

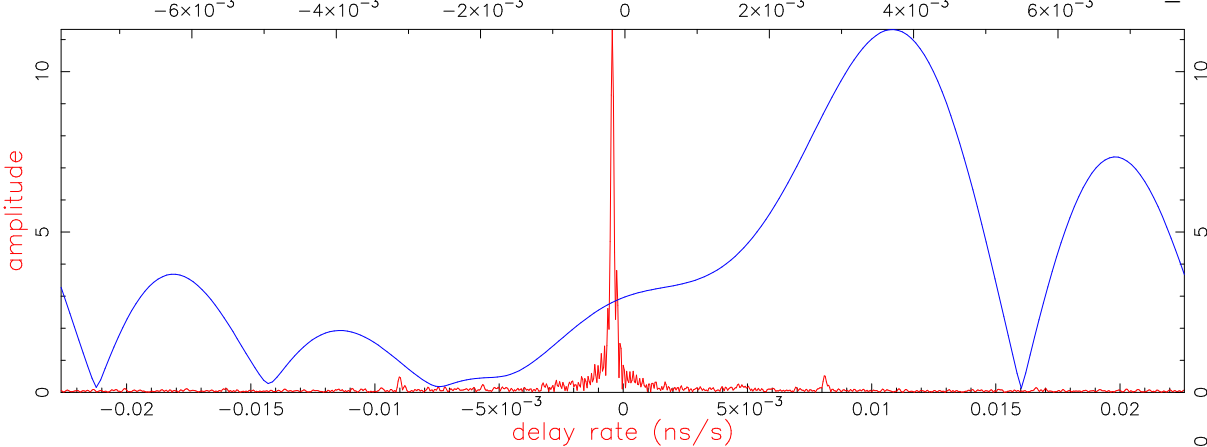
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ap

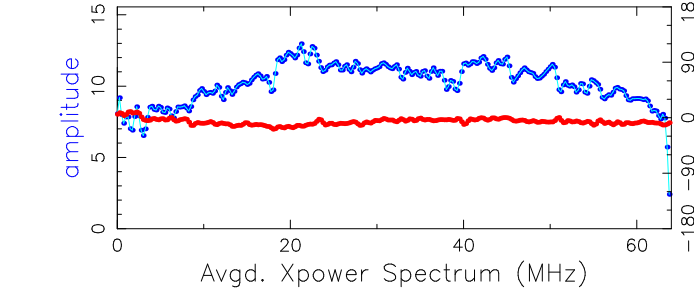
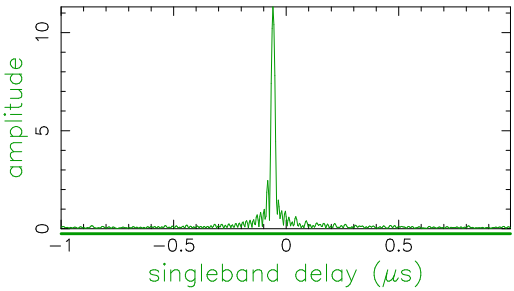
ALMA - VLBA_PT, fgroup Q, pol XL

multiband delay (μ s)



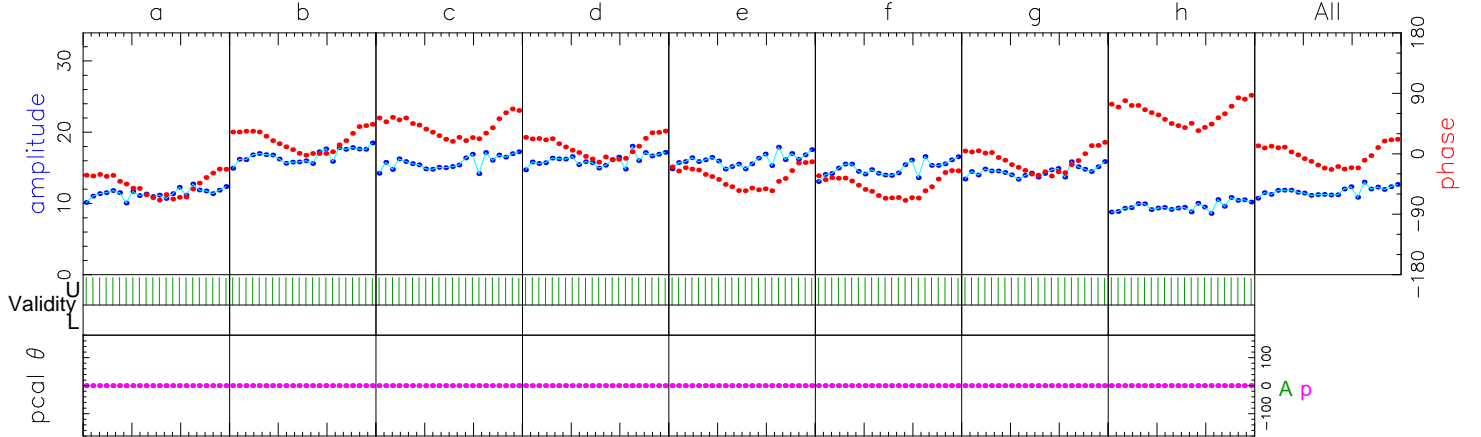
Fringe quality 5

SNR 415.2
 Int time 179.975
 Amp 11.320
 Phase -92.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.058415
 MBD 0.003715
 Fringe rate (Hz)
 -0.018503
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151739
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-45.7	20.0	40.6	10.5	-34.8	-47.7	-9.9	60.6	Phase	-2.2
	11.0	16.1	15.2	15.6	15.5	14.4	13.9	9.3	Ampl.	13.9
	244.0	242.1	241.8	241.9	241.9	241.9	241.9	244.0	Sbd box	242.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.16263164806E+03	Apriori delay (usec)	-7.16257286266E+03	Resid mbdelay (usec)	3.71460E-03	+/-	2.6E-06
Sband delay (usec)	-7.16263127816E+03	Apriori clock (usec)	-2.1131233E+03	Resid sbdelay (usec)	-5.84155E-02	+/-	2.1E-05
Phase delay (usec)	-7.16257286280E+03	Apriori clockrate (us/s)	-3.8952890E-07	Resid phdelay (usec)	-1.44019E-07	+/-	1.8E-08
Delay rate (us/s)	-5.41188227700E-01	Apriori rate (us/s)	-5.41187798793E-01	Resid rate (us/s)	-4.28907E-07	+/-	1.7E-10
Total phase (deg)	-198.5	Apriori accel (us/s/s)	-3.81825044485E-05	Resid phase (deg)	-92.2	+/-	0.3

ph/seg (deg)	15.1	0.6	Search (1024X32)	10.973	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	6.2	1.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	43.8	0.4	Inc. seg. avg.	11.724	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	30.5	0.7	Inc. frq. avg.	13.889	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator

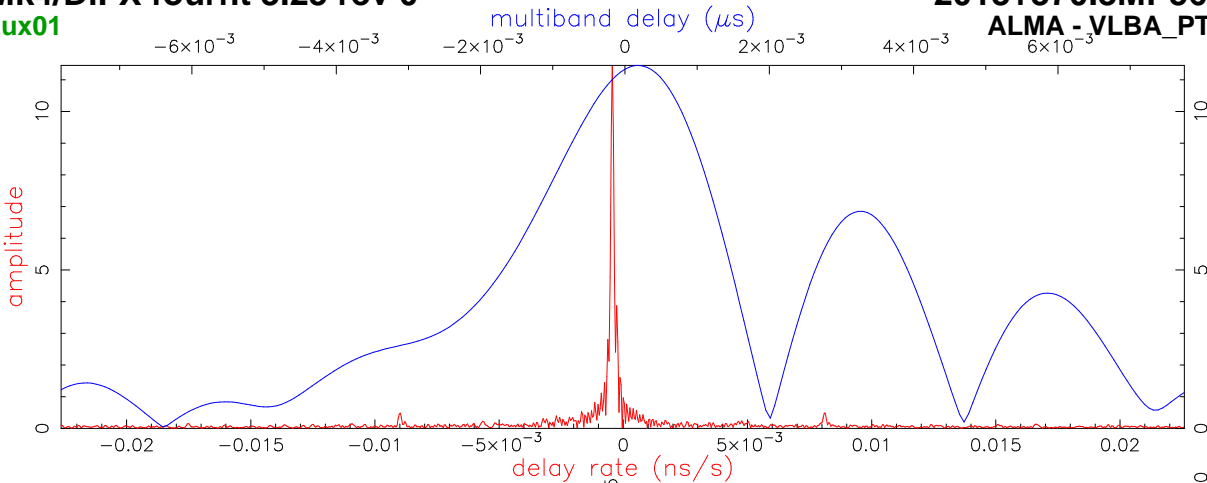
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.25.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

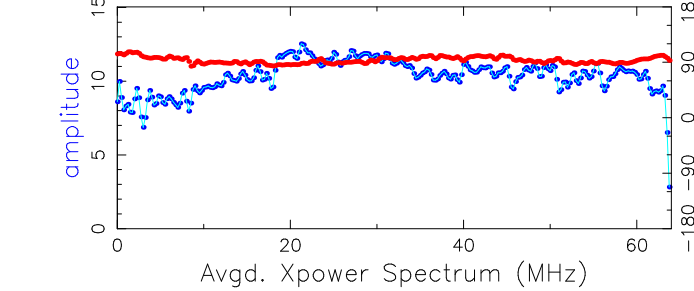
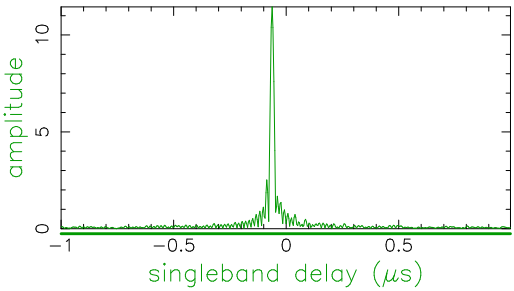
2013+370.3MP56K, No0500, Ap

ALMA - VLBA_PT, fgroup Q, pol YR



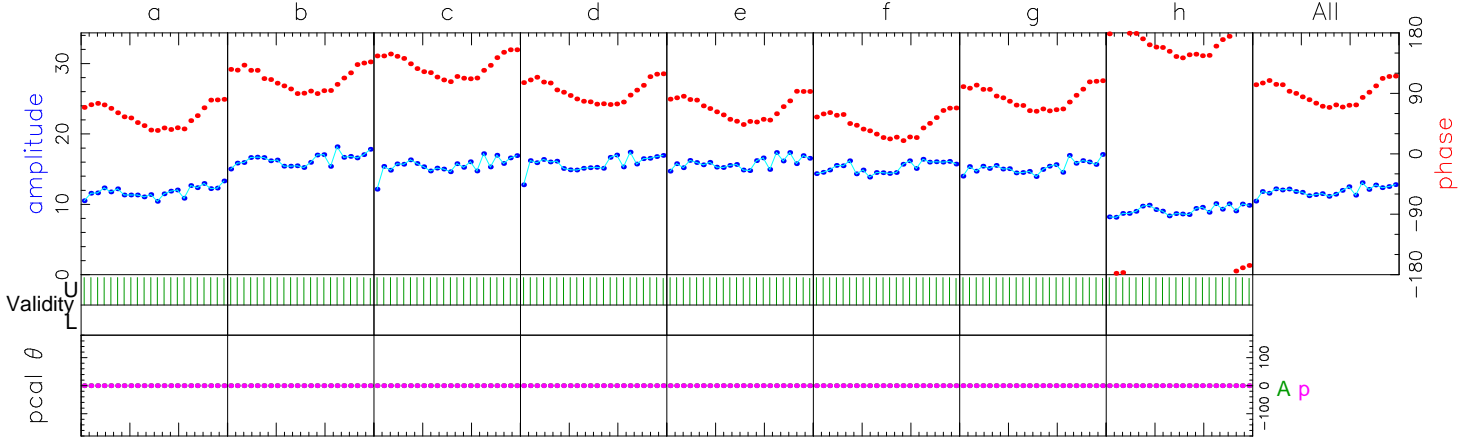
Fringe quality 5

SNR 420.2
 Int time 179.975
 Amp 11.455
 Phase -359.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.062526
 MBD 0.000182
 Fringe rate (Hz)
 -0.018523
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151741
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
A	0	0	0	0	0	0	0	0	APs used		
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-7.16263518099E+03								1.81665E-04	+/- 2.6E-06	
Sband delay (usec)	-7.16263538816E+03								-6.25255E-02	+/- 2.1E-05	
Phase delay (usec)	-7.16257285681E+03								5.84849E-06	+/- 1.8E-08	
Delay rate (us/s)	-5.41188228172E-01								-4.29380E-07	+/- 1.7E-10	
Total phase (deg)			-105.4						-359.2	+/- 0.3	
				Apriori delay (usec)	-7.16257286266E+03				Resid mbdelay (usec)	1.81665E-04	+/- 2.6E-06
				Apriori clock (usec)	-2.1131233E+03				Resid sbdelay (usec)	-6.25255E-02	+/- 2.1E-05
				Apriori clockrate (us/s)	-3.8952890E-07				Resid phdelay (usec)	5.84849E-06	+/- 1.8E-08
				Apriori rate (us/s)	-5.41187798793E-01				Resid rate (us/s)	-4.29380E-07	+/- 1.7E-10
				Apriori accel (us/s/s)	-3.81825044485E-05				Resid phase (deg)	-359.2	+/- 0.3

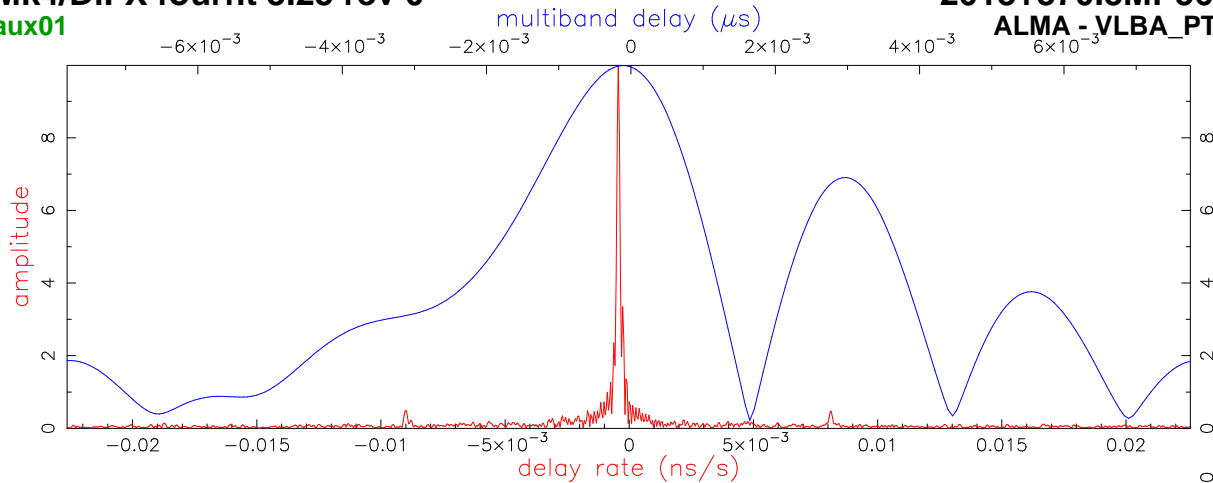
ph/seg (deg) 15.8 0.6 Search (1024X32) 11.052 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.7 1.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.0 0.4 Inc. seg. avg. 11.906 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.7 0.7 Inc. frq. avg. 13.816 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.39.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

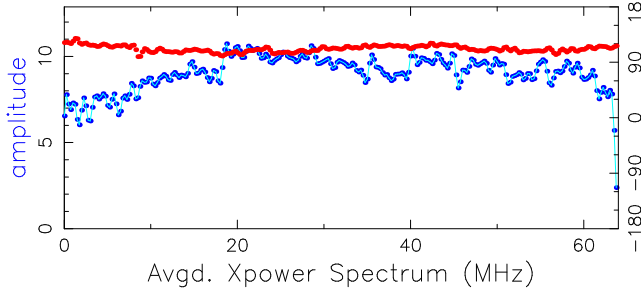
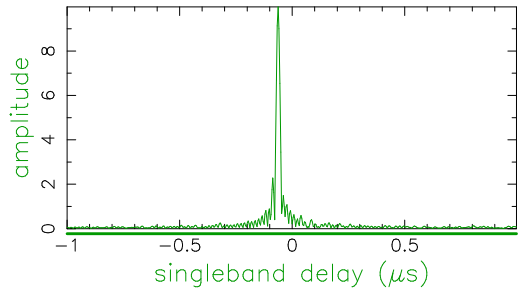
2013+370.3MP56K, No0500, Ap

ALMA - VLBA_PT, fgroup Q, pol XR



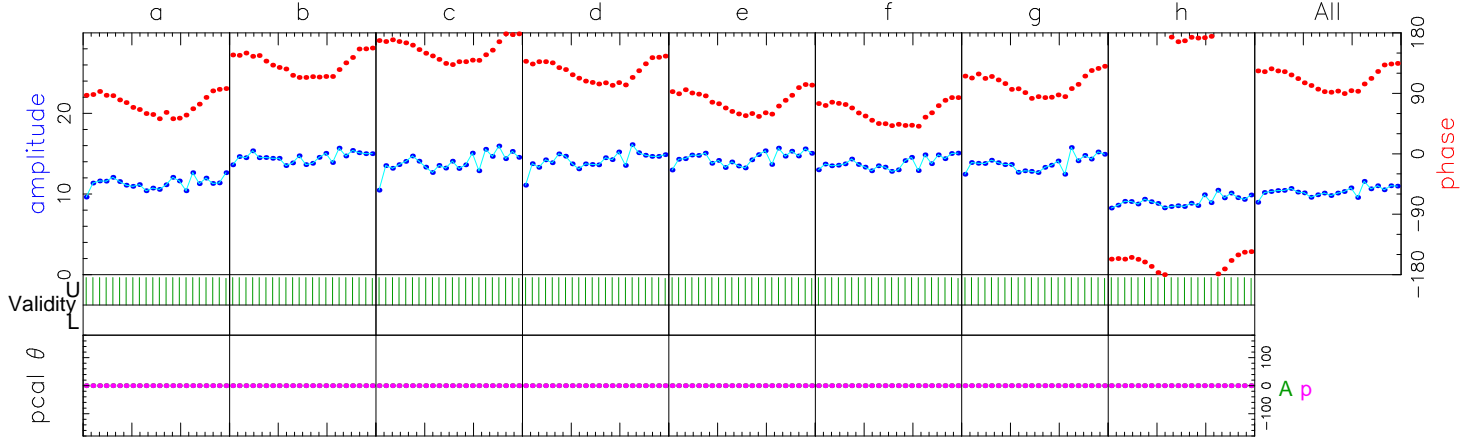
Fringe quality 5

SNR 366.5
 Int time 179.975
 Amp 9.991
 Phase -338.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.062651
 MBD -0.000115
 Fringe rate (Hz)
 -0.018463
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151744
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	-7.16263547762E+03									
Sband delay (usec)	-7.16263551341E+03									
Phase delay (usec)	-7.16257285550E+03									
Delay rate (us/s)	-5.41188226766E-01									
Total phase (deg)			-85.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 15.0 0.7 Search (1024X32) 9.735 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 6.6 1.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.0 0.4 Inc. seg. avg. 10.339 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.0 0.8 Inc. frq. avg. 12.671 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.54.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

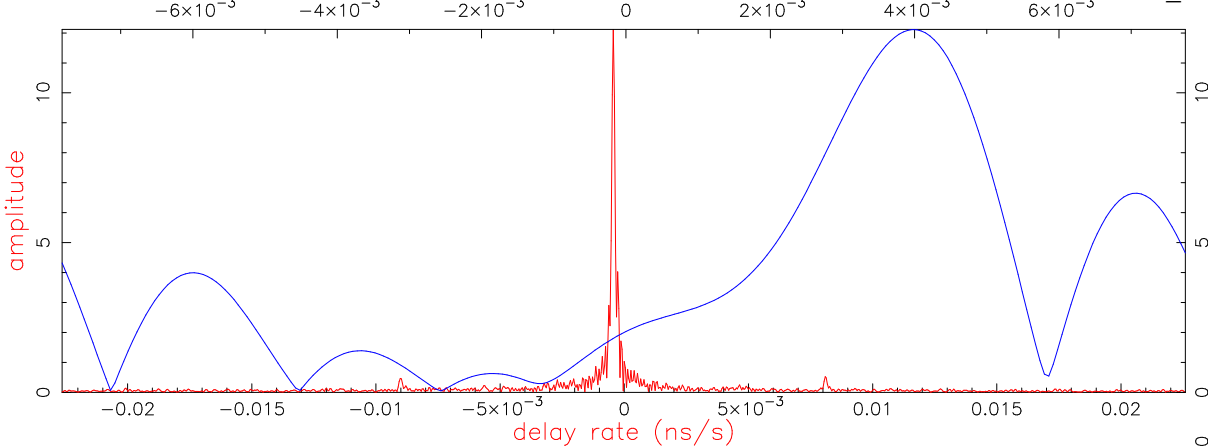
aux01

2013+370.3MP56K, No0500, Ap

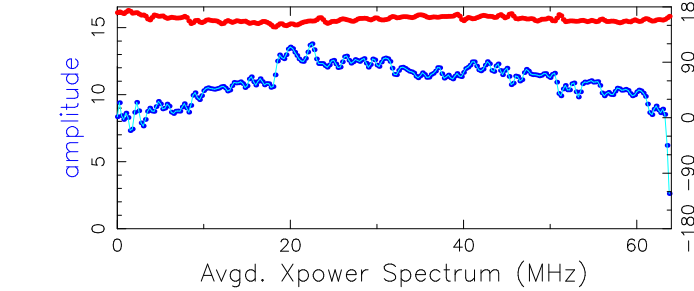
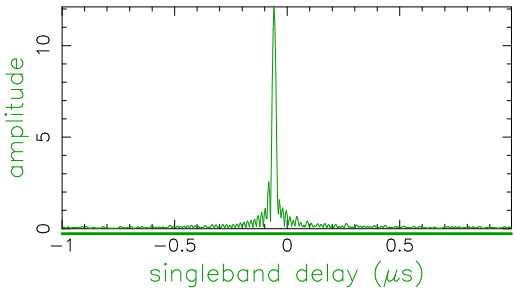
ALMA - VLBA_PT, fgroup Q, pol YL

multiband delay (μs)

Fringe quality 5

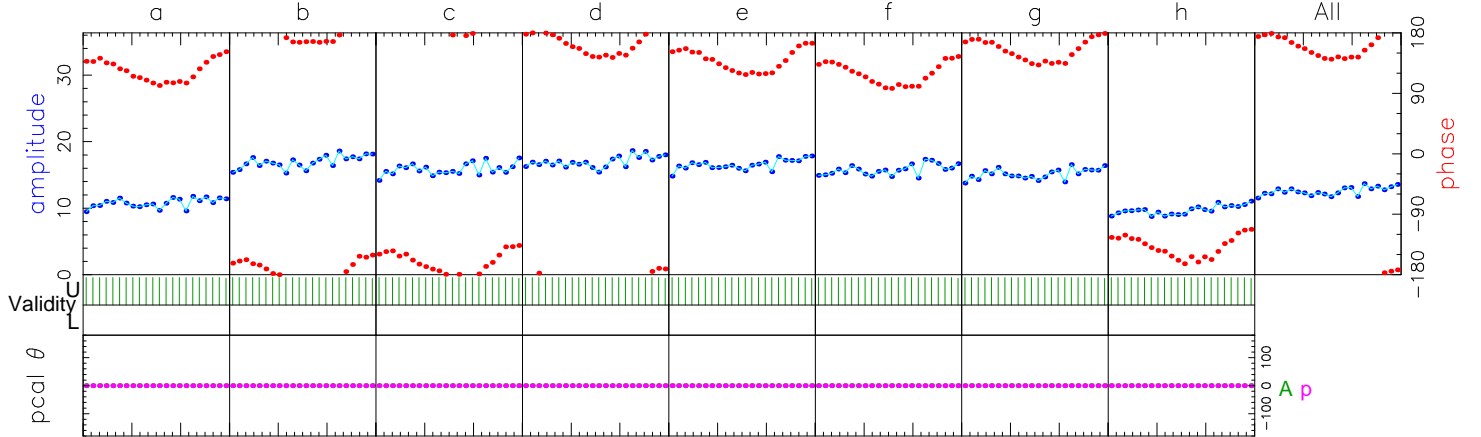


SNR 444.6
Int time 179.975
Amp 12.120
Phase -288.1
PFD 0.0e+00
Delays (us)
SBD -0.058312
MBD 0.004000
Fringe rate (Hz)
-0.018530
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build
2024:332:222845
2025:042:151747
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-7.16263136287E+03	Apriori delay (usec)	-7.16257286266E+03	Resid mbdelay (usec)	3.99979E-03	+/-	2.4E-06
Sband delay (usec)	-7.16263117466E+03	Apriori clock (usec)	-2.1131233E+03	Resid sbdelay (usec)	-5.83120E-02	+/-	1.9E-05
Phase delay (usec)	-7.16257285224E+03	Apriori clockrate (us/s)	-3.8952890E-07	Resid phdelay (usec)	1.04221E-05	+/-	1.7E-08
Delay rate (us/s)	-5.41188228314E-01	Apriori rate (us/s)	-5.41187798793E-01	Resid rate (us/s)	-4.29521E-07	+/-	1.6E-10
Total phase (deg)	-34.4	Apriori accel (us/s/s)	-3.81825044485E-05	Resid phase (deg)	-288.1	+/-	0.3

ph/seg (deg)	15.7	RMS	15.7	Theor.	0.6	Amplitude	12.120 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.2		6.2		1.1	Search (1024X32)	11.823	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.4		39.4		0.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.1		27.1		0.6	Inc. seg. avg.	12.580	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	14.184	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.74.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

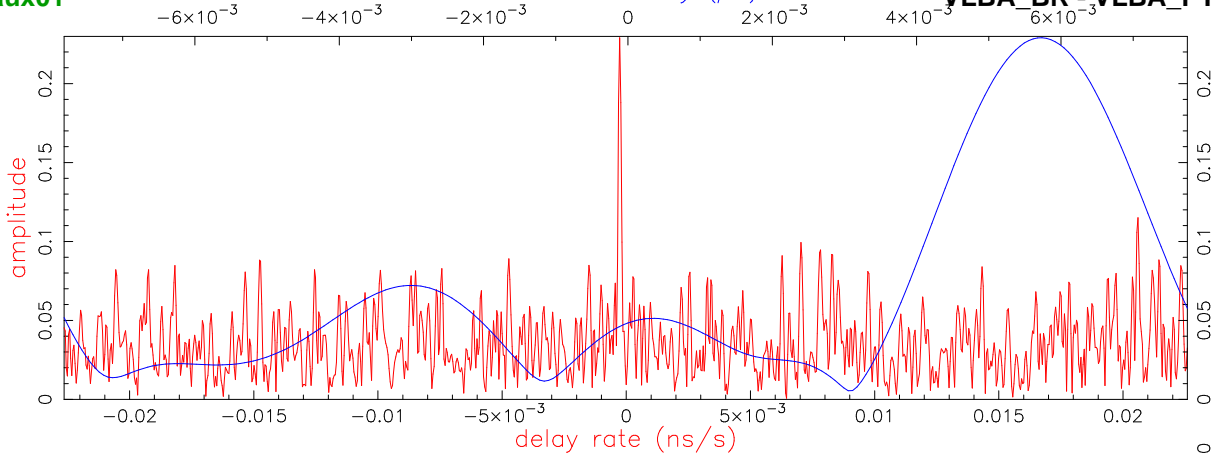
aux01

2013+370.3MP56K, No0500, bp

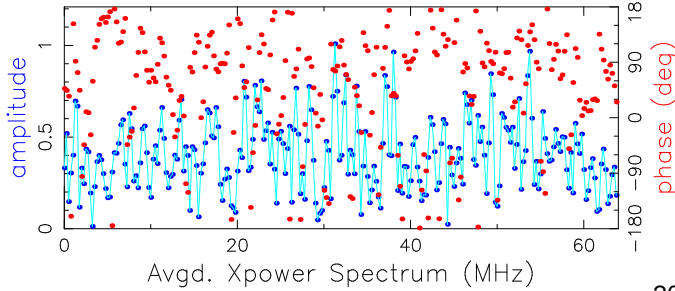
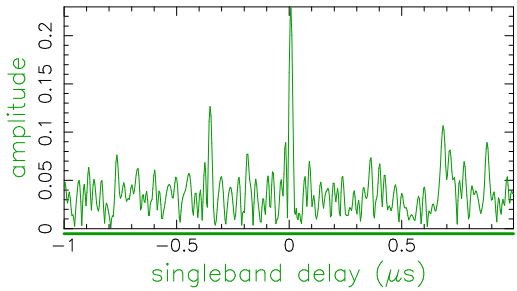
VLBA_BR - VLBA_PT, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 9

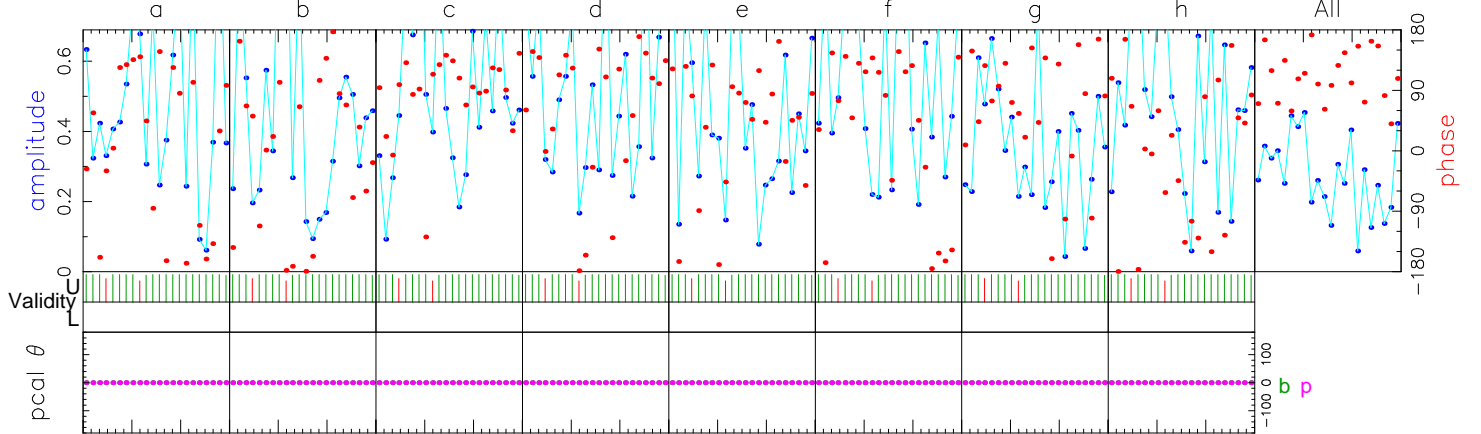


SNR 8.4
Int time 176.650
Amp 0.230
Phase 106.9
PFD 1.2e-08
Delays (us)
SBD 0.007036
MBD 0.005697
Fringe rate (Hz) -0.010677
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build 2024:332:222845
2025:042:151759
2024:113:095956
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec

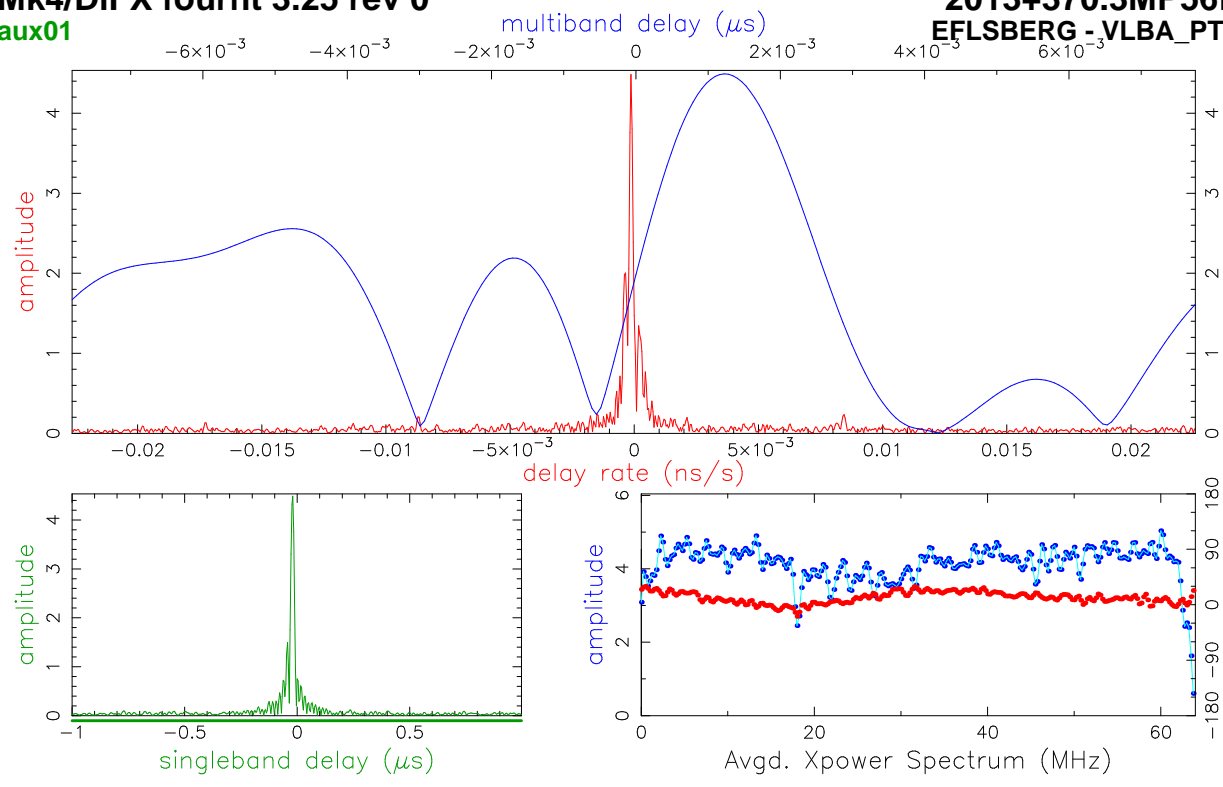


	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	105.0	96.3	106.2	118.8	84.0	131.2	90.0	109.9	Phase	106.9
b	0.2	0.1	0.4	0.3	0.3	0.3	0.2	0.0	Ampl.	0.2
p	423.4	79.2	258.4	258.3	259.5	259.3	406.4	341.2	Sbd box	258.8
b: p	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
b: p	1000	1000	1000	1000	1000	1000	1000	1000	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: p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b: p	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.19056825204E+03	Apriori delay (usec)	-1.19057394870E+03	Resid mbdelay (usec)	5.69666E-03	+/-	1.3E-04
Sband delay (usec)	-1.19056691245E+03	Apriori clock (usec)	-1.0782433E+00	Resid sbdelay (usec)	7.03625E-03	+/-	1.0E-03
Phase delay (usec)	-1.19057394182E+03	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	6.88267E-06	+/-	8.8E-07
Delay rate (us/s)	-8.32152455132E-02	Apriori rate (us/s)	-8.32149980053E-02	Resid rate (us/s)	-2.47508E-07	+/-	8.6E-09
Total phase (deg)	53.9	Apriori accel (us/s/s)	1.86872200287E-05	Resid phase (deg)	106.9	+/-	13.7

ph/seg (deg)	37.7	Theor.	32.0	Amplitude	0.230 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	51.9	Search (1024X32)	0.220	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.7	Inc. seg. avg.	0.239	Inc. frq. avg.	0.225	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.9	Inc. frq. avg.	0.225	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023 0.023
b: az 76.2 el 40.6 pa -54.6		p: az 69.2 el 44.9 pa -76.1		u, v (fr/asec)	308.794 1196.320	ion window (TEC)	0.00 0.00	simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bp.Q.137.3MP56K

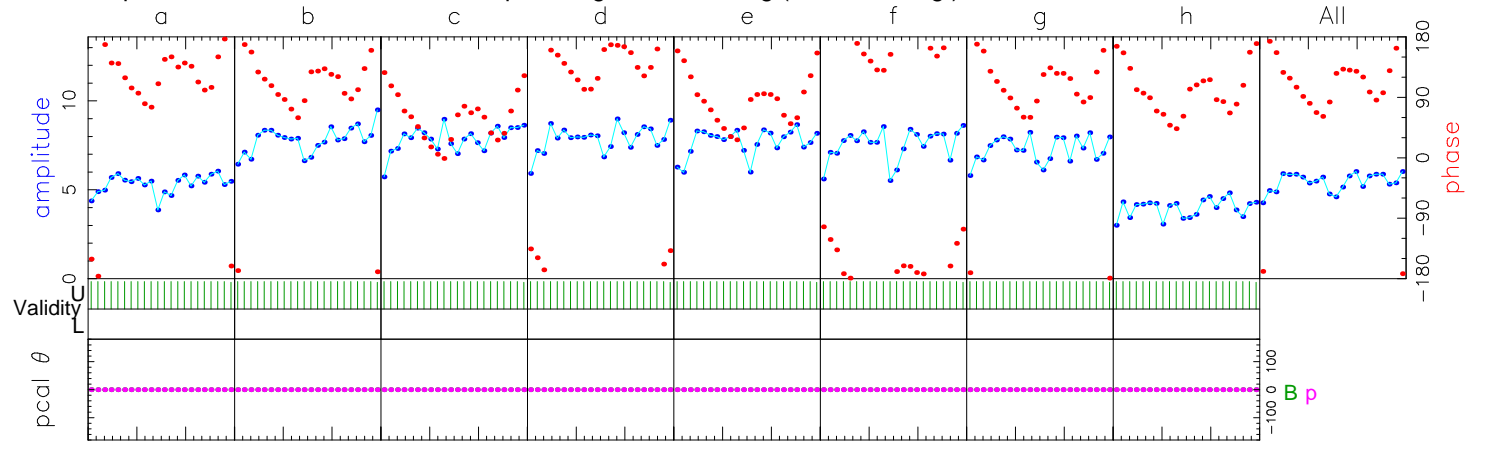


Fringe quality 3

SNR 166.4
Int time 179.953
Amp 4.535
Phase -84.0
PFD 0.0e+00
Delays (us)
SBD -0.020813
MBD 0.001171
Fringe rate (Hz)
-0.005777
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512

Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build
2024:332:222845
2025:042:151801
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B:p	0:0	0:0	0:0	0:0	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		
B	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	3.18386205496E+02					3.18400659056E+02			1.17144E-03	+/- 6.5E-06
Sband delay (usec)	3.18379846306E+02					-4.1094070E+01			-2.08127E-02	+/- 5.2E-05
Phase delay (usec)	3.18400666684E+02					-5.6823600E-07			7.62852E-06	+/- 4.4E-08
Delay rate (us/s)	-1.52099670821E+00					-1.52099657429E+00			-1.33918E-07	+/- 4.3E-10
Total phase (deg)			71.4			1.23143859494E-05			-84.0	+/- 0.7
ph/seg (deg)	RMS 36.0	Theor. 1.6	Amplitude 4.535 +/- 0.027							
amp/seg (%)	22.8	2.8	Search (1024X32) 4.395							
ph/frq (deg)	43.1	1.0	Inc. seg. avg. 5.445							
amp/frq (%)	35.7	1.7	Inc. frq. avg. 5.694							
B: az 275.5 el 46.9 pa 52.6		p: az 69.2 el 44.9 pa -76.1				u,v (fr/asec) 5486.769 1068.691				simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/Bp..3MP56K				Output file: /Exps/c241d/v1/7mm/1234/No0500/Bp.Q.145.3MP56K				

Mk4/DiFX fourfit 3.25 rev 0

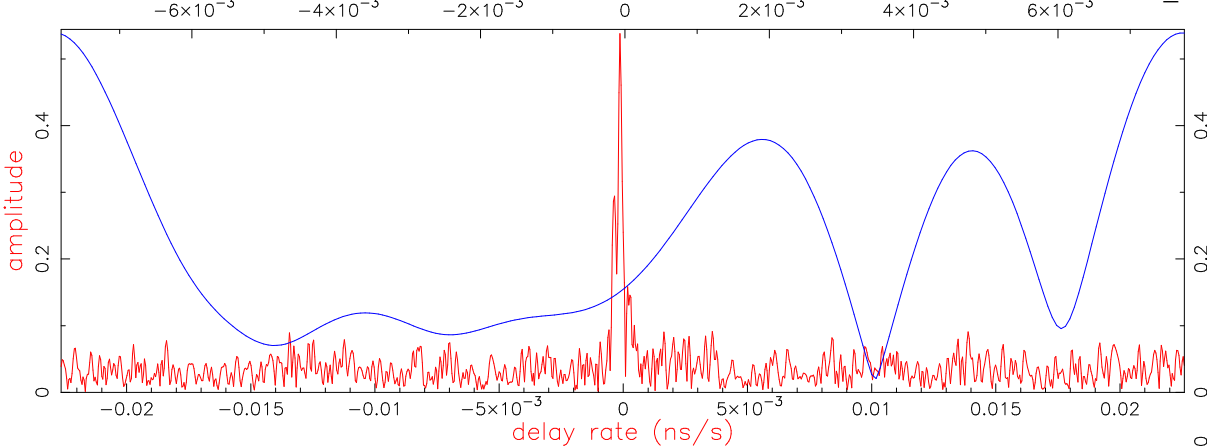
aux01

2013+370.3MP56K, No0500, Bp

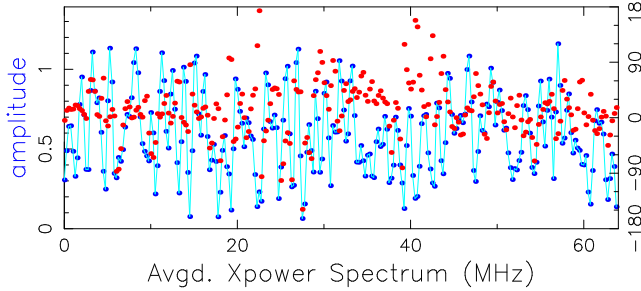
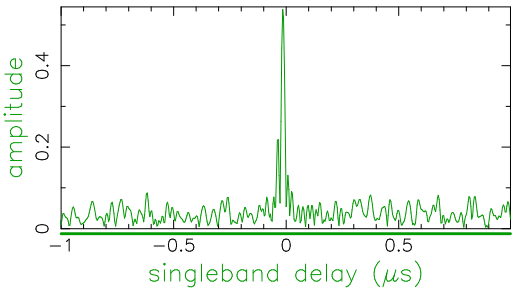
EFLSBERG - VLBA_PT, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 7

