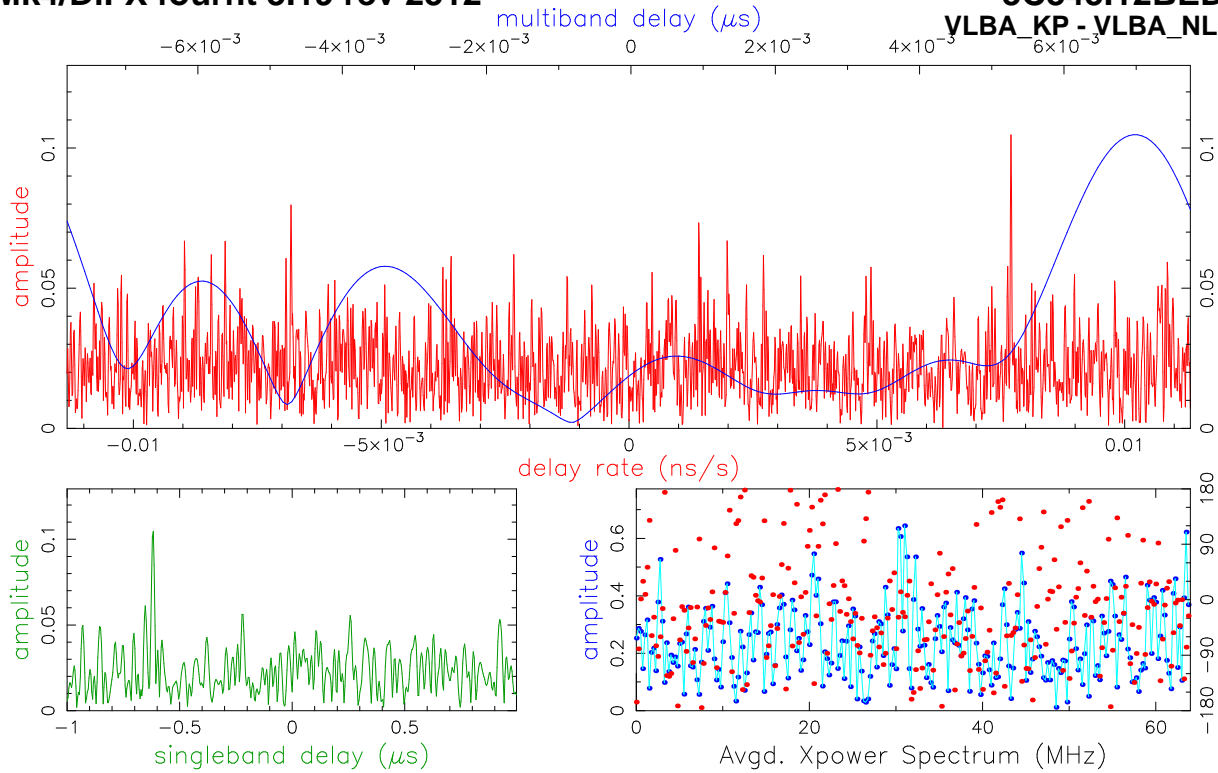
Fringe quality 0
SNR 5.6
Int time 406.934
Amp 0.107
Phase 147.8
PFD 9.9e-01
Delays (us)
SBD 0.551862
MBD 0.006027
Fringe rate (Hz)
-0.342462
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183012.80
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165641
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



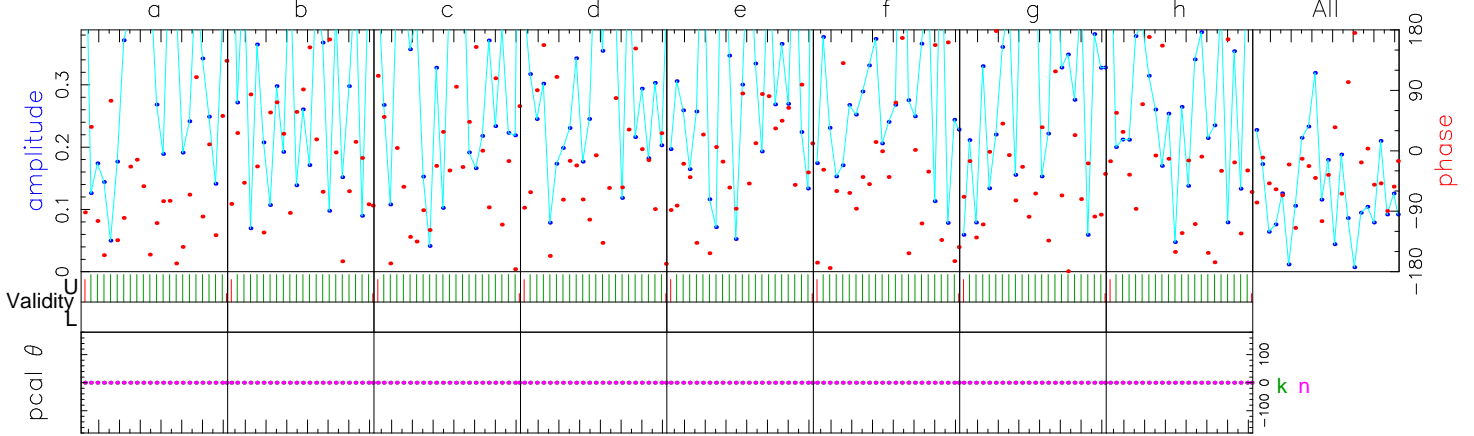
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	795/0	795/0	795/0	795/0	795/0	795/0	795/0	795/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.72618490085E+03								6.02717E-03	+/- 1.9E-04
Sband delay (usec)	-1.72618594127E+03								5.51862E-01	+/- 1.5E-03
Phase delay (usec)	-1.72673779826E+03								4.76566E-06	+/- 6.6E-07
Delay rate (us/s)	7.40291311524E-02								-3.97564E-06	+/- 2.8E-09
Total phase (deg)			21.0						147.8	+/- 20.4
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
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

ph/seg (deg) 49.0 48.9 Search (2048X32) 0.107 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.6 85.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.7 28.9 Inc. seg. avg. 0.104 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.0 50.4 Inc. frq. avg. 0.101 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 l: az 63.9 el 37.8 pa -72.0 u,v (fr/asec) -543.636 -30.495 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kl..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kl.W.237.12BED8 simultaneous interpolator



Fringe quality 0
SNR 5.9
Int time 407.728
Amp 0.129
Phase -43.6
PFD 6.8e-01
Delays (us)
SBD -0.618574
MBD 0.006949
Fringe rate (Hz) 0.664334
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165627
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

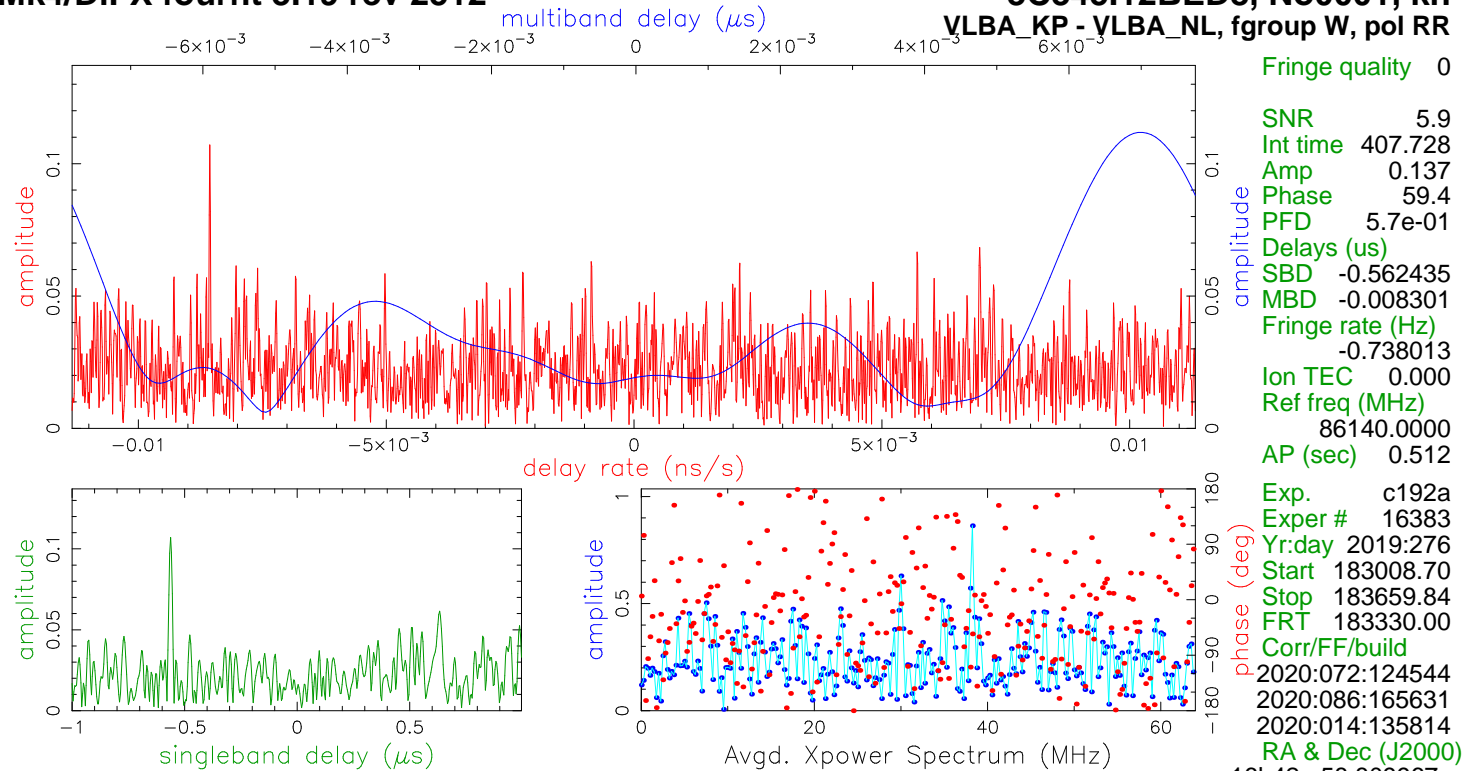


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.2	-32.0	-19.9	-33.3	-1.7	-91.8	-63.4	-37.8	Phase	-43.6
	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	87.4	178.9	297.6	17.4	269.2	438.3	271.6	212.7	Sbd box	98.6
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.11473733217E+03		Apriori delay (usec)		-5.11411928081E+03		Resid mbdelay (usec)		6.94863E-03	+/- 1.9E-04
Sband delay (usec)	-5.11473785481E+03		Apriori clock (usec)		-2.6877258E+01		Resid sbdelay (usec)		-6.18574E-01	+/- 1.5E-03
Phase delay (usec)	-5.11411928221E+03		Apriori clockrate (us/s)		-3.2880250E-07		Resid phdelay (usec)		-1.40518E-06	+/- 6.3E-07
Delay rate (us/s)	2.61983552029E-01		Apriori rate (us/s)		2.61975839775E-01		Resid rate (us/s)		7.71225E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		1.71830403617E-05		Resid phase (deg)		-43.6	+/- 19.5

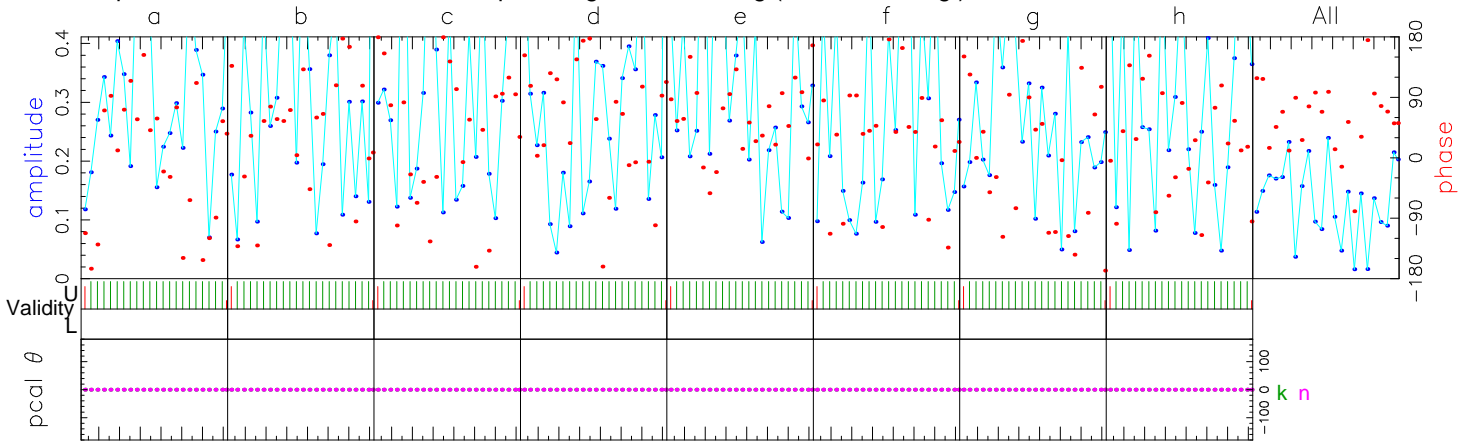
ph/seg (deg) 55.0 46.8 Amplitude 0.129 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.0 81.8 Search (2048X32) 0.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.5 27.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.1 48.2 Inc. seg. avg. 0.118 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kn..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kn.W.174.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kn
VLBA_KP - VLBA_NL, fgroup W, pol RR

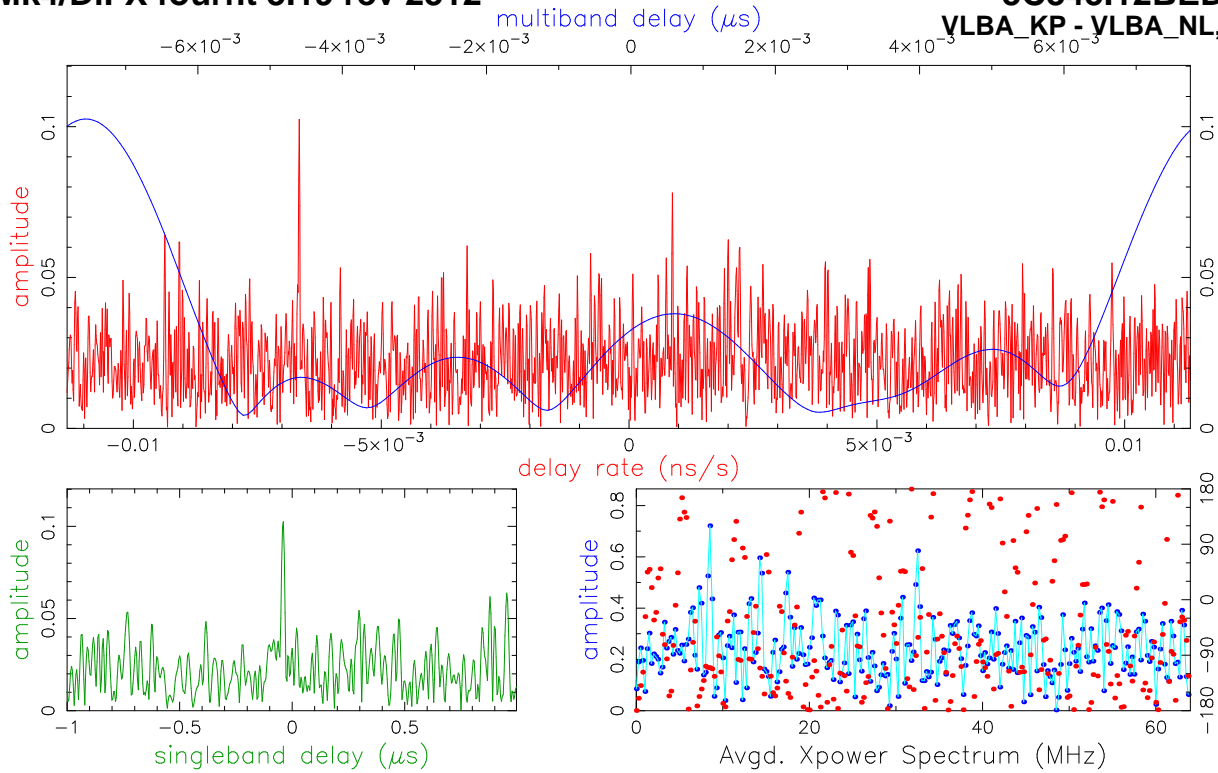


Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



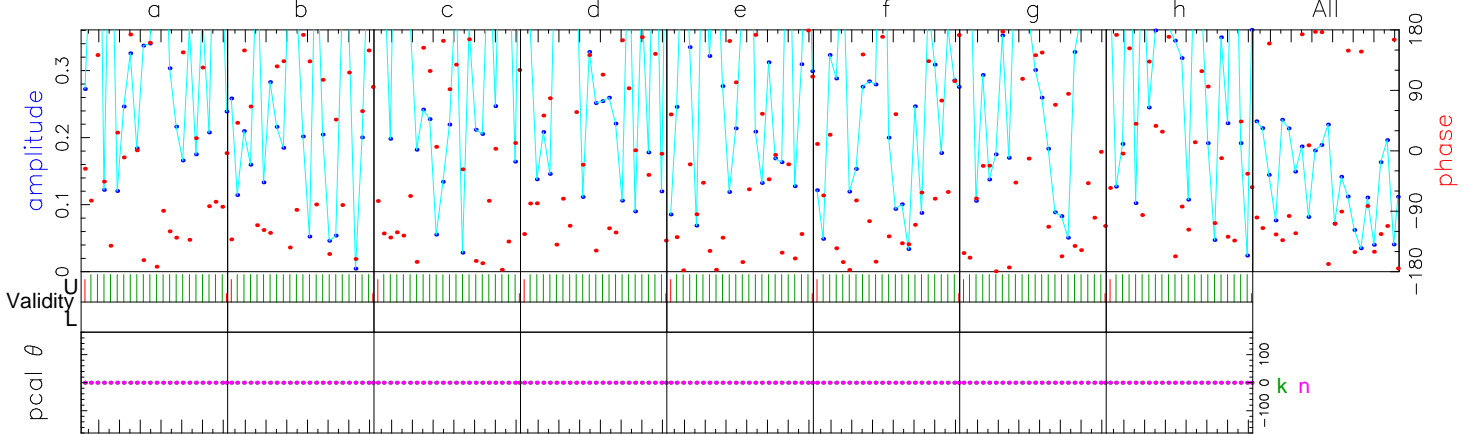
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
64.1	67.2	95.2	90.2	51.3	56.2	-38.3	26.3	26.3	Phase	59.4
0.1	0.2	0.1	0.1	0.3	0.2	0.1	0.2	0.2	Ampl.	0.1
9.5	219.2	110.5	140.8	113.2	74.5	270.2	187.3	187.3	Sbd box	113.0
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.11467445659E+03		Apriori delay (usec)	-5.11411928081E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	1.8E-04		
Sband delay (usec)	-5.11468171606E+03		Apriori clock (usec)	-2.6877258E+01	Resid sbdelay (usec)	-5.62435E-01	+/-	1.5E-03		
Phase delay (usec)	-5.11411927889E+03		Apriori clockrate (us/s)	-3.2880250E-07	Resid phdelay (usec)	1.91391E-06	+/-	6.2E-07		
Delay rate (us/s)	2.61967272175E-01		Apriori rate (us/s)	2.61975839775E-01	Resid rate (us/s)	-8.56760E-06	+/-	2.6E-09		
Total phase (deg)		-246.2	Apriori accel (us/s/s)	1.71830403617E-05	Resid phase (deg)	59.4	+/-	19.4		

ph/seg (deg) 51.6 46.4 Search (2048X32) 0.110 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.0 81.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.6 27.4 Inc. seg. avg. 0.127 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.8 47.8 Inc. frq. avg. 0.135 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kn..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kn.W.196.12BED8



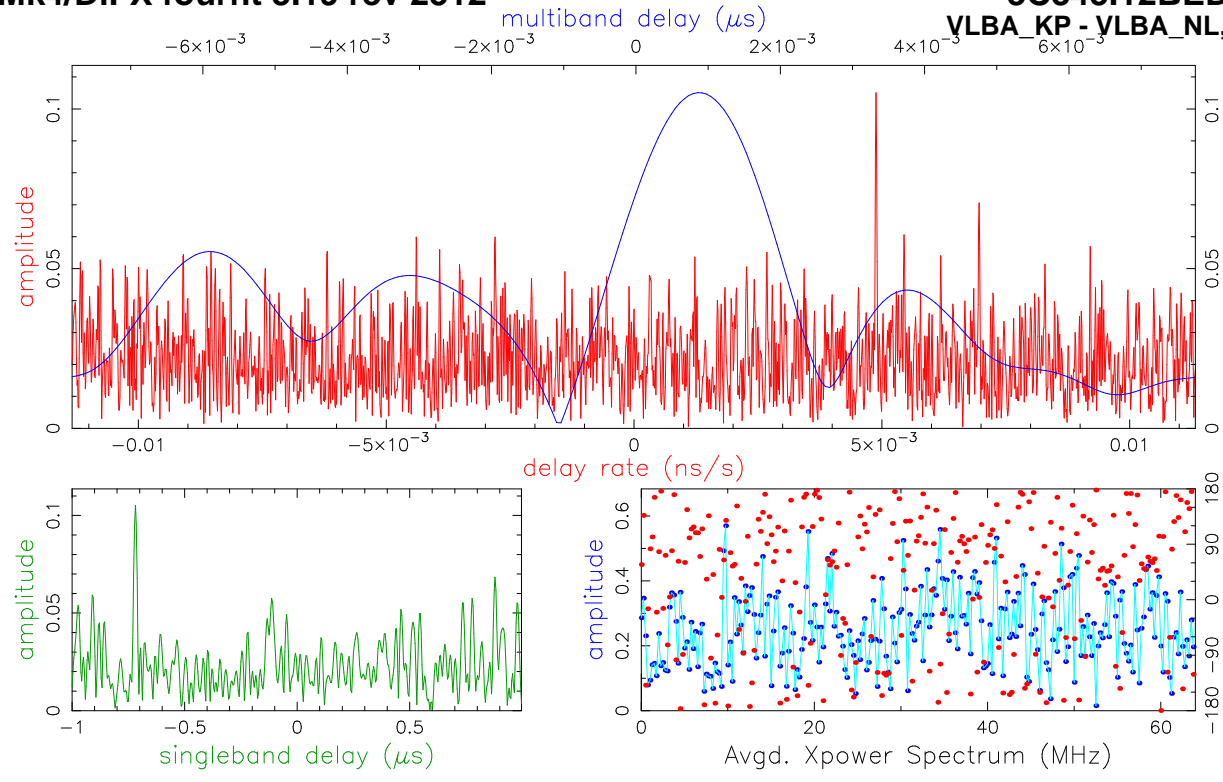
Fringe quality 0
SNR 5.7
Int time 407.728
Amp 0.120
Phase -139.0
PFD 9.1e-01
Delays (us)
SBD -0.040541
MBD -0.007608
Fringe rate (Hz)
-0.573977
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165636
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-130.7	-157.6	-144.3	-149.3	-118.9	-161.2	-122.8	-125.4	Phase	-139.0
	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	Ampl.	0.1
	246.9	339.3	501.1	200.5	11.9	293.2	62.5	235.4	Sbd box	246.6
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.11415813862E+03		Apriori delay (usec)		-5.11411928081E+03		Resid mbdelay (usec)		-7.60781E-03	+/- 1.9E-04
Sband delay (usec)	-5.11415982231E+03		Apriori clock (usec)		-2.6877258E+01		Resid sbdelay (usec)		-4.05415E-02	+/- 1.5E-03
Phase delay (usec)	-5.11411928529E+03		Apriori clockrate (us/s)		-3.2880250E-07		Resid phdelay (usec)		-4.48384E-06	+/- 6.4E-07
Delay rate (us/s)	2.61969176476E-01		Apriori rate (us/s)		2.61975839775E-01		Resid rate (us/s)		-6.66330E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		1.71830403617E-05		Resid phase (deg)		-139.0	+/- 20.0

ph/seg (deg) 51.4 47.9 Search (2048X32) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.5 83.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.8 28.2 Inc. seg. avg. 0.119 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.9 49.3 Inc. frq. avg. 0.109 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kn..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kn.W.217.12BED8

