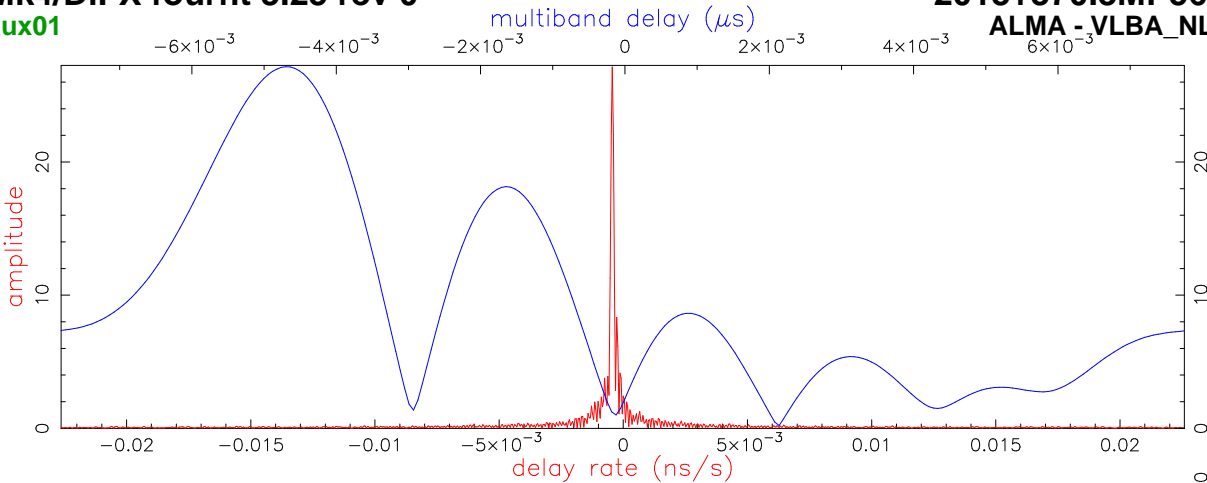


Mk4/DiFX fourfit 3.25 rev 0

aux01

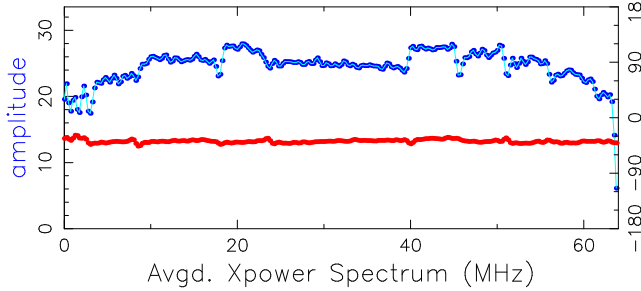
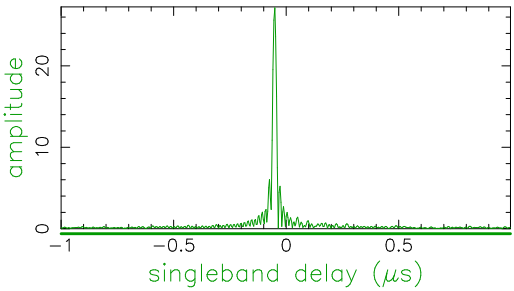
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol XL



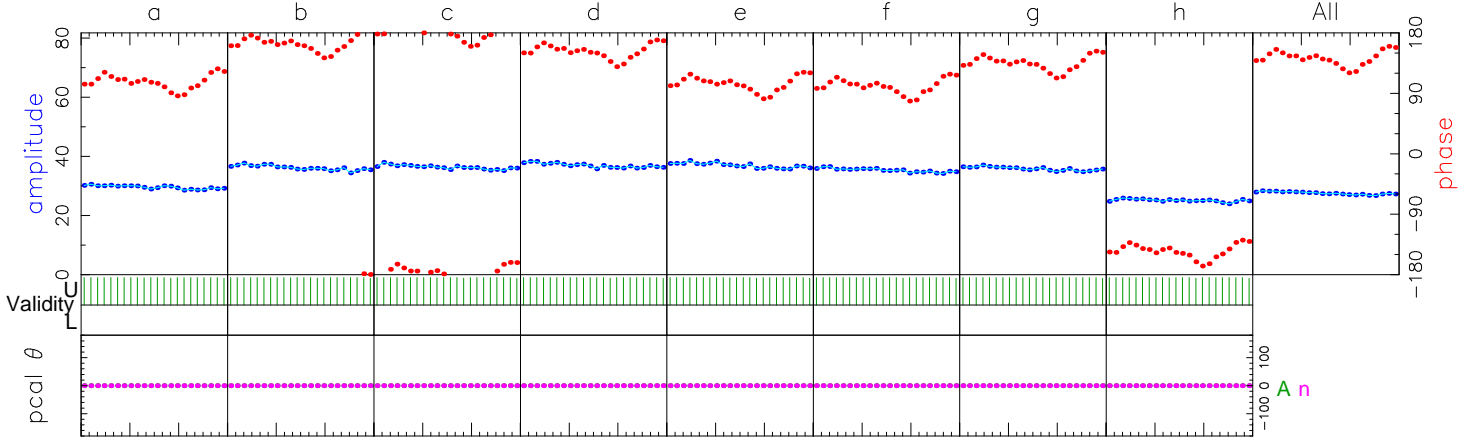
Fringe quality 6

SNR 998.8  
 Int time 179.674  
 Amp 27.254  
 Phase -105.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.051580  
 MBD -0.004725  
 Fringe rate (Hz)  
 -0.019157  
 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
	107.0	164.1	-178.1	152.6	104.5	100.7	135.0	-144.7	Phase	142.2
	29.1	35.6	35.8	36.4	36.3	34.8	35.3	24.8	Ampl.	33.5
	245.3	243.5	243.7	243.7	243.9	243.8	243.8	245.9	Sbd box	243.8
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.03982245031E+04	Apriori delay (usec)	-1.03981729032E+04	Resid mbdelay (usec)	-4.72487E-03	+/-	1.1E-06
Sband delay (usec)	-1.03982244827E+04	Apriori clock (usec)	-2.1071355E+03	Resid sbdelay (usec)	-5.15795E-02	+/-	8.6E-06
Phase delay (usec)	-1.03981728941E+04	Apriori clockrate (us/s)	-3.0809188E-07	Resid phdelay (usec)	9.15442E-06	+/-	7.4E-09
Delay rate (us/s)	-2.80148748929E-01	Apriori rate (us/s)	-2.80148304858E-01	Resid rate (us/s)	-4.44071E-07	+/-	7.1E-11
Total phase (deg)	-121.4	Apriori accel (us/s/s)	-2.79396757458E-05	Resid phase (deg)	-105.3	+/-	0.1

ph/seg (deg)	RMS 10.4	Theor. 0.3	Amplitude Search (1024X32)	27.254 +/- 0.027	26.531	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.1	0.5	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)	44.6	0.2	Inc. seg. avg.	27.593	27.593	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	27.2	0.3	Inc. frq. avg.	33.505	33.505	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

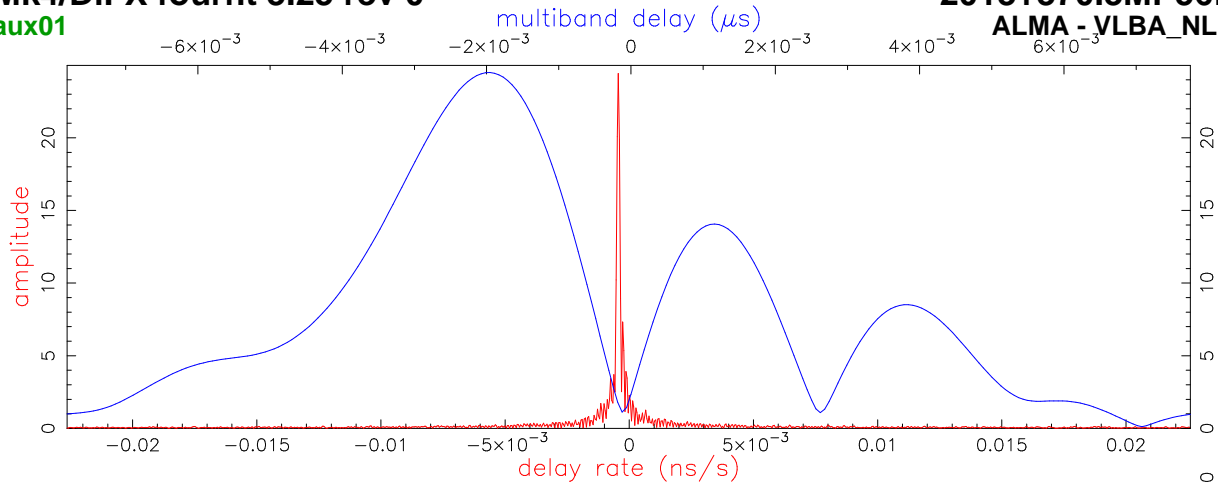
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.29.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

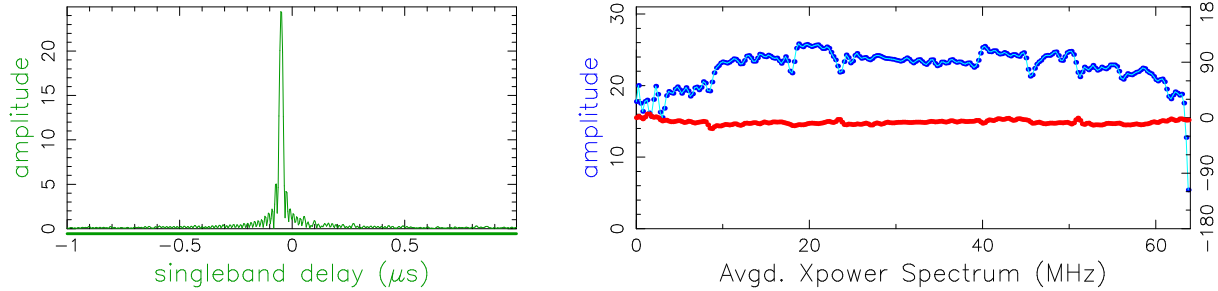
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol YR



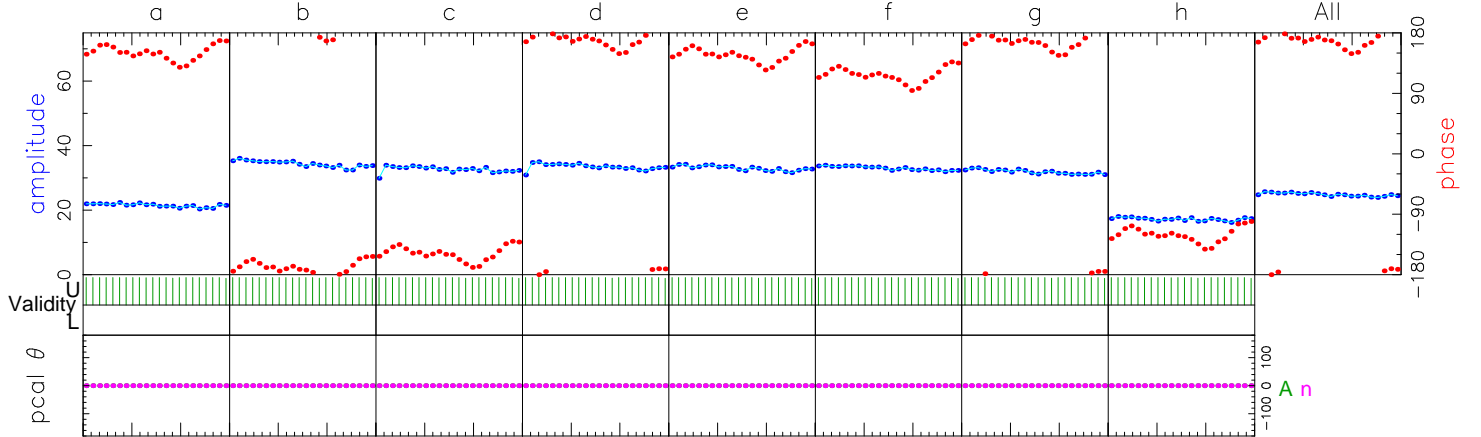
Fringe quality 6

SNR 915.7  
 Int time 179.674  
 Amp 24.986  
 Phase -76.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.048896  
 MBD -0.001882  
 Fringe rate (Hz)  
 -0.019183  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.03982216600E+04	Apriori delay (usec)	-1.03981729032E+04	Resid mbdelay (usec)	-1.88174E-03	+/-	1.2E-06
Sband delay (usec)	-1.03982217987E+04	Apriori clock (usec)	-2.1071355E+03	Resid sbdelay (usec)	-4.88955E-02	+/-	9.4E-06
Phase delay (usec)	-1.03981728922E+04	Apriori clockrate (us/s)	-3.0809188E-07	Resid phdelay (usec)	1.10020E-05	+/-	8.1E-09
Delay rate (us/s)	-2.80148749526E-01	Apriori rate (us/s)	-2.80148304858E-01	Resid rate (us/s)	-4.44668E-07	+/-	7.7E-11
Total phase (deg)	-92.7	Apriori accel (us/s/s)	-2.79396757458E-05	Resid phase (deg)	-76.6	+/-	0.1

ph/seg (deg)	10.7	RMS	10.7	Theor.	0.3	Amplitude	24.986 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	2.1		0.5	Search (1024X32)	24.373	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	42.0		0.2	Inc. seg. avg.	24.869	Inc. frq. avg.	29.149	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.1		0.3	Inc. frq. avg.	29.149	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

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

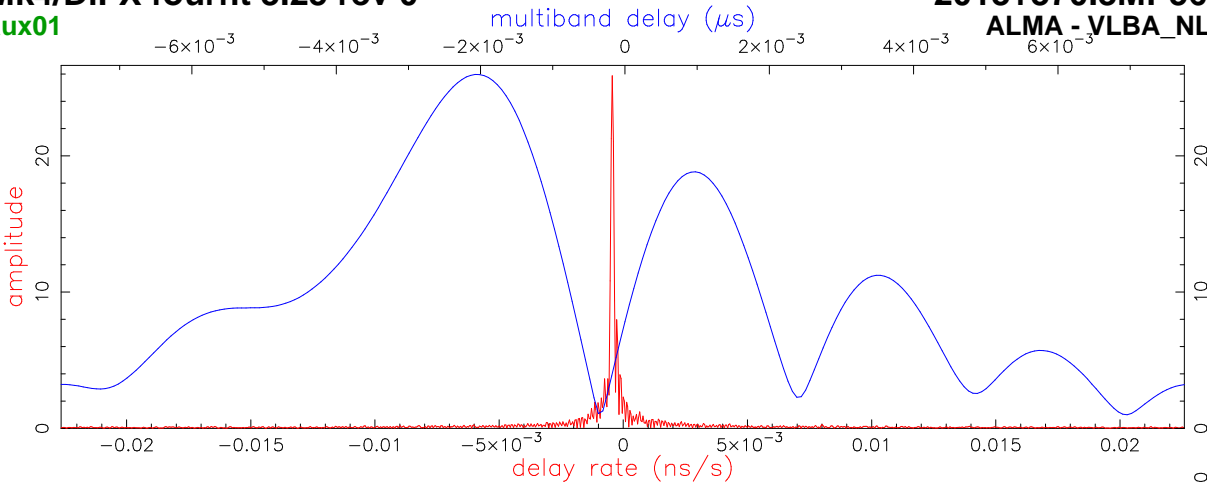
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.44.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

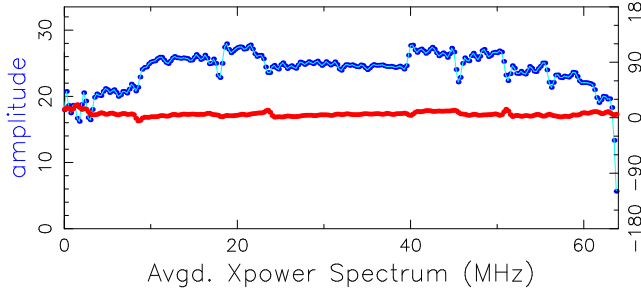
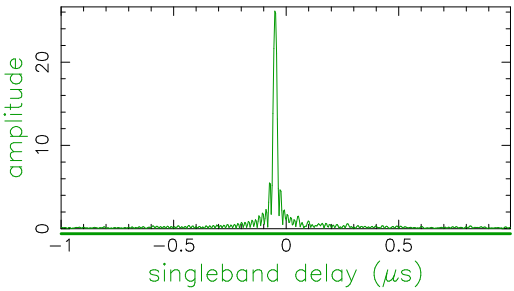
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol XR



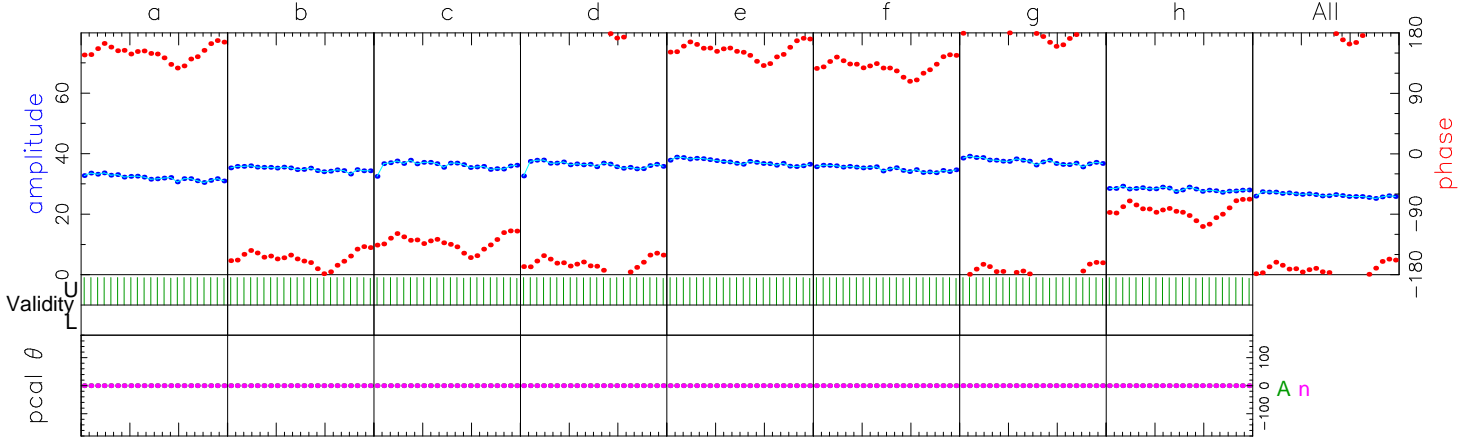
Fringe quality 6

SNR 976.3  
 Int time 179.674  
 Amp 26.638  
 Phase -61.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.049027  
 MBD -0.002155  
 Fringe rate (Hz)  
 -0.019139  
 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  
 2025:042:151743  
 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			
n	1000	1000	1000	1000	1000	1000	1000	1000			
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
A:n	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			
n	1000	1000	1000	1000	1000	1000	1000	1000			
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Tracks	
										Tracks	
Group delay (usec) (SBD)	-1.03982219328E+04										
Sband delay (usec)	-1.03982219307E+04										
Phase delay (usec)	-1.03981729144E+04										
Delay rate (us/s)	-2.80148748502E-01										
Total phase (deg)			-77.8								
				Apriori delay (usec)	-1.03981729032E+04				Resid mbdelay (usec)	-2.15455E-03	+/- 1.1E-06
				Apriori clock (usec)	-2.1071355E+03				Resid sbdelay (usec)	-4.90275E-02	+/- 8.8E-06
				Apriori clockrate (us/s)	-3.0809188E-07				Resid phdelay (usec)	-1.12202E-05	+/- 7.6E-09
				Apriori rate (us/s)	-2.80148304858E-01				Resid rate (us/s)	-4.43644E-07	+/- 7.3E-11
				Apriori accel (us/s/s)	-2.79396757458E-05				Resid phase (deg)	-61.8	+/- 0.1

ph/seg (deg) 10.6 0.3  
 amp/seg (%) 2.6 0.5  
 ph/frq (deg) 51.1 0.2  
 amp/frq (%) 29.9 0.3

RMS Theor. Amplitude 26.638 +/- 0.027  
 Search (1024X32) 25.828  
 Interp. 0.000  
 Inc. seg. avg. 26.325  
 Inc. frq. avg. 34.075

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite

sb window (us) -1.000 1.000  
 mb window (us) -0.008 0.008  
 dr window (ns/s) -0.023 0.023  
 ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.48.3MP56K

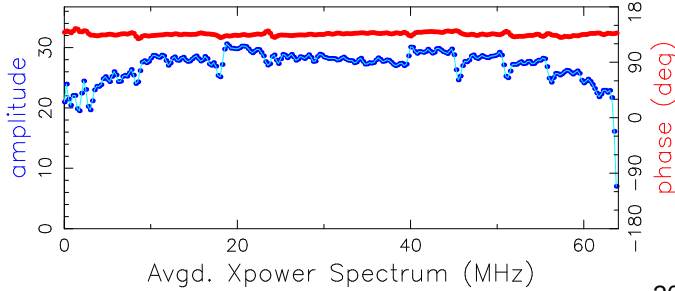
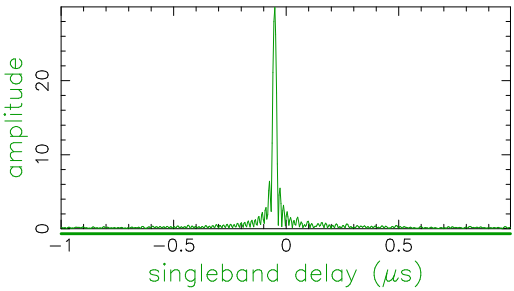
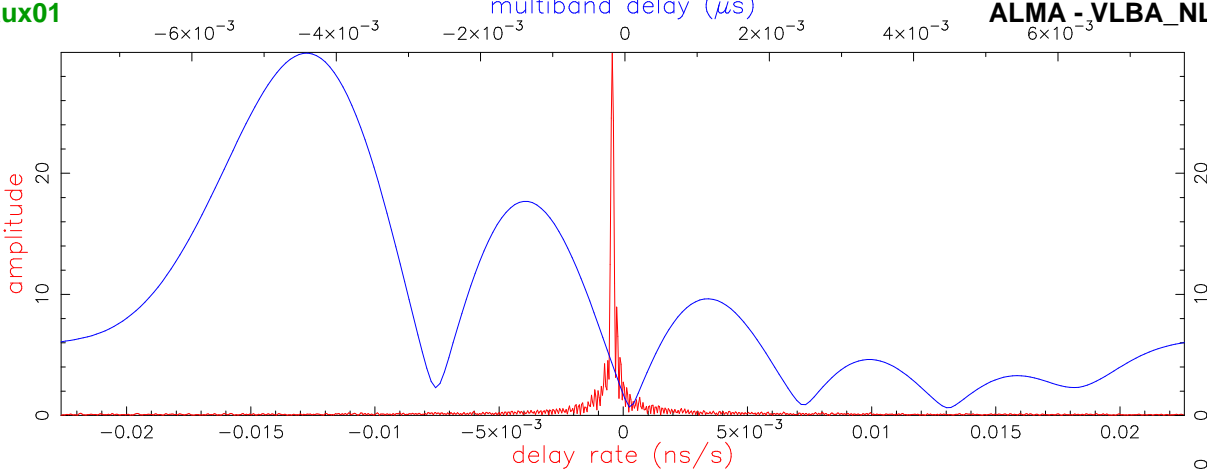
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, An

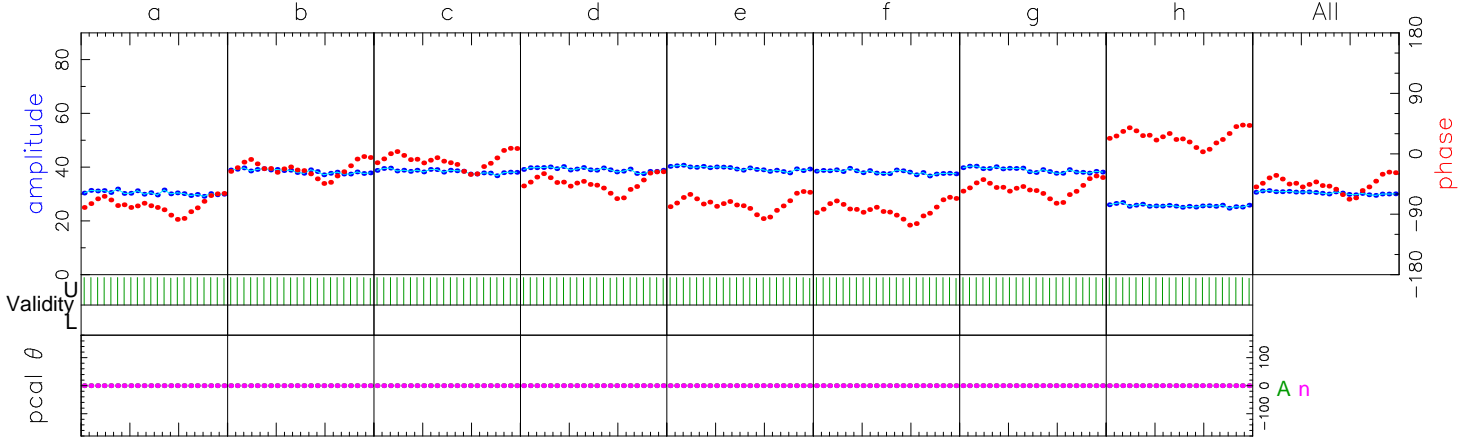
ALMA - VLBA\_NL, fgroup Q, pol YL

Fringe quality 6



SNR 1099.1  
 Int time 179.674  
 Amp 29.990  
 Phase -292.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.051397  
 MBD -0.004442  
 Fringe rate (Hz)  
 -0.019197  
 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
	-76.4	-22.4	-9.5	-43.8	-74.2	-83.4	-51.6	25.4	Phase	-45.3
	29.9	37.8	37.8	38.4	38.8	37.5	38.3	25.2	Ampl.	35.5
	245.5	243.5	243.7	243.7	243.9	243.8	243.8	246.1	Sbd box	243.8
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.03982242201E+04		Apriori delay (usec)		-1.03981729032E+04		Resid mbdelay (usec)		-4.44187E-03	+/- 9.9E-07
Sband delay (usec)	-1.03982243005E+04		Apriori clock (usec)		-2.1071355E+03		Resid sbdelay (usec)		-5.13972E-02	+/- 7.8E-06
Phase delay (usec)	-1.03981729061E+04		Apriori clockrate (us/s)		-3.0809188E-07		Resid phdelay (usec)		-2.91654E-06	+/- 6.7E-09
Delay rate (us/s)	-2.80148749849E-01		Apriori rate (us/s)		-2.80148304858E-01		Resid rate (us/s)		-4.44991E-07	+/- 6.5E-11
Total phase (deg)			Apriori accel (us/s/s)		-2.79396757458E-05		Resid phase (deg)		-292.8	+/- 0.1

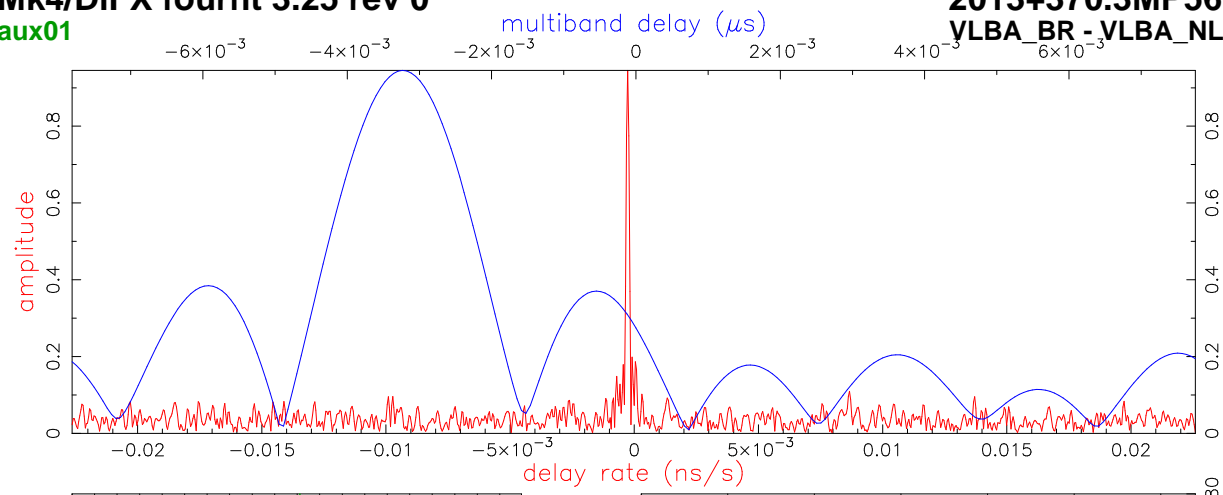
ph/seg (deg) 10.7 0.2 Search (1024X32) 29.765 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 2.3 0.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 41.0 0.1 Inc. seg. avg. 30.444 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 24.1 0.3 Inc. frq. avg. 35.466 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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.75.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

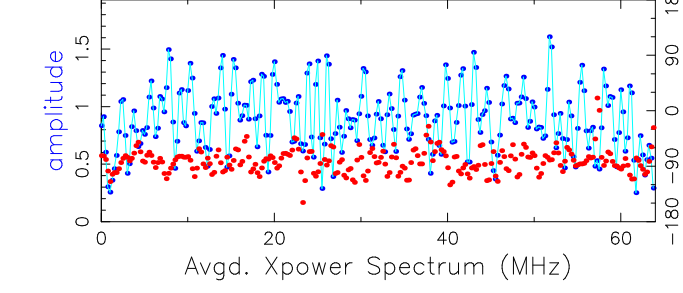
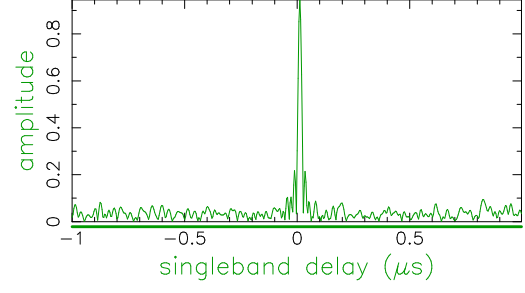
2013+370.3MP56K, No0500, bn

VLBA\_BR - VLBA\_NL, fgroup Q, pol RL



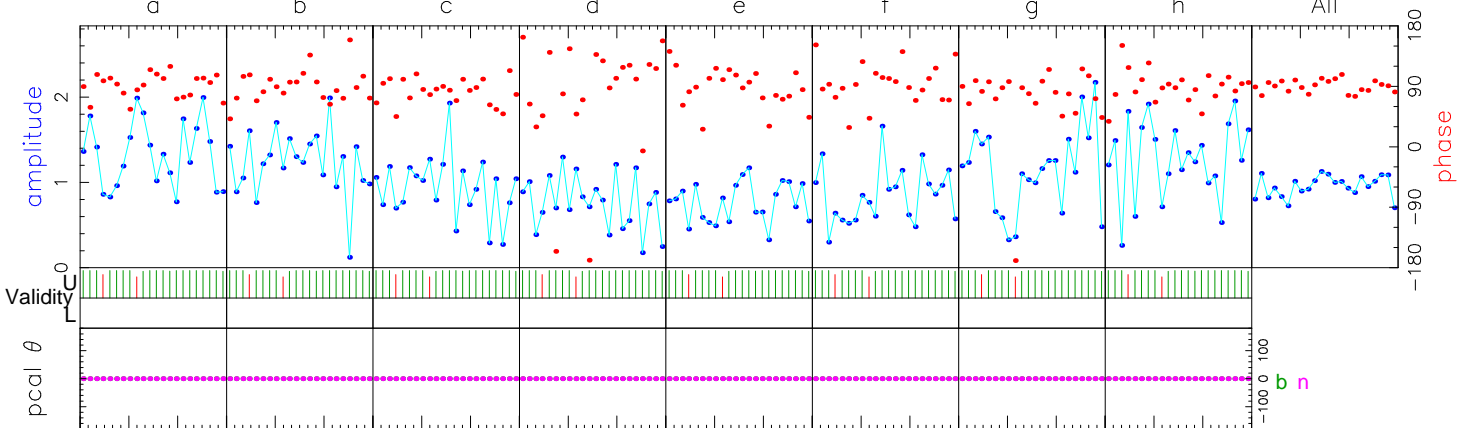
Fringe quality 8

SNR 34.3  
 Int time 176.349  
 Amp 0.945  
 Phase 293.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011820  
 MBD -0.003228  
 Fringe rate (Hz)  
 -0.011046  
 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  
 2025:042:151754  
 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	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	1000
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	1000
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	0:0
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	0:0
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
n	1000	1000	1000	1000	1000	1000	1000	1000		1000
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-4.42616159216E+03	Apriori delay (usec)	-4.42617398926E+03	Resid mbdelay (usec)	-3.22790E-03	+/-	3.2E-05
Sband delay (usec)	-4.42616216951E+03	Apriori clock (usec)	4.9095936E+00	Resid sbdelay (usec)	1.18198E-02	+/-	2.5E-04
Phase delay (usec)	-4.42617398343E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	5.83000E-06	+/-	2.1E-07
Delay rate (us/s)	1.77824239879E-01	Apriori rate (us/s)	1.77824495929E-01	Resid rate (us/s)	-2.56051E-07	+/-	2.1E-09
Total phase (deg)		Apriori accel (us/s/s)	2.89300487315E-05	Resid phase (deg)	293.0	+/-	3.3

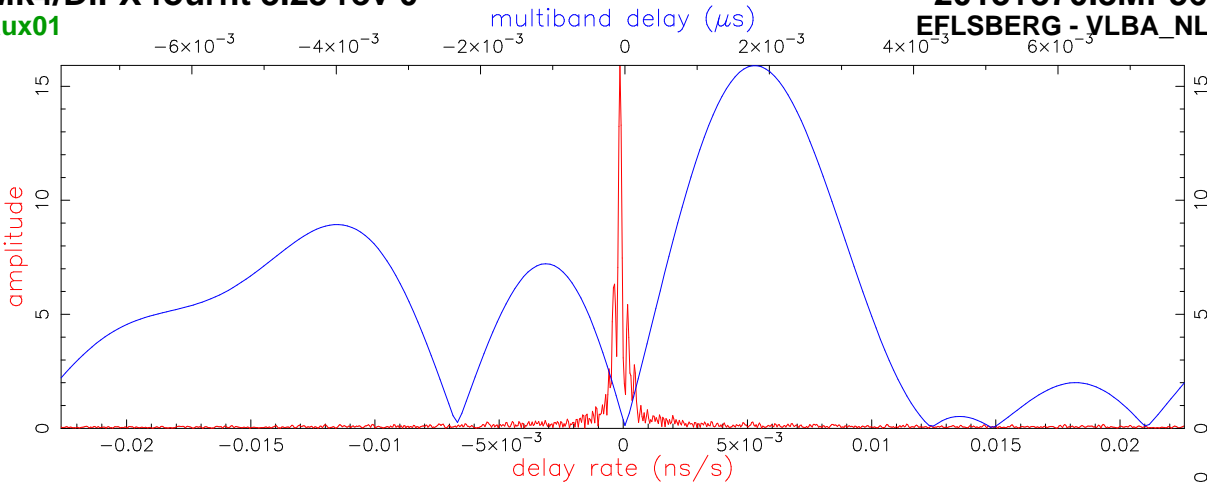
ph/seg (deg) 9.1 7.8 Search (1024X32) 0.912 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 12.9 13.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 9.1 4.7 Inc. seg. avg. 0.949 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 25.4 8.2 Inc. frq. avg. 0.948 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 b: az 76.2 el 40.6 pa -54.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -628.566 1147.028 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/bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bn.Q.104.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

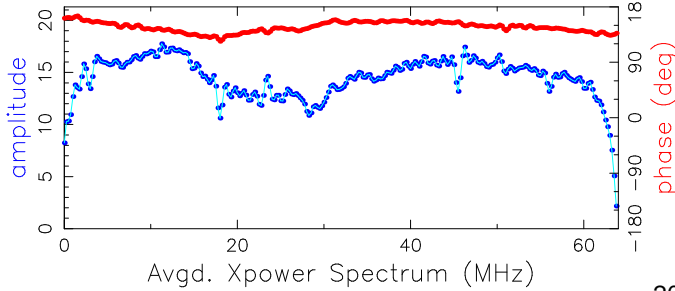
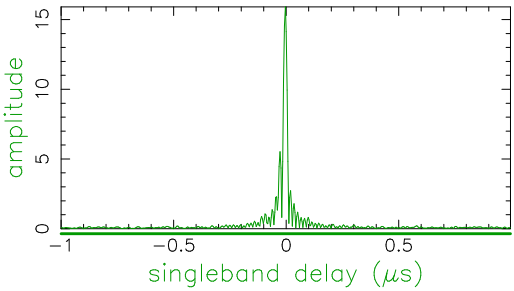
2013+370.3MP56K, No0500, Bn

EFLSBERG - VLBA\_NL, fgroup Q, pol RR



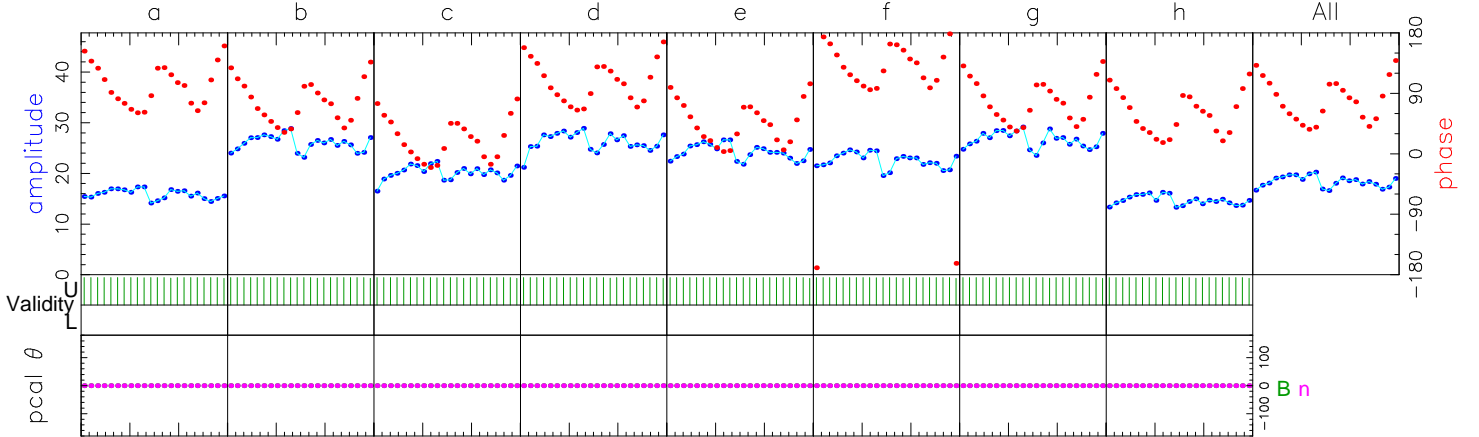
Fringe quality 4

SNR 583.4  
 Int time 179.655  
 Amp 15.916  
 Phase 78.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.004207  
 MBD 0.001785  
 Fringe rate (Hz)  
 -0.006510  
 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  
 2025:042:151755  
 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	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-2.91719759634E+03	Apriori delay (usec)	-2.91719938150E+03	Resid mbdelay (usec)	1.78516E-03	+/-	1.9E-06
Sband delay (usec)	-2.91720358850E+03	Apriori clock (usec)	-3.5106236E+01	Resid sbdelay (usec)	-4.20700E-03	+/-	1.5E-05
Phase delay (usec)	-2.91719937644E+03	Apriori clockrate (us/s)	-4.8679897E-07	Resid phdelay (usec)	5.05426E-06	+/-	1.3E-08
Delay rate (us/s)	-1.25995723126E+00	Apriori rate (us/s)	-1.25995708036E+00	Resid rate (us/s)	-1.50901E-07	+/-	1.2E-10
Total phase (deg)	-35.9	Apriori accel (us/s/s)	2.25572146522E-05	Resid phase (deg)	78.5	+/-	0.2

ph/seg (deg)	RMS 30.5	Theor. 0.5	Amplitude Search (1024X32)	15.916 +/- 0.027	15.289	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	16.9	0.8	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	40.0	0.3	Inc. seg. avg.	18.393	18.393	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.1	0.5	Inc. frq. avg.	19.092	19.092	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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 4549.409 1019.399 simultaneous interpolator

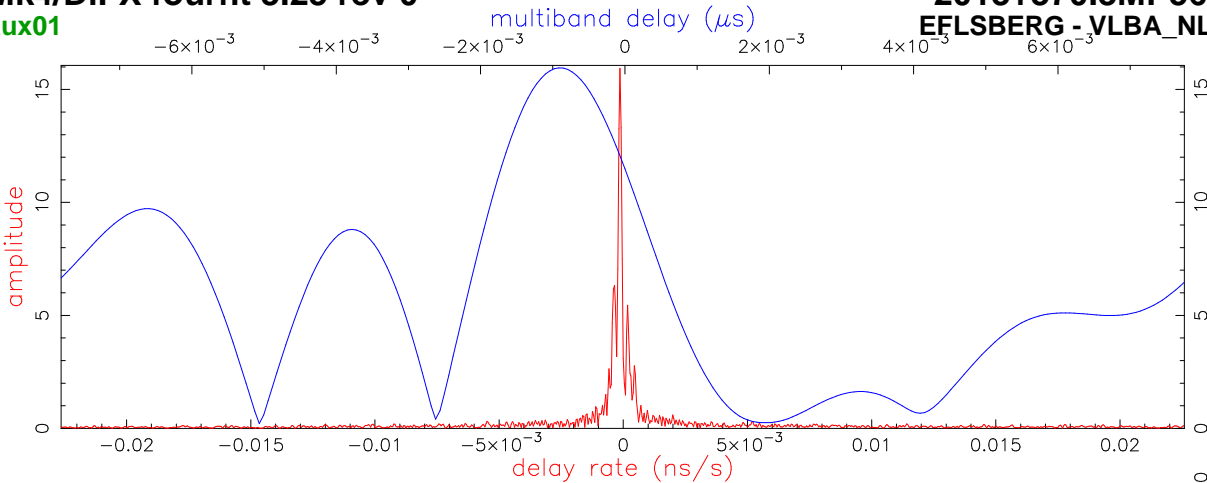
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bn.Q.109.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

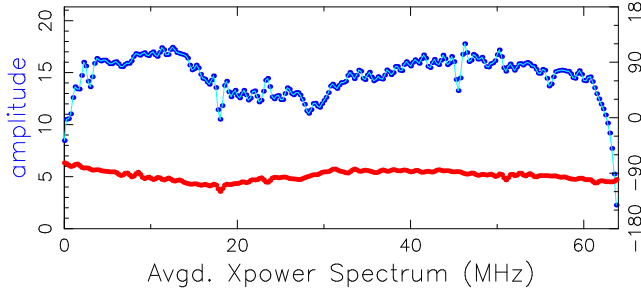
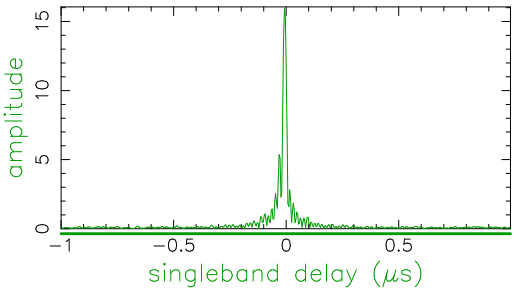
2013+370.3MP56K, No0500, Bn

EFLSBERG - VLBA\_NL, fgroup Q, pol LR



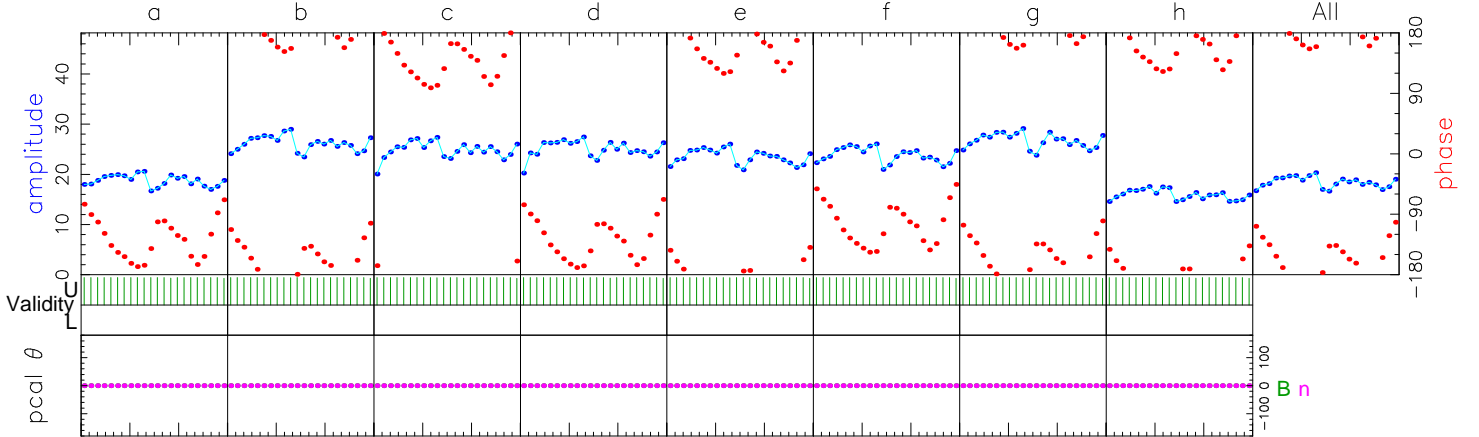
Fringe quality 4

SNR 588.8  
 Int time 179.655  
 Amp 16.065  
 Phase -161.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006736  
 MBD -0.000847  
 Fringe rate (Hz)  
 -0.006510  
 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  
 2025:042:151757  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-2.91720022803E+03	Apriori delay (usec)	-2.91719938150E+03	Resid mbdelay (usec)	-8.46529E-04	+/-	1.8E-06
Sband delay (usec)	-2.91720611750E+03	Apriori clock (usec)	-3.5106236E+01	Resid sbdelay (usec)	-6.73600E-03	+/-	1.5E-05
Phase delay (usec)	-2.91719939191E+03	Apriori clockrate (us/s)	-4.8679897E-07	Resid phdelay (usec)	-1.04184E-05	+/-	1.3E-08
Delay rate (us/s)	-1.25995723126E+00	Apriori rate (us/s)	-1.25995708036E+00	Resid rate (us/s)	-1.50901E-07	+/-	1.2E-10
Total phase (deg)	-276.2	Apriori accel (us/s/s)	2.25572146522E-05	Resid phase (deg)	-161.8	+/-	0.2

ph/seg (deg)	RMS 30.5	Theor. 0.5	Amplitude Search (1024X32)	15.407	16.065 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	16.1	0.8	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	43.8	0.3	Inc. seg. avg.	18.436	18.436	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.0	0.5	Inc. frq. avg.	20.005	20.005	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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 4549.409 1019.399 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bn.Q.124.3MP56K