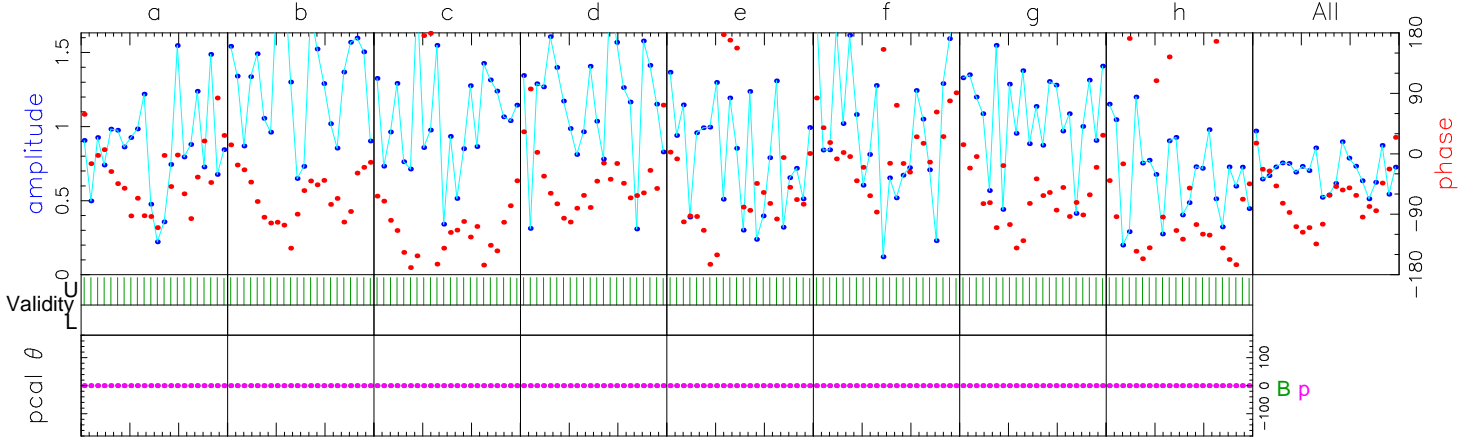


SNR 20.0
 Int time 179.953
 Amp 0.544
 Phase -63.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.014360
 MBD -0.007833
 Fringe rate (Hz)
 -0.006176
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151802
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-33.5	-61.8	-125.8	-44.7	-91.4	15.7	-62.3	-124.9	Phase	-63.5
	0.6	1.0	0.8	0.9	0.4	0.7	0.8	0.4	Ampl.	0.7
	250.6	253.5	253.9	253.6	254.6	254.1	252.7	249.9	Sbd box	253.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 3.18392825868E+02 Apriori delay (usec) 3.18400659056E+02 Resid mbdelay (usec) -7.83319E-03 +/- 5.4E-05
 Sband delay (usec) 3.18386298556E+02 Apriori clock (usec) -4.1094070E+01 Resid sbdelay (usec) -1.43605E-02 +/- 4.3E-04
 Phase delay (usec) 3.18400654967E+02 Apriori clockrate (us/s) -5.6823600E-07 Resid phdelay (usec) -4.08879E-06 +/- 3.7E-07
 Delay rate (us/s) -1.52099671744E+00 Apriori rate (us/s) -1.52099657429E+00 Resid rate (us/s) -1.43151E-07 +/- 3.6E-09
 Total phase (deg) 91.9 Apriori accel (us/s/s) 1.23143859494E-05 Resid phase (deg) -63.5 +/- 5.7

RMS Theor. Amplitude 0.544 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 40.3 13.5 Search (1024X32) 0.532 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 36.9 23.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 51.6 8.1 Inc. seg. avg. 0.686 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 48.6 14.2 Inc. frq. avg. 0.705 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 275.5 el 46.9 pa 52.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5486.769 1068.691 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bp.Q.157.3MP56K

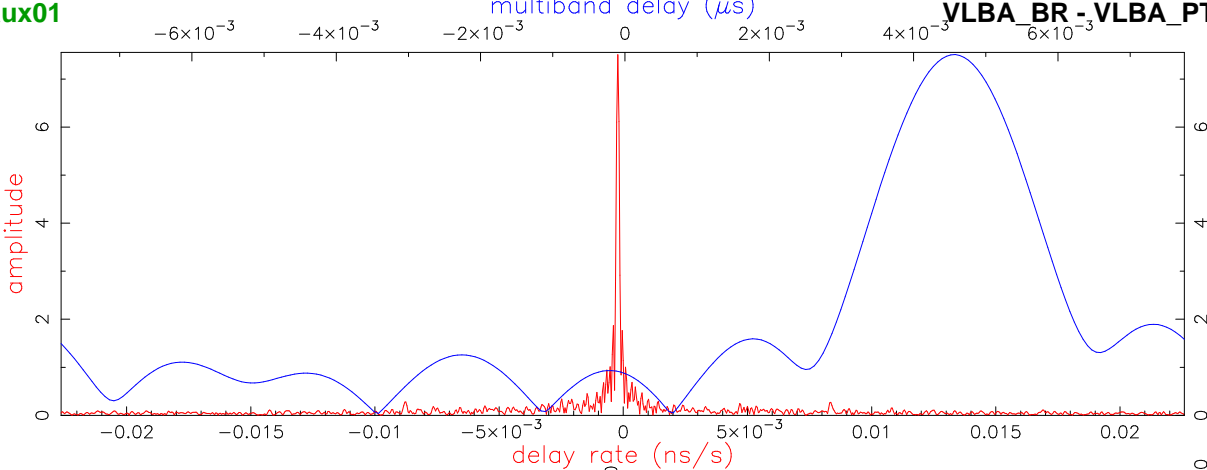
Mk4/DiFX fourfit 3.25 rev 0

aux01

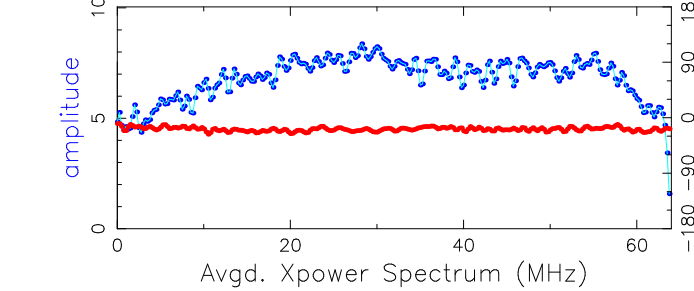
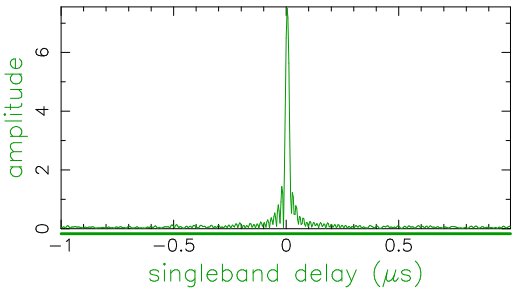
2013+370.3MP56K, No0500, bp

VLBA_BR - VLBA_PT, fgroup Q, pol LL

Fringe quality 8

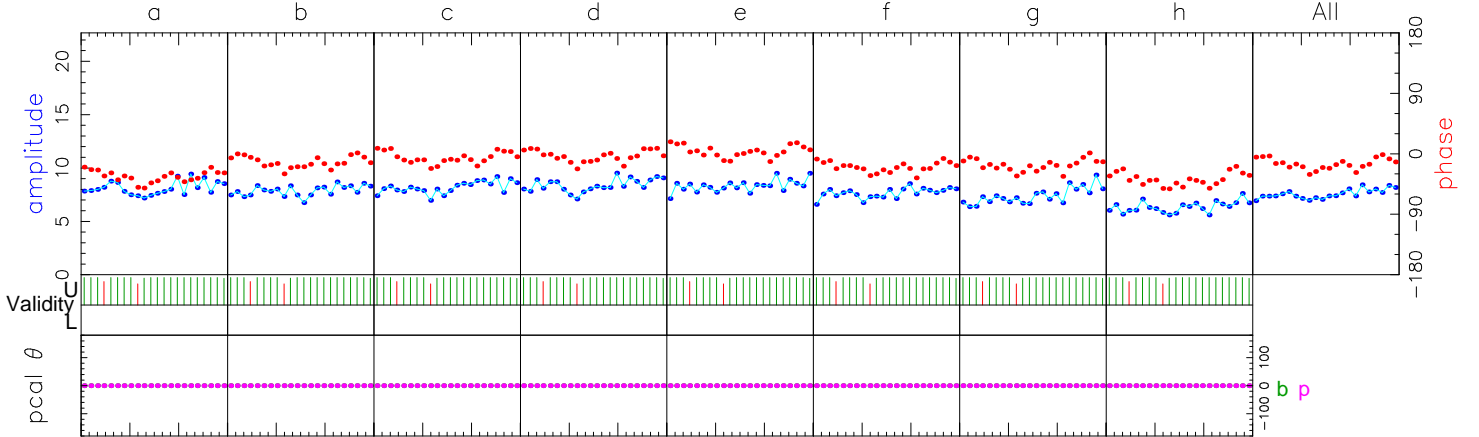


SNR 274.6
 Int time 176.650
 Amp 7.555
 Phase -14.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.004927
 MBD 0.004589
 Fringe rate (Hz)
 -0.010300
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151747
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-33.2	-12.0	-5.5	-3.0	4.0	-19.5	-16.3	-37.5	Phase	-14.5
	8.0	7.8	8.1	8.3	8.2	7.6	7.3	6.3	Ampl.	7.7
	258.7	258.8	258.1	258.2	258.0	258.0	258.1	257.7	Sbd box	258.3
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -1.19056935939E+03 Apriori delay (usec) -1.19057394870E+03 Resid mbdelay (usec) 4.58932E-03 +/- 4.0E-06
 Sband delay (usec) -1.19056902195E+03 Apriori clock (usec) -1.0782433E+00 Resid sbdelay (usec) 4.92675E-03 +/- 3.1E-05
 Phase delay (usec) -1.19057394964E+03 Apriori clockrate (us/s) 1.9774395E-07 Resid phdelay (usec) -9.35912E-07 +/- 2.7E-08
 Delay rate (us/s) -8.32152367611E-02 Apriori rate (us/s) -8.32149980053E-02 Resid rate (us/s) -2.38756E-07 +/- 2.6E-10
 Total phase (deg) -67.5 Apriori accel (us/s/s) 1.86872200287E-05 Resid phase (deg) -14.5 +/- 0.4

RMS Theor. Amplitude 7.555 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 7.9 1.0 Search (1024X32) 7.160 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 5.6 1.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 15.6 0.6 Inc. seg. avg. 7.576 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 8.6 1.0 Inc. frq. avg. 7.714 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

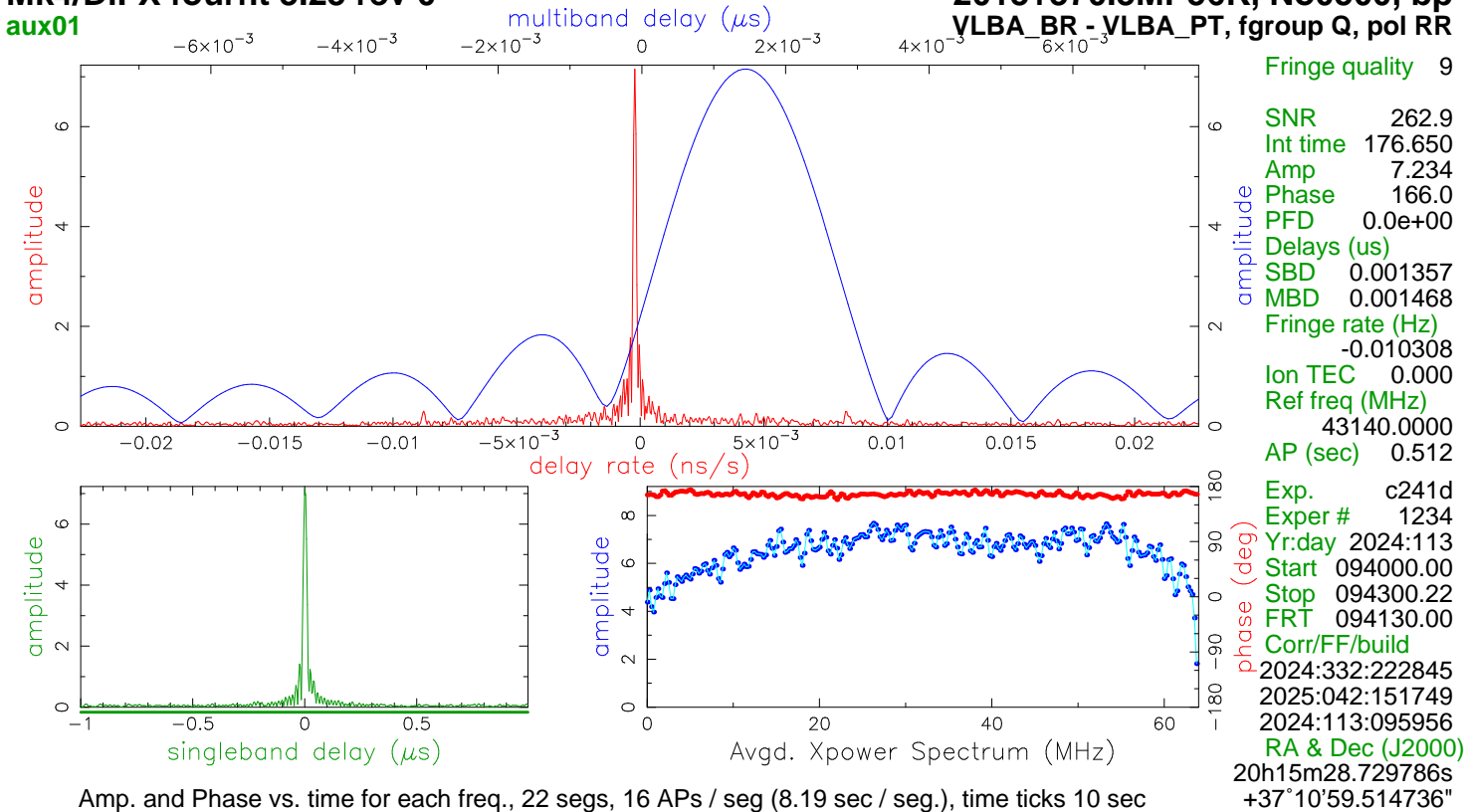
b: az 76.2 el 40.6 pa -54.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 308.794 1196.320 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bp.Q.69.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

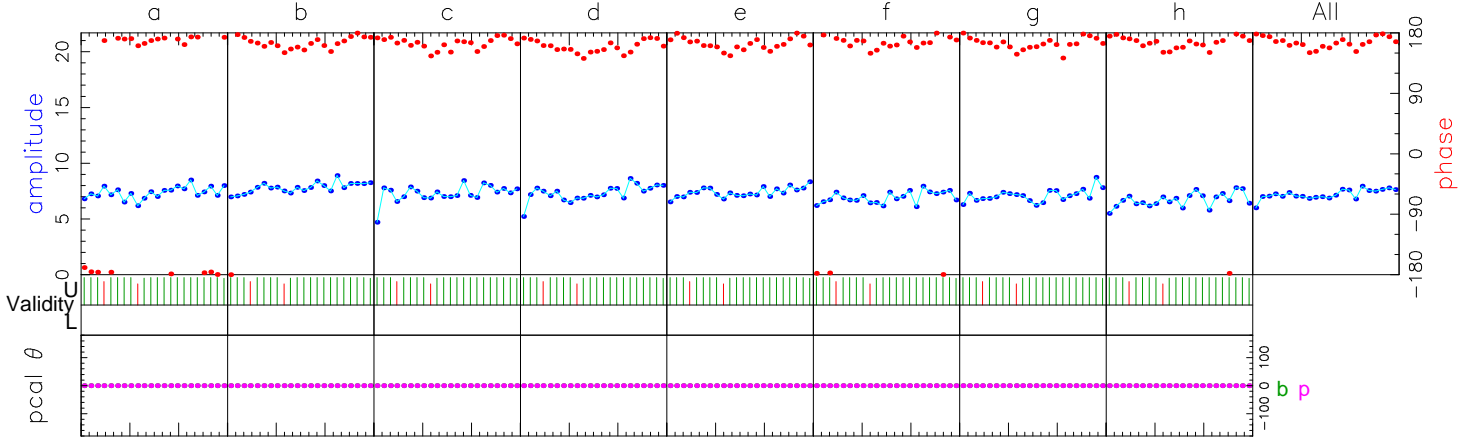
aux01

2013+370.3MP56K, No0500, bp

VLBA_BR - VLBA_PT, fgroup Q, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	175.0	166.0	164.5	159.6	163.8	168.5	164.3	166.6	Phase	166.0
b	7.3	7.7	7.2	7.2	7.3	6.9	7.0	6.6	Ampl.	7.2
p	257.1	257.2	257.3	257.6	257.3	257.6	257.2	257.4	Sbd box	257.3
b:p	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.19057248039E+03	Apriori delay (usec)	-1.19057394870E+03	Resid mbdelay (usec)	1.46832E-03	+/-	4.1E-06
Sband delay (usec)	-1.19057259195E+03	Apriori clock (usec)	-1.0782433E+00	Resid sbdelay (usec)	1.35675E-03	+/-	3.3E-05
Phase delay (usec)	-1.19057393801E+03	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	1.06912E-05	+/-	2.8E-08
Delay rate (us/s)	-8.32152369507E-02	Apriori rate (us/s)	-8.32149980053E-02	Resid rate (us/s)	-2.38945E-07	+/-	2.7E-10
Total phase (deg)	113.1	Apriori accel (us/s/s)	1.86872200287E-05	Resid phase (deg)	166.0	+/-	0.4

ph/seg (deg)	8.0	Theor.	1.0	Amplitude	7.234 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	5.9	Search (1024X32)	6.911	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	4.8	Inc. seg. avg.	7.220	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	4.4	Inc. frq. avg.	7.171	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023	
				Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 76.2 el 40.6 pa -54.6 p: az 69.2 el 44.9 pa -76.1 u, v (fr/asec) 308.794 1196.320 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bp.Q.84.3MP56K

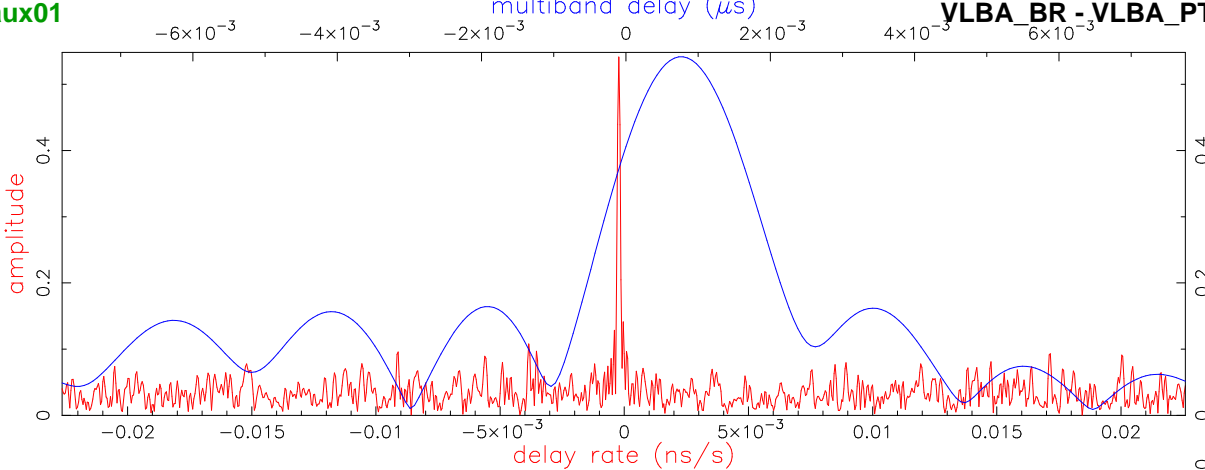
Mk4/DiFX fourfit 3.25 rev 0

aux01

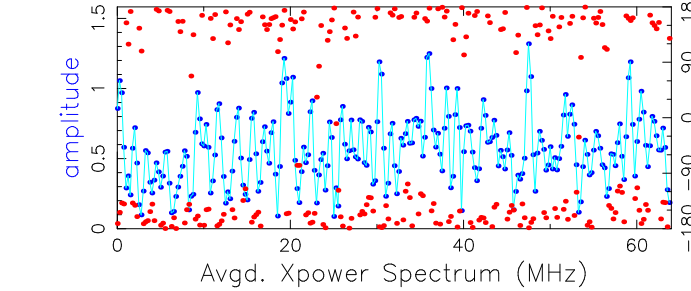
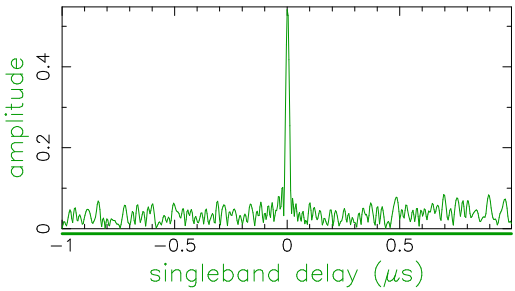
2013+370.3MP56K, No0500, bp

VLBA_BR - VLBA_PT, fgroup Q, pol LR

Fringe quality 9

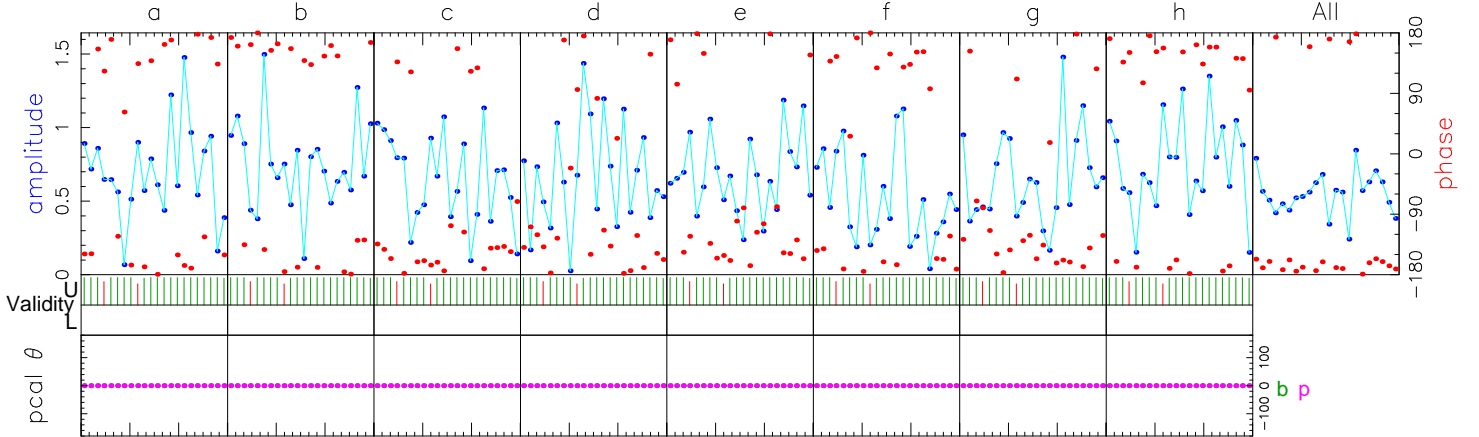


SNR 19.9
Int time 176.650
Amp 0.548
Phase -170.2
PFD 0.0e+00
Delays (us)
SBD 0.001407
MBD 0.000810
Fringe rate (Hz) -0.010260
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build 2024:332:222845
2025:042:151751
2024:113:095956
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-177.1	-178.5	-159.3	-156.1	-152.3	178.0	-151.7	162.7	Phase	-170.2
	0.6	0.7	0.6	0.5	0.6	0.4	0.5	0.7	Ampl.	0.6
	257.4	257.3	257.3	257.2	257.1	257.6	257.3	256.8	Sbd box	257.4
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -1.19057313839E+03 Apriori delay (usec) -1.19057394870E+03 Resid mbdelay (usec) 8.10317E-04 +/- 5.4E-05
 Sband delay (usec) -1.19057254170E+03 Apriori clock (usec) -1.0782433E+00 Resid sbdelay (usec) 1.40700E-03 +/- 4.3E-04
 Phase delay (usec) -1.19057395966E+03 Apriori clockrate (us/s) 1.9774395E-07 Resid phdelay (usec) -1.09561E-05 +/- 3.7E-07
 Delay rate (us/s) -8.32152358245E-02 Apriori rate (us/s) -8.32149980053E-02 Resid rate (us/s) -2.37819E-07 +/- 3.6E-09
 Total phase (deg) -223.1 Apriori accel (us/s/s) 1.86872200287E-05 Resid phase (deg) -170.2 +/- 5.8

RMS Theor. Amplitude 0.548 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 11.7 13.4 Search (1024X32) 0.515 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 25.2 23.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 18.1 8.1 Inc. seg. avg. 0.537 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 14.7 14.2 Inc. frq. avg. 0.558 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 76.2 el 40.6 pa -54.6 p: az 69.2 el 44.9 pa -76.1 u, v (fr/asec) 308.794 1196.320 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bp.Q.86.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

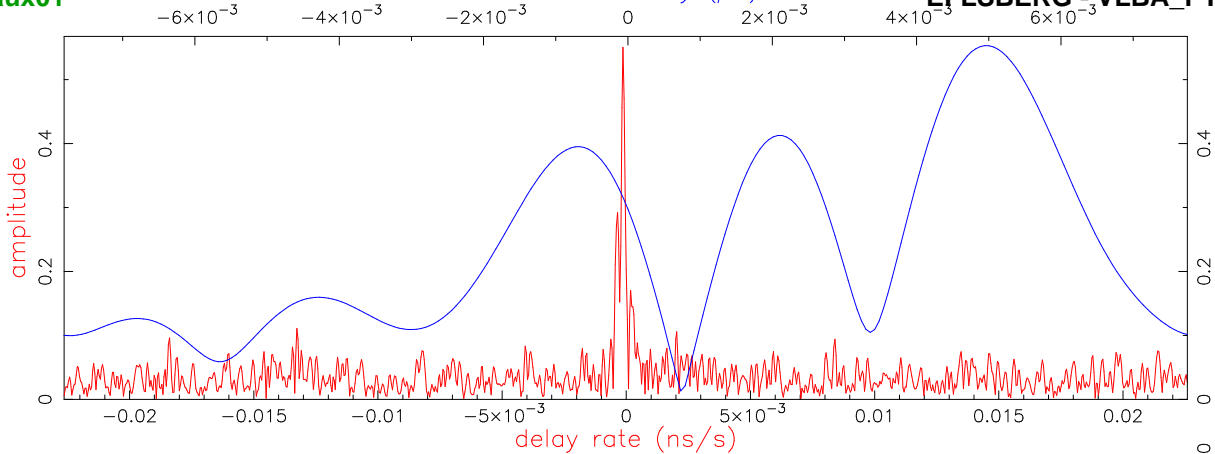
aux01

2013+370.3MP56K, No0500, Bp

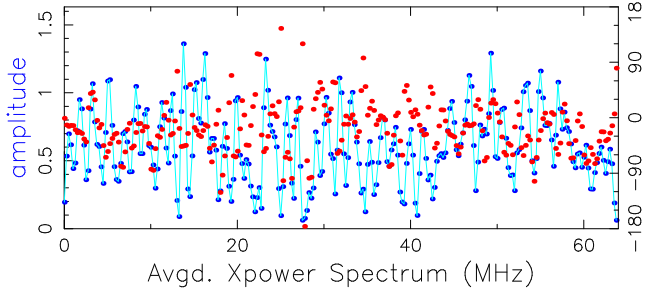
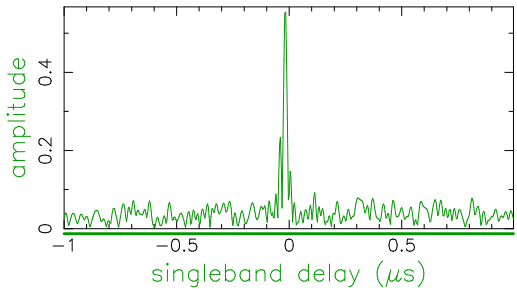
EFLSBERG - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 7

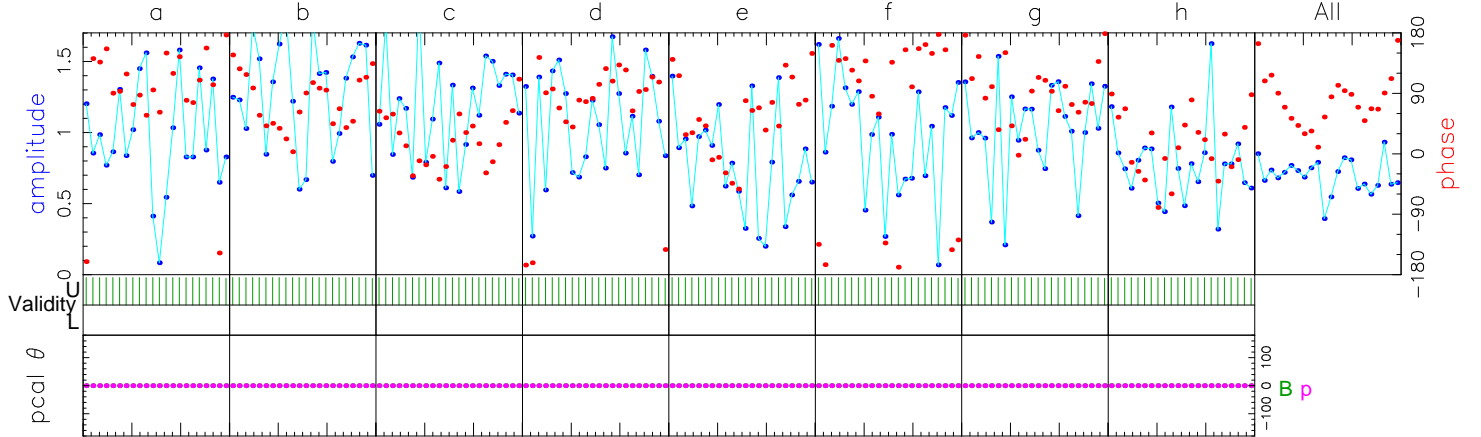


SNR 20.8
 Int time 179.953
 Amp 0.567
 Phase -123.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.017472
 MBD 0.005078
 Fringe rate (Hz)
 -0.006146
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151752
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	116.6	77.0	19.4	103.1	53.7	154.1	89.1	13.3	Phase	79.3
B	0.7	1.0	1.0	0.8	0.5	0.7	0.7	0.6	Ampl.	0.7
p	250.1	252.6	253.3	253.0	253.8	253.3	251.9	249.9	Sbd box	252.5
B	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	3.18390111777E+02	Apriori delay (usec)	3.18400659056E+02	Resid mbdelay (usec)	5.07772E-03	+/-	5.2E-05
Sband delay (usec)	3.18383187306E+02	Apriori clock (usec)	-4.1094070E+01	Resid sbdelay (usec)	-1.74717E-02	+/-	4.1E-04
Phase delay (usec)	3.18400664164E+02	Apriori clockrate (us/s)	-5.6823600E-07	Resid phdelay (usec)	5.10792E-06	+/-	3.5E-07
Delay rate (us/s)	-1.52099671675E+00	Apriori rate (us/s)	-1.52099657429E+00	Resid rate (us/s)	-1.42463E-07	+/-	3.4E-09
Total phase (deg)	32.2	Apriori accel (us/s/s)	1.23143859494E-05	Resid phase (deg)	-123.2	+/-	5.5

ph/seg (deg)	RMS 38.6	Theor. 12.9	Amplitude Search (1024X32)	0.567 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	30.5	22.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	52.0	7.8	Inc. seg. avg.	0.680	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	44.4	13.6	Inc. frq. avg.	0.745	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

B: az 275.5 el 46.9 pa 52.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5486.769 1068.691 simultaneous interpolator

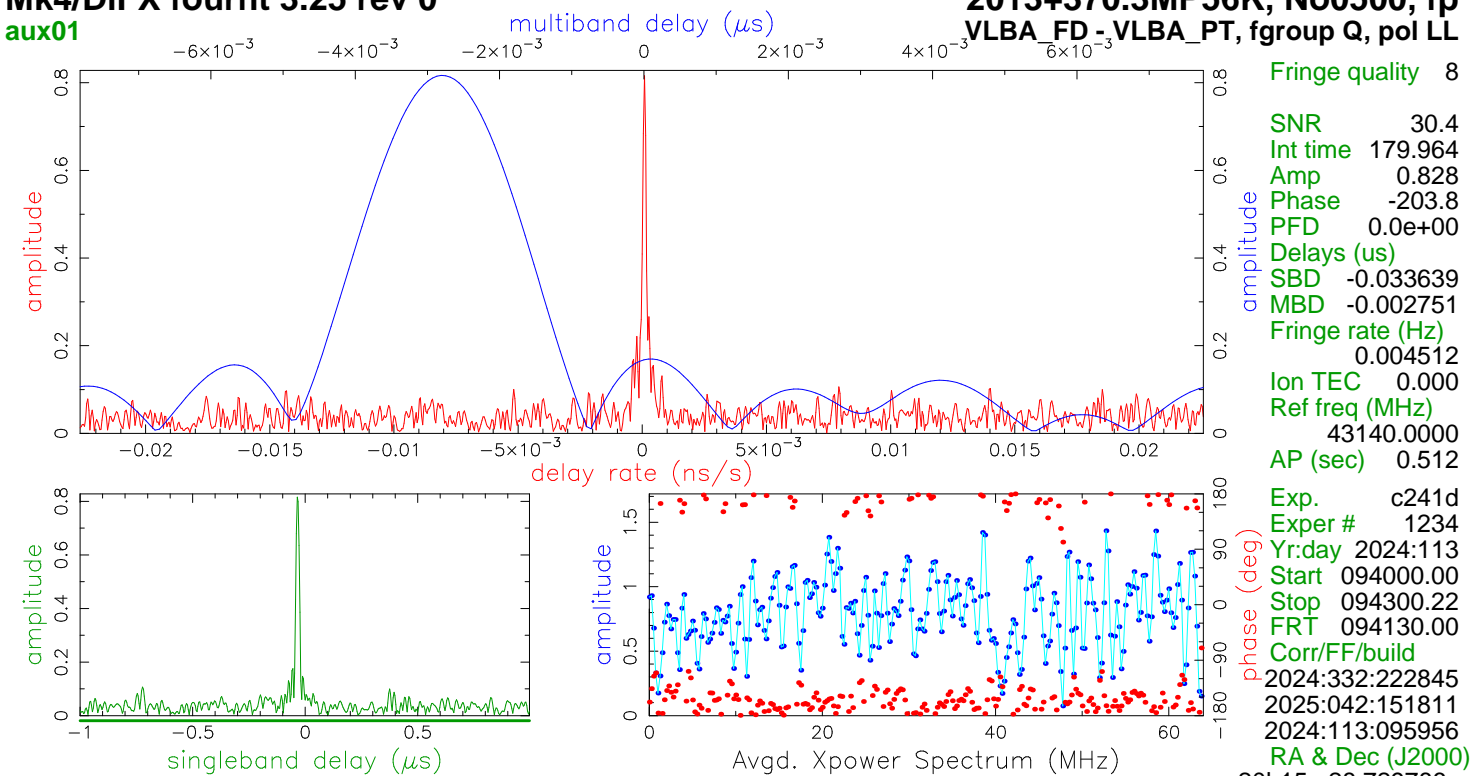
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bp.Q.91.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

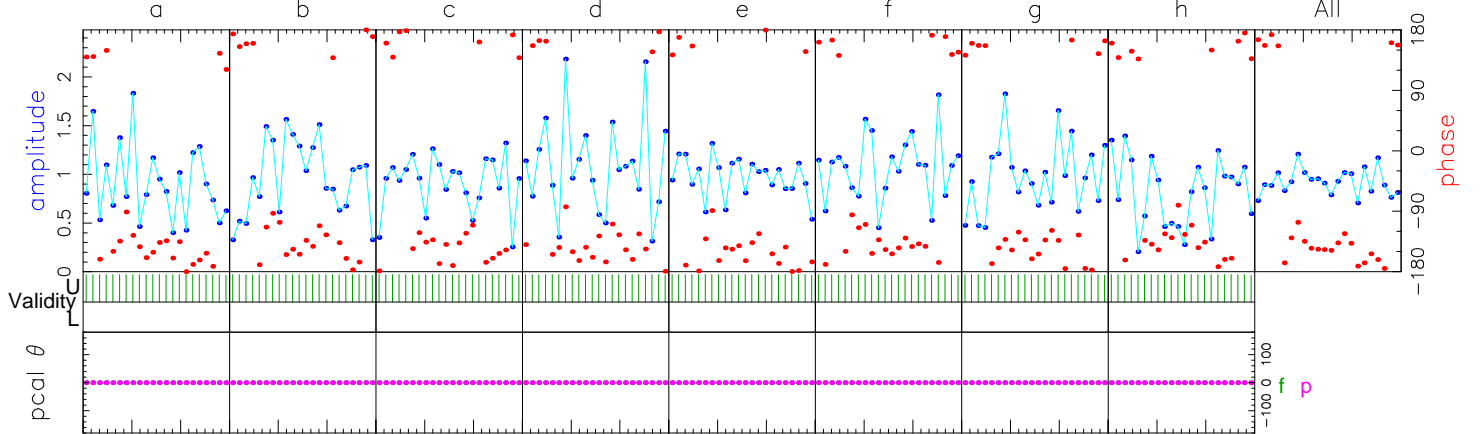
aux01

2013+370.3MP56K, No0500, fp

VLBA_FD - VLBA_PT, fgroup Q, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-161.5	-150.6	-161.9	-150.6	-162.7	-158.7	-161.0	-165.4	Phase	-158.8
	0.7	0.8	0.8	0.9	0.8	0.9	0.9	0.7	Ampl.	0.8
	249.0	248.8	247.8	248.5	248.2	248.2	248.3	248.6	Sbd box	248.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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: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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	4.82396876918E+02			Apriori delay (usec)	4.82430877763E+02	Resid mbdelay (usec)	-2.75085E-03	+/-	3.6E-05	
Sband delay (usec)	4.82397238763E+02			Apriori clock (usec)	-5.6430473E+00	Resid sbdelay (usec)	-3.36390E-02	+/-	2.8E-04	
Phase delay (usec)	4.82430867537E+02			Apriori clockrate (us/s)	-3.2847705E-07	Resid phdelay (usec)	-1.02257E-05	+/-	2.4E-07	
Delay rate (us/s)	-1.08612286592E-02			Apriori rate (us/s)	-1.08613332453E-02	Resid rate (us/s)	1.04586E-07	+/-	2.3E-09	
Total phase (deg)		-179.8		Apriori accel (us/s/s)	-6.28280751795E-06	Resid phase (deg)	-203.8	+/-	3.8	
RMS	28.0	8.8		Amplitude	0.828 +/- 0.027	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	19.3	15.4		Search (1024X32)	0.791	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	6.0	5.3		Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	8.9	9.3		Inc. seg. avg.	0.913	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023	
amp/frq (%)				Inc. frq. avg.	0.816	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 66.6 el 46.8 pa -82.9				p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec) 36.175 -378.872				simultaneous interpolator
Control file: cf_1234_gmva				Input file: /Exps/c241d/v1/7mm/1234/No0500/fp..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/fp.Q.188.3MP56K				

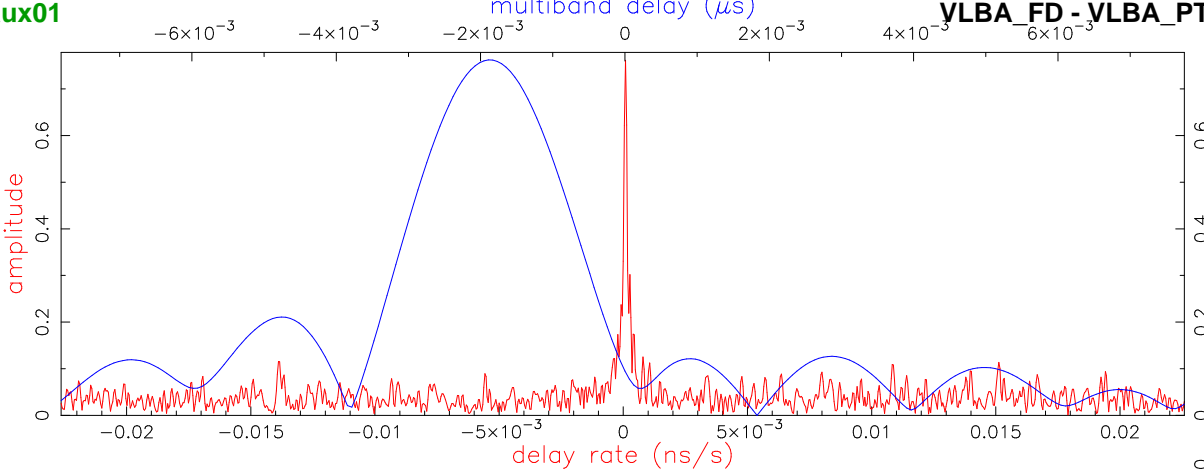
Mk4/DiFX fourfit 3.25 rev 0

aux01

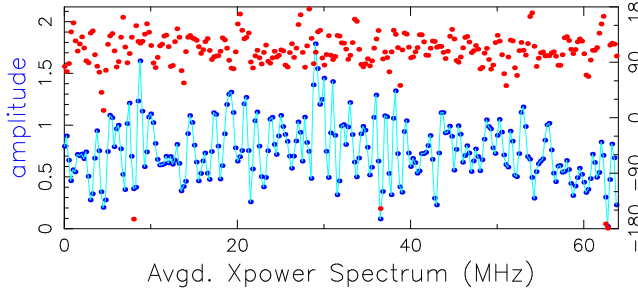
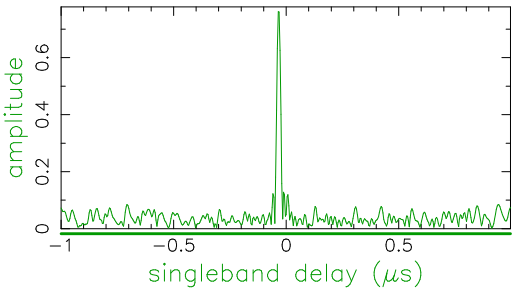
2013+370.3MP56K, No0500, fp

