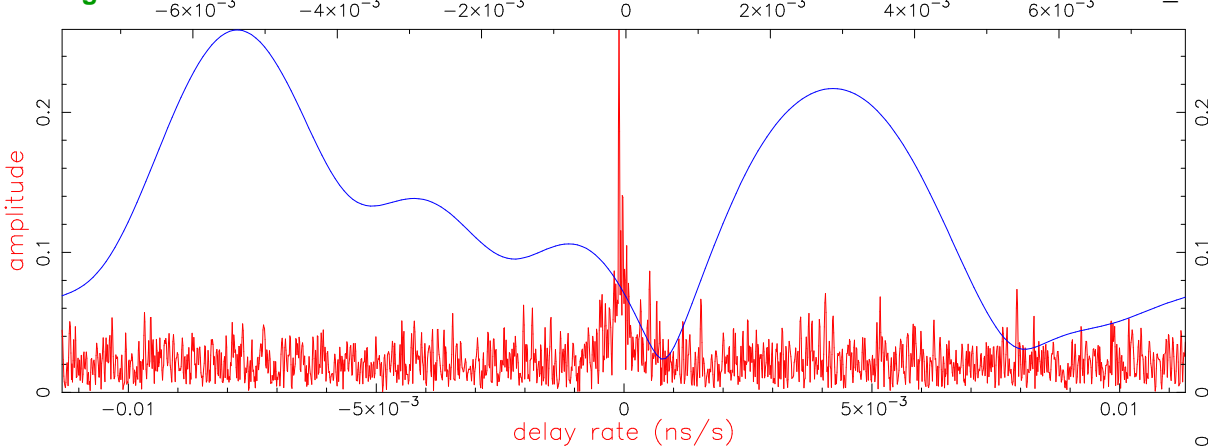
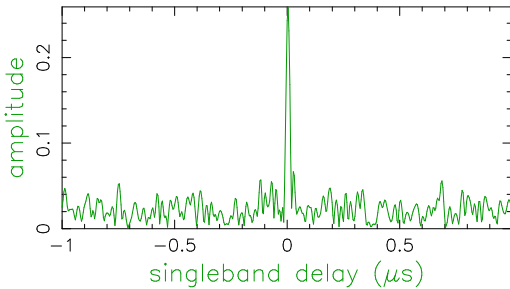


multiband delay ( $\mu$ s)

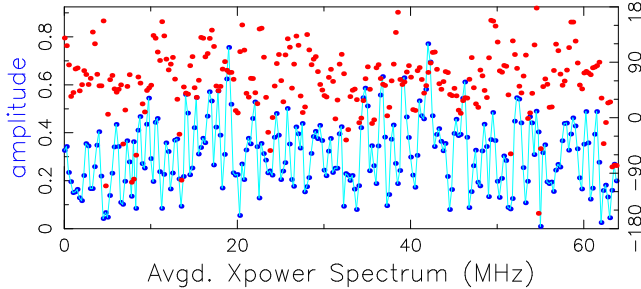
Fringe quality 7



SNR 14.5  
Int time 419.804  
Amp 0.259  
Phase 168.4  
PFD 5.3e-39  
Delays (us)  
SBD 0.003369  
MBD -0.005398  
Fringe rate (Hz)  
-0.008202  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

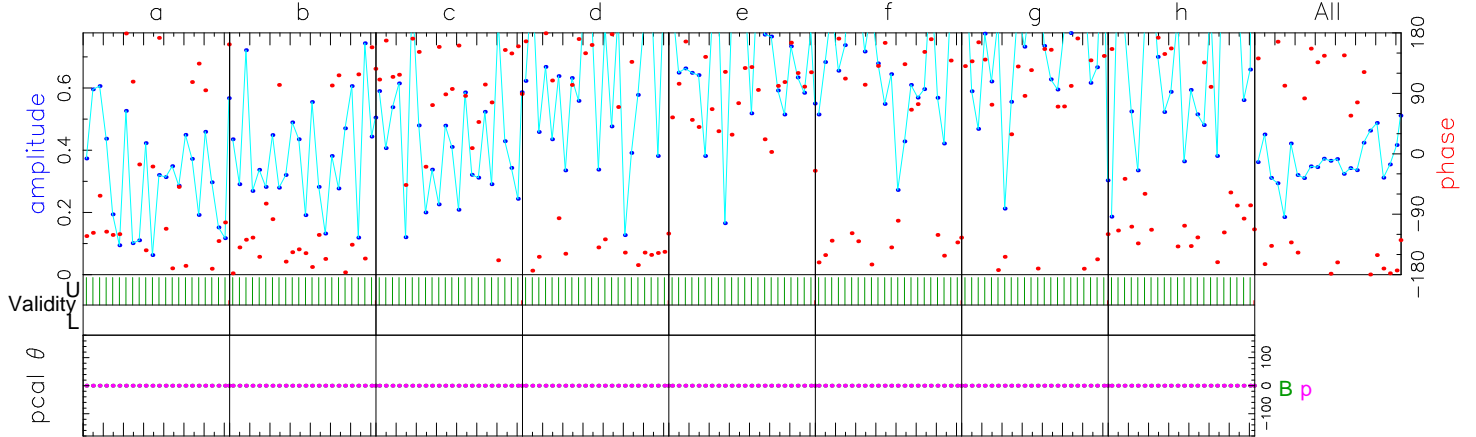


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125138  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	-156.7	125.4	-174.5	84.5	-175.1	140.1	-117.9		168.4
	0.2	0.3	0.3	0.5	0.5	0.4	0.6	0.4		0.4
	223.9	257.3	257.3	258.5	259.0	258.8	258.8	259.7		257.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	0	0	0	0	0	0	0	0		
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC freqs
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
B	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC
p	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	6.40172882666E+03		Apriori delay (usec)		6.40171859928E+03		Resid mbdelay (usec)		-5.39762E-03	+/- 7.5E-05
Sband delay (usec)	6.40172196878E+03		Apriori clock (usec)		-2.7599846E+01		Resid sbdelay (usec)		3.36950E-03	+/- 5.9E-04
Phase delay (usec)	6.40171860471E+03		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		5.43112E-06	+/- 2.5E-07
Delay rate (us/s)	-1.18944608759E+00		Apriori rate (us/s)		-1.18944599237E+00		Resid rate (us/s)		-9.52216E-08	+/- 1.0E-09
Total phase (deg)	219.4		Apriori accel (us/s/s)		-1.59173946873E-05		Resid phase (deg)		168.4	+/- 7.9

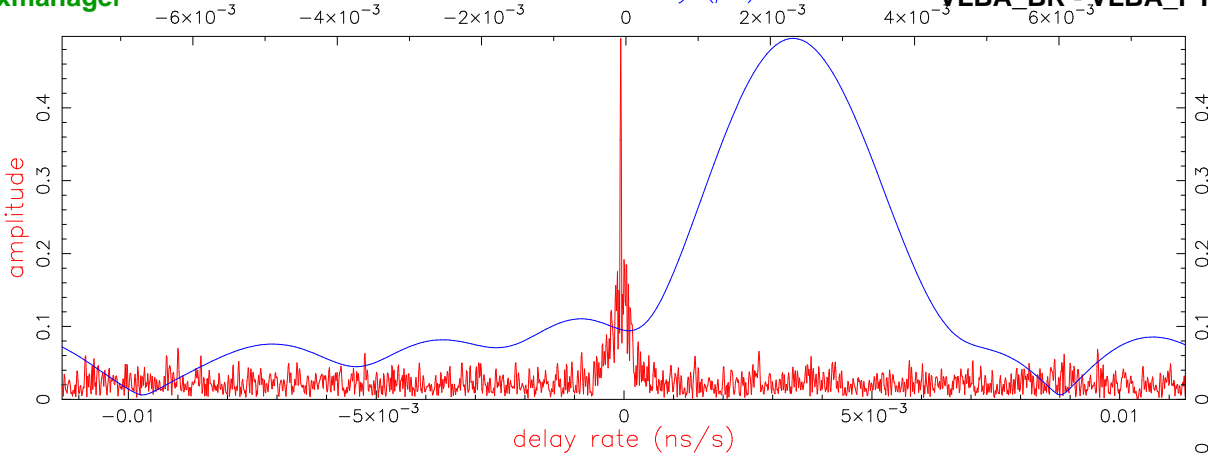
	RMS	Theor.	Amplitude	0.259 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.3	18.9	Search (2048X32)	0.246	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	46.9	33.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	56.4	11.2	Inc. seg. avg.	0.343	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	66.8	19.5	Inc. frq. avg.	0.378	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 287.4 el 64.1 pa 74.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10800.031 -483.917 simultaneous interpolator

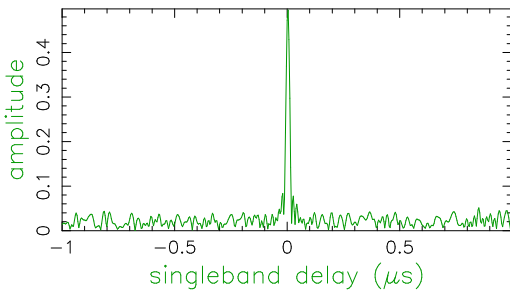
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Bp.W.17.1X0YRU

multiband delay ( $\mu$ s)

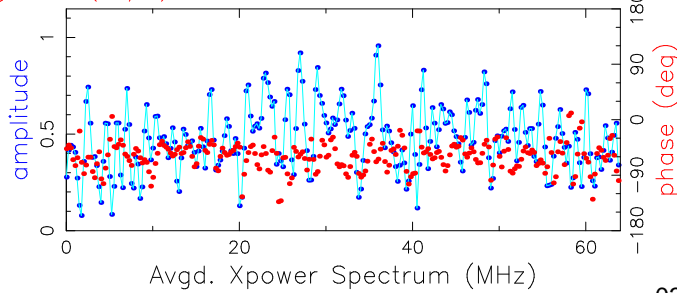
Fringe quality 8



SNR 27.9  
Int time 419.816  
Amp 0.498  
Phase -52.1  
PFD 0.0e+00  
Delays (us)  
SBD 0.002928  
MBD 0.002279  
Fringe rate (Hz)  
-0.005650  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

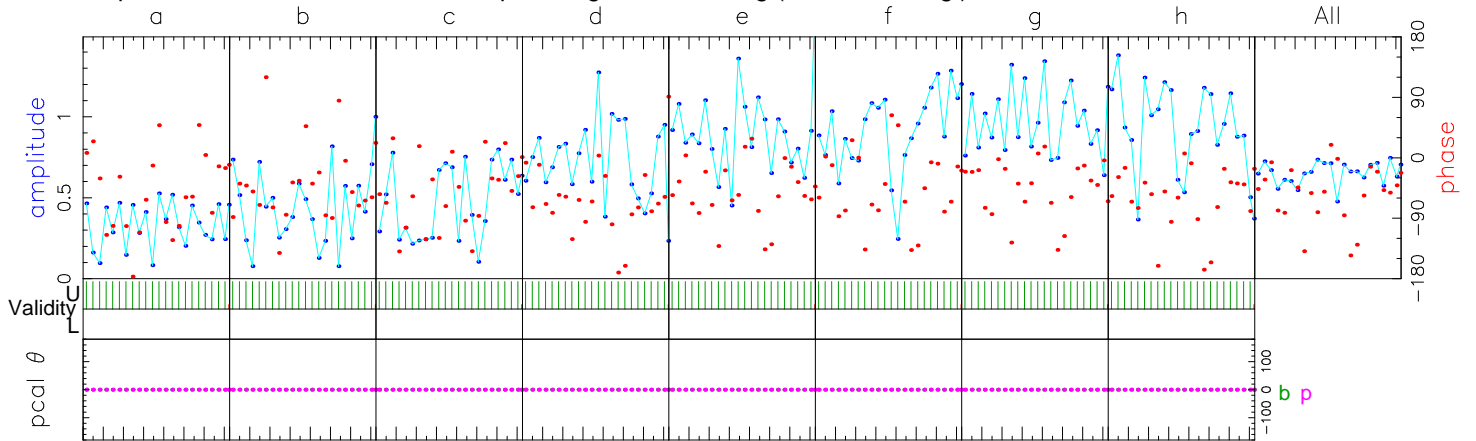


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125138  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-54.8	-55.8	-45.3	-69.5	-47.4	-48.1	-41.8	-59.0	Phase	-52.1
	0.2	0.3	0.3	0.5	0.7	0.6	0.7	0.7	Ampl.	0.5
	258.2	257.8	257.8	257.8	257.8	257.7	257.4	257.6	Sbd box	257.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	5.77395466800E+02	Apriori delay (usec)	5.77393187857E+02	Resid mbdelay (usec)	2.27894E-03	+/-	3.9E-05
Sband delay (usec)	5.77396115607E+02	Apriori clock (usec)	-8.5213070E+00	Resid sbdelay (usec)	2.92775E-03	+/-	3.1E-04
Phase delay (usec)	5.77393186176E+02	Apriori clockrate (us/s)	2.0000000E-08	Resid phdelay (usec)	-1.68157E-06	+/-	1.3E-07
Delay rate (us/s)	-1.21283214721E-01	Apriori rate (us/s)	-1.21283149132E-01	Resid rate (us/s)	-6.55898E-08	+/-	5.5E-10
Total phase (deg)	20.6	Apriori accel (us/s/s)	1.27609911808E-05	Resid phase (deg)	-52.1	+/-	4.1

ph/seg (deg)	42.4	RMS	9.8	Theor.	4.98 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	33.8	Search (2048X32)	0.491	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008		
ph/frq (deg)	9.7	Inc. seg. avg.	0.643	Inc. frq. avg.	0.499	Bits/sample:	2x2	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	39.2	Inc. frq. avg.	0.499			Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

b: az 52.6 el 37.9 pa -57.6 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 1122.454 2237.353 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/bp.W.19.1X0YRU

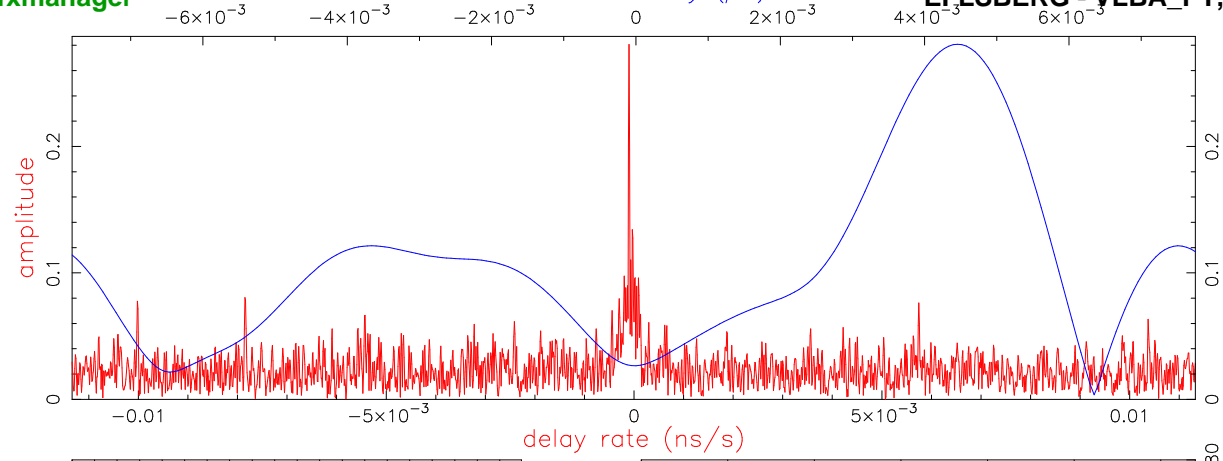
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Bp

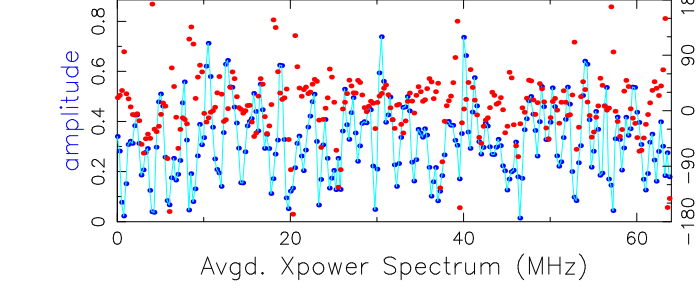
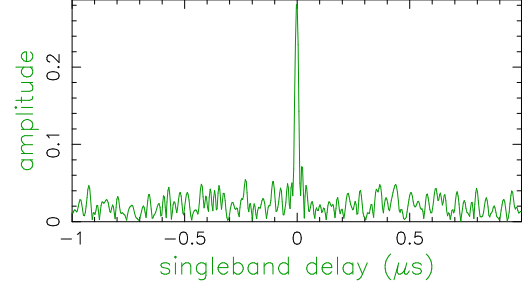
EFLSBERG - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)



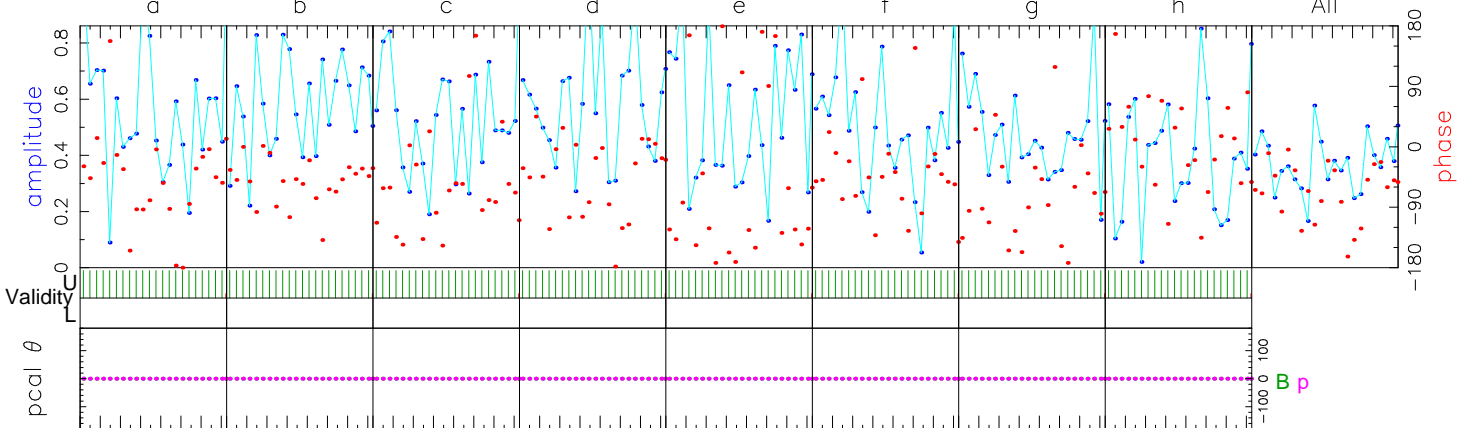
Fringe quality 8

SNR 16.1  
 Int time 419.804  
 Amp 0.287  
 Phase -63.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001991  
 MBD 0.004500  
 Fringe rate (Hz)  
 -0.008130  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125142  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



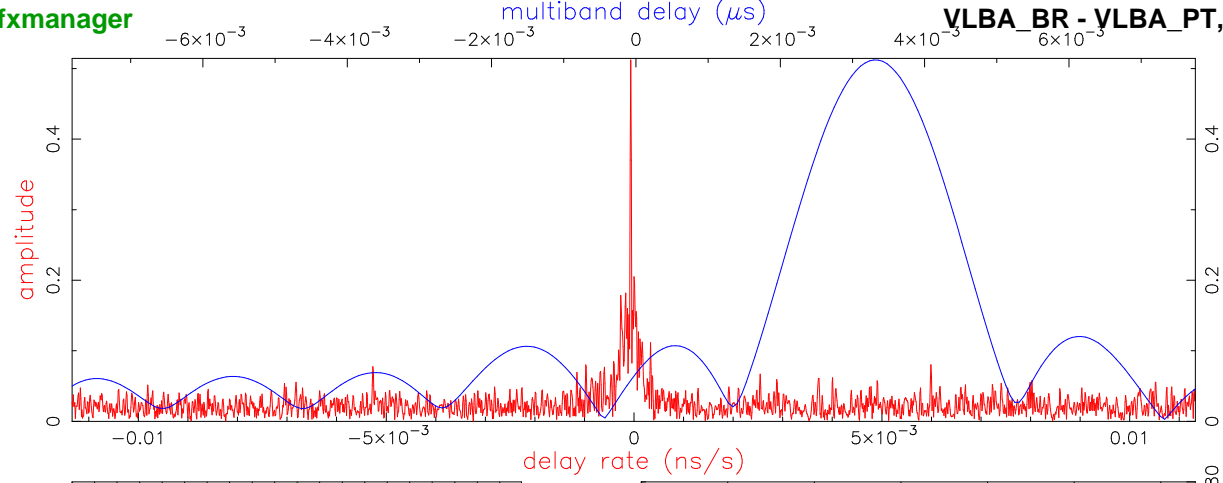
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-49.2	-53.3	-82.6	-41.0	-136.4	-49.4	-81.2	-0.8	Phase	-63.6
	0.4	0.5	0.3	0.4	0.4	0.4	0.2	0.2	Ampl.	0.3
	256.9	256.4	257.0	257.0	256.9	256.7	257.4	258.5	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	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)	6.40172309928E+03		Apriori delay (usec)		6.40171859928E+03		Resid mbdelay (usec)		4.50001E-03	+/- 6.7E-05
Sband delay (usec)	6.40171660803E+03		Apriori clock (usec)		-2.7599846E+01		Resid sbdelay (usec)		-1.99125E-03	+/- 5.4E-04
Phase delay (usec)	6.40171859723E+03		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-2.04979E-06	+/- 2.3E-07
Delay rate (us/s)	-1.18944608675E+00		Apriori rate (us/s)		-1.18944599237E+00		Resid rate (us/s)		-9.43806E-08	+/- 9.5E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.59173946873E-05		Resid phase (deg)		-63.6	+/- 7.1

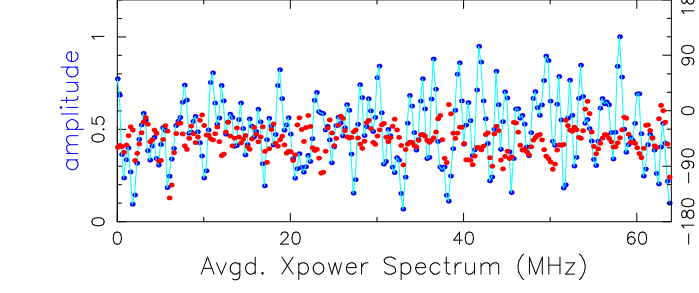
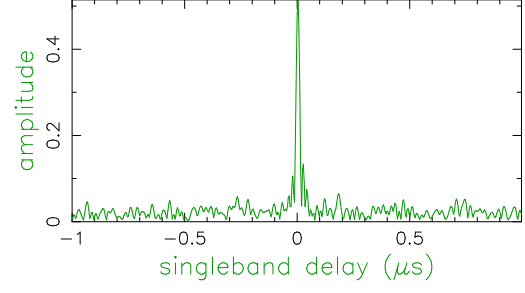
ph/seg (deg) 43.0 17.1 Search (2048X32) 0.259 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 43.6 29.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 42.7 10.1 Inc. seg. avg. 0.354 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.0 17.6 Inc. frq. avg. 0.332 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 B: az 287.4 el 64.1 pa 74.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10800.031 -483.917 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Bp.W.35.1X0YRU



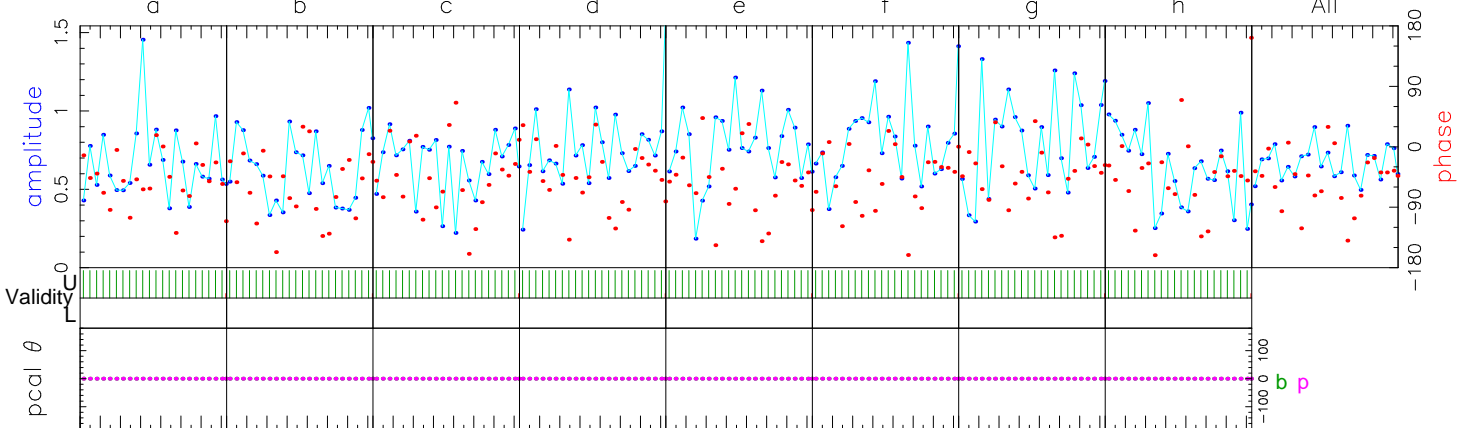
Fringe quality 8

SNR 28.8  
Int time 419.816  
Amp 0.514  
Phase -48.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.003121  
MBD 0.003304  
Fringe rate (Hz)  
-0.005652  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125143  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-48.0	-55.5	-45.1	-45.6	-54.0	-50.6	-43.4	-49.1	Phase	-48.8
	0.6	0.4	0.5	0.5	0.5	0.5	0.6	0.5	Ampl.	0.5
	257.6	257.5	258.0	257.8	257.9	257.8	257.7	257.8	Sbd box	257.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	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)	5.77396491362E+02		Apriori delay (usec)		5.77393187857E+02		Resid mbdelay (usec)		3.30350E-03	+/- 3.8E-05
Sband delay (usec)	5.77396309107E+02		Apriori clock (usec)		-8.5213070E+00		Resid sbdelay (usec)		3.12125E-03	+/- 3.0E-04
Phase delay (usec)	5.77393186285E+02		Apriori clockrate (us/s)		2.0000000E-08		Resid phdelay (usec)		-1.57234E-06	+/- 1.3E-07
Delay rate (us/s)	-1.21283214746E-01		Apriori rate (us/s)		-1.21283149132E-01		Resid rate (us/s)		-6.56146E-08	+/- 5.3E-10
Total phase (deg)	24.0		Apriori accel (us/s/s)		1.27609911808E-05		Resid phase (deg)		-48.8	+/- 4.0

ph/seg (deg) 41.4 9.5      Amplitude 0.514 +/- 0.018      Pcal mode: MANUAL, MANUAL      PC period (AP's) 5, 5  
amp/seg (%) 38.1 16.6      Search (2048X32) 0.509      Pcal rate: 0.000E+00, 0.000E+00 (us/s)      sb window (us) -1.000 1.000  
ph/frq (deg) 4.6 5.6      Interp. 0.000      Bits/sample: 2x2      SampCntNorm: enabled      mb window (us) -0.008 0.008  
amp/frq (%) 9.2 9.8      Inc. seg. avg. 0.669      Sample rate(MISamp/s): 128      dr window (ns/s) -0.011 0.011  
b: az 52.6 el 37.9 pa -57.6      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) 1122.454 2237.353      nlags: 256      t\_cohere infinite      ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0085/bp..1X0YRU      Output file: /Exps/c211c/v1/1234/No0085/bp.W.41.1X0YRU      simultaneous interpolator

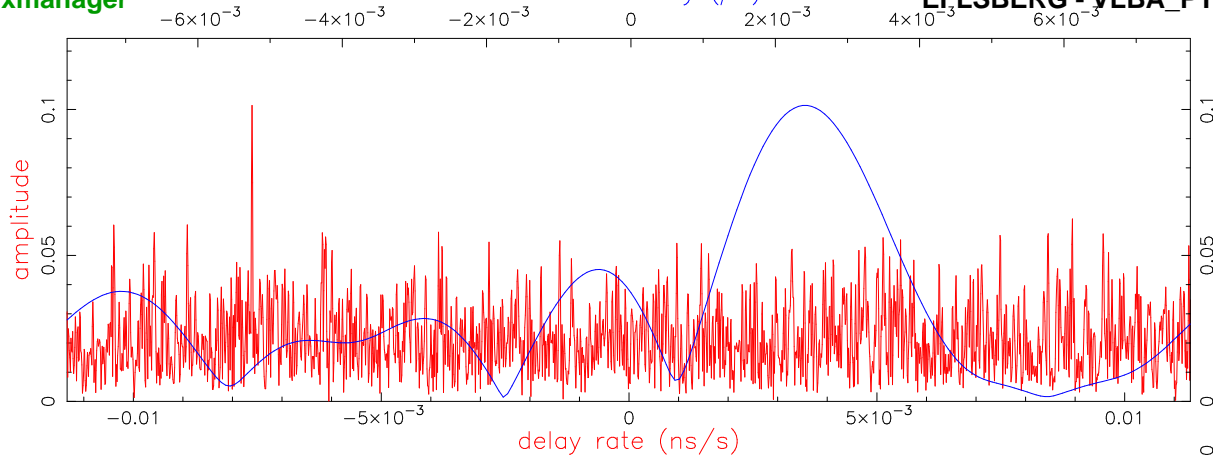
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Bp

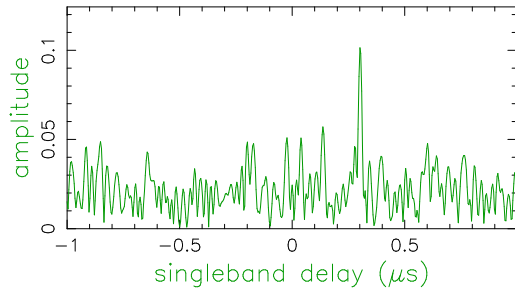
EFLSBERG - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

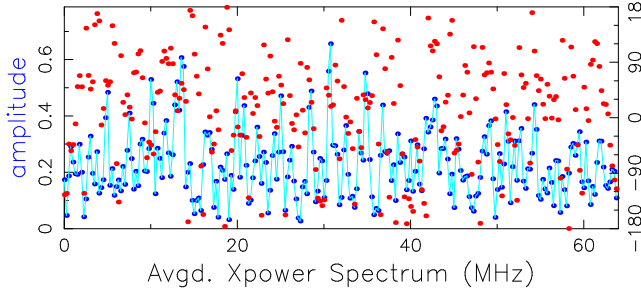


Fringe quality 0

SNR 5.7  
 Int time 419.804  
 Amp 0.124  
 Phase -112.6  
 PFD 9.0e-01  
 Delays (us)  
 SBD 0.302102  
 MBD 0.002449  
 Fringe rate (Hz)  
 -0.656225  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

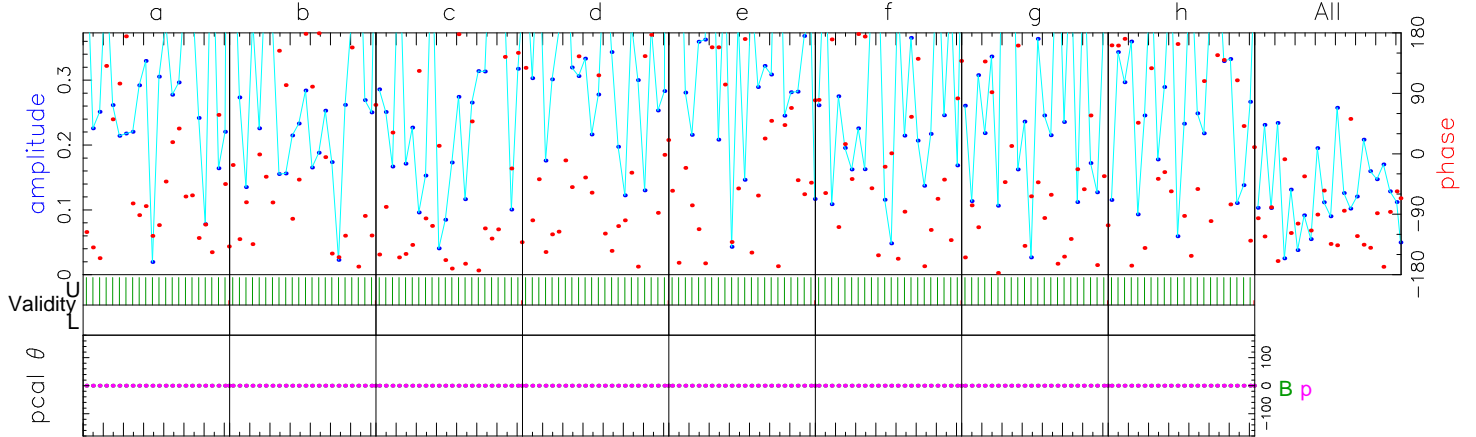


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125147  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



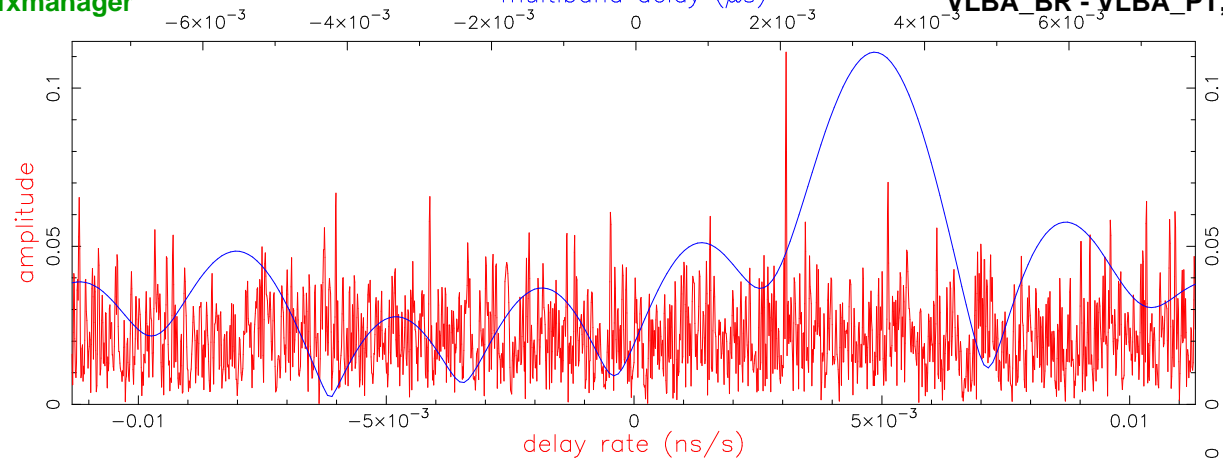
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-98.7	-108.9	-144.7	-92.6	-111.2	-102.2	-81.5	-155.2	Phase	-112.6
	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	498.9	1.4	334.9	506.6	201.5	317.1	144.8	4.5	Sbd box	334.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.40201792322E+03		Apriori delay (usec)		6.40171859928E+03		Resid mbdelay (usec)		2.44894E-03	+/- 1.9E-04
Sband delay (usec)	6.40202070103E+03		Apriori clock (usec)		-2.7599846E+01		Resid sbdelay (usec)		3.02102E-01	+/- 1.5E-03
Phase delay (usec)	6.40171859564E+03		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		-3.63054E-06	+/- 6.4E-07
Delay rate (us/s)	-1.18945361049E+00		Apriori rate (us/s)		-1.18944599237E+00		Resid rate (us/s)		-7.61812E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.59173946873E-05		Resid phase (deg)		-112.6	+/- 20.0

	RMS	Theor.	Amplitude	0.124 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	53.2	47.8	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	66.6	83.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	27.5	28.2	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	24.4	49.2	Inc. frq. avg.	0.120	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 287.4 el 64.1 pa 74.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10800.031 -483.917 simultaneous interpolator

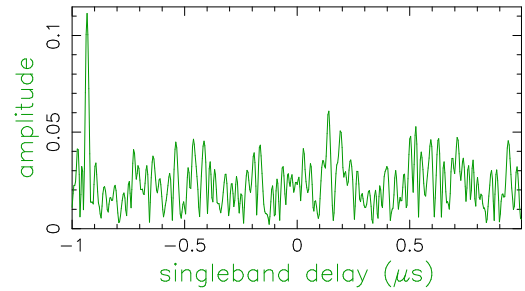
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Bp.W.61.1X0YRU

multiband delay ( $\mu$ s)

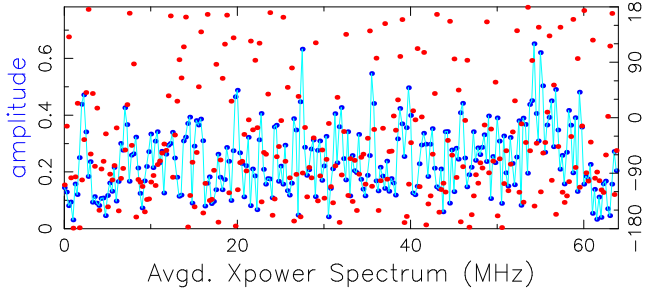


Fringe quality 0

SNR 6.2  
Int time 419.816  
Amp 0.115  
Phase -93.6  
PFD 1.1e-01  
Delays (us)  
SBD -0.933640  
MBD 0.003305  
Fringe rate (Hz)  
0.264128  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

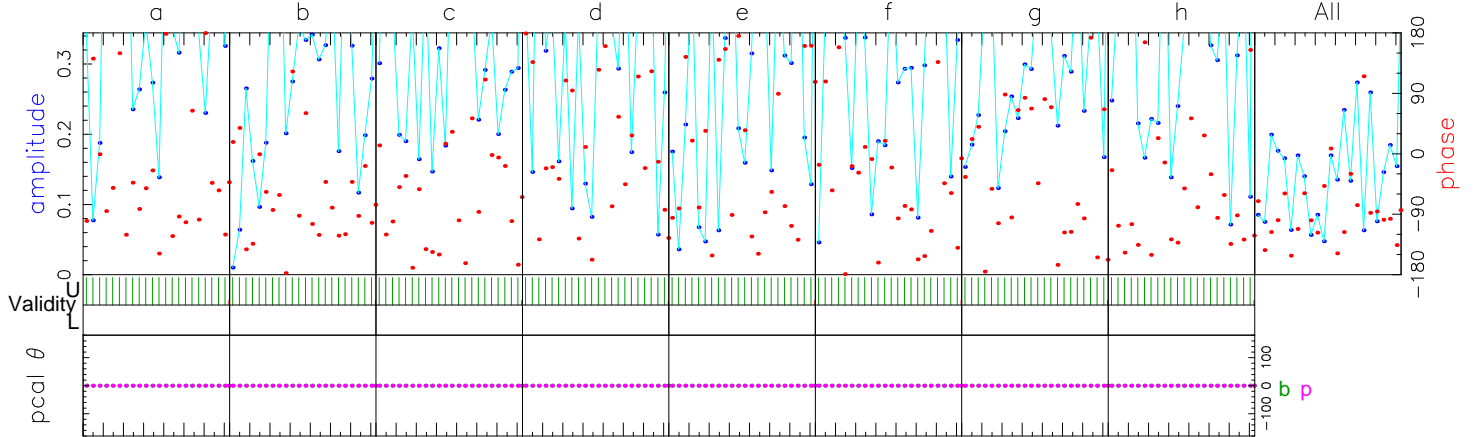


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125147  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-90.4	-86.9	-88.7	-135.1	-133.0	-82.8	-99.1	-81.1	Phase	-93.6
	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.2	Ampl.	0.1
	495.5	293.5	240.2	40.7	269.3	431.3	418.1	18.3	Sbd box	18.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	5.76458993022E+02	Apriori delay (usec)	5.77393187857E+02	Resid mbdelay (usec)	3.30516E-03	+/-	1.7E-04
Sband delay (usec)	5.76459547357E+02	Apriori clock (usec)	-8.5213070E+00	Resid sbdelay (usec)	-9.33640E-01	+/-	1.4E-03
Phase delay (usec)	5.77393184838E+02	Apriori clockrate (us/s)	2.0000000E-08	Resid phdelay (usec)	-3.01918E-06	+/-	5.9E-07
Delay rate (us/s)	-1.21280082869E-01	Apriori rate (us/s)	-1.21283149132E-01	Resid rate (us/s)	3.06626E-06	+/-	2.4E-09
Total phase (deg)	-20.9	Apriori accel (us/s/s)	1.27609911808E-05	Resid phase (deg)	-93.6	+/-	18.4

ph/seg (deg)	49.9	Theor.	44.0	Amplitude	0.115 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.0		76.9	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	24.7		26.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	58.4		45.3	Inc. seg. avg.	0.113	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.109	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

b: az 52.6 el 37.9 pa -57.6 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 1122.454 2237.353 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/bp.W.62.1X0YRU

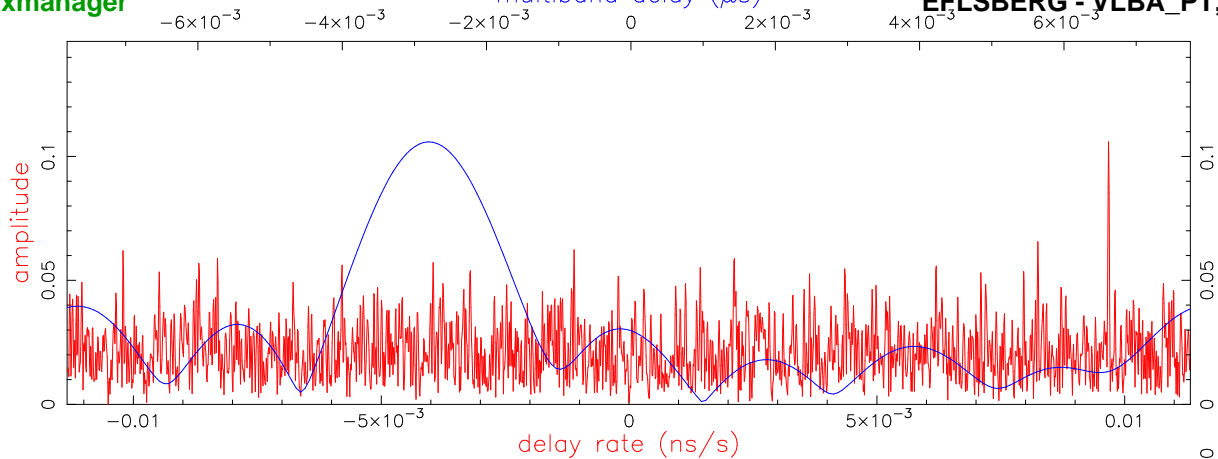
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Bp

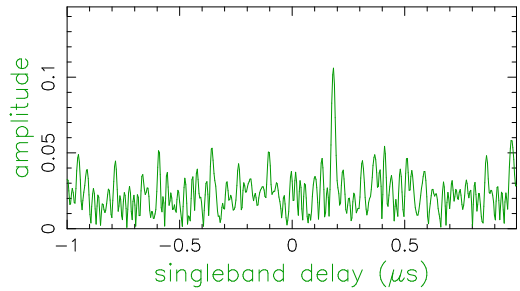
EFLSBERG - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

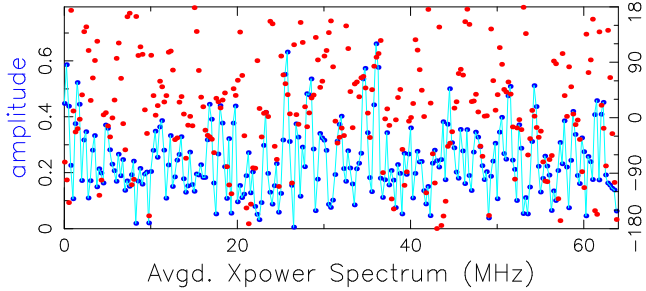


Fringe quality 0

SNR 6.0  
 Int time 419.804  
 Amp 0.146  
 Phase 0.1  
 PFD 4.9e-01  
 Delays (us)  
 SBD 0.182752  
 MBD -0.002801  
 Fringe rate (Hz)  
 0.834407  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

