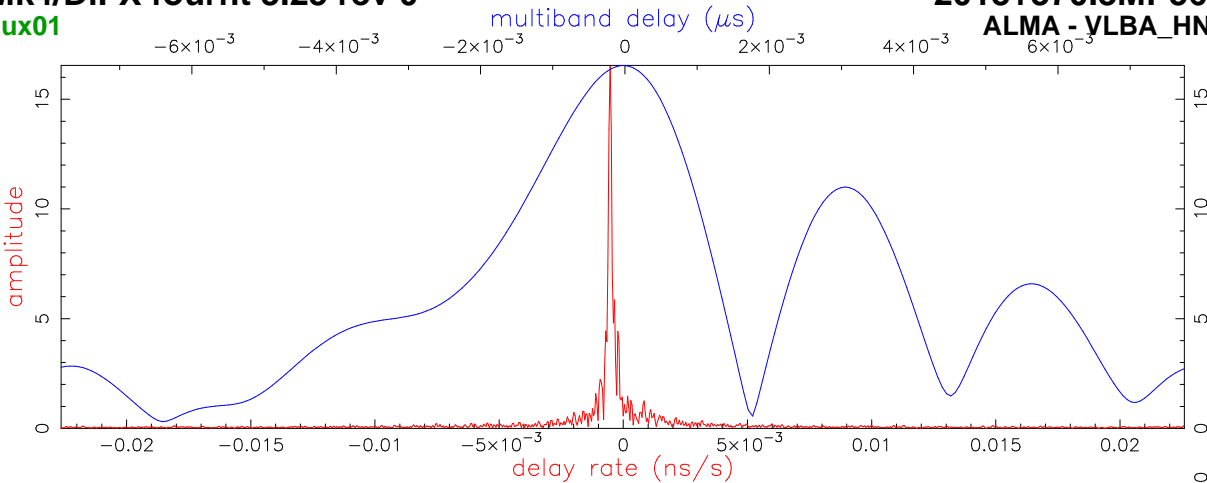


Mk4/DiFX fourfit 3.25 rev 0

aux01

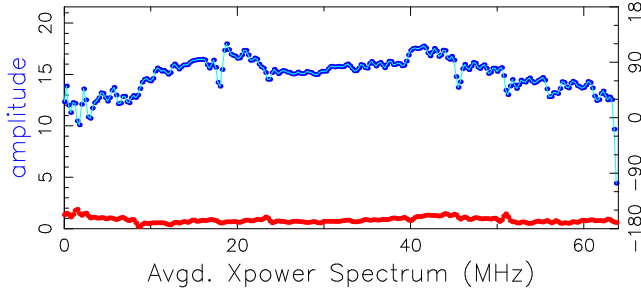
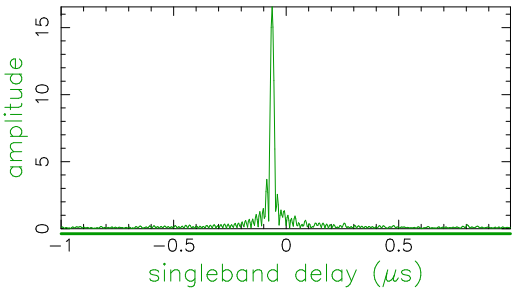
2013+370.3MP56K, No0500, Ah

ALMA - VLBA_HN, fgroup Q, pol XR



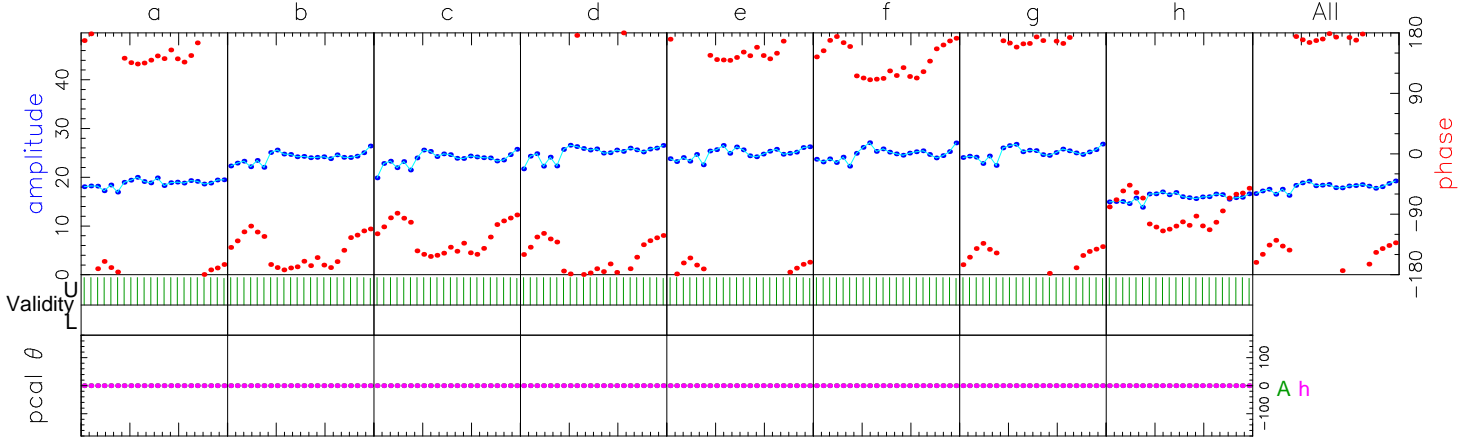
Fringe quality 4

SNR 606.8
 Int time 179.980
 Amp 16.544
 Phase -255.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.062492
 MBD -0.000021
 Fringe rate (Hz)
 -0.023049
 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
 2025:042:151737
 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
	162.1	-144.6	-124.6	-154.6	166.4	137.5	-170.7	-85.6	Phase	-165.6
	17.3	22.1	21.8	23.0	22.9	22.7	22.9	14.6	Ampl.	20.9
	242.3	240.9	240.9	241.2	240.8	240.9	241.3	242.9	Sbd box	241.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.25093286046E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	-2.13330E-05	+/-	1.8E-06
Sband delay (usec)	-1.25093285755E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.24923E-02	+/-	1.4E-05
Phase delay (usec)	-1.25092660939E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	-1.06643E-05	+/-	1.2E-08
Delay rate (us/s)	-1.49147886632E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.34294E-07	+/-	1.2E-10
Total phase (deg)	-194.7	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-255.6	+/-	0.2

ph/seg (deg)	23.2	0.4	Amplitude	16.544 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	10.0	0.8	Search (1024X32)	16.428	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	47.8	0.3	Inc. seg. avg.	18.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	32.1	0.5	Inc. frq. avg.	20.923	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
A: az 14.3 el 27.9 pa -163.6		h: az 103.5 el 73.6 pa -63.0		u,v (fr/asec) -11.035 -4310.605		ion window (TEC) 0.00 0.00
simultaneous interpolator						

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.14.3MP56K

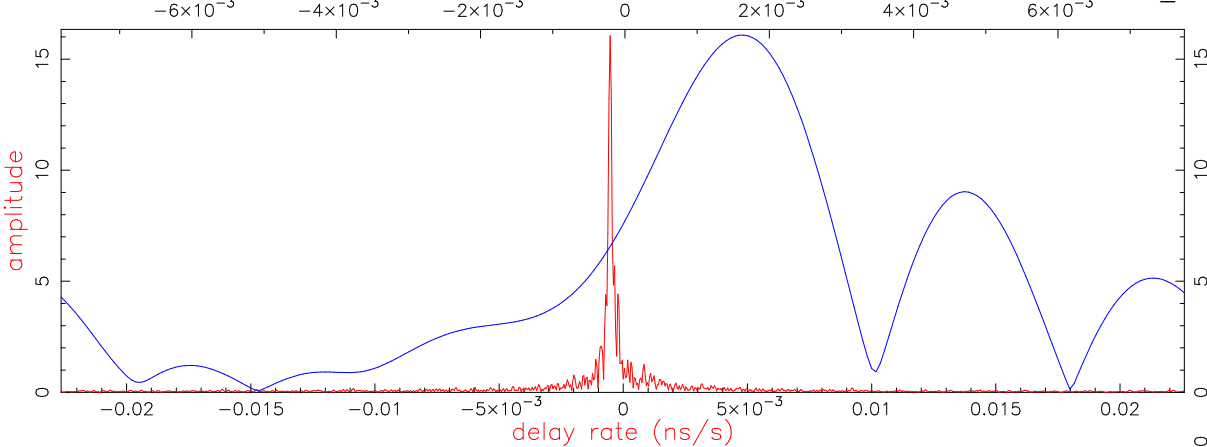
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ah