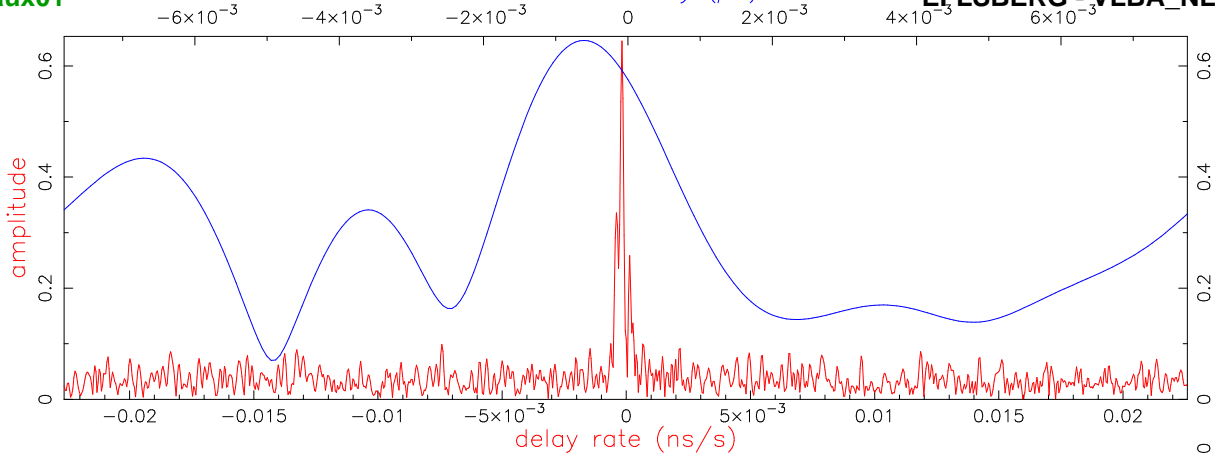
Mk4/DiFX fourfit 3.25 rev 0

aux01

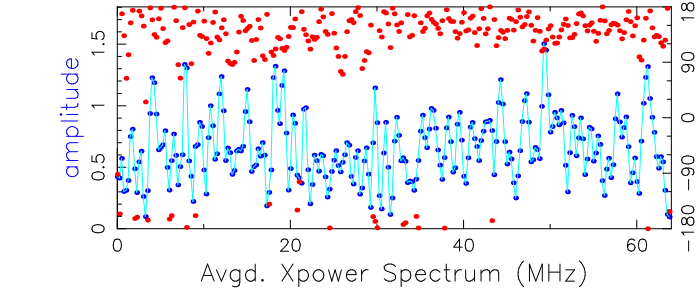
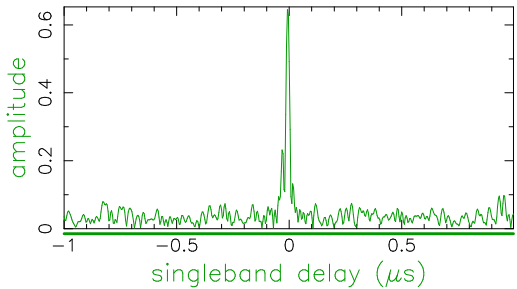
2013+370.3MP56K, No0500, Bn

EFLSBERG - VLBA\_NL, fgroup Q, pol RL

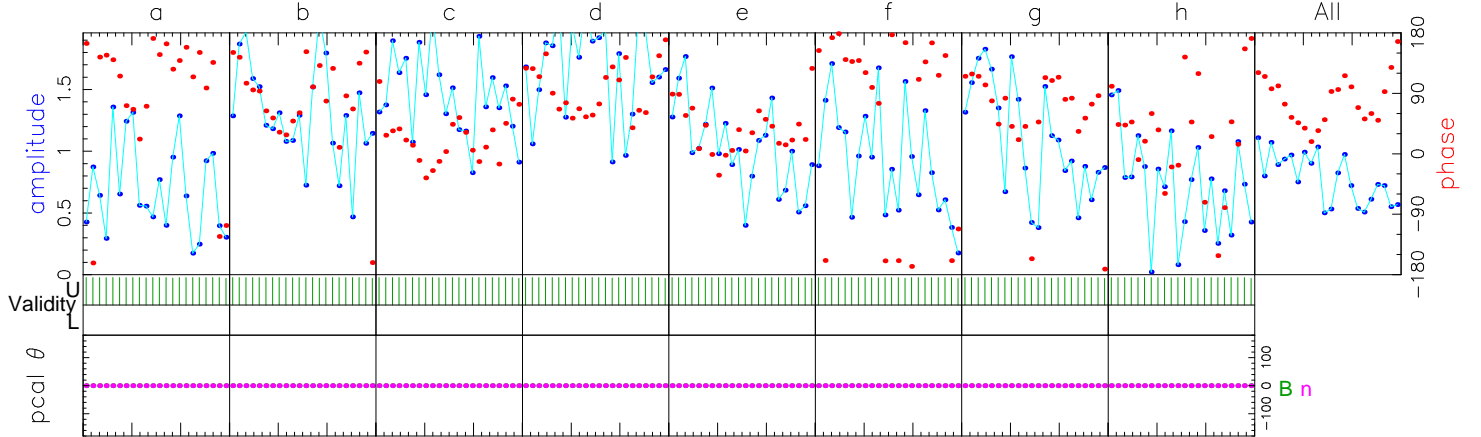
multiband delay ( $\mu$ s)



Fringe quality 6  
 Error code G  
 SNR 23.9  
 Int time 179.655  
 Amp 0.653  
 Phase 79.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006429  
 MBD -0.000545  
 Fringe rate (Hz)  
 -0.007055  
 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	127.8	98.9	19.1	92.7	38.3	152.7	86.2	36.4	Phase	79.0
B	0.5	1.0	1.2	1.4	0.8	0.8	0.9	0.4	Ampl.	0.9
n	251.9	254.7	255.8	255.9	256.7	256.1	254.4	251.4	Sbd box	255.4
B:n	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B:n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
Group delay (usec) (SBD)	-2.91719992631E+03		Apriori delay (usec)		-2.91719938150E+03		Resid mbdelay (usec)		-5.44809E-04	+/- 4.5E-05
Sband delay (usec)	-2.91720581100E+03		Apriori clock (usec)		-3.5106236E+01		Resid sbdelay (usec)		-6.42950E-03	+/- 3.6E-04
Phase delay (usec)	-2.91719937641E+03		Apriori clockrate (us/s)		-4.8679897E-07		Resid phdelay (usec)		5.08993E-06	+/- 3.1E-07
Delay rate (us/s)	-1.25995724390E+00		Apriori rate (us/s)		-1.25995708036E+00		Resid rate (us/s)		-1.63547E-07	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		2.25572146522E-05		Resid phase (deg)		79.0	+/- 4.8
ph/seg (deg)	RMS 35.8	Theor. 11.2	Amplitude 0.653 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	36.0	19.6	Search (1024X32) 0.630		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	50.9	6.8	Interp. 0.000		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 (%)	57.0	11.8	Inc. seg. avg. 0.769		Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
B: az 275.5 el 46.9 pa 52.6		n: az 85.1 el 59.3 pa -68.9		u,v (fr/asec) 4549.409 1019.399				simultaneous interpolator		
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/Bn..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/Bn.Q.132.3MP56K						



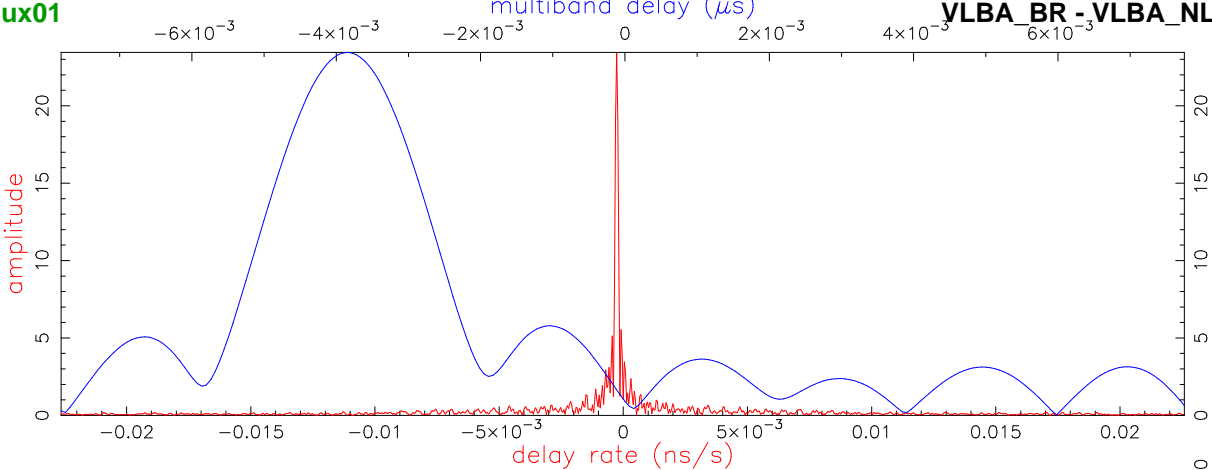
Mk4/DiFX fourfit 3.25 rev 0

aux01

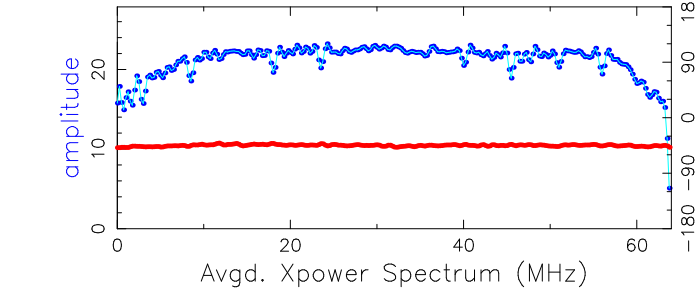
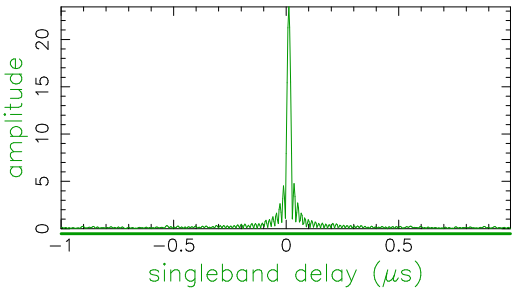
2013+370.3MP56K, No0500, bn

VLBA\_BR - VLBA\_NL, fgroup Q, pol LL

Fringe quality 9

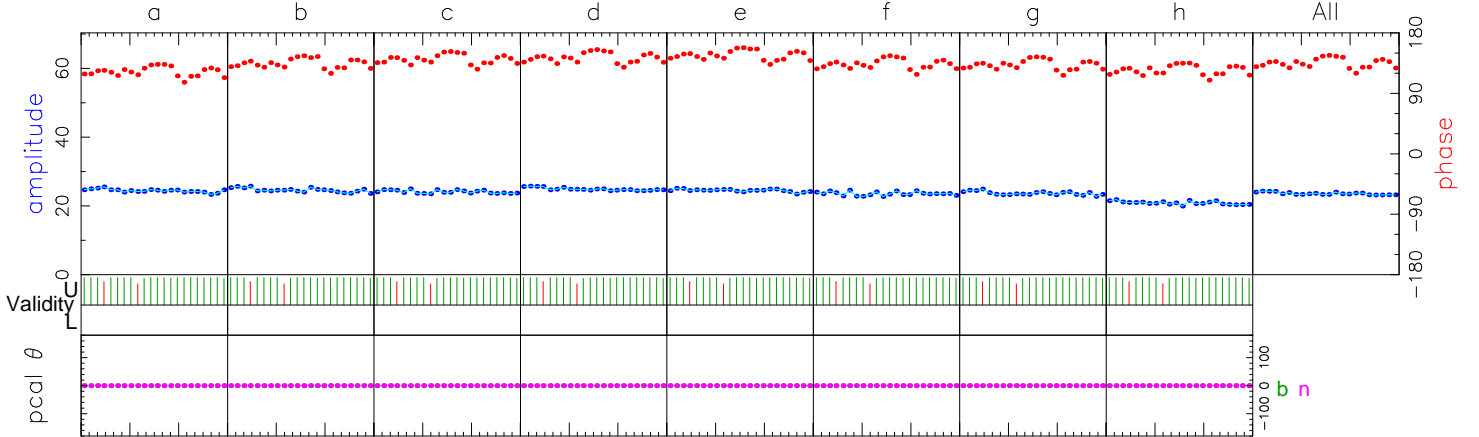


SNR 851.6  
Int time 176.349  
Amp 23.451  
Phase 337.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.011753  
MBD -0.003846  
Fringe rate (Hz)  
-0.010945  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build  
2024:332:222845  
2025:042:151745  
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	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-4.42616221038E+03	Apriori delay (usec)	-4.42617398926E+03	Resid mbdelay (usec)	-3.84612E-03	+/-	1.3E-06
Sband delay (usec)	-4.42616223626E+03	Apriori clock (usec)	4.9095936E+00	Resid sbdelay (usec)	1.17530E-02	+/-	1.0E-05
Phase delay (usec)	-4.42617398057E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	8.68218E-06	+/-	8.7E-09
Delay rate (us/s)	1.77824242216E-01	Apriori rate (us/s)	1.77824495929E-01	Resid rate (us/s)	-2.53713E-07	+/-	8.4E-11
Total phase (deg)	14.6	Apriori accel (us/s/s)	2.89300487315E-05	Resid phase (deg)	337.3	+/-	0.1

ph/seg (deg)	RMS 6.9	Theor. 0.3	Amplitude Search (1024X32)	23.451 +/- 0.028	23.000	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	1.7	0.5	Interp.	0.000	23.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.3	0.2	Inc. seg. avg.	23.623	23.623	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	5.1	0.3	Inc. frq. avg.	23.683	23.683	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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -628.566 1147.028 simultaneous interpolator

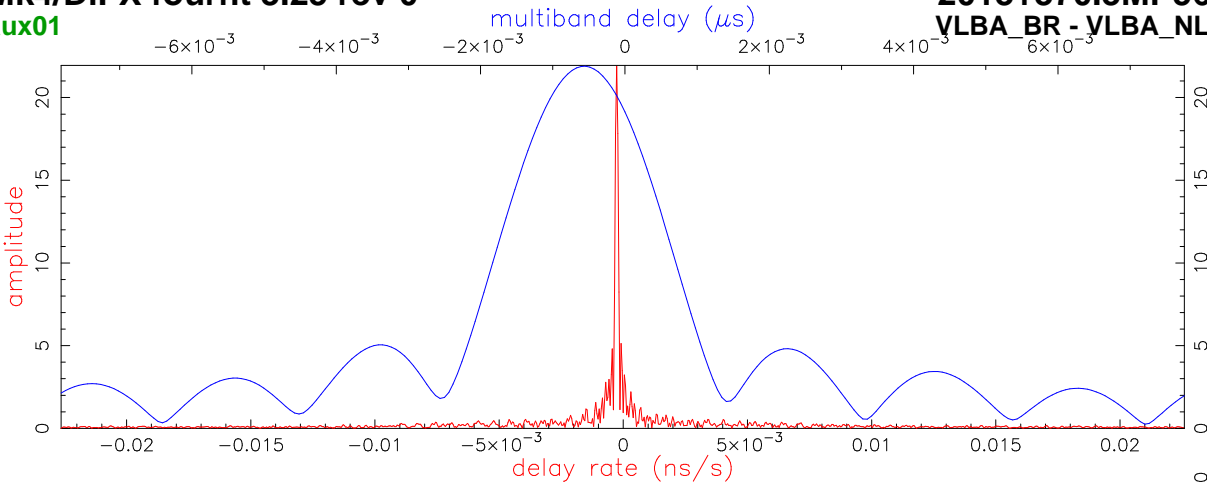
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bn.Q.59.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

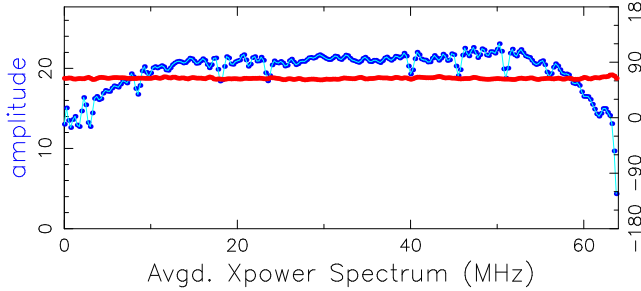
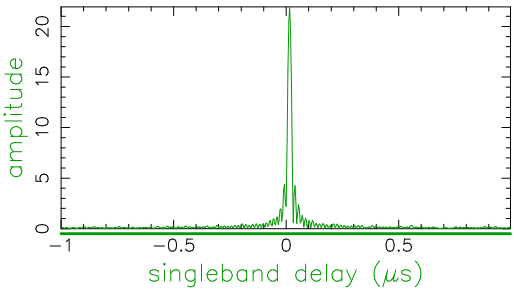
2013+370.3MP56K, No0500, bn

VLBA\_BR - VLBA\_NL, fgroup Q, pol RR



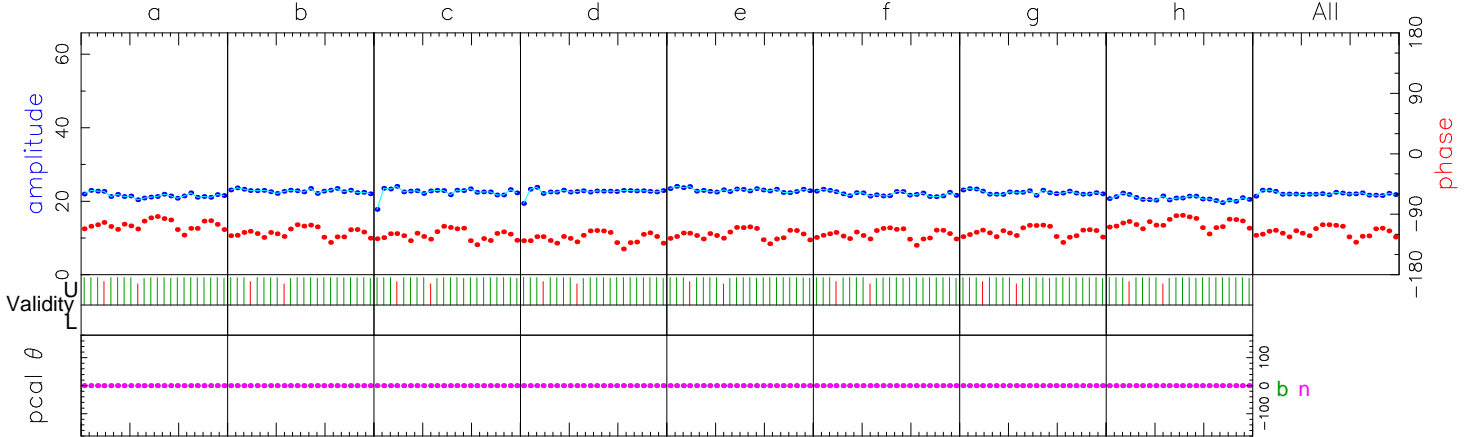
Fringe quality 9

SNR 796.9  
 Int time 176.349  
 Amp 21.945  
 Phase 86.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.015016  
 MBD -0.000577  
 Fringe rate (Hz)  
 -0.010956  
 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	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -4.42615894147E+03 Apriori delay (usec) -4.42617398926E+03 Resid mbdelay (usec) -5.77213E-04 +/- 1.4E-06  
 Sband delay (usec) -4.42615897351E+03 Apriori clock (usec) 4.9095936E+00 Resid sbdelay (usec) 1.50158E-02 +/- 1.1E-05  
 Phase delay (usec) -4.42617399676E+03 Apriori clockrate (us/s) 2.7918098E-07 Resid phdelay (usec) -7.50173E-06 +/- 9.3E-09  
 Delay rate (us/s) 1.77824241964E-01 Apriori rate (us/s) 1.77824495929E-01 Resid rate (us/s) -2.53965E-07 +/- 9.0E-11  
 Total phase (deg) 123.2 Apriori accel (us/s/s) 2.89300487315E-05 Resid phase (deg) 86.0 +/- 0.1

RMS Theor. Amplitude 21.945 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 6.9 0.3 Search (1024X32) 21.526 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 2.0 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 8.3 0.2 Inc. seg. avg. 22.055 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 3.2 0.4 Inc. frq. avg. 22.064 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

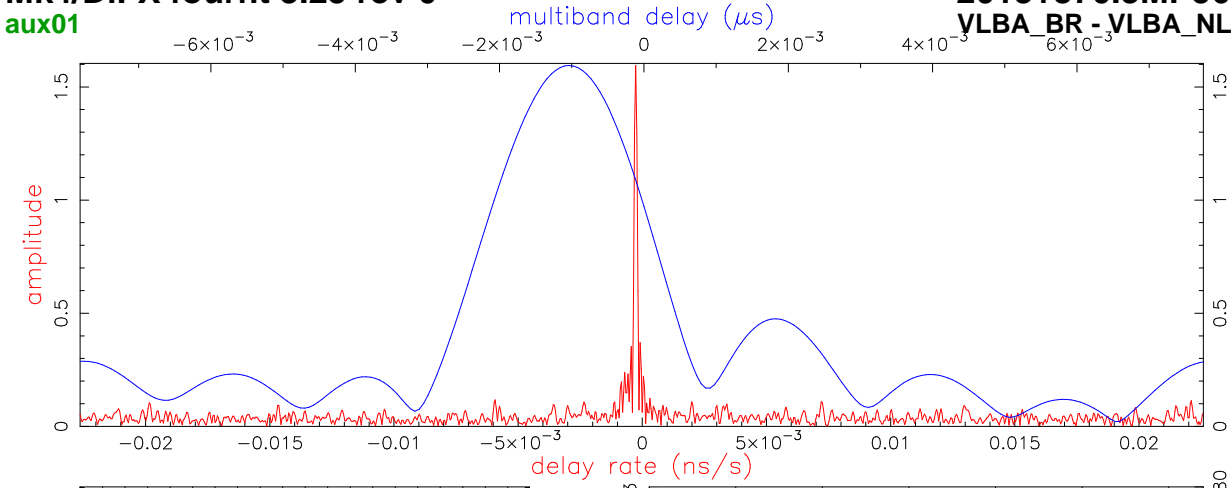
b: az 76.2 el 40.6 pa -54.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -628.566 1147.028 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bn.Q.73.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

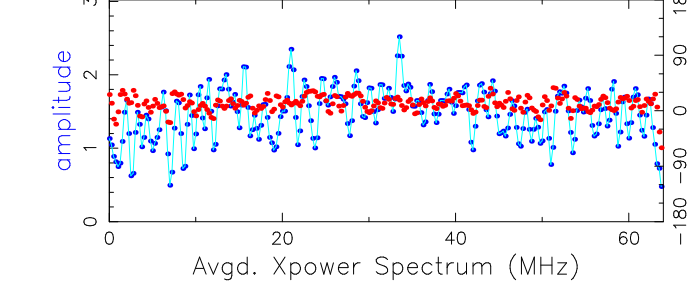
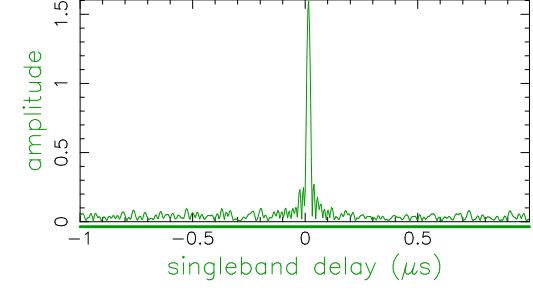
2013+370.3MP56K, No0500, bn

VLBA\_BR - VLBA\_NL, fgroup Q, pol LR



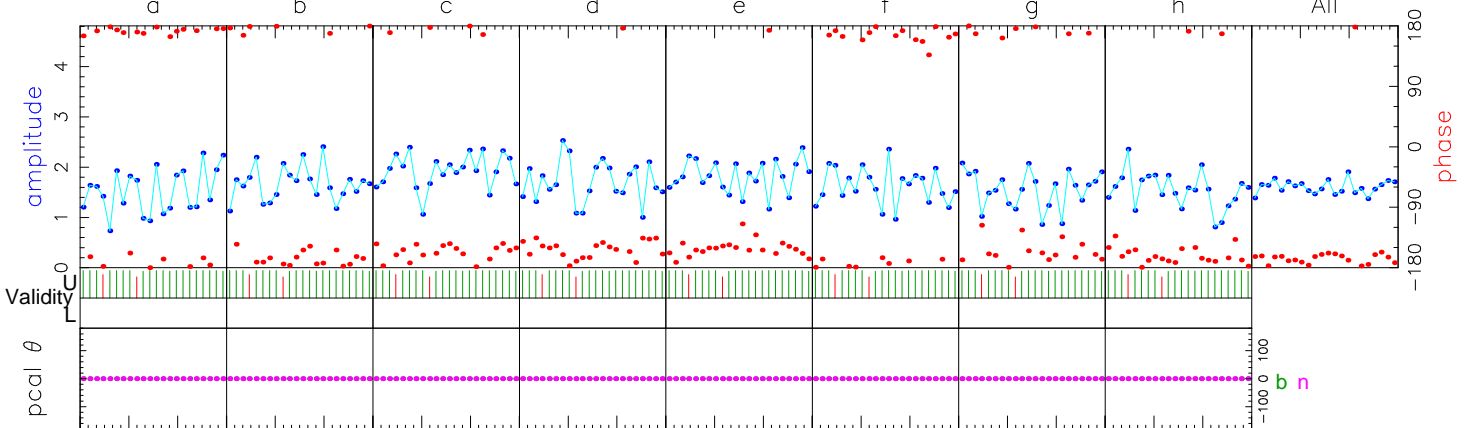
Fringe quality 8

SNR 58.2  
 Int time 176.349  
 Amp 1.604  
 Phase 35.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.014634  
 MBD -0.001066  
 Fringe rate (Hz)  
 -0.011018  
 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
U/L	179.1	-170.6	-162.2	-154.3	-153.0	173.3	-168.1	-164.0	Phase	-167.0
b	1.5	1.6	1.9	1.7	1.8	1.5	1.5	1.5	Ampl.	1.6
n	260.6	261.1	260.7	260.6	260.5	260.5	261.2	260.1	Sbd box	260.7
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -4.42615943044E+03 Apriori delay (usec) -4.42617398926E+03 Resid mbdelay (usec) -1.06618E-03 +/- 1.9E-05  
 Sband delay (usec) -4.42615935526E+03 Apriori clock (usec) 4.9095936E+00 Resid sbdelay (usec) 1.46340E-02 +/- 1.5E-04  
 Phase delay (usec) -4.42617400001E+03 Apriori clockrate (us/s) 2.7918098E-07 Resid phdelay (usec) -1.07514E-05 +/- 1.3E-07  
 Delay rate (us/s) 1.77824240532E-01 Apriori rate (us/s) 1.77824495929E-01 Resid rate (us/s) -2.55397E-07 +/- 1.2E-09  
 Total phase (deg) 72.8 Apriori accel (us/s/s) 2.89300487315E-05 Resid phase (deg) 35.5 +/- 2.0

ph/seg (deg) 7.0 4.6 Search (1024X32) 1.574 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 8.1 8.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 12.8 2.8 Inc. seg. avg. 1.601 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.2 4.9 Inc. frq. avg. 1.623 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

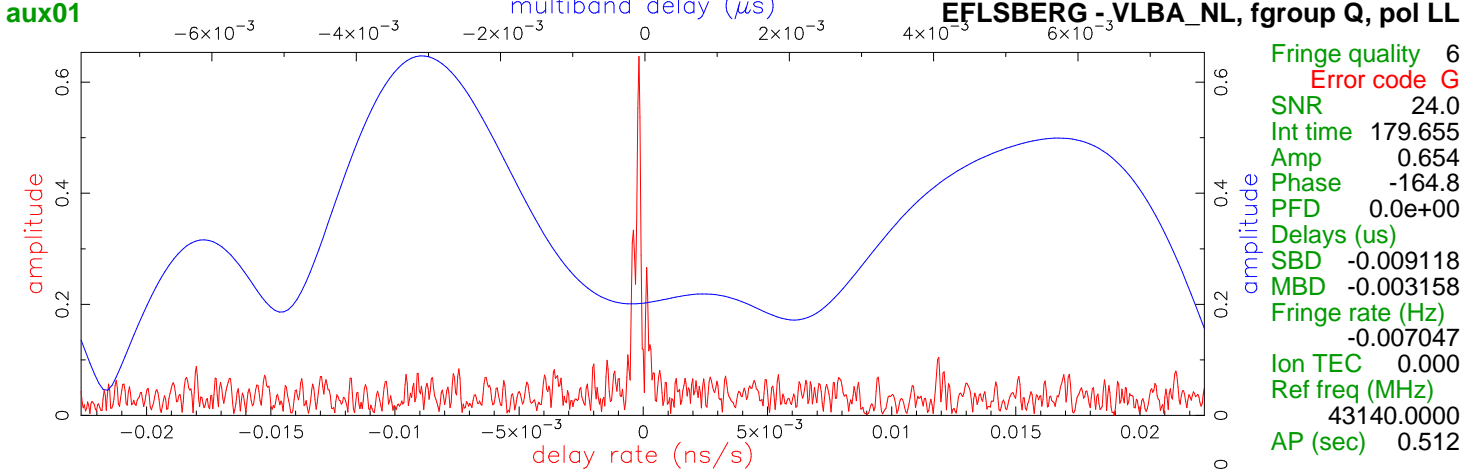
b: az 76.2 el 40.6 pa -54.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -628.566 1147.028 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bn.Q.85.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

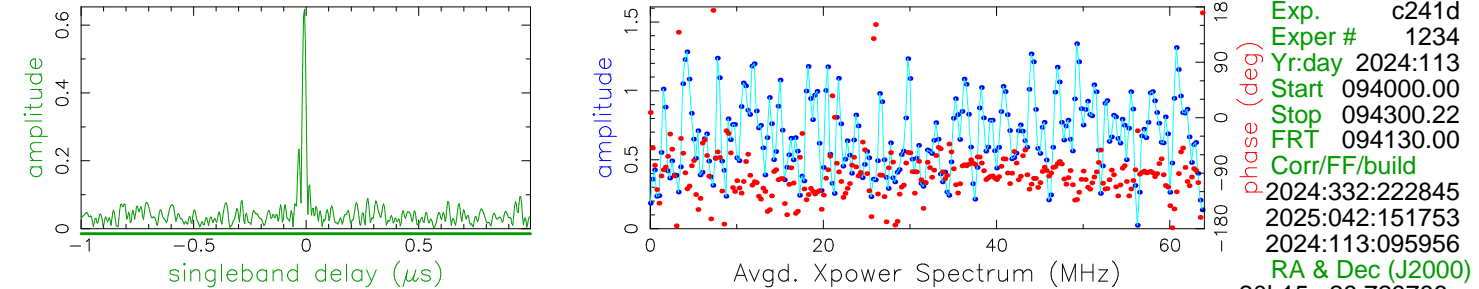
aux01

2013+370.3MP56K, No0500, Bn

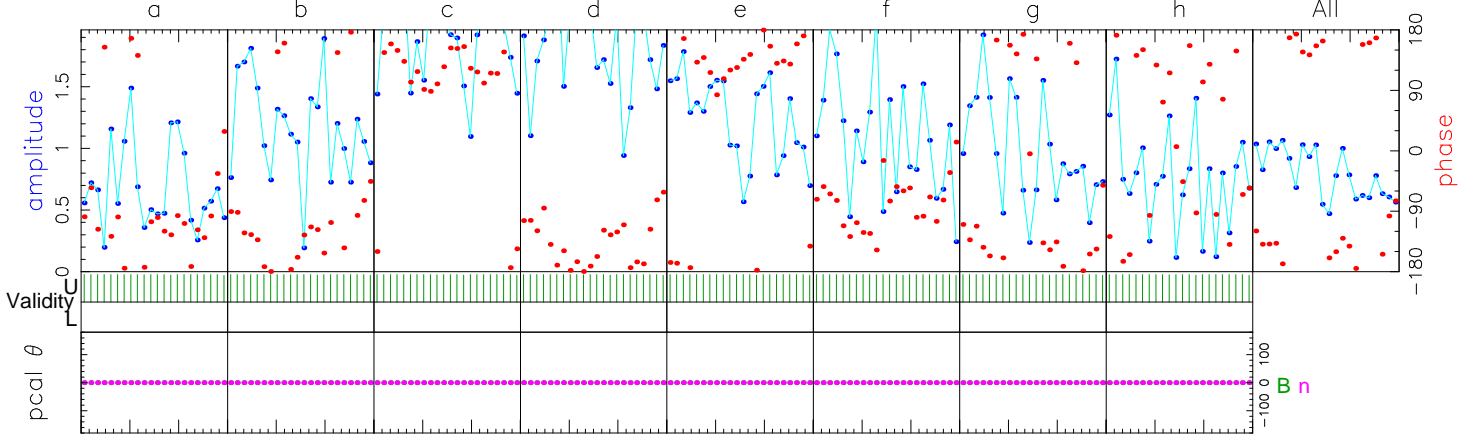
EFLSBERG - VLBA\_NL, fgroup Q, pol LL



Fringe quality 6  
 Error code G  
 SNR 24.0  
 Int time 179.655  
 Amp 0.654  
 Phase -164.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009118  
 MBD -0.003158  
 Fringe rate (Hz)  
 -0.007047  
 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  
 2025:042:151753  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-2.91720253946E+03	Apriori delay (usec)	-2.91719938150E+03	Resid mbdelay (usec)	-3.15797E-03	+/-	4.5E-05
Sband delay (usec)	-2.91720849975E+03	Apriori clock (usec)	-3.5106236E+01	Resid sbdelay (usec)	-9.11825E-03	+/-	3.6E-04
Phase delay (usec)	-2.91719939210E+03	Apriori clockrate (us/s)	-4.8679897E-07	Resid phdelay (usec)	-1.06085E-05	+/-	3.1E-07
Delay rate (us/s)	-1.25995724370E+00	Apriori rate (us/s)	-1.25995708036E+00	Resid rate (us/s)	-1.63340E-07	+/-	3.0E-09
Total phase (deg)	-279.1	Apriori accel (us/s/s)	2.25572146522E-05	Resid phase (deg)	-164.8	+/-	4.8

ph/seg (deg) 37.6 11.2 Amplitude 0.654 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 37.0 19.6 Search (1024X32) 0.632 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 51.5 6.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 79.3 11.8 Inc. seg. avg. 0.782 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Inc. frq. avg. 0.933 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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 4549.409 1019.399 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bn.Q.98.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

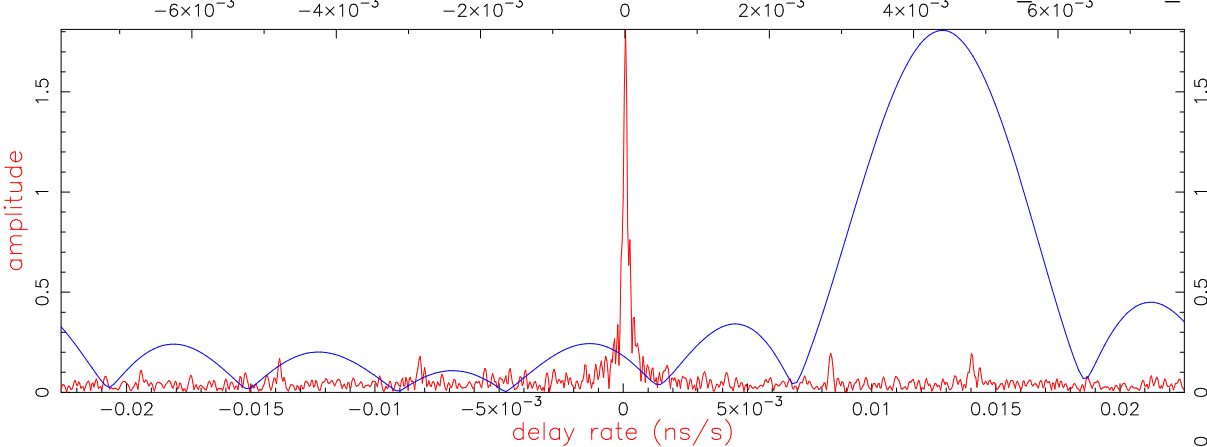
aux01

2013+370.3MP56K, No0500, fn

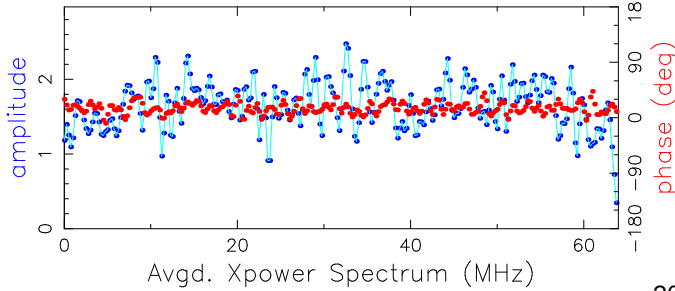
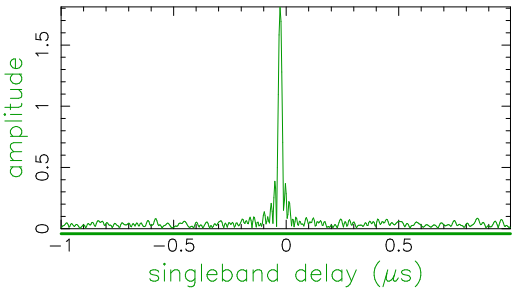
VLBA\_FD - VLBA\_NL, fgroup Q, pol LL

multiband delay ( $\mu$ s)

Fringe quality 7

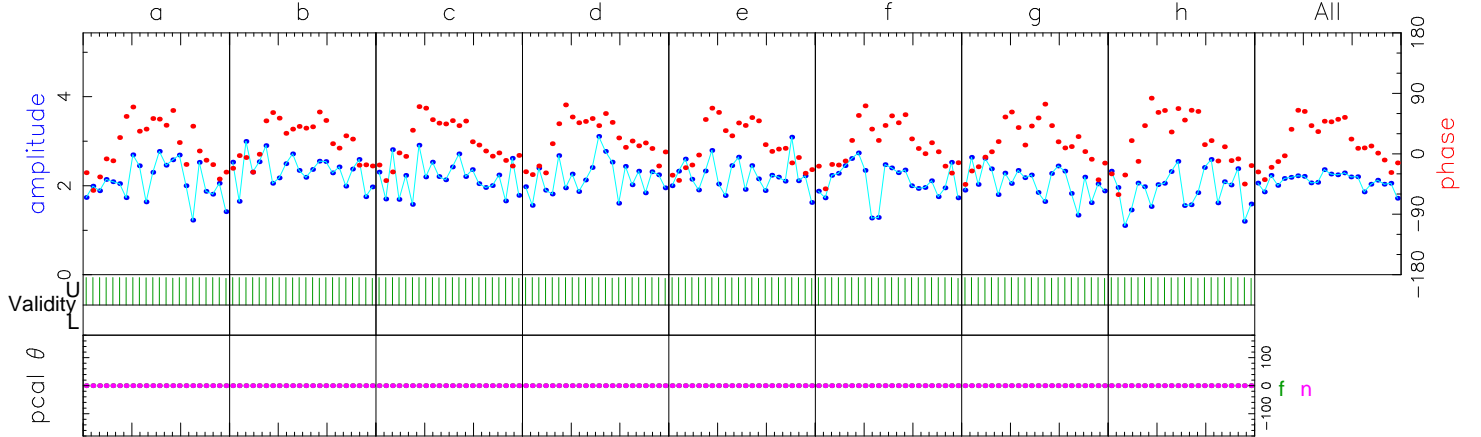


SNR 66.4  
 Int time 179.663  
 Amp 1.812  
 Phase -28.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.026696  
 MBD 0.004416  
 Fringe rate (Hz) 0.003736  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151756  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -2.75319599695E+03 Apriori delay (usec) -2.75316916279E+03 Resid mbdelay (usec) 4.41584E-03 +/- 1.6E-05  
 Sband delay (usec) -2.75319585929E+03 Apriori clock (usec) 3.4478951E-01 Resid sbdelay (usec) -2.66965E-02 +/- 1.3E-04  
 Phase delay (usec) -2.75316916169E+03 Apriori clockrate (us/s) -2.4704002E-07 Resid phdelay (usec) 1.09628E-06 +/- 1.1E-07  
 Delay rate (us/s) 2.50178247293E-01 Apriori rate (us/s) 2.50178160689E-01 Resid rate (us/s) 8.66037E-08 +/- 1.1E-09  
 Total phase (deg) -273.8 Apriori accel (us/s/s) 3.96002113081E-06 Resid phase (deg) -28.0 +/- 1.7

ph/seg (deg) 31.5 4.0 Search (1024X32) 1.805 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 18.6 7.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 3.8 2.4 Inc. seg. avg. 2.108 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.6 4.3 Inc. frq. avg. 1.809 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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -901.185 -428.164 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fn.Q.119.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

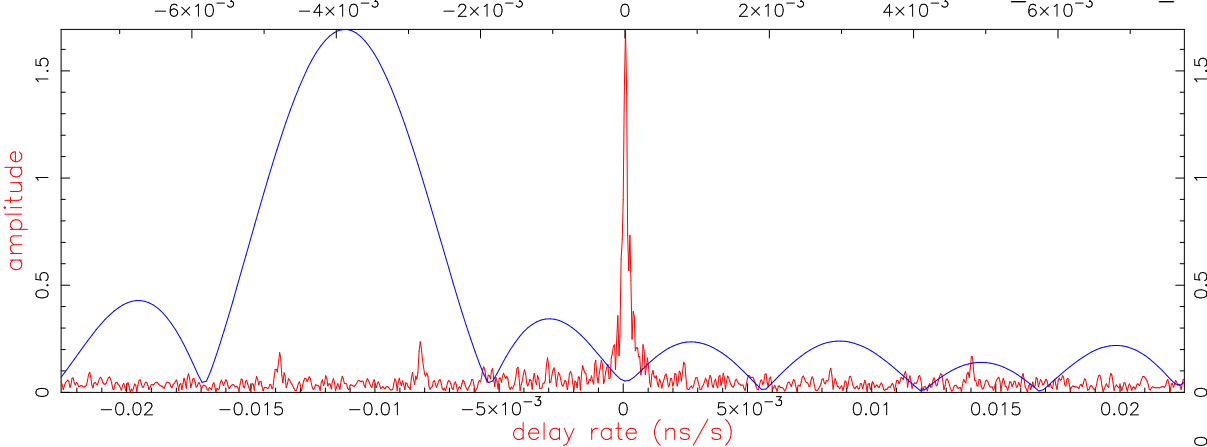
aux01

2013+370.3MP56K, No0500, fn

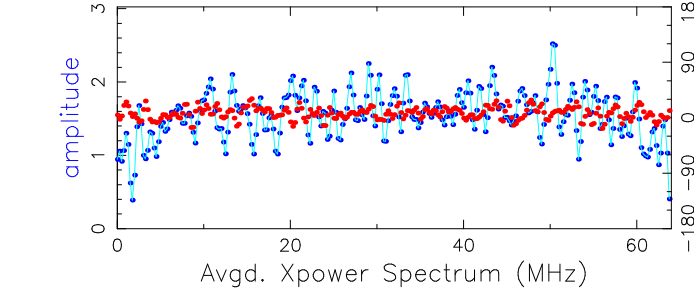
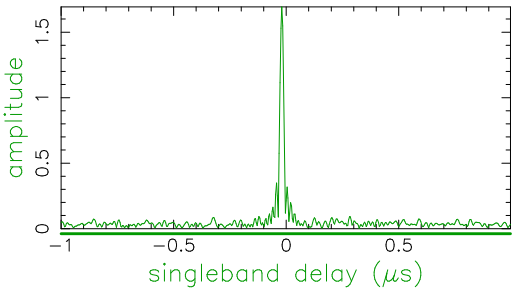
VLBA\_FD - VLBA\_NL, fgroup Q, pol RR

multiband delay ( $\mu$ s)

Fringe quality 7

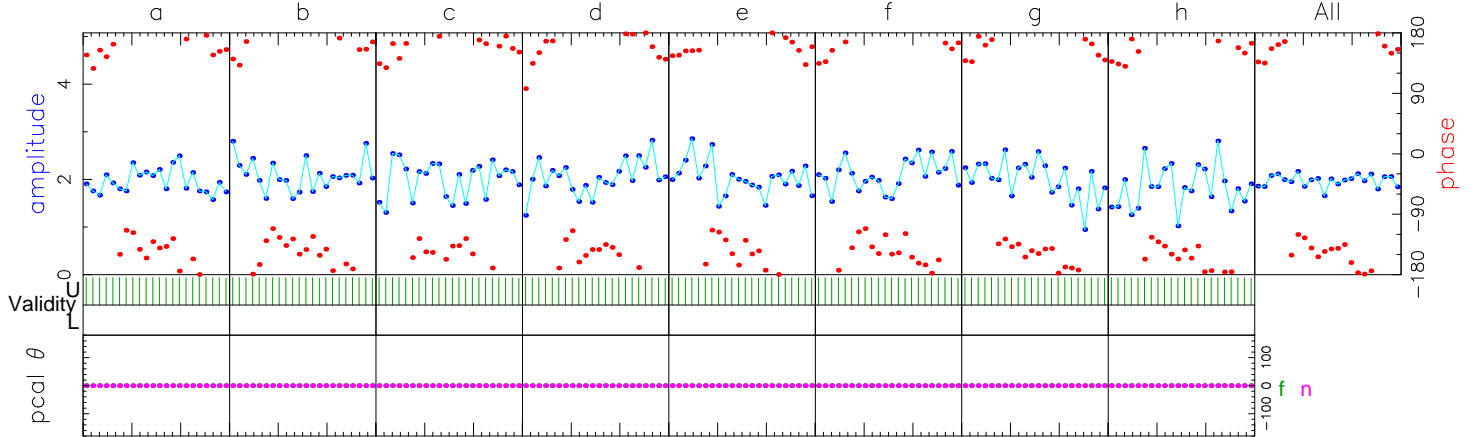


SNR 62.1  
 Int time 179.663  
 Amp 1.693  
 Phase -14.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.019425  
 MBD -0.003878  
 Fringe rate (Hz) 0.003788  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151758  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-2.75318866617E+03	Apriori delay (usec)	-2.75316916279E+03	Resid mbdelay (usec)	-3.87838E-03	+/-	1.7E-05
Sband delay (usec)	-2.75318858804E+03	Apriori clock (usec)	3.4478951E-01	Resid sbdelay (usec)	-1.94253E-02	+/-	1.4E-04
Phase delay (usec)	-2.75316917386E+03	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	-1.10663E-05	+/-	1.2E-07
Delay rate (us/s)	2.50178248487E-01	Apriori rate (us/s)	2.50178160689E-01	Resid rate (us/s)	8.77978E-08	+/-	1.1E-09
Total phase (deg)	-260.1	Apriori accel (us/s/s)	3.96002113081E-06	Resid phase (deg)	-14.4	+/-	1.8

ph/seg (deg)	31.5	Theor.	4.3	Amplitude	1.693 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	18.2		7.6	Search (1024X32)	1.691	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	4.9		2.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	3.8		4.6	Inc. seg. avg.	1.970	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
f: az 66.6 el 46.8 pa -82.9		n: az 85.1 el 59.3 pa -68.9		Inc. frq. avg.	1.696	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/fn..3MP56K		u,v (fr/asec)	-901.185 -428.164				simultaneous interpolator	
						Output file: /Exps/c241d/v1/7mm/1234/No0500/fn.Q.128.3MP56K				

