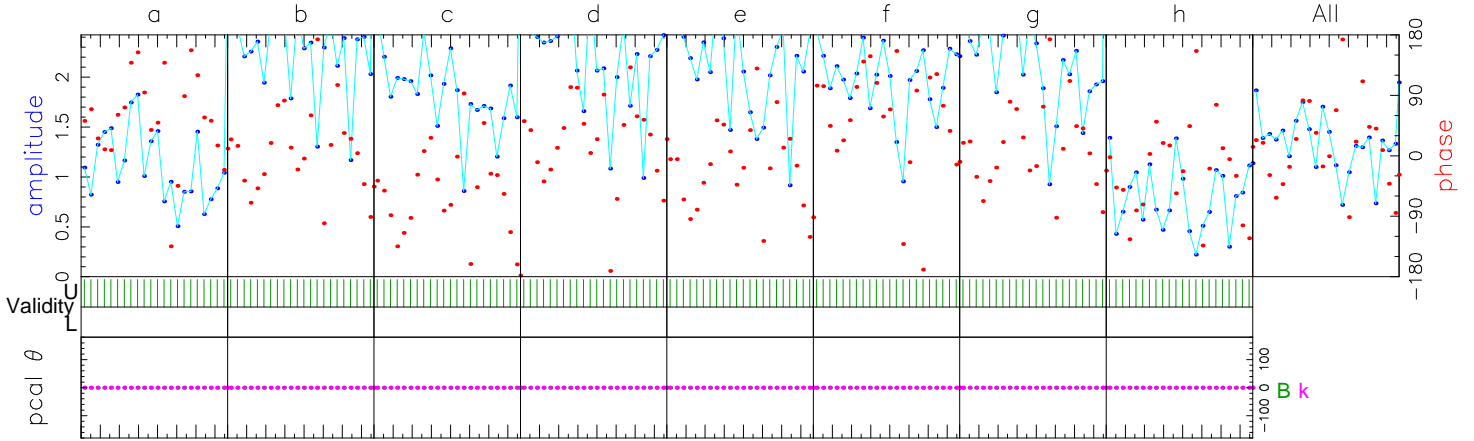


Fringe quality 3

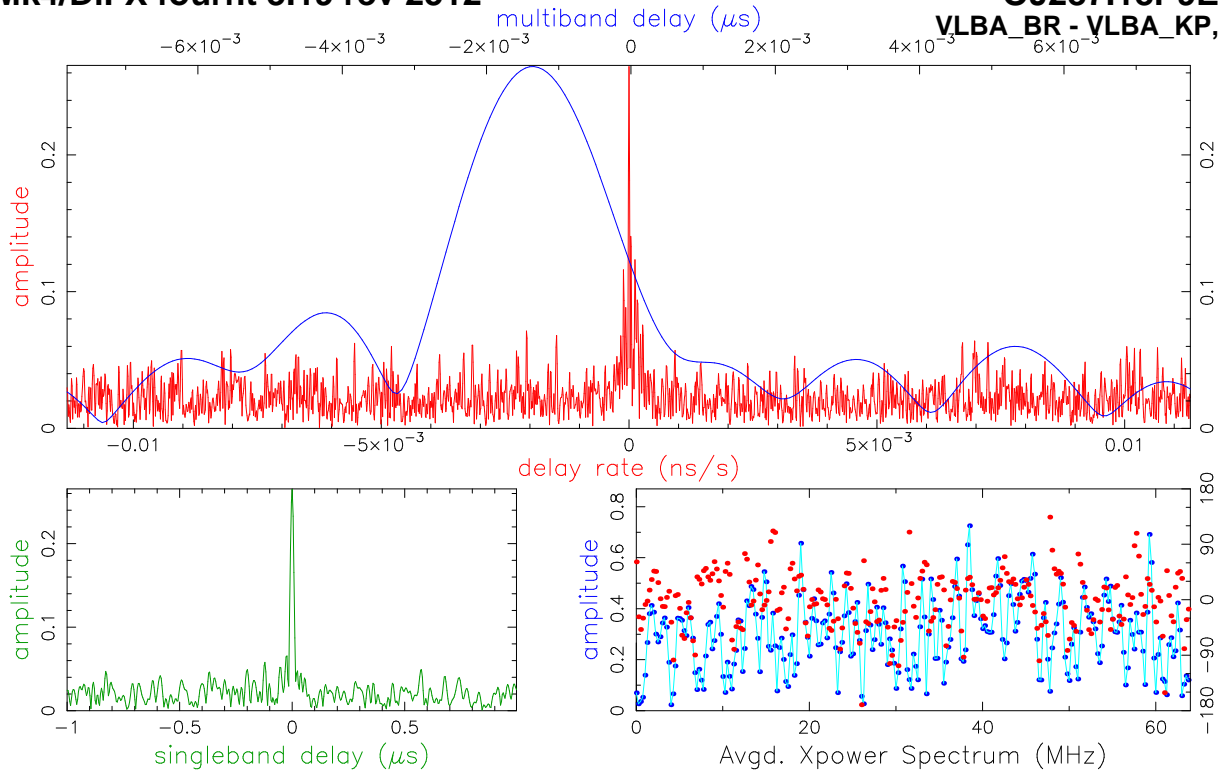
SNR 46.4
Int time 439.734
Amp 0.808
Phase 10.2
PFD 0.0e+00
Delays (us)
SBD -0.000048
MBD 0.005409
Fringe rate (Hz)
-0.000960
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120754
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.46236749414E+03									
Sband delay (usec)	-4.46237295127E+03									
Phase delay (usec)	-4.46237290244E+03									
Delay rate (us/s)	-1.81257256774E+00									
Total phase (deg)			-293.9							
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								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

B: az 265.9 el 29.7 pa 42.5 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 11099.932 2908.942 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/Bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/Bk.W.20.18P9EC

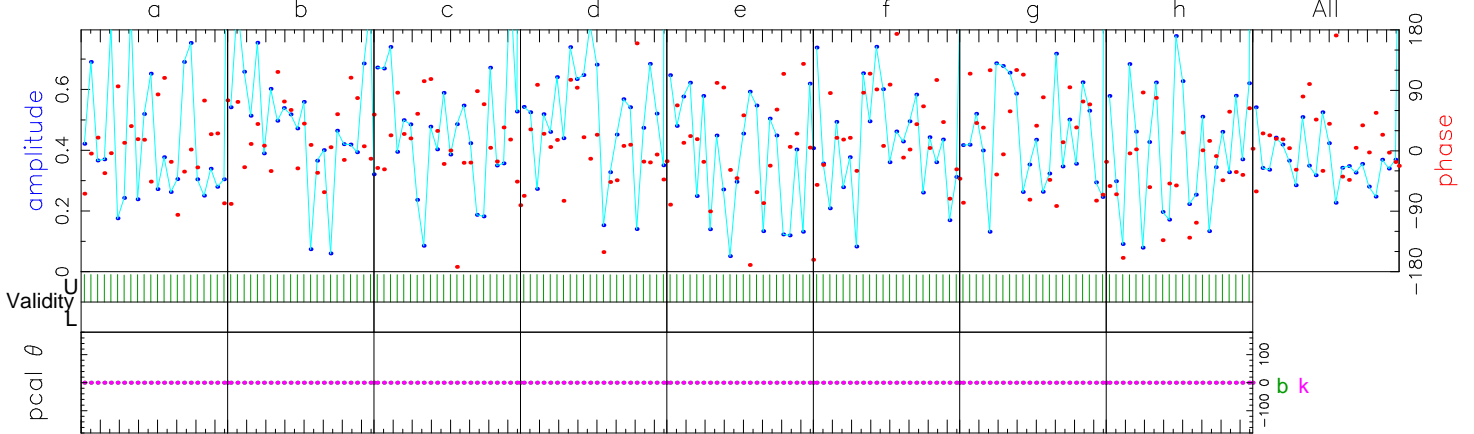


Fringe quality 9

SNR 15.2
Int time 436.725
Amp 0.266
Phase 10.7
PFD 3.4e-43
Delays (us)
SBD -0.000730
MBD -0.001370
Fringe rate (Hz) -0.000449
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

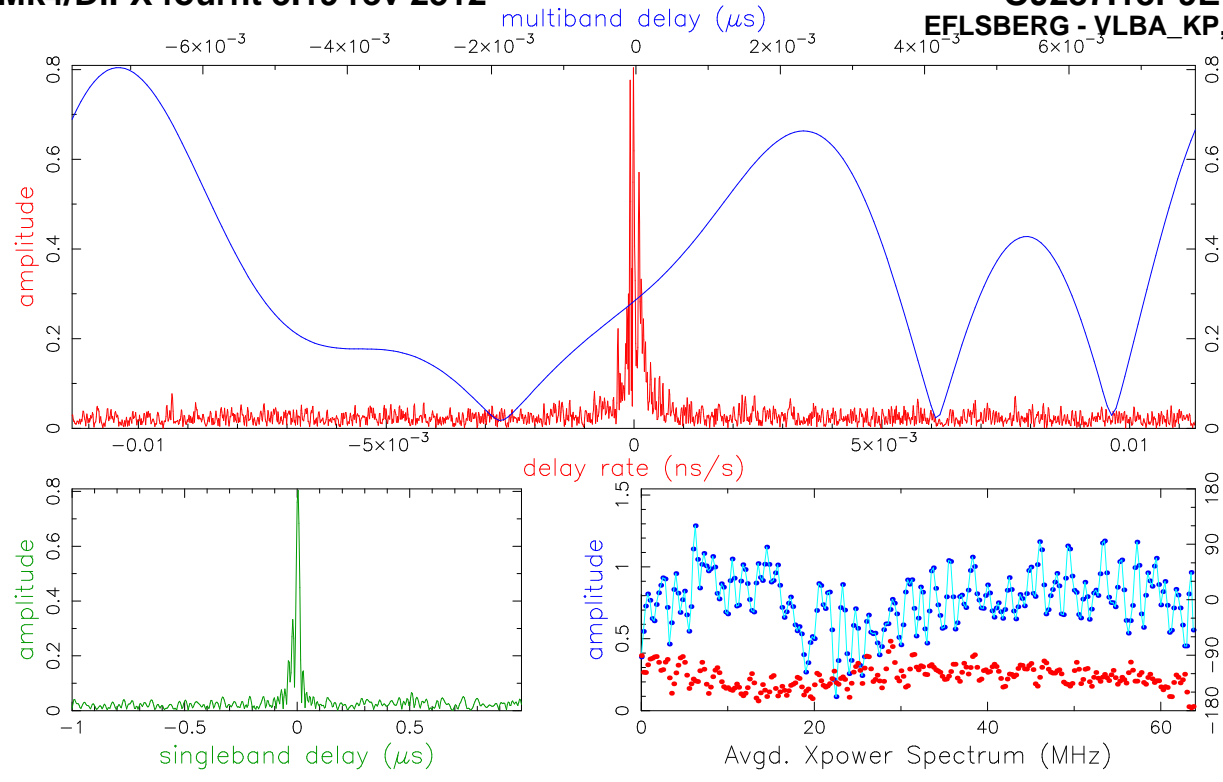
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120756
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	-0.2	19.3	9.0	5.3	10.2	35.1	29.1	-15.2		Phase
	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3		Ampl.
	257.1	257.0	257.0	256.1	258.0	256.2	257.0	256.9		Sbd box
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec)(sbd)	-2.28141882761E+03		Apriori delay (usec)		-2.28141745746E+03		Resid mbdelay (usec)		-1.37016E-03	+/- 7.2E-05
Sband delay (usec)	-2.28141818721E+03		Apriori clock (usec)		-1.0578210E+00		Resid sbdelay (usec)		-7.29750E-04	+/- 5.7E-04
Phase delay (usec)	-2.28141745711E+03		Apriori clockrate (us/s)		-4.7400004E-08		Resid phdelay (usec)		3.44527E-07	+/- 2.4E-07
Delay rate (us/s)	-1.21405125396E-01		Apriori rate (us/s)		-1.21405120182E-01		Resid rate (us/s)		-5.21428E-09	+/- 9.6E-10
Total phase (deg)			Apriori accel (us/s/s)		2.04462536050E-05		Resid phase (deg)		10.7	+/- 7.6

ph/seg (deg) 51.7 18.1 Amplitude 0.266 +/- 0.017 PCAL mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 50.6 31.6 Search (2048X32) 0.244 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 17.5 10.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 22.1 18.6 Inc. seg. avg. 0.350 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
b: az 99.1 el 35.1 pa -44.6 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 771.244 2373.911 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/bk.W.29.18P9EC simultaneous interpolator

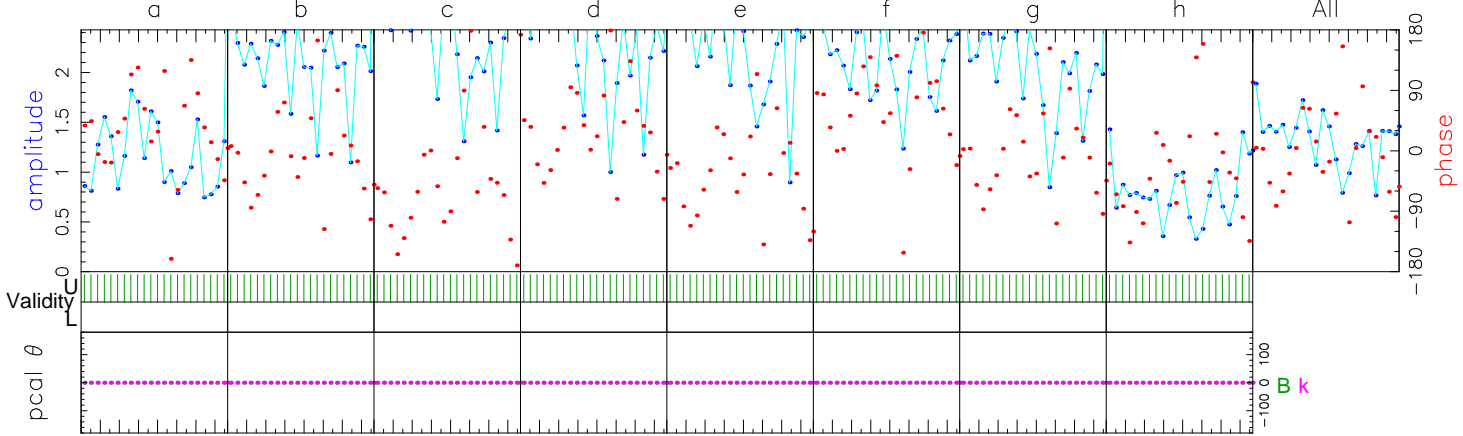


Fringe quality 3

SNR 46.4
Int time 439.734
Amp 0.809
Phase -8.3
PFD 0.0e+00
Delays (us)
SBD 0.002944
MBD -0.007210
Fringe rate (Hz)
-0.000975
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120758
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	40.3	-13.9	-76.9	22.3	-36.0	69.3	-11.3	-54.4	Phase	-8.3
	0.6	1.2	1.4	1.4	1.4	1.3	1.3	0.5	Ampl.	1.1
	254.6	256.9	258.2	258.1	258.8	257.9	257.4	252.6	Sbd box	257.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	
									Tracks	
Group delay (usec)(sbd)	-4.46236448752E+03		Apriori delay (usec)		-4.46237290277E+03		Resid mbdelay (usec)		-7.20975E-03	+/- 2.3E-05
Sband delay (usec)	-4.46236995902E+03		Apriori clock (usec)		1.3402443E+01		Resid sbdelay (usec)		2.94375E-03	+/- 1.9E-04
Phase delay (usec)	-4.46237290304E+03		Apriori clockrate (us/s)		-2.0540000E-07		Resid phdelay (usec)		-2.67736E-07	+/- 8.0E-08
Delay rate (us/s)	-1.81257256792E+00		Apriori rate (us/s)		-1.81257255660E+00		Resid rate (us/s)		-1.13164E-08	+/- 3.1E-10
Total phase (deg)			Apriori accel (us/s/s)		3.31748932991E-05		Resid phase (deg)		-8.3	+/- 2.5

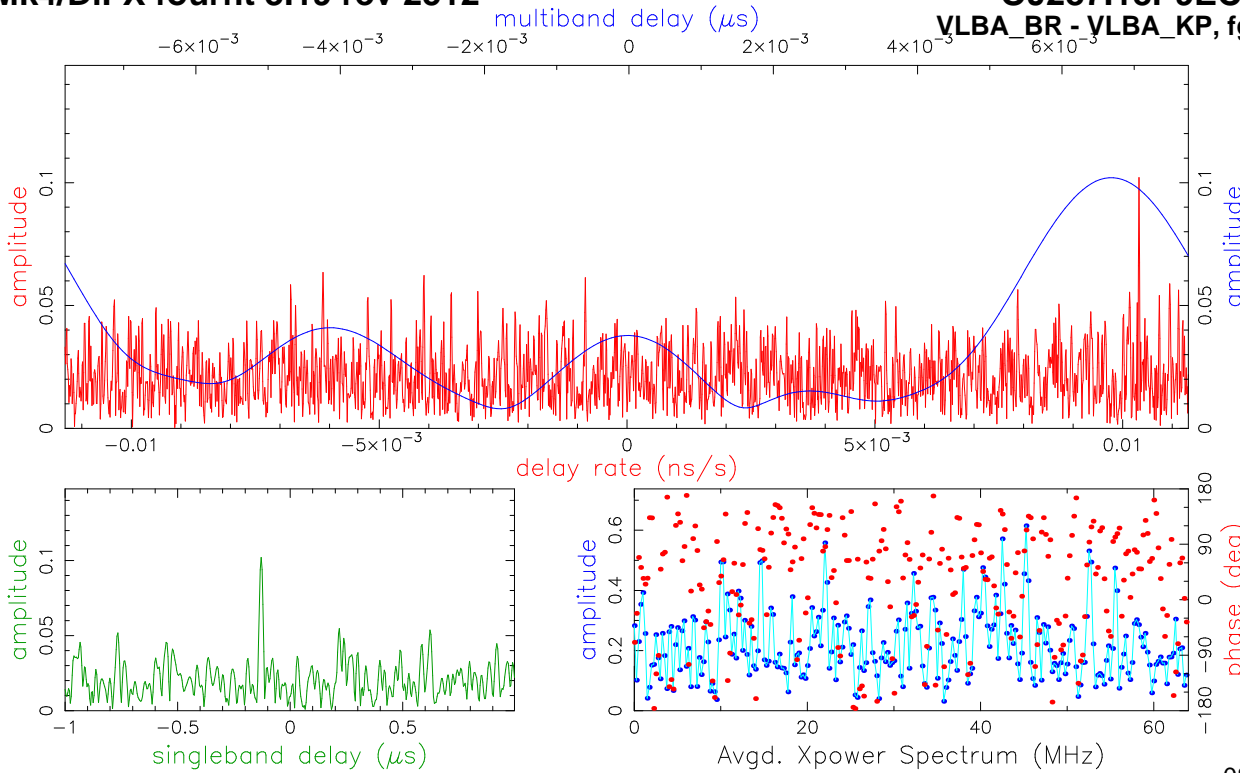
	RMS	Theor.	Amplitude	0.809 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	62.8	5.9	Search (2048X32)	0.798	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	72.9	10.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	53.2	3.5	Inc. seg. avg.	1.332	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	57.8	6.1	Inc. frq. avg.	1.127	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

B: az 265.9 el 29.7 pa 42.5 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 11099.932 2908.942 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/Bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/Bk.W.39.18P9EC

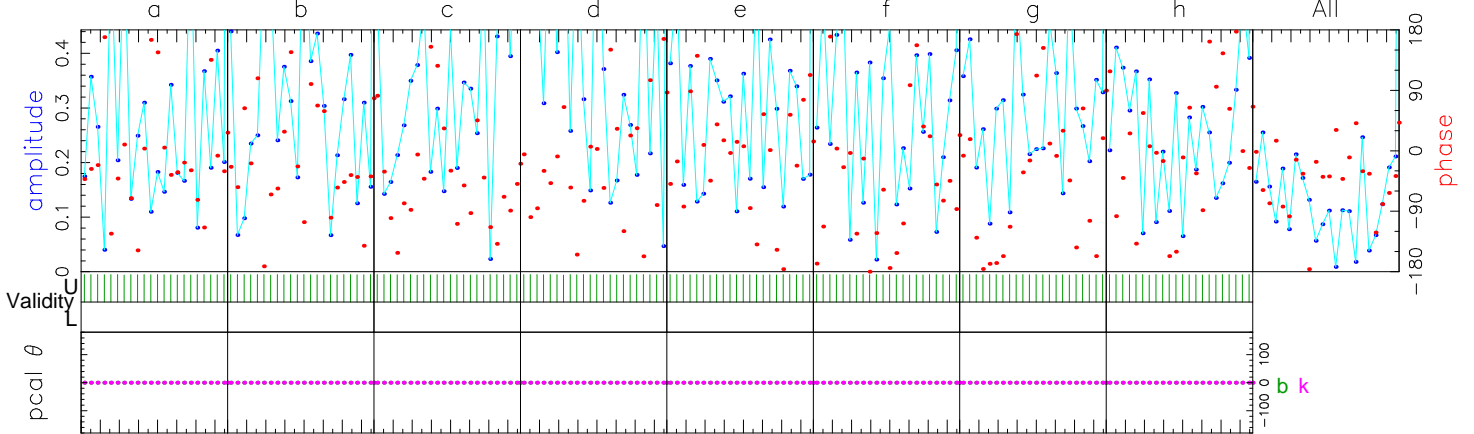
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, bk
VLBA_BR - VLBA_KP, fgroup W, pol LR



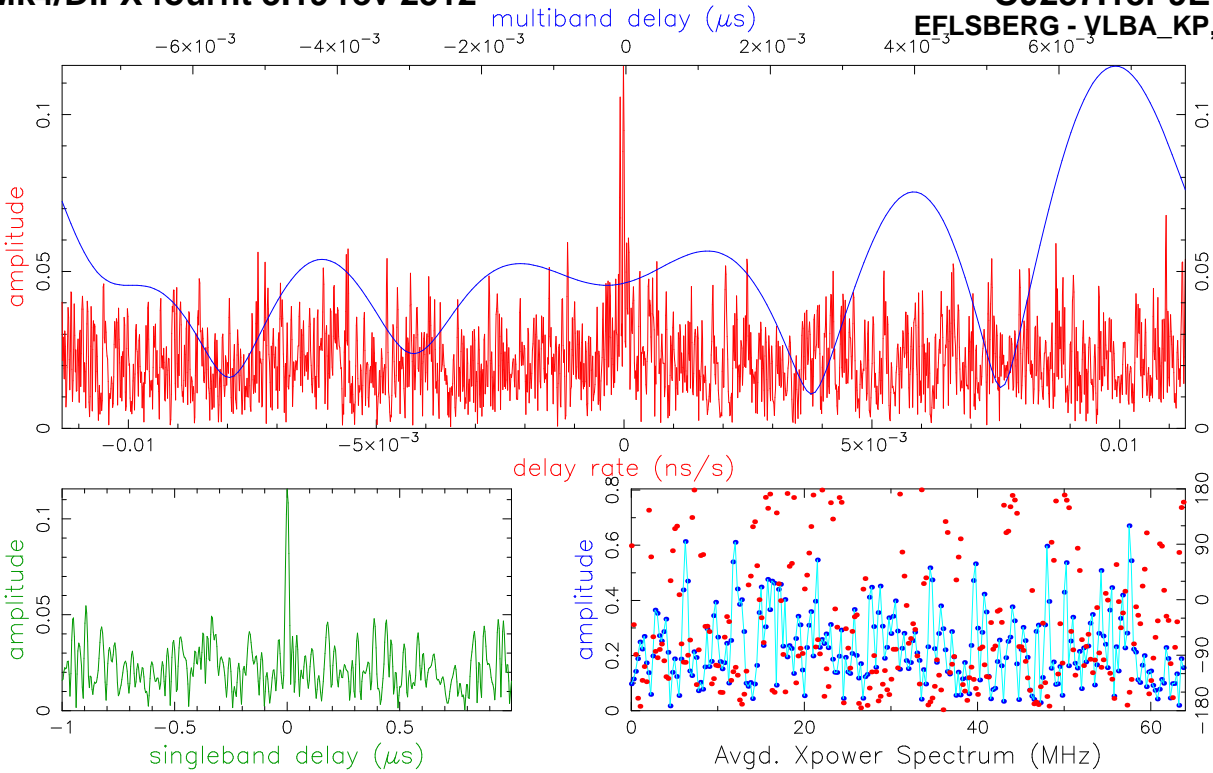
Fringe quality 0
SNR 5.8
Int time 436.726
Amp 0.148
Phase -44.9
PFD 7.5e-01
Delays (us)
SBD -0.128863
MBD 0.006683
Fringe rate (Hz) 0.891524
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120800
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



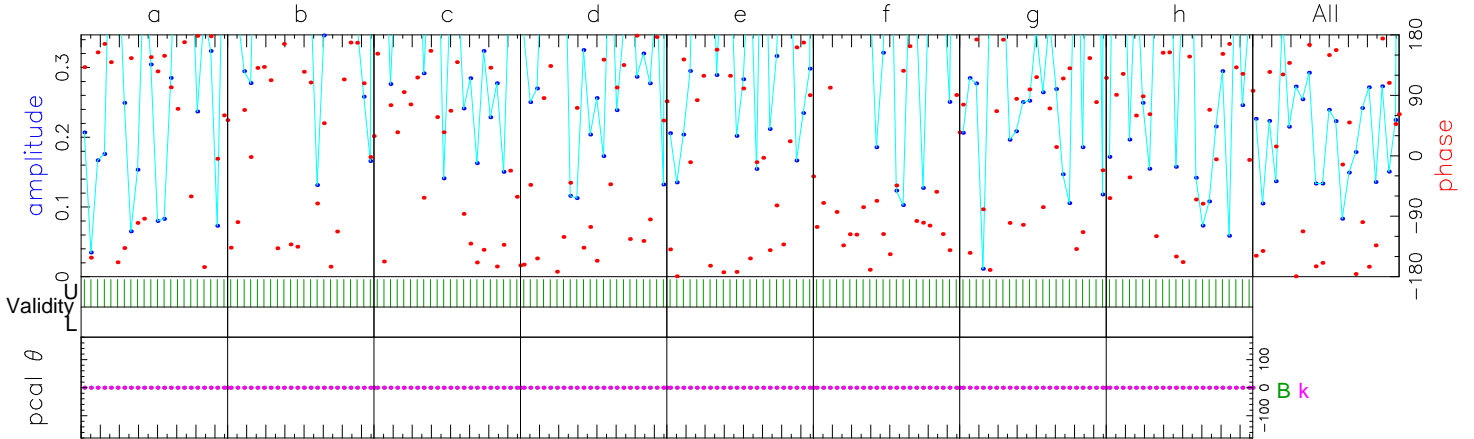
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-38.6	-40.9	-58.8	-49.5	-1.7	-90.3	-53.3	-25.8	Phase	-44.9
	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	316.2	167.2	223.7	59.7	13.1	163.2	504.3	318.4	Sbd box	224.0
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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)	-2.28155139948E+03		Apriori delay (usec)		-2.28141745746E+03		Resid mbdelay (usec)		6.68298E-03	+/- 1.9E-04
Sband delay (usec)	-2.28154632046E+03		Apriori clock (usec)		-1.0578210E+08		Resid sbdelay (usec)		-1.28863E-01	+/- 1.5E-03
Phase delay (usec)	-2.28141745890E+03		Apriori clockrate (us/s)		-4.7400004E-08		Resid phdelay (usec)		-1.44796E-06	+/- 6.3E-07
Delay rate (us/s)	-1.21394770469E-01		Apriori rate (us/s)		-1.21405120182E-01		Resid rate (us/s)		1.03497E-05	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		2.04462536050E-05		Resid phase (deg)		-44.9	+/- 19.6

ph/seg (deg) 48.8 47.1 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 87.7 82.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 27.8 27.8 Inc. seg. avg. 0.141 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 51.7 48.5 Inc. frq. avg. 0.144 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 99.1 el 35.1 pa -44.6 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 771.244 2373.911 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/bk.W.49.18P9EC



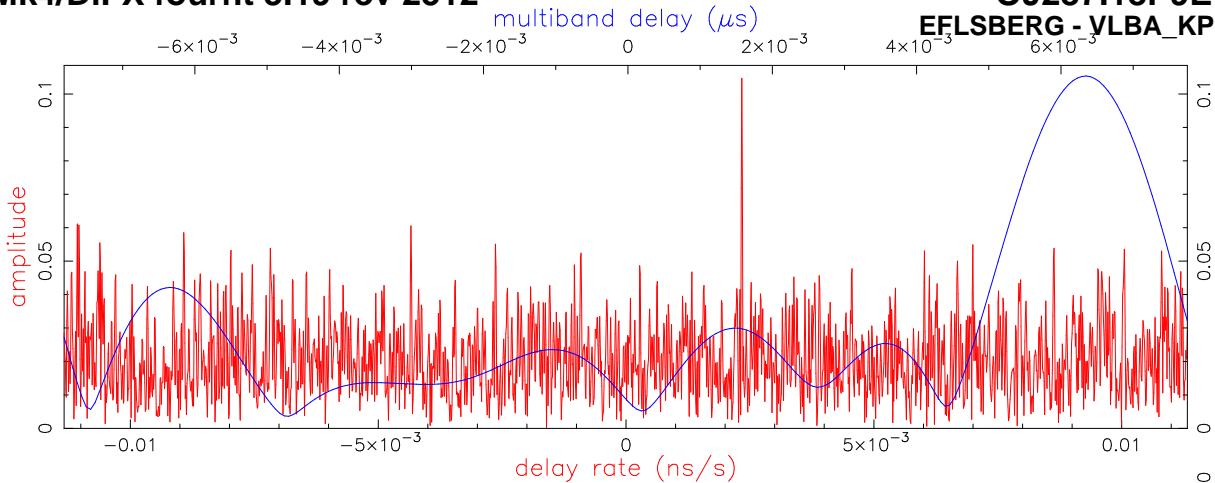
Fringe quality 0
SNR 6.6
Int time 439.734
Amp 0.116
Phase 168.9
PFD 9.4e-03
Delays (us)
SBD 0.000630
MBD 0.006816
Fringe rate (Hz)
-0.000575
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120802
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

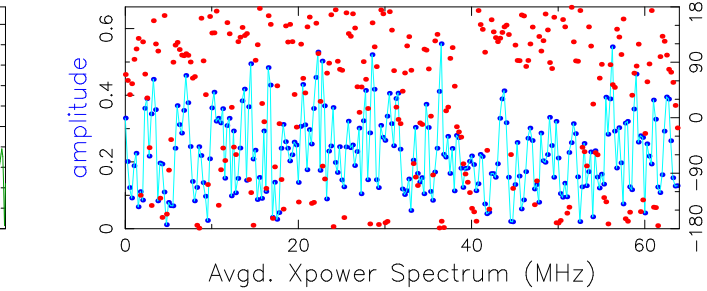
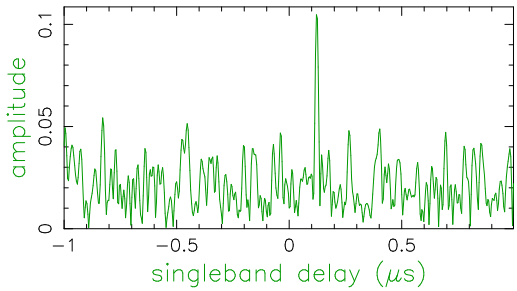


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	161.1	167.0	119.2	-156.8	156.5	-115.3	134.7	130.8	Phase	168.9
	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	168.5	257.7	201.4	109.8	259.5	257.6	305.3	251.5	Sbd box	257.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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)	-4.46236608677E+03		Apriori delay (usec)		-4.46237290277E+03		Resid mbdelay (usec)		6.81600E-03	+/- 1.6E-04
Sband delay (usec)	-4.46237227327E+03		Apriori clock (usec)		1.3402443E+01		Resid sbdelay (usec)		6.29500E-04	+/- 1.3E-03
Phase delay (usec)	-4.46237289733E+03		Apriori clockrate (us/s)		-2.0540000E-07		Resid phdelay (usec)		5.44636E-06	+/- 5.6E-07
Delay rate (us/s)	-1.81257256328E+00		Apriori rate (us/s)		-1.81257255660E+00		Resid rate (us/s)		-6.67320E-09	+/- 2.2E-09
Total phase (deg)			Apriori accel (us/s/s)		3.31748932991E-05		Resid phase (deg)		168.9	+/- 17.3

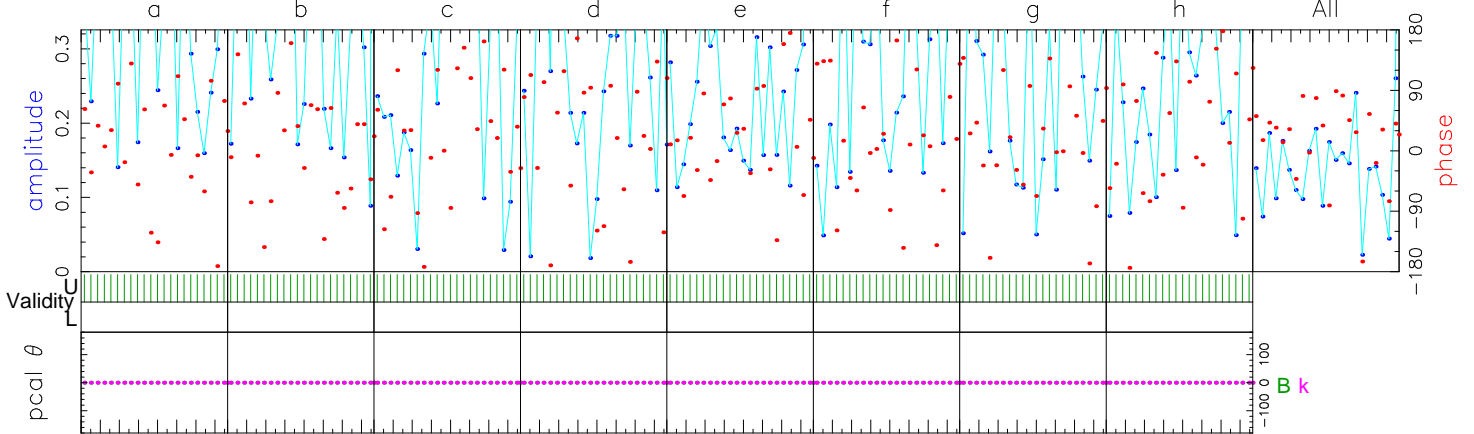
ph/seg (deg) RMS Theor. Amplitude 0.116 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.6 41.4 Search (2048X32) 0.111 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 102.1 72.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.1 24.4 Inc. seg. avg. 0.164 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.0 42.6 Inc. frq. avg. 0.139 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00