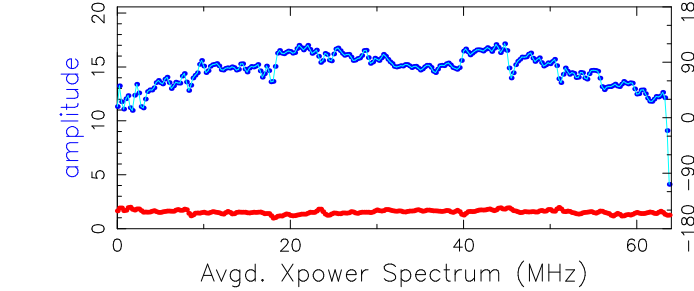
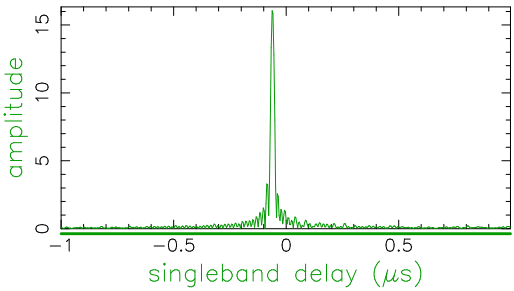
ALMA - VLBA_HN, fgroup Q, pol YL

multiband delay (μ s)

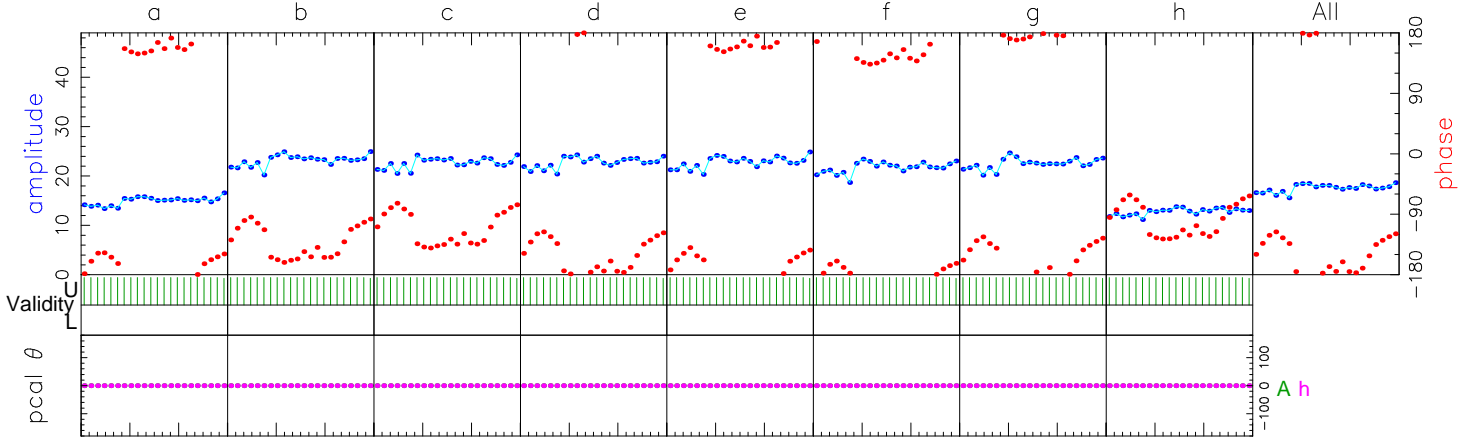


Fringe quality 4

SNR 599.3
 Int time 179.980
 Amp 16.340
 Phase -243.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.060831
 MBD 0.001700
 Fringe rate (Hz)
 -0.023145
 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
	178.1	-131.6	-111.1	-152.6	-178.1	162.9	-161.4	-98.9	Phase	-153.5
	13.7	21.2	20.7	20.8	20.9	19.9	20.6	11.7	Ampl.	18.7
	243.1	241.2	241.2	241.5	241.2	241.4	241.4	243.5	Sbd box	241.4
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	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.25093268830E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	1.70020E-03	+/-	1.8E-06
Sband delay (usec)	-1.25093269142E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.08310E-02	+/-	1.4E-05
Phase delay (usec)	-1.25092660931E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	-9.88455E-06	+/-	1.2E-08
Delay rate (us/s)	-1.49148108758E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.36515E-07	+/-	1.2E-10
Total phase (deg)	-182.6	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-243.5	+/-	0.2

ph/seg (deg)	RMS 23.9	Theor. 0.4	Amplitude Search (1024X32)	15.726	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	8.8	0.8	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)	37.9	0.3	Inc. seg. avg.	17.553	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	25.8	0.5	Inc. frq. avg.	18.696	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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605 simultaneous interpolator

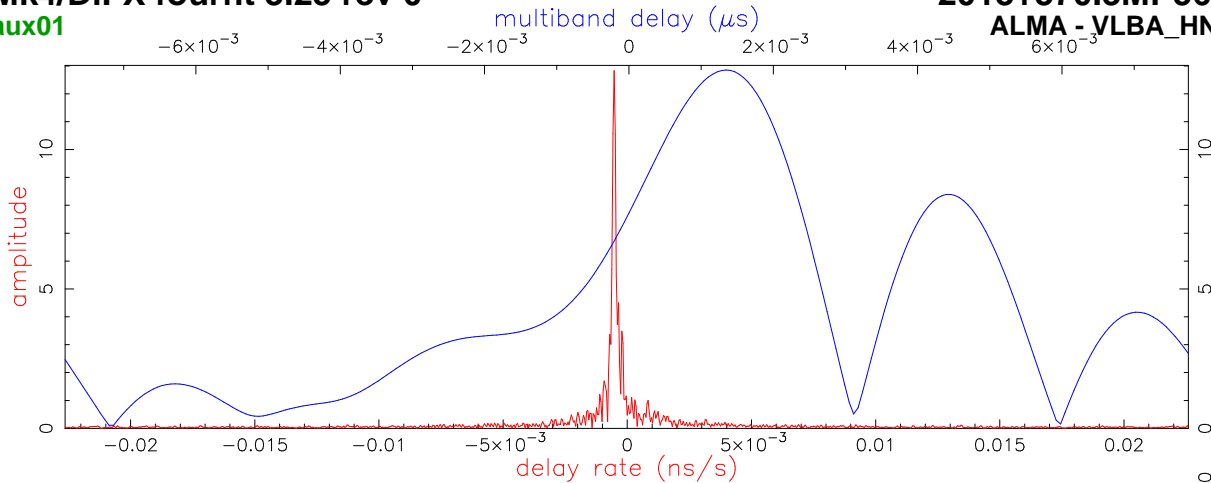
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.24.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

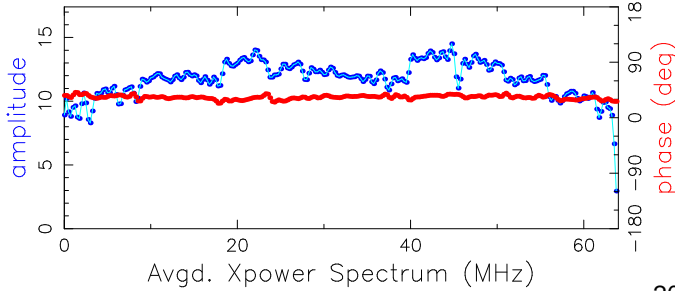
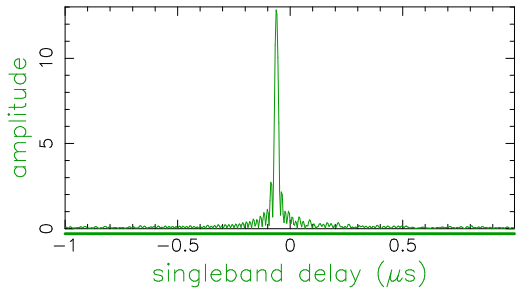
2013+370.3MP56K, No0500, Ah

ALMA - VLBA_HN, fgroup Q, pol XL



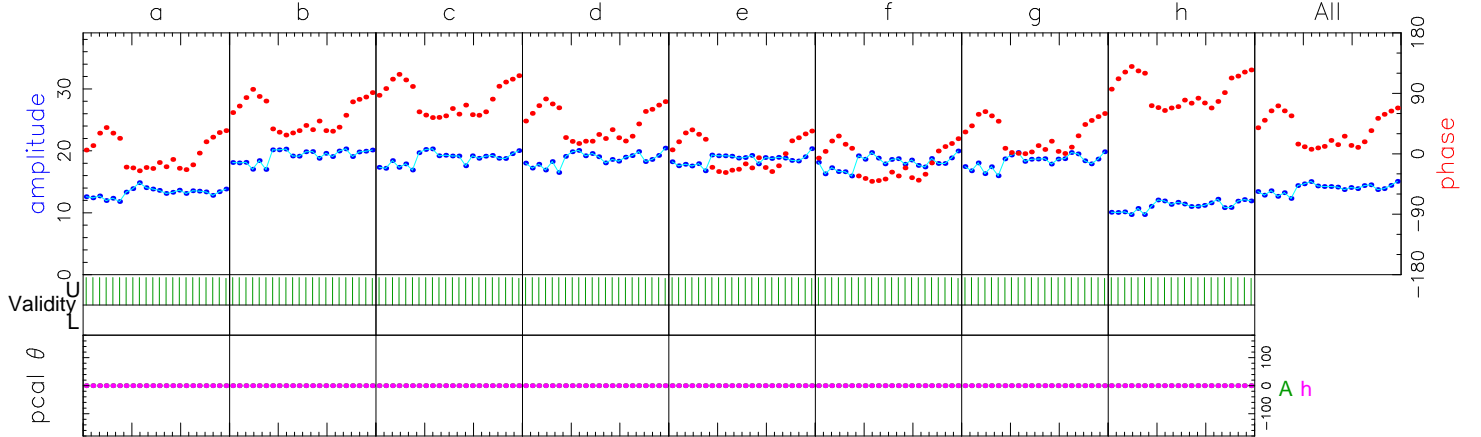
Fringe quality 4

SNR 477.5
 Int time 179.980
 Amp 13.019
 Phase -55.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.060996
 MBD 0.001410
 Fringe rate (Hz)
 -0.023082
 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
 2025:042:151732
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.25093271729E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	1.41029E-03	+/-	2.3E-06
Sband delay (usec)	-1.25093270787E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.09955E-02	+/-	1.8E-05
Phase delay (usec)	-1.25092660810E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	2.20942E-06	+/-	1.5E-08
Delay rate (us/s)	-1.49147962466E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.35052E-07	+/-	1.5E-10
Total phase (deg)	-354.7	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-55.7	+/-	0.2

ph/seg (deg)	23.2	RMS	23.2	Theor.	0.6	Amplitude	13.019 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	9.0		9.0		1.0	Search (1024X32)	12.735	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008		
ph/frq (deg)	42.5		42.5		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.023	0.023		
amp/frq (%)	28.4		28.4		0.6	Inc. seg. avg.	13.955	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	15.639	Data rate(Mb/s):	2048							