Mk4/DiFX fourfit 3.25 rev 0

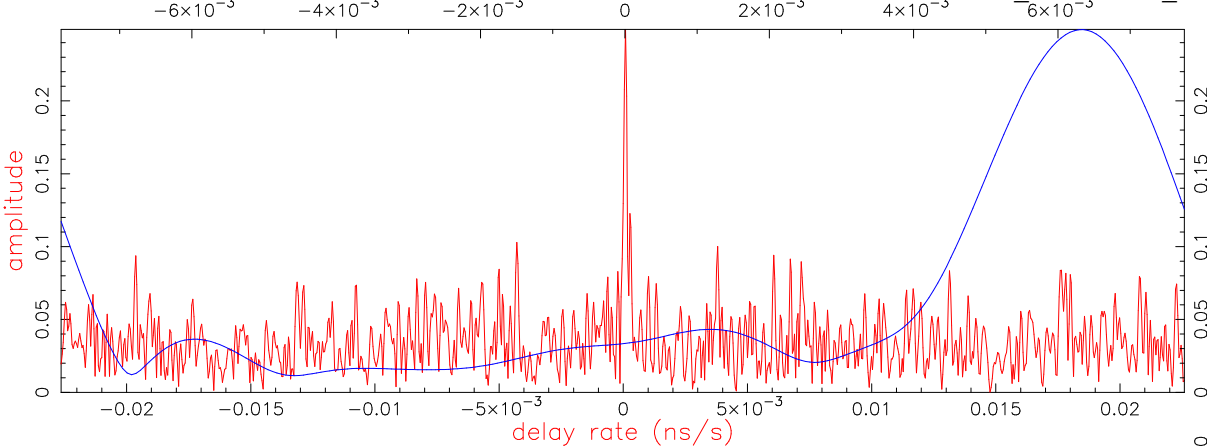
aux01

2013+370.3MP56K, No0500, fn

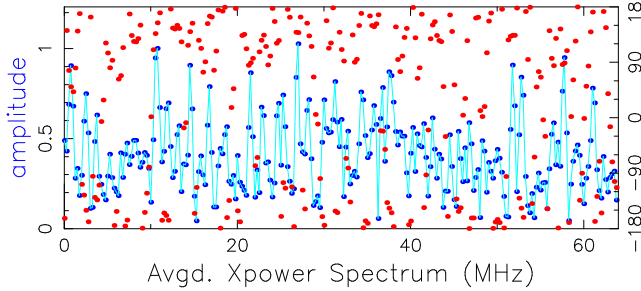
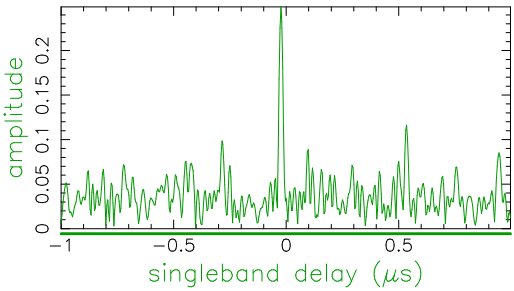
VLBA\_FD - VLBA\_NL, fgroup Q, pol LR

multiband delay ( $\mu$ s)

Fringe quality 9

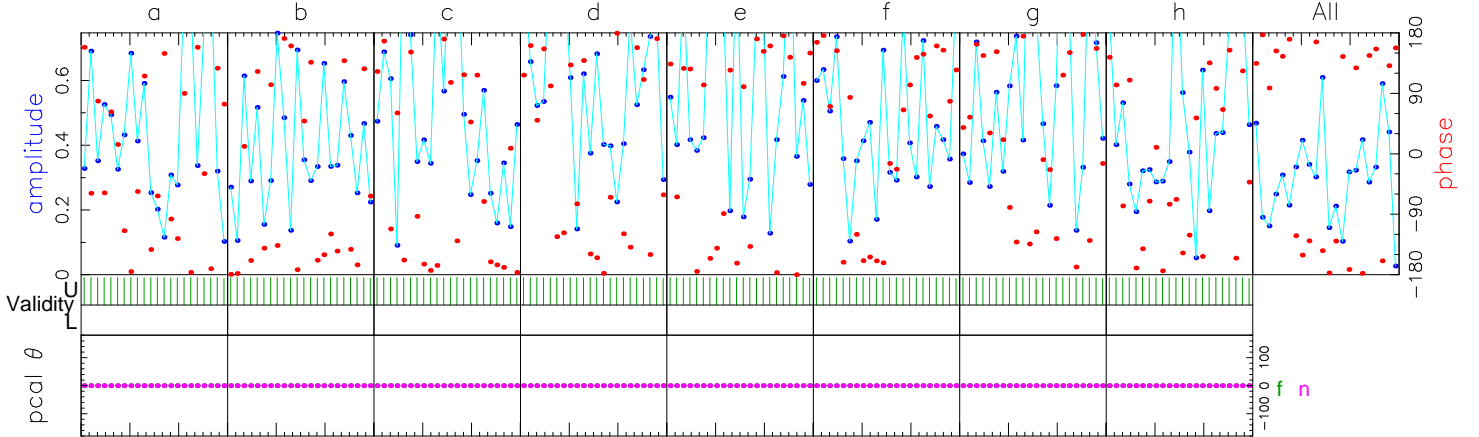


SNR 9.1  
 Int time 179.663  
 Amp 0.249  
 Phase -228.1  
 PFD 1.3e-11  
 Delays (us)  
 SBD -0.023093  
 MBD 0.006342  
 Fringe rate (Hz) 0.003433  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build 2024:332:222845  
 2025:042:151800  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-2.75319407098E+03	Apriori delay (usec)	-2.75316916279E+03	Resid mbdelay (usec)	6.34181E-03	+/-	1.2E-04
Sband delay (usec)	-2.75319225554E+03	Apriori clock (usec)	3.4478951E-01	Resid sbdelay (usec)	-2.30928E-02	+/-	9.4E-04
Phase delay (usec)	-2.75316915140E+03	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	1.13891E-05	+/-	8.1E-07
Delay rate (us/s)	2.50178240261E-01	Apriori rate (us/s)	2.50178160689E-01	Resid rate (us/s)	7.95721E-08	+/-	7.8E-09
Total phase (deg)	-113.9	Apriori accel (us/s/s)	3.96002113081E-06	Resid phase (deg)	-228.1	+/-	12.6

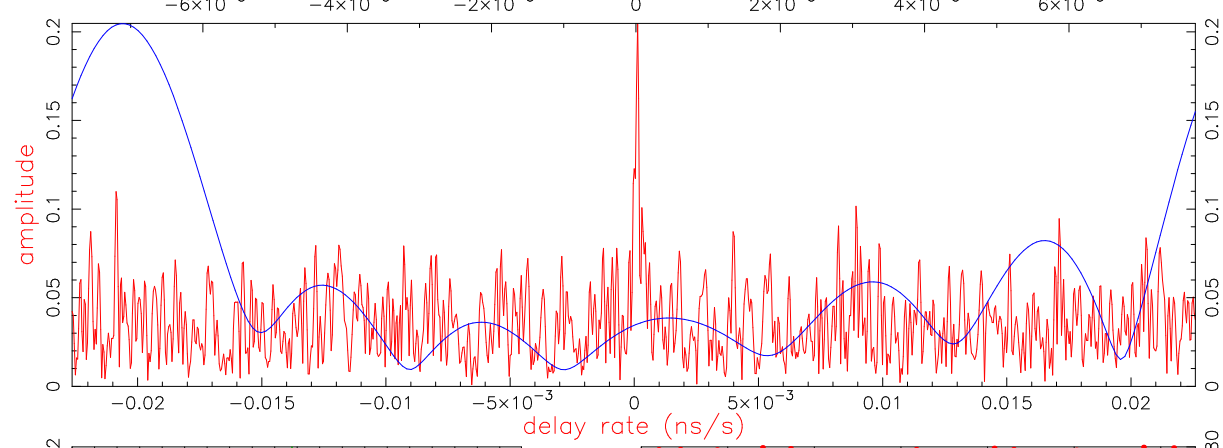
ph/seg (deg) 36.9 29.4 Search (1024X32) 0.247 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 62.0 51.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 16.3 17.8 Inc. seg. avg. 0.272 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 38.6 31.0 Inc. frq. avg. 0.244 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 f: az 66.6 el 46.8 pa -82.9 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -901.185 -428.164 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fn.Q.140.3MP56K

# Mk4/DiFX fourfit 3.25 rev 0

aux01

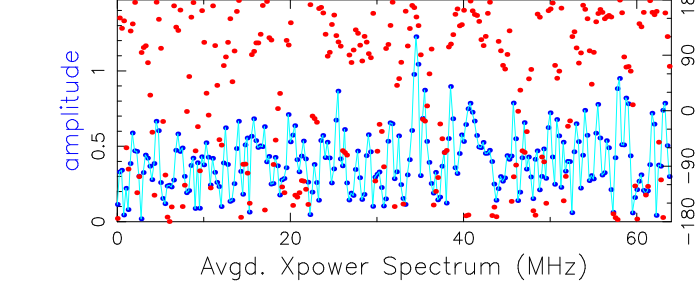
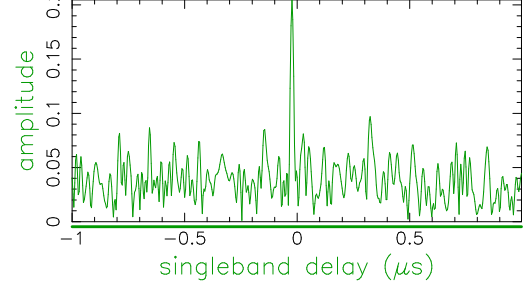
# 2013+370.3MP56K, No0500, fn

VLBA\_FD - VLBA\_NL, fgroup Q, pol RL



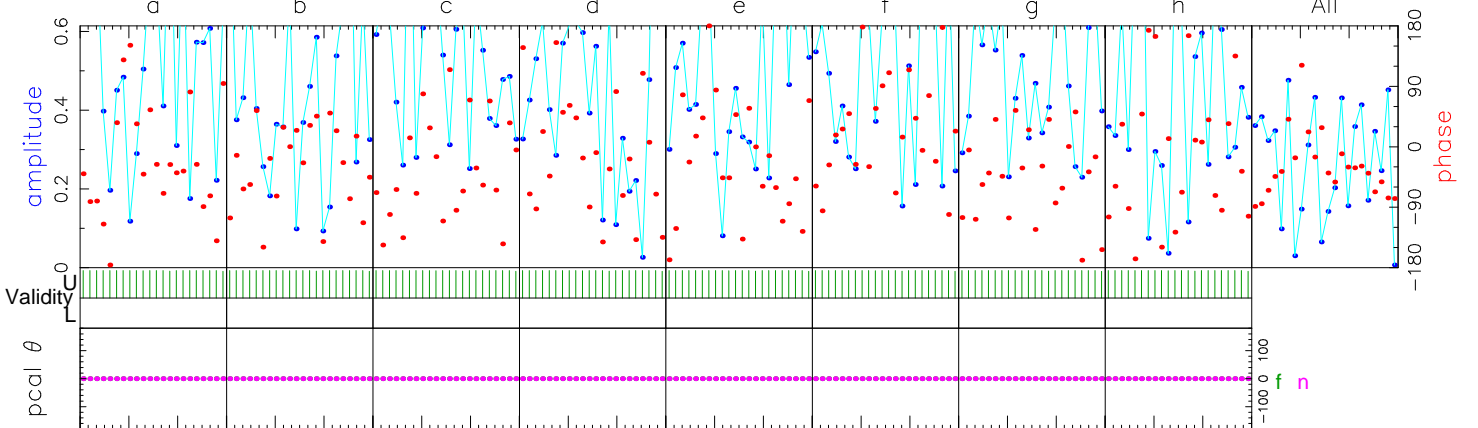
Fringe quality 9

SNR 7.5  
 Int time 179.663  
 Amp 0.205  
 Phase -239.9  
 PFD 9.9e-06  
 Delays (us)  
 SBD -0.023181  
 MBD -0.007107  
 Fringe rate (Hz) 0.004906  
 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  
 2025:042:151804  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-2.75319189473E+03	Apriori delay (usec)	-2.75316916279E+03	Resid mbdelay (usec)	-7.10694E-03	+/-	1.4E-04
Sband delay (usec)	-2.75319234354E+03	Apriori clock (usec)	3.4478951E-01	Resid sbdelay (usec)	-2.31807E-02	+/-	1.1E-03
Phase delay (usec)	-2.75316916520E+03	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	-2.40765E-06	+/-	9.8E-07
Delay rate (us/s)	2.50178274421E-01	Apriori rate (us/s)	2.50178160689E-01	Resid rate (us/s)	1.13731E-07	+/-	9.4E-09
Total phase (deg)	-125.7	Apriori accel (us/s/s)	3.96002113081E-06	Resid phase (deg)	-239.9	+/-	15.3

ph/seg (deg) 48.2 35.8 Amplitude 0.205 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 76.4 62.5 Search (1024X32) 0.194 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 19.8 21.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.4 37.7 Inc. seg. avg. 0.225 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 f: az 66.6 el 46.8 pa -82.9 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -901.185 -428.164 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fn.Q.159.3MP56K

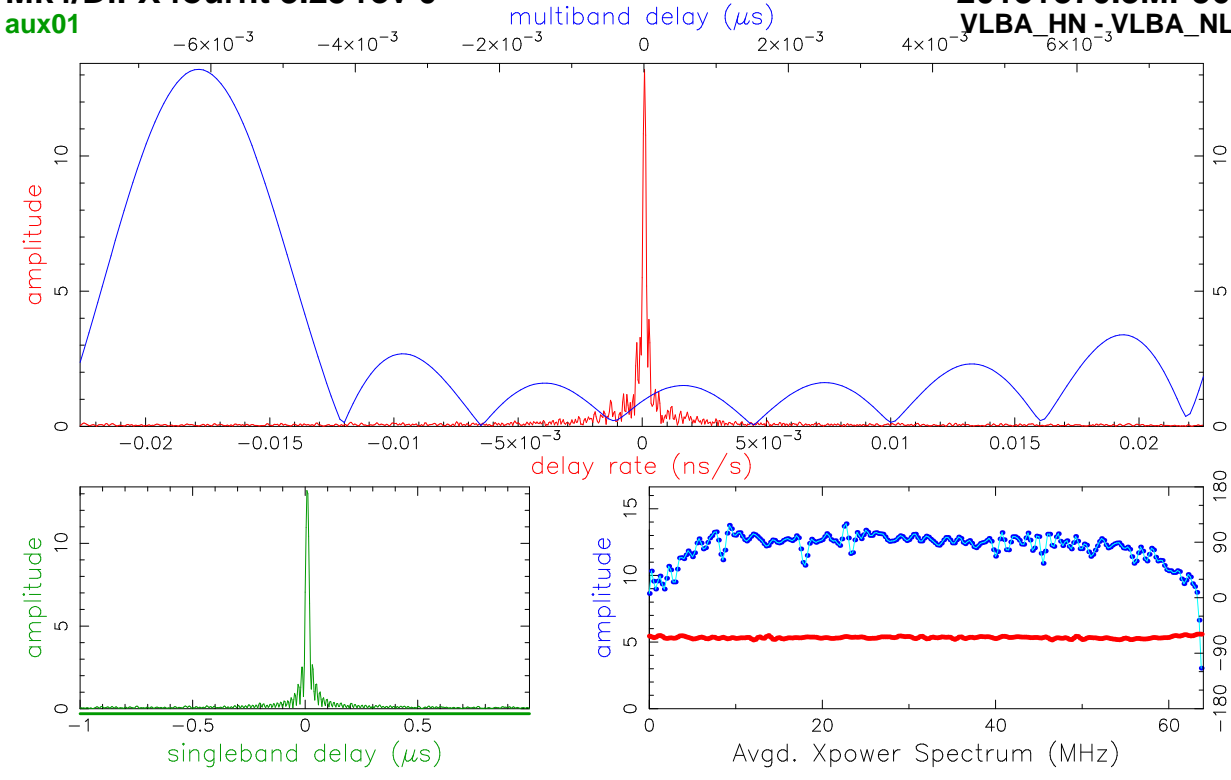


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hn

VLBA\_HN - VLBA\_NL, fgroup Q, pol LL

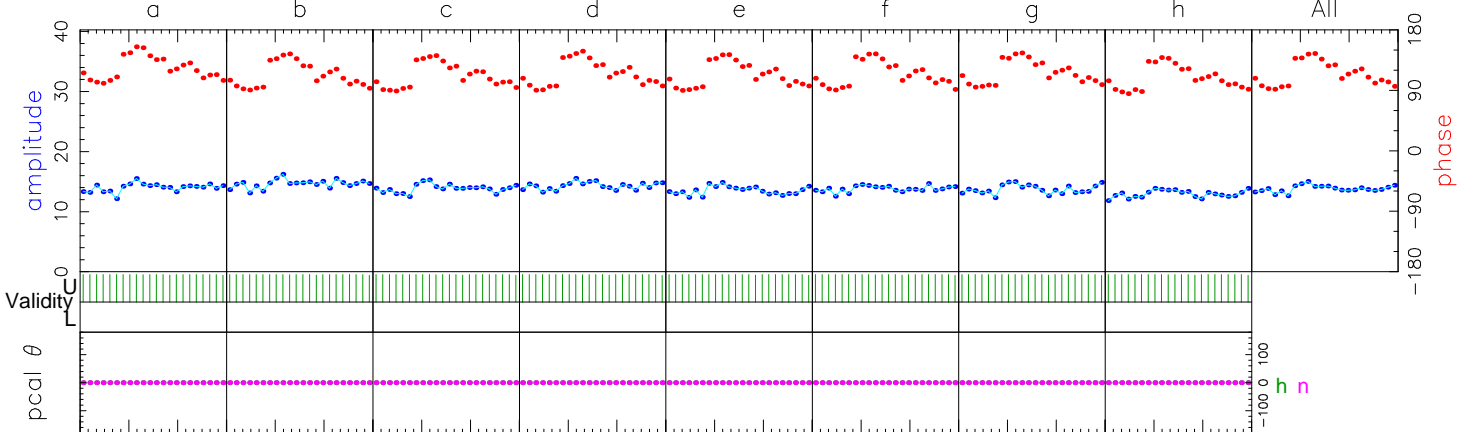


Fringe quality 8

SNR 492.1  
 Int time 179.672  
 Amp 13.425  
 Phase 317.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009461  
 MBD -0.006131  
 Fringe rate (Hz) 0.003964  
 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  
 2025:042:151806  
 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



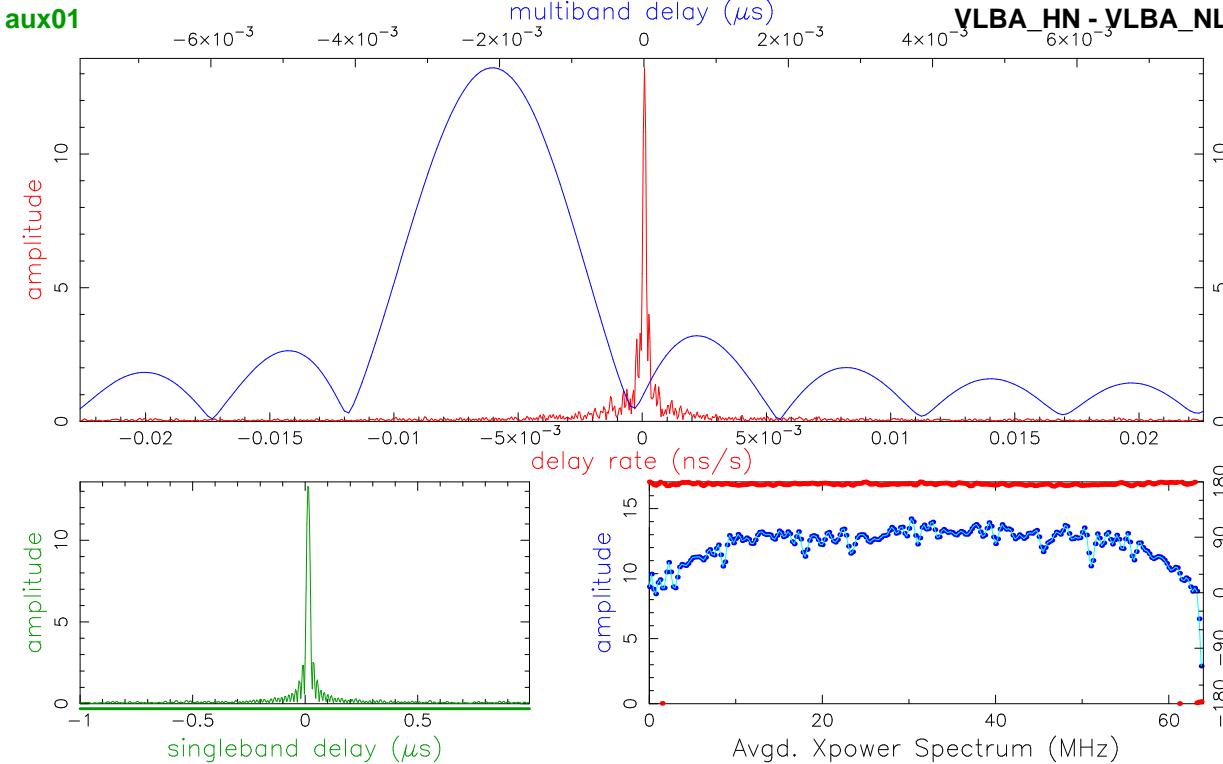
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
h	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h	1000	1000	1000	1000	1000	1000	1000	1000	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	2.11110267443E+03		Apriori delay (usec)		2.11109318002E+03		Resid mbdelay (usec)		-6.13060E-03	+/- 2.2E-06
Sband delay (usec)	2.11110264152E+03		Apriori clock (usec)		1.2709558E+01		Resid sbdelay (usec)		9.46150E-03	+/- 1.8E-05
Phase delay (usec)	2.11109318740E+03		Apriori clockrate (us/s)		-2.1832297E-07		Resid phdelay (usec)		7.37659E-06	+/- 1.5E-08
Delay rate (us/s)	-2.78657268390E-01		Apriori rate (us/s)		-2.78657360286E-01		Resid rate (us/s)		9.18951E-08	+/- 1.4E-10
Total phase (deg)	240.1		Apriori accel (us/s/s)		-1.01332732939E-05		Resid phase (deg)		317.1	+/- 0.2
ph/seg (deg)	RMS 17.4	Theor. 0.5	Amplitude Search (1024X32)	13.425 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	5.1	1.0	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)	4.6	0.3	Inc. seg. avg.	13.834	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 (%)	3.6	0.6	Inc. frq. avg.	13.228	Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
h: az 103.5 el 73.6 pa -63.0	n: az 85.1 el 59.3 pa -68.9		u,v (fr/asec) 1000.114 -256.557						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hn..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.166.3MP56K							

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hn

VLBA\_HN - VLBA\_NL, fgroup Q, pol RR

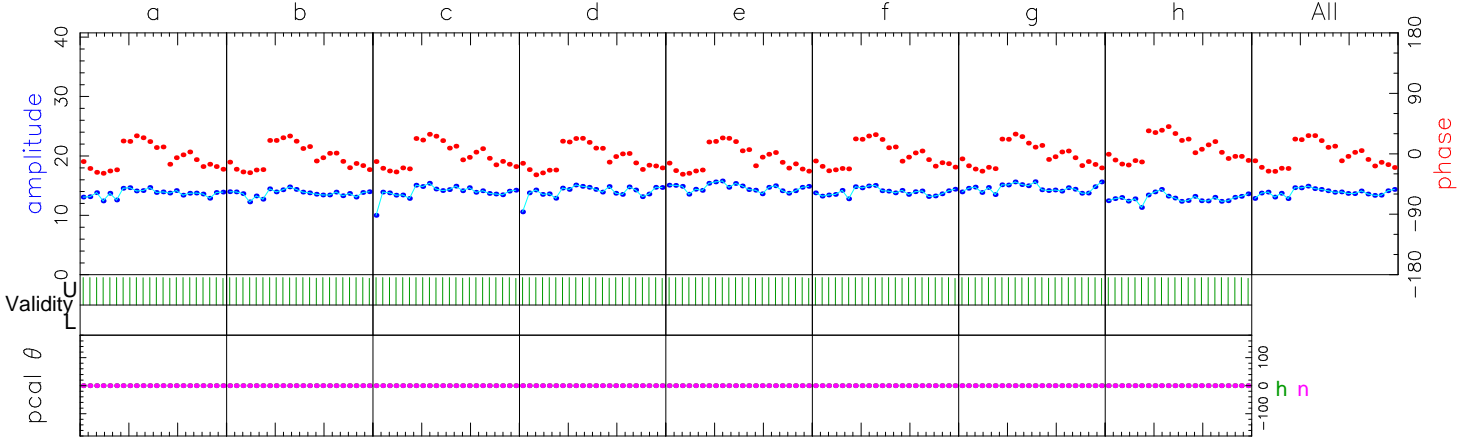


Fringe quality 8

SNR 497.7  
 Int time 179.672  
 Amp 13.577  
 Phase 199.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.013536  
 MBD -0.002147  
 Fringe rate (Hz) 0.003930  
 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  
 2025:042:151811  
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 2.11110665786E+03 Apriori delay (usec) 2.11109318002E+03 Resid mbdelay (usec) -2.14716E-03 +/- 2.2E-06  
 Sband delay (usec) 2.11110671577E+03 Apriori clock (usec) 1.2709558E+01 Resid sbdelay (usec) 1.35358E-02 +/- 1.7E-05  
 Phase delay (usec) 2.11109317984E+03 Apriori clockrate (us/s) -2.1832297E-07 Resid phdelay (usec) -1.83559E-07 +/- 1.5E-08  
 Delay rate (us/s) -2.78657269180E-01 Apriori rate (us/s) -2.78657360286E-01 Resid rate (us/s) 9.11056E-08 +/- 1.4E-10  
 Total phase (deg) 122.7 Apriori accel (us/s/s) -1.01332732939E-05 Resid phase (deg) 199.6 +/- 0.2

ph/seg (deg) 17.8 0.5 Theor. Amplitude 13.577 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 4.7 0.9 Search (1024X32) 13.077 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 5.0 0.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 4.4 0.6 Inc. seg. avg. 13.886 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Inc. frq. avg. 13.250 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

h: az 103.5 el 73.6 pa -63.0 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 1000.114 -256.557 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.187.3MP56K

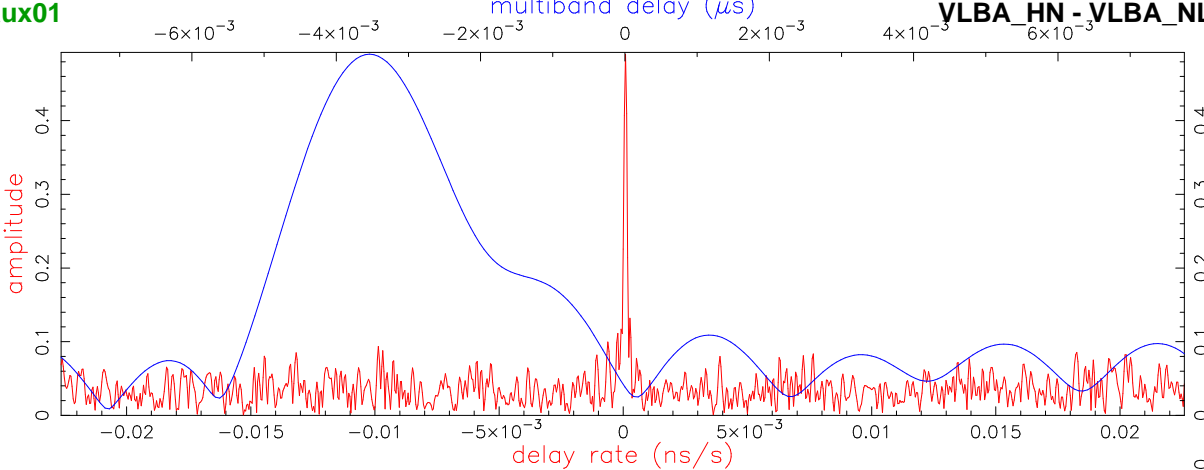
Mk4/DiFX fourfit 3.25 rev 0

aux01

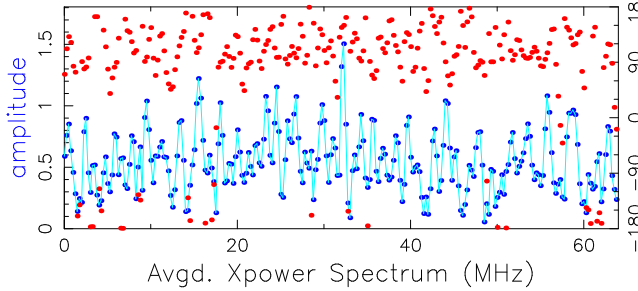
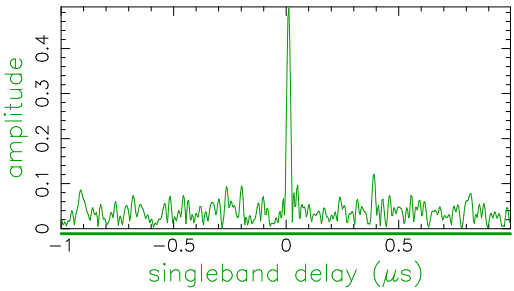
2013+370.3MP56K, No0500, hn

VLBA\_HN - VLBA\_NL, fgroup Q, pol LR

Fringe quality 9

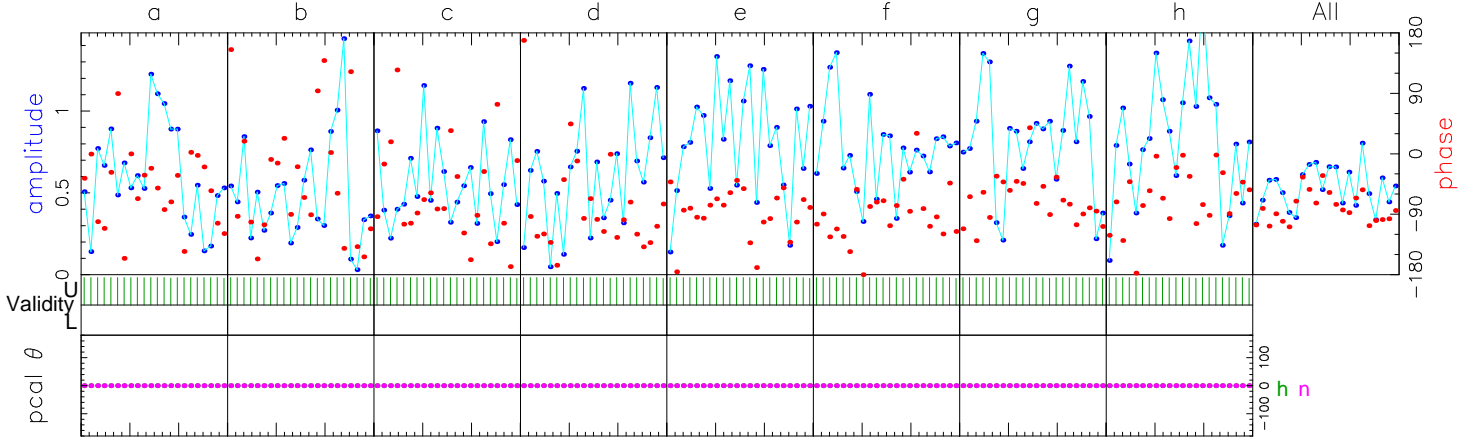


SNR 18.1  
Int time 179.672  
Amp 0.493  
Phase 124.4  
PFD 0.0e+00  
Delays (us)  
SBD 0.010783  
MBD -0.003568  
Fringe rate (Hz) 0.003796  
Ion TEC 0.000  
Ref freq (MHz) 43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build 2024:332:222845  
2025:042:151822  
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
-57.4	-73.0	-84.4	-99.1	-85.0	-93.7	-72.3	-59.0	Phase	-78.1
0.4	0.2	0.3	0.4	0.7	0.6	0.7	0.7	Ampl.	0.5
259.7	352.2	259.9	259.5	260.3	258.9	260.3	260.2	Sbd box	259.8
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	
n 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:n 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	
n 1000	1000	1000	1000	1000	1000	1000	1000		
h Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	2.11110523711E+03	Apriori delay (usec)	2.11109318002E+03	Resid mbdelay (usec)	-3.56791E-03	+/-	6.0E-05
Sband delay (usec)	2.11110396302E+03	Apriori clock (usec)	1.2709558E+01	Resid sbdelay (usec)	1.07830E-02	+/-	4.8E-04
Phase delay (usec)	2.11109317500E+03	Apriori clockrate (us/s)	-2.1832297E-07	Resid phdelay (usec)	-5.02565E-06	+/-	4.1E-07
Delay rate (us/s)	-2.78657272301E-01	Apriori rate (us/s)	-2.78657360286E-01	Resid rate (us/s)	8.79846E-08	+/-	3.9E-09
Total phase (deg)	47.5	Apriori accel (us/s/s)	-1.01332732939E-05	Resid phase (deg)	124.4	+/-	6.3

ph/seg (deg)	22.7	Theor.	14.9	Amplitude	0.493 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	26.9	Search (1024X32)	0.487	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)	16.5	Inc. seg. avg.	0.513	Inc. frq. avg.	0.500	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 (%)	36.2	Inc. frq. avg.	0.500			Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

h: az 103.5 el 73.6 pa -63.0 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 1000.114 -256.557 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.245.3MP56K

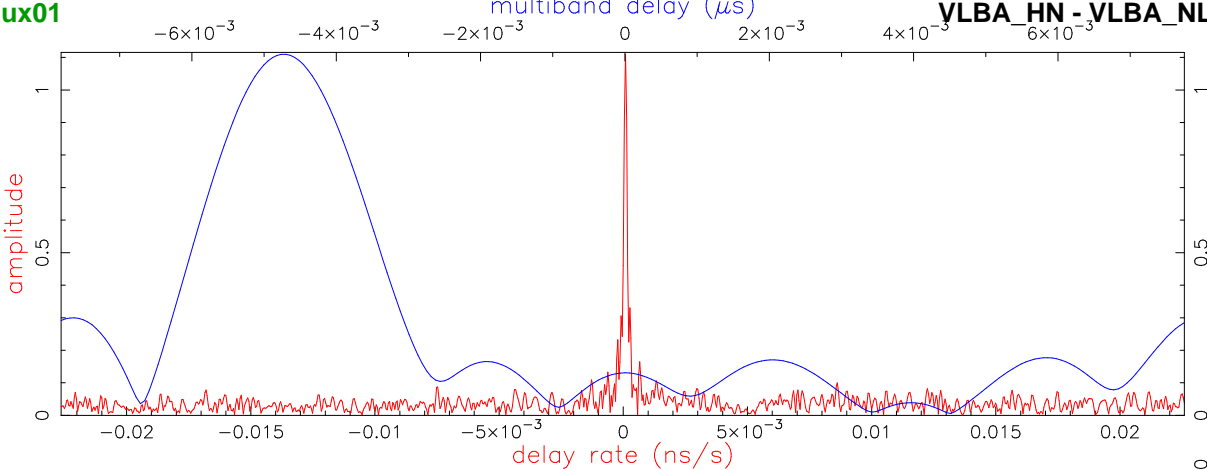
Mk4/DiFX fourfit 3.25 rev 0

aux01

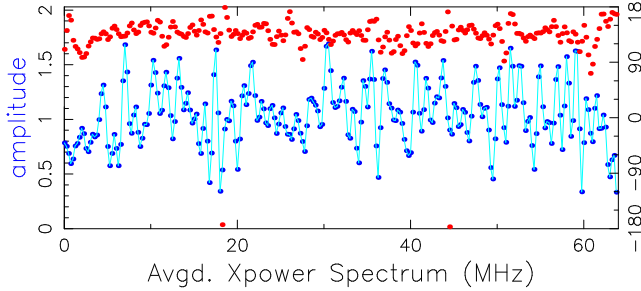
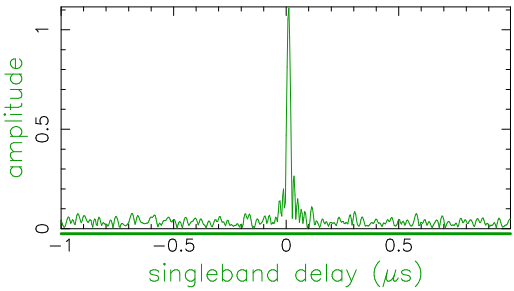
2013+370.3MP56K, No0500, hn

VLBA\_HN - VLBA\_NL, fgroup Q, pol RL

Fringe quality 8

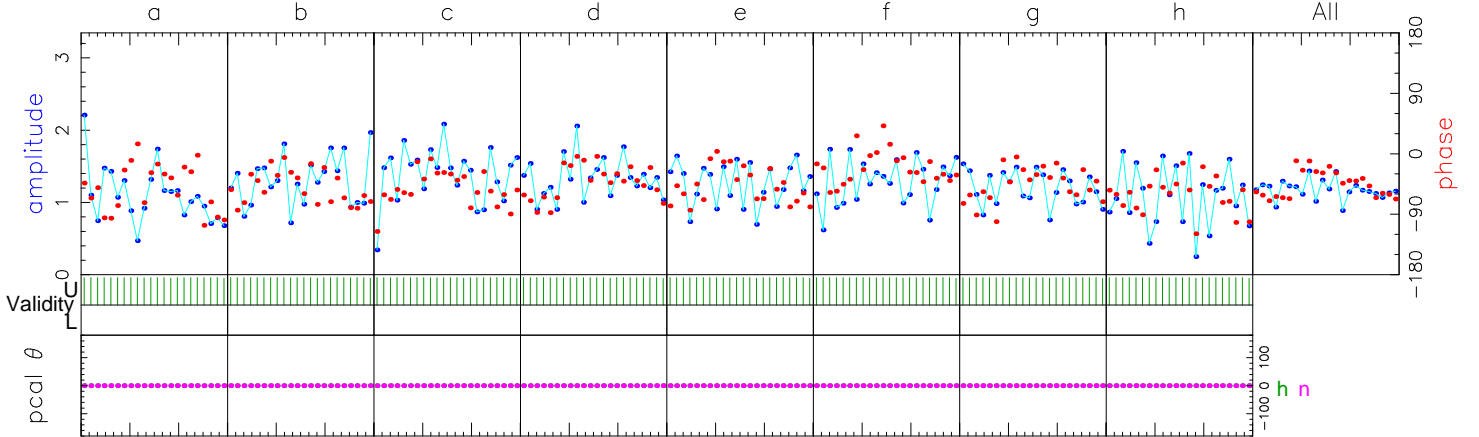


SNR 40.9  
Int time 179.672  
Amp 1.116  
Phase 157.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.010819  
MBD -0.004748  
Fringe rate (Hz)  
0.003936  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



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		
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	2.11110405699E+03	Apriori delay (usec)	2.11109318002E+03	Resid mbdelay (usec)	-4.74803E-03	+/-	2.7E-05
Sband delay (usec)	2.11110399902E+03	Apriori clock (usec)	1.2709558E+01	Resid sbdelay (usec)	1.08190E-02	+/-	2.1E-04
Phase delay (usec)	2.11109317715E+03	Apriori clockrate (us/s)	-2.1832297E-07	Resid phdelay (usec)	-2.87333E-06	+/-	1.8E-07
Delay rate (us/s)	-2.78657269038E-01	Apriori rate (us/s)	-2.78657360286E-01	Resid rate (us/s)	9.12471E-08	+/-	1.7E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.01332732939E-05	Resid phase (deg)	157.9	+/-	2.8

ph/seg (deg)	19.2	Theor.	6.6	Amplitude	1.116 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	12.8		11.5	Search (1024X32)	1.098	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	12.0		4.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.7		6.9	Inc. seg. avg.	1.169	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	1.125	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

h: az 103.5 el 73.6 pa -63.0 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 1000.114 -256.557 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.259.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

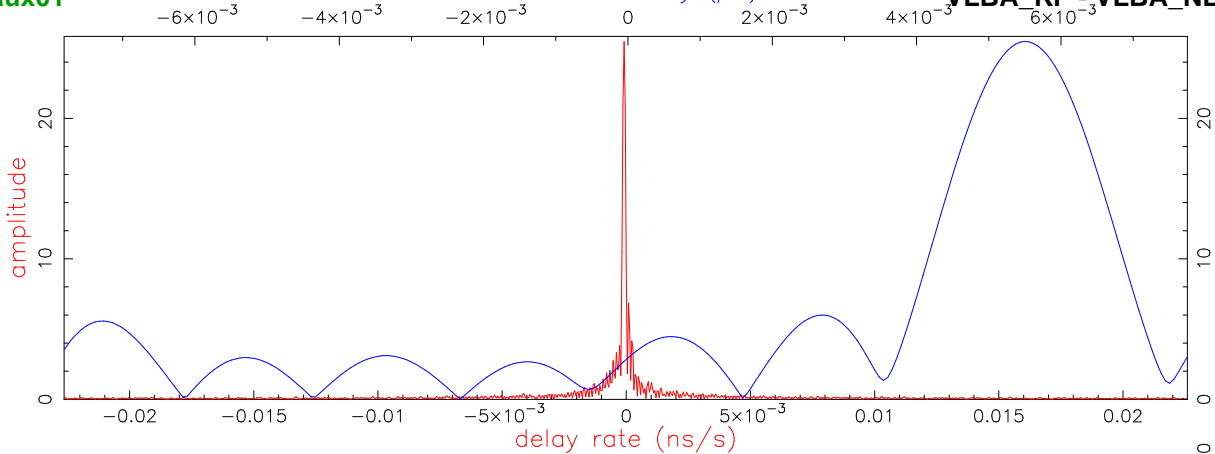
aux01

2013+370.3MP56K, No0500, kn

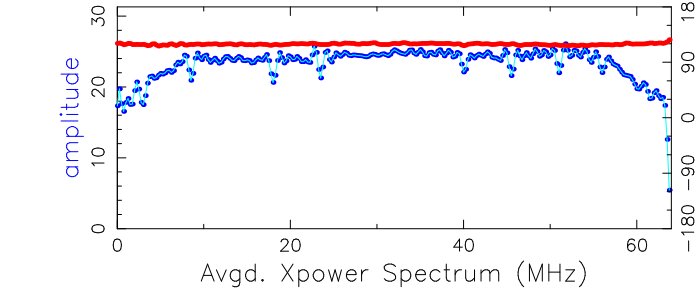
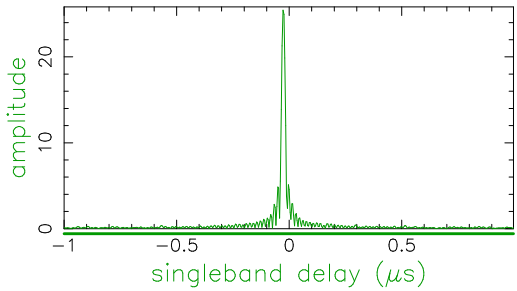
VLBA\_KP - VLBA\_NL, fgroup Q, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

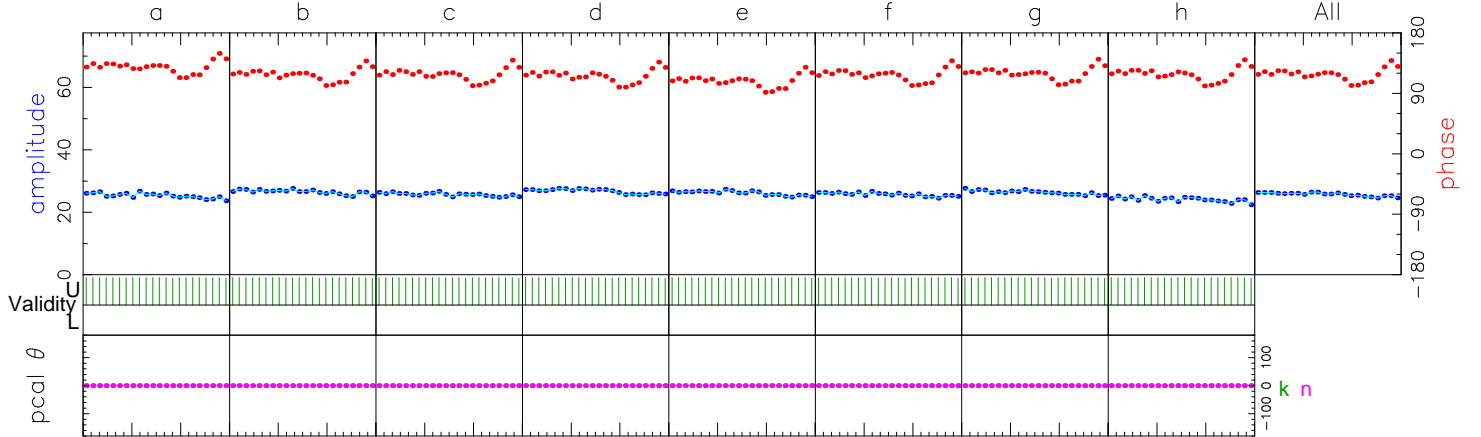


SNR 946.8  
 Int time 179.673  
 Amp 25.831  
 Phase -286.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.025815  
 MBD 0.005544  
 Fringe rate (Hz)  
 -0.003344  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151811  
 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	129.2	118.0	117.8	116.0	108.3	117.7	119.5	118.5	Phase	118.1
k	25.1	26.3	25.4	26.5	25.9	25.4	26.1	23.8	Ampl.	25.6
n	250.4	250.3	250.5	250.3	250.6	250.4	250.3	250.7	Sbd box	250.4
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-4.21125236356E+03	Apriori delay (usec)	-4.21122665756E+03	Resid mbdelay (usec)	5.54400E-03	+/-	1.1E-06
Sband delay (usec)	-4.21125247231E+03	Apriori clock (usec)	4.3731689E-01	Resid sbdelay (usec)	-2.58147E-02	+/-	9.1E-06
Phase delay (usec)	-4.21122664996E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	7.60131E-06	+/-	7.8E-09
Delay rate (us/s)	3.17992536901E-01	Apriori rate (us/s)	3.17992614427E-01	Resid rate (us/s)	-7.75262E-08	+/-	7.5E-11
Total phase (deg)	-289.5	Apriori accel (us/s/s)	1.30596781522E-05	Resid phase (deg)	-286.9	+/-	0.1

ph/seg (deg)	8.7	Theor.	0.3	Amplitude	25.831 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.2	Search (1024X32)	24.939	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	6.1	Inc. seg. avg.	25.743	Inc. frq. avg.	25.563	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	3.2	Inc. frq. avg.	25.563	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
									ion window (TEC)	0.00 0.00

k: az 66.3 el 41.3 pa -77.6      n: az 85.1 el 59.3 pa -68.9      u,v (fr/asec) -1141.747 -84.810      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.192.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