VLBA_FD - VLBA_PT, fgroup Q, pol RR

Fringe quality 8

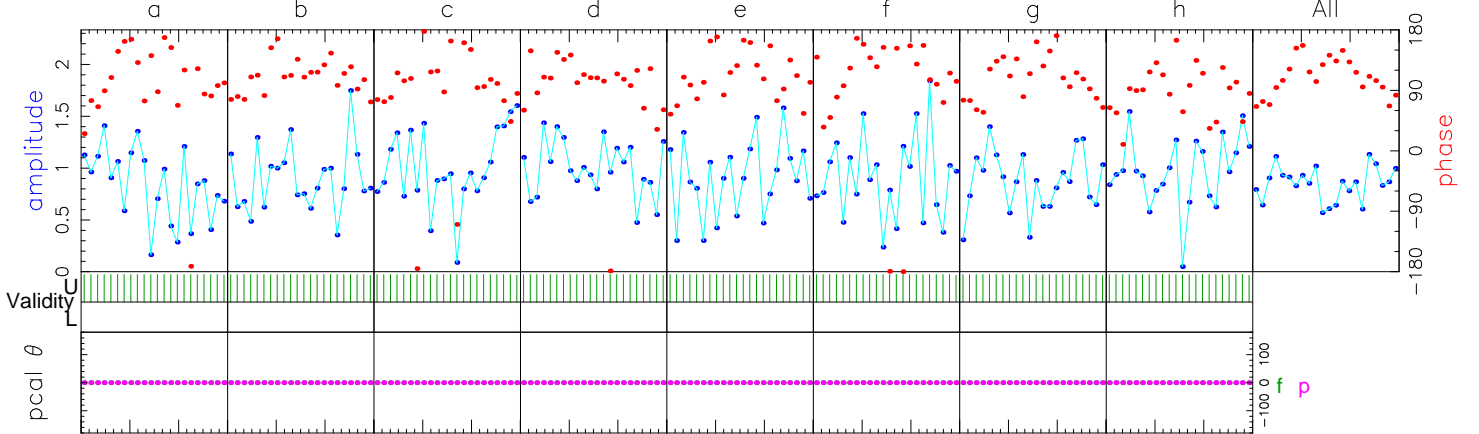


SNR 28.6
 Int time 179.964
 Amp 0.778
 Phase -296.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.033240
 MBD -0.001826
 Fringe rate (Hz)
 0.004324
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151814
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	4.82397801949E+02	Apriori delay (usec)		4.82430877763E+02	Resid mbdelay (usec)	-1.82581E-03	+/-	3.8E-05	
Sband delay (usec)	4.82397637763E+02	Apriori clock (usec)		-5.6430473E+00	Resid sbdelay (usec)	-3.32400E-02	+/-	3.0E-04	
Phase delay (usec)	4.82430884778E+02	Apriori clockrate (us/s)		-3.2847705E-07	Resid phdelay (usec)	7.01522E-06	+/-	2.6E-07	
Delay rate (us/s)	-1.08612330225E-02	Apriori rate (us/s)		-1.08613332453E-02	Resid rate (us/s)	1.00223E-07	+/-	2.5E-09	
Total phase (deg)		-272.0	Apriori accel (us/s/s)		-6.28280757195E-06	Resid phase (deg)	-296.1	+/-	4.0

ph/seg (deg)	27.5	9.4	Search (1024X32)	0.748	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	22.4	16.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	9.6	5.7	Inc. seg. avg.	0.841	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	7.9	9.9	Inc. frq. avg.	0.766	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
f: az 66.6 el 46.8 pa -82.9		p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec) 36.175 -378.872		ion window (TEC)		0.00	0.00

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fp.Q.207.3MP56K simultaneous interpolator

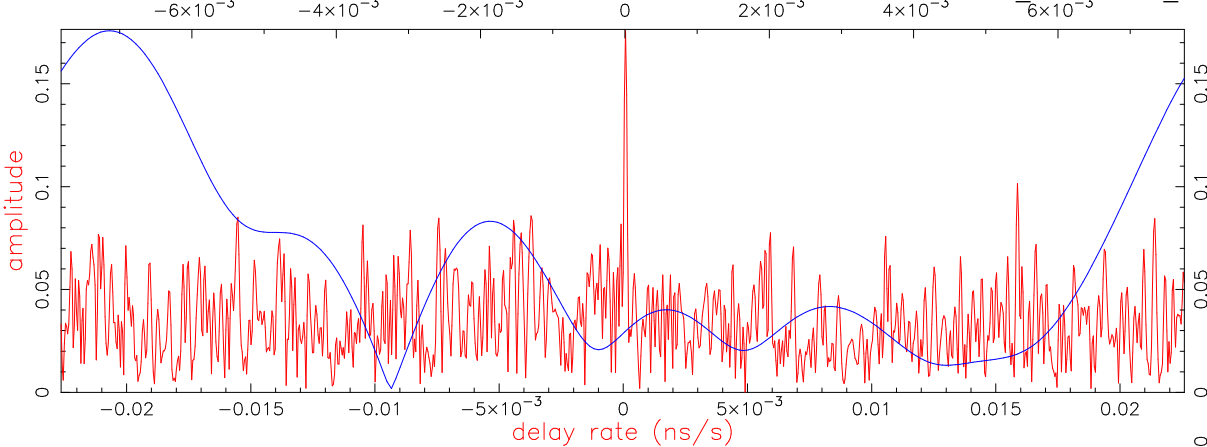
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, fp

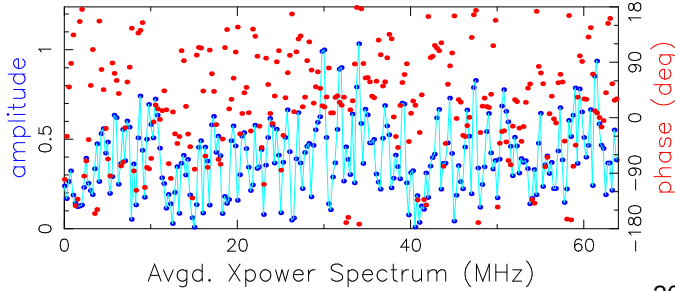
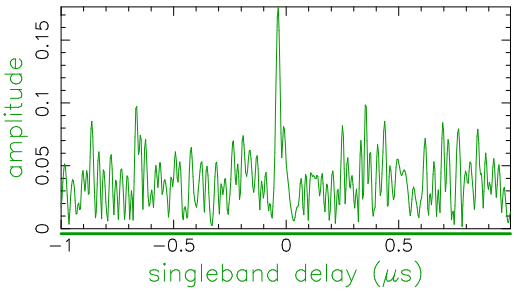
VLBA_FD - VLBA_PT, fgroup Q, pol LR

multiband delay (μ s)



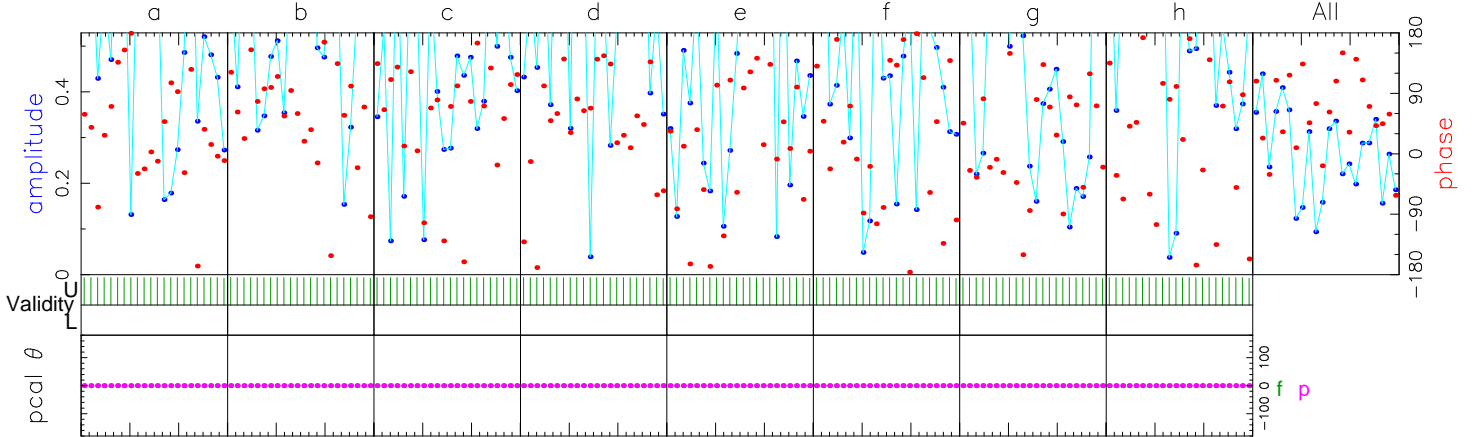
Fringe quality 0

SNR 6.5
Int time 179.964
Amp 0.176
Phase -337.2
PFD 1.3e-02
Delays (us)
SBD -0.036031
MBD -0.007128
Fringe rate (Hz) 0.003900
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build 2024:332:222845
2025:042:151816
2024:113:095956
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	4.82392499324E+02	Apriori delay (usec)	4.82430877763E+02	Resid mbdelay (usec)	-7.12844E-03	+/-	1.7E-04
Sband delay (usec)	4.82394846263E+02	Apriori clock (usec)	-5.6430473E+00	Resid sbdelay (usec)	-3.60315E-02	+/-	1.3E-03
Phase delay (usec)	4.82430882128E+02	Apriori clockrate (us/s)	-3.2847705E-07	Resid phdelay (usec)	4.36513E-06	+/-	1.1E-06
Delay rate (us/s)	-1.08612428357E-02	Apriori rate (us/s)	-1.08613332453E-02	Resid rate (us/s)	9.04096E-08	+/-	1.1E-08
Total phase (deg)	-313.2	Apriori accel (us/s/s)	-6.28280751795E-06	Resid phase (deg)	-337.2	+/-	17.7

ph/seg (deg)	56.0	Theor.	41.5	Amplitude	0.176 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	73.3		72.5	Search (1024X32)	0.174	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	42.3		25.0	Inc. seg. avg.	0.210	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.6		43.7	Inc. frq. avg.	0.185	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

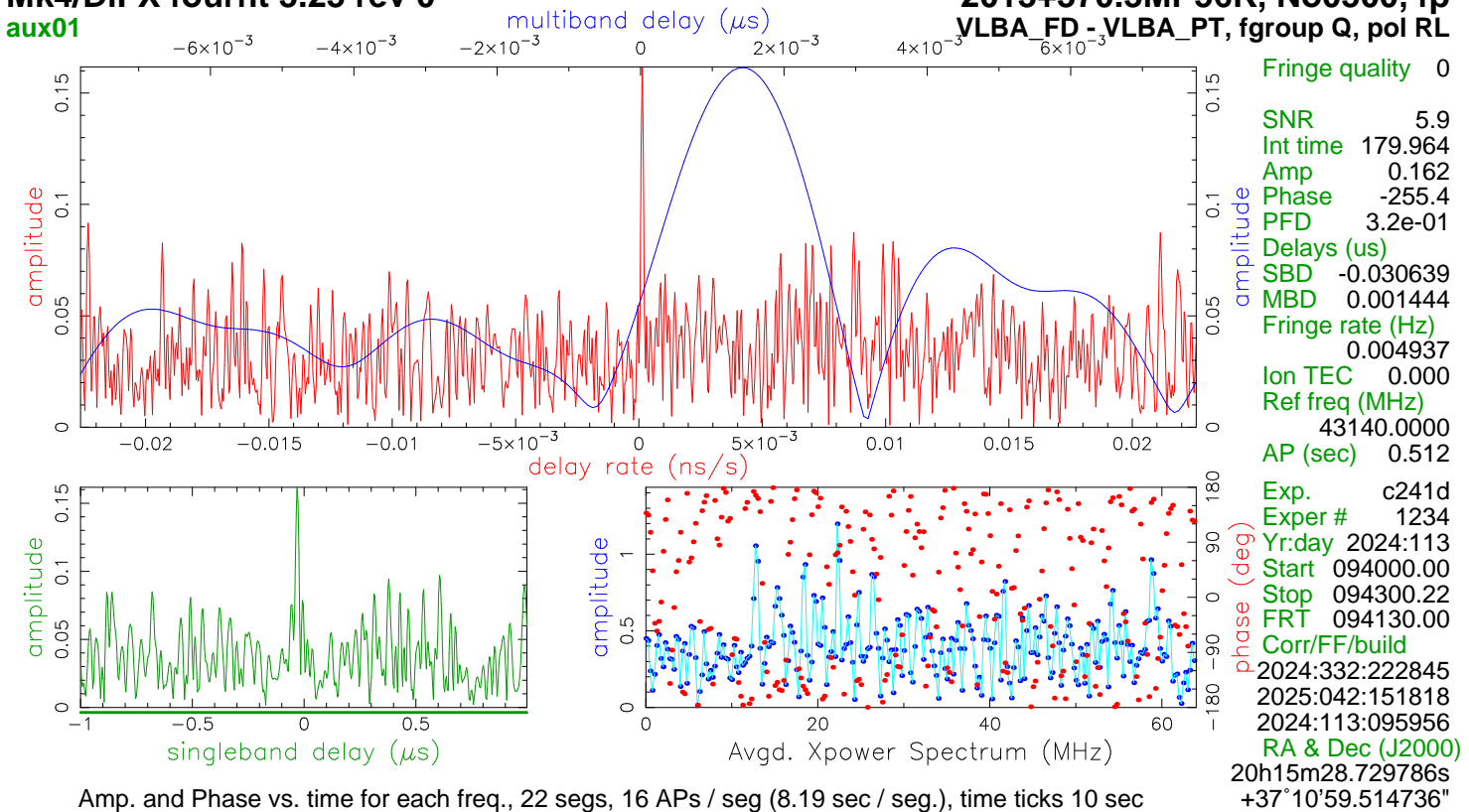
f: az 66.6 el 46.8 pa -82.9 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 36.175 -378.872 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fp.Q.221.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

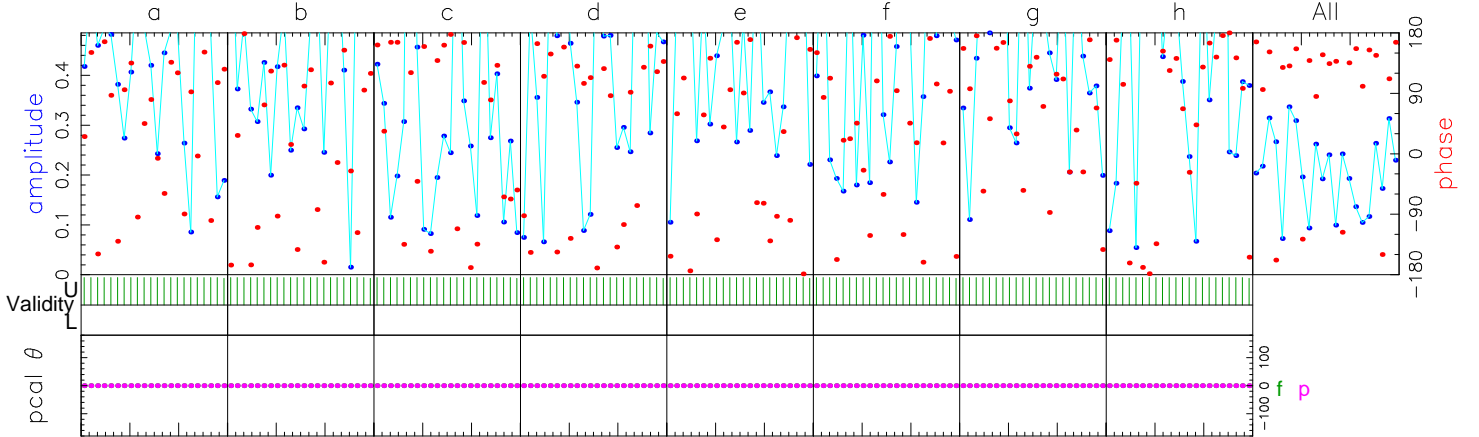
aux01

2013+370.3MP56K, No0500, fp

VLBA_FD - VLBA_PT, fgroup Q, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



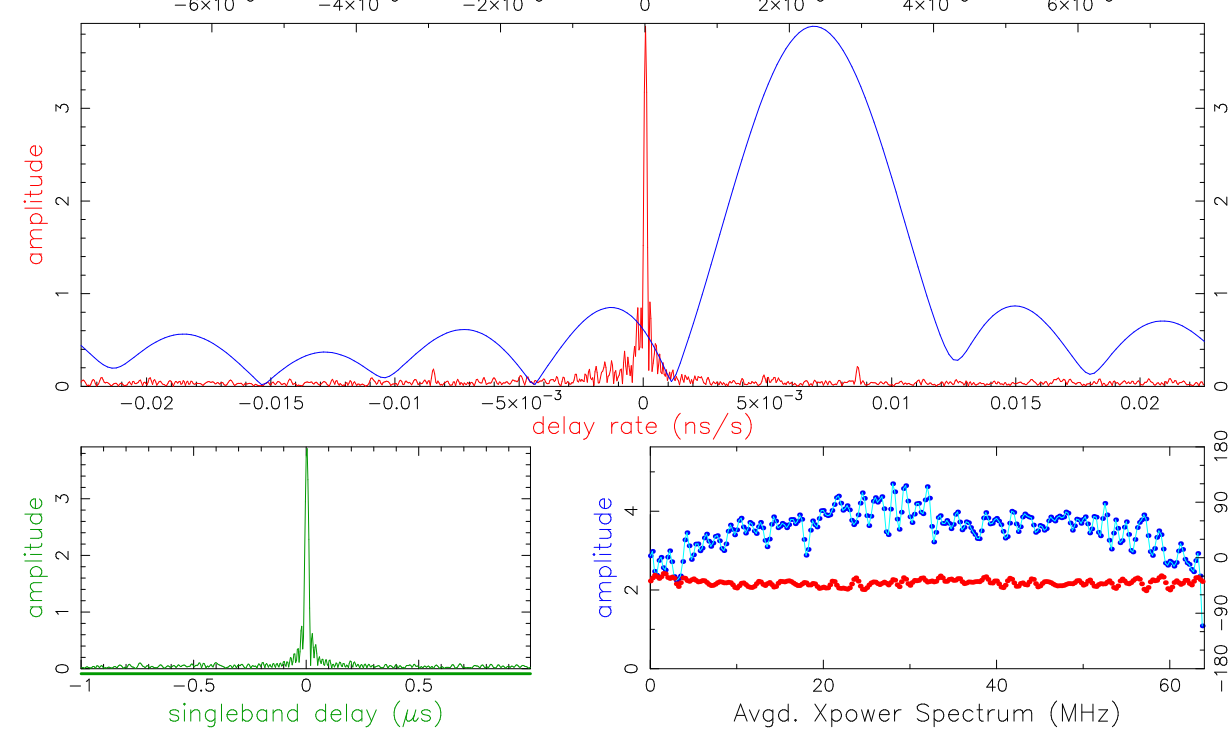
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	133.6	156.1	154.0	164.2	165.5	106.3	112.6	160.7	Phase	149.6
	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.3	Ampl.	0.2
	31.6	158.9	93.6	249.3	429.0	52.2	119.1	249.3	Sbd box	249.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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: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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	4.82401072135E+02					4.82430877763E+02			Resid mbdelay (usec)	1.44437E-03 +/- 1.8E-04
Sband delay (usec)	4.82400238263E+02					-5.6430473E+00			Resid sbdelay (usec)	-3.06395E-02 +/- 1.5E-03
Phase delay (usec)	4.82430887398E+02					-3.2847705E-07			Resid phdelay (usec)	9.63536E-06 +/- 1.2E-06
Delay rate (us/s)	-1.08612188121E-02					-1.08613332453E-02			Resid rate (us/s)	1.14433E-07 +/- 1.2E-08
Total phase (deg)			-231.3			-6.28280757195E-06			Resid phase (deg)	-255.4 +/- 19.3
RMS	40.0	45.3							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	40.0	45.3							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	55.6	79.0							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	26.3	27.3							Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	51.2	47.7							Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 66.6 el 46.8 pa -82.9										simultaneous interpolator
p: az 69.2 el 44.9 pa -76.1										
u,v (fr/asec) 36.175 -378.872										
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/fp..3MP56K								Output file: /Exps/c241d/v1/7mm/1234/No0500/fp.Q.233.3MP56K	

Mk4/DiFX fourfit 3.25 rev 0

aux01

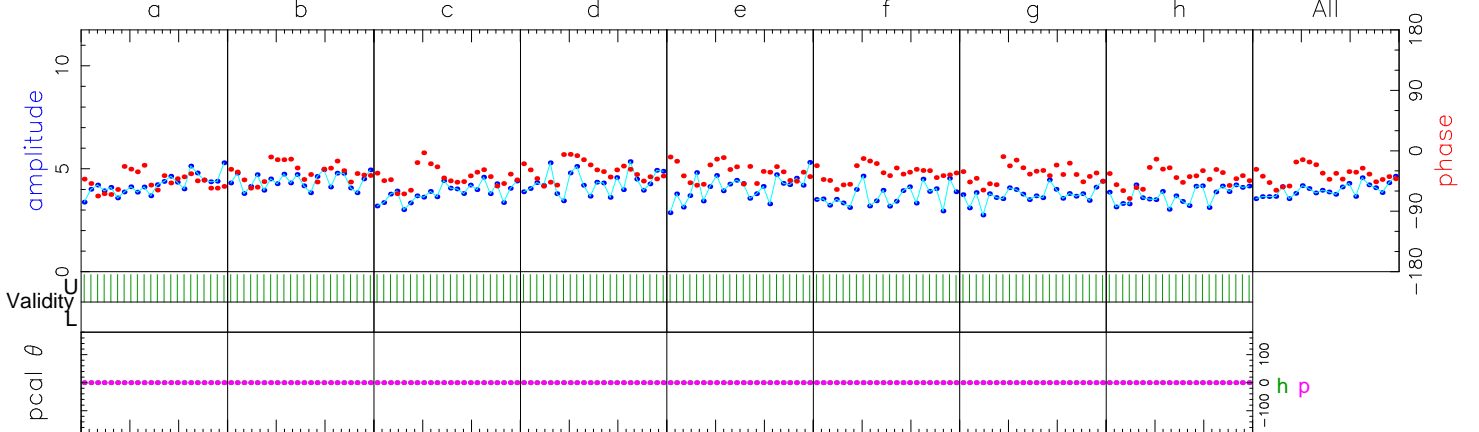
2013+370.3MP56K, No0500, hp

VLBA_HN - VLBA_PT, fgroup Q, pol LL



Fringe quality 8
 SNR 143.7
 Int time 179.970
 Amp 3.917
 Phase -35.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002741
 MBD 0.002316
 Fringe rate (Hz) 0.004627
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151808
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



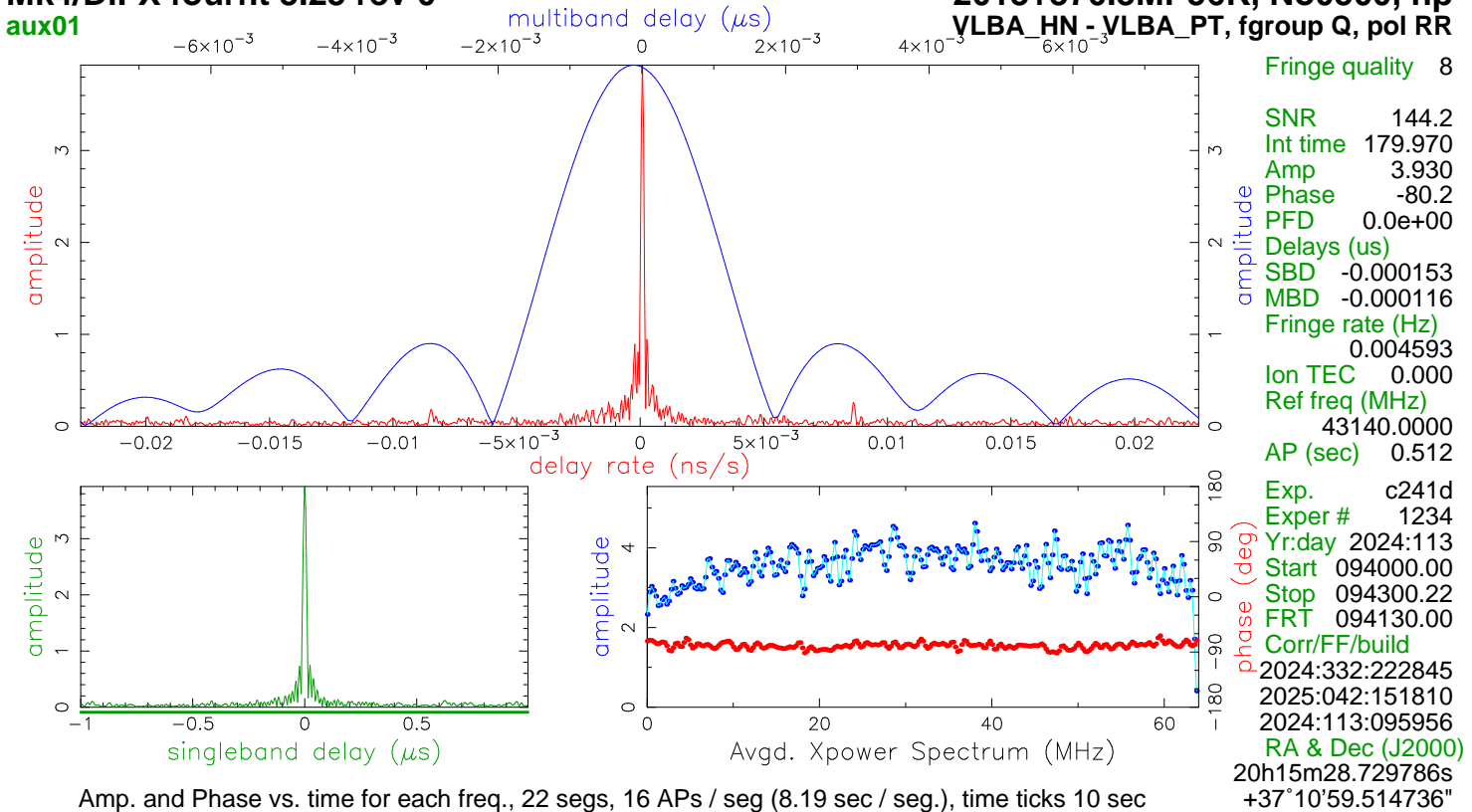
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-45.9	-31.8	-39.1	-30.5	-32.4	-32.7	-33.7	-40.0	Phase	-35.7
	4.1	4.3	3.7	4.2	4.0	3.6	3.7	3.6	Ampl.	3.9
	258.1	257.9	257.5	257.6	257.7	257.6	257.5	257.8	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	5.34669553614E+03		Apriori delay (usec)		5.34669322057E+03		Resid mbdelay (usec)		2.31556E-03	+/- 7.6E-06
Sband delay (usec)	5.34669596107E+03		Apriori clock (usec)		6.7217216E+00		Resid sbdelay (usec)		2.74050E-03	+/- 6.0E-05
Phase delay (usec)	5.34669321828E+03		Apriori clockrate (us/s)		-2.9976000E-07		Resid phdelay (usec)		-2.29889E-06	+/- 5.1E-08
Delay rate (us/s)	-5.39696746957E-01		Apriori rate (us/s)		-5.39696854220E-01		Resid rate (us/s)		1.07263E-07	+/- 4.9E-10
Total phase (deg)	157.1		Apriori accel (us/s/s)		-2.03761019967E-05		Resid phase (deg)		-35.7	+/- 0.8
ph/seg (deg)	RMS 12.1	Theor. 1.9	Amplitude 3.917 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	7.9	3.3	Search (1024X32) 3.728		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	5.8	1.1	Inc. seg. avg. 3.969		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)	-0.023 0.023
amp/frq (%)	6.7	2.0	Inc. frq. avg. 3.899		Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
h: az 103.5 el 73.6 pa -63.0	p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec) 1937.474 -207.265						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.180.3MP56K							

Mk4/DiFX fourfit 3.25 rev 0

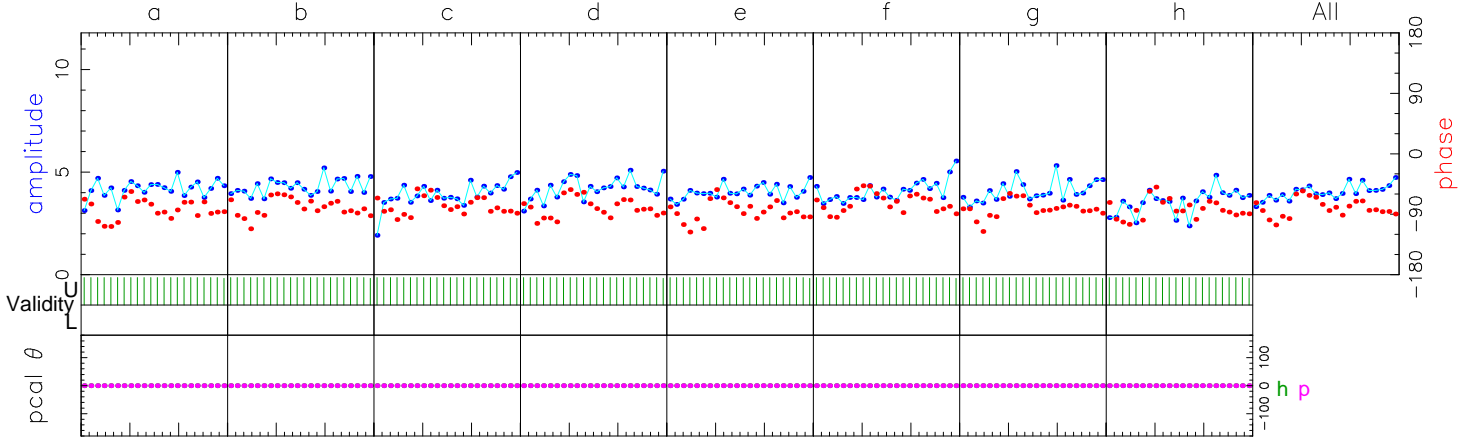
aux01

2013+370.3MP56K, No0500, hp

VLBA_HN - VLBA_PT, fgroup Q, pol RR



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-82.8	-79.6	-77.9	-79.4	-85.9	-72.9	-81.4	-82.0	Phase	-80.2
	4.1	4.2	3.8	4.1	3.9	4.0	4.0	3.4	Ampl.	3.9
	257.2	256.9	257.0	256.8	257.1	256.9	256.8	257.1	Sbd box	257.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	5.34669310473E+03		Apriori delay (usec)		5.34669322057E+03		Resid mbdelay (usec)		-1.15846E-04	+/- 7.5E-06
Sband delay (usec)	5.34669306782E+03		Apriori clock (usec)		6.7217216E+00		Resid sbdelay (usec)		-1.52750E-04	+/- 6.0E-05
Phase delay (usec)	5.34669321541E+03		Apriori clockrate (us/s)		-2.9976000E-07		Resid phdelay (usec)		-5.16387E-06	+/- 5.1E-08
Delay rate (us/s)	-5.39696747758E-01		Apriori rate (us/s)		-5.39696854220E-01		Resid rate (us/s)		1.06462E-07	+/- 4.9E-10
Total phase (deg)	112.6		Apriori accel (us/s/s)		-2.03761019967E-05		Resid phase (deg)		-80.2	+/- 0.8

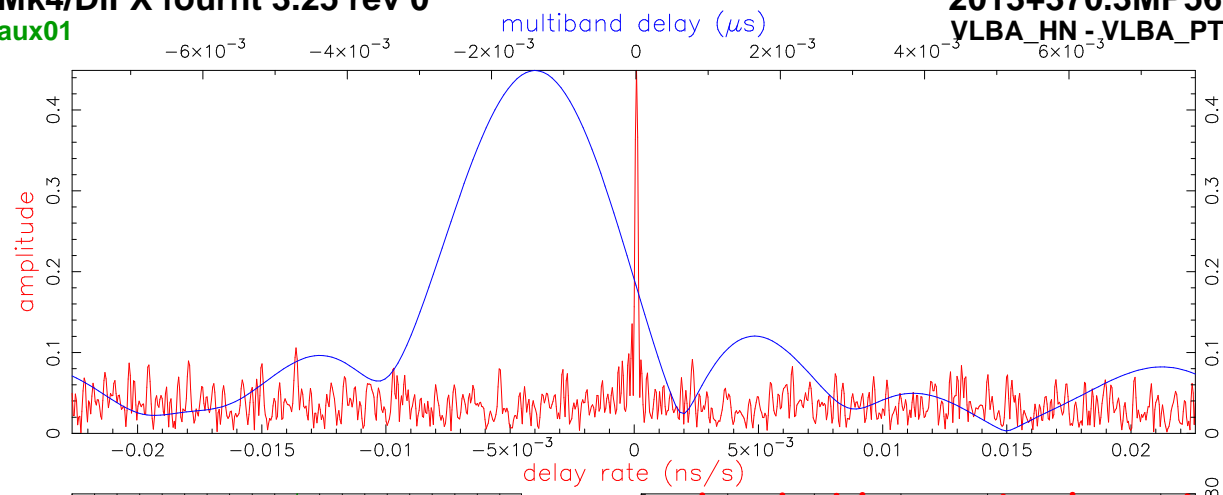
ph/seg (deg) 12.8 1.9 Search (1024X32) 3.780 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 9.3 3.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 4.2 1.1 Inc. seg. avg. 4.027 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 5.4 2.0 Inc. frq. avg. 3.937 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
h: az 103.5 el 73.6 pa -63.0 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1937.474 -207.265 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.185.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hp

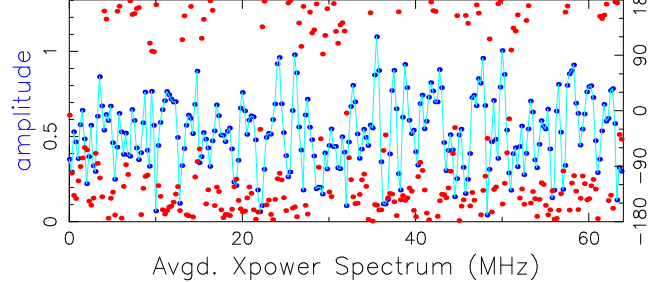
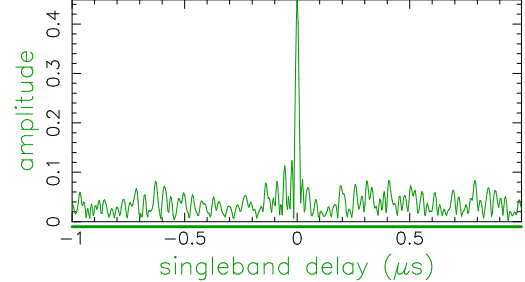
VLBA_HN - VLBA_PT, fgroup Q, pol LR



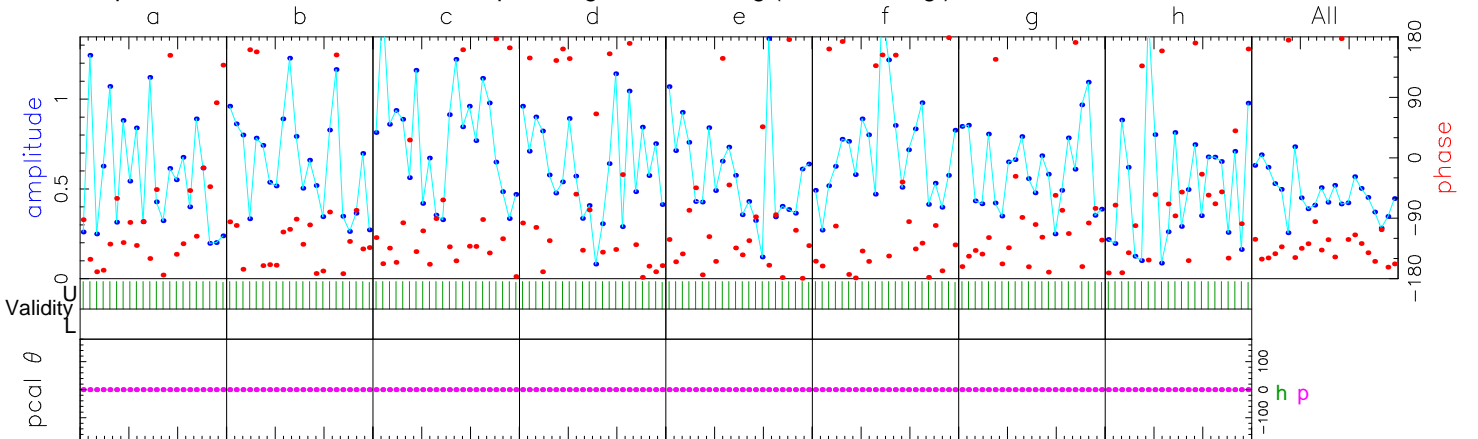
Fringe quality 9

SNR 16.5
Int time 179.970
Amp 0.449
Phase -138.7
PFD 0.0e+00
Delays (us)
SBD -0.000208
MBD -0.001400
Fringe rate (Hz) 0.004323
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512

Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build 2024:332:222845
2025:042:151812
2024:113:095956
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
-128.9	-134.7	-138.6	-157.1	-134.6	-157.5	-128.2	-118.3	Phase	-138.7
0.4	0.5	0.6	0.4	0.4	0.5	0.5	0.3	Ampl.	0.5
257.8	256.9	257.0	256.3	256.6	257.1	256.8	233.2	Sbd box	256.9
U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
h 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000	1000	1000	1000	1000		
h Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	5.34669182042E+03	Apriori delay (usec)	5.34669322057E+03	Resid mbdelay (usec)	-1.40016E-03	+/-	6.6E-05
Sband delay (usec)	5.34669301257E+03	Apriori clock (usec)	6.7217216E+00	Resid sbdelay (usec)	-2.08000E-04	+/-	5.2E-04
Phase delay (usec)	5.34669321164E+03	Apriori clockrate (us/s)	-2.9976000E-07	Resid phdelay (usec)	-8.93389E-06	+/-	4.5E-07
Delay rate (us/s)	-5.39696754023E-01	Apriori rate (us/s)	-5.39696854220E-01	Resid rate (us/s)	1.00197E-07	+/-	4.3E-09
Total phase (deg)	54.1	Apriori accel (us/s/s)	-2.03761019967E-05	Resid phase (deg)	-138.7	+/-	7.0

ph/seg (deg)	21.7	Theor.	16.3	Amplitude	0.449 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	27.2	Search (1024X32)	0.441	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	15.0	Inc. seg. avg.	0.457	Inc. frq. avg.	0.453	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	23.5	Inc. frq. avg.	0.453	Inc. frq. avg.	0.453	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
h: az 103.5 el 73.6 pa -63.0	p: az 69.2 el 44.9 pa -76.1	u,v (fr/asec)	1937.474 -207.265			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K	Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.200.3MP56K					ion window (TEC) 0.00 0.00

simultaneous interpolator

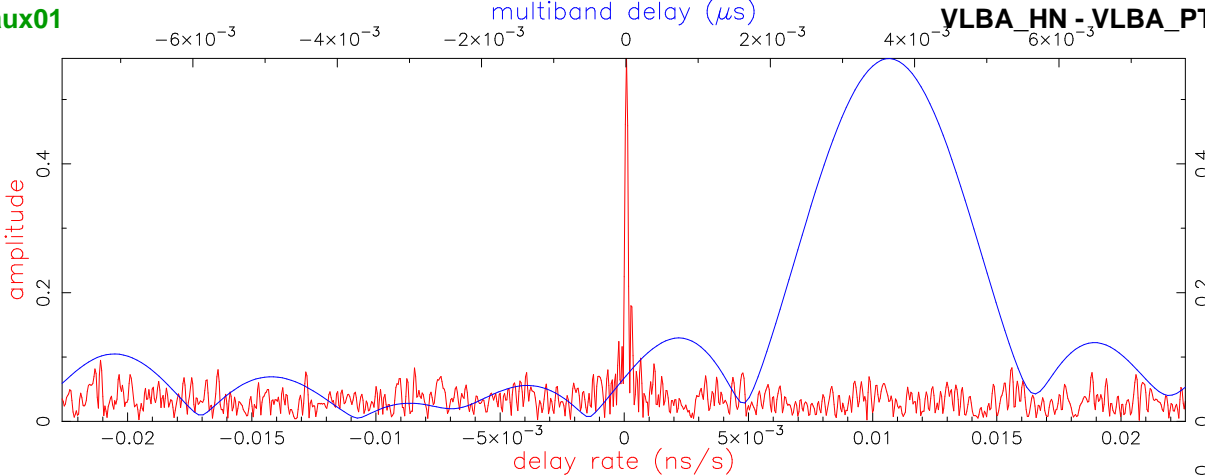
Mk4/DiFX fourfit 3.25 rev 0

aux01

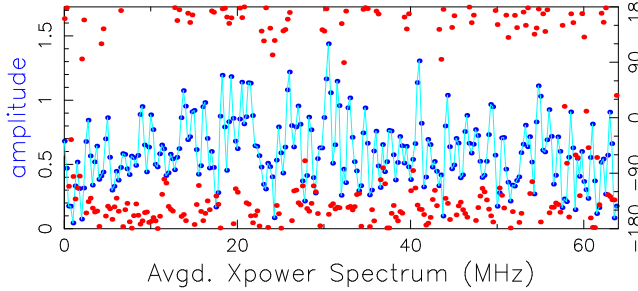
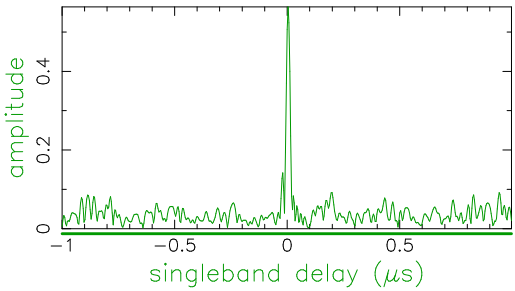
2013+370.3MP56K, No0500, hp