A: az 14.3 el 27.9 pa -163.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605 simultaneous interpolator

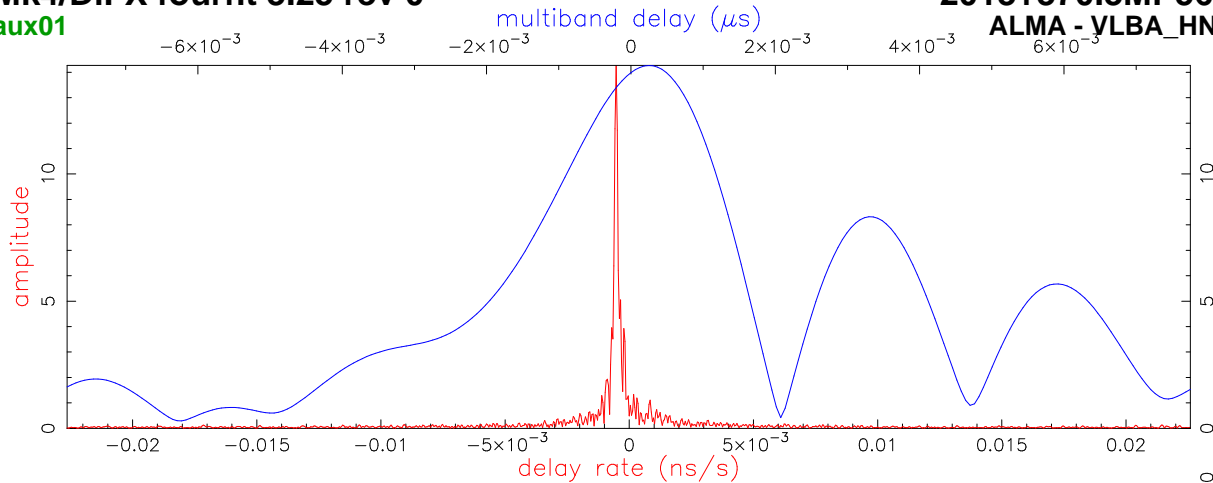
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.3.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

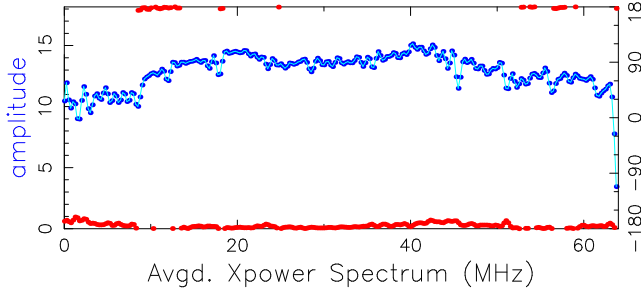
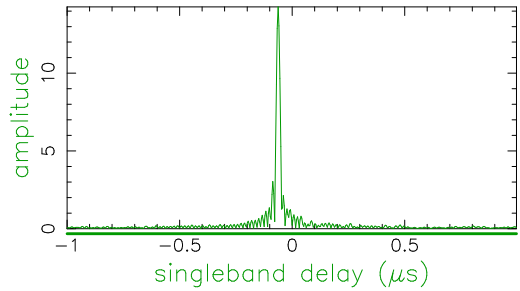
2013+370.3MP56K, No0500, Ah

ALMA - VLBA_HN, fgroup Q, pol YR



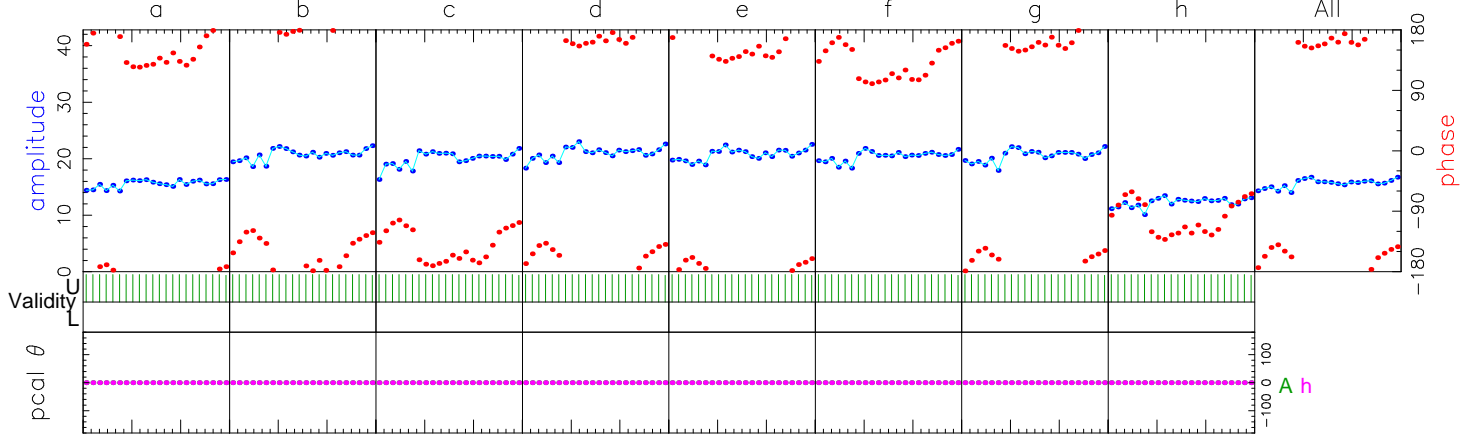
Fringe quality 4

SNR 523.4
 Int time 179.980
 Amp 14.270
 Phase -267.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.062369
 MBD 0.000257
 Fringe rate (Hz)
 -0.023083
 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
 2025:042:151734
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.25093283263E+04								2.56980E-04	+/- 2.1E-06
Sband delay (usec)	-1.25093284522E+04								-6.23690E-02	+/- 1.6E-05
Phase delay (usec)	-1.25092660947E+04								-1.14223E-05	+/- 1.4E-08
Delay rate (us/s)	-1.49147964730E-03								-5.35075E-07	+/- 1.4E-10
Total phase (deg)			-206.4						-267.4	+/- 0.2
Apriori delay (usec)					-1.25092660832E+04					
Apriori clock (usec)					-2.1198450E+03					
Apriori clockrate (us/s)					-8.9768904E-08					
Apriori rate (us/s)					-1.49094457246E-03					
Apriori accel (us/s/s)					-1.78064024519E-05					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
ph/seg (deg)	24.0	0.5								
amp/seg (%)	10.7	0.9								
ph/frq (deg)	44.5	0.3								
amp/frq (%)	28.6	0.5								
Search (1024X32)					13.988					
Inc. seg. avg.					15.613					
Inc. frq. avg.					17.277					
PCal mode:	MANUAL	MANUAL								
PCal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
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										

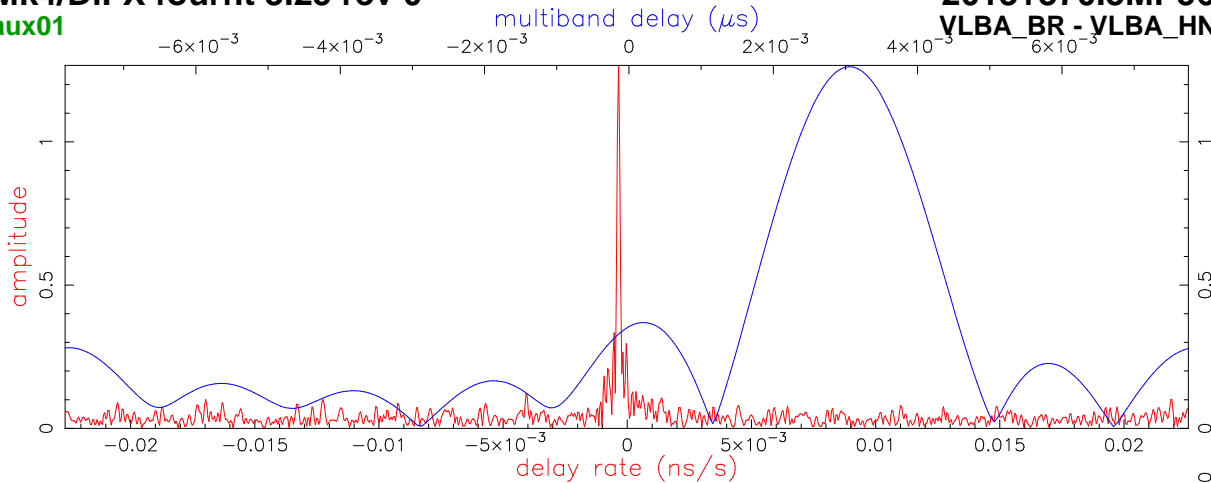
A: az 14.3 el 27.9 pa -163.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.9.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, bh