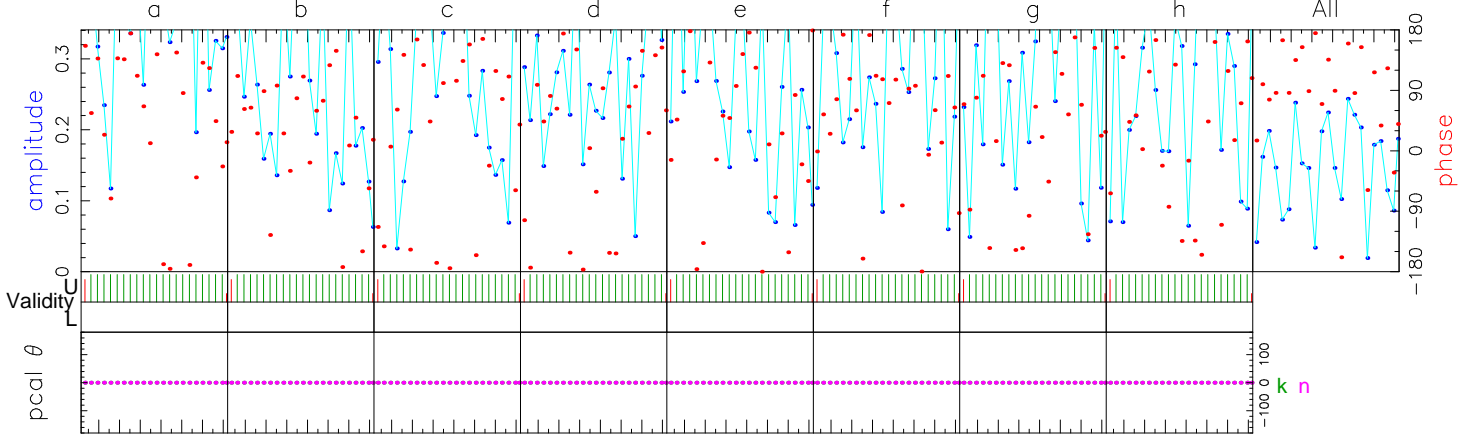


Fringe quality 0

SNR 5.8
Int time 407.728
Amp 0.114
Phase 109.8
PFD 8.0e-01
Delays (us)
SBD -0.718566
MBD 0.000880
Fringe rate (Hz)
0.421348
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165640
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

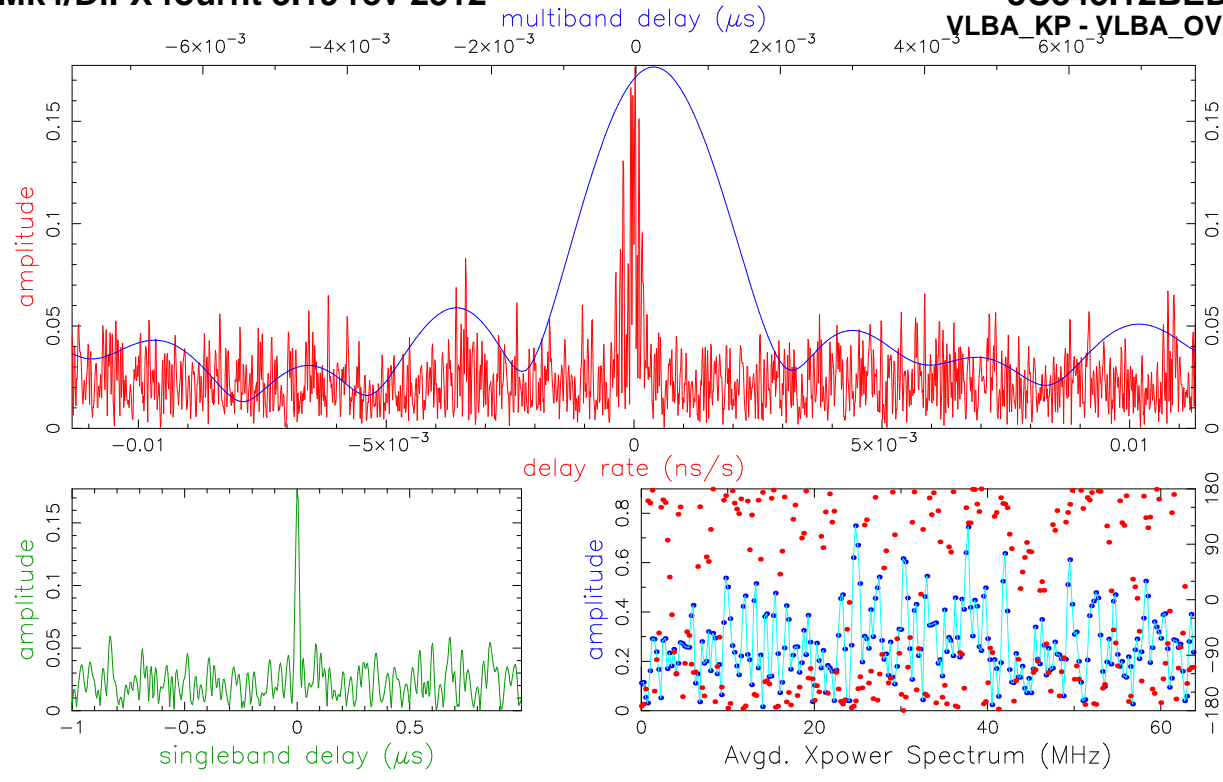


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
123.3	58.5	149.6	131.5	129.2	79.6	97.8	136.0	136.0	Phase	109.8
0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
73.0	483.0	182.0	34.5	296.1	267.8	389.0	84.4	84.4	Sbd box	73.0
U/L 801/0	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0	APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.11483715068E+03		Apriori delay (usec)		-5.11411928081E+03		Resid mbdelay (usec)		8.80128E-04	+/- 1.9E-04
Sband delay (usec)	-5.11483784631E+03		Apriori clock (usec)		-2.6877258E+01		Resid sbdelay (usec)		-7.18566E-01	+/- 1.5E-03
Phase delay (usec)	-5.11411927727E+03		Apriori clockrate (us/s)		-3.2880250E-07		Resid phdelay (usec)		3.53952E-06	+/- 6.4E-07
Delay rate (us/s)	2.61980731209E-01		Apriori rate (us/s)		2.61975839775E-01		Resid rate (us/s)		4.89143E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		1.71830403617E-05		Resid phase (deg)		109.8	+/- 19.7

ph/seg (deg) 64.3 47.3 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.9 82.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.1 27.9 Inc. seg. avg. 0.119 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.5 48.7 Inc. frq. avg. 0.118 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 n: az 74.7 el 50.6 pa -69.4 u,v (fr/asec) -1924.821 216.344 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kn..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kn.W.235.12BED8 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, ko
VLBA_KP - VLBA_OV, fgroup W, pol LL

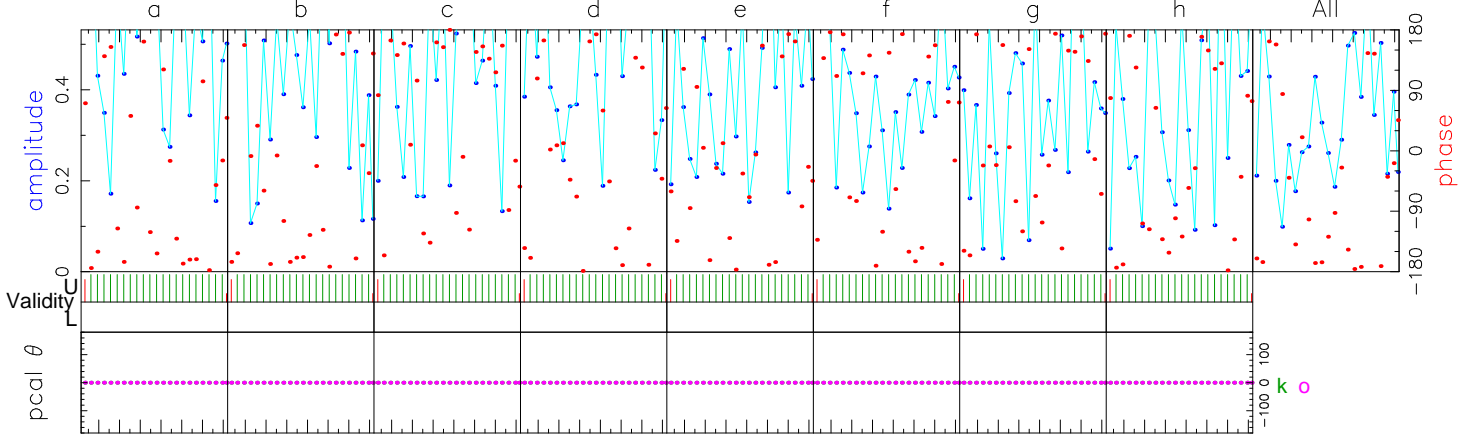


Fringe quality 9

SNR 9.8
Int time 407.733
Amp 0.177
Phase -163.1
PFD 5.3e-14
Delays (us)
SBD 0.000895
MBD 0.000247
Fringe rate (Hz) 0.002003
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165627
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

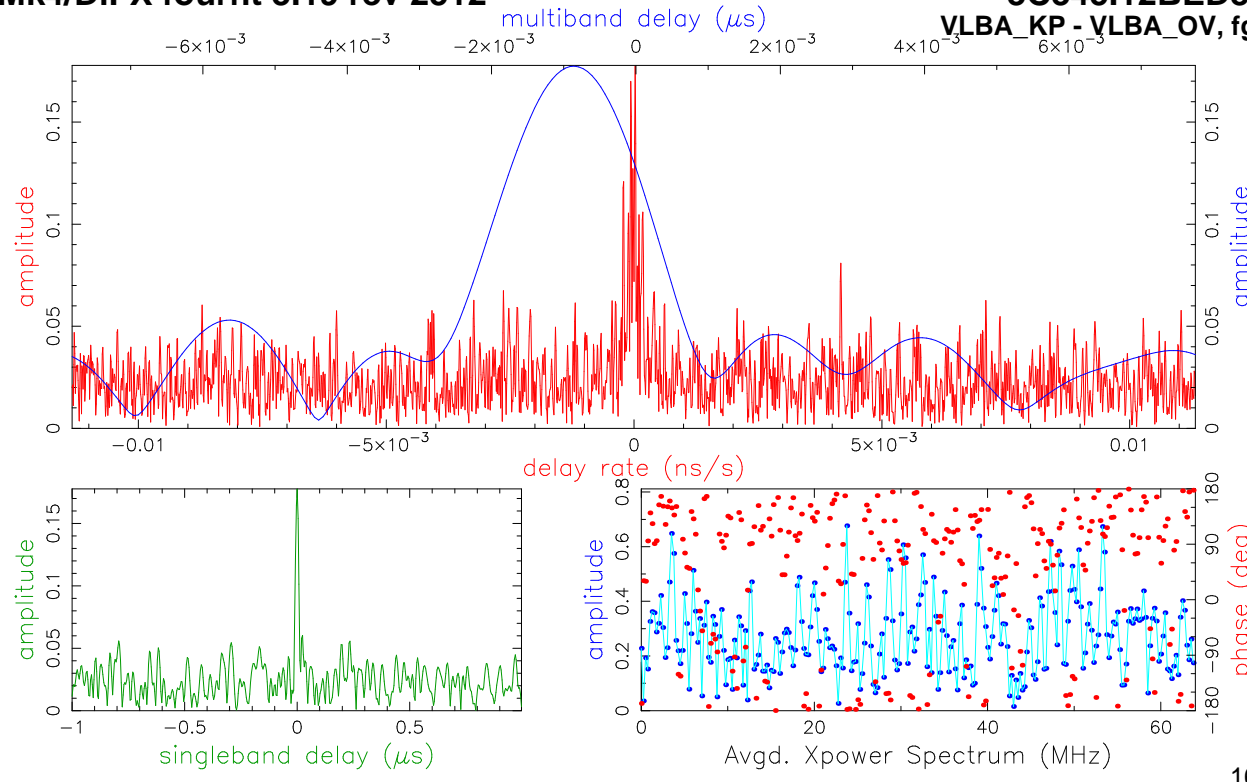
Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.2	-155.6	-170.3	-171.7	-143.2	-172.7	-124.2	-176.4	Phase	-163.1
	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	Ampl.	0.2
	257.1	257.5	336.8	258.3	367.9	257.0	175.4	80.8	Sbd box	257.2
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.85758117185E+02		Apriori delay (usec)		6.85758780171E+02		Resid mbdelay (usec)		2.47014E-04	+/- 1.1E-04
Sband delay (usec)	6.85758765421E+02		Apriori clock (usec)		-1.7031700E+01		Resid sbdelay (usec)		8.95250E-04	+/- 8.8E-04
Phase delay (usec)	6.85757864912E+02		Apriori clockrate (us/s)		-1.9555999E-07		Resid phdelay (usec)		-5.25906E-06	+/- 3.8E-07
Delay rate (us/s)	3.11211152874E-02		Apriori rate (us/s)		3.11210920389E-02		Resid rate (us/s)		2.32485E-08	+/- 1.6E-09
Total phase (deg)	174.1		Apriori accel (us/s/s)		-9.19914500056E-06		Resid phase (deg)		-163.1	+/- 11.7

ph/seg (deg) 79.8 28.1 Amplitude 0.177 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 122.9 49.0 Search (2048X32) 0.172 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.9 16.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.1 28.9 Inc. seg. avg. 0.305 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.174 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 60.1 el 32.1 pa -73.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) -248.865 -1113.881 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/ko..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/ko.W.177.12BED8

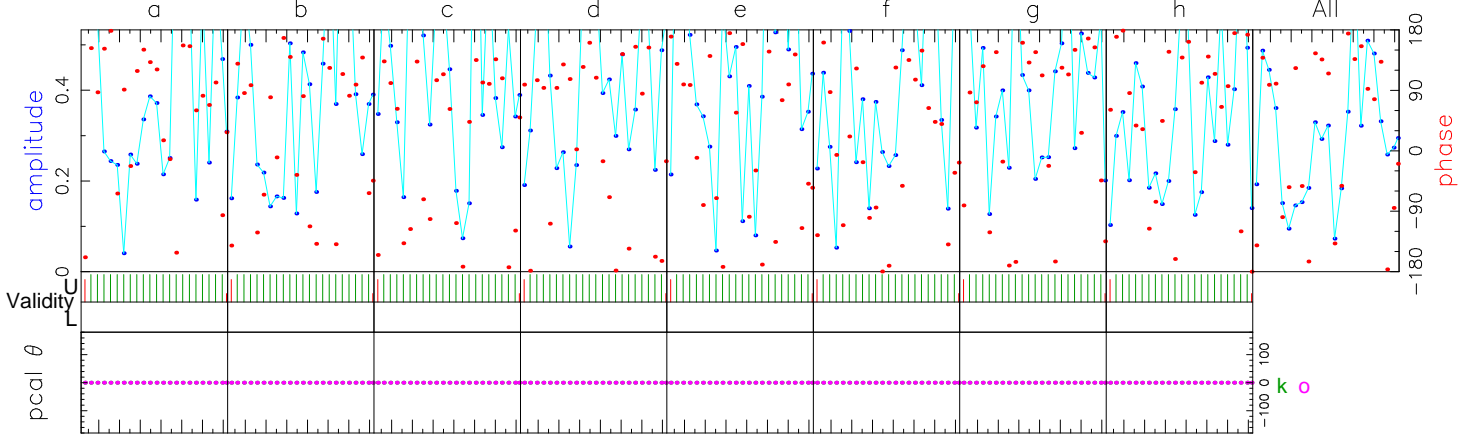


Fringe quality 9

SNR 9.8
Int time 407.733
Amp 0.178
Phase 134.4
PFD 4.0e-14
Delays (us)
SBD -0.000557
MBD -0.000879
Fringe rate (Hz) 0.001898
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

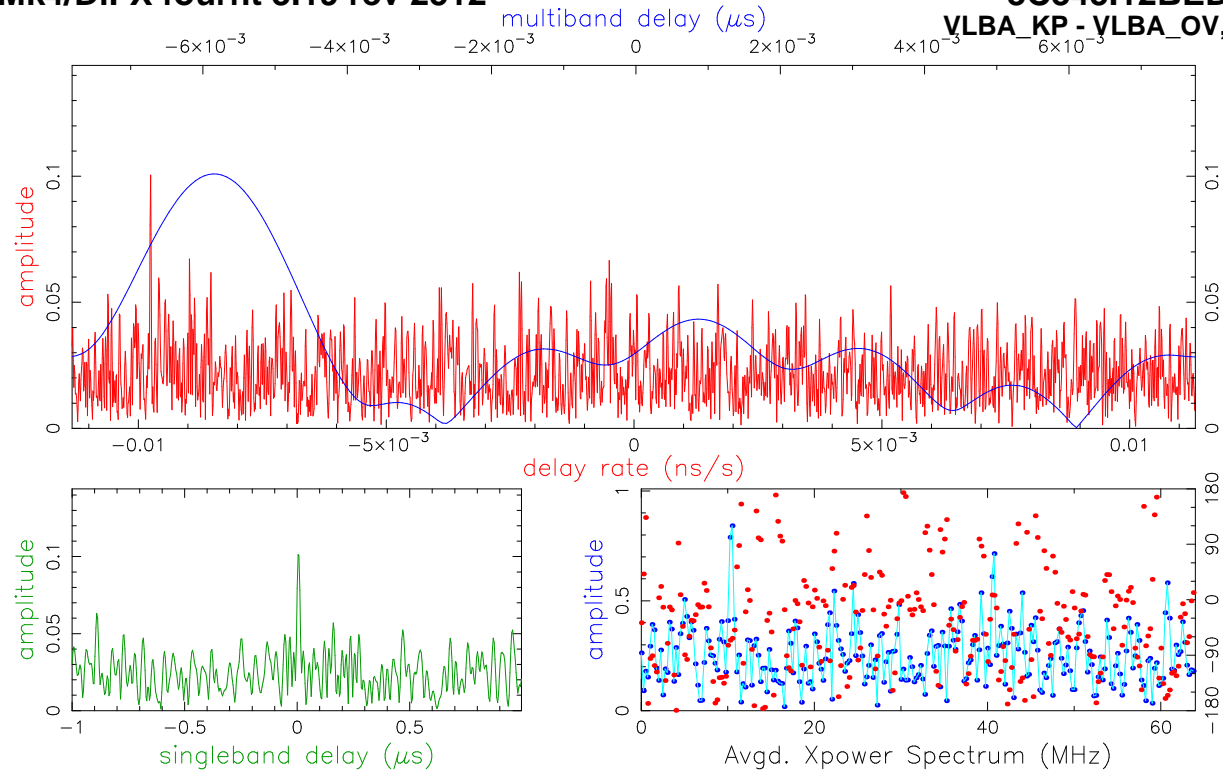
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165631
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



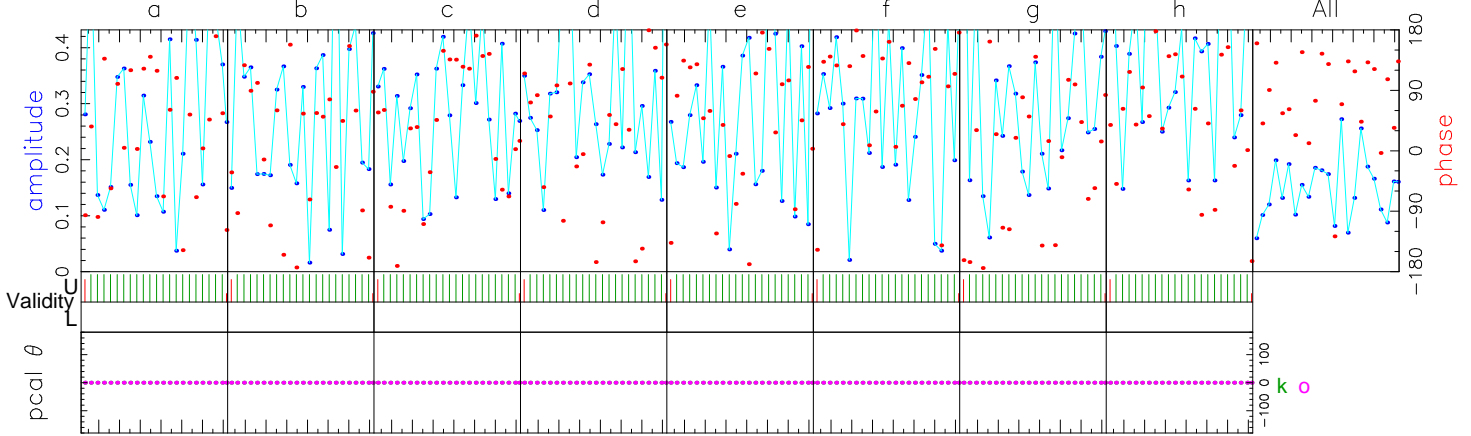
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	6.85756990810E+02		Apriori delay (usec)		6.85757870171E+02		Resid mbdelay (usec)		-8.79361E-04	+/- 1.1E-04
Sband delay (usec)	6.85757313171E+02		Apriori clock (usec)		-1.7031700E+01		Resid sbdelay (usec)		-5.57000E-04	+/- 8.8E-04
Phase delay (usec)	6.85757874506E+02		Apriori clockrate (us/s)		-1.9555999E-07		Resid phdelay (usec)		4.33528E-06	+/- 3.8E-07
Delay rate (us/s)	3.11211140765E-02		Apriori rate (us/s)		3.11210920389E-02		Resid rate (us/s)		2.20376E-08	+/- 1.6E-09
Total phase (deg)	111.6		Apriori accel (us/s/s)		-9.19914500056E-06		Resid phase (deg)		134.4	+/- 11.7

ph/seg (deg) 85.7 28.0 Search (2048X32) 0.176 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 111.2 48.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.9 16.5 Inc. seg. avg. 0.271 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.3 28.8 Inc. frq. avg. 0.177 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 60.1 el 32.1 pa -73.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) -248.865 -1113.881 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/ko..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/ko.W.195.12BED8