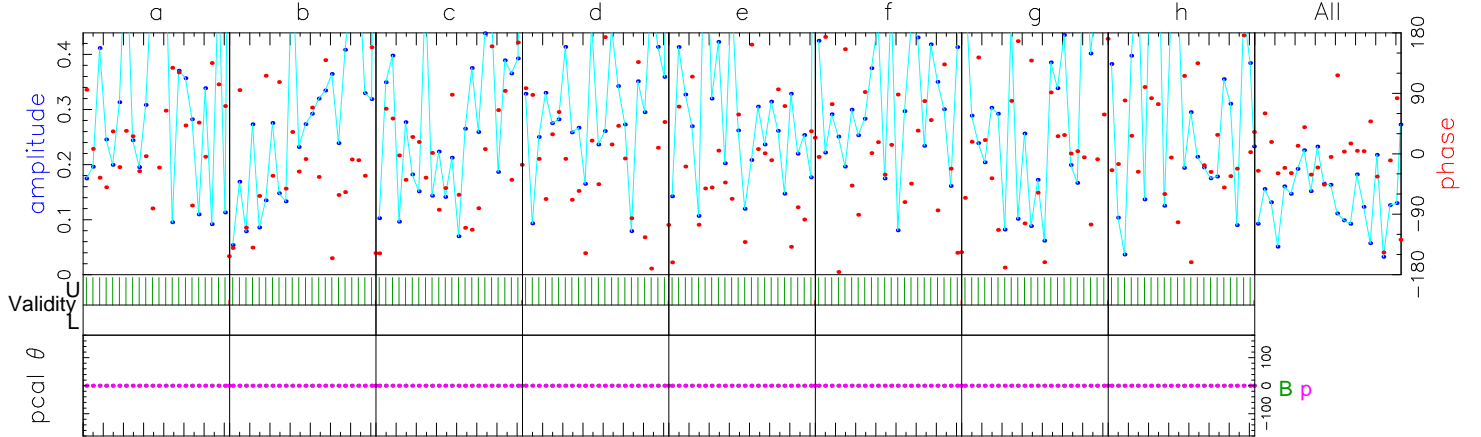


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125150  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	16.2	-19.8	-7.5	5.6	-21.1	2.6	5.7	7.2	Phase	0.1
	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	Ampl.	0.1
	423.9	52.9	249.3	387.4	487.4	496.0	212.4	358.0	Sbd box	303.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
B:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.40190329851E+03		Apriori delay (usec)		6.40171859928E+03		Resid mbdelay (usec)		-2.80077E-03	+/- 1.8E-04
Sband delay (usec)	6.40190135078E+03		Apriori clock (usec)		-2.7599846E+01		Resid sbdelay (usec)		1.82752E-01	+/- 1.4E-03
Phase delay (usec)	6.40171859928E+03		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		2.30698E-09	+/- 6.2E-07
Delay rate (us/s)	-1.18943630572E+00		Apriori rate (us/s)		-1.18944599237E+00		Resid rate (us/s)		9.68664E-06	+/- 2.6E-09
Total phase (deg)	51.0		Apriori accel (us/s/s)		-1.59173946873E-05		Resid phase (deg)		0.1	+/- 19.2

	RMS	Theor.	Amplitude	0.146 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	52.2	46.2	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	59.8	80.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	14.6	27.2	Inc. seg. avg.	0.145	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	22.8	47.5	Inc. frq. avg.	0.135	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 287.4 el 64.1 pa 74.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10800.031 -483.917 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Bp.W.79.1X0YRU

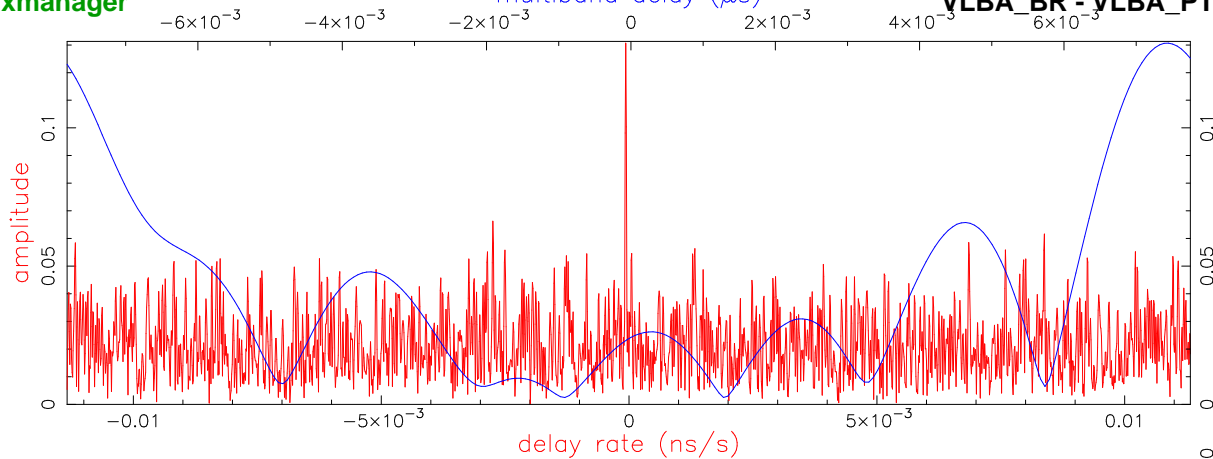
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, bp

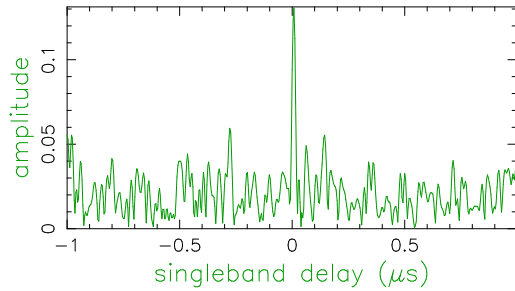
VLBA\_BR - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

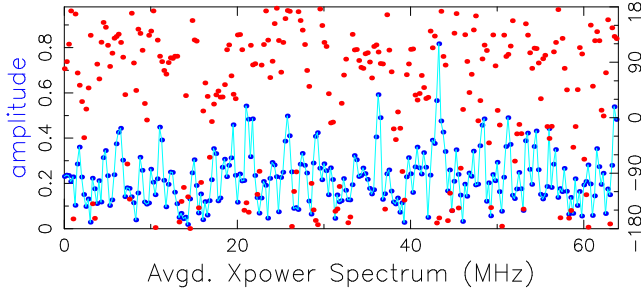


Fringe quality 9

SNR 7.4  
 Int time 419.816  
 Amp 0.131  
 Phase 110.0  
 PFD 5.9e-05  
 Delays (us)  
 SBD 0.006964  
 MBD 0.007418  
 Fringe rate (Hz)  
 -0.005971  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

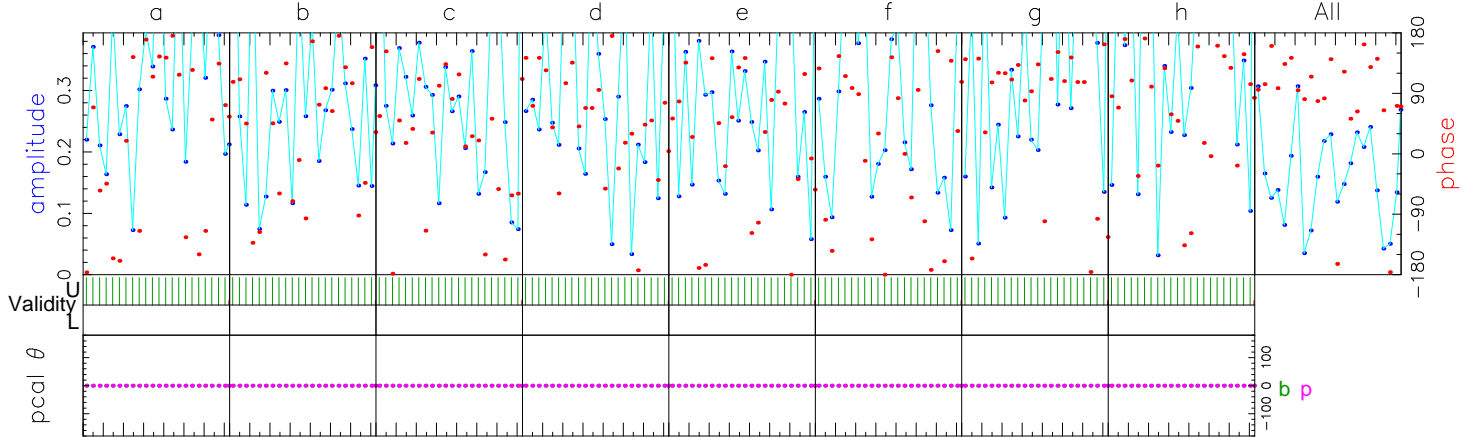


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125151  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	149.9	122.5	62.9	74.6	106.8	108.4	126.1	118.0	Phase	110.0
	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	Ampl.	0.1
	488.0	4.9	81.0	322.8	501.1	170.7	258.6	259.2	Sbd box	258.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	5.77400605362E+02	Apriori delay (usec)	5.77393187857E+02	Resid mbdelay (usec)	7.41750E-03	+/-	1.5E-04
Sband delay (usec)	5.77400151857E+02	Apriori clock (usec)	-8.5213070E+00	Resid sbdelay (usec)	6.96400E-03	+/-	1.2E-03
Phase delay (usec)	5.77393191403E+02	Apriori clockrate (us/s)	2.0000000E-08	Resid phdelay (usec)	3.54563E-06	+/-	5.0E-07
Delay rate (us/s)	-1.21283218445E-01	Apriori rate (us/s)	-1.21283149132E-01	Resid rate (us/s)	-6.93132E-08	+/-	2.1E-09
Total phase (deg)	182.7	Apriori accel (us/s/s)	1.27609911808E-05	Resid phase (deg)	110.0	+/-	15.6

ph/seg (deg)	RMS 39.7	Theor. 37.4	Amplitude 0.131 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	62.2	65.2	Search (2048X32) 0.128	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	30.4	22.0	Interp. 0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	32.8	38.4	Inc. seg. avg. 0.133	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.135	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

b: az 52.6 el 37.9 pa -57.6

p: az 48.1 el 35.8 pa -78.4

u,v (fr/asec) 1122.454 2237.353

simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/bp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/bp.W.80.1X0YRU

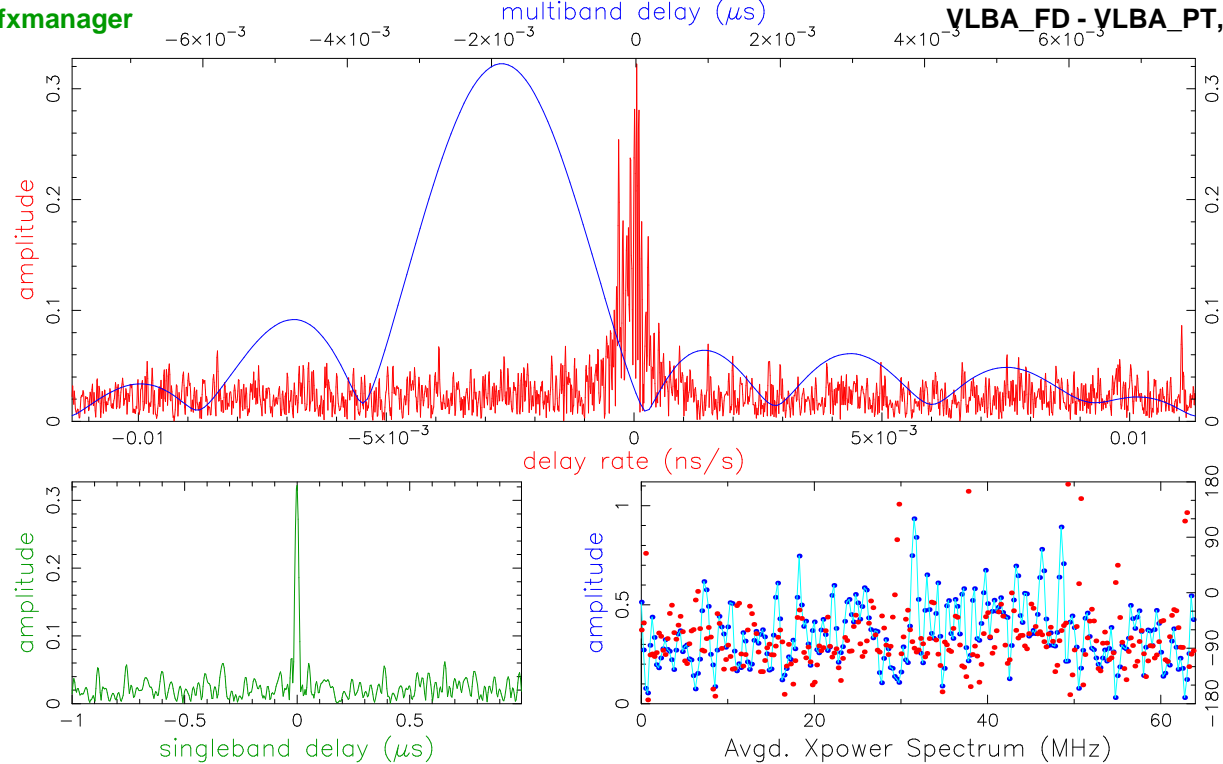


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, fp

VLBA\_FD - VLBA\_PT, fgroup W, pol RR

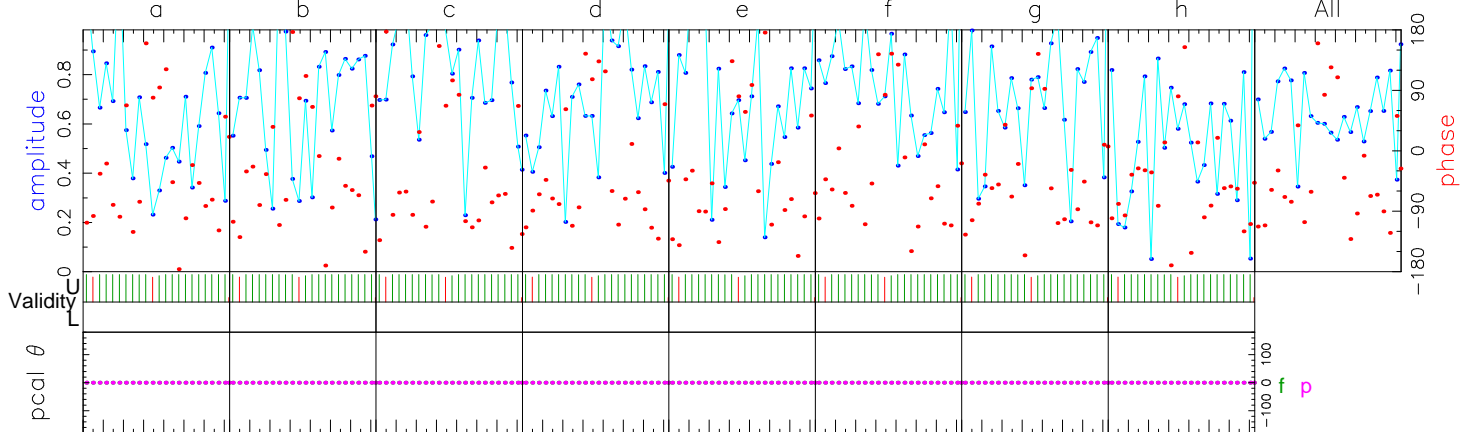


Fringe quality 9

SNR 18.2  
 Int time 415.091  
 Amp 0.327  
 Phase -77.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001635  
 MBD -0.001909  
 Fringe rate (Hz) 0.004671  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125158  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'59.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-80.6	-68.6	-90.4	-86.6	-80.3	-65.4	-75.5	-73.3	Phase	-77.8
	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	Ampl.	0.3
	257.4	256.4	256.7	256.9	256.1	256.2	256.6	256.3	Sbd box	256.6
U/L	813/0	813/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.21382724153E+01		Apriori delay (usec)		4.21401812422E+01		Resid mbdelay (usec)		-1.90883E-03	+/- 6.0E-05
Sband delay (usec)	4.21385464922E+01		Apriori clock (usec)		4.7242317E+00		Resid sbdelay (usec)		-1.63475E-03	+/- 4.7E-04
Phase delay (usec)	4.21401787329E+01		Apriori clockrate (us/s)		1.8000000E-07		Resid phdelay (usec)		-2.50929E-06	+/- 2.0E-07
Delay rate (us/s)	1.13853014630E-02		Apriori rate (us/s)		1.13852472349E-02		Resid rate (us/s)		5.42280E-08	+/- 8.4E-10
Total phase (deg)			Apriori accel (us/s/s)		-4.93477193476E-06		Resid phase (deg)		-77.8	+/- 6.3

ph/seg (deg) 80.1 15.0 Search (2048X32) 0.320 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 102.7 26.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 9.3 8.9 Inc. seg. avg. 0.616 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.4 15.5 Inc. frq. avg. 0.322 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 f: az 46.6 el 36.0 pa -83.5 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) -110.946 -778.979 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/fp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/fp.W.112.1X0YRU

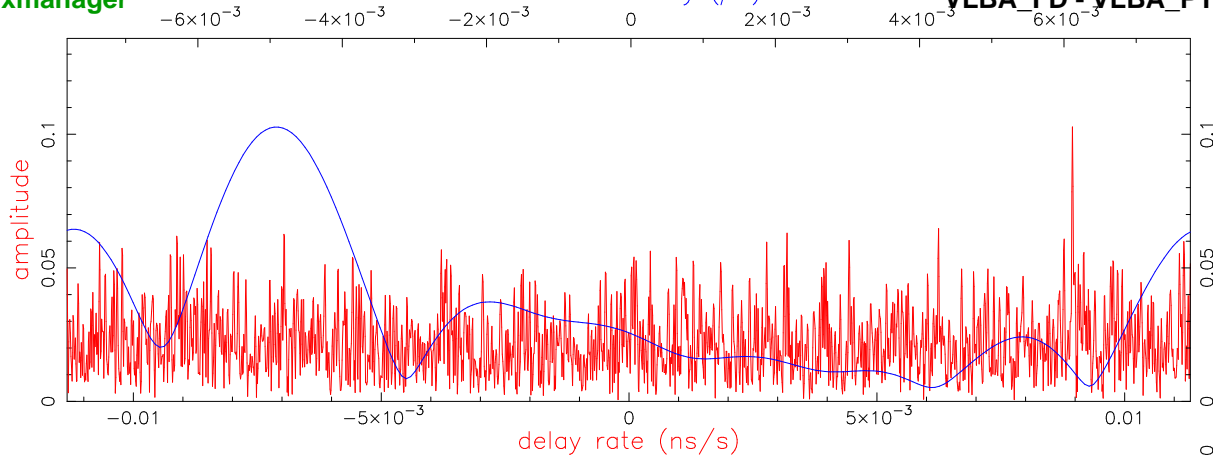
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, fp

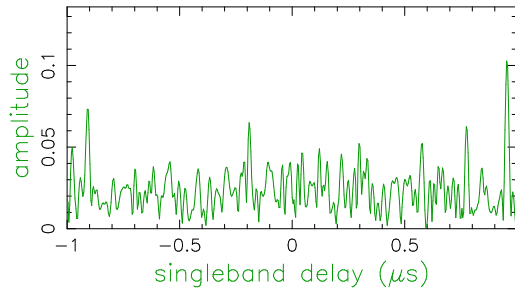
VLBA\_FD - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

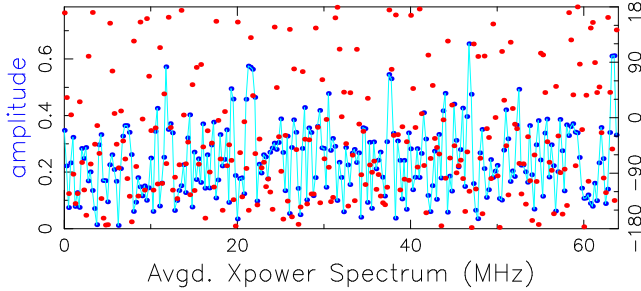


Fringe quality 0

SNR 5.8  
 Int time 415.091  
 Amp 0.136  
 Phase 159.0  
 PFD 8.6e-01  
 Delays (us)  
 SBD 0.954308  
 MBD -0.004918  
 Fringe rate (Hz) 0.771859  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

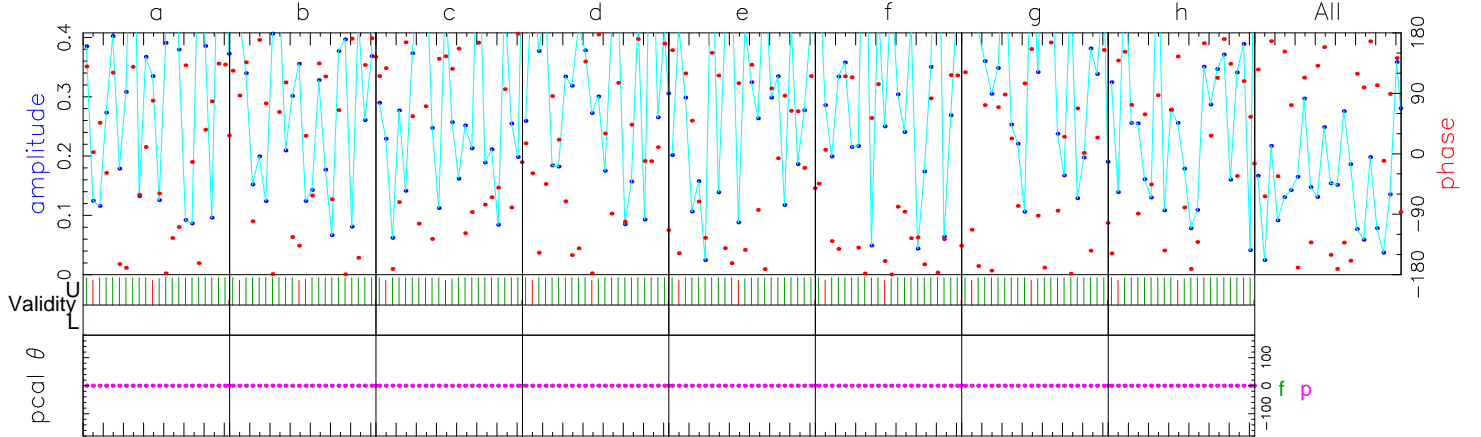


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125202  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
153.7	144.9	166.1	-99.6	159.1	-176.5	158.6	125.7	125.7	Phase	159.0
0.2	0.2	0.1	0.0	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
6.6	391.0	120.8	318.8	422.1	201.9	173.8	25.7	25.7	Sbd box	501.3
U/L 813/0	813/0	813/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f 0	0	0	0	0	0	0	0	0	PC freqs	
p 0	0	0	0	0	0	0	0	0	PC freqs	
f:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp 0:0	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	1000	PC amp	
p 1000	1000	1000	1000	1000	1000	1000	1000	1000		
f W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
p W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
									Tracks	
Group delay (usec)(sbd)	4.30883881189E+01		Apriori delay (usec)	4.21401812422E+01		Resid mbdelay (usec)	-4.91812E-03	+/-	1.9E-04	
Sband delay (usec)	4.30944894922E+01		Apriori clock (usec)	4.7242317E+00		Resid sbdelay (usec)	9.54308E-01	+/-	1.5E-03	
Phase delay (usec)	4.21401863709E+01		Apriori clockrate (us/s)	1.8000000E-07		Resid phdelay (usec)	5.12876E-06	+/-	6.4E-07	
Delay rate (us/s)	1.13942077488E-02		Apriori rate (us/s)	1.13852472349E-02		Resid rate (us/s)	8.96051E-06	+/-	2.7E-09	
Total phase (deg)		235.4	Apriori accel (us/s/s)	-4.93477193476E-06		Resid phase (deg)	159.0	+/-	19.9	

ph/seg (deg) 73.1 47.4 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 96.0 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 45.2 28.1 Inc. seg. avg. 0.155 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 39.4 49.0 Inc. frq. avg. 0.131 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 f: az 46.6 el 36.0 pa -83.5 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) -110.946 -778.979 ion window (TEC) 0.00 0.00  
 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/fp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/fp.W.131.1X0YRU

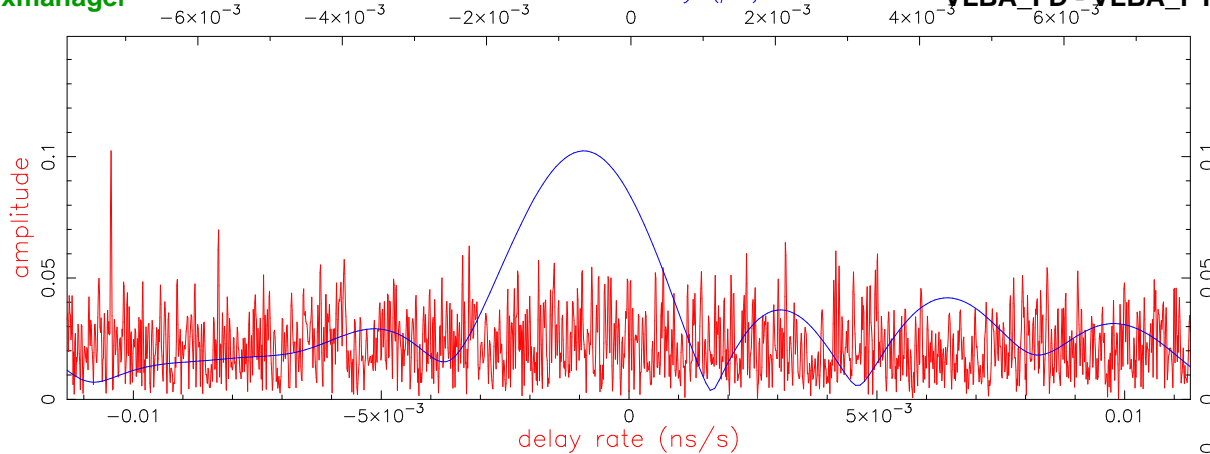
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, fp

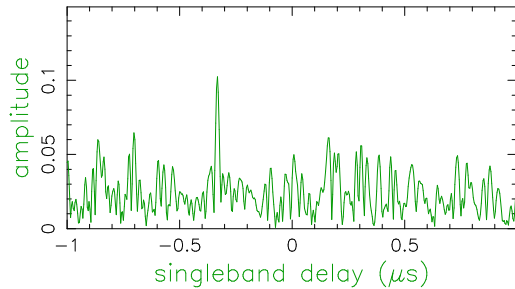
VLBA\_FD - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

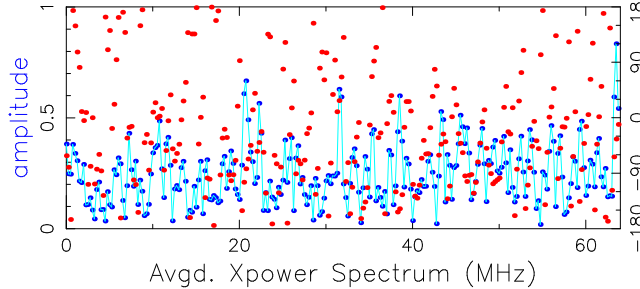


Fringe quality 0

SNR 5.7  
 Int time 415.091  
 Amp 0.150  
 Phase 91.2  
 PFD 9.4e-01  
 Delays (us)  
 SBD -0.332306  
 MBD -0.000655  
 Fringe rate (Hz)  
 -0.901168  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

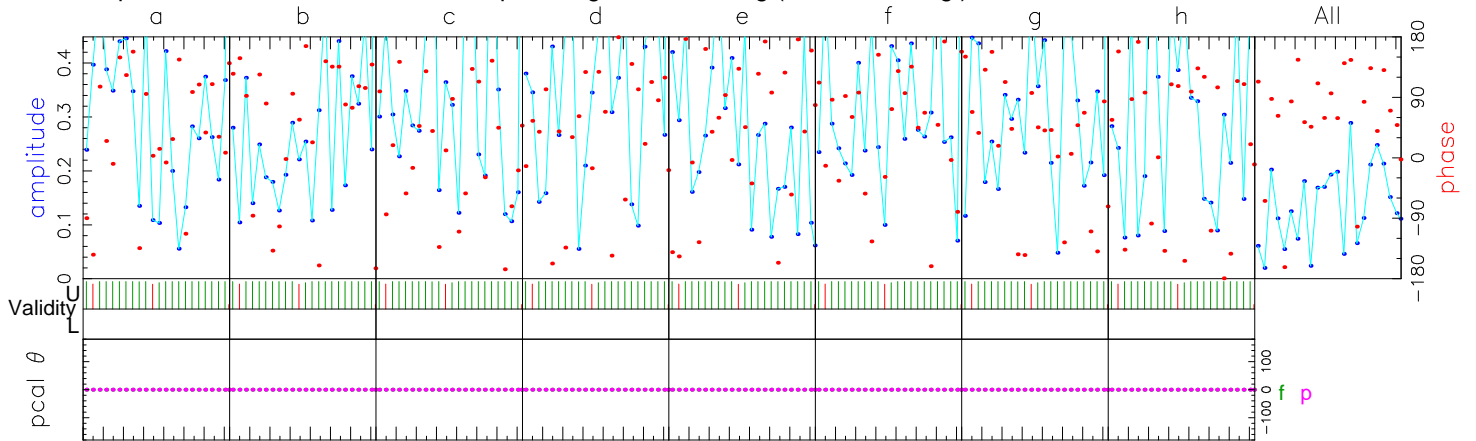


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125206  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	82.5	120.8	58.4	76.6	104.1	84.4	68.8	118.4	Phase	91.2
	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.2	Ampl.	0.1
	310.7	172.6	383.9	511.5	12.7	210.6	162.9	104.1	Sbd box	171.9
U/L	813/0	813/0	813/0	813/0	813/0	813/0	813/0	813/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.18114010884E+01		Apriori delay (usec)		4.21401812422E+01		Resid mbdelay (usec)		-6.55154E-04	+/- 1.9E-04
Sband delay (usec)	4.18078754922E+01		Apriori clock (usec)		4.7242317E+00		Resid sbdelay (usec)		-3.32306E-01	+/- 1.5E-03
Phase delay (usec)	4.21401841835E+01		Apriori clockrate (us/s)		1.8000000E-07		Resid phdelay (usec)		2.94135E-06	+/- 6.5E-07
Delay rate (us/s)	1.13747855688E-02		Apriori rate (us/s)		1.13852472349E-02		Resid rate (us/s)		-1.04617E-05	+/- 2.7E-09
Total phase (deg)	167.6		Apriori accel (us/s/s)		-4.93477193476E-06		Resid phase (deg)		91.2	+/- 20.1

ph/seg (deg) 62.7 83.7  
 amp/seg (%) 80.0 48.0  
 ph/frq (deg) 24.8 28.4  
 amp/frq (%) 28.2 49.6

RMS Theor. Amplitude 0.150 +/- 0.026  
 Search (2048X32) 0.101  
 Interp. 0.000  
 Inc. seg. avg. 0.149  
 Inc. frq. avg. 0.143

Group delay (usec)(sbd) 4.18114010884E+01  
 Sband delay (usec) 4.18078754922E+01  
 Phase delay (usec) 4.21401841835E+01  
 Delay rate (us/s) 1.13747855688E-02  
 Total phase (deg) 167.6

Apriori delay (usec) 4.21401812422E+01  
 Apriori clock (usec) 4.7242317E+00  
 Apriori clockrate (us/s) 1.8000000E-07  
 Apriori rate (us/s) 1.13852472349E-02  
 Apriori accel (us/s/s) -4.93477193476E-06

Resid mbdelay (usec) -6.55154E-04  
 Resid sbdelay (usec) -3.32306E-01  
 Resid phdelay (usec) 2.94135E-06  
 Resid rate (us/s) -1.04617E-05  
 Resid phase (deg) 91.2

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

f: az 46.6 el 36.0 pa -83.5  
 p: az 48.1 el 35.8 pa -78.4  
 u,v (fr/asec) -110.946 -778.979

simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/fp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/fp.W.150.1X0YRU

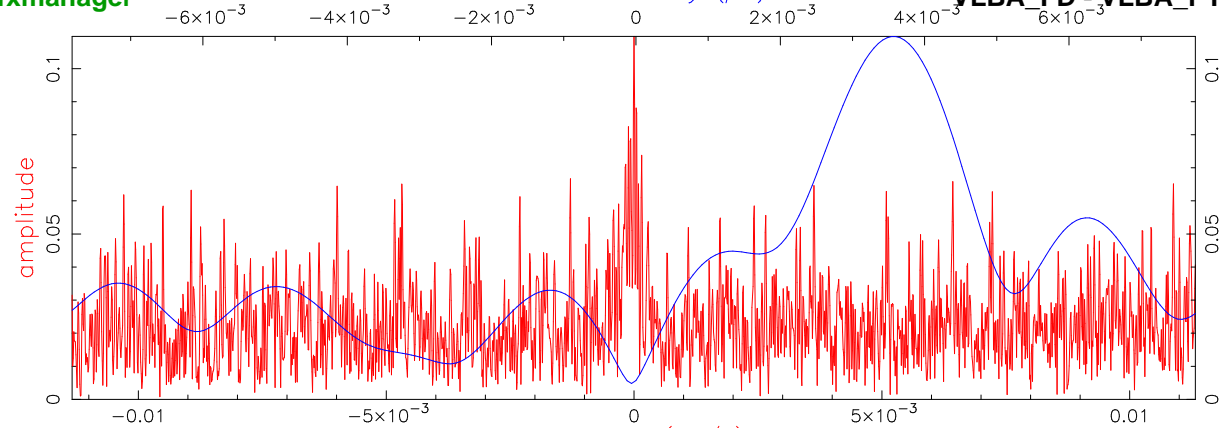
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

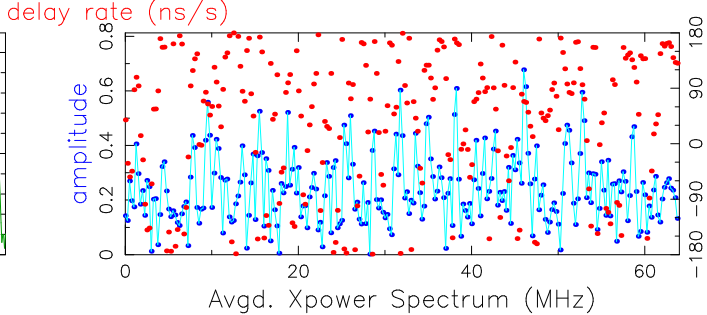
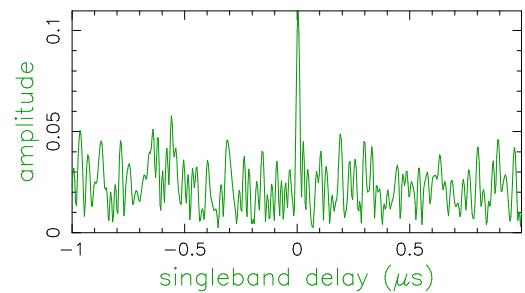
NRAO150.1X0YRU, No0085, fp

VLBA\_FD - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

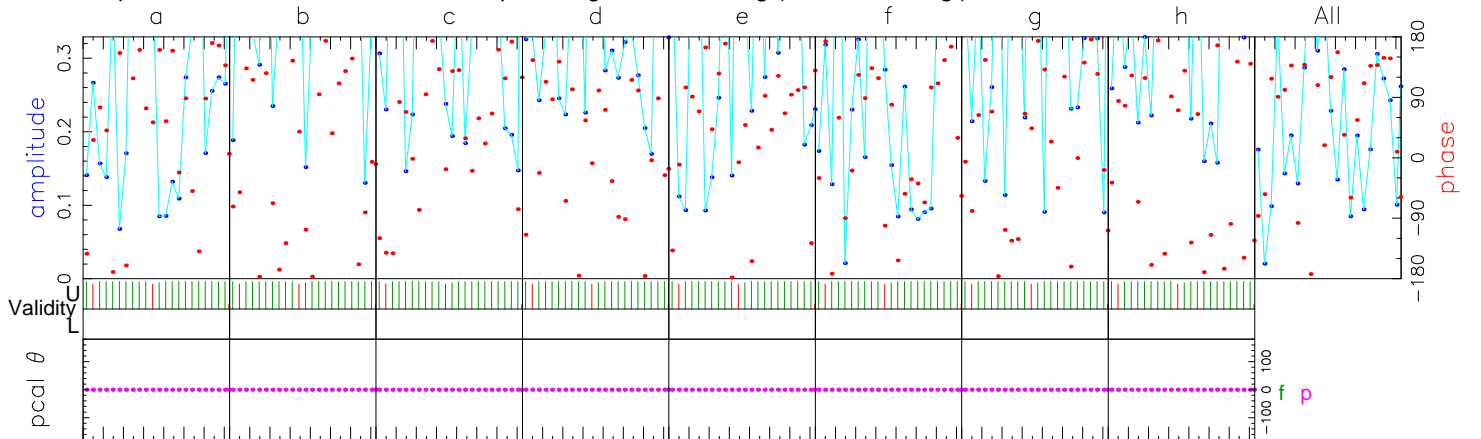


Fringe quality 0  
 SNR 6.1  
 Int time 415.091  
 Amp 0.110  
 Phase 119.0  
 PFD 2.3e-01  
 Delays (us)  
 SBD 0.003861  
 MBD 0.003569  
 Fringe rate (Hz) 0.000165  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125154  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	813/0	813/0	813/0	813/0	813/0	813/0	813/0	813/0		
f	0	0	0	0	0	0	0	0	Phase	119.0
p	0	0	0	0	0	0	0	0	Ampl.	0.1
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	258.0
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	4.21437501797E+01	Apriori delay (usec)	4.21401812422E+01	Resid mbdelay (usec)	3.56894E-03	+/-	1.8E-04
Sband delay (usec)	4.21440427422E+01	Apriori clock (usec)	4.7242317E+00	Resid sbdelay (usec)	3.86150E-03	+/-	1.4E-03
Phase delay (usec)	4.21401850802E+01	Apriori clockrate (us/s)	1.8000000E-07	Resid phdelay (usec)	3.83796E-06	+/-	6.0E-07
Delay rate (us/s)	1.13852491509E-02	Apriori rate (us/s)	1.13852472349E-02	Resid rate (us/s)	1.91594E-09	+/-	2.5E-09
Total phase (deg)	195.4	Apriori accel (us/s/s)	-4.93477193476E-06	Resid phase (deg)	119.0	+/-	18.7

ph/seg (deg)	83.1	Theor.	44.8	Amplitude	0.110 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	136.7	Search (2048X32)	0.108	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	29.7	Inc. seg. avg.	0.163	Inc. frq. avg.	0.112	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.4	Inc. frq. avg.	0.112			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 46.6 el 36.0 pa -83.5 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) -110.946 -778.979 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/fp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/fp.W.94.1X0YRU

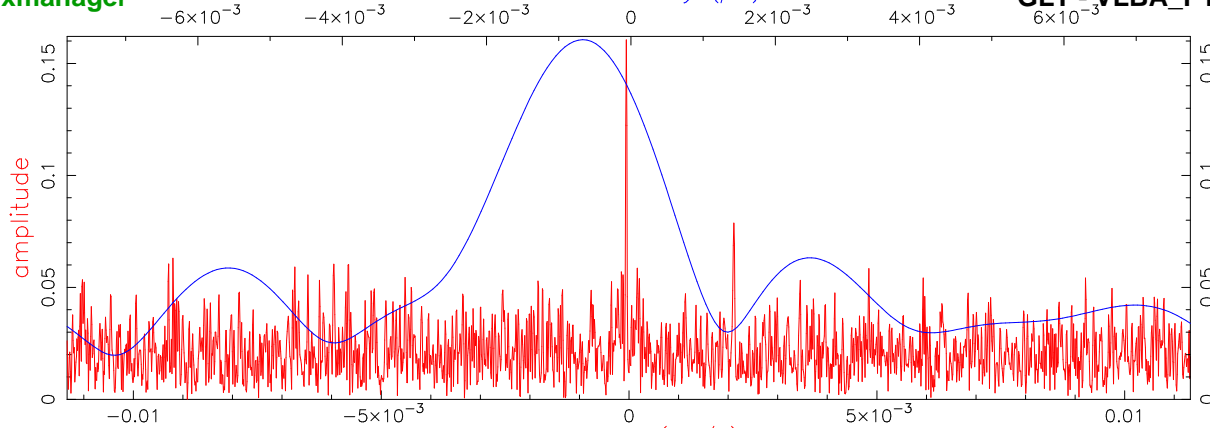
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, gp

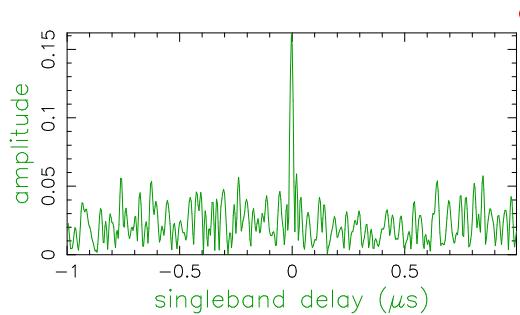
GLT - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

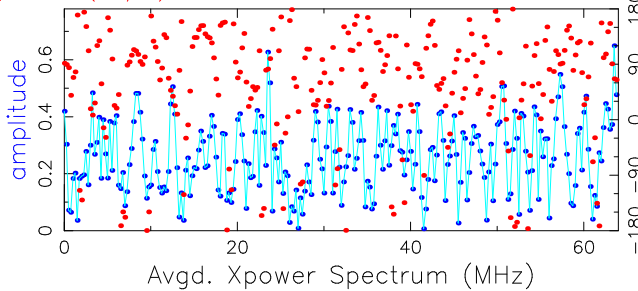


Fringe quality 9

SNR 9.1  
Int time 419.810  
Amp 0.162  
Phase 68.5  
PFD 4.1e-11  
Delays (us)  
SBD -0.002774  
MBD -0.000634  
Fringe rate (Hz)  
-0.004980  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