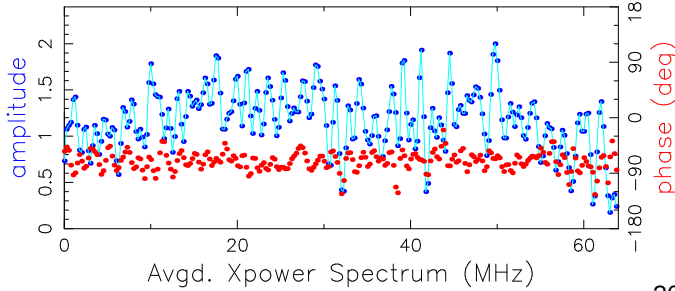
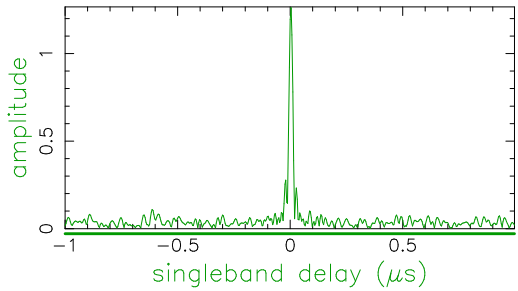
VLBA_BR - VLBA_HN, fgroup Q, pol RL



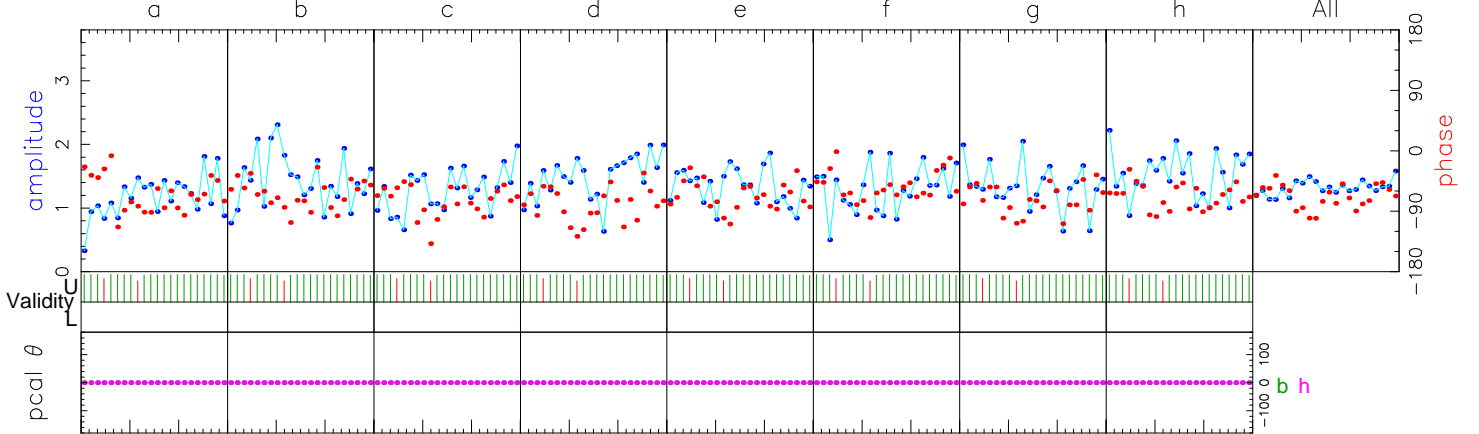
Fringe quality 9

SNR 46.0
Int time 176.654
Amp 1.267
Phase -68.5
PFD 0.0e+00
Delays (us)
SBD 0.003117
MBD 0.003040
Fringe rate (Hz) -0.015017
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		
	-67.4	-65.5	-72.8	-80.3	-68.4	-53.2	-70.7	-68.5	Phase	-68.5		
	1.1	1.4	1.2	1.4	1.3	1.2	1.3	1.5	Ampl.	1.3		
	257.5	257.7	257.3	258.0	257.8	258.3	257.8	257.9	Sbd box	257.8		
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used			
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
b:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:h	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			
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids			
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	-6.53726412968E+03		Apriori delay (usec)		-6.53726716928E+03		Resid mbdelay (usec)		3.03960E-03	+/- 2.4E-05		
Sband delay (usec)	-6.53726405228E+03		Apriori clock (usec)		-7.7999649E+00		Resid sbdelay (usec)		3.11700E-03	+/- 1.9E-04		
Phase delay (usec)	-6.53726717369E+03		Apriori clockrate (us/s)		4.9750395E-07		Resid phdelay (usec)		-4.41167E-06	+/- 1.6E-07		
Delay rate (us/s)	4.56481508116E-01		Apriori rate (us/s)		4.56481856215E-01		Resid rate (us/s)		-3.48098E-07	+/- 1.6E-09		
Total phase (deg)			Apriori accel (us/s/s)		3.90633220254E-05		Resid phase (deg)		-68.5	+/- 2.5		
	RMS	Theor.	Amplitude	1.267 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	16.9	5.8	Search (1024X32)	1.240		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	9.5	10.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	8.3	3.5	Inc. seg. avg.	1.313		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023	0.023		
amp/frq (%)	9.2	6.1	Inc. frq. avg.	1.270		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	h: az 103.5 el 73.6 pa -63.0		u, v (fr/asec) -1628.680 1403.584						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/bh..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/bh.Q.101.3MP56K									

Mk4/DiFX fourfit 3.25 rev 0

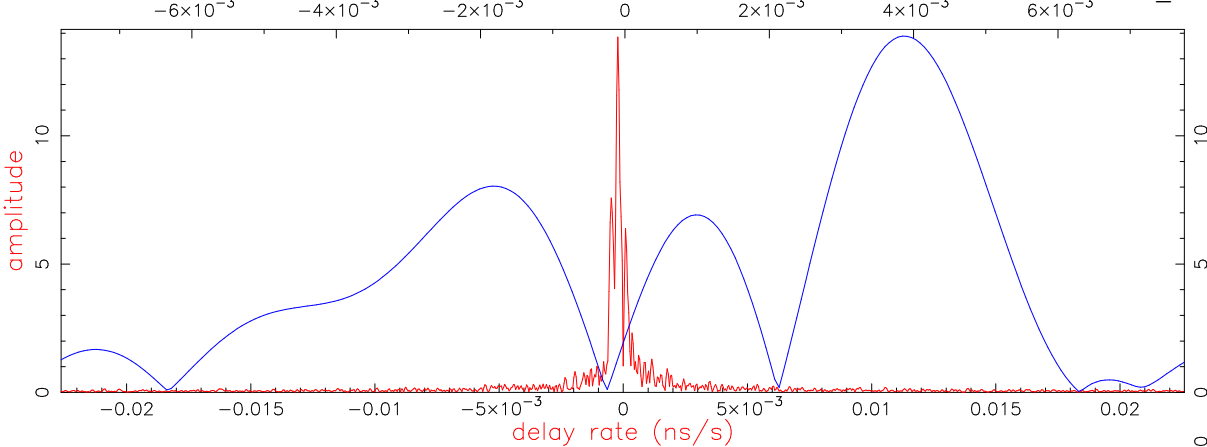
aux01

2013+370.3MP56K, No0500, Bh

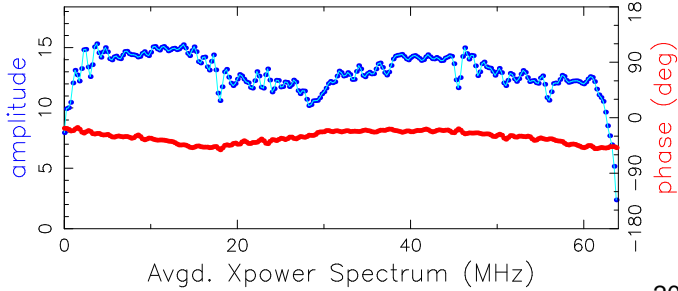
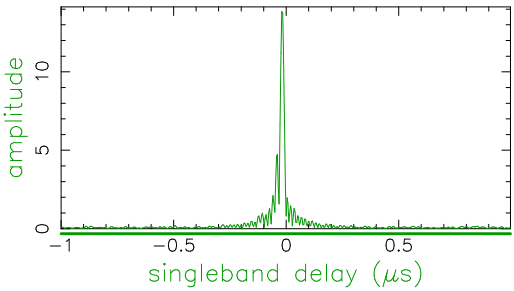
EFLSBERG - VLBA_HN, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 3