VLBA_HN - VLBA_PT, fgroup Q, pol RL

Fringe quality 9

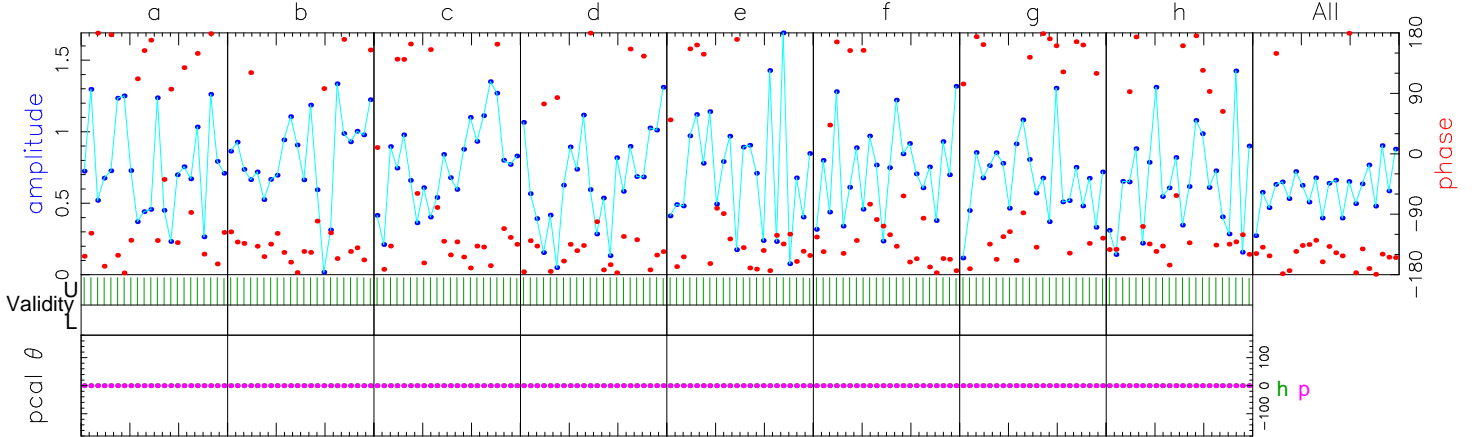


SNR 20.7
 Int time 179.970
 Amp 0.564
 Phase -156.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004233
 MBD 0.003656
 Fringe rate (Hz) 0.004440
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151816
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-160.3	-151.8	-155.4	-158.4	-158.6	-145.3	-166.1	-157.0	Phase	-156.4
	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.4	Ampl.	0.6
	258.8	258.7	258.2	257.3	257.7	258.0	258.0	257.8	Sbd box	258.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	5.34669687639E+03	Apriori delay (usec)	5.34669322057E+03	Resid mbdelay (usec)	3.65581E-03	+/-	5.2E-05
Sband delay (usec)	5.34669745382E+03	Apriori clock (usec)	6.7217216E+00	Resid sbdelay (usec)	4.23325E-03	+/-	4.2E-04
Phase delay (usec)	5.34669321050E+03	Apriori clockrate (us/s)	-2.9976000E-07	Resid phdelay (usec)	-1.00709E-05	+/-	3.6E-07
Delay rate (us/s)	-5.39696751309E-01	Apriori rate (us/s)	-5.39696854220E-01	Resid rate (us/s)	1.02911E-07	+/-	3.4E-09
Total phase (deg)	36.4	Apriori accel (us/s/s)	-2.03761019967E-05	Resid phase (deg)	-156.4	+/-	5.5

ph/seg (deg)	RMS 19.5	Theor. 13.0	Amplitude Search (1024X32)	0.564 +/- 0.027	0.541	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	26.7	22.7	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	6.6	7.8	Inc. seg. avg.	0.583	0.583	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	13.4	13.7	Inc. frq. avg.	0.561	0.561	Data rate(Mb/s): 2048	ion window (TEC)	0.00	0.00	0.00

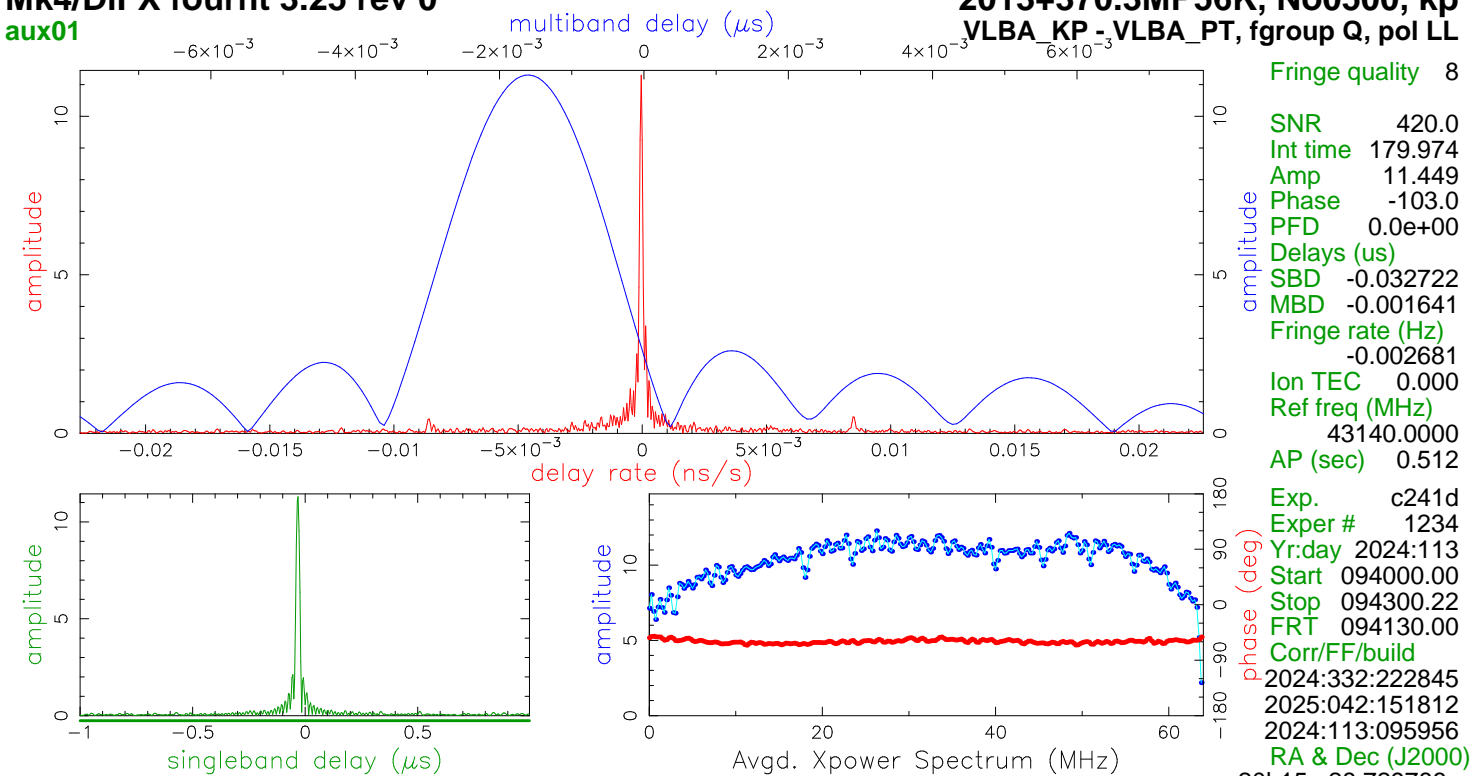
h: az 103.5 el 73.6 pa -63.0 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1937.474 -207.265 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.219.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

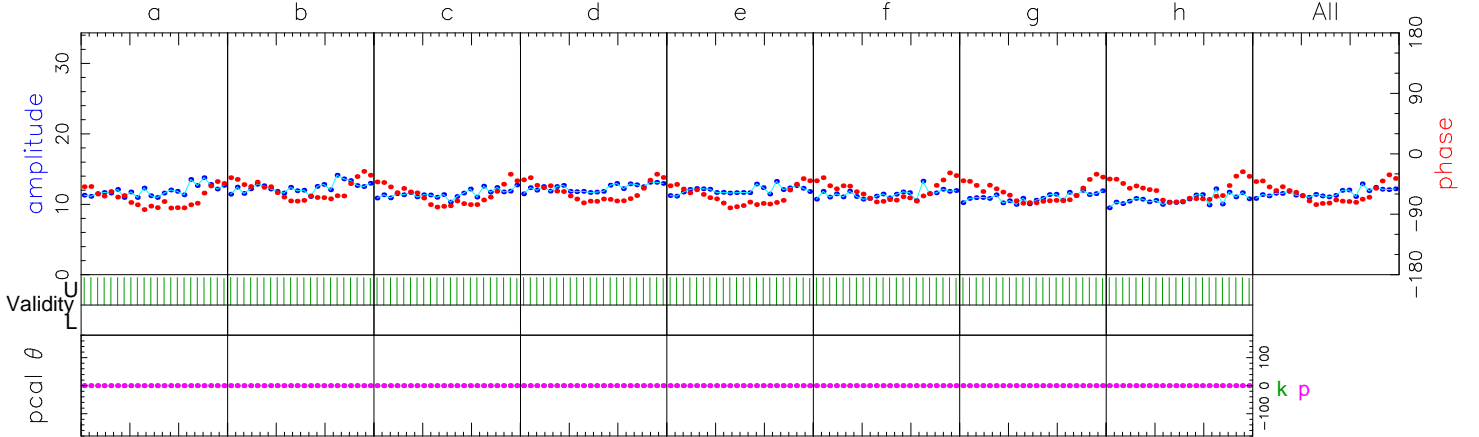
aux01

2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-65.7	-52.9	-60.6	-56.1	-62.5	-54.6	-56.9	-54.3	Phase	-58.0
	11.6	12.1	11.2	12.0	11.7	11.1	10.7	10.3	Ampl.	11.3
	249.0	248.9	248.5	248.6	248.6	248.5	248.4	248.8	Sbd box	248.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	-9.75659508442E+02		Apriori delay (usec)	-9.75626617005E+02	Resid mbdelay (usec)	-1.64144E-03	+/-	2.6E-06		
Sband delay (usec)	-9.75659339505E+02		Apriori clock (usec)	-5.5505199E+07	Resid sbdelay (usec)	-3.27225E-02	+/-	2.1E-05		
Phase delay (usec)	-9.75626620738E+02		Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-3.73238E-06	+/-	1.8E-08		
Delay rate (us/s)	5.69530583484E-02		Apriori rate (us/s)	5.69531204927E-02	Resid rate (us/s)	-6.21444E-08	+/-	1.7E-10		
Total phase (deg)		-195.7	Apriori accel (us/s/s)	2.81684944949E-06	Resid phase (deg)	-103.0	+/-	0.3		

ph/seg (deg) RMS Theor. Amplitude 11.449 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 4.8 1.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 4.9 0.4 Inc. seg. avg. 11.619 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 5.1 0.7 Inc. frq. avg. 11.330 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023

k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00 simultaneous interpolator

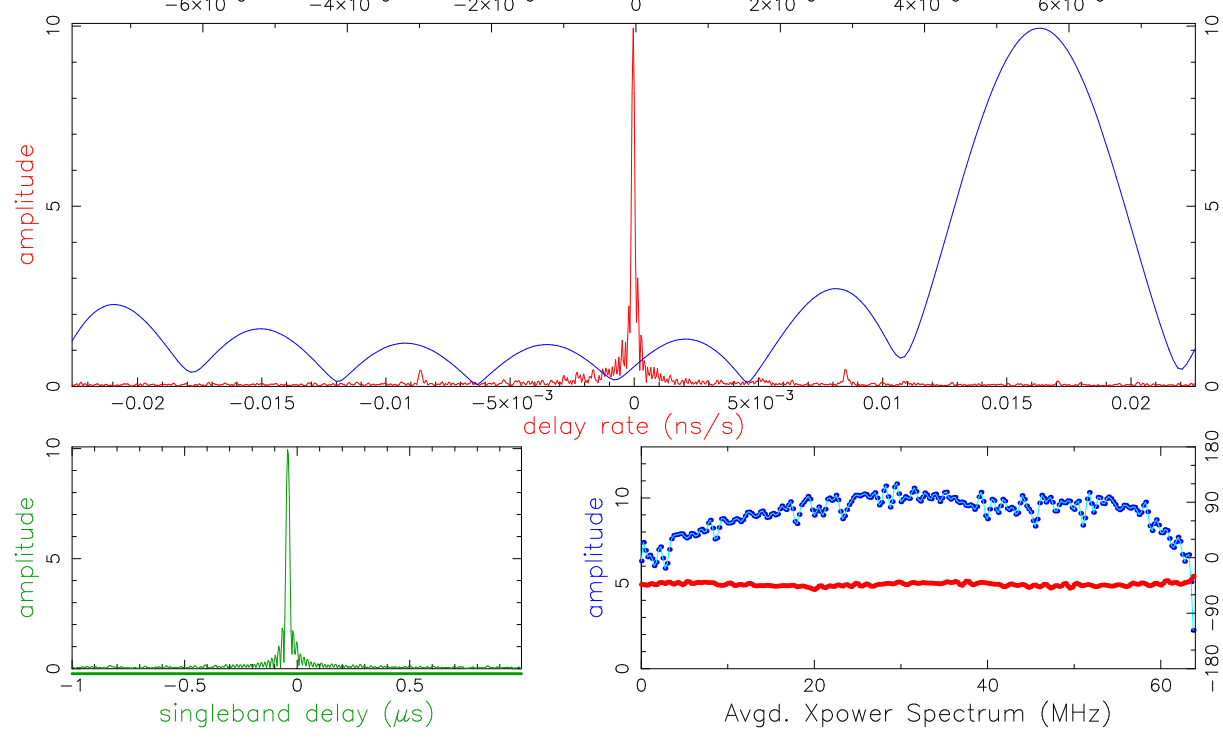
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.195.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RR

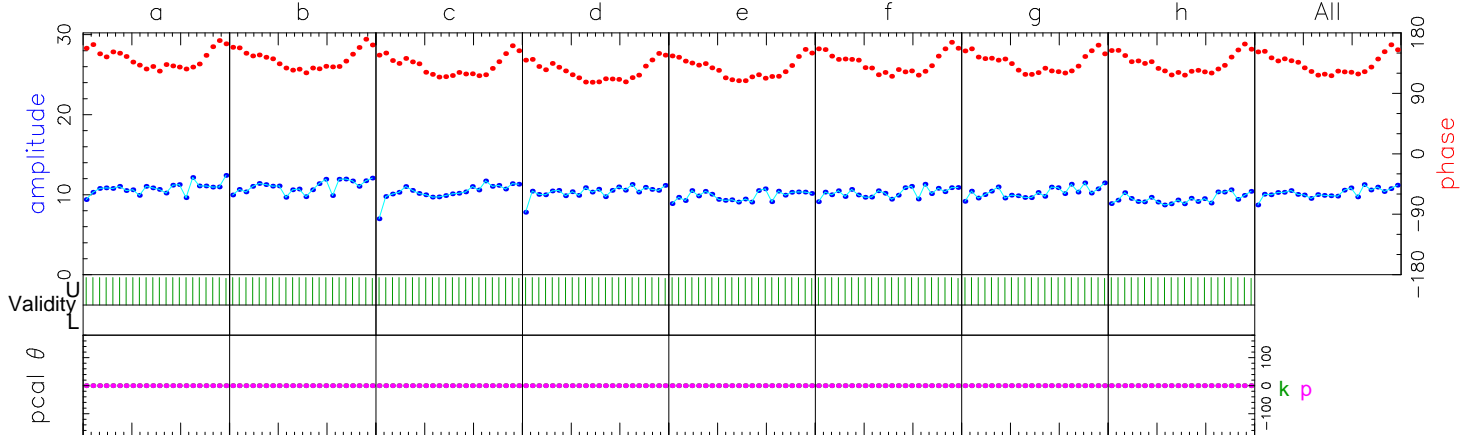


Fringe quality 8

SNR 369.7
 Int time 179.975
 Amp 10.077
 Phase -113.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.041480
 MBD 0.005623
 Fringe rate (Hz)
 -0.002674
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151819
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -9.75667869005E+02 Apriori delay (usec) -9.75626617005E+02 Resid mbdelay (usec) 5.62300E-03 +/- 2.9E-06
 Sband delay (usec) -9.75668097255E+02 Apriori clock (usec) -5.5505199E+00 Resid sbdelay (usec) -4.14803E-02 +/- 2.3E-05
 Phase delay (usec) -9.75626608374E+02 Apriori clockrate (us/s) -2.2649092E-07 Resid phdelay (usec) 8.63170E-06 +/- 2.0E-08
 Delay rate (us/s) 5.69530585125E-02 Apriori rate (us/s) 5.69531204927E-02 Resid rate (us/s) -6.19803E-08 +/- 1.9E-10
 Total phase (deg) -206.2 Apriori accel (us/s/s) 2.81684944949E-06 Resid phase (deg) -113.4 +/- 0.3

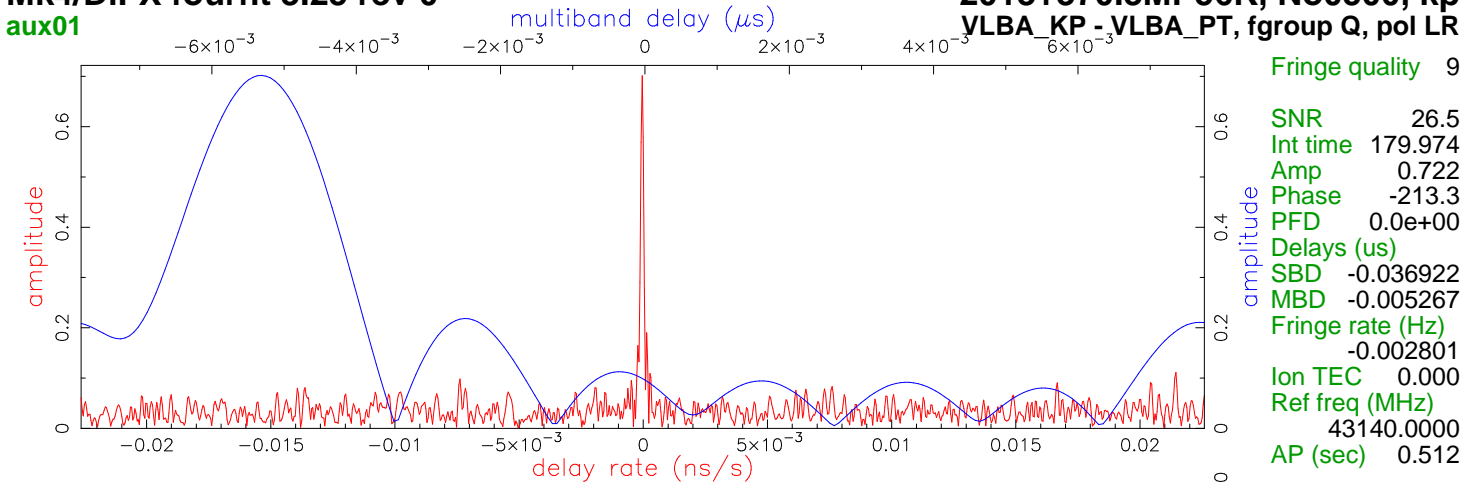
ph/seg (deg) 13.9 0.7 Search (1024X32) 9.425 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.9 1.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.0 0.4 Inc. seg. avg. 10.240 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.4 0.8 Inc. frq. avg. 9.999 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.238.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

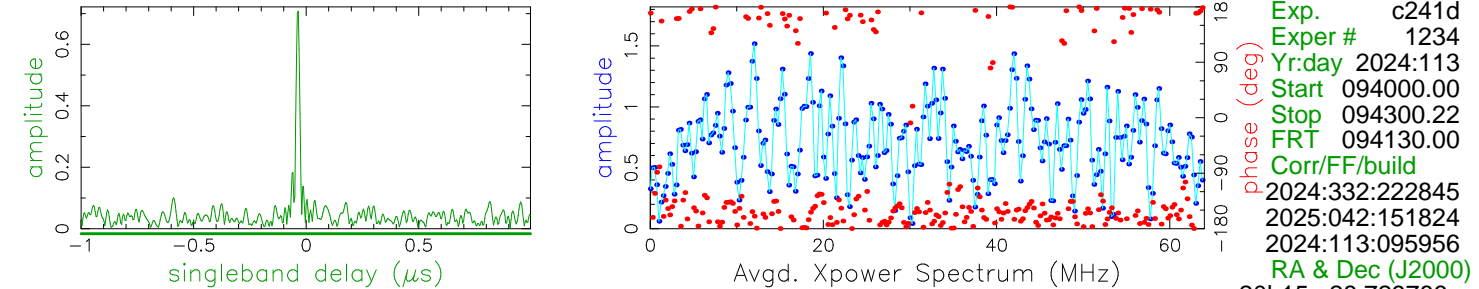
2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol LR

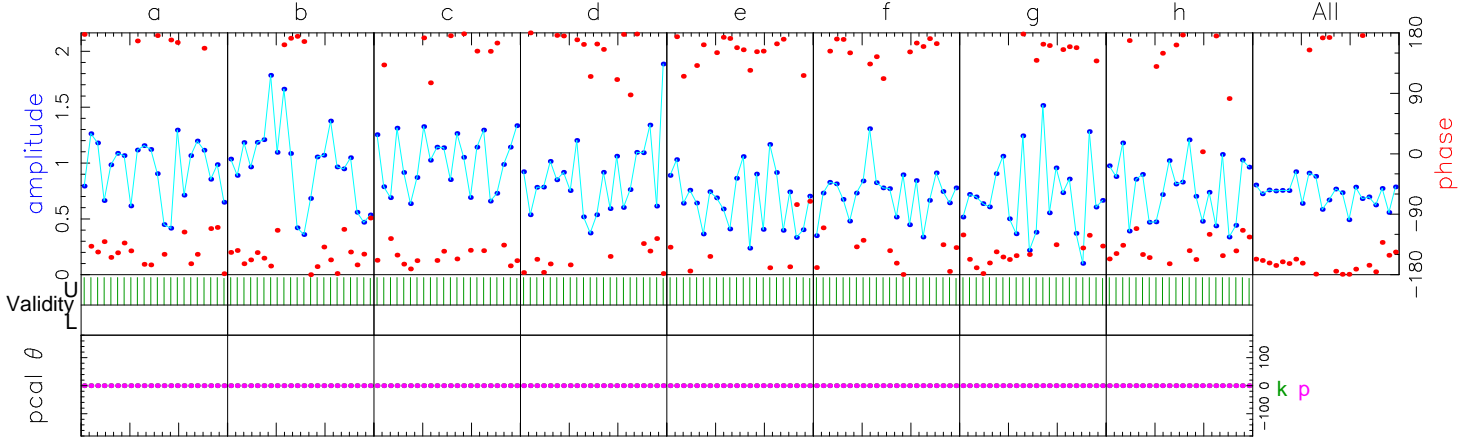


Fringe quality 9

SNR 26.5
 Int time 179.974
 Amp 0.722
 Phase -213.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.036922
 MBD -0.005267
 Fringe rate (Hz)
 -0.002801
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151824
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-9.75663134067E+02	Apriori delay (usec)	-9.75626617005E+02	Resid mbdelay (usec)	-5.26706E-03	+/-	4.1E-05
Sband delay (usec)	-9.75663538755E+02	Apriori clock (usec)	-5.5505199E+00	Resid sbdelay (usec)	-3.69218E-02	+/-	3.3E-04
Phase delay (usec)	-9.75626627845E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-1.08396E-05	+/-	2.8E-07
Delay rate (us/s)	5.69530555555E-02	Apriori rate (us/s)	5.69531204927E-02	Resid rate (us/s)	-6.49372E-08	+/-	2.7E-09
Total phase (deg)	-306.1	Apriori accel (us/s/s)	2.81684944949E-06	Resid phase (deg)	-213.3	+/-	4.3

ph/seg (deg)	15.8	Theor.	10.1	Amplitude	0.722 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.6	Search (1024X32)	0.675	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	13.8	Inc. seg. avg.	0.718	Inc. frq. avg.	0.711	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	18.8	Inc. frq. avg.	0.711	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023 0.023

k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.261.3MP56K

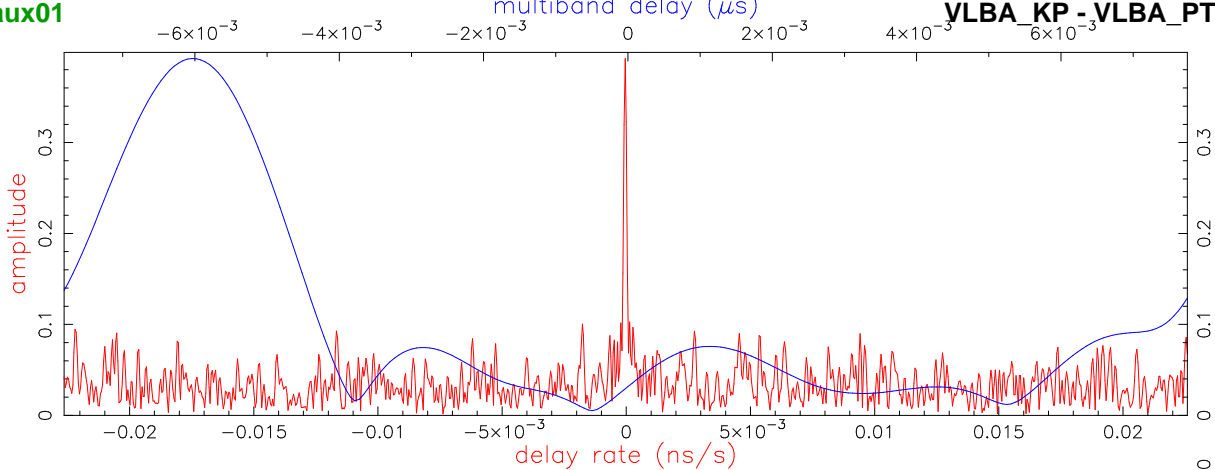
Mk4/DiFX fourfit 3.25 rev 0

aux01

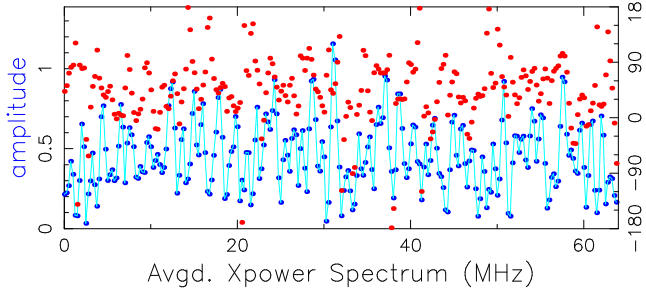
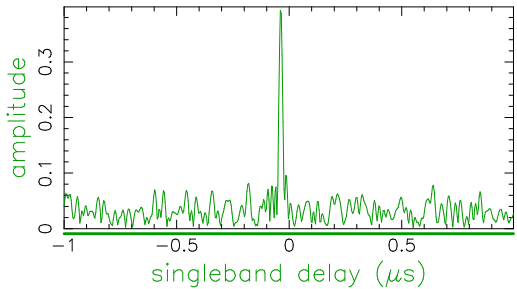
2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RL

Fringe quality 9

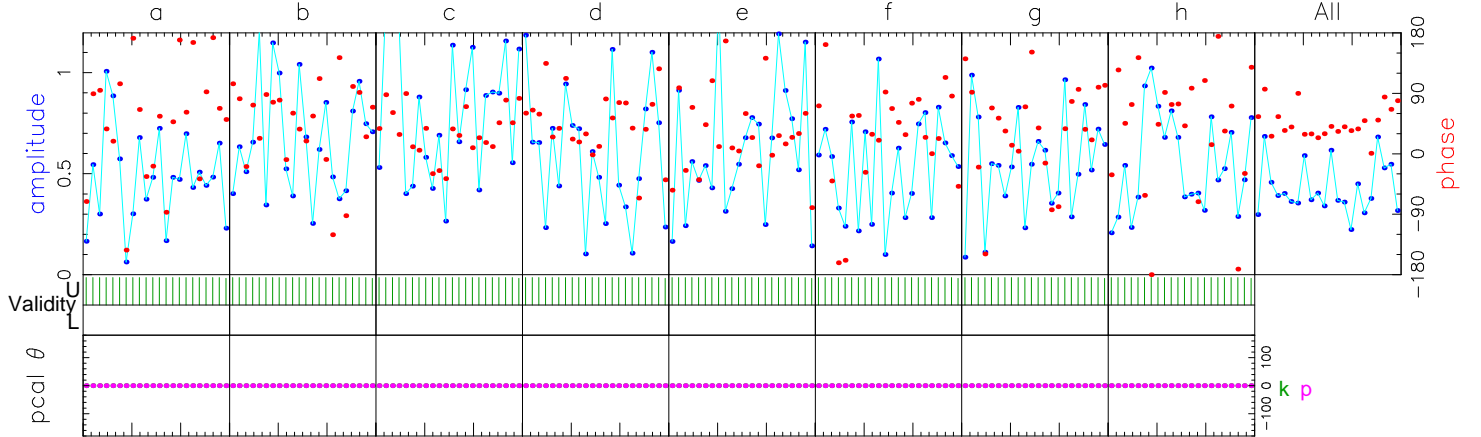


SNR 14.6
Int time 179.975
Amp 0.399
Phase -357.1
PFD 4.7e-40
Delays (us)
SBD -0.037419
MBD -0.006020
Fringe rate (Hz)
-0.002856
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build
2024:332:222845
2025:042:151828
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-9.75663887035E+02	Apriori delay (usec)	-9.75626617005E+02	Resid mbdelay (usec)	-6.02003E-03	+/-	7.4E-05
Sband delay (usec)	-9.75664036005E+02	Apriori clock (usec)	-5.5505199E+00	Resid sbdelay (usec)	-3.74190E-02	+/-	5.9E-04
Phase delay (usec)	-9.75626613924E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	3.08115E-06	+/-	5.0E-07
Delay rate (us/s)	5.69530542850E-02	Apriori rate (us/s)	5.69531204927E-02	Resid rate (us/s)	-6.62077E-08	+/-	4.8E-09
Total phase (deg)		Apriori accel (us/s/s)	2.81684944949E-06	Resid phase (deg)	-357.1	+/-	7.8

ph/seg (deg)	23.3	RMS	18.4	Theor.	18.4	Amplitude	0.399 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	31.9	Search (1024X32)	0.371	Search	0.371	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	15.0	Interp.	0.000	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	34.7	Inc. seg. avg.	0.408	Inc. seg. avg.	0.408	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023		
		Inc. frq. avg.	0.393	Inc. frq. avg.	0.393	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.278.3MP56K

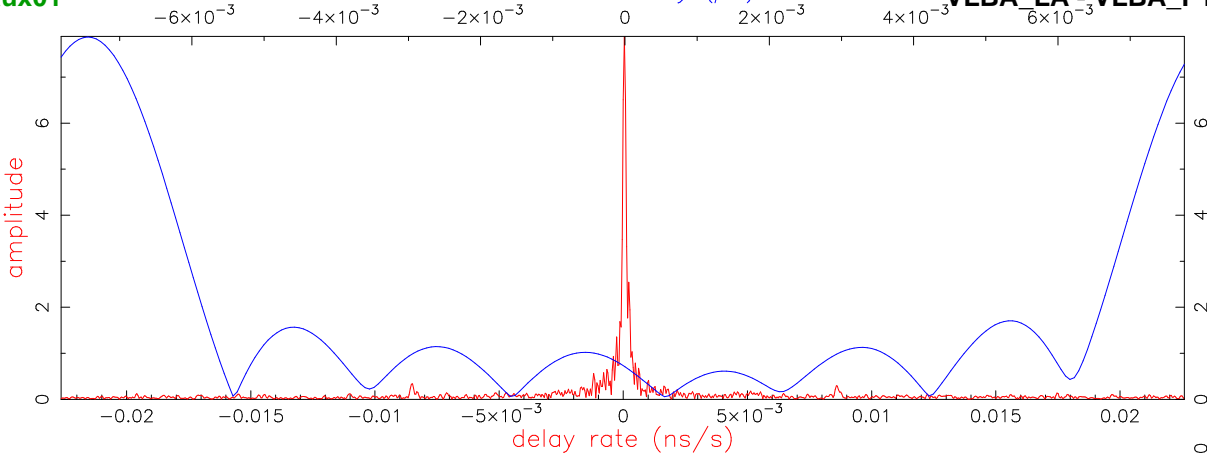
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, lp

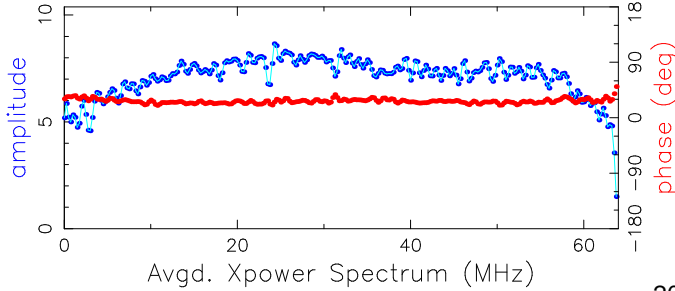
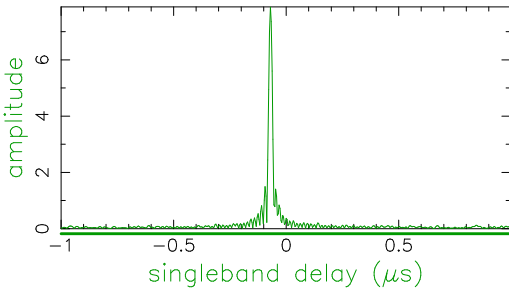
VLBA_LA - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)



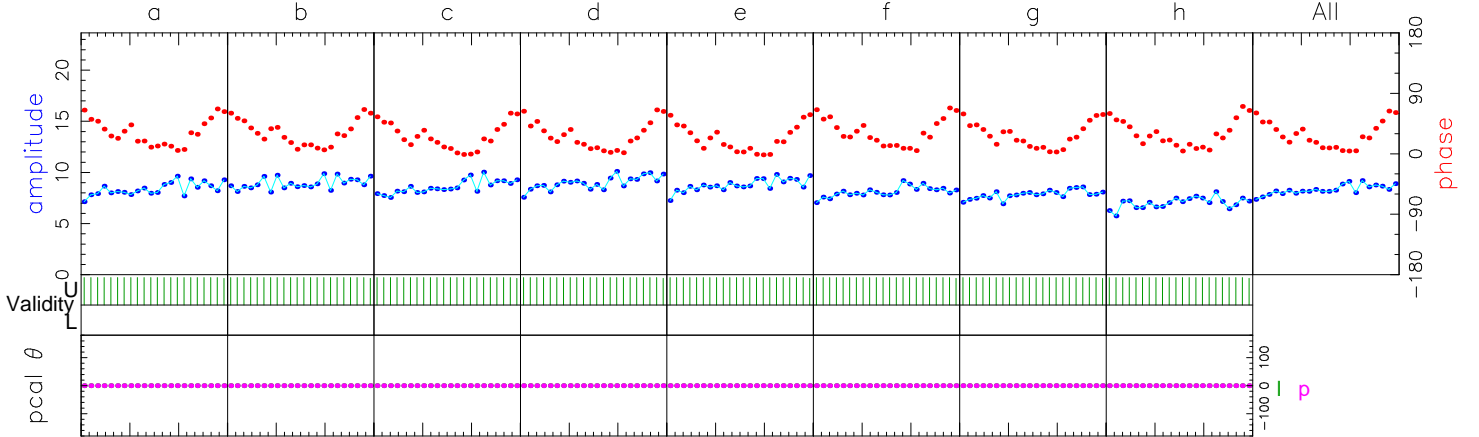
Fringe quality 8

SNR 289.2
 Int time 179.975
 Amp 7.884
 Phase -61.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.069763
 MBD -0.007426
 Fringe rate (Hz)
 0.001734
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151821
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 4.83967686493E+02 Apriori delay (usec) 4.84037612276E+02 Resid mbdelay (usec) -7.42578E-03 +/- 3.8E-06
 Sband delay (usec) 4.83967849526E+02 Apriori clock (usec) -1.4000071E+01 Resid sbdelay (usec) -6.97628E-02 +/- 3.0E-05
 Phase delay (usec) 4.84037614117E+02 Apriori clockrate (us/s) -6.1269804E-07 Resid phdelay (usec) 1.84103E-06 +/- 2.6E-08
 Delay rate (us/s) -3.39476113053E-02 Apriori rate (us/s) -3.39476515031E-02 Resid rate (us/s) 4.01977E-08 +/- 2.5E-10
 Total phase (deg) -207.7 Apriori accel (us/s/s) -1.21268927052E-06 Resid phase (deg) -61.4 +/- 0.4

RMS Theor. Amplitude 7.884 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 18.9 0.9 Search (1024X32) 7.809 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 8.0 1.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 3.7 0.6 Inc. seg. avg. 8.314 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 7.4 1.0 Inc. frq. avg. 7.882 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

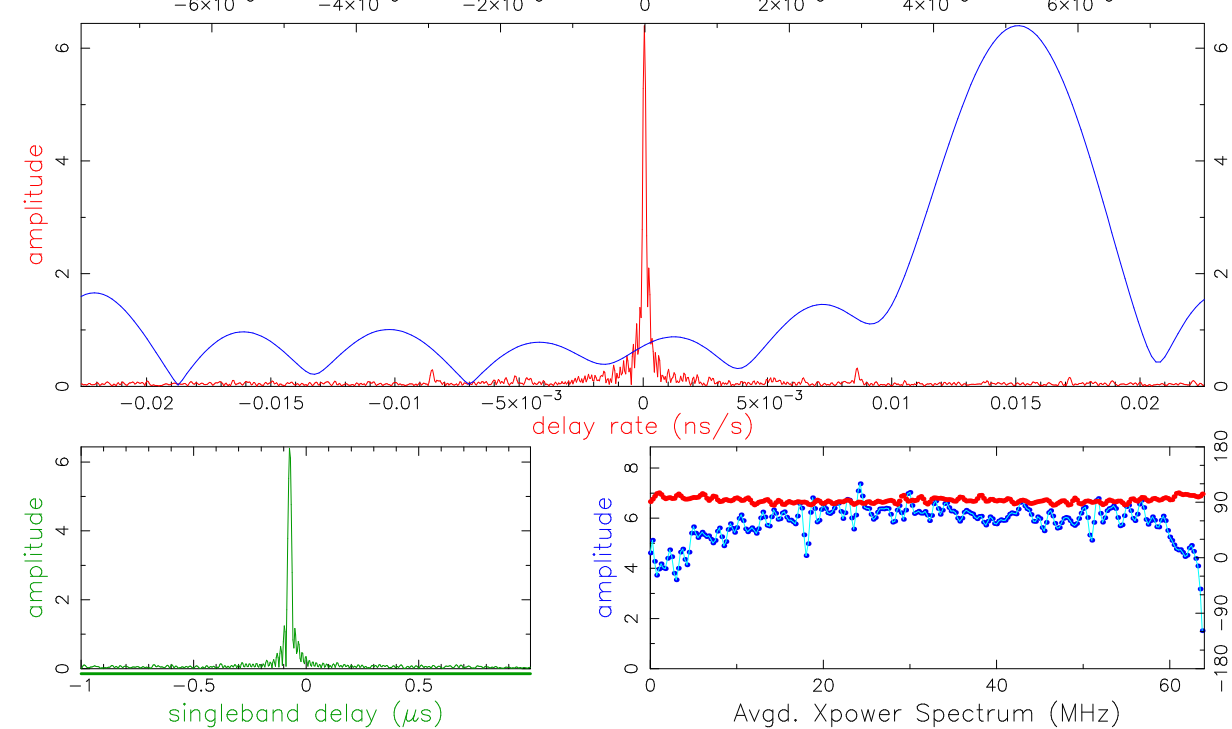
l: az 71.2 el 46.9 pa -74.8 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 122.014 37.185 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/lp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/lp.Q.244.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, lp

VLBA_LA - VLBA_PT, fgroup Q, pol RR

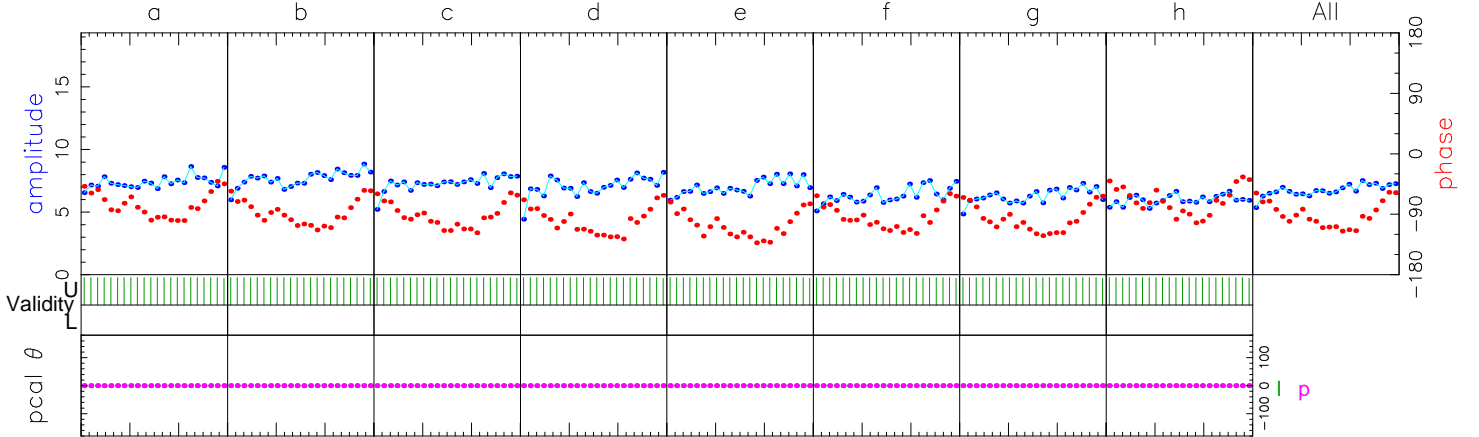


Fringe quality 7

SNR 236.3
 Int time 179.975
 Amp 6.441
 Phase -22.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.073208
 MBD 0.005194
 Fringe rate (Hz) 0.001765
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151829
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	4.83964681056E+02	Apriori delay (usec)	4.84037612276E+02	Resid mbdelay (usec)	5.19378E-03	+/-	4.6E-06
Sband delay (usec)	4.83964404276E+02	Apriori clock (usec)	-1.4000071E+01	Resid sbdelay (usec)	-7.32080E-02	+/-	3.6E-05
Phase delay (usec)	4.84037606468E+02	Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	-5.80718E-02	+/-	3.1E-08
Delay rate (us/s)	-3.39476105979E-02	Apriori rate (us/s)	-3.39476515031E-02	Resid rate (us/s)	4.09052E-08	+/-	3.0E-10
Total phase (deg)	-169.0	Apriori accel (us/s/s)	-1.21268927052E-06	Resid phase (deg)	-22.7	+/-	0.5

ph/seg (deg)	18.5	Theor.	1.1	Amplitude	6.441 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	8.5		1.1	Search (1024X32)	6.282	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	13.2		0.7	Inc. seg. avg.	6.742	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	8.6		1.2	Inc. frq. avg.	6.525	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 71.2 el 46.9 pa -74.8 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 122.014 37.185 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/lp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/lp.Q.283.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