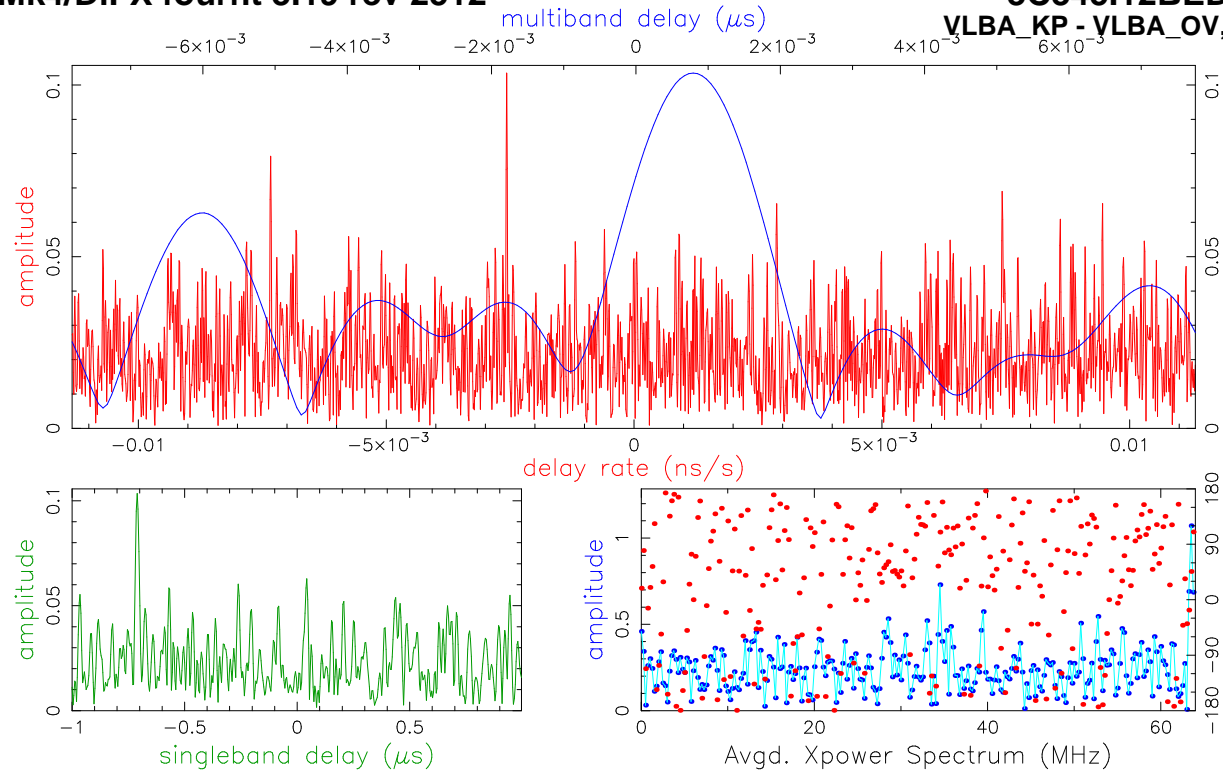
Fringe quality 0
SNR 5.7
Int time 407.733
Amp 0.144
Phase 88.7
PFD 9.1e-01
Delays (us)
SBD 0.005722
MBD -0.005947
Fringe rate (Hz)
-0.841241
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165635
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



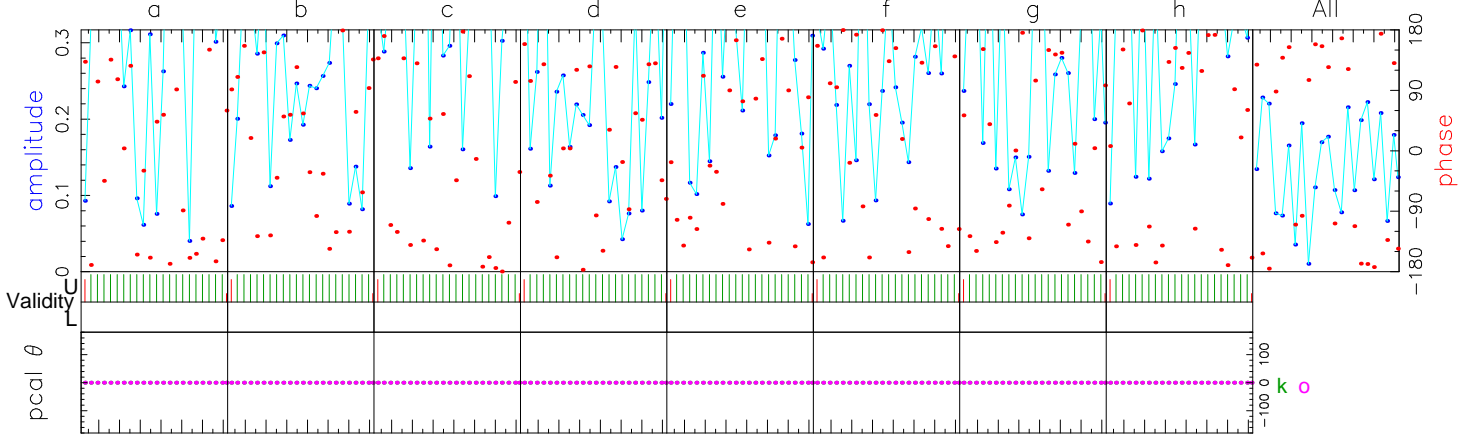
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	6.85767548147E+02		Apriori delay (usec)		6.85757870171E+02		Resid mbdelay (usec)		-5.94702E-03	+/- 1.9E-04
Sband delay (usec)	6.85763591671E+02		Apriori clock (usec)		-1.7031700E+01		Resid sbdelay (usec)		5.72150E-03	+/- 1.5E-03
Phase delay (usec)	6.85757873030E+02		Apriori clockrate (us/s)		-1.9555999E-07		Resid phdelay (usec)		2.85878E-06	+/- 6.4E-07
Delay rate (us/s)	3.1111326022E-02		Apriori rate (us/s)		3.11210920389E-02		Resid rate (us/s)		-9.76598E-06	+/- 2.7E-09
Total phase (deg)			65.8		Apriori accel (us/s/s)		-9.19914500056E-06		88.7	+/- 20.0

ph/seg (deg) 56.2 47.9 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 67.9 83.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 21.0 28.2 Inc. seg. avg. 0.153 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 47.0 49.3 Inc. frq. avg. 0.130 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) -248.865 -1113.881 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/ko..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/ko.W.215.12BED8



Fringe quality 0
SNR 5.7
Int time 407.733
Amp 0.106
Phase 175.3
PFD 9.4e-01
Delays (us)
SBD -0.710832
MBD 0.000796
Fringe rate (Hz)
-0.221312
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165639
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

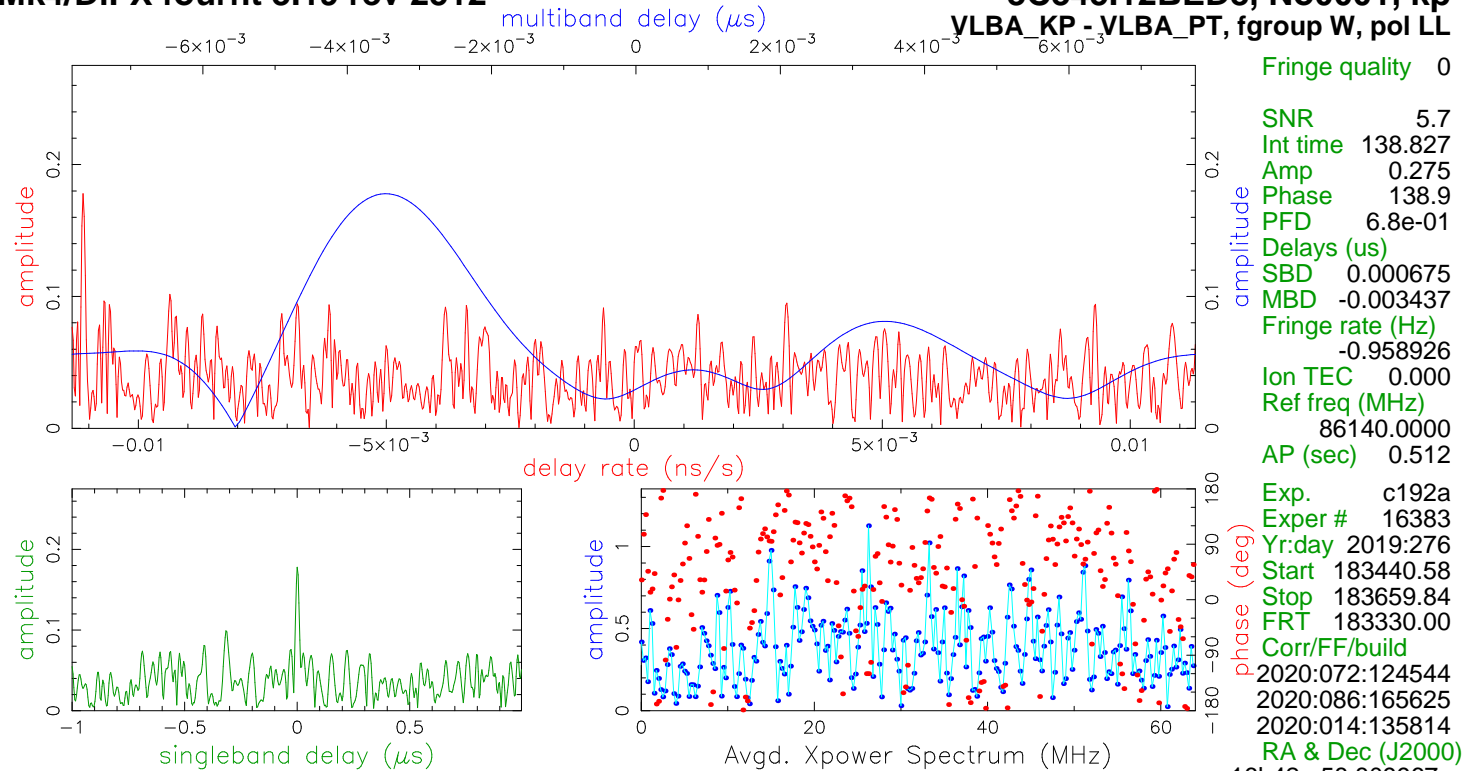


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	6.85039916327E+02		Apriori delay (usec)		6.85757870171E+02		Resid mbdelay (usec)		7.96156E-04	+/- 1.9E-04
Sband delay (usec)	6.85047038421E+02		Apriori clock (usec)		-1.7031700E+01		Resid sbdelay (usec)		-7.10832E-01	+/- 1.5E-03
Phase delay (usec)	6.85757875823E+02		Apriori clockrate (us/s)		-1.9555999E-07		Resid phdelay (usec)		5.65182E-06	+/- 6.5E-07
Delay rate (us/s)	3.11185228260E-02		Apriori rate (us/s)		3.11210920389E-02		Resid rate (us/s)		-2.56921E-06	+/- 2.7E-09
Total phase (deg)	152.4		Apriori accel (us/s/s)		-9.19914500056E-06		Resid phase (deg)		175.3	+/- 20.1

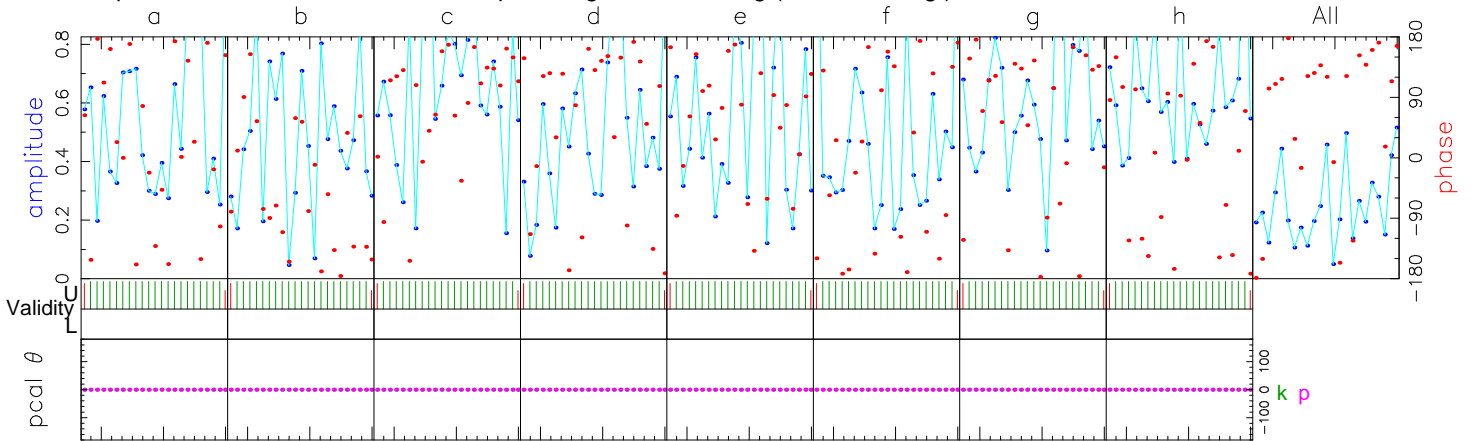
ph/seg (deg) 49.3 48.0 Search (2048X32) 0.101 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 71.7 83.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 28.3 28.4 Inc. seg. avg. 0.106 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 52.0 49.5 Inc. frq. avg. 0.101 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 o: az 60.7 el 29.9 pa -64.6 u,v (fr/asec) -248.865 -1113.881 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/ko..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/ko.W.231.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kp
VLBA_KP - VLBA_PT, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 23 segs, 12 APs / seg (6.14 sec / seg.), time ticks 10 sec



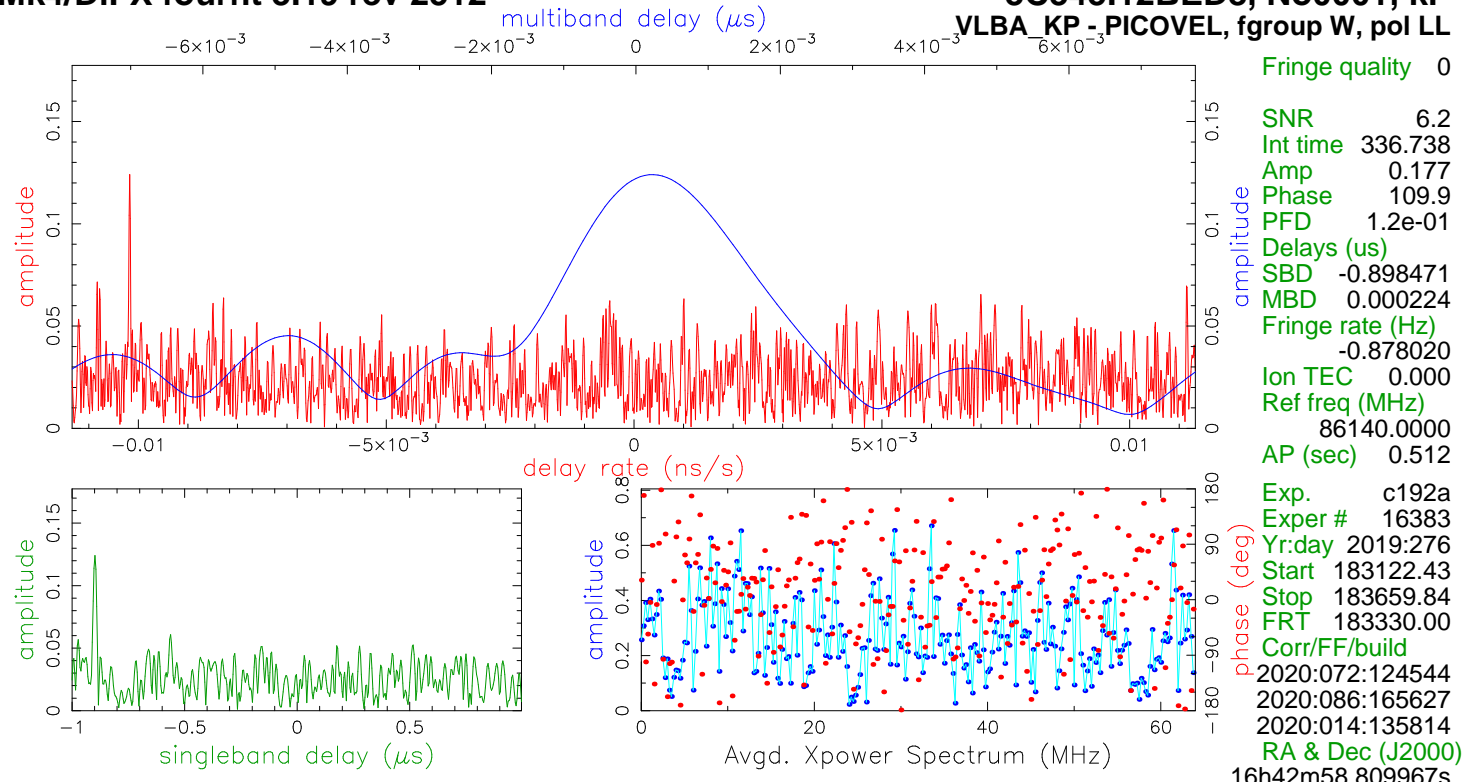
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
160.0	-107.4	112.3	145.0	108.8	-178.0	142.1	127.2	127.2	Phase	138.9
0.2	0.1	0.4	0.4	0.4	0.3	0.4	0.3	0.3	Ampl.	0.3
110.8	185.8	257.8	363.4	15.6	160.1	258.1	451.4	451.4	Sbd box	257.2
U/L 272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0	APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-1.14119992675E+03	Apriori delay (usec)	-1.14119649022E+03	Resid mbdelay (usec)	-3.43654E-03	+/-	1.9E-04
Sband delay (usec)	-1.14119581572E+03	Apriori clock (usec)	-1.2307825E+01	Resid sbdelay (usec)	6.74500E-04	+/-	1.5E-03
Phase delay (usec)	-1.14119648574E+03	Apriori clockrate (us/s)	-3.9846558E-07	Resid phdelay (usec)	4.48037E-06	+/-	6.4E-07
Delay rate (us/s)	4.55309384696E-02	Apriori rate (us/s)	4.55420706453E-02	Resid rate (us/s)	-1.11322E-05	+/-	8.0E-09
Total phase (deg)	-101.3	Apriori accel (us/s/s)	3.52775994987E-06	Resid phase (deg)	138.9	+/-	19.9

ph/seg (deg)	RMS 66.7	Theor. 47.8	Amplitude Search (1024X32)	0.275 +/- 0.048	0.175	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	81.6	83.5	Interp.	0.000	0.175	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	53.3	28.2	Inc. seg. avg.	0.285	0.285	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	43.5	49.2	Inc. frq. avg.	0.284	0.284	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 60.1 el 32.1 pa -73.4 p: az 62.4 el 35.8 pa -72.8 u,v (fr/asec) -333.857 1.314 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kp..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kp.W.169.12BED8



Fringe quality 0

SNR 6.2

Int time 336.738

Amp 0.177

Phase 109.9

PFD 1.2e-01

Delays (us)

SBD -0.898471

MBD 0.000224

Fringe rate (Hz)

-0.878020

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183122.43

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:072:124544

2020:086:165627

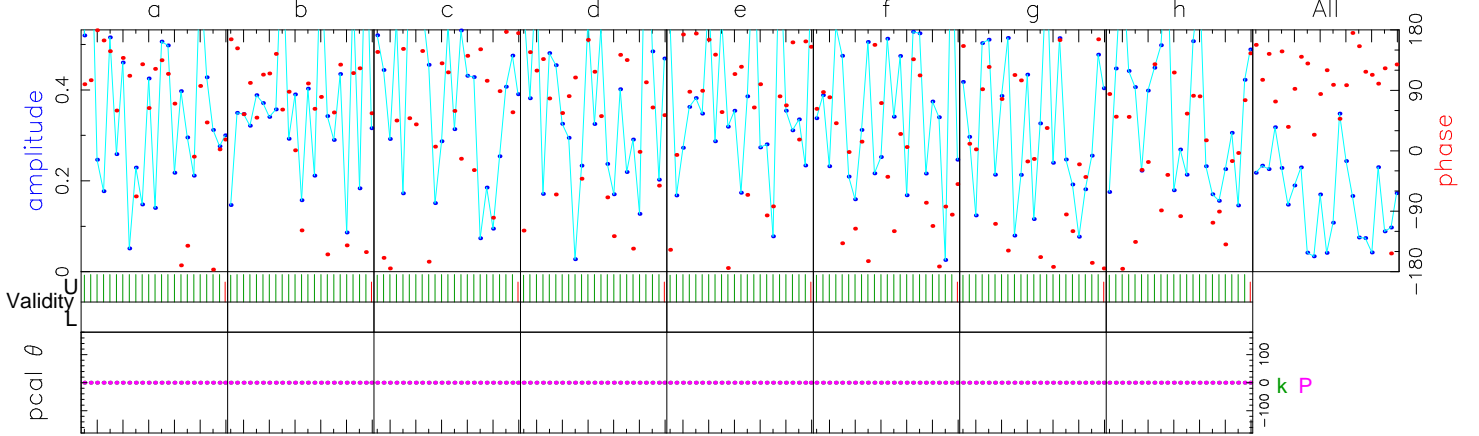
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 29 APs / seg (14.85 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	112.0	103.9	107.3	107.7	119.2	-107.5	147.5	48.9	Phase	109.9
	0.3	0.3	0.2	0.2	0.3	0.0	0.1	0.1	Ampl.	0.2
	27.4	26.9	186.1	394.0	28.2	303.3	139.6	222.8	Sbd box	27.0
U/L	659/0	659/0	659/0	659/0	659/0	659/0	659/0	659/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.23997589633E+03		Apriori delay (usec)		-7.23906987012E+03		Resid mbdelay (usec)		2.23790E-04	+/- 1.7E-04
Sband delay (usec)	-7.23996834162E+03		Apriori clock (usec)		-3.1195241E-01		Resid sbdelay (usec)		-8.98471E-01	+/- 1.4E-03
Phase delay (usec)	-7.23906986658E+03		Apriori clockrate (us/s)		1.5842101E-07		Resid phdelay (usec)		3.54411E-06	+/- 5.9E-07
Delay rate (us/s)	1.52656852491E+00		Apriori rate (us/s)		1.52657871785E+00		Resid rate (us/s)		-1.01929E-05	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		3.31843554813E-05		Resid phase (deg)		109.9	+/- 18.4

ph/seg (deg) 43.1 44.1 Search (2048X32) 0.121 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 77.9 77.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 65.3 26.0 Inc. seg. avg. 0.178 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