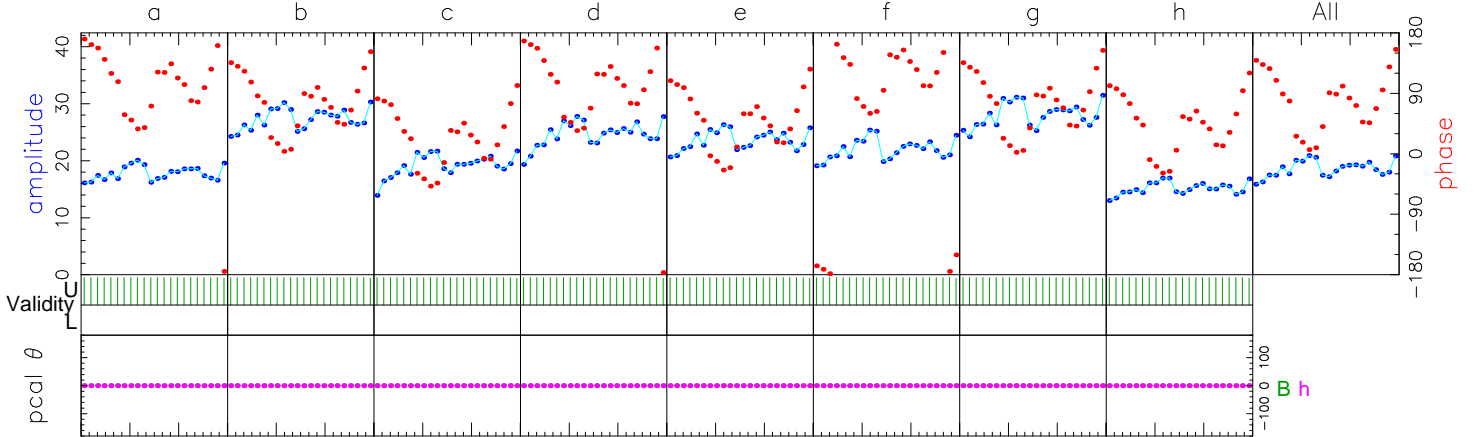


SNR 519.0
 Int time 179.963
 Amp 14.148
 Phase -124.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.017728
 MBD 0.003958
 Fringe rate (Hz)
 -0.010447
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -5.02830422864E+03 Apriori delay (usec) -5.02829256152E+03 Resid mbdelay (usec) 3.95788E-03 +/- 2.1E-06
 Sband delay (usec) -5.02831028977E+03 Apriori clock (usec) -4.7815796E+01 Resid sbdelay (usec) -1.77283E-02 +/- 1.7E-05
 Phase delay (usec) -5.02829255650E+03 Apriori clockrate (us/s) -2.6847600E-07 Resid phdelay (usec) 5.02041E-06 +/- 1.4E-08
 Delay rate (us/s) -9.81299962235E-01 Apriori rate (us/s) -9.81299720070E-01 Resid rate (us/s) -2.42166E-07 +/- 1.4E-10
 Total phase (deg) -161.9 Apriori accel (us/s/s) 3.26904879461E-05 Resid phase (deg) -124.5 +/- 0.2

RMS Theor. Amplitude 14.148 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 42.4 0.5 Search (1024X32) 13.330 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 33.0 0.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 40.8 0.3 Inc. seg. avg. 18.607 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 28.0 0.5 Inc. frq. avg. 16.548 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

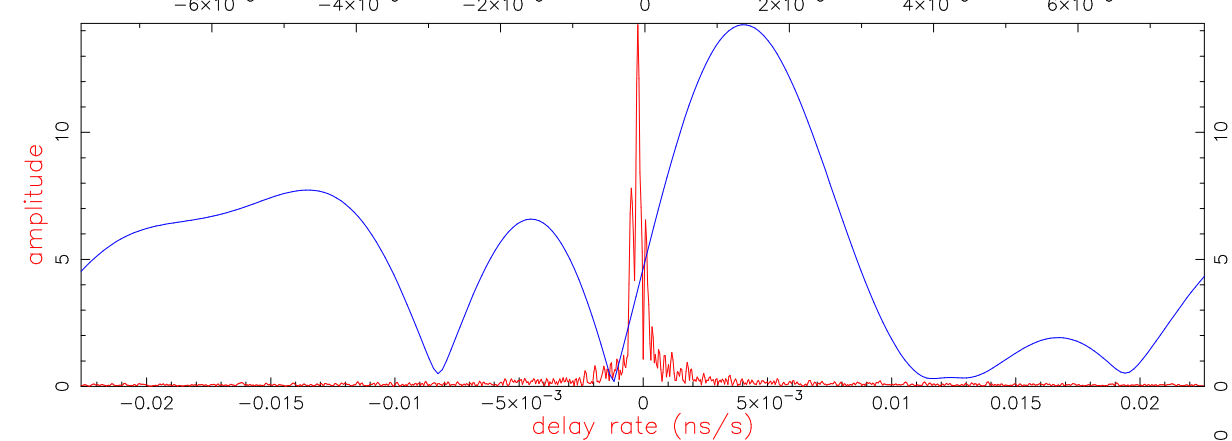
B: az 275.5 el 46.9 pa 52.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 3549.295 1275.956 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bh.Q.108.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

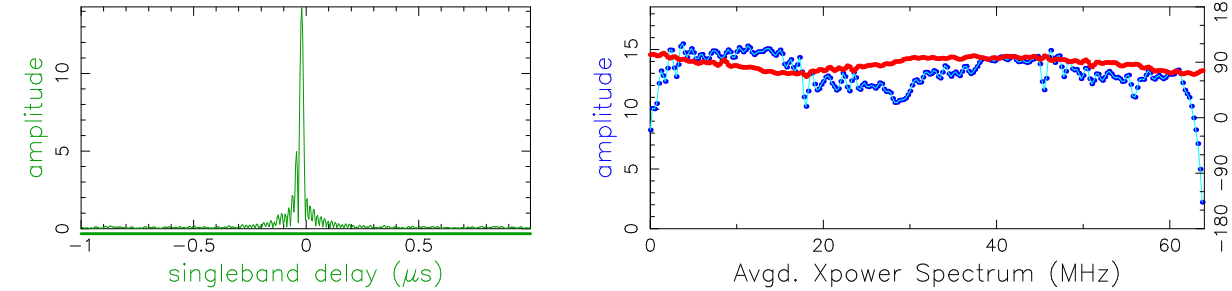
2013+370.3MP56K, No0500, Bh

EFLSBERG - VLBA_HN, fgroup Q, pol LR



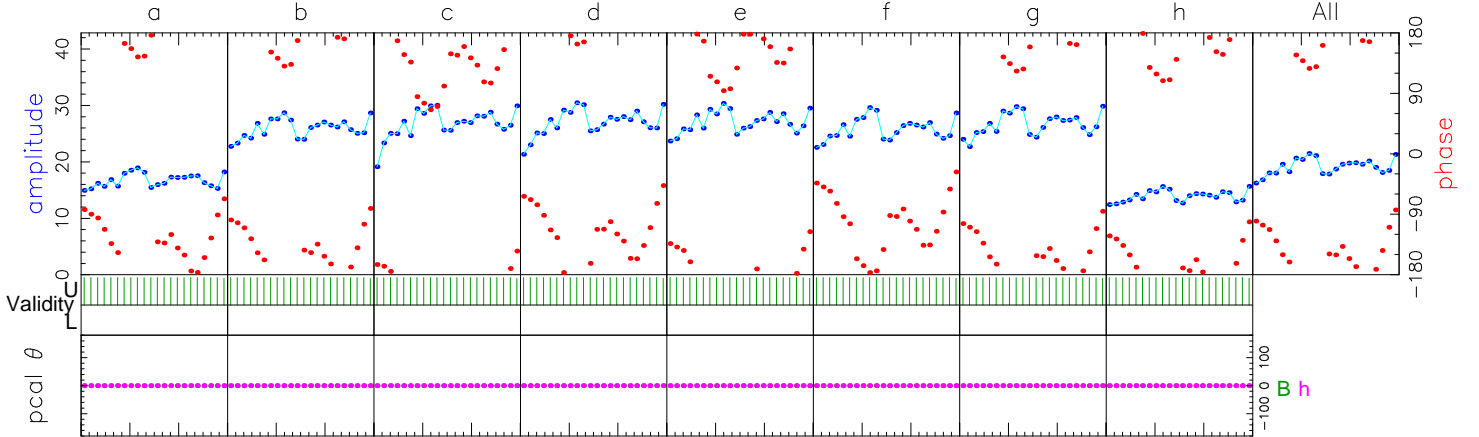
Fringe quality 3

SNR 524.2
 Int time 179.963
 Amp 14.291
 Phase -3.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.020306
 MBD 0.001330
 Fringe rate (Hz)
 -0.010445
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
B:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-5.02830685636E+03	Apriori delay (usec)	-5.02829256152E+03	Resid mbdelay (usec)	1.33016E-03	+/-	2.1E-06
Sband delay (usec)	-5.02831286727E+03	Apriori clock (usec)	-4.7815796E+01	Resid sbdelay (usec)	-2.03058E-02	+/-	1.6E-05
Phase delay (usec)	-5.02829257190E+03	Apriori clockrate (us/s)	-2.6847600E-07	Resid phdelay (usec)	-1.03783E-05	+/-	1.4E-08
Delay rate (us/s)	-9.81299962190E-01	Apriori rate (us/s)	-9.81299720070E-01	Resid rate (us/s)	-2.42120E-07	+/-	1.4E-10
Total phase (deg)	-41.1	Apriori accel (us/s/s)	3.26904879461E-05	Resid phase (deg)	-3.7	+/-	0.2

ph/seg (deg)	42.5	0.5	Search (1024X32)	13.644	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	35.3	0.9	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)	41.1	0.3	Inc. seg. avg.	19.136	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	34.8	0.5	Inc. frq. avg.	17.671	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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 3549.295 1275.956 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bh.Q.122.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