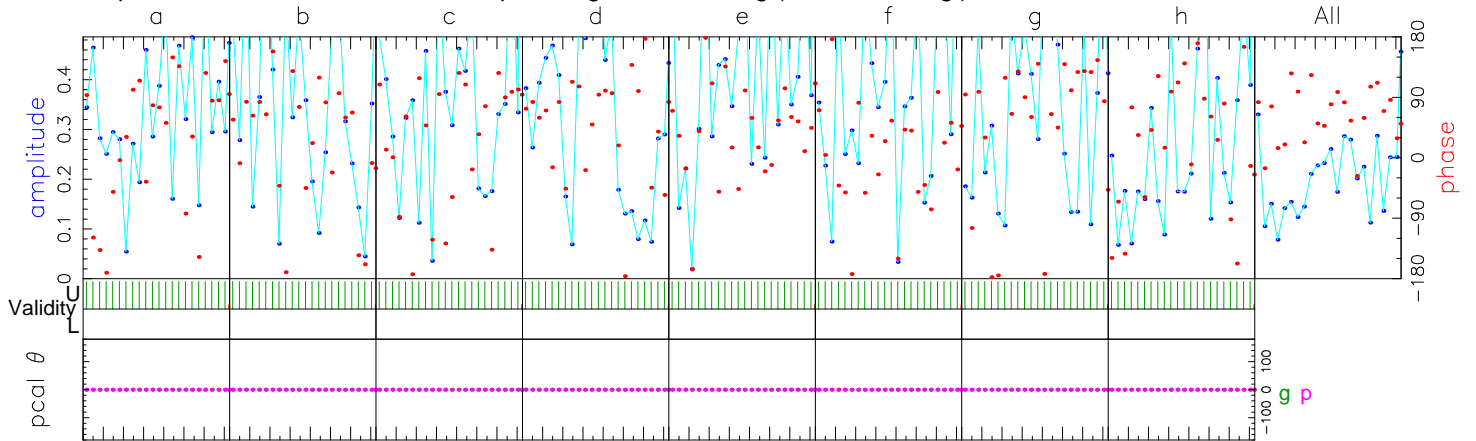


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125211  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	93.6	69.2	86.1	66.0	47.1	9.8	103.8	94.6	Phase	68.5
	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.1	Ampl.	0.2
	500.4	255.7	98.1	256.4	257.1	256.9	256.8	260.1	Sbd box	256.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.06233866317E+03		Apriori delay (usec)		6.06233929757E+03		Resid mbdelay (usec)		-6.34392E-04	+/- 1.2E-04
Sband delay (usec)	6.06233652382E+03		Apriori clock (usec)		-5.0983543E+00		Resid sbdelay (usec)		-2.77375E-03	+/- 9.5E-04
Phase delay (usec)	6.06233929978E+03		Apriori clockrate (us/s)		1.9200001E-07		Resid phdelay (usec)		2.20970E-06	+/- 4.1E-07
Delay rate (us/s)	-6.45670449514E-01		Apriori rate (us/s)		-6.45670391705E-01		Resid rate (us/s)		-5.78084E-08	+/- 1.7E-09
Total phase (deg)	101.8		Apriori accel (us/s/s)		3.66449640305E-06		Resid phase (deg)		68.5	+/- 12.6

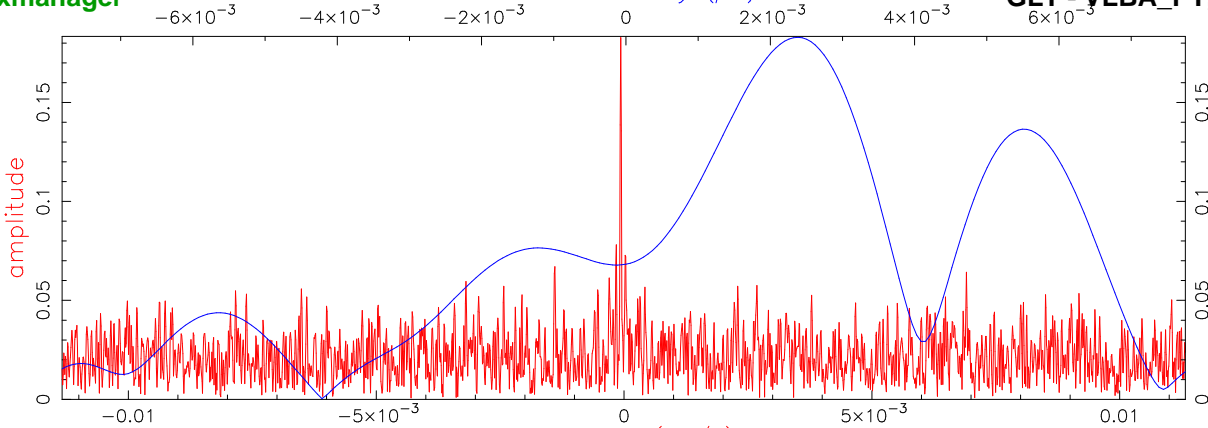
	RMS	Theor.	Amplitude	0.162 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.6	30.3	Search (2048X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	49.6	52.8	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	33.6	17.8	Inc. seg. avg.	0.175	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	36.1	31.1	Inc. frq. avg.	0.177	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 132.7 el 61.3 pa -15.6 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 5878.368 2584.506 simultaneous interpolator

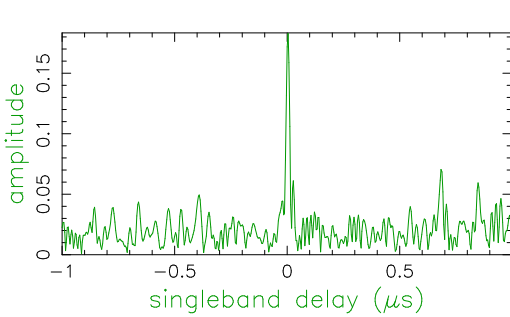
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/gp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/gp.W.167.1X0YRU

multiband delay ( $\mu$ s)

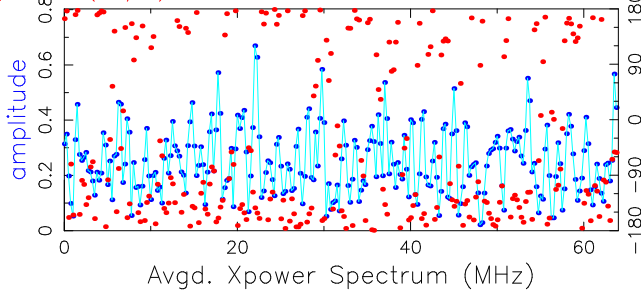
Fringe quality 9



SNR 10.3  
Int time 419.810  
Amp 0.183  
Phase -146.0  
PFD 4.0e-16  
Delays (us)  
SBD 0.003193  
MBD 0.002330  
Fringe rate (Hz)  
-0.005503  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

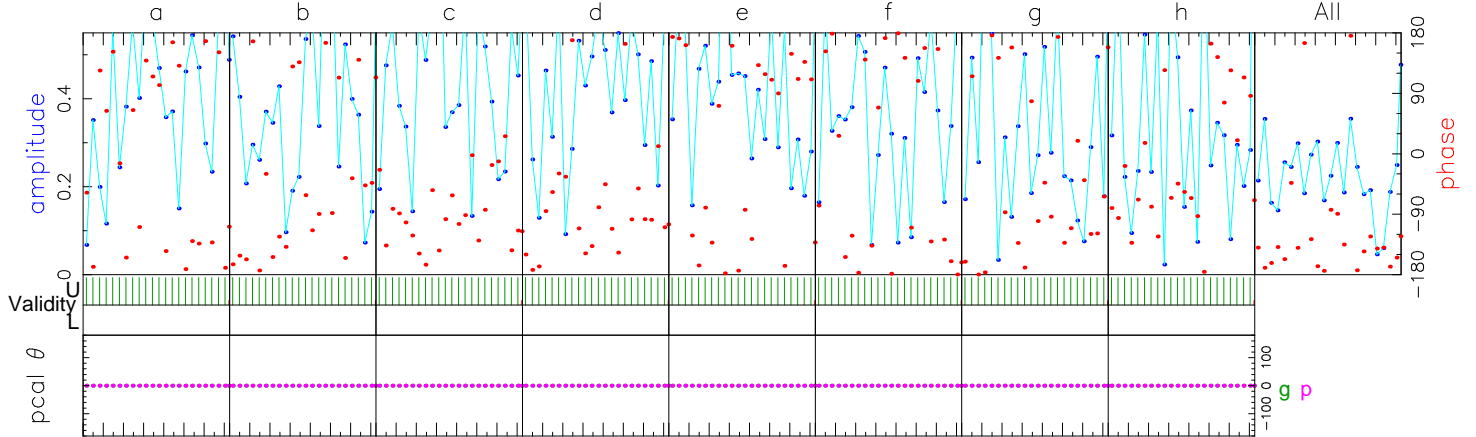


delay rate (ns/s)

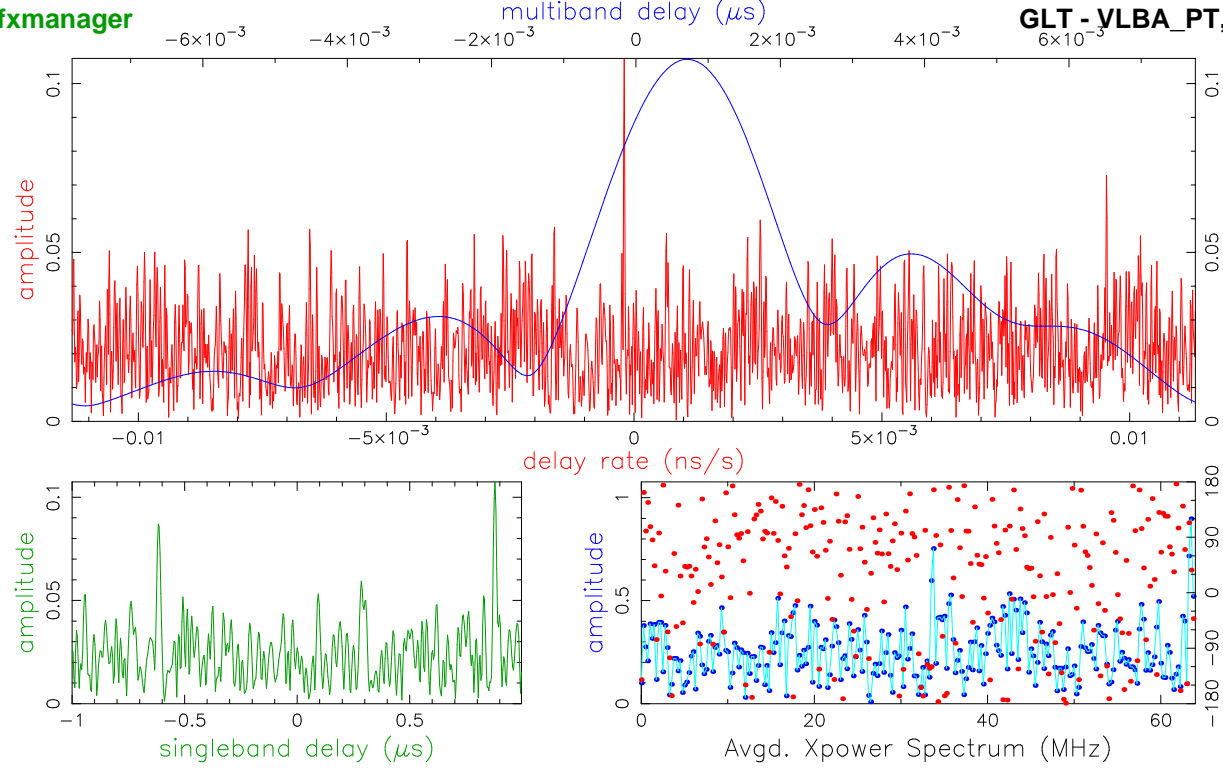


Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125216  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

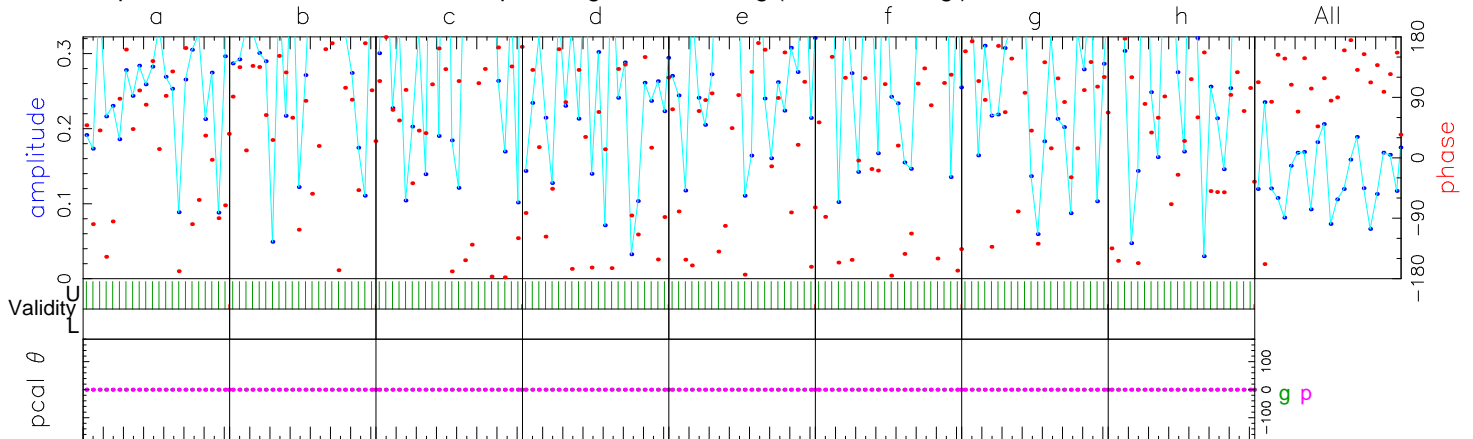


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
g	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	0.2
p	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.8
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	APs used	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC freqs	
									PC freqs	
									PC phase	
									Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	6.06234162779E+03				6.06233929757E+03				Resid mbdelay (usec)	2.33022E-03 +/- 1.1E-04
Sband delay (usec)	6.06234249057E+03				-5.0983543E+00				Resid sbdelay (usec)	3.19300E-03 +/- 8.4E-04
Phase delay (usec)	6.06233929286E+03				1.9200001E-07				Resid phdelay (usec)	-4.70795E-06 +/- 3.6E-07
Delay rate (us/s)	-6.45670455595E-01				-6.45670391705E-01				Resid rate (us/s)	-6.38899E-08 +/- 1.5E-09
Total phase (deg)		-112.7			3.66449640305E-06				Resid phase (deg)	-146.0 +/- 11.2
	RMS	Theor.	Amplitude	0.183 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	34.5	26.7	Search (2048X32)	0.180					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	48.8	46.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	46.5	15.8	Inc. seg. avg.	0.200					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	44.3	27.5	Inc. frq. avg.	0.227					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
g: az 132.7 el 61.3 pa -15.6			p: az 48.1 el 35.8 pa -78.4						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c211c/v1/1234/No0085/gp..1X0YRU							simultaneous interpolator
			Output file: /Exps/c211c/v1/1234/No0085/gp.W.190.1X0YRU							



Fringe quality 0  
SNR 6.0  
Int time 419.810  
Amp 0.107  
Phase 124.5  
PFD 3.6e-01  
Delays (us)  
SBD 0.878338  
MBD 0.000712  
Fringe rate (Hz)  
-0.016831  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125219  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
59.8	109.7	139.9	150.0	143.9	130.2	116.0	101.5	101.5	Phase	124.5
0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
508.4	188.4	482.4	330.4	461.5	224.9	313.4	74.8	74.8	Sbd box	481.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.06321500992E+03		Apriori delay (usec)		6.06233929757E+03		Resid mbdelay (usec)		7.12358E-04	+/- 1.8E-04
Sband delay (usec)	6.06321763507E+03		Apriori clock (usec)		-5.0983543E-07		Resid sbdelay (usec)		8.78338E-01	+/- 1.4E-03
Phase delay (usec)	6.06233930158E+03		Apriori clockrate (us/s)		1.9200001E-07		Resid phdelay (usec)		4.01501E-06	+/- 6.1E-07
Delay rate (us/s)	-6.45670587091E-01		Apriori rate (us/s)		-6.45670391705E-01		Resid rate (us/s)		-1.95385E-07	+/- 2.5E-09
Total phase (deg)	157.8		Apriori accel (us/s/s)		3.66449640305E-06		Resid phase (deg)		124.5	+/- 19.0

ph/seg (deg) 37.1 45.6 Amplitude 0.107 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 49.4 79.7 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 32.4 26.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 48.0 47.0 Inc. seg. avg. 0.105 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
g: az 132.7 el 61.3 pa -15.6 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 5878.368 2584.506 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/gp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/gp.W.208.1X0YRU

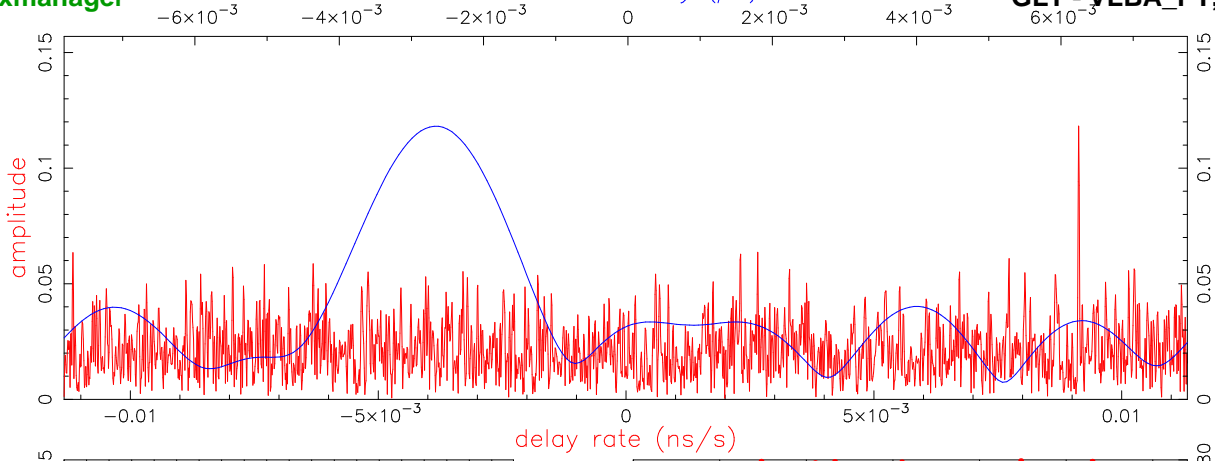
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, gp

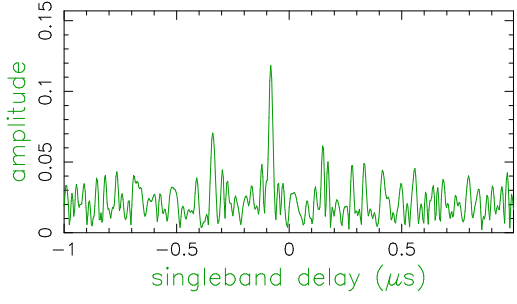
GLT - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

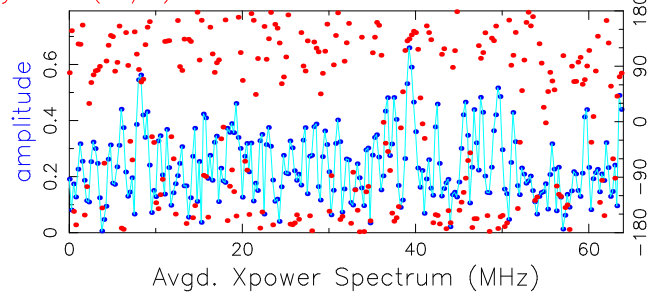


Fringe quality 0

SNR 6.6  
Int time 419.810  
Amp 0.157  
Phase -39.9  
PFD 1.0e-02  
Delays (us)  
SBD -0.081879  
MBD -0.002660  
Fringe rate (Hz) 0.788381  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

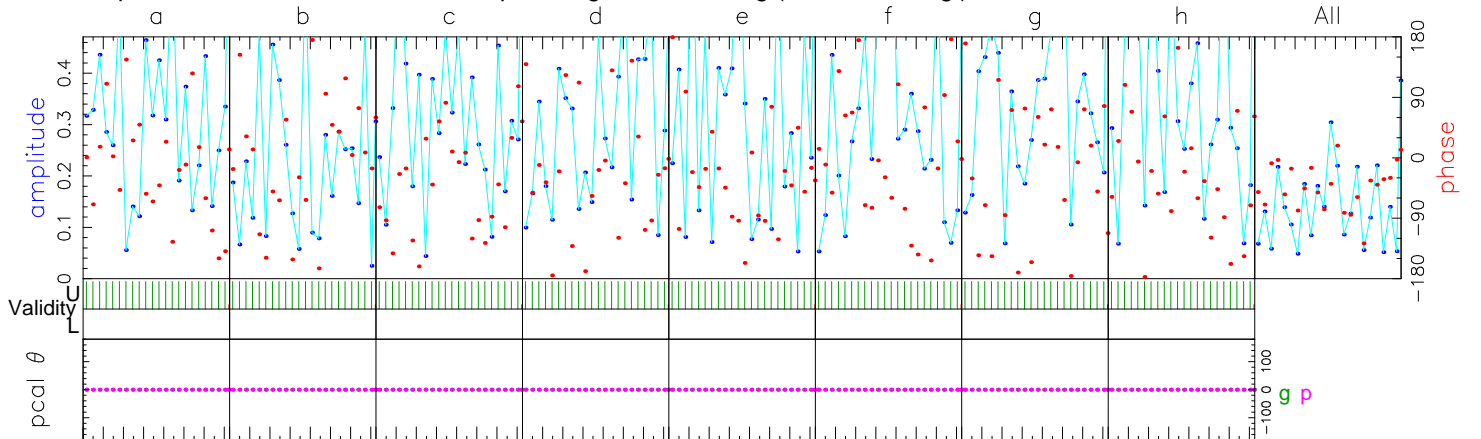


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125223  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-39.8	-12.9	-34.4	-49.6	-62.5	-44.8	20.6	-37.3	Phase	-39.9
	0.2	0.1	0.2	0.1	0.3	0.2	0.1	0.2	Ampl.	0.2
	39.9	238.9	108.5	8.8	236.2	207.6	349.8	257.9	Sbd box	236.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.06225851255E+03		Apriori delay (usec)		6.06233929757E+03		Resid mbdelay (usec)		-2.66001E-03	+/- 1.6E-04
Sband delay (usec)	6.06225741857E+03		Apriori clock (usec)		-5.0983543E-07		Resid sbdelay (usec)		-8.18790E-02	+/- 1.3E-03
Phase delay (usec)	6.06233929628E+03		Apriori clockrate (us/s)		1.9200001E-07		Resid phdelay (usec)		-1.28514E-06	+/- 5.6E-07
Delay rate (us/s)	-6.45661239381E-01		Apriori rate (us/s)		-6.45670391705E-01		Resid rate (us/s)		9.15232E-06	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		3.66449640305E-06		Resid phase (deg)		-39.9	+/- 17.3

	RMS	Theor.	Amplitude	0.157 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	33.5	41.5	Search (2048X32)	0.112	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.0	72.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	29.0	24.5	Inc. seg. avg.	0.143	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	36.4	42.7	Inc. frq. avg.	0.153	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

g: az 132.7 el 61.3 pa -15.6 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 5878.368 2584.506 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/gp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/gp.W.227.1X0YRU



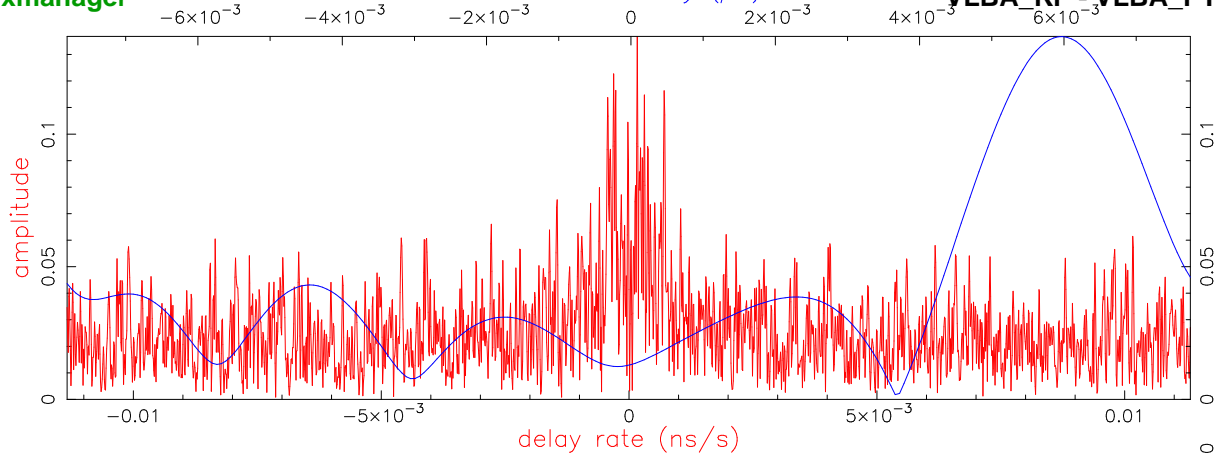
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, kp

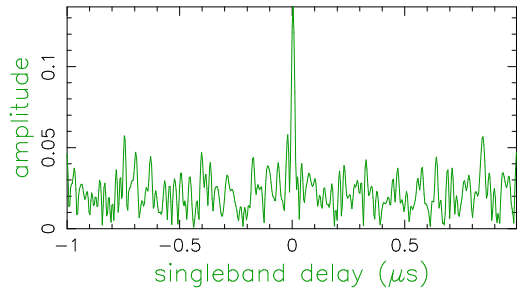
VLBA\_KP - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

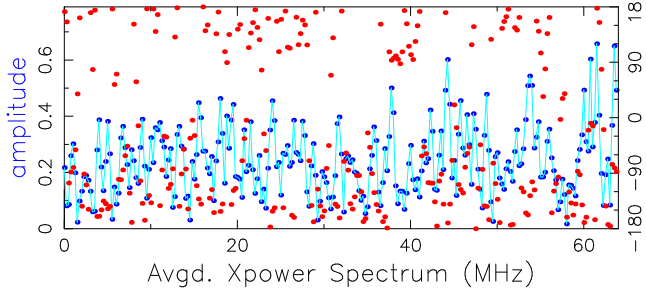


Fringe quality 9

SNR 7.7  
 Int time 418.447  
 Amp 0.137  
 Phase -177.7  
 PFD 6.4e-06  
 Delays (us)  
 SBD 0.003649  
 MBD 0.005964  
 Fringe rate (Hz)  
 0.014516  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

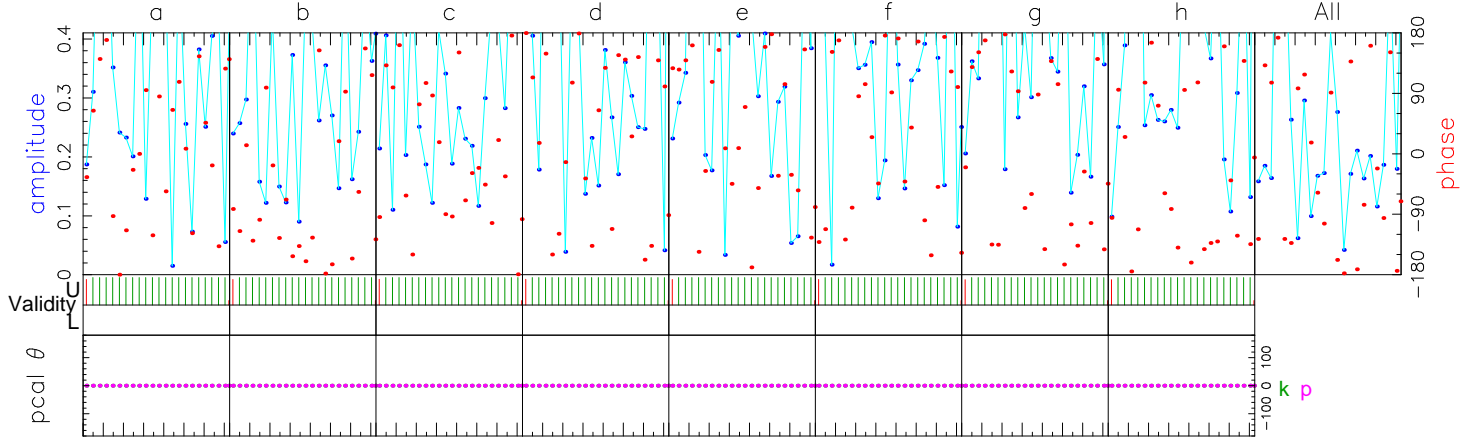


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125212  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

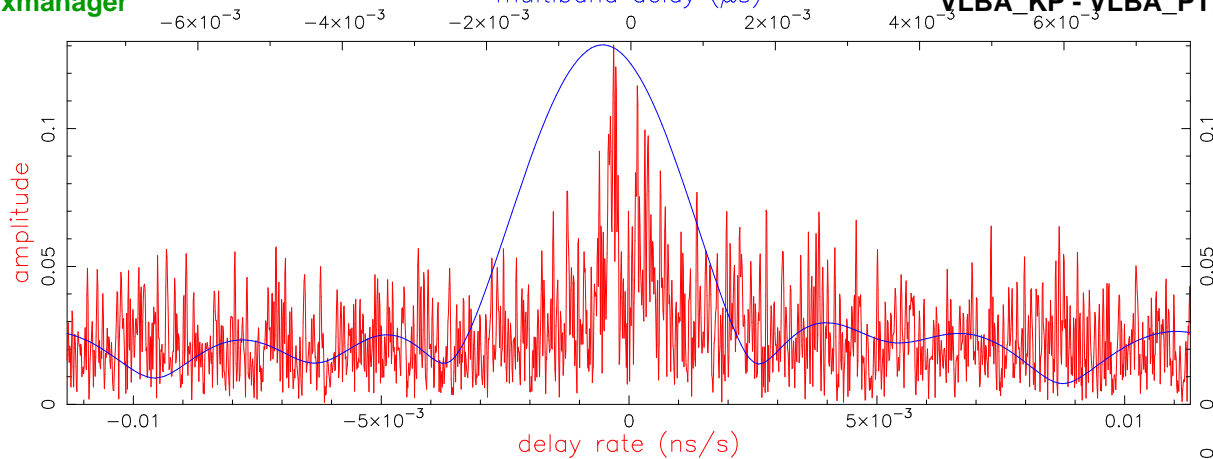
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	-1.14932387541E+03									
Sband delay (usec)	-1.14932619031E+03									
Phase delay (usec)	-1.14932984479E+03									
Delay rate (us/s)	3.43107112954E-02									
Total phase (deg)			-298.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal $\theta$										
k p										
Chan ids										
Tracks										
Chan ids										
Tracks										
Amplitude										
0.137 +/- 0.018										
Search (2048X32)										
0.134										
Interp.										
0.000										
Inc. seg. avg.										
0.213										
Inc. frq. avg.										
0.133										
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										

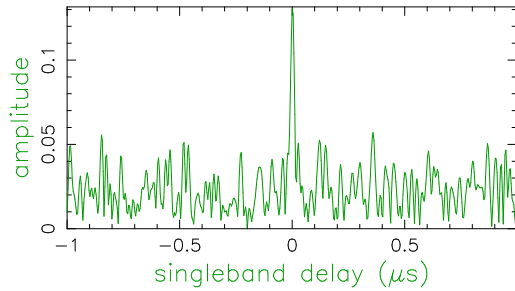
k: az 46.3 el 32.1 pa -77.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) -306.813 110.437 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/kp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/kp.W.171.1X0YRU

multiband delay ( $\mu$ s)

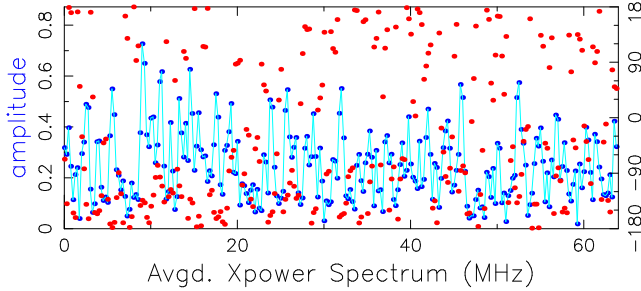


Fringe quality 9

SNR 7.4  
Int time 418.447  
Amp 0.132  
Phase -130.9  
PFD 5.9e-05  
Delays (us)  
SBD 0.001368  
MBD -0.000348  
Fringe rate (Hz)  
-0.027030  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

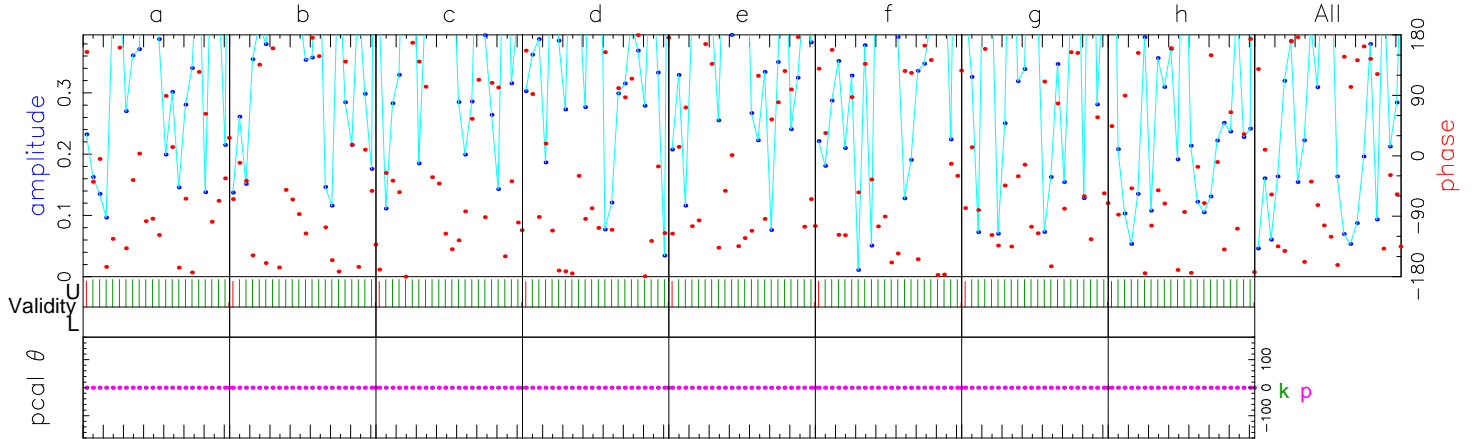


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125216  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-100.3	-145.3	-131.2	-136.1	-132.2	-156.7	-117.7	-109.2	Phase	-130.9
	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	Ampl.	0.1
	61.3	334.1	416.2	257.7	361.2	173.8	290.9	306.9	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.14933018708E+03			Apriori delay (usec)	-1.14932983906E+03			Resid mbdelay (usec)	-3.48019E-04	+/- 1.5E-04
Sband delay (usec)	-1.14932847081E+03			Apriori clock (usec)	-5.2158470E+00			Resid sbdelay (usec)	1.36825E-03	+/- 1.2E-03
Phase delay (usec)	-1.14932984328E+03			Apriori clockrate (us/s)	1.2000000E-07			Resid phdelay (usec)	-4.22058E-06	+/- 5.0E-07
Delay rate (us/s)	3.43102289873E-02			Apriori rate (us/s)	3.43105427820E-02			Resid rate (us/s)	-3.13795E-07	+/- 2.1E-09
Total phase (deg)		-252.0		Apriori accel (us/s/s)	3.07661561645E-06			Resid phase (deg)	-130.9	+/- 15.6

	RMS	Theor.	Amplitude	0.132 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
ph/seg (deg)	75.1	37.3	Search (2048X32)	0.127	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008	
amp/seg (%)	151.1	65.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	
ph/frq (deg)	20.3	22.0	Inc. seg. avg.	0.205	Sample rate(MSamp/s): 128		ion window (TEC)	0.00	0.00	
amp/frq (%)	25.5	38.4	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite				

k: az 46.3 el 32.1 pa -77.9      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) -306.813 110.437      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0085/kp..1X0YRU      Output file: /Exps/c211c/v1/1234/No0085/kp.W.192.1X0YRU

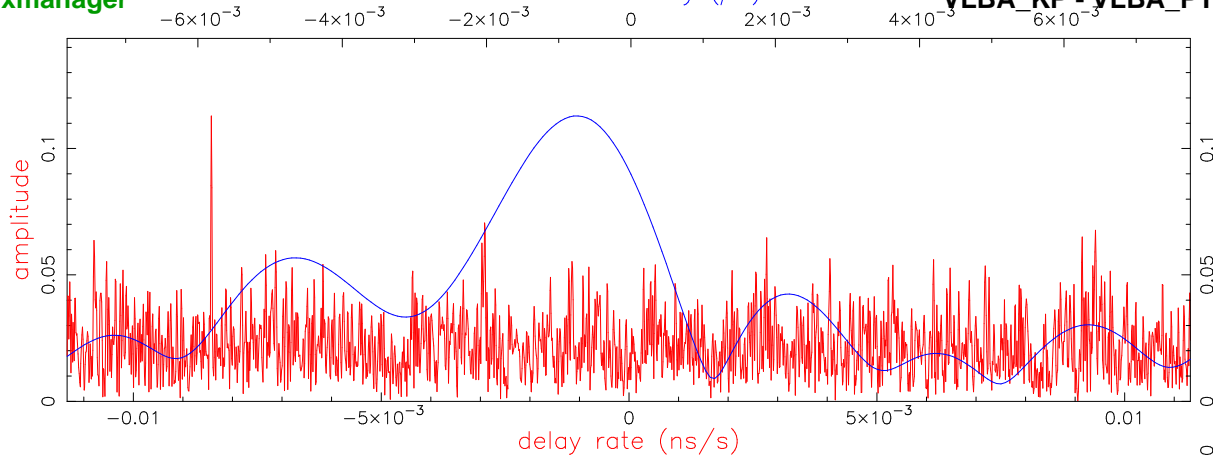
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, kp

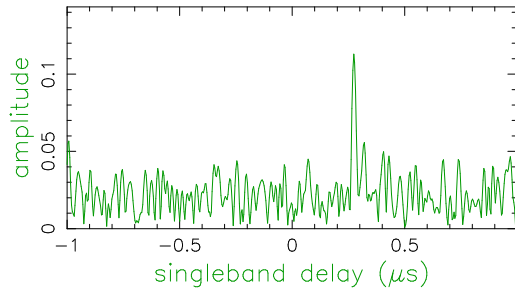
VLBA\_KP - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

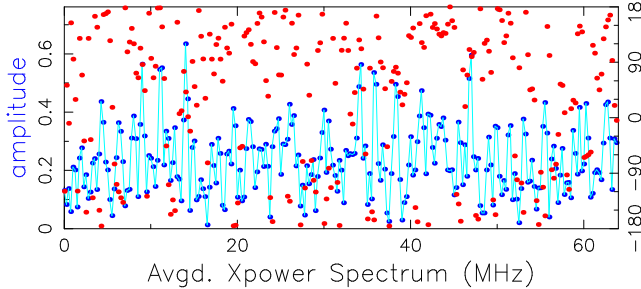


Fringe quality 0

SNR 6.3  
Int time 418.447  
Amp 0.144  
Phase 61.5  
PFD 6.7e-02  
Delays (us)  
SBD 0.273991  
MBD -0.000732  
Fringe rate (Hz)  
-0.726404  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

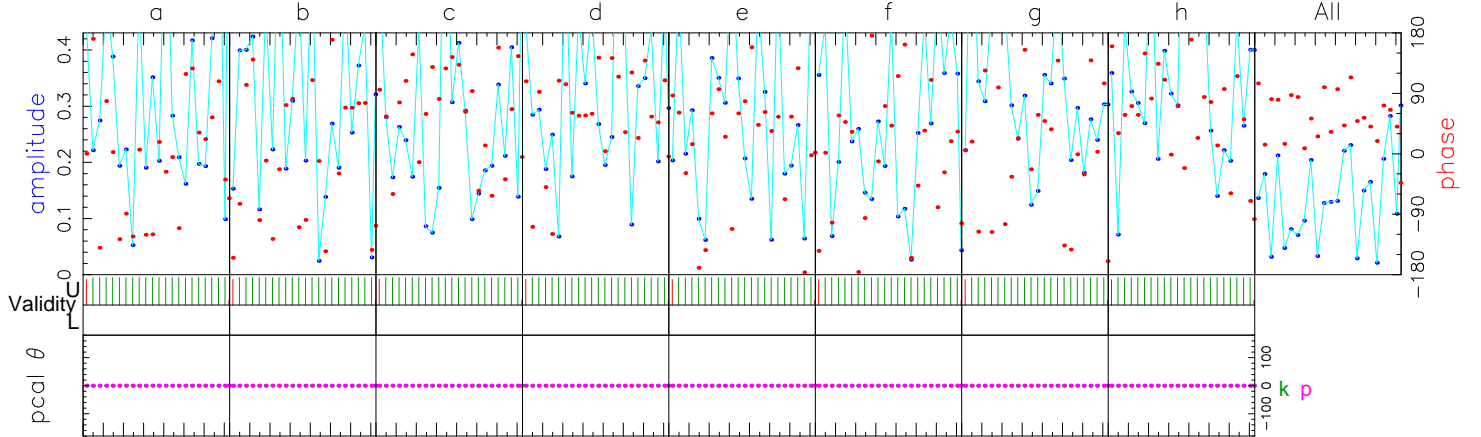


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125220  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	69.6	91.2	84.1	48.1	18.0	51.9	69.9	Phase	61.5
	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.2	Ampl.	0.1
	137.3	335.9	188.3	326.7	502.6	288.4	88.7	327.7	Sbd box	327.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.14904932151E+03		Apriori delay (usec)		-1.14932983906E+03		Resid mbdelay (usec)		-7.32456E-04	+/- 1.7E-04
Sband delay (usec)	-1.14905584856E+03		Apriori clock (usec)		-5.2158470E+00		Resid sbdelay (usec)		2.73991E-01	+/- 1.4E-03
Phase delay (usec)	-1.14932983707E+03		Apriori clockrate (us/s)		1.2000000E-07		Resid phdelay (usec)		1.98398E-06	+/- 5.8E-07
Delay rate (us/s)	3.43021099550E-02		Apriori rate (us/s)		3.43105427820E-02		Resid rate (us/s)		-8.43283E-06	+/- 2.4E-09
Total phase (deg)			Apriori accel (us/s/s)		3.07661561645E-06		Resid phase (deg)		61.5	+/- 18.1

	RMS	Theor.	Amplitude	0.144 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	32.8	43.5	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	68.4	75.8	Interp.	0.000	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	30.5	25.6	Inc. seg. avg.	0.131	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.5	44.7	Inc. frq. avg.	0.144	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 46.3 el 32.1 pa -77.9      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) -306.813 110.437      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0085/kp..1X0YRU      Output file: /Exps/c211c/v1/1234/No0085/kp.W.211.1X0YRU

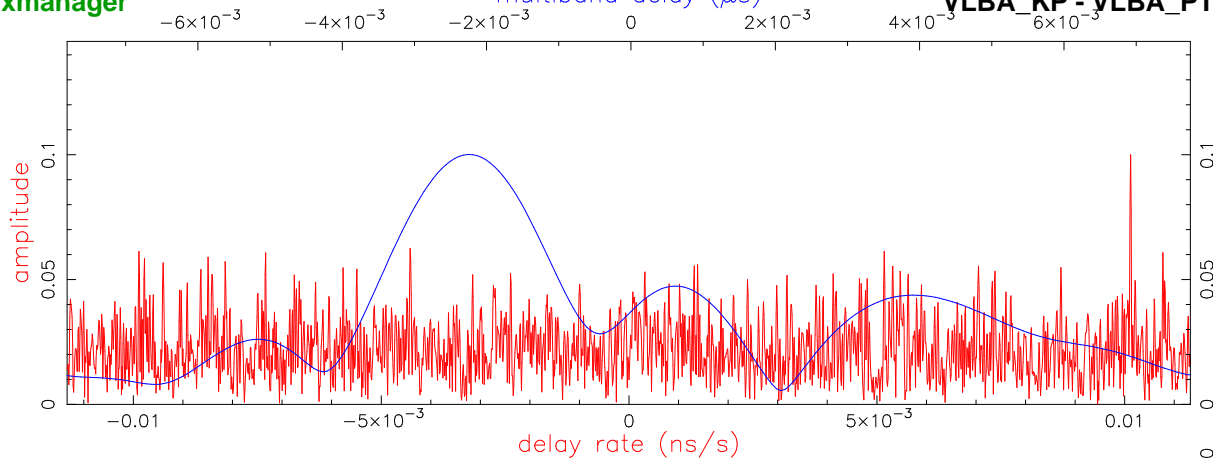
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, kp