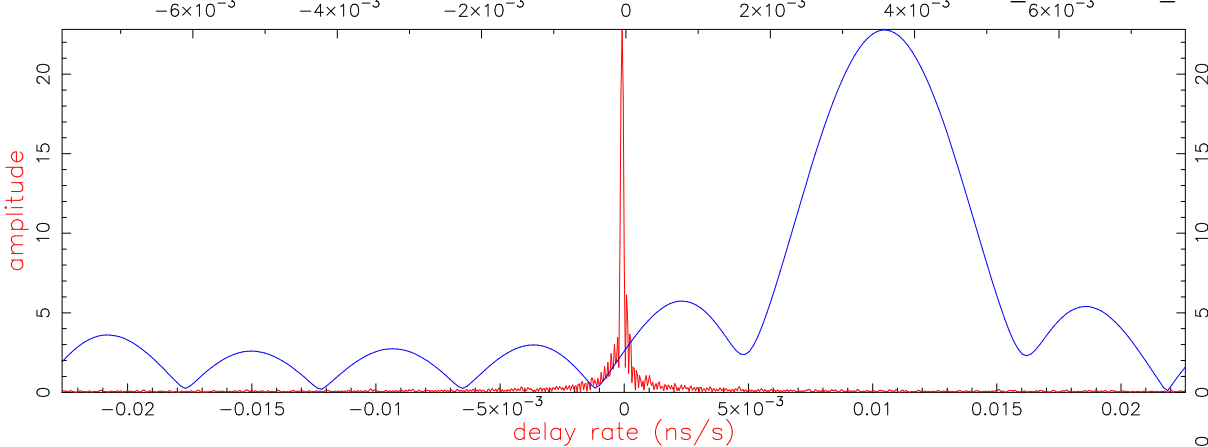
aux01

2013+370.3MP56K, No0500, kn

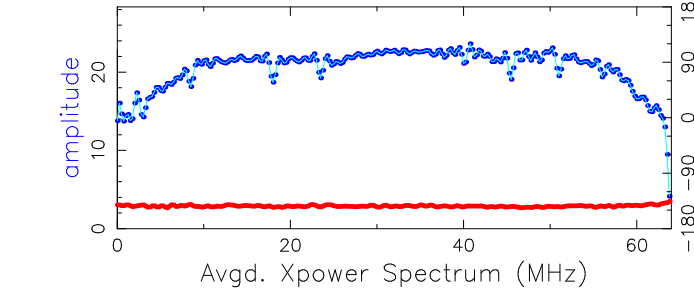
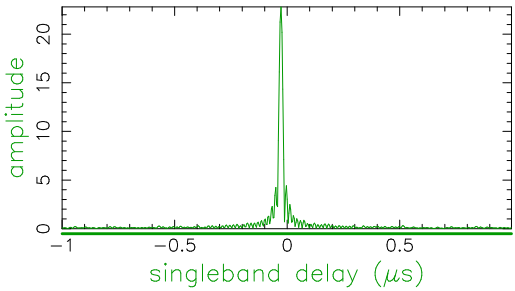
VLBA\_KP - VLBA\_NL, fgroup Q, pol RR

multiband delay ( $\mu$ s)

Fringe quality 9

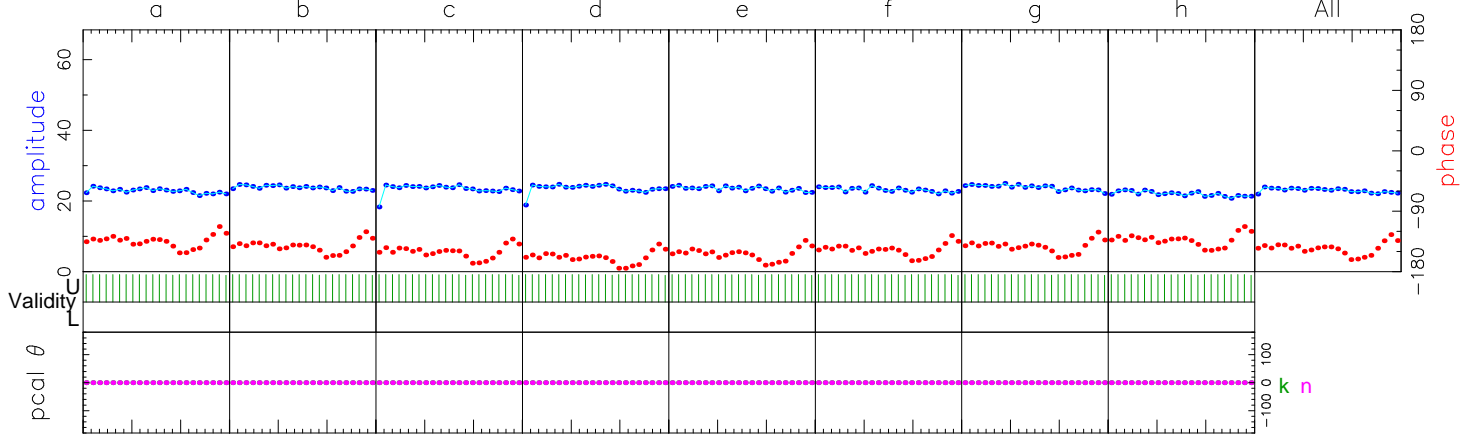


SNR 836.2  
 Int time 179.674  
 Amp 22.814  
 Phase -190.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.027844  
 MBD 0.003572  
 Fringe rate (Hz)  
 -0.003346  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



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
	-134.7	-141.8	-150.4	-158.8	-153.6	-147.6	-142.3	-132.6	Phase	-145.3
	22.6	23.5	23.2	23.3	23.3	22.9	23.6	21.8	Ampl.	23.0
	249.6	249.6	249.9	249.9	250.2	249.8	249.9	250.1	Sbd box	249.9
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -4.21125433574E+03 Apriori delay (usec) -4.21122665756E+03 Resid mbdelay (usec) 3.57181E-03 +/- 1.3E-06  
 Sband delay (usec) -4.21125450206E+03 Apriori clock (usec) 4.3731689E-01 Resid sbdelay (usec) -2.78445E-02 +/- 1.0E-05  
 Phase delay (usec) -4.21122666692E+03 Apriori clockrate (us/s) -1.4505389E-07 Resid phdelay (usec) -9.35844E-06 +/- 8.8E-09  
 Delay rate (us/s) 3.17992536870E-01 Apriori rate (us/s) 3.17992614427E-01 Resid rate (us/s) -7.75574E-08 +/- 8.5E-11  
 Total phase (deg) -192.9 Apriori accel (us/s/s) 1.30596781522E-05 Resid phase (deg) -190.3 +/- 0.1

RMS Theor. Amplitude 22.814 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 8.7 0.3 Search (1024X32) 22.217 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 2.7 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 9.8 0.2 Inc. seg. avg. 23.038 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 2.6 0.3 Inc. frq. avg. 23.028 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

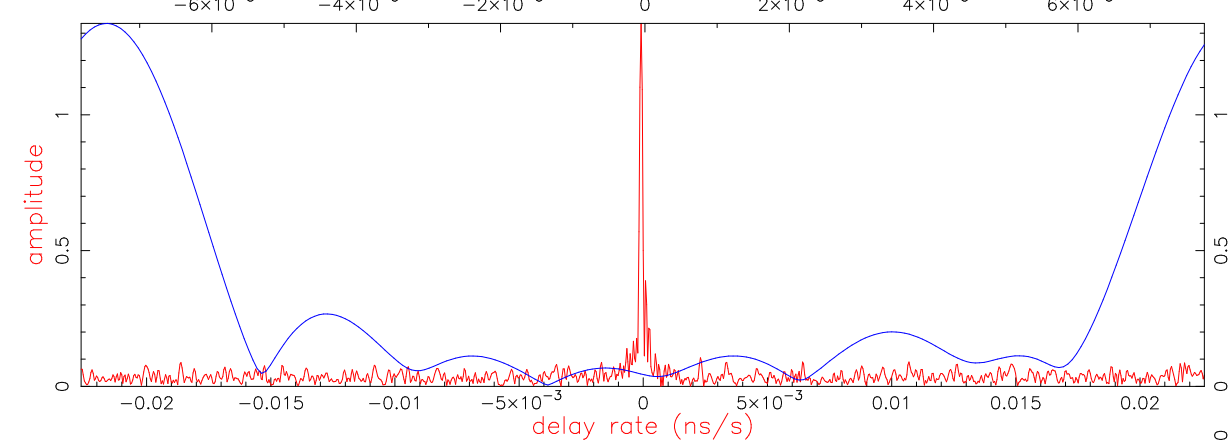
k: az 66.3 el 41.3 pa -77.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -1141.747 -84.810 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.209.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

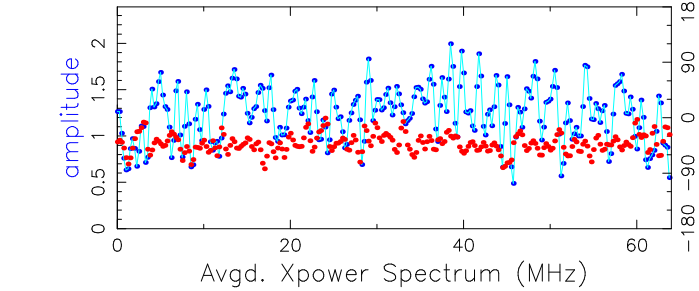
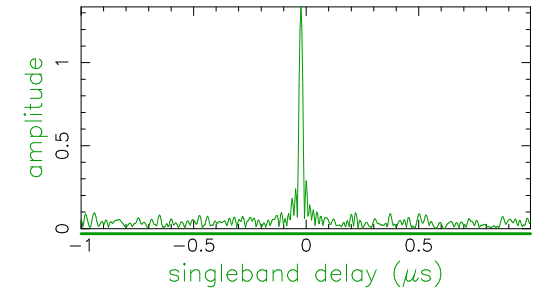
2013+370.3MP56K, No0500, kn

VLBA\_KP - VLBA\_NL, fgroup Q, pol LR



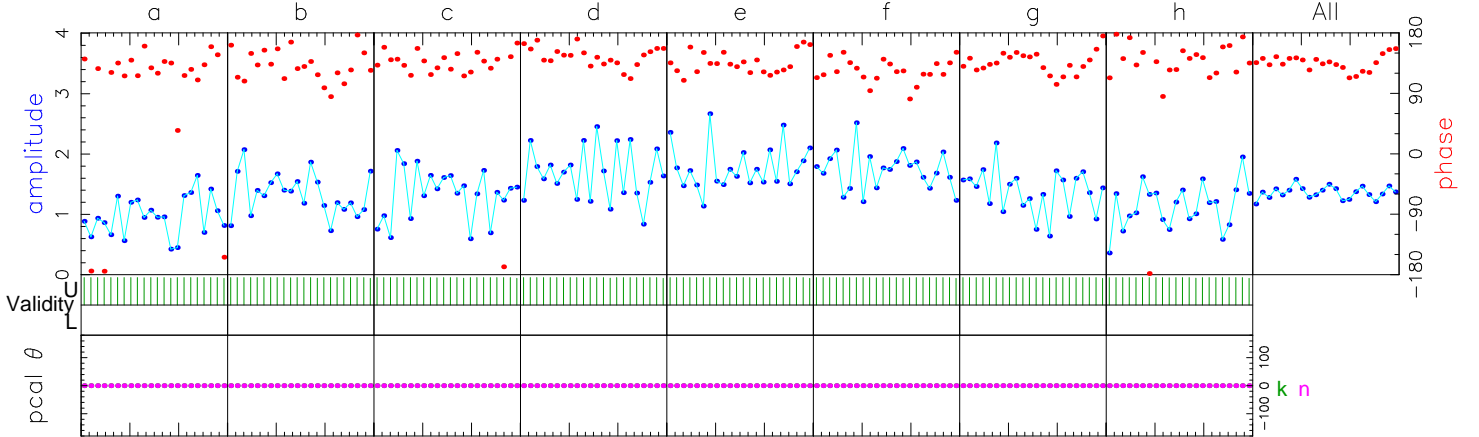
Fringe quality 8

SNR 49.0  
 Int time 179.673  
 Amp 1.336  
 Phase -66.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.023264  
 MBD -0.007456  
 Fringe rate (Hz)  
 -0.003405  
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-4.21124973834E+03	Apriori delay (usec)	-4.21122665756E+03	Resid mbdelay (usec)	-7.45578E-03	+/-	2.2E-05
Sband delay (usec)	-4.21124992156E+03	Apriori clock (usec)	4.3731689E-01	Resid sbdelay (usec)	-2.32640E-02	+/-	1.8E-04
Phase delay (usec)	-4.21122664883E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	8.72956E-06	+/-	1.5E-07
Delay rate (us/s)	3.17992535506E-01	Apriori rate (us/s)	3.17992614427E-01	Resid rate (us/s)	-7.89213E-08	+/-	1.4E-09
Total phase (deg)		Apriori accel (us/s/s)	1.30596781522E-05	Resid phase (deg)	-66.9	+/-	2.3

ph/seg (deg)	11.2	Theor.	5.5	Amplitude	1.336 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	7.6	Search (1024X32)	1.316	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.9	Inc. seg. avg.	1.356	Inc. frq. avg.	1.344	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	21.2	Inc. frq. avg.	1.344			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

k: az 66.3 el 41.3 pa -77.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -1141.747 -84.810 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.223.3MP56K

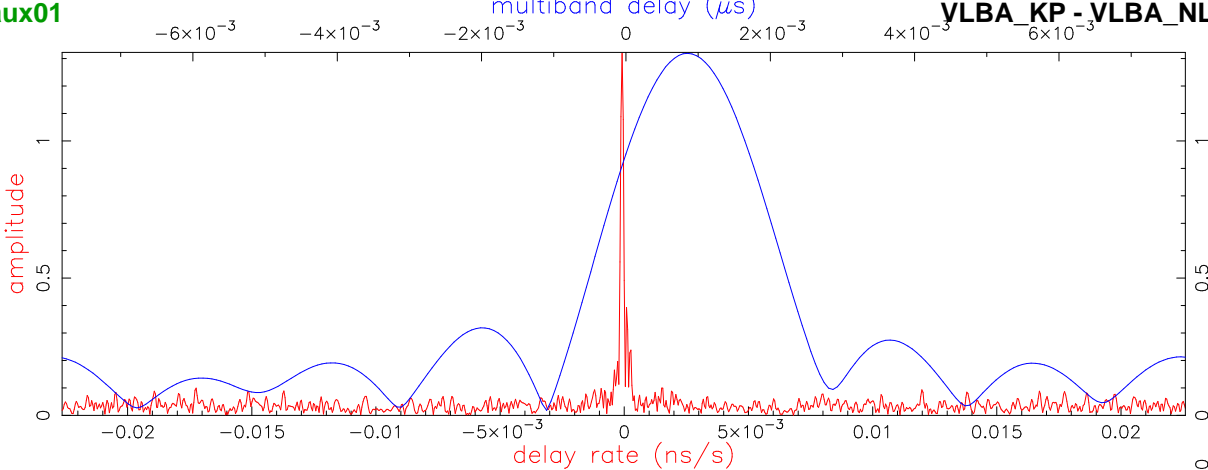
Mk4/DiFX fourfit 3.25 rev 0

aux01

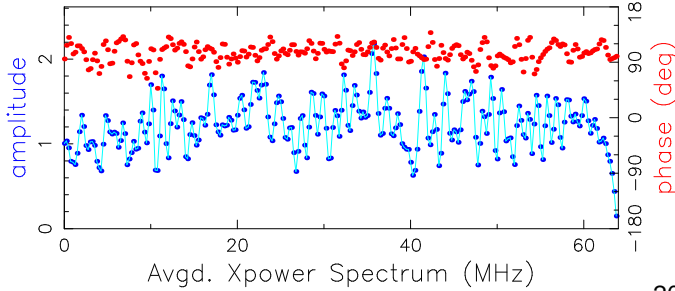
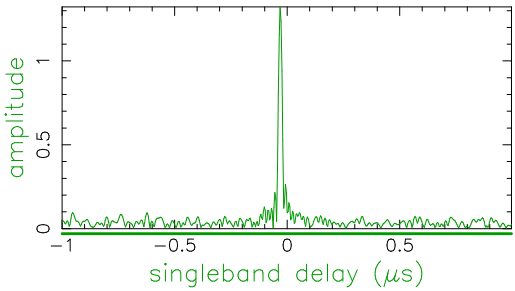
2013+370.3MP56K, No0500, kn

VLBA\_KP - VLBA\_NL, fgroup Q, pol RL

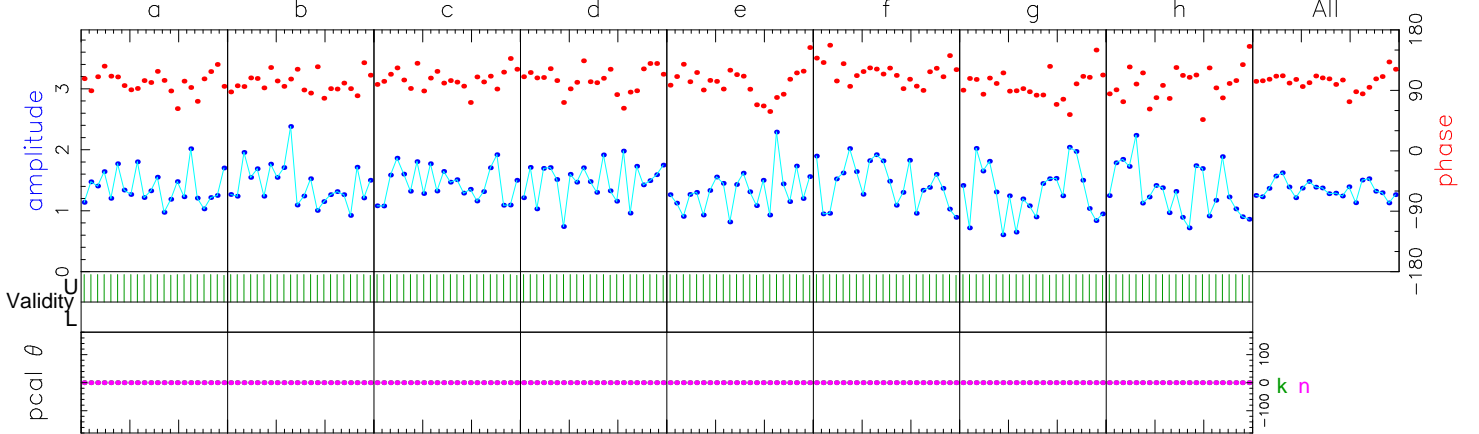
Fringe quality 8



SNR 48.5  
 Int time 179.674  
 Amp 1.323  
 Phase -301.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.030597  
 MBD 0.000870  
 Fringe rate (Hz)  
 -0.003412  
 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	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-4.21125703799E+03	Apriori delay (usec)	-4.21122665756E+03	Resid mbdelay (usec)	8.69564E-04	+/-	2.2E-05
Sband delay (usec)	-4.21125725406E+03	Apriori clock (usec)	4.3731689E-01	Resid sbdelay (usec)	-3.05965E-02	+/-	1.8E-04
Phase delay (usec)	-4.21122665090E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	6.66262E-06	+/-	1.5E-07
Delay rate (us/s)	3.17992535333E-01	Apriori rate (us/s)	3.17992614427E-01	Resid rate (us/s)	-7.90939E-08	+/-	1.5E-09
Total phase (deg)	-304.1	Apriori accel (us/s/s)	1.30596781522E-05	Resid phase (deg)	-301.5	+/-	2.4

ph/seg (deg)	12.0	Theor.	5.5	Amplitude	1.323 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	10.0		9.7	Search (1024X32)	1.299	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.3		3.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	5.9		5.8	Inc. seg. avg.	1.341	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	1.325	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	n:	az 85.1 el 59.3 pa -68.9	u,v (fr/asec)	-1141.747 -84.810				simultaneous interpolator	

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.239.3MP56K

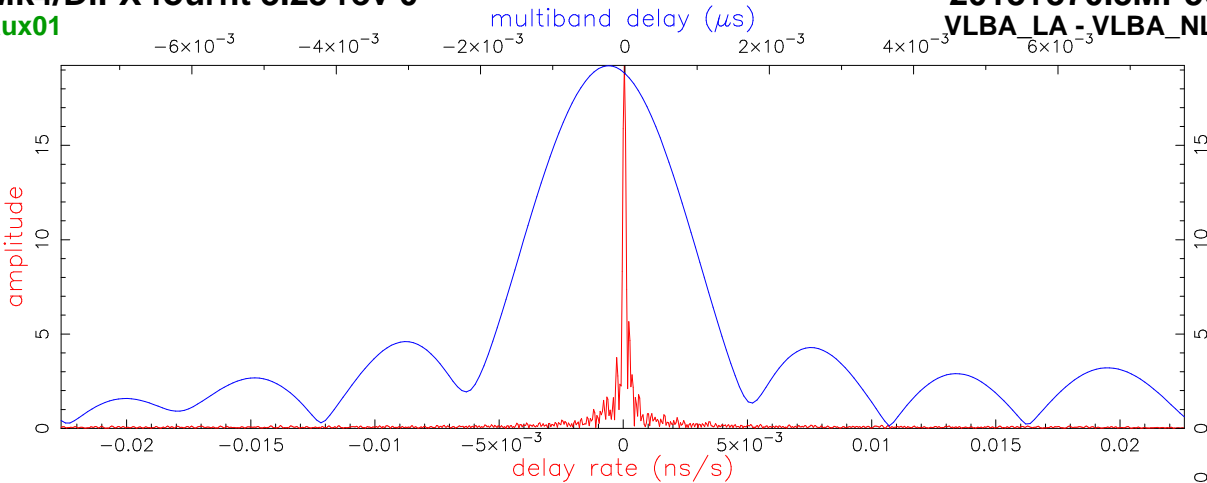


Mk4/DiFX fourfit 3.25 rev 0

aux01

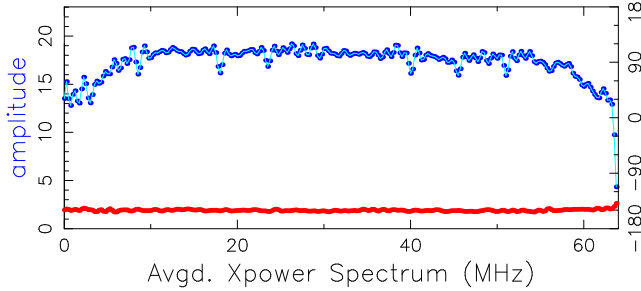
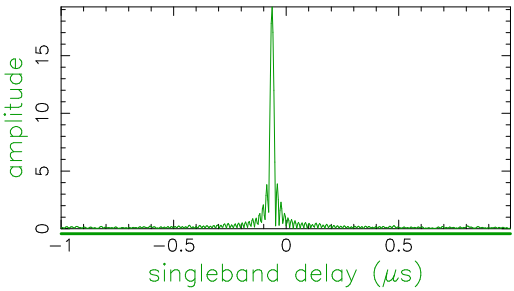
2013+370.3MP56K, No0500, In

VLBA\_LA - VLBA\_NL, fgroup Q, pol LL



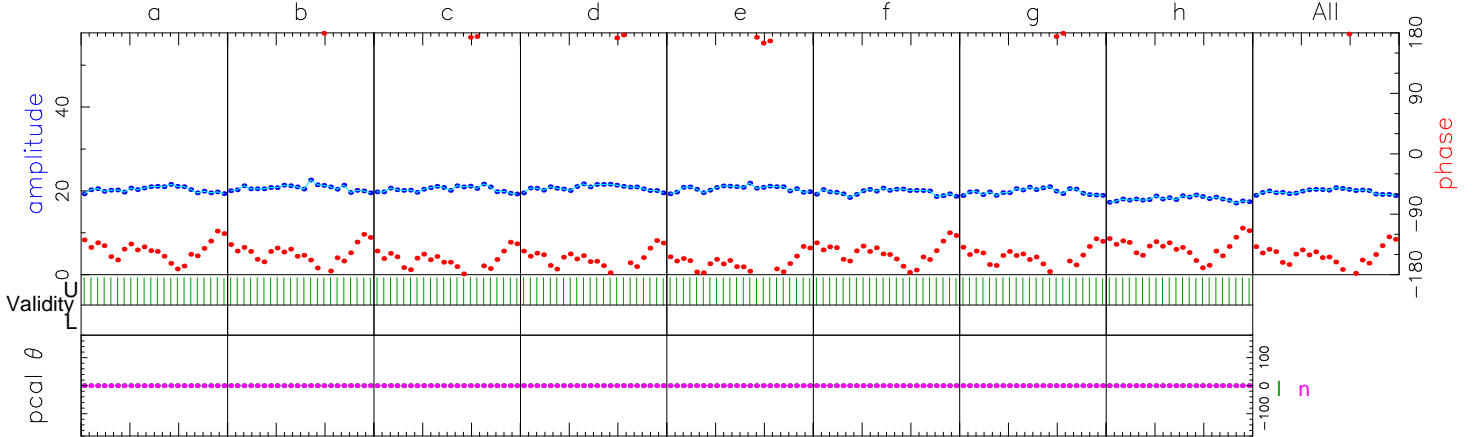
Fringe quality 8

SNR 705.3  
 Int time 179.674  
 Amp 19.241  
 Phase -242.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.062928  
 MBD -0.000237  
 Fringe rate (Hz) 0.001047  
 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  
 2025:042:151815  
 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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-2.75162516540E+03	Apriori delay (usec)	-2.75156242828E+03	Resid mbdelay (usec)	-2.37126E-04	+/-	1.5E-06
Sband delay (usec)	-2.75162535653E+03	Apriori clock (usec)	-8.0122337E+00	Resid sbdelay (usec)	-6.29283E-02	+/-	1.2E-05
Phase delay (usec)	-2.75156243809E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	-9.81377E-06	+/-	1.0E-08
Delay rate (us/s)	2.27091866701E-01	Apriori rate (us/s)	2.27091842432E-01	Resid rate (us/s)	2.42698E-08	+/-	1.0E-10
Total phase (deg)	-298.5	Apriori accel (us/s/s)	9.03013943223E-06	Resid phase (deg)	-242.4	+/-	0.2

ph/seg (deg) 14.4 0.4  
 amp/seg (%) 4.1 0.7  
 ph/frq (deg) 9.6 0.2  
 amp/frq (%) 4.3 0.4

RMS Theor. Amplitude 19.241 +/- 0.027  
 Search (1024X32) 18.073  
 Interp. 0.000  
 Inc. seg. avg. 19.835  
 Inc. frq. avg. 19.418

Group delay (usec) (SBD) -2.75162516540E+03  
 Sband delay (usec) -2.75162535653E+03  
 Phase delay (usec) -2.75156243809E+03  
 Delay rate (us/s) 2.27091866701E-01  
 Total phase (deg) -298.5

Apriori delay (usec) -2.75156242828E+03  
 Apriori clock (usec) -8.0122337E+00  
 Apriori clockrate (us/s) -5.3126102E-07  
 Apriori rate (us/s) 2.27091842432E-01  
 Apriori accel (us/s/s) 9.03013943223E-06

Resid mbdelay (usec) -2.37126E-04  
 Resid sbdelay (usec) -6.29283E-02  
 Resid phdelay (usec) -9.81377E-06  
 Resid rate (us/s) 2.42698E-08  
 Resid phase (deg) -242.4

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 PCal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite

sb window (us) -1.000 1.000  
 mb window (us) -0.008 0.008  
 dr window (ns/s) -0.023 0.023  
 ion window (TEC) 0.00 0.00

simultaneous interpolator

l: az 71.2 el 46.9 pa -74.8 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -815.346 -12.107  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ln..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ln.Q.218.3MP56K

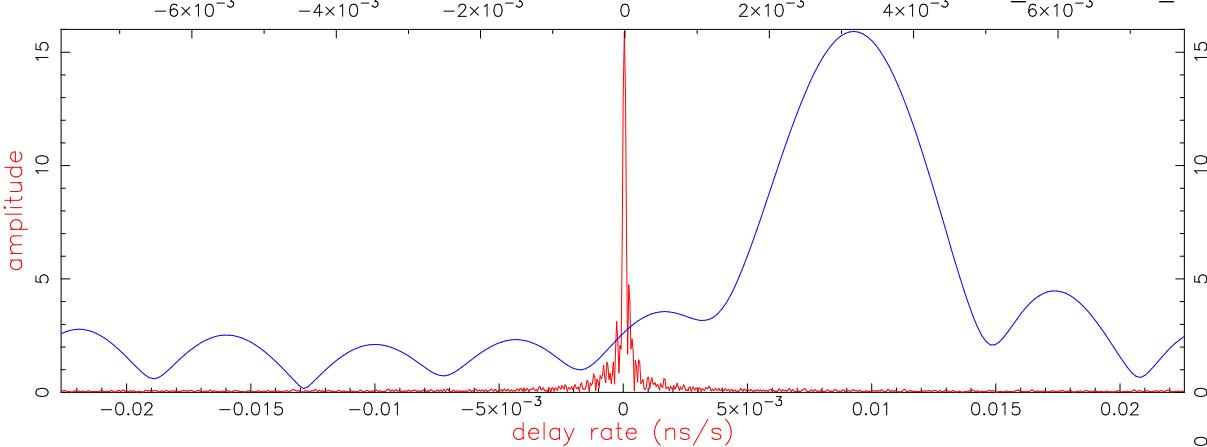
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, In

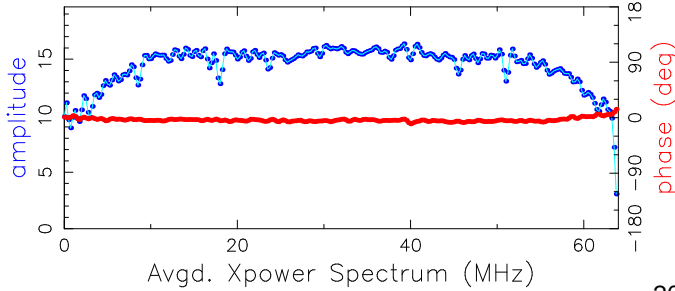
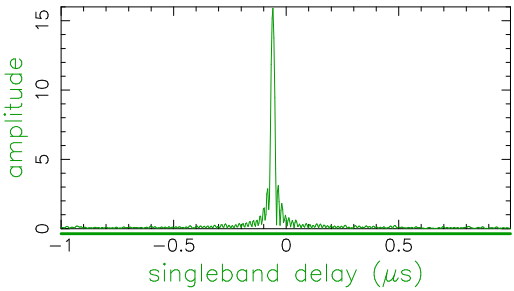
VLBA\_LA - VLBA\_NL, fgroup Q, pol RR

multiband delay ( $\mu$ s)



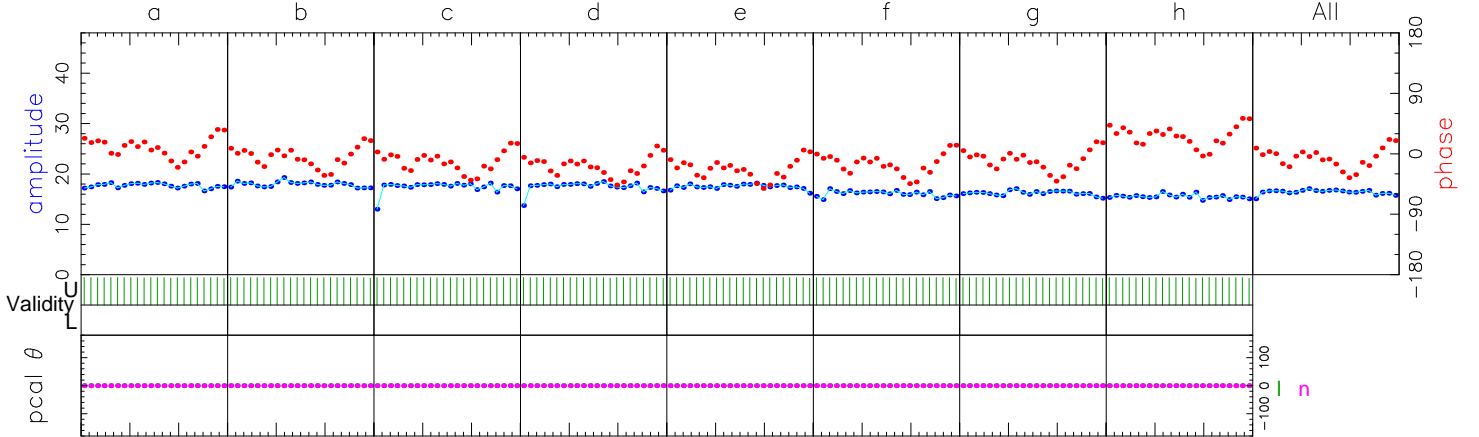
Fringe quality 7

SNR 586.7  
 Int time 179.674  
 Amp 16.004  
 Phase -96.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.059584  
 MBD 0.003145  
 Fringe rate (Hz)  
 0.001056  
 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  
 2025:042:151818  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-2.75162178306E+03	Apriori delay (usec)	-2.75156242828E+03	Resid mbdelay (usec)	3.14522E-03	+/-	1.9E-06
Sband delay (usec)	-2.75162201178E+03	Apriori clock (usec)	-8.0122337E+00	Resid sbdelay (usec)	-5.95835E-02	+/-	1.5E-05
Phase delay (usec)	-2.75156242869E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	-4.08470E-07	+/-	1.3E-08
Delay rate (us/s)	2.27091866908E-01	Apriori rate (us/s)	2.27091842432E-01	Resid rate (us/s)	2.44763E-08	+/-	1.2E-10
Total phase (deg)	-152.5	Apriori accel (us/s/s)	9.03013943223E-06	Resid phase (deg)	-96.3	+/-	0.2

ph/seg (deg)	14.4	Theor.	0.5	Amplitude	16.004 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	3.7	Search (1024X32)	14.965	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	17.8	Inc. seg. avg.	16.418	Inc. frq. avg.	16.470	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	6.0	Inc. frq. avg.	16.470			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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -815.346 -12.107 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ln..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ln.Q.231.3MP56K

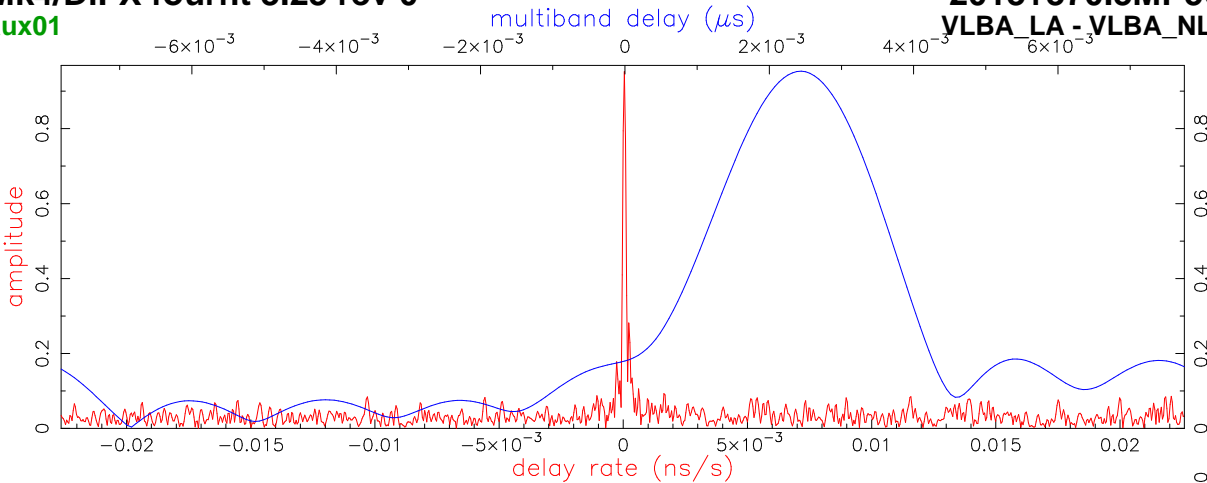
Mk4/DiFX fourfit 3.25 rev 0

aux01

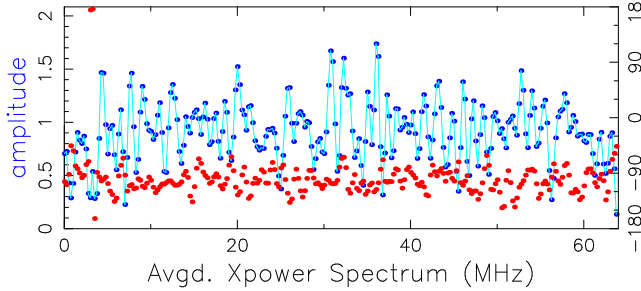
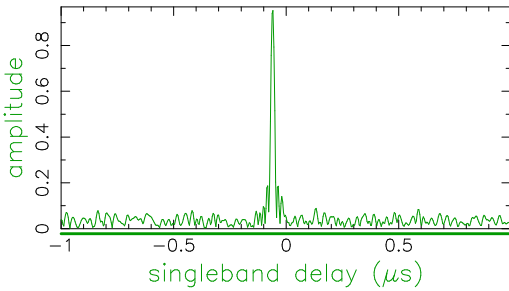
2013+370.3MP56K, No0500, In

VLBA\_LA - VLBA\_NL, fgroup Q, pol LR

Fringe quality 7

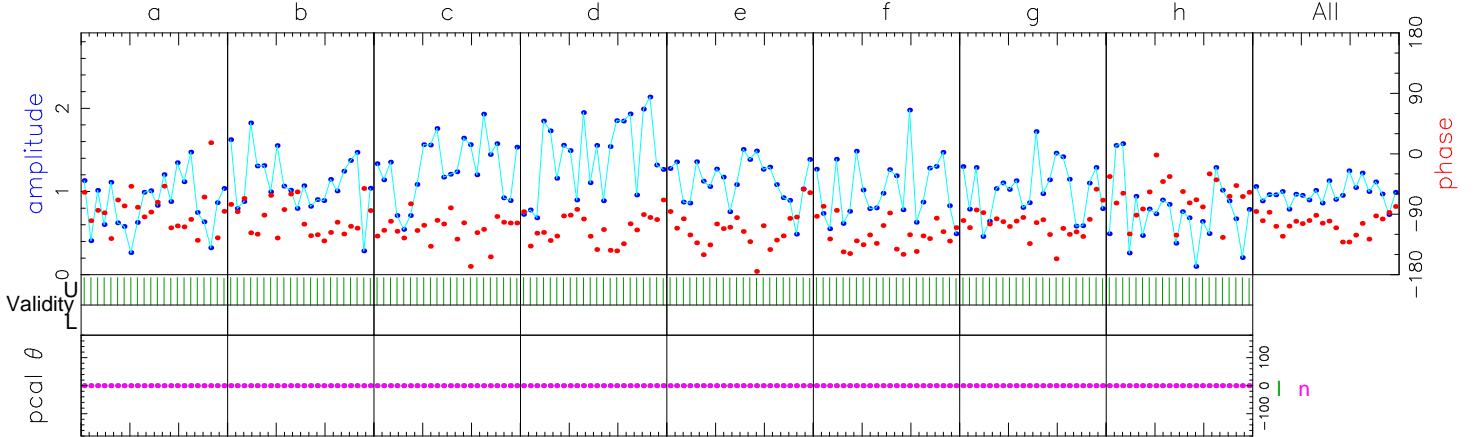


SNR 35.5  
 Int time 179.674  
 Amp 0.969  
 Phase -194.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.060252  
 MBD 0.002388  
 Fringe rate (Hz) 0.001121  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151822  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -2.75162254037E+03 Apriori delay (usec) -2.75156242828E+03 Resid mbdelay (usec) 2.38791E-03 +/- 3.1E-05  
 Sband delay (usec) -2.75162268028E+03 Apriori clock (usec) -8.0122337E+00 Resid sbdelay (usec) -6.02520E-02 +/- 2.4E-04  
 Phase delay (usec) -2.75156243500E+03 Apriori clockrate (us/s) -5.3126102E-07 Resid phdelay (usec) -6.72244E-06 +/- 2.1E-07  
 Delay rate (us/s) 2.27091868410E-01 Apriori rate (us/s) 2.27091842432E-01 Resid rate (us/s) 2.59788E-08 +/- 2.0E-09  
 Total phase (deg) -250.5 Apriori accel (us/s/s) 9.03013943223E-06 Resid phase (deg) -194.4 +/- 3.2

ph/seg (deg) 14.5 7.6 Search (1024X32) 0.918 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 12.7 13.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.4 4.6 Inc. seg. avg. 0.976 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 20.3 8.0 Inc. frq. avg. 0.983 Data rate(Mb/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

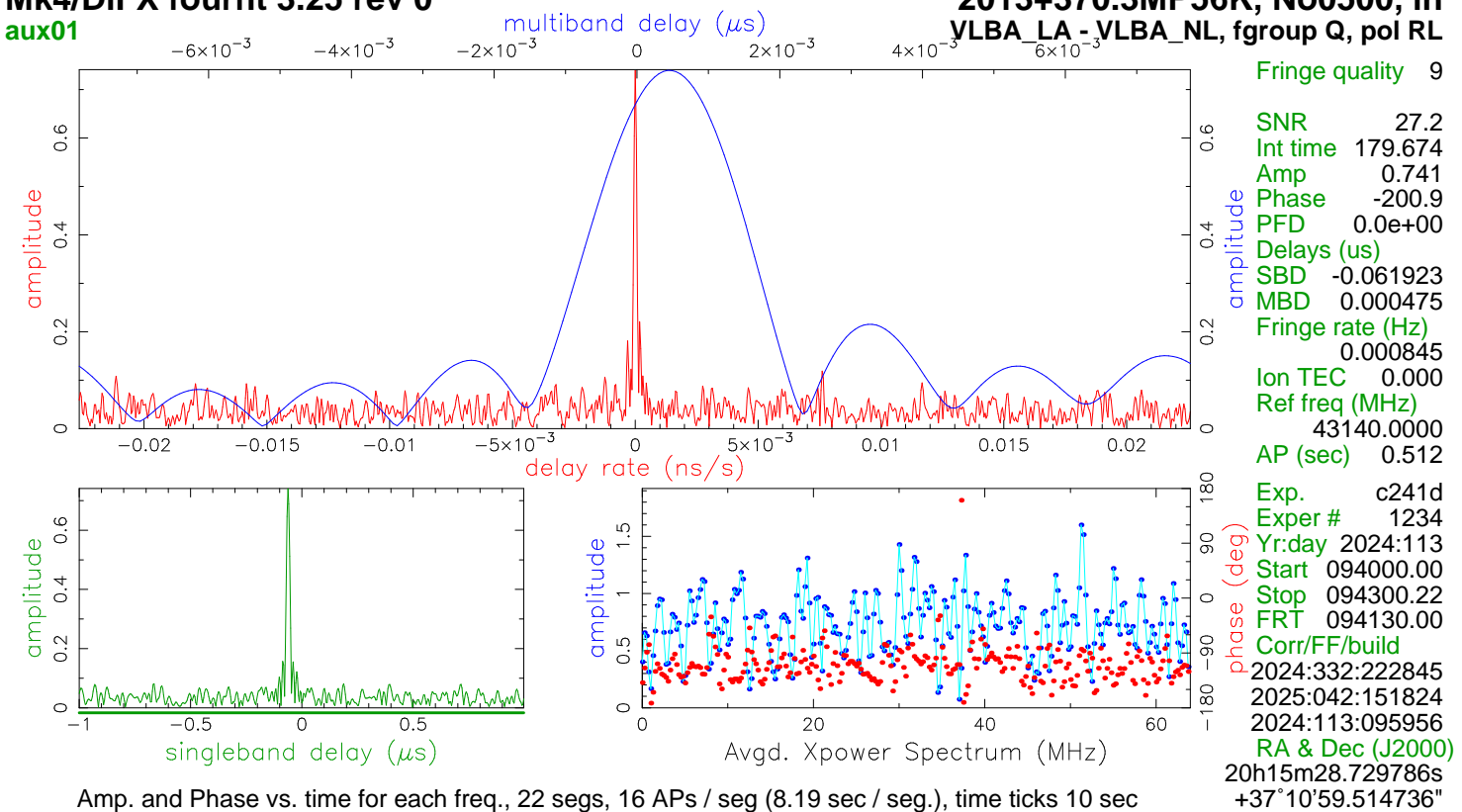
l: az 71.2 el 46.9 pa -74.8 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) -815.346 -12.107 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ln..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ln.Q.247.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