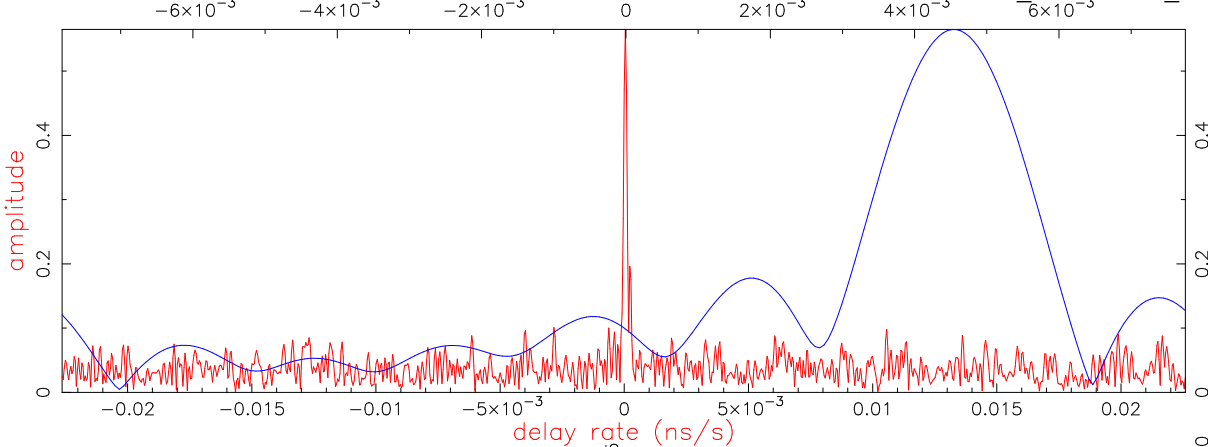
aux01

2013+370.3MP56K, No0500, lp

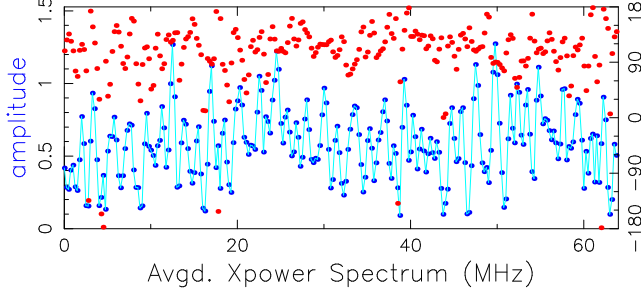
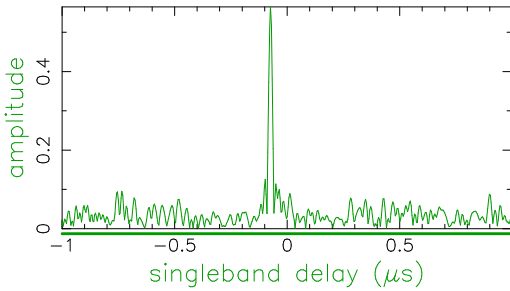
VLBA_LA - VLBA_PT, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

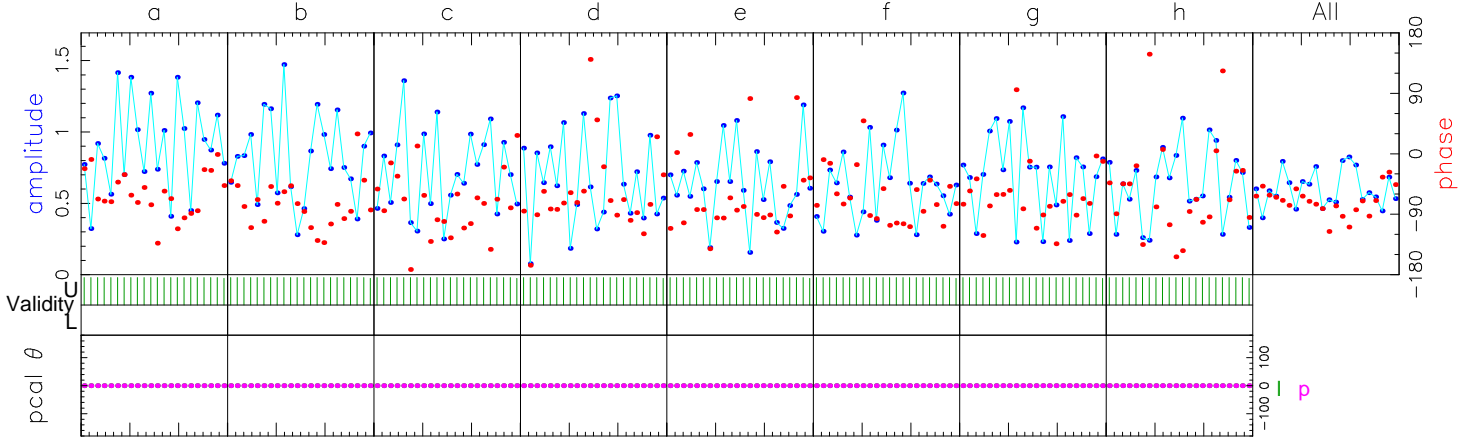


SNR 20.7
 Int time 179.975
 Amp 0.565
 Phase -4.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.074101
 MBD 0.004546
 Fringe rate (Hz)
 0.001698
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151831
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-60.8	-80.2	-76.2	-73.5	-76.5	-74.2	-67.5	-67.3	Phase	-71.8
	0.8	0.7	0.5	0.5	0.5	0.5	0.6	0.4	Ampl.	0.6
	238.0	237.8	238.5	237.7	237.8	237.8	238.1	238.4	Sbd box	238.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	4.83964033243E+02	Apriori delay (usec)	4.84037612276E+02	Resid mbdelay (usec)	4.54597E-03	+/-	5.2E-05
Sband delay (usec)	4.83963511026E+02	Apriori clock (usec)	-1.4000071E+01	Resid sbdelay (usec)	-7.41012E-02	+/-	4.2E-04
Phase delay (usec)	4.84037607652E+02	Apriori clockrate (us/s)	-6.1269804E-07	Resid phdelay (usec)	-4.62400E-06	+/-	3.6E-07
Delay rate (us/s)	-3.39476121401E-02	Apriori rate (us/s)	-3.39476515031E-02	Resid rate (us/s)	3.93630E-08	+/-	3.4E-09
Total phase (deg)	-150.6	Apriori accel (us/s/s)	-1.21268927052E-06	Resid phase (deg)	-4.3	+/-	5.5

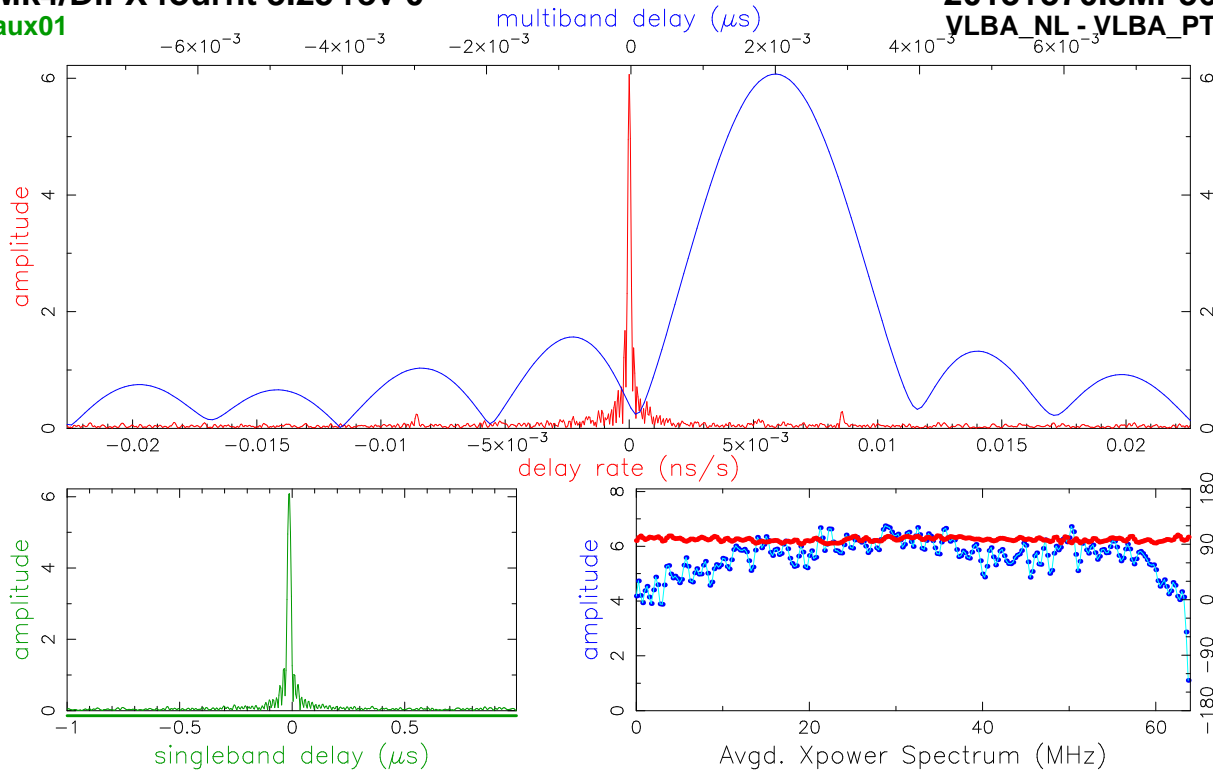
ph/seg (deg) 21.1 13.0 Theor. Amplitude 0.565 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 22.7 22.6 Search (1024X32) 0.558 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 6.8 7.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.2 13.6 Inc. seg. avg. 0.589 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 l: az 71.2 el 46.9 pa -74.8 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 122.014 37.185 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/lp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/lp.Q.301.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, np

VLBA_NL - VLBA_PT, fgroup Q, pol RR

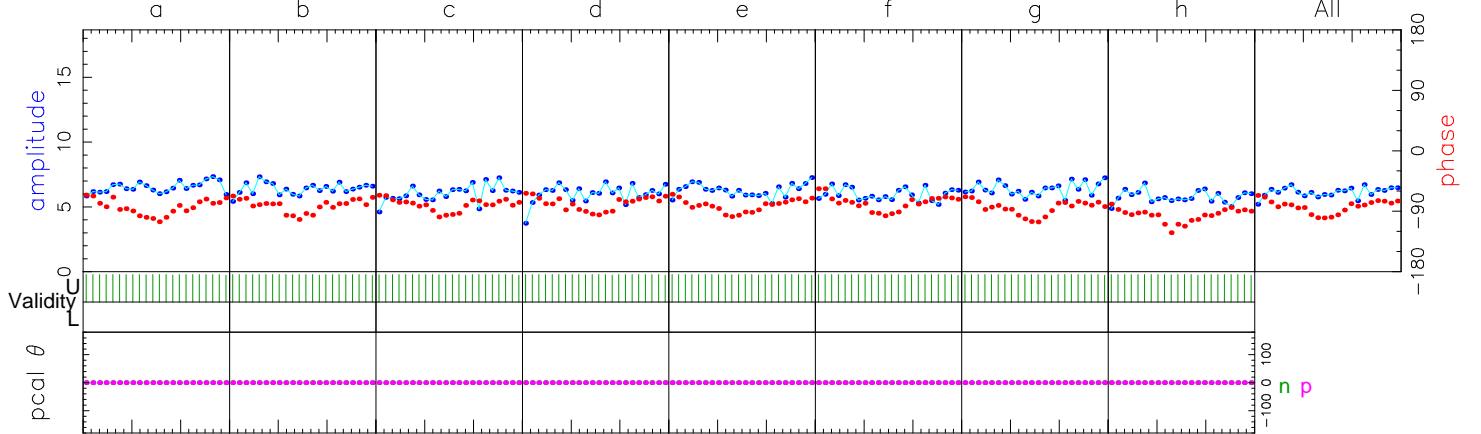


Fringe quality 9

SNR 228.0
 Int time 179.665
 Amp 6.221
 Phase -285.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.013613
 MBD 0.002046
 Fringe rate (Hz) 0.000650
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151826
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



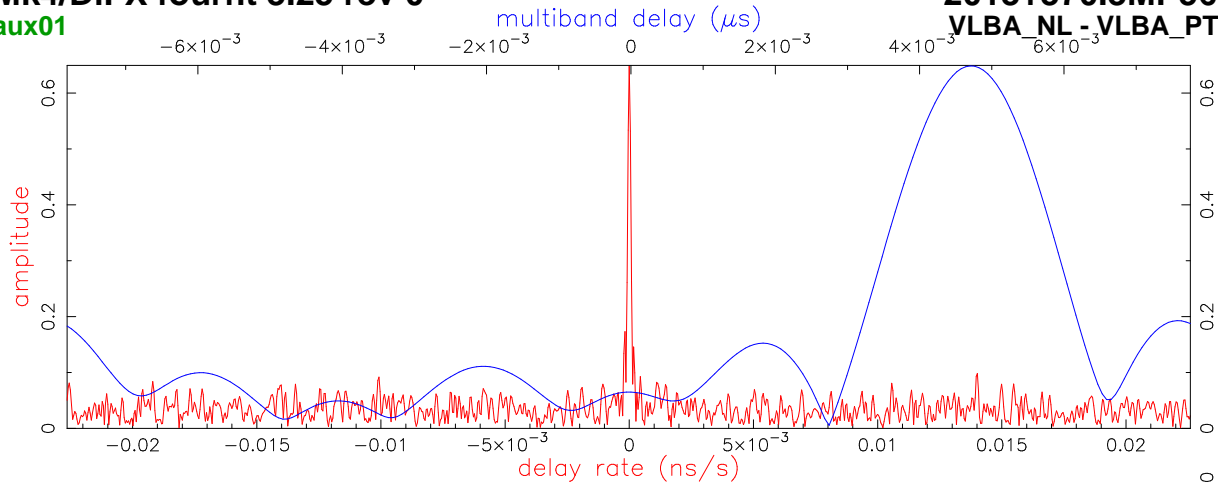
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	3.23558646171E+03								2.04616E-03	+/- 4.8E-06
Sband delay (usec)	3.23558642705E+03								-1.36135E-02	+/- 3.8E-05
Phase delay (usec)	3.23560003522E+03								-5.32772E-06	+/- 3.2E-08
Delay rate (us/s)	-2.61039478864E-01								1.50706E-08	+/- 3.1E-10
Total phase (deg)			-15.4						-285.2	+/- 0.5
ph/seg (deg)	9.5	1.2								
amp/seg (%)	6.0	2.1								
ph/frq (deg)	6.3	0.7								
amp/frq (%)	4.3	1.2								
n: az 85.1 el 59.3 pa -68.9	p: az 69.2 el 44.9 pa -76.1		u, v (fr/asec) 937.360 49.292		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/np..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/np.Q.276.3MP56K		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		ion window (TEC) 0.00 0.00	

Mk4/DiFX fourfit 3.25 rev 0

aux01

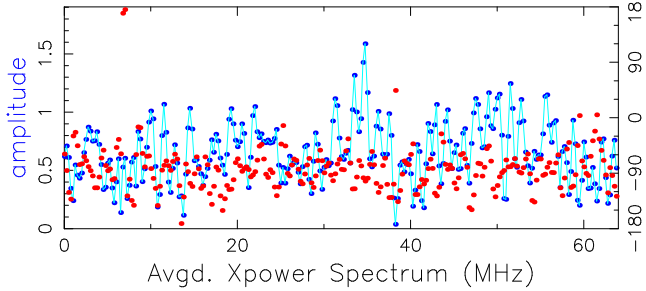
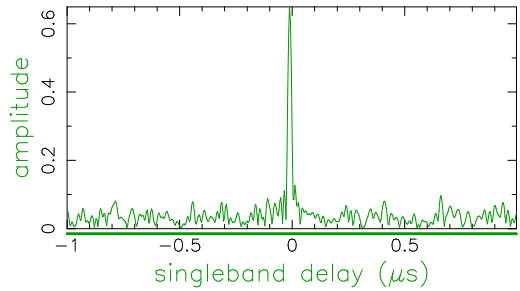
2013+370.3MP56K, No0500, np

VLBA_NL - VLBA_PT, fgroup Q, pol LR



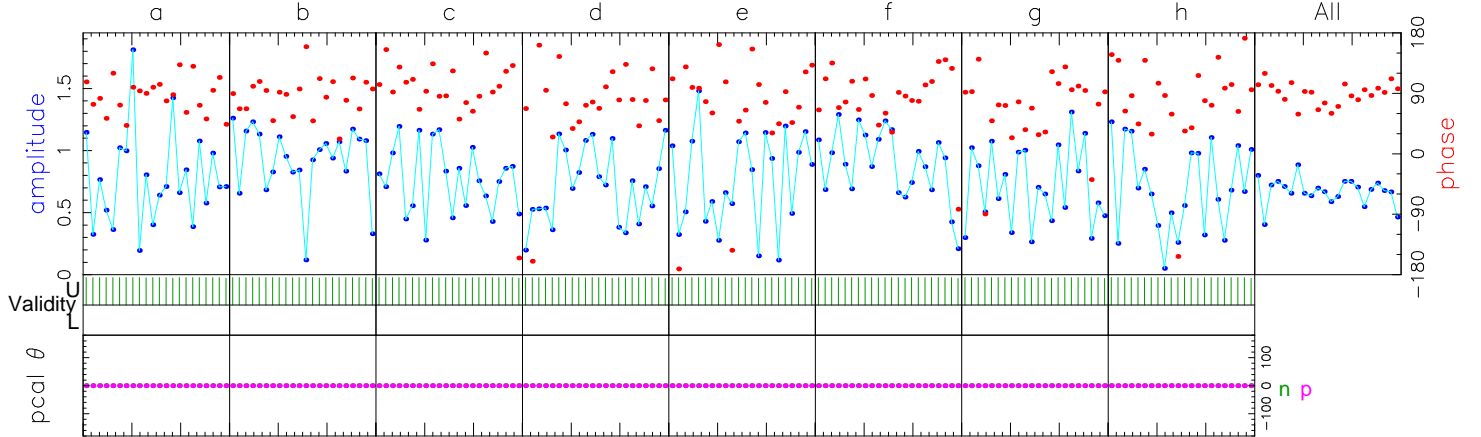
Fringe quality 9

SNR 23.8
 Int time 179.665
 Amp 0.649
 Phase -113.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.011233
 MBD 0.004724
 Fringe rate (Hz)
 0.000461
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Yr:day 1234
 Start 2024:113
 Stop 2024:113
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151828
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) 3.23558913986E+03 Apriori delay (usec) 3.23560004055E+03 Resid mbdelay (usec) 4.72431E-03 +/- 4.6E-05
 Sband delay (usec) 3.23558880780E+03 Apriori clock (usec) -5.9878368E+00 Resid sbdelay (usec) -1.12327E-02 +/- 3.6E-04
 Phase delay (usec) 3.23560004627E+03 Apriori clockrate (us/s) -8.1437027E-08 Resid phdelay (usec) 5.71562E-06 +/- 3.1E-07
 Delay rate (us/s) -2.61039483256E-01 Apriori rate (us/s) -2.61039493935E-01 Resid rate (us/s) 1.06790E-08 +/- 3.0E-09
 Total phase (deg) 156.1 Apriori accel (us/s/s) -1.02428287028E-05 Resid phase (deg) -113.7 +/- 4.8

ph/seg (deg) 15.8 11.3 Theor. Amplitude 0.649 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 16.2 19.7 Search (1024X32) 0.634 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.8 6.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.6 11.9 Inc. seg. avg. 0.660 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Inc. frq. avg. 0.648 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

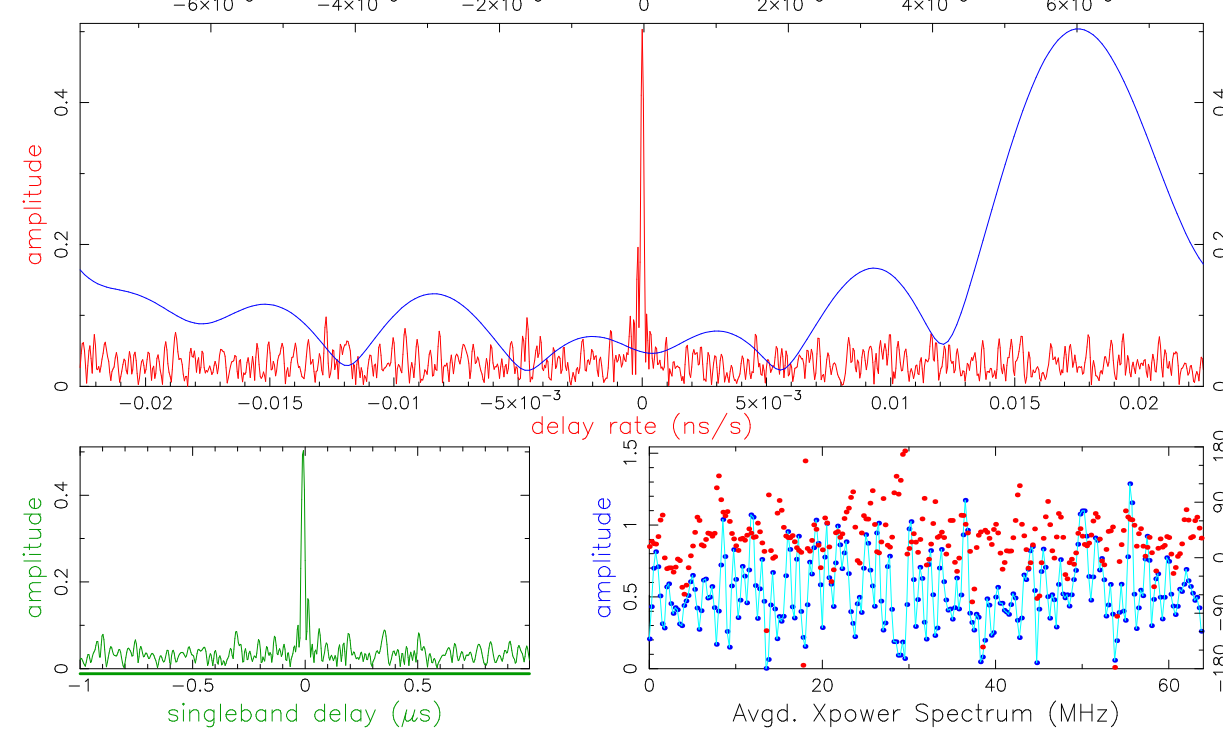
n: az 85.1 el 59.3 pa -68.9 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 937.360 49.292 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/np..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/np.Q.280.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, np

VLBA_NL - VLBA_PT, fgroup Q, pol RL

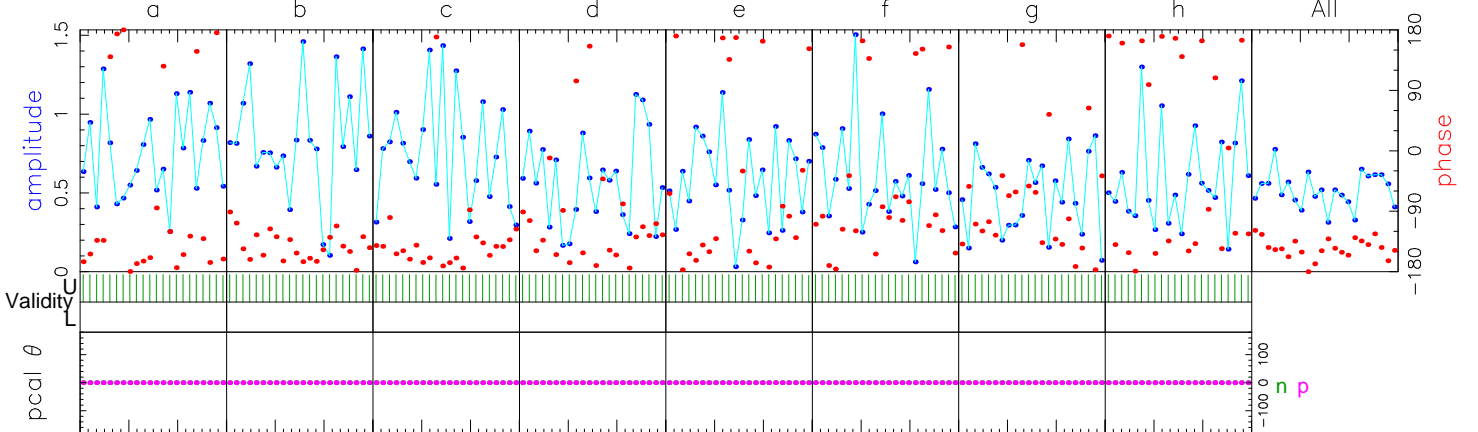


Fringe quality 9

SNR 18.8
 Int time 179.665
 Amp 0.512
 Phase -347.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.009387
 MBD 0.005954
 Fringe rate (Hz) 0.000782
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151830
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



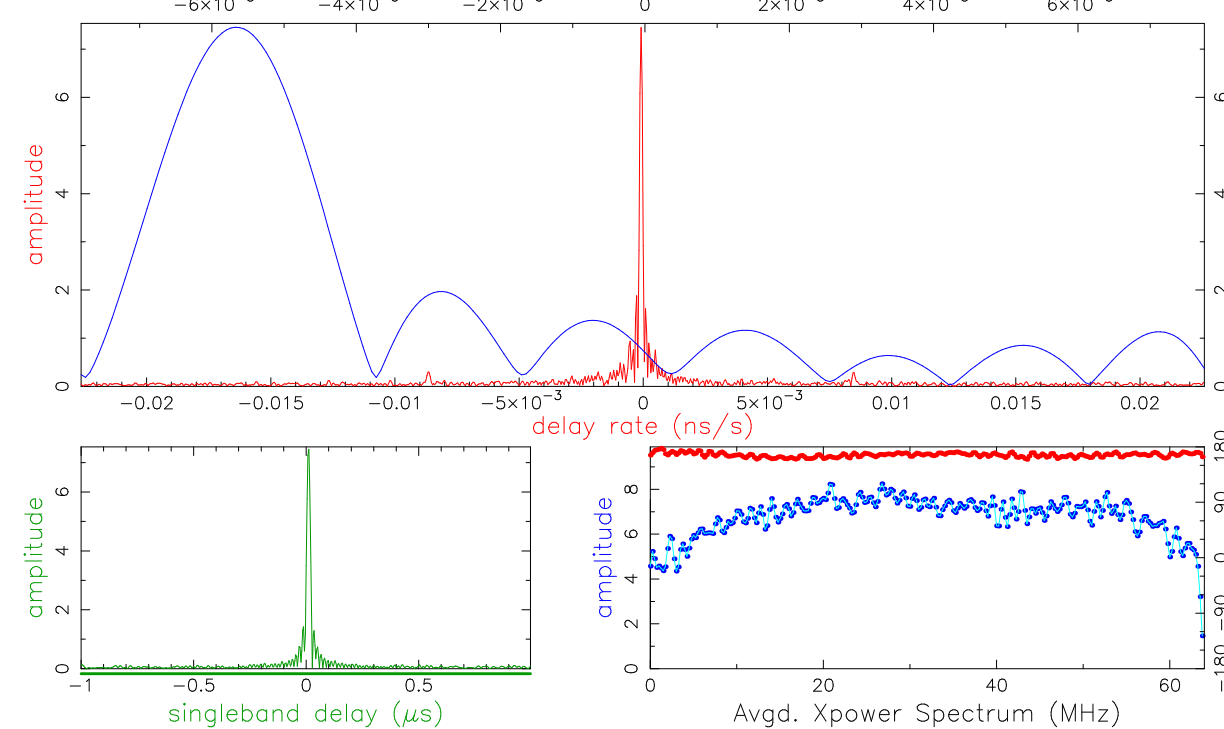
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
n	1000	1000	1000	1000	1000	1000	1000	1000			
p	1000	1000	1000	1000	1000	1000	1000	1000			
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR			
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL			
Group delay (usec) (SBD)	3.23559036980E+03		Apriori delay (usec)		3.23560004055E+03		Resid mbdelay (usec)		5.95425E-03	+/- 5.8E-05	
Sband delay (usec)	3.23559065330E+03		Apriori clock (usec)		-5.9878368E+00		Resid sbdelay (usec)		-9.38725E-03	+/- 4.6E-04	
Phase delay (usec)	3.23560003120E+03		Apriori clockrate (us/s)		-8.1437027E-08		Resid phdelay (usec)		-9.34761E-06	+/- 3.9E-07	
Delay rate (us/s)	-2.61039475797E-01		Apriori rate (us/s)		-2.61039493935E-01		Resid rate (us/s)		1.81379E-08	+/- 3.8E-09	
Total phase (deg)			Apriori accel (us/s/s)		-1.02428287028E-05		Resid phase (deg)		-347.7	+/- 6.1	
ph/seg (deg)	RMS 14.7	Theor. 14.3	Amplitude 0.512 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	21.1	25.0	Search (1024X32) 0.484		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
ph/frq (deg)	21.8	8.6	Interp. 0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
amp/frq (%)	29.9	15.1	Inc. seg. avg. 0.505		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023	0.023	
			Inc. frq. avg. 0.520		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
n: az 85.1 el 59.3 pa -68.9	p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec) 937.360 49.292						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/np..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.292.3MP56K								

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, op

VLBA_OV - VLBA_PT, fgroup Q, pol LL

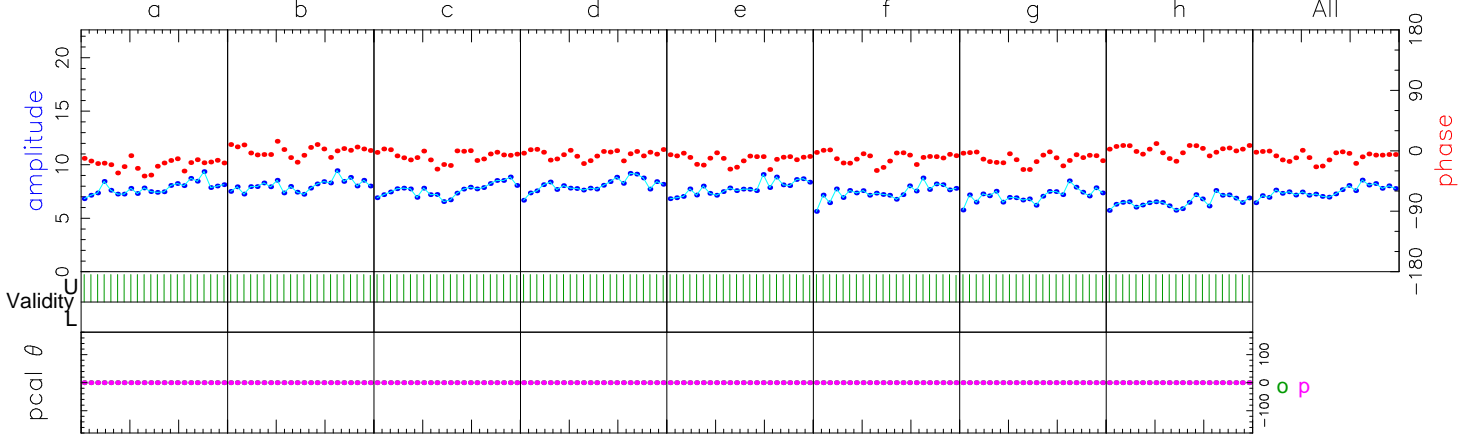


Fringe quality 9

SNR 276.4
 Int time 179.975
 Amp 7.536
 Phase 194.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.010357
 MBD -0.005697
 Fringe rate (Hz)
 -0.003130
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151832
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.82403577346E+03	Apriori delay (usec)	-1.82404570190E+03	Resid mbdelay (usec)	-5.69656E-03	+/-	3.9E-06
Sband delay (usec)	-1.82403534465E+03	Apriori clock (usec)	1.9352463E+01	Resid sbdelay (usec)	1.03573E-02	+/-	3.1E-05
Phase delay (usec)	-1.82404570244E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	-5.39522E-07	+/-	2.7E-08
Delay rate (us/s)	5.39571897847E-02	Apriori rate (us/s)	5.39572623308E-02	Resid rate (us/s)	-7.25461E-08	+/-	2.6E-10
Total phase (deg)	-14.7	Apriori accel (us/s/s)	1.26280949886E-05	Resid phase (deg)	194.1	+/-	0.4

ph/seg (deg)	6.9	Theor.	1.0	Amplitude	7.536 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.5		1.7	Search (1024X32)	7.139	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.6		0.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	6.5		1.0	Inc. seg. avg.	7.503	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	7.500	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 68.4 el 38.3 pa -68.5 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -189.050 525.103 simultaneous interpolator

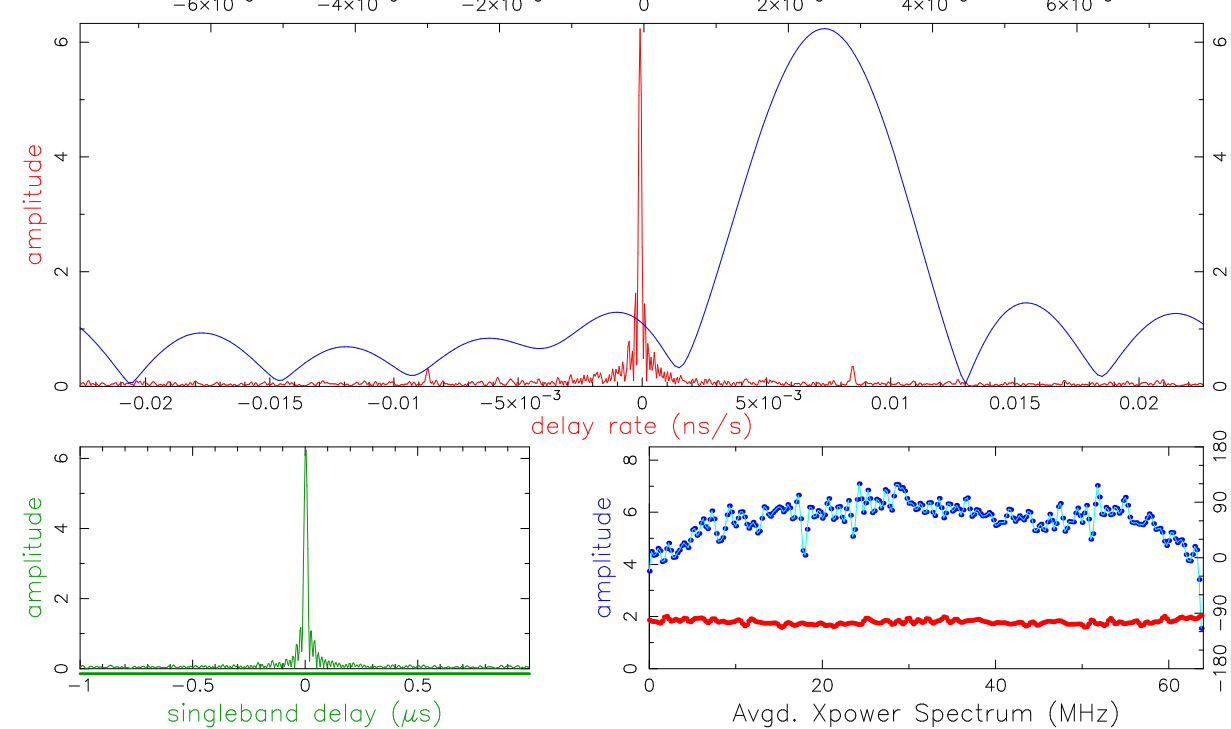
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/op..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/op.Q.303.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, op

VLBA_OV - VLBA_PT, fgroup Q, pol RR

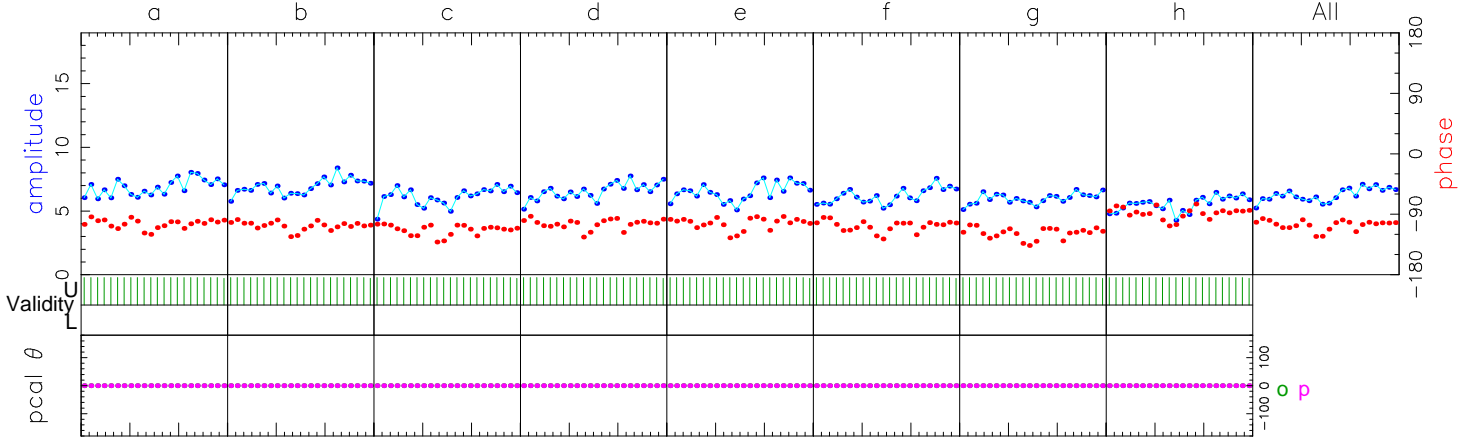


Fringe quality 9

SNR 232.2
 Int time 179.975
 Amp 6.329
 Phase -105.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002351
 MBD 0.002467
 Fringe rate (Hz)
 -0.003170
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151834
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.82404323537E+03	Apriori delay (usec)	-1.82404570190E+03	Resid mbdelay (usec)	2.46653E-03	+/-	4.7E-06
Sband delay (usec)	-1.82404335090E+03	Apriori clock (usec)	1.9352463E+01	Resid sbdelay (usec)	2.35100E-03	+/-	3.7E-05
Phase delay (usec)	-1.82404570871E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	-6.80655E-06	+/-	3.2E-08
Delay rate (us/s)	5.39571888452E-02	Apriori rate (us/s)	5.39572623308E-02	Resid rate (us/s)	-7.34855E-08	+/-	3.1E-10
Total phase (deg)	-314.5	Apriori accel (us/s/s)	1.26280949886E-05	Resid phase (deg)	-105.7	+/-	0.5

ph/seg (deg)	7.0	1.2	Amplitude	6.329 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	7.9	2.0	Search (1024X32)	6.081	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.4	0.7	Inc. seg. avg.	6.279	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	6.9	1.2	Inc. frq. avg.	6.293	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
					Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 68.4 el 38.3 pa -68.5 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -189.050 525.103 simultaneous interpolator

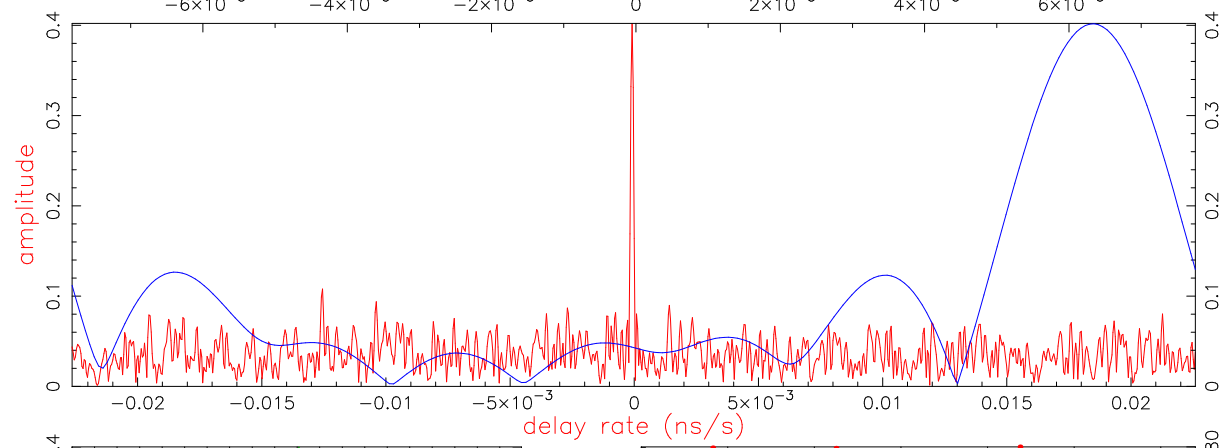
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/op..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/op.Q.309.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

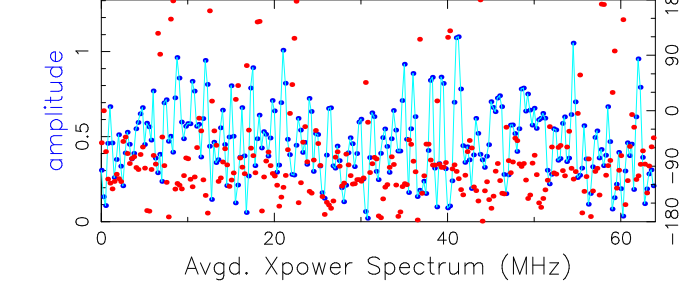
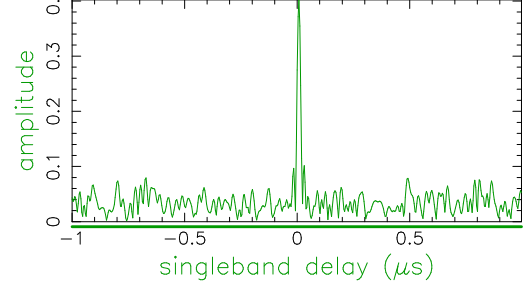
2013+370.3MP56K, No0500, op