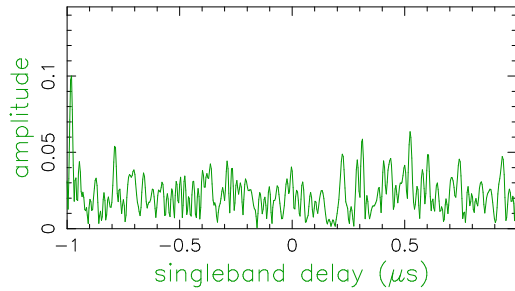
VLBA\_KP - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

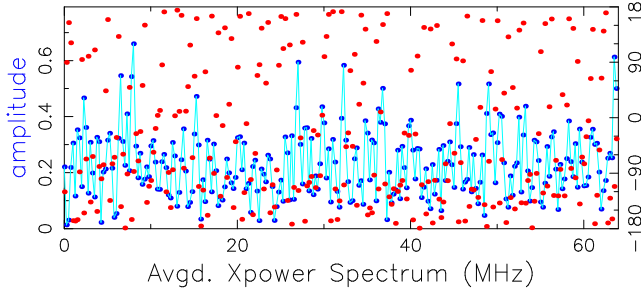


Fringe quality 0

SNR 5.7  
 Int time 418.447  
 Amp 0.145  
 Phase 98.5  
 PFD 9.4e-01  
 Delays (us)  
 SBD -0.982028  
 MBD -0.002288  
 Fringe rate (Hz)  
 0.872877  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

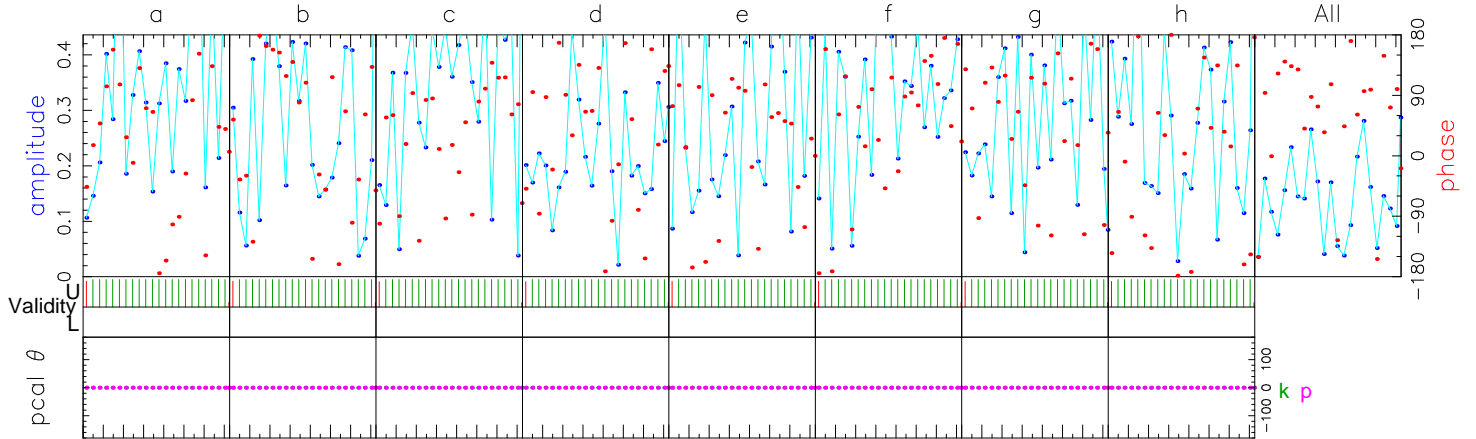


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125224  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	101.0	145.1	60.2	114.8	62.5	93.1	127.8	121.0	Phase	98.5
	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	235.2	278.4	69.3	412.1	156.7	5.2	336.0	252.4	Sbd box	5.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	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	
									Tracks	
Group delay (usec)(sbd)	-1.15031650166E+03			Apriori delay (usec)	-1.14932983906E+03			Resid mbdelay (usec)	-2.28760E-03	+/- 1.9E-04
Sband delay (usec)	-1.15031186681E+03			Apriori clock (usec)	-5.2158470E+00			Resid sbdelay (usec)	-9.82028E-01	+/- 1.5E-03
Phase delay (usec)	-1.14932983588E+03			Apriori clockrate (us/s)	1.2000000E-07			Resid phdelay (usec)	3.17717E-06	+/- 6.5E-07
Delay rate (us/s)	3.43206760225E-02			Apriori rate (us/s)	3.43105427820E-02			Resid rate (us/s)	1.01332E-05	+/- 2.7E-09
Total phase (deg)		-22.6		Apriori accel (us/s/s)	3.07661561645E-06			Resid phase (deg)	98.5	+/- 20.1

	RMS	Theor.	Amplitude	0.145 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	59.9	48.1	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	77.9	83.9	Interp.	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	33.2	28.4	Inc. seg. avg.	0.144	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	39.1	49.5	Inc. frq. avg.	0.144				

k: az 46.3 el 32.1 pa -77.9      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) -306.813 110.437      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0085/kp..1X0YRU      Output file: /Exps/c211c/v1/1234/No0085/kp.W.231.1X0YRU

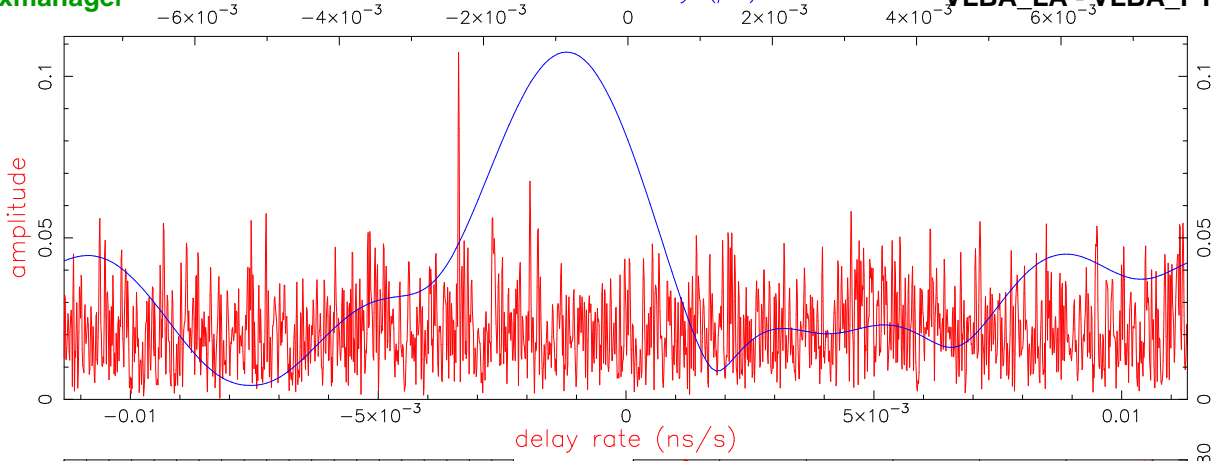
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

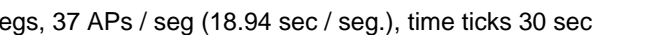
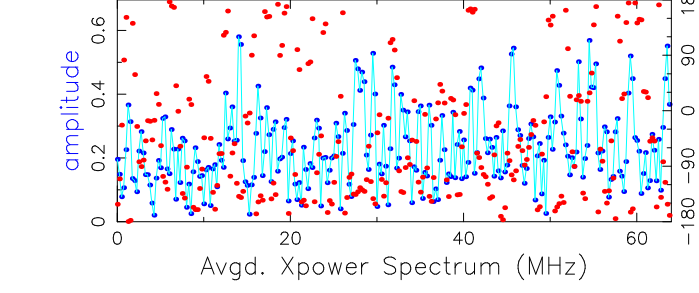
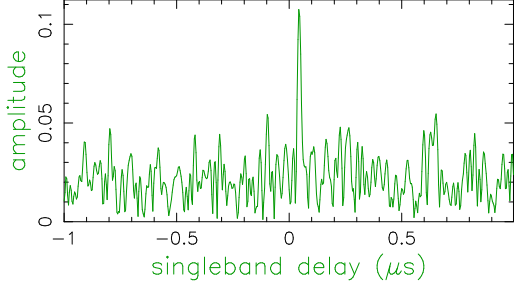
NRAO150.1X0YRU, No0085, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol LL

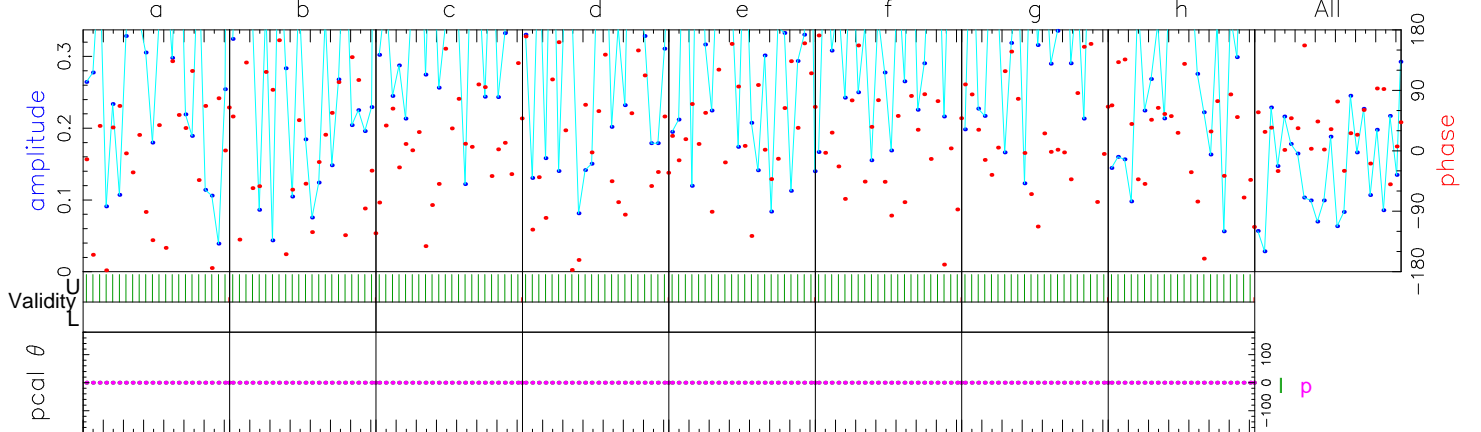
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.1  
 Int time 419.759  
 Amp 0.112  
 Phase 26.6  
 PFD 2.9e-01  
 Delays (us)  
 SBD 0.044146  
 MBD -0.000808  
 Fringe rate (Hz)  
 -0.291003  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125215  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	17.1	171.2	15.4	82.0	42.0	19.5	15.1	22.1	Phase	26.6
	0.1	0.0	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	105.4	53.8	76.1	139.2	167.1	131.0	270.1	424.3	Sbd box	268.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.17124746744E+02		Apriori delay (usec)		6.17078679615E+02		Resid mbdelay (usec)		-8.07872E-04	+/- 1.8E-04
Sband delay (usec)	6.17122825365E+02		Apriori clock (usec)		-8.1622448E+00		Resid sbdelay (usec)		4.41458E-02	+/- 1.4E-03
Phase delay (usec)	6.17078680475E+02		Apriori clockrate (us/s)		-1.6600001E-07		Resid phdelay (usec)		8.59343E-07	+/- 6.1E-07
Delay rate (us/s)	-2.19092277155E-02		Apriori rate (us/s)		-2.19058494622E-02		Resid rate (us/s)		-3.37825E-06	+/- 2.5E-09
Total phase (deg)	193.0		Apriori accel (us/s/s)		-1.48095336453E-06		Resid phase (deg)		26.6	+/- 18.9

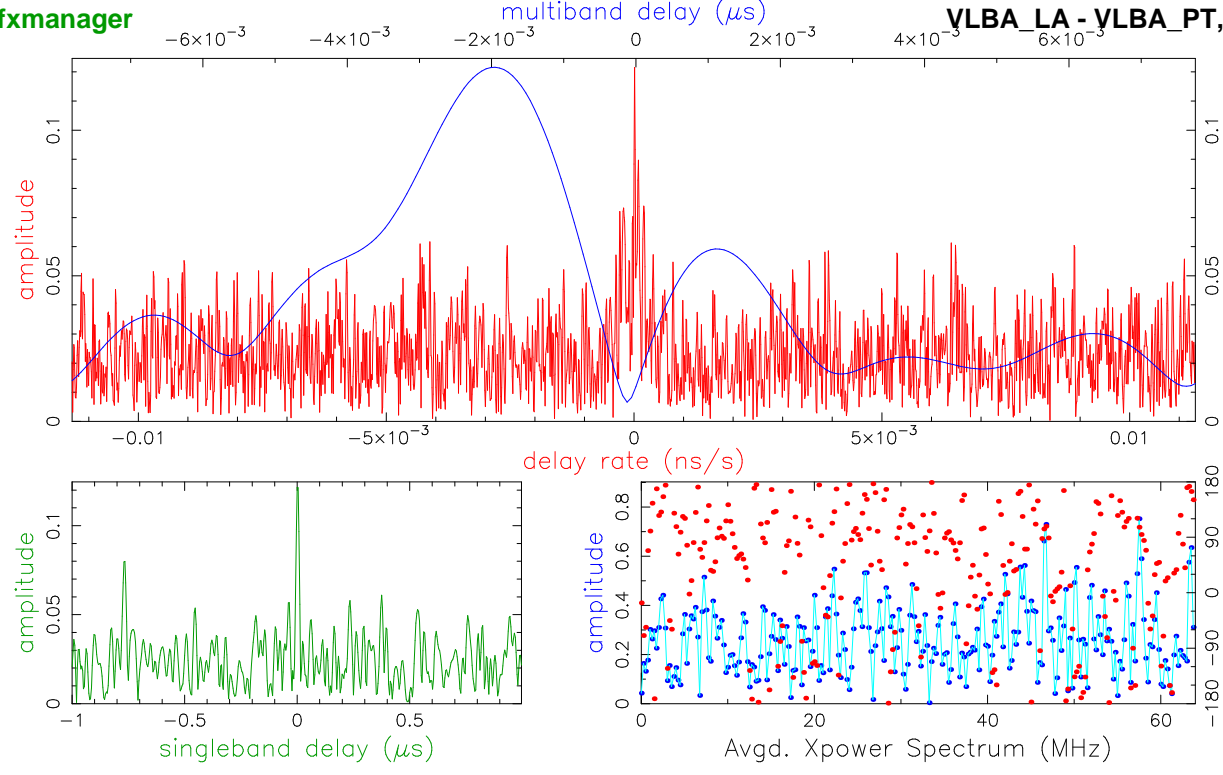
ph/seg (deg) 46.2 45.3 Search (2048X32) 0.105 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 67.4 79.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 64.0 26.7 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 45.5 46.6 Inc. frq. avg. 0.112 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 l: az 49.2 el 38.0 pa -78.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 196.694 -28.433 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/lp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/lp.W.184.1X0YRU

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol RR

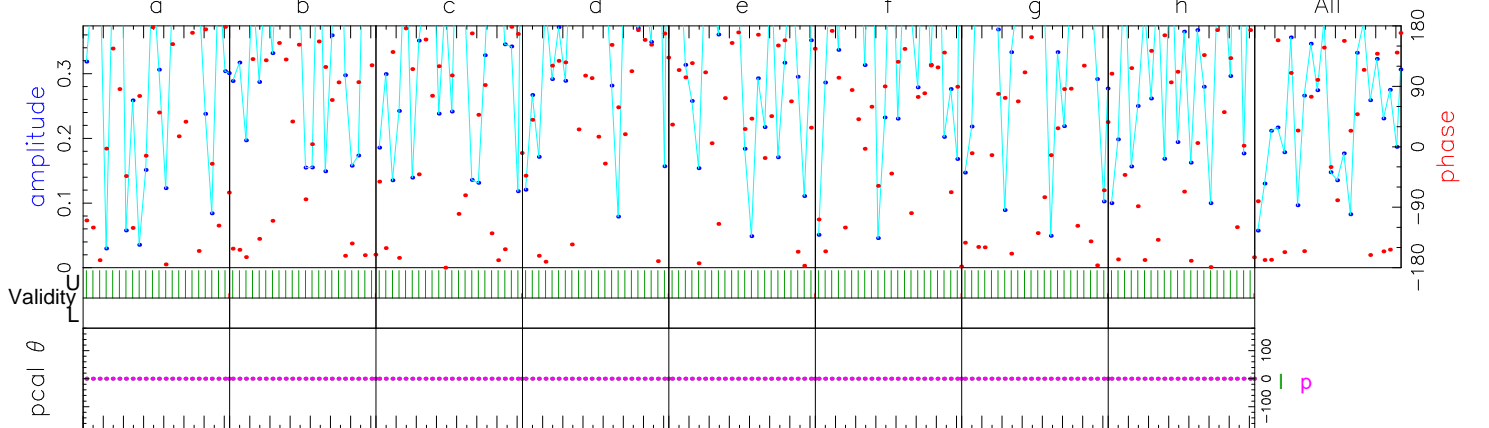


Fringe quality 0

SNR 7.0  
 Int time 419.760  
 Amp 0.125  
 Phase 146.6  
 PFD 8.6e-04  
 Delays (us)  
 SBD 0.001924  
 MBD -0.001919  
 Fringe rate (Hz) 0.000548  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125218  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
163.4	148.8	-172.0	126.8	102.3	104.2	-178.6	178.7	178.7	Phase	146.6
0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
358.9	257.6	257.6	416.9	388.8	61.7	387.1	286.1	286.1	Sbd box	257.5
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l 0	0	0	0	0	0	0	0	0	PC freqs	
p 0	0	0	0	0	0	0	0	0	PC freqs	
l:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
l 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.17076760406E+02		Apriori delay (usec)	6.17078679615E+02	Resid mbdelay (usec)	-1.91921E-03	+/-	1.6E-04		
Sband delay (usec)	6.17080603615E+02		Apriori clock (usec)	-8.1622448E+00	Resid sbdelay (usec)	1.92400E-03	+/-	1.2E-03		
Phase delay (usec)	6.17078684343E+02		Apriori clockrate (us/s)	-1.6600001E-07	Resid phdelay (usec)	4.72765E-06	+/-	5.3E-07		
Delay rate (us/s)	-2.19058431015E-02		Apriori rate (us/s)	-2.19058494622E-02	Resid rate (us/s)	6.36072E-09	+/-	2.2E-09		
Total phase (deg)		313.0	Apriori accel (us/s/s)	-1.48095336453E-06	Resid phase (deg)	146.6	+/-	16.4		

ph/seg (deg) 78.6 39.3 Search (2048X32) 0.116 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 114.2 68.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 37.4 23.2 Inc. seg. avg. 0.186 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.2 40.5 Inc. frq. avg. 0.131 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 l: az 49.2 el 38.0 pa -78.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 196.694 -28.433 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/lp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/lp.W.203.1X0YRU

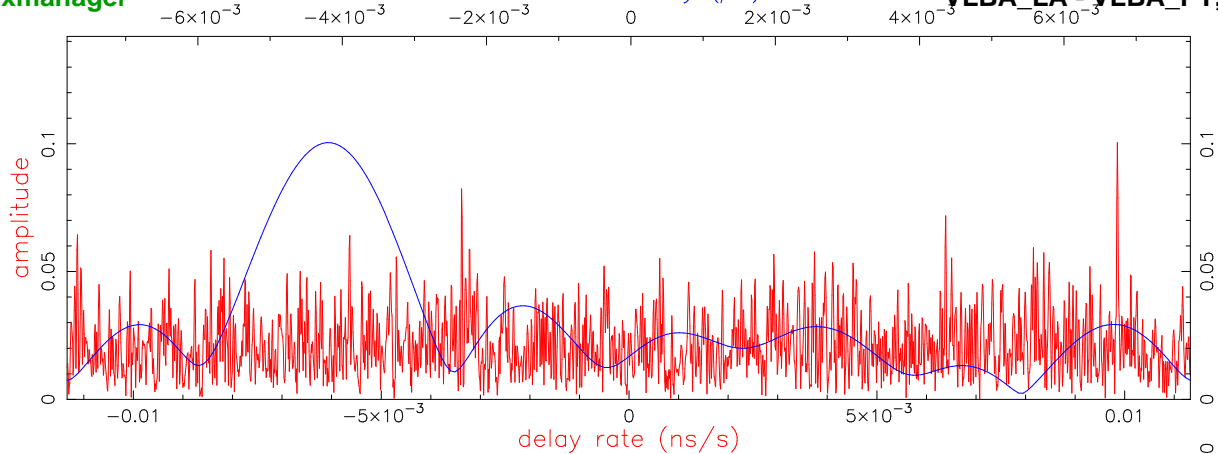
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, lp

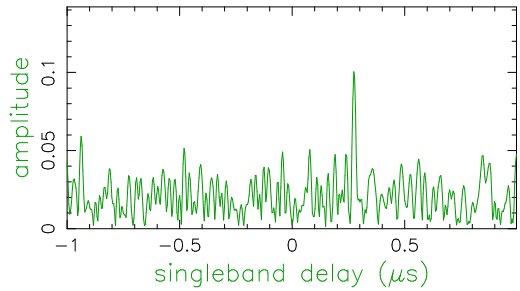
VLBA\_LA - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

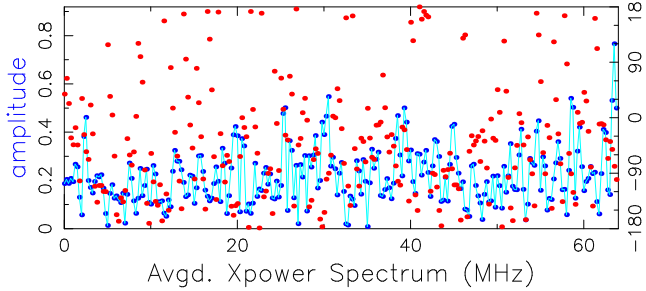


Fringe quality 0

SNR 5.7  
 Int time 419.759  
 Amp 0.142  
 Phase -97.4  
 PFD 9.5e-01  
 Delays (us)  
 SBD 0.274751  
 MBD -0.004193  
 Fringe rate (Hz)  
 0.850494  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

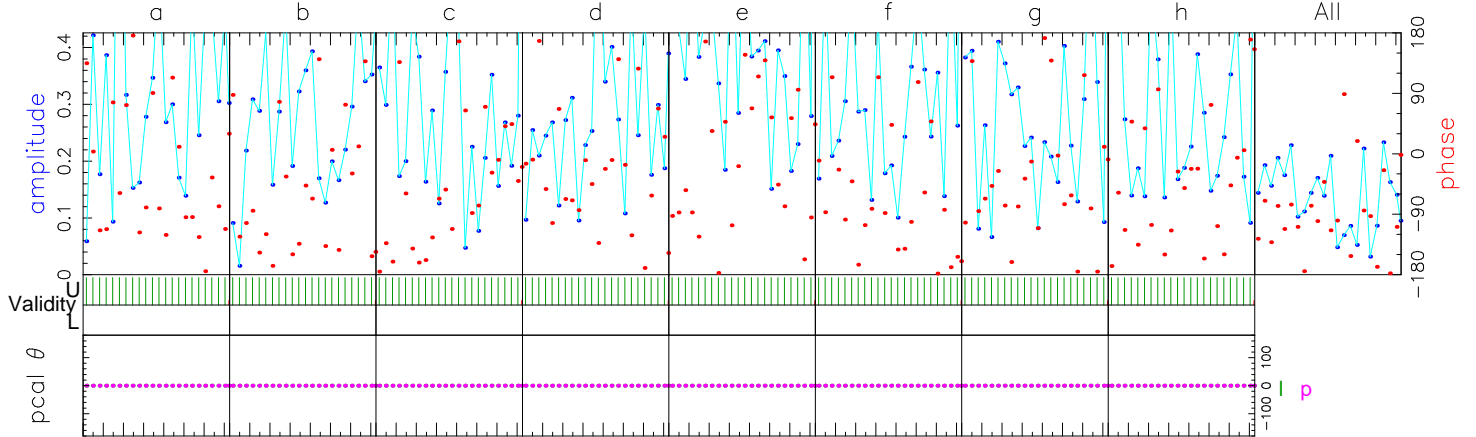


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125222  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-85.2	-94.6	-119.2	-75.3	-123.0	-121.0	-88.0	-81.5	Phase	-97.4
	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	328.7	416.9	345.0	305.9	10.3	125.7	198.6	439.7	Sbd box	327.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
lp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.17355736228E+02		Apriori delay (usec)		6.17078679615E+02		Resid mbdelay (usec)		-4.19339E-03	+/- 1.9E-04
Sband delay (usec)	6.17353430365E+02		Apriori clock (usec)		-8.1622448E+00		Resid sbdelay (usec)		2.74751E-01	+/- 1.5E-03
Phase delay (usec)	6.17078676474E+02		Apriori clockrate (us/s)		-1.6600001E-07		Resid phdelay (usec)		-3.14146E-06	+/- 6.5E-07
Delay rate (us/s)	-2.18959760718E-02		Apriori rate (us/s)		-2.19058494622E-02		Resid rate (us/s)		9.873339E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.48095336453E-06		Resid phase (deg)		-97.4	+/- 20.1

	RMS	Theor.	Amplitude	0.142 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.8	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 (%)	70.5	84.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	21.1	28.5	Inc. seg. avg.	0.146	Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	20.8	49.7	Inc. frq. avg.	0.131	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

l: az 49.2 el 38.0 pa -78.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 196.694 -28.433 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/lp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/lp.W.222.1X0YRU

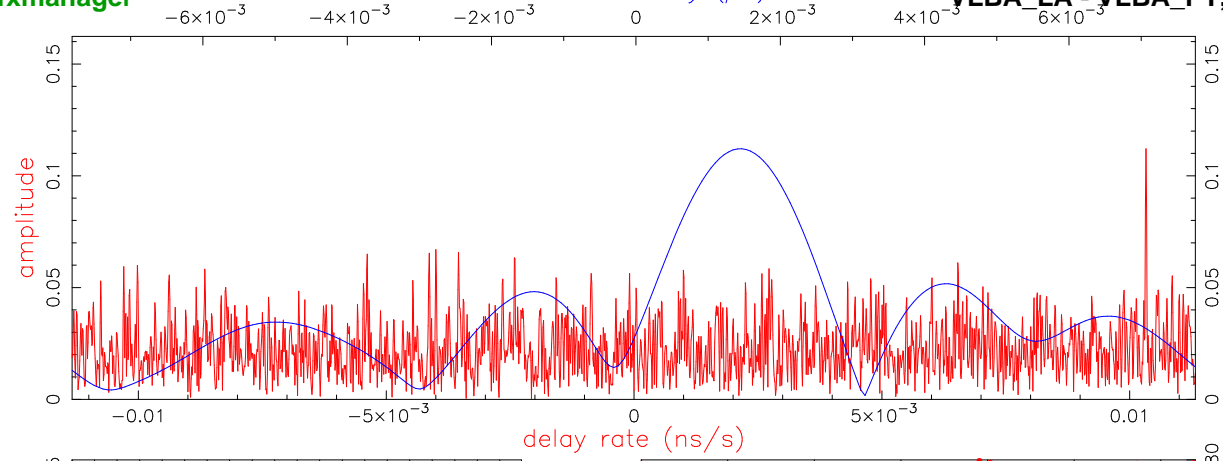
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

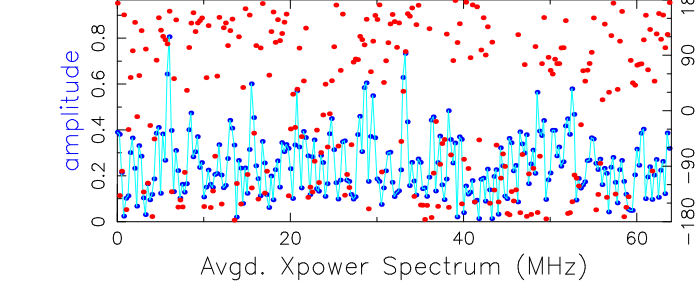
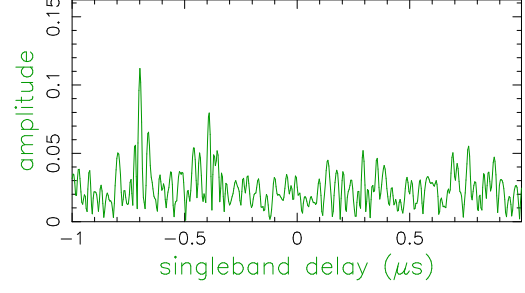
NRAO150.1X0YRU, No0085, lp

VLBA\_LA - VLBA\_PT, fgroup W, pol RL

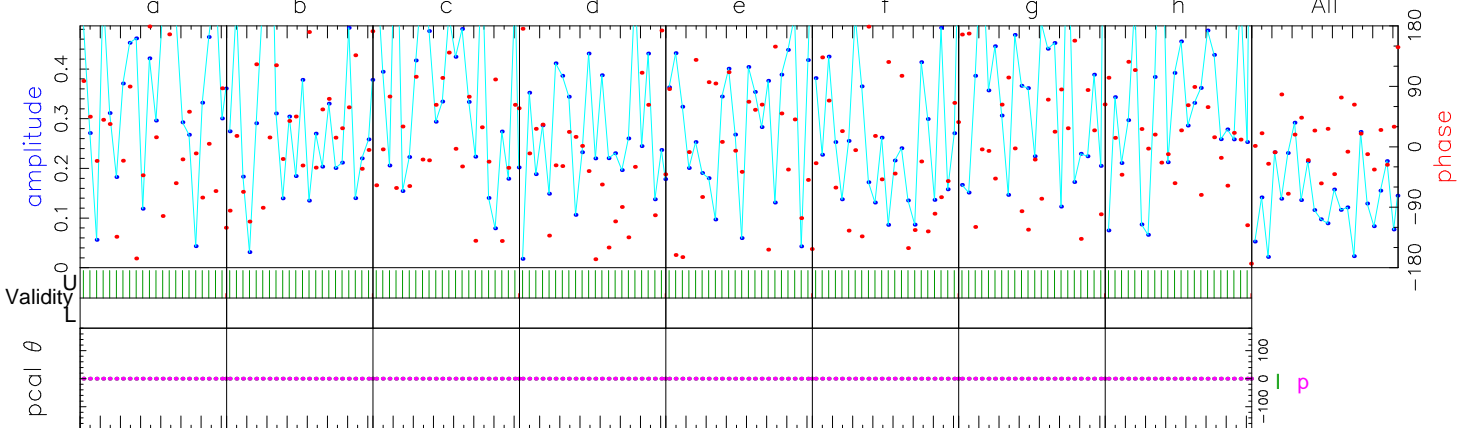
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.3  
 Int time 419.760  
 Amp 0.162  
 Phase 2.3  
 PFD 8.3e-02  
 Delays (us)  
 SBD -0.698799  
 MBD 0.001469  
 Fringe rate (Hz) 0.890718  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125225  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.16377023226E+02	Apriori delay (usec)	6.17078679615E+02	Resid mbdelay (usec)	1.46861E-03	+/-	1.7E-04
Sband delay (usec)	6.16379880115E+02	Apriori clock (usec)	-8.1622448E+00	Resid sbdelay (usec)	-6.98799E-01	+/-	1.4E-03
Phase delay (usec)	6.17078679689E+02	Apriori clockrate (us/s)	-1.6600001E-07	Resid phdelay (usec)	7.35837E-08	+/-	5.9E-07
Delay rate (us/s)	-2.18955091068E-02	Apriori rate (us/s)	-2.19058494622E-02	Resid rate (us/s)	1.03404E-05	+/-	2.4E-09
Total phase (deg)	168.6	Apriori accel (us/s/s)	-1.48095336453E-06	Resid phase (deg)	2.3	+/-	18.2

ph/seg (deg)	40.8	Theor.	43.7	Amplitude	0.162 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	70.0	Search (2048X32)	0.108	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	31.8	Inc. seg. avg.	0.159	Inc. frq. avg.	0.161	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.1	Inc. frq. avg.	0.161			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

l: az 49.2 el 38.0 pa -78.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 196.694 -28.433 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/lp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/lp.W.239.1X0YRU



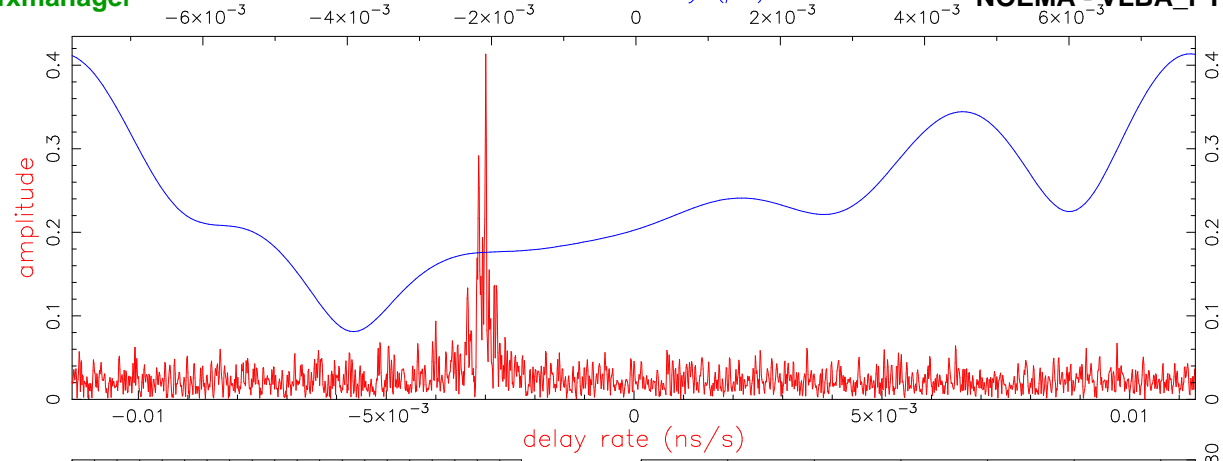
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Np

NOEMA - VLBA\_PT, fgroup W, pol LL

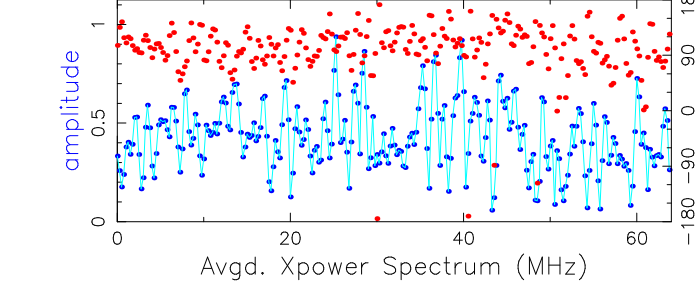
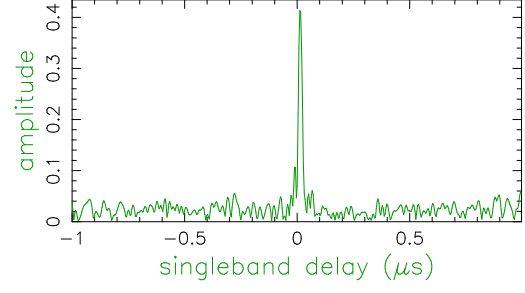
multiband delay ( $\mu$ s)



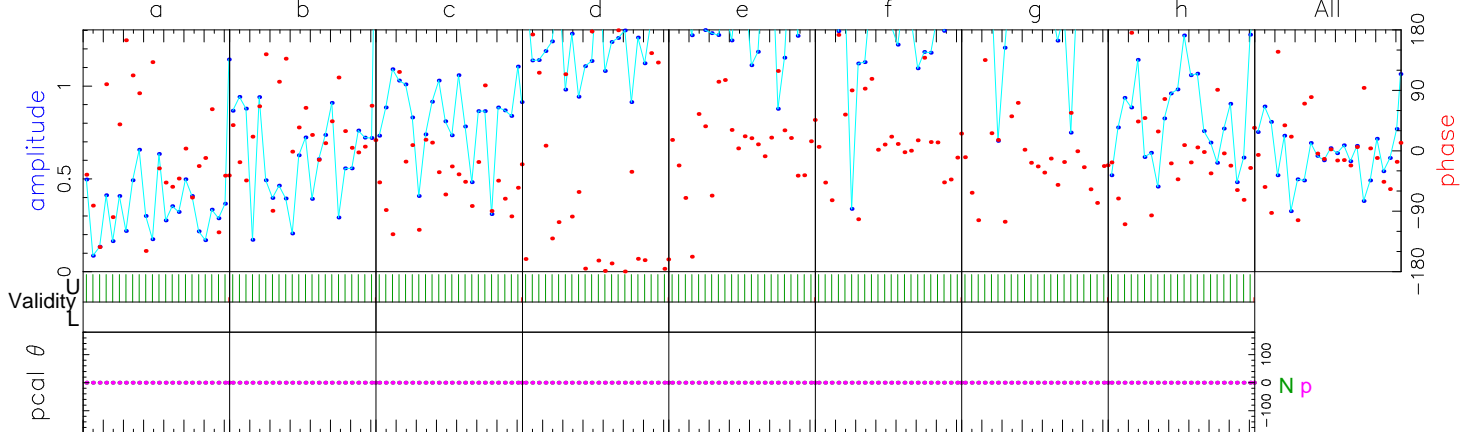
Fringe quality 7

SNR 23.7  
 Int time 419.810  
 Amp 0.434  
 Phase -9.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.013559  
 MBD -0.007902  
 Fringe rate (Hz) -0.257409  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125229  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



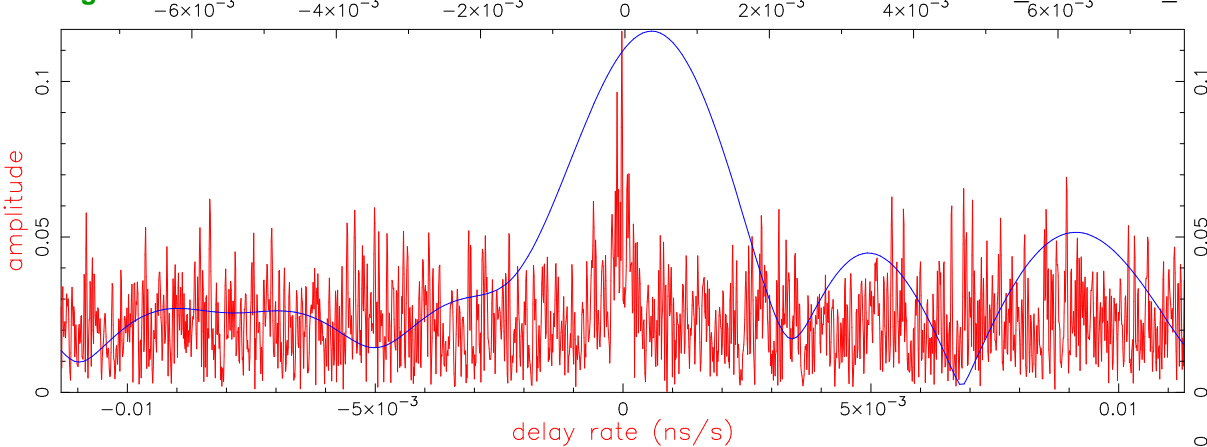
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-12.3	27.6	-42.8	-169.3	11.8	2.1	-19.9	-13.9	Phase	-9.6
	0.1	0.4	0.5	0.8	1.0	0.8	1.0	0.5	Ampl.	0.7
	262.3	260.2	259.4	259.7	260.1	259.8	260.4	262.9	Sbd box	260.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.12946386730E+03		Apriori delay (usec)		6.12945614392E+03		Resid mbdelay (usec)		-7.90162E-03	+/- 4.6E-05
Sband delay (usec)	6.12946970292E+03		Apriori clock (usec)		-1.8845890E+01		Resid sbdelay (usec)		1.35590E-02	+/- 3.6E-04
Phase delay (usec)	6.12945614361E+03		Apriori clockrate (us/s)		8.4400004E-06		Resid phdelay (usec)		-3.10523E-07	+/- 1.6E-07
Delay rate (us/s)	-1.23060703480E+00		Apriori rate (us/s)		-1.23060404653E+00		Resid rate (us/s)		-2.98827E-06	+/- 6.4E-10
Total phase (deg)	75.9		Apriori accel (us/s/s)		-2.04919087274E-05		Resid phase (deg)		-9.6	+/- 4.8

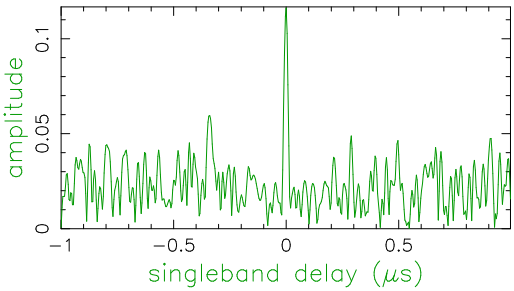
ph/seg (deg) 58.1 11.6 Search (2048X32) 0.407 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 58.5 20.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 69.2 6.9 Inc. seg. avg. 0.632 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 86.0 12.0 Inc. frq. avg. 0.658 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 N: az 298.0 el 62.4 pa 88.0 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 11168.357 -1317.043 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Np.W.247.1X0YRU

multiband delay ( $\mu$ s)

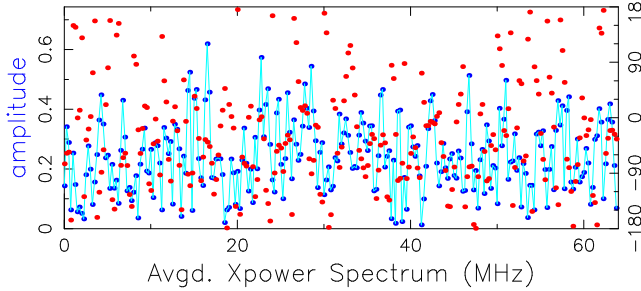


Fringe quality 0

SNR 6.5  
 Int time 419.812  
 Amp 0.117  
 Phase -65.1  
 PFD 1.7e-02  
 Delays (us)  
 SBD -0.001005  
 MBD 0.000335  
 Fringe rate (Hz)  
 -0.001874  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