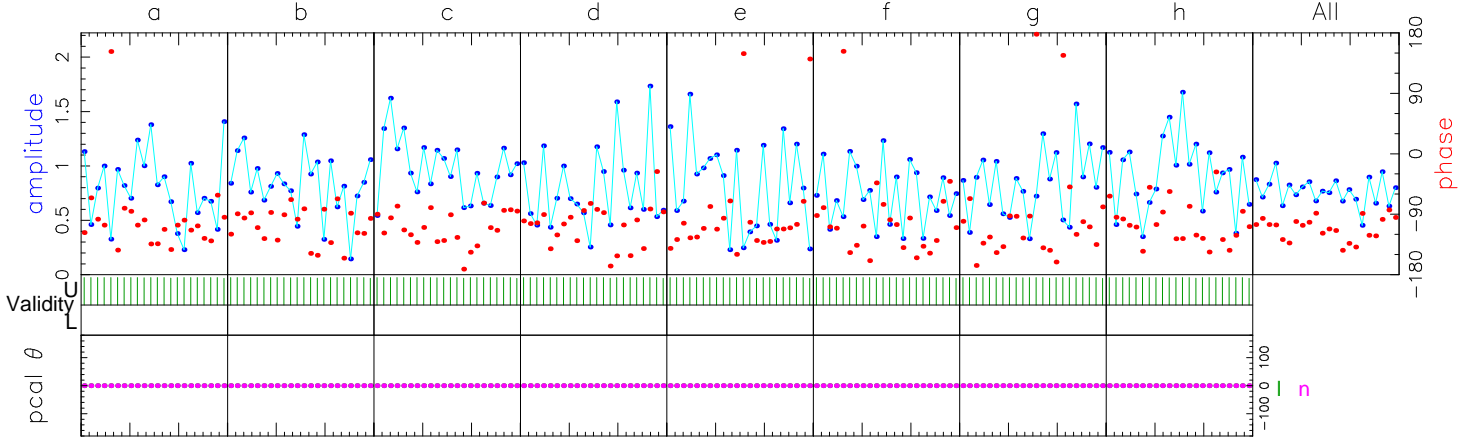
aux01

2013+370.3MP56K, No0500, In

VLBA\_LA - VLBA\_NL, 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
	-111.6	-107.8	-108.5	-105.0	-116.7	-112.2	-125.2	-102.0	Phase	-110.9
	0.7	0.8	0.9	0.7	0.7	0.6	0.7	0.8	Ampl.	0.7
	241.3	241.3	241.1	241.3	240.7	241.4	241.4	241.4	Sbd box	241.1
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-2.75162445359E+03			Apriori delay (usec)	-2.75156242828E+03			Resid mbdelay (usec)	4.74687E-04	+/- 4.0E-05
Sband delay (usec)	-2.75162435078E+03			Apriori clock (usec)	-8.0122337E+00			Resid sbdelay (usec)	-6.19225E-02	+/- 3.2E-04
Phase delay (usec)	-2.75156243542E+03			Apriori clockrate (us/s)	-5.3126102E-07			Resid phdelay (usec)	-7.14077E-06	+/- 2.7E-07
Delay rate (us/s)	2.27091862010E-01			Apriori rate (us/s)	2.27091842432E-01			Resid rate (us/s)	1.95782E-08	+/- 2.6E-09
Total phase (deg)		-257.0		Apriori accel (us/s/s)	9.03013943223E-06			Resid phase (deg)	-200.9	+/- 4.2
RMS	16.6	9.9		Amplitude	0.741 +/- 0.027			PCal mode: MANUAL, MANUAL		
ph/seg (deg)	16.6	9.9		Search (1024X32)	0.712			PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
amp/seg (%)	16.8	17.3		Interp.	0.000			Bits/sample: 2x2	mb window (us)	-0.008 0.008
ph/frq (deg)	7.8	6.0		Inc. seg. avg.	0.757			SampCntNorm: enabled	dr window (ns/s)	-0.023 0.023
amp/frq (%)	10.7	10.4		Inc. frq. avg.	0.741			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC)	0.00 0.00
l: az 71.2 el 46.9 pa -74.8				n: az 85.1 el 59.3 pa -68.9				Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
Control file: cf_1234_gmva				u,v (fr/asec) -815.346 -12.107						simultaneous interpolator
Input file: /Exps/c241d/v1/7mm/1234/No0500/ln..3MP56K				Output file: /Exps/c241d/v1/7mm/1234/No0500/ln.Q.263.3MP56K						

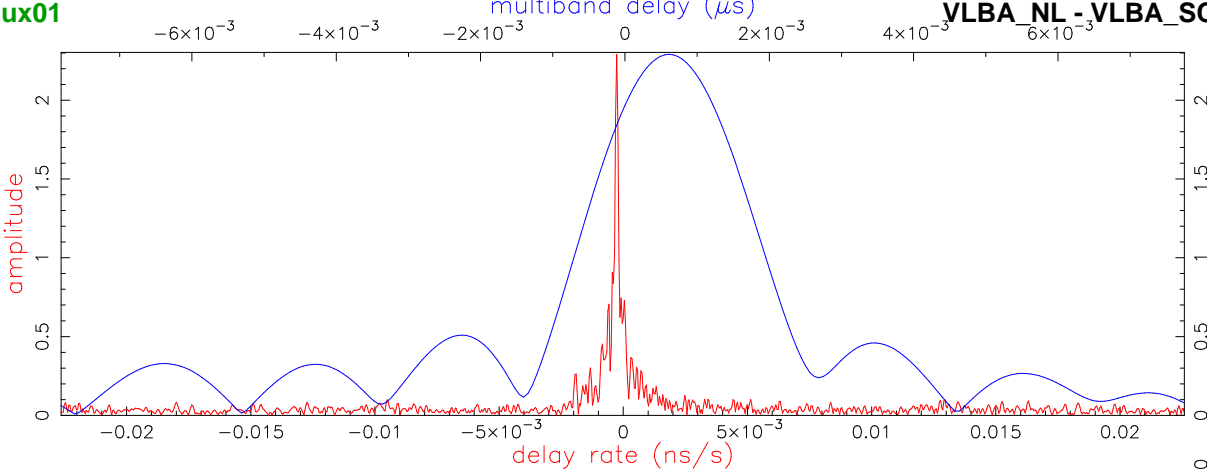
Mk4/DiFX fourfit 3.25 rev 0

aux01

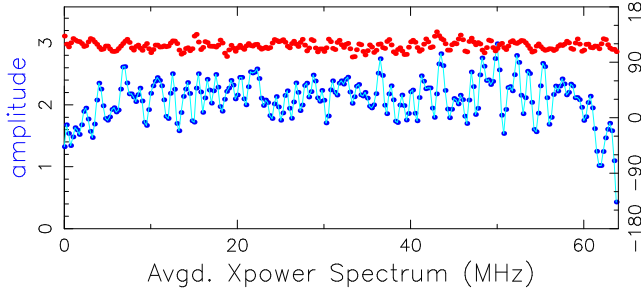
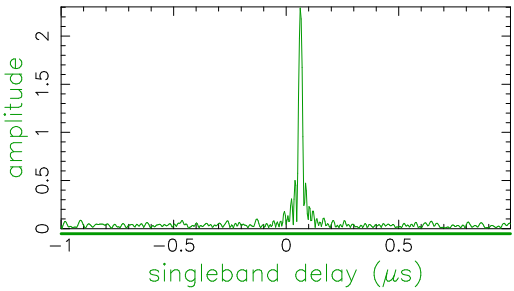
2013+370.3MP56K, No0500, nc

VLBA\_NL - VLBA\_SC, fgroup Q, pol LL

Fringe quality 6

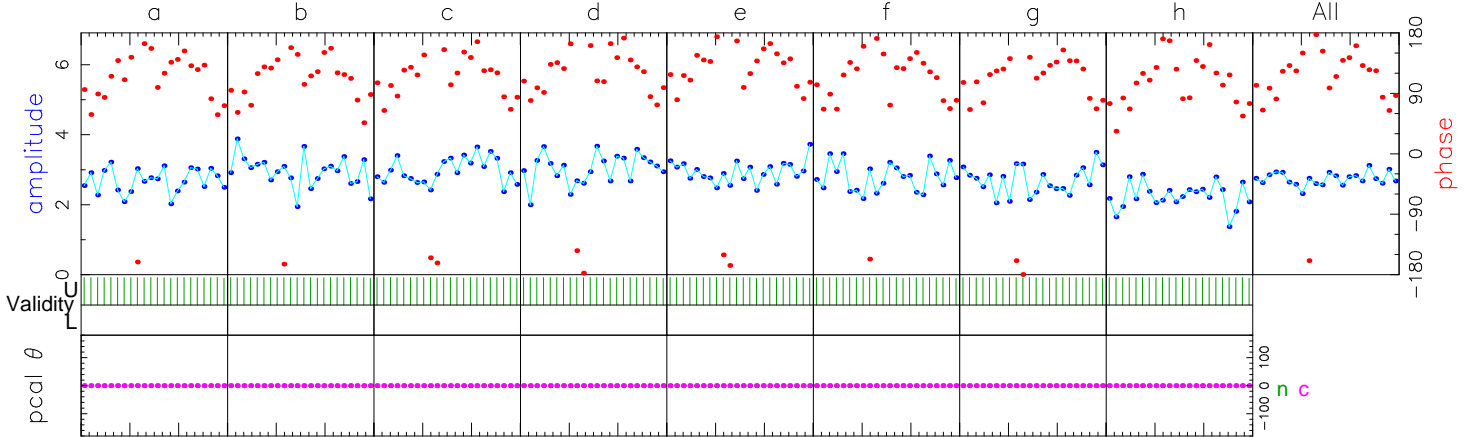


SNR 84.4  
Int time 179.673  
Amp 2.304  
Phase 210.3  
PFD 0.0e+00  
Delays (us)  
SBD 0.063432  
MBD 0.000635  
Fringe rate (Hz)  
-0.011296  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



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	117.7	114.5	123.2	126.4	134.0	115.6	120.3	106.2	Ampl.	120.3
n	2.2	2.4	2.5	2.5	2.5	2.3	2.2	1.9	Sbd box	2.3
c	273.1	273.3	273.2	273.3	273.0	273.4	273.3	272.7	PC freqs	273.2
n	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
c	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.34949529582E+03	Apriori delay (usec)	-1.34955843048E+03	Resid mbdelay (usec)	6.34662E-04	+/-	1.3E-05
Sband delay (usec)	-1.34949499873E+03	Apriori clock (usec)	-4.0156841E+00	Resid sbdelay (usec)	6.34317E-02	+/-	1.0E-04
Phase delay (usec)	-1.34955842273E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	7.74655E-06	+/-	8.7E-08
Delay rate (us/s)	3.33033776894E-01	Apriori rate (us/s)	3.33034038734E-01	Resid rate (us/s)	-2.61840E-07	+/-	8.4E-10
Total phase (deg)	321.6	Apriori accel (us/s/s)	3.17859143135E-05	Resid phase (deg)	210.3	+/-	1.4

ph/seg (deg)	34.4	RMS	3.2	Theor.	3.2	Amplitude	2.304 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	20.6	Search (1024X32)	2.263	Search	2.263	Search	2.263	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	9.1	Inc. seg. avg.	2.741	Inc. seg. avg.	2.741	Inc. seg. avg.	2.741	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	9.0	Inc. frq. avg.	2.310	Inc. frq. avg.	2.310	Inc. frq. avg.	2.310	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

n: az 85.1 el 59.3 pa -68.9      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -1184.179 2232.273      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/nc..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/nc.Q.291.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

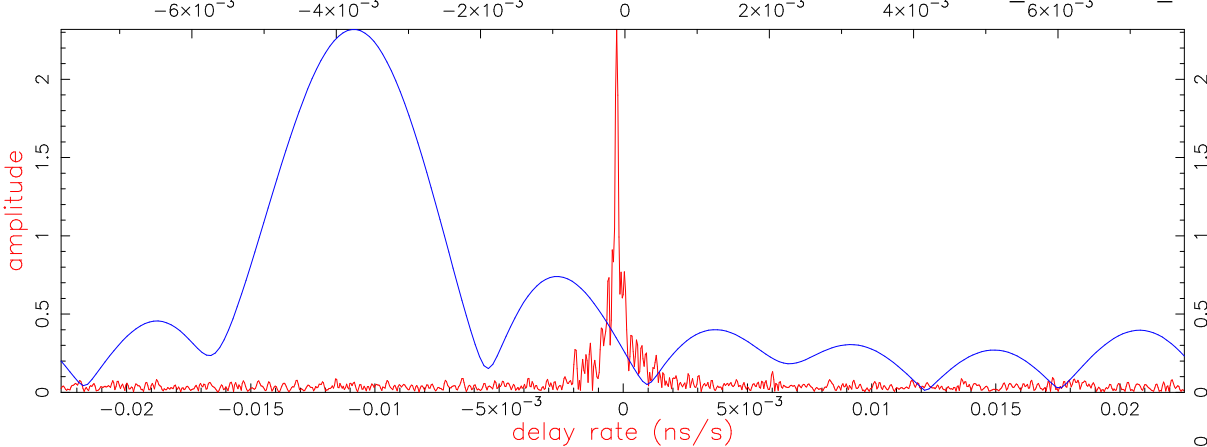
aux01

2013+370.3MP56K, No0500, nc

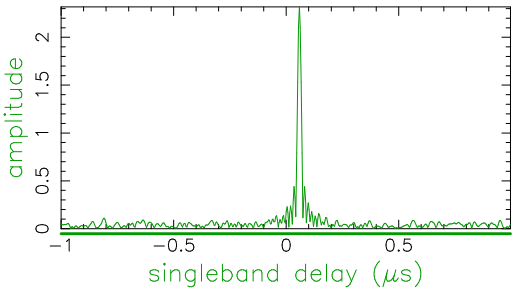
VLBA\_NL - VLBA\_SC, fgroup Q, pol RR

multiband delay ( $\mu$ s)

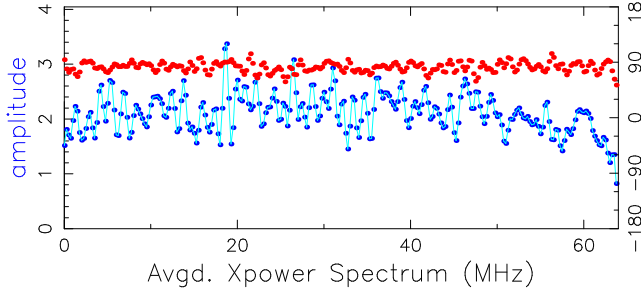
Fringe quality 6



SNR 85.0  
 Int time 179.673  
 Amp 2.319  
 Phase 170.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.058598  
 MBD -0.003756  
 Fringe rate (Hz)  
 -0.011314  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



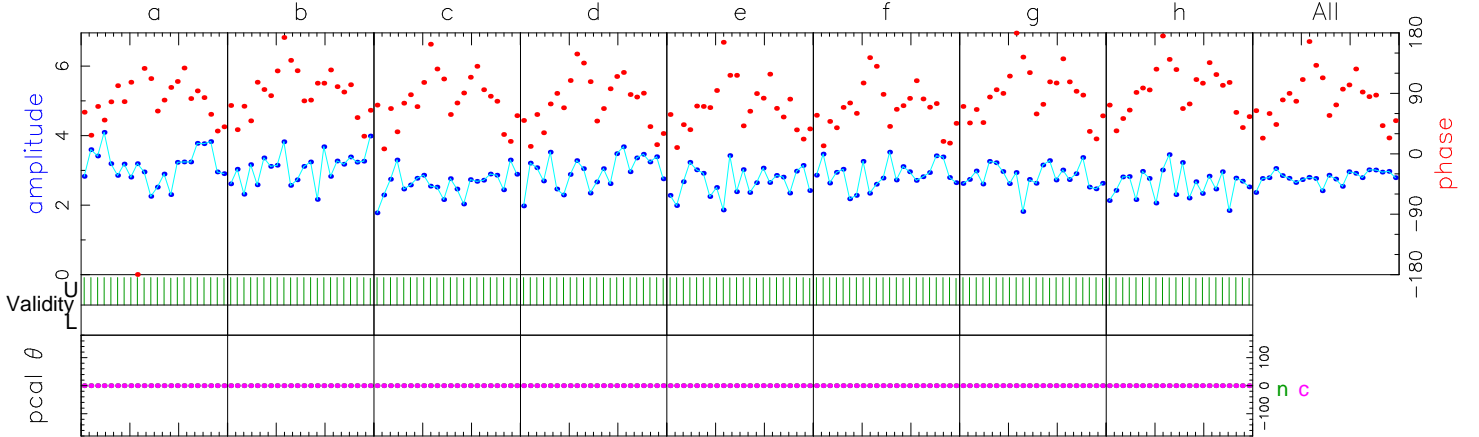
singleband delay ( $\mu$ s)



Avgd. Xpower Spectrum (MHz)

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



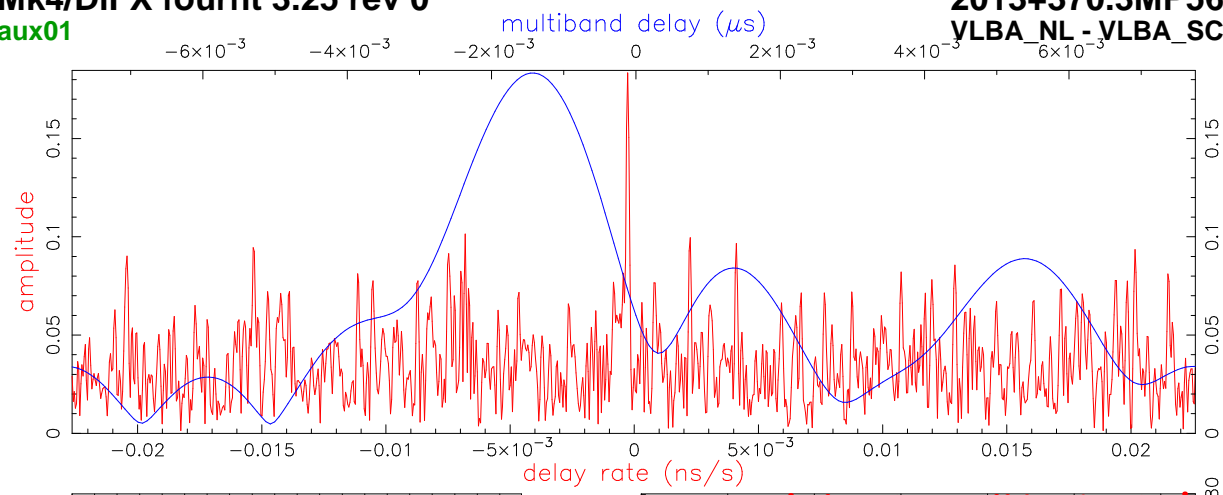
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:c	0:0	0:0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

Group delay (usec) (SBD)	-1.34949968685E+03	Apriori delay (usec)	-1.34955843048E+03	Resid mbdelay (usec)	-3.75637E-03	+/-	1.3E-05
Sband delay (usec)	-1.34949983248E+03	Apriori clock (usec)	-4.0156841E+00	Resid sbdelay (usec)	5.85980E-02	+/-	1.0E-04
Phase delay (usec)	-1.34955842530E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	5.17321E-06	+/-	8.7E-08
Delay rate (us/s)	3.33033776461E-01	Apriori rate (us/s)	3.33034038734E-01	Resid rate (us/s)	-2.62273E-07	+/-	8.3E-10
Total phase (deg)	281.6	Apriori accel (us/s/s)	3.17859143135E-05	Resid phase (deg)	170.3	+/-	1.3

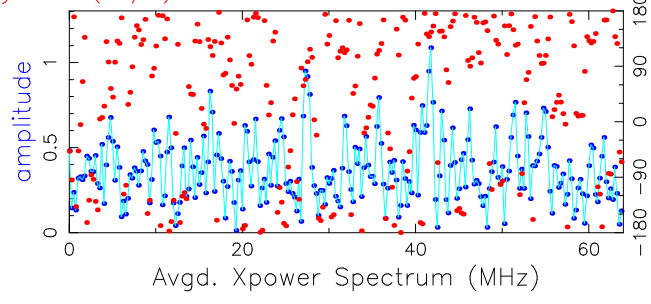
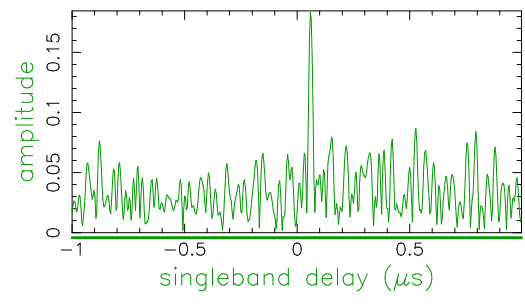
ph/seg (deg)	34.9	RMS	3.2	Theor.	3.2	Amplitude	2.319 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	22.0	Search (1024X32)	2.280	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	10.8	Inc. seg. avg.	2.794	Inc. frq. avg.	2.348	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	7.6	Inc. frq. avg.	2.348	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

n: az 85.1 el 59.3 pa -68.9      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -1184.179 2232.273      simultaneous interpolator

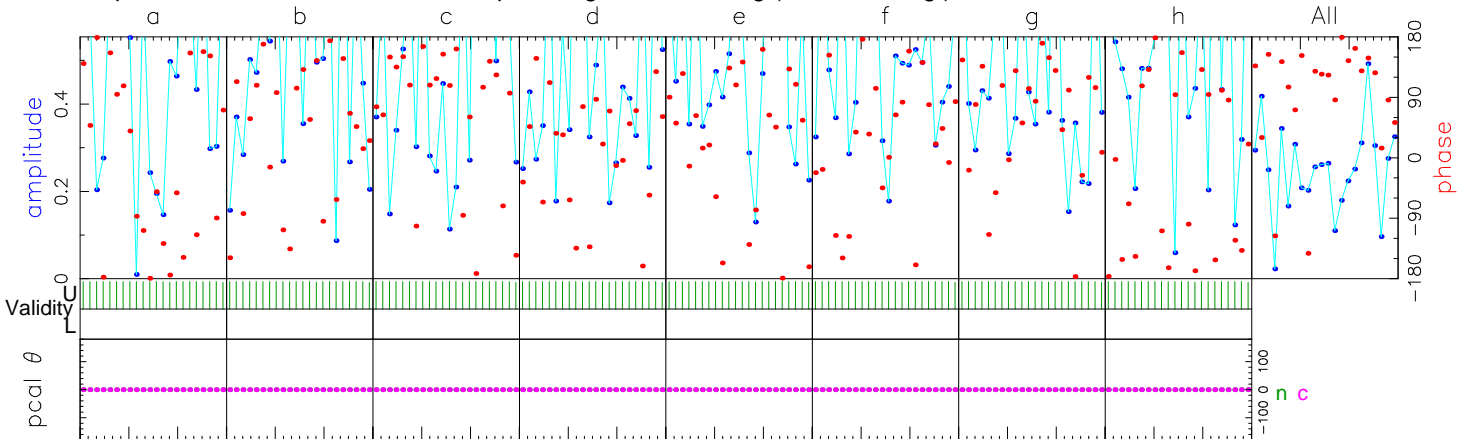
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/nc..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/nc.Q.323.3MP56K



Fringe quality 0  
SNR 6.8  
Int time 179.673  
Amp 0.185  
Phase 212.8  
PFD 1.9e-03  
Delays (us)  
SBD 0.059780  
MBD -0.001413  
Fringe rate (Hz)  
-0.011515  
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		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
Group delay (usec) (SBD)	-1.34949734375E+03								Resid mbdelay (usec)	-1.41328E-03 +/- 1.6E-04
Sband delay (usec)	-1.34949865048E+03								Resid sbdelay (usec)	5.97800E-02 +/- 1.3E-03
Phase delay (usec)	-1.34955842257E+03								Resid phdelay (usec)	7.90999E-06 +/- 1.1E-06
Delay rate (us/s)	3.33033771815E-01								Resid rate (us/s)	-2.66919E-07 +/- 1.0E-08
Total phase (deg)			324.1						Resid phase (deg)	212.8 +/- 16.9

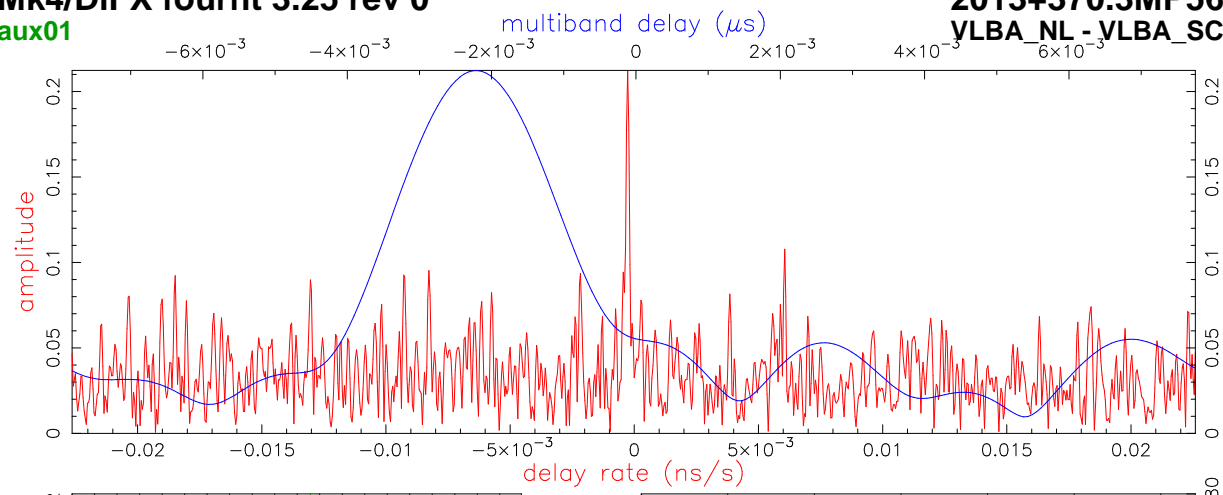
ph/seg (deg) 53.5 39.7 Amplitude 0.185 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 66.2 69.3 Search (1024X32) 0.182 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 36.9 23.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 31.1 41.8 Inc. seg. avg. 0.204 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
n: az 85.1 el 59.3 pa -68.9 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -1184.179 2232.273 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/nc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nc.Q.338.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

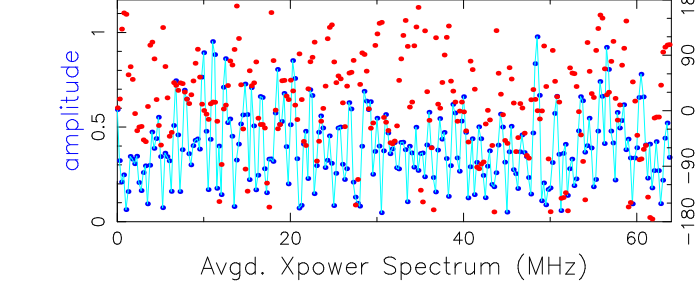
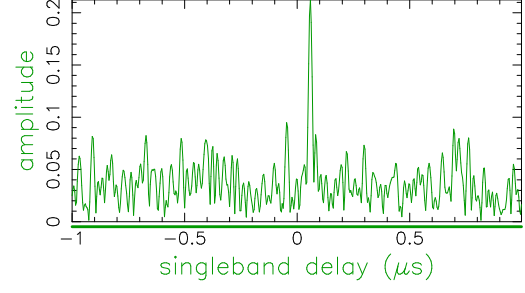
aux01

2013+370.3MP56K, No0500, nc

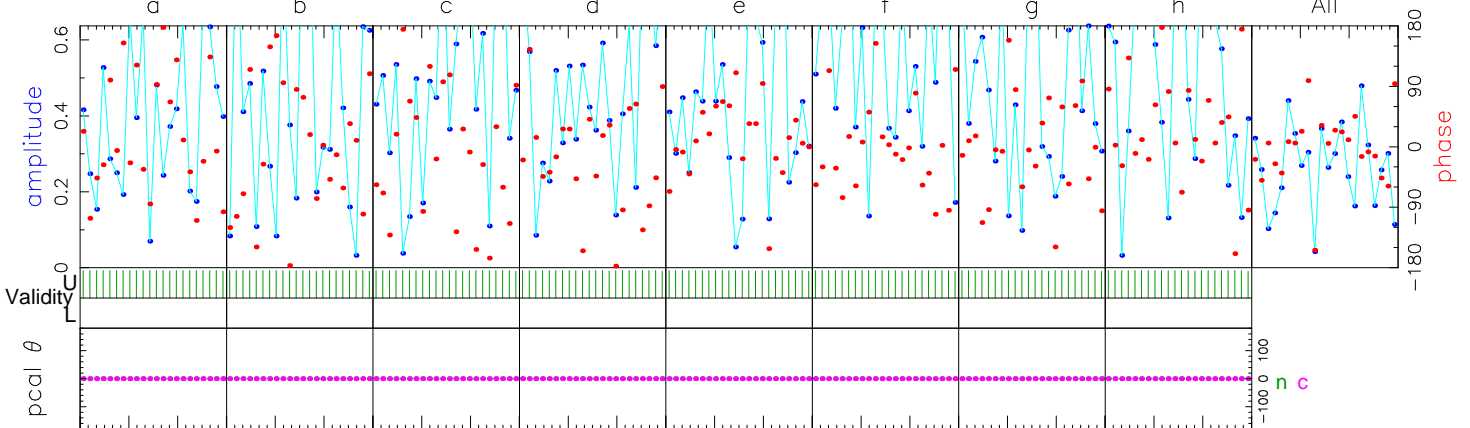
VLBA\_NL - VLBA\_SC, fgroup Q, pol RL



Fringe quality 9  
 SNR 7.8  
 Int time 179.673  
 Amp 0.212  
 Phase 91.2  
 PFD 1.2e-06  
 Delays (us)  
 SBD 0.058273  
 MBD -0.002225  
 Fringe rate (Hz)  
 -0.011012  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:c	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		
c	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.34949815579E+03	Apriori delay (usec)	-1.34955843048E+03	Resid mbdelay (usec)	-2.22531E-03	+/-	1.4E-04
Sband delay (usec)	-1.34950015748E+03	Apriori clock (usec)	-4.0156841E+00	Resid sbdelay (usec)	5.82730E-02	+/-	1.1E-03
Phase delay (usec)	-1.34955843040E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	7.79476E-08	+/-	9.5E-07
Delay rate (us/s)	3.33033783473E-01	Apriori rate (us/s)	3.33034038734E-01	Resid rate (us/s)	-2.55261E-07	+/-	9.1E-09
Total phase (deg)	202.5	Apriori accel (us/s/s)	3.17859143135E-05	Resid phase (deg)	91.2	+/-	14.7

ph/seg (deg) 51.4 34.5 Search (1024X32) 0.206 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 56.8 60.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 13.3 20.8 Inc. seg. avg. 0.224 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 41.0 36.3 Inc. frq. avg. 0.204 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 n: az 85.1 el 59.3 pa -68.9 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -1184.179 2232.273 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/nc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nc.Q.340.3MP56K simultaneous interpolator

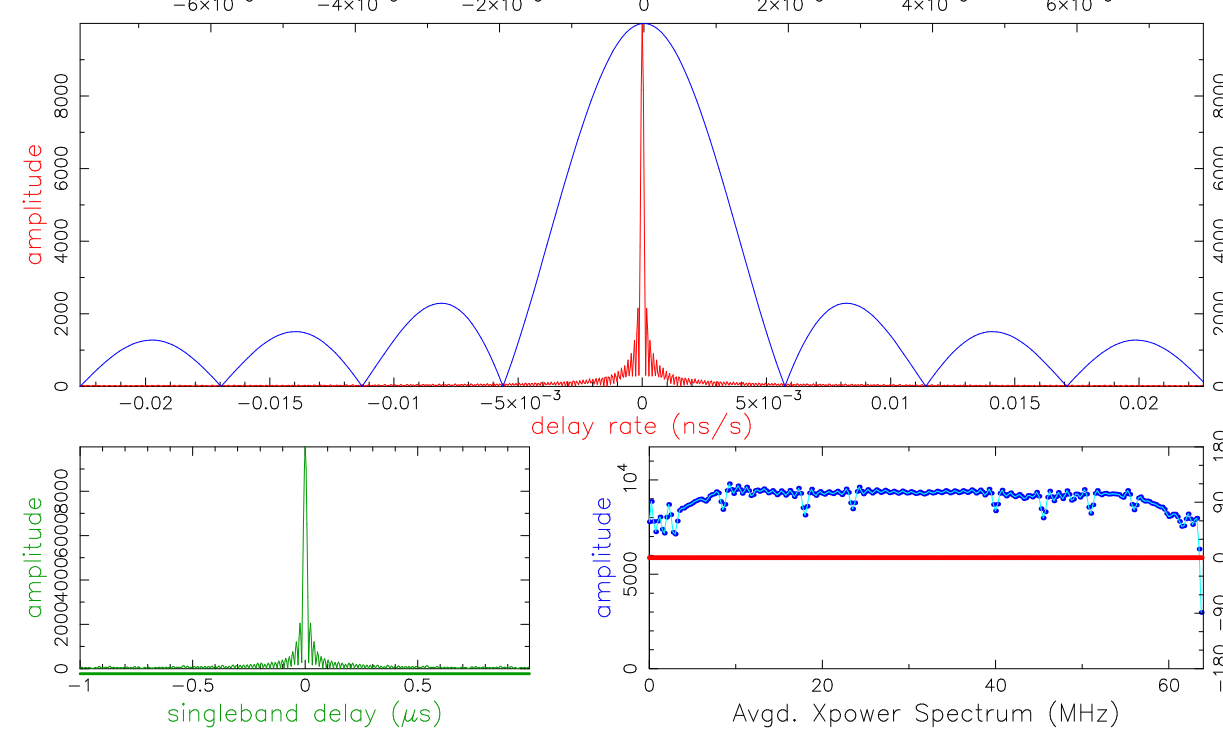


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nn

VLBA\_NL - VLBA\_NL, fgroup Q, pol LL

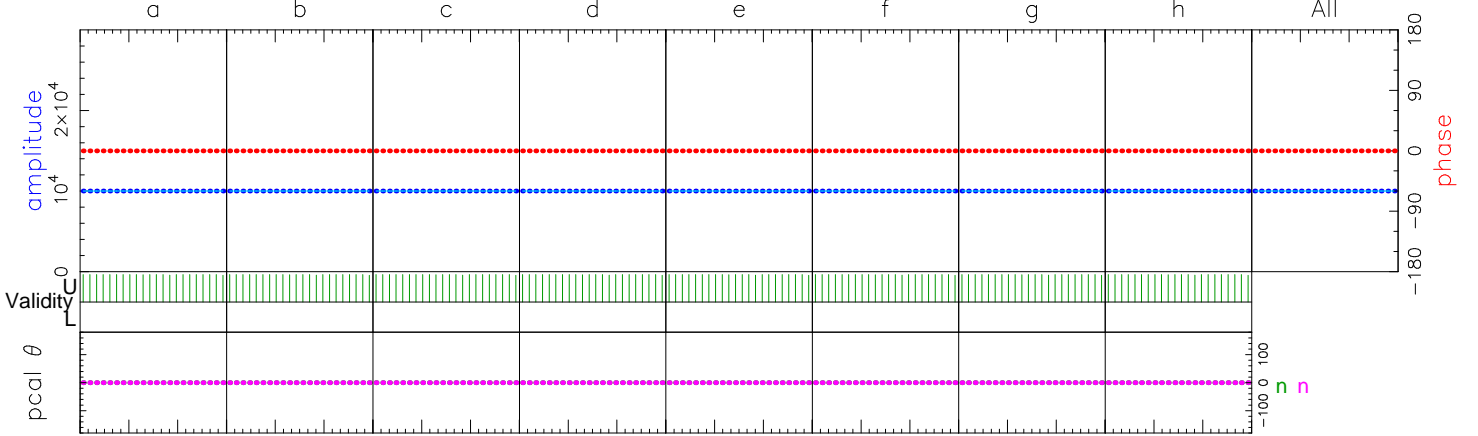


Fringe quality 9

SNR 366556.2  
 Int time 179.674  
 Amp 9999.998  
 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  
 2025:042:151823  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	2.4E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

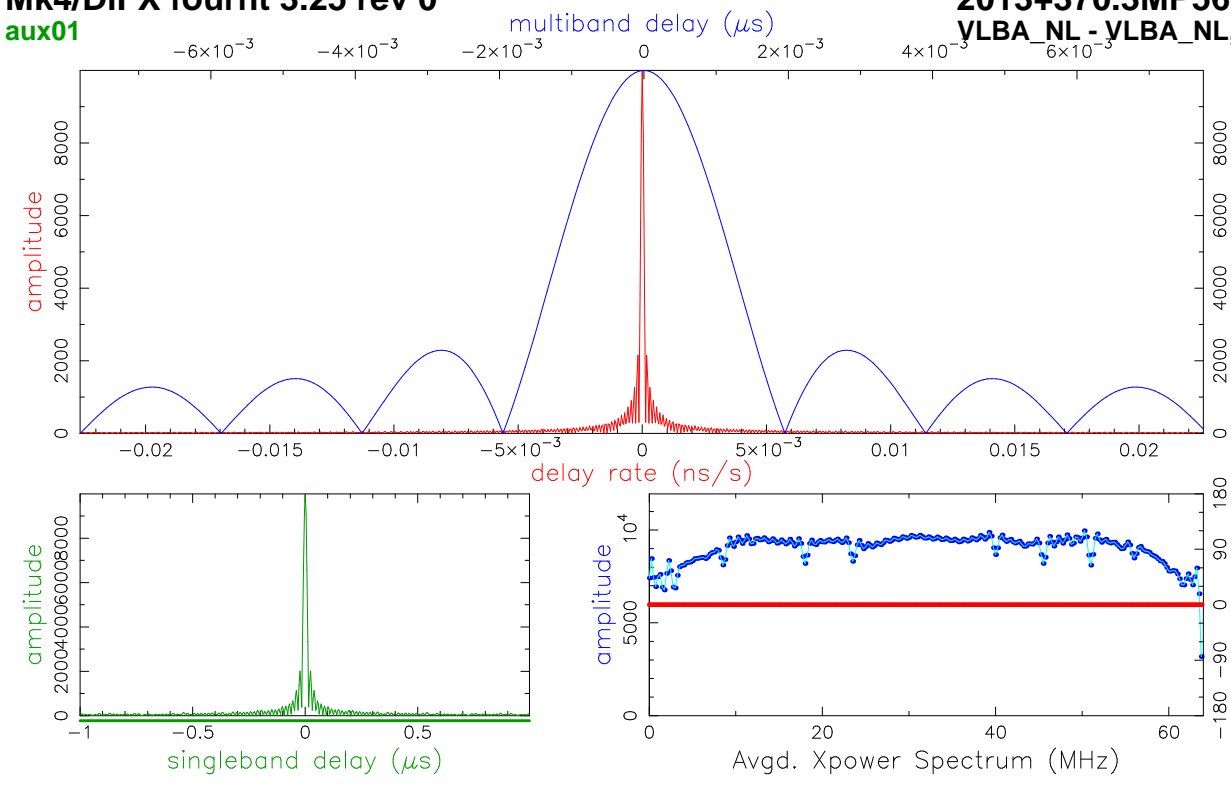
ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.998 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X32) 9999.998 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 n: az 85.1 el 59.3 pa -68.9 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nn.Q.255.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nn

VLBA\_NL - VLBA\_NL, fgroup Q, pol RR

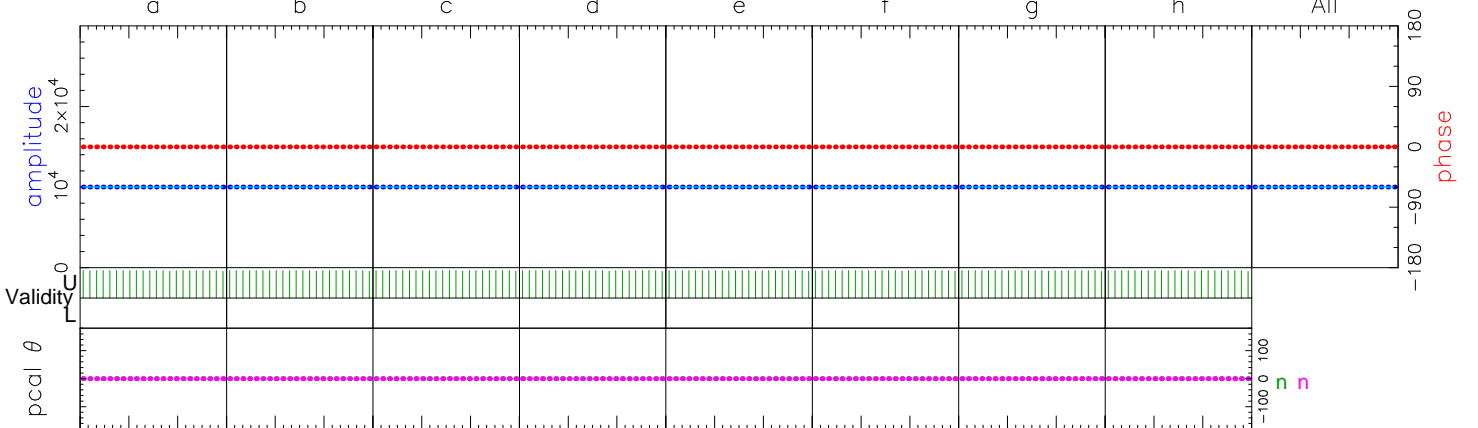


Fringe quality 9

SNR 366556.2  
 Int time 179.674  
 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  
 2025:042:151829  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	10000.0
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Mani PC	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	PC amp	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	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 +/- 2.4E-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

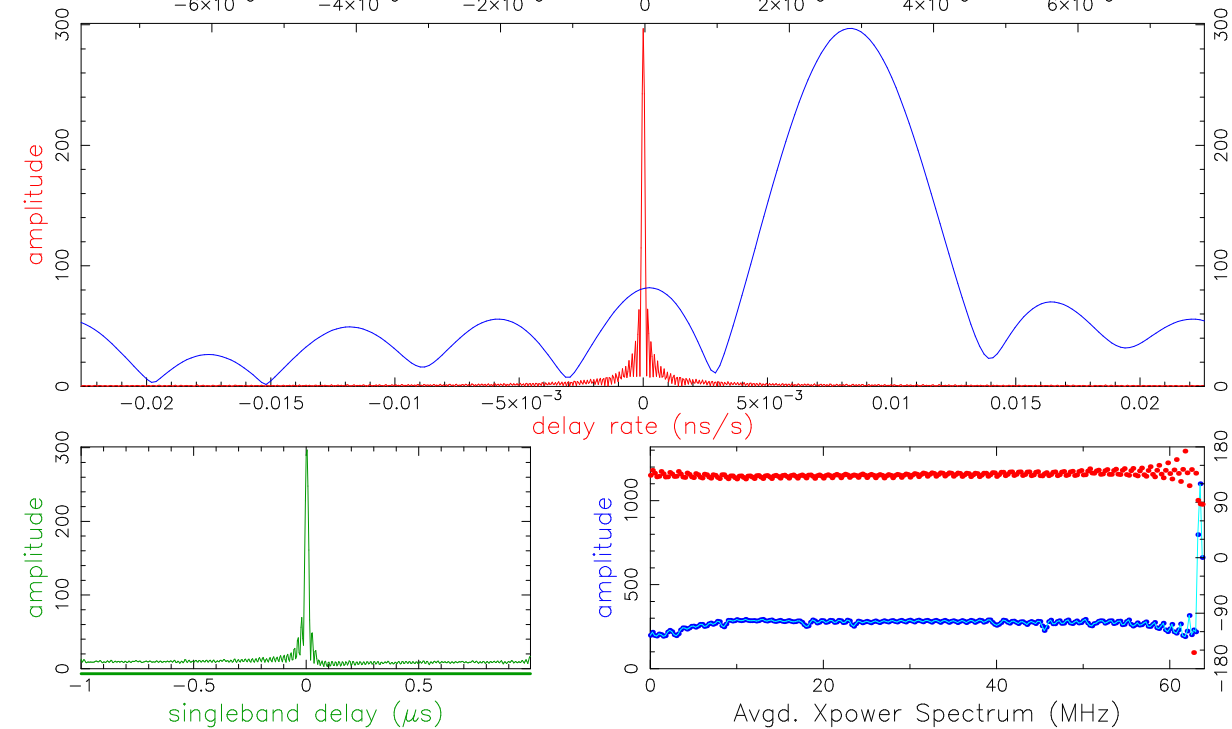
ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 n: az 85.1 el 59.3 pa -68.9 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nn.Q.287.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nn

VLBA\_NL - VLBA\_NL, fgroup Q, pol LR

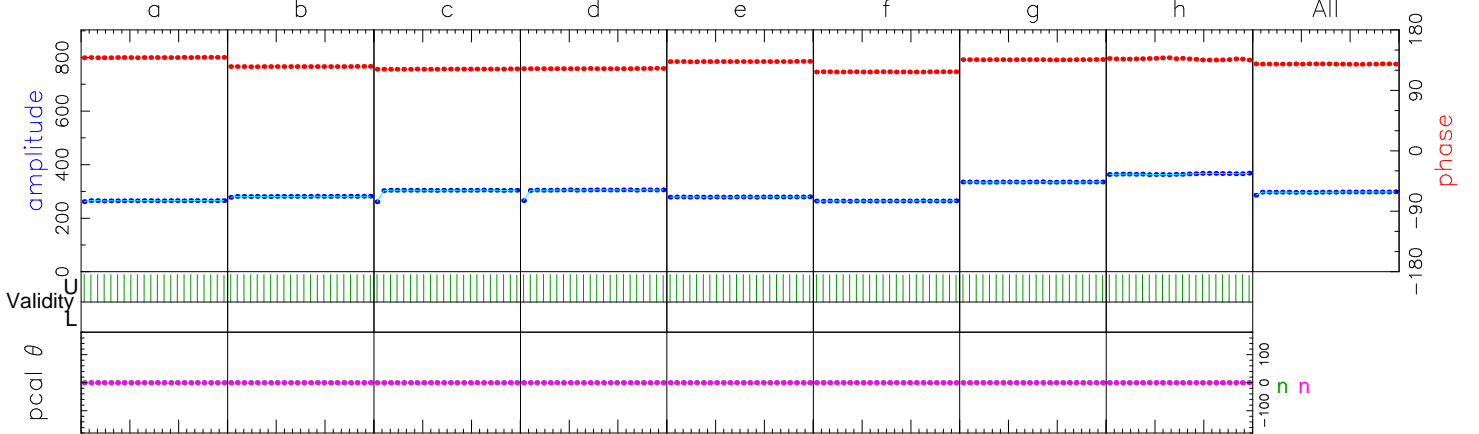


Fringe quality 9

SNR 11040.7  
 Int time 179.674  
 Amp 301.201  
 Phase 129.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002421  
 MBD 0.002813  
 Fringe rate (Hz)  
 -0.000012  
 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