VLBA_OV - VLBA_PT, fgroup Q, pol LR



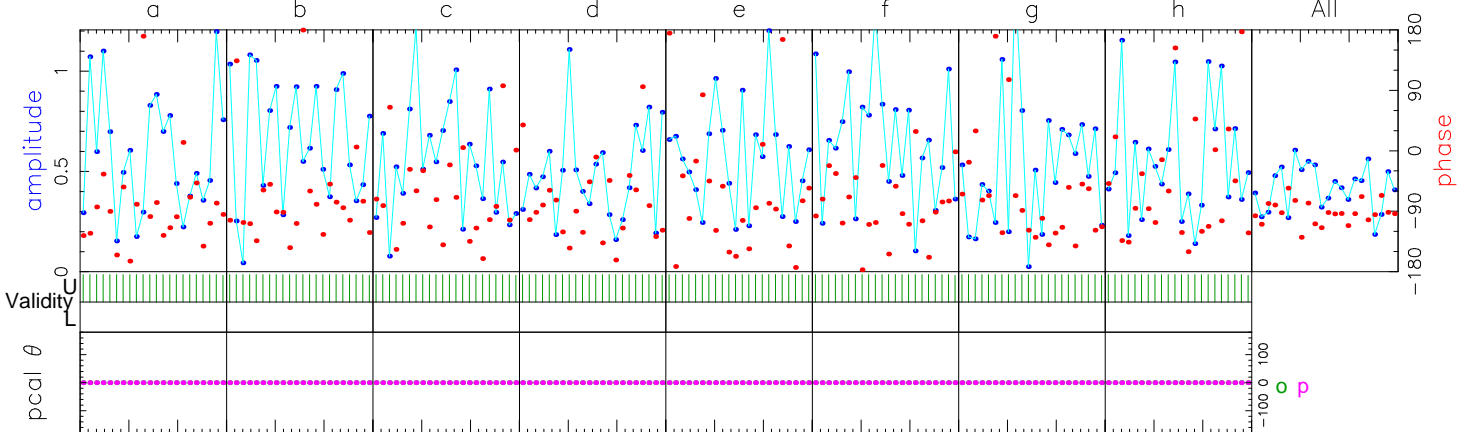
Fringe quality 9

SNR 14.8
 Int time 179.975
 Amp 0.402
 Phase -92.1
 PFD 9.5e-41
 Delays (us)
 SBD 0.007379
 MBD 0.006324
 Fringe rate (Hz) -0.003491
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151840
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.82403937777E+03	Apriori delay (usec)	-1.82404570190E+03	Resid mbdelay (usec)	6.32413E-03	+/-	7.4E-05
Sband delay (usec)	-1.82403832290E+03	Apriori clock (usec)	1.9352463E+01	Resid sbdelay (usec)	7.37900E-03	+/-	5.8E-04
Phase delay (usec)	-1.82404570783E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	-5.93210E-06	+/-	5.0E-07
Delay rate (us/s)	5.39571814005E-02	Apriori rate (us/s)	5.39572623308E-02	Resid rate (us/s)	-8.09303E-08	+/-	4.8E-09
Total phase (deg)	-300.9	Apriori accel (us/s/s)	1.26280949886E-05	Resid phase (deg)	-92.1	+/-	7.8

ph/seg (deg)	17.0	Theor.	18.2	Amplitude	0.402 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	27.7		31.8	Search (1024X32)	0.399	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	5.6		11.0	Inc. seg. avg.	0.399	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	20.6		19.2	Inc. frq. avg.	0.396	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023		
		o: az 68.4 el 38.3 pa -68.5		p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec)		-189.050 525.103	ion window (TEC)		0.00 0.00
		Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/op..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/op.Q.339.3MP56K				simultaneous interpolator	

Mk4/DiFX fourfit 3.25 rev 0

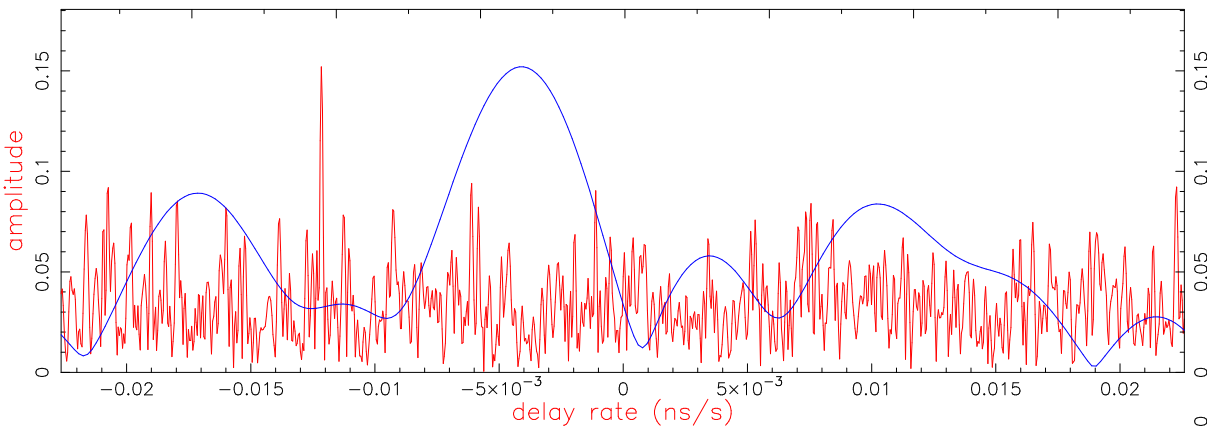
aux01

2013+370.3MP56K, No0500, op

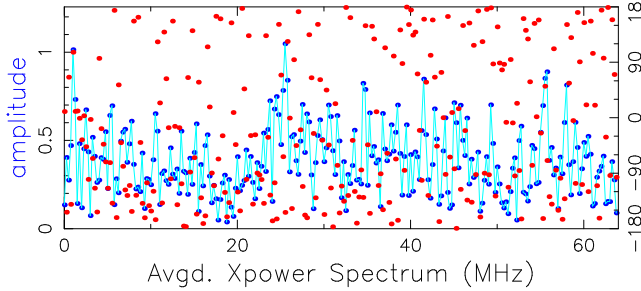
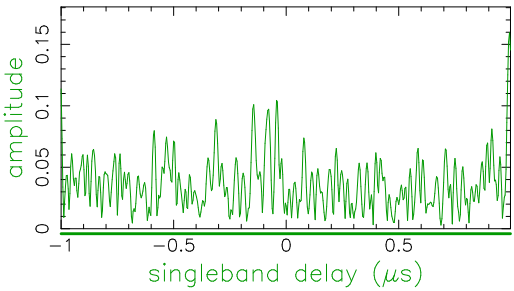
VLBA_OV - VLBA_PT, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 0

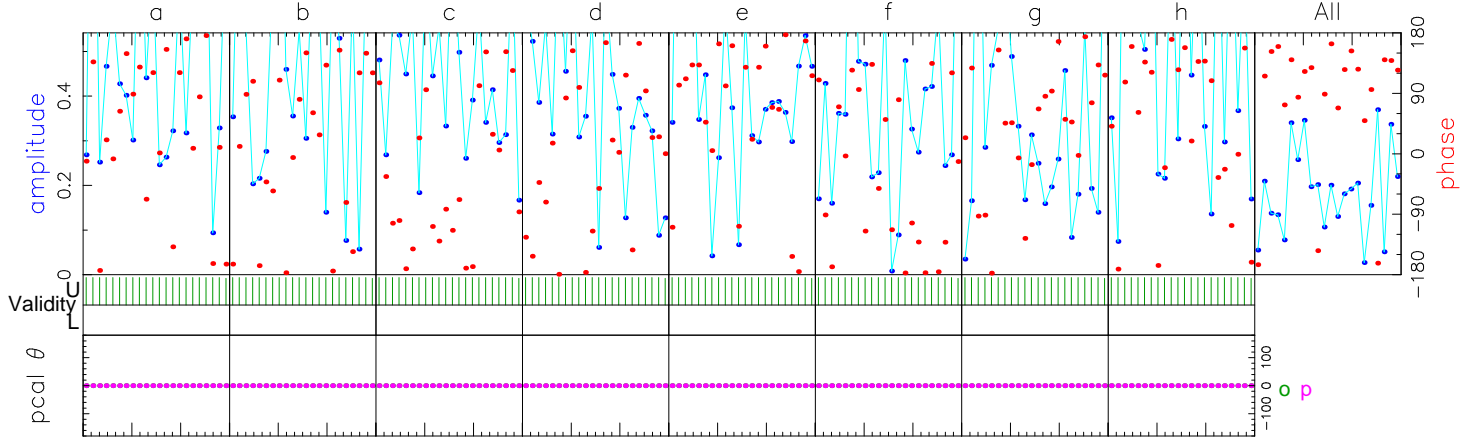


SNR 5.9
Int time 179.975
Amp 0.181
Phase 135.3
PFD 4.5e-01
Delays (us)
SBD 0.991562
MBD -0.001439
Fringe rate (Hz)
-0.527742
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build
2024:332:222845
2025:042:151842
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.82304714121E+03	Apriori delay (usec)	-1.82404570190E+03	Resid mbdelay (usec)	-1.43931E-03	+/-	1.9E-04
Sband delay (usec)	-1.82305413940E+03	Apriori clock (usec)	1.9352463E+01	Resid sbdelay (usec)	9.91562E-01	+/-	1.5E-03
Phase delay (usec)	-1.82404569319E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	8.71396E-06	+/-	1.3E-06
Delay rate (us/s)	5.39450290807E-02	Apriori rate (us/s)	5.39572623308E-02	Resid rate (us/s)	-1.22333E-05	+/-	1.2E-08
Total phase (deg)	286.6	Apriori accel (us/s/s)	1.26280949886E-05	Resid phase (deg)	135.3	+/-	19.6

ph/seg (deg)	42.2	Theor.	45.9	Amplitude	0.181 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.5	Search (1024X32)	0.156	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.4	Inc. seg. avg.	0.161	Inc. frq. avg.	0.174	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	50.7	Inc. frq. avg.	0.174			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 68.4 el 38.3 pa -68.5 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -189.050 525.103 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/op..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/op.Q.350.3MP56K

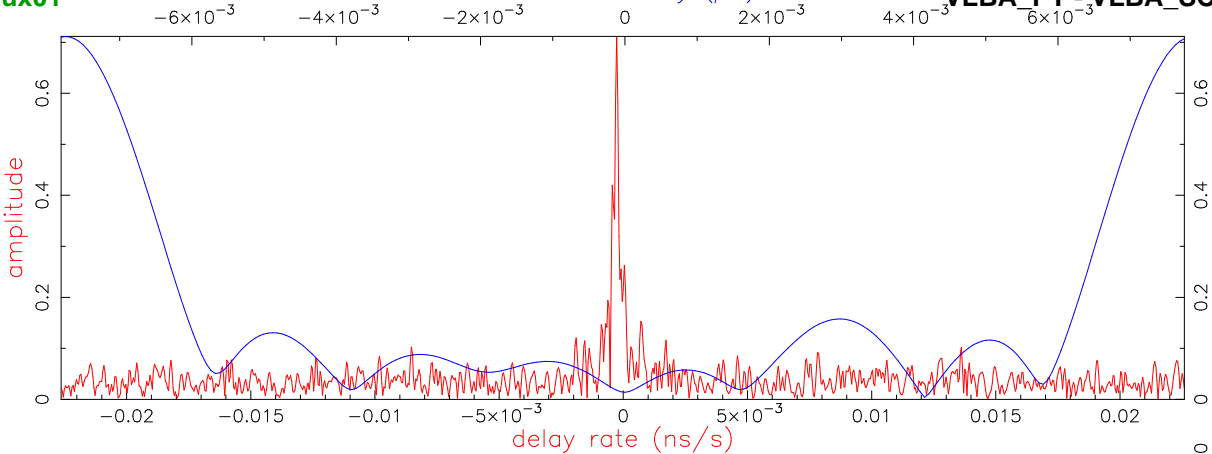
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pc

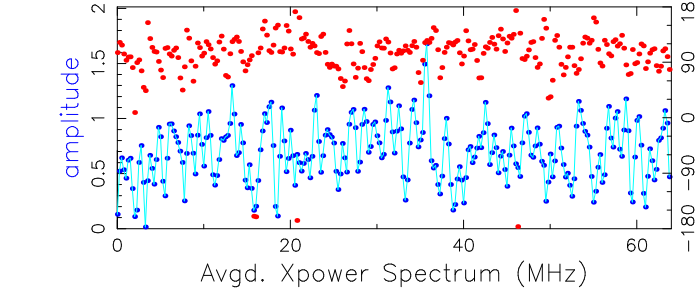
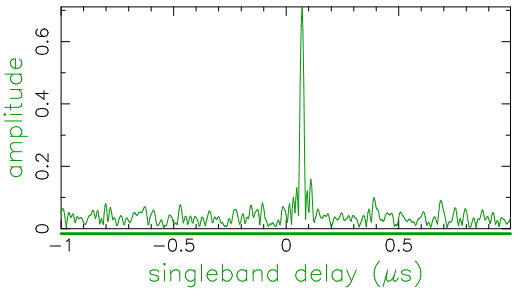
VLBA_PT - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



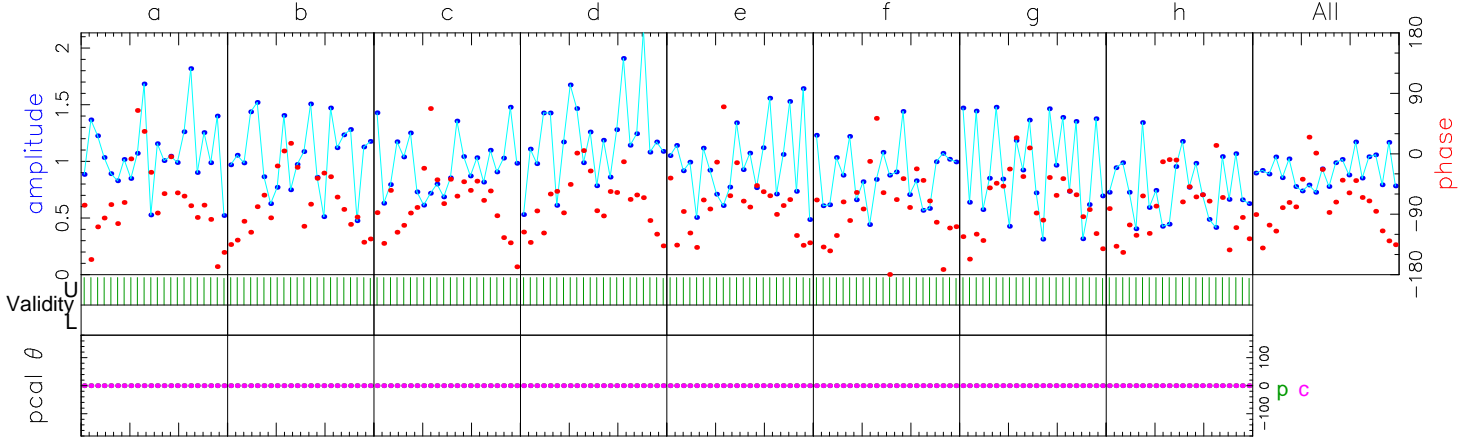
Fringe quality 8

SNR 26.1
 Int time 179.971
 Amp 0.712
 Phase 216.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.070075
 MBD -0.007755
 Fringe rate (Hz)
 -0.012042
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151838
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -4.58508810094E+03 Apriori delay (usec) -4.58515847103E+03 Resid mbdelay (usec) -7.75491E-03 +/- 4.2E-05
 Sband delay (usec) -4.58508839578E+03 Apriori clock (usec) 1.9721527E+00 Resid sbdelay (usec) 7.00753E-02 +/- 3.3E-04
 Phase delay (usec) -4.58515847593E+03 Apriori clockrate (us/s) 7.7196702E-07 Resid phdelay (usec) -4.89829E-06 +/- 2.8E-07
 Delay rate (us/s) 5.94073253525E-01 Apriori rate (us/s) 5.94073532669E-01 Resid rate (us/s) -2.79143E-07 +/- 2.7E-09
 Total phase (deg) 57.9 Apriori accel (us/s/s) 4.20287430162E-05 Resid phase (deg) 216.4 +/- 4.4

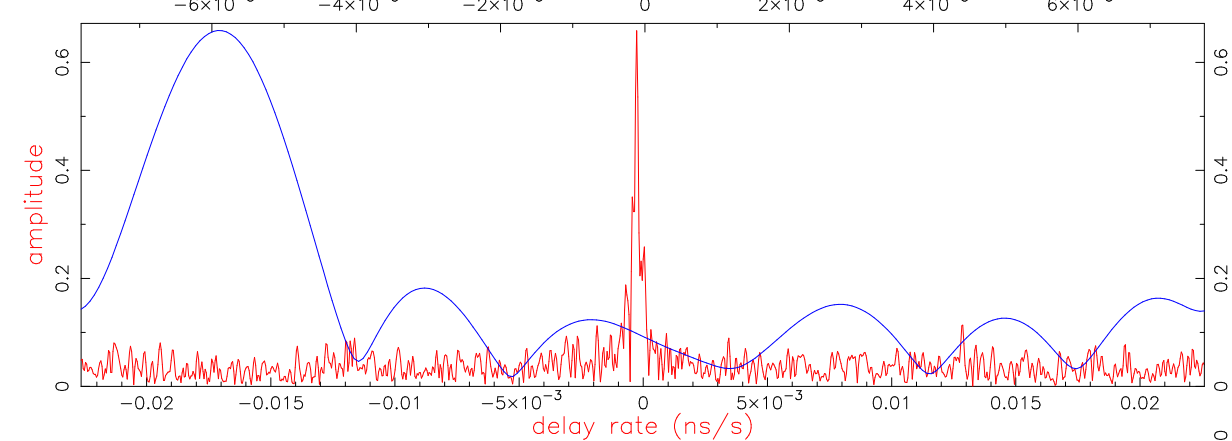
ph/seg (deg) 41.7 RMS 10.3 Theor. 10.3 Amplitude 0.712 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 33.9 18.0 Search (1024X32) 0.694 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.0 6.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.0 10.8 Inc. seg. avg. 0.901 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 p: az 69.2 el 44.9 pa -76.1 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2121.539 2182.981 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pc.Q.336.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

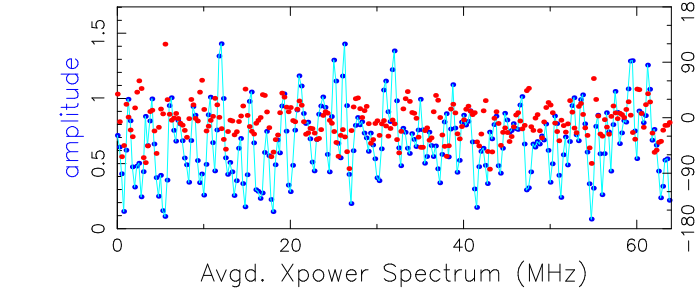
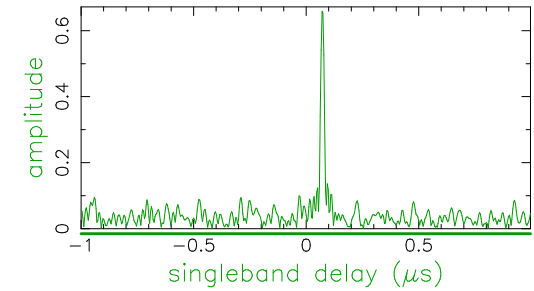
2013+370.3MP56K, No0500, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RR



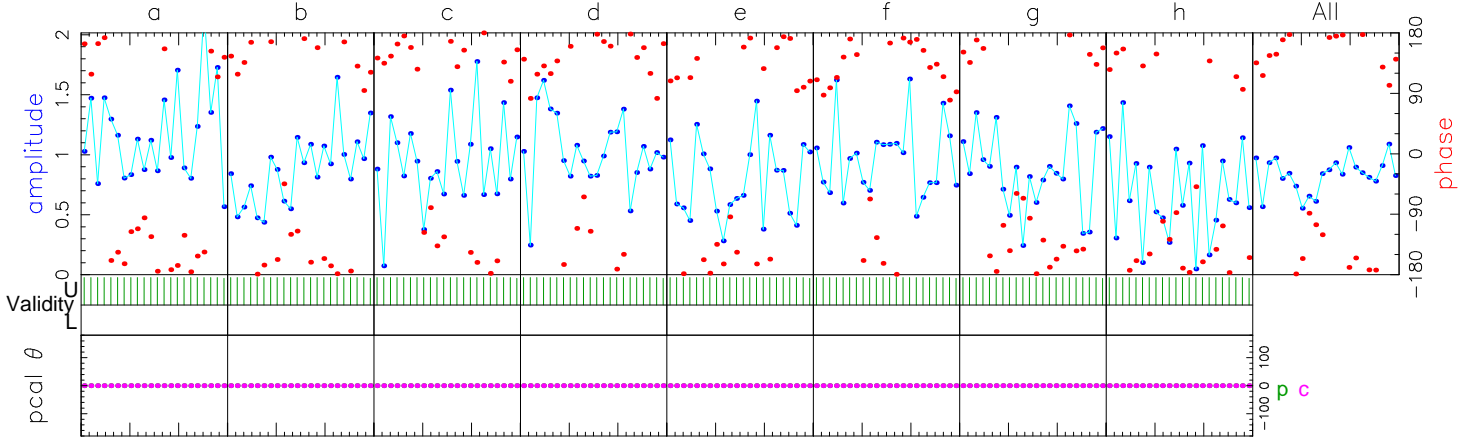
Fringe quality 8

SNR 24.7
 Int time 179.971
 Amp 0.672
 Phase 104.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.072097
 MBD -0.005856
 Fringe rate (Hz)
 -0.012020
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151843
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-171.0	172.9	170.3	159.1	163.2	146.8	-169.6	-175.6	Phase	172.1
	0.9	0.7	0.8	0.7	0.6	0.7	0.7	0.5	Ampl.	0.7
	275.4	275.6	275.4	275.5	275.1	275.4	276.0	275.3	Sbd box	275.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-4.58508620184E+03	Apriori delay (usec)	-4.58515847103E+03	Resid mbdelay (usec)	-5.85581E-03	+/-	4.4E-05
Sband delay (usec)	-4.58508637403E+03	Apriori clock (usec)	1.9721527E+00	Resid sbdelay (usec)	7.20970E-02	+/-	3.5E-04
Phase delay (usec)	-4.58515845995E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	1.10839E-05	+/-	3.0E-07
Delay rate (us/s)	5.94073254052E-01	Apriori rate (us/s)	5.94073532669E-01	Resid rate (us/s)	-2.78617E-07	+/-	2.9E-09
Total phase (deg)	306.1	Apriori accel (us/s/s)	4.20287430162E-05	Resid phase (deg)	104.6	+/-	4.6

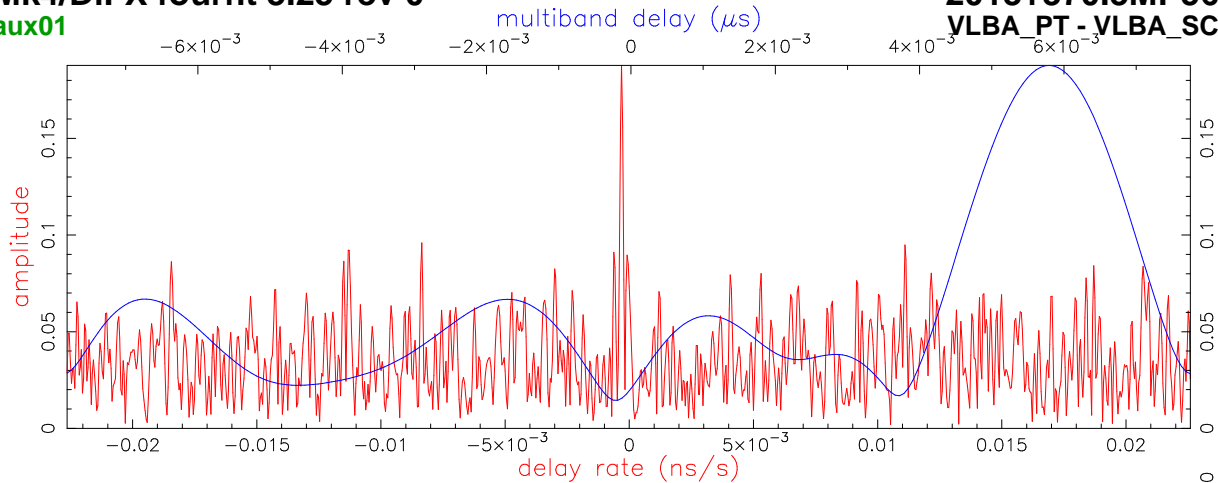
ph/seg (deg) 41.5 10.9 Search (1024X32) 0.645 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 32.0 19.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.7 6.6 Inc. seg. avg. 0.820 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 18.3 11.5 Inc. frq. avg. 0.676 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 p: az 69.2 el 44.9 pa -76.1 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2121.539 2182.981 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pc.Q.352.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

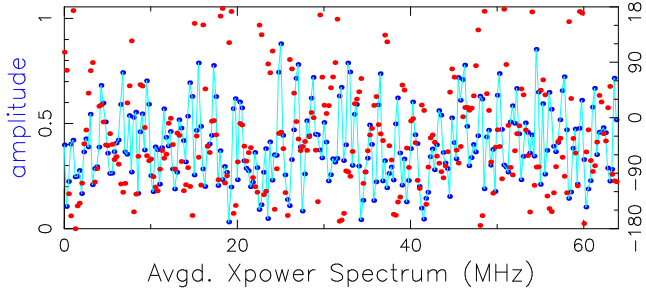
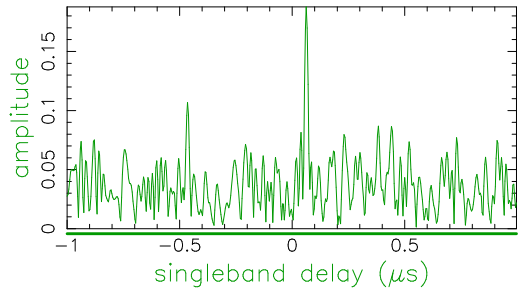
2013+370.3MP56K, No0500, pc

VLBA_PT - VLBA_SC, fgroup Q, pol LR



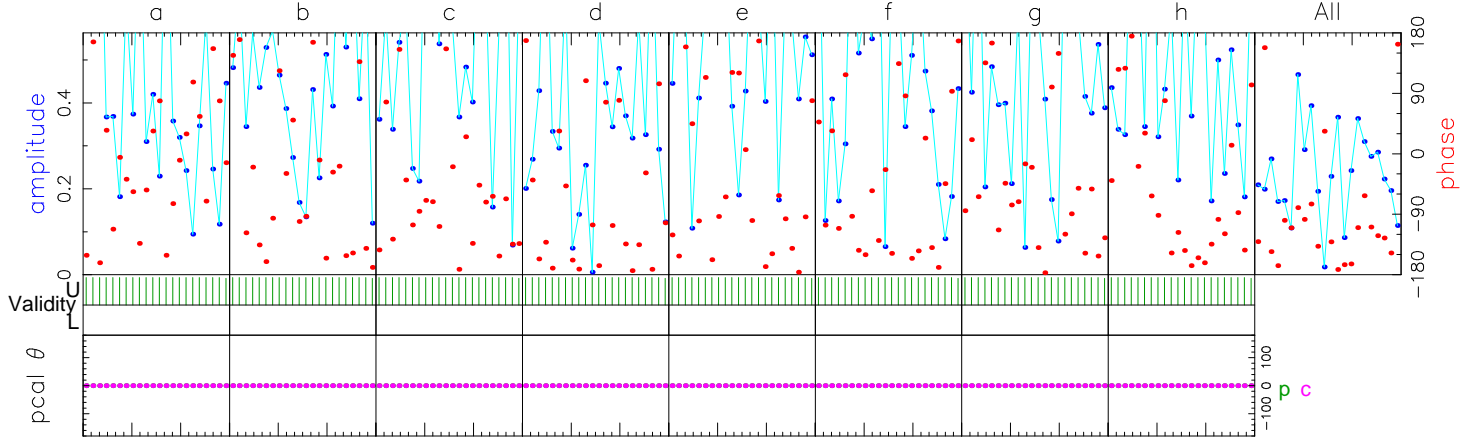
Fringe quality 0

SNR 6.9
 Int time 179.971
 Amp 0.188
 Phase 327.6
 PFD 8.4e-04
 Delays (us)
 SBD 0.062531
 MBD 0.005794
 Fringe rate (Hz)
 -0.013140
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151853
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-4.58509017702E+03	Apriori delay (usec)	-4.58515847103E+03	Resid mbdelay (usec)	5.79401E-03	+/-	1.6E-04
Sband delay (usec)	-4.58509593978E+03	Apriori clock (usec)	1.9721527E+00	Resid sbdelay (usec)	6.25312E-02	+/-	1.3E-03
Phase delay (usec)	-4.58515847891E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	-7.87876E-06	+/-	1.1E-06
Delay rate (us/s)	5.94073228073E-01	Apriori rate (us/s)	5.94073532669E-01	Resid rate (us/s)	-3.04596E-07	+/-	1.0E-08
Total phase (deg)	169.1	Apriori accel (us/s/s)	4.20287430162E-05	Resid phase (deg)	327.6	+/-	16.6

ph/seg (deg) 50.0 39.0 Amplitude 0.188 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.2 68.1 Search (1024X32) 0.187 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.4 23.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.0 41.1 Inc. seg. avg. 0.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 p: az 69.2 el 44.9 pa -76.1 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2121.539 2182.981 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pc.Q.366.3MP56K simultaneous interpolator

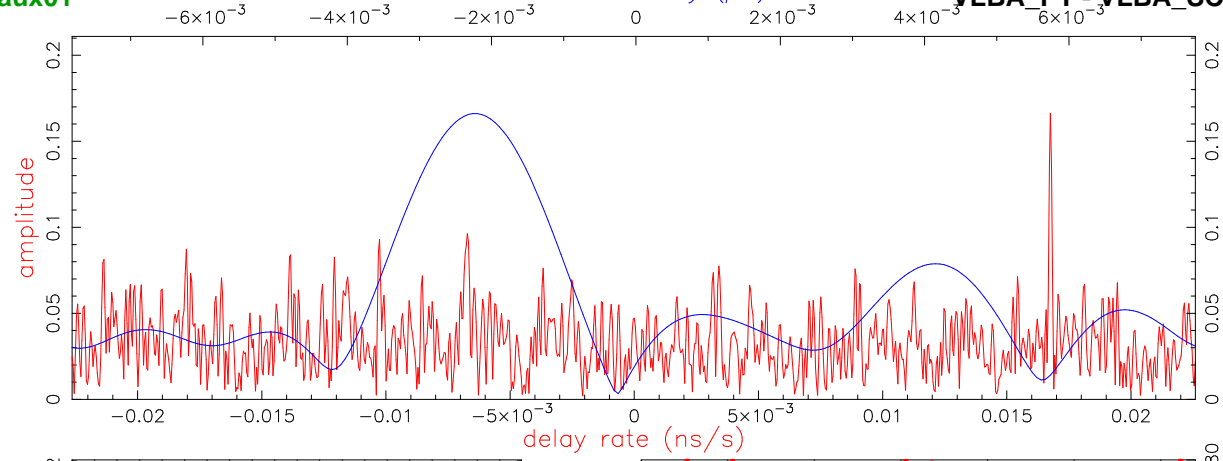
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pc

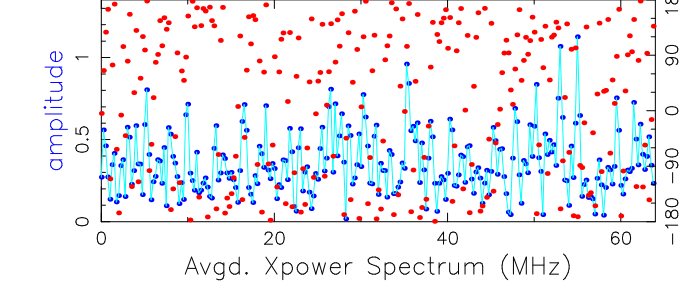
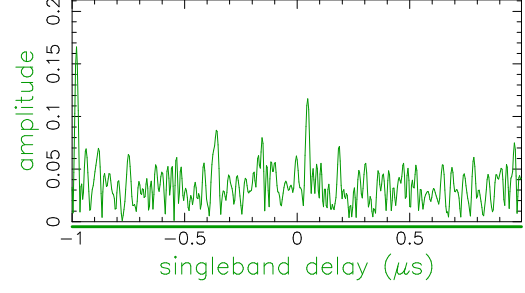
VLBA_PT - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



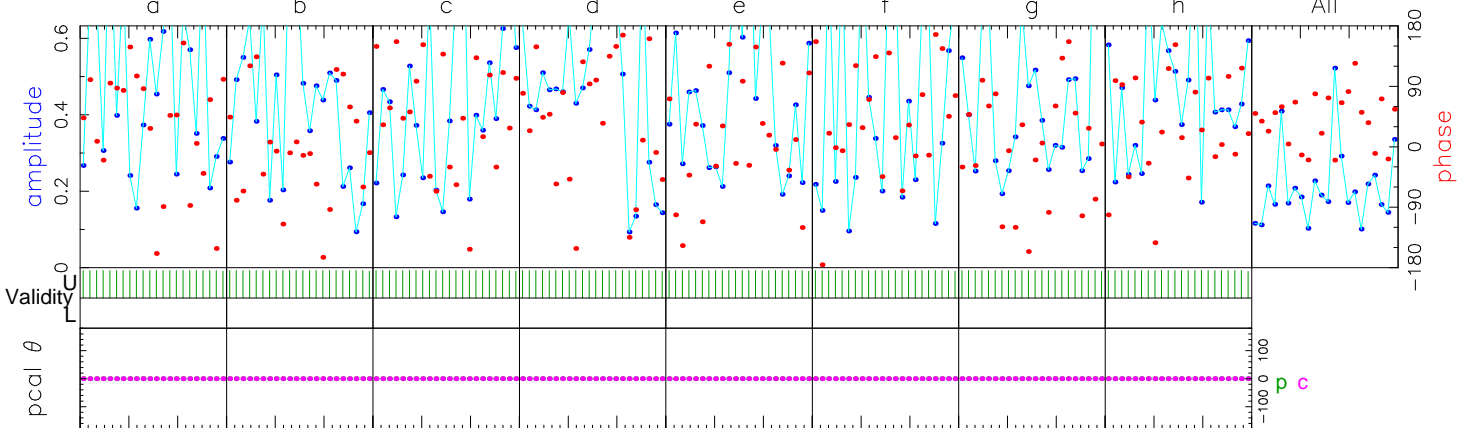
Fringe quality 0

SNR 6.1
 Int time 179.971
 Amp 0.211
 Phase -118.9
 PFD 1.3e-01
 Delays (us)
 SBD -0.980363
 MBD -0.002224
 Fringe rate (Hz) 0.726242
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151855
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	61.4	-16.5	46.6	80.7	9.9	43.9	12.6	49.5	Phase	38.6
	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	361.7	160.9	463.0	102.6	222.8	215.3	113.5	495.4	Sbd box	6.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-4.58614507019E+03	Apriori delay (usec)	-4.58515847103E+03	Resid mbdelay (usec)	-2.22416E-03	+/-	1.8E-04
Sband delay (usec)	-4.58613883428E+03	Apriori clock (usec)	1.9721527E+00	Resid sbdelay (usec)	-9.80363E-01	+/-	1.4E-03
Phase delay (usec)	-4.58515846855E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	2.48226E-06	+/-	1.2E-06
Delay rate (us/s)	5.94090367197E-01	Apriori rate (us/s)	5.94073532669E-01	Resid rate (us/s)	1.68345E-05	+/-	1.2E-08
Total phase (deg)	-277.4	Apriori accel (us/s/s)	4.20287430162E-05	Resid phase (deg)	-118.9	+/-	18.8

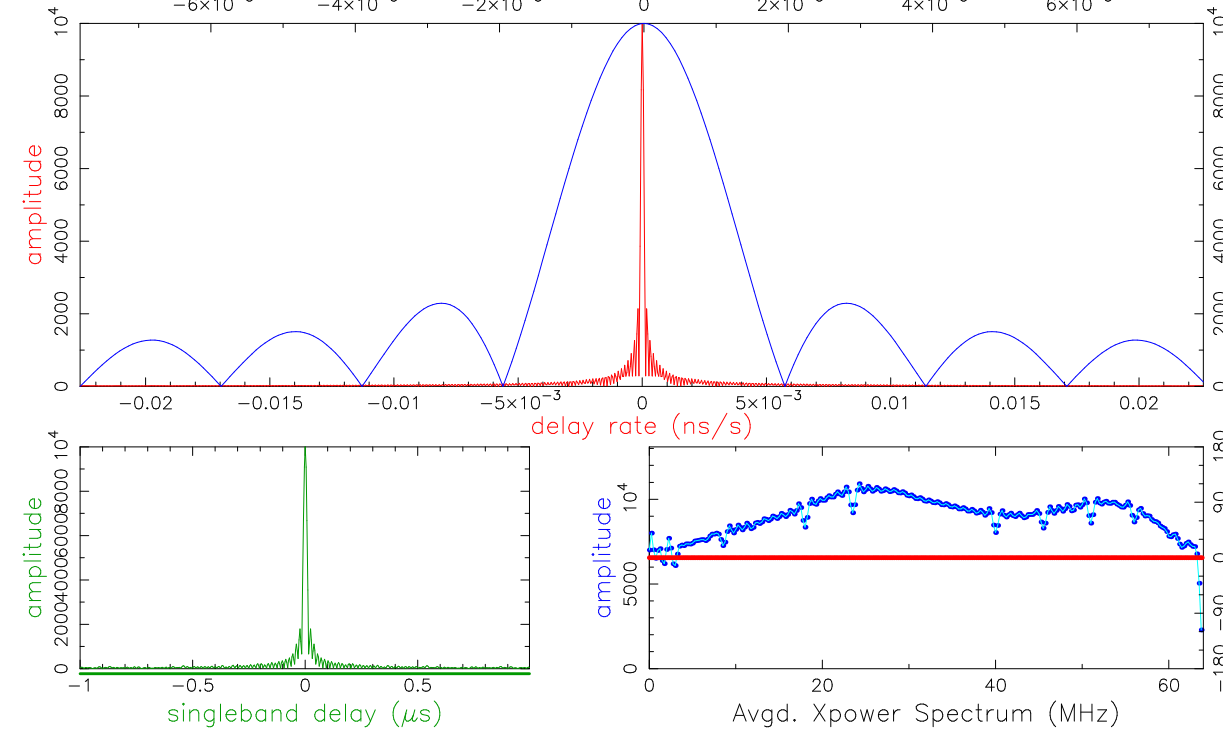
ph/seg (deg) 38.4 44.1 Search (1024X32) 0.162 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.8 77.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.2 26.6 Inc. seg. avg. 0.208 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.4 46.4 Inc. frq. avg. 0.216 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 p: az 69.2 el 44.9 pa -76.1 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2121.539 2182.981 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pc.Q.375.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pp

VLBA_PT - VLBA_PT, fgroup Q, pol LL

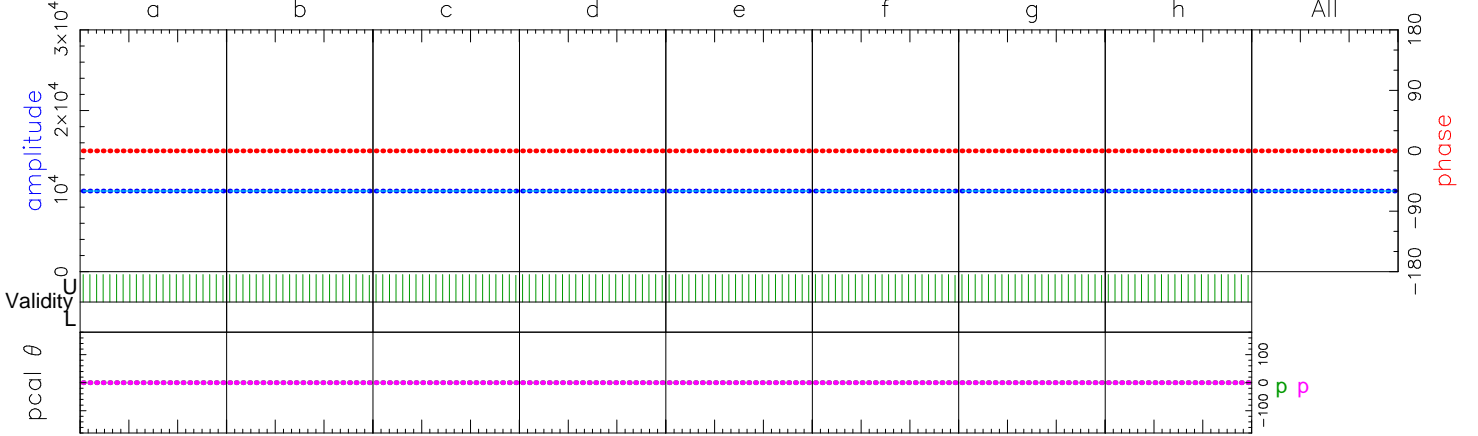


Fringe quality 9

SNR 366863.0
 Int time 179.975
 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) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151836
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
p	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
p	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
p	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 2.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.9E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

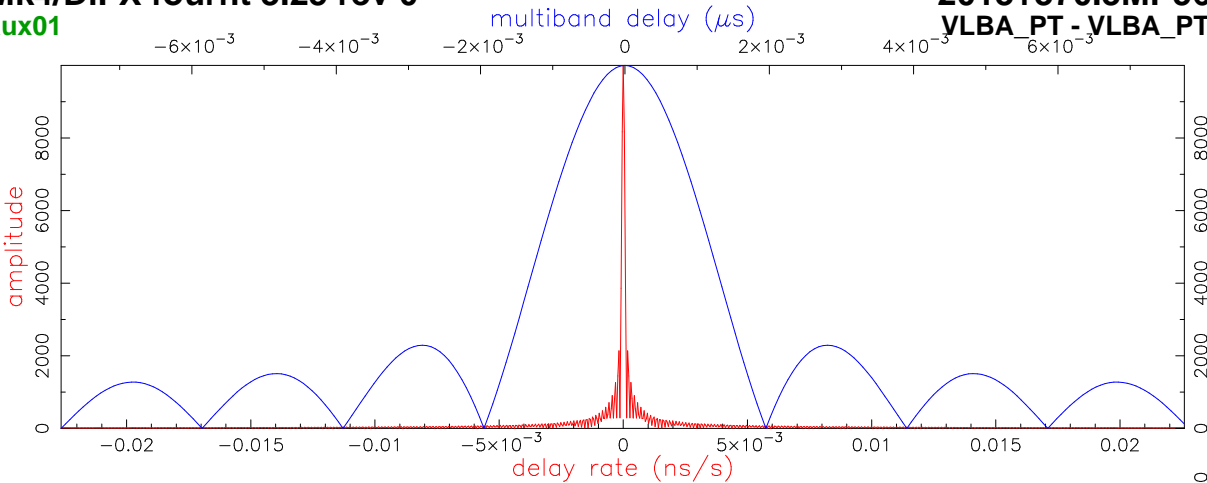
p: az 69.2 el 44.9 pa -76.1 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pp.Q.323.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