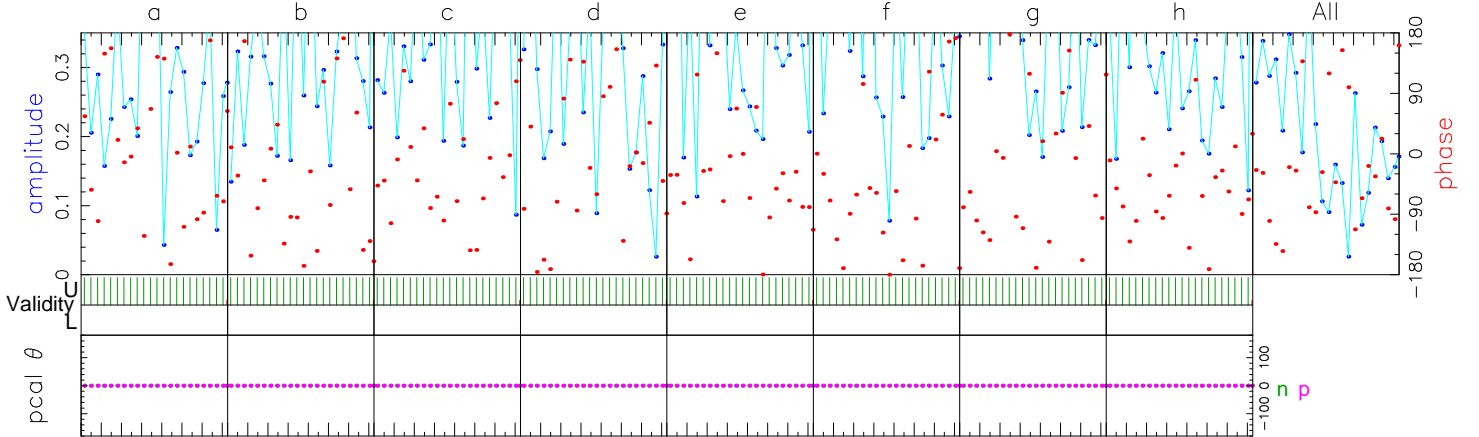


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125229  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-74.4	-95.7	-42.2	-29.7	-51.2	-73.9	-85.7	-54.5	Phase	-65.1
	0.0	0.1	0.1	0.0	0.2	0.1	0.2	0.2	Ampl.	0.1
	168.8	72.4	94.9	389.4	256.3	258.8	257.6	257.1	Sbd box	256.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.96142724496E+03	Apriori delay (usec)	3.96142690947E+03	Resid mbdelay (usec)	3.35481E-04	+/-	1.7E-04
Sband delay (usec)	3.96142590422E+03	Apriori clock (usec)	-6.0462952E-02	Resid sbdelay (usec)	-1.00525E-03	+/-	1.3E-03
Phase delay (usec)	3.96142690737E+03	Apriori clockrate (us/s)	4.199997E-07	Resid phdelay (usec)	-2.10053E-06	+/-	5.6E-07
Delay rate (us/s)	-1.65582154560E-01	Apriori rate (us/s)	-1.65582132806E-01	Resid rate (us/s)	-2.17541E-08	+/-	2.3E-09
Total phase (deg)	288.4	Apriori accel (us/s/s)	-1.20824653925E-05	Resid phase (deg)	-65.1	+/-	17.5

ph/seg (deg)	79.8	Theor.	42.0	Amplitude	0.117 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	115.3	Search (2048X32)	0.115	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.115	sb window (us)	-1.000 1.000	
ph/frq (deg)	24.5	Inc. seg. avg.	0.163	Bits/sample: 2x2	0.163	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	55.5	Inc. frq. avg.	0.112	Sample rate(MISamp/s): 128	0.112	nlags: 256	dr window (ns/s)	-0.011 0.011
				Data rate(Mb/s): 2048		t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 56.3 el 50.7 pa -80.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 1486.175 -615.923 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/np.W.248.1X0YRU

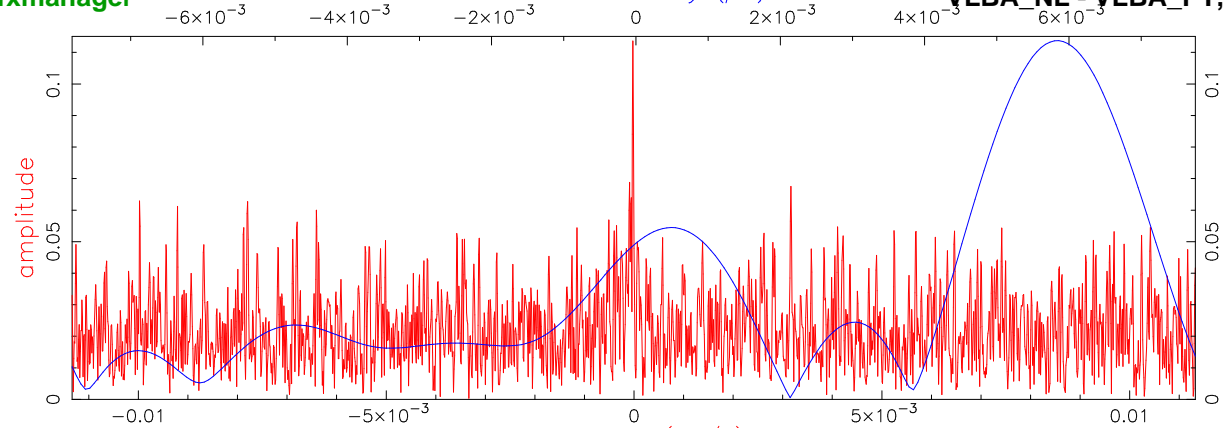
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, np

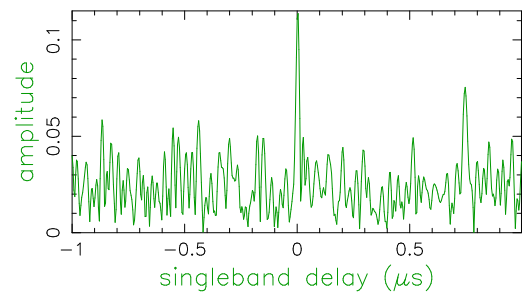
VLBA\_NL - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

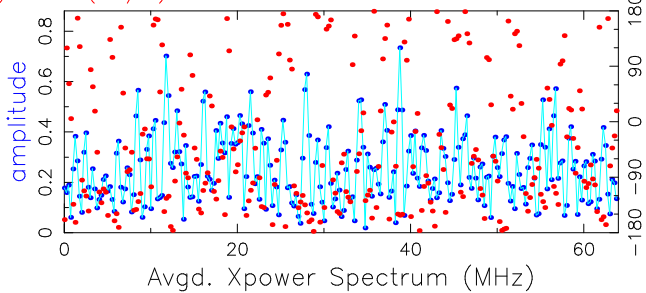


Fringe quality 0

SNR 6.4  
Int time 419.812  
Amp 0.115  
Phase -162.9  
PFD 3.1e-02  
Delays (us)  
SBD 0.002473  
MBD 0.005786  
Fringe rate (Hz)  
-0.001586  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

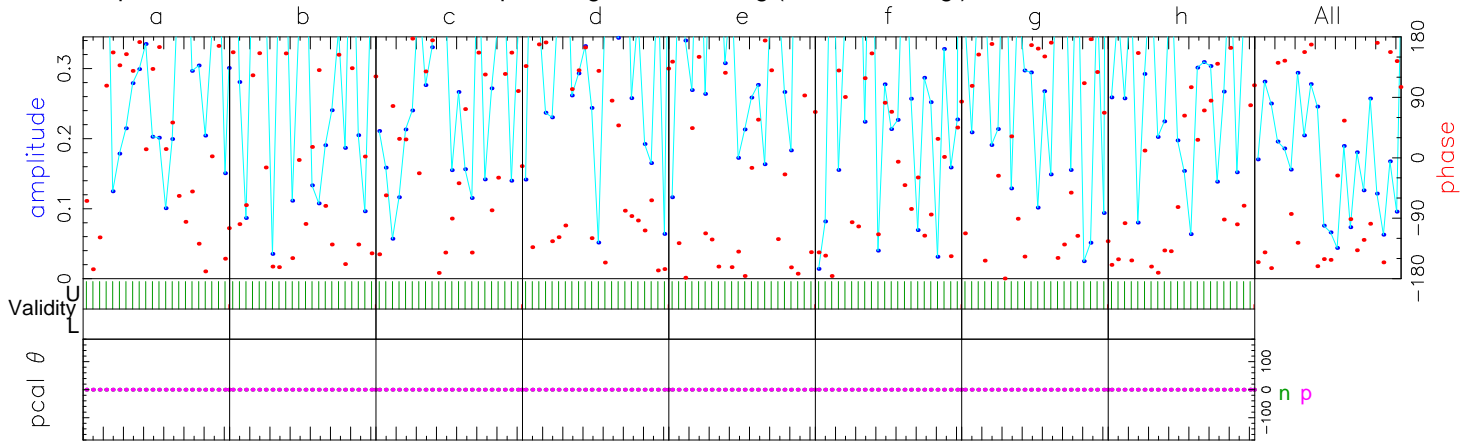


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125233  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-151.9	-178.0	179.7	-148.6	-174.4	-121.8	-158.7	-164.0	Phase	-162.9
	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.1	Ampl.	0.1
	371.8	355.7	423.0	33.5	257.5	273.5	257.0	260.3	Sbd box	257.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.96143269589E+03		Apriori delay (usec)		3.96142690947E+03		Resid mbdelay (usec)		5.78642E-03	+/- 1.7E-04
Sband delay (usec)	3.96142938272E+03		Apriori clock (usec)		-6.0462952E-02		Resid sbdelay (usec)		2.47325E-03	+/- 1.3E-03
Phase delay (usec)	3.96142690422E+03		Apriori clockrate (us/s)		4.199997E-07		Resid phdelay (usec)		-5.25388E-06	+/- 5.7E-07
Delay rate (us/s)	-1.65582151218E-01		Apriori rate (us/s)		-1.65582132806E-01		Resid rate (us/s)		-1.84119E-08	+/- 2.4E-09
Total phase (deg)	190.7		Apriori accel (us/s/s)		-1.20824653925E-05		Resid phase (deg)		-162.9	+/- 17.8

	RMS	Theor.	Amplitude	0.115 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	57.7	42.6	Search (2048X32)	0.111	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	83.0	74.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	21.2	25.1	Inc. seg. avg.	0.134	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	43.9	43.9	Inc. frq. avg.	0.107	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

n: az 56.3 el 50.7 pa -80.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 1486.175 -615.923 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/np.W.269.1X0YRU

Mk4/DiFX fourfit 3.21 rev 2937

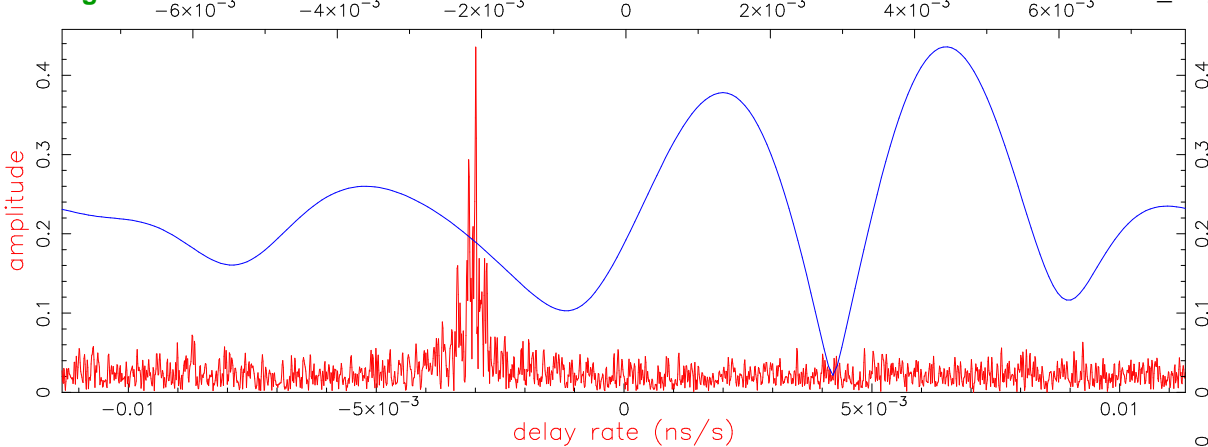
fxmanager

NRAO150.1X0YRU, No0085, Np

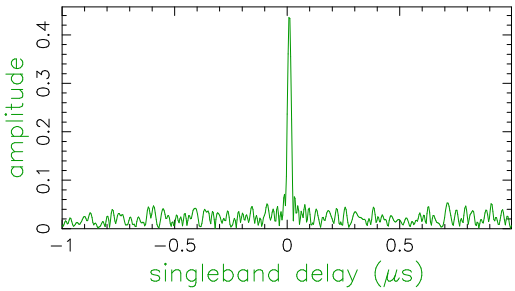
NOEMA - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

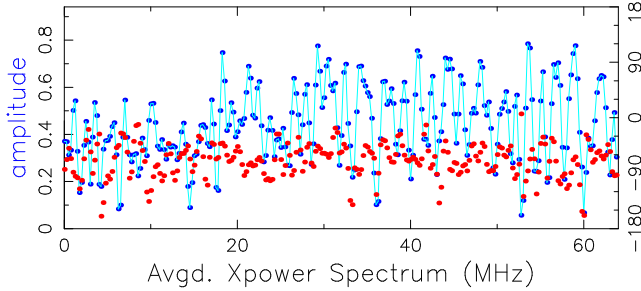
Fringe quality 5



SNR 24.9  
 Int time 419.808  
 Amp 0.458  
 Phase -6.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009684  
 MBD 0.004481  
 Fringe rate (Hz)  
 -0.257439  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

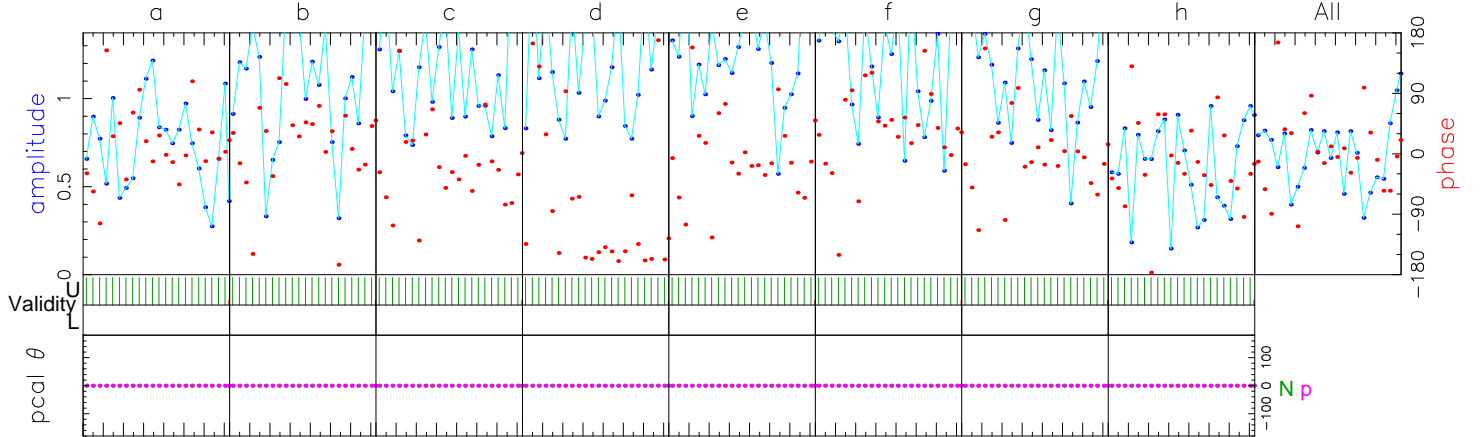


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125233  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0				
N	1000	1000	1000	1000	1000	1000	1000	1000				
p	0	0	0	0	0	0	0	0				
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
N	1000	1000	1000	1000	1000	1000	1000	1000				
p	1000	1000	1000	1000	1000	1000	1000	1000				
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)	6.12946062482E+03		Apriori delay (usec)		6.12945614392E+03		Resid mbdelay (usec)		4.48090E-03	+/- 4.4E-05		
Sband delay (usec)	6.12946582817E+03		Apriori clock (usec)		-1.8845890E+01		Resid sbdelay (usec)		9.68425E-03	+/- 3.5E-04		
Phase delay (usec)	6.12945614372E+03		Apriori clockrate (us/s)		8.4400004E-06		Resid phdelay (usec)		-1.98486E-07	+/- 1.5E-07		
Delay rate (us/s)	-1.23060703514E+00		Apriori rate (us/s)		-1.23060404653E+00		Resid rate (us/s)		-2.98861E-06	+/- 6.1E-10		
Total phase (deg)	79.3		Apriori accel (us/s/s)		-2.04919087274E-05		Resid phase (deg)		-6.2	+/- 4.6		
ph/seg (deg)	RMS 61.4	Theor. 11.0	Amplitude 61.4	0.458 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	66.1	19.2	Search (2048X32)	0.423		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
ph/frq (deg)	64.8	6.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	61.7	11.3	Inc. seg. avg.	0.686		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
			Inc. frq. avg.	0.691		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
N: az 298.0 el 62.4 pa 88.0	p: az 48.1 el 35.8 pa -78.4		u,v (fr/asec) 11168.357 -1317.043						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0085/Np..1X0YRU		Output file: /Exps/c211c/v1/1234/No0085/Np.W.272.1X0YRU									

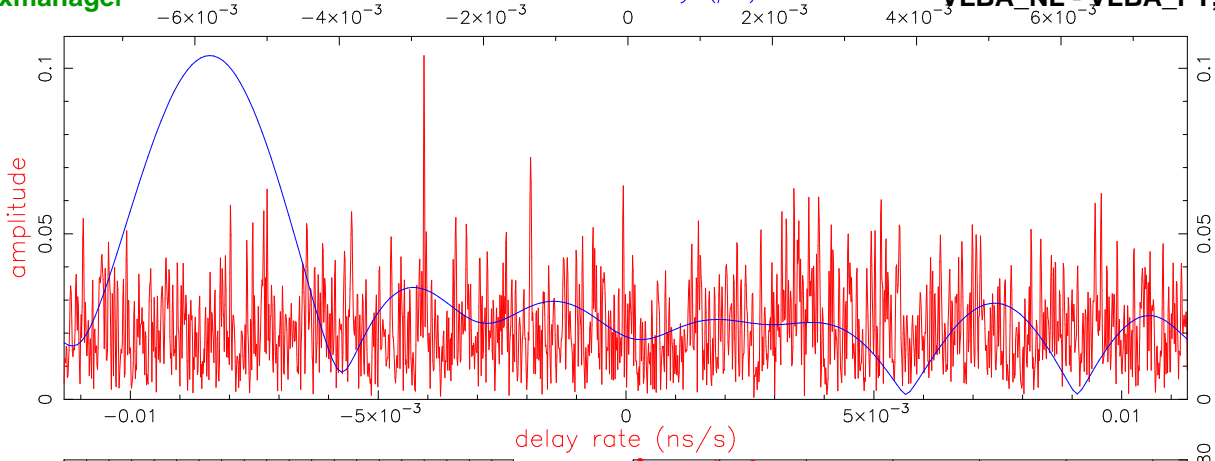
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, np

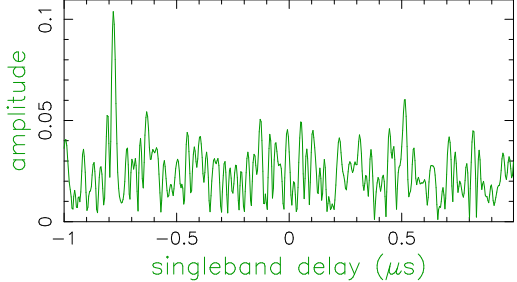
VLBA\_NL - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

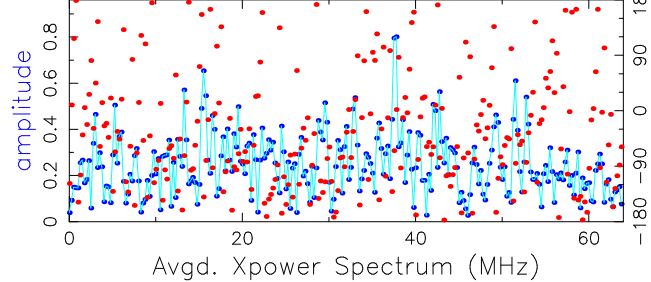


Fringe quality 0

SNR 5.8  
Int time 419.812  
Amp 0.110  
Phase -10.1  
PFD 7.7e-01  
Delays (us)  
SBD -0.780970  
MBD -0.005780  
Fringe rate (Hz)  
-0.351781  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

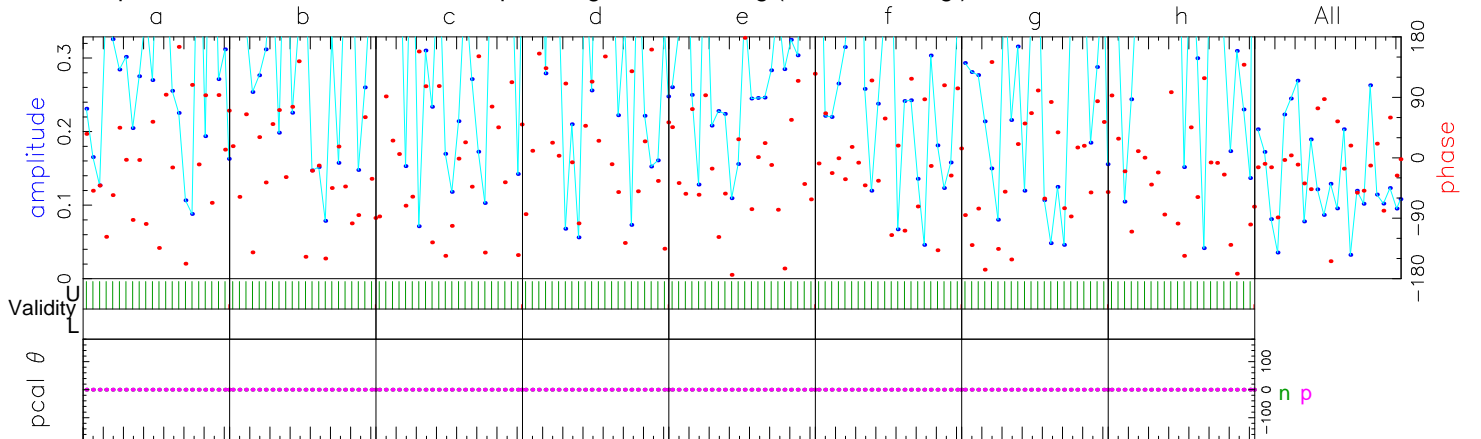


delay rate (ns/s)



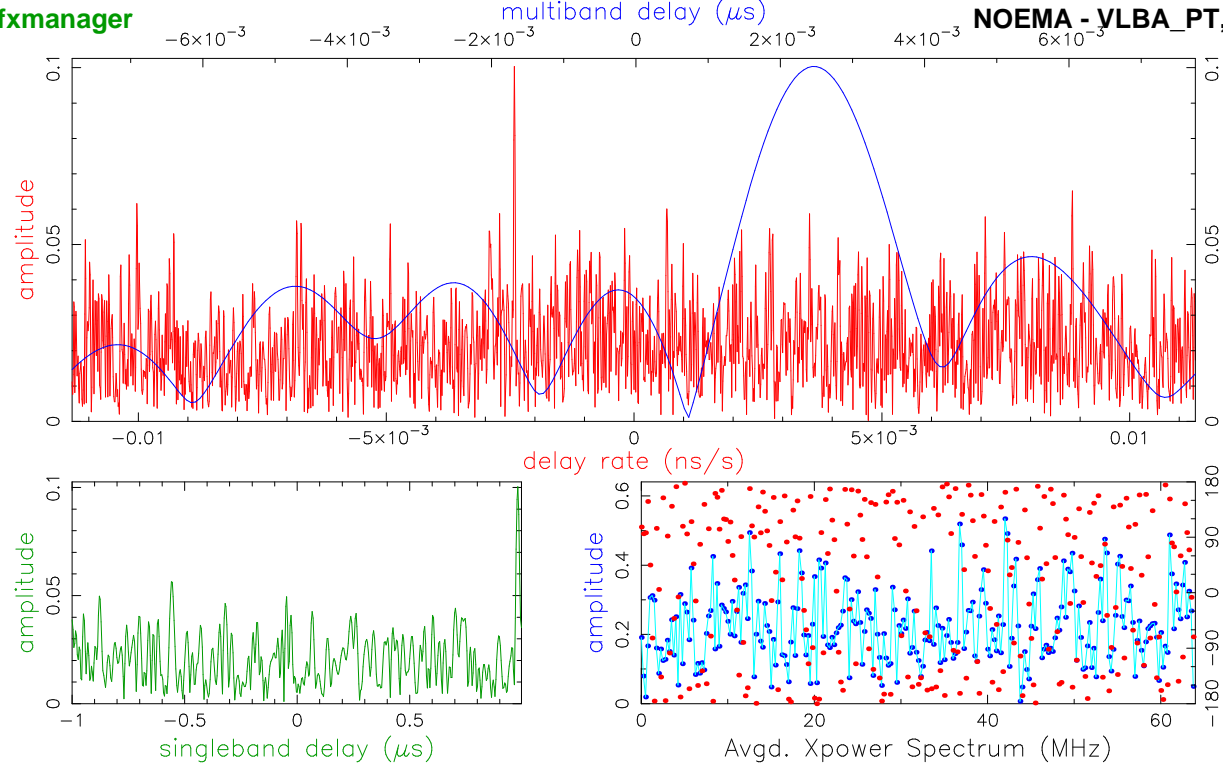
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125237  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



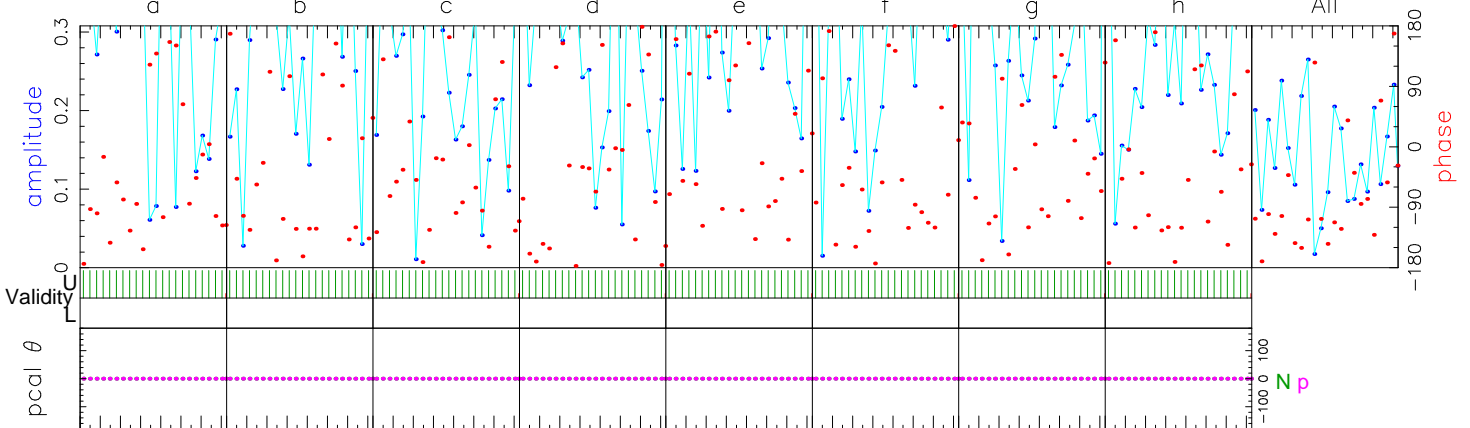
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-25.7	-21.7	25.5	13.3	-24.7	-5.2	6.2	-26.4	Phase	-10.1
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	286.0	154.1	461.4	370.6	336.6	509.8	114.5	343.9	Sbd box	57.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.96063987971E+03		Apriori delay (usec)		3.96142690947E+03		Resid mbdelay (usec)		-5.77977E-03	+/- 1.9E-04
Sband delay (usec)	3.96064593972E+03		Apriori clock (usec)		-6.0462952E-02		Resid sbdelay (usec)		-7.80970E-01	+/- 1.5E-03
Phase delay (usec)	3.96142690915E+03		Apriori clockrate (us/s)		4.1999997E-07		Resid phdelay (usec)		-3.26147E-07	+/- 6.3E-07
Delay rate (us/s)	-1.65586216629E-01		Apriori rate (us/s)		-1.65582132806E-01		Resid rate (us/s)		-4.08382E-06	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.20824653925E-05		Resid phase (deg)		-10.1	+/- 19.7

ph/seg (deg) 54.1 47.2 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 74.2 82.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 22.2 27.8 Inc. seg. avg. 0.110 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 27.4 48.6 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
n: az 56.3 el 50.7 pa -80.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 1486.175 -615.923 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/np.W.290.1X0YRU



Fringe quality 0  
SNR 5.6  
Int time 419.810  
Amp 0.103  
Phase -112.7  
PFD 9.8e-01  
Delays (us)  
SBD 0.979714  
MBD 0.002450  
Fringe rate (Hz)  
-0.208608  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125237  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-103.3	-145.5	-75.4	-140.5	-138.1	-111.3	-80.5	-135.4	Phase	-112.7
	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Ampl.	0.1
	442.0	342.8	43.8	244.6	417.0	508.0	225.4	138.3	Sbd box	507.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.13044296860E+03		Apriori delay (usec)		6.12945614392E+03		Resid mbdelay (usec)		2.44967E-03	+/- 1.9E-04
Sband delay (usec)	6.13043585792E+03		Apriori clock (usec)		-1.8845890E+01		Resid sbdelay (usec)		9.79714E-01	+/- 1.5E-03
Phase delay (usec)	6.12945614029E+03		Apriori clockrate (us/s)		8.4400004E-06		Resid phdelay (usec)		-3.63409E-06	+/- 6.5E-07
Delay rate (us/s)	-1.23060646826E+00		Apriori rate (us/s)		-1.23060404653E+00		Resid rate (us/s)		-2.42173E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.04919087274E-05		Resid phase (deg)		-112.7	+/- 20.3

ph/seg (deg) 67.5 48.7 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 79.4 85.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 30.4 28.7 Inc. seg. avg. 0.110 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 40.4 50.1 Inc. frq. avg. 0.100 Data rate (Mbit/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
N: az 298.0 el 62.4 pa 88.0 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 11168.357 -1317.043 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Np.W.291.1X0YRU

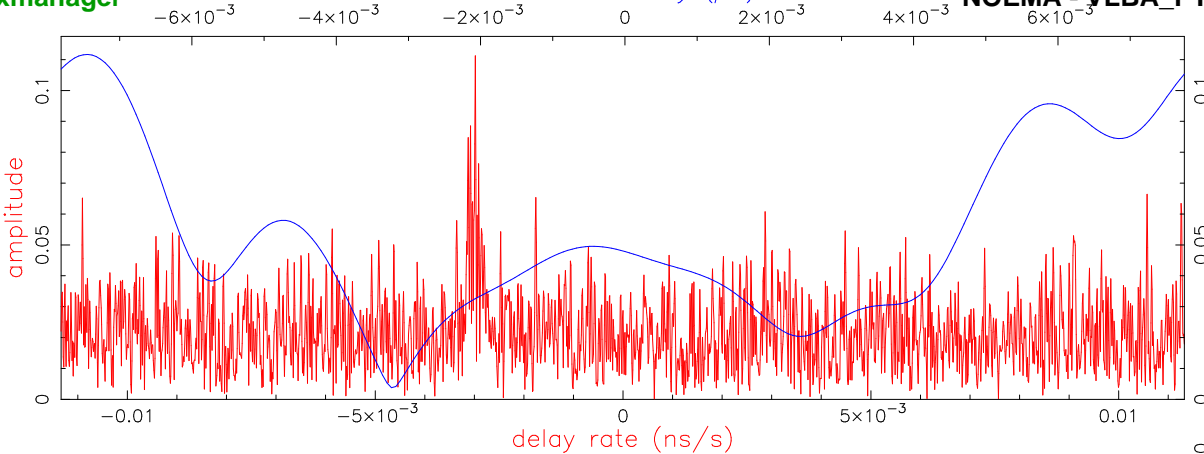
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Np

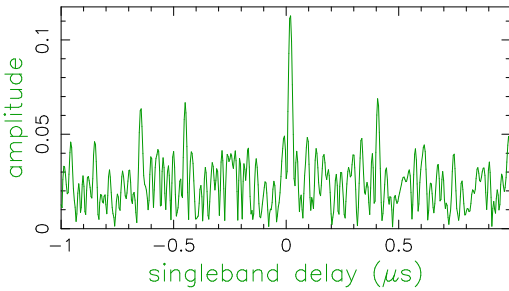
NOEMA - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

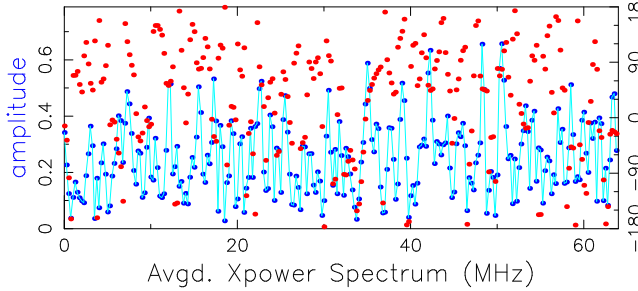


Fringe quality 0

SNR 6.4  
 Int time 419.808  
 Amp 0.118  
 Phase -8.4  
 PFD 4.2e-02  
 Delays (us)  
 SBD 0.017908  
 MBD -0.007353  
 Fringe rate (Hz)  
 -0.257280  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

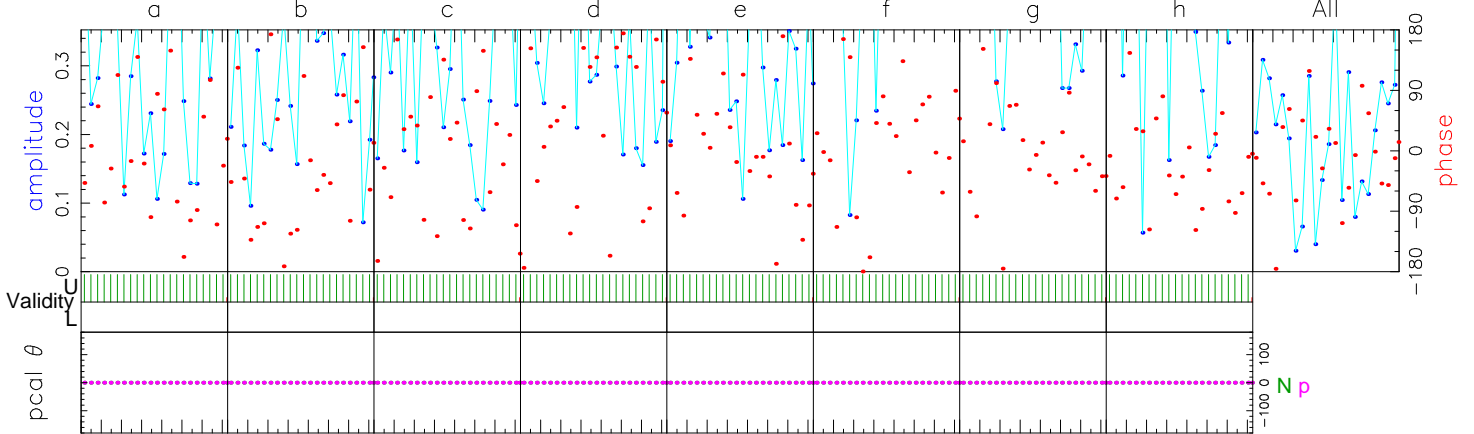


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125241  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-26.2	-32.4	1.7	143.5	-1.7	32.7	-19.9	-27.8	Phase	-8.4
	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.2	Ampl.	0.1
	367.9	508.6	91.6	487.9	501.8	259.2	260.3	262.9	Sbd box	261.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.12948004095E+03	Apriori delay (usec)	6.12945614392E+03	Resid mbdelay (usec)	-7.35297E-03	+/-	1.7E-04
Sband delay (usec)	6.12947405217E+03	Apriori clock (usec)	-1.8845890E+01	Resid sbdelay (usec)	1.79083E-02	+/-	1.3E-03
Phase delay (usec)	6.12945614365E+03	Apriori clockrate (us/s)	8.4400004E-06	Resid phdelay (usec)	-2.72093E-07	+/-	5.8E-07
Delay rate (us/s)	-1.23060703330E+00	Apriori rate (us/s)	-1.23060404653E+00	Resid rate (us/s)	-2.98677E-06	+/-	2.4E-09
Total phase (deg)	77.0	Apriori accel (us/s/s)	-2.04919087274E-05	Resid phase (deg)	-8.4	+/-	17.9

ph/seg (deg)	66.1	RMS	42.9	Theor.	Amplitude	0.118 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	119.7	66.1	75.0	Search (2048X32)	Interp.	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	66.2	66.2	25.3	Inc. seg. avg.	Inc. frq. avg.	0.161	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	82.0	82.0	44.2	Inc. frq. avg.	0.135		Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 298.0 el 62.4 pa 88.0 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 11168.357 -1317.043 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Np..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Np.W.308.1X0YRU

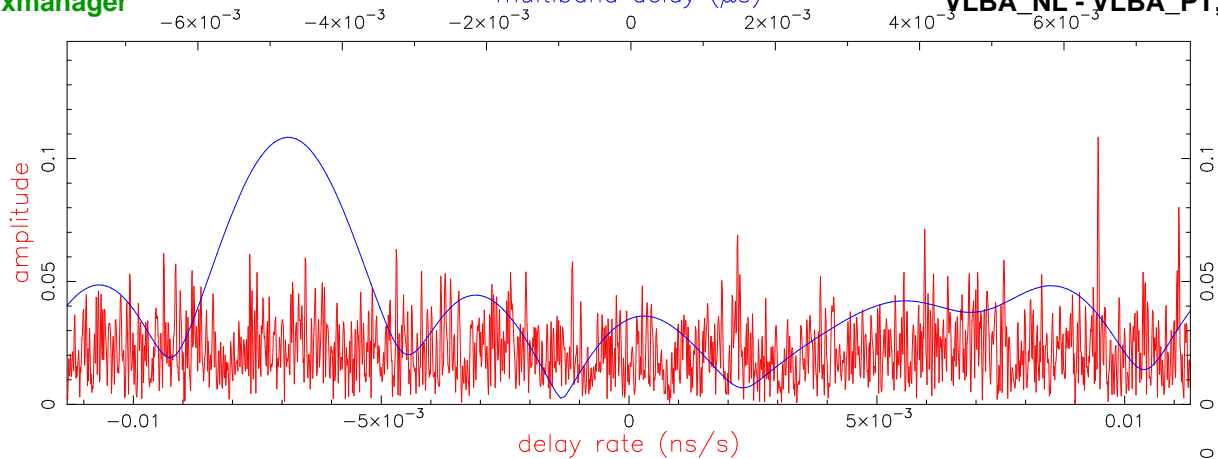
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, np

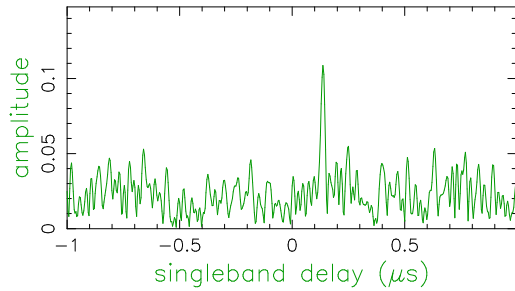
VLBA\_NL - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

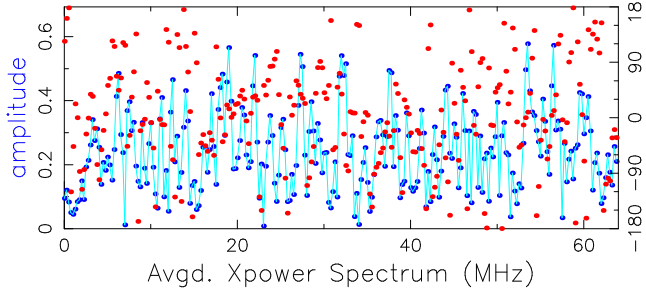


Fringe quality 0

SNR 6.1  
 Int time 419.812  
 Amp 0.148  
 Phase -159.7  
 PFD 2.5e-01  
 Delays (us)  
 SBD 0.137078  
 MBD -0.004744  
 Fringe rate (Hz)  
 0.816520  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

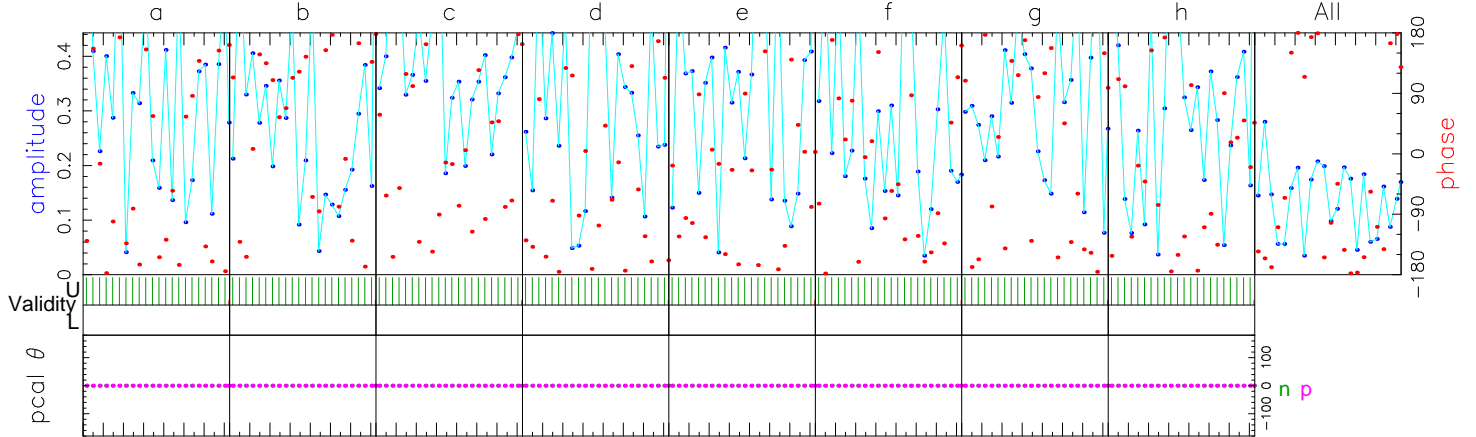


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125241  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.3	156.9	-106.8	-164.9	-122.1	-159.9	-172.6	-174.5	Phase	-159.7
	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	292.5	498.2	183.6	455.1	97.7	289.1	291.9	452.6	Sbd box	292.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.96156279005E+03	Apriori delay (usec)	3.96142690947E+03	Resid mbdelay (usec)	-4.74442E-03	+/-	1.8E-04
Sband delay (usec)	3.96156398747E+03	Apriori clock (usec)	-6.0462952E-02	Resid sbdelay (usec)	1.37078E-01	+/-	1.4E-03
Phase delay (usec)	3.96142690433E+03	Apriori clockrate (us/s)	4.199997E-07	Resid phdelay (usec)	-5.14844E-06	+/-	6.1E-07
Delay rate (us/s)	-1.65572653821E-01	Apriori rate (us/s)	-1.65582132806E-01	Resid rate (us/s)	9.47898E-06	+/-	2.5E-09
Total phase (deg)	193.9	Apriori accel (us/s/s)	-1.20824653925E-05	Resid phase (deg)	-159.7	+/-	18.8

ph/seg (deg)	RMS 50.6	Theor. 45.1	Amplitude Search (2048X32)	0.148 +/- 0.024	0.106	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.8	78.7	Interp.	0.000	0.106	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	33.1	26.6	Inc. seg. avg.	0.141	0.149	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.4	46.4	Inc. frq. avg.	0.149	0.149	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

n: az 56.3 el 50.7 pa -80.3      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) 1486.175 -615.923      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c211c/v1/1234/No0085/np..1X0YRU    Output file: /Exps/c211c/v1/1234/No0085/np.W.311.1X0YRU



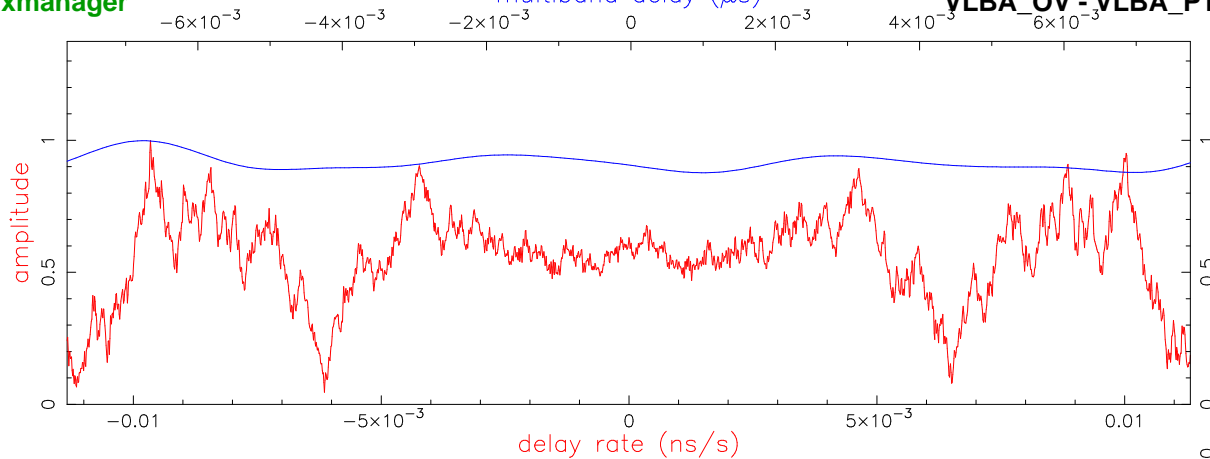
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, op