Fringe quality 0
SNR 6.1
Int time 439.734
Amp 0.109
Phase 33.9
PFD 2.2e-01
Delays (us)
SBD 0.122709
MBD 0.006462
Fringe rate (Hz) 0.201331
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120750
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

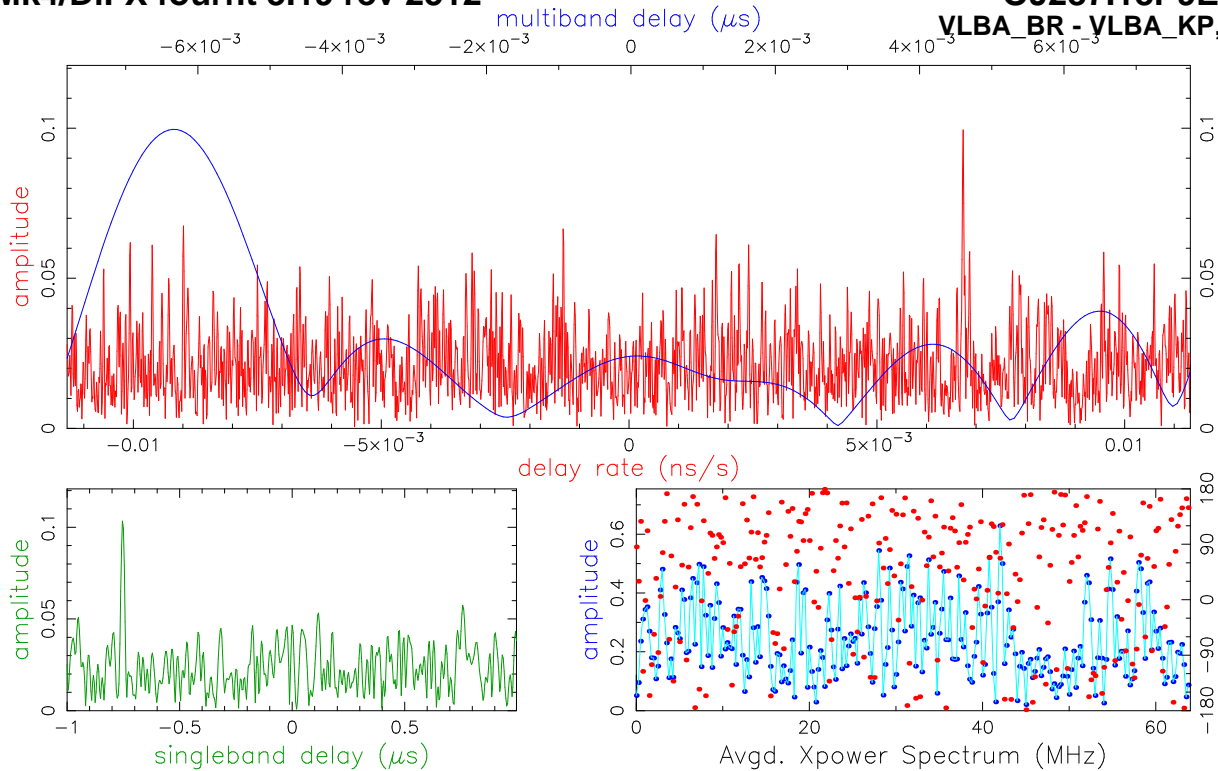


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	-4.46225706610E+03	Apriori delay (usec)	-4.46237290277E+03	Resid mbdelay (usec)	6.46167E-03	+/-	1.8E-04
Sband delay (usec)	-4.46225019377E+03	Apriori clock (usec)	1.3402443E+01	Resid sbdelay (usec)	1.22709E-01	+/-	1.4E-03
Phase delay (usec)	-4.46237290168E+03	Apriori clockrate (us/s)	-2.0540000E-07	Resid phdelay (usec)	1.09275E-06	+/-	6.0E-07
Delay rate (us/s)	-1.81257021935E+00	Apriori rate (us/s)	-1.81257255660E+00	Resid rate (us/s)	2.33726E-06	+/-	2.4E-09
Total phase (deg)	-270.2	Apriori accel (us/s/s)	3.31748932991E-05	Resid phase (deg)	33.9	+/-	18.7

ph/seg (deg)	57.3	Theor.	44.9	Amplitude	0.109 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.5		78.4	Search (2048X32)	0.104	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	20.5		26.5	Inc. seg. avg.	0.109	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	27.1		46.2	Inc. frq. avg.	0.100	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 265.9 el 29.7 pa 42.5 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 11099.932 2908.942 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/Bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/Bk.W.6.18P9EC



Fringe quality 0

SNR 5.9

Int time 436.725

Amp 0.121

Phase 148.9

PFD 5.1e-01

Delays (us)

SBD -0.752815

MBD -0.006407

Fringe rate (Hz)

0.582115

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c201a

Exper # 16383

Yr:day 2020:115

Start 224500.00

Stop 225219.80

FRT 224840.00

Corr/FF/build

2020:195:224837

2020:197:120804

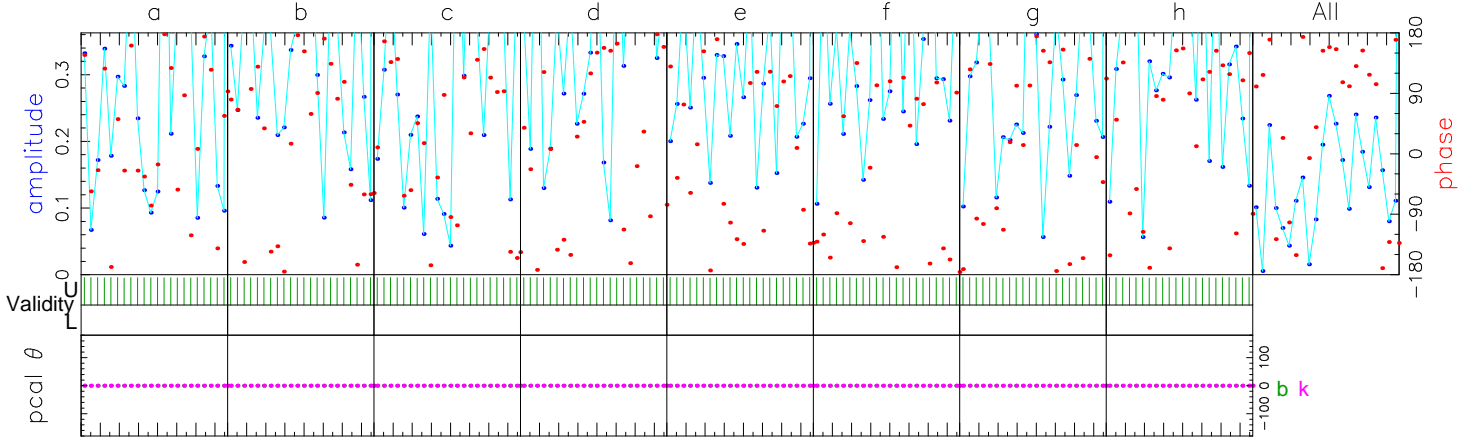
2020:014:135814

RA & Dec (J2000)

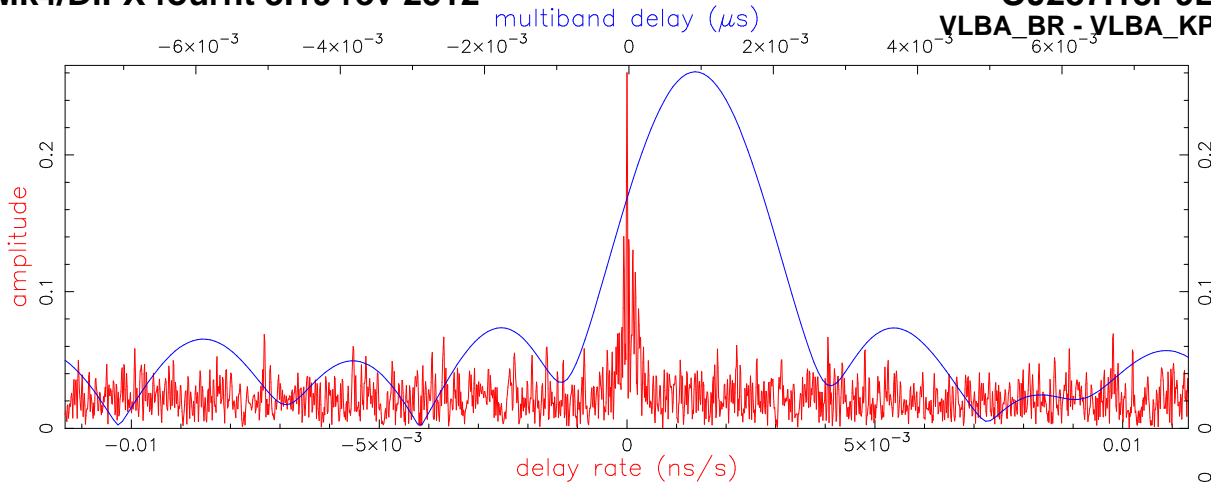
08h54m48.874928s

+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

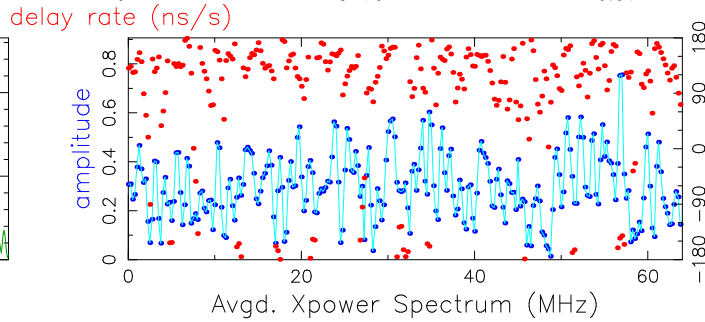
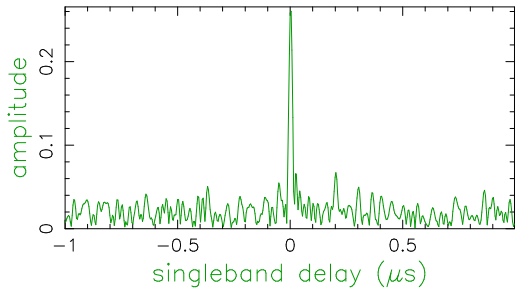


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	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		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-2.28217386418E+03								Resid mbdelay (usec)	-6.40672E-03 +/- 1.8E-04
Sband delay (usec)	-2.28217027296E+03								Resid sbdelay (usec)	-7.52815E-01 +/- 1.4E-03
Phase delay (usec)	-2.28141745265E+03								Resid phdelay (usec)	4.80235E-06 +/- 6.2E-07
Delay rate (us/s)	-1.21398362404E-01								Resid rate (us/s)	6.75778E-06 +/- 2.4E-09
Total phase (deg)		-133.8							Resid phase (deg)	148.9 +/- 19.3
	RMS	Theor.	Amplitude	0.121 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.7	46.2	Search (2048X32)	0.098					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	81.2	80.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	19.1	27.3	Inc. seg. avg.	0.120					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	23.9	47.6	Inc. frq. avg.	0.109					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
b: az 99.1 el 35.1 pa -44.6			k: az 91.6 el 42.9 pa -64.5						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c201a/v1/1234/No0027/bk..18P9EC							simultaneous interpolator
			Output file: /Exps/c201a/v1/1234/No0027/bk.W.68.18P9EC							



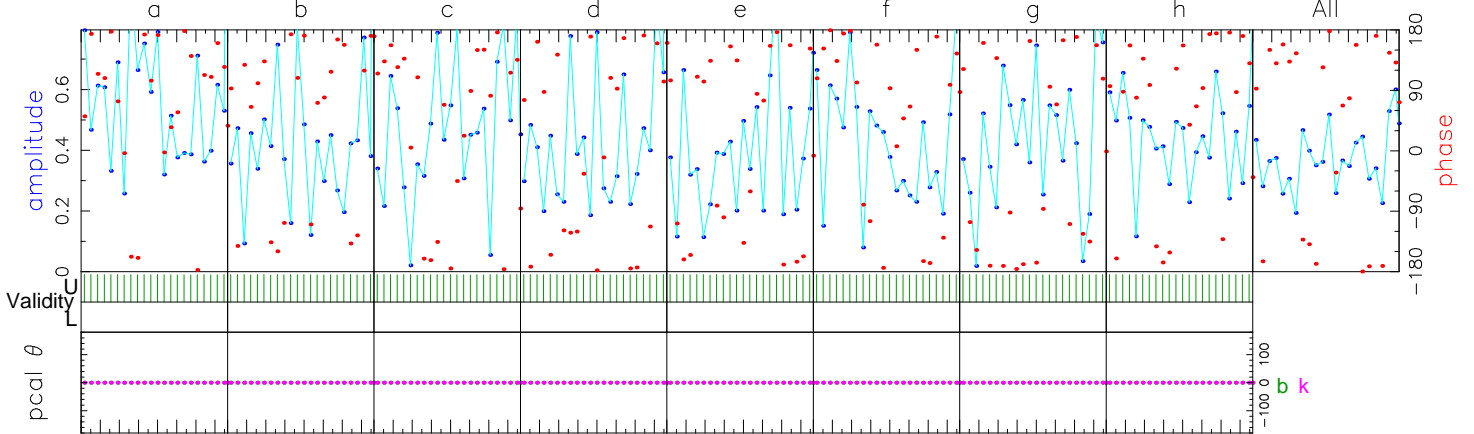
Fringe quality 9

SNR 15.2
Int time 436.726
Amp 0.266
Phase 156.0
PFD 3.3e-43
Delays (us)
SBD 0.002128
MBD 0.000847
Fringe rate (Hz)
-0.000407
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120750
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

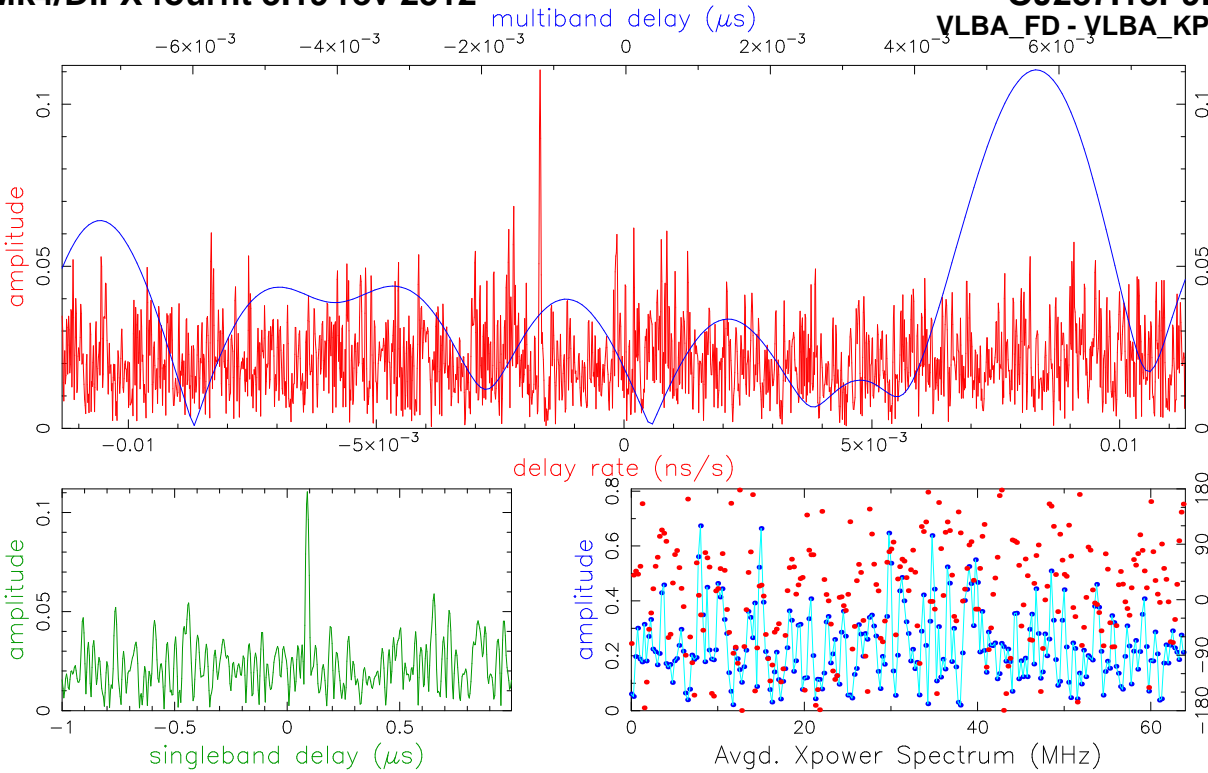


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	-2.28141661080E+03				-2.28141745746E+03				8.46656E-04	+/- 7.2E-05
Sband delay (usec)	-2.28141532971E+03				-1.0578210E+08				2.12775E-03	+/- 5.7E-04
Phase delay (usec)	-2.28141745243E+03				-4.7400004E-08				5.03190E-06	+/- 2.4E-07
Delay rate (us/s)	-1.21405124913E-01				-1.21405120182E-01				-4.73033E-09	+/- 9.6E-10
Total phase (deg)			-126.7		2.04462536050E-05				156.0	+/- 7.6
	RMS	Theor.	Amplitude	0.266 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	54.8	18.1	Search (2048X32)	0.245	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	54.6	31.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	16.5	10.7	Inc. seg. avg.	0.353	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	10.4	18.6	Inc. frq. avg.	0.264	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 99.1 el 35.1 pa -44.6 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 771.244 2373.911 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/bk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/bk.W.7.18P9EC

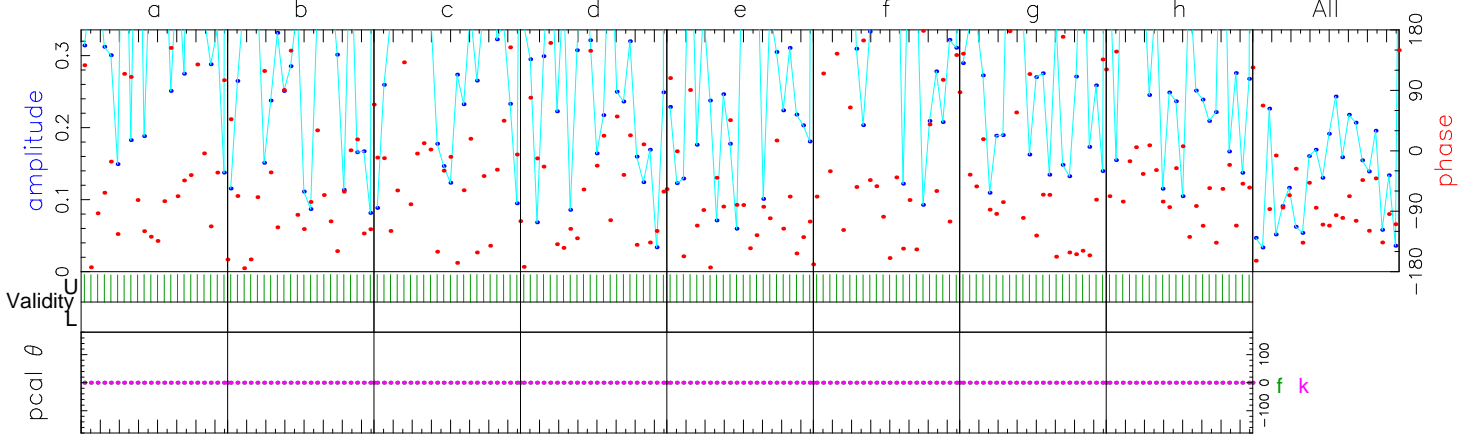
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, fk
VLBA_FD - VLBA_KP, fgroup W, pol LR



Fringe quality 0
SNR 6.3
Int time 435.424
Amp 0.112
Phase -85.1
PFD 6.4e-02
Delays (us)
SBD 0.089058
MBD 0.005649
Fringe rate (Hz)
-0.146152
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120819
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



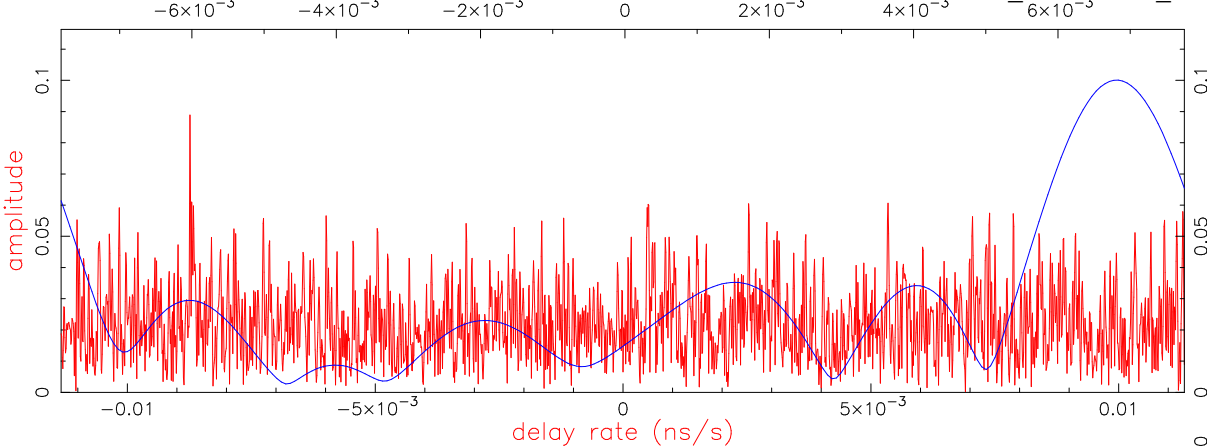
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-89.8	-88.9	-43.6	-98.9	-112.2	-96.9	-127.0	-55.0	Phase	-85.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	278.1	221.7	429.7	308.0	473.9	47.1	141.4	280.3	Sbd box	279.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.67521233123E+03	Apriori delay (usec)	1.67512855677E+03	Resid mbdelay (usec)	5.64946E-03	+/-	1.7E-04
Sband delay (usec)	1.67521761502E+03	Apriori clock (usec)	4.2317944E+00	Resid sbdelay (usec)	8.90583E-02	+/-	1.4E-03
Phase delay (usec)	1.67512855403E+03	Apriori clockrate (us/s)	1.0360000E-07	Resid phdelay (usec)	-2.74289E-06	+/-	5.8E-07
Delay rate (us/s)	-1.02958130091E-01	Apriori rate (us/s)	-1.02956433416E-01	Resid rate (us/s)	-1.69667E-06	+/-	2.3E-09
Total phase (deg)	231.8	Apriori accel (us/s/s)	-9.64662722644E-06	Resid phase (deg)	-85.1	+/-	18.1

	RMS	Theor.	Amplitude	0.112 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	49.6	43.4	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	64.2	75.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	30.3	25.6	Inc. seg. avg.	0.103	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	39.2	44.7	Inc. frq. avg.	0.114	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

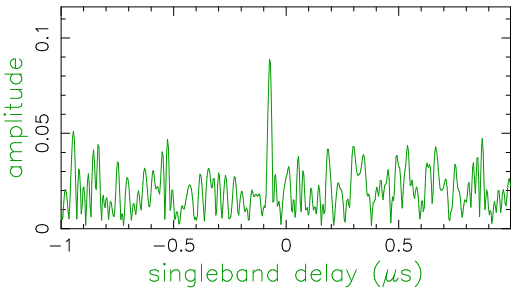
f: az 94.6 el 49.5 pa -66.0 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 611.769 -443.793 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/fk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/fk.W.119.18P9EC

multiband delay (μ s)

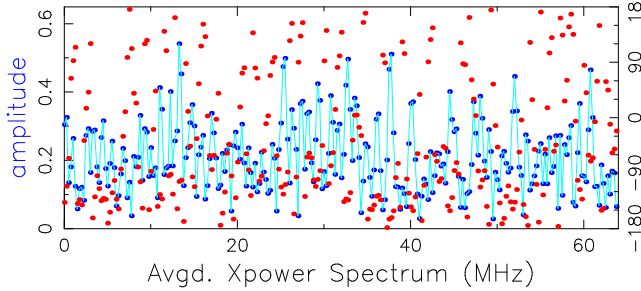


Fringe quality 0

SNR 5.1
Int time 435.424
Amp 0.116
Phase -141.8
PFD 1.0e+00
Delays (us)
SBD -0.072775
MBD -0.008301
Fringe rate (Hz)
-0.753672
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

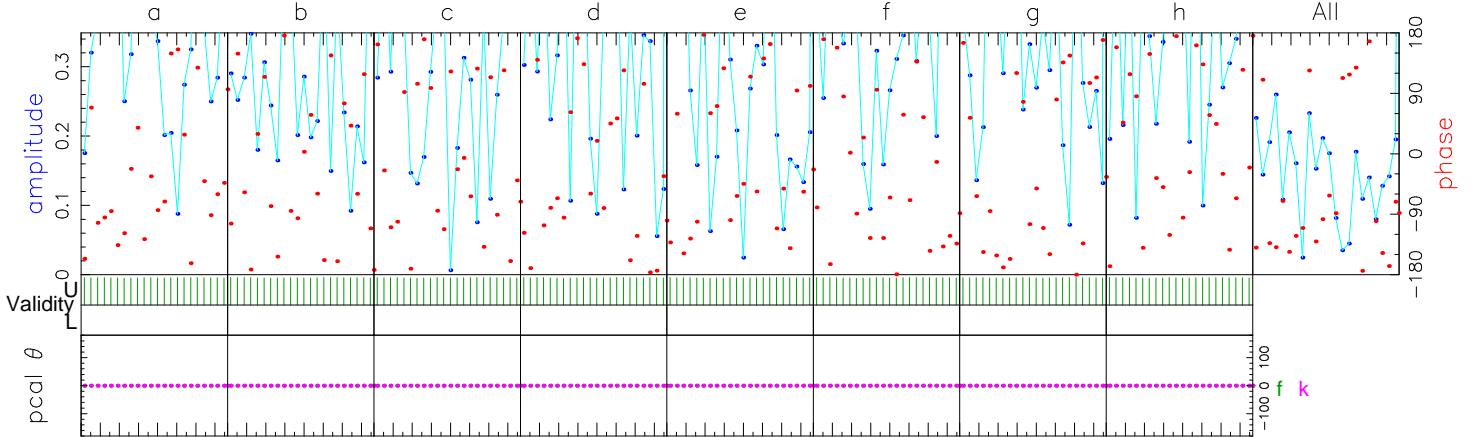


delay rate (ns/s)



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120823
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

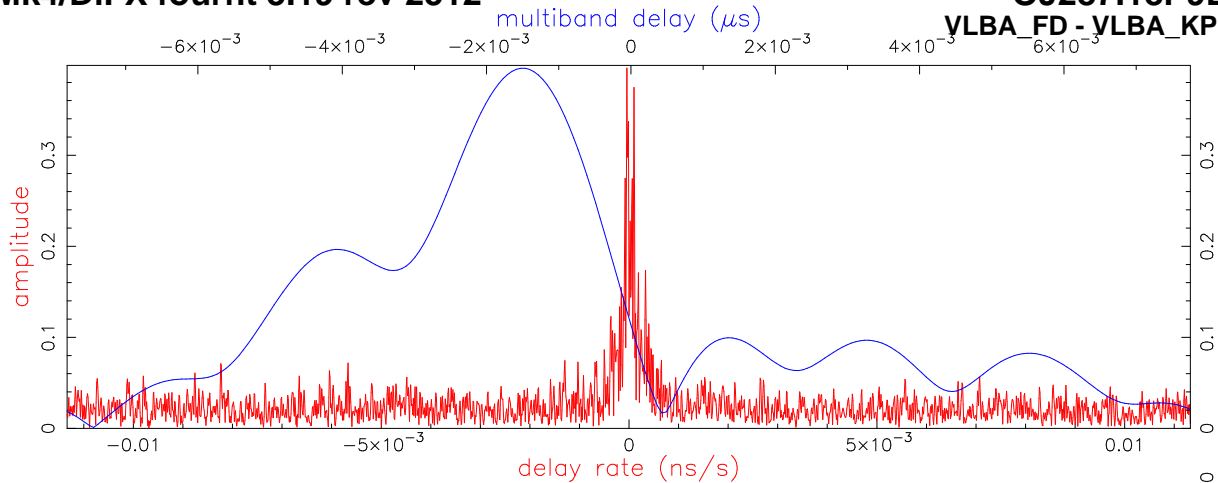


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-83.1	-134.3	-109.9	-151.9	-178.2	-135.8	-171.7	-174.9	Phase	-141.8
	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	103.5	297.1	13.3	301.9	14.5	119.7	468.6	395.8	Sbd box	238.4
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	PC amp	
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)	1.67505775599E+03	Apriori delay (usec)	1.67512855677E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	2.1E-04
Sband delay (usec)	1.67505578177E+03	Apriori clock (usec)	4.2317944E+00	Resid sbdelay (usec)	-7.27750E-02	+/-	1.7E-03
Phase delay (usec)	1.67512855220E+03	Apriori clockrate (us/s)	1.0360000E-07	Resid phdelay (usec)	-4.57214E-06	+/-	7.2E-07
Delay rate (us/s)	-1.02965182797E-01	Apriori rate (us/s)	-1.02956433416E-01	Resid rate (us/s)	-8.74938E-06	+/-	2.8E-09
Total phase (deg)	175.1	Apriori accel (us/s/s)	-9.64662722644E-06	Resid phase (deg)	-141.8	+/-	22.3

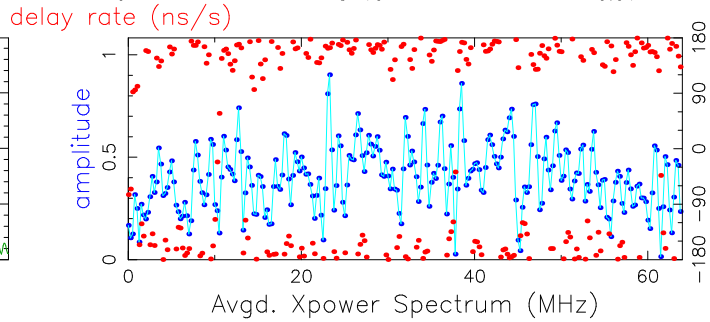
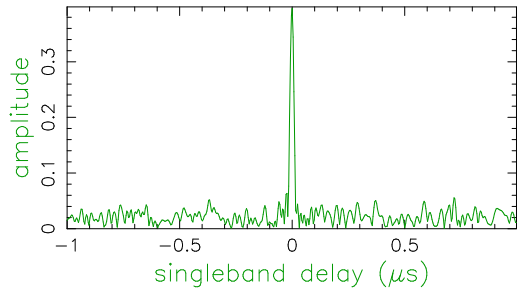
ph/seg (deg)	59.9	Theor.	53.6	Amplitude	0.116 +/- 0.023	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	101.3		93.5	Search (2048X32)	0.096	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	36.4		31.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.2		55.2	Inc. seg. avg.	0.133	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.119	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 94.6 el 49.5 pa -66.0 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 611.769 -443.793 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/fk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/fk.W.141.18P9EC



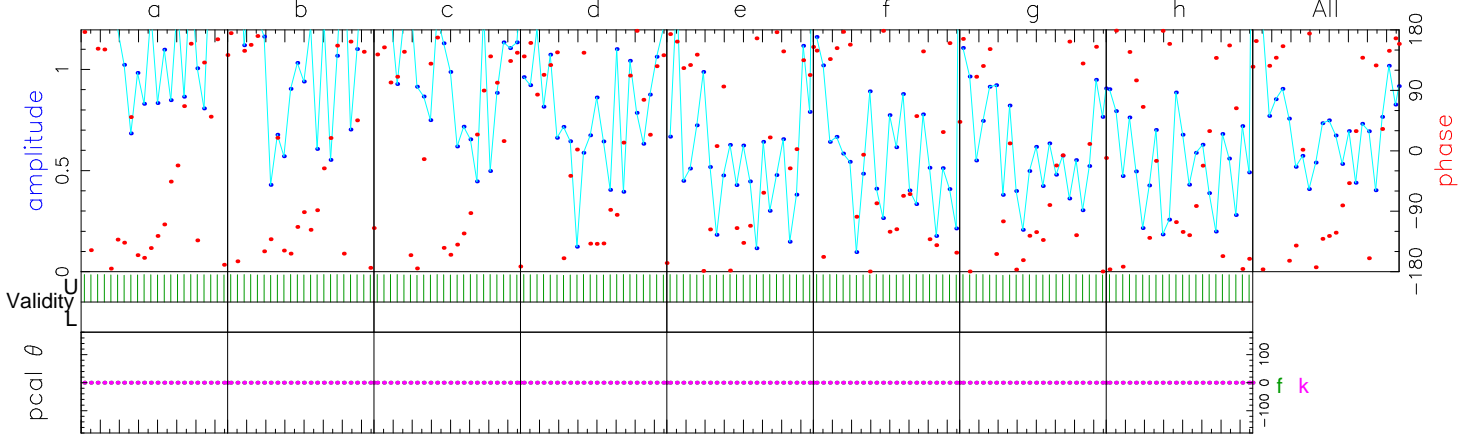
Fringe quality 8

SNR 22.8
Int time 435.424
Amp 0.399
Phase 177.0
PFD 0.0e+00
Delays (us)
SBD -0.001167
MBD -0.001502
Fringe rate (Hz)
-0.003762
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201a
Yr:day 16383
Start 2020:115
Stop 2020:115
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120809
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