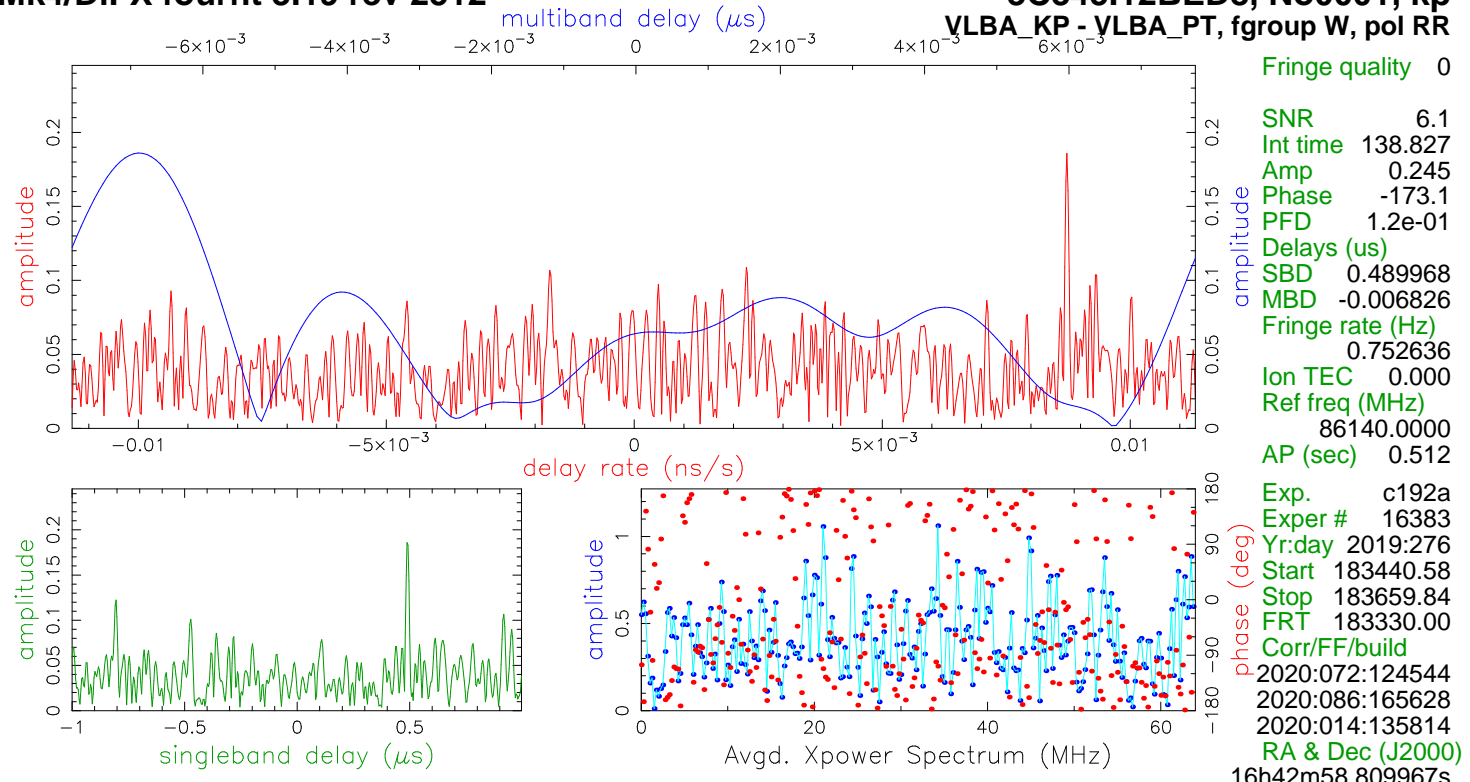
amp/frq (%) 57.5 45.4 Inc. frq. avg. 0.171 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

k: az 60.1 el 32.1 pa -73.4 P: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -11319.294 1807.302 ion window (TEC) 0.00 0.00

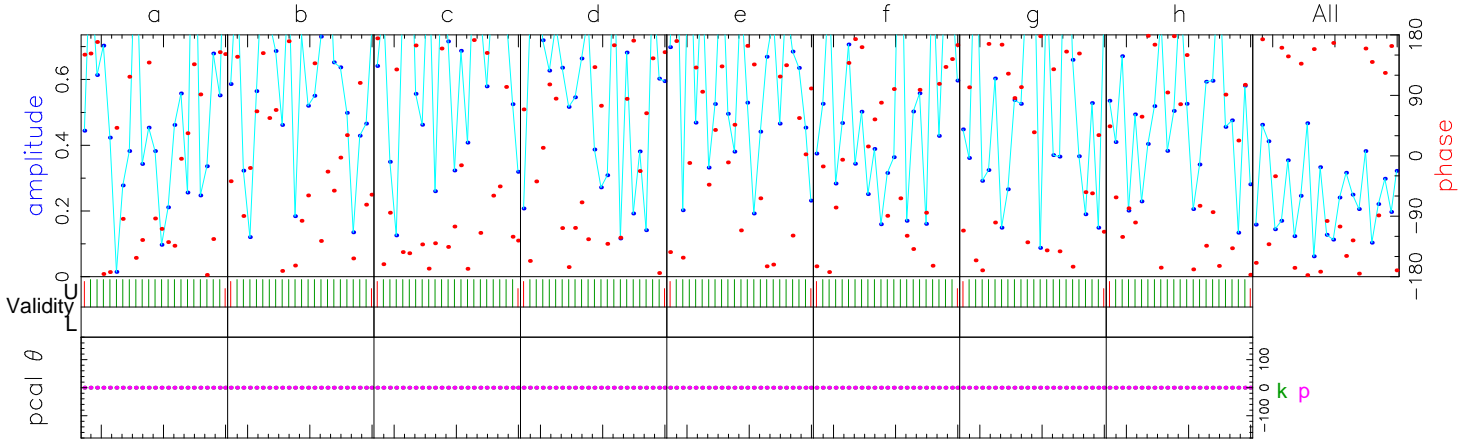
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kP..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kP.W.176.12BED8 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kp
VLBA_KP - VLBA_PT, fgroup W, pol RR



Amp. and Phase vs. time for each freq., 23 segs, 12 APs / seg (6.14 sec / seg.), time ticks 10 sec



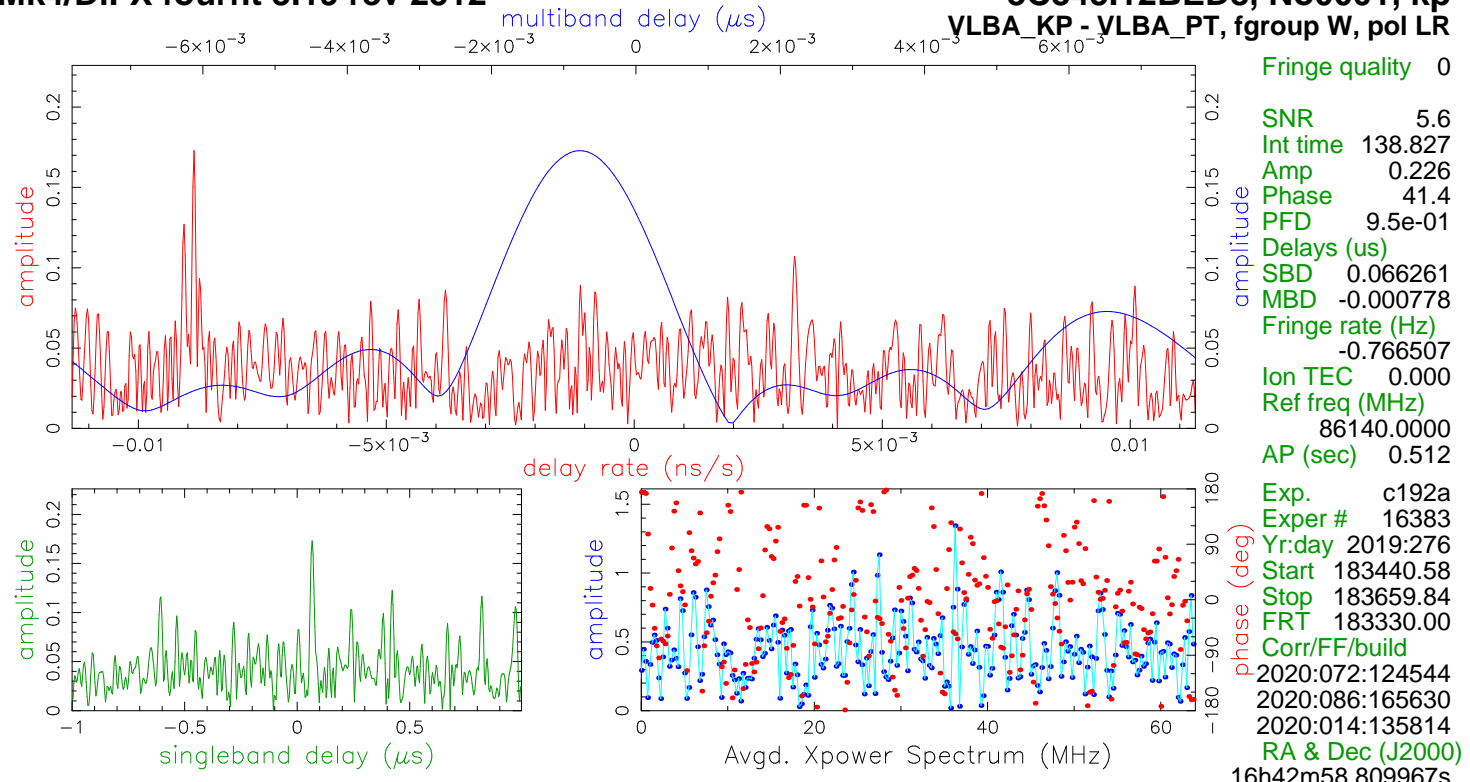
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
174.9	-66.1	-144.4	179.6	151.8	168.8	-171.1	-172.7		Phase	-173.1
0.4	0.0	0.5	0.2	0.2	0.2	0.3	0.2		Ampl.	0.2
382.4	267.9	383.0	420.4	434.9	324.1	213.6	462.0		Sbd box	382.4
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0		APs used	
k	1000	1000	1000	1000	1000	1000	1000		PC freqs	
p	1000	1000	1000	1000	1000	1000	1000		PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
k	1000	1000	1000	1000	1000	1000	1000		PC amp	
p	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.14070331602E+03		Apriori delay (usec)	-1.14119649022E+03	Resid mbdelay (usec)	-6.82580E-03	+/-	1.8E-04		
Sband delay (usec)	-1.14070652247E+03		Apriori clock (usec)	-1.2307825E+01	Resid sbdelay (usec)	4.89968E-01	+/-	1.4E-03		
Phase delay (usec)	-1.14119649580E+03		Apriori clockrate (us/s)	-3.9846558E-07	Resid phdelay (usec)	-5.58198E-06	+/-	6.0E-07		
Delay rate (us/s)	4.55508080067E-02		Apriori rate (us/s)	4.55420706453E-02	Resid rate (us/s)	8.73736E-06	+/-	7.5E-09		
Total phase (deg)		-53.4	Apriori accel (us/s/s)	3.52775994987E-06	Resid phase (deg)	-173.1	+/-	18.8		

	RMS	Theor.	Amplitude	0.245 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.0	45.0	Search (1024X32)	0.181	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.1	78.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	48.4	26.5	Inc. seg. avg.	0.245	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	56.2	46.3	Inc. frq. avg.	0.236	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 256	t_cohere infinite
k: az 60.1 el 32.1 pa -73.4			p: az 62.4 el 35.8 pa -72.8	u, v (fr/asec) -333.857 1.314		simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kp..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kp.W.179.12BED8

Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kp
VLBA_KP - VLBA_PT, fgroup W, pol LR



Fringe quality 0

SNR 5.6

Int time 138.827

Amp 0.226

Phase 41.4

PFD 9.5e-01

Delays (us)

SBD 0.066261

MBD -0.000778

Fringe rate (Hz)

-0.766507

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c192a

Exper # 16383

Yr:day 2019:276

Start 183440.58

Stop 183659.84

FRT 183330.00

Corr/FF/build

2020:072:124544

2020:086:165630

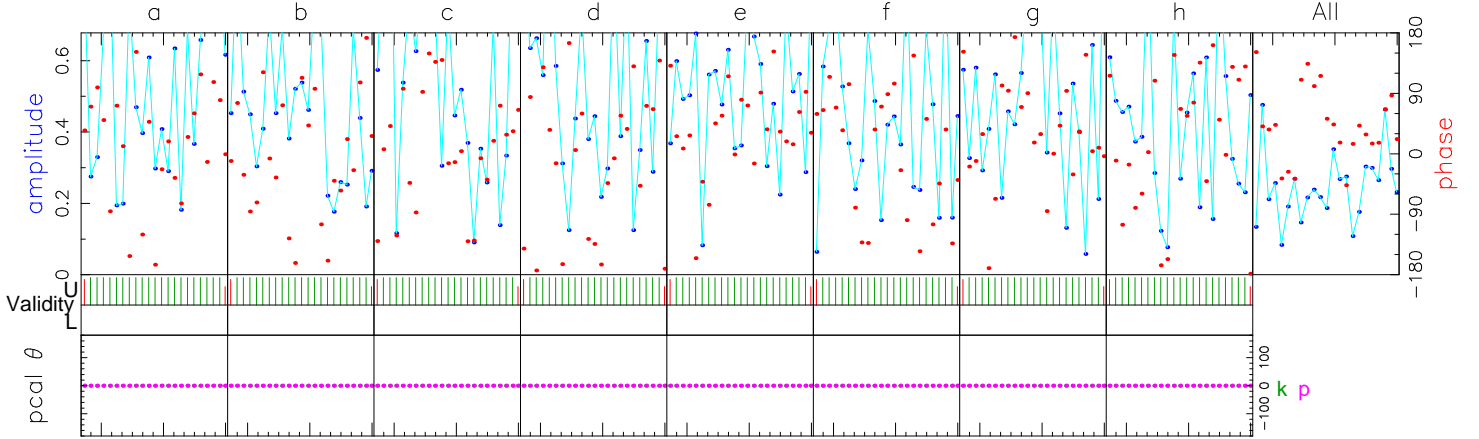
2020:014:135814

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

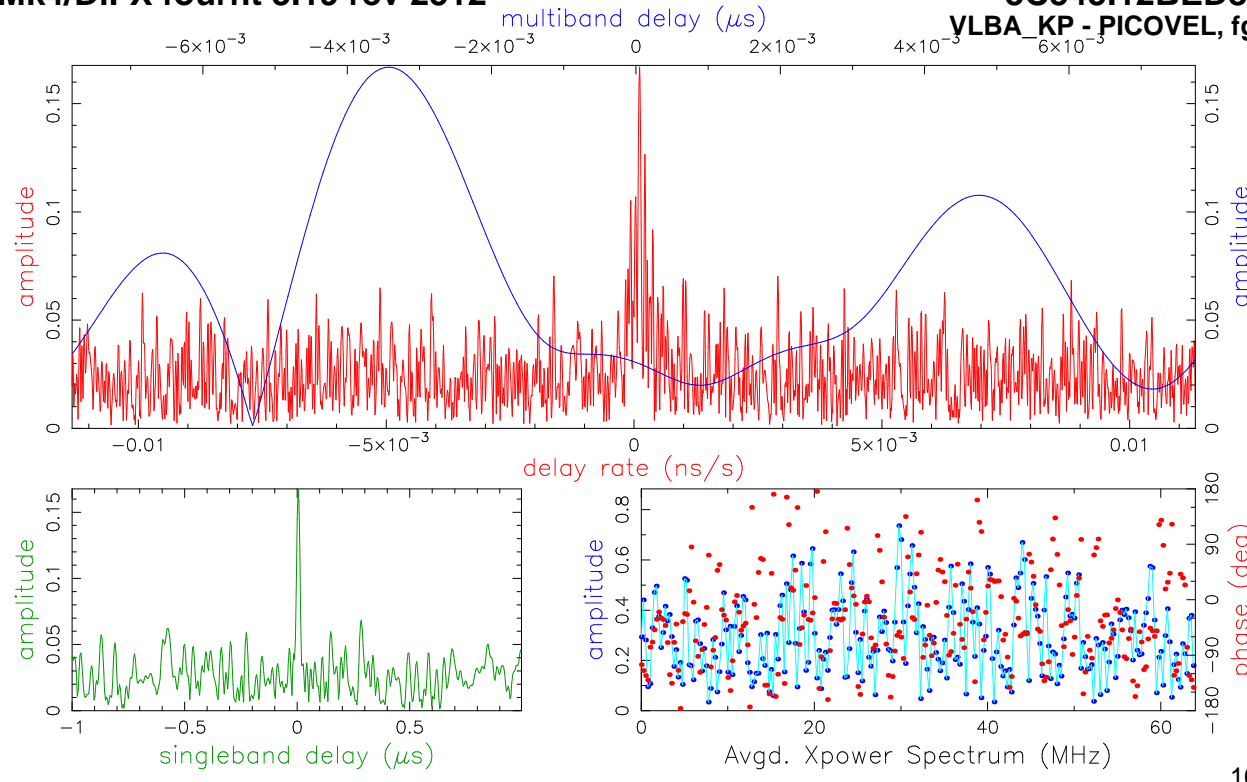
Amp. and Phase vs. time for each freq., 23 segs, 12 APs / seg (6.14 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.14113476863E+03								Resid mbdelay (usec)	-7.78412E-04 +/- 1.9E-04
Sband delay (usec)	-1.14113022947E+03								Resid sbdelay (usec)	6.62607E-02 +/- 1.5E-03
Phase delay (usec)	-1.14119648888E+03								Resid phdelay (usec)	1.33638E-06 +/- 6.6E-07
Delay rate (us/s)	4.55331722584E-02								Resid rate (us/s)	-8.89839E-06 +/- 8.2E-09
Total phase (deg)			-198.8						Resid phase (deg)	41.4 +/- 20.6
	RMS	Theor.	Amplitude	0.226 +/- 0.041					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	53.2	49.3	Search (1024X32)	0.171					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	69.6	86.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	19.3	29.1	Inc. seg. avg.	0.236					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	39.0	50.8	Inc. frq. avg.	0.207					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

k: az 60.1 el 32.1 pa -73.4 p: az 62.4 el 35.8 pa -72.8 u,v (fr/asec) -333.857 1.314 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kp..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kp.W.191.12BED8

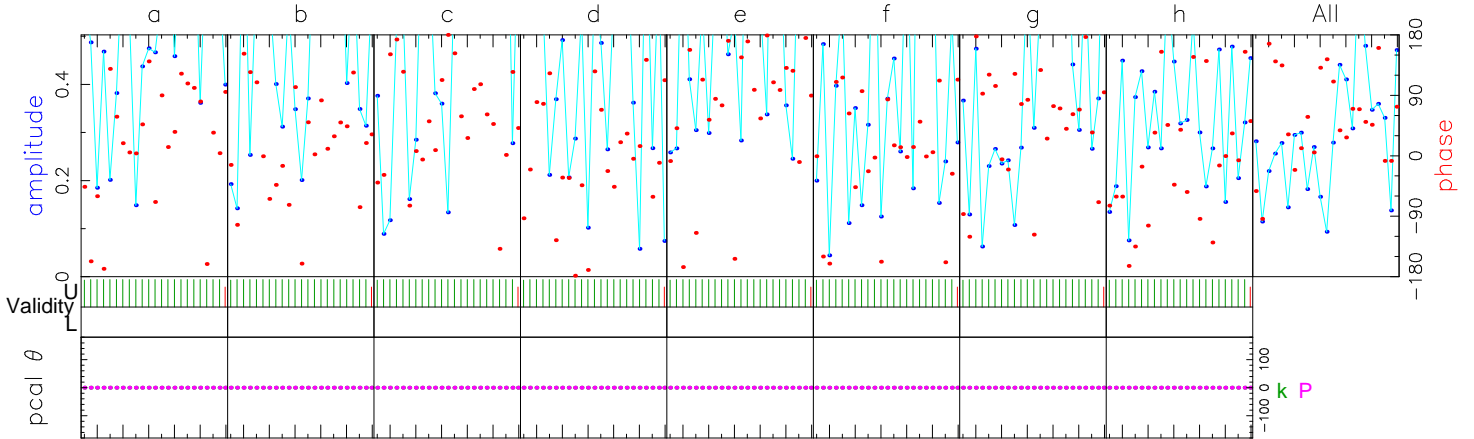


Fringe quality 9

SNR 8.4
Int time 336.738
Amp 0.168
Phase 55.2
PFD 1.4e-08
Delays (us)
SBD 0.004777
MBD -0.003400
Fringe rate (Hz) 0.009729
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183122.43
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165632
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 29 APs / seg (14.85 sec / seg.), time ticks 30 sec



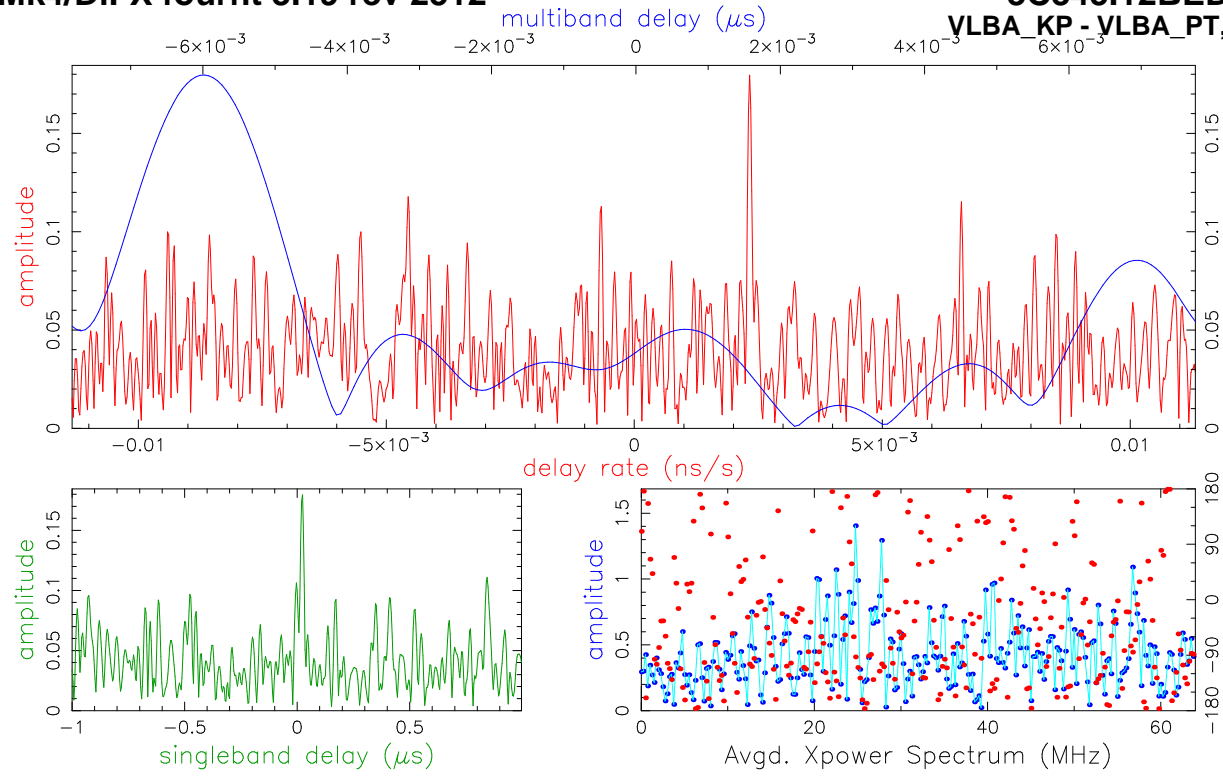
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	659/0	659/0	659/0	659/0	659/0	659/0	659/0	659/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.23905764515E+03									
Sband delay (usec)	-7.23906509362E+03									
Phase delay (usec)	-7.23906986834E+03									
Delay rate (us/s)	1.52657883079E+00									
Total phase (deg)			-165.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									55.2	+/- 13.6
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
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 60.1 el 32.1 pa -73.4 P: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -11319.294 1807.302 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kP..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kP.W.201.12BED8