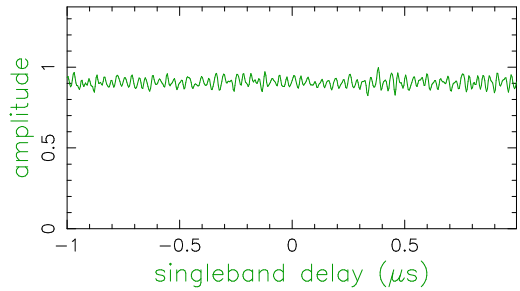
VLBA\_OV - VLBA\_PT, fgroup W, pol LL

multiband delay ( $\mu$ s)

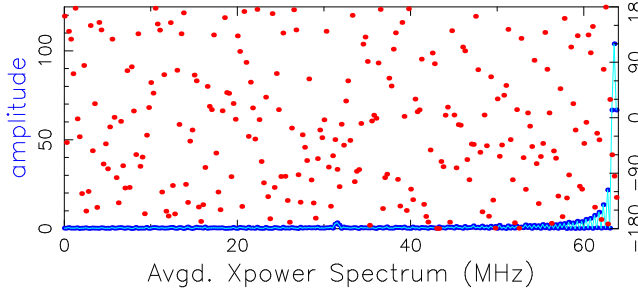


Fringe quality 1

SNR 55.9  
 Int time 419.816  
 Amp 1.374  
 Phase 65.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.382493  
 MBD -0.006727  
 Fringe rate (Hz)  
 -0.833255  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

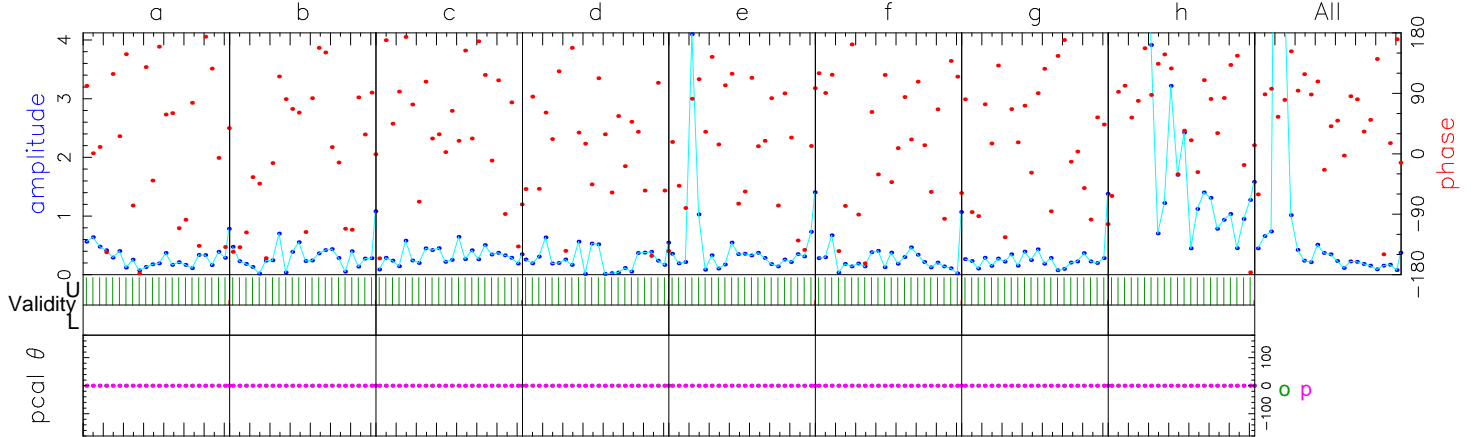


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125229  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
o	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.28441745662E+03	Apriori delay (usec)	-1.28480135455E+03	Resid mbdelay (usec)	-6.72706E-03	+/-	1.9E-05
Sband delay (usec)	-1.28441886155E+03	Apriori clock (usec)	-1.7913857E+00	Resid sbdelay (usec)	3.82493E-01	+/-	1.5E-04
Phase delay (usec)	-1.28480135243E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	2.12598E-06	+/-	6.6E-08
Delay rate (us/s)	1.41985913555E-03	Apriori rate (us/s)	1.42953239535E-03	Resid rate (us/s)	-9.67326E-06	+/-	2.7E-10
Total phase (deg)	-179.3	Apriori accel (us/s/s)	1.04516397550E-05	Resid phase (deg)	65.9	+/-	2.0

ph/seg (deg)	62.9	Theor.	4.9	Amplitude	1.374 +/- 0.025	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	299.4	Search (2048X32)	0.994	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	26.1	Inc. seg. avg.	1.593	Inc. frq. avg.	1.379	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	239.5	Inc. frq. avg.	1.379			Sample rate (MSamp/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	

o: az 47.3 el 31.7 pa -68.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 3.527 1245.258 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/op..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/op.W.249.1X0YRU

Mk4/DiFX fourfit 3.21 rev 2937

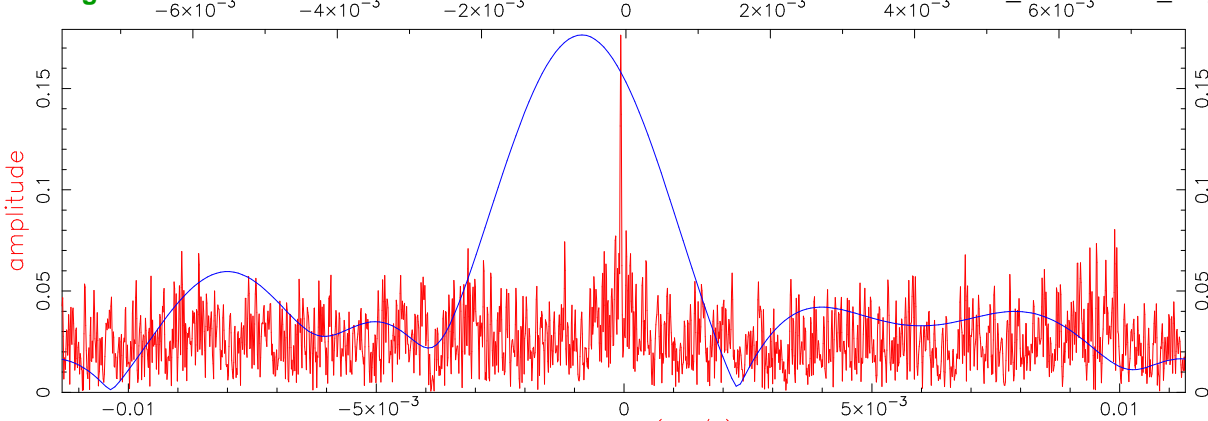
fxmanager

NRAO150.1X0YRU, No0085, op

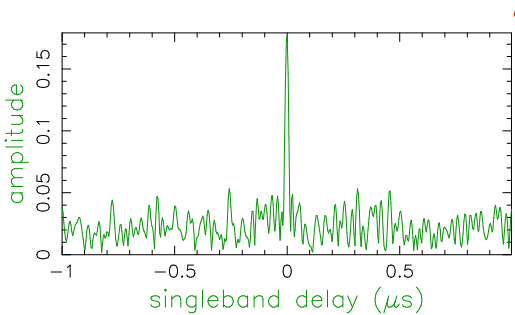
VLBA\_OV - VLBA\_PT, fgroup W, pol RR

multiband delay ( $\mu$ s)

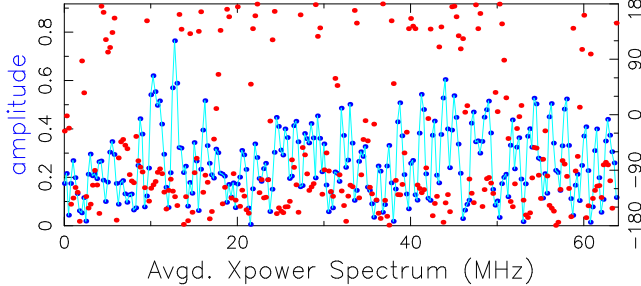
Fringe quality 9



SNR 10.0  
 Int time 419.816  
 Amp 0.179  
 Phase -145.0  
 PFD 4.4e-15  
 Delays (us)  
 SBD -0.001605  
 MBD -0.000657  
 Fringe rate (Hz)  
 -0.005387  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

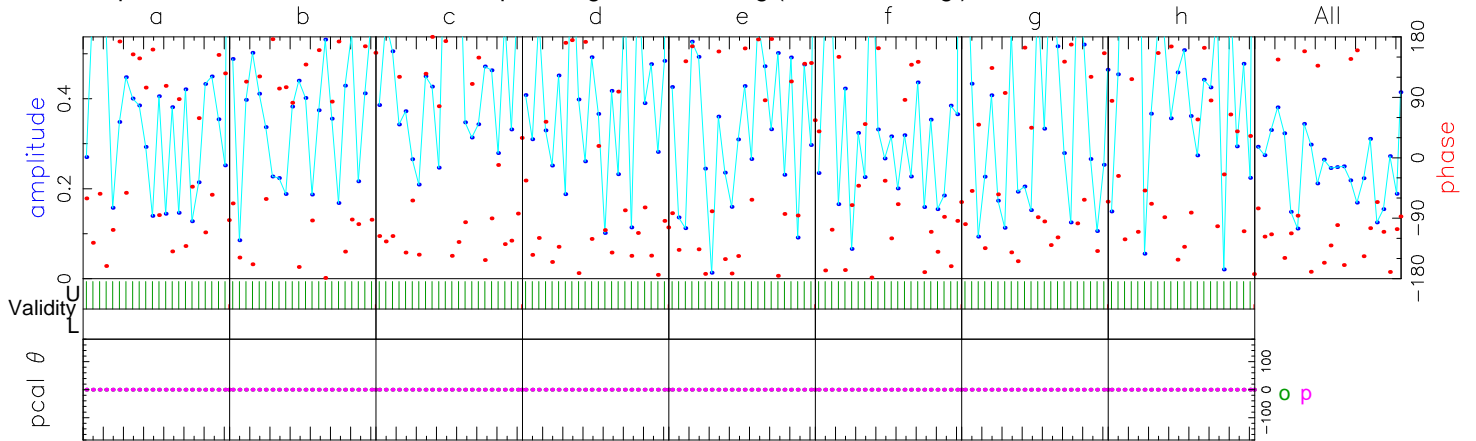


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125233  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-132.2	-171.7	-140.1	-128.7	176.8	-146.0	-118.3	-150.1	Phase	-145.0
	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	346.9	305.1	257.2	256.6	256.6	256.0	256.7	391.9	Sbd box	256.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.28480201183E+03		Apriori delay (usec)		-1.28480135455E+03		Resid mbdelay (usec)		-6.57276E-04	+/- 1.1E-04
Sband delay (usec)	-1.28480295930E+03		Apriori clock (usec)		-1.7913857E+00		Resid sbdelay (usec)		-1.60475E-03	+/- 8.6E-04
Phase delay (usec)	-1.28480135923E+03		Apriori clockrate (us/s)		4.7999999E-07		Resid phdelay (usec)		-4.67469E-06	+/- 3.7E-07
Delay rate (us/s)	1.42946985238E-03		Apriori rate (us/s)		1.42953239535E-03		Resid rate (us/s)		-6.25430E-08	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.04516397550E-05		Resid phase (deg)		-145.0	+/- 11.4

ph/seg (deg) 46.4 27.4 Search (2048X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 55.3 47.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.7 16.1 Inc. seg. avg. 0.221 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 25.0 28.2 Inc. frq. avg. 0.181 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 o: az 47.3 el 31.7 pa -68.3 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 3.527 1245.258 ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/op..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/op.W.268.1X0YRU

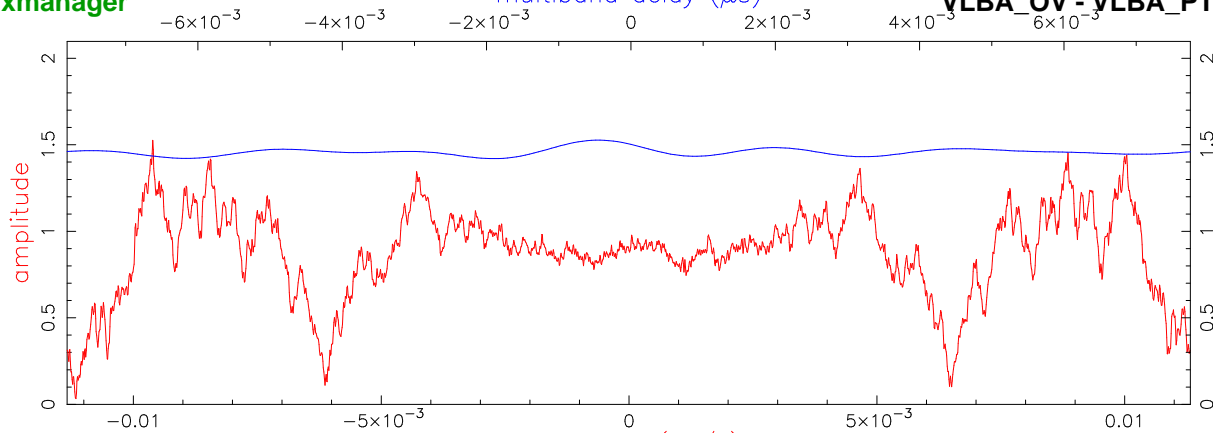
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, op

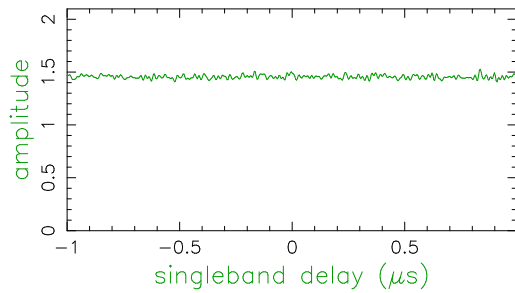
VLBA\_OV - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

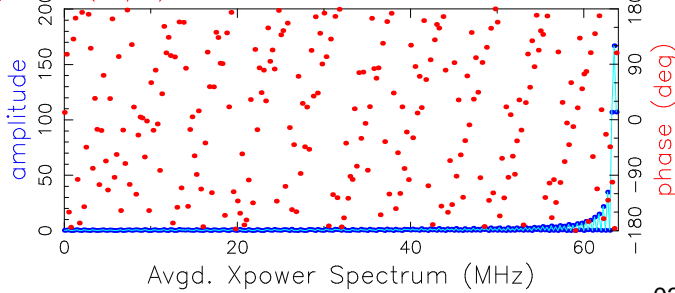


Fringe quality 1

SNR 85.6  
 Int time 419.816  
 Amp 2.098  
 Phase 64.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.834488  
 MBD -0.000343  
 Fringe rate (Hz)  
 -0.829415  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

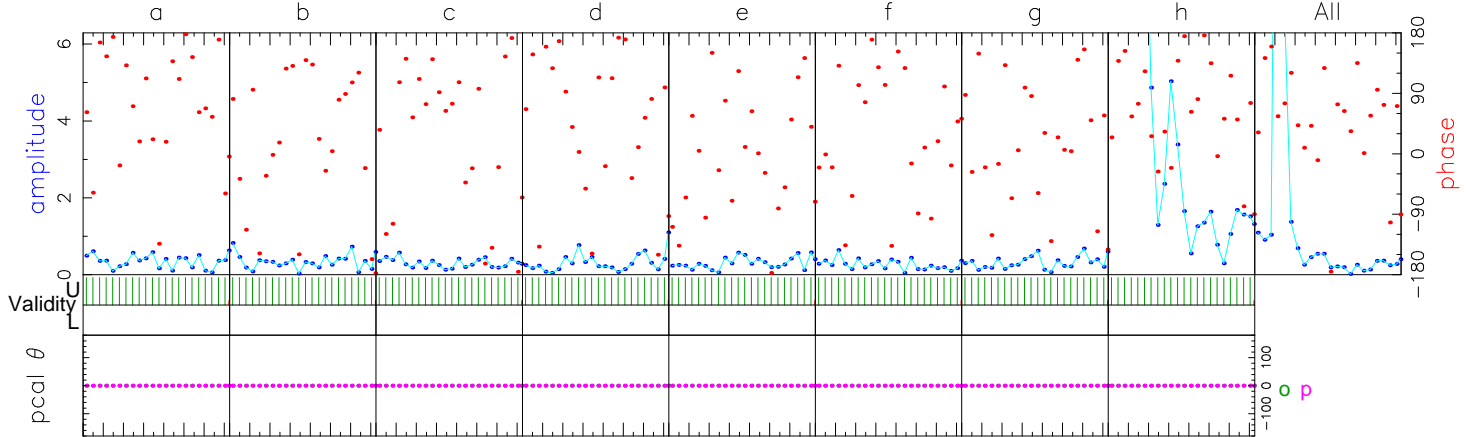


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125236  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

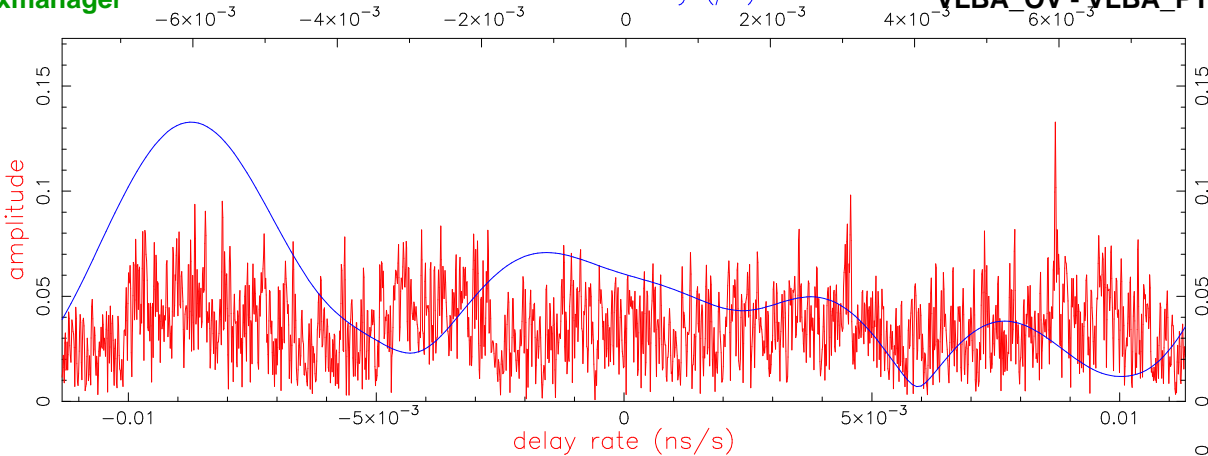


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
o	0	0	0	0	0	0	0	0	Ampl.	2.1
p	0	0	0	0	0	0	0	0	Sbd box	470.6
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
p	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.28397357283E+03								Resid mbdelay (usec)	-3.43276E-04 +/- 1.3E-05
Sband delay (usec)	-1.28396686630E+03								Resid sbdelay (usec)	8.34488E-01 +/- 1.0E-04
Phase delay (usec)	-1.28480135246E+03								Resid phdelay (usec)	2.09363E-06 +/- 4.3E-08
Delay rate (us/s)	1.41990371091E-03								Resid rate (us/s)	-9.62868E-06 +/- 1.8E-10
Total phase (deg)		-180.3							Resid phase (deg)	64.9 +/- 1.3
	RMS	Theor.	Amplitude	2.098 +/- 0.024					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	63.8	3.2	Search (2048X32)	1.519					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	308.1	5.6	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	34.9	1.9	Inc. seg. avg.	2.405					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	250.5	3.3	Inc. frq. avg.	2.110					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
o: az 47.3 el 31.7 pa -68.3			p: az 48.1 el 35.8 pa -78.4						u,v (fr/asec) 3.527 1245.258	simultaneous interpolator

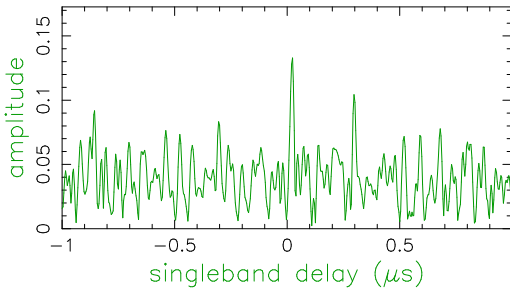
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/op..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/op.W.285.1X0YRU

multiband delay ( $\mu$ s)

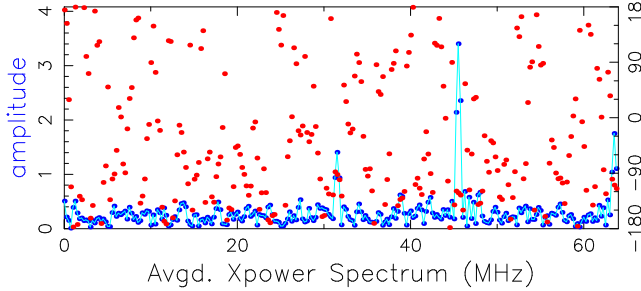
Fringe quality 9



SNR 7.5  
 Int time 419.816  
 Amp 0.173  
 Phase -141.7  
 PFD 2.2e-05  
 Delays (us)  
 SBD 0.022380  
 MBD -0.006046  
 Fringe rate (Hz)  
 0.750475  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

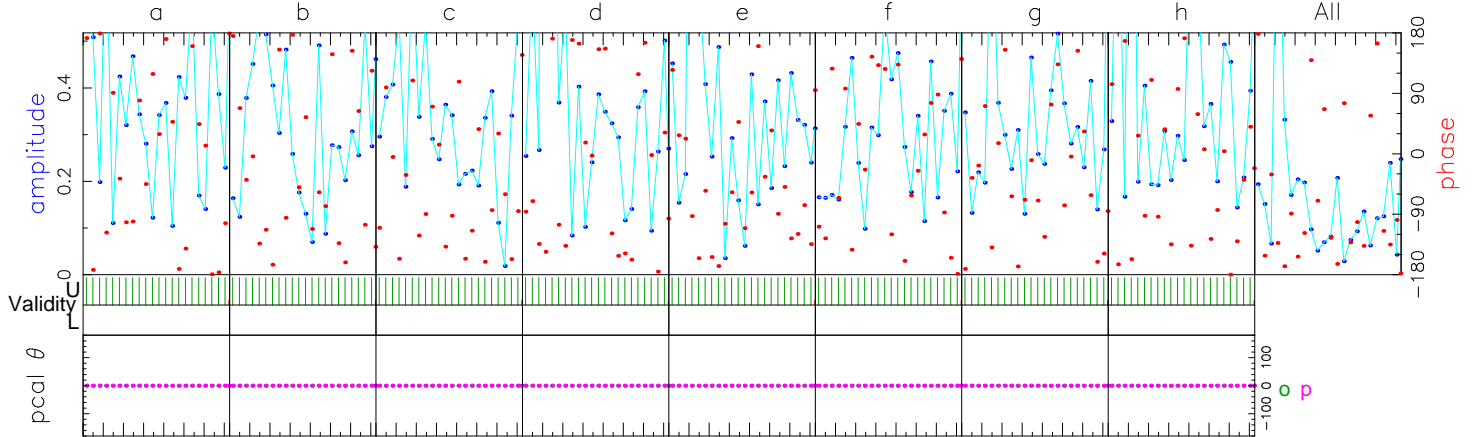


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125240  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

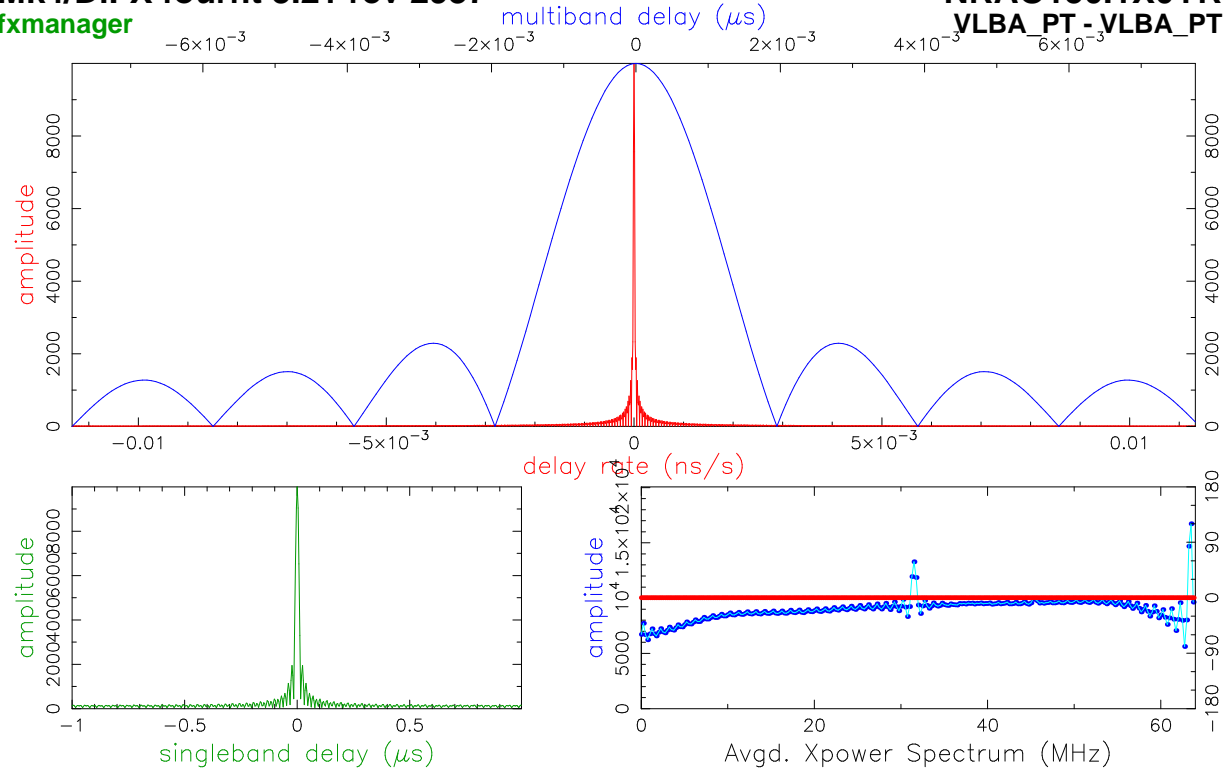


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-160.1	-126.8	-126.4	-153.8	-98.2	165.1	-105.4	-158.8	Phase	-141.7
	0.2	0.2	0.1	0.5	0.3	0.1	0.1	0.1	Ampl.	0.2
	261.7	18.0	195.2	178.9	310.8	74.6	511.6	333.5	Sbd box	262.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.28477615095E+03		Apriori delay (usec)		-1.28480135455E+03		Resid mbdelay (usec)		-6.04640E-03	+/- 1.4E-04
Sband delay (usec)	-1.28477897505E+03		Apriori clock (usec)		-1.7913857E+00		Resid sbdelay (usec)		2.23795E-02	+/- 1.1E-03
Phase delay (usec)	-1.28480135912E+03		Apriori clockrate (us/s)		4.7999999E-07		Resid phdelay (usec)		-4.56801E-06	+/- 4.9E-07
Delay rate (us/s)	1.43824466821E-03		Apriori rate (us/s)		1.42953239535E-03		Resid rate (us/s)		8.71227E-06	+/- 2.0E-09
Total phase (deg)			Apriori accel (us/s/s)		1.04516397550E-05		Resid phase (deg)		-141.7	+/- 15.3

	RMS	Theor.	Amplitude	0.173 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	69.7	36.7	Search (2048X32)	0.132	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	144.4	64.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	34.8	21.6	Inc. seg. avg.	0.182	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	66.9	37.8	Inc. frq. avg.	0.180	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

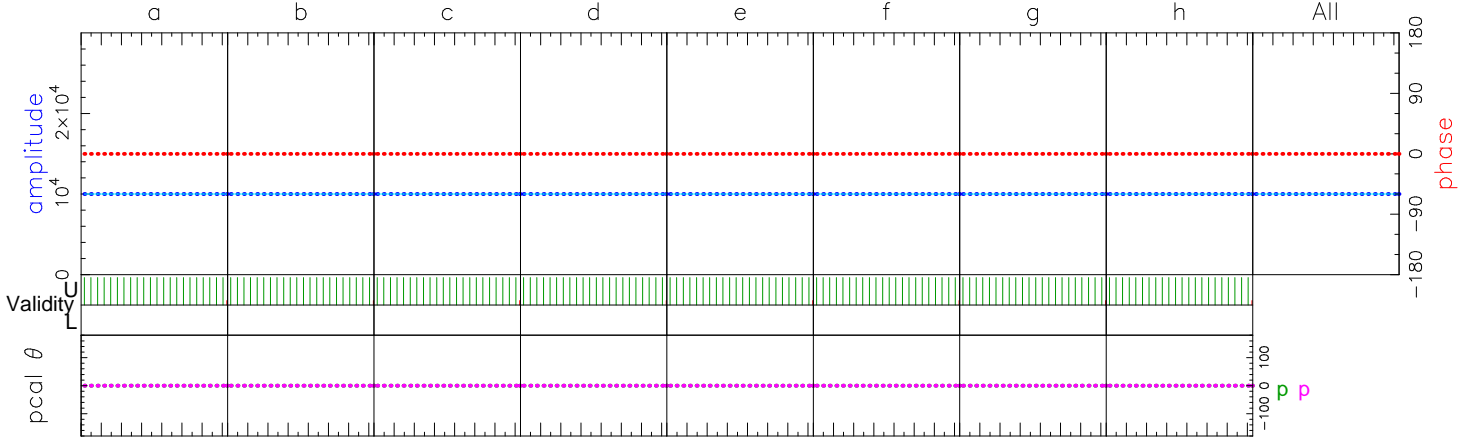
o: az 47.3 el 31.7 pa -68.3      p: az 48.1 el 35.8 pa -78.4      u,v (fr/asec) 3.527 1245.258      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0085/op..1X0YRU      Output file: /Exps/c211c/v1/1234/No0085/op.W.302.1X0YRU



Fringe quality 9  
SNR 560308.6  
Int time 419.816  
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. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125230  
2021:252:122852  
RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

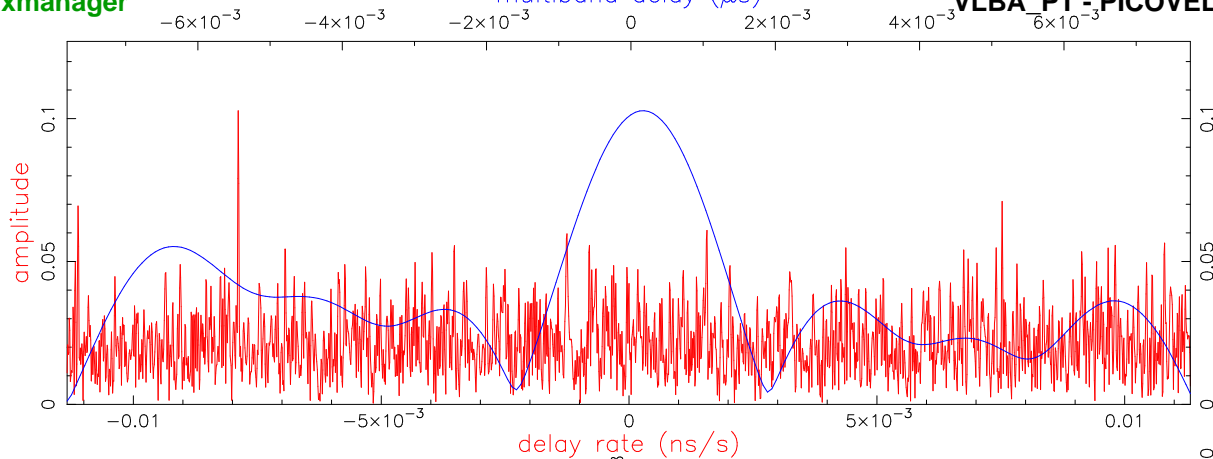


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
p	0	0	0	0	0	0	0	0	Ampl.	10000.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

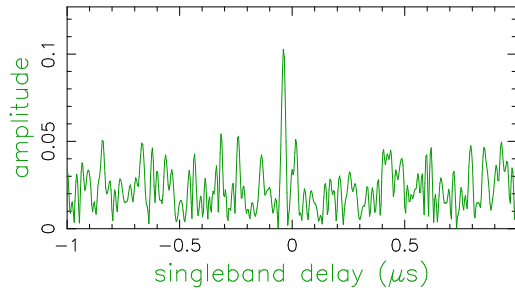
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
p: az 48.1 el 35.8 pa -78.4 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pp.W.254.1X0YRU simultaneous interpolator

multiband delay ( $\mu$ s)

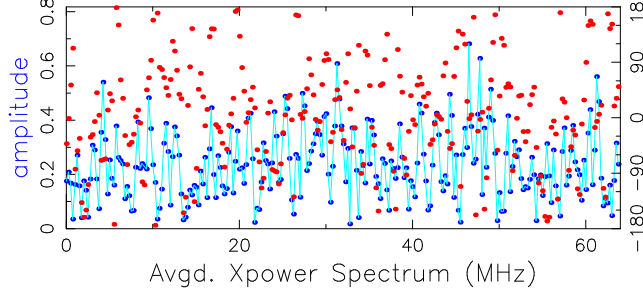


Fringe quality 0

SNR 5.8  
 Int time 419.810  
 Amp 0.127  
 Phase -67.2  
 PFD 8.4e-01  
 Delays (us)  
 SBD -0.038147  
 MBD 0.000195  
 Fringe rate (Hz)  
 -0.680065  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

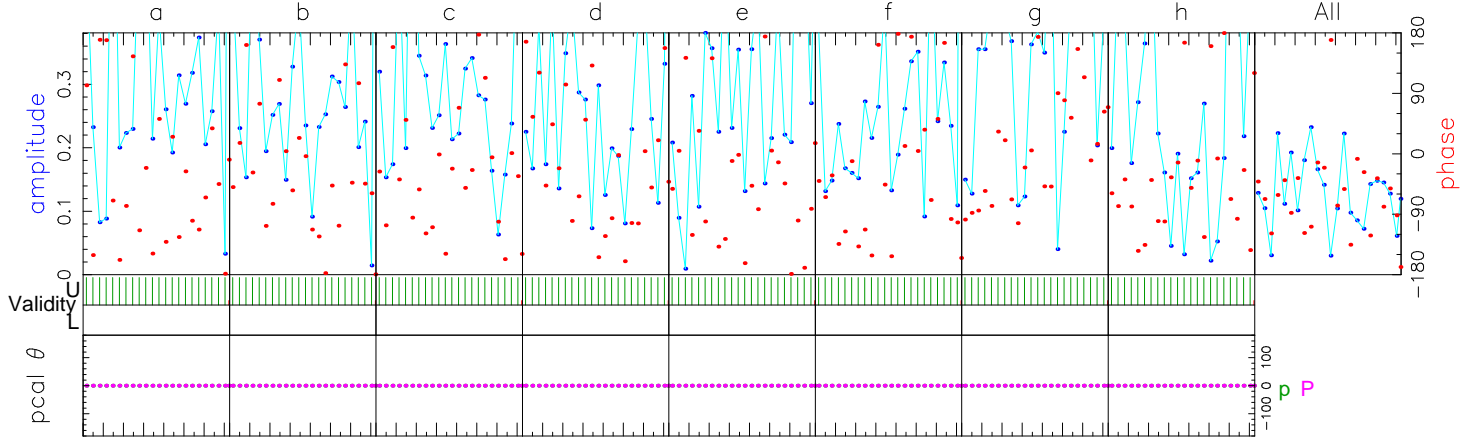


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125230  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-78.7	-38.5	-63.5	-51.7	-90.4	-94.5	-6.4	-81.8	Phase	-67.2
	0.1	0.1	0.2	0.0	0.2	0.1	0.1	0.2	Ampl.	0.1
	369.7	121.5	360.6	195.9	246.8	493.6	287.7	247.8	Sbd box	247.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.39706416968E+03	Apriori delay (usec)	-6.39703311454E+03	Resid mbdelay (usec)	1.94859E-04	+/-	1.9E-04
Sband delay (usec)	-6.39707126129E+03	Apriori clock (usec)	6.5936108E+00	Resid sbdelay (usec)	-3.81467E-02	+/-	1.5E-03
Phase delay (usec)	-6.39703311671E+03	Apriori clockrate (us/s)	4.7999999E-07	Resid phdelay (usec)	-2.16667E-06	+/-	6.4E-07
Delay rate (us/s)	1.18489649451E+00	Apriori rate (us/s)	1.18490438939E+00	Resid rate (us/s)	-7.89488E-06	+/-	2.6E-09
Total phase (deg)	-242.3	Apriori accel (us/s/s)	3.06096780536E-05	Resid phase (deg)	-67.2	+/-	19.8

ph/seg (deg)	45.9	Theor.	47.5	Amplitude	0.127 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.1		83.0	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	32.7		28.0	Inc. seg. avg.	0.119	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.6		48.9	Inc. frq. avg.	0.127	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

p: az 48.1 el 35.8 pa -78.4 P: az 312.2 el 63.9 pa 111.2 u,v (fr/asec) -10737.094 2851.959 simultaneous interpolator

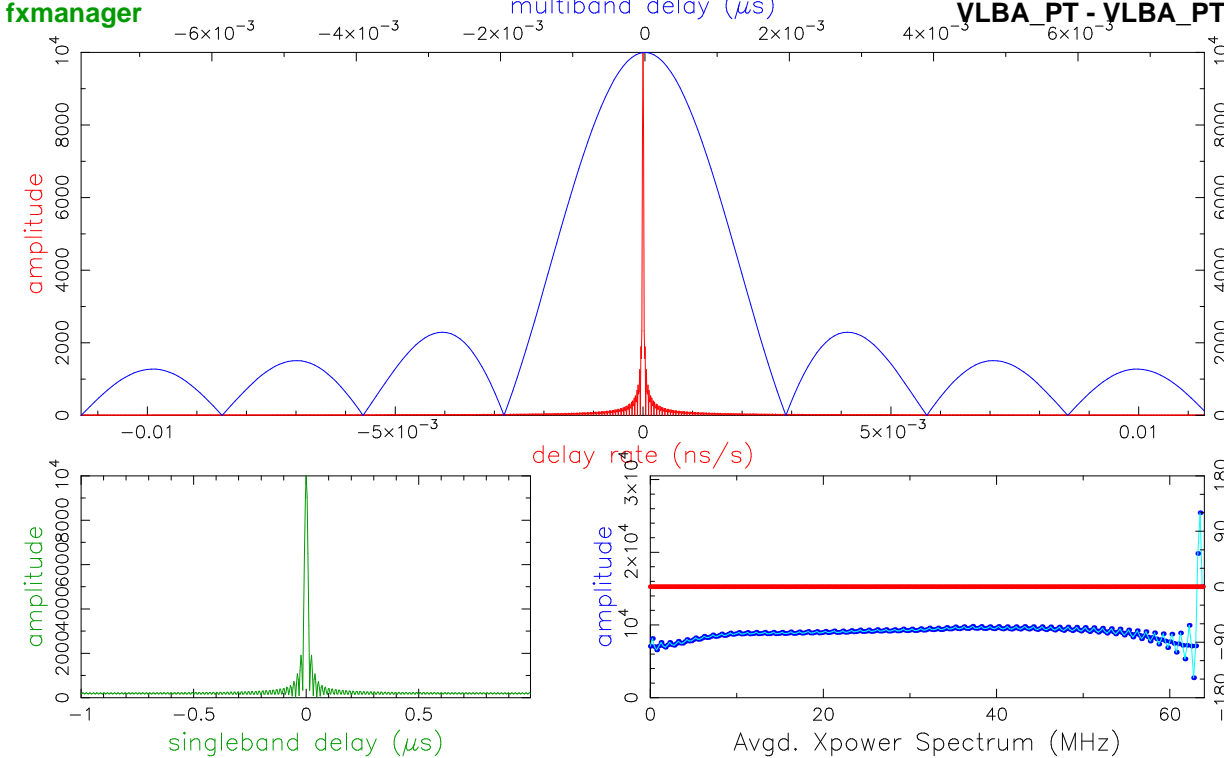
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pP..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pP.W.258.1X0YRU

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

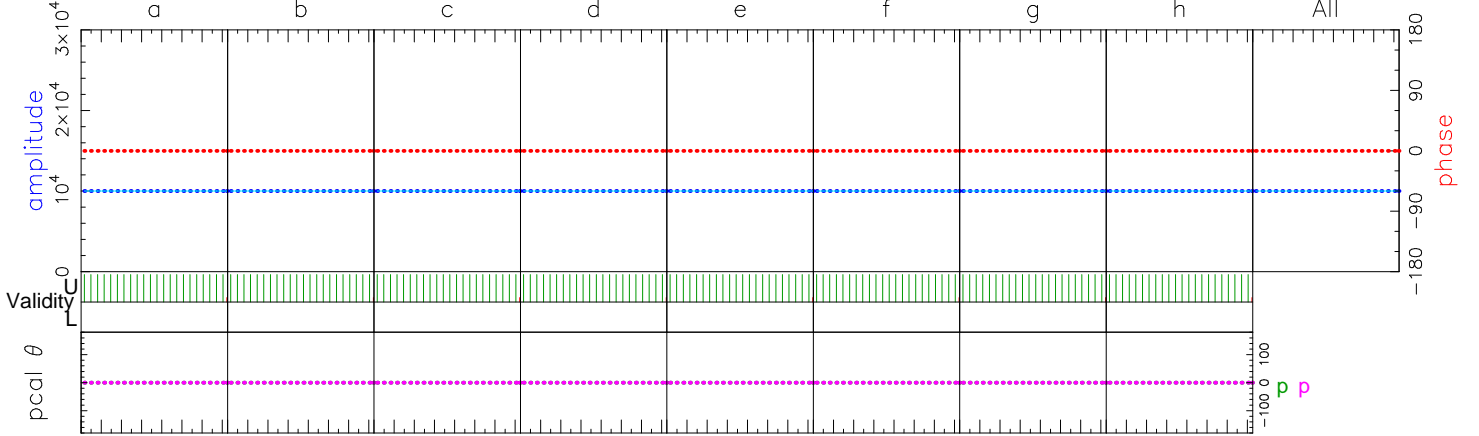
NRAO150.1X0YRU, No0085, pp

VLBA\_PT - VLBA\_PT, fgroup W, pol RR



Fringe quality 9  
 SNR 560308.7  
 Int time 419.816  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125233  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	10000.0	10000.0
p	0	0	0	0	0	0	0	0	Ampl.	10000.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 1.9E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 1.5E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 6.6E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 2.7E-14
Total phase (deg)		0.0							Resid phase (deg)	0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 p: az 48.1 el 35.8 pa -78.4 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pp.W.270.1X0YRU simultaneous interpolator