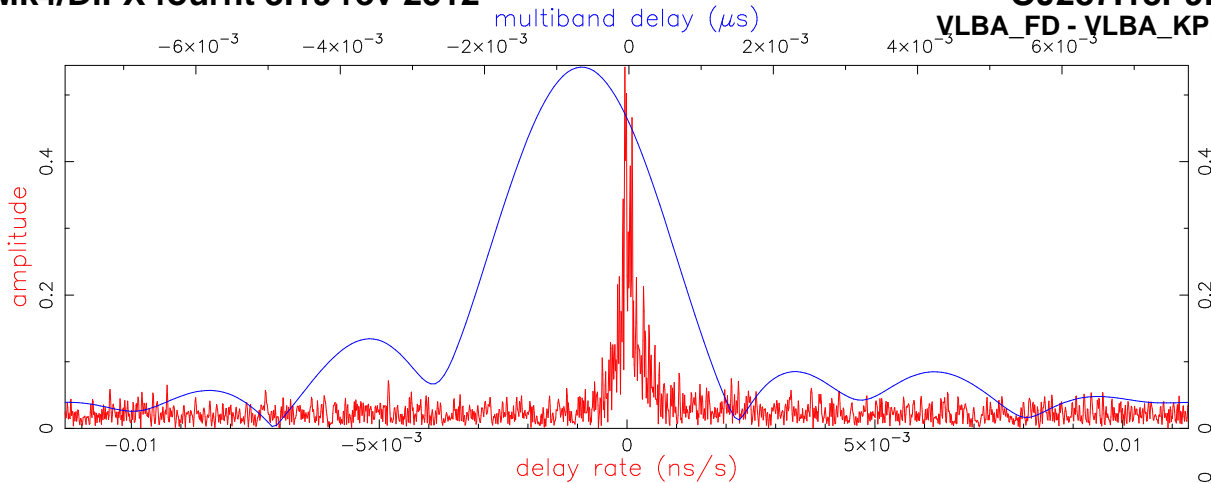


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.67512705466E+03	Apriori delay (usec)	1.67512855677E+03	Resid mbdelay (usec)	-1.50211E-03	+/-	4.8E-05
Sband delay (usec)	1.67512738977E+03	Apriori clock (usec)	4.2317944E+00	Resid sbdelay (usec)	-1.16700E-03	+/-	3.8E-04
Phase delay (usec)	1.67512856248E+03	Apriori clockrate (us/s)	1.0360000E-07	Resid phdelay (usec)	5.70771E-06	+/-	1.6E-07
Delay rate (us/s)	-1.02956477089E-01	Apriori rate (us/s)	-1.02956433416E-01	Resid rate (us/s)	-4.36727E-08	+/-	6.4E-10
Total phase (deg)	133.9	Apriori accel (us/s/s)	-9.64662722644E-06	Resid phase (deg)	177.0	+/-	5.0

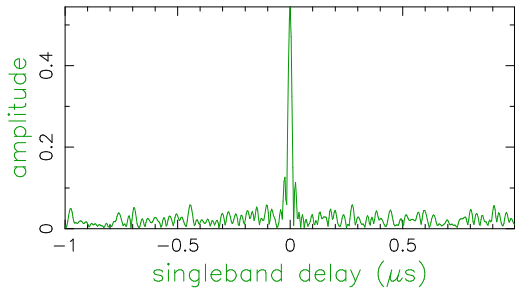
ph/seg (deg)	RMS 75.1	Theor. 12.1	Amplitude Search (2048X32)	0.399 +/- 0.018	0.395	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	100.8	21.1	Interp.	0.000	0.395	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	22.2	7.1	Inc. seg. avg.	0.716	0.395	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.1	12.4	Inc. frq. avg.	0.416	0.395	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

f: az 94.6 el 49.5 pa -66.0 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 611.769 -443.793 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/fk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/fk.W.82.18P9EC

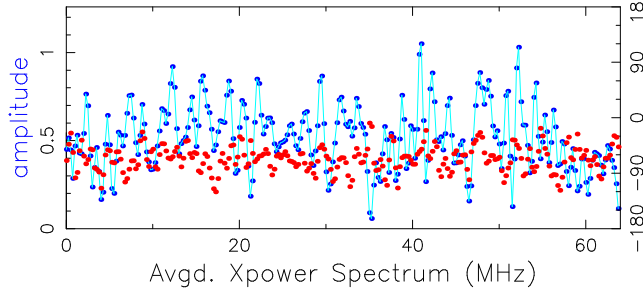


Fringe quality 7

SNR 31.1
Int time 435.424
Amp 0.544
Phase -68.3
PFD 0.0e+00
Delays (us)
SBD -0.000865
MBD -0.000677
Fringe rate (Hz)
-0.003865
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

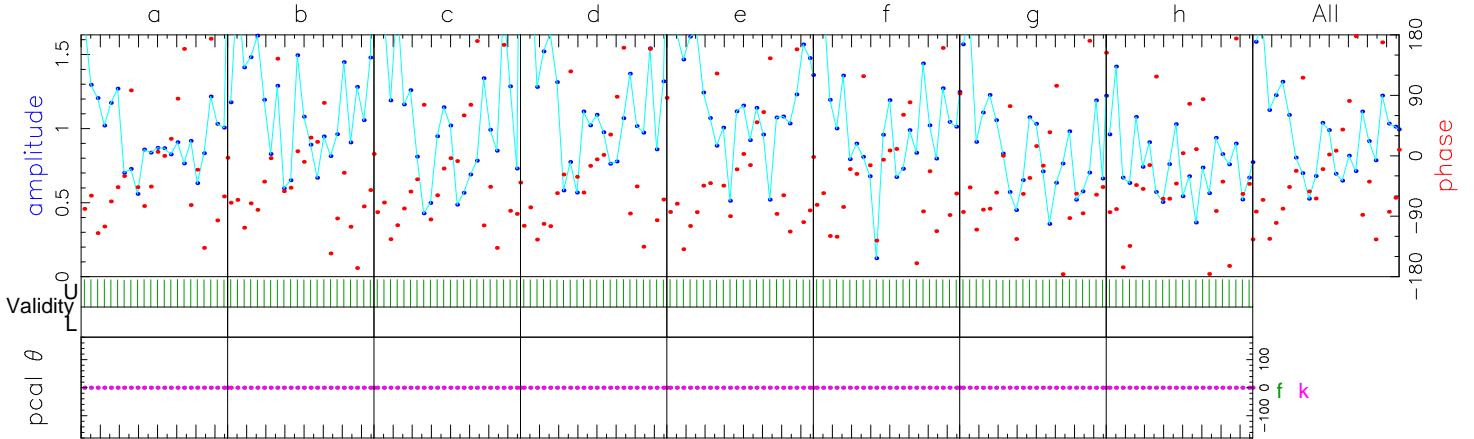


delay rate (ns/s)



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120814
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

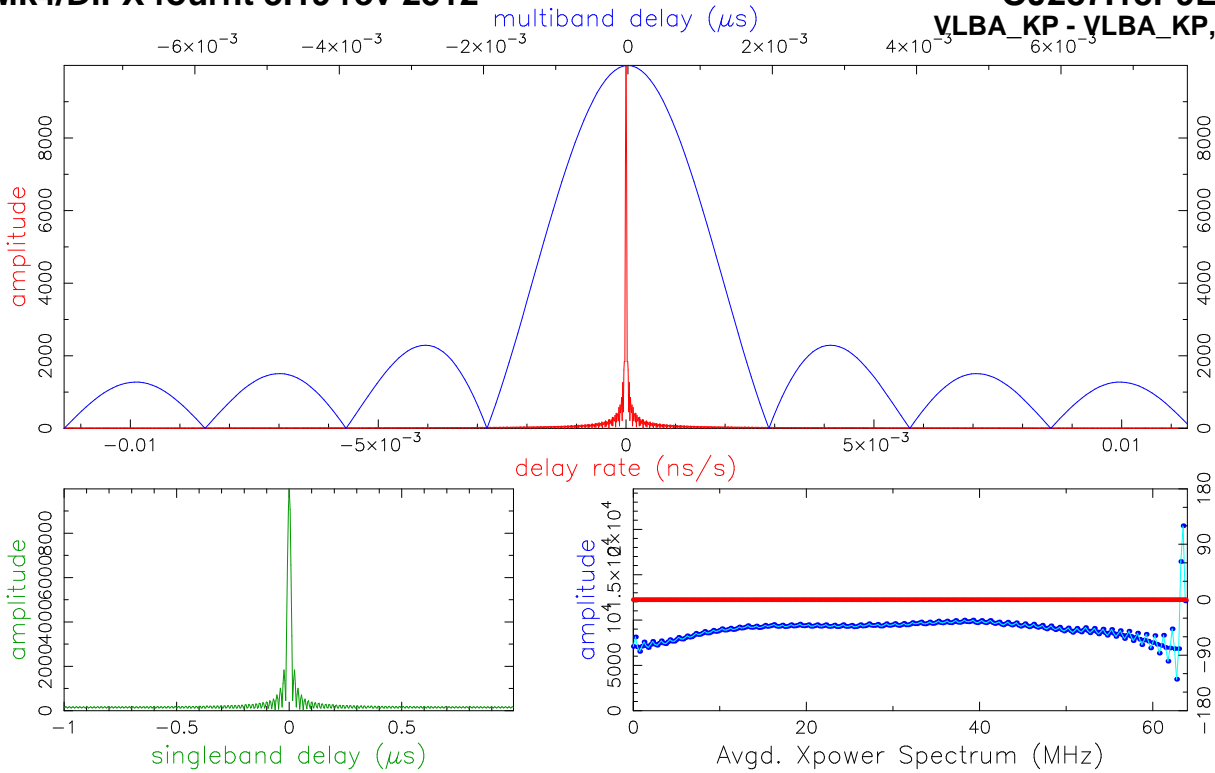
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-66.2	-57.8	-79.7	-79.3	-72.8	-60.0	-60.8	-66.6	Phase	-68.3
	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.3	Ampl.	0.5
	256.8	256.7	256.7	256.6	257.2	256.9	256.8	256.1	Sbd box	256.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	PC amp	
f	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)	1.67512787991E+03		Apriori delay (usec)		1.67512855677E+03		Resid mbdelay (usec)		-6.76856E-04	+/- 3.5E-05
Sband delay (usec)	1.67512769152E+03		Apriori clock (usec)		4.2317944E+00		Resid sbdelay (usec)		-8.65250E-04	+/- 2.8E-04
Phase delay (usec)	1.67512855457E+03		Apriori clockrate (us/s)		1.0360000E-07		Resid phdelay (usec)		-2.20344E-06	+/- 1.2E-07
Delay rate (us/s)	-1.02956478289E-01		Apriori rate (us/s)		-1.02956433416E-01		Resid rate (us/s)		-4.48730E-08	+/- 4.7E-10
Total phase (deg)	248.5		Apriori accel (us/s/s)		-9.64662722644E-06		Resid phase (deg)		-68.3	+/- 3.7

	RMS	Theor.	Amplitude	0.544 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	73.2	8.8	Search (2048X32)	0.536	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	98.3	15.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	9.2	5.2	Inc. seg. avg.	0.978	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	18.3	9.1	Inc. frq. avg.	0.545	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 94.6 el 49.5 pa -66.0 k: az 91.6 el 42.9 pa -64.5 u, v (fr/asec) 611.769 -443.793 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/fk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/fk.W.99.18P9EC

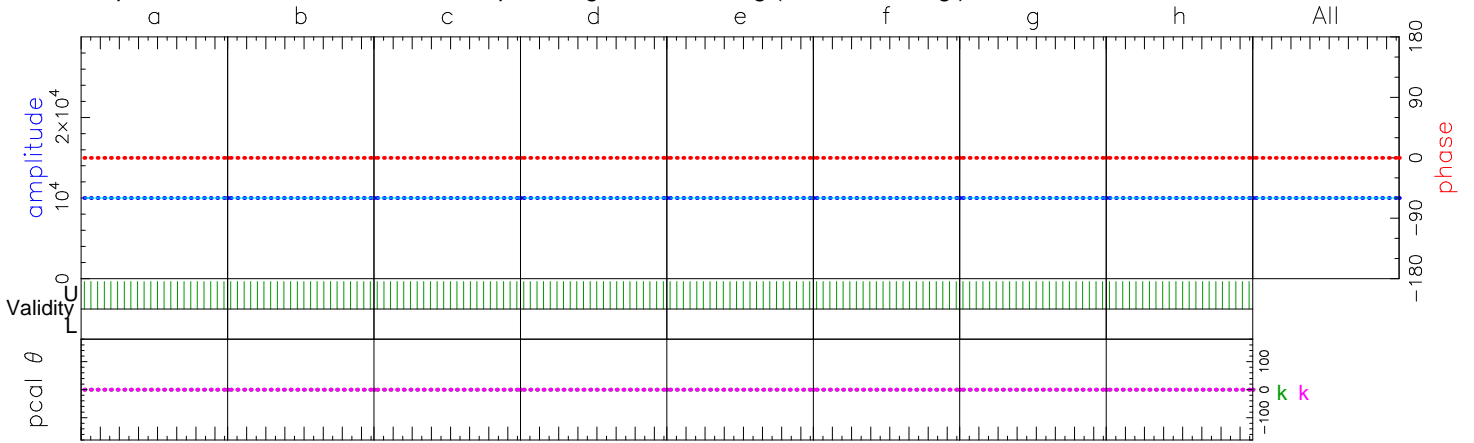


Fringe quality 9

SNR 573484.9
Int time 439.793
Amp 9999.999
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120816
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Phase delay (usec)	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19	-1.26527712057E-19		
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		
Total phase (deg)			-0.0							
RMS										
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
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										
ion window (TEC)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

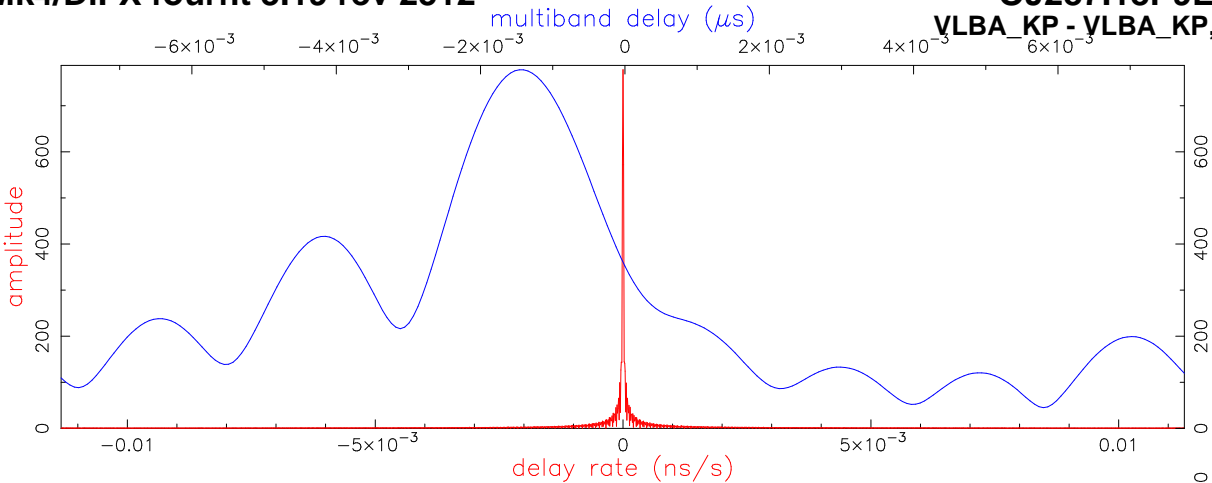
ph/seg (deg) 0.0 0.0
amp/seg (%) 0.0 0.0
ph/frq (deg) 0.0 0.0
amp/frq (%) 0.0 0.0

k: az 91.6 el 42.9 pa -64.5
Control file: cf_1234_gmva

k: az 91.6 el 42.9 pa -64.5
Input file: /Exps/c201a/v1/1234/No0027/kk..18P9EC

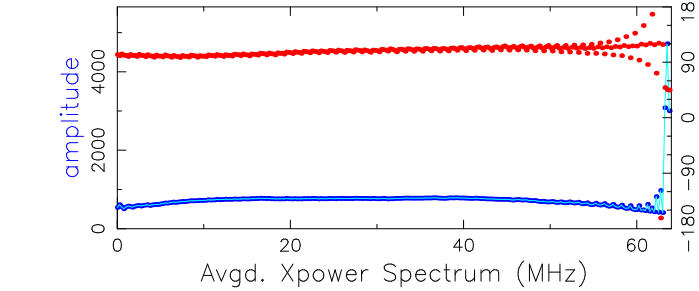
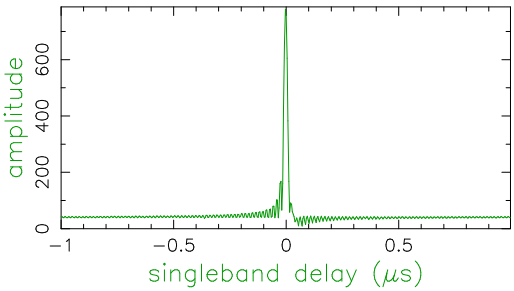
u,v (fr/asec) 0.000 0.000
Output file: /Exps/c201a/v1/1234/No0027/kk.W.110.18P9EC

simultaneous interpolator



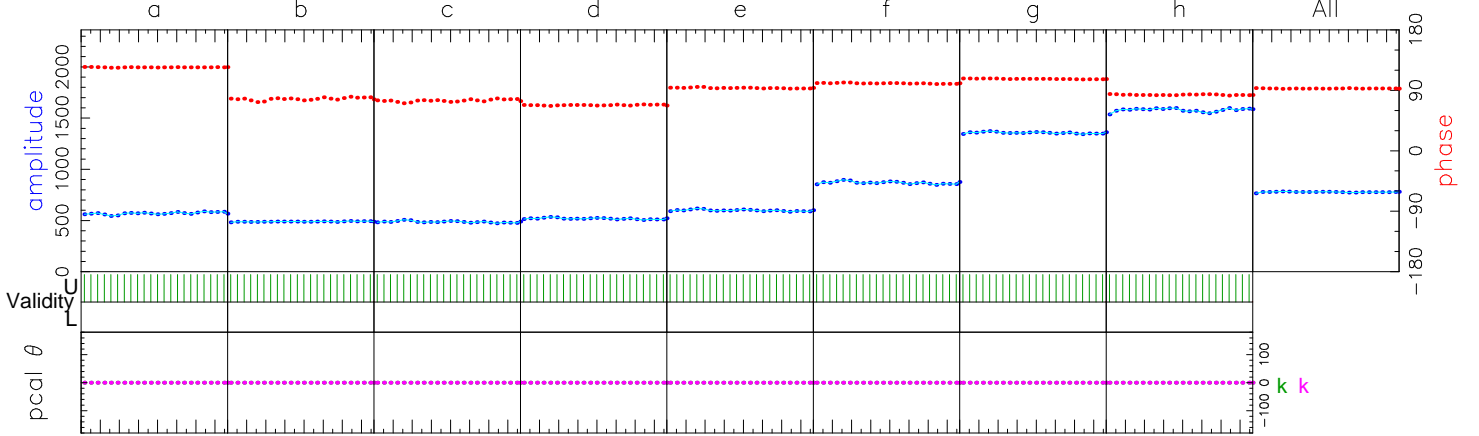
Fringe quality 6

SNR 45157.5
Int time 439.793
Amp 787.423
Phase 92.7
PFD 0.0e+00
Delays (us)
SBD -0.002531
MBD -0.001415
Fringe rate (Hz)
-0.000001
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

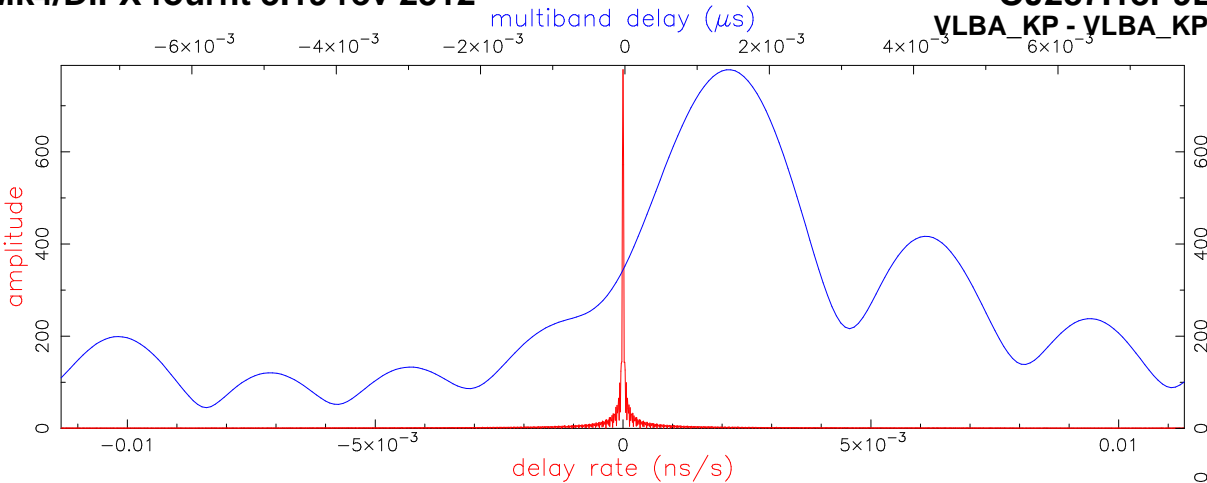


Exp. c201a
Yr:day 16383
Xr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120820
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

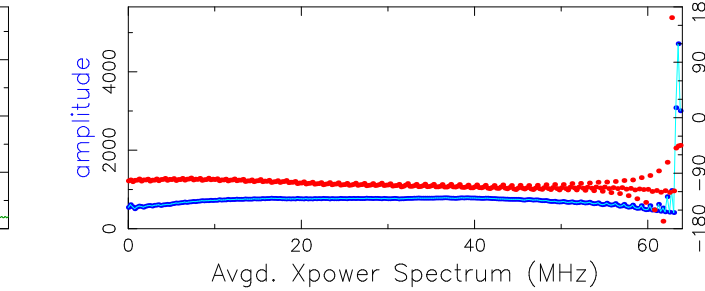
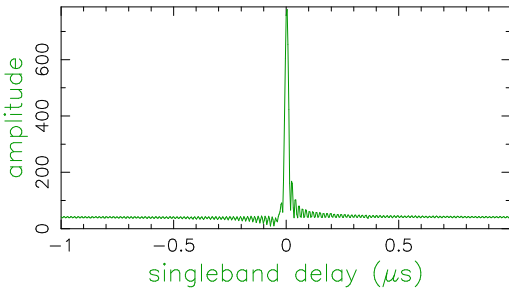


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.41525000000E-03								-1.41525E-03	+/- 2.4E-08
Sband delay (usec)	-2.53075000000E-03								-2.53075E-03	+/- 1.9E-07
Phase delay (usec)	2.98939233246E-06								2.98939E-06	+/- 8.2E-11
Delay rate (us/s)	-6.37701857626E-12								-6.37702E-12	+/- 3.2E-13
Total phase (deg)			92.7						92.7	+/- 0.0
RMS	0.3	0.0								
Theor.										
Amplitude				787.423 +/- 0.017						
Search (2048X32)				777.964						
Interp.				0.000						
Inc. seg. avg.				778.110						
Inc. frq. avg.				808.609						
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									
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								
PCal period (AP's)	5	5								
SampCntNorm:	enabled									
nlags:	256	t_cohere infinite								
simultaneous interpolator										



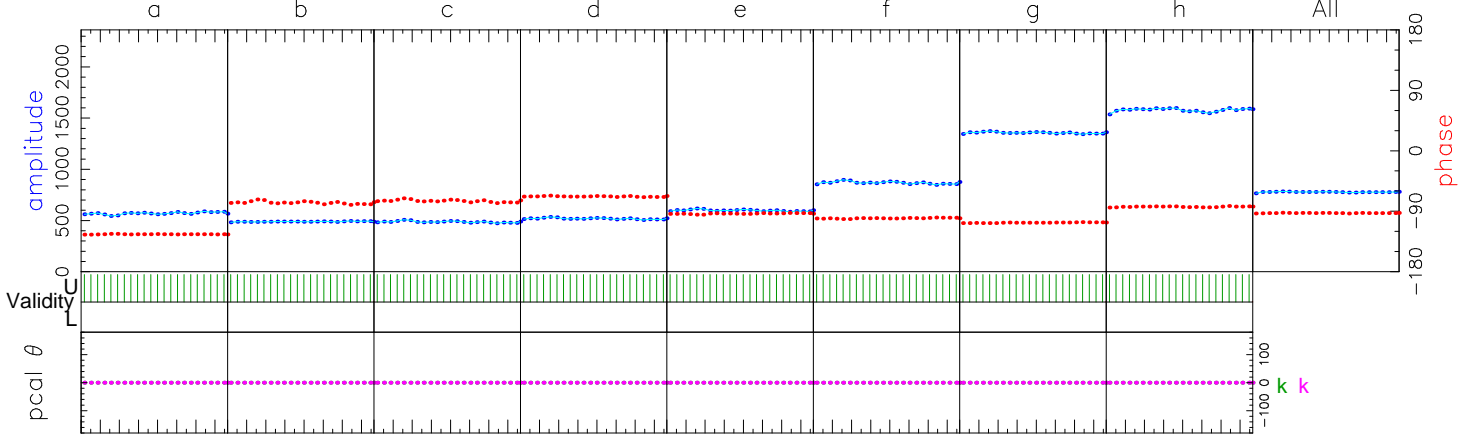
Fringe quality 6

SNR 45157.5
Int time 439.793
Amp 787.423
Phase -92.7
PFD 0.0e+00
Delays (us)
SBD 0.002531
MBD 0.001415
Fringe rate (Hz)
0.000001
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120824
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

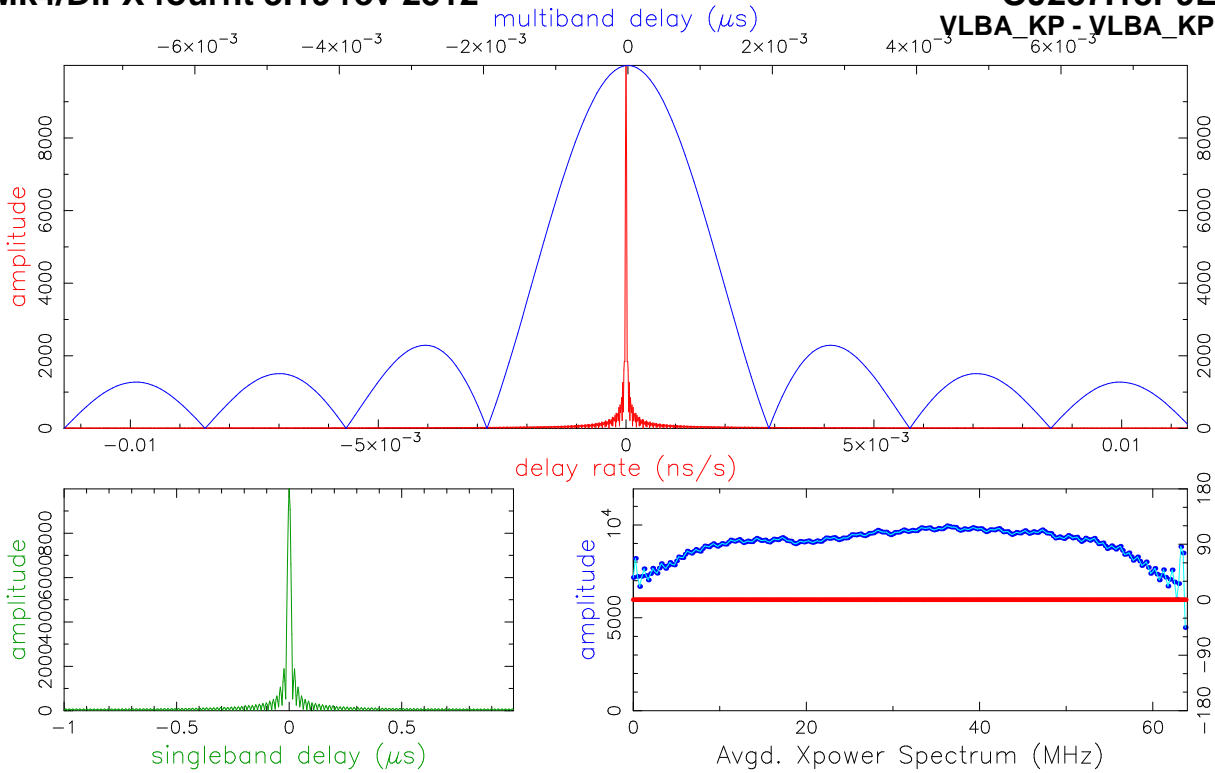


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.2	-77.2	-74.7	-68.0	-93.5	-100.4	-107.0	-83.3		-92.7
	570.8	489.5	486.9	518.5	599.1	868.9	1356.4	1578.7		808.6
	257.6	258.0	257.2	257.4	257.0	257.4	257.2	258.3		257.6
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	1.41525000000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		1.41525E-03	+/- 2.4E-08
Sband delay (usec)	2.53075000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		2.53075E-03	+/- 1.9E-07
Phase delay (usec)	-2.98939233255E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.98939E-06	+/- 8.2E-11
Delay rate (us/s)	6.37701857626E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		6.37702E-12	+/- 3.2E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-92.7	+/- 0.0

	RMS	Theor.	Amplitude	787.423 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.3	0.0	Search (2048X32)	777.964	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.3	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	20.5	0.0	Inc. seg. avg.	778.110	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	51.0	0.0	Inc. frq. avg.	808.609	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

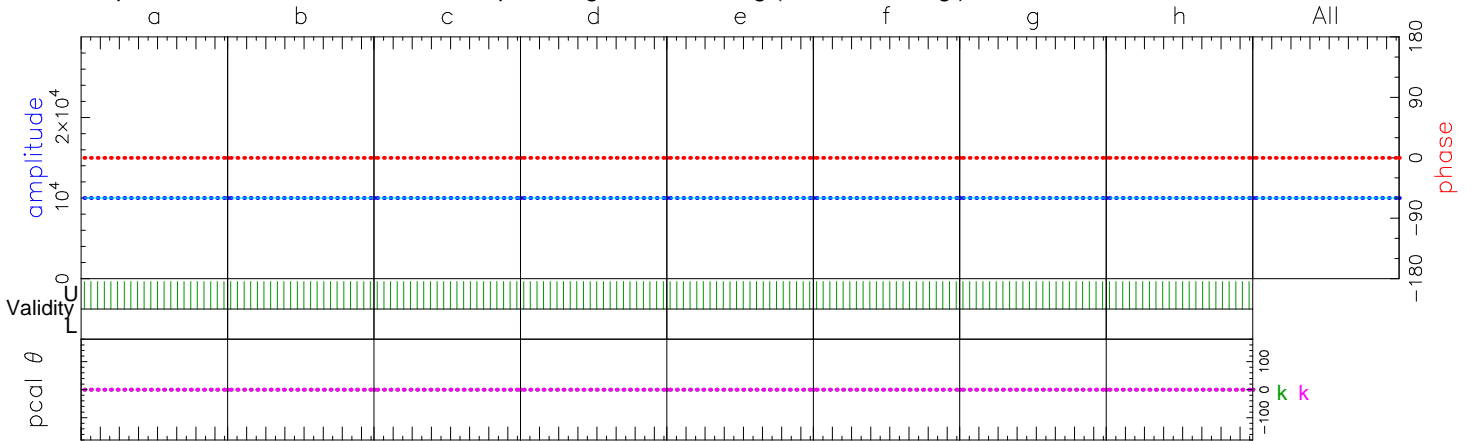
k: az 91.6 el 42.9 pa -64.5 k: az 91.6 el 42.9 pa -64.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kk.W.145.18P9EC



Fringe quality 9
 SNR 573484.9
 Int time 439.793
 Amp 9999.999
 Phase -0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201a
 Yr:day 16383
 Start 2020:195:224837
 Stop 2020:197:120812
 FRT 224840.00
 Corr/FF/build 2020:014:135814
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



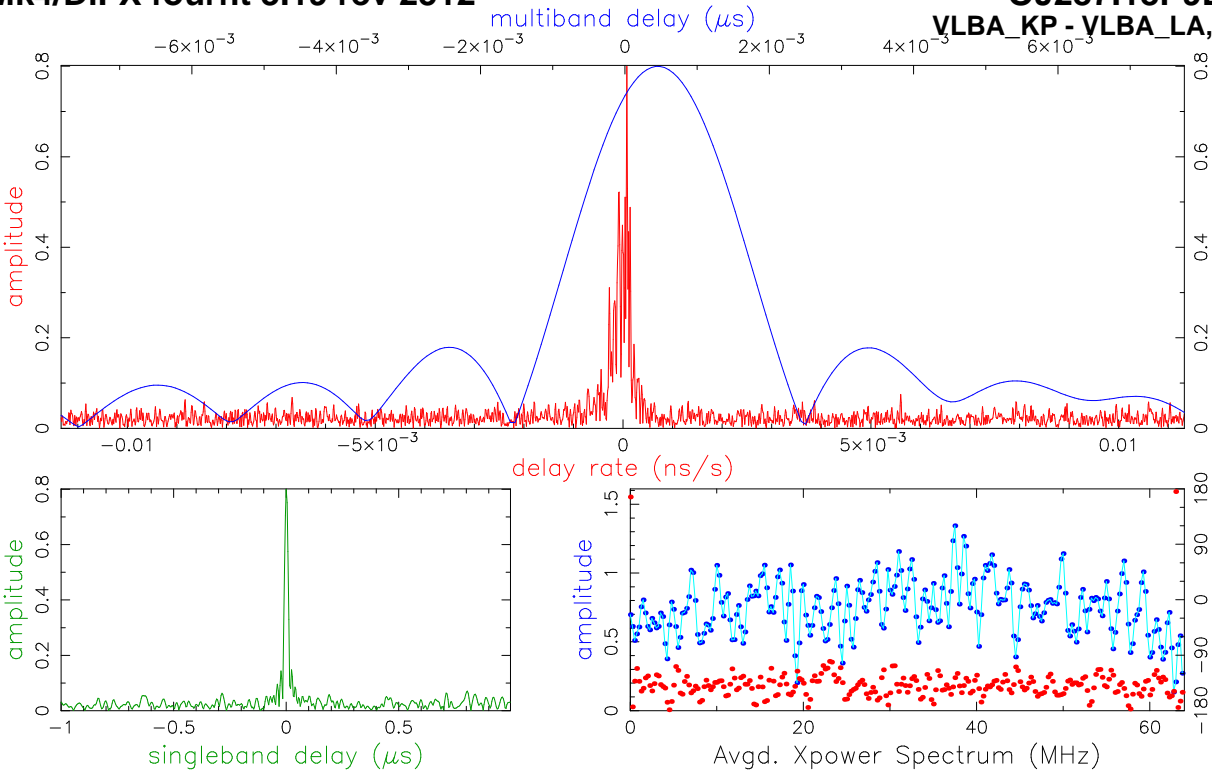
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
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	+/-	1.9E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-08
Phase delay (usec)	-4.79634125534E-20	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.79634E-20	+/-	6.4E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.5E-14
Total phase (deg)	-0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	-0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 k: az 91.6 el 42.9 pa -64.5 k: az 91.6 el 42.9 pa -64.5 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/c201a/v1/1234/No0027/kk..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kk.W.92.18P9EC simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kl
VLBA_KP - VLBA_LA, fgroup W, pol RR