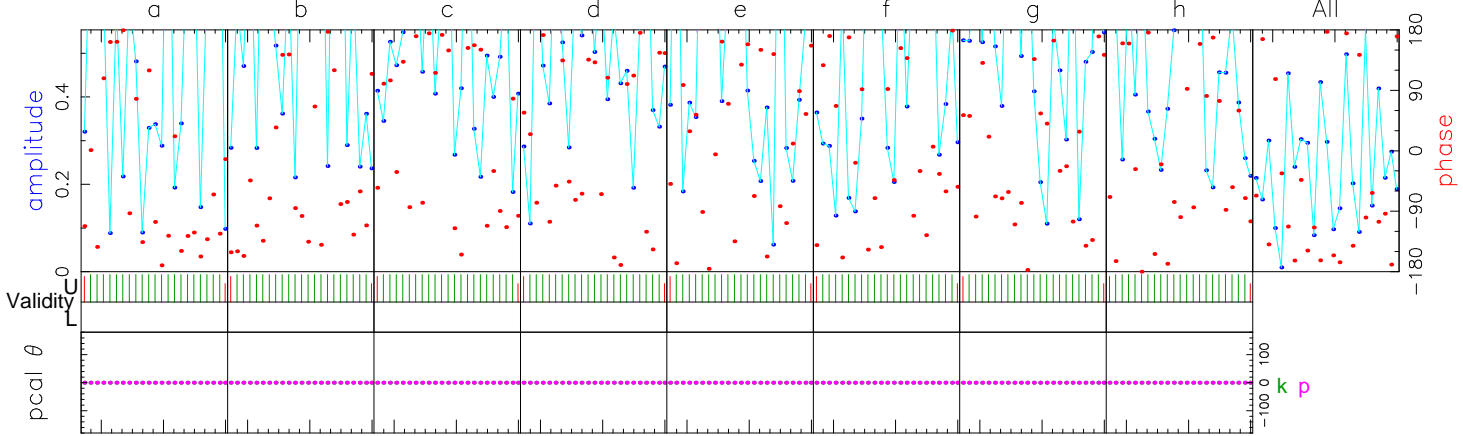
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kp
VLBA_KP - VLBA_PT, fgroup W, pol RL



Fringe quality 0
SNR 5.8
Int time 138.827
Amp 0.185
Phase -137.8
PFD 4.8e-01
Delays (us)
SBD 0.022153
MBD -0.006023
Fringe rate (Hz) 0.201118
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183440.58
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165633
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 12 APs / seg (6.14 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	272/0	272/0	272/0	272/0	272/0	272/0	272/0	272/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03	-1.14117126340E+03		
Sband delay (usec)	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03	-1.14117433722E+03		
Phase delay (usec)	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03	-1.14119649466E+03		
Delay rate (us/s)	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02	4.55444054305E-02		
Total phase (deg)			-18.1							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 54.9 47.0
amp/seg (%) 87.6 82.1
ph/frq (deg) 19.7 27.7
amp/frq (%) 31.0 48.4

RMS Theor. Amplitude 0.185 +/- 0.032
54.9 47.0 Search (1024X32) 0.175
87.6 82.1 Interp. 0.000
19.7 27.7 Inc. seg. avg. 0.191
31.0 48.4 Inc. frq. avg. 0.171

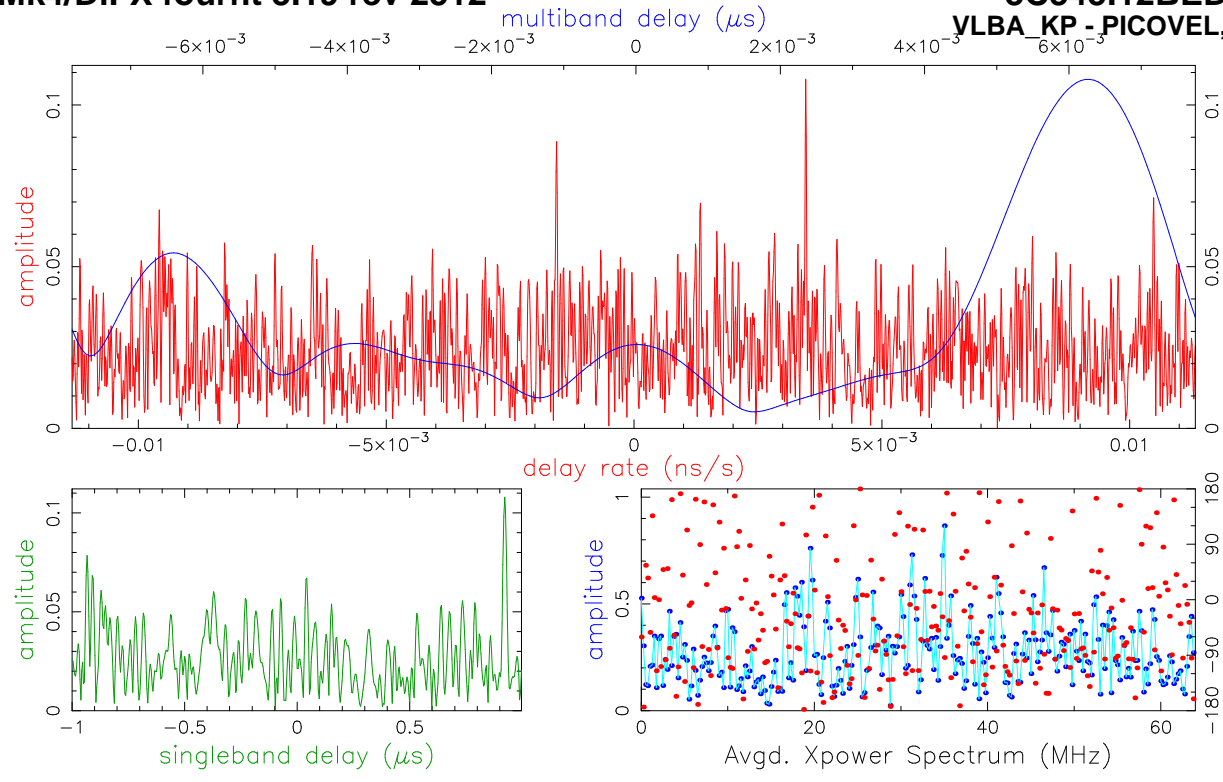
pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 128
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

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 60.1 el 32.1 pa -73.4 p: az 62.4 el 35.8 pa -72.8 u,v (fr/asec) -333.857 1.314 simultaneous interpolator

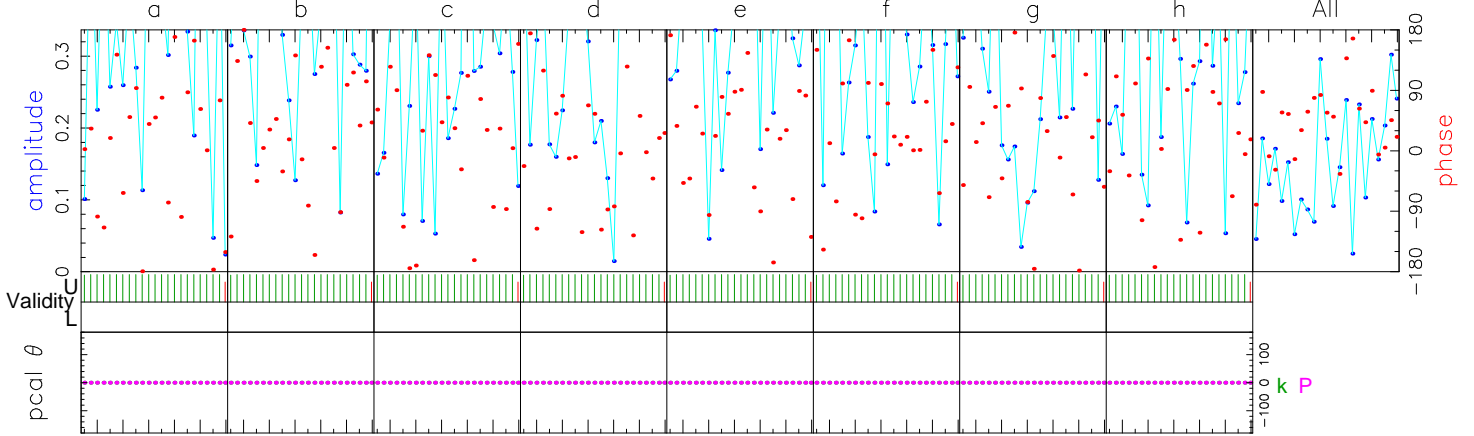
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kP
VLBA_KP - PICOVEL, fgroup W, pol LR

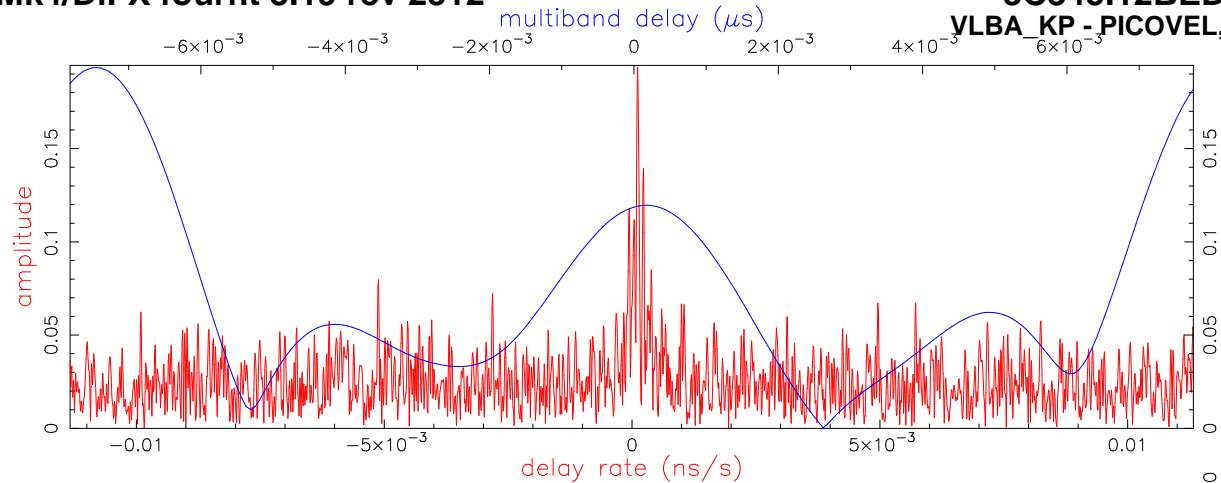


Fringe quality 0
SNR 5.4
Int time 336.738
Amp 0.112
Phase 47.5
PFD 1.0e+00
Delays (us)
SBD 0.922039
MBD 0.006263
Fringe rate (Hz)
0.299408
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183122.43
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165636
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 29 APs / seg (14.85 sec / seg.), time ticks 30 sec

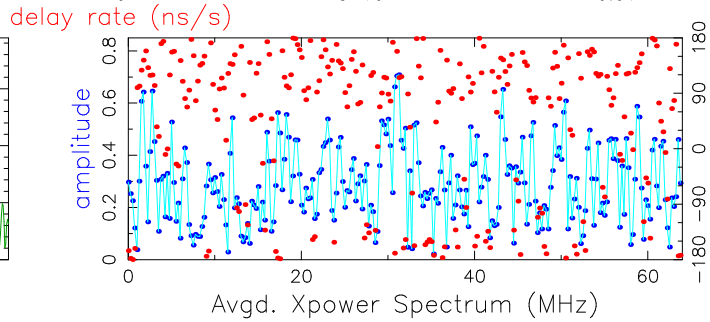
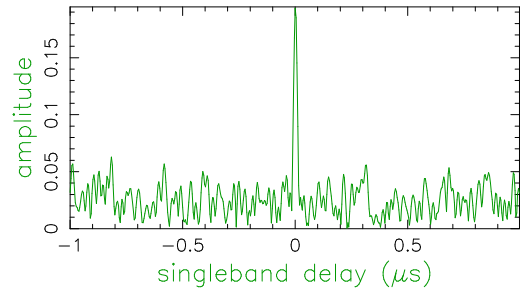


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	659/0	659/0	659/0	659/0	659/0	659/0	659/0	659/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.23814173195E+03									
Sband delay (usec)	-7.23814783087E+03									
Phase delay (usec)	-7.23906986859E+03									
Delay rate (us/s)	1.52658219369E+00									
Total phase (deg)			-173.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										



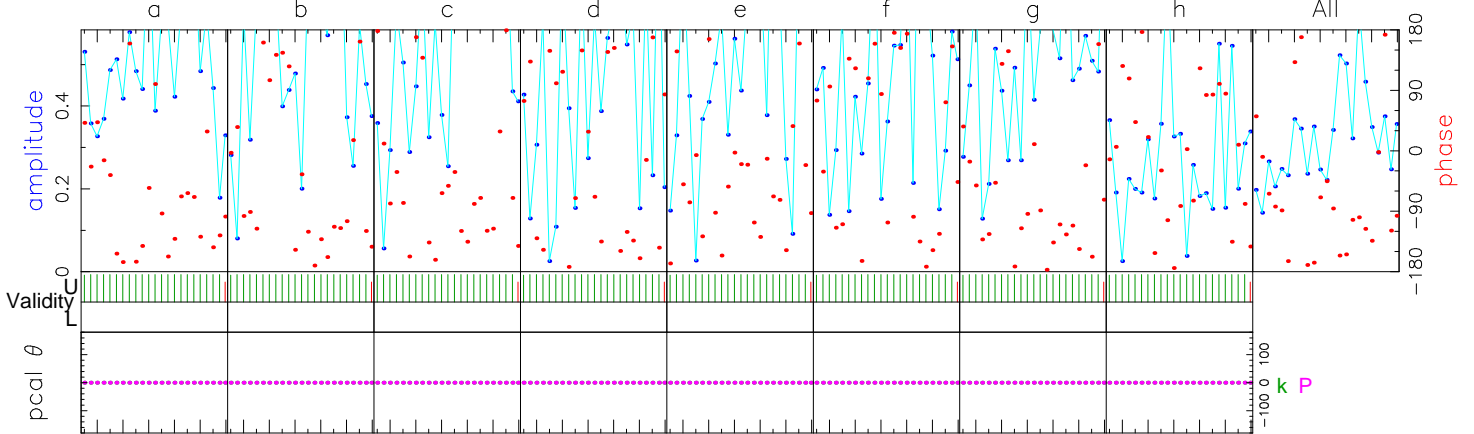
Fringe quality 9

SNR 9.8
Int time 336.738
Amp 0.195
Phase -124.5
PFD 6.5e-14
Delays (us)
SBD 0.001003
MBD -0.007431
Fringe rate (Hz)
0.009146
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



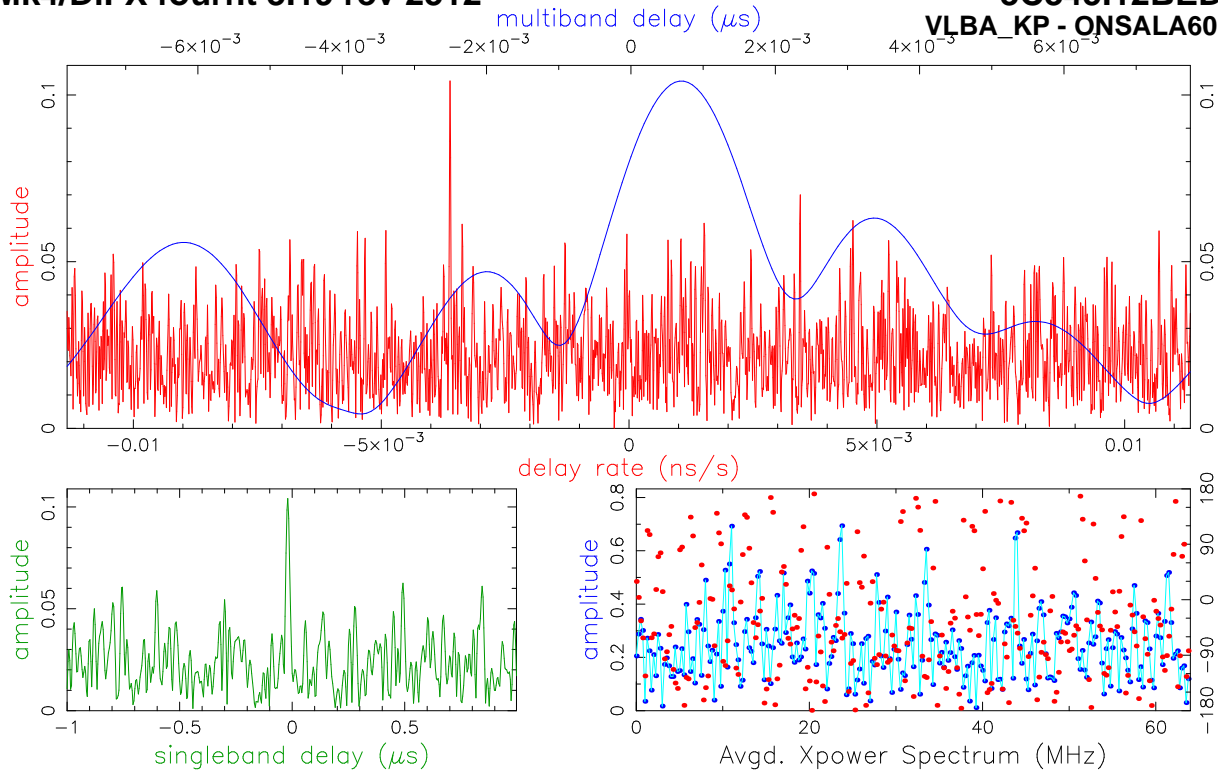
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183122.43
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165640
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 29 APs / seg (14.85 sec / seg.), time ticks 30 sec



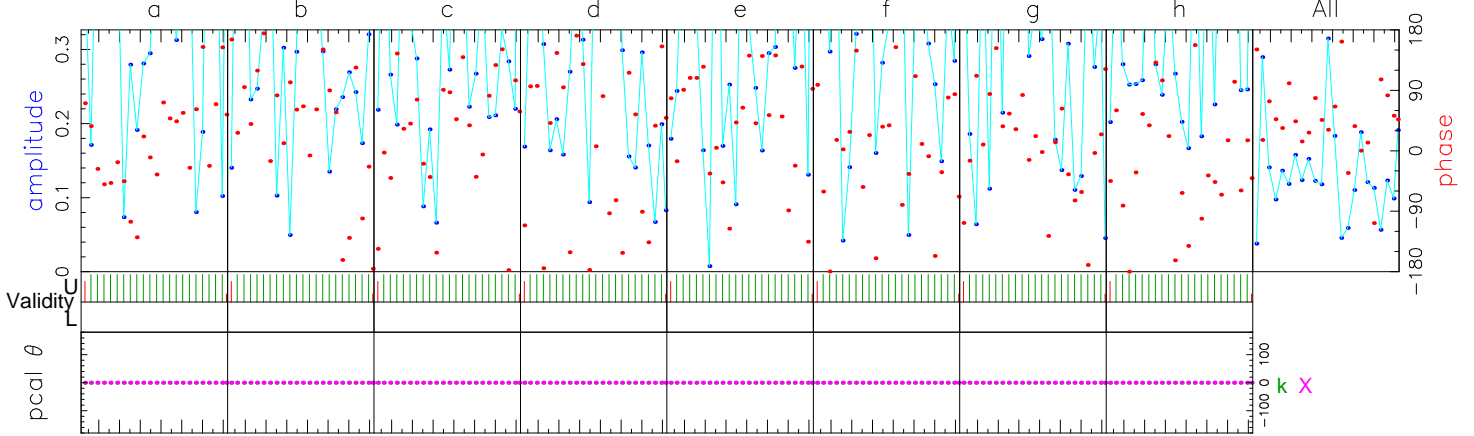
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-93.5	-150.2	-107.5	-167.0	-81.1	-175.2	-111.2	-85.7	Phase	-124.5
	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.0	Ampl.	0.2
	257.4	256.4	256.4	255.7	258.0	256.7	256.3	114.7	Sbd box	257.3
U/L	659/0	659/0	659/0	659/0	659/0	659/0	659/0	659/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.23906167587E+03		Apriori delay (usec)		-7.23906987012E+03		Resid mbdelay (usec)		-7.43075E-03	+/- 1.1E-04
Sband delay (usec)	-7.23906886662E+03		Apriori clock (usec)		-3.1195241E-01		Resid sbdelay (usec)		1.00350E-03	+/- 8.8E-04
Phase delay (usec)	-7.23906987414E+03		Apriori clockrate (us/s)		1.5842101E-07		Resid phdelay (usec)		-4.01324E-06	+/- 3.8E-07
Delay rate (us/s)	1.52657882403E+00		Apriori rate (us/s)		1.52657871785E+00		Resid rate (us/s)		1.06175E-07	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		3.31843554813E-05		Resid phase (deg)		-124.5	+/- 11.7

ph/seg (deg) 67.8 28.1 Search (2048X32) 0.190 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 89.9 49.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 40.5 16.6 Inc. seg. avg. 0.290 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 46.6 29.0 Inc. frq. avg. 0.223 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 P: az 286.6 el 62.3 pa 84.7 u,v (fr/asec) -11319.294 1807.302 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kP..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kP.W.233.12BED8