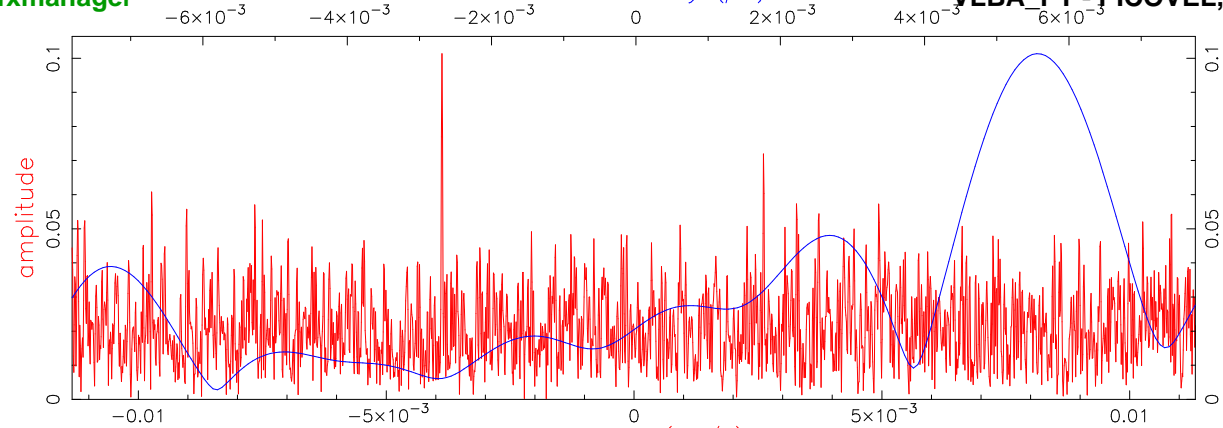
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

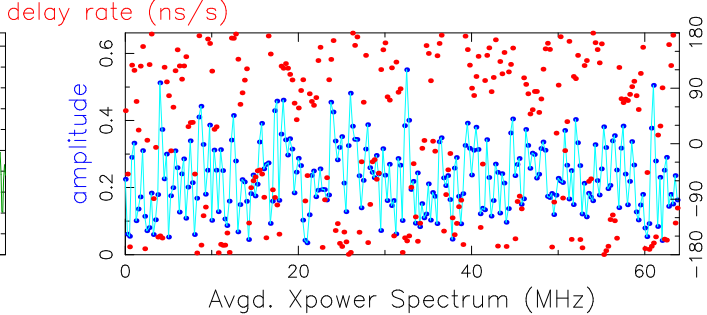
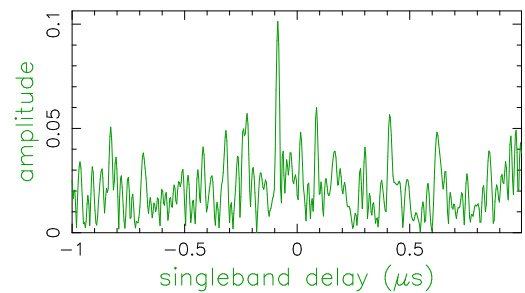
NRAO150.1X0YRU, No0085, pP

VLBA\_PT - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

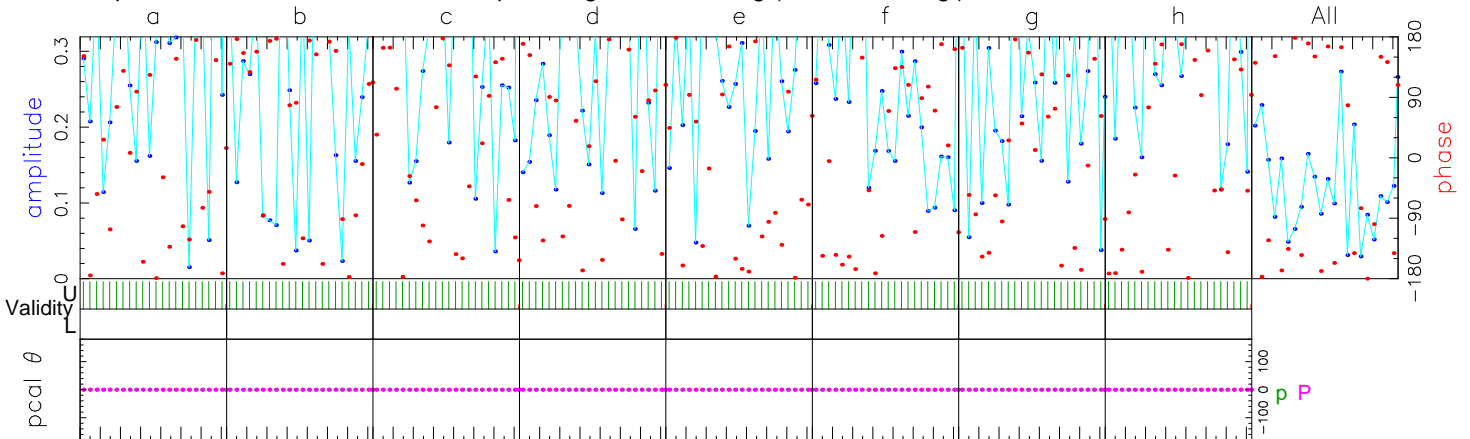


Fringe quality 0  
 SNR 5.7  
 Int time 419.810  
 Amp 0.106  
 Phase -178.7  
 PFD 9.6e-01  
 Delays (us)  
 SBD -0.086070  
 MBD 0.005563  
 Fringe rate (Hz)  
 -0.334513  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125234  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-177.0	168.6	172.5	-125.5	-144.2	175.3	171.5	173.3	Phase	-178.7
	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	Ampl.	0.1
	421.1	363.5	299.0	148.9	134.2	415.8	130.7	506.6	Sbd box	235.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.39712130135E+03		Apriori delay (usec)		-6.39703311454E+03		Resid mbdelay (usec)		5.56319E-03	+/- 1.9E-04
Sband delay (usec)	-6.39711918454E+03		Apriori clock (usec)		6.5936108E+00		Resid sbdelay (usec)		-8.60700E-02	+/- 1.5E-03
Phase delay (usec)	-6.39703312030E+03		Apriori clockrate (us/s)		4.7999999E-07		Resid phdelay (usec)		-5.76198E-06	+/- 6.5E-07
Delay rate (us/s)	1.18490050603E+00		Apriori rate (us/s)		1.18490438939E+00		Resid rate (us/s)		-3.88336E-06	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		3.06096780536E-05		Resid phase (deg)		-178.7	+/- 20.2

p: az 48.1 el 35.8 pa -78.4 P: az 312.2 el 63.9 pa 111.2 u,v (fr/asec) -10737.094 2851.959 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pP..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pP.W.278.1X0YRU

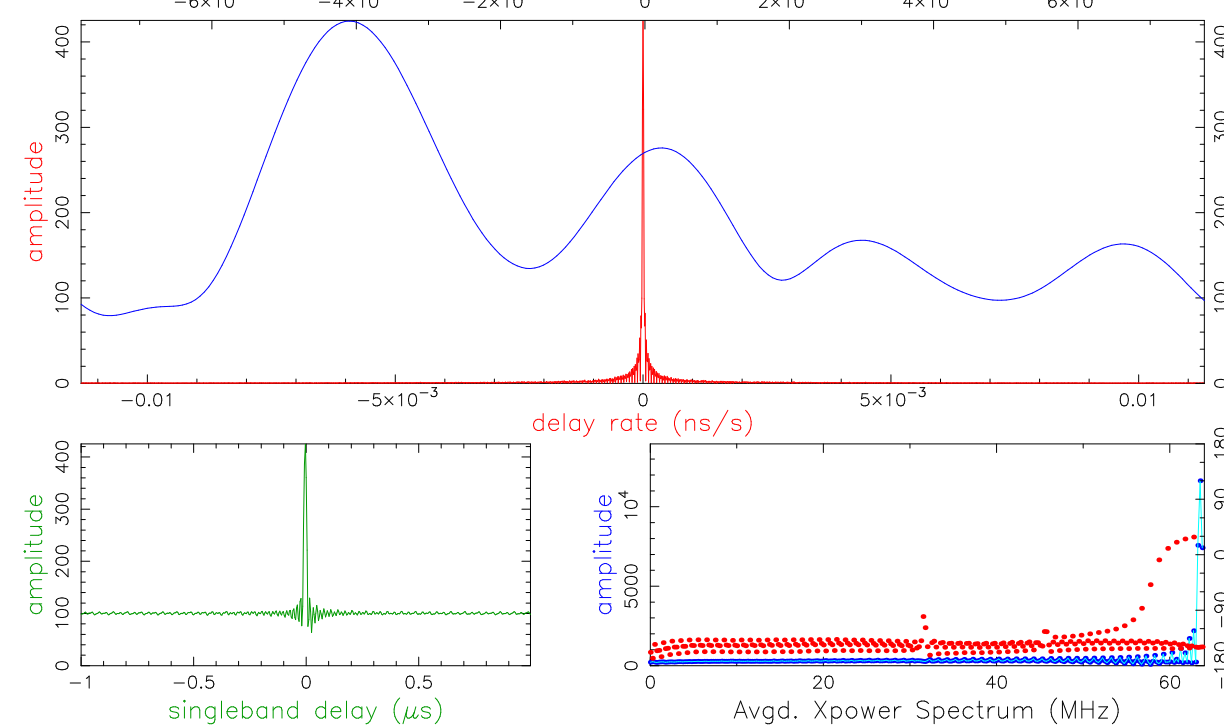


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

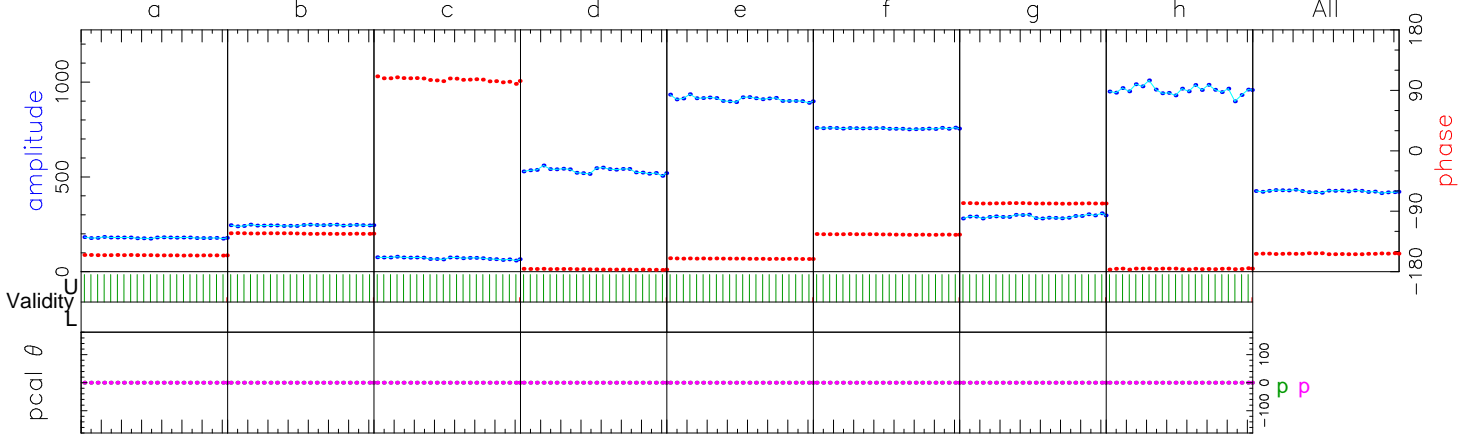
NRAO150.1X0YRU, No0085, pp

VLBA\_PT - VLBA\_PT, fgroup W, pol LR



Fringe quality 5  
 SNR 23827.3  
 Int time 419.816  
 Amp 425.253  
 Phase -153.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.004430  
 MBD -0.004065  
 Fringe rate (Hz)  
 0.000005  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125237  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-155.4	-123.1	106.1	-176.4	-160.6	-124.5	-78.3	-175.7	Phase	-153.3
	179.2	244.7	71.1	533.2	910.9	755.8	291.0	957.8	Ampl.	493.0
	257.3	256.7	258.8	256.5	256.1	256.5	256.6	257.3	Sbd box	255.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.06465625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-4.06466E-03	+/- 4.6E-08
Sband delay (usec)	-4.42975000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-4.42975E-03	+/- 3.6E-07
Phase delay (usec)	-4.94211794233E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-4.94212E-06	+/- 1.6E-10
Delay rate (us/s)	6.16445129038E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		6.16445E-11	+/- 6.4E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-153.3	+/- 0.0

ph/seg (deg) 0.5 0.0 Search (2048X32) 419.673 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.2 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 55.7 0.0 Inc. seg. avg. 424.323 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 77.9 0.0 Inc. frq. avg. 492.961 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 p: az 48.1 el 35.8 pa -78.4 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pp.W.288.1X0YRU

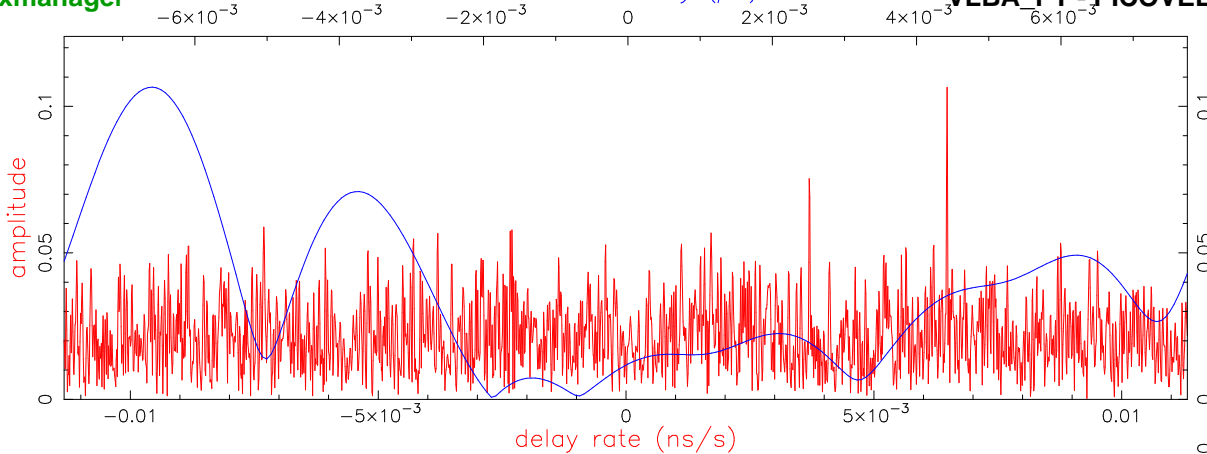
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, pP

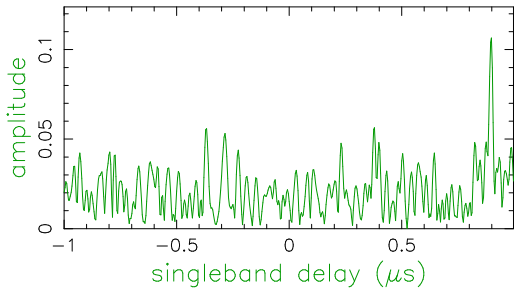
VLBA\_PT - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

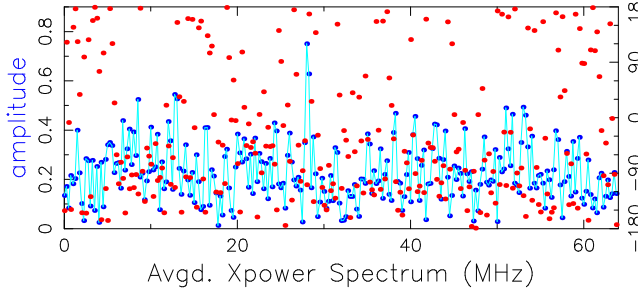


Fringe quality 0

SNR 6.0  
Int time 419.810  
Amp 0.124  
Phase -144.1  
PFD 3.2e-01  
Delays (us)  
SBD 0.896968  
MBD -0.006637  
Fringe rate (Hz) 0.558571  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

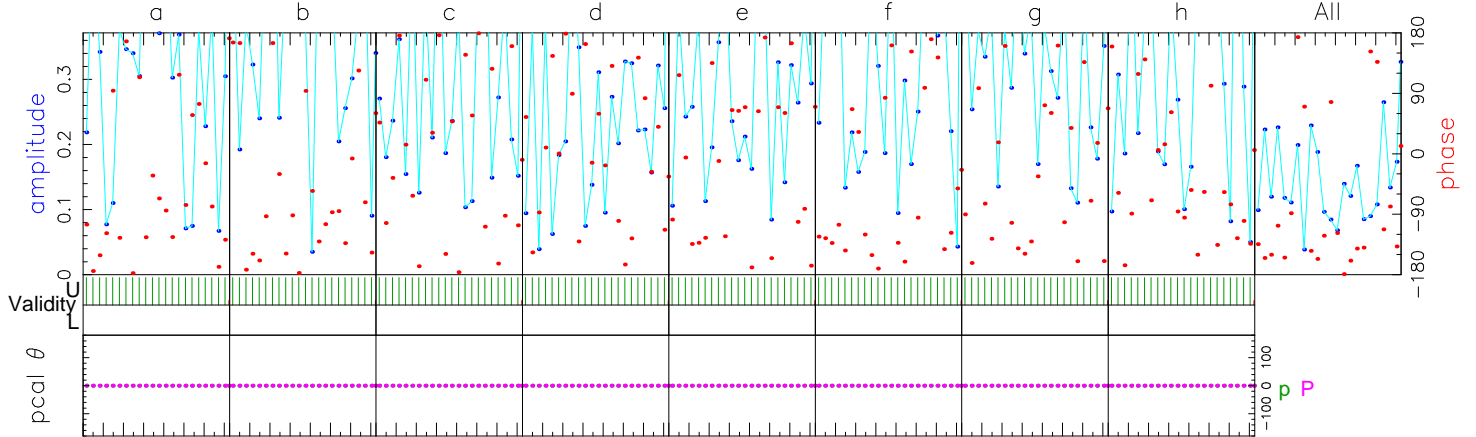


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 160000.00  
Stop 160659.84  
FRT 160330.00  
Corr/FF/build  
2021:303:125433  
2021:304:125238  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-129.9	-141.1	-157.8	144.7	168.4	-157.4	-144.6	-104.0	Phase	-144.1
	0.2	0.2	0.1	0.0	0.1	0.2	0.1	0.1	Ampl.	0.1
	403.8	486.2	28.9	511.6	69.0	487.5	121.1	317.0	Sbd box	486.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.39613350131E+03		Apriori delay (usec)		-6.39703311454E+03		Resid mbdelay (usec)		-6.63677E-03	+/- 1.8E-04
Sband delay (usec)	-6.39613614654E+03		Apriori clock (usec)		6.5936108E+00		Resid sbdelay (usec)		8.96968E-01	+/- 1.4E-03
Phase delay (usec)	-6.39703311919E+03		Apriori clockrate (us/s)		4.7999999E-07		Resid phdelay (usec)		-4.64574E-06	+/- 6.1E-07
Delay rate (us/s)	1.18491087384E+00		Apriori rate (us/s)		1.18490438939E+00		Resid rate (us/s)		6.48445E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		3.06096780536E-05		Resid phase (deg)		-144.1	+/- 19.0

ph/seg (deg) 56.0 45.5 45.5 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 64.5 79.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 39.8 26.8 Inc. seg. avg. 0.124 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 55.1 46.8 Inc. frq. avg. 0.119 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 p: az 48.1 el 35.8 pa -78.4 P: az 312.2 el 63.9 pa 111.2 u,v (fr/asec) -10737.094 2851.959 ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pP..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pP.W.297.1X0YRU simultaneous interpolator

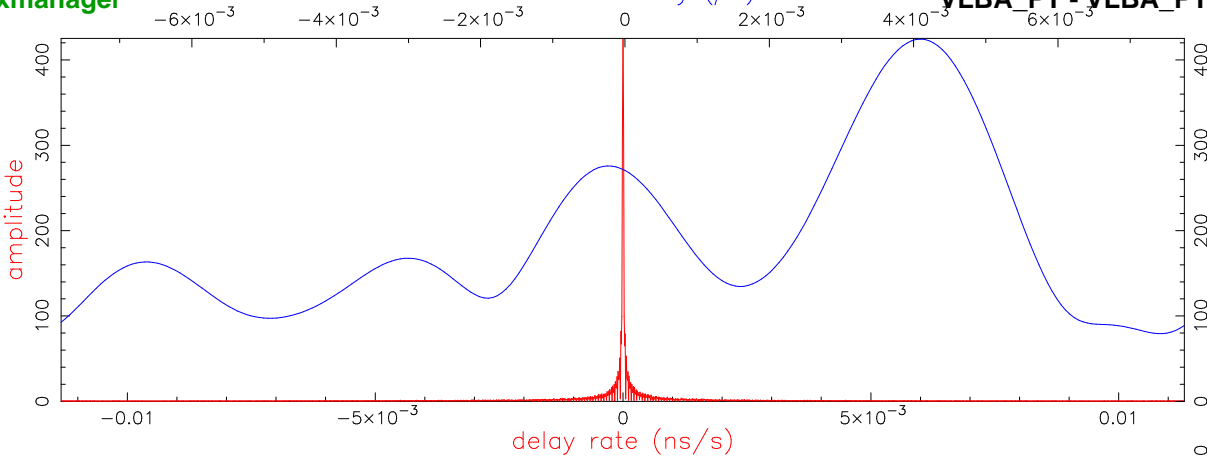
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, pp

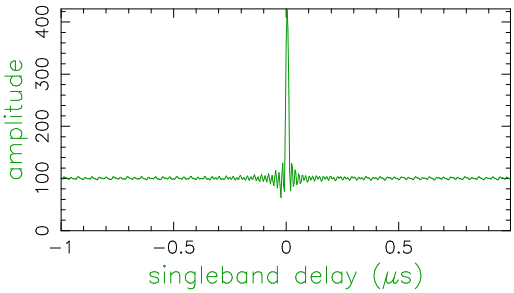
VLBA\_PT - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

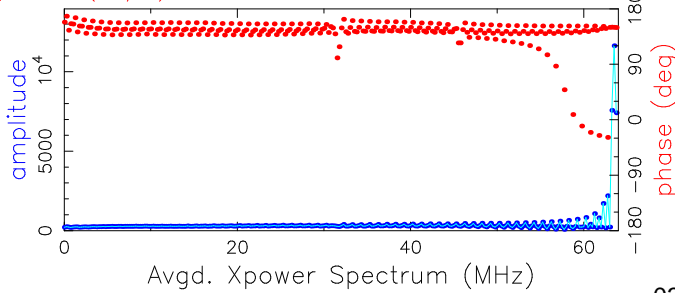


Fringe quality 5

SNR 23827.3  
 Int time 419.816  
 Amp 425.253  
 Phase 153.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.004430  
 MBD 0.004065  
 Fringe rate (Hz)  
 -0.000005  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

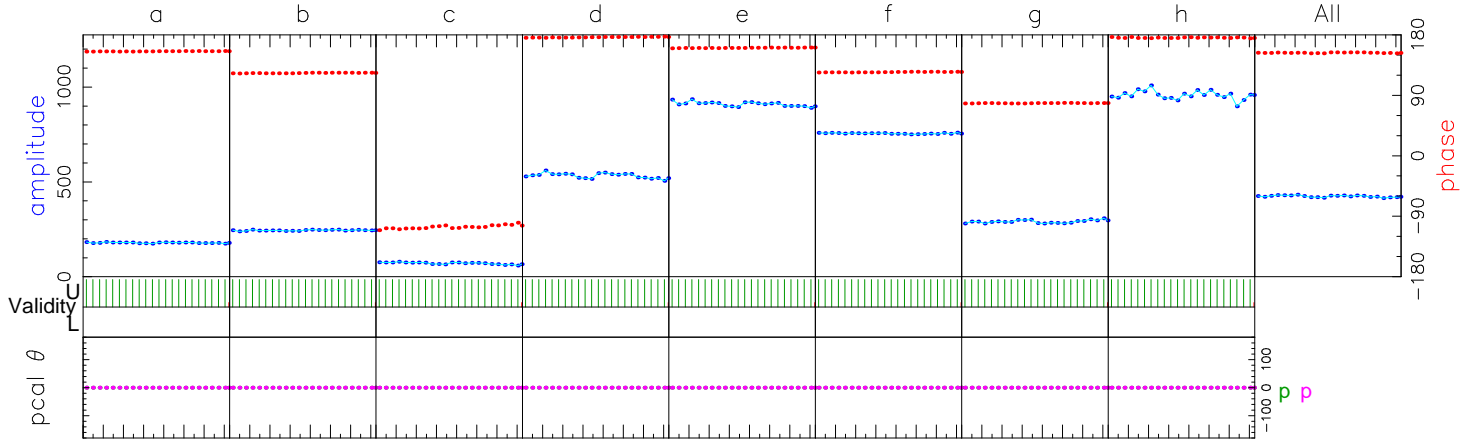


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125240  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	155.4	123.1	-106.1	176.4	160.6	124.5	78.3	175.7	Phase	153.3
	179.2	244.7	71.1	533.2	910.9	755.8	291.0	957.8	Ampl.	493.0
	256.7	257.3	255.2	257.5	257.9	257.5	257.4	256.7	Sbd box	258.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.06465625000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		4.06466E-03	+/- 4.6E-08
Sband delay (usec)	4.42975000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		4.42975E-03	+/- 3.6E-07
Phase delay (usec)	4.94211794241E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		4.94212E-06	+/- 1.6E-10
Delay rate (us/s)	-6.16445129038E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-6.16445E-11	+/- 6.4E-13
Total phase (deg)	153.3		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		153.3	+/- 0.0

RMS Theor. Amplitude 425.253 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.5 0.0 Search (2048X32) 419.673 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 1.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 55.7 0.0 Inc. seg. avg. 424.323 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 amp/frq (%) 77.9 0.0 Inc. frq. avg. 492.961 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 p: az 48.1 el 35.8 pa -78.4 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pp.W.305.1X0YRU

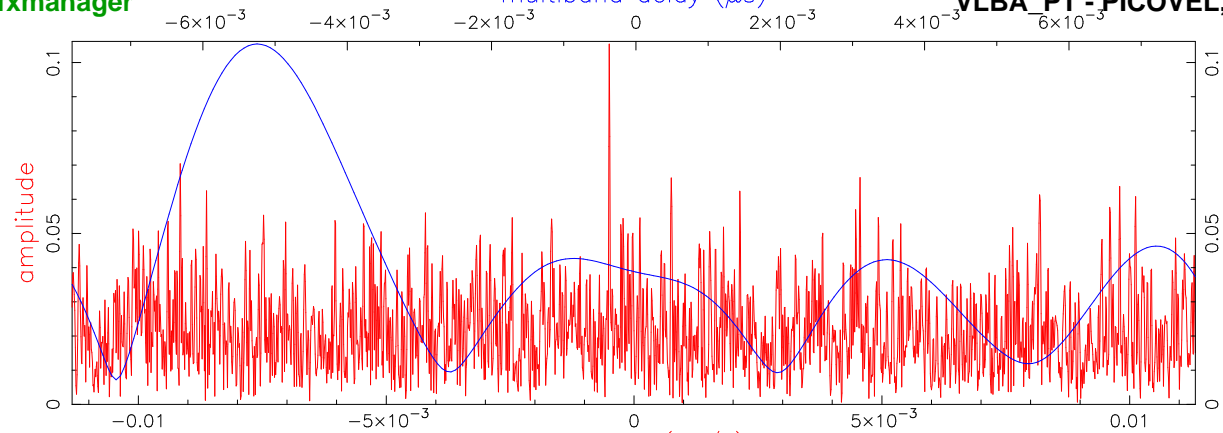
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, pP

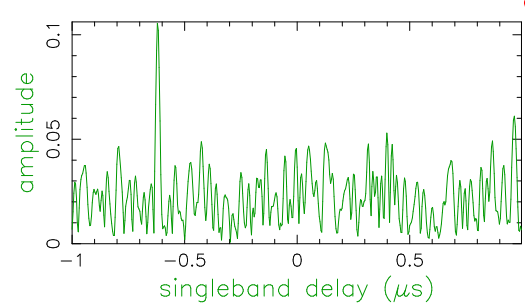
VLBA\_PT - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

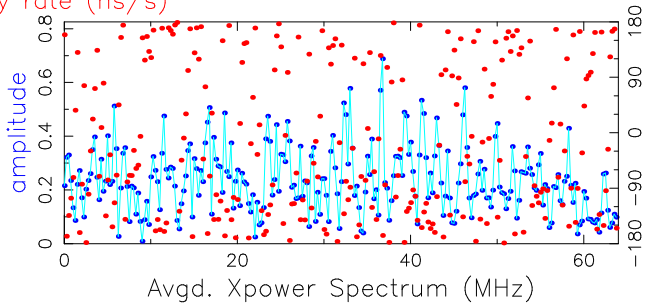


Fringe quality 0

SNR 5.9  
 Int time 419.810  
 Amp 0.106  
 Phase -33.8  
 PFD 5.1e-01  
 Delays (us)  
 SBD -0.619964  
 MBD -0.005224  
 Fringe rate (Hz)  
 -0.043167  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

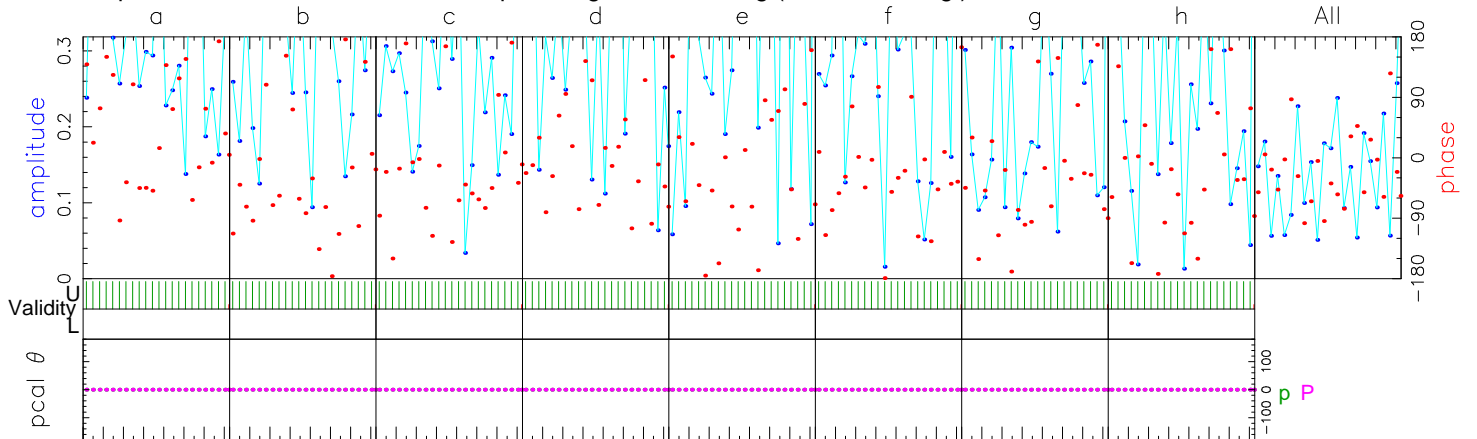


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125242  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	36.1	-84.2	-63.3	-17.8	-13.2	-28.6	-42.3	-31.8	Phase	-33.8
	0.1	0.1	0.1	0.2	0.0	0.2	0.1	0.1	Ampl.	0.1
	281.8	261.2	97.0	98.8	3.2	97.1	198.8	100.8	Sbd box	98.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.39764771354E+03		Apriori delay (usec)		-6.39703311454E+03		Resid mbdelay (usec)		-5.22400E-03	+/- 1.8E-04
Sband delay (usec)	-6.39765307904E+03		Apriori clock (usec)		6.5936108E+00		Resid sbdelay (usec)		-6.19964E-01	+/- 1.4E-03
Phase delay (usec)	-6.39703311563E+03		Apriori clockrate (us/s)		4.7999999E-07		Resid phdelay (usec)		-1.09072E-06	+/- 6.2E-07
Delay rate (us/s)	1.18490388826E+00		Apriori rate (us/s)		1.18490438939E+00		Resid rate (us/s)		-5.01127E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		3.06096780536E-05		Resid phase (deg)		-33.8	+/- 19.3

	RMS	Theor.	Amplitude	0.106 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	56.8	46.2	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.2	80.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	38.9	27.3	Inc. seg. avg.	0.106	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	46.7	47.6	Inc. frq. avg.	0.112	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

p: az 48.1 el 35.8 pa -78.4 P: az 312.2 el 63.9 pa 111.2 u,v (fr/asec) -10737.094 2851.959 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/pP..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/pP.W.312.1X0YRU

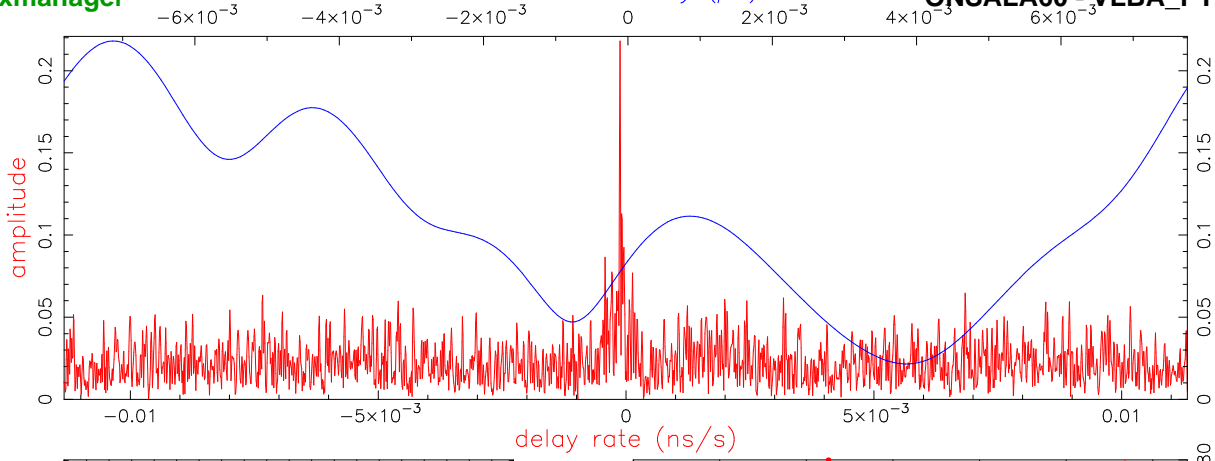
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Xp

ONSALA60 - VLBA\_PT, fgroup W, pol LL

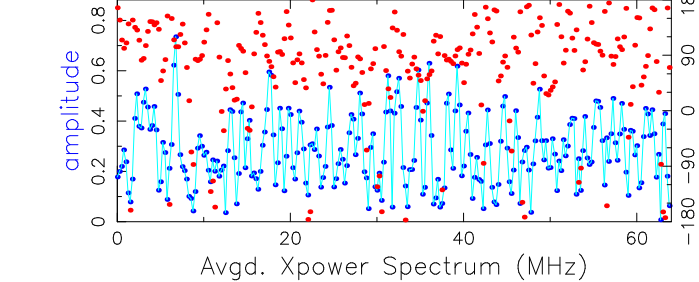
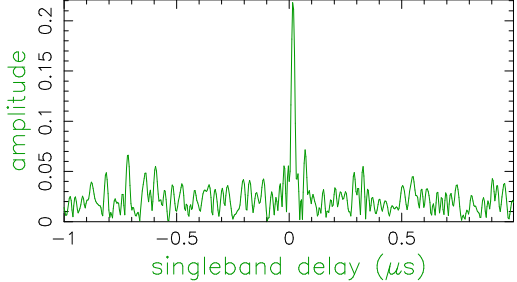
multiband delay ( $\mu$ s)



Fringe quality 9

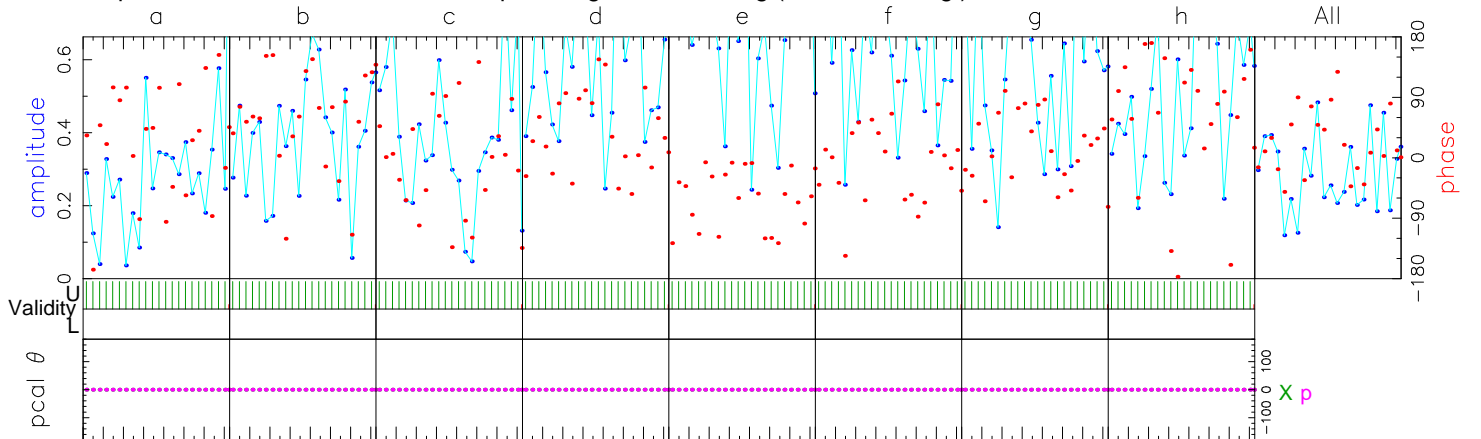
SNR 12.4  
 Int time 419.777  
 Amp 0.221  
 Phase 16.8  
 PFD 1.9e-26  
 Delays (us)  
 SBD 0.016999  
 MBD -0.007109  
 Fringe rate (Hz)  
 -0.010474  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125243  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

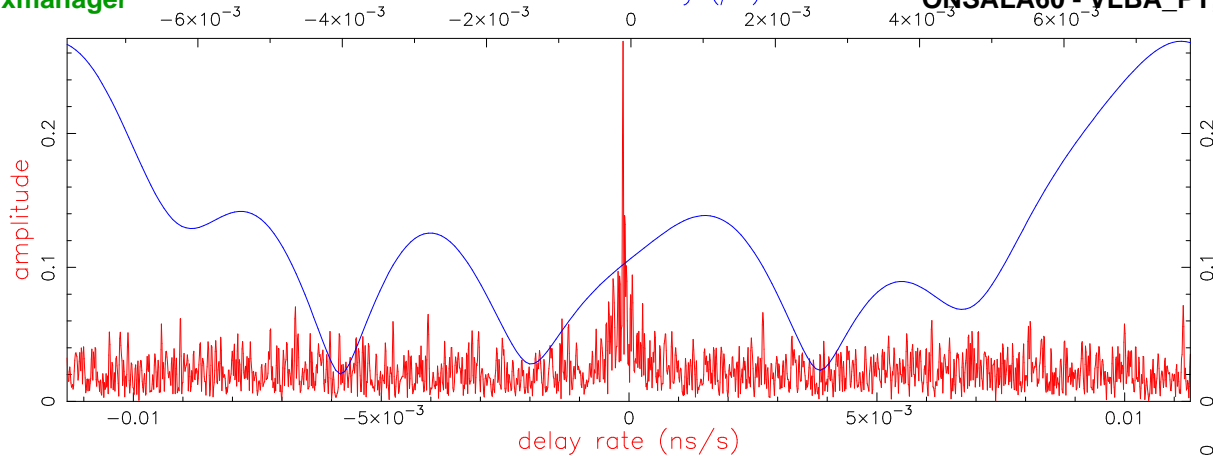
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	41.3	78.7	14.2	34.1	-56.1	-3.8	20.8	102.5	Phase	16.8
	0.1	0.2	0.2	0.3	0.5	0.4	0.4	0.3	Ampl.	0.3
	399.7	261.7	260.7	262.1	262.1	262.1	262.3	264.3	Sbd box	261.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.23844660570E+03		Apriori delay (usec)		6.23842246509E+03		Resid mbdelay (usec)		-7.10939E-03	+/- 8.8E-05
Sband delay (usec)	6.23843946384E+03		Apriori clock (usec)		5.0957428E+01		Resid sbdelay (usec)		1.69987E-02	+/- 7.0E-04
Phase delay (usec)	6.23842246563E+03		Apriori clockrate (us/s)		6.4799999E-07		Resid phdelay (usec)		5.41684E-07	+/- 3.0E-07
Delay rate (us/s)	-1.15854759308E+00		Apriori rate (us/s)		-1.15854747149E+00		Resid rate (us/s)		-1.21594E-07	+/- 1.2E-09
Total phase (deg)	68.2		Apriori accel (us/s/s)		-8.43457371160E-06		Resid phase (deg)		16.8	+/- 9.3

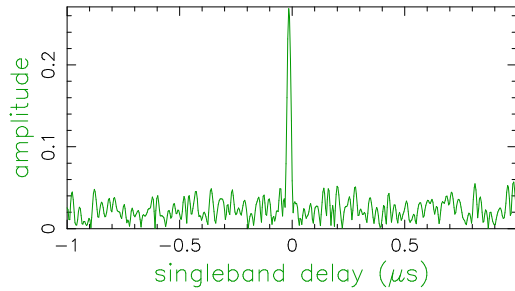
ph/seg (deg) 48.0 22.2 Search (2048X32) 0.214 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 56.8 38.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 54.5 13.1 Inc. seg. avg. 0.269 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 75.2 22.9 Inc. frq. avg. 0.313 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 X: az 276.8 el 62.6 pa 58.1 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10529.945 638.778 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Xp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Xp.W.316.1X0YRU

multiband delay ( $\mu$ s)

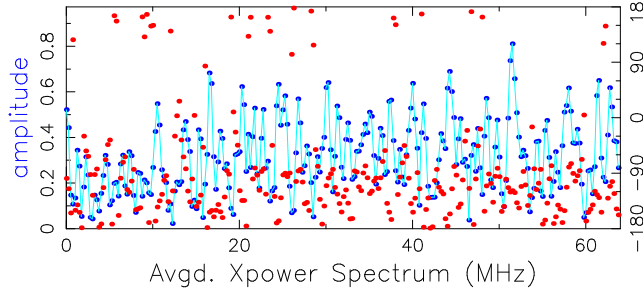


Fringe quality 7

SNR 15.2  
 Int time 419.777  
 Amp 0.271  
 Phase 165.2  
 PFD 3.1e-43  
 Delays (us)  
 SBD -0.014468  
 MBD -0.008003  
 Fringe rate (Hz)  
 -0.010283  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

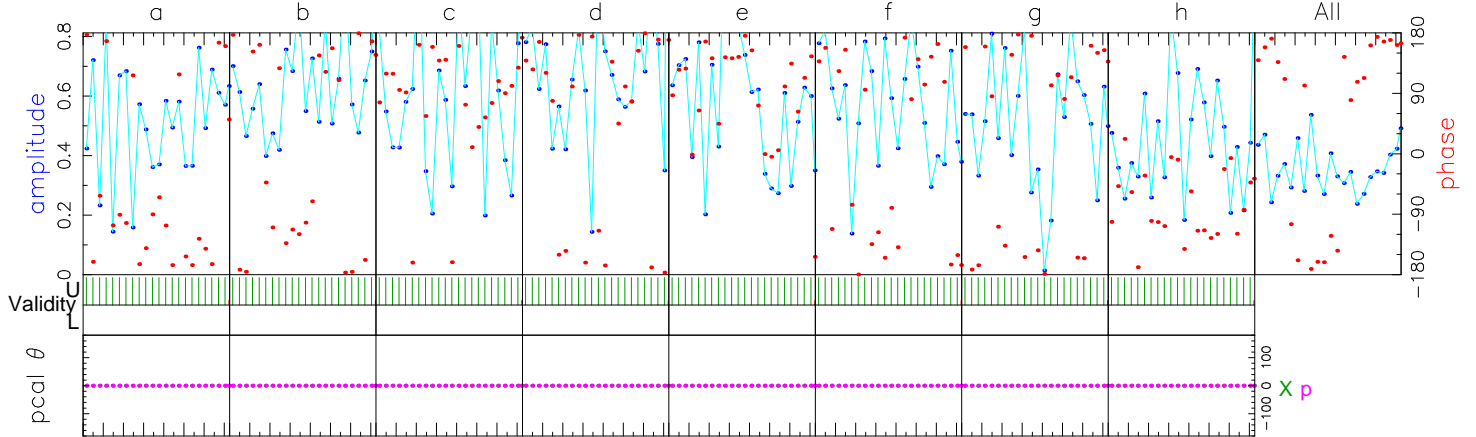


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125246  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-151.4	-170.9	109.1	159.0	116.1	167.7	166.0	-71.9	Phase	165.2
	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	Ampl.	0.4
	252.6	253.2	253.2	253.7	254.3	254.0	254.2	255.5	Sbd box	253.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	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)	6.23841446253E+03		Apriori delay (usec)		6.23842246509E+03		Resid mbdelay (usec)		-8.00256E-03	+/- 7.1E-05
Sband delay (usec)	6.23840799759E+03		Apriori clock (usec)		5.0957428E+01		Resid sbdelay (usec)		-1.44675E-02	+/- 5.7E-04
Phase delay (usec)	6.23842247042E+03		Apriori clockrate (us/s)		6.4799999E-07		Resid phdelay (usec)		5.32704E-06	+/- 2.4E-07
Delay rate (us/s)	-1.15854759086E+00		Apriori rate (us/s)		-1.15854747149E+00		Resid rate (us/s)		-1.19370E-07	+/- 1.0E-09
Total phase (deg)	216.6		Apriori accel (us/s/s)		-8.43457371160E-06		Resid phase (deg)		165.2	+/- 7.5