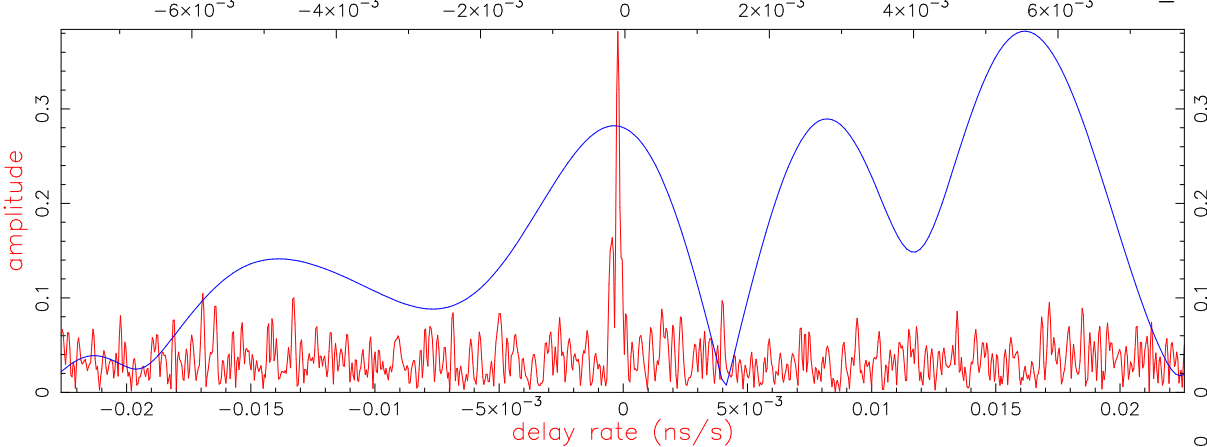
aux01

2013+370.3MP56K, No0500, Bh

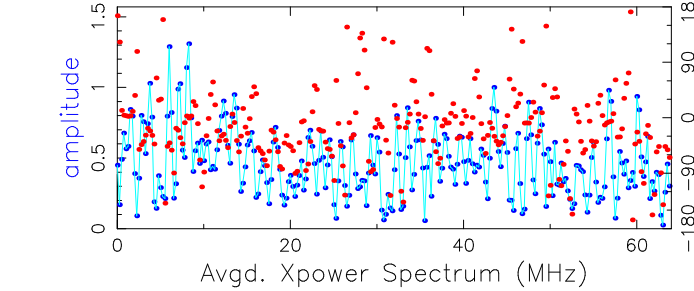
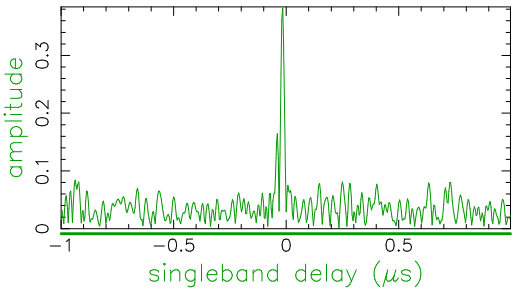
EFLSBERG - VLBA_HN, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 9

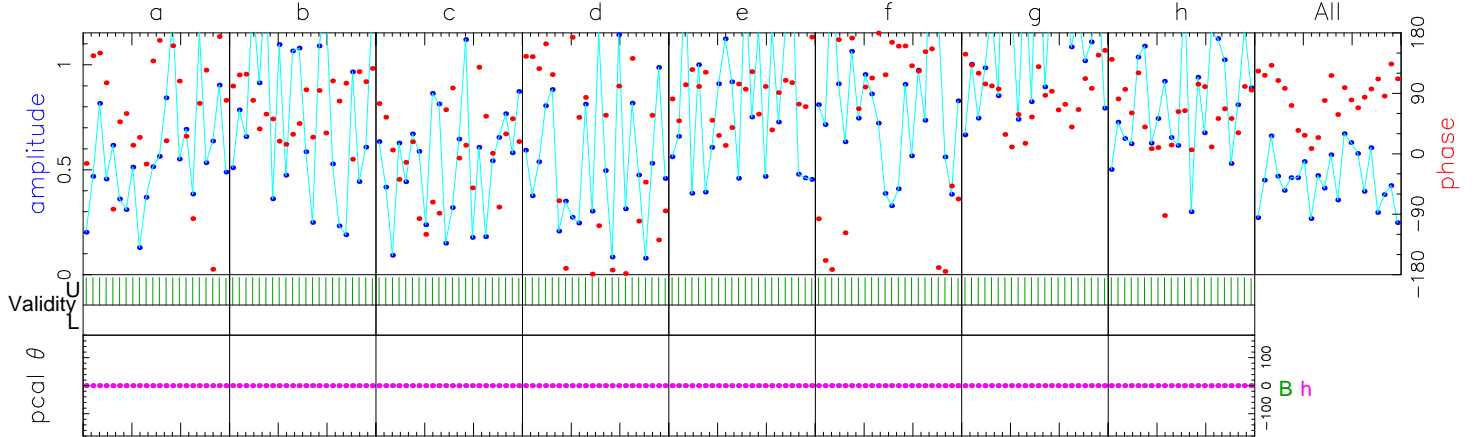


SNR 14.1
 Int time 179.963
 Amp 0.384
 Phase -115.6
 PFD 1.3e-36
 Delays (us)
 SBD -0.016562
 MBD 0.005495
 Fringe rate (Hz)
 -0.010166
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
B:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-5.02830269136E+03	Apriori delay (usec)	-5.02829256152E+03	Resid mbdelay (usec)	5.49516E-03	+/-	7.7E-05
Sband delay (usec)	-5.02830912352E+03	Apriori clock (usec)	-4.7815796E+01	Resid sbdelay (usec)	-1.65620E-02	+/-	6.1E-04
Phase delay (usec)	-5.02829255592E+03	Apriori clockrate (us/s)	-2.6847600E-07	Resid phdelay (usec)	5.59743E-06	+/-	5.2E-07
Delay rate (us/s)	-9.81299955710E-01	Apriori rate (us/s)	-9.81299720070E-01	Resid rate (us/s)	-2.35640E-07	+/-	5.0E-09
Total phase (deg)		Apriori accel (us/s/s)	3.26904879461E-05	Resid phase (deg)	-115.6	+/-	8.1

ph/seg (deg)	35.2	Theor.	19.1	Amplitude	0.384 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	37.3	Search (1024X32)	0.369	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	57.9	Inc. seg. avg.	0.432	Inc. frq. avg.	0.494	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	64.5	Inc. frq. avg.	0.494			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 275.5 el 46.9 pa 52.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 3549.295 1275.956 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bh.Q.133.3MP56K