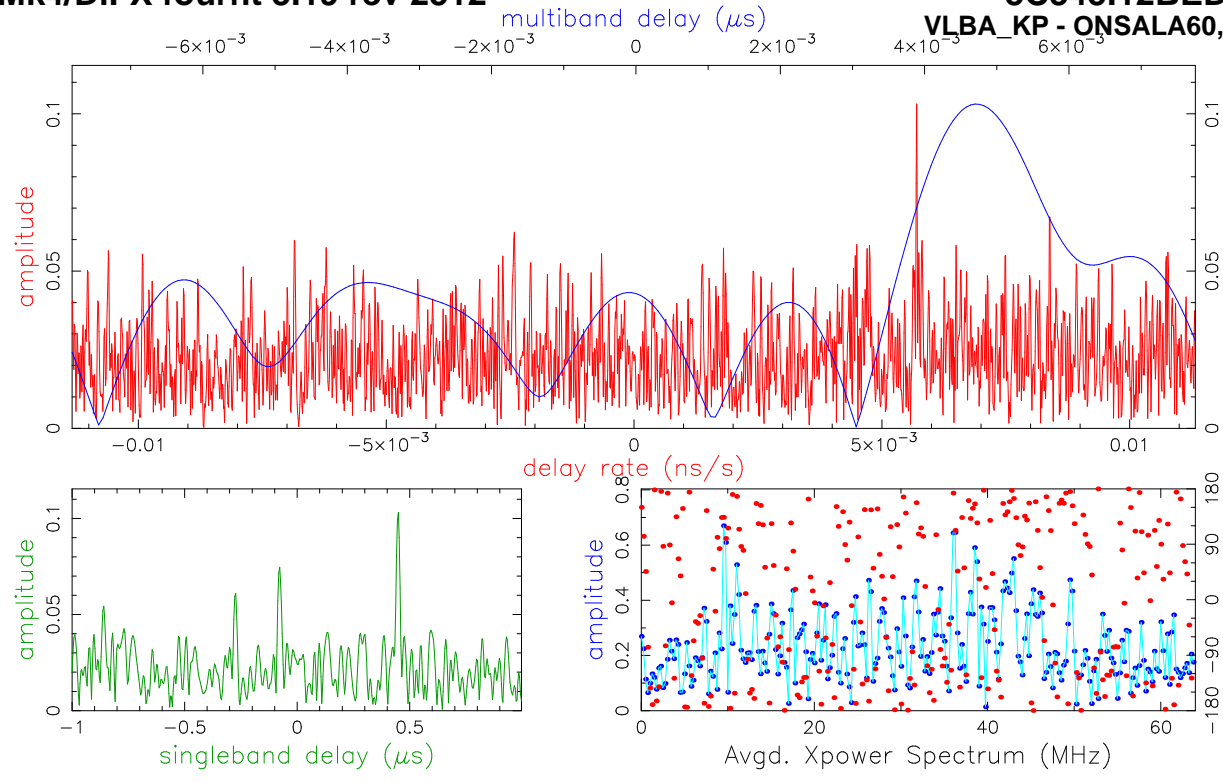


Fringe quality 0
SNR 5.8
Int time 406.235
Amp 0.109
Phase 40.8
PFD 8.9e-01
Delays (us)
SBD -0.020134
MBD 0.000701
Fringe rate (Hz)
-0.311780
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165628
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

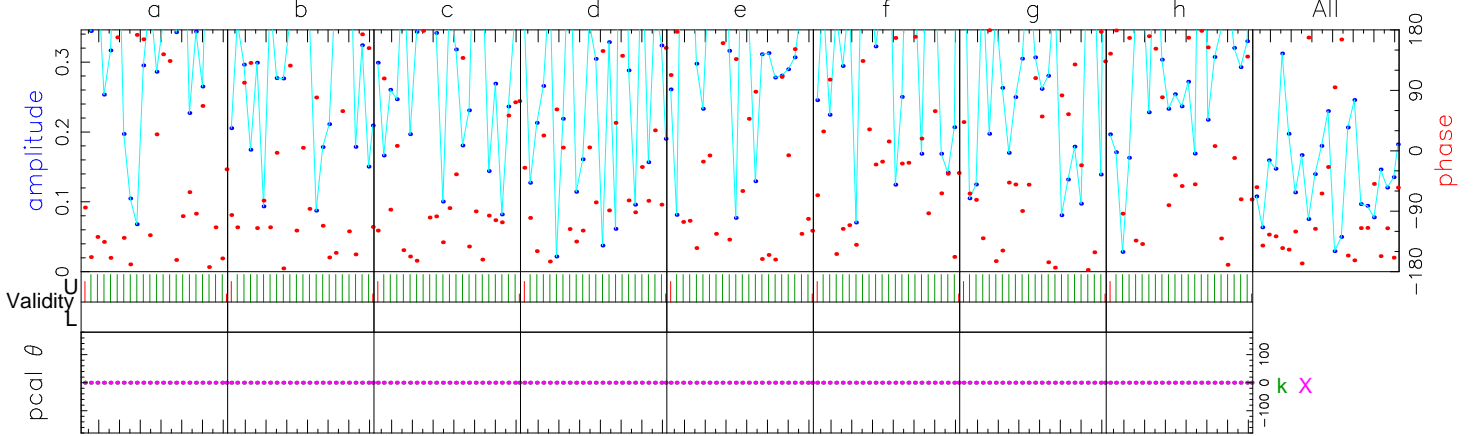


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	4.7	62.3	57.7	160.1	71.9	23.8	29.4	7.5		40.8		
	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1		0.1		
	252.4	85.8	142.3	111.8	474.4	49.0	423.0	3.9		251.8		
U/L	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
X	1000	1000	1000	1000	1000	1000	1000	1000				
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
X	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
									Chan ids			
									Tracks			
									Tracks			
Group delay (usec)(sbd)	-5.47610014023E+03		Apriori delay (usec)		-5.47608521640E+03		Resid mbdelay (usec)		7.01178E-04	+/- 1.9E-04		
Sband delay (usec)	-5.47610535065E+03		Apriori clock (usec)		-3.2727177E+01		Resid sbdelay (usec)		-2.01342E-02	+/- 1.5E-03		
Phase delay (usec)	-5.47608521509E+03		Apriori clockrate (us/s)		-7.2257901E-07		Resid phdelay (usec)		1.31461E-06	+/- 6.4E-07		
Delay rate (us/s)	1.46755537313E+00		Apriori rate (us/s)		1.46755899259E+00		Resid rate (us/s)		-3.61946E-06	+/- 2.7E-09		
Total phase (deg)			Apriori accel (us/s/s)		6.33219032822E-06		Resid phase (deg)		40.8	+/- 19.9		
	RMS	Theor.	Amplitude	0.109 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	55.7	47.7	Search (2048X32)	0.104		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	69.1	83.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	56.0	28.2	Inc. seg. avg.	0.104		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	48.9	49.2	Inc. frq. avg.	0.118		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
k: az 60.1 el 32.1 pa -73.4	X: az 263.7 el 53.3 pa 44.2		u, v (fr/asec) -10929.367 -1586.074						simultaneous interpolator			



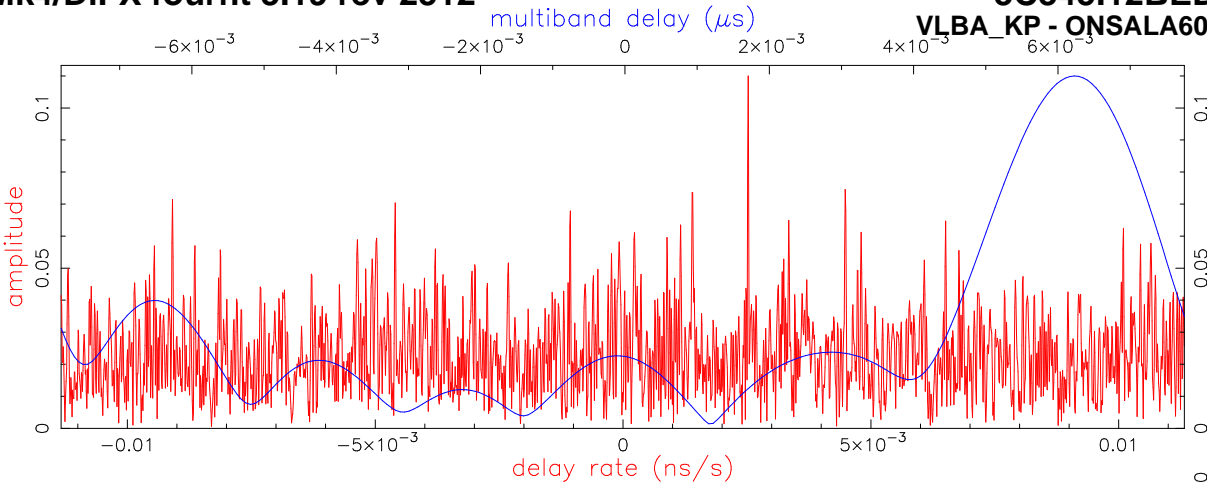
Fringe quality 0
SNR 5.7
Int time 406.235
Amp 0.115
Phase -129.8
PFD 9.3e-01
Delays (us)
SBD 0.448175
MBD 0.004702
Fringe rate (Hz) 0.491731
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165633
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



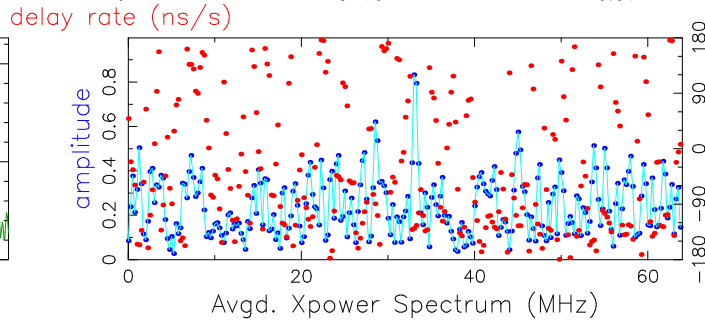
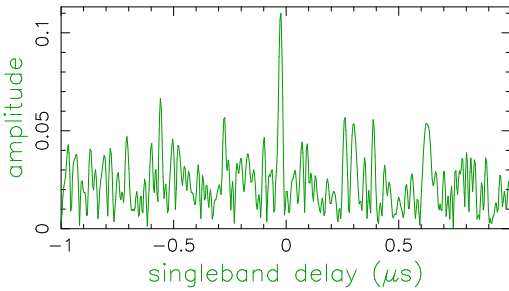
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-147.2	-136.5	-121.7	-79.2	-128.2	-24.2	-154.8	-157.2	Phase	-129.8
	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	371.5	176.3	27.1	57.8	159.0	100.1	335.7	106.0	Sbd box	371.7
U/L	800/0	800/0	800/0	800/0	800/0	800/0	801/0	801/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.47564301476E+03		Apriori delay (usec)		-5.47608521640E+03		Resid mbdelay (usec)		4.70165E-03	+/- 1.9E-04
Sband delay (usec)	-5.47563704140E+03		Apriori clock (usec)		-3.2727177E+01		Resid sbdelay (usec)		4.48175E-01	+/- 1.5E-03
Phase delay (usec)	-5.47608522059E+03		Apriori clockrate (us/s)		-7.2257901E-07		Resid phdelay (usec)		-4.18505E-06	+/- 6.5E-07
Delay rate (us/s)	1.46756470109E+00		Apriori rate (us/s)		1.46755899259E+00		Resid rate (us/s)		5.70850E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		6.33219032822E-06		Resid phase (deg)		-129.8	+/- 20.0

ph/seg (deg) 52.5 48.0 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 74.5 83.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 50.8 28.3 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 43.6 49.5 Inc. frq. avg. 0.124 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -10929.367 -1586.074 simultaneous interpolator



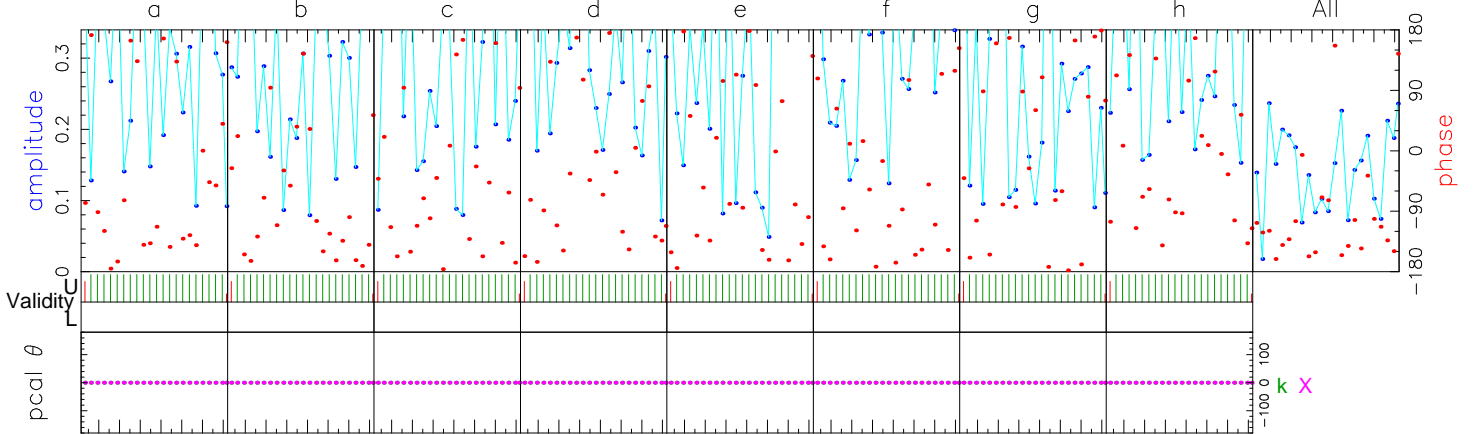
Fringe quality 0

SNR 6.1
Int time 406.235
Amp 0.113
Phase -128.7
PFD 2.2e-01
Delays (us)
SBD -0.024733
MBD 0.006249
Fringe rate (Hz)
0.217466
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



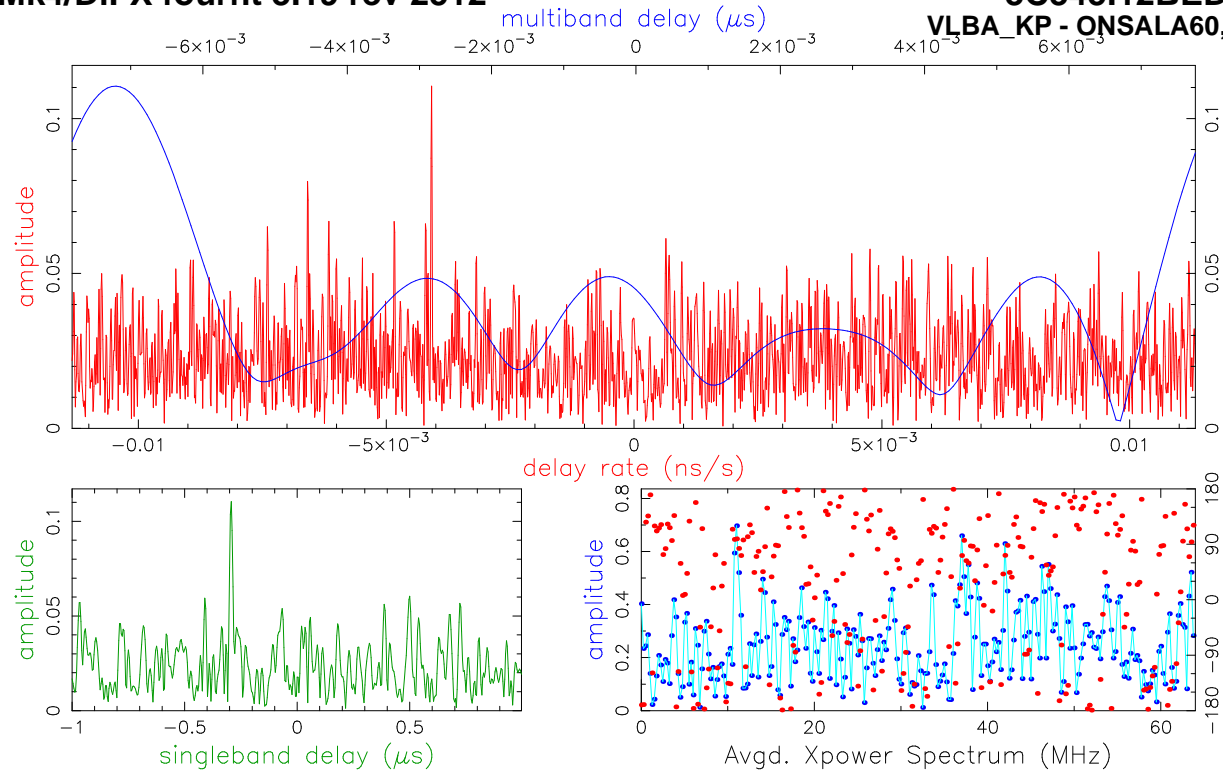
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165639
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



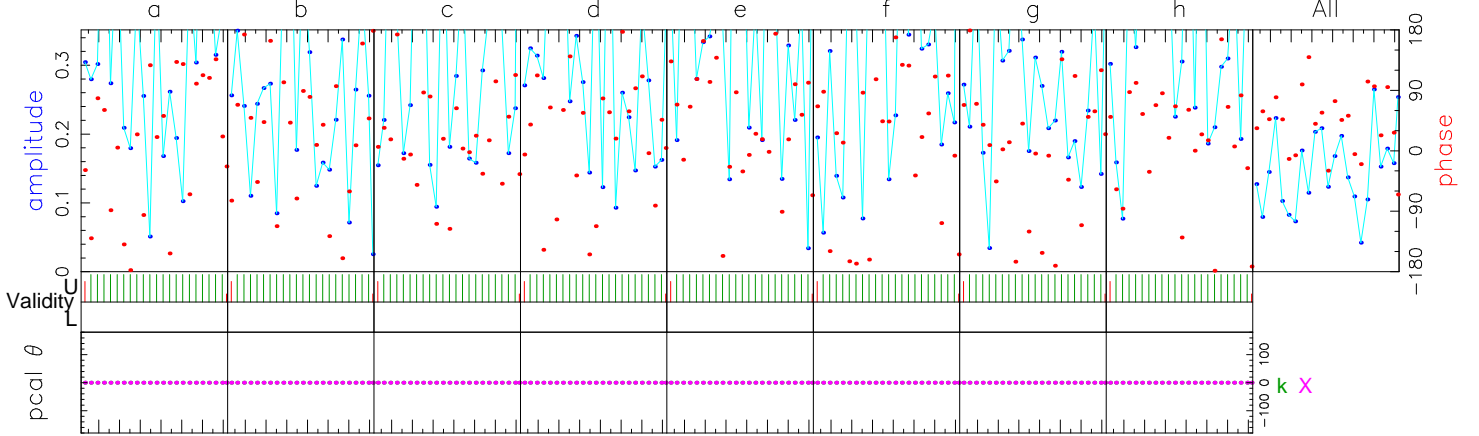
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-126.0	-132.3	-121.8	-129.5	-111.5	-146.9	-157.1	-87.7	Phase	-128.7
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	354.2	249.6	15.3	262.2	438.9	471.7	88.9	450.2	Sbd box	250.7
U/L	801/0	801/0	801/0	801/0	801/0	801/0	801/0	801/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.47611021734E+03		Apriori delay (usec)		-5.47608521640E+03		Resid mbdelay (usec)		6.24907E-03	+/- 1.8E-04
Sband delay (usec)	-5.47610994965E+03		Apriori clock (usec)		-3.2727177E+01		Resid sbdelay (usec)		-2.47332E-02	+/- 1.4E-03
Phase delay (usec)	-5.47608522055E+03		Apriori clockrate (us/s)		-7.2257901E-07		Resid phdelay (usec)		-4.15142E-06	+/- 6.0E-07
Delay rate (us/s)	1.46756151716E+00		Apriori rate (us/s)		1.46755899259E+00		Resid rate (us/s)		2.52457E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		6.33219032822E-06		Resid phase (deg)		-128.7	+/- 18.7

ph/seg (deg) 45.0 44.9 Search (2048X32) 0.108 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 59.8 78.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 23.0 26.5 Inc. seg. avg. 0.111 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 28.2 46.2 Inc. frq. avg. 0.106 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
k: az 60.1 el 32.1 pa -73.4 X: az 263.7 el 53.3 pa 44.2 u,v (fr/asec) -10929.367 -1586.074 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kX..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kX.W.232.12BED8

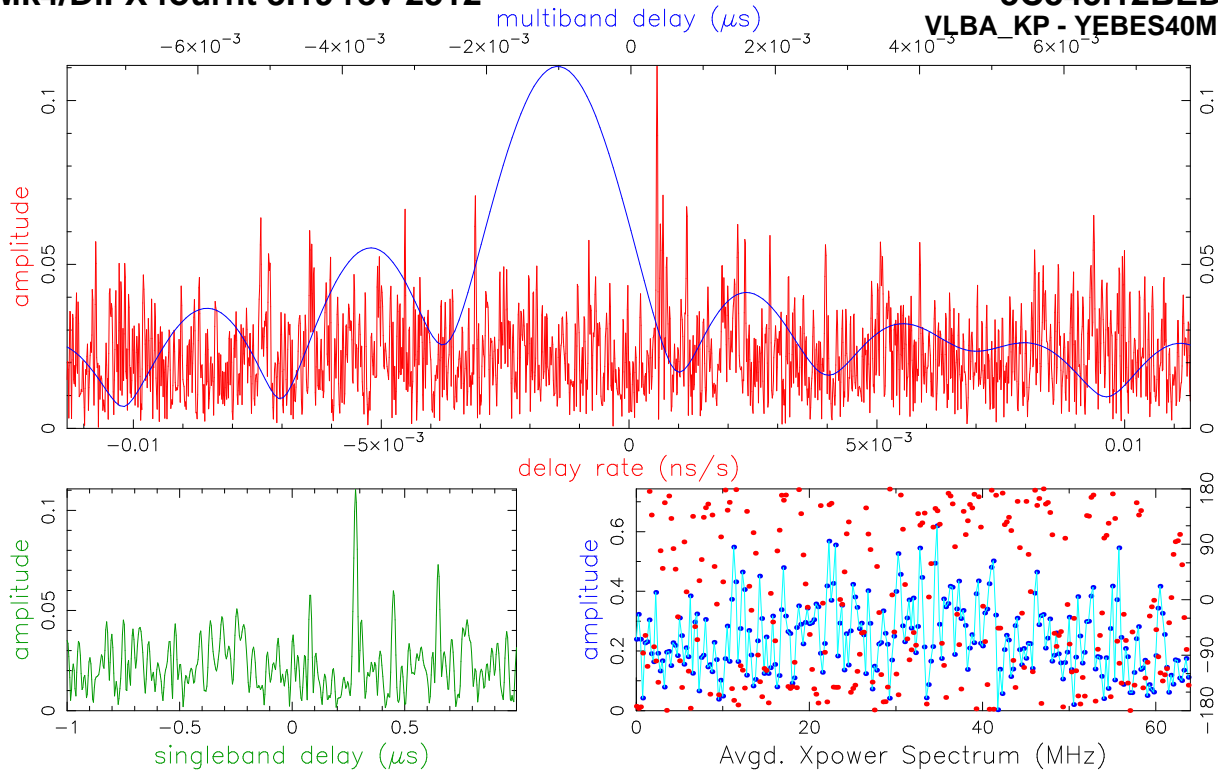


Fringe quality 0
SNR 6.1
Int time 406.235
Amp 0.117
Phase 54.5
PFD 2.2e-01
Delays (us)
SBD -0.293788
MBD -0.007229
Fringe rate (Hz)
-0.352901
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183008.70
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165643
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