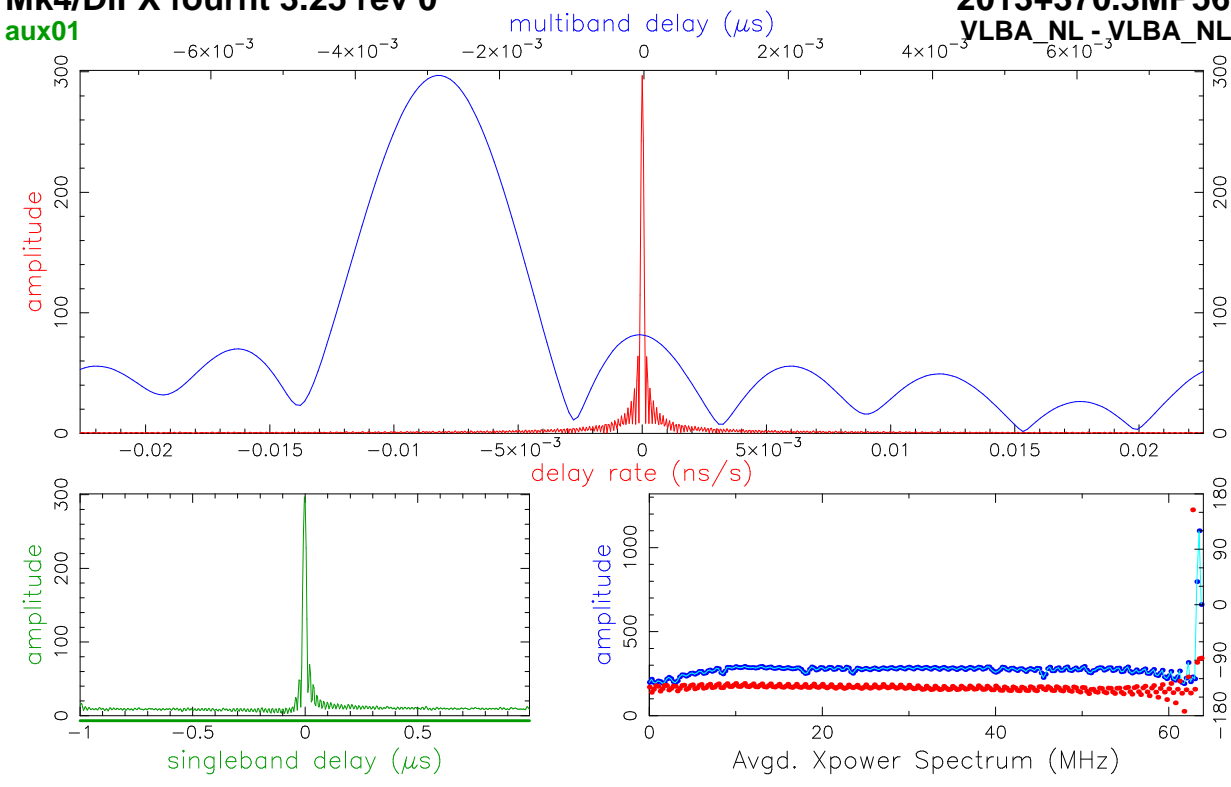
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
Group delay (usec) (SBD)	2.81343750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		2.81344E-03	+/- 9.8E-08
Sband delay (usec)	2.42125000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		2.42125E-03	+/- 7.8E-07
Phase delay (usec)	8.31011875550E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		8.31012E-06	+/- 6.7E-10
Delay rate (us/s)	-2.77303895614E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.77304E-10	+/- 6.4E-12
Total phase (deg)	129.1		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		129.1	+/- 0.0
ph/seg (deg)	RMS 0.2	Theor. 0.0	Amplitude 301.201 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	1.6	0.0	Search (1024X32) 296.096	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000				
ph/frq (deg)	8.7	0.0	Interp. 0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008		
amp/frq (%)	11.0	0.0	Inc. seg. avg. 296.931	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.023 0.023				
n: az 85.1 el 59.3 pa -68.9	n: az 85.1 el 59.3 pa -68.9		u,v (fr/asec) 0.000 0.000		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC) 0.00 0.00	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/nn..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/nn.Q.314.3MP56K						simultaneous interpolator	

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nn

VLBA\_NL - VLBA\_NL, fgroup Q, pol RL

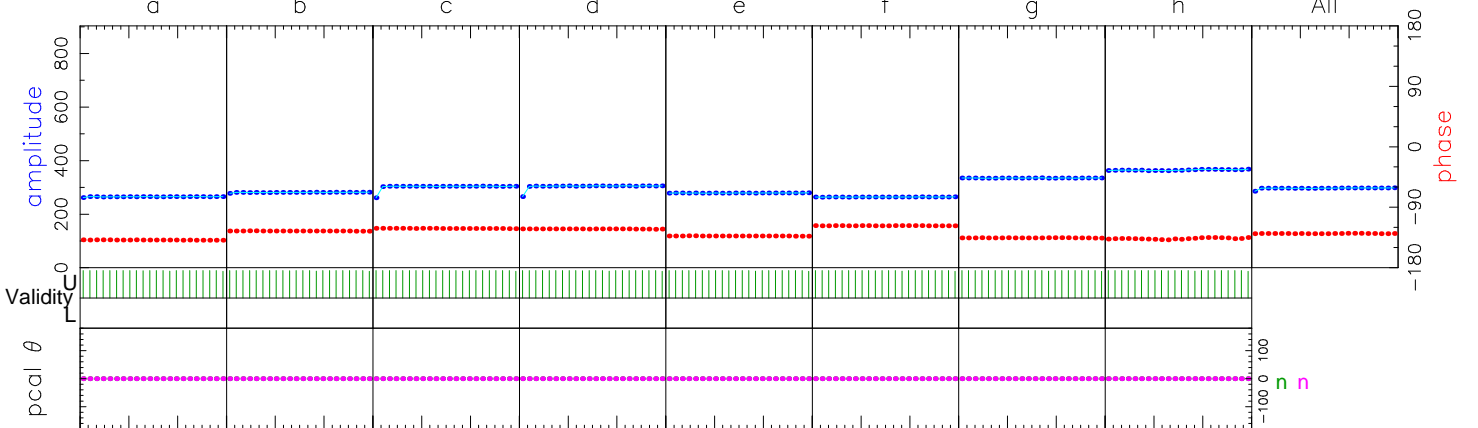


Fringe quality 9

SNR 11040.7  
 Int time 179.674  
 Amp 301.201  
 Phase -129.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002421  
 MBD -0.002813  
 Fringe rate (Hz) 0.000012  
 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



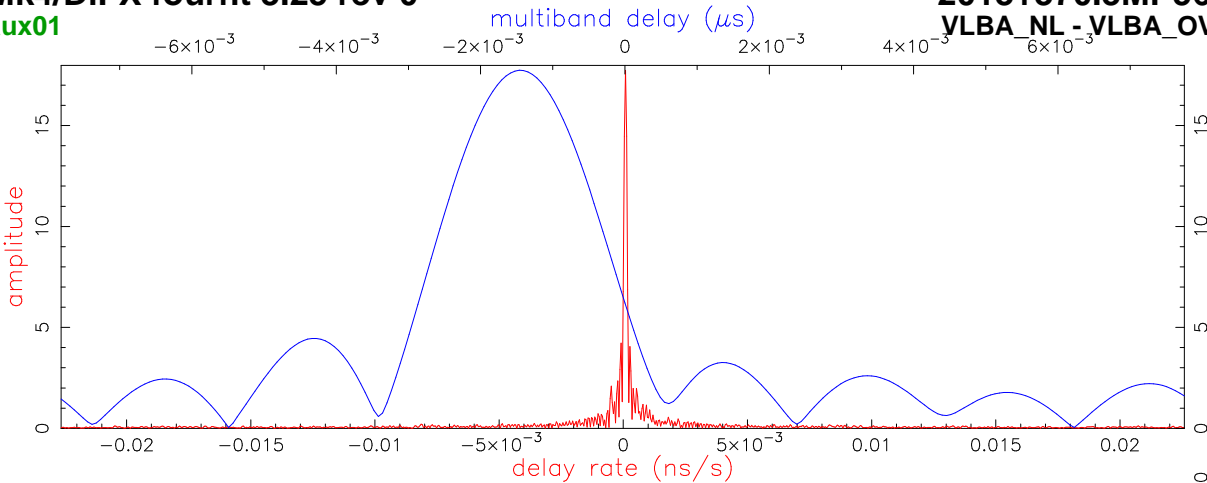
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
n	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks		
Group delay (usec) (SBD)	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	-2.81343750000E-03	Resid mbdelay (usec)	-2.81344E-03 +/- 9.8E-08	
Sband delay (usec)	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	-2.42125000000E-03	Resid sbdelay (usec)	-2.42125E-03 +/- 7.8E-07	
Phase delay (usec)	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	-8.31011875550E-06	Resid phdelay (usec)	-8.31012E-06 +/- 6.7E-10	
Delay rate (us/s)	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	2.77303895614E-10	Resid rate (us/s)	2.77304E-10 +/- 6.4E-12	
Total phase (deg)			-129.1						Resid phase (deg)	-129.1 +/- 0.0	
ph/seg (deg)	0.2	0.0	Search (1024X32)	296.096	301.201 +/- 0.027	296.096	301.201 +/- 0.027	296.096	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	1.6	0.0	Interp.	0.000	0.000	0.000	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	8.7	0.0	Inc. seg. avg.	296.931	296.931	296.931	296.931	296.931	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	11.0	0.0	Inc. frq. avg.	299.473	299.473	299.473	299.473	299.473	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023	
n: az 85.1 el 59.3 pa -68.9	n: az 85.1 el 59.3 pa -68.9	u, v (fr/asec) 0.000 0.000							Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/nn..3MP56K	Output file: /Exps/c241d/v1/7mm/1234/No0500/nn.Q.325.3MP56K									simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

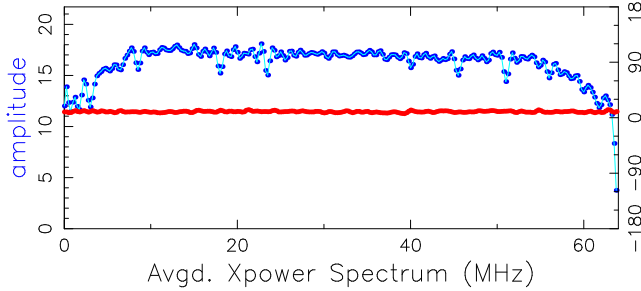
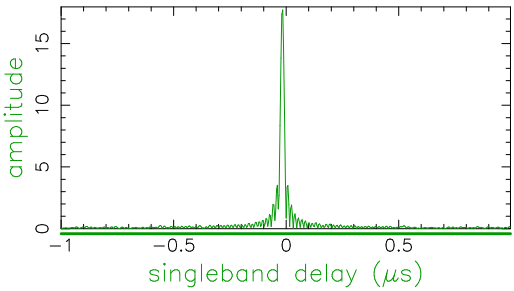
2013+370.3MP56K, No0500, no

VLBA\_NL - VLBA\_OV, fgroup Q, pol LL



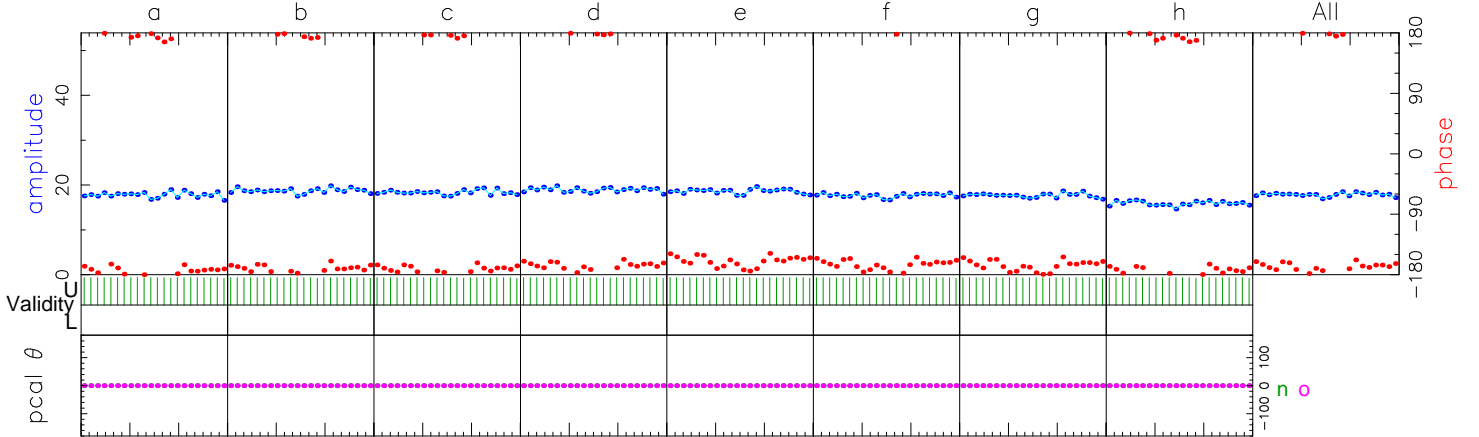
Fringe quality 9

SNR 659.0  
Int time 179.674  
Amp 17.979  
Phase -12.5  
PFD 0.0e+00  
Delays (us)  
SBD -0.017128  
MBD -0.001490  
Fringe rate (Hz)  
0.003819  
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	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	5.05962862782E+03	Apriori delay (usec)	5.05964574245E+03	Resid mbdelay (usec)	-1.48963E-03	+/-	1.6E-06
Sband delay (usec)	5.05962861495E+03	Apriori clock (usec)	-2.5340300E+01	Resid sbdelay (usec)	-1.71275E-02	+/-	1.3E-05
Phase delay (usec)	5.05964573150E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	-1.09484E-05	+/-	1.1E-08
Delay rate (us/s)	-3.14996667743E-01	Apriori rate (us/s)	-3.14996756265E-01	Resid rate (us/s)	8.85222E-08	+/-	1.1E-10
Total phase (deg)	-254.0	Apriori accel (us/s/s)	-2.28709236914E-05	Resid phase (deg)	-12.5	+/-	0.2

ph/seg (deg)	7.5	0.4	Search (1024X32)	17.718	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.3	0.7	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)	6.9	0.2	Inc. seg. avg.	17.879	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	5.1	0.4	Inc. frq. avg.	17.821	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

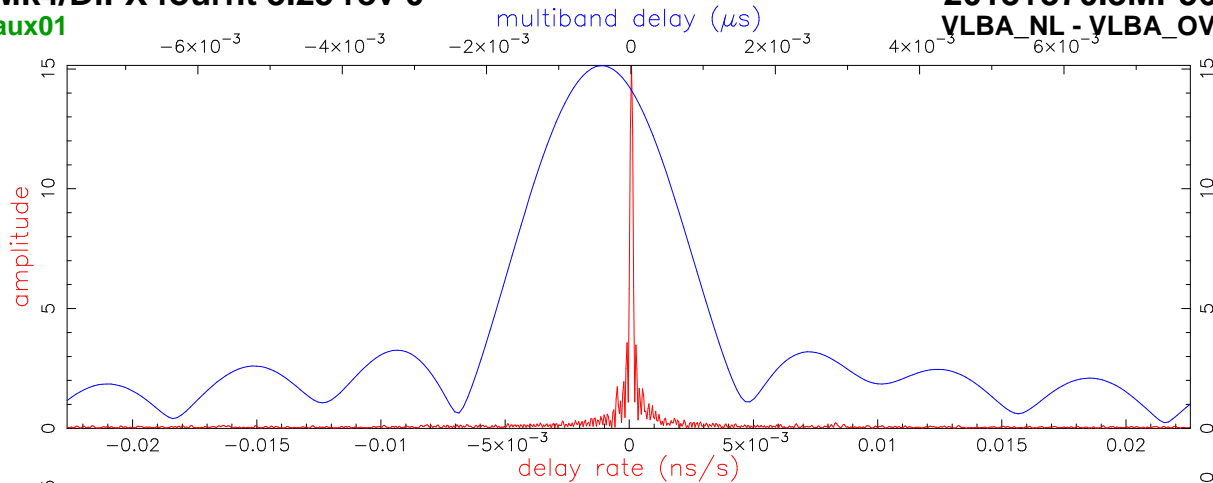
n: az 85.1 el 59.3 pa -68.9      o: az 68.4 el 38.3 pa -68.5      u,v (fr/asec) 1126.410 -475.812      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/no..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/no.Q.277.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

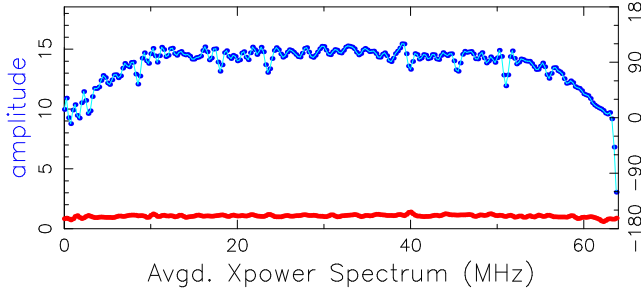
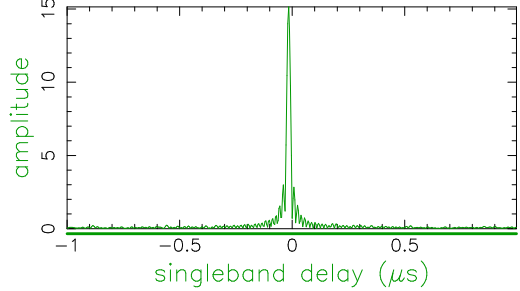
aux01

2013+370.3MP56K, No0500, no VLBA\_NL - VLBA\_OV, fgroup Q, pol RR



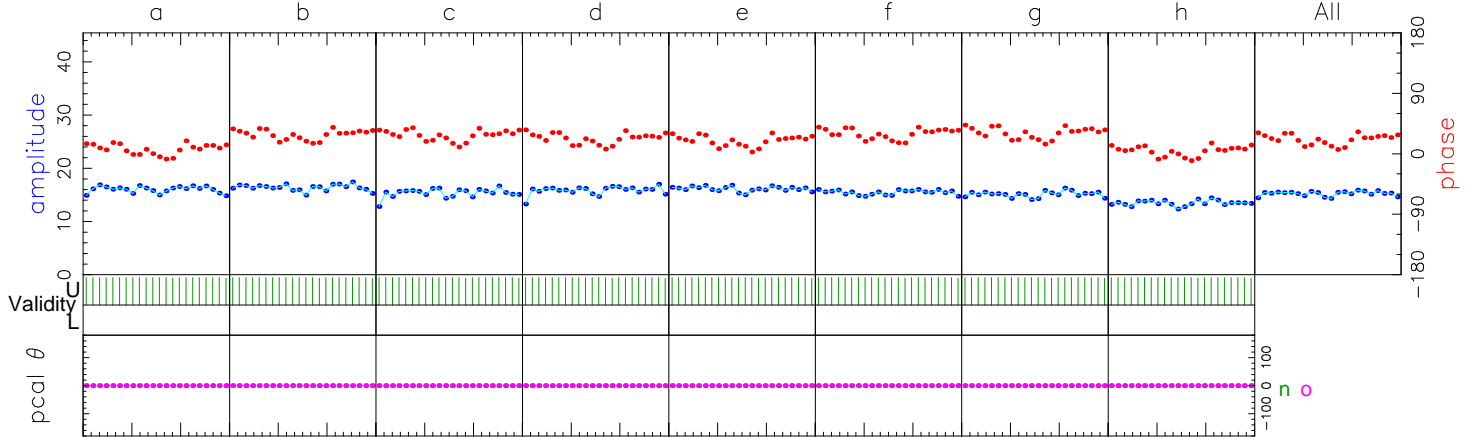
Fringe quality 9

SNR 555.4  
 Int time 179.674  
 Amp 15.152  
 Phase -180.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.015947  
 MBD -0.000412  
 Fringe rate (Hz) 0.003816  
 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
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	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 5.05962970564E+03 Apriori delay (usec) 5.05964574245E+03 Resid mbdelay (usec) -4.11814E-04 +/- 2.0E-06  
 Sband delay (usec) 5.05962979595E+03 Apriori clock (usec) -2.5340300E+01 Resid sbdelay (usec) -1.59465E-02 +/- 1.6E-05  
 Phase delay (usec) 5.05964574385E+03 Apriori clockrate (us/s) -1.8401209E-07 Resid phdelay (usec) 1.39707E-06 +/- 1.3E-08  
 Delay rate (us/s) -3.14996667808E-01 Apriori rate (us/s) -3.14996756265E-01 Resid rate (us/s) 8.84571E-08 +/- 1.3E-10  
 Total phase (deg) -62.2 Apriori accel (us/s/s) -2.28709236914E-05 Resid phase (deg) -180.8 +/- 0.2

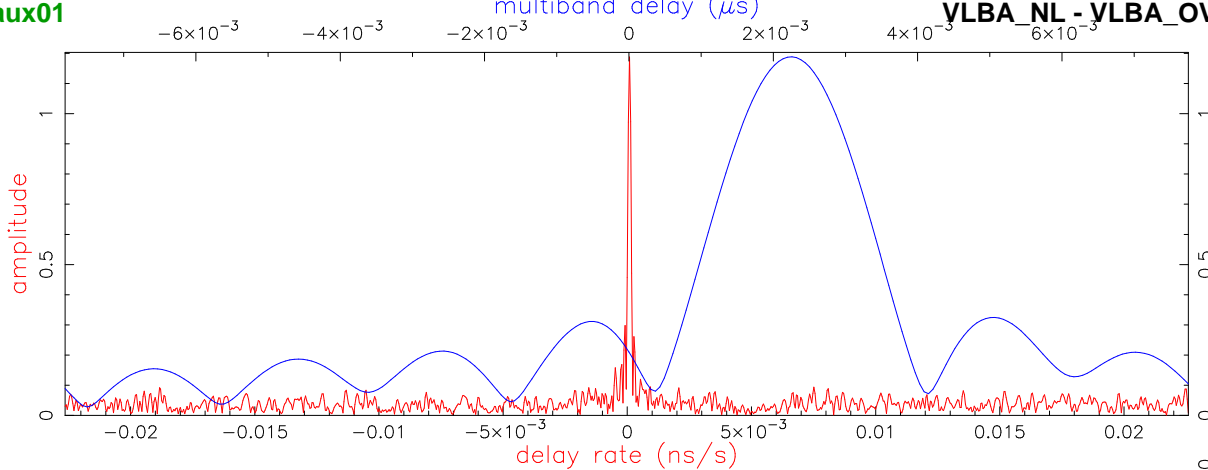
ph/seg (deg) 7.4 0.5 RMS Theor. Amplitude 15.152 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 3.0 0.8 Search (1024X32) 15.091 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 11.4 0.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 5.7 0.5 Inc. seg. avg. 15.269 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 n: az 85.1 el 59.3 pa -68.9 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) 1126.410 -475.812 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/./no..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/./no.Q.299.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

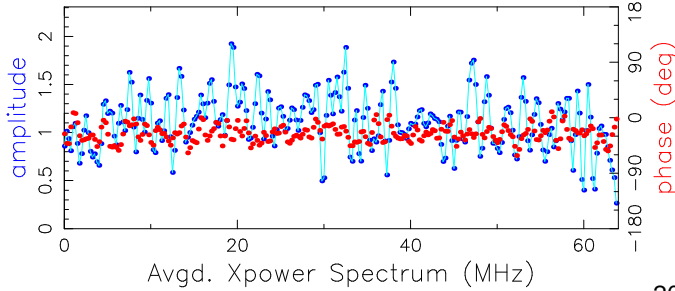
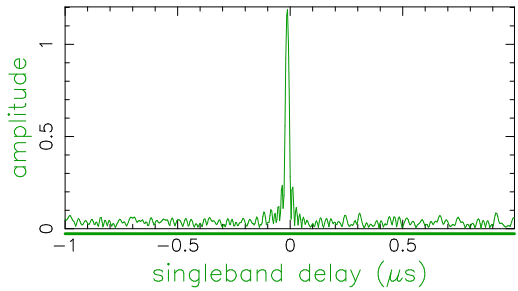
aux01

2013+370.3MP56K, No0500, no VLBA\_NL - VLBA\_OV, fgroup Q, pol LR

Fringe quality 9

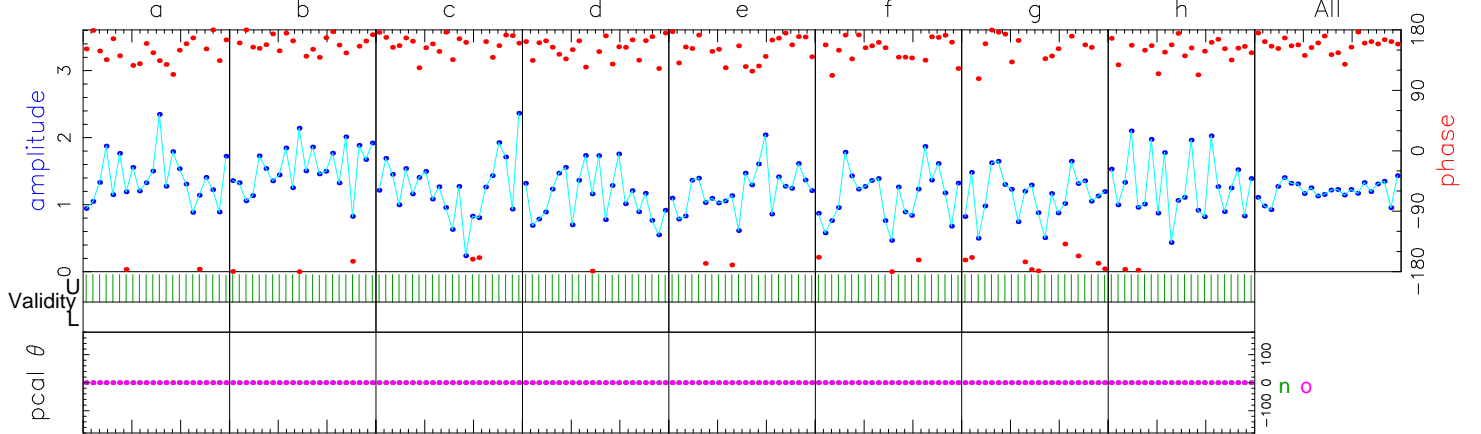


SNR 44.1  
Int time 179.674  
Amp 1.203  
Phase -44.7  
PFD 0.0e+00  
Delays (us)  
SBD -0.013150  
MBD 0.002216  
Fringe rate (Hz) 0.003781  
Ion TEC 0.000  
Ref freq (MHz) 43140.0000  
AP (sec) 0.512



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		
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	5.05963233311E+03	Apriori delay (usec)	5.05964574245E+03	Resid mbdelay (usec)	2.21565E-03	+/-	2.5E-05
Sband delay (usec)	5.05963259270E+03	Apriori clock (usec)	-2.5340300E+01	Resid sbdelay (usec)	-1.31498E-02	+/-	2.0E-04
Phase delay (usec)	5.05964575261E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	1.01614E-05	+/-	1.7E-07
Delay rate (us/s)	-3.1499668626E-01	Apriori rate (us/s)	-3.14996756265E-01	Resid rate (us/s)	8.76393E-08	+/-	1.6E-09
Total phase (deg)	73.9	Apriori accel (us/s/s)	-2.28709236914E-05	Resid phase (deg)	-44.7	+/-	2.6

ph/seg (deg)	10.8	Theor.	6.1	Amplitude	1.203 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	11.0		10.6	Search (1024X32)	1.166	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.7		3.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	11.7		6.4	Inc. seg. avg.	1.202	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	1.195	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		o: az 68.4 el 38.3 pa -68.5		u,v (fr/asec)	1126.410 -475.812				simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/no..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/no.Q.312.3MP56K						

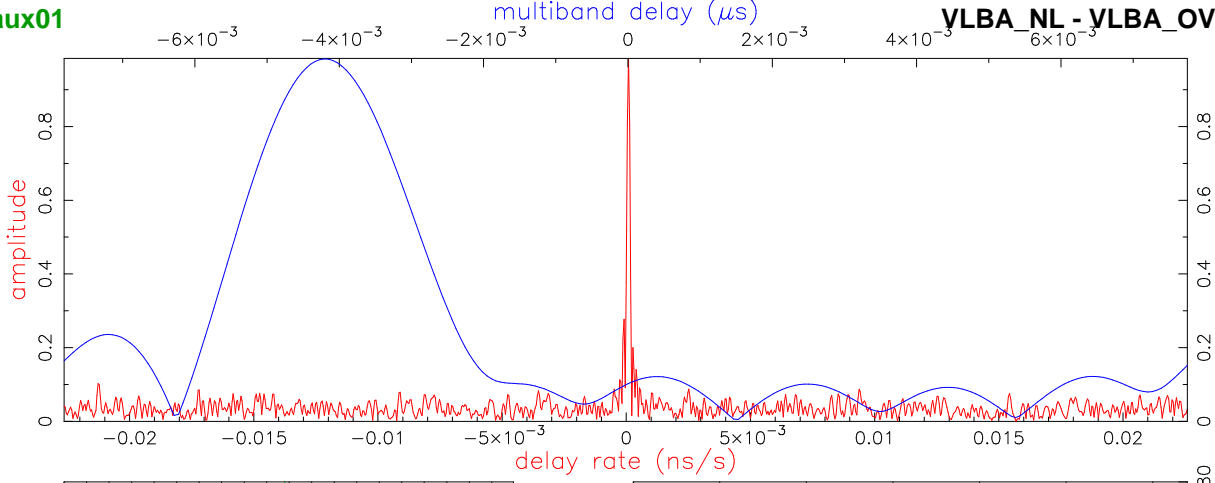
Mk4/DiFX fourfit 3.25 rev 0

aux01

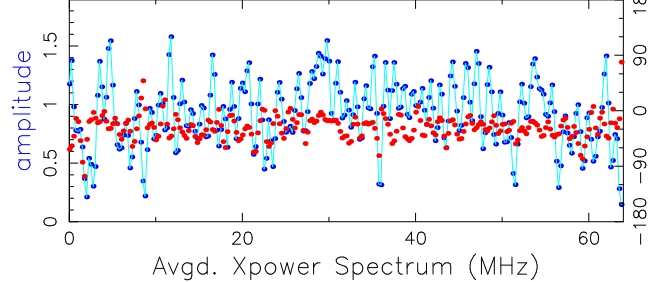
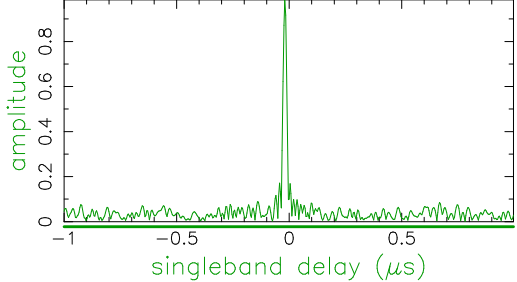
2013+370.3MP56K, No0500, no

VLBA\_NL - VLBA\_OV, fgroup Q, pol RL

Fringe quality 8

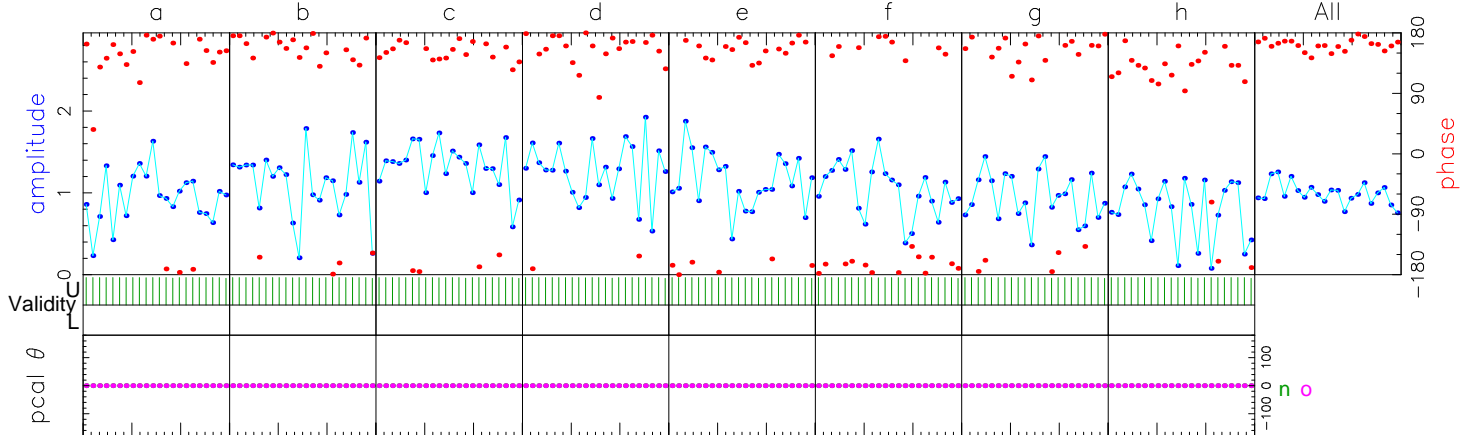


SNR 36.1  
 Int time 179.674  
 Amp 0.985  
 Phase -40.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.019020  
 MBD -0.004182  
 Fringe rate (Hz) 0.003797  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



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	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	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	5.05962593523E+03	Apriori delay (usec)	5.05964574245E+03	Resid mbdelay (usec)	-4.18222E-03	+/-	3.0E-05
Sband delay (usec)	5.05962672270E+03	Apriori clock (usec)	-2.5340300E+01	Resid sbdelay (usec)	-1.90198E-02	+/-	2.4E-04
Phase delay (usec)	5.05964575288E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	1.04286E-05	+/-	2.0E-07
Delay rate (us/s)	-3.14996668253E-01	Apriori rate (us/s)	-3.14996756265E-01	Resid rate (us/s)	8.80129E-08	+/-	2.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.28709236914E-05	Resid phase (deg)	-40.5	+/-	3.2

ph/seg (deg)	8.3	Theor.	7.4	Amplitude	0.985 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	13.1	Search (1024X32)	0.970	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.	0.986	Inc. frq. avg.	0.998	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.0	Inc. frq. avg.	0.998			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
n: az 85.1 el 59.3 pa -68.9		o: az 68.4 el 38.3 pa -68.5		u,v (fr/asec)	1126.410 -475.812	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/no..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/no.Q.322.3MP56K					simultaneous interpolator	

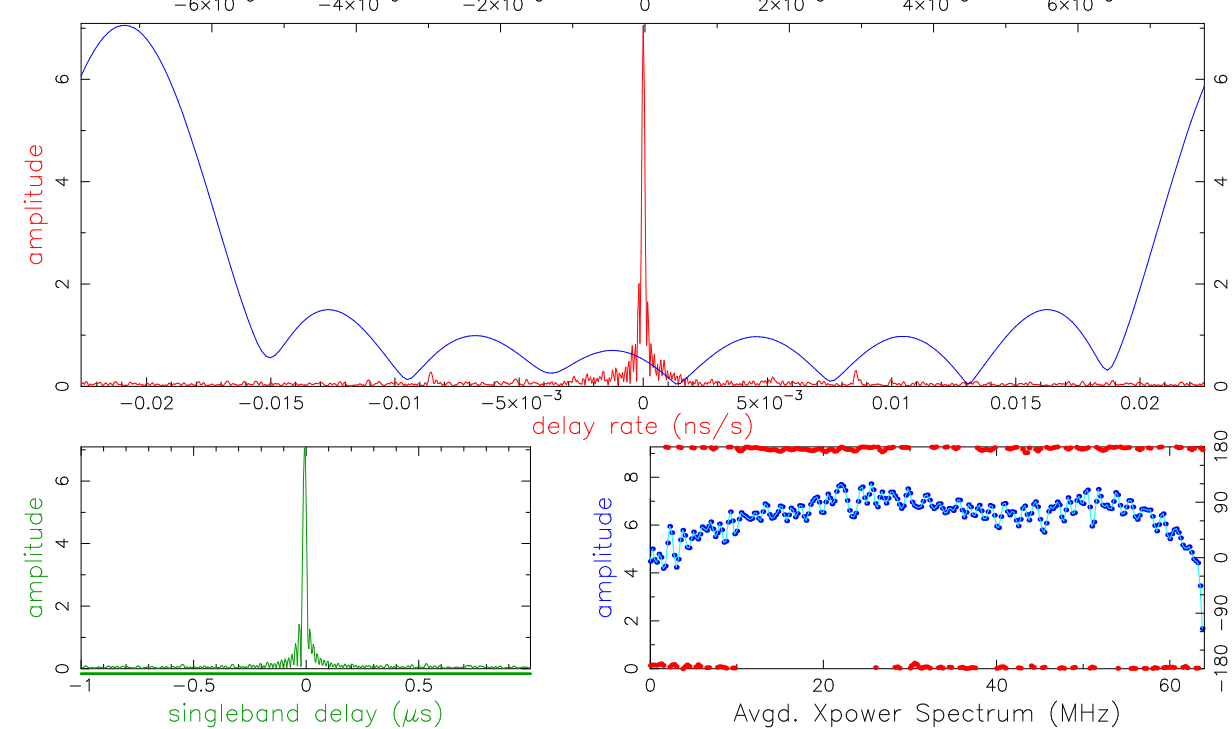


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, np

VLBA\_NL - VLBA\_PT, fgroup Q, pol LL

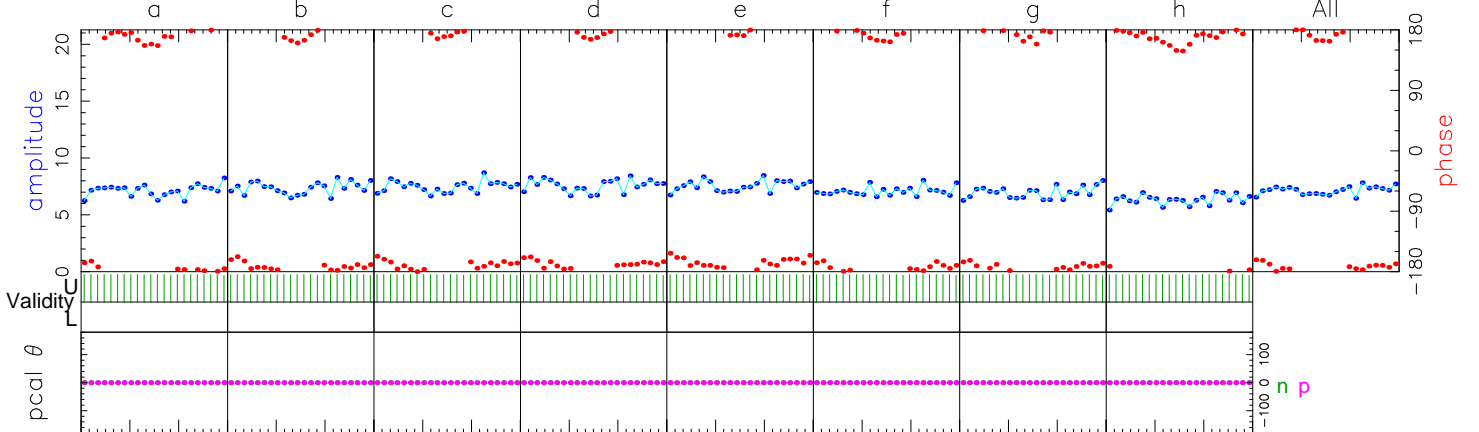


Fringe quality 9

SNR 260.0  
 Int time 179.665  
 Amp 7.093  
 Phase -177.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006882  
 MBD -0.007190  
 Fringe rate (Hz) 0.000663  
 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



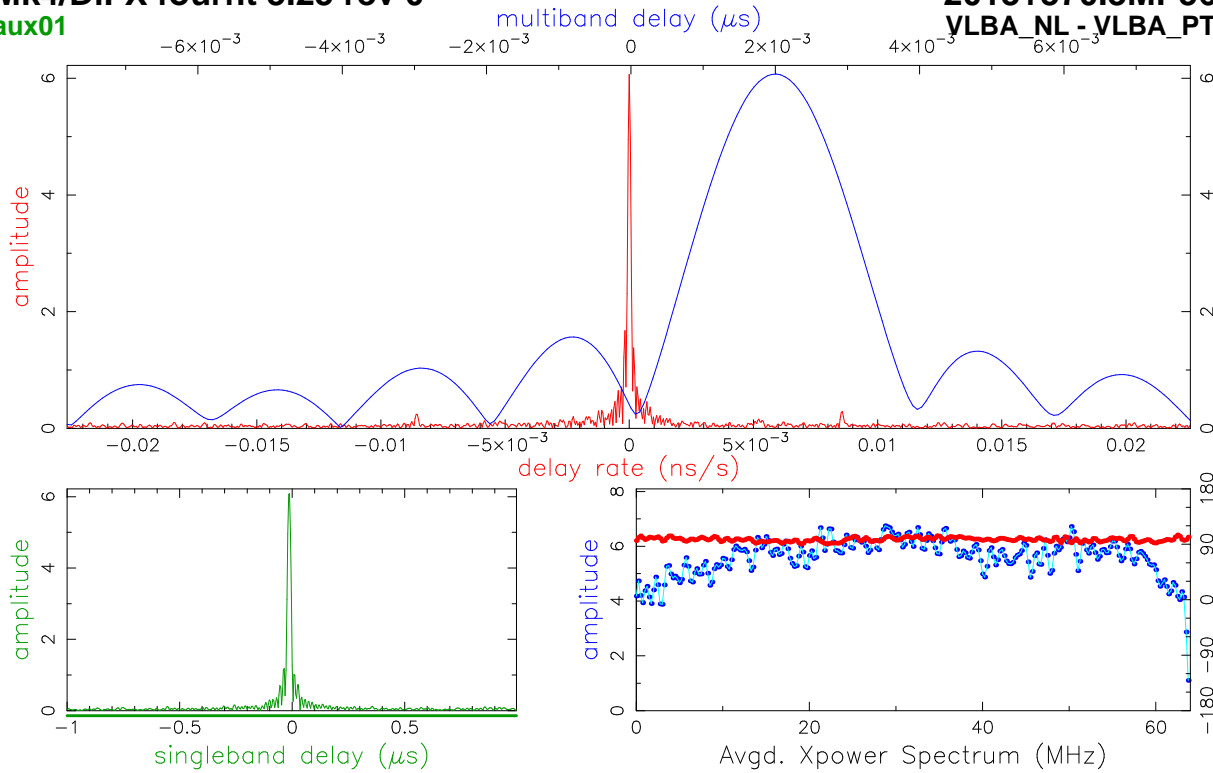
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Group delay (usec) (SBD)	3.23559285099E+03		Apriori delay (usec)		3.23560004055E+03		Resid mbdelay (usec)		-7.18956E-03	+/- 4.2E-06
Sband delay (usec)	3.23559315855E+03		Apriori clock (usec)		-5.9878368E+08		Resid sbdelay (usec)		-6.88200E-03	+/- 3.3E-05
Phase delay (usec)	3.23560002912E+03		Apriori clockrate (us/s)		-8.1437027E-08		Resid phdelay (usec)		-1.14313E-05	+/- 2.8E-08
Delay rate (us/s)	-2.61039478558E-01		Apriori rate (us/s)		-2.61039493935E-01		Resid rate (us/s)		1.53762E-08	+/- 2.7E-10
Total phase (deg)	92.3		Apriori accel (us/s/s)		-1.02428287028E-05		Resid phase (deg)		-177.5	+/- 0.4
ph/seg (deg)	RMS 9.8	Theor. 1.0	Amplitude 7.093 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000 1.000
amp/seg (%)	9.8	1.0	Search (1024X32) 6.855	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.008 0.008
ph/frq (deg)	5.0	1.8	Interp. 0.000	Bits/sample: 2x2		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023
amp/frq (%)	6.8	0.6	Inc. seg. avg. 7.156	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)		0.00 0.00
	5.4	1.1	Inc. frq. avg. 7.091	u,v (fr/asec) 937.360 49.292		simultaneous interpolator				
n: az 85.1 el 59.3 pa -68.9	p: az 69.2 el 44.9 pa -76.1									
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.260.3MP56K					

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, np

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

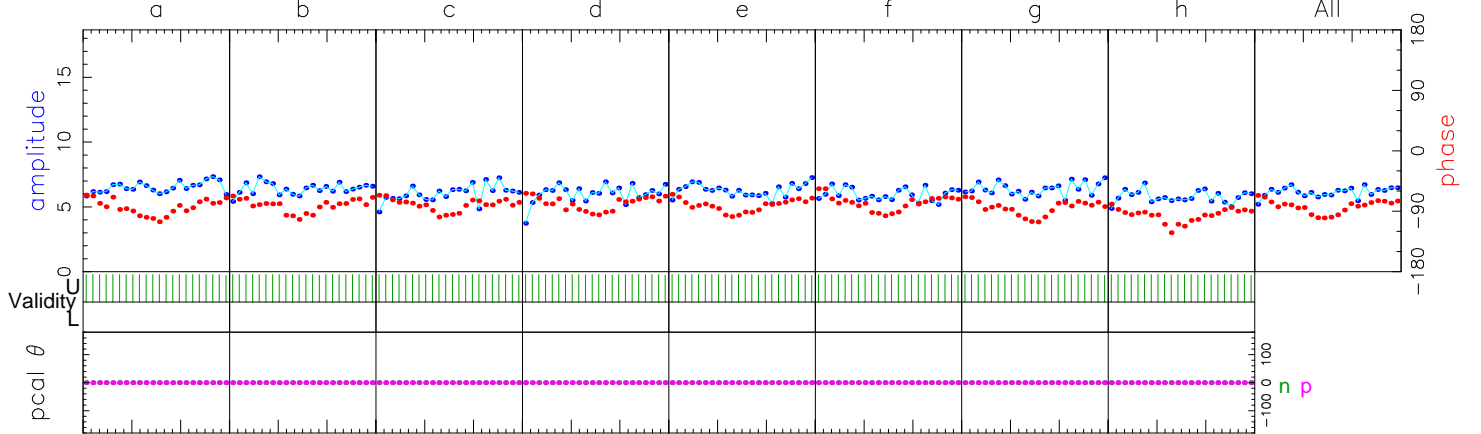


Fringe quality 9

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



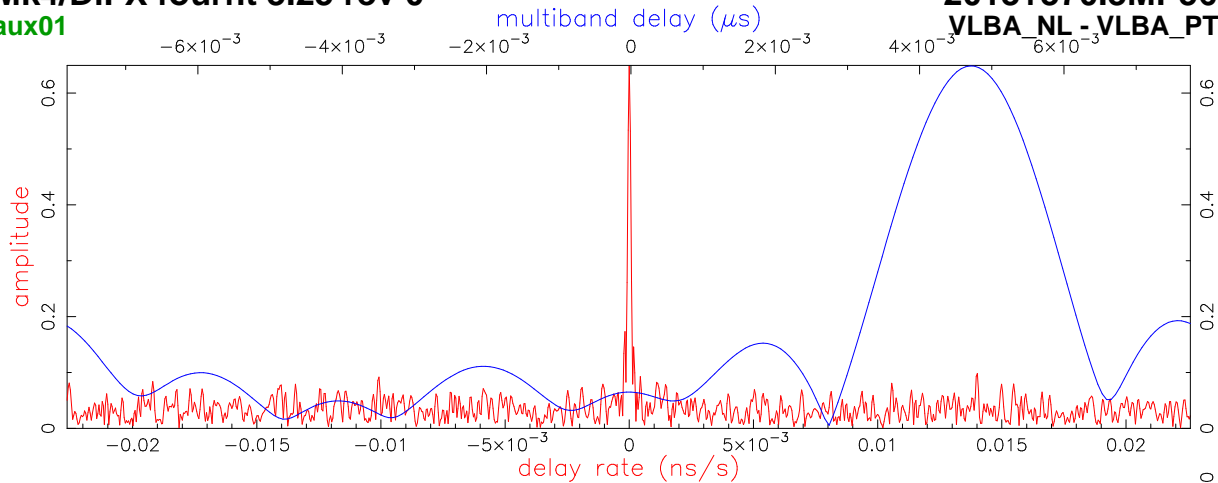
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	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)	3.23558646171E+03		Apriori delay (usec)		3.23560004055E+03		Resid mbdelay (usec)		2.04616E-03	+/- 4.8E-06	
Sband delay (usec)	3.23558642705E+03		Apriori clock (usec)		-5.9878368E+08		Resid sbdelay (usec)		-1.36135E-02	+/- 3.8E-05	
Phase delay (usec)	3.23560003522E+03		Apriori clockrate (us/s)		-8.1437027E-08		Resid phdelay (usec)		-5.32772E-06	+/- 3.2E-08	
Delay rate (us/s)	-2.61039478864E-01		Apriori rate (us/s)		-2.61039493935E-01		Resid rate (us/s)		1.50706E-08	+/- 3.1E-10	
Total phase (deg)			Apriori accel (us/s/s)		-1.02428287028E-05		Resid phase (deg)		-285.2	+/- 0.5	
ph/seg (deg)	RMS 9.5	Theor. 1.2	Amplitude 6.221 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	6.0	2.1	Search (1024X32) 5.930		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
ph/frq (deg)	6.3	0.7	Interp. 0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
amp/frq (%)	4.3	1.2	Inc. seg. avg. 6.146		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023	0.023	
			Inc. frq. avg. 6.092		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.276.3MP56K								