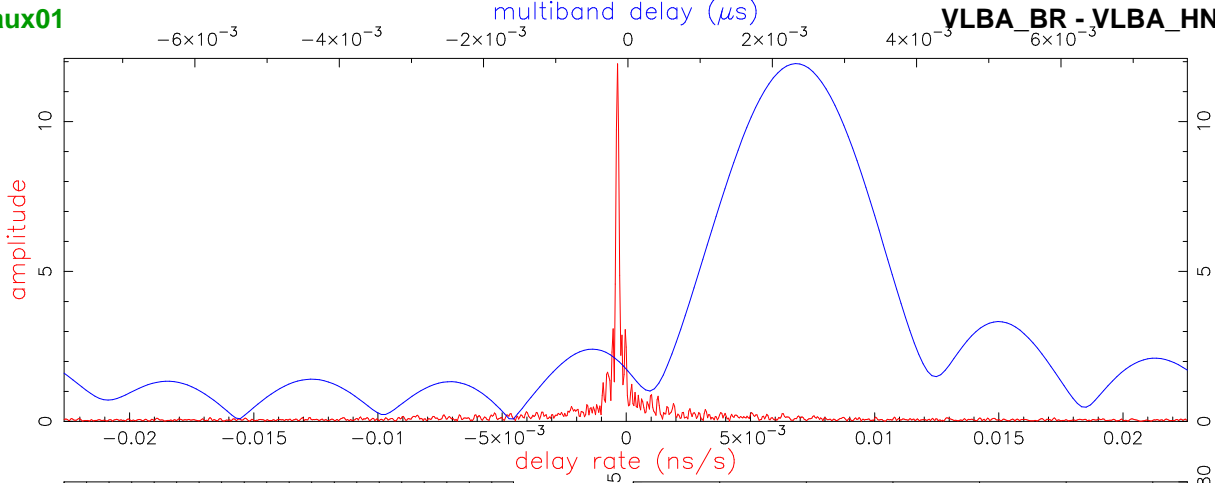
Mk4/DiFX fourfit 3.25 rev 0

aux01

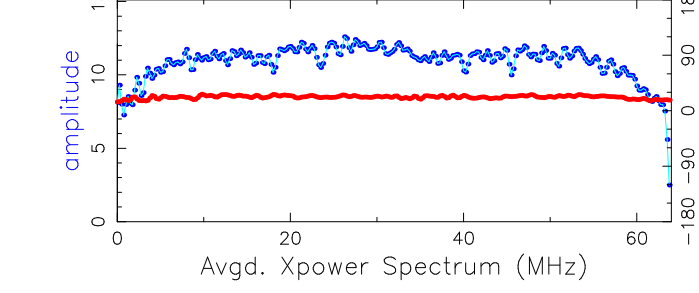
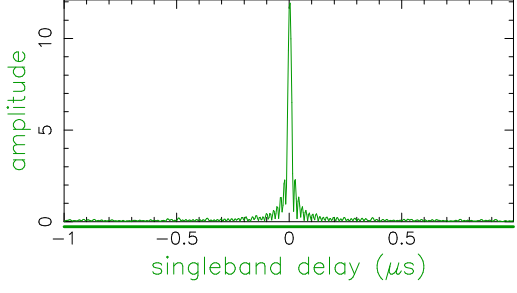
2013+370.3MP56K, No0500, bh

VLBA_BR - VLBA_HN, fgroup Q, pol LL

Fringe quality 8

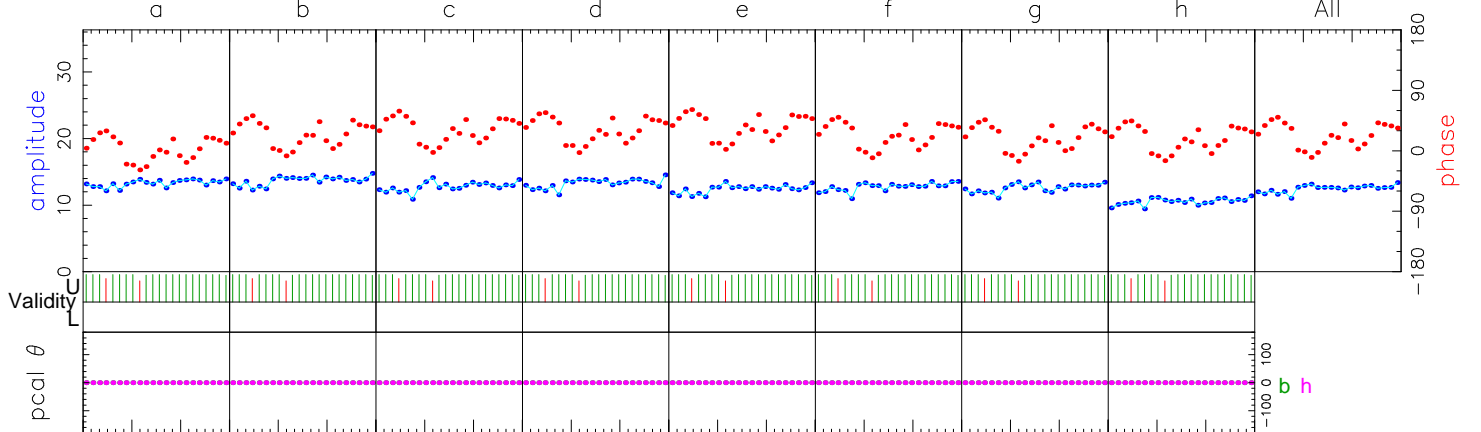


SNR 440.1
Int time 176.654
Amp 12.110
Phase 23.4
PFD 0.0e+00
Delays (us)
SBD 0.002356
MBD 0.002289
Fringe rate (Hz)
-0.014912
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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	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	257.6
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -6.53726488071E+03 Apriori delay (usec) -6.53726716928E+03 Resid mbdelay (usec) 2.28857E-03 +/- 2.5E-06
 Sband delay (usec) -6.53726481278E+03 Apriori clock (usec) -7.7999649E+00 Resid sbdelay (usec) 2.35650E-03 +/- 2.0E-05
 Phase delay (usec) -6.53726716777E+03 Apriori clockrate (us/s) 4.9750395E-07 Resid phdelay (usec) 1.50537E-06 +/- 1.7E-08
 Delay rate (us/s) 4.56481510556E-01 Apriori rate (us/s) 4.56481856215E-01 Resid rate (us/s) -3.45659E-07 +/- 1.6E-10
 Total phase (deg) -222.4 Apriori accel (us/s/s) 3.90633220254E-05 Resid phase (deg) 23.4 +/- 0.3

ph/seg (deg) 17.2 0.6 RMS Theor. Amplitude 12.110 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.3 1.1 Search (1024X32) 11.778 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 11.3 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.1 0.6 Inc. seg. avg. 12.485 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Inc. frq. avg. 12.108 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1628.680 1403.584 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bh.Q.40.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

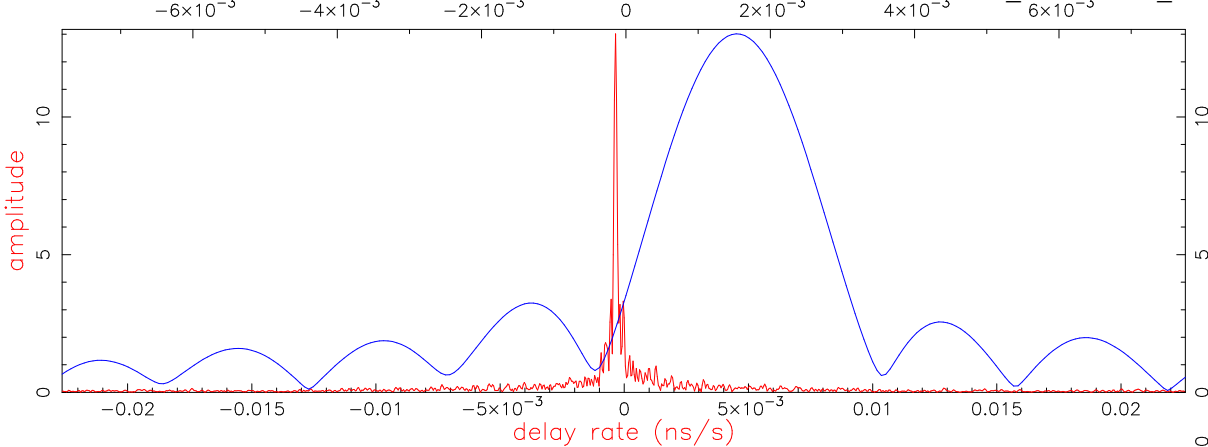
aux01

2013+370.3MP56K, No0500, bh

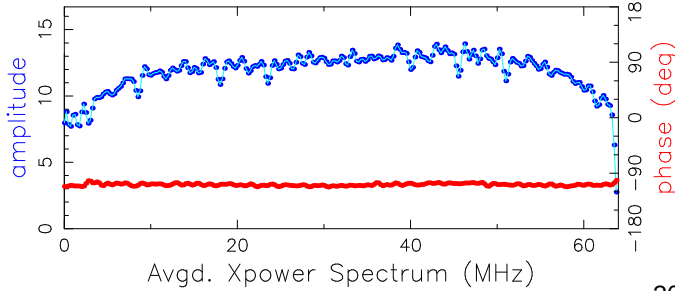
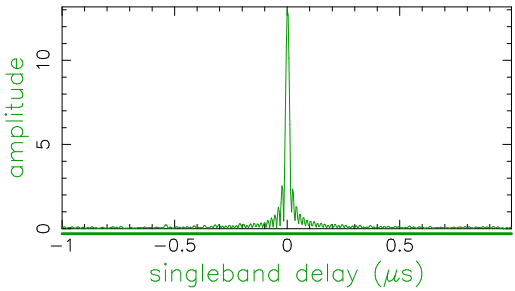
VLBA_BR - VLBA_HN, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 8