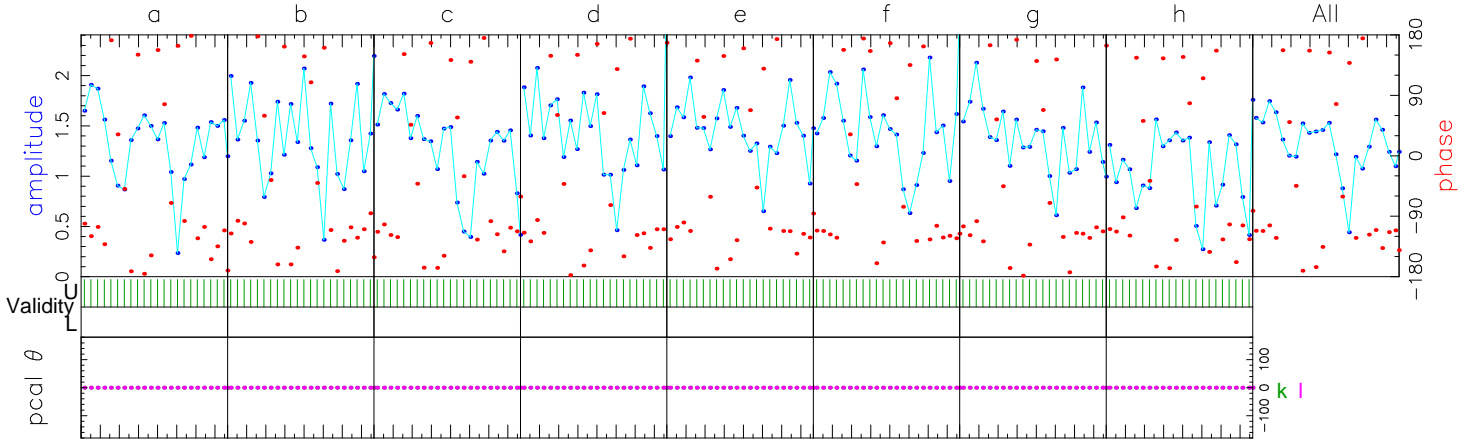


Fringe quality 7

SNR 46.0
Int time 439.452
Amp 0.802
Phase -138.4
PFD 0.0e+00
Delays (us)
SBD 0.000648
MBD 0.000467
Fringe rate (Hz) 0.006693
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120818
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.04152922541E+03	-1.04152904422E+03	-1.04152969693E+03	-1.04152922541E+03	-1.04152969247E+03	-1.04152969247E+03	-1.04152969247E+03	-1.04152969247E+03	4.67061E-04	+/- 2.4E-05
Sband delay (usec)	-1.04152904422E+03	-1.04152904422E+03	-1.04152969693E+03	-1.04152904422E+03	-1.04152969247E+03	-1.04152969247E+03	-1.04152969247E+03	-1.04152969247E+03	6.48250E-04	+/- 1.9E-04
Phase delay (usec)	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-1.04152969693E+03	-4.46211E-06	+/- 8.0E-08
Delay rate (us/s)	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	1.16478742950E-01	7.76948E-08	+/- 3.2E-10
Total phase (deg)			-33.7						-138.4	+/- 2.5
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) 65.6 6.0
amp/seg (%) 73.9 10.4
ph/frq (deg) 4.7 3.5
amp/frq (%) 11.9 6.2

RMS Theor. Amplitude 0.802 +/- 0.017
Search (2048X32) 0.796
Interp. 0.000
Inc. seg. avg. 1.316
Inc. frq. avg. 0.800

Group delay (usec)(sbd) -1.04152922541E+03
Sband delay (usec) -1.04152904422E+03
Phase delay (usec) -1.04152969693E+03
Delay rate (us/s) 1.16478742950E-01
Total phase (deg) -33.7

Apriori delay (usec) -1.04152969247E+03
Apriori clock (usec) 3.3427088E+00
Apriori clockrate (us/s) 1.5640000E-07
Apriori rate (us/s) 1.16478665255E-01
Apriori accel (us/s/s) 3.41866956077E-06

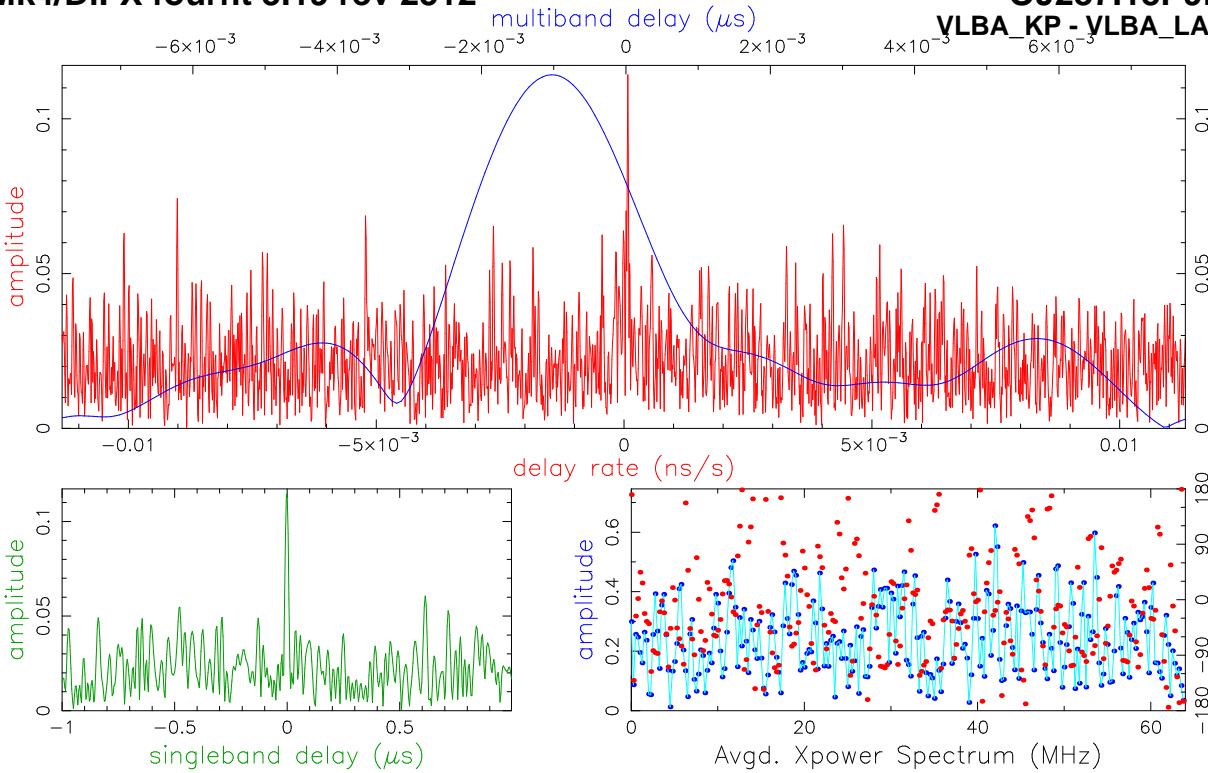
Resid mbdelay (usec) 4.67061E-04 +/- 2.4E-05
Resid sbdelay (usec) 6.48250E-04 +/- 1.9E-04
Resid phdelay (usec) -4.46211E-06 +/- 8.0E-08
Resid rate (us/s) 7.76948E-08 +/- 3.2E-10
Resid phase (deg) -138.4 +/- 2.5

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

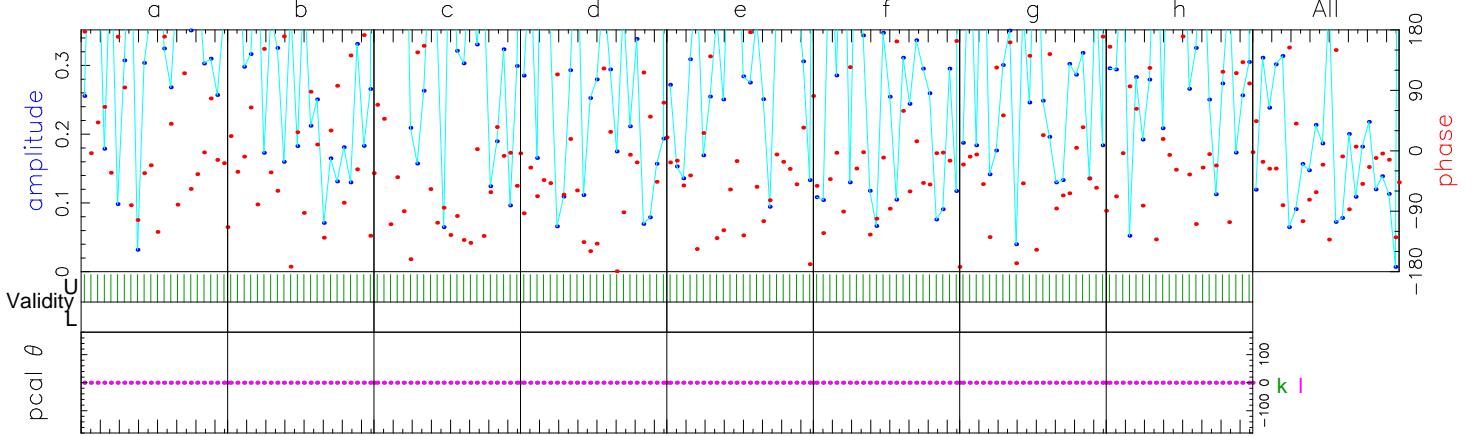
k: az 91.6 el 42.9 pa -64.5 l: az 98.8 el 47.0 pa -58.5 u,v (fr/asec) -703.592 -358.639 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kl.18P9EC Output file: /Exps/c201a/v1/1234/No0027/kl.W.116.18P9EC



Fringe quality 0
SNR 6.7
Int time 439.452
Amp 0.117
Phase -45.1
PFD 5.1e-03
Delays (us)
SBD -0.001897
MBD -0.001036
Fringe rate (Hz) 0.006736
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120822
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

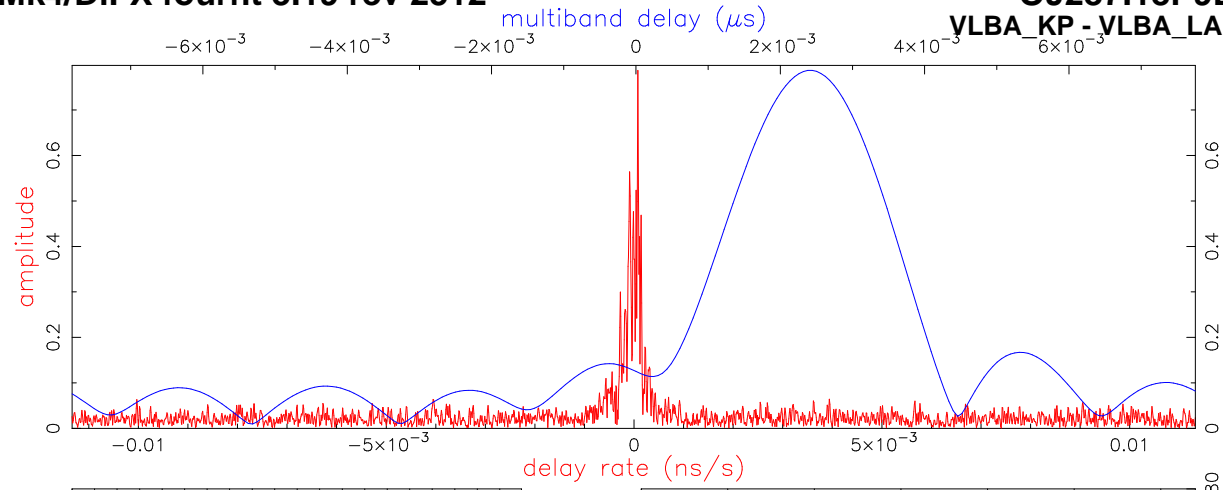


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	-1.04153072859E+03	Apriori delay (usec)	-1.04152969247E+03	Resid mbdelay (usec)	-1.03613E-03	+/-	1.6E-04
Sband delay (usec)	-1.04153158897E+03	Apriori clock (usec)	3.3427088E+00	Resid sbdelay (usec)	-1.89650E-03	+/-	1.3E-03
Phase delay (usec)	-1.04152969392E+03	Apriori clockrate (us/s)	1.5640000E-07	Resid phdelay (usec)	-1.45416E-06	+/-	5.5E-07
Delay rate (us/s)	1.16478743455E-01	Apriori rate (us/s)	1.16478665255E-01	Resid rate (us/s)	7.82000E-08	+/-	2.2E-09
Total phase (deg)	-300.4	Apriori accel (us/s/s)	3.41866956077E-06	Resid phase (deg)	-45.1	+/-	17.0

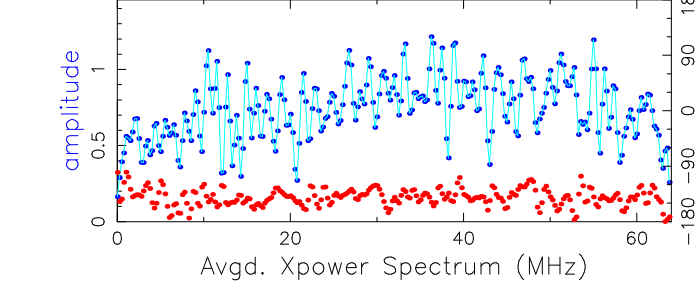
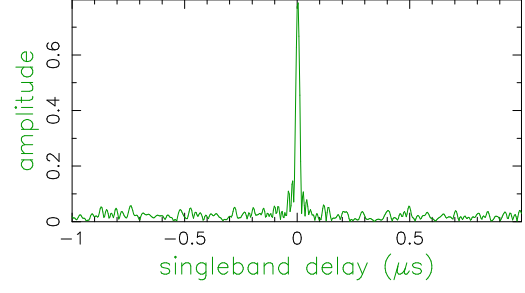
ph/seg (deg)	67.8	Theor.	40.9	Amplitude	0.117 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	96.6		71.3	Search (2048X32)	0.114	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	19.7		24.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	30.4		42.1	Inc. seg. avg.	0.138	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.110	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 91.6 el 42.9 pa -64.5 l: az 98.8 el 47.0 pa -58.5 u,v (fr/asec) -703.592 -358.639 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kl..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kl.W.136.18P9EC



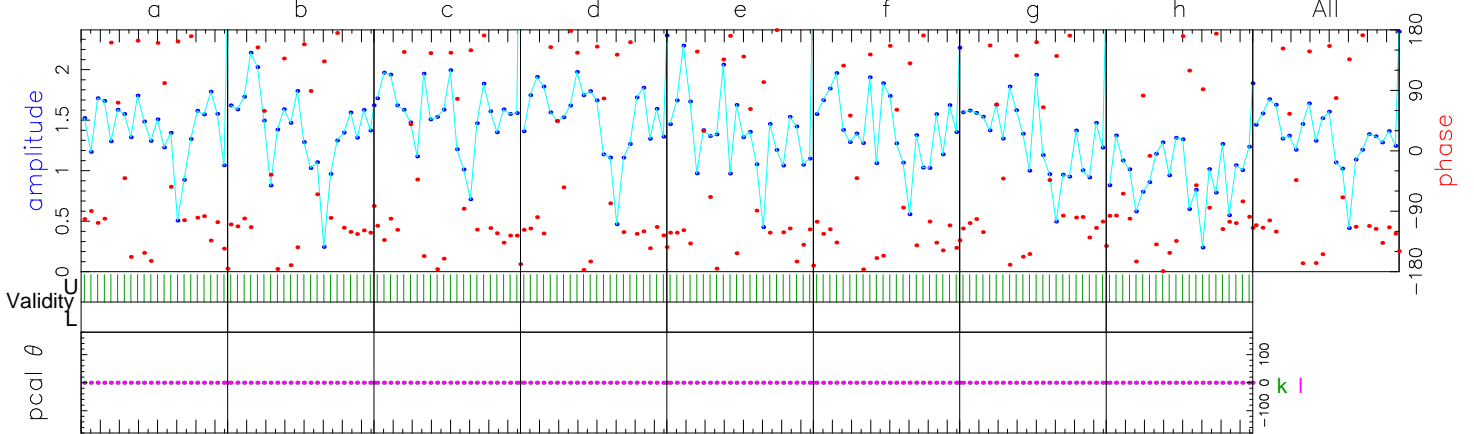
Fringe quality 7

SNR 45.8
Int time 439.453
Amp 0.798
Phase -141.2
PFD 0.0e+00
Delays (us)
SBD 0.002353
MBD 0.002378
Fringe rate (Hz)
0.006741
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120812
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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		

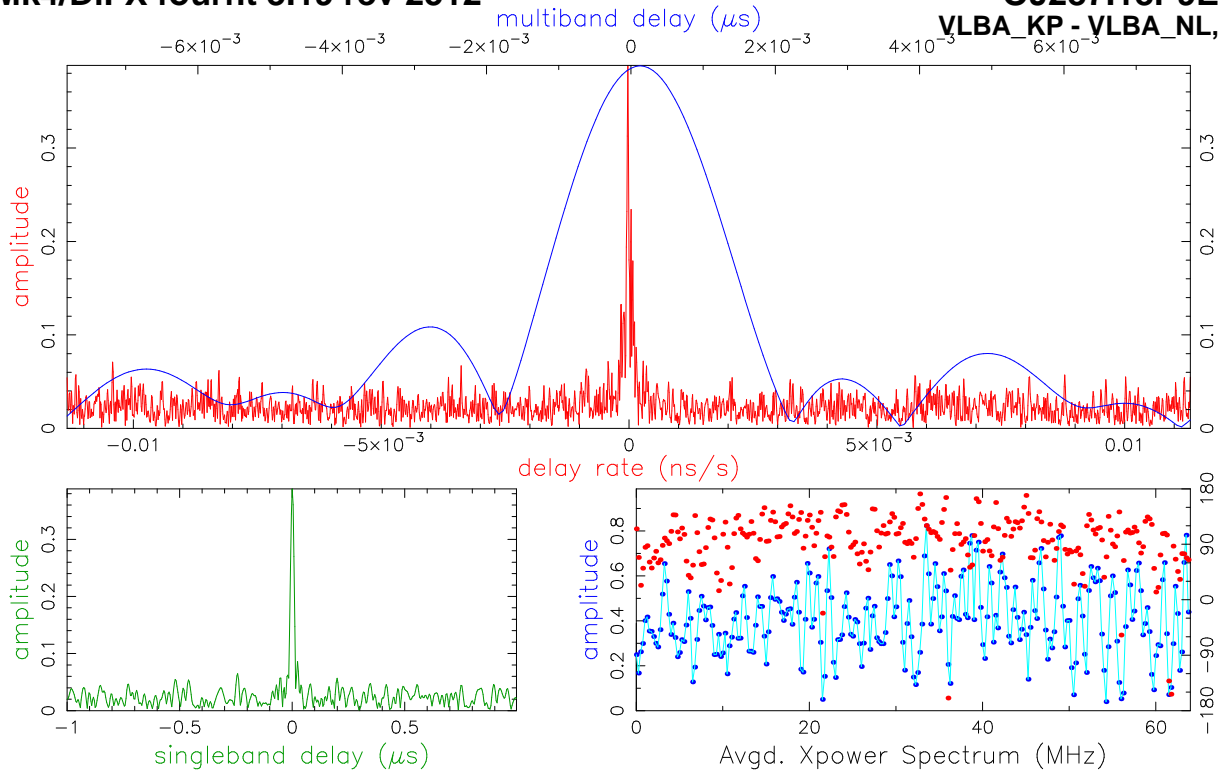
Group delay (usec)(sbd)	-1.04152731463E+03	Apriori delay (usec)	-1.04152969247E+03	Resid mbdelay (usec)	2.37784E-03	+/-	2.4E-05
Sband delay (usec)	-1.04152733997E+03	Apriori clock (usec)	0.783	Resid sbdelay (usec)	2.35250E-03	+/-	1.9E-04
Phase delay (usec)	-1.04152969702E+03	Apriori clockrate (us/s)	1.5640000E-07	Resid phdelay (usec)	-4.55360E-06	+/-	8.1E-08
Delay rate (us/s)	1.16478743511E-01	Apriori rate (us/s)	1.16478665255E-01	Resid rate (us/s)	7.82552E-08	+/-	3.2E-10
Total phase (deg)	-36.5	Apriori accel (us/s/s)	3.41866956077E-06	Resid phase (deg)	-141.2	+/-	2.5

ph/seg (deg)	64.7	RMS	64.7	Theor.	6.0	Amplitude	0.798 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	74.9		74.9		10.5	Search (2048X32)	0.783	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	11.0		11.0		3.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	13.7		13.7		6.2	Inc. seg. avg.	1.324	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	0.795	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 91.6 el 42.9 pa -64.5 l: az 98.8 el 47.0 pa -58.5 u,v (fr/asec) -703.592 -358.639 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kl..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kl.W.94.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kn
VLBA_KP - VLBA_NL, fgroup W, pol RR

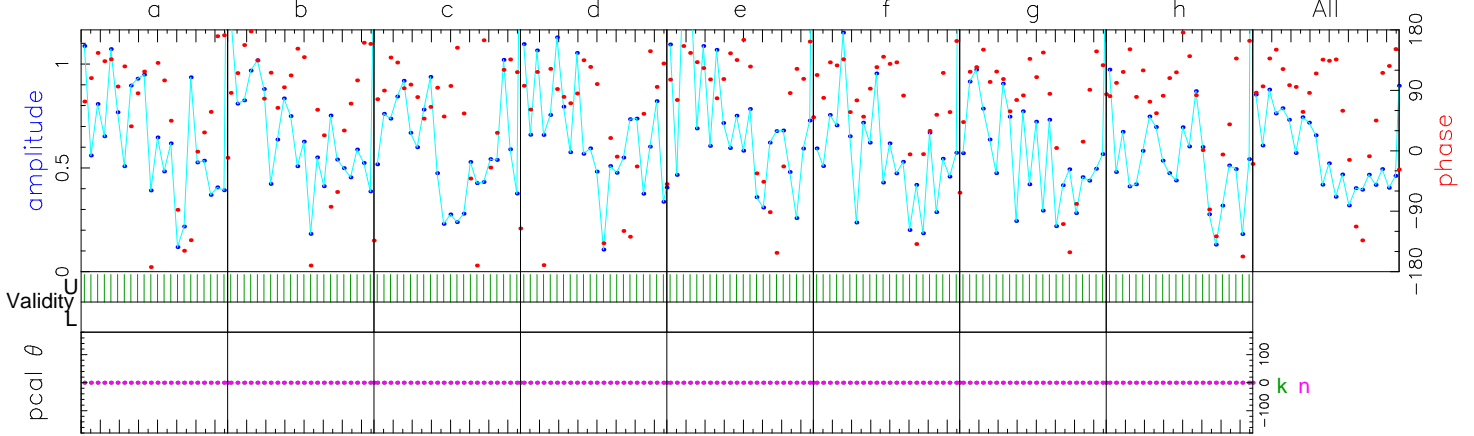


Fringe quality 9

SNR 22.3
Int time 439.269
Amp 0.388
Phase 107.6
PFD 0.0e+00
Delays (us)
SBD 0.000468
MBD 0.000136
Fringe rate (Hz)
-0.001862
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120816
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

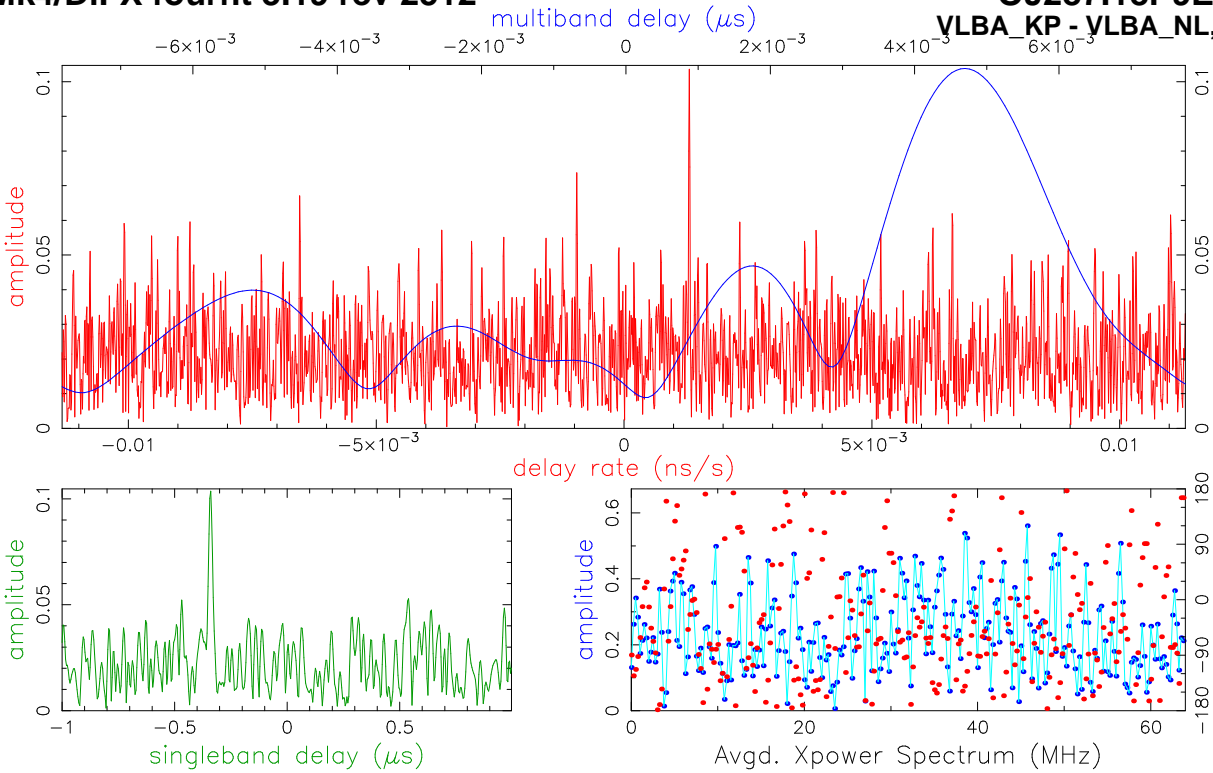


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	108.6	112.7	94.5	100.4	127.7	104.6	107.9	99.6	Phase	107.6
	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.3	Ampl.	0.4
	256.9	257.2	257.1	257.7	257.2	257.0	256.5	257.2	Sbd box	257.1
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	
									Tracks	
Group delay (usec)(sbd)	-3.04812617205E+03		Apriori delay (usec)		-3.04812630850E+03		Resid mbdelay (usec)		1.36447E-04	+/- 4.9E-05
Sband delay (usec)	-3.04812584025E+03		Apriori clock (usec)		-3.2594692E+01		Resid sbdelay (usec)		4.68250E-04	+/- 3.9E-04
Phase delay (usec)	-3.04812630503E+03		Apriori clockrate (us/s)		-3.2859999E-07		Resid phdelay (usec)		3.46995E-06	+/- 1.7E-07
Delay rate (us/s)	4.04738864071E-01		Apriori rate (us/s)		4.04738885683E-01		Resid rate (us/s)		-2.16124E-08	+/- 6.5E-10
Total phase (deg)			Apriori accel (us/s/s)		1.07520876197E-05		Resid phase (deg)		107.6	+/- 5.1

	RMS	Theor.	Amplitude	0.388 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.2	12.3	Search (2048X32)	0.385	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.1	21.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	11.0	7.3	Inc. seg. avg.	0.553	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	8.9	12.7	Inc. frq. avg.	0.391	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

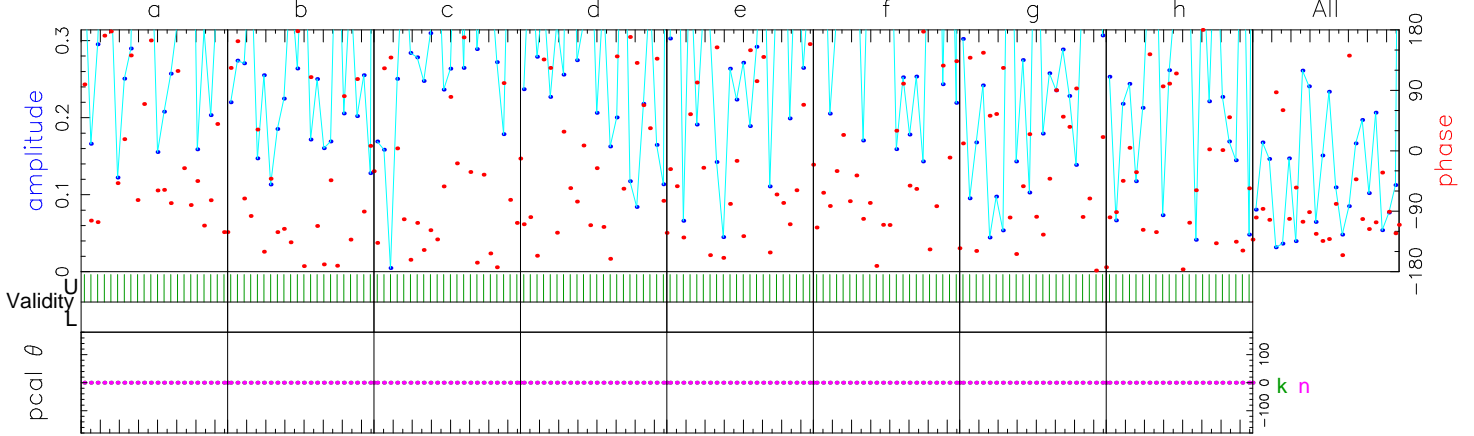
k: az 91.6 el 42.9 pa -64.5 n: az 120.0 el 55.9 pa -43.5 u,v (fr/asec) -2447.400 -816.589 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kn..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kn.W.109.18P9EC



Fringe quality 0
SNR 6.0
Int time 439.269
Amp 0.105
Phase -103.3
PFD 4.6e-01
Delays (us)
SBD -0.340901
MBD 0.004620
Fringe rate (Hz)
0.113536
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120820
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

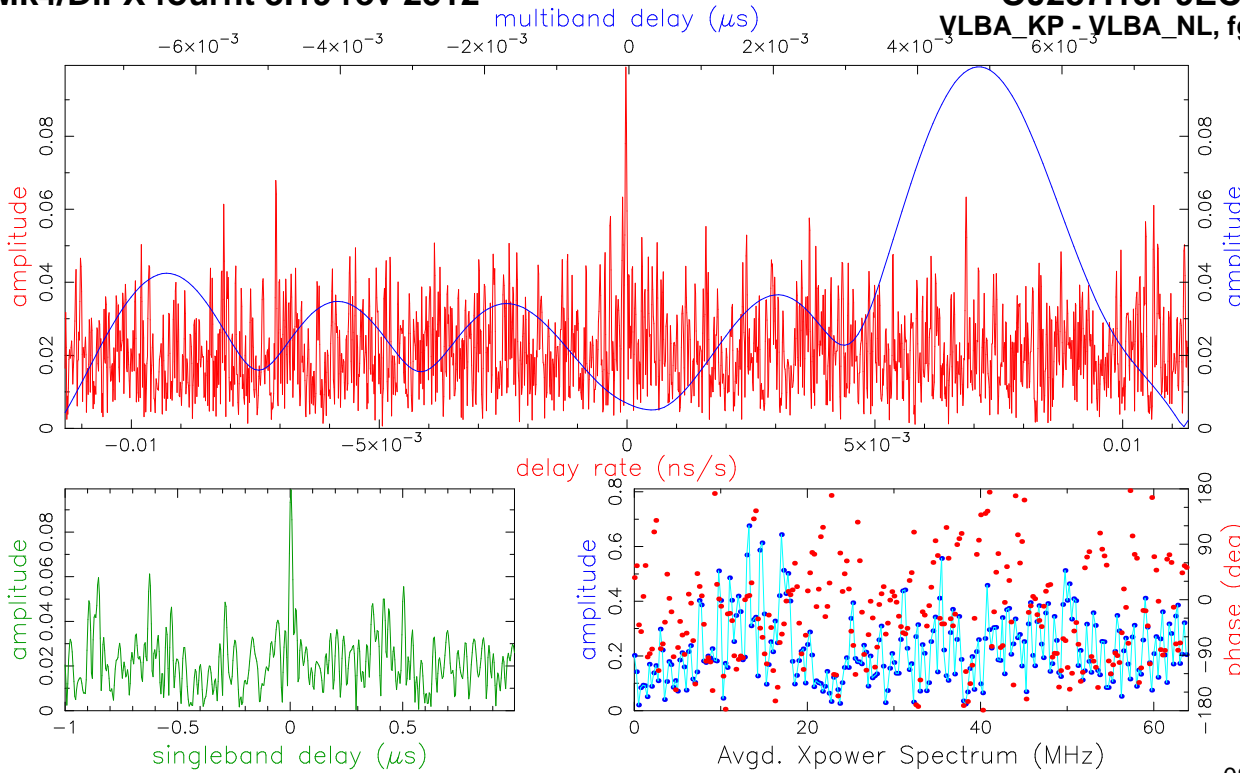


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-103.0	-145.0	-100.6	-86.2	-78.4	-80.9	-89.5	-146.8	Phase	-103.3
	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	33.7	290.2	171.3	290.2	449.3	170.1	392.2	414.8	Sbd box	169.7
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.04846543855E+03		Apriori delay (usec)		-3.04812630850E+03		Resid mbdelay (usec)		4.61994E-03	+/- 1.8E-04
Sband delay (usec)	-3.04846720925E+03		Apriori clock (usec)		-3.2594692E+01		Resid sbdelay (usec)		-3.40901E-01	+/- 1.4E-03
Phase delay (usec)	-3.04812631183E+03		Apriori clockrate (us/s)		-3.2859999E-07		Resid phdelay (usec)		-3.33072E-06	+/- 6.2E-07
Delay rate (us/s)	4.04740203719E-01		Apriori rate (us/s)		4.04738885683E-01		Resid rate (us/s)		1.31804E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		1.07520876197E-05		Resid phase (deg)		-103.3	+/- 19.2

ph/seg (deg) 62.7 46.0 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 72.7 80.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 29.6 27.2 Inc. seg. avg. 0.096 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 45.4 47.4 Inc. frq. avg. 0.104 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 91.6 el 42.9 pa -64.5 n: az 120.0 el 55.9 pa -43.5 u,v (fr/asec) -2447.400 -816.589 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kn..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kn.W.127.18P9EC