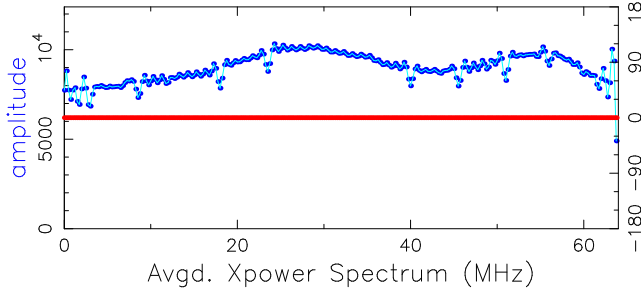
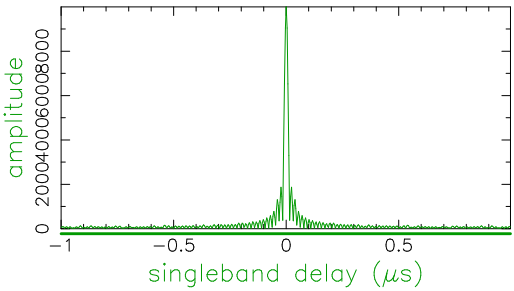
2013+370.3MP56K, No0500, pp

VLBA_PT - VLBA_PT, fgroup Q, pol RR



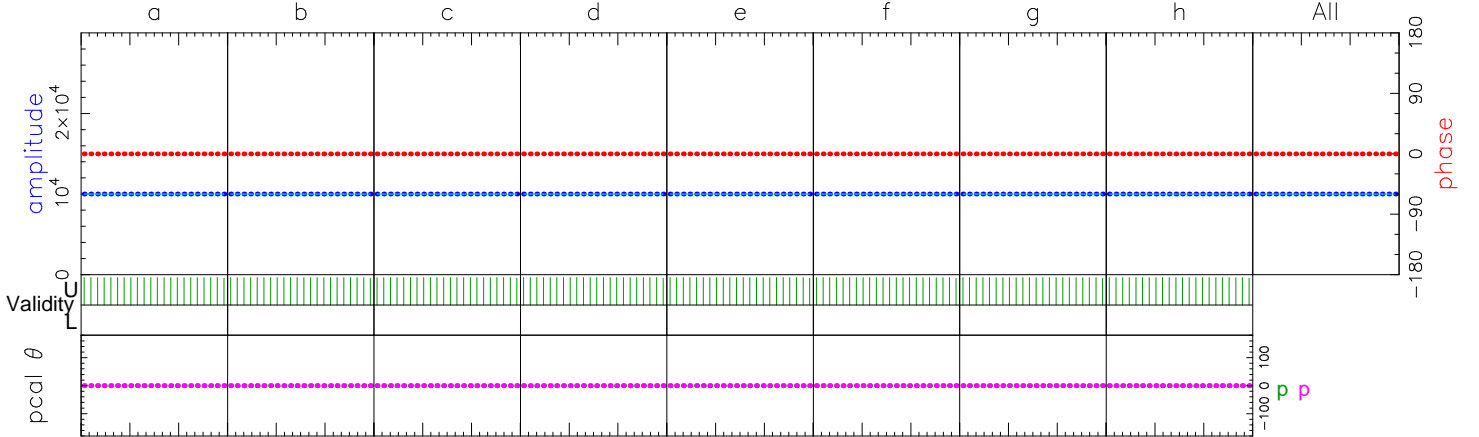
Fringe quality 9

SNR 366863.0
 Int time 179.975
 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)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151838
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
p	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
p	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
p	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
p	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 2.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.9E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

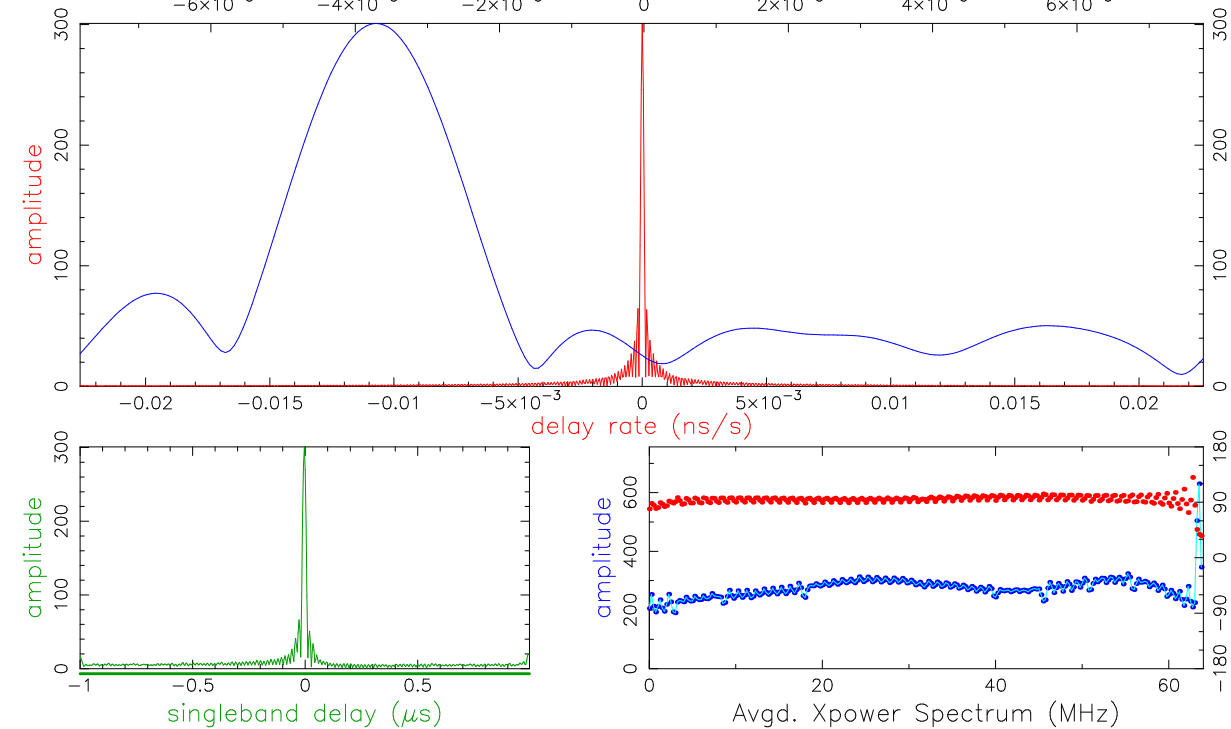
RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 p: az 69.2 el 44.9 pa -76.1 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pp.Q.334.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

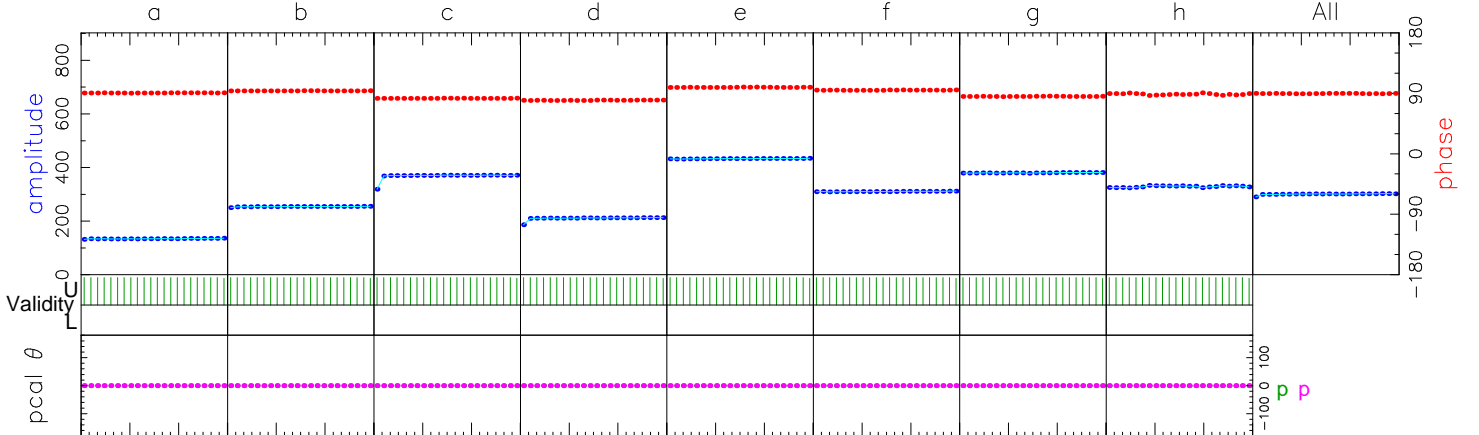
2013+370.3MP56K, No0500, pp

VLBA_PT - VLBA_PT, fgroup Q, pol LR



Fringe quality 8
 Error code G
 SNR 11039.3
 Int time 179.975
 Amp 300.911
 Phase 89.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.004097
 MBD -0.003715
 Fringe rate (Hz)
 -0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151846
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



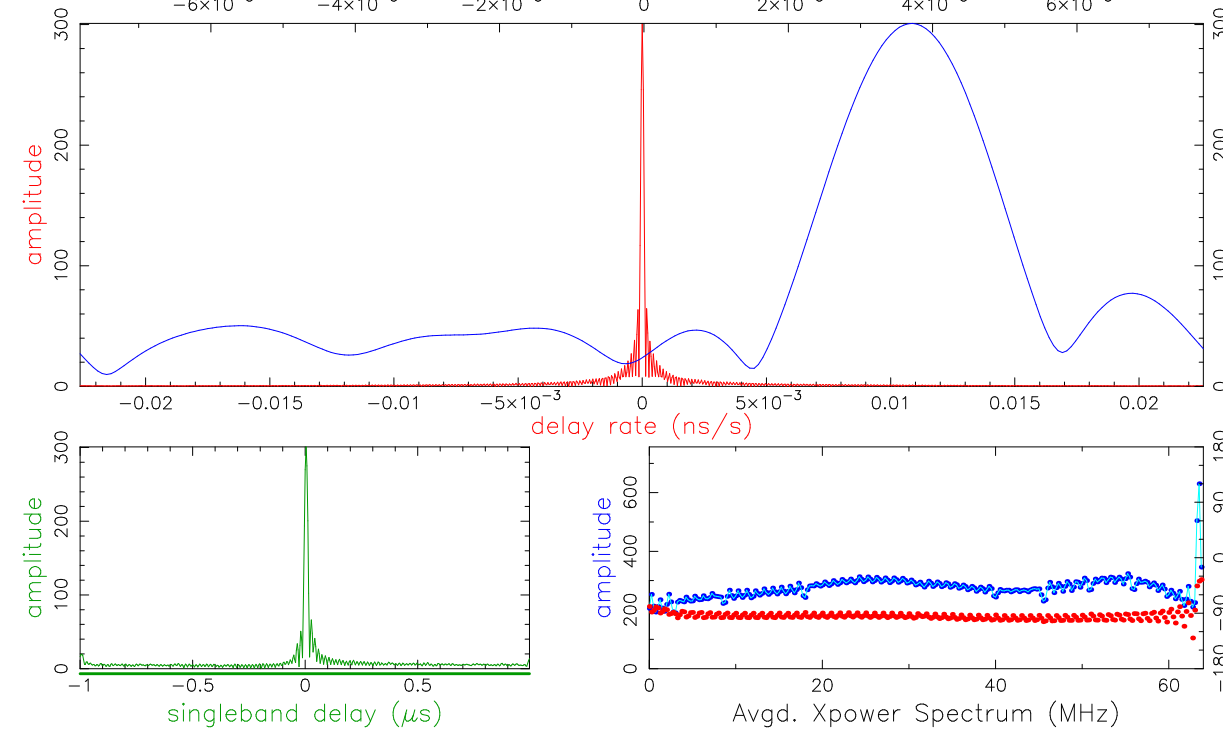
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	302.7
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	256.0
p:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Mani PC	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.71509375000E-03								Resid mbdelay (usec)	-3.71509E-03 +/- 9.8E-08
Sband delay (usec)	-4.09750000000E-03								Resid sbdelay (usec)	-4.09750E-03 +/- 7.8E-07
Phase delay (usec)	5.77151323952E-06								Resid phdelay (usec)	5.77151E-06 +/- 6.7E-10
Delay rate (us/s)	-5.09333685822E-11								Resid rate (us/s)	-5.09334E-11 +/- 6.4E-12
Total phase (deg)			89.6						Resid phase (deg)	89.6 +/- 0.0
	RMS	Theor.	Amplitude	300.911 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.2	0.0	Search (1024X32)	296.640					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.8	0.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	7.1	0.0	Inc. seg. avg.	300.843					SampCntNorm: enabled	dr window (ns/s) -0.023 0.023
amp/frq (%)	30.5	0.0	Inc. frq. avg.	302.673					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC) 0.00 0.00
p: az 69.2 el 44.9 pa -76.1			p: az 69.2 el 44.9 pa -76.1						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c241d/v1/7mm/1234/No0500/pp..3MP56K						u, v (fr/asec) 0.000 0.000	simultaneous interpolator
									Output file: /Exps/c241d/v1/7mm/1234/No0500/pp.Q.356.3MP56K	

Mk4/DiFX fourfit 3.25 rev 0

aux01

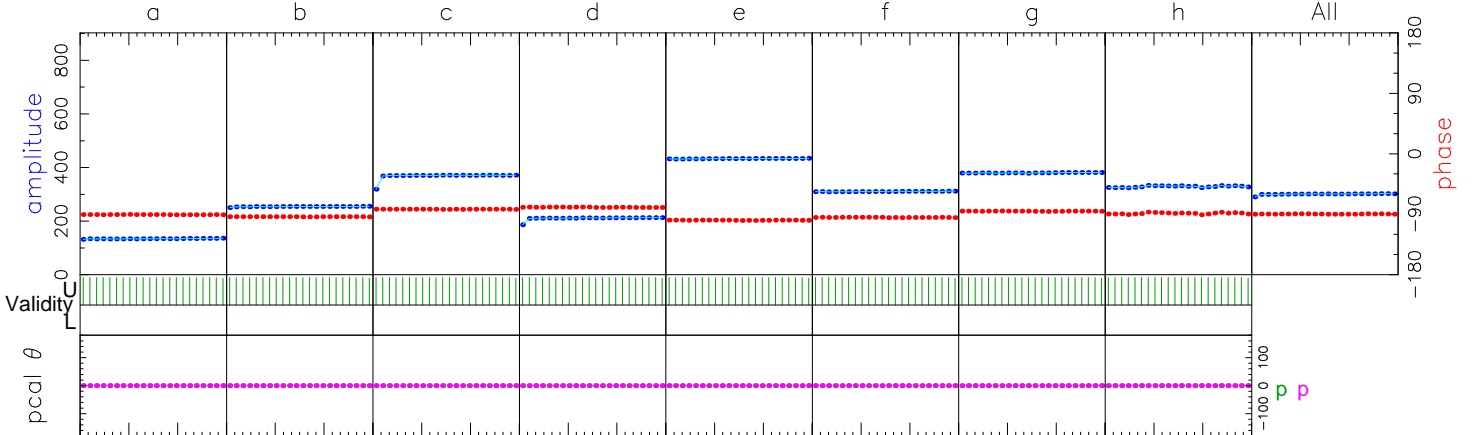
2013+370.3MP56K, No0500, pp

VLBA_PT - VLBA_PT, fgroup Q, pol RL



Fringe quality 8
 Error code G
 SNR 11039.3
 Int time 179.975
 Amp 300.911
 Phase -89.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.004097
 MBD 0.003715
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151855
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-90.6	-93.6	-82.5	-79.6	-98.9	-94.6	-85.4	-88.6	Phase	-89.6
	134.5	254.3	368.3	210.8	433.2	310.7	380.3	329.2	Ampl.	302.7
	258.0	258.1	258.3	257.2	258.1	257.9	258.0	258.5	Sbd box	258.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	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: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	PC amp	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 3.71509375000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 3.71509E-03 +/- 9.8E-08
 Sband delay (usec) 4.09750000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 4.09750E-03 +/- 7.8E-07
 Phase delay (usec) -5.77151323952E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -5.77151E-06 +/- 6.7E-10
 Delay rate (us/s) 5.09333685822E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 5.09334E-11 +/- 6.4E-12
 Total phase (deg) -89.6 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -89.6 +/- 0.0

p/seg (deg) 0.2 0.0 Search (1024X32) 296.640 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.8 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) 7.1 0.0 Inc. seg. avg. 300.843 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.5 0.0 Inc. frq. avg. 302.673 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 p: az 69.2 el 44.9 pa -76.1 p: az 69.2 el 44.9 pa -76.1 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pp.Q.371.3MP56K

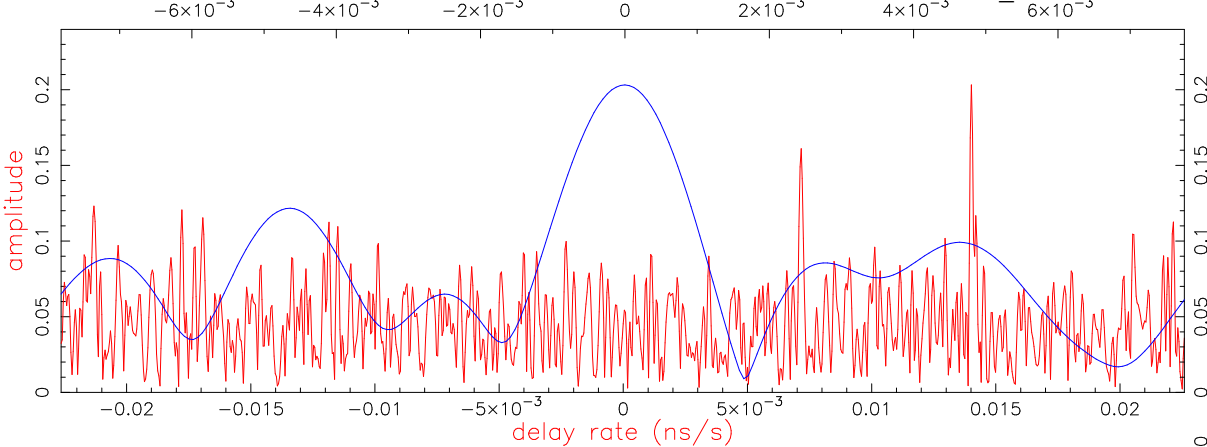
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pY

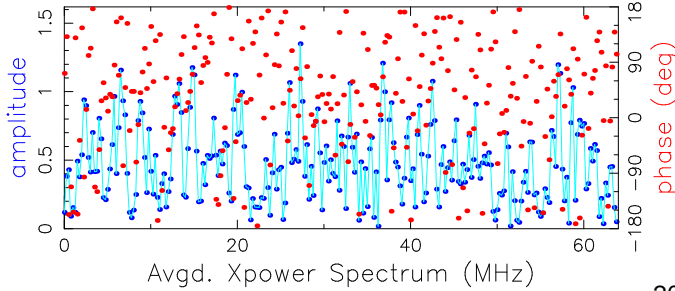
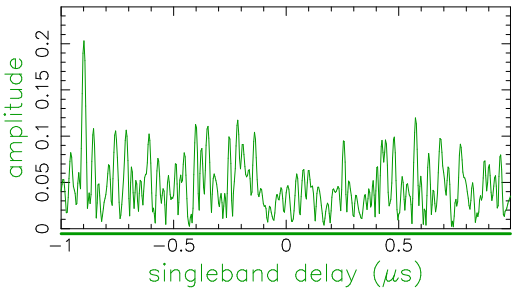
VLBA_PT - YEBES40M, fgroup Q, pol LL

multiband delay (μ s)



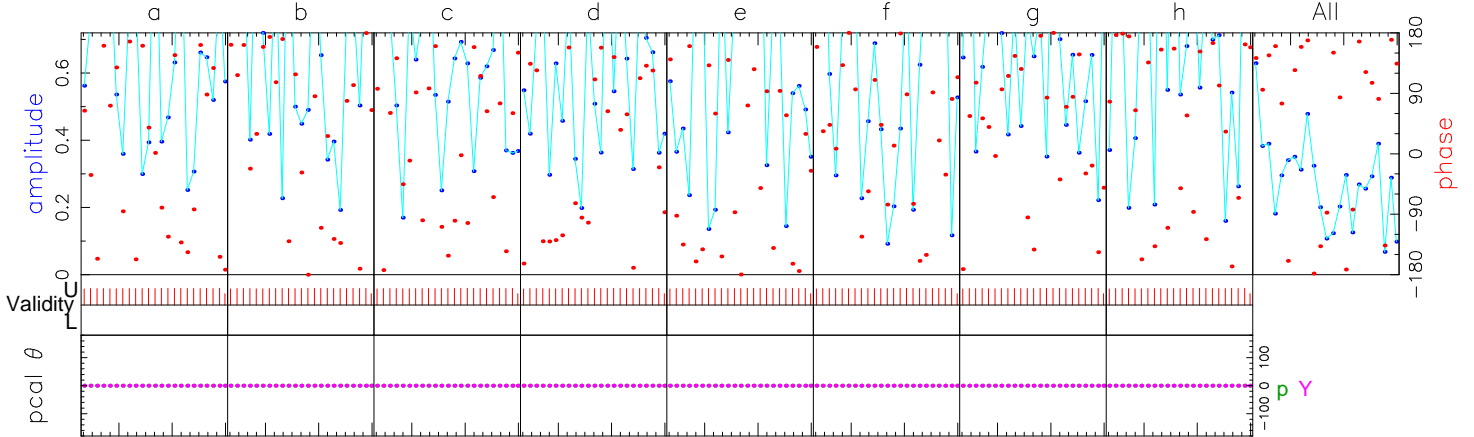
Fringe quality 0

SNR 5.5
 Int time 97.775
 Amp 0.240
 Phase -78.3
 PFD 9.9e-01
 Delays (us)
 SBD -0.898910
 MBD -0.000021
 Fringe rate (Hz)
 0.608122
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094017.41
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151852
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	175.6	135.4	107.0	148.1	-171.3	96.1	91.1	171.1	Phase	146.7
	0.3	0.4	0.2	0.2	0.3	0.2	0.2	0.5	Ampl.	0.3
	458.8	28.5	292.7	64.4	25.3	163.0	230.0	26.9	Sbd box	26.9
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.57022479415E+03	Apriori delay (usec)	-1.56931852315E+03	Resid mbdelay (usec)	-2.09958E-05	+/-	2.0E-04
Sband delay (usec)	-1.57021743340E+03	Apriori clock (usec)	1.1668791E+02	Resid sbdelay (usec)	-8.98910E-01	+/-	1.6E-03
Phase delay (usec)	-1.56931851371E+03	Apriori clockrate (us/s)	1.3873880E-06	Resid phdelay (usec)	9.44450E-06	+/-	1.3E-06
Delay rate (us/s)	1.55692992895E+00	Apriori rate (us/s)	1.55691583248E+00	Resid rate (us/s)	1.40965E-05	+/-	1.4E-08
Total phase (deg)	-110.3	Apriori accel (us/s/s)	3.08541908344E-06	Resid phase (deg)	-78.3	+/-	20.8

ph/seg (deg)	56.0	Theor.	50.0	Amplitude	0.240 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	73.6	Search (1024X32)	0.201	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	41.9	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.7	Inc. seg. avg.	0.240	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023	
		Inc. frq. avg.	0.252	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 69.2 el 44.9 pa -76.1 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -5609.024 -175.626 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pY.Q.362.3MP56K

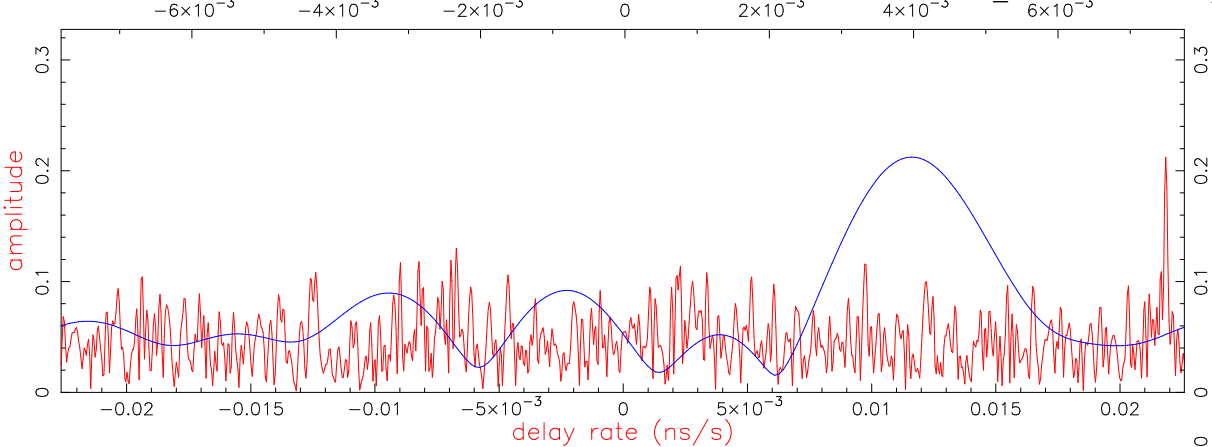
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pY

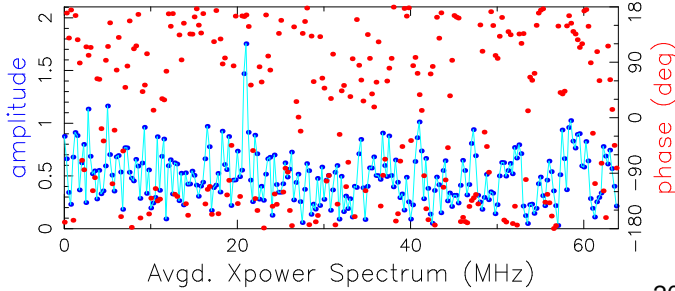
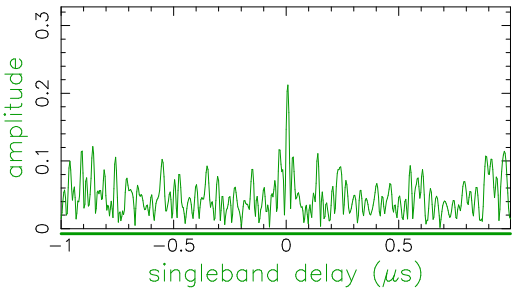
VLBA_PT - YEBES40M, fgroup Q, pol RR

multiband delay (μ s)



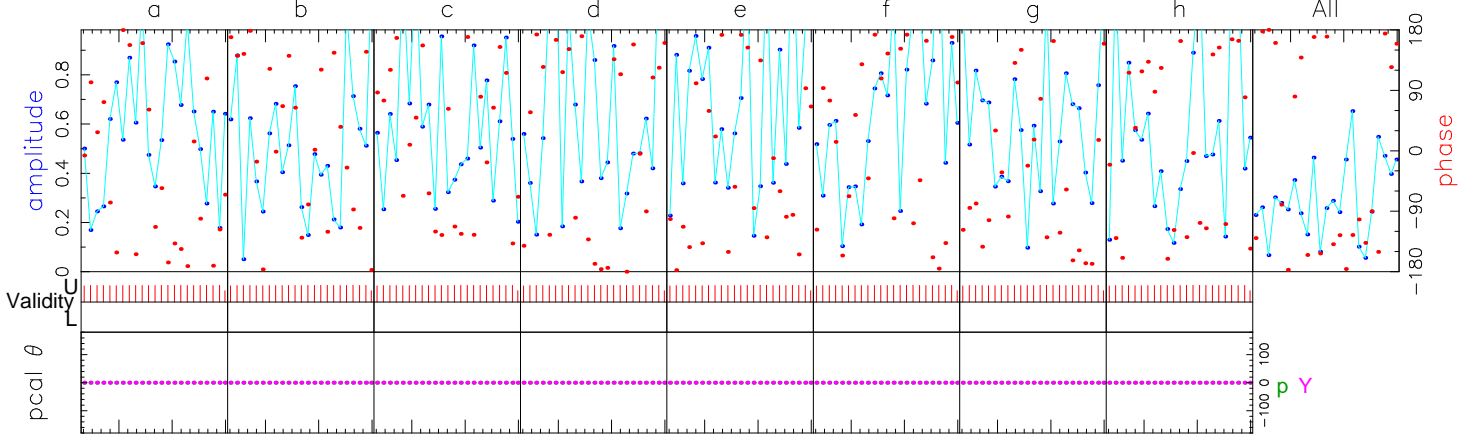
Fringe quality 0

SNR 5.8
 Int time 97.775
 Amp 0.328
 Phase -169.0
 PFD 5.4e-01
 Delays (us)
 SBD 0.006556
 MBD 0.003928
 Fringe rate (Hz) 0.946816
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094017.41
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151858
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-156.1	157.0	176.6	173.6	-158.0	-168.9	-127.3	173.4	Phase	-169.0
	0.4	0.1	0.1	0.6	0.3	0.4	0.4	0.4	Ampl.	0.3
	37.2	293.1	109.1	258.6	462.5	356.0	17.3	489.6	Sbd box	258.7
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.56931459563E+03	Apriori delay (usec)	-1.56931852315E+03	Resid mbdelay (usec)	3.92752E-03	+/-	1.9E-04
Sband delay (usec)	-1.56931196740E+03	Apriori clock (usec)	1.1668791E+02	Resid sbdelay (usec)	6.55575E-03	+/-	1.5E-03
Phase delay (usec)	-1.56931853403E+03	Apriori clockrate (us/s)	1.3873880E-06	Resid phdelay (usec)	-1.08803E-05	+/-	1.3E-06
Delay rate (us/s)	1.55693778000E+00	Apriori rate (us/s)	1.55691583248E+00	Resid rate (us/s)	2.19475E-05	+/-	1.4E-08
Total phase (deg)	-200.9	Apriori accel (us/s/s)	3.08541908344E-06	Resid phase (deg)	-169.0	+/-	19.7

ph/seg (deg)	RMS 46.6	Theor. 47.3	Amplitude Search (1024X32)	0.328 +/- 0.056	0.204	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	81.5	82.5	Interp.	0.000	0.204	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	25.8	27.9	Inc. seg. avg.	0.338	0.338	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	49.1	48.7	Inc. frq. avg.	0.310	0.310	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

p: az 69.2 el 44.9 pa -76.1 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -5609.024 -175.626 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pY.Q.389.3MP56K

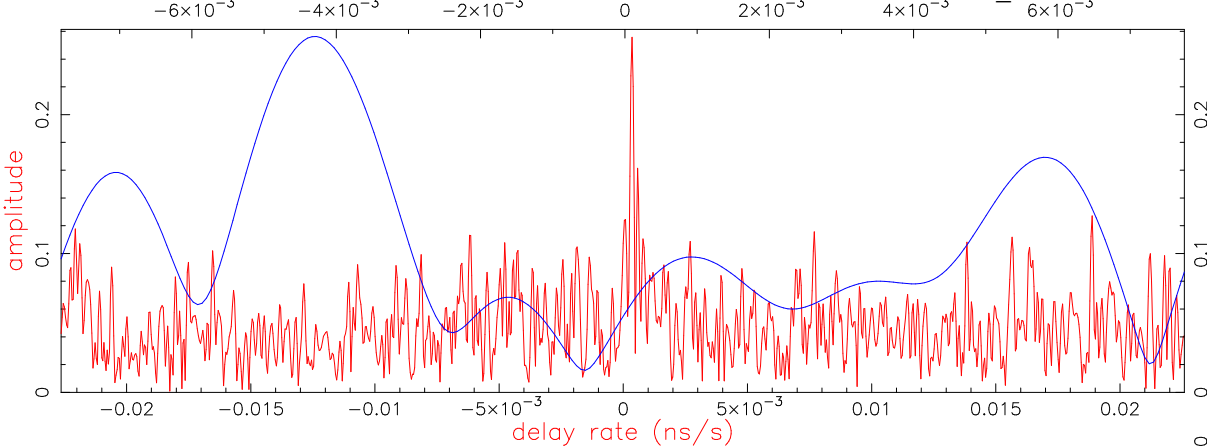
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, pY

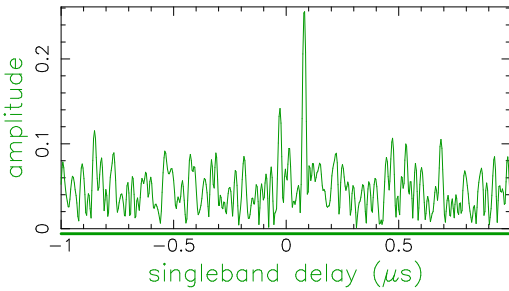
VLBA_PT - YEBES40M, fgroup Q, pol LR

multiband delay (μs)

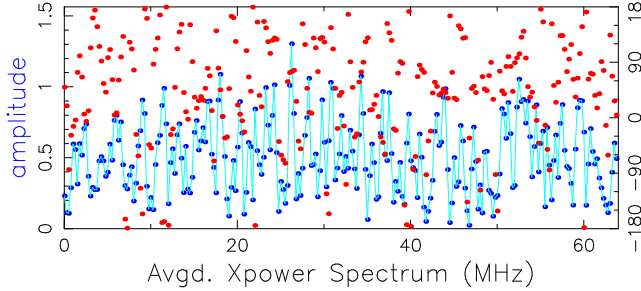


Fringe quality 0

SNR 7.1
 Int time 97.775
 Amp 0.261
 Phase 259.3
 PFD 2.4e-04
 Delays (us)
 SBD 0.080209
 MBD -0.004363
 Fringe rate (Hz)
 0.016253
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

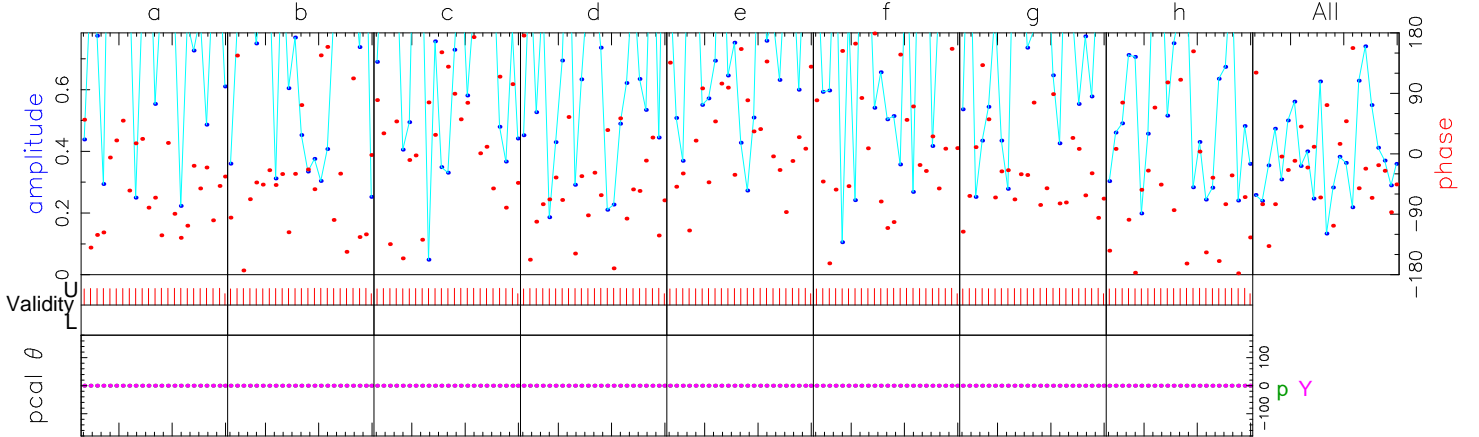


delay rate (ns/s)



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094017.41
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151906
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.56924476104E+03	Apriori delay (usec)	-1.56931852315E+03	Resid mbdelay (usec)	-4.36288E-03	+/-	1.5E-04
Sband delay (usec)	-1.56923831390E+03	Apriori clock (usec)	1.1668791E+02	Resid sbdelay (usec)	8.02092E-02	+/-	1.2E-03
Phase delay (usec)	-1.56931852529E+03	Apriori clockrate (us/s)	1.3873880E-06	Resid phdelay (usec)	-2.13997E-06	+/-	1.0E-06
Delay rate (us/s)	1.55691620923E+00	Apriori rate (us/s)	1.55691583248E+00	Resid rate (us/s)	3.76748E-07	+/-	1.1E-08
Total phase (deg)	227.3	Apriori accel (us/s/s)	3.08541908344E-06	Resid phase (deg)	259.3	+/-	16.2

ph/seg (deg)	68.6	Theor.	38.9	Amplitude	0.261 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.1		67.9	Search (1024X32)	0.247	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.4		22.9	Inc. seg. avg.	0.320	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	50.2		40.0	Inc. frq. avg.	0.297	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 69.2 el 44.9 pa -76.1 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -5609.024 -175.626 simultaneous interpolator

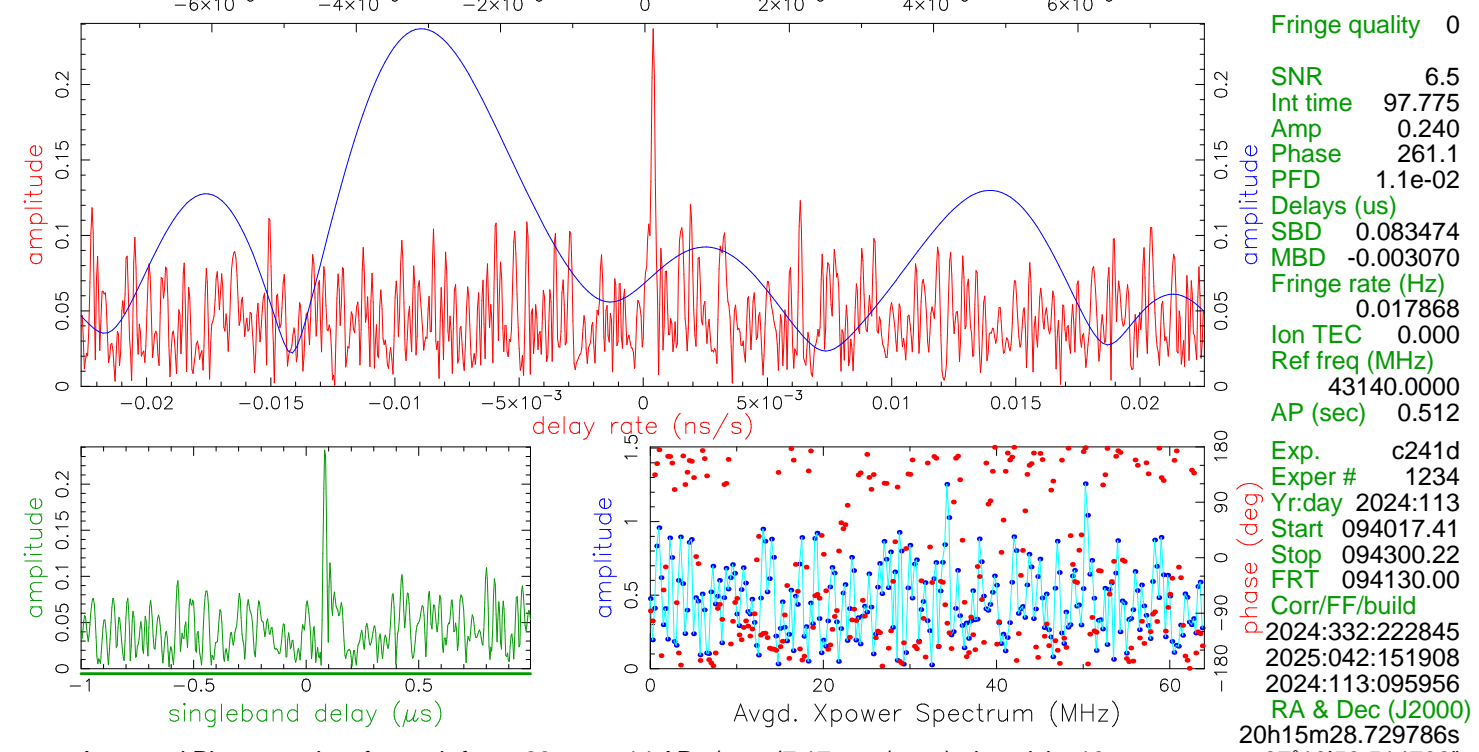
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/pY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/pY.Q.408.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

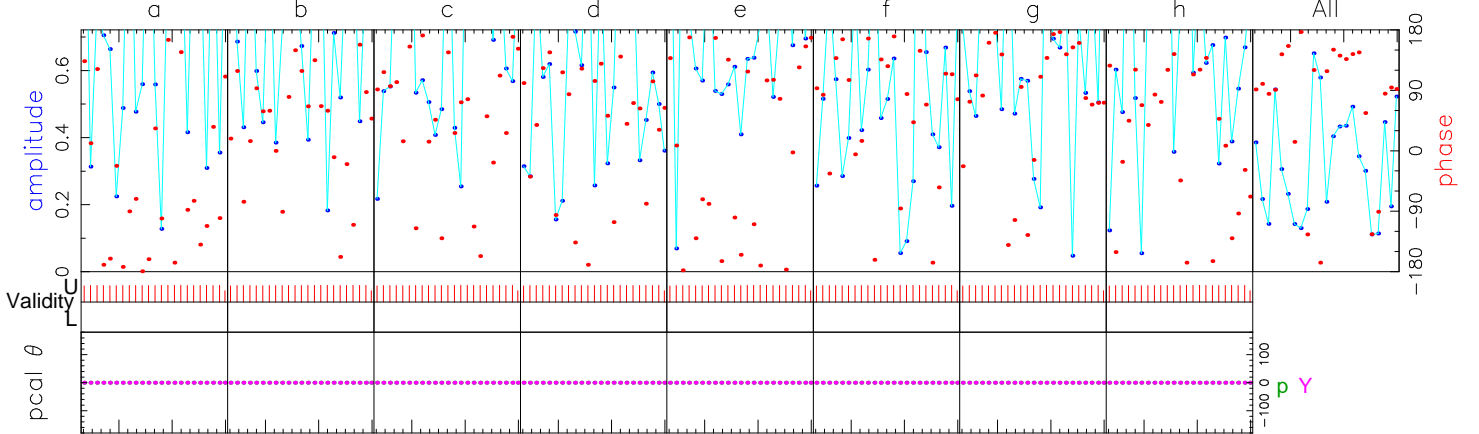
aux01

2013+370.3MP56K, No0500, pY

VLBA_PT - YEBES40M, fgroup Q, pol RL



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-166.2	63.0	109.0	105.1	168.2	125.4	133.9	101.5	Phase	126.1
	0.3	0.4	0.3	0.3	0.4	0.2	0.3	0.2	Ampl.	0.3
	278.2	260.3	481.4	372.1	278.0	255.7	278.5	273.8	Sbd box	278.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
p:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.56922784340E+03			Apriori delay (usec)	-1.56931852315E+03			Resid mbdelay (usec)	-3.07025E-03	+/- 1.7E-04
Sband delay (usec)	-1.56923504940E+03			Apriori clock (usec)	1.1668791E+02			Resid sbdelay (usec)	8.34737E-02	+/- 1.3E-03
Phase delay (usec)	-1.56931851503E+03			Apriori clockrate (us/s)	1.3873880E-06			Resid phdelay (usec)	8.11785E-06	+/- 1.1E-06
Delay rate (us/s)	1.55691624667E+00			Apriori rate (us/s)	1.55691583248E+00			Resid rate (us/s)	4.14187E-07	+/- 1.2E-08
Total phase (deg)		229.1		Apriori accel (us/s/s)	3.08541908344E-06			Resid phase (deg)	261.1	+/- 17.6
RMS	59.6	42.3		Amplitude	0.240 +/- 0.037			PCal mode: MANUAL, MANUAL		
ph/seg (deg)	59.6	42.3		Search (1024X32)	0.229			PCal rate: 0.000E+00, 0.000E+00 (us/s)		
amp/seg (%)	75.5	73.8		Interp.	0.000			SampCntNorm: enabled		
ph/frq (deg)	44.2	24.9		Inc. seg. avg.	0.255			mb window (us)	-1.000	1.000
amp/frq (%)	36.2	43.5		Inc. frq. avg.	0.279			dr window (ns/s)	-0.023	0.023
p: az 69.2 el 44.9 pa -76.1				Y: az 281.3 el 52.4 pa 69.4				Data rate(Mb/s): 2048		
Control file: cf_1234_gmva				u,v (fr/asec) -5609.024 -175.626				nlags: 256 t_cohere infinite		
Input file: /Exps/c241d/v1/7mm/1234/No0500/pY...3MP56K								ion window (TEC)	0.00	0.00
Output file: /Exps/c241d/v1/7mm/1234/No0500/pY.Q.411.3MP56K								simultaneous interpolator		