	RMS	Theor.	Amplitude	0.271 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	43.9	18.1	Search (2048X32)	0.261	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	41.9	31.6	Interp.	0.000	Sample rate(MSamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	62.1	10.7	Inc. seg. avg.	0.338	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	45.3	18.6	Inc. frq. avg.	0.378					

X: az 276.8 el 62.6 pa 58.1 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10529.945 638.778 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Xp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Xp.W.328.1X0YRU

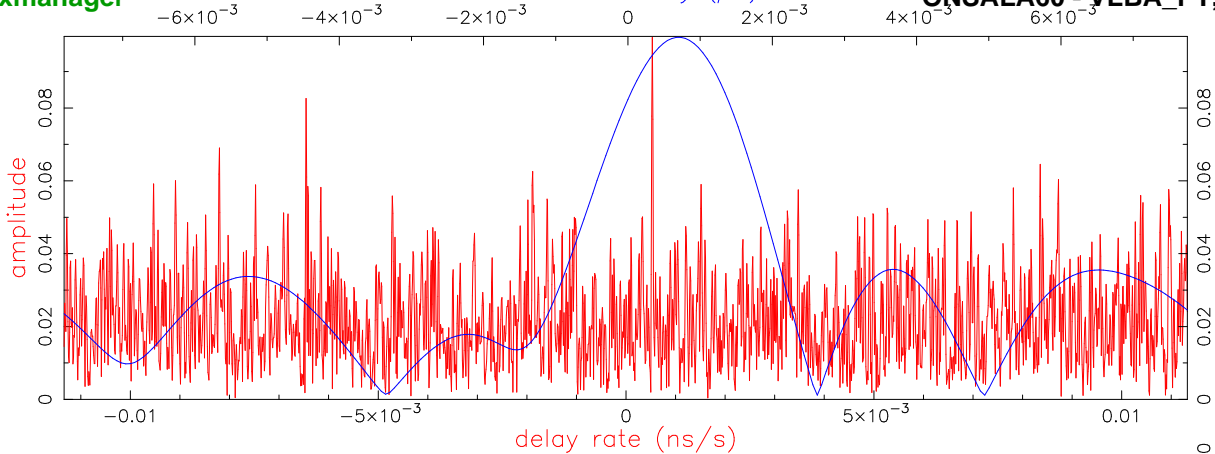
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Xp

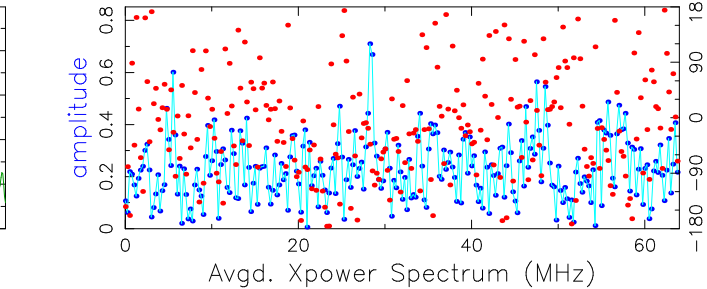
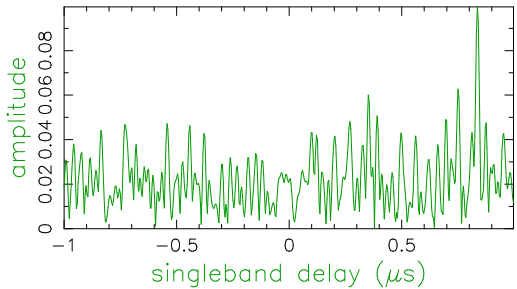
ONSALA60 - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)



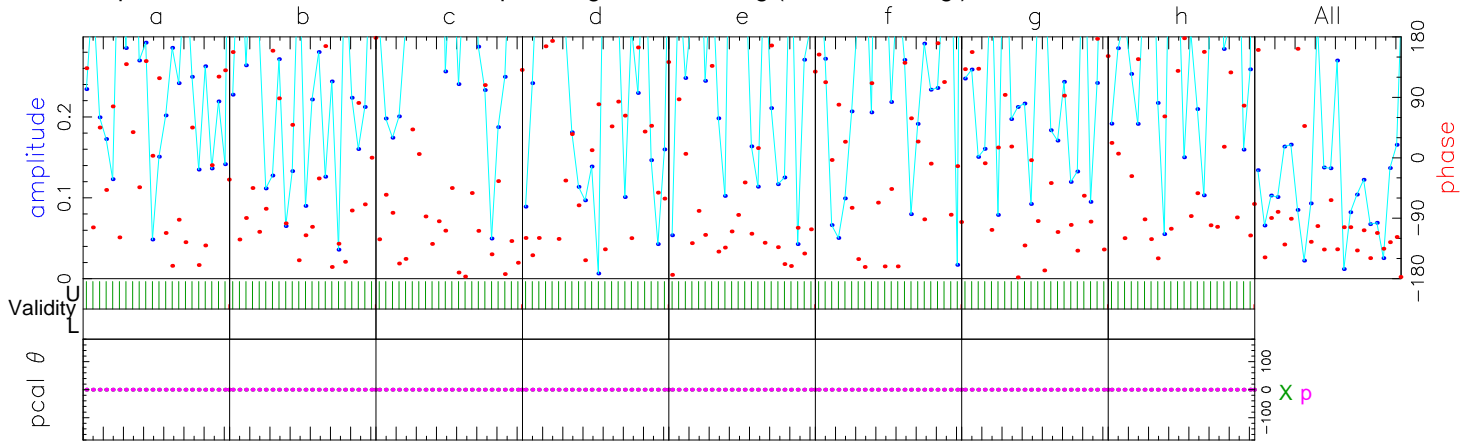
Fringe quality 0

SNR 5.6  
 Int time 419.777  
 Amp 0.100  
 Phase -120.9  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.836438  
 MBD 0.000710  
 Fringe rate (Hz) 0.045687  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125250  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-144.6	-111.9	-109.3	-140.7	-120.7	-144.1	-143.0	-103.6	Phase	-120.9
	0.0	0.1	0.2	0.0	0.2	0.1	0.1	0.1	Ampl.	0.1
	225.3	500.2	469.9	233.1	271.3	287.0	242.0	422.9	Sbd box	471.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.23925129986E+03		Apriori delay (usec)		6.23842246509E+03		Resid mbdelay (usec)		7.09774E-04	+/- 1.9E-04
Sband delay (usec)	6.23925890284E+03		Apriori clock (usec)		5.0957428E+01		Resid sbdelay (usec)		8.36438E-01	+/- 1.5E-03
Phase delay (usec)	6.23842246119E+03		Apriori clockrate (us/s)		6.4799999E-07		Resid phdelay (usec)		-3.89836E-06	+/- 6.6E-07
Delay rate (us/s)	-1.15854694111E+00		Apriori rate (us/s)		-1.15854747149E+00		Resid rate (us/s)		5.30382E-07	+/- 2.7E-09
Total phase (deg)			Apriori accel (us/s/s)		-8.43457371160E-06		Resid phase (deg)		-120.9	+/- 20.5

	RMS	Theor.	Amplitude	0.100 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	48.3	49.3	Search (2048X32)	0.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	75.8	86.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	20.4	29.0	Inc. seg. avg.	0.087	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	48.1	50.7	Inc. frq. avg.	0.091	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

X: az 276.8 el 62.6 pa 58.1 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10529.945 638.778 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Xp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Xp.W.339.1X0YRU

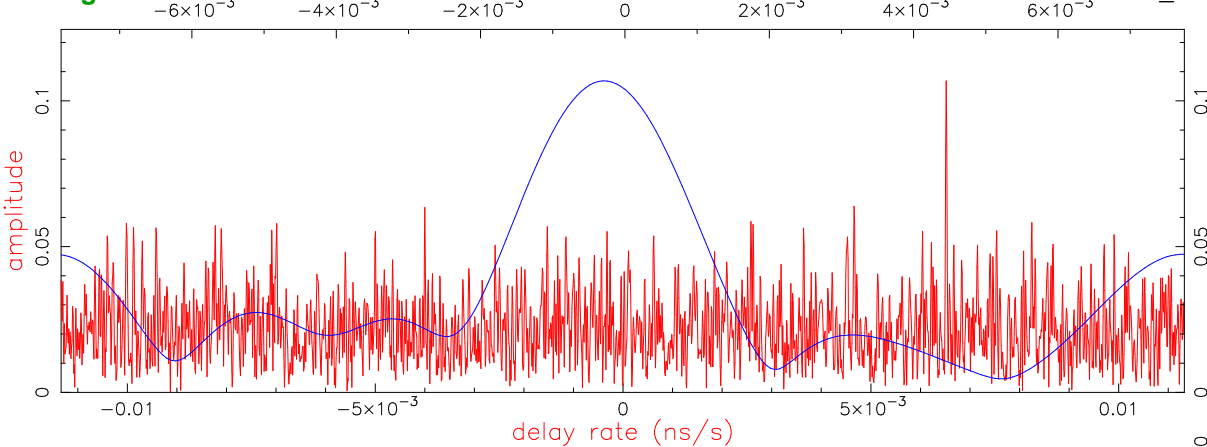
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Xp

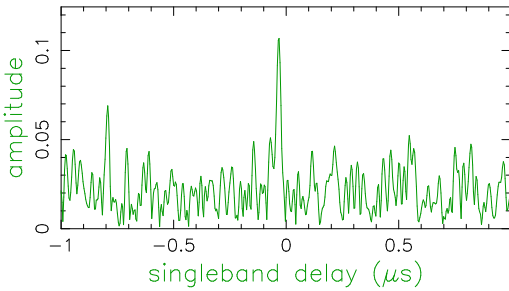
ONSALA60 - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

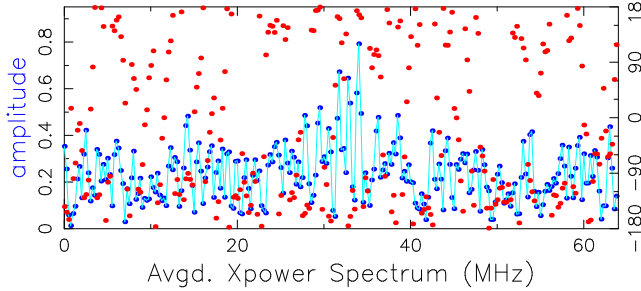


Fringe quality 0

SNR 6.1  
 Int time 419.777  
 Amp 0.125  
 Phase -177.8  
 PFD 3.0e-01  
 Delays (us)  
 SBD -0.032885  
 MBD -0.000321  
 Fringe rate (Hz)  
 0.562664  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

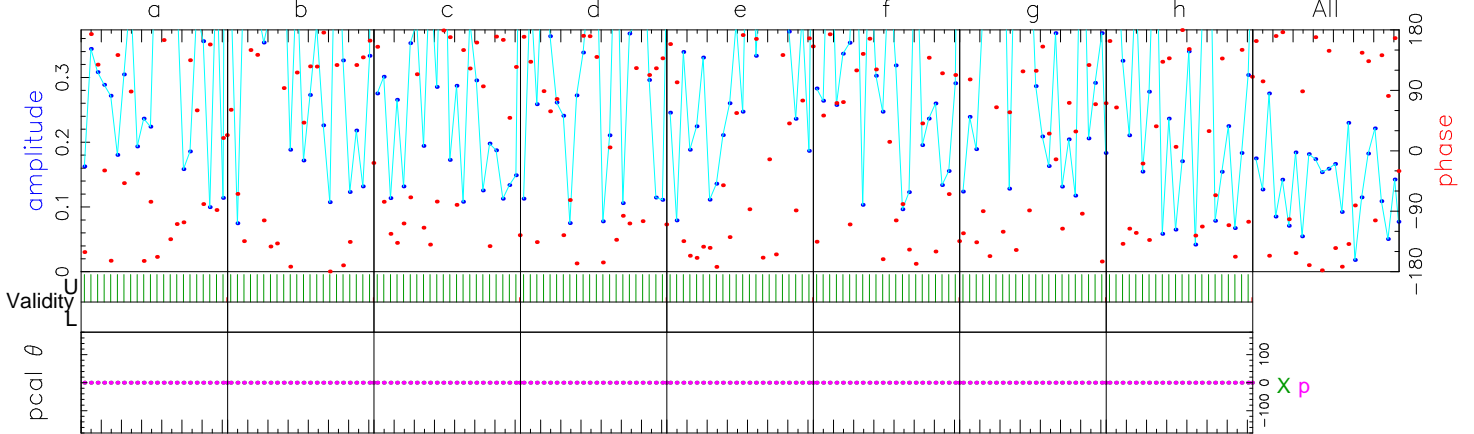


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160000.00  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125253  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-140.5	152.8	-162.5	167.2	-158.4	159.1	-145.1	-178.7	Phase	-177.8
	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	135.2	247.7	248.1	205.1	228.2	28.8	323.0	109.1	Sbd box	248.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.23839089436E+03		Apriori delay (usec)		6.23842246509E+03		Resid mbdelay (usec)		-3.20730E-04	+/- 1.8E-04
Sband delay (usec)	6.23838958009E+03		Apriori clock (usec)		5.0957428E+01		Resid sbdelay (usec)		-3.28850E-02	+/- 1.4E-03
Phase delay (usec)	6.23842245936E+03		Apriori clockrate (us/s)		6.4799999E-07		Resid phdelay (usec)		-5.73345E-06	+/- 6.1E-07
Delay rate (us/s)	-1.15854093951E+00		Apriori rate (us/s)		-1.15854747149E+00		Resid rate (us/s)		6.53197E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-8.43457371160E-06		Resid phase (deg)		-177.8	+/- 18.9

RMS Theor. Amplitude 0.125 +/- 0.021  
 ph/seg (deg) 52.2 45.3 Search (2048X32) 0.105  
 amp/seg (%) 64.6 79.1 Interp. 0.000  
 ph/frq (deg) 28.0 26.7 Inc. seg. avg. 0.124  
 amp/frq (%) 37.8 46.7 Inc. frq. avg. 0.122

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

X: az 276.8 el 62.6 pa 58.1 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10529.945 638.778 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Xp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Xp.W.350.1X0YRU



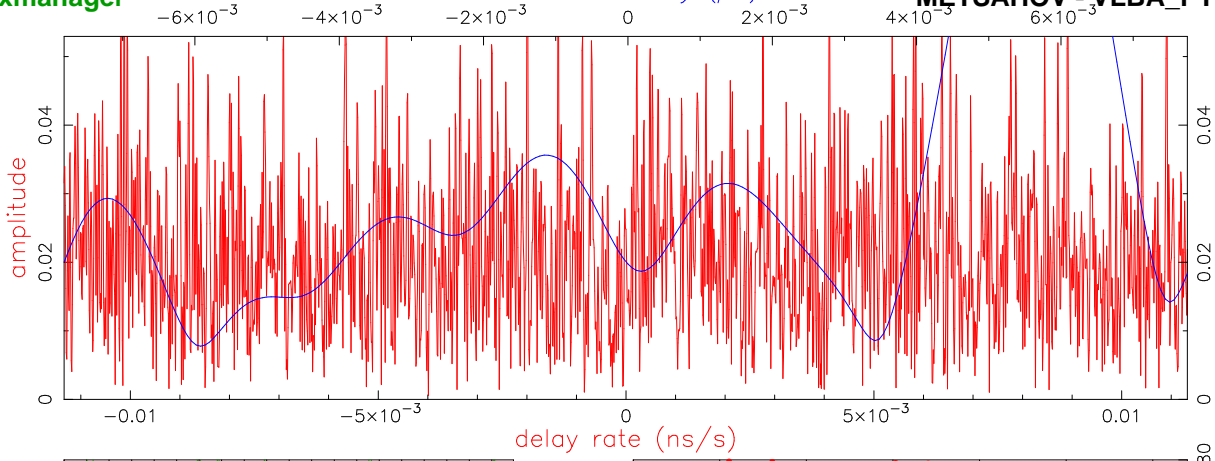
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

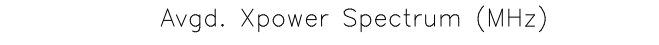
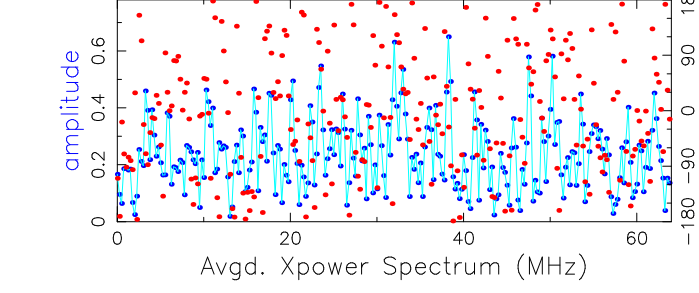
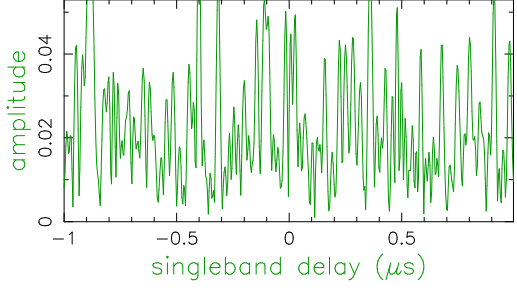
NRAO150.1X0YRU, No0085, Zp

MEṬSAHOV - VLBA\_PT, fgroup W, pol LL

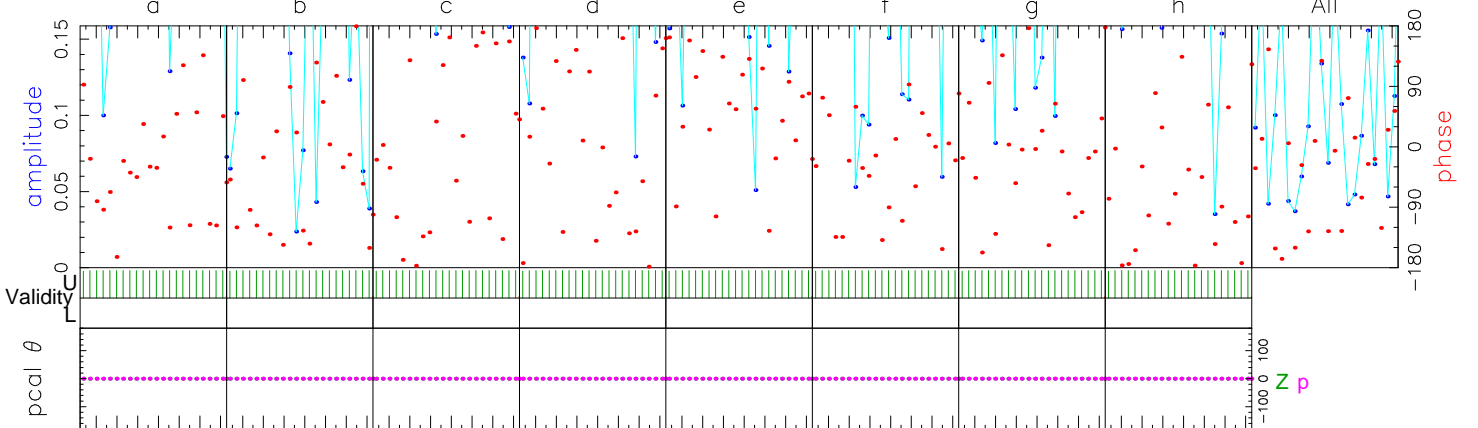
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 2.0  
 Int time 405.703  
 Amp 0.053  
 Phase -37.4  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.425781  
 MBD -0.007324  
 Fringe rate (Hz)  
 -0.893107  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160013.31  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125245  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-26.8	-100.4	-163.5	-172.7	81.0	-12.5	-35.6	-85.8	Phase	-37.4
	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	258.5	441.2	378.6	153.3	32.0	221.4	471.4	383.6	Sbd box	366.0
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.05660770354E+03		Apriori delay (usec)		5.05617752776E+03		Resid mbdelay (usec)		-7.32422E-03	+/- 5.4E-04
Sband delay (usec)	5.05660330901E+03		Apriori clock (usec)		-6.2522926E+00		Resid sbdelay (usec)		4.25781E-01	+/- 4.3E-03
Phase delay (usec)	5.05617752655E+03		Apriori clockrate (us/s)		1.3600000E-07		Resid phdelay (usec)		-1.20745E-06	+/- 1.8E-06
Delay rate (us/s)	-1.19082081010E+00		Apriori rate (us/s)		-1.19081044202E+00		Resid rate (us/s)		-1.03681E-05	+/- 7.8E-09
Total phase (deg)	49.4		Apriori accel (us/s/s)		-2.07248238275E-07		Resid phase (deg)		-37.4	+/- 57.0

ph/seg (deg) 87.6 136.6 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 252.6 238.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 96.0 80.6 Inc. seg. avg. 0.040 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 209.1 140.6 Inc. frq. avg. 0.073 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_coherence infinite dr window (ns/s) -0.011 0.011  
 Z: az 281.0 el 56.7 pa 50.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10836.798 1577.328 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Zp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Zp.W.322.1X0YRU

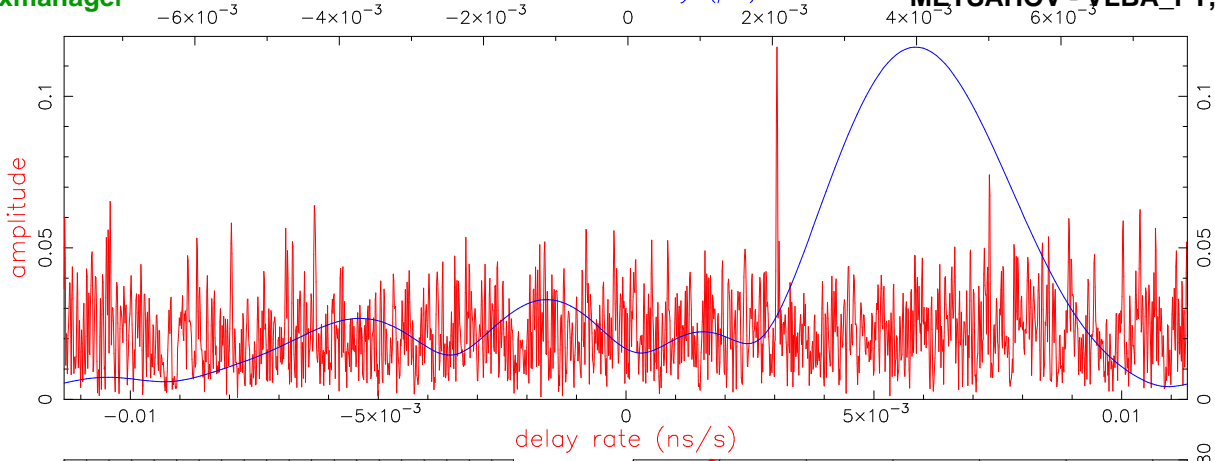
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

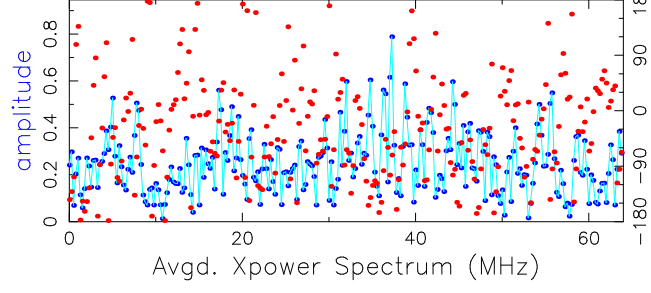
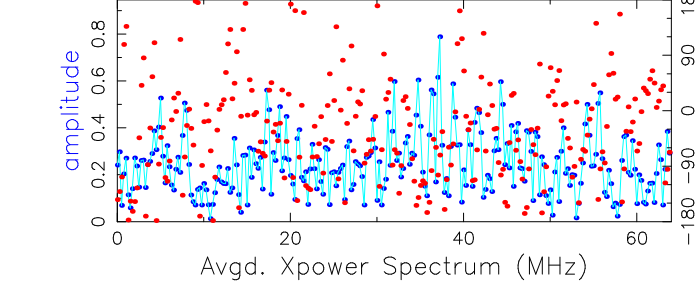
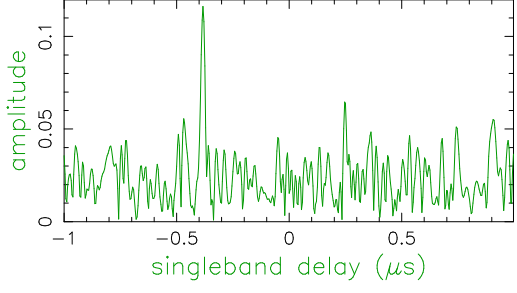
NRAO150.1X0YRU, No0085, Zp

ME TSAHOV - VLBA\_PT, fgroup W, pol RR

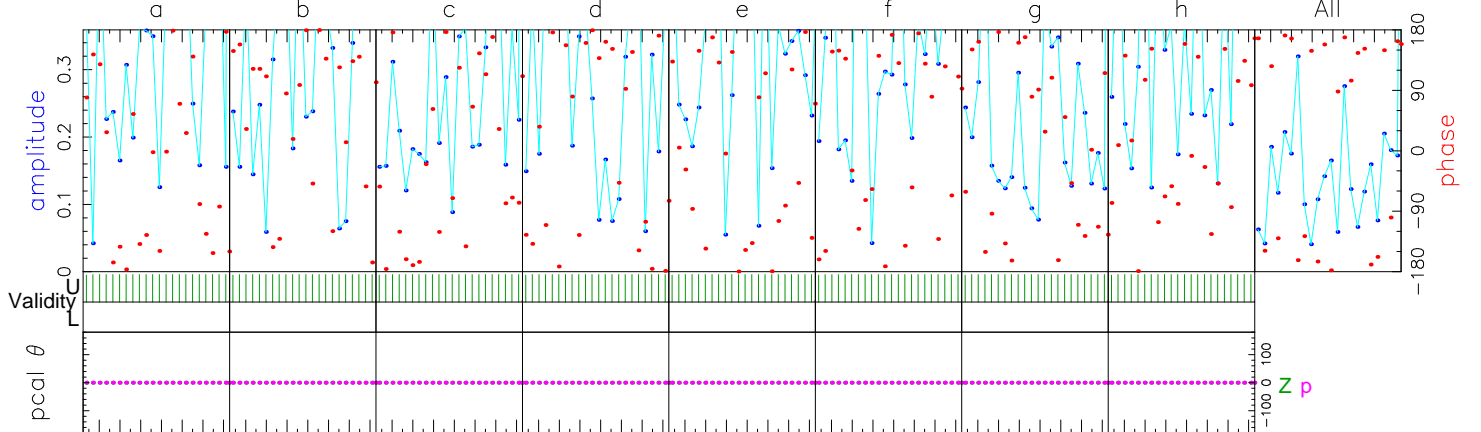
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 6.4  
 Int time 405.703  
 Amp 0.120  
 Phase 174.6  
 PFD 4.2e-02  
 Delays (us)  
 SBD -0.382827  
 MBD 0.003986  
 Fringe rate (Hz)  
 0.262724  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160013.31  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125249  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-170.4	147.7	174.7	-175.2	-179.1	179.3	-167.0	137.0	Phase	174.6
	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	429.1	435.0	505.4	158.3	446.2	157.7	137.0	71.6	Sbd box	159.0
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	5.05579088872E+03		Apriori delay (usec)		5.05617752776E+03		Resid mbdelay (usec)		3.98596E-03	+/- 1.7E-04
Sband delay (usec)	5.05579470051E+03		Apriori clock (usec)		-6.2522926E+00		Resid sbdelay (usec)		-3.82827E-01	+/- 1.3E-03
Phase delay (usec)	5.05617753339E+03		Apriori clockrate (us/s)		1.3600000E-07		Resid phdelay (usec)		5.62942E-06	+/- 5.8E-07
Delay rate (us/s)	-1.19080739205E+00		Apriori rate (us/s)		-1.19081044202E+00		Resid rate (us/s)		3.04996E-06	+/- 2.5E-09
Total phase (deg)	261.4		Apriori accel (us/s/s)		-2.07248238275E-07		Resid phase (deg)		174.6	+/- 17.9

ph/seg (deg) 40.0 42.9 Search (2048X32) 0.109 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 69.6 74.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 21.9 25.3 Inc. seg. avg. 0.115 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 43.1 44.2 Inc. frq. avg. 0.114 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 Z: az 281.0 el 56.7 pa 50.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10836.798 1577.328 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Zp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Zp.W.334.1X0YRU

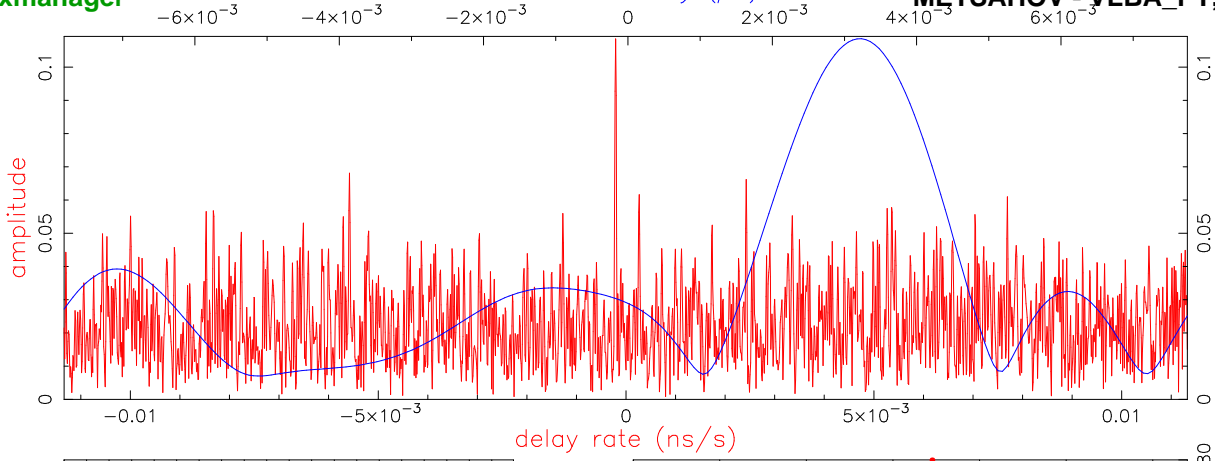
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

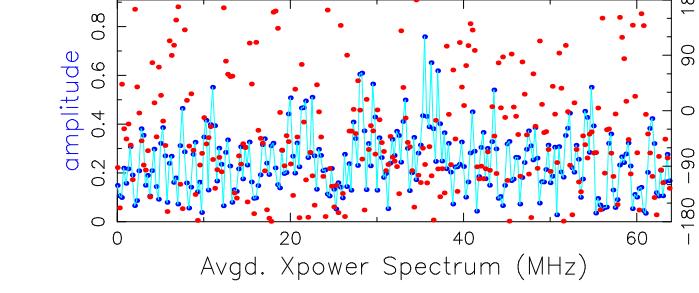
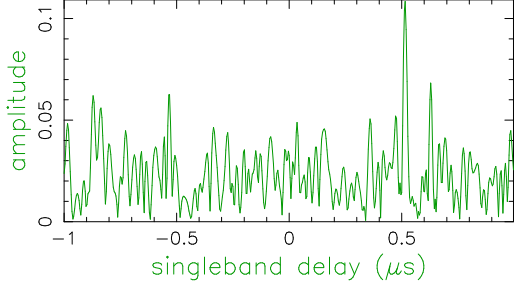
NRAO150.1X0YRU, No0085, Zp

MEṬSAHOV - VLBA\_PT, fgroup W, pol LR

multiband delay ( $\mu$ s)

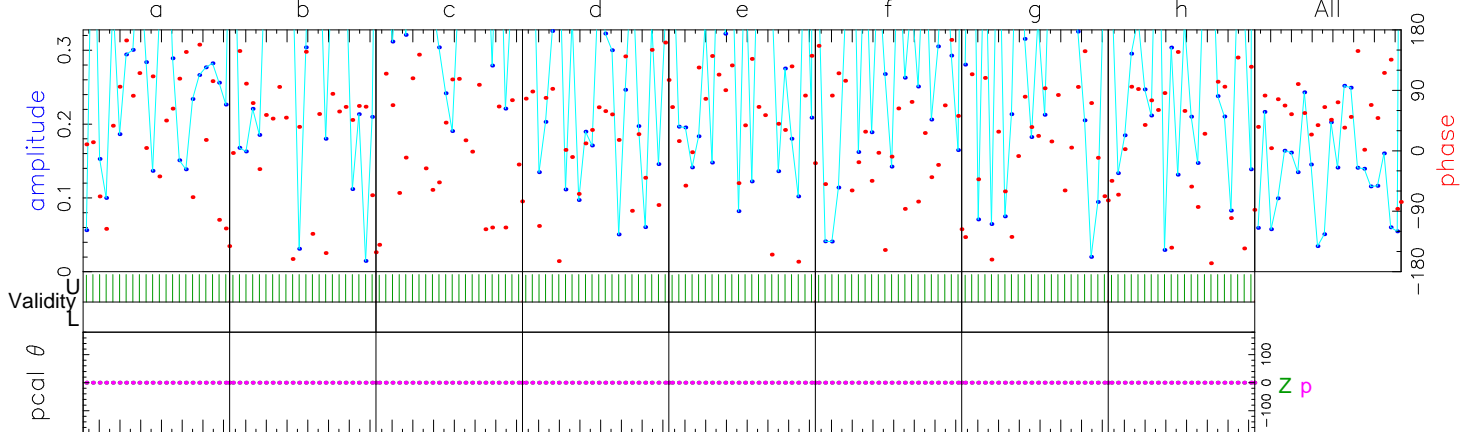


Fringe quality 0  
 SNR 6.0  
 Int time 405.703  
 Amp 0.109  
 Phase 59.8  
 PFD 3.7e-01  
 Delays (us)  
 SBD 0.514552  
 MBD 0.003248  
 Fringe rate (Hz) -0.018388  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160013.31  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125252  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	53.7	65.5	46.3	77.0	80.9	19.4	40.6	84.4	Phase	59.8
	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	115.0	389.0	423.3	95.2	422.9	378.8	174.9	371.3	Sbd box	388.7
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		5.05669640031E+03		Apriori delay (usec)	5.05617752776E+03		Resid mbdelay (usec)	3.24755E-03	+/-	1.8E-04
Sband delay (usec)		5.05669207926E+03		Apriori clock (usec)	-6.2522926E+00		Resid sbdelay (usec)	5.14552E-01	+/-	1.4E-03
Phase delay (usec)		5.05617752969E+03		Apriori clockrate (us/s)	1.3600000E-07		Resid phdelay (usec)	1.92977E-06	+/-	6.1E-07
Delay rate (us/s)		-1.19081065548E+00		Apriori rate (us/s)	-1.19081044202E+00		Resid rate (us/s)	-2.13461E-07	+/-	2.6E-09
Total phase (deg)		146.7		Apriori accel (us/s/s)	-2.07248238275E-07		Resid phase (deg)	59.8	+/-	19.0

ph/seg (deg) 48.4 45.7 Search (2048X32) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.9 79.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 24.5 26.9 Inc. seg. avg. 0.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 33.8 47.0 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  
 Z: az 281.0 el 56.7 pa 50.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10836.798 1577.328 ion window (TEC) 0.00 0.00 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Zp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Zp.W.345.1X0YRU

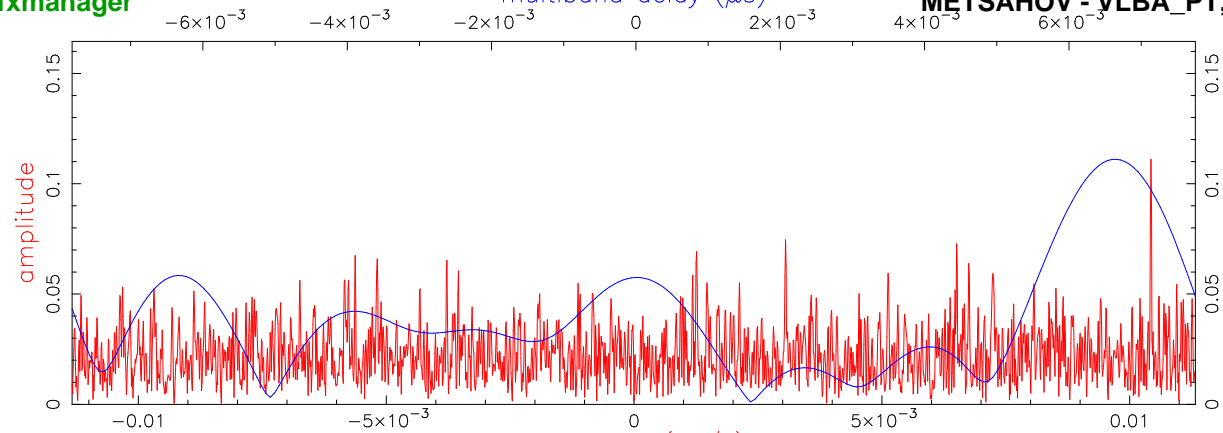
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1X0YRU, No0085, Zp

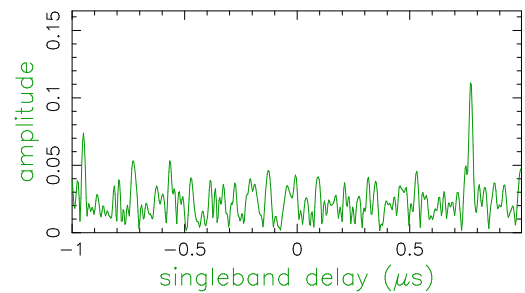
MEṬSAHOV - VLBA\_PT, fgroup W, pol RL

multiband delay ( $\mu$ s)

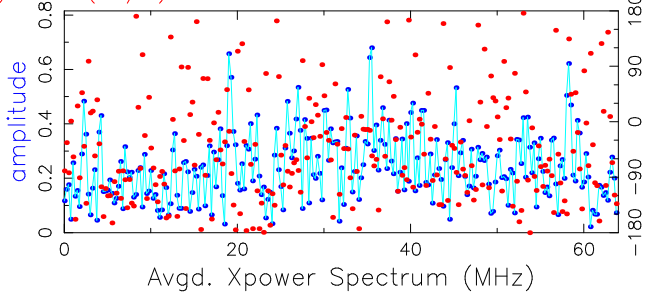


Fringe quality 0

SNR 6.2  
 Int time 405.703  
 Amp 0.165  
 Phase 103.7  
 PFD 1.3e-01  
 Delays (us)  
 SBD 0.771220  
 MBD 0.006677  
 Fringe rate (Hz)  
 0.900146  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

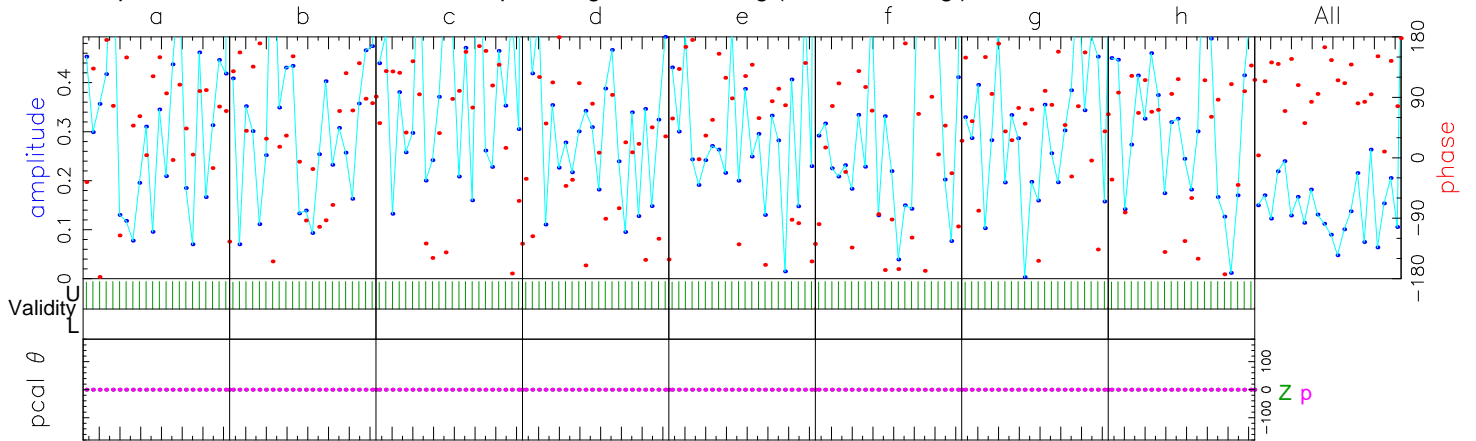


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 160013.31  
 Stop 160659.84  
 FRT 160330.00  
 Corr/FF/build  
 2021:303:125433  
 2021:304:125255  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	794/0	794/0	794/0	794/0	794/0	794/0	794/0	794/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	0	0	0	0	0	0	0	0		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.05694982943E+03	Apriori delay (usec)	5.05617752776E+03	Resid mbdelay (usec)	6.67667E-03	+/-	1.7E-04
Sband delay (usec)	5.05694874801E+03	Apriori clock (usec)	-6.2522926E+00	Resid sbdelay (usec)	7.71220E-01	+/-	1.4E-03
Phase delay (usec)	5.05617753110E+03	Apriori clockrate (us/s)	1.3600000E-07	Resid phdelay (usec)	3.34256E-06	+/-	5.9E-07
Delay rate (us/s)	-1.19079999221E+00	Apriori rate (us/s)	-1.19081044202E+00	Resid rate (us/s)	1.04498E-05	+/-	2.5E-09
Total phase (deg)	190.5	Apriori accel (us/s/s)	-2.07248238275E-07	Resid phase (deg)	103.7	+/-	18.4

ph/seg (deg)	RMS 42.9	Theor. 44.2	Amplitude Search (2048X32)	0.165 +/- 0.026	0.108	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.0	77.2	Interp.	0.000	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	37.4	26.1	Inc. seg. avg.	0.164	0.108	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.0	45.5	Inc. frq. avg.	0.158	0.108	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

Z: az 281.0 el 56.7 pa 50.9 p: az 48.1 el 35.8 pa -78.4 u,v (fr/asec) 10836.798 1577.328 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0085/Zp..1X0YRU Output file: /Exps/c211c/v1/1234/No0085/Zp.W.355.1X0YRU