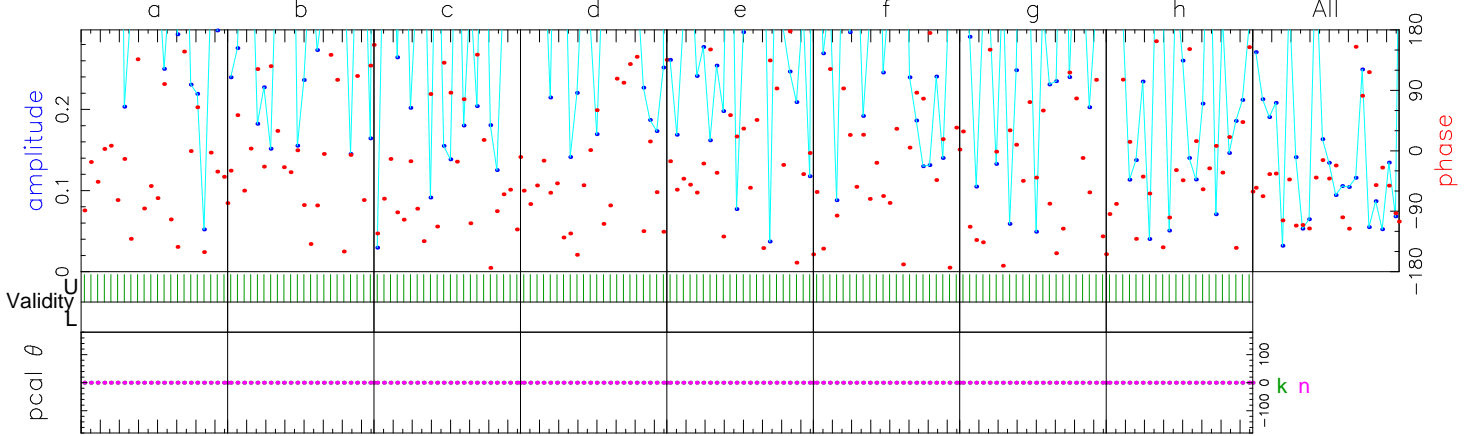
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kn
VLBA_KP - VLBA_NL, fgroup W, pol RL



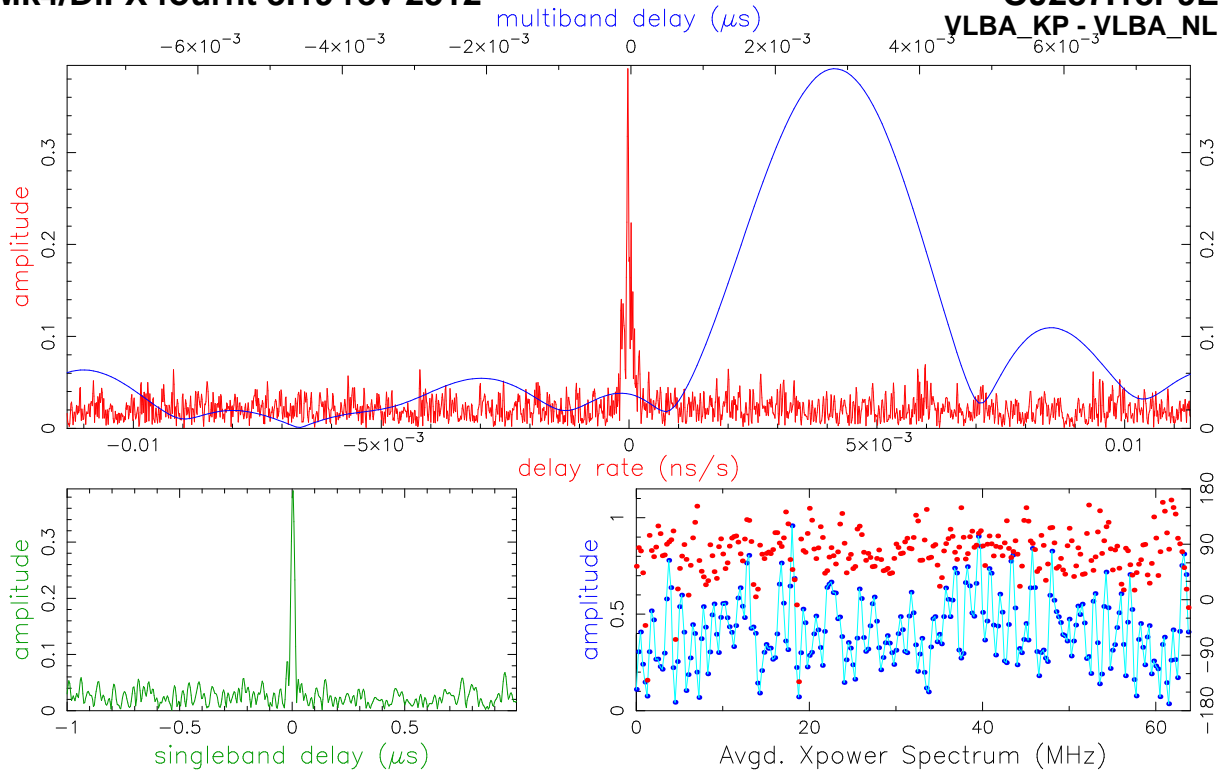
Fringe quality 0
SNR 5.7
Int time 439.269
Amp 0.099
Phase -50.7
PFD 9.5e-01
Delays (us)
SBD 0.003069
MBD 0.004803
Fringe rate (Hz)
-0.001727
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120824
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-3.04812150505E+03				-3.04812630850E+03				4.80345E-03	+/- 1.9E-04
Sband delay (usec)	-3.04812323950E+03				-3.2594692E+01				3.06900E-03	+/- 1.5E-03
Phase delay (usec)	-3.04812631013E+03				-3.2859999E-07				-1.63527E-06	+/- 6.5E-07
Delay rate (us/s)	4.04738865637E-01				4.04738885683E-01				-2.00465E-08	+/- 2.6E-09
Total phase (deg)			-127.8		1.07520876197E-05				-50.7	+/- 20.1
	RMS	Theor.	Amplitude	0.099 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	66.1	48.2	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	107.7	84.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	27.6	28.4	Inc. seg. avg.	0.110	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	46.9	49.6	Inc. frq. avg.	0.096	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 91.6 el 42.9 pa -64.5 n: az 120.0 el 55.9 pa -43.5 u,v (fr/asec) -2447.400 -816.589 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kn..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kn.W.144.18P9EC

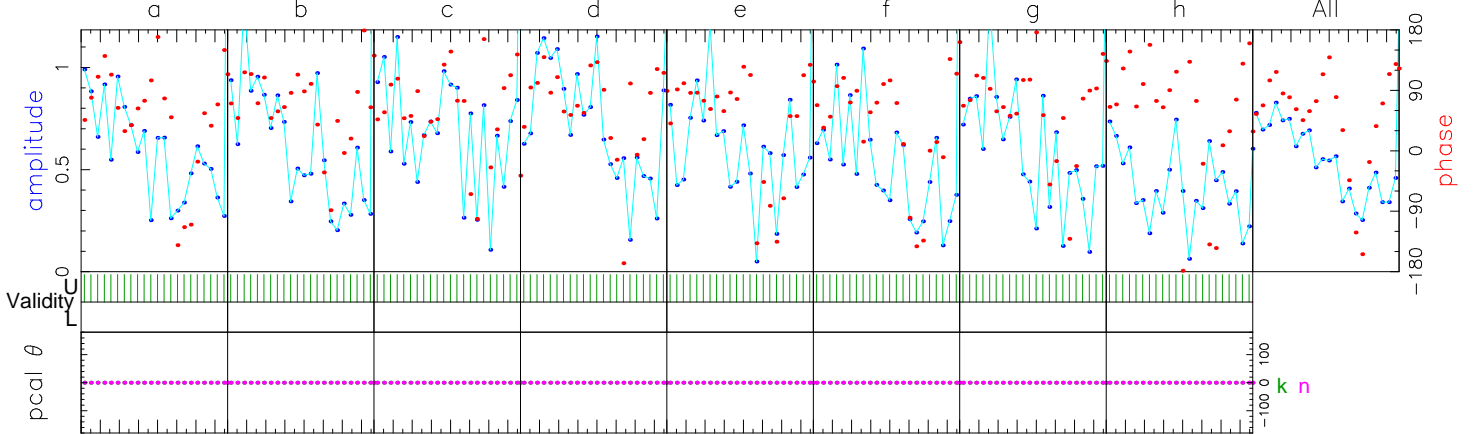


Fringe quality 9

SNR 22.6
Int time 439.269
Amp 0.395
Phase 78.4
PFD 0.0e+00
Delays (us)
SBD 0.002647
MBD 0.002808
Fringe rate (Hz)
-0.001860
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120812
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



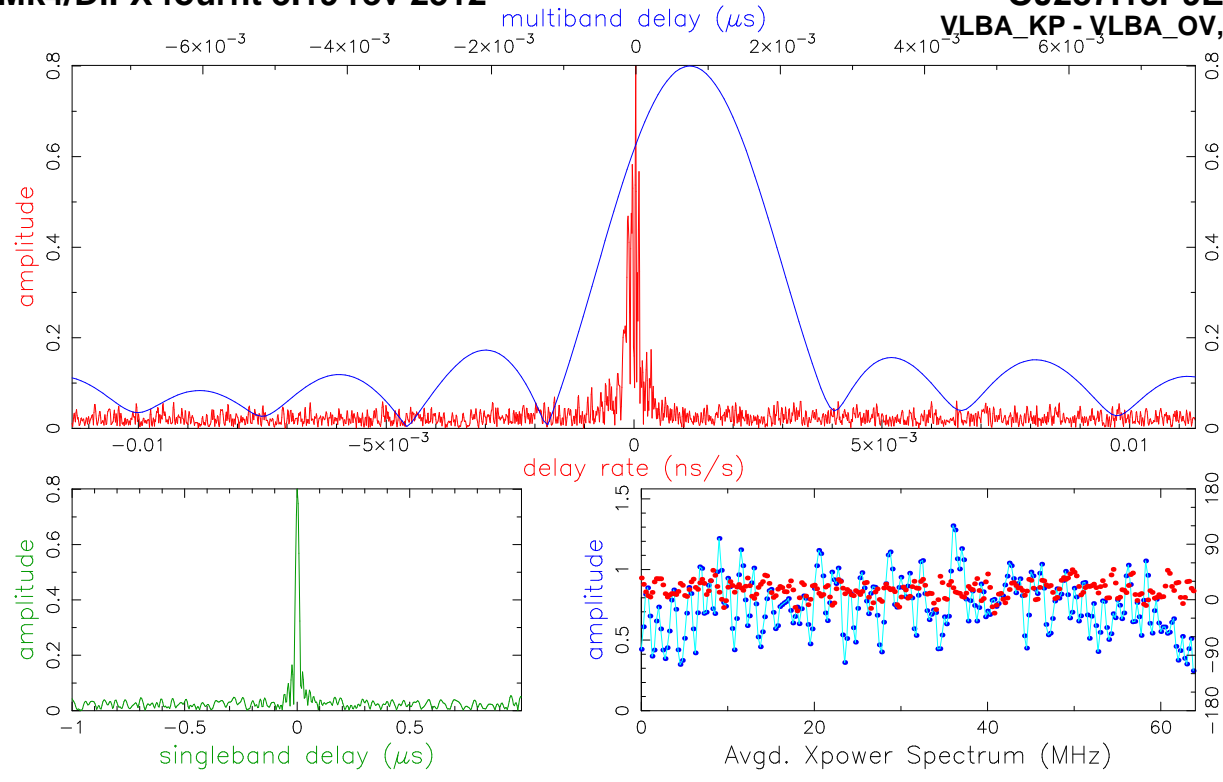
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-3.04812350015E+03	Apriori delay (usec)	-3.04812630850E+03	Resid mbdelay (usec)	2.80835E-03	+/-	4.8E-05
Sband delay (usec)	-3.04812366175E+03	Apriori clock (usec)	-3.2594692E+01	Resid sbdelay (usec)	2.64675E-03	+/-	3.8E-04
Phase delay (usec)	-3.04812630597E+03	Apriori clockrate (us/s)	-3.2859999E-07	Resid phdelay (usec)	2.52694E-06	+/-	1.6E-07
Delay rate (us/s)	4.04738864086E-01	Apriori rate (us/s)	4.04738885683E-01	Resid rate (us/s)	-2.15975E-08	+/-	6.4E-10
Total phase (deg)		Apriori accel (us/s/s)	1.07520876197E-05	Resid phase (deg)	78.4	+/-	5.1

ph/seg (deg)	61.6	Theor.	12.1	Amplitude	0.395 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	58.0		21.2	Search (2048X32)	0.389	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	11.9		7.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	20.9		12.5	Inc. seg. avg.	0.534	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.393	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

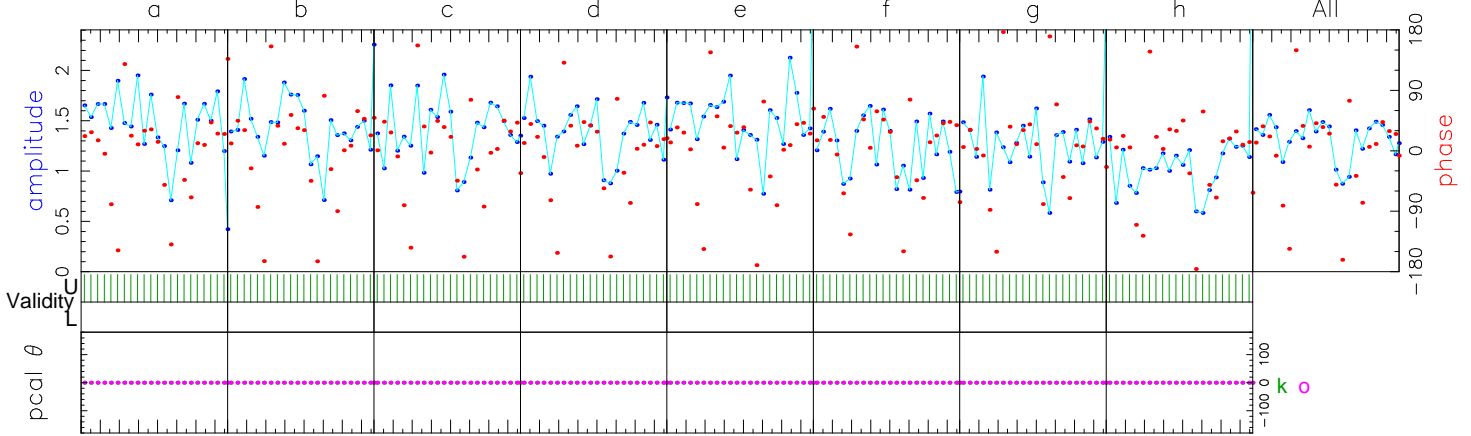
k: az 91.6 el 42.9 pa -64.5 n: az 120.0 el 55.9 pa -43.5 u,v (fr/asec) -2447.400 -816.589 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kn..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kn.W.93.18P9EC



Fringe quality 7
SNR 46.0
Int time 439.773
Amp 0.801
Phase 13.5
PFD 0.0e+00
Delays (us)
SBD 0.000553
MBD 0.000760
Fringe rate (Hz) 0.003121
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120819
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

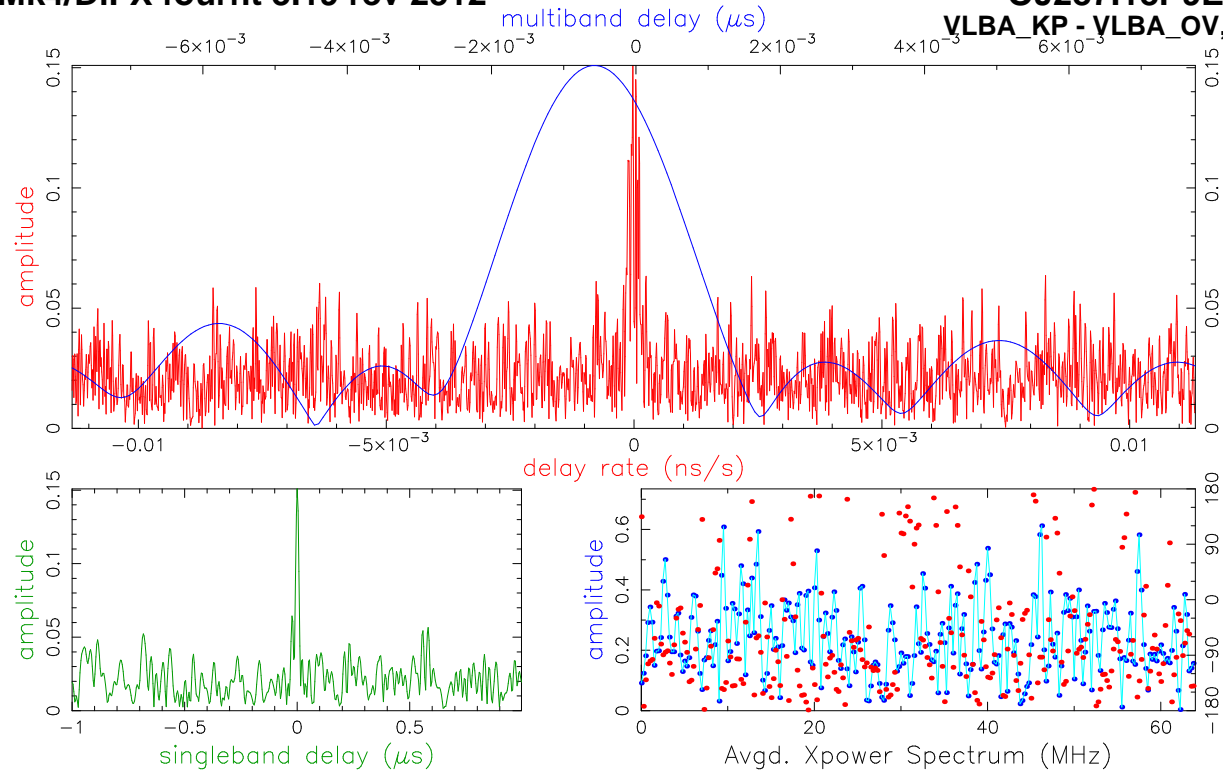


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.58628635517E+03				1.58628559530E+03			7.59861E-04	+/- 2.4E-05
Sband delay (usec)		1.58628614855E+03				-2.0410387E+01			5.53250E-04	+/- 1.9E-04
Phase delay (usec)		1.58628559574E+03				-1.9560001E-07			4.35677E-07	+/- 8.0E-08
Delay rate (us/s)		-2.23697327656E-02				-2.23697689962E-02			3.62307E-08	+/- 3.2E-10
Total phase (deg)			78.1			-1.14676797778E-05			13.5	+/- 2.5
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										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

ph/seg (deg) 69.6 6.0 Search (2048X32) 0.760 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 69.5 10.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 4.5 3.5 Inc. seg. avg. 1.318 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 9.4 6.2 Inc. frq. avg. 0.800 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 91.6 el 42.9 pa -64.5 o: az 92.1 el 37.2 pa -57.9 u,v (fr/asec) 118.251 -959.093 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/ko..18P9EC Output file: /Exps/c201a/v1/1234/No0027/ko.W.118.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, ko
VLBA_KP - VLBA_OV, fgroup W, pol LR

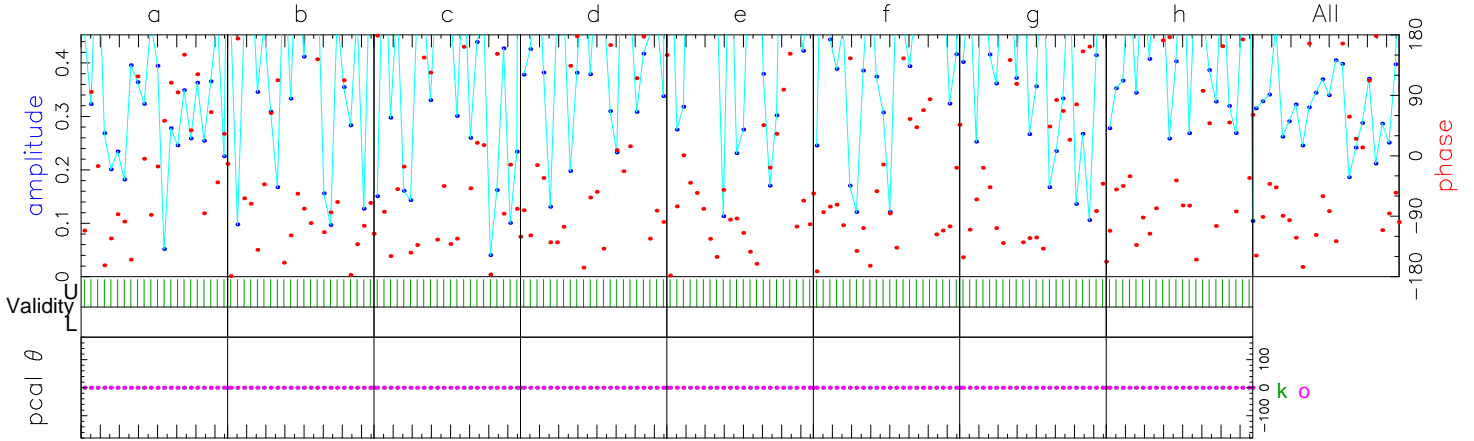


Fringe quality 9

SNR 8.7
Int time 439.773
Amp 0.151
Phase -100.7
PFD 1.8e-09
Delays (us)
SBD 0.000153
MBD -0.000571
Fringe rate (Hz)
-0.001989
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120823
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

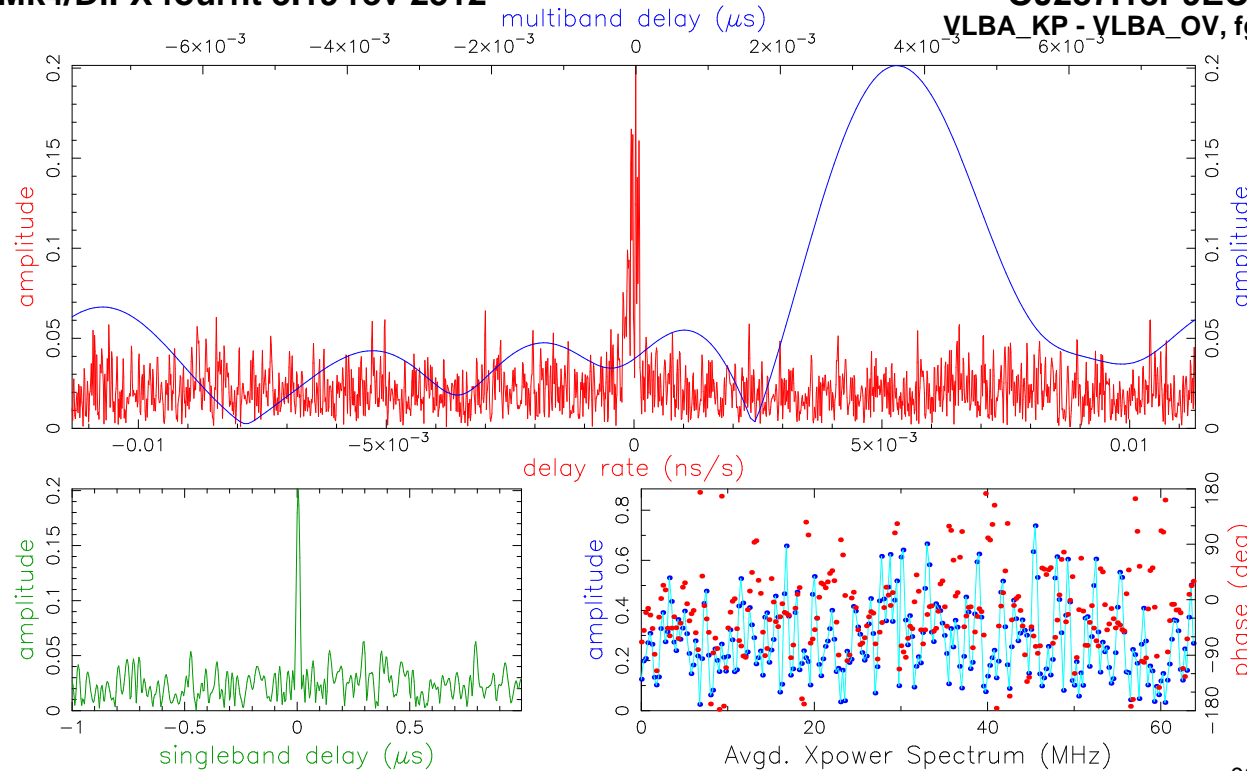


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-27.1	-107.4	-105.0	-95.4	-108.1	-98.6	-106.2	-93.9	Phase	-100.7
	0.0	0.2	0.1	0.2	0.2	0.1	0.1	0.2	Ampl.	0.1
	63.6	256.9	86.9	256.8	256.9	185.1	505.8	257.6	Sbd box	257.0
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.58628502438E+03		Apriori delay (usec)		1.58628559530E+03		Resid mbdelay (usec)		-5.70928E-04	+/- 1.3E-04
Sband delay (usec)	1.58628574830E+03		Apriori clock (usec)		-2.0410387E+01		Resid sbdelay (usec)		1.53000E-04	+/- 1.0E-03
Phase delay (usec)	1.58628559206E+03		Apriori clockrate (us/s)		-1.9560001E-07		Resid phdelay (usec)		-3.24711E-06	+/- 4.3E-07
Delay rate (us/s)	-2.23697920839E-02		Apriori rate (us/s)		-2.23697689962E-02		Resid rate (us/s)		-2.30876E-08	+/- 1.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.14676797778E-05		Resid phase (deg)		-100.7	+/- 13.2

ph/seg (deg) 73.2 31.7 Search (2048X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 119.7 55.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 30.7 18.7 Inc. seg. avg. 0.276 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 37.3 32.7 Inc. frq. avg. 0.147 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 91.6 el 42.9 pa -64.5 o: az 92.1 el 37.2 pa -57.9 u,v (fr/asec) 118.251 -959.093 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/ko..18P9EC Output file: /Exps/c201a/v1/1234/No0027/ko.W.138.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, ko
VLBA_KP - VLBA_OV, fgroup W, pol RL

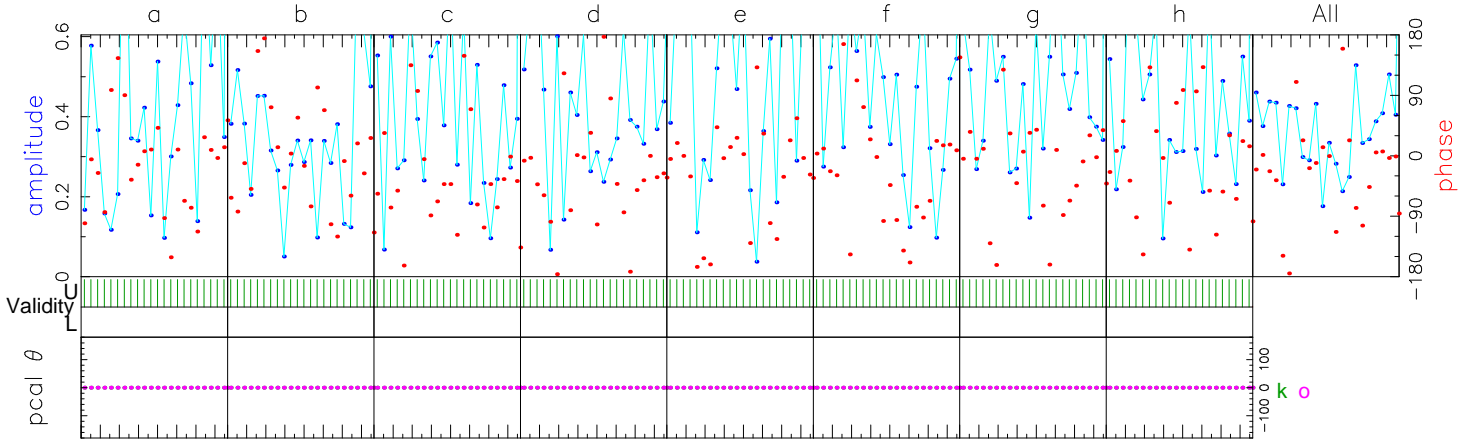


Fringe quality 9

SNR 11.6
Int time 439.773
Amp 0.202
Phase -20.0
PFD 3.3e-22
Delays (us)
SBD 0.004280
MBD 0.003625
Fringe rate (Hz) 0.003117
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120827
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k: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		
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)		1.58628922035E+03				1.58628559530E+03			Resid mbdelay (usec)	3.62505E-03 +/- 9.4E-05
Sband delay (usec)		1.58628987555E+03				-2.0410387E+01			Resid sbdelay (usec)	4.28025E-03 +/- 7.5E-04
Phase delay (usec)		1.58628559466E+03				-1.9560001E-07			Resid phdelay (usec)	-6.45496E-07 +/- 3.2E-07
Delay rate (us/s)		-2.23697328095E-02				-2.23697689962E-02			Resid rate (us/s)	3.61867E-08 +/- 1.3E-09
Total phase (deg)			44.6			-1.14676797778E-05			Resid phase (deg)	-20.0 +/- 9.9

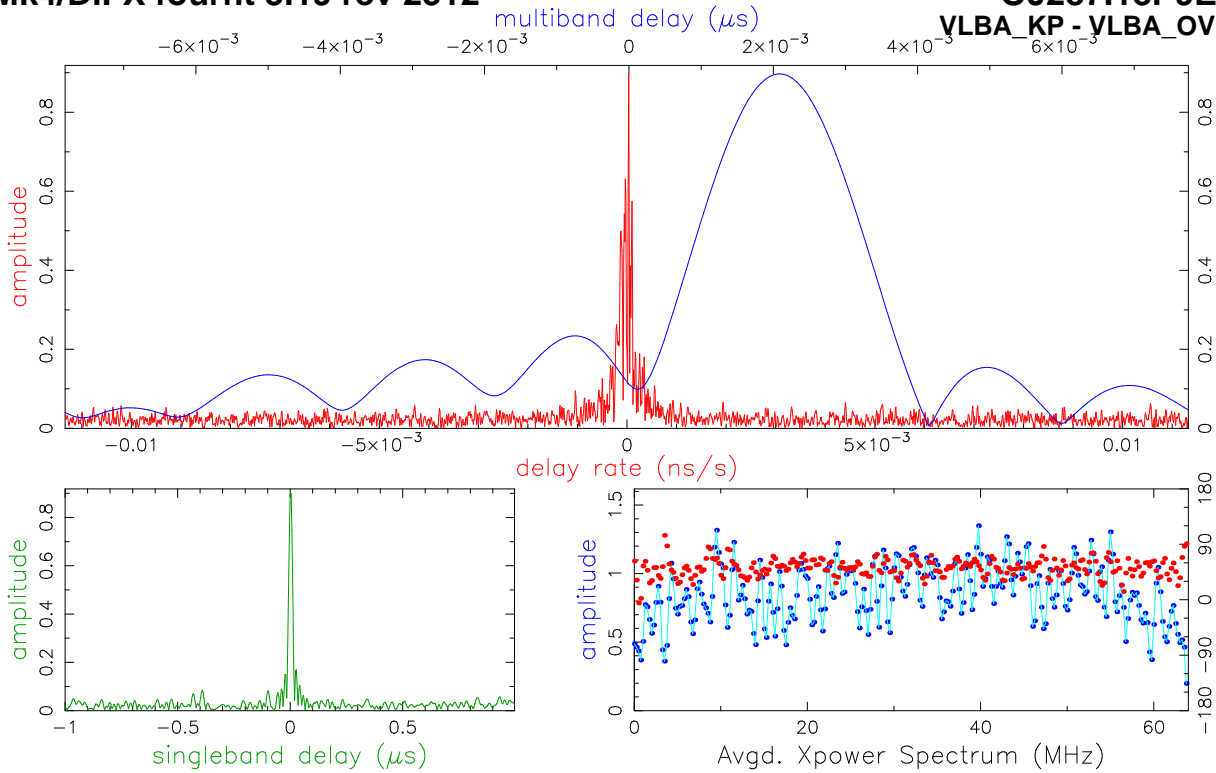
	RMS	Theor.	Amplitude	0.202 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	73.0	23.8	Search (2048X32)	0.193	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	93.1	41.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	23.1	14.0	Inc. seg. avg.	0.335	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.8	24.5	Inc. frq. avg.	0.208	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 91.6 el 42.9 pa -64.5 o: az 92.1 el 37.2 pa -57.9 u,v (fr/asec) 118.251 -959.093 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/ko..18P9EC Output file: /Exps/c201a/v1/1234/No0027/ko.W.155.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, ko
VLBA_KP - VLBA_OV, fgroup W, pol LL