Mk4/DiFX fourfit 3.25 rev 0

aux01

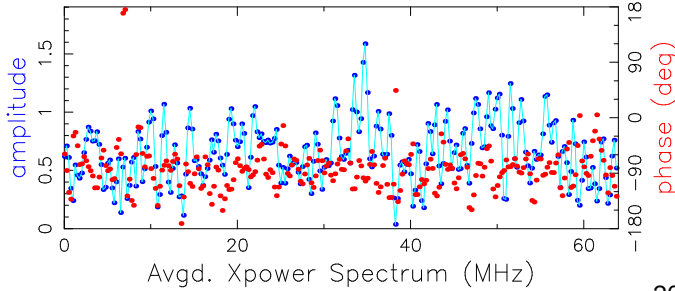
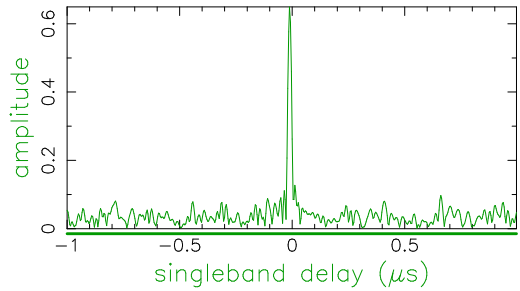
2013+370.3MP56K, No0500, np

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



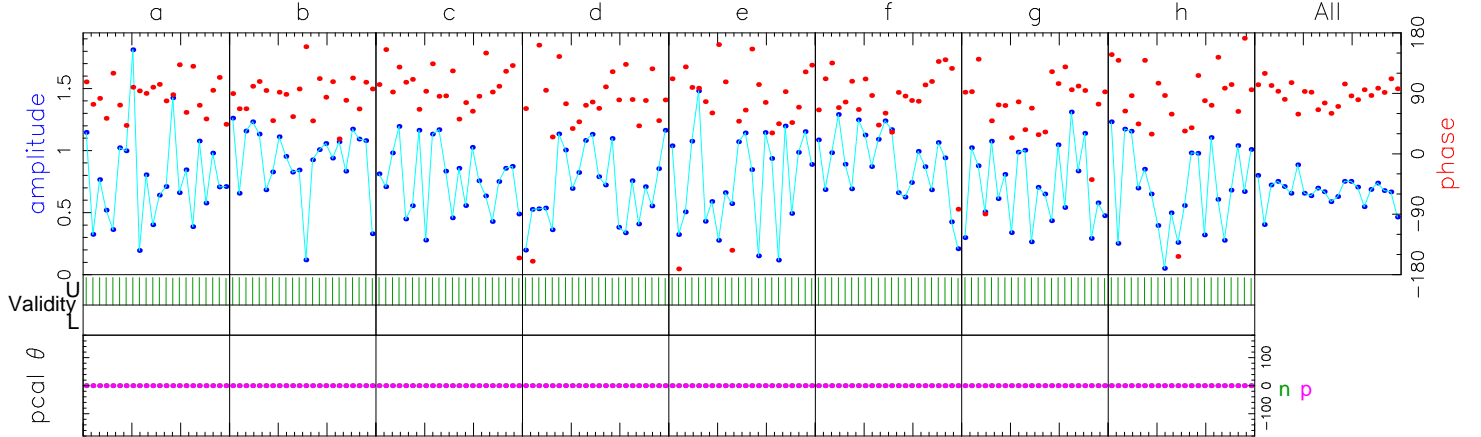
Fringe quality 9

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	85.4	84.6	103.5	86.2	94.0	87.4	79.6	90.3	Ampl.	88.8
n	0.7	0.8	0.7	0.6	0.6	0.8	0.6	0.5	Ampl.	0.6
p	254.4	253.9	254.6	253.9	253.9	254.8	254.0	253.3	Sbd box	254.1
n	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	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

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	Theor.	11.3	Amplitude	0.649 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	16.2	Search (1024X32)	0.634	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.8	Inc. seg. avg.	0.660	Inc. frq. avg.	0.648	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	15.6	Inc. frq. avg.	0.648			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

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

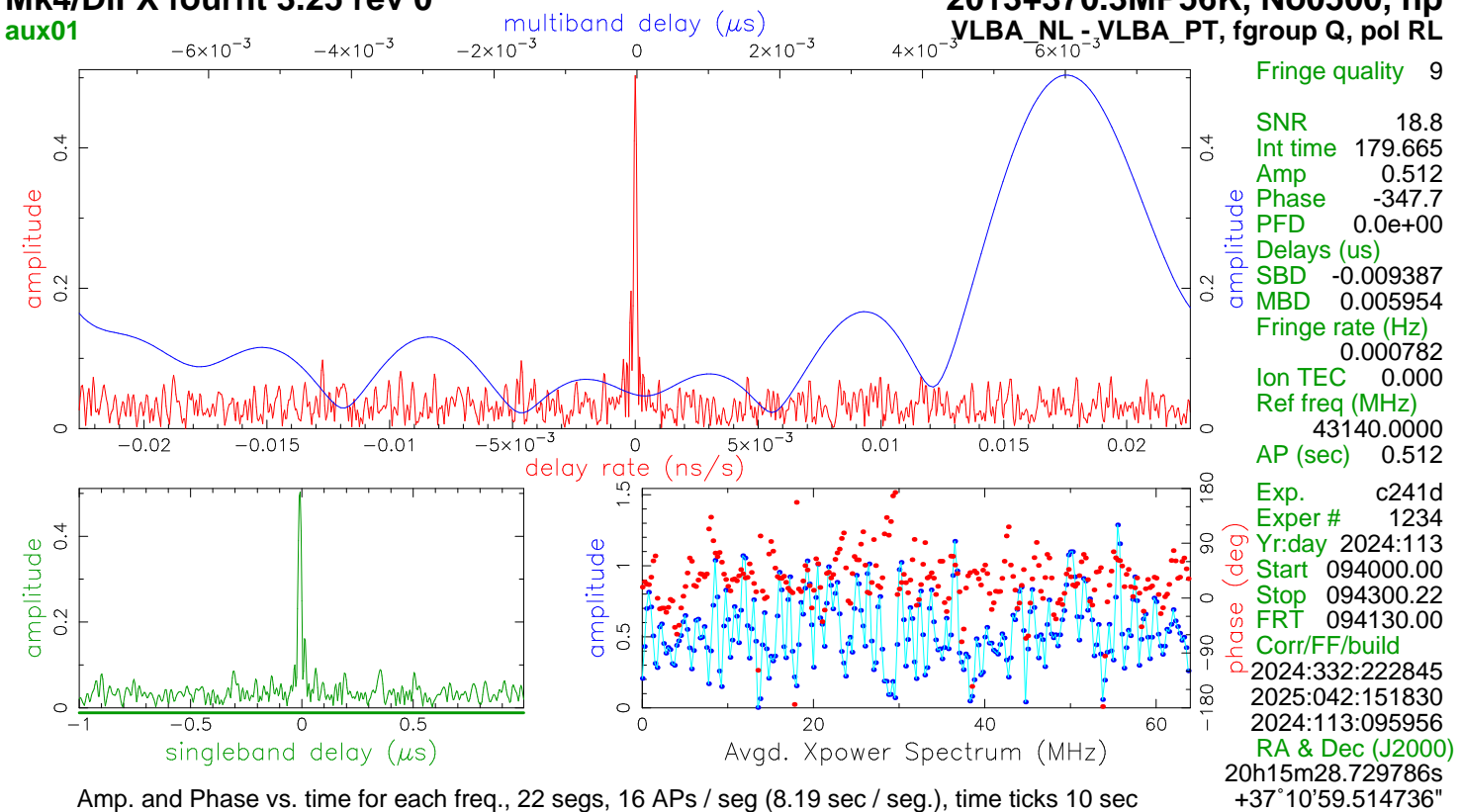
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/np..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.280.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

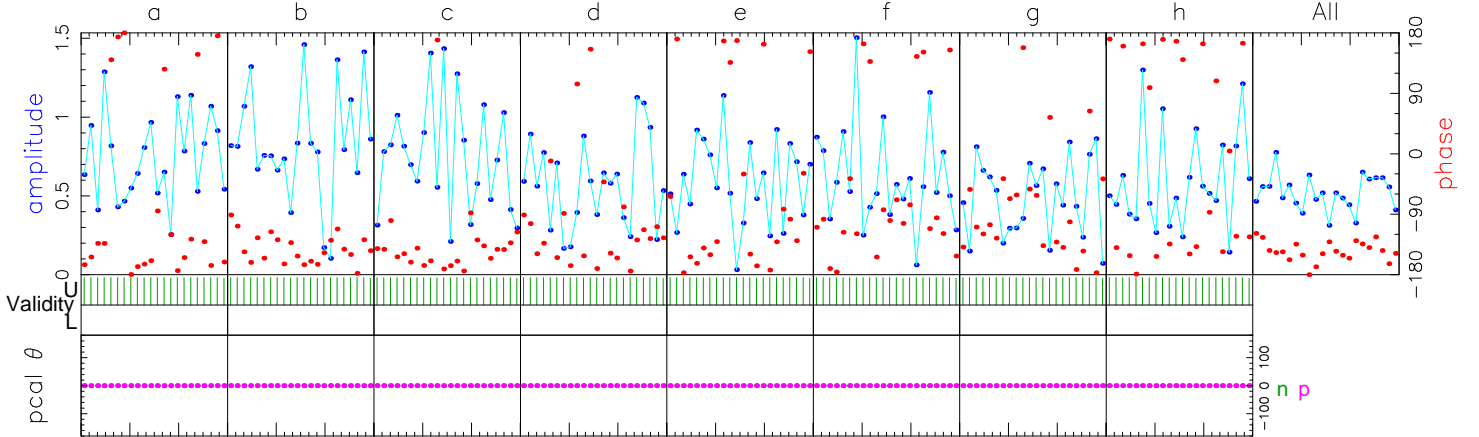
aux01

2013+370.3MP56K, No0500, np

VLBA\_NL - 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



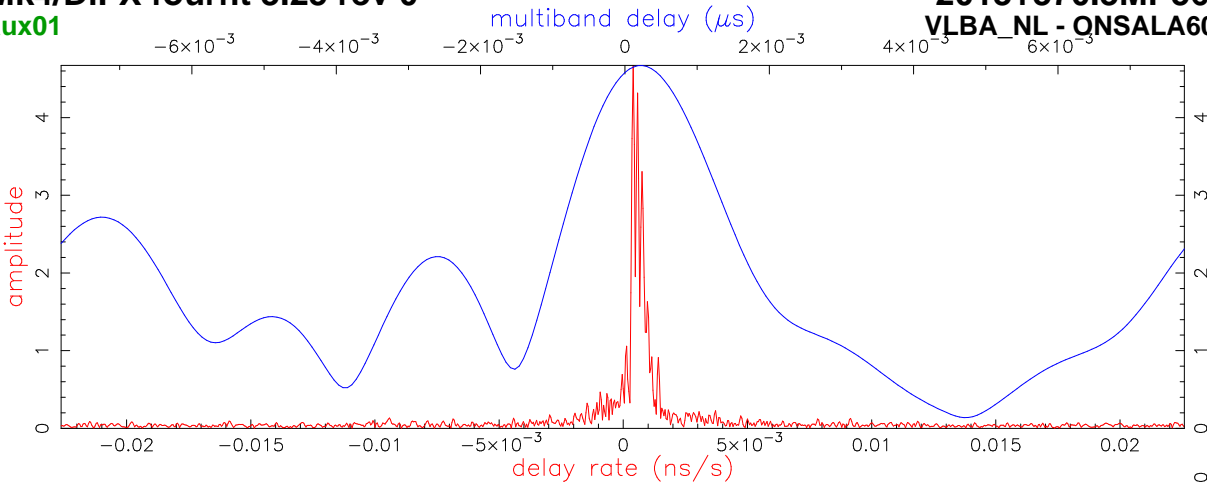
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
	-162.5	-141.7	-150.2	-130.6	-152.1	-118.6	-116.3	-171.9	Phase	-145.2	
	0.6	0.8	0.7	0.4	0.4	0.5	0.3	0.5	Ampl.	0.5	
	255.3	254.9	254.2	254.2	254.8	255.0	253.5	254.4	Sbd box	254.6	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
n	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)	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+08		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	
	RMS	Theor.	Amplitude	0.512 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	14.7	14.3	Search (1024X32)	0.484		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	21.1	25.0	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	21.8	8.6	Inc. seg. avg.	0.505		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023	
amp/frq (%)	29.9	15.1	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

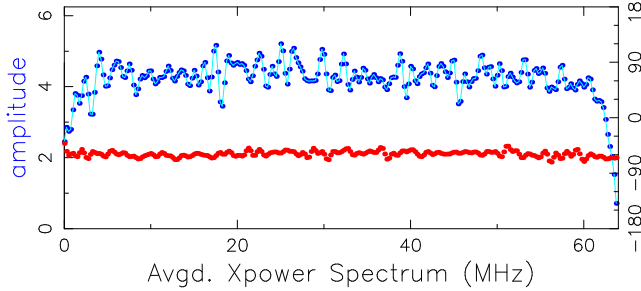
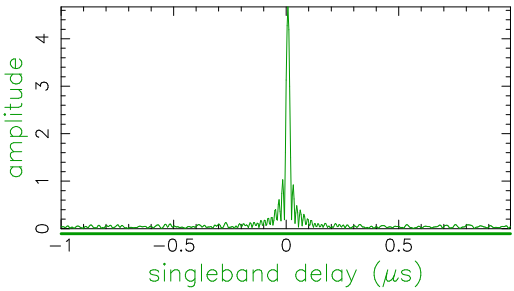
2013+370.3MP56K, No0500, nX

VLBA\_NL - QNSALA60, fgroup Q, pol LL



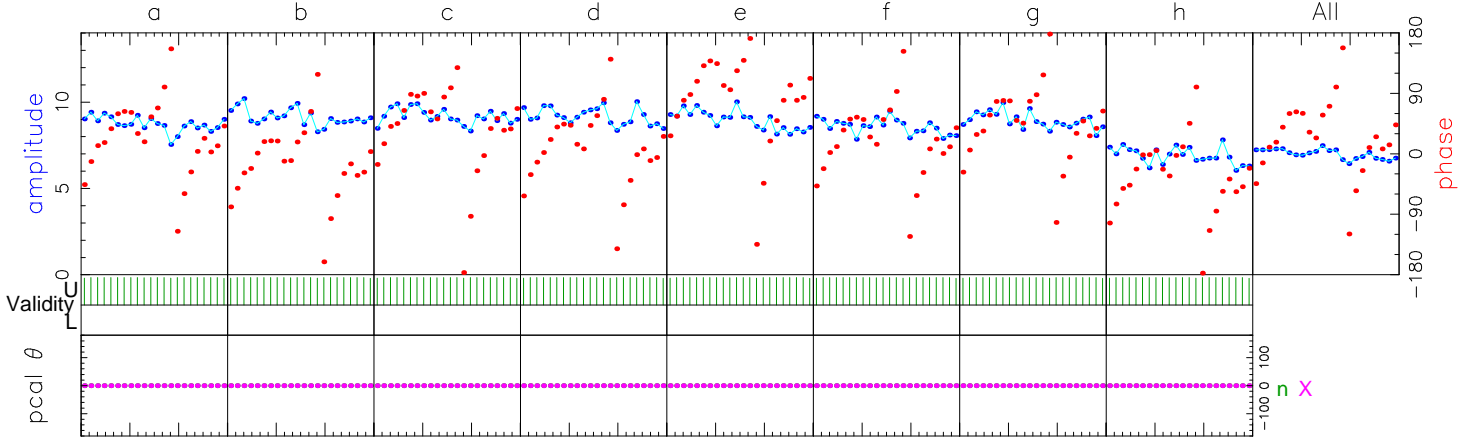
Fringe quality 2

SNR 171.2  
 Int time 179.527  
 Amp 4.673  
 Phase 26.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.007613  
 MBD 0.000212  
 Fringe rate (Hz)  
 0.017878  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	3.41245935101E+03	Apriori delay (usec)	3.41245913939E+03	Resid mbdelay (usec)	2.11617E-04	+/-	6.3E-06
Sband delay (usec)	3.41246675264E+03	Apriori clock (usec)	-1.1320757E+02	Resid sbdelay (usec)	7.61325E-03	+/-	5.0E-05
Phase delay (usec)	3.41245914111E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	1.71248E-06	+/-	4.3E-08
Delay rate (us/s)	1.18512115161E+00	Apriori rate (us/s)	1.18512073719E+00	Resid rate (us/s)	4.14417E-07	+/-	4.1E-10
Total phase (deg)	125.0	Apriori accel (us/s/s)	-3.08044785848E-05	Resid phase (deg)	26.6	+/-	0.7

ph/seg (deg)	55.4	RMS	55.4	Theor.	1.6	Amplitude	4.673 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	50.1	Search (1024X32)	4.448	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	44.6	Inc. seg. avg.	6.995	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
amp/frq (%)	27.0	Inc. frq. avg.	5.826									

n: az 85.1 el 59.3 pa -68.9 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -4283.661 -1517.344 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nX.Q.257.3MP56K

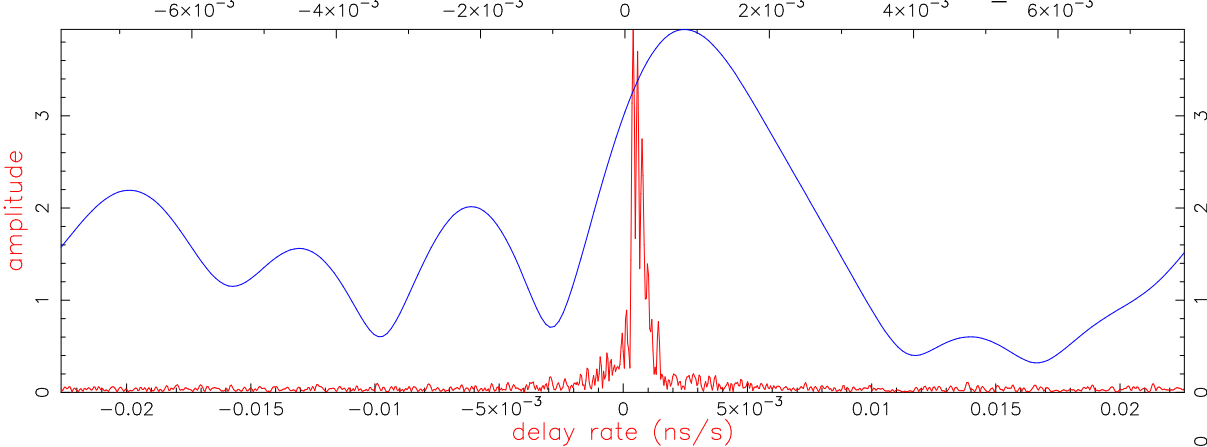
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nX

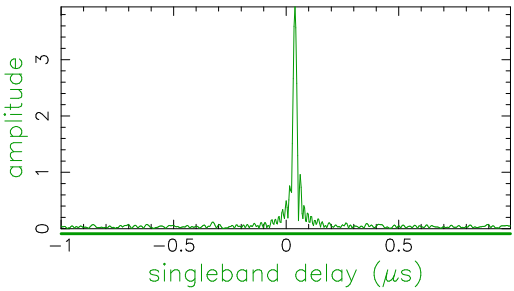
VLBA\_NL - ONSALA60, fgroup Q, pol RR

multiband delay ( $\mu$ s)

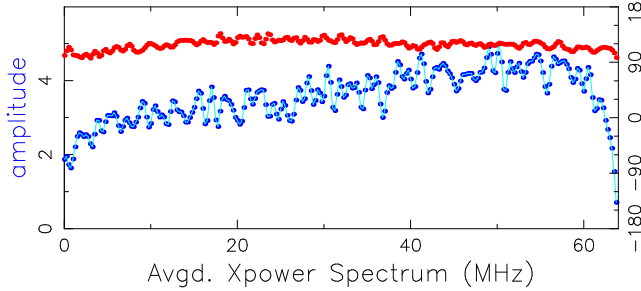


Fringe quality 2

SNR 144.3  
 Int time 179.527  
 Amp 3.937  
 Phase 244.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.039004  
 MBD 0.000824  
 Fringe rate (Hz) 0.017875  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



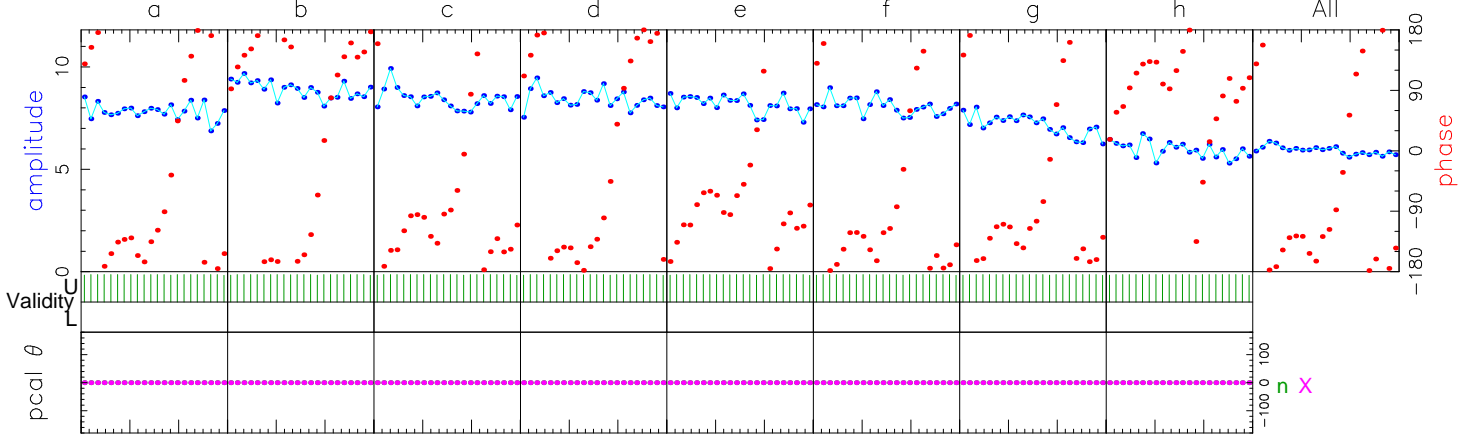
singleband delay ( $\mu$ s)



Avgd. Xpower Spectrum (MHz)

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
	-165.2	160.1	-132.1	-175.9	-95.7	-158.1	-145.9	96.8	Phase	-160.9
	5.1	5.9	5.7	5.5	5.5	5.4	4.7	3.8	Ampl.	5.2
	266.6	267.0	266.4	266.6	266.1	266.7	266.0	264.8	Sbd box	267.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 3.41249121304E+03 Apriori delay (usec) 3.41245913939E+03 Resid mbdelay (usec) 8.23648E-04 +/- 7.5E-06  
 Sband delay (usec) 3.41249814339E+03 Apriori clock (usec) -1.1320757E+02 Resid sbdelay (usec) 3.90040E-02 +/- 6.0E-05  
 Phase delay (usec) 3.41245912903E+03 Apriori clockrate (us/s) -9.1936311E-07 Resid phdelay (usec) -1.03627E-05 +/- 5.1E-08  
 Delay rate (us/s) 1.18512115153E+00 Apriori rate (us/s) 1.18512073719E+00 Resid rate (us/s) 4.14340E-07 +/- 4.9E-10  
 Total phase (deg) 342.5 Apriori accel (us/s/s) -3.08044785848E-05 Resid phase (deg) 244.1 +/- 0.8

RMS Theor. Amplitude 3.937 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 55.4 1.9 Search (1024X32) 3.764 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 50.8 3.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 54.1 1.1 Inc. seg. avg. 5.924 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 36.3 2.0 Inc. frq. avg. 5.221 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

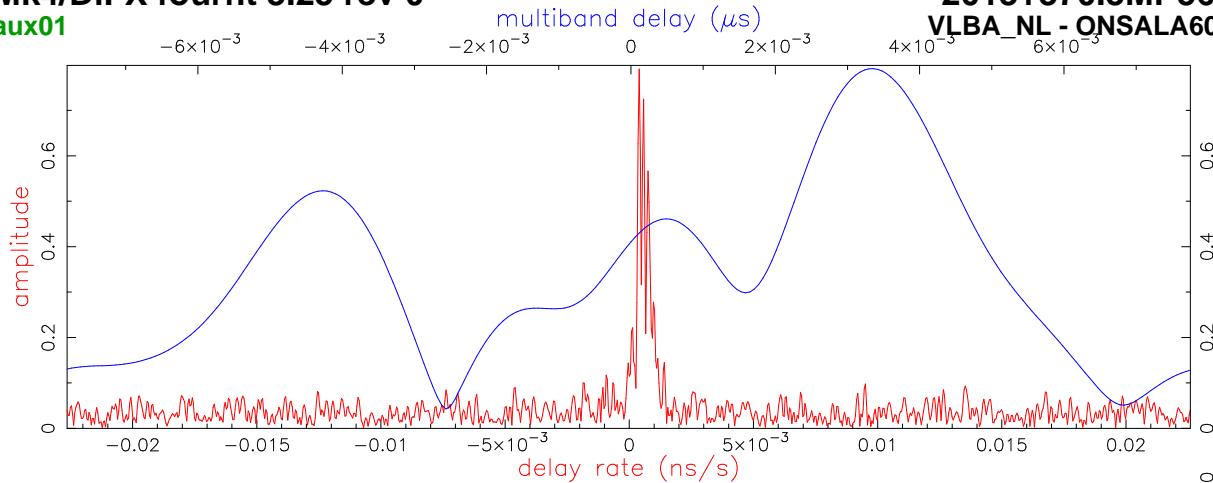
n: az 85.1 el 59.3 pa -68.9 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -4283.661 -1517.344 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nX.Q.273.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

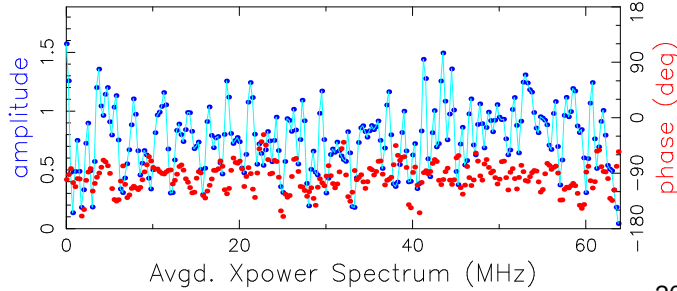
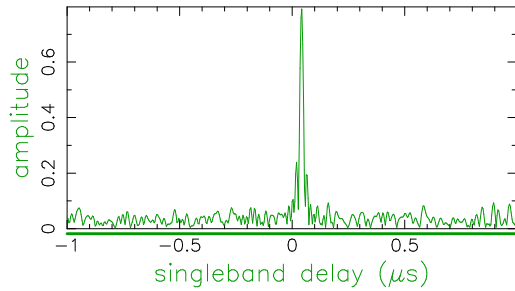
2013+370.3MP56K, No0500, nX

VLBA\_NL - ONSALA60, fgroup Q, pol LR



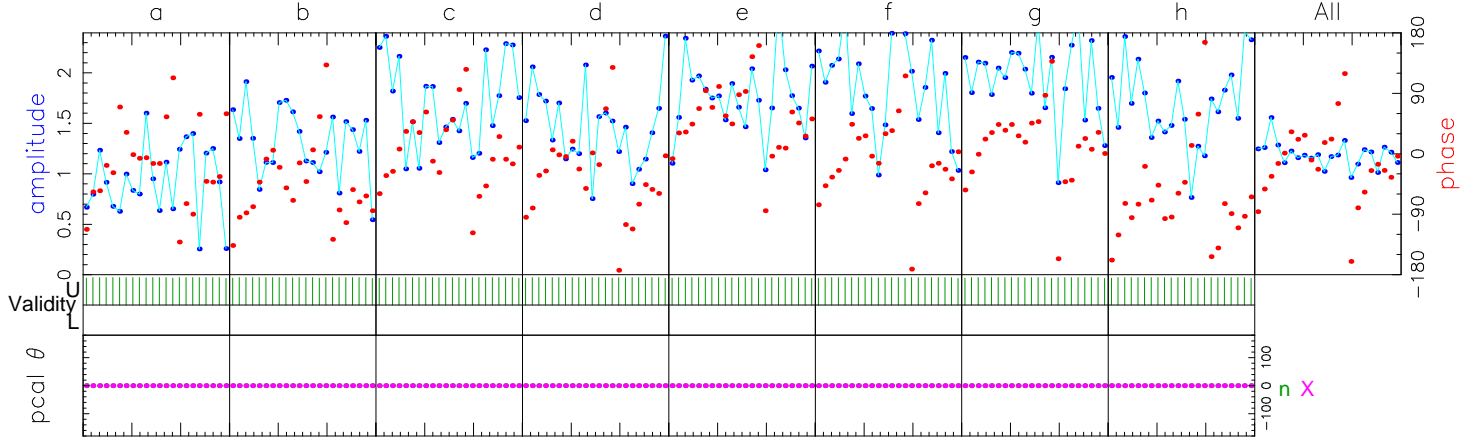
Fringe quality 3

SNR 29.3  
 Int time 179.527  
 Amp 0.799  
 Phase 32.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.041765  
 MBD 0.003284  
 Fringe rate (Hz) 0.017971  
 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
	-29.8	-61.5	0.4	-35.7	53.4	-6.8	19.0	-85.8	Phase	-13.0
	0.6	0.9	1.2	0.9	1.3	1.2	1.4	1.2	Ampl.	1.1
	266.6	267.6	267.2	266.9	266.8	267.1	267.1	265.7	Sbd box	267.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	3.41249367360E+03	Apriori delay (usec)	3.41245913939E+03	Resid mbdelay (usec)	3.28421E-03	+/-	3.7E-05
Sband delay (usec)	3.41250090439E+03	Apriori clock (usec)	-1.1320757E+02	Resid sbdelay (usec)	4.17650E-02	+/-	2.9E-04
Phase delay (usec)	3.41245913855E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	-8.39355E-07	+/-	2.5E-07
Delay rate (us/s)	1.18512115377E+00	Apriori rate (us/s)	1.18512073719E+00	Resid rate (us/s)	4.16576E-07	+/-	2.4E-09
Total phase (deg)	130.4	Apriori accel (us/s/s)	-3.08044785848E-05	Resid phase (deg)	32.0	+/-	3.9

ph/seg (deg)	55.8	RMS	9.2	Theor.	0.799 +/- 0.027	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	51.4	Search (1024X32)	0.753	Amplitude	0.799 +/- 0.027	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.5	Interp.	0.000	Search	0.753	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.8	Inc. seg. avg.	1.176	Inc. seg. avg.	1.176	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		Inc. frq. avg.	1.068	Inc. frq. avg.	1.068	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 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -4283.661 -1517.344 simultaneous interpolator

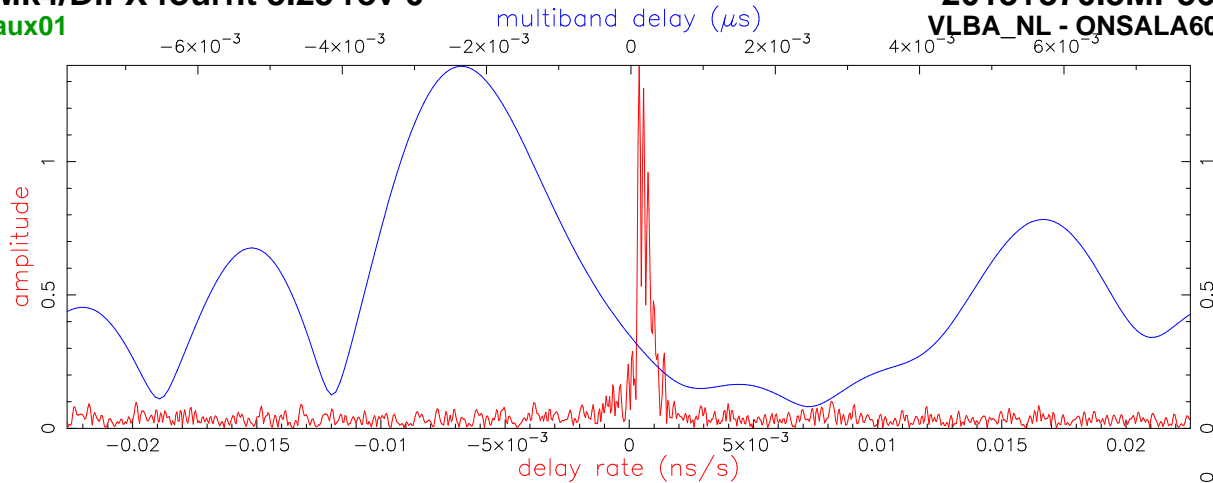
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nX.Q.306.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

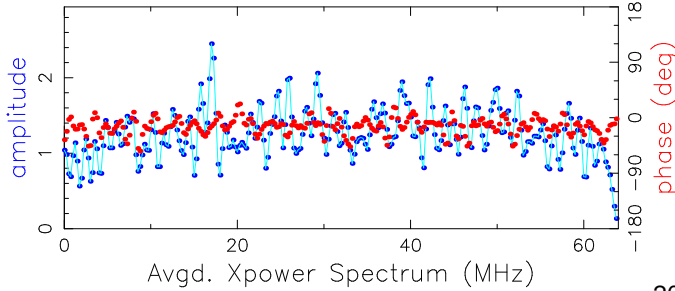
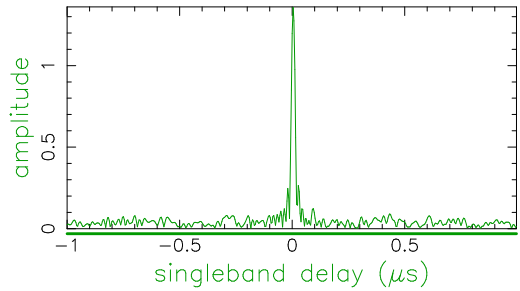
2013+370.3MP56K, No0500, nX

VLBA\_NL - ONSALA60, fgroup Q, pol RL



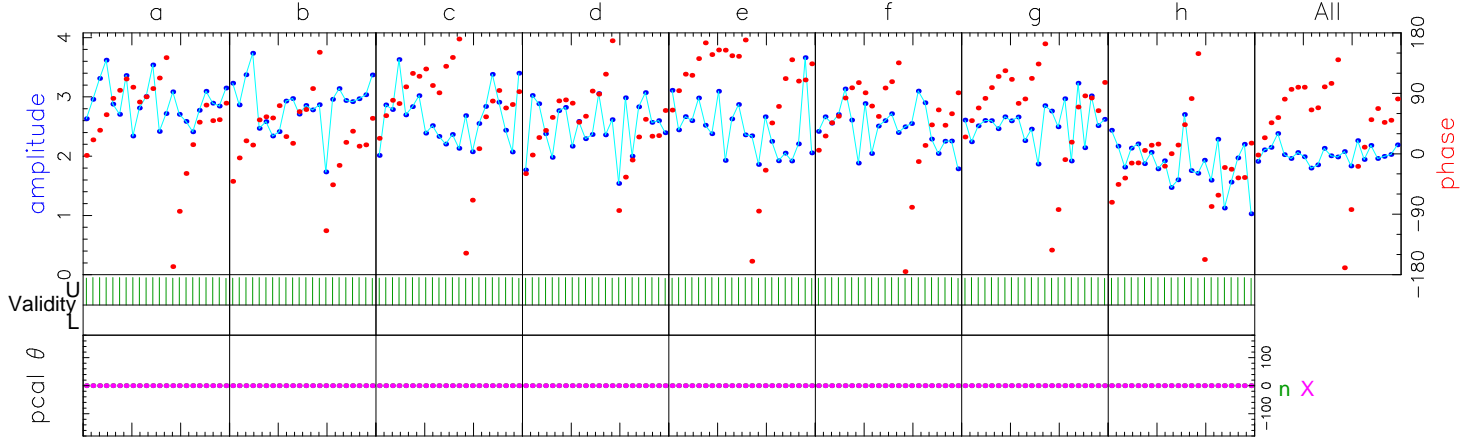
Fringe quality 2

SNR 49.8  
 Int time 179.527  
 Amp 1.360  
 Phase 64.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.004537  
 MBD -0.002335  
 Fringe rate (Hz)  
 0.017893  
 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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	3.41245680476E+03	Apriori delay (usec)	3.41245913939E+03	Resid mbdelay (usec)	-2.33463E-03	+/-	2.2E-05
Sband delay (usec)	3.41246367589E+03	Apriori clock (usec)	-1.1320757E+02	Resid sbdelay (usec)	4.53650E-03	+/-	1.7E-04
Phase delay (usec)	3.41245914357E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	4.17660E-06	+/-	1.5E-07
Delay rate (us/s)	1.18512115196E+00	Apriori rate (us/s)	1.18512073719E+00	Resid rate (us/s)	4.14770E-07	+/-	1.4E-09
Total phase (deg)	163.3	Apriori accel (us/s/s)	-3.08044785848E-05	Resid phase (deg)	64.9	+/-	2.3

ph/seg (deg)	55.2	Theor.	5.4	Search (1024X32)	1.306	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	50.9		9.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	47.7		3.3	Inc. seg. avg.	2.030	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	30.4		5.7	Inc. frq. avg.	1.705	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

n: az 85.1 el 59.3 pa -68.9 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -4283.661 -1517.344 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nX.Q.313.3MP56K



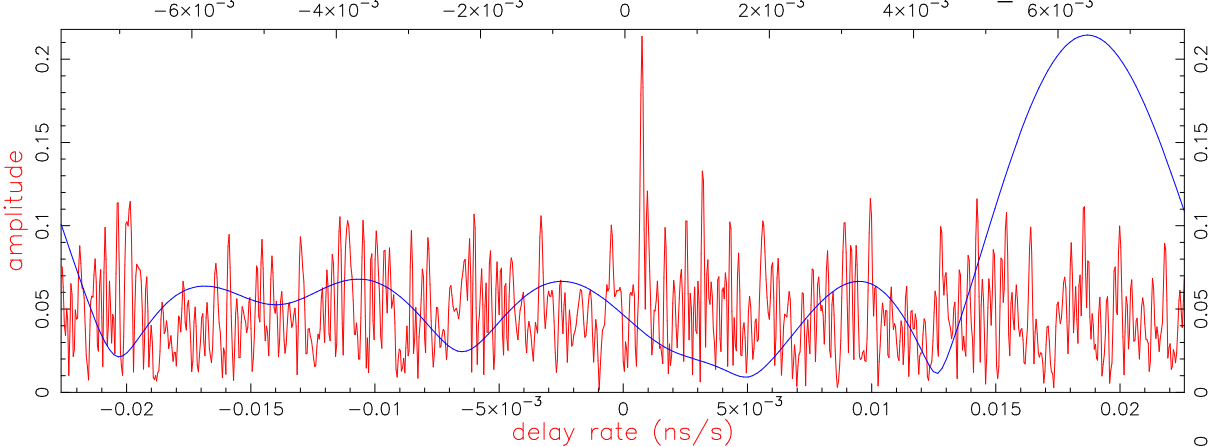
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nY

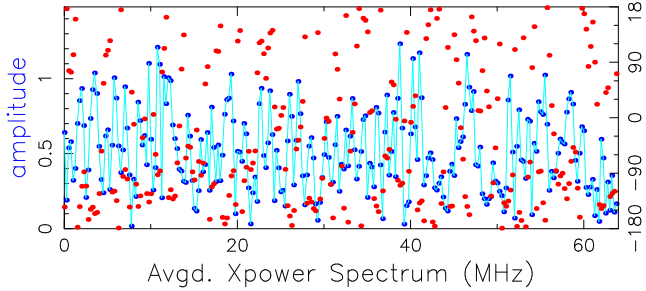
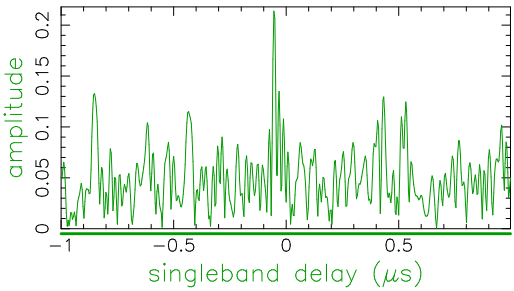
VLBA\_NL - YEBES40M, fgroup Q, pol LL

multiband delay ( $\mu$ s)



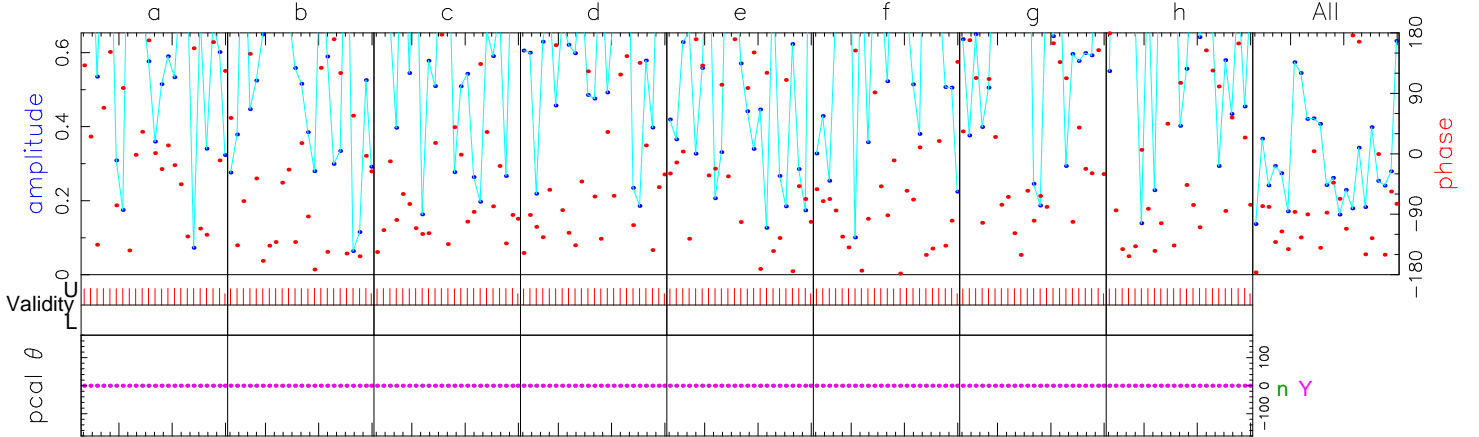
Fringe quality 0

SNR 5.9  
 Int time 97.597  
 Amp 0.218  
 Phase -192.3  
 PFD 4.0e-01  
 Delays (us)  
 SBD -0.053215  
 MBD 0.006514  
 Fringe rate (Hz)  
 0.032417  
 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  
 2025:042:151842  
 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
	-25.6	-120.3	-90.8	-98.6	-111.2	-107.9	-76.7	-121.7	Phase	-102.3
	0.0	0.2	0.4	0.2	0.1	0.3	0.2	0.3	Ampl.	0.2
	44.7	426.0	243.6	23.6	481.3	352.7	175.2	394.3	Sbd box	243.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	1.66622553093E+03	Apriori delay (usec)	1.66628151740E+03	Resid mbdelay (usec)	6.51353E-03	+/-	1.8E-04
Sband delay (usec)	1.66622830215E+03	Apriori clock (usec)	1.1070008E+02	Resid sbdelay (usec)	-5.32153E-02	+/-	1.5E-03
Phase delay (usec)	1.66628151081E+03	Apriori clockrate (us/s)	1.3059510E-06	Resid phdelay (usec)	-6.58695E-06	+/-	1.3E-06
Delay rate (us/s)	1.29587708999E+00	Apriori rate (us/s)	1.29587633854E+00	Resid rate (us/s)	7.51443E-07	+/-	1.3E-08
Total phase (deg)	-314.5	Apriori accel (us/s/s)	-7.15740961932E-06	Resid phase (deg)	-192.3	+/-	19.5

ph/seg (deg)	51.8	Theor.	46.7	Amplitude	0.218 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	73.0	Search (1024X32)	0.214	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	35.4	Inc. seg. avg.	0.234	Inc. frq. avg.	0.202	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	47.4	Inc. frq. avg.	0.202			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

n: az 85.1 el 59.3 pa -68.9 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -4671.663 -126.334 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nY.Q.348.3MP56K

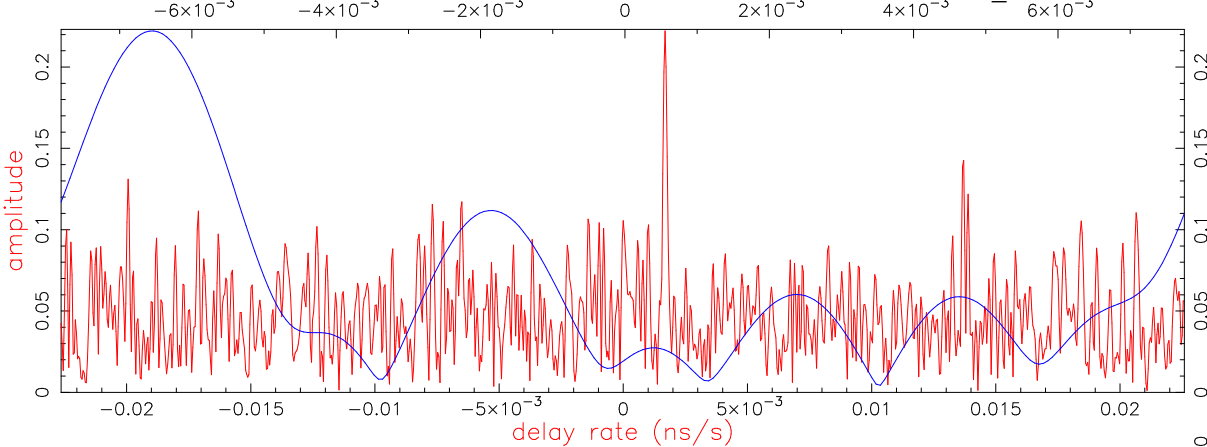
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, nY