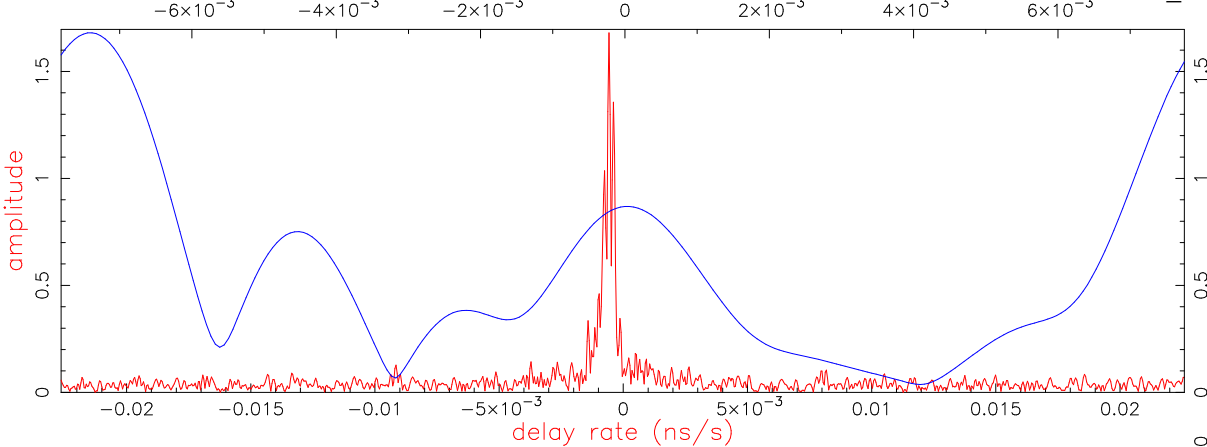
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Xp

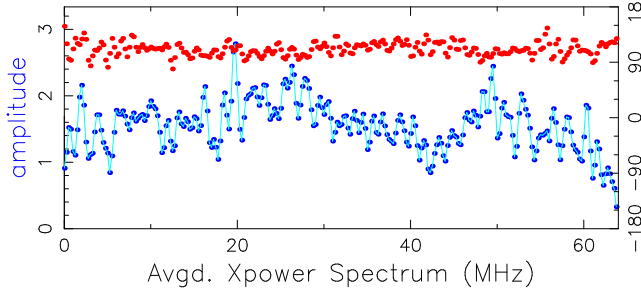
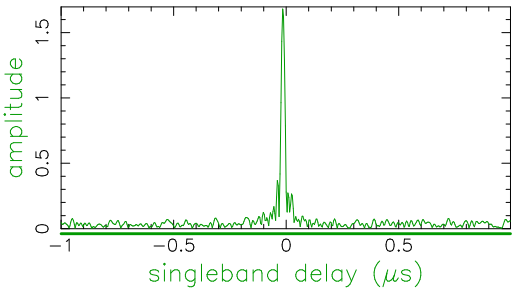
ONSALA60 - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)



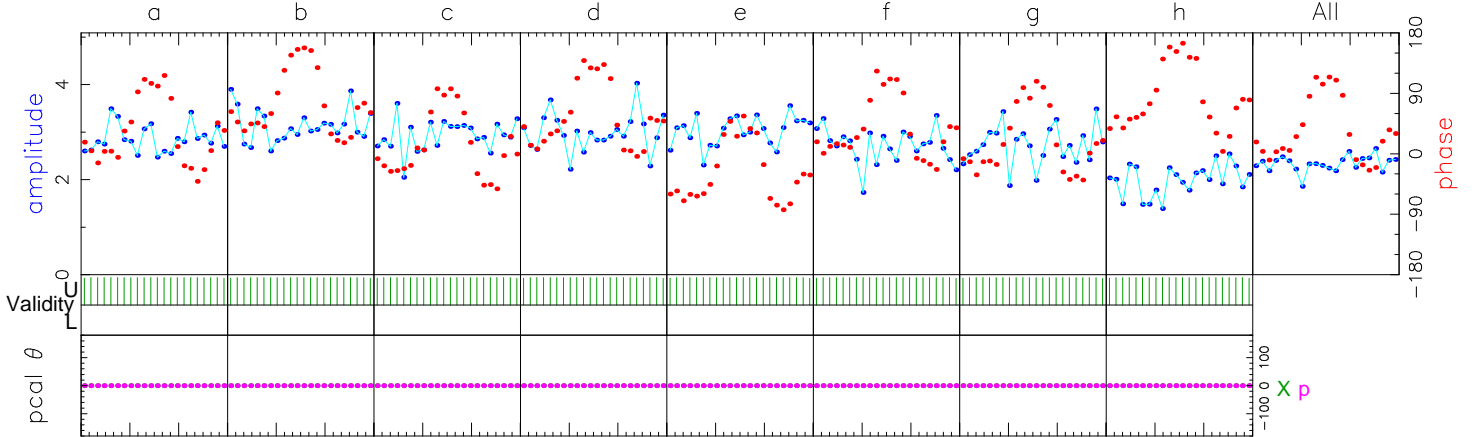
Fringe quality 3

SNR 62.2
 Int time 179.825
 Amp 1.697
 Phase 29.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.014379
 MBD -0.007368
 Fringe rate (Hz)
 -0.024914
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151830
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.76866466955E+02	Apriori delay (usec)	-1.76859098842E+02	Resid mbdelay (usec)	-7.36811E-03	+/-	1.7E-05
Sband delay (usec)	-1.76873477592E+02	Apriori clock (usec)	1.0721974E+02	Resid sbdelay (usec)	-1.43787E-02	+/-	1.4E-04
Phase delay (usec)	-1.76859096940E+02	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	1.90226E-06	+/-	1.2E-07
Delay rate (us/s)	-1.44616080864E+00	Apriori rate (us/s)	-1.44616023112E+00	Resid rate (us/s)	-5.77514E-07	+/-	1.1E-09
Total phase (deg)	-159.1	Apriori accel (us/s/s)	2.05616498820E-05	Resid phase (deg)	29.5	+/-	1.8

ph/seg (deg)	45.8	RMS	4.3	Theor.	4.3	Amplitude	1.697 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	39.1	Search (1024X32)	1.669	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	37.6	Inc. seg. avg.	2.333	Inc. frq. avg.	1.978	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	22.0	Inc. frq. avg.	1.978	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 272.4 el 44.4 pa 42.5 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5221.021 1566.636 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Xp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Xp.Q.289.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

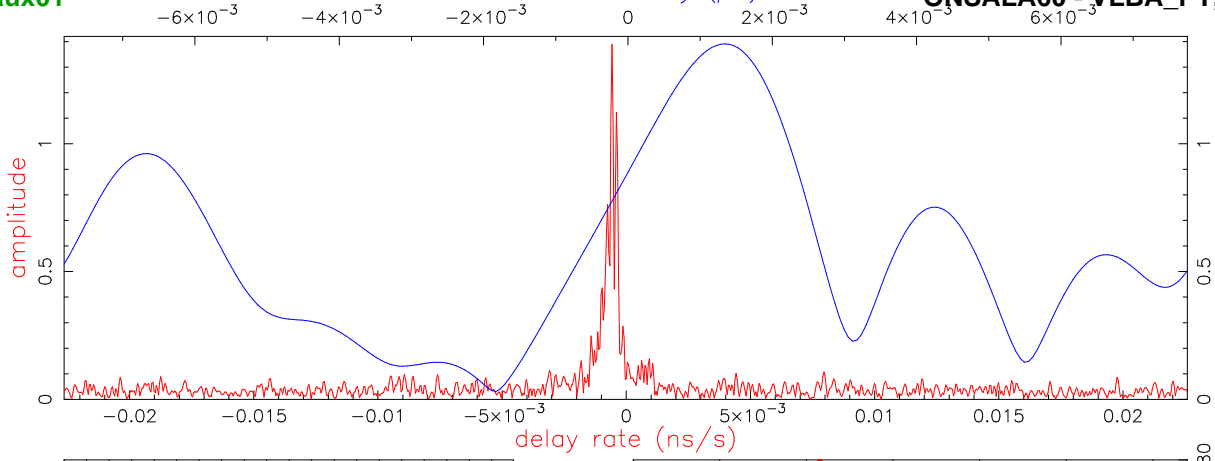
aux01

2013+370.3MP56K, No0500, Xp

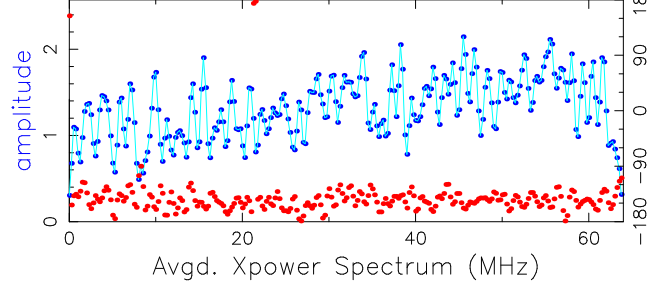
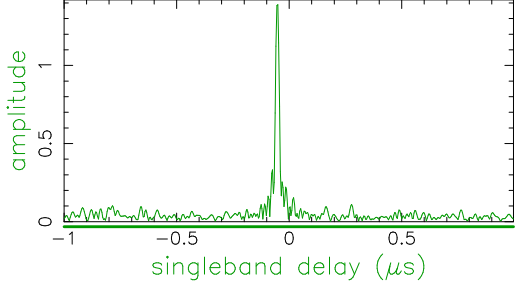
ONSALA60 - VLBA_PT, fgroup Q, pol RR

multiband delay (μ s)

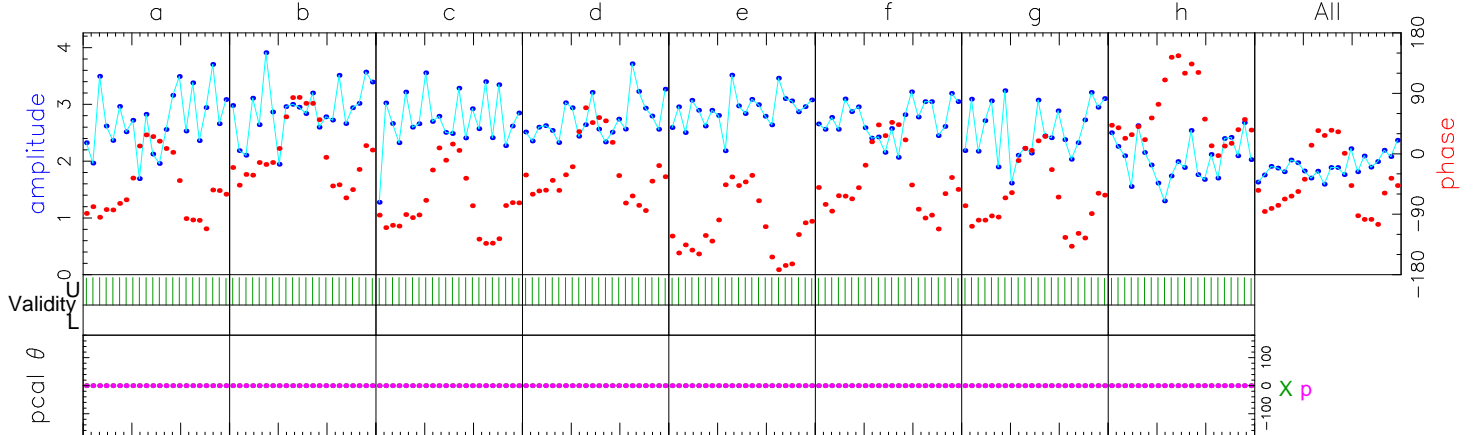
Fringe quality 3



SNR 52.1
 Int time 179.825
 Amp 1.420
 Phase -296.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.052639
 MBD 0.001286
 Fringe rate (Hz)
 -0.024875
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151832
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
	-56.8	-1.1	-77.8	-28.2	-112.3	-45.6	-70.2	52.4	Phase	-48.5	
	2.0	2.0	1.9	2.0	2.1	1.9	1.8	1.5	Ampl.	1.9	
	243.8	243.7	244.0	244.1	244.5	243.8	244.5	245.6	Sbd box	243.5	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Manl PC		
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-1.76904688080E+02		Apriori delay (usec)		-1.76859098842E+02		Resid mbdelay (usec)		1.28576E-03	+/- 2.1E-05	
Sband delay (usec)	-1.76911737592E+02		Apriori clock (usec)		1.0721974E+02		Resid sbdelay (usec)		-5.26388E-02	+/- 1.7E-04	
Phase delay (usec)	-1.76859101968E+02		Apriori clockrate (us/s)		8.3792608E-07		Resid phdelay (usec)		-3.12604E-06	+/- 1.4E-07	
Delay rate (us/s)	-1.44616080773E+00		Apriori rate (us/s)		-1.44616023112E+00		Resid rate (us/s)		-5.76608E-07	+/- 1.4E-09	
Total phase (deg)			Apriori accel (us/s/s)		2.05616498820E-05		Resid phase (deg)		-296.0	+/- 2.2	
RMS	46.1	5.2	Amplitude		1.420 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	46.1	5.2	Search (1024X32)		1.379		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	37.3	9.0	Interp.		0.000		SampCntNorm: enabled		mb window (us)	-0.008 0.008	
ph/frq (deg)	55.2	3.1	Inc. seg. avg.		1.907		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023	
amp/frq (%)	36.3	5.4	Inc. frq. avg.		1.900		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
X: az 272.4 el 44.4 pa 42.5	p: az 69.2 el 44.9 pa -76.1		u, v (fr/asec)		5221.021 1566.636				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/Xp..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/Xp.Q.302.3MP56K								

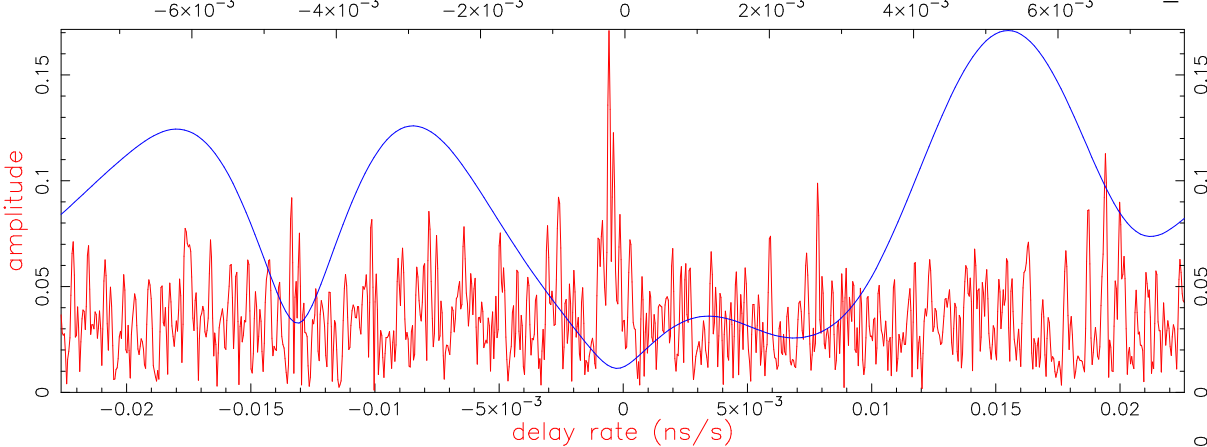
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Xp

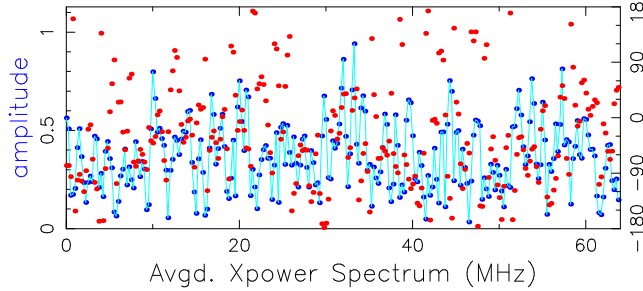
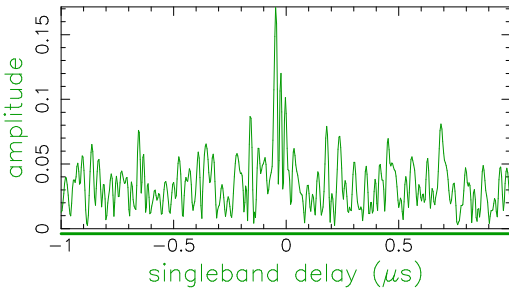
ONSALA60 - VLBA_PT, fgroup Q, pol RL

multiband delay (μ s)



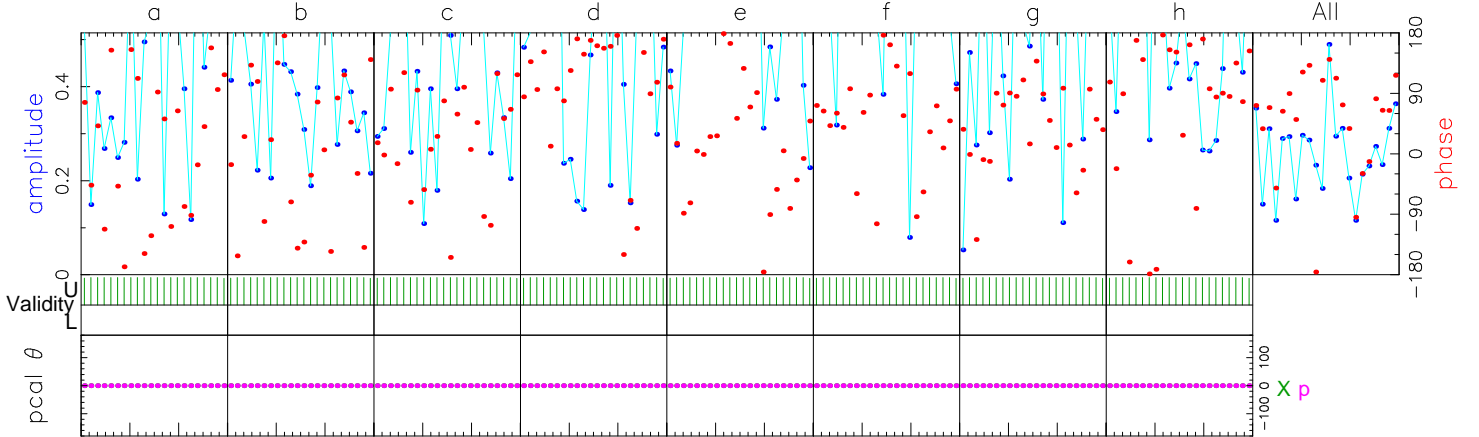
Fringe quality 0

SNR 6.3
 Int time 179.825
 Amp 0.172
 Phase -161.9
 PFD 4.2e-02
 Delays (us)
 SBD -0.046188
 MBD 0.005347
 Fringe rate (Hz)
 -0.024874
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151837
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	116.5	160.8	57.2	135.4	20.7	63.7	47.6	136.2	Phase	85.6
X	0.1	0.0	0.2	0.3	0.2	0.3	0.4	0.3	Ampl.	0.2
p	258.1	196.6	245.0	244.6	193.7	244.5	245.1	246.4	Sbd box	245.2
X:p	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
X:p	1000	1000	1000	1000	1000	1000	1000	1000	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	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.76900626643E+02	Apriori delay (usec)	-1.76859098842E+02	Resid mbdelay (usec)	5.34720E-03	+/-	1.7E-04
Sband delay (usec)	-1.76905286592E+02	Apriori clock (usec)	1.0721974E+02	Resid sbdelay (usec)	-4.61878E-02	+/-	1.4E-03
Phase delay (usec)	-1.76859093333E+02	Apriori clockrate (us/s)	8.3792608E-07	Resid phdelay (usec)	5.50917E-06	+/-	1.2E-06
Delay rate (us/s)	-1.44616080772E+00	Apriori rate (us/s)	-1.44616023112E+00	Resid rate (us/s)	-5.76591E-07	+/-	1.1E-08
Total phase (deg)	-350.6	Apriori accel (us/s/s)	2.05616498820E-05	Resid phase (deg)	-161.9	+/-	18.2

ph/seg (deg)	67.5	Theor.	42.7	Amplitude	0.172 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.8	Search (1024X32)	0.170	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	Inc. seg. avg.	0.203	Inc. seg. avg.	0.203	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	76.6	Inc. frq. avg.	0.216	Inc. frq. avg.	0.216	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
X: az 272.4 el 44.4 pa 42.5		p: az 69.2 el 44.9 pa -76.1		u, v (fr/asec)	5221.021 1566.636	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

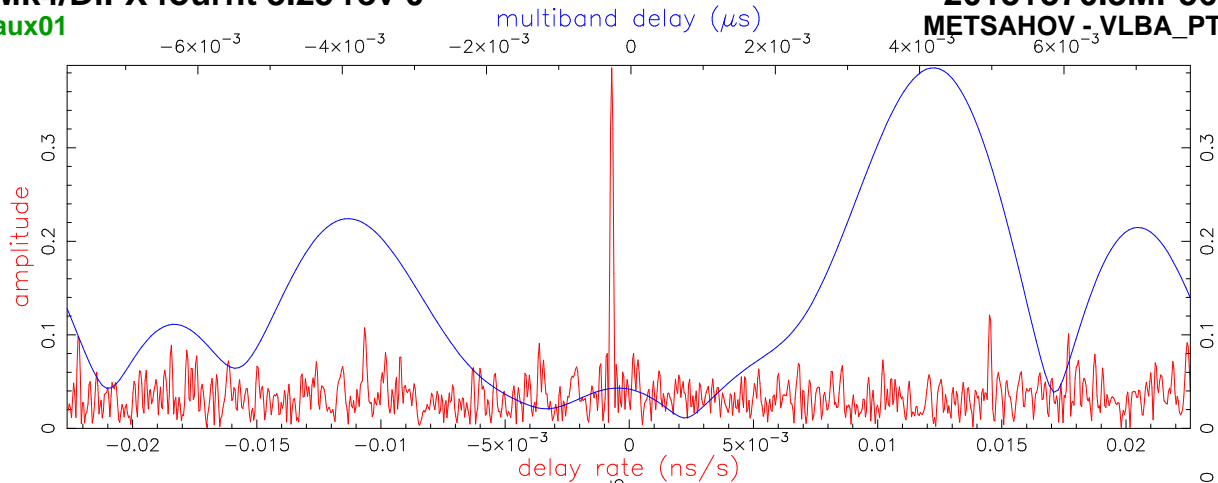
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Xp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Xp.Q.331.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

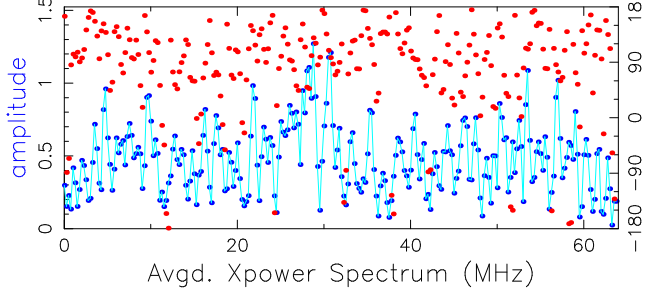
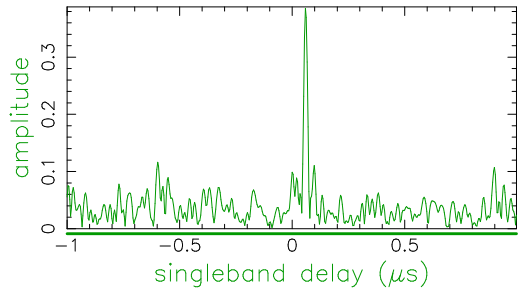
2013+370.3MP56K, No0500, Zp

MEṬSAHOV - VLBA_PT, fgroup Q, pol LL



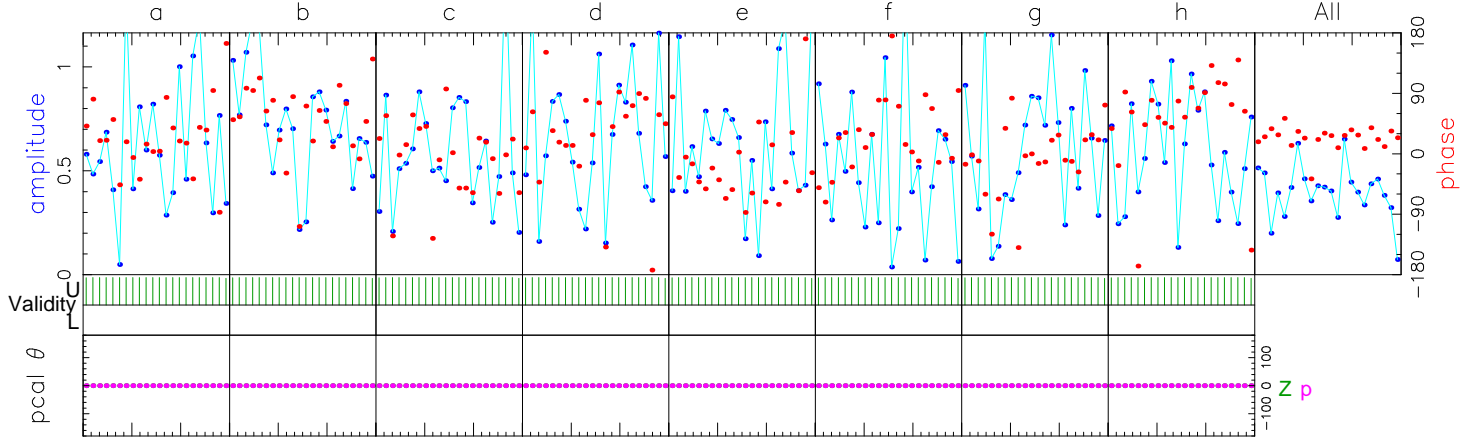
Fringe quality 8

SNR 14.2
 Int time 179.937
 Amp 0.388
 Phase 113.7
 PFD 1.8e-37
 Delays (us)
 SBD 0.059643
 MBD 0.004215
 Fringe rate (Hz)
 -0.030718
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151823
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
Z	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -1.99713042810E+03 Apriori delay (usec) -1.99719714339E+03 Resid mbdelay (usec) 4.21530E-03 +/- 7.6E-05
 Sband delay (usec) -1.99713749989E+03 Apriori clock (usec) -5.6020050E+00 Resid sbdelay (usec) 5.96435E-02 +/- 6.1E-04
 Phase delay (usec) -1.99719714186E+03 Apriori clockrate (us/s) 2.3116296E-07 Resid phdelay (usec) 1.52906E-06 +/- 5.2E-07
 Delay rate (us/s) -1.44414901442E+00 Apriori rate (us/s) -1.44414830235E+00 Resid rate (us/s) -7.12063E-07 +/- 5.0E-09
 Total phase (deg) 198.0 Apriori accel (us/s/s) 3.13893670897E-05 Resid phase (deg) 113.7 +/- 8.1

ph/seg (deg) 16.8 18.9 Theor. Amplitude 0.388 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 32.1 33.0 Search (1024X32) 0.379 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.7 11.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.1 19.9 Inc. seg. avg. 0.379 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Inc. frq. avg. 0.464 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

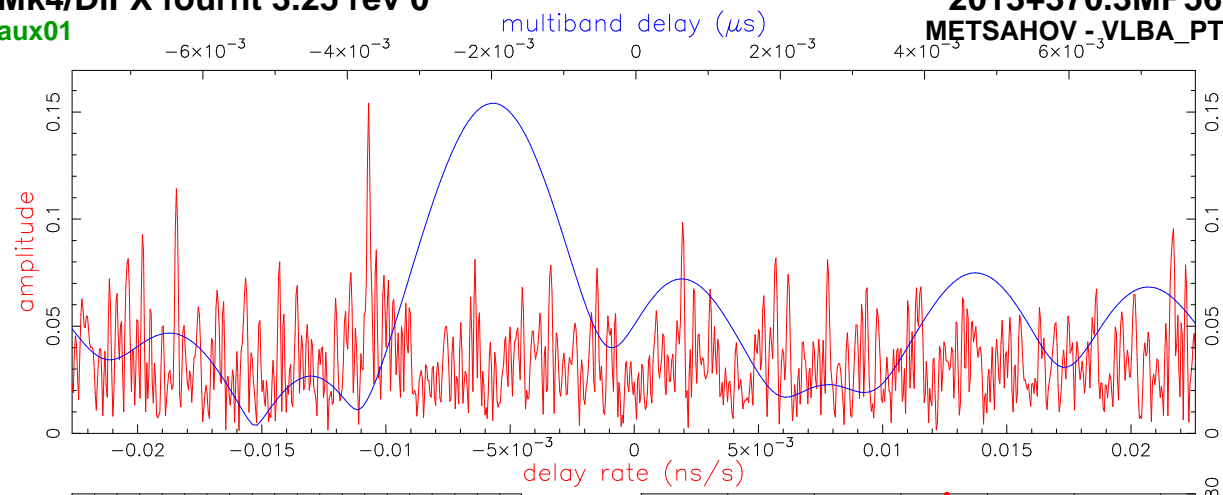
Z: az 280.0 el 38.3 pa 37.9 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5218.274 1980.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zp.Q.252.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

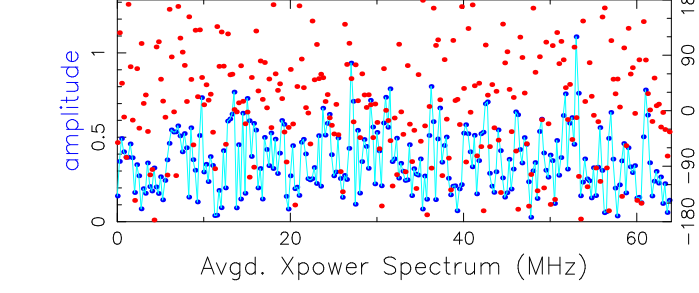
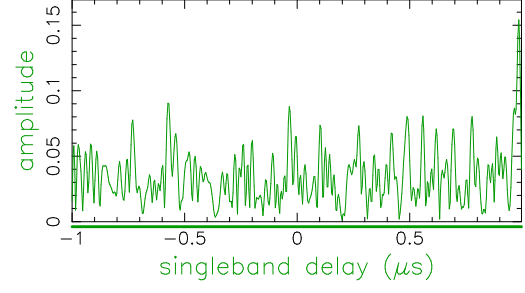
aux01

2013+370.3MP56K, No0500, Zp

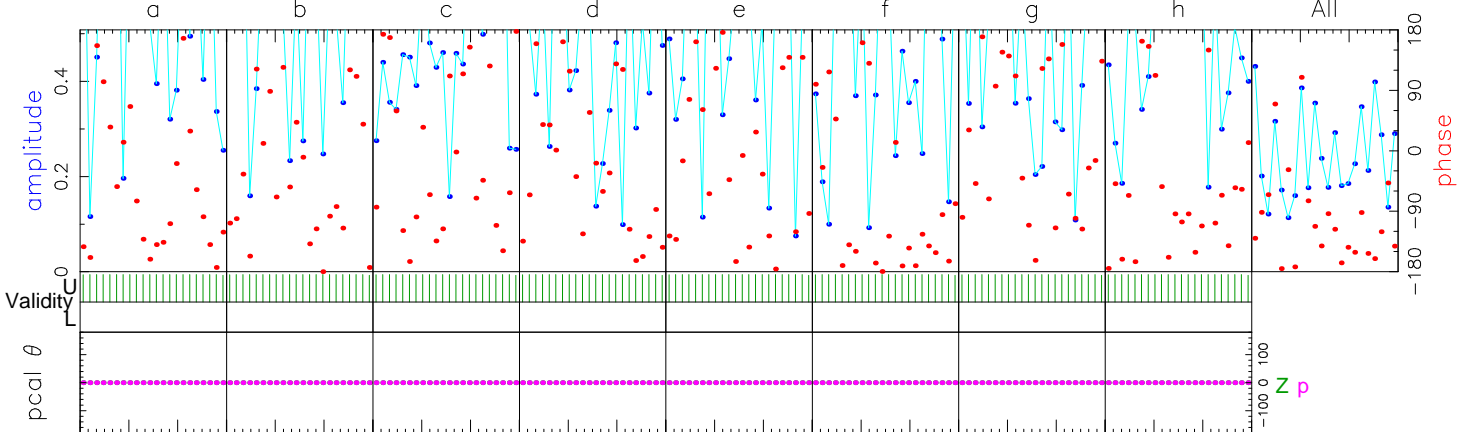
MEṬSAHOV - VLBA_PT, fgroup Q, pol LR



Fringe quality 0
 SNR 5.7
 Int time 179.937
 Amp 0.169
 Phase 25.4
 PFD 8.5e-01
 Delays (us)
 SBD 0.984332
 MBD -0.001983
 Fringe rate (Hz)
 -0.464103
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151837
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-122.9	-113.1	-142.6	-114.4	-166.5	-153.7	-122.0	-112.5	Phase	-132.1
	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.3	Ampl.	0.2
	246.9	456.4	110.6	60.3	164.4	508.4	502.5	293.1	Sbd box	509.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.99621475145E+03	Apriori delay (usec)	-1.99719714339E+03	Resid mbdelay (usec)	-1.98306E-03	+/-	1.9E-04
Sband delay (usec)	-1.99621281164E+03	Apriori clock (usec)	-5.6020050E+00	Resid sbdelay (usec)	9.84332E-01	+/-	1.5E-03
Phase delay (usec)	-1.99719715190E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-8.50760E-06	+/-	1.3E-06
Delay rate (us/s)	-1.44415906043E+00	Apriori rate (us/s)	-1.44414830235E+00	Resid rate (us/s)	-1.07581E-05	+/-	1.3E-08
Total phase (deg)	109.6	Apriori accel (us/s/s)	3.13893670897E-05	Resid phase (deg)	25.4	+/-	20.3

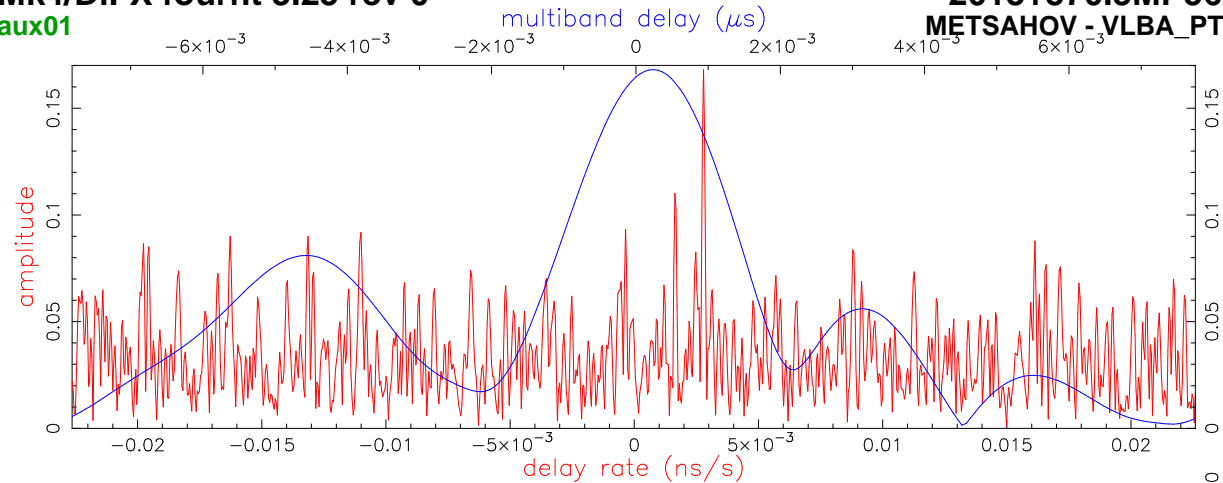
ph/seg (deg) 59.2 47.5 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 84.5 83.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.4 28.7 Inc. seg. avg. 0.201 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.7 50.0 Inc. frq. avg. 0.159 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Z: az 280.0 el 38.3 pa 37.9 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5218.274 1980.935 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zp.Q.327.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

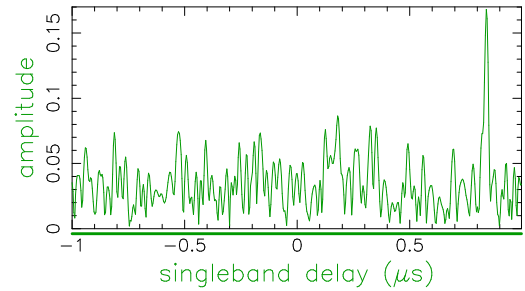
2013+370.3MP56K, No0500, Zp

MEṬSAHOV - VLBA_PT, fgroup Q, pol RL

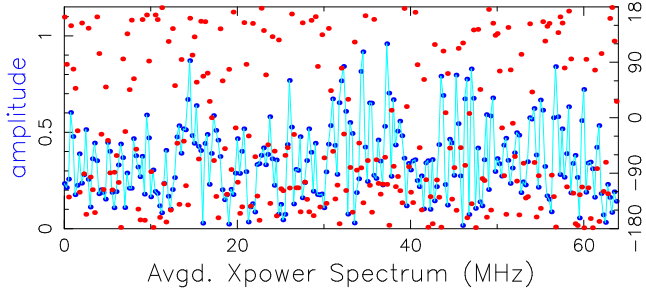


Fringe quality 0

SNR 6.2
 Int time 179.937
 Amp 0.170
 Phase 308.3
 PFD 7.2e-02
 Delays (us)
 SBD 0.840830
 MBD 0.000252
 Fringe rate (Hz)
 0.121016
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

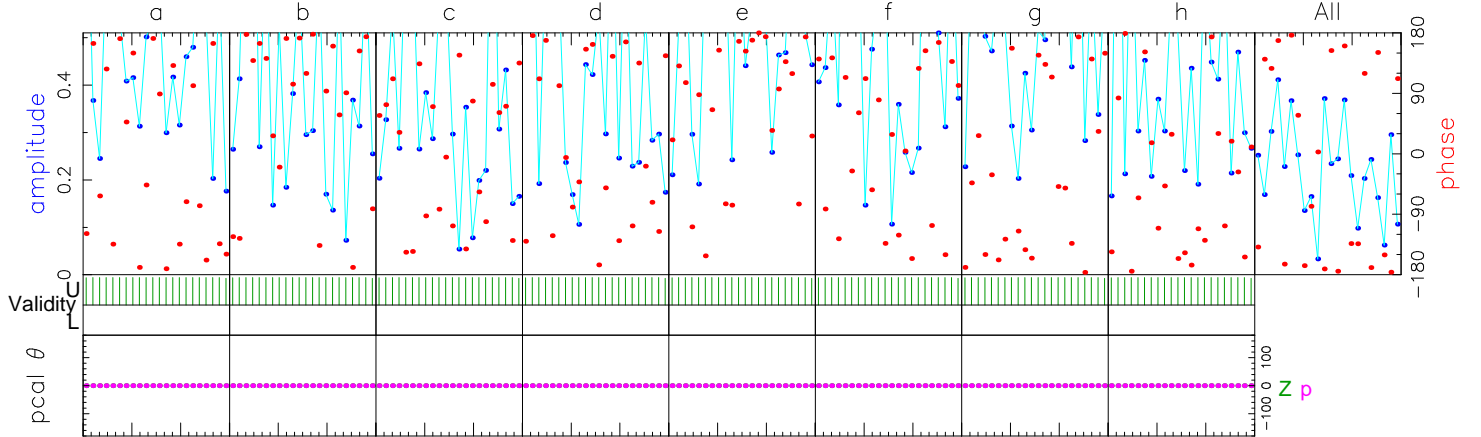


delay rate (ns/s)



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151844
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-161.7	162.1	140.8	-172.5	148.9	151.1	-171.4	-149.5	Phase	173.3
	0.2	0.3	0.0	0.2	0.3	0.2	0.2	0.1	Ampl.	0.2
	199.6	471.6	337.1	57.9	321.1	206.9	239.9	279.8	Sbd box	472.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.99635314101E+03	Apriori delay (usec)	-1.99719714339E+03	Resid mbdelay (usec)	2.52381E-04	+/-	1.8E-04
Sband delay (usec)	-1.99635631314E+03	Apriori clock (usec)	-5.6020050E+00	Resid sbdelay (usec)	8.40830E-01	+/-	1.4E-03
Phase delay (usec)	-1.99719713223E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	1.11582E-05	+/-	1.2E-06
Delay rate (us/s)	-1.44414549717E+00	Apriori rate (us/s)	-1.44414830235E+00	Resid rate (us/s)	2.80518E-06	+/-	1.1E-08
Total phase (deg)	32.6	Apriori accel (us/s/s)	3.13893670897E-05	Resid phase (deg)	308.3	+/-	18.5

ph/seg (deg)	58.9	RMS	43.3	Theor.	Amplitude	0.170 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.7	Search (1024X32)	0.159	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	28.0	Inc. seg. avg.	0.175	Inc. frq. avg.	0.165	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	42.2	Inc. frq. avg.	0.165	Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us	Data rate (Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 280.0 el 38.3 pa 37.9 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 5218.274 1980.935 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zp.Q.353.3MP56K