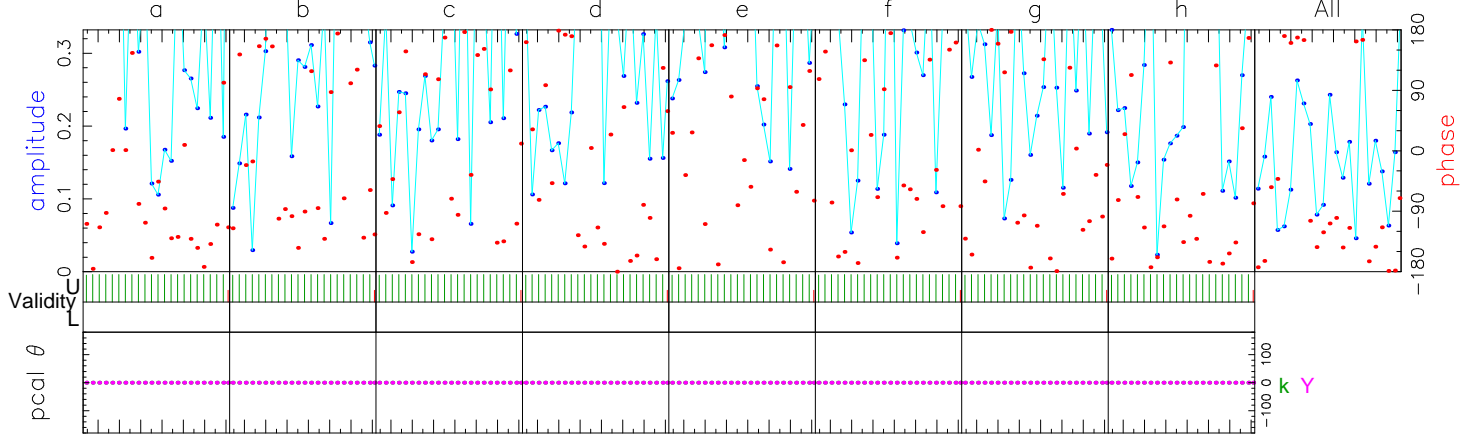


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	800/0	800/0	800/0	800/0	800/0	800/0	801/0	801/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-5.47637369543E+03									
Sband delay (usec)	-5.47637900490E+03									
Phase delay (usec)	-5.47608521464E+03									
Delay rate (us/s)	1.46755489576E+00									
Total phase (deg)			-140.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	46.1	44.8								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.117 +/- 0.019										
0.109										
0.000										
0.118										
0.118										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
-1.000 1.000										
-0.008 0.008										
-0.011 0.011										
0.00 0.00										
simultaneous interpolator										



Fringe quality 0
SNR 6.1
Int time 401.317
Amp 0.111
Phase -145.9
PFD 3.0e-01
Delays (us)
SBD 0.281845
MBD -0.001015
Fringe rate (Hz)
0.048607
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165628
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

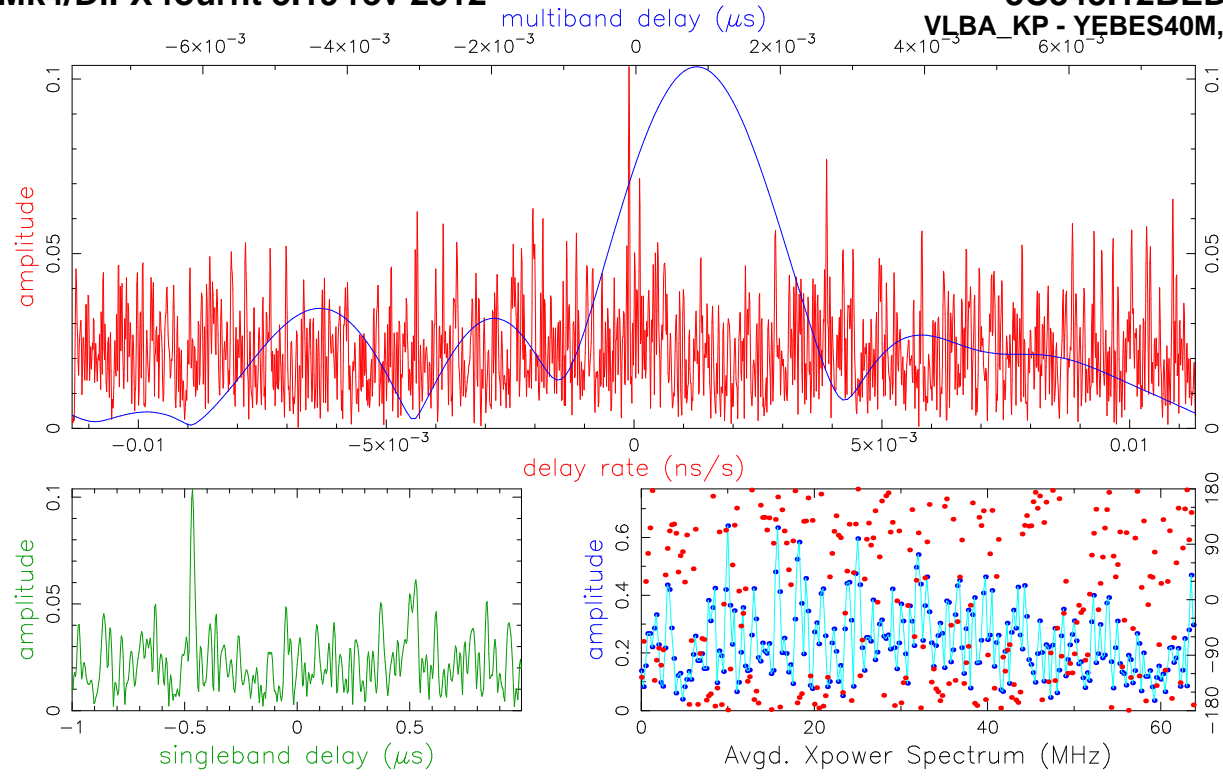


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.9	-150.8	-179.0	-146.8	163.5	-167.6	-127.6	-131.5	Phase	-145.9
	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	330.8	82.6	157.0	12.6	289.2	7.0	185.8	373.0	Sbd box	329.2
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.34478603340E+03	Apriori delay (usec)	-7.34506626815E+03	Resid mbdelay (usec)	-1.01525E-03	+/-	1.8E-04
Sband delay (usec)	-7.34478442290E+03	Apriori clock (usec)	-1.0053901E+01	Resid sbdelay (usec)	2.81845E-01	+/-	1.4E-03
Phase delay (usec)	-7.34506627286E+03	Apriori clockrate (us/s)	-4.1457899E-07	Resid phdelay (usec)	-4.70565E-06	+/-	6.1E-07
Delay rate (us/s)	1.50371867584E+00	Apriori rate (us/s)	1.50371811156E+00	Resid rate (us/s)	5.64278E-07	+/-	2.6E-09
Total phase (deg)	-267.7	Apriori accel (us/s/s)	3.03133681505E-05	Resid phase (deg)	-145.9	+/-	18.9

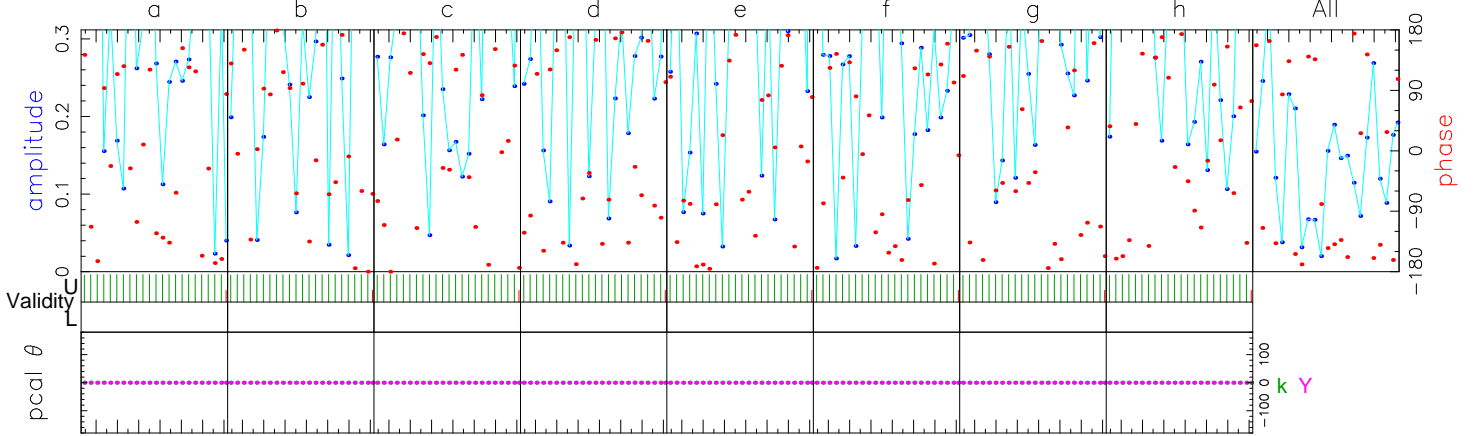
ph/seg (deg)	46.0	Theor.	45.3	Amplitude	0.111 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	83.6		79.2	Search (2048X32)	0.108	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	29.9		26.7	Inc. seg. avg.	0.120	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.2		46.7	Inc. frq. avg.	0.108	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 60.1 el 32.1 pa -73.4 Y: az 280.2 el 62.9 pa 76.6 u,v (fr/asec) -11154.627 1298.420 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kY..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kY.W.182.12BED8



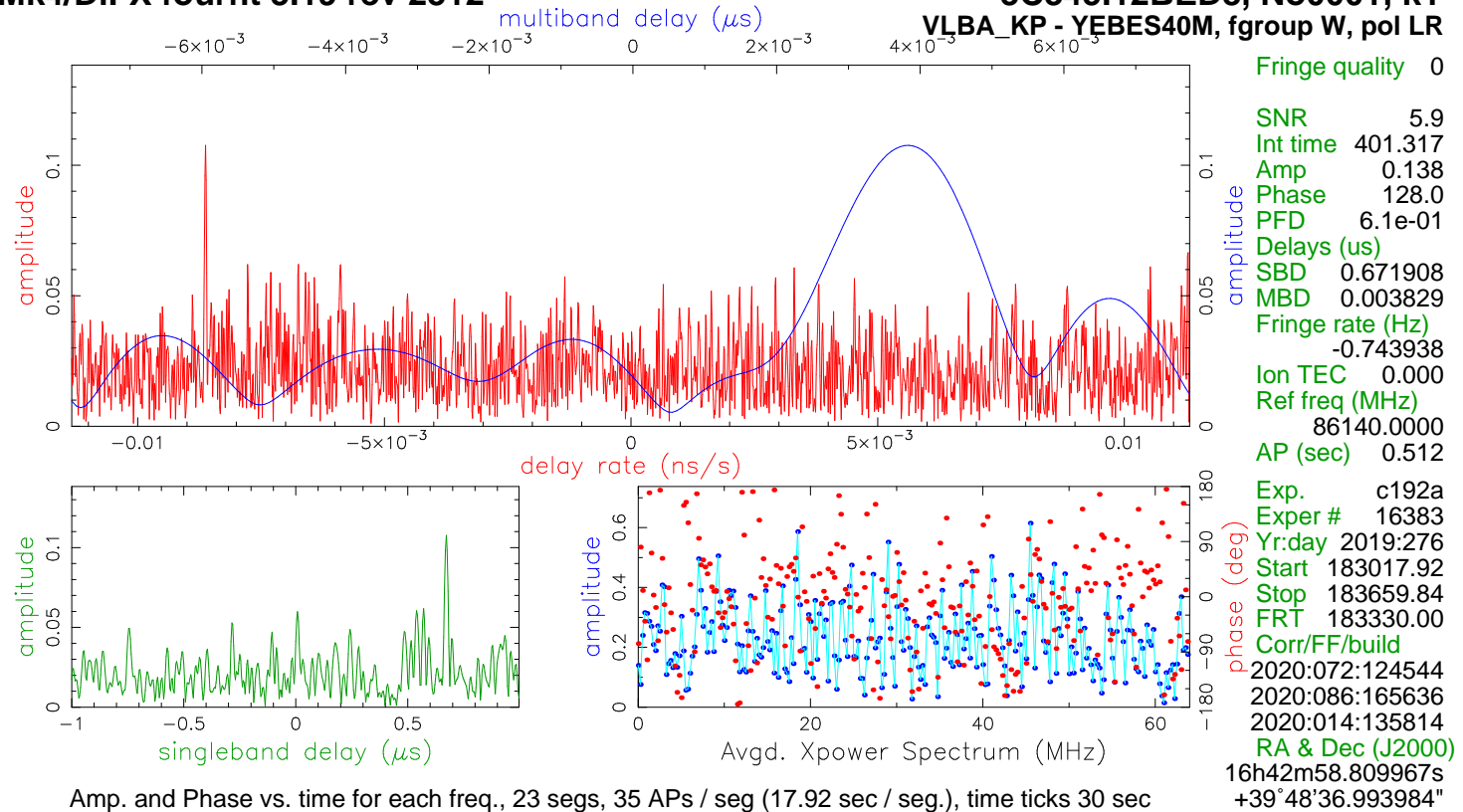
Fringe quality 0
SNR 5.7
Int time 401.317
Amp 0.104
Phase -172.5
PFD 9.6e-01
Delays (us)
SBD -0.465728
MBD 0.000858
Fringe rate (Hz)
-0.008735
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build
2020:072:124544
2020:086:165632
2020:014:135814
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

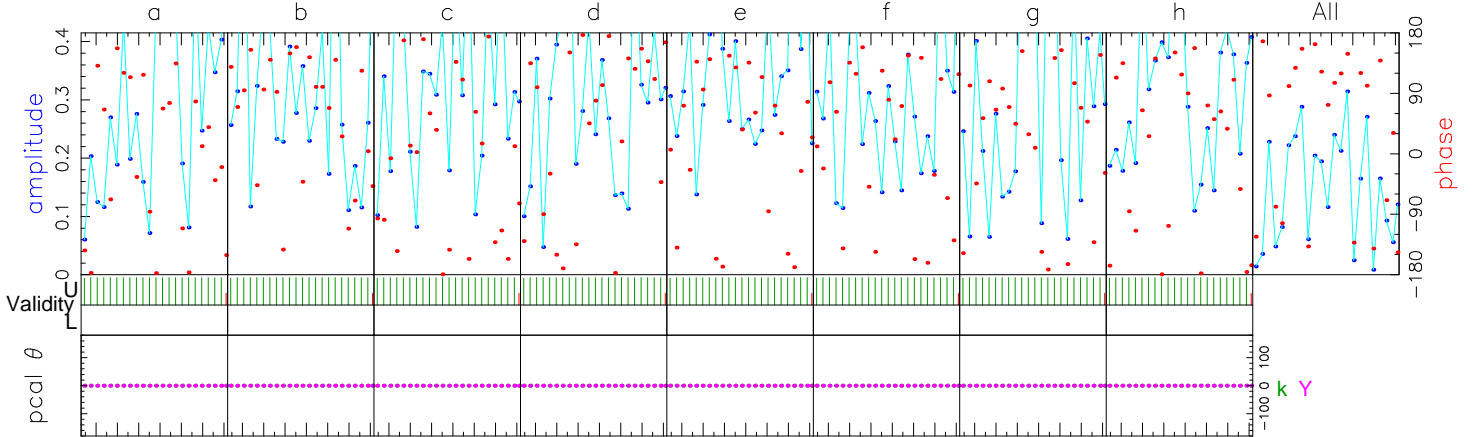


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-165.0	164.6	178.0	-149.9	-165.9	-172.3	-170.9	167.1	Phase	-172.5
	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	49.4	57.4	166.4	490.2	366.6	509.0	194.7	294.6	Sbd box	137.8
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.34553416042E+03					-7.34506626815E+03			Resid mbdelay (usec)	8.57730E-04 +/- 1.9E-04
Sband delay (usec)	-7.34553199615E+03					-1.0053901E+01			Resid sbdelay (usec)	-4.65728E-01 +/- 1.5E-03
Phase delay (usec)	-7.34506627371E+03					-4.1457899E-07			Resid phdelay (usec)	-5.56209E-06 +/- 6.5E-07
Delay rate (us/s)	1.50371801016E+00					1.50371811156E+00			Resid rate (us/s)	-1.01400E-07 +/- 2.8E-09
Total phase (deg)			-294.3			3.03133681505E-05			Resid phase (deg)	-172.5 +/- 20.1
	RMS	Theor.	Amplitude	0.104 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.1	48.3	Search (2048X32)	0.102					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	89.0	84.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	16.6	28.5	Inc. seg. avg.	0.108					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	30.3	49.7	Inc. frq. avg.	0.095					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite

k: az 60.1 el 32.1 pa -73.4 Y: az 280.2 el 62.9 pa 76.6 u,v (fr/asec) -11154.627 1298.420 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kY..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kY.W.200.12BED8



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
91.6	109.4	-169.6	141.1	135.3	126.0	109.0	122.8	122.8	Phase	128.0
0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
328.3	429.2	283.2	464.4	337.9	15.7	258.8	21.9	21.9	Sbd box	429.0
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.34439056412E+03		Apriori delay (usec)	-7.34506626815E+03	Resid mbdelay (usec)	3.82903E-03	+/-	1.8E-04		
Sband delay (usec)	-7.34439436015E+03		Apriori clock (usec)	-1.0053901E+01	Resid sbdelay (usec)	6.71908E-01	+/-	1.5E-03		
Phase delay (usec)	-7.34506626402E+03		Apriori clockrate (us/s)	-4.1457899E-07	Resid phdelay (usec)	4.12774E-06	+/-	6.3E-07		
Delay rate (us/s)	1.50370947517E+00		Apriori rate (us/s)	1.50371811156E+00	Resid rate (us/s)	-8.63639E-06	+/-	2.7E-09		
Total phase (deg)		6.2	Apriori accel (us/s/s)	3.03133681505E-05	Resid phase (deg)	128.0	+/-	19.4		

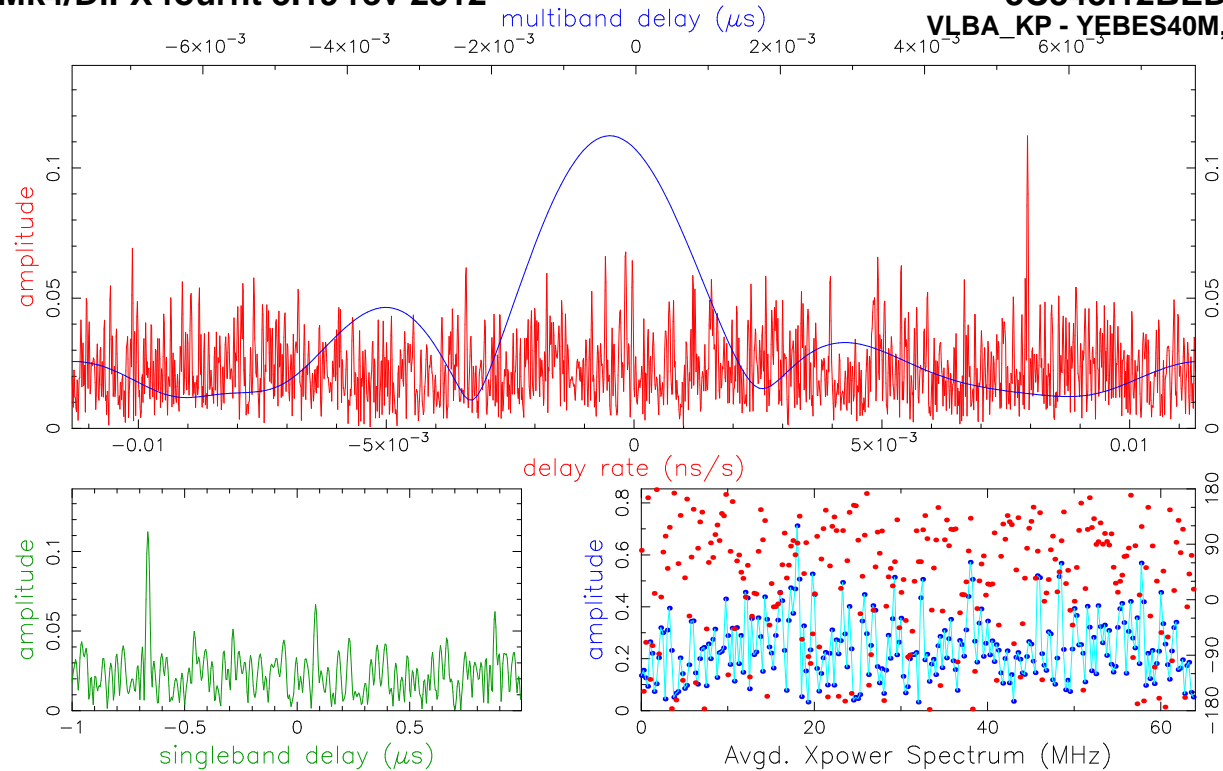
	RMS	Theor.	Amplitude	0.138 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	75.8	46.6	Search (2048X32)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	95.9	81.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	32.1	27.5	Inc. seg. avg.	0.144	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
amp/frq (%)	26.5	48.0	Inc. frq. avg.	0.139	Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
					nlags: 256	t_cohere infinite
						ion window (TEC) 0.00 0.00

k: az 60.1 el 32.1 pa -73.4 Y: az 280.2 el 62.9 pa 76.6 u,v (fr/asec) -11154.627 1298.420 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kY..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kY.W.218.12BED8

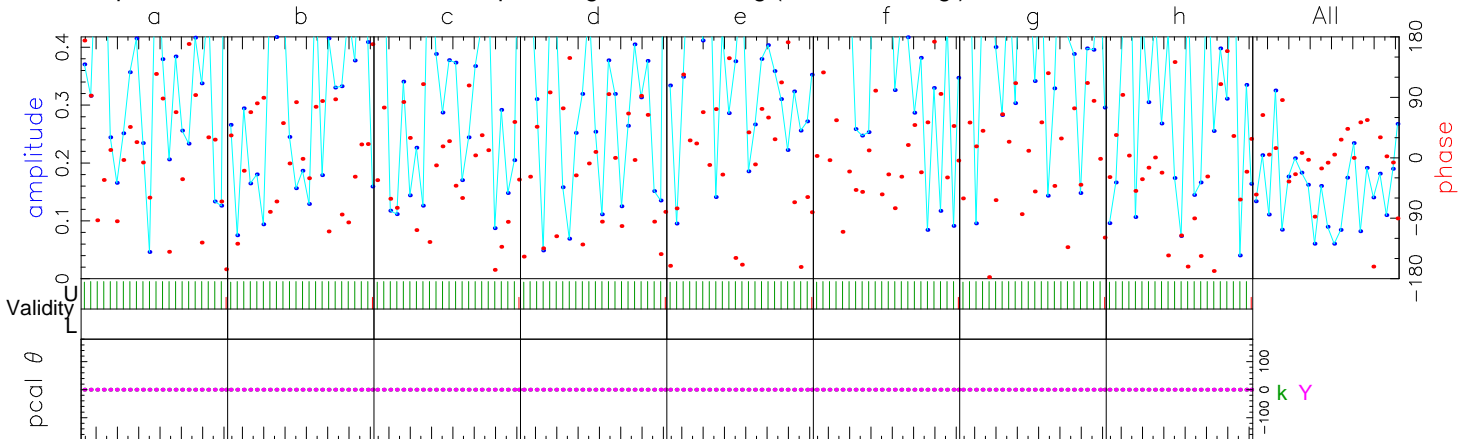
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kY
VLBA_KP - YEBES40M, fgroup W, pol RL