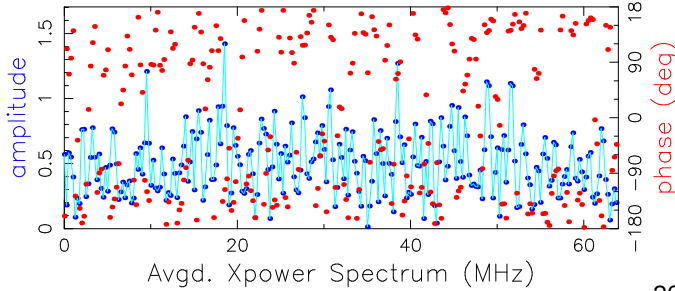
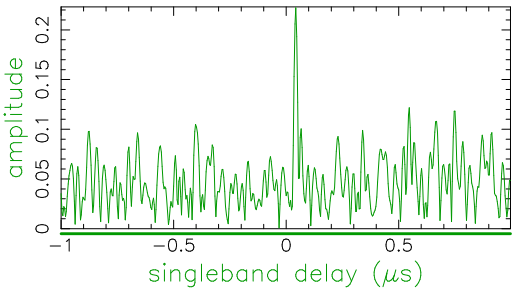
VLBA\_NL - YEBES40M, fgroup Q, pol RR

multiband delay ( $\mu$ s)



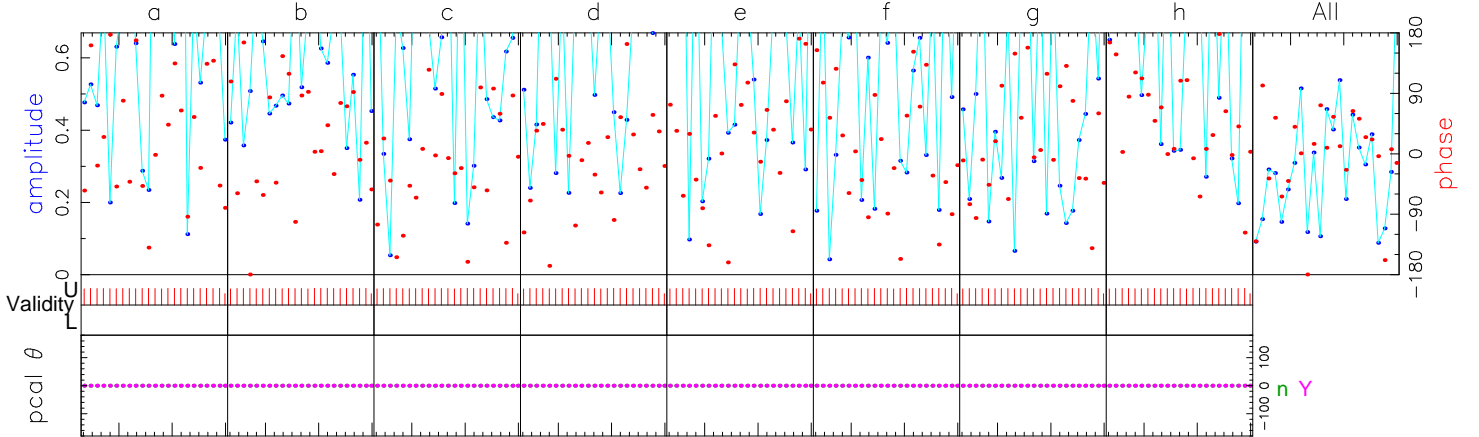
Fringe quality 0

SNR 6.0  
 Int time 97.597  
 Amp 0.223  
 Phase 264.2  
 PFD 2.1e-01  
 Delays (us)  
 SBD 0.042434  
 MBD -0.006574  
 Fringe rate (Hz) 0.072995  
 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
	43.1	20.8	-13.9	-0.5	29.2	-11.4	-9.7	58.9	Phase	16.7
	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.3	Ampl.	0.2
	61.9	233.8	381.9	267.5	442.2	366.9	272.8	401.3	Sbd box	267.9
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.66632181843E+03		Apriori delay (usec)		1.66628151740E+03		Resid mbdelay (usec)		-6.57397E-03	+/- 1.8E-04
Sband delay (usec)	1.66632395165E+03		Apriori clock (usec)		1.1070008E+02		Resid sbdelay (usec)		4.24342E-02	+/- 1.4E-03
Phase delay (usec)	1.66628151847E+03		Apriori clockrate (us/s)		1.3059510E-06		Resid phdelay (usec)		1.07350E-06	+/- 1.2E-06
Delay rate (us/s)	1.29587803060E+00		Apriori rate (us/s)		1.29587633854E+00		Resid rate (us/s)		1.69205E-06	+/- 1.3E-08
Total phase (deg)	142.0		Apriori accel (us/s/s)		-7.15740961932E-06		Resid phase (deg)		264.2	+/- 19.1

ph/seg (deg) 70.0 45.7 Search (1024X32) 0.217 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 81.7 79.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 29.9 26.9 Inc. seg. avg. 0.227 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.0 47.0 Inc. frq. avg. 0.222 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 n: az 85.1 el 59.3 pa -68.9 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -4671.663 -126.334 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/nY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nY.Q.361.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

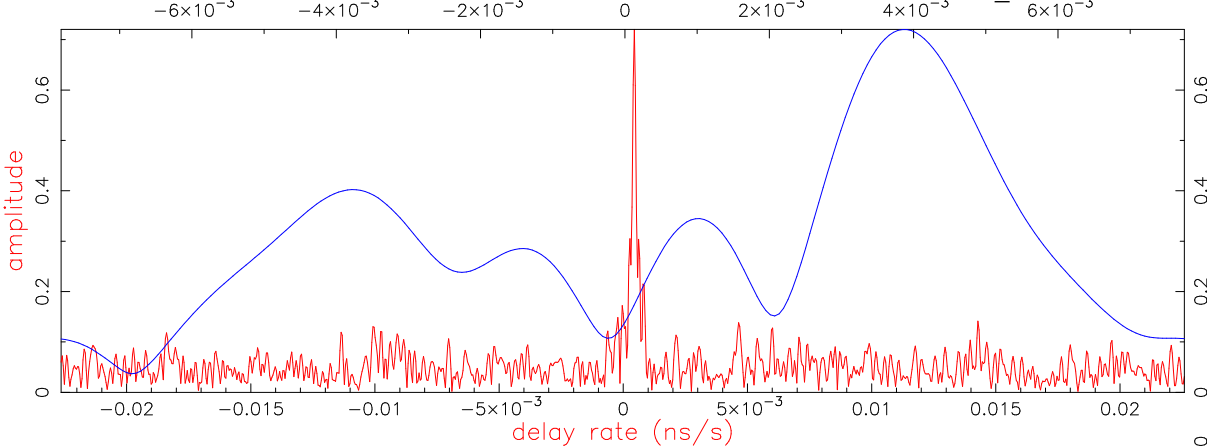
aux01

2013+370.3MP56K, No0500, nY

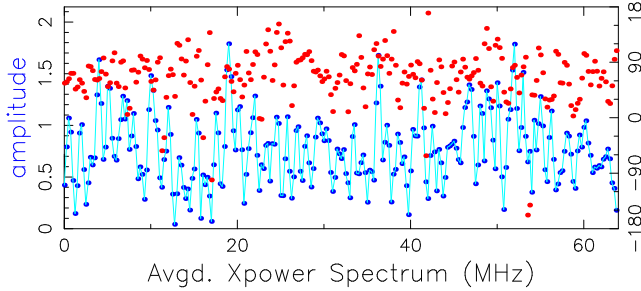
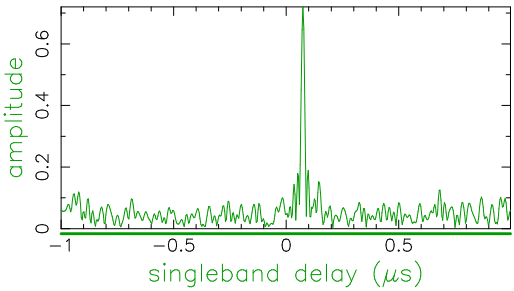
VLBA\_NL - YEBES40M, fgroup Q, pol LR

multiband delay ( $\mu$ s)

Fringe quality 8

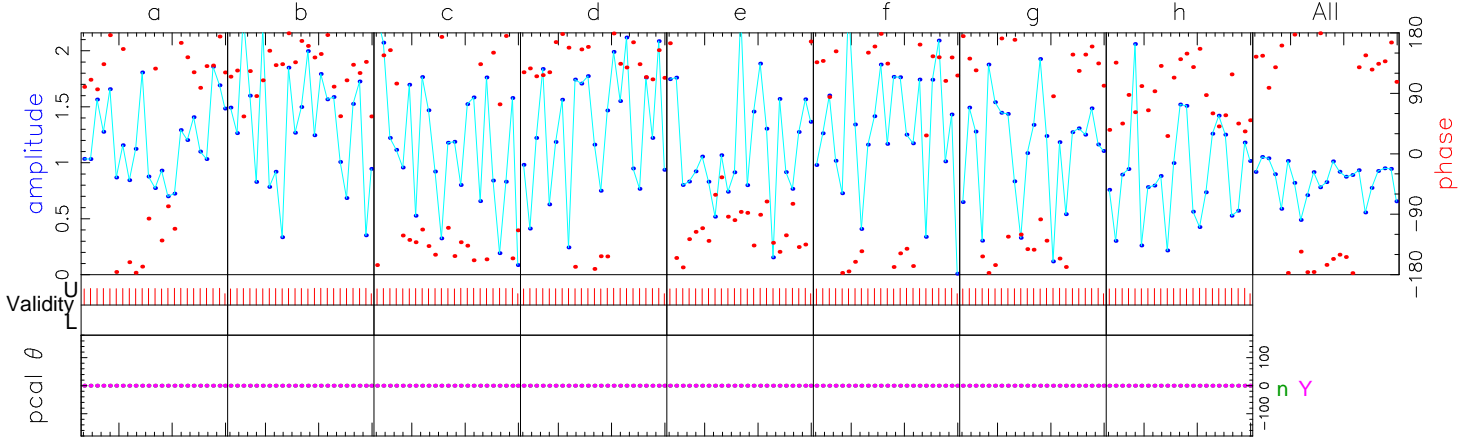


SNR 19.5  
 Int time 97.597  
 Amp 0.720  
 Phase 95.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.074266  
 MBD 0.003873  
 Fringe rate (Hz)  
 0.018598  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094017.41  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151855  
 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	153.8	127.0	-159.1	150.9	-119.5	163.3	179.8	81.6	Phase	162.9
n	0.9	1.1	0.9	1.1	0.9	1.1	0.8	0.7	Ampl.	0.9
Y	275.6	275.4	275.1	275.5	274.7	275.5	275.3	273.4	Sbd box	276.0
n	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	

Group delay (usec) (SBD) 1.66636351494E+03 Apriori delay (usec) 1.66628151740E+03 Resid mbdelay (usec) 3.87254E-03 +/- 5.6E-05  
 Sband delay (usec) 1.66635578340E+03 Apriori clock (usec) 1.1070008E+02 Resid sbdelay (usec) 7.42660E-02 +/- 4.4E-04  
 Phase delay (usec) 1.66628152789E+03 Apriori clockrate (us/s) 1.3059510E-06 Resid phdelay (usec) 1.04884E-05 +/- 3.8E-07  
 Delay rate (us/s) 1.29587676966E+00 Apriori rate (us/s) 1.29587633854E+00 Resid rate (us/s) 4.31114E-07 +/- 4.0E-09  
 Total phase (deg) 333.2 Apriori accel (us/s/s) -7.15740961932E-06 Resid phase (deg) 95.4 +/- 5.9

ph/seg (deg) RMS Theor. Amplitude 0.720 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 32.5 14.1 Search (1024X32) 0.710 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 27.8 24.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 51.5 8.3 Inc. seg. avg. 0.826 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

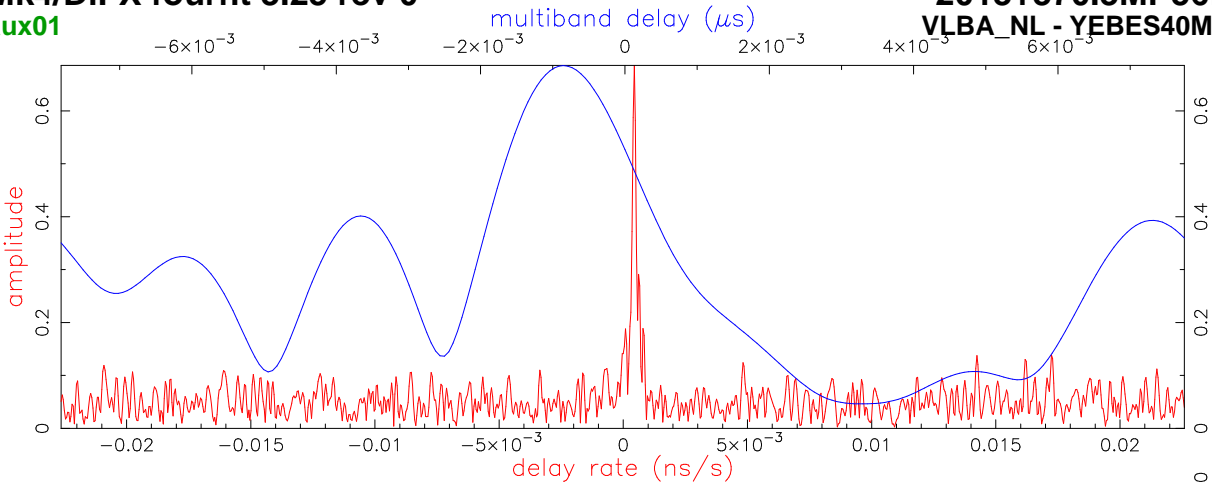
n: az 85.1 el 59.3 pa -68.9 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -4671.663 -126.334 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nY.Q.376.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

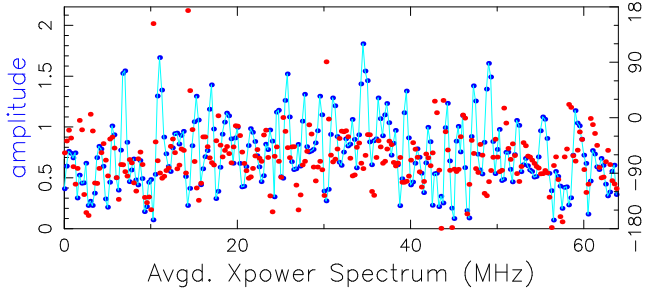
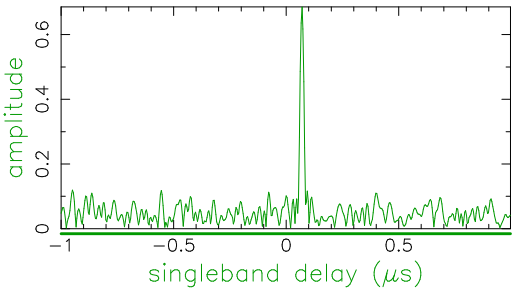
2013+370.3MP56K, No0500, nY

VLBA\_NL - YEBES40M, fgroup Q, pol RL



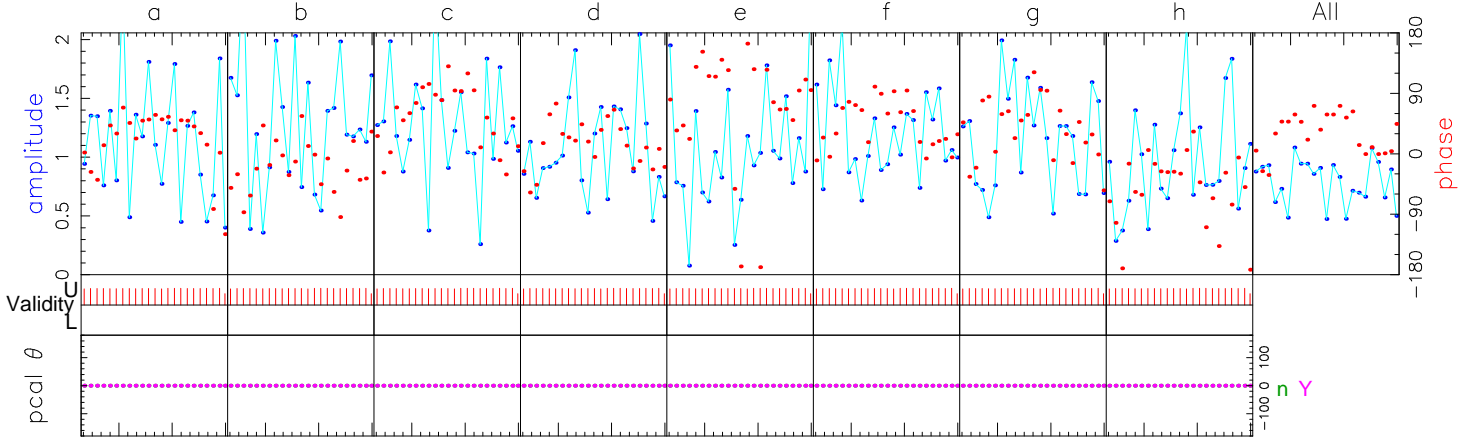
Fringe quality 8

SNR 18.5  
 Int time 97.597  
 Amp 0.686  
 Phase 320.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.069990  
 MBD -0.000859  
 Fringe rate (Hz)  
 0.018246  
 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
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
n:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	1.66635878366E+03	Apriori delay (usec)	1.66628151740E+03	Resid mbdelay (usec)	-8.58737E-04	+/-	5.9E-05
Sband delay (usec)	1.66635150715E+03	Apriori clock (usec)	1.1070008E+02	Resid sbdelay (usec)	6.99897E-02	+/-	4.6E-04
Phase delay (usec)	1.66628151921E+03	Apriori clockrate (us/s)	1.3059510E-06	Resid phdelay (usec)	1.81279E-06	+/-	4.0E-07
Delay rate (us/s)	1.29587676149E+00	Apriori rate (us/s)	1.29587633854E+00	Resid rate (us/s)	4.22942E-07	+/-	4.2E-09
Total phase (deg)	198.5	Apriori accel (us/s/s)	-7.15740961932E-06	Resid phase (deg)	320.7	+/-	6.2

ph/seg (deg)	30.0	Theor.	14.8	Search (1024X32)	0.661	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	31.2	Amplitude	0.686 +/- 0.037	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	50.5	Inc. seg. avg.	0.769	Inc. frq. avg.	0.889	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	33.8	Inc. frq. avg.	0.889			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

n: az 85.1 el 59.3 pa -68.9 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -4671.663 -126.334 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/nY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/nY.Q.387.3MP56K

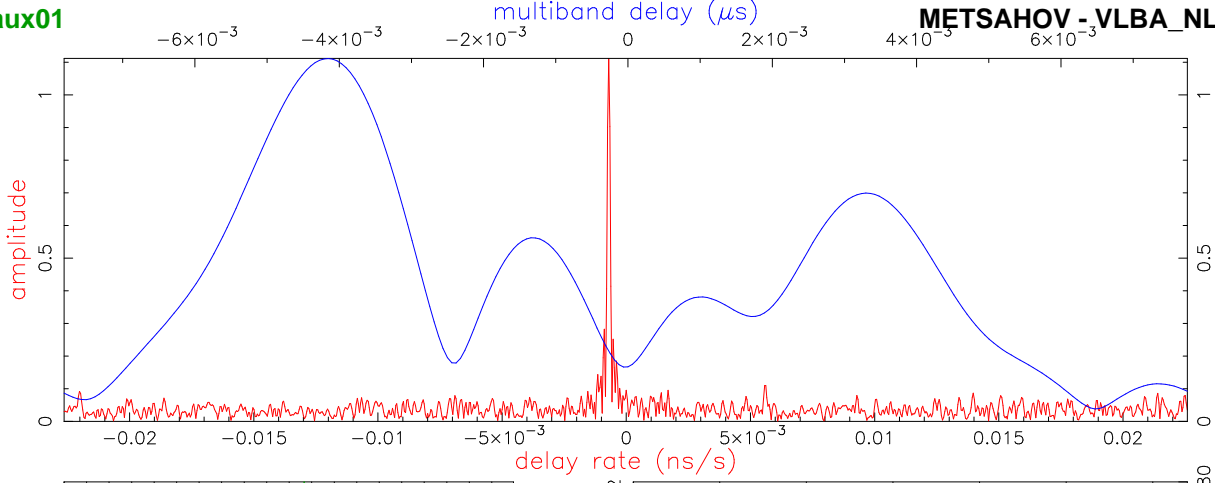
Mk4/DiFX fourfit 3.25 rev 0

aux01

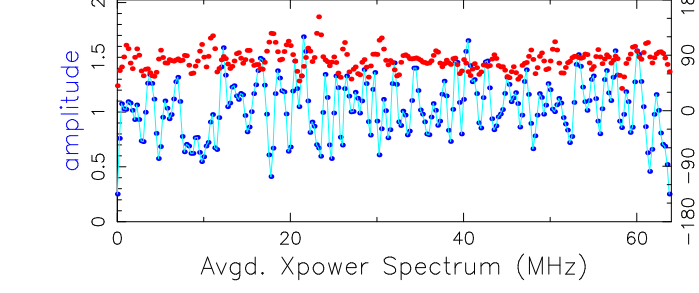
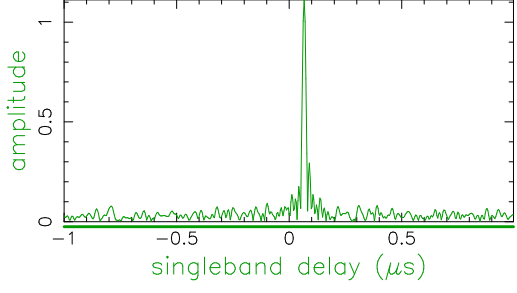
2013+370.3MP56K, No0500, Zn

ME TSAHOV - VLBA\_NL, fgroup Q, pol LL

Fringe quality 6

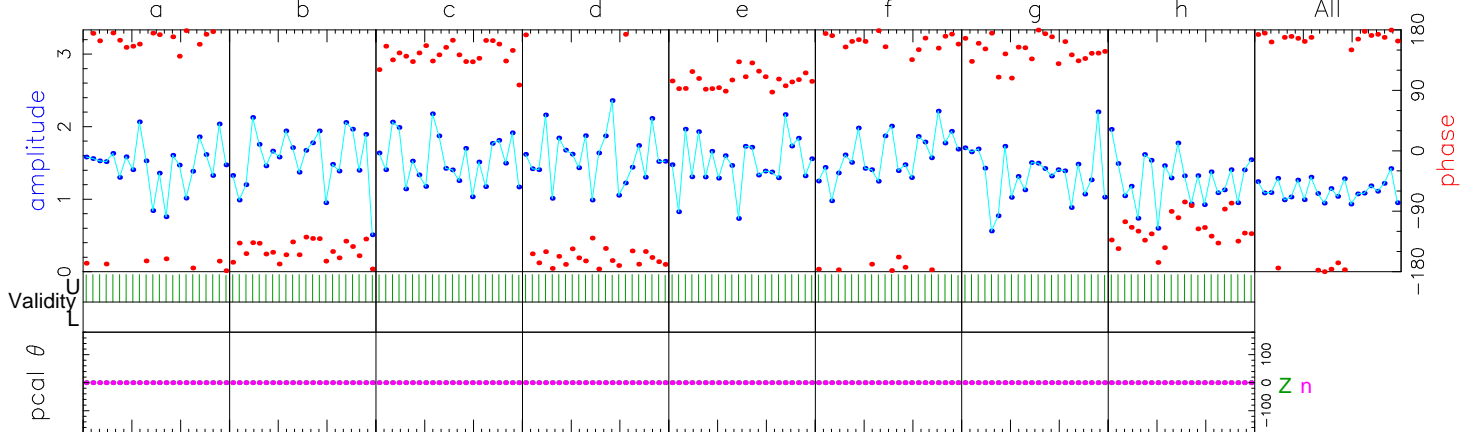


SNR 40.7  
Int time 179.640  
Amp 1.112  
Phase 105.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.066387  
MBD -0.004159  
Fringe rate (Hz)  
-0.031239  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



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		
Z	0	0	0	0	0	0	0	0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -5.23272321809E+03 Apriori delay (usec) -5.23279718394E+03 Resid mbdelay (usec) -4.15914E-03 +/- 2.7E-05  
 Sband delay (usec) -5.23273079669E+03 Apriori clock (usec) 3.8583183E-01 Resid sbdelay (usec) 6.63873E-02 +/- 2.1E-04  
 Phase delay (usec) -5.23279717278E+03 Apriori clockrate (us/s) 3.1259999E-07 Resid phdelay (usec) 1.11640E-05 +/- 1.8E-07  
 Delay rate (us/s) -1.18310953254E+00 Apriori rate (us/s) -1.18310880842E+00 Resid rate (us/s) -7.24123E-07 +/- 1.7E-09  
 Total phase (deg) 280.4 Apriori accel (us/s/s) 4.16321957925E-05 Resid phase (deg) 105.9 +/- 2.8

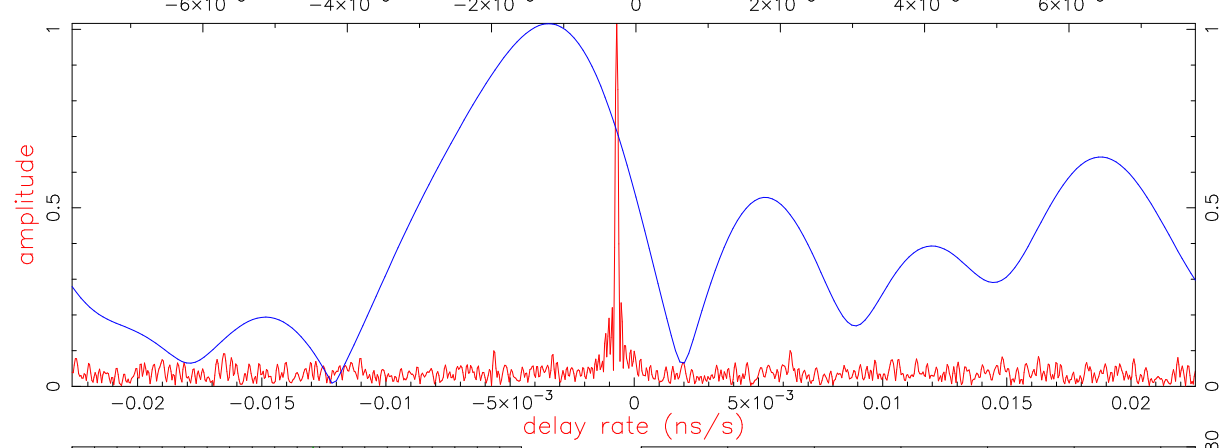
ph/seg (deg) 9.5 6.6 Search (1024X32) 1.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 11.9 11.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.5 4.0 Inc. seg. avg. 1.119 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 31.0 6.9 Inc. frq. avg. 1.429 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 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 4280.914 1931.643 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zn.Q.264.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Zn

MEṬSAHOV - VLBA\_NL, fgroup Q, pol RR



Fringe quality 6

SNR 37.2

Int time 179.640

Amp 1.017

Phase 140.4

PFD 0.0e+00

Delays (us)

SBD 0.070035

MBD -0.001215

Fringe rate (Hz)

-0.031180

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

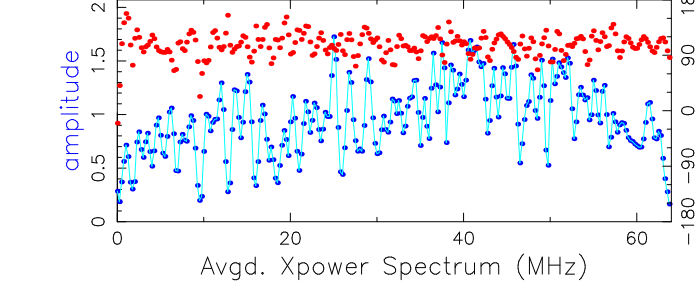
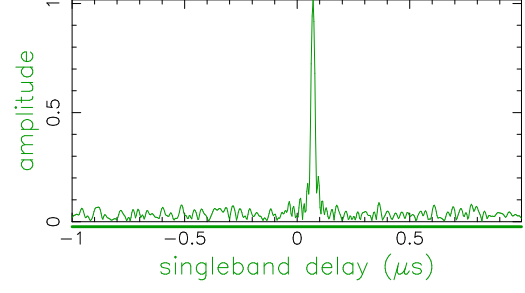
2025:042:151829

2024:113:095956

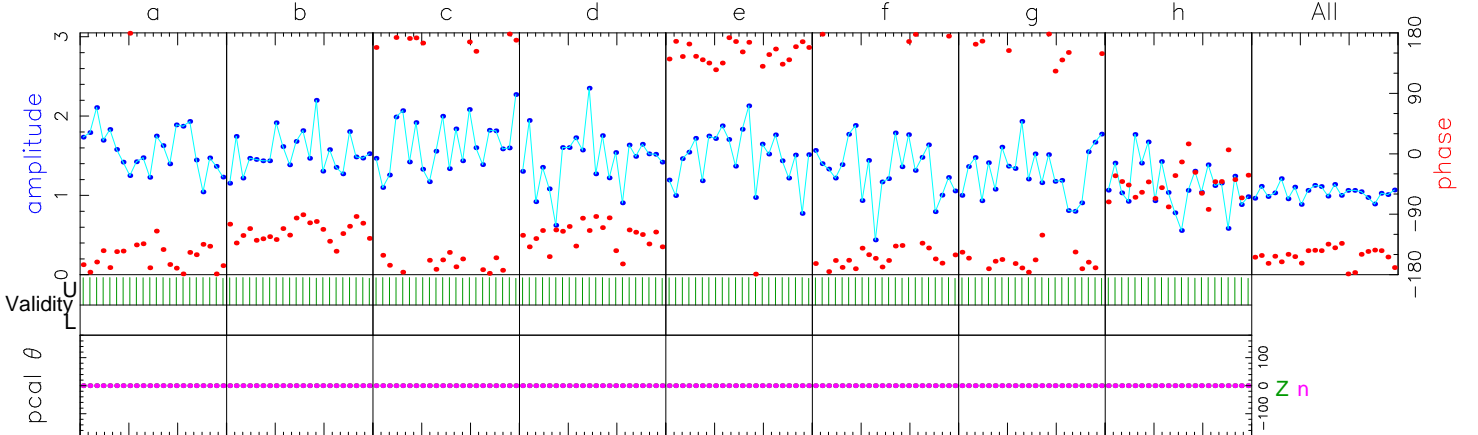
RA & Dec (J2000)

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



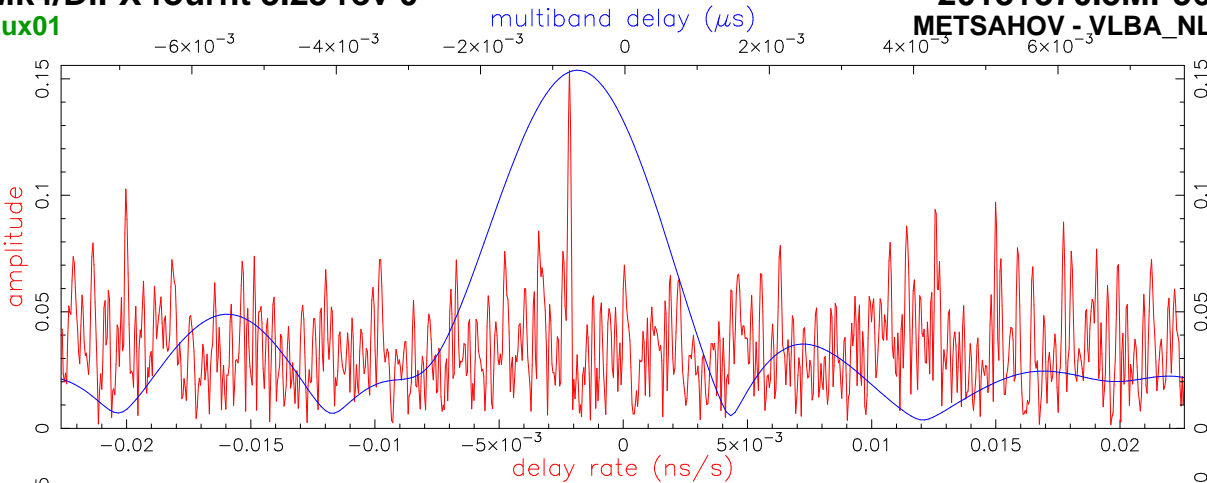
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All		
	-155.4	-114.7	-176.7	-121.1	150.2	-160.8	-176.1	-46.7	Phase	-152.1		
	1.5	1.5	1.6	1.4	1.4	1.3	1.2	1.0	Ampl.	1.4		
	274.9	274.8	275.1	275.3	275.6	275.3	276.6	276.9	Sbd box	274.9		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
Z	0	0	0	0	0	0	0	0	PC freqs			
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
n	1000	1000	1000	1000	1000	1000	1000	1000				
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids			
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	-5.23272027409E+03		Apriori delay (usec)		-5.23279718394E+03		Resid mbdelay (usec)		-1.21514E-03	+/- 2.9E-05		
Sband delay (usec)	-5.23272714919E+03		Apriori clock (usec)		3.8583183E-01		Resid sbdelay (usec)		7.00347E-02	+/- 2.3E-04		
Phase delay (usec)	-5.23279719374E+03		Apriori clockrate (us/s)		3.1259999E-07		Resid phdelay (usec)		-9.79658E-06	+/- 2.0E-07		
Delay rate (us/s)	-1.18310953118E+00		Apriori rate (us/s)		-1.18310880842E+00		Resid rate (us/s)		-7.22764E-07	+/- 1.9E-09		
Total phase (deg)			Apriori accel (us/s/s)		4.16321957925E-05		Resid phase (deg)		140.4	+/- 3.1		
	RMS	Theor.	Amplitude	1.017 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	11.9	7.2	Search (1024X32)	0.978		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	8.0	12.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	54.9	4.4	Inc. seg. avg.	1.031		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023	0.023		
amp/frq (%)	37.8	7.6	Inc. frq. avg.	1.358		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	n: az 85.1 el 59.3 pa -68.9		u,v (fr/asec) 4280.914 1931.643						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/Zn..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/Zn.Q.285.3MP56K									

Mk4/DiFX fourfit 3.25 rev 0

aux01

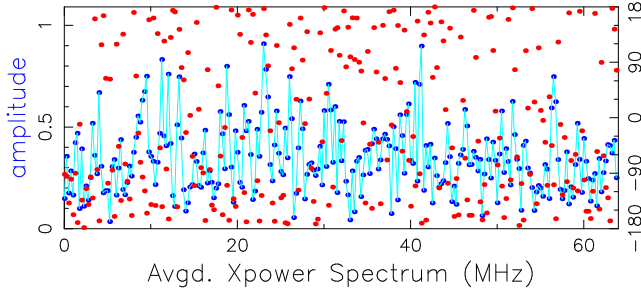
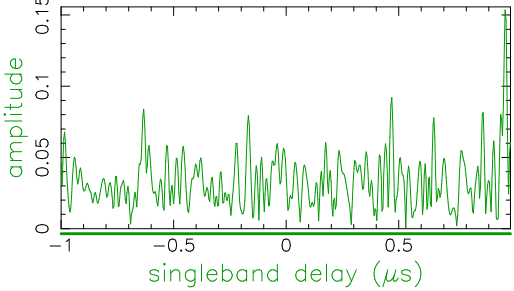
2013+370.3MP56K, No0500, Zn

METSAHOV - VLBA\_NL, fgroup Q, pol LR



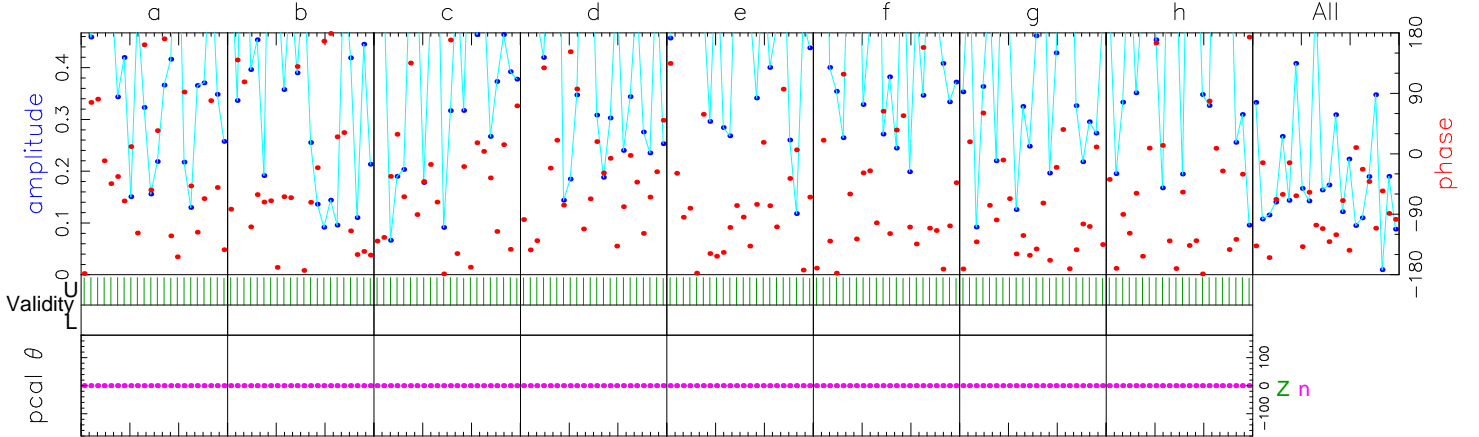
Fringe quality 0

SNR 5.7  
 Int time 179.640  
 Amp 0.156  
 Phase 222.0  
 PFD 8.0e-01  
 Delays (us)  
 SBD 0.973847  
 MBD -0.000607  
 Fringe rate (Hz)  
 -0.093389  
 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
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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-5.23182904068E+03	Apriori delay (usec)	-5.23279718394E+03	Resid mbdelay (usec)	-6.06737E-04	+/-	1.9E-04
Sband delay (usec)	-5.23182333669E+03	Apriori clock (usec)	3.8583183E-01	Resid sbdelay (usec)	9.73847E-01	+/-	1.5E-03
Phase delay (usec)	-5.23279718994E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	-5.99137E-06	+/-	1.3E-06
Delay rate (us/s)	-1.18311097320E+00	Apriori rate (us/s)	-1.18310880842E+00	Resid rate (us/s)	-2.16478E-06	+/-	1.2E-08
Total phase (deg)	36.4	Apriori accel (us/s/s)	4.16321957925E-05	Resid phase (deg)	222.0	+/-	20.1

ph/seg (deg)	47.8	Theor.	47.3	Amplitude	0.156 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	83.0		82.5	Search (1024X32)	0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	17.3		28.5	Inc. seg. avg.	0.150	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	28.5		49.7	Inc. frq. avg.	0.142	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 280.0 el 38.3 pa 37.9 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 4280.914 1931.643 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zn.Q.297.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

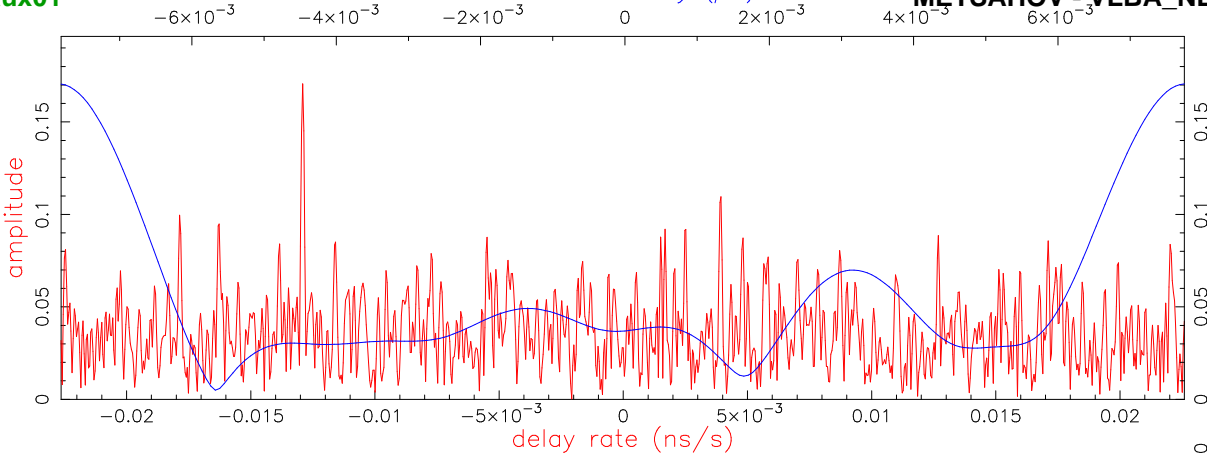
aux01

2013+370.3MP56K, No0500, Zn

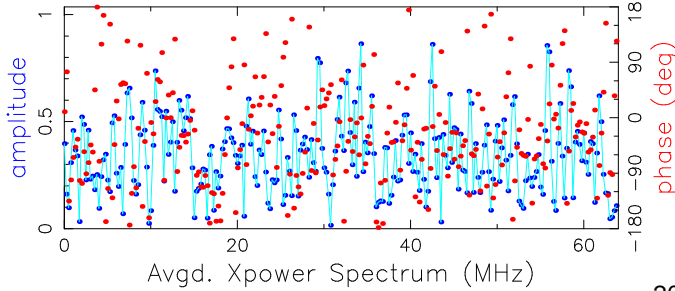
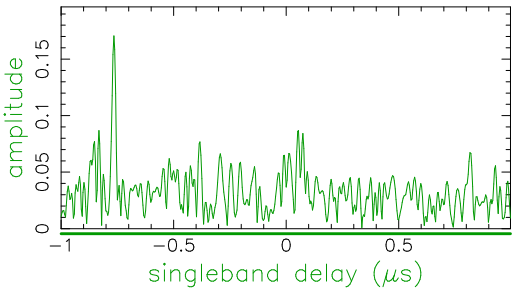
METSAHOV - VLBA\_NL, fgroup Q, pol RL

multiband delay ( $\mu$ s)

Fringe quality 0

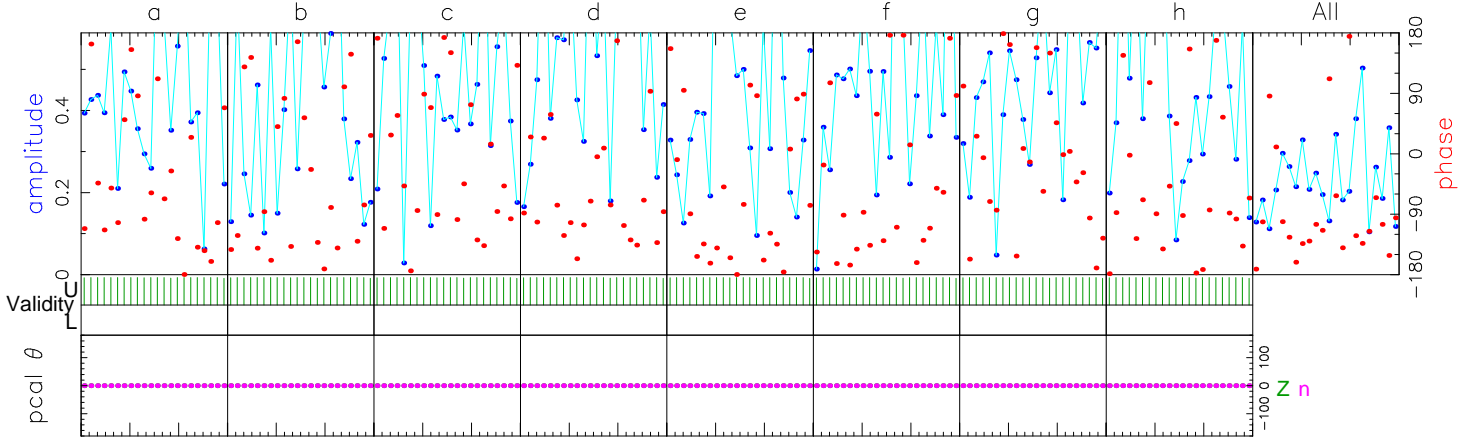


SNR 6.3  
 Int time 179.640  
 Amp 0.196  
 Phase -121.2  
 PFD 5.1e-02  
 Delays (us)  
 SBD -0.765238  
 MBD -0.007835  
 Fringe rate (Hz)  
 -0.560363  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151835  
 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
	-126.6	-143.7	-100.0	-89.1	-133.1	-133.4	-66.9	-139.9	Phase	-121.3
	0.2	0.2	0.1	0.3	0.3	0.3	0.1	0.2	Ampl.	0.2
	272.9	276.0	14.8	40.1	61.9	46.1	147.9	254.9	Sbd box	61.1
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	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.23355501938E+03	Apriori delay (usec)	-5.23279718394E+03	Resid mbdelay (usec)	-7.83544E-03	+/-	1.7E-04
Sband delay (usec)	-5.23356242219E+03	Apriori clock (usec)	3.8583183E-01	Resid sbdelay (usec)	-7.65238E-01	+/-	1.4E-03
Phase delay (usec)	-5.23279719175E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	-7.80727E-06	+/-	1.2E-06
Delay rate (us/s)	-1.18312179783E+00	Apriori rate (us/s)	-1.18310880842E+00	Resid rate (us/s)	-1.29894E-05	+/-	1.1E-08
Total phase (deg)	-306.8	Apriori accel (us/s/s)	4.16321957925E-05	Resid phase (deg)	-121.2	+/-	18.3

ph/seg (deg)	58.6	Theor.	42.9	Amplitude	0.196 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.7		74.9	Search (1024X32)	0.167	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.6		25.9	Inc. seg. avg.	0.210	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	36.8		45.2	Inc. frq. avg.	0.194	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 280.0 el 38.3 pa 37.9		n: az 85.1 el 59.3 pa -68.9		u,v (fr/asec)	4280.914 1931.643	Data rate(Mb/s): 2048		simultaneous interpolator		

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Zn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Zn.Q.317.3MP56K