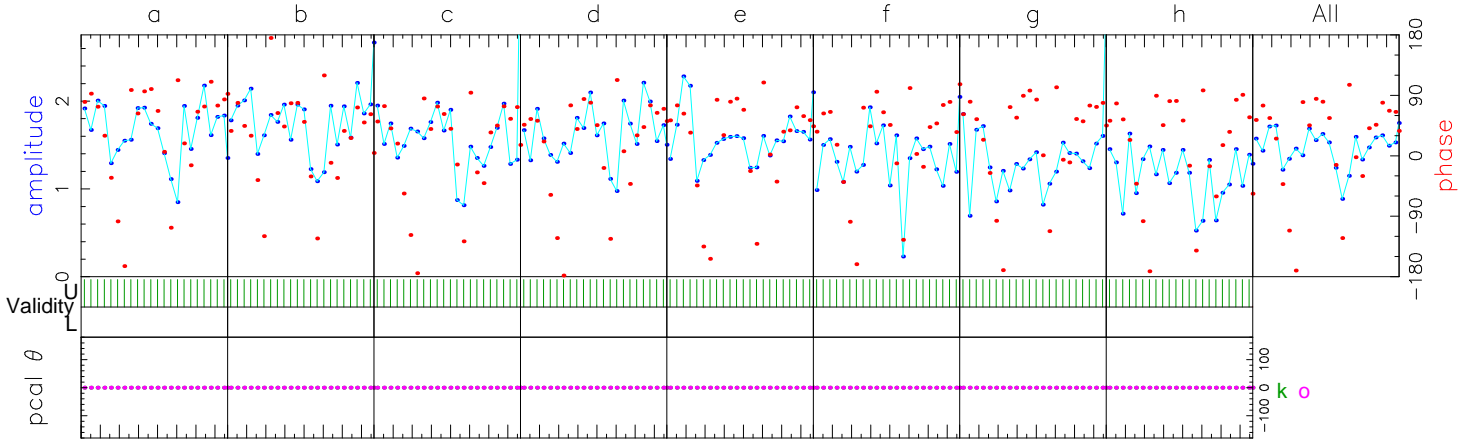


Fringe quality 5

SNR 52.7
Int time 439.773
Amp 0.919
Phase 50.9
PFD 0.0e+00
Delays (us)
SBD 0.002034
MBD 0.002138
Fringe rate (Hz) 0.003106
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120813
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	68.8	45.1	46.8	44.9	51.9	44.2	55.7	48.6	Phase	50.9
	1.0	1.1	0.9	1.0	0.9	0.9	0.8	0.6	Ampl.	0.9
	257.2	257.3	257.7	257.7	257.5	257.7	257.3	257.6	Sbd box	257.5
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	

Group delay (usec)(sbd)	1.58628773360E+03	Apriori delay (usec)	1.58628559530E+03	Resid mbdelay (usec)	2.13830E-03	+/-	2.1E-05
Sband delay (usec)	1.58628762880E+03	Apriori clock (usec)	-2.0410387E+01	Resid sbdelay (usec)	2.03350E-03	+/-	1.6E-04
Phase delay (usec)	1.58628559695E+03	Apriori clockrate (us/s)	-1.9560001E-07	Resid phdelay (usec)	1.64227E-06	+/-	7.0E-08
Delay rate (us/s)	-2.23697329335E-02	Apriori rate (us/s)	-2.23697689962E-02	Resid rate (us/s)	3.60627E-08	+/-	2.8E-10
Total phase (deg)	115.6	Apriori accel (us/s/s)	-1.14676797778E-05	Resid phase (deg)	50.9	+/-	2.2

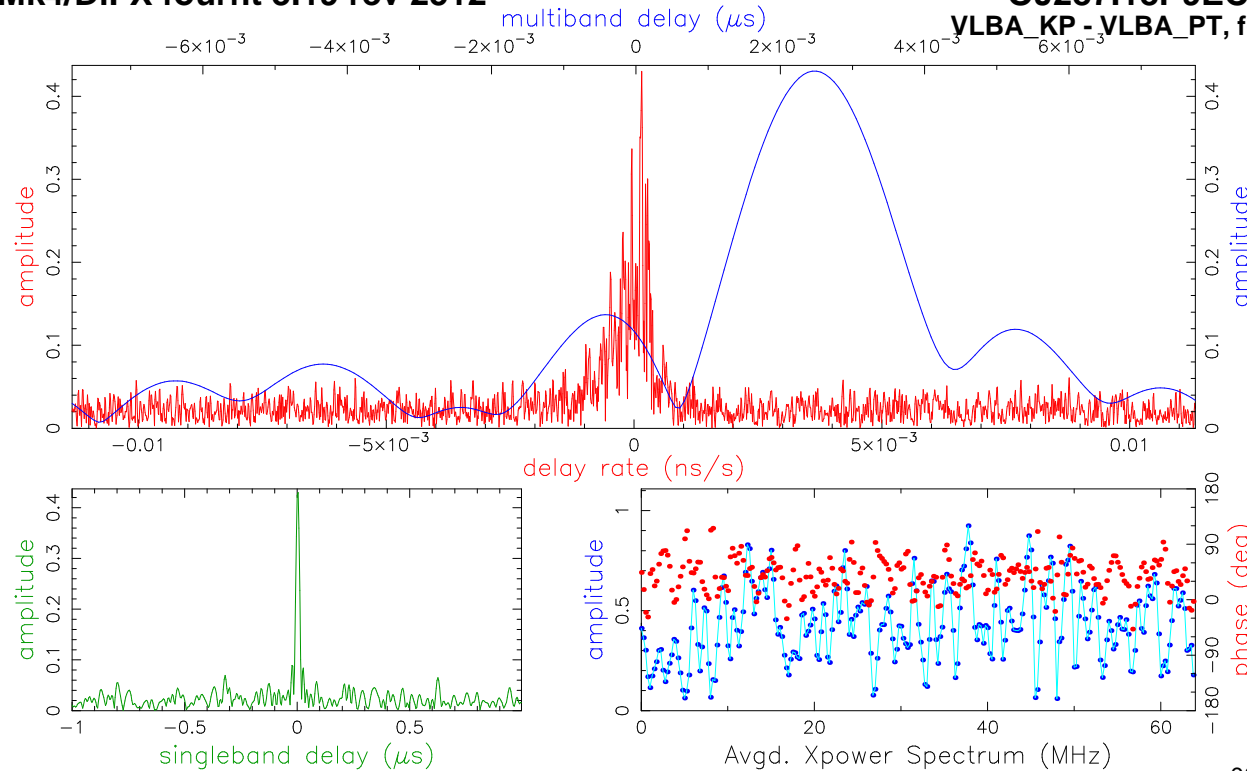
ph/seg (deg)	69.4	RMS	5.2	Theor.	0.919 +/- 0.017	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	63.0	Search (2048X32)	0.868	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	8.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	13.8	Inc. seg. avg.	1.456	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.904	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 91.6 el 42.9 pa -64.5 o: az 92.1 el 37.2 pa -57.9 u,v (fr/asec) 118.251 -959.093 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/ko..18P9EC Output file: /Exps/c201a/v1/1234/No0027/ko.W.96.18P9EC

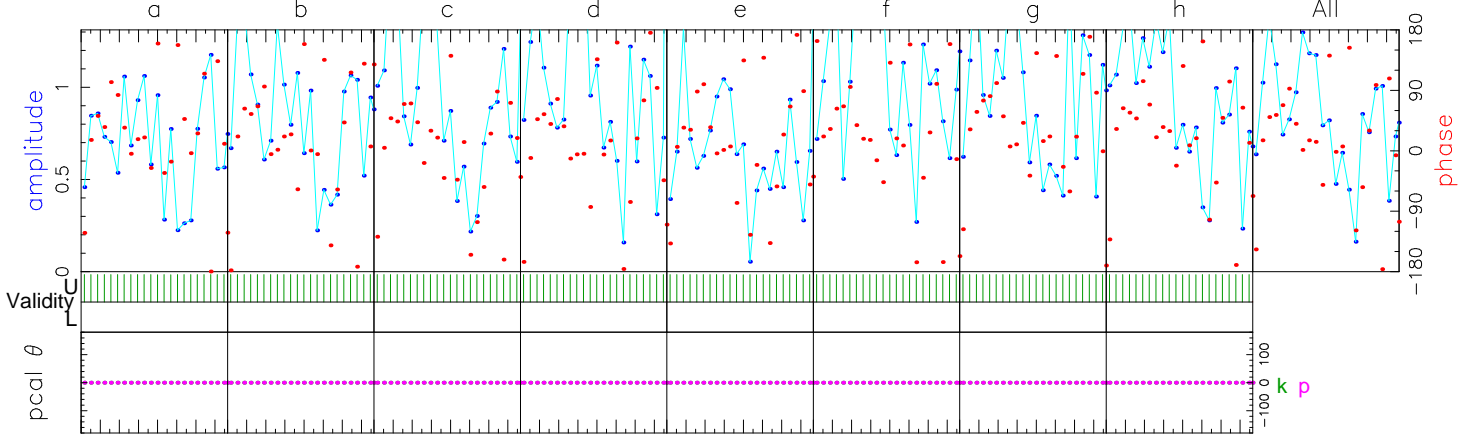
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kp
VLBA_KP - VLBA_PT, fgroup W, pol LL



Fringe quality 7
SNR 25.0
Int time 438.762
Amp 0.437
Phase 35.6
PFD 0.0e+00
Delays (us)
SBD 0.002255
MBD 0.002427
Fringe rate (Hz) 0.013784
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120814
2020:014:135814
RA & Dec (J2000)
08h54m48.8749285"
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

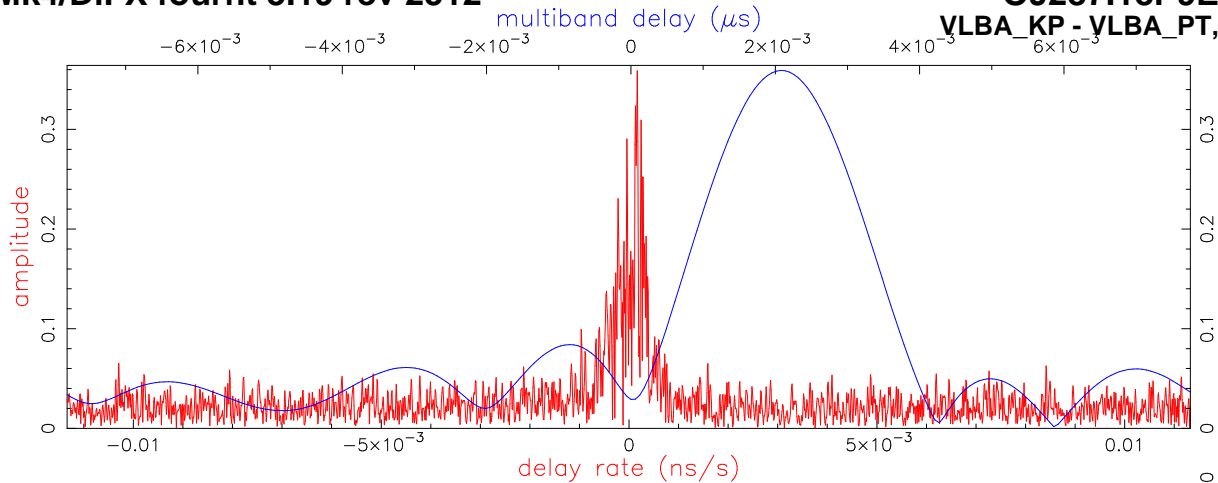
Group delay (usec)(sbd)	-7.33581420586E+02	Apriori delay (usec)	-7.33583847146E+02	Resid mbdelay (usec)	2.42656E-03	+/-	4.3E-05
Sband delay (usec)	-7.33581592646E+02	Apriori clock (usec)	-1.7602436E+01	Resid sbdelay (usec)	2.25450E-03	+/-	3.4E-04
Phase delay (usec)	-7.33583845998E+02	Apriori clockrate (us/s)	-1.9848659E-07	Resid phdelay (usec)	1.14750E-06	+/-	1.5E-07
Delay rate (us/s)	7.37492150712E-02	Apriori rate (us/s)	7.37490550505E-02	Resid rate (us/s)	1.60021E-07	+/-	5.8E-10
Total phase (deg)	-177.9	Apriori accel (us/s/s)	2.48218774247E-06	Resid phase (deg)	35.6	+/-	4.6

	RMS	Theor.	Amplitude	0.437 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	79.4	11.0	Search (2048X32)	0.417	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	114.4	19.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	11.8	6.5	Inc. seg. avg.	0.823	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	19.3	11.3	Inc. frq. avg.	0.434	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

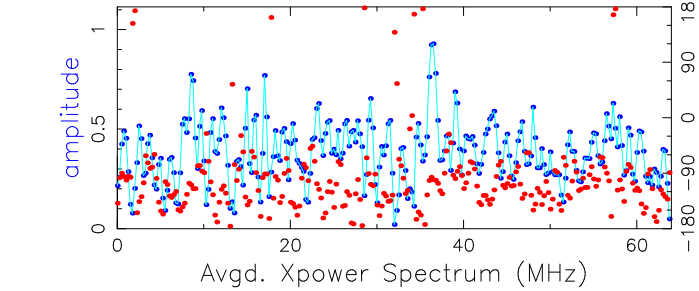
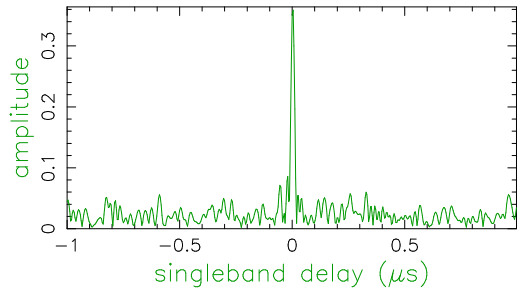
k: az 91.6 el 42.9 pa -64.5 p: az 96.0 el 45.7 pa -60.9 u,v (fr/asec) -444.966 -211.882 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kp..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kp.W.100.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kp
VLBA_KP - VLBA_PT, fgroup W, pol RR

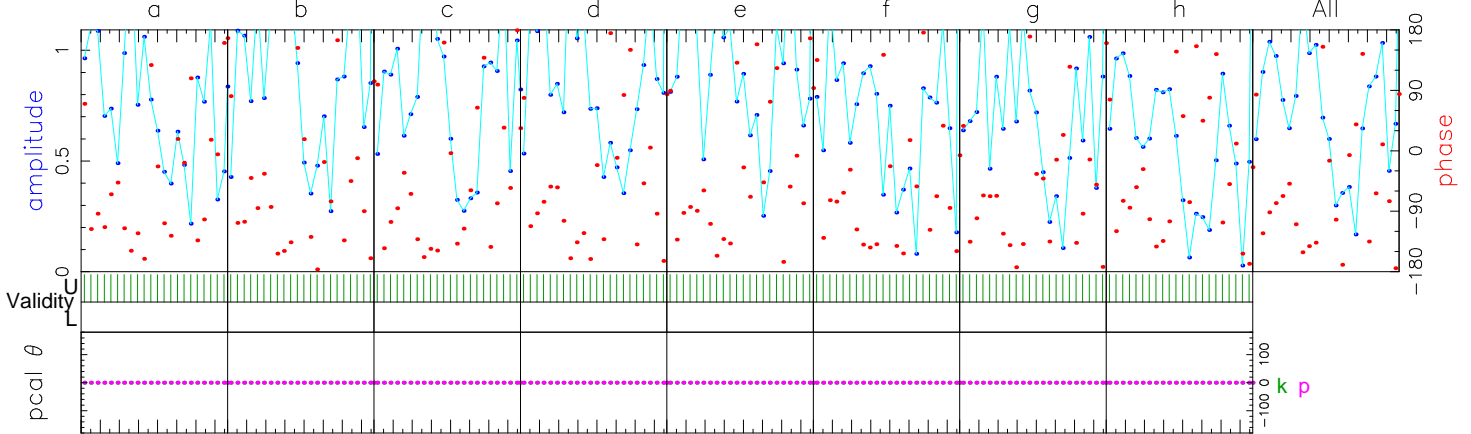


Fringe quality 9
SNR 20.9
Int time 438.763
Amp 0.364
Phase -109.1
PFD 0.0e+00
Delays (us)
SBD 0.002352
MBD 0.002031
Fringe rate (Hz) 0.014021
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120820
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"



Avgd. Xpower Spectrum (MHz)

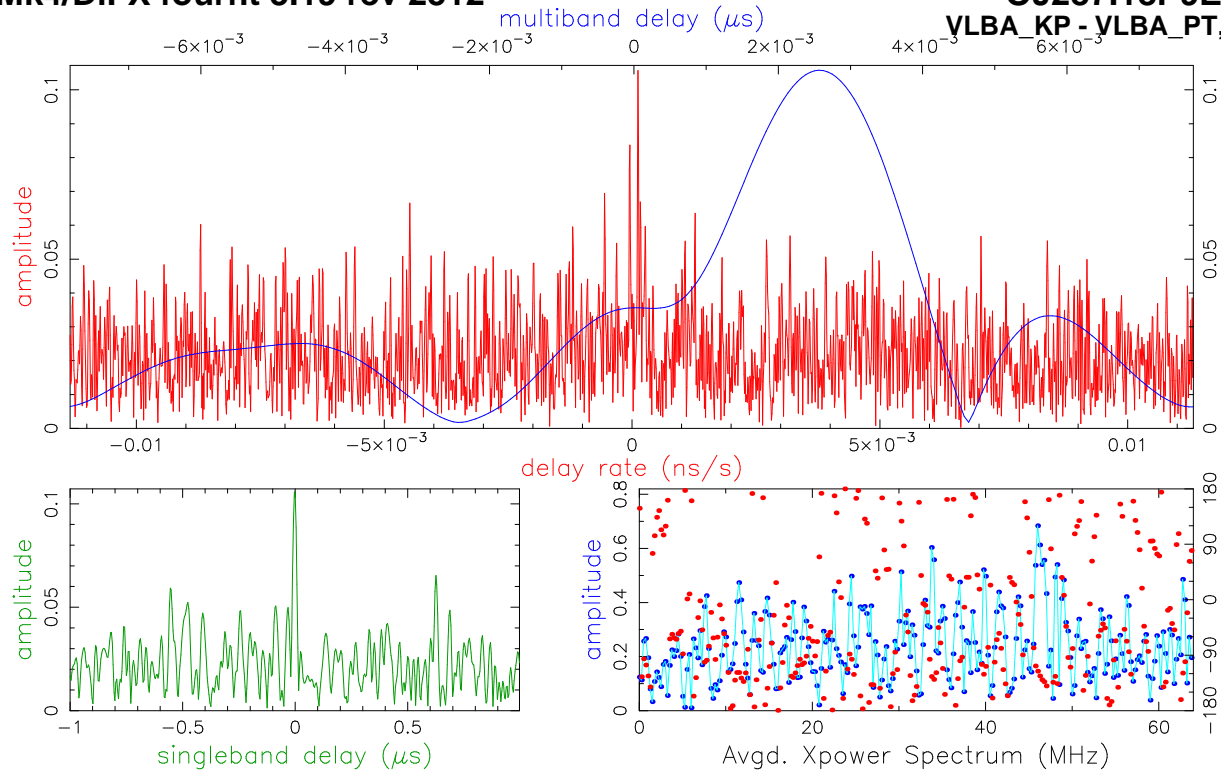
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-107.4	-105.3	-132.4	-104.8	-112.3	-101.4	-106.0	-102.8	Phase	-109.1
	0.3	0.5	0.4	0.5	0.4	0.3	0.4	0.3	Ampl.	0.4
	258.0	257.3	257.7	258.0	257.5	257.9	257.3	257.5	Sbd box	257.6
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	
kp	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	
p	1000	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)	-7.33581815778E+02				-7.33583847146E+02				Resid mbdelay (usec)	2.03137E-03 +/- 5.2E-05
Sband delay (usec)	-7.33581494896E+02				-1.7602436E+01				Resid sbdelay (usec)	2.35225E-03 +/- 4.1E-04
Phase delay (usec)	-7.33583850665E+02				-1.9848659E-07				Resid phdelay (usec)	-3.51906E-06 +/- 1.8E-07
Delay rate (us/s)	7.37492178197E-02				7.37490550505E-02				Resid rate (us/s)	1.62769E-07 +/- 7.0E-10
Total phase (deg)			-322.7		2.48218774247E-06				Resid phase (deg)	-109.1 +/- 5.5
	RMS	Theor.	Amplitude	0.364 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	76.0	13.2	Search (2048X32)	0.350	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	124.8	23.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	10.8	7.8	Inc. seg. avg.	0.710	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	17.9	13.6	Inc. frq. avg.	0.360	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
k: az 91.6 el 42.9 pa -64.5		p: az 96.0 el 45.7 pa -60.9		u,v (fr/asec) -444.966 -211.882						simultaneous interpolator

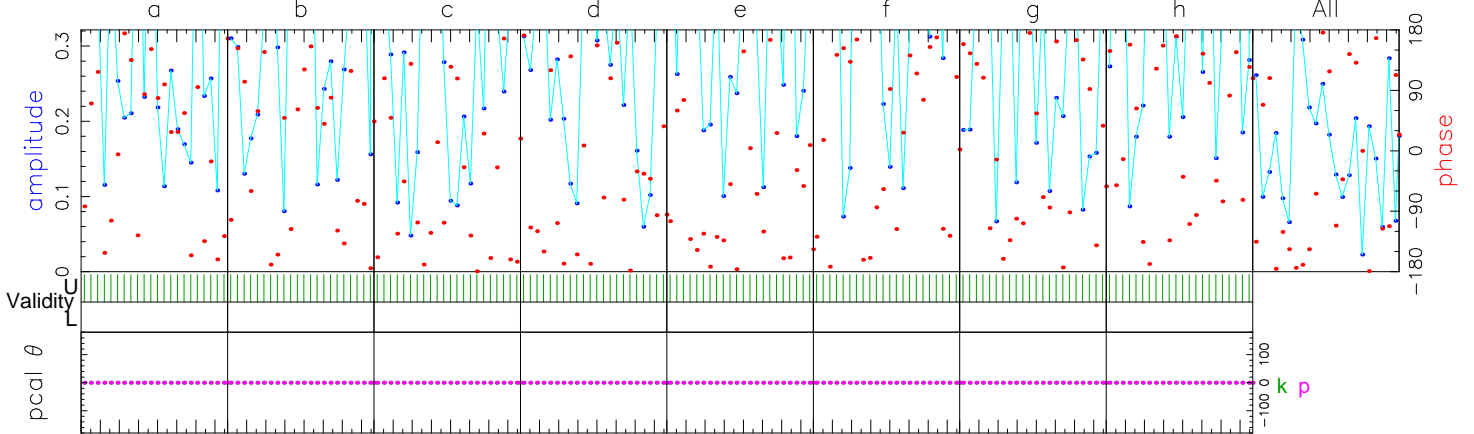
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kp
VLBA_KP - VLBA_PT, fgroup W, pol LR



Fringe quality 0
SNR 6.1
Int time 438.763
Amp 0.107
Phase -167.7
PFD 1.9e-01
Delays (us)
SBD -0.002198
MBD 0.002512
Fringe rate (Hz)
0.010408
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120824
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

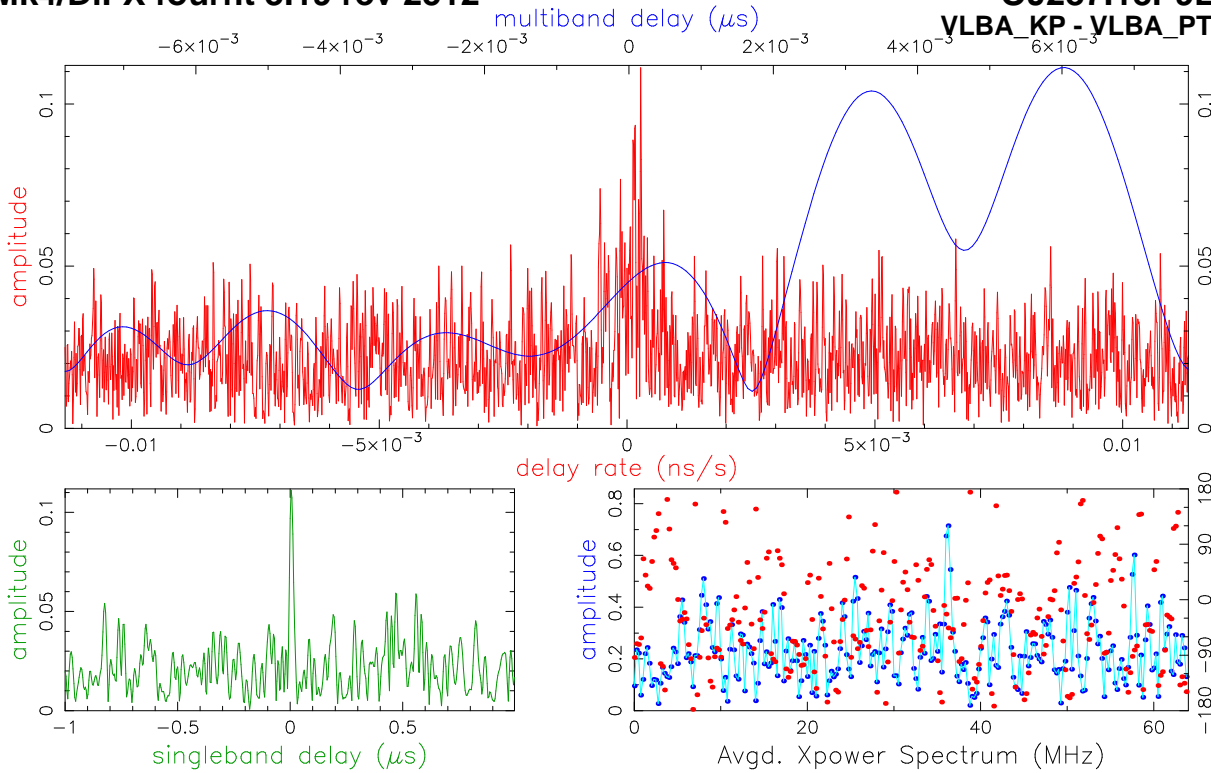


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-7.33581335572E+02				-7.33583847146E+02				2.51157E-03	+/- 1.8E-04
Sband delay (usec)	-7.33586045396E+02				-1.7602436E+01				-2.19825E-03	+/- 1.4E-03
Phase delay (usec)	-7.33583852554E+02				-1.9848659E-07				-5.40817E-06	+/- 6.0E-07
Delay rate (us/s)	7.37491758773E-02				7.37490550505E-02				1.20827E-07	+/- 2.4E-09
Total phase (deg)			-21.2		2.48218774247E-06				-167.7	+/- 18.7
	RMS	Theor.	Amplitude	0.107 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	70.6	44.7	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	100.4	78.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	24.1	26.4	Inc. seg. avg.	0.129	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	40.8	46.1	Inc. frq. avg.	0.101	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 91.6 el 42.9 pa -64.5 p: az 96.0 el 45.7 pa -60.9 u,v (fr/asec) -444.966 -211.882 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kp..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kp.W.143.18P9EC

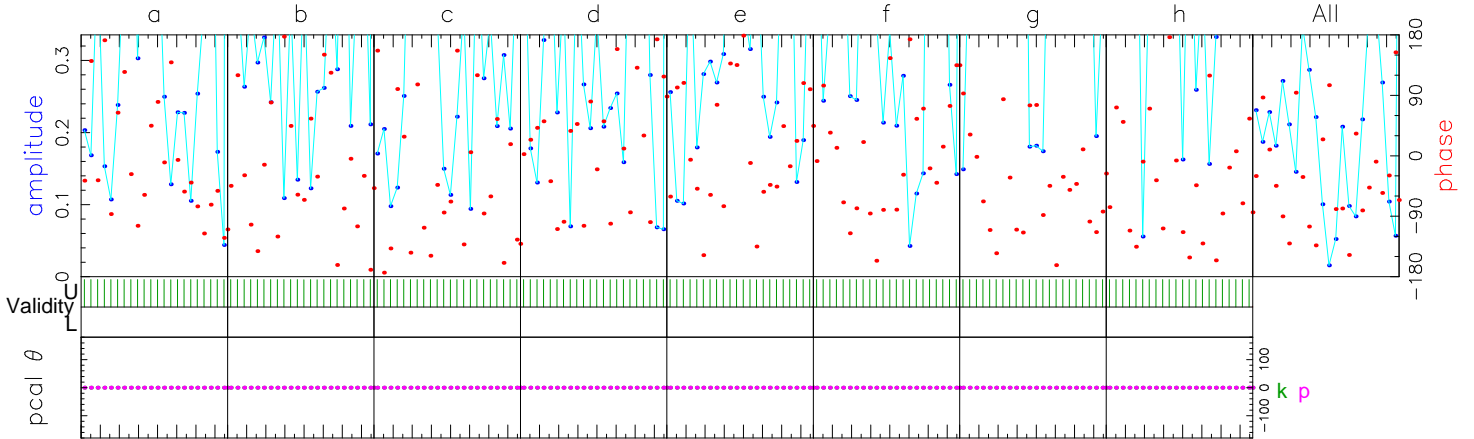
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kp
VLBA_KP - VLBA_PT, fgroup W, pol RL



Fringe quality 0
SNR 6.4
Int time 438.762
Amp 0.112
Phase -52.7
PFD 4.0e-02
Delays (us)
SBD 0.004969
MBD 0.006053
Fringe rate (Hz)
0.024135
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120828
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

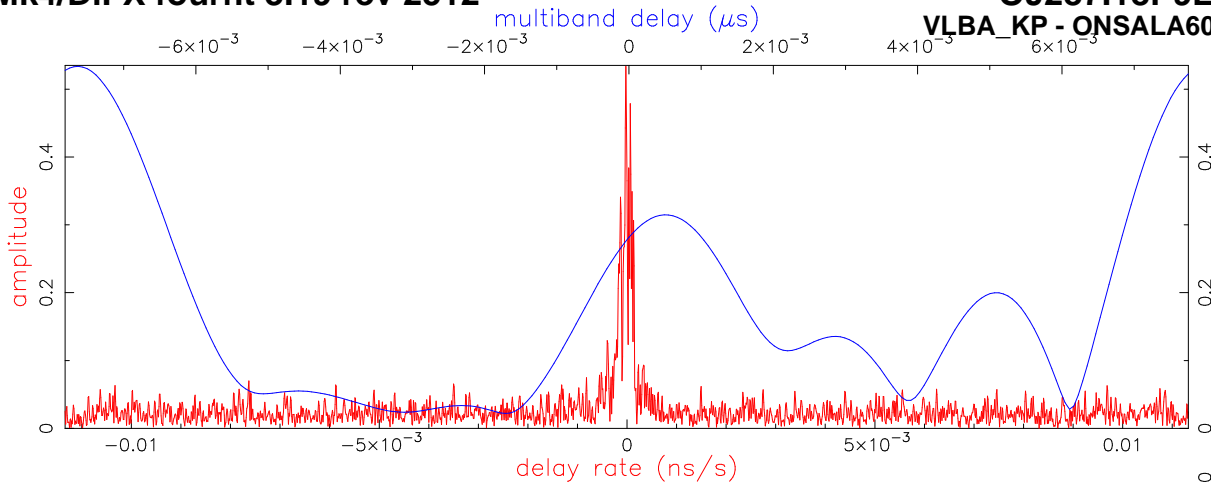


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-41.9	-74.2	-145.9	-6.7	5.8	-13.3	-65.9	-75.4	Phase	-52.7
	0.1	0.1	0.1	0.1	0.0	0.2	0.3	0.2	Ampl.	0.1
	61.1	467.0	451.0	400.1	499.5	258.6	257.9	186.6	Sbd box	258.3
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.33577794013E+02	Apriori delay (usec)	-7.33583847146E+02	Resid mbdelay (usec)	6.05313E-03	+/-	1.7E-04
Sband delay (usec)	-7.33578878396E+02	Apriori clock (usec)	-1.7602436E+01	Resid sbdelay (usec)	4.96875E-03	+/-	1.3E-03
Phase delay (usec)	-7.33583848845E+02	Apriori clockrate (us/s)	-1.9848659E-02	Resid phdelay (usec)	-1.69911E-06	+/-	5.8E-07
Delay rate (us/s)	7.37493352376E-02	Apriori rate (us/s)	7.37490550505E-02	Resid rate (us/s)	2.80187E-07	+/-	2.3E-09
Total phase (deg)	-266.2	Apriori accel (us/s/s)	2.48218774247E-06	Resid phase (deg)	-52.7	+/-	17.9

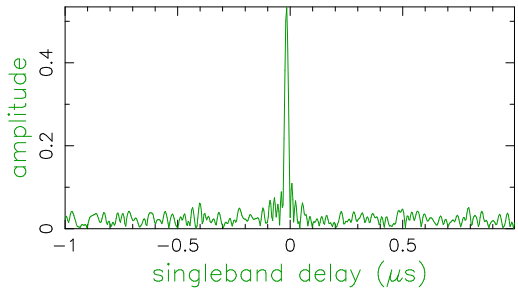
ph/seg (deg)	RMS 79.1	Theor. 42.9	Amplitude Search (2048X32)	0.112 +/- 0.017	0.107	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	119.4	74.9	Interp.	0.000	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	53.3	25.3	Inc. seg. avg.	0.153	0.107	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	65.7	44.1	Inc. frq. avg.	0.127	0.107	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

k: az 91.6 el 42.9 pa -64.5 p: az 96.0 el 45.7 pa -60.9 u,v (fr/asec) -444.966 -211.882 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kp..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kp.W.159.18P9EC

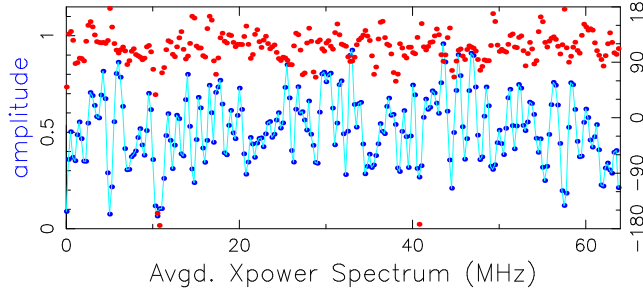


Fringe quality 4

SNR 30.7
Int time 439.638
Amp 0.535
Phase 15.4
PFD 0.0e+00
Delays (us)
SBD -0.016309
MBD -0.007657
Fringe rate (Hz)
-0.002201
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