Fringe quality 0
SNR 6.2
Int time 401.317
Amp 0.139
Phase 6.2
PFD 1.6e-01
Delays (us)
SBD -0.663172
MBD -0.000336
Fringe rate (Hz) 0.685122
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c192a
Exper # 16383
Yr:day 2019:276
Start 183017.92
Stop 183659.84
FRT 183330.00
Corr/FF/build 2020:072:124544
2020:086:165640
2020:014:135814
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

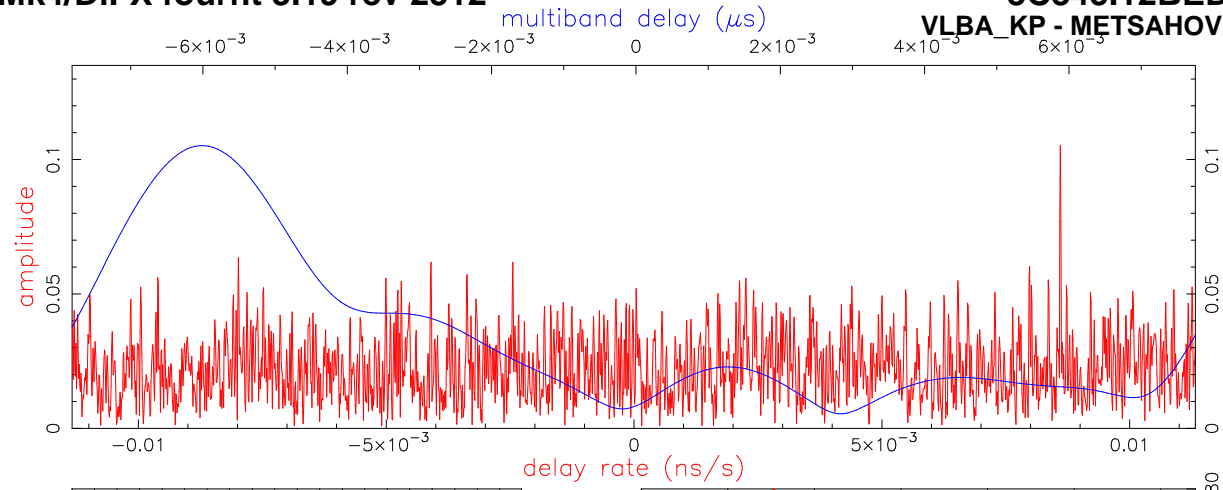


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	785/0	785/0	785/0	785/0	785/0	785/0	785/0	785/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.34572285394E+03	Apriori delay (usec)	-7.34506626815E+03	Resid mbdelay (usec)	-3.35791E-04	+/-	1.8E-04
Sband delay (usec)	-7.34572944015E+03	Apriori clock (usec)	-1.0053901E+01	Resid sbdelay (usec)	-6.63172E-01	+/-	1.4E-03
Phase delay (usec)	-7.34506626795E+03	Apriori clockrate (us/s)	-4.1457899E-07	Resid phdelay (usec)	2.01277E-07	+/-	6.0E-07
Delay rate (us/s)	1.50372606514E+00	Apriori rate (us/s)	1.50371811156E+00	Resid rate (us/s)	7.95358E-06	+/-	2.6E-09
Total phase (deg)	-115.6	Apriori accel (us/s/s)	3.03133681505E-05	Resid phase (deg)	6.2	+/-	18.5

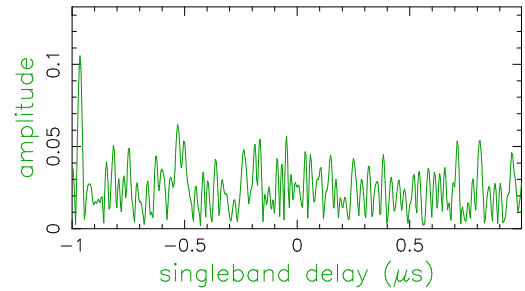
ph/seg (deg)	53.9	Theor.	44.5	Amplitude	0.139 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	68.5	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	20.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	42.0	Inc. seg. avg.	0.147	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.130	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 60.1 el 32.1 pa -73.4 Y: az 280.2 el 62.9 pa 76.6 u,v (fr/asec) -11154.627 1298.420 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kY..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kY.W.234.12BED8

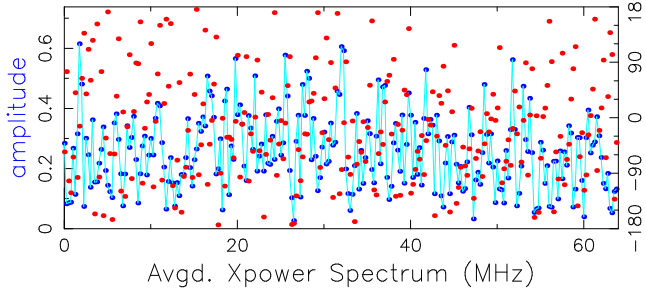


Fringe quality 0

SNR 5.8
 Int time 407.367
 Amp 0.135
 Phase 83.7
 PFD 8.0e-01
 Delays (us)
 SBD -0.964801
 MBD -0.006010
 Fringe rate (Hz)
 0.741981
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

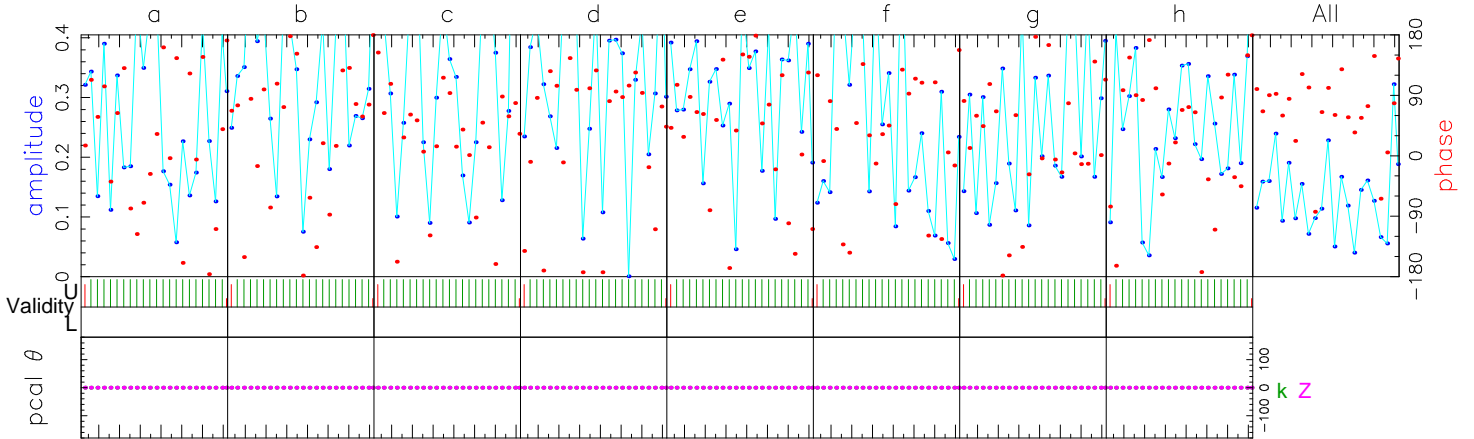


delay rate (ns/s)



Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:072:124544
 2020:086:165628
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



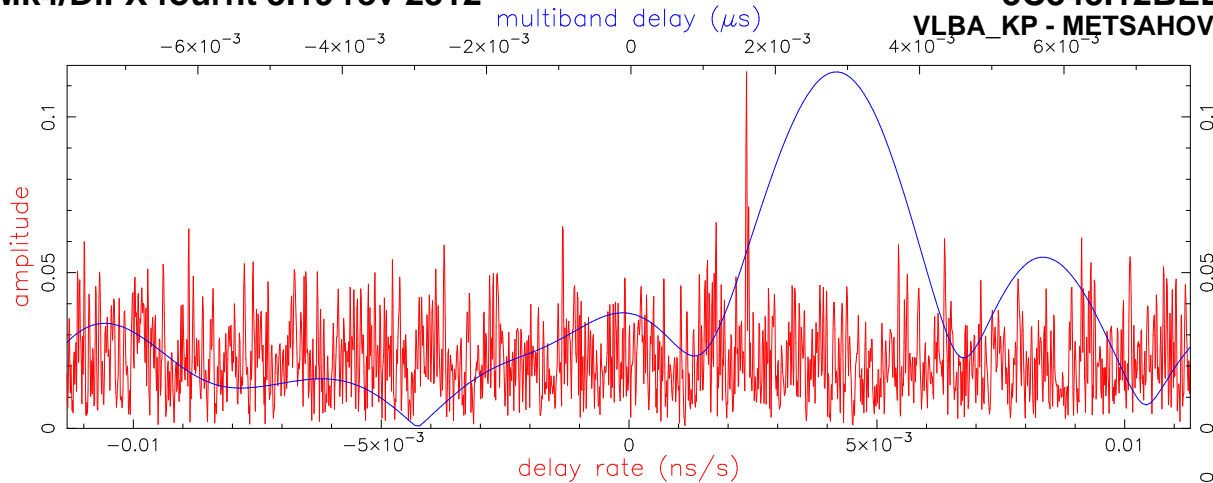
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.86782789986E+03	Apriori delay (usec)	-3.86686876465E+03	Resid mbdelay (usec)	-6.01021E-03	+/-	1.9E-04
Sband delay (usec)	-3.86783356540E+03	Apriori clock (usec)	-5.8413070E-01	Resid sbdelay (usec)	-9.64801E-01	+/-	1.5E-03
Phase delay (usec)	-3.86686876195E+03	Apriori clockrate (us/s)	-2.1087179E-07	Resid phdelay (usec)	2.70027E-06	+/-	6.4E-07
Delay rate (us/s)	1.49690146371E+00	Apriori rate (us/s)	1.49689285005E+00	Resid rate (us/s)	8.61367E-06	+/-	2.7E-09
Total phase (deg)	-55.6	Apriori accel (us/s/s)	-3.90160278613E-06	Resid phase (deg)	83.7	+/-	19.7

ph/seg (deg)	58.3	RMS	70.1	Theor.	47.3	Amplitude	0.135 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	70.1	Search (2048X32)	0.104	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.104	SampCntNorm: enabled	sb window (us)	-1.000 1.000
ph/frq (deg)	25.4	Inc. seg. avg.	0.131	Inc. frq. avg.	0.129	Bits/sample: 2x2	0.000	Sample rate(MISamp/s): 128	mb window (us)	-0.008 0.008
amp/frq (%)	56.6	Inc. frq. avg.	0.129	Sample rate(MISamp/s): 128	128	Data rate(Mb/s): 2048	0.129	nlags: 256	dr window (ns/s)	-0.011 0.011

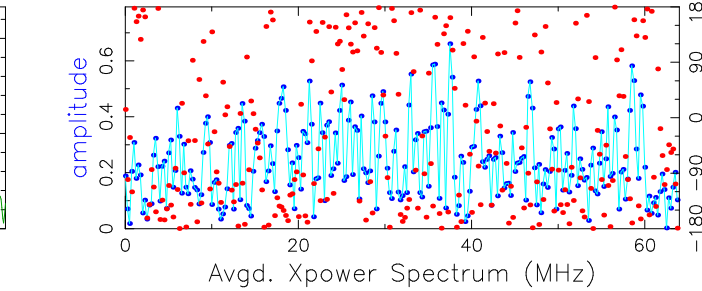
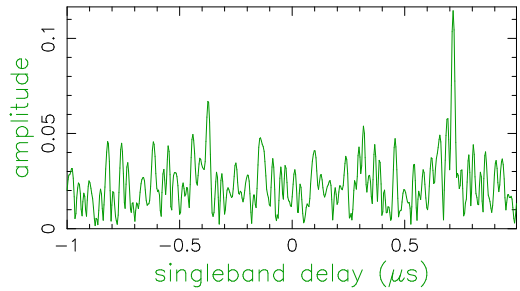
k: az 60.1 el 32.1 pa -73.4 Z: az 271.4 el 46.7 pa 40.3 u,v (fr/asec) -11165.875 -2426.815 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kZ..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kZ.W.181.12BED8



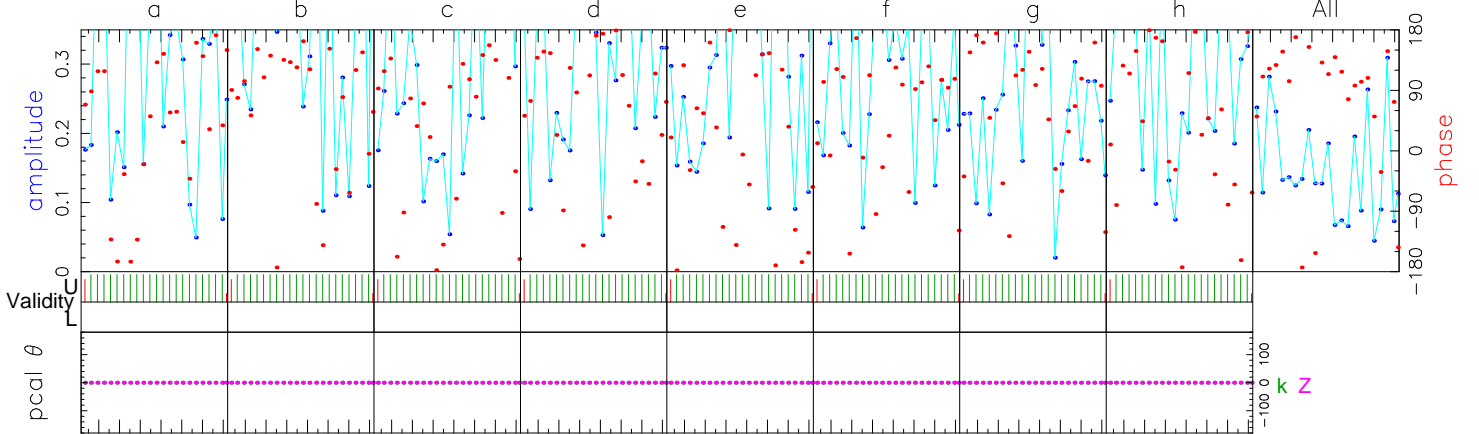
Fringe quality 0

SNR 6.3
 Int time 407.367
 Amp 0.117
 Phase 124.4
 PFD 7.0e-02
 Delays (us)
 SBD 0.714918
 MBD 0.002847
 Fringe rate (Hz)
 0.203990
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c192a
 Exper # 16383
 Yr:day 2019:276
 Start 183008.70
 Stop 183659.84
 FRT 183330.00
 Corr/FF/build
 2020:072:124544
 2020:086:165637
 2020:014:135814
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec

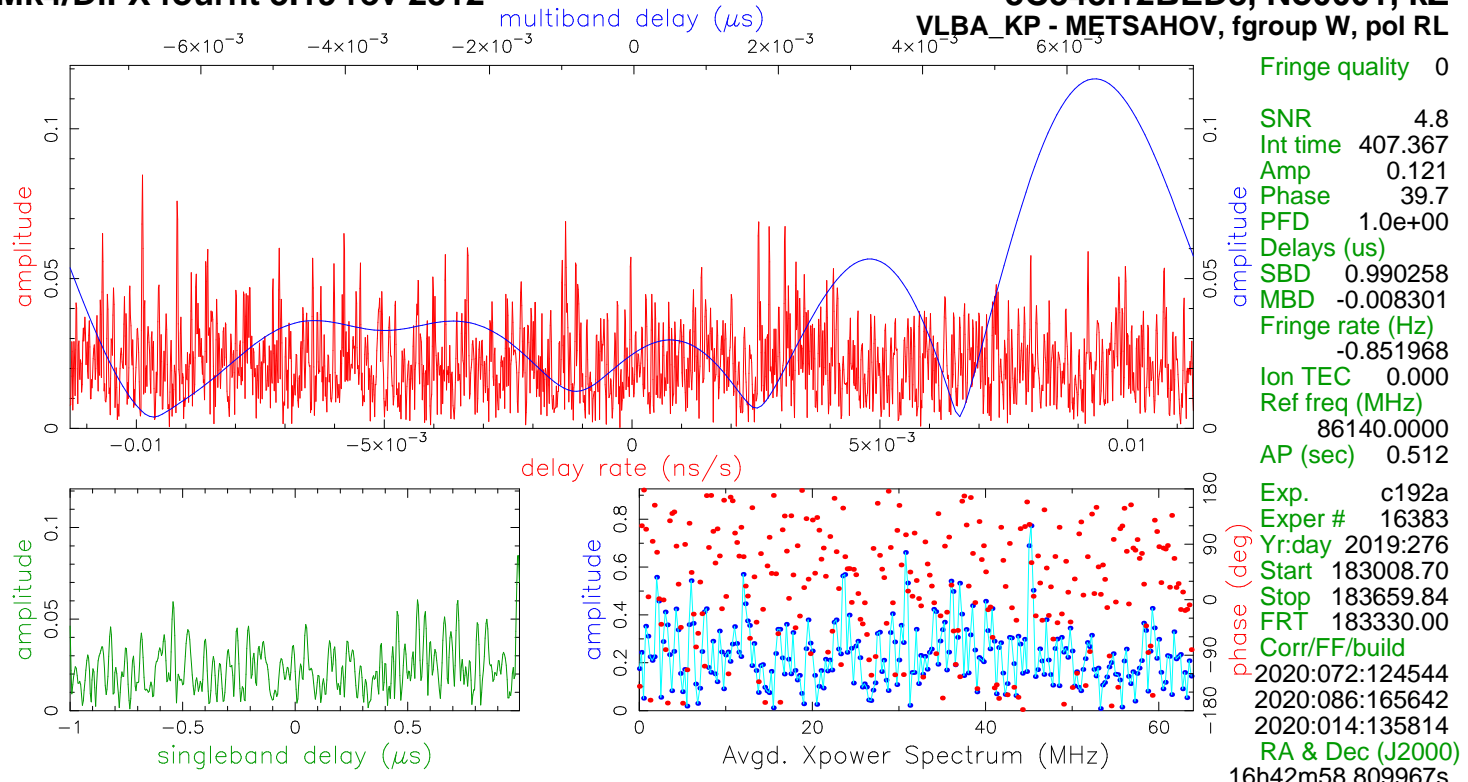


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	802/0	802/0	802/0	802/0	802/0	802/0	802/0	802/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.86614716728E+03				-3.86686876465E+03				2.84737E-03	+/- 1.7E-04
Sband delay (usec)	-3.86615384615E+03				-5.8413070E-01				7.14918E-01	+/- 1.4E-03
Phase delay (usec)	-3.86686876064E+03				-2.1087179E-07				4.01004E-06	+/- 5.8E-07
Delay rate (us/s)	1.49689521816E+00				1.49689285005E+00				2.36812E-06	+/- 2.5E-09
Total phase (deg)			-15.0		-3.90160278613E-06				124.4	+/- 18.1
	RMS	Theor.	Amplitude	0.117 +/- 0.018						
ph/seg (deg)	51.6	43.5	Search (2048X32)	0.113						
amp/seg (%)	71.8	75.9	Interp.	0.000						
ph/frq (deg)	20.4	25.7	Inc. seg. avg.	0.118						
amp/frq (%)	45.4	44.8	Inc. frq. avg.	0.110						
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(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 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										

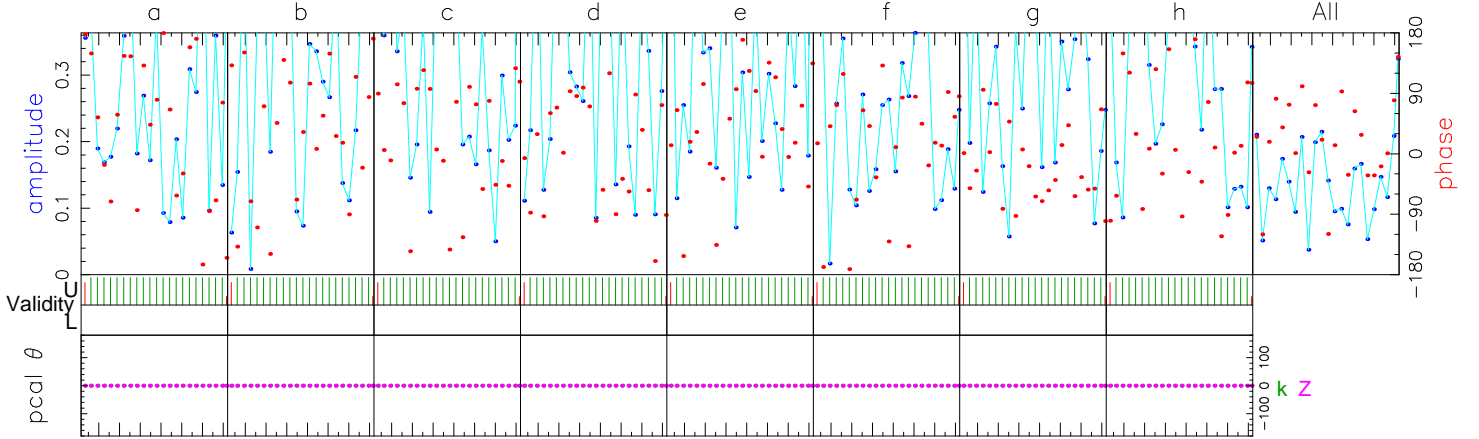
Mk4/DiFX fourfit 3.19 rev 2512

3C345.12BED8, No0001, kZ

VLBA_KP - METSAHOV, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 23 segs, 36 APs / seg (18.43 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
156.4	86.6	51.4	29.2	48.9	67.4	-25.5	-27.1		Phase	39.7
0.1	0.2	0.2	0.2	0.2	0.1	0.3	0.1		Ampl.	0.2
247.4	364.3	113.2	499.7	508.9	370.4	510.7	100.9		Sbd box	510.5
U/L 801/0	801/0	801/0	801/0	801/0	801/0	802/0	802/0		APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
Z 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
k:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
k:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
k 1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.86587706543E+03		Apriori delay (usec)	-3.86686876465E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	2.3E-04		
Sband delay (usec)	-3.86587850665E+03		Apriori clock (usec)	-5.8413070E-01	Resid sbdelay (usec)	9.90258E-01	+/-	1.8E-03		
Phase delay (usec)	-3.86686876337E+03		Apriori clockrate (us/s)	-2.1087179E-07	Resid phdelay (usec)	1.27958E-06	+/-	7.7E-07		
Delay rate (us/s)	1.49688295955E+00		Apriori rate (us/s)	1.49689285005E+00	Resid rate (us/s)	-9.89050E-06	+/-	3.3E-09		
Total phase (deg)		-99.7	Apriori accel (us/s/s)	-3.90160278613E-06	Resid phase (deg)	39.7	+/-	24.0		

	RMS	Theor.	Amplitude	0.121 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	65.5	57.4	Search (2048X32)	0.116	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	87.0	100.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	65.4	33.9	Inc. seg. avg.	0.126	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	71.9	59.1	Inc. frq. avg.	0.154	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 60.1 el 32.1 pa -73.4 Z: az 271.4 el 46.7 pa 40.3 u,v (fr/asec) -11165.875 -2426.815 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c192a/v1_PV/1234/No0001/kZ..12BED8 Output file: /Exps/c192a/v1_PV/1234/No0001/kZ.W.244.12BED8