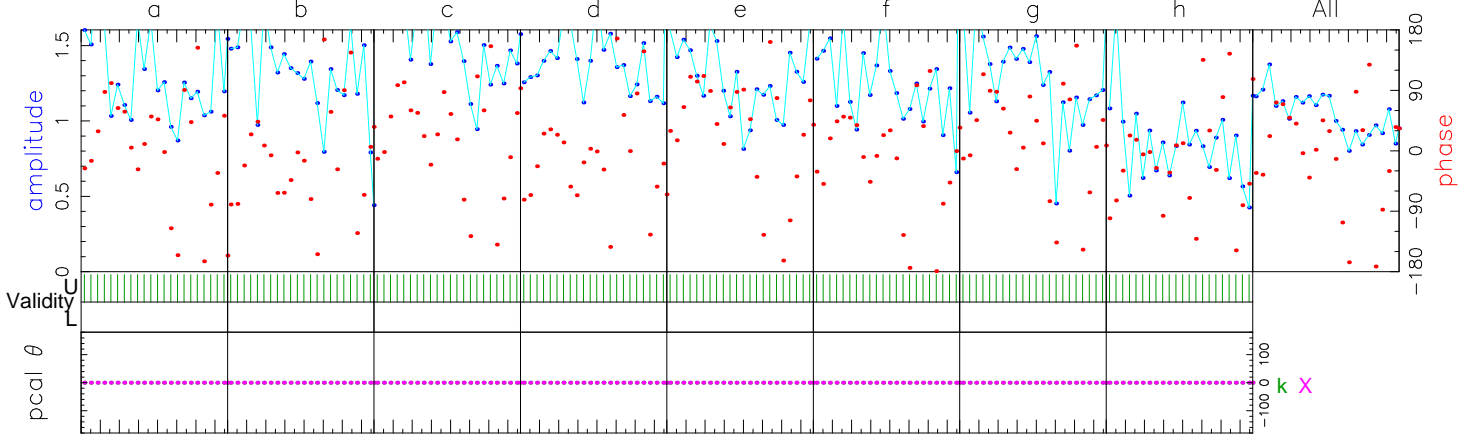


delay rate (ns/s)



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120814
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	26.6	-30.2	39.4	-15.7	62.2	9.6	38.5	-35.7	Phase	15.4
	0.6	0.6	0.8	0.7	0.6	0.7	0.7	0.4	Ampl.	0.6
	252.5	252.3	252.8	252.2	252.0	252.4	252.3	251.2	Sbd box	252.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.53016656895E+03		Apriori delay (usec)		5.53018985145E+03		Resid mbdelay (usec)		-7.65750E-03	+/- 3.5E-05
Sband delay (usec)	5.53017354270E+03		Apriori clock (usec)		-4.1051052E+01		Resid sbdelay (usec)		-1.63087E-02	+/- 2.8E-04
Phase delay (usec)	5.53018985194E+03		Apriori clockrate (us/s)		-5.2260003E-07		Resid phdelay (usec)		4.95184E-07	+/- 1.2E-07
Delay rate (us/s)	1.70368620277E+00		Apriori rate (us/s)		1.70368622832E+00		Resid rate (us/s)		-2.55520E-08	+/- 4.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-4.17304417492E-05		Resid phase (deg)		15.4	+/- 3.7

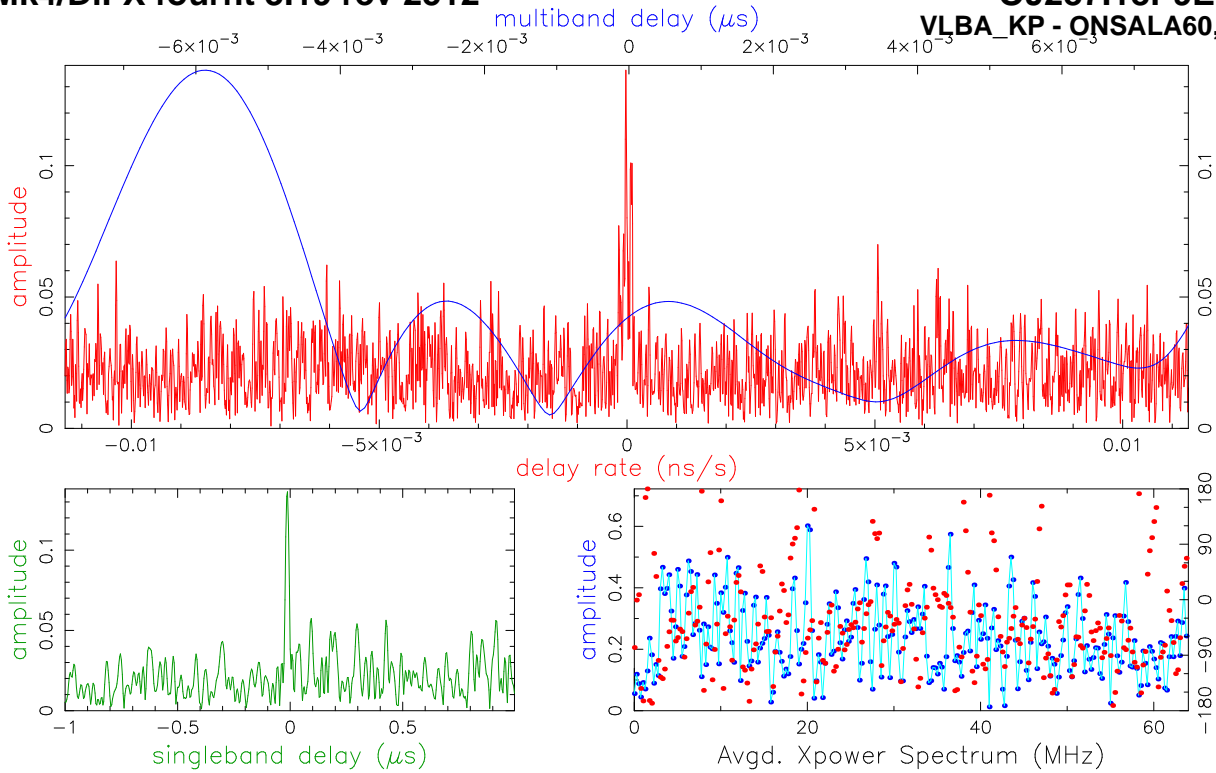
	RMS	Theor.	Amplitude	0.535 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	75.7	9.0	Search (2048X32)	0.518	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	100.1	15.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	39.0	5.3	Inc. seg. avg.	1.039	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	26.6	9.2	Inc. frq. avg.	0.627	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 91.6 el 42.9 pa -64.5 X: az 266.5 el 26.2 pa 35.0 u,v (fr/asec) -10449.579 -3745.802 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kX..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kX.W.101.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kX
VLBA_KP - ONSALA60, fgroup W, pol RL

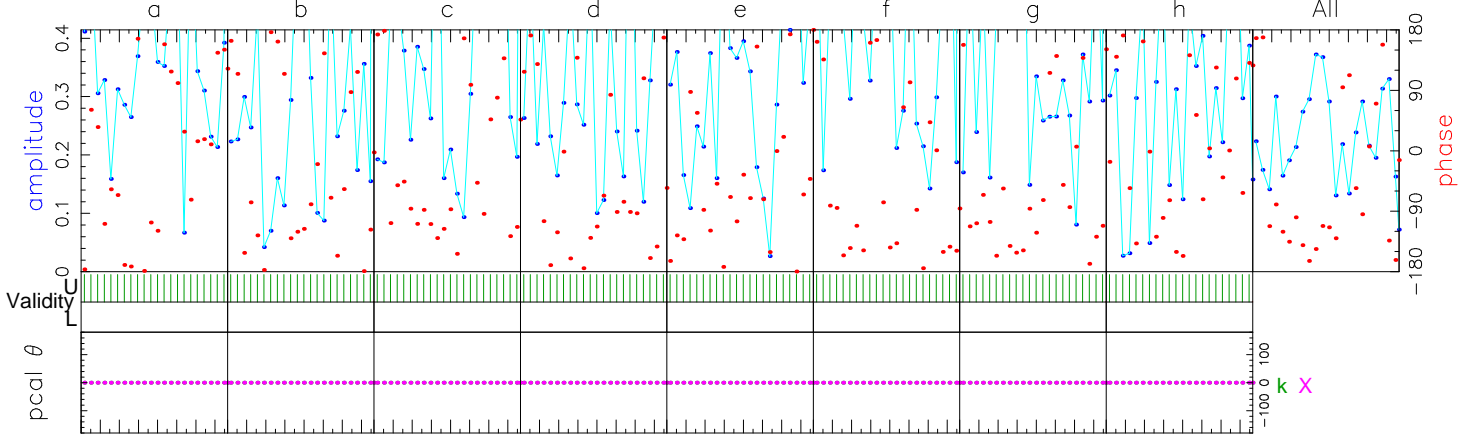


Fringe quality 9

SNR 7.9
Int time 439.638
Amp 0.138
Phase -135.3
PFD 7.9e-07
Delays (us)
SBD -0.013225
MBD -0.005910
Fringe rate (Hz)
-0.002379
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120827
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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)		5.53018394187E+03			5.53018985145E+03				Resid mbdelay (usec)	-5.90958E-03 +/- 1.4E-04
Sband delay (usec)		5.53017662620E+03			-4.1051052E+01				Resid sbdelay (usec)	-1.32252E-02 +/- 1.1E-03
Phase delay (usec)		5.53018984708E+03			-5.2260003E-07				Resid phdelay (usec)	-4.36166E-06 +/- 4.7E-07
Delay rate (us/s)		1.70368620070E+00			1.70368622832E+00				Resid rate (us/s)	-2.76210E-08 +/- 1.8E-09
Total phase (deg)			154.0		-4.17304417492E-05				Resid phase (deg)	-135.3 +/- 14.5

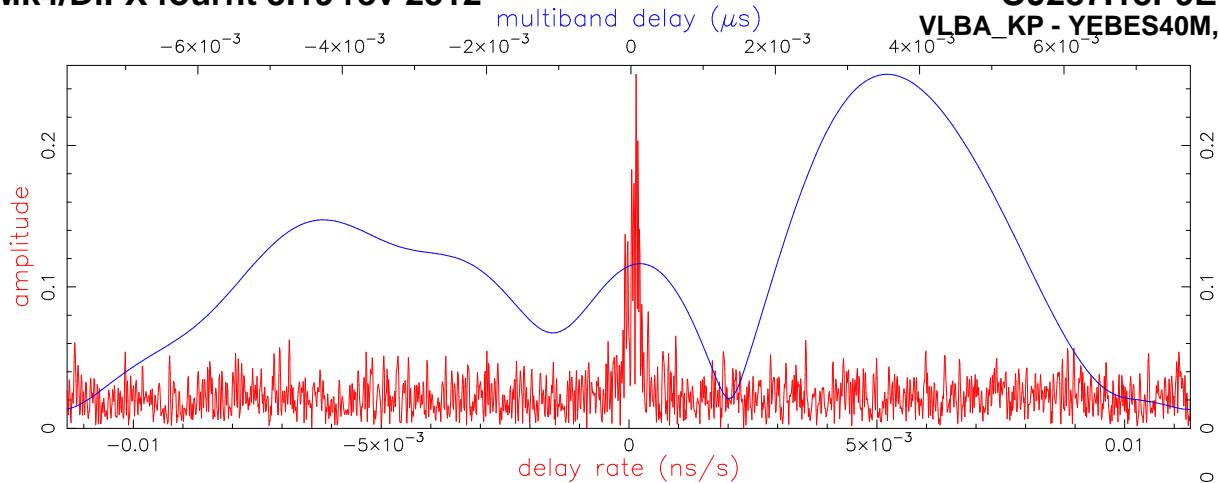
ph/seg (deg) 67.6 34.7
amp/seg (%) 89.4 60.5
ph/frq (deg) 33.6 20.5
amp/frq (%) 46.8 35.7

RMS Theor. Amplitude 0.138 +/- 0.017
67.6 34.7 Search (2048X32) 0.130
89.4 60.5 Interp. 0.000
33.6 20.5 Inc. seg. avg. 0.201
46.8 35.7 Inc. frq. avg. 0.139

Group delay (usec)(sbd) 5.53018394187E+03 Apriori delay (usec) 5.53018985145E+03 Resid mbdelay (usec) -5.90958E-03 +/- 1.4E-04
Sband delay (usec) 5.53017662620E+03 Apriori clock (usec) -4.1051052E+01 Resid sbdelay (usec) -1.32252E-02 +/- 1.1E-03
Phase delay (usec) 5.53018984708E+03 Apriori clockrate (us/s) -5.2260003E-07 Resid phdelay (usec) -4.36166E-06 +/- 4.7E-07
Delay rate (us/s) 1.70368620070E+00 Apriori rate (us/s) 1.70368622832E+00 Resid rate (us/s) -2.76210E-08 +/- 1.8E-09
Total phase (deg) 154.0 Apriori accel (us/s/s) -4.17304417492E-05 Resid phase (deg) -135.3 +/- 14.5

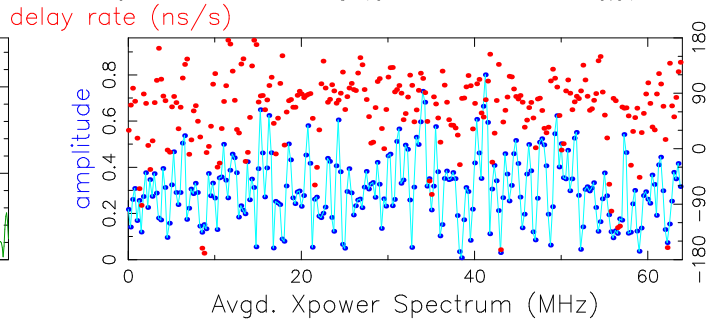
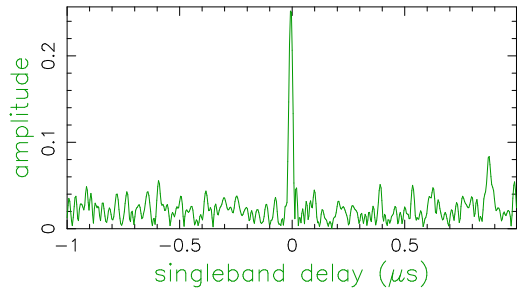
pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 91.6 el 42.9 pa -64.5 X: az 266.5 el 26.2 pa 35.0 u,v (fr/asec) -10449.579 -3745.802 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kX..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kX.W.156.18P9EC



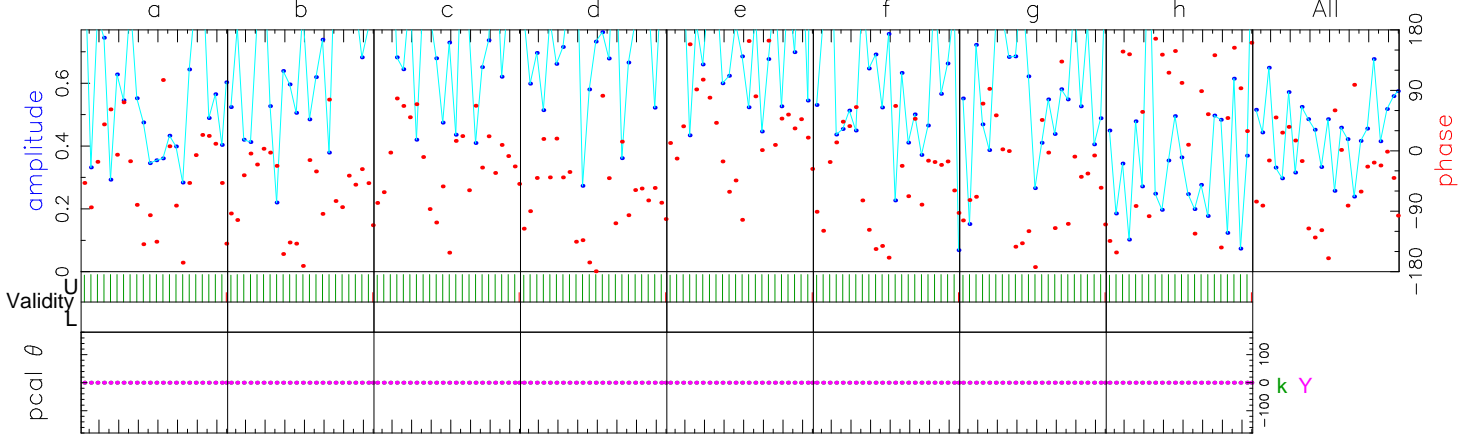
Fringe quality 7

SNR 14.6
 Int time 434.207
 Amp 0.257
 Phase -33.6
 PFD 1.3e-39
 Delays (us)
 SBD -0.005983
 MBD 0.003590
 Fringe rate (Hz)
 0.012126
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c201a
 Exper # 16383
 Yr:day 2020:115
 Start 224505.12
 Stop 225219.80
 FRT 224840.00
 Corr/FF/build
 2020:195:224837
 2020:197:120821
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec

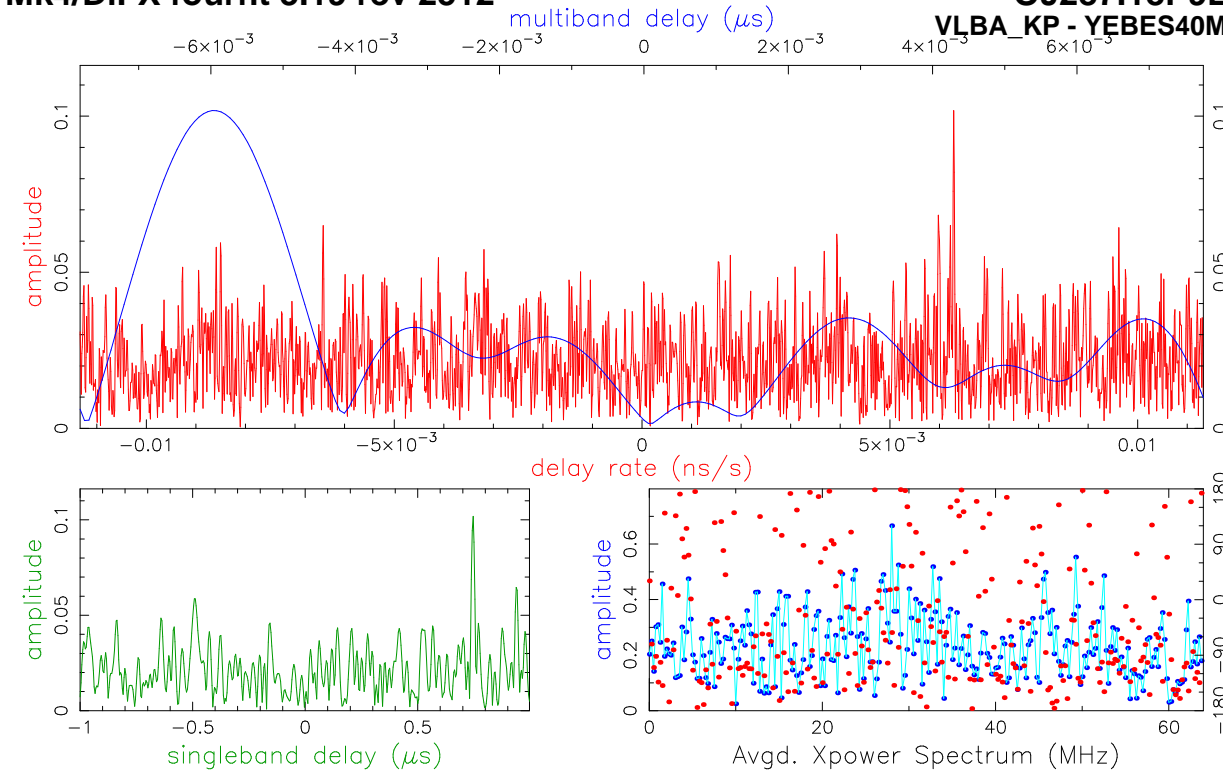


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-18.1	-61.4	-14.3	-70.8	35.5	-45.7	-47.2	167.1		Phase	-33.6
	0.3	0.4	0.5	0.5	0.4	0.3	0.2	0.1		Ampl.	0.3
	254.8	254.9	255.3	255.2	254.9	255.3	254.1	253.4		Sbd box	255.5
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0		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	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)	2.07369782011E+03		Apriori delay (usec)		2.07370985485E+03		Resid mbdelay (usec)		3.59026E-03	+/-	7.4E-05
Sband delay (usec)	2.07370387160E+03		Apriori clock (usec)		-1.2300716E+01		Resid sbdelay (usec)		-5.98325E-03	+/-	5.9E-04
Phase delay (usec)	2.07370985377E+03		Apriori clockrate (us/s)		-2.1460000E-07		Resid phdelay (usec)		-1.08327E-06	+/-	2.5E-07
Delay rate (us/s)	1.89498888291E+00		Apriori rate (us/s)		1.89498874214E+00		Resid rate (us/s)		1.40768E-07	+/-	1.0E-09
Total phase (deg)	289.2		Apriori accel (us/s/s)		-1.57444711211E-05		Resid phase (deg)		-33.6	+/-	7.8

	RMS	Theor.	Amplitude	0.257 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	65.2	18.8	Search (2048X32)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	87.1	32.8	Interp.	0.000	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	74.5	11.1	Inc. seg. avg.	0.425	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	55.4	19.3	Inc. frq. avg.	0.333	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 256 t_cohere infinite	

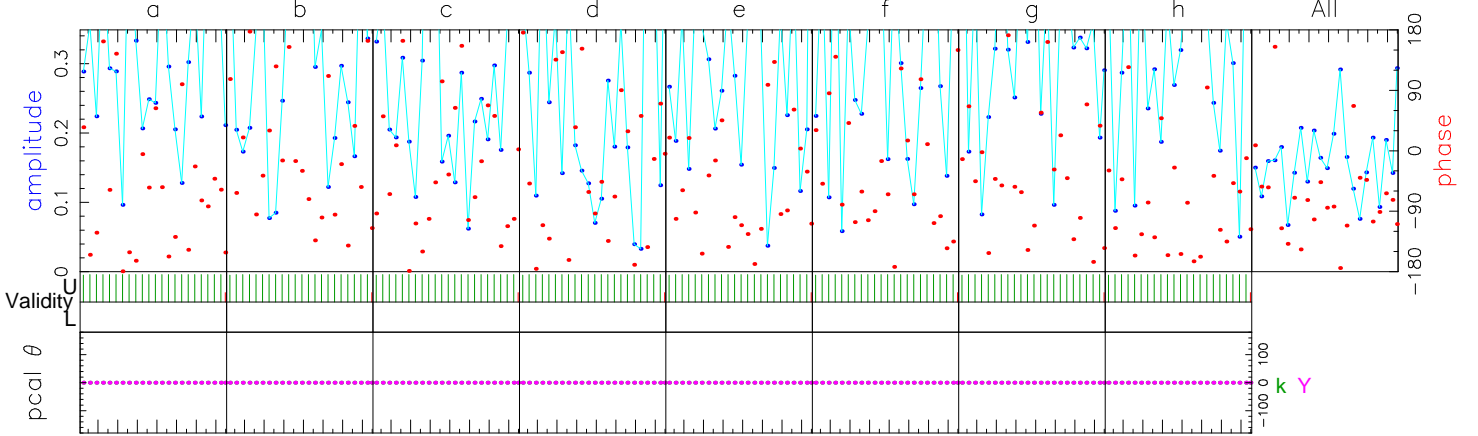
k: az 91.6 el 42.9 pa -64.5 Y: az 265.0 el 37.4 pa 53.7 u,v (fr/asec) -11574.865 -1389.581 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/KY..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kY.W.130.18P9EC



Fringe quality 0
 SNR 5.8
 Int time 434.207
 Amp 0.116
 Phase -91.2
 PFD 7.8e-01
 Delays (us)
 SBD 0.745526
 MBD -0.005966
 Fringe rate (Hz)
 0.542792
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c201a
 Exper # 16383
 Yr:day 2020:115
 Start 224505.12
 Stop 225219.80
 FRT 224840.00
 Corr/FF/build
 2020:195:224837
 2020:197:120825
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec



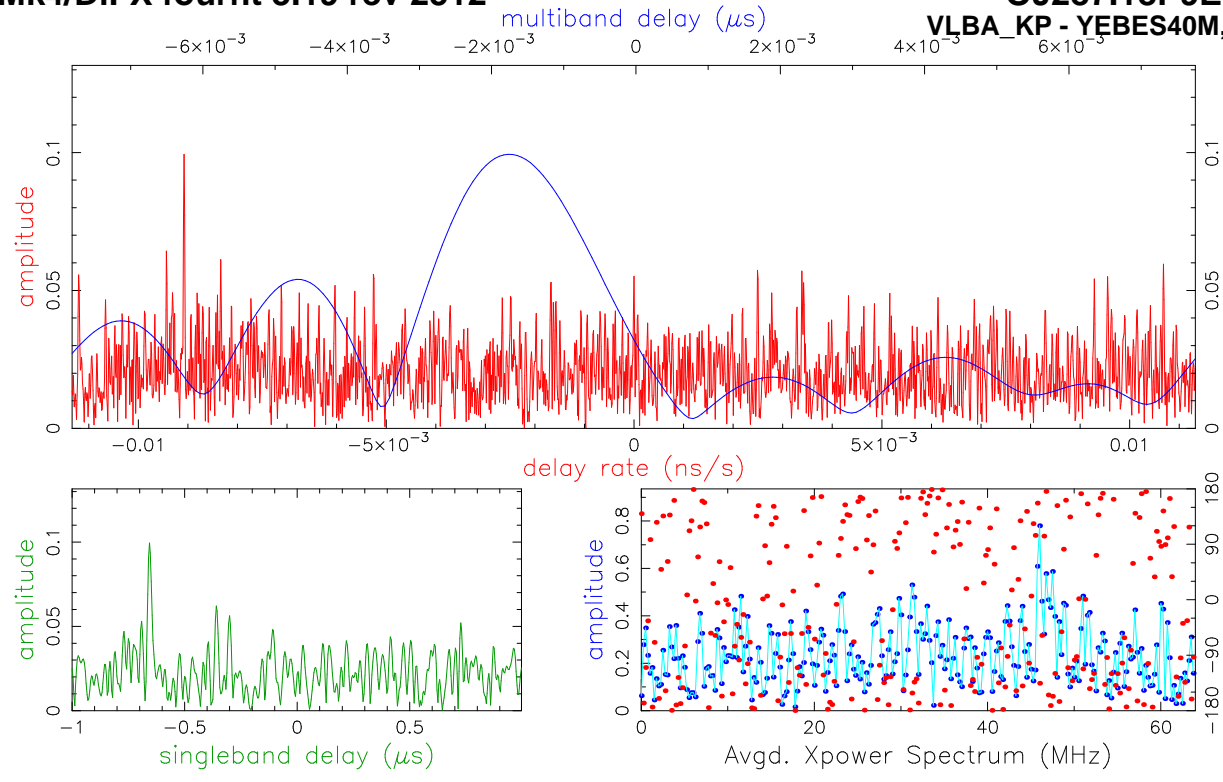
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-102.8	-71.2	-82.0	-135.9	-92.2	-90.2	-66.4	-105.3	Phase	-91.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	50.6	41.5	137.5	349.6	37.5	307.1	494.1	497.7	Sbd box	447.9
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0	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)	2.07445388891E+03		Apriori delay (usec)		2.07370985485E+03		Resid mbdelay (usec)		-5.96594E-03	+/- 1.9E-04
Sband delay (usec)	2.07445538060E+03		Apriori clock (usec)		-1.2300716E+01		Resid sbdelay (usec)		7.45526E-01	+/- 1.5E-03
Phase delay (usec)	2.07370985191E+03		Apriori clockrate (us/s)		-2.1460000E-07		Resid phdelay (usec)		-2.94101E-06	+/- 6.4E-07
Delay rate (us/s)	1.89499504342E+00		Apriori rate (us/s)		1.89498874214E+00		Resid rate (us/s)		6.30128E-06	+/- 2.5E-09
Total phase (deg)	231.6		Apriori accel (us/s/s)		-1.57444711211E-05		Resid phase (deg)		-91.2	+/- 19.7

	RMS	Theor.	Amplitude	0.116 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	57.1	47.3	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	74.4	82.5	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	23.9	27.9	Inc. seg. avg.	0.135	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	21.6	48.6	Inc. frq. avg.	0.110				

k: az 91.6 el 42.9 pa -64.5 Y: az 265.0 el 37.4 pa 53.7 u,v (fr/asec) -11574.865 -1389.581 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/KY..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kY.W.148.18P9EC

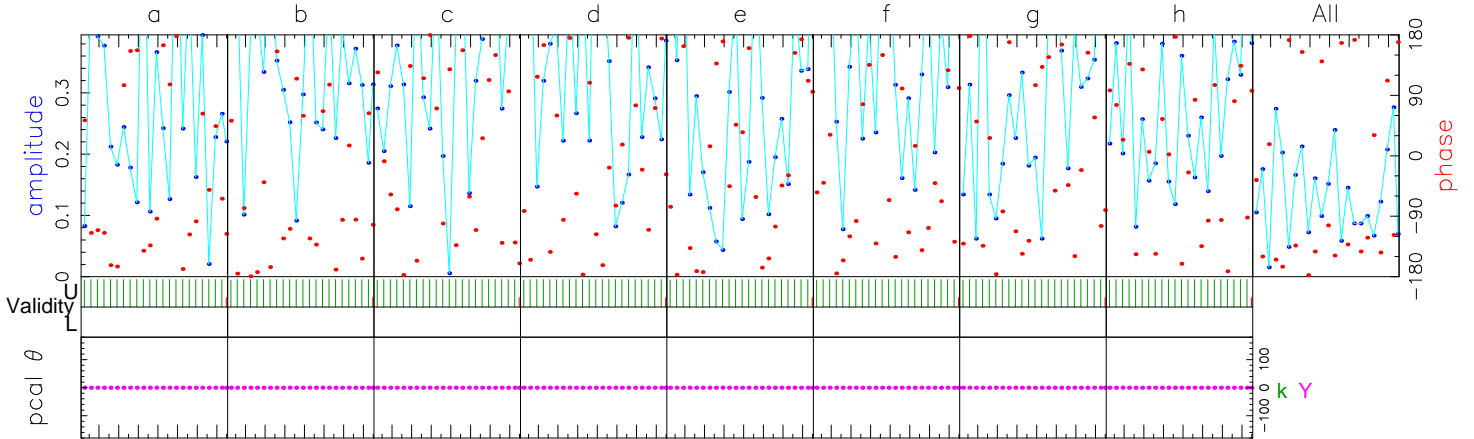
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kY
VLBA_KP - YEBES40M, fgroup W, pol RL



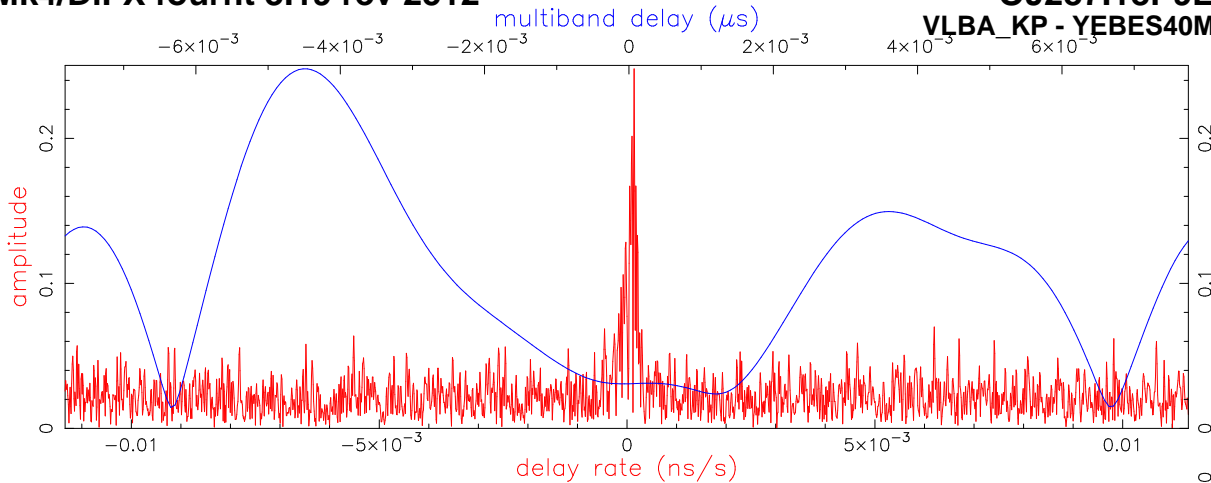
Fringe quality 0
SNR 5.7
Int time 434.207
Amp 0.132
Phase -154.5
PFD 9.7e-01
Delays (us)
SBD -0.655864
MBD -0.001753
Fringe rate (Hz)
-0.783114
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224505.12
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120828
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec



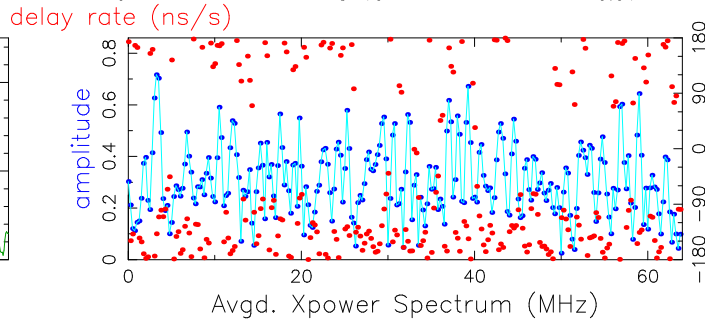
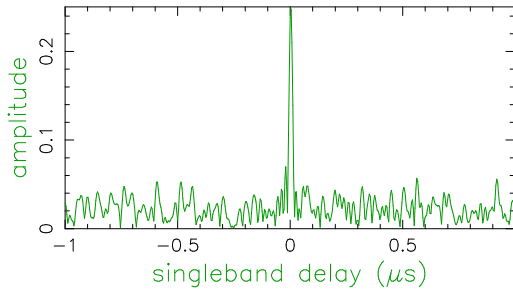
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.1	-160.3	177.7	-153.8	-162.6	-110.7	-139.9	130.5	Phase	-154.5
	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	226.2	106.1	80.1	166.3	486.7	130.9	462.4	324.3	Sbd box	89.1
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.07305185181E+03		Apriori delay (usec)		2.07370985485E+03		Resid mbdelay (usec)		-1.75304E-03	+/- 1.9E-04
Sband delay (usec)	2.07305399135E+03		Apriori clock (usec)		-1.2300716E+01		Resid sbdelay (usec)		-6.55864E-01	+/- 1.5E-03
Phase delay (usec)	2.07370984987E+03		Apriori clockrate (us/s)		-2.1460000E-07		Resid phdelay (usec)		-4.98286E-06	+/- 6.5E-07
Delay rate (us/s)	1.89497965096E+00		Apriori rate (us/s)		1.89498874214E+00		Resid rate (us/s)		-9.09118E-06	+/- 2.6E-09
Total phase (deg)	168.3		Apriori accel (us/s/s)		-1.57444711211E-05		Resid phase (deg)		-154.5	+/- 20.2

ph/seg (deg) 67.1 48.5 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.3 84.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.1 28.6 Inc. seg. avg. 0.135 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.8 49.9 Inc. frq. avg. 0.133 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 91.6 el 42.9 pa -64.5 Y: az 265.0 el 37.4 pa 53.7 u,v (fr/asec) -11574.865 -1389.581 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/KY..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kY.W.160.18P9EC



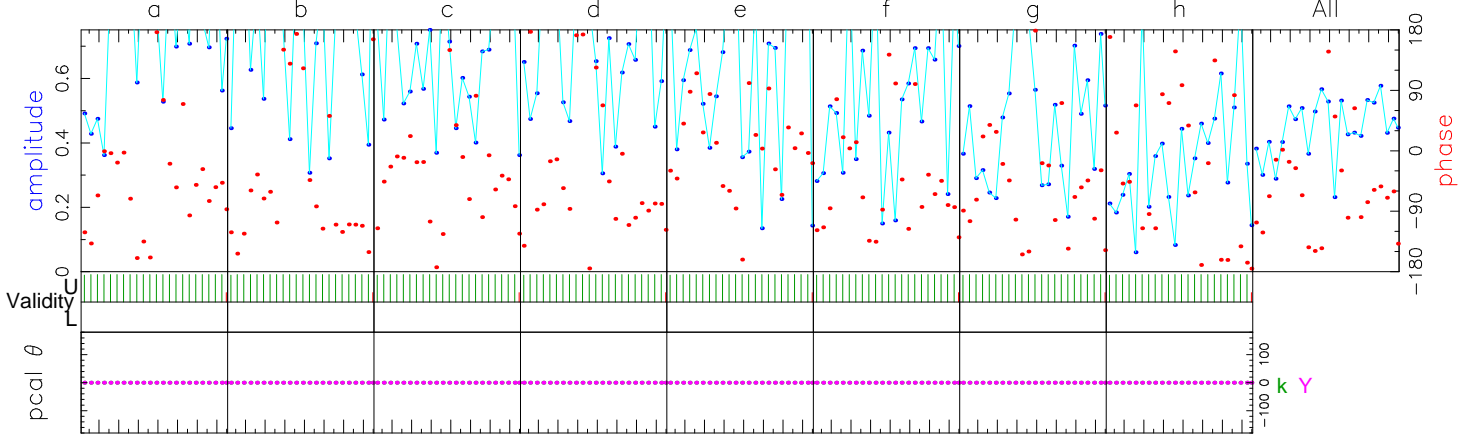
Fringe quality 7

SNR 14.3
Int time 434.207
Amp 0.250
Phase -71.6
PFD 2.1e-37
Delays (us)
SBD 0.002706
MBD -0.004516
Fringe rate (Hz)
0.012096
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224505.12
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120814
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec

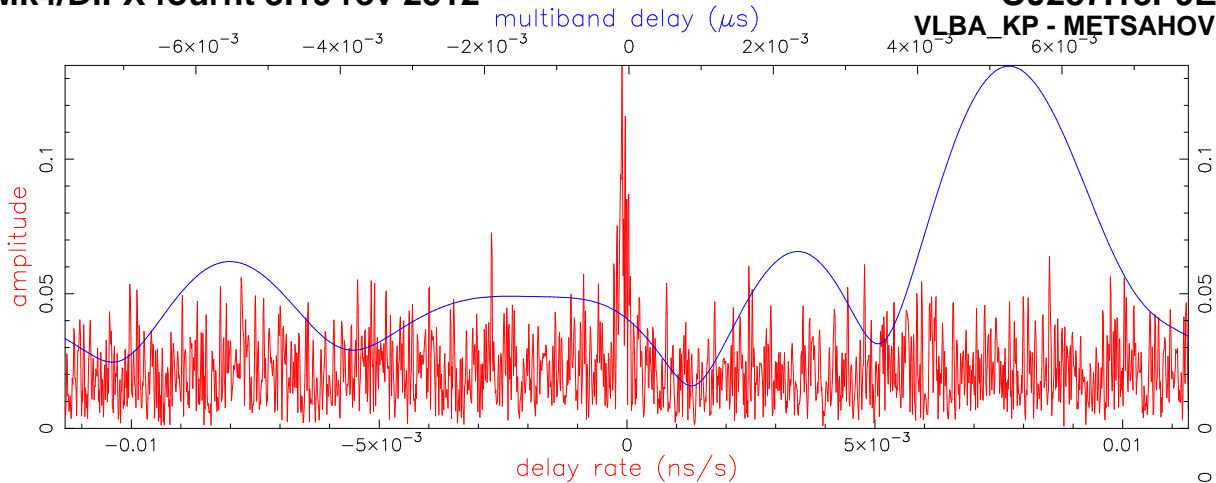


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-56.8	-117.8	-47.7	-94.8	7.9	-70.1	-80.3	-159.2	Phase	-71.6
	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.1	Ampl.	0.3
	257.5	257.4	257.3	256.8	257.4	257.4	257.0	254.0	Sbd box	257.7
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0	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)	2.07370533858E+03	Apriori delay (usec)	2.07370985485E+03	Resid mbdelay (usec)	-4.51627E-03	+/-	7.6E-05
Sband delay (usec)	2.07371256085E+03	Apriori clock (usec)	-1.2300716E+01	Resid sbdelay (usec)	2.70600E-03	+/-	6.0E-04
Phase delay (usec)	2.07370985254E+03	Apriori clockrate (us/s)	-2.1460000E-07	Resid phdelay (usec)	-2.30787E-06	+/-	2.6E-07
Delay rate (us/s)	1.89498888256E+00	Apriori rate (us/s)	1.89498874214E+00	Resid rate (us/s)	1.40417E-07	+/-	1.0E-09
Total phase (deg)	251.2	Apriori accel (us/s/s)	-1.57444711211E-05	Resid phase (deg)	-71.6	+/-	8.0

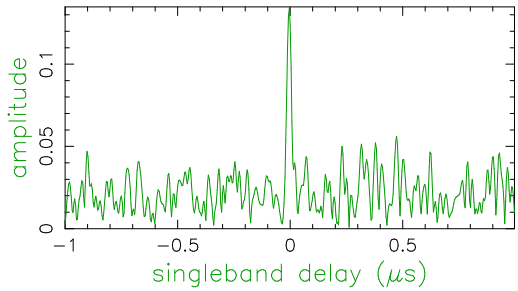
ph/seg (deg)	64.5	RMS	Theor.	Amplitude	0.250 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	86.1	64.5	19.3	Search (2048X32)	0.237	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	54.1	86.1	33.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	53.3	54.1	11.4	Inc. seg. avg.	0.423	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
		53.3	19.8	Inc. frq. avg.	0.319	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

k: az 91.6 el 42.9 pa -64.5 Y: az 265.0 el 37.4 pa 53.7 u,v (fr/asec) -11574.865 -1389.581 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/KY..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kY.W.98.18P9EC

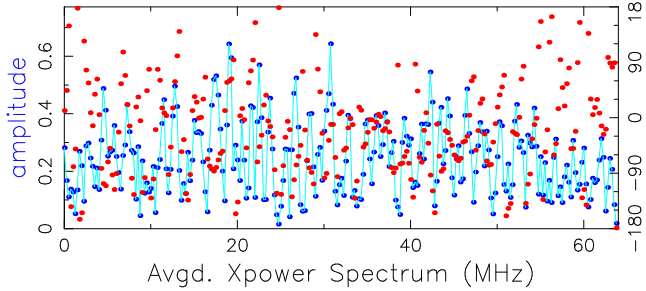


Fringe quality 9

SNR 7.7
 Int time 439.247
 Amp 0.135
 Phase -142.0
 PFD 3.6e-06
 Delays (us)
 SBD -0.004544
 MBD 0.005267
 Fringe rate (Hz)
 -0.008991
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

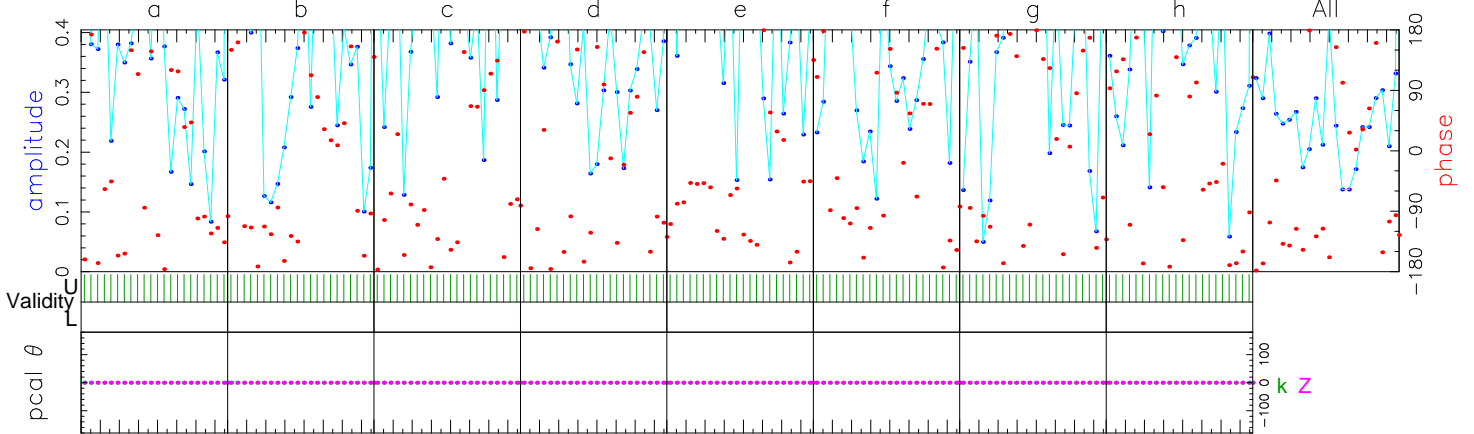


delay rate (ns/s)



Exp. c201a
 Exper # 16383
 Yr:day 2020:115
 Start 224500.00
 Stop 225219.80
 FRT 224840.00
 Corr/FF/build
 2020:195:224837
 2020:197:120815
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
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)	7.75099352478E+03	Apriori delay (usec)	7.75100388308E+03	Resid mbdelay (usec)	5.26670E-03	+/-	1.4E-04
Sband delay (usec)	7.75099933908E+03	Apriori clock (usec)	-2.2518367E-01	Resid sbdelay (usec)	-4.54400E-03	+/-	1.1E-03
Phase delay (usec)	7.75100387850E+03	Apriori clockrate (us/s)	-1.0600001E-08	Resid phdelay (usec)	-4.57772E-06	+/-	4.8E-07
Delay rate (us/s)	1.67280596164E+00	Apriori rate (us/s)	1.67280606602E+00	Resid rate (us/s)	-1.04373E-07	+/-	1.9E-09
Total phase (deg)	33.9	Apriori accel (us/s/s)	-5.43114730096E-05	Resid phase (deg)	-142.0	+/-	14.8

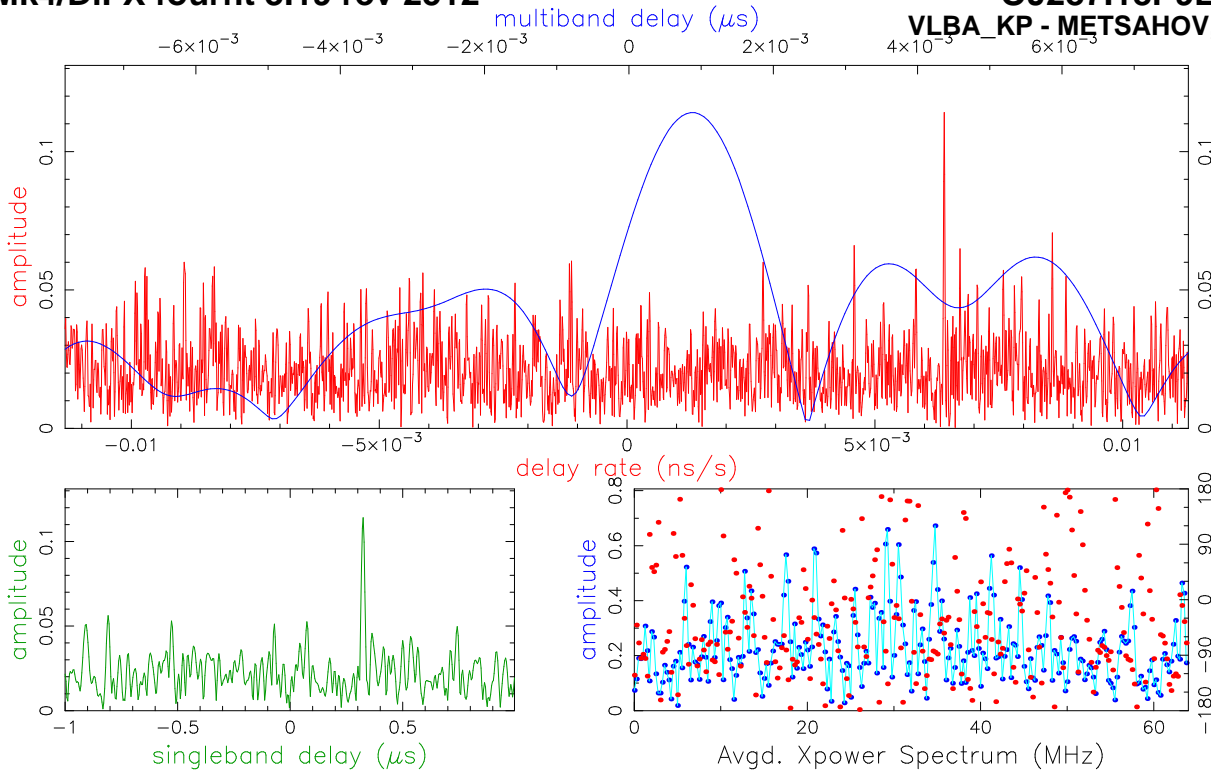
ph/seg (deg)	80.9	Theor.	35.6	Amplitude	0.135 +/- 0.017	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	108.6	Search (2048X32)	0.125	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.125	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.7	Interp.	0.000	Bits/sample: 2x2	0.125	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	51.3	Inc. seg. avg.	0.217	Sample rate(MISamp/s): 128	0.125	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.151	Data rate(Mb/s): 2048	0.125	ion window (TEC)	0.00 0.00	

k: az 91.6 el 42.9 pa -64.5 Z: az 275.9 el 19.8 pa 31.7 u,v (fr/asec) -10281.915 -4320.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kZ..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kZ.W.104.18P9EC

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.18P9EC, No0027, kZ
VLBA_KP - METSAHOV, fgroup W, pol RR

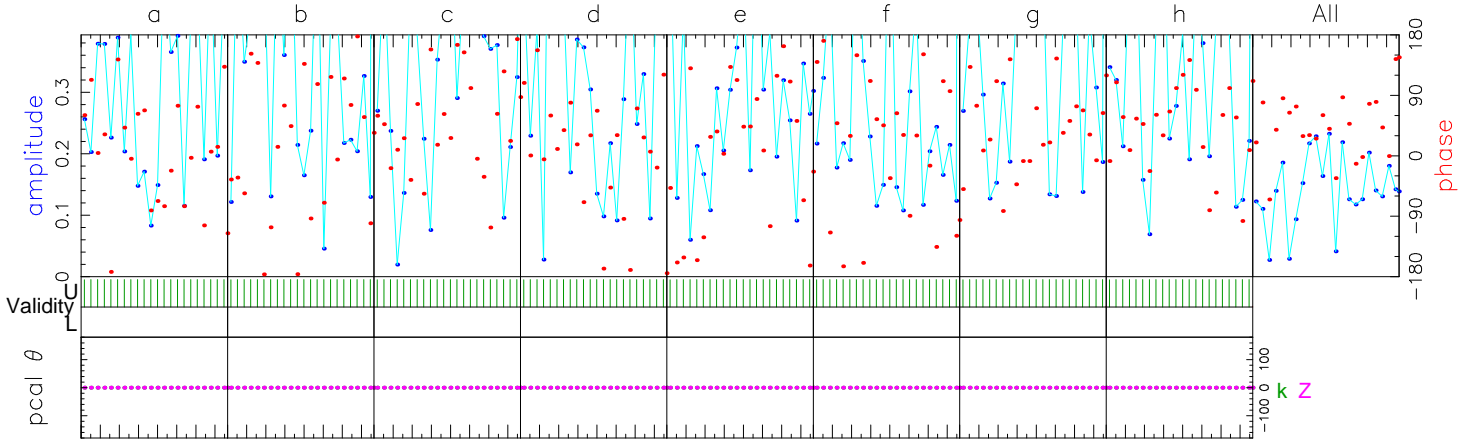


Fringe quality 0

SNR 6.6
Int time 439.247
Amp 0.131
Phase 47.6
PFD 1.5e-02
Delays (us)
SBD 0.323417
MBD 0.000865
Fringe rate (Hz)
0.552262
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201a
Exper # 16383
Yr:day 2020:115
Start 224500.00
Stop 225219.80
FRT 224840.00
Corr/FF/build
2020:195:224837
2020:197:120820
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

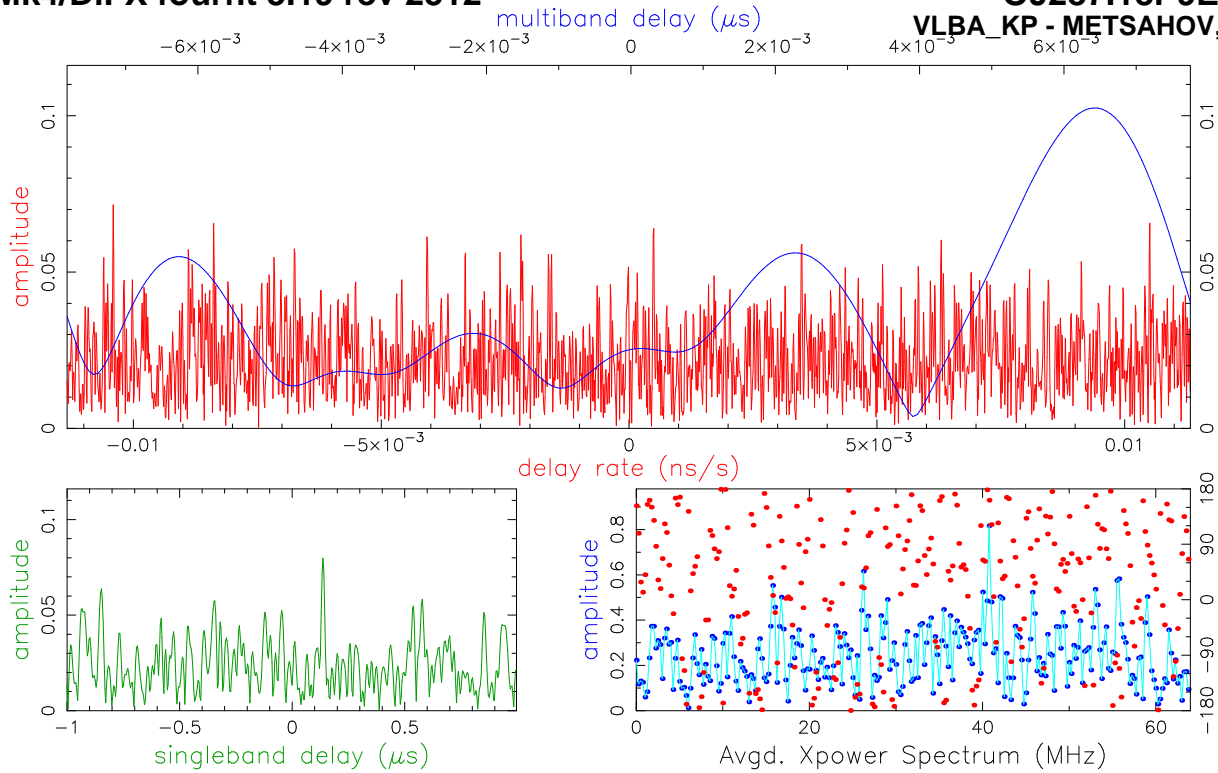


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		7.75133287300E+03				7.75100388308E+03			8.64923E-04	+/- 1.7E-04
Sband delay (usec)		7.75132729983E+03				-2.2518367E-01			3.23417E-01	+/- 1.3E-03
Phase delay (usec)		7.75100388461E+03				-1.0600001E-08			1.53498E-06	+/- 5.6E-07
Delay rate (us/s)		1.67281247723E+00				1.67280606602E+00			6.41121E-06	+/- 2.2E-09
Total phase (deg)			223.4						47.6	+/- 17.5
ph/seg (deg)	45.8	41.9		0.131 +/- 0.020						
amp/seg (%)	56.5	73.0		0.000						
ph/frq (deg)	47.9	24.7		0.128						
amp/frq (%)	57.3	43.1		0.129						

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

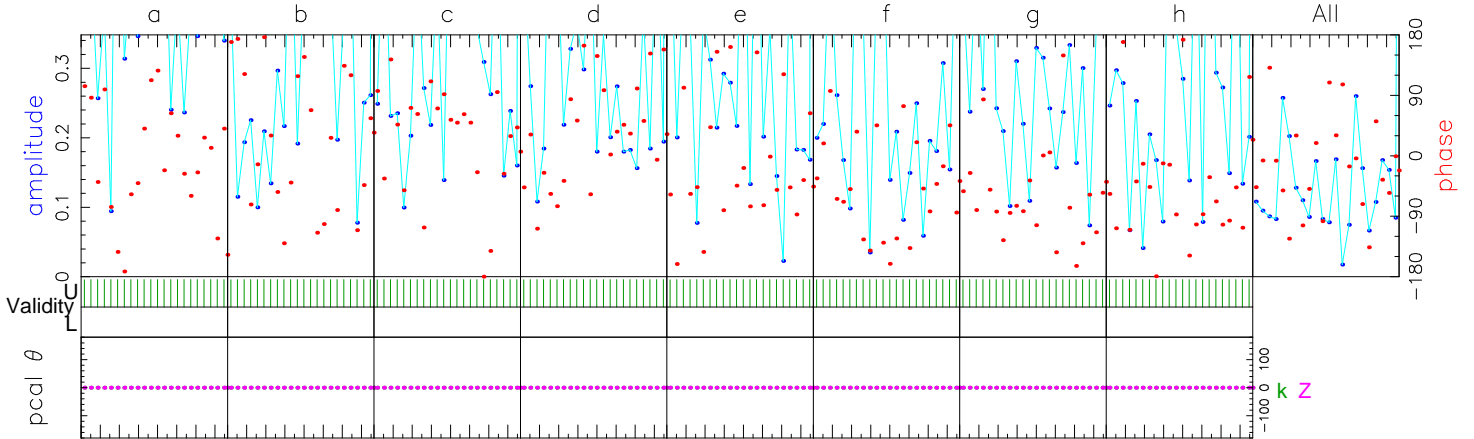
k: az 91.6 el 42.9 pa -64.5 Z: az 275.9 el 19.8 pa 31.7 u,v (fr/asec) -10281.915 -4320.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kZ..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kZ.W.126.18P9EC



Fringe quality 0
 SNR 4.6
 Int time 439.247
 Amp 0.116
 Phase -28.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.136719
 MBD -0.008301
 Fringe rate (Hz)
 -0.897643
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c201a
 Exper # 16383
 Yr:day 2020:115
 Start 224500.00
 Stop 225219.80
 FRT 224840.00
 Corr/FF/build
 2020:195:224837
 2020:197:120825
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

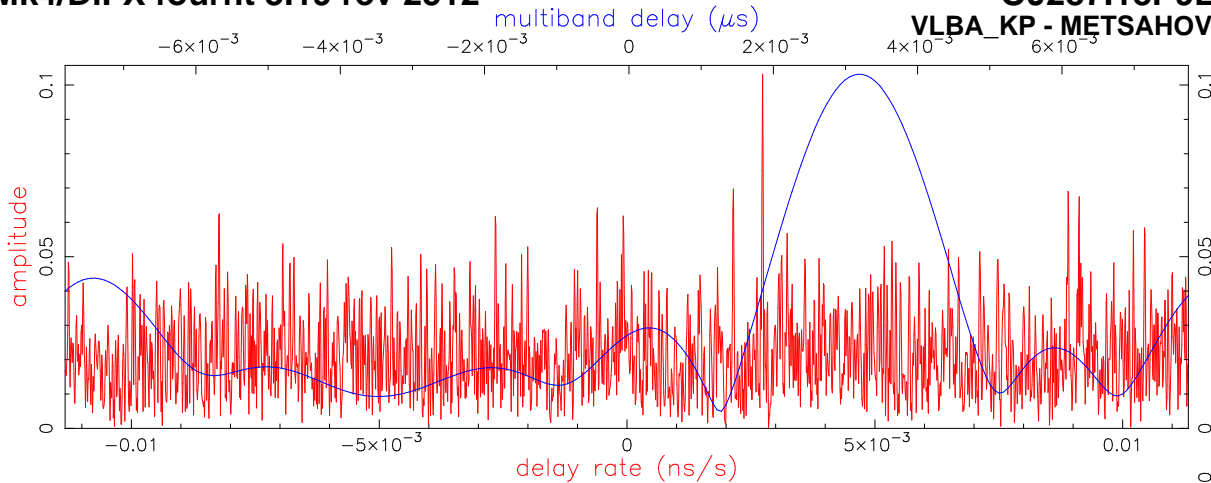
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



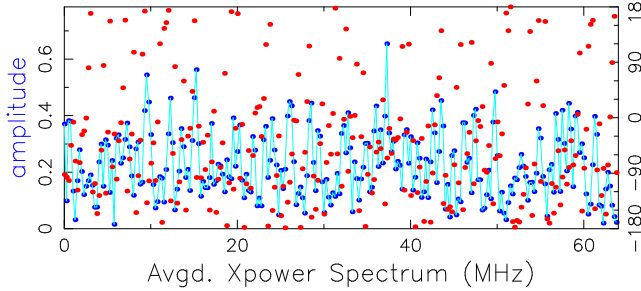
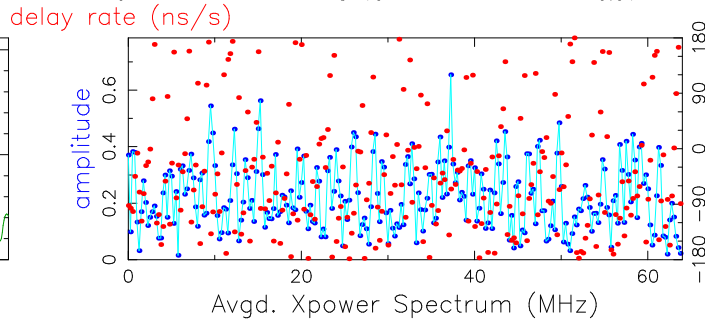
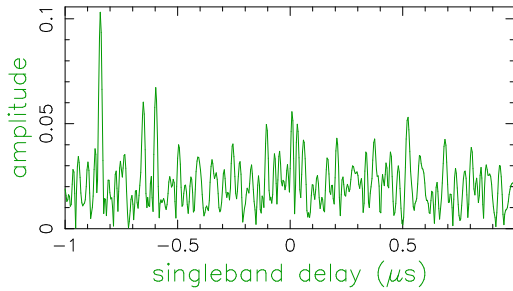
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	14.9	159.2	56.6	3.9	-55.2	-42.9	-72.7	-72.0	Phase	-28.5
	0.1	0.0	0.3	0.2	0.1	0.1	0.3	0.2	Ampl.	0.1
	329.4	153.1	291.1	490.2	141.4	212.1	291.6	292.0	Sbd box	292.0
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.75113620730E+03		Apriori delay (usec)		7.75100388308E+03		Resid mbdelay (usec)		-8.30078E-03	+/- 2.4E-04
Sband delay (usec)	7.75114060183E+03		Apriori clock (usec)		-2.2518367E-01		Resid sbdelay (usec)		1.36719E-01	+/- 1.9E-03
Phase delay (usec)	7.75100388216E+03		Apriori clockrate (us/s)		-1.0600001E-08		Resid phdelay (usec)		-9.19583E-07	+/- 8.1E-07
Delay rate (us/s)	1.67279564527E+00		Apriori rate (us/s)		1.67280606602E+00		Resid rate (us/s)		-1.04207E-05	+/- 3.2E-09
Total phase (deg)	147.3		Apriori accel (us/s/s)		-5.43114730096E-05		Resid phase (deg)		-28.5	+/- 25.1

	RMS	Theor.	Amplitude	0.116 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	72.4	60.1	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	105.1	104.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	86.2	35.5	Inc. seg. avg.	0.118	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	84.7	61.9	Inc. frq. avg.	0.142	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

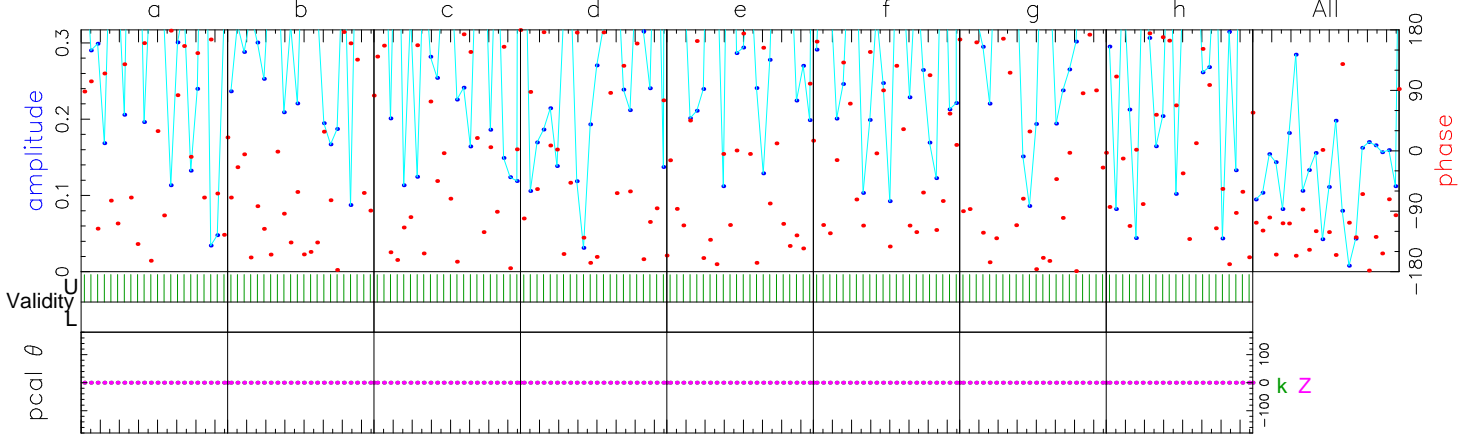
k: az 91.6 el 42.9 pa -64.5 Z: az 275.9 el 19.8 pa 31.7 u,v (fr/asec) -10281.915 -4320.224 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kZ..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kZ.W.149.18P9EC



Fringe quality 0
 SNR 5.9
 Int time 439.247
 Amp 0.106
 Phase -126.0
 PFD 5.7e-01
 Delays (us)
 SBD -0.843527
 MBD 0.003202
 Fringe rate (Hz) 0.235705
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201a
 Exper # 16383
 Yr:day 2020:115
 Start 224500.00
 Stop 225219.80
 FRT 224840.00
 Corr/FF/build
 2020:195:224837
 2020:197:120829
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	-127.2	-118.5	-145.1	-129.5	-111.9	-97.6	-151.5	-115.1	Phase	-126.0
	0.1	0.2	0.1	0.1	0.2	0.0	0.1	0.1	Ampl.	0.1
	238.8	66.2	390.4	89.0	27.3	35.7	365.1	423.7	Sbd box	41.1
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	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	

Group delay (usec)(sbd)	7.75016333493E+03	Apriori delay (usec)	7.75100388308E+03	Resid mbdelay (usec)	3.20185E-03	+/-	1.8E-04
Sband delay (usec)	7.75016035583E+03	Apriori clock (usec)	-2.2518367E-01	Resid sbdelay (usec)	-8.43527E-01	+/-	1.5E-03
Phase delay (usec)	7.75100387901E+03	Apriori clockrate (us/s)	-1.0600001E-08	Resid phdelay (usec)	-4.06453E-06	+/-	6.2E-07
Delay rate (us/s)	1.67280880231E+00	Apriori rate (us/s)	1.67280606602E+00	Resid rate (us/s)	2.73630E-06	+/-	2.5E-09
Total phase (deg)	49.8	Apriori accel (us/s/s)	-5.43114730096E-05	Resid phase (deg)	-126.0	+/-	19.4

ph/seg (deg)	45.4	Theor.	46.5	Amplitude	0.106 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	63.7	Search (2048X32)	0.100	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	19.2	Inc. seg. avg.	0.100	Inc. frq. avg.	0.098	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	33.3	Inc. frq. avg.	0.098			Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00	
						nlags: 256	t_cohere infinite	

k: az 91.6 el 42.9 pa -64.5 Z: az 275.9 el 19.8 pa 31.7 u,v (fr/asec) -10281.915 -4320.224 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201a/v1/1234/No0027/kZ..18P9EC Output file: /Exps/c201a/v1/1234/No0027/kZ.W.161.18P9EC