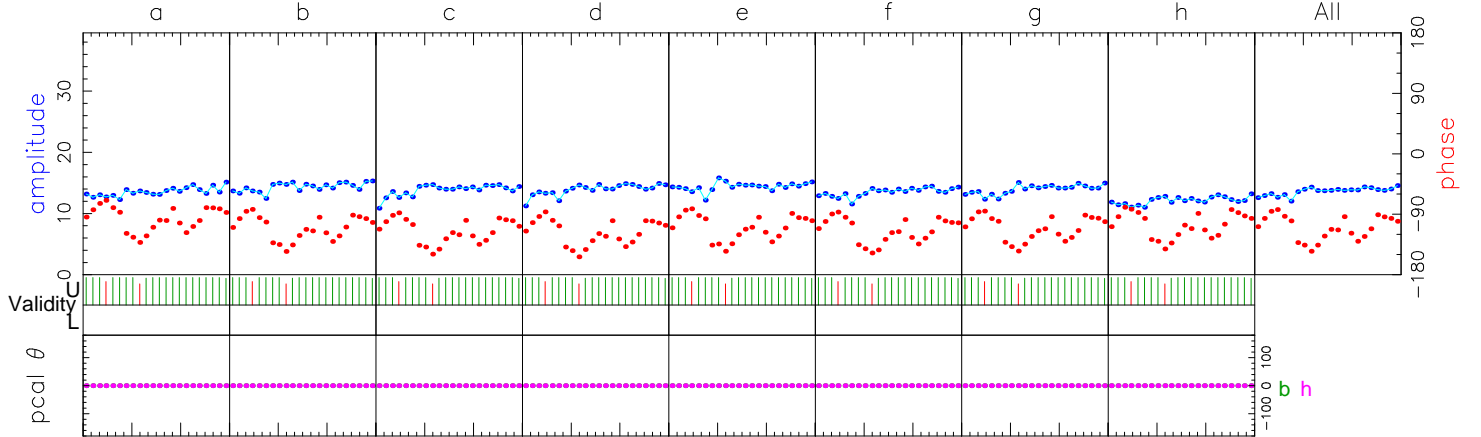


SNR 478.9
 Int time 176.654
 Amp 13.178
 Phase -110.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001425
 MBD 0.001567
 Fringe rate (Hz)
 -0.014890
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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
	-96.7	-110.3	-115.1	-117.3	-109.2	-114.1	-110.7	-106.1	Phase	-110.0
	13.0	13.7	13.2	13.2	13.7	12.9	13.3	11.6	Ampl.	13.1
	256.9	257.3	257.3	257.8	257.2	257.7	257.4	257.3	Sbd box	257.4
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-6.53726560212E+03	Apriori delay (usec)	-6.53726716928E+03	Resid mbdelay (usec)	1.56716E-03	+/-	2.3E-06
Sband delay (usec)	-6.53726574428E+03	Apriori clock (usec)	-7.7999649E+00	Resid sbdelay (usec)	1.42500E-03	+/-	1.8E-05
Phase delay (usec)	-6.53726717636E+03	Apriori clockrate (us/s)	4.9750395E-07	Resid phdelay (usec)	-7.08496E-06	+/-	1.5E-08
Delay rate (us/s)	4.56481511062E-01	Apriori rate (us/s)	4.56481856215E-01	Resid rate (us/s)	-3.45153E-07	+/-	1.5E-10
Total phase (deg)	-355.8	Apriori accel (us/s/s)	3.90633220254E-05	Resid phase (deg)	-110.0	+/-	0.2

ph/seg (deg)	17.4	0.6	Search (1024X32)	12.815	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	5.8	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)	6.9	0.3	Inc. seg. avg.	13.638	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	4.9	0.6	Inc. frq. avg.	13.085	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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1628.680 1403.584 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bh.Q.58.3MP56K

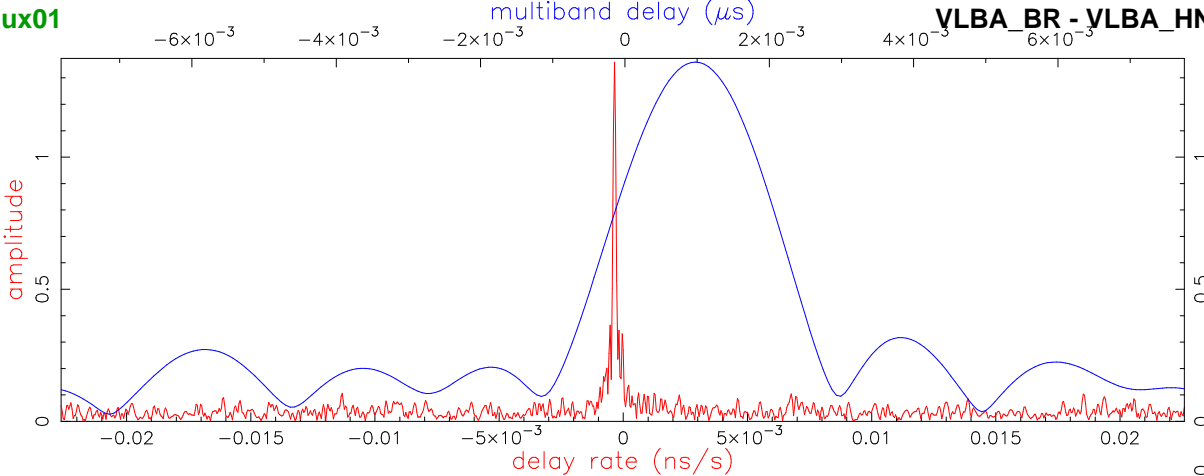
Mk4/DiFX fourfit 3.25 rev 0

aux01

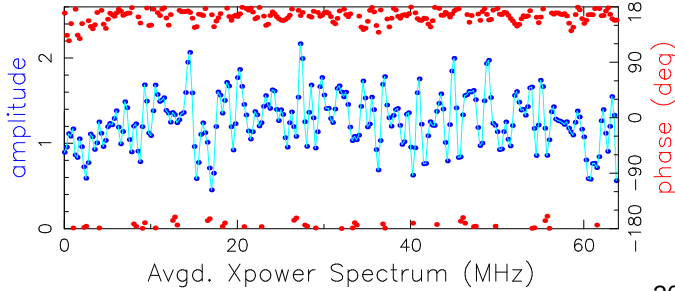
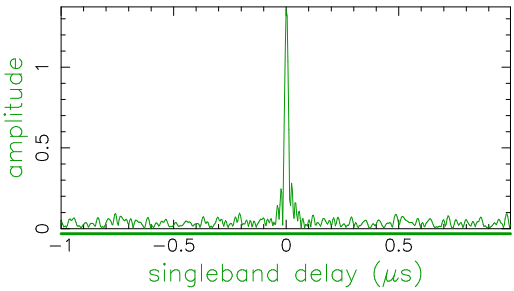
2013+370.3MP56K, No0500, bh

VLBA_BR - VLBA_HN, fgroup Q, pol LR

Fringe quality 7

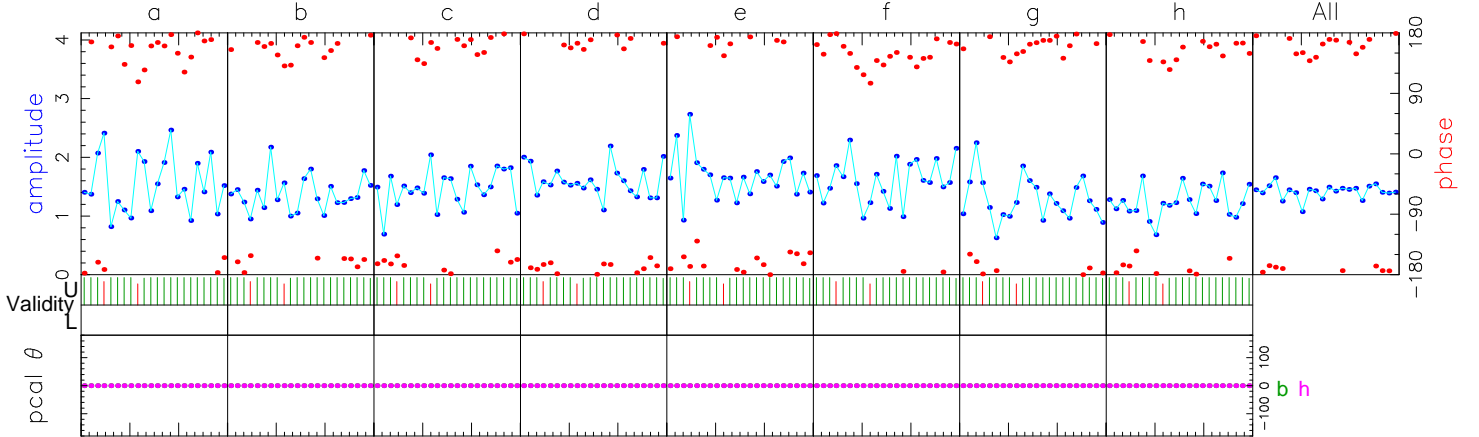


SNR 49.9
 Int time 176.654
 Amp 1.374
 Phase 171.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001296
 MBD 0.001008
 Fringe rate (Hz)
 -0.015017
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
b:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -6.53726616090E+03 Apriori delay (usec) -6.53726716928E+03 Resid mbdelay (usec) 1.00838E-03 +/- 2.2E-05
 Sband delay (usec) -6.53726587303E+03 Apriori clock (usec) -7.7999649E+00 Resid sbdelay (usec) 1.29625E-03 +/- 1.7E-04
 Phase delay (usec) -6.53726715822E+03 Apriori clockrate (us/s) 4.9750395E-07 Resid phdelay (usec) 1.10598E-05 +/- 1.5E-07
 Delay rate (us/s) 4.56481508108E-01 Apriori rate (us/s) 4.56481856215E-01 Resid rate (us/s) -3.48107E-07 +/- 1.4E-09
 Total phase (deg) -74.0 Apriori accel (us/s/s) 3.90633220254E-05 Resid phase (deg) 171.8 +/- 2.3

RMS Theor. Amplitude 1.374 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 16.4 5.4 Search (1024X32) 1.350 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 8.9 9.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 11.6 3.2 Inc. seg. avg. 1.411 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 10.6 5.7 Inc. frq. avg. 1.381 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1628.680 1403.584 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bh.Q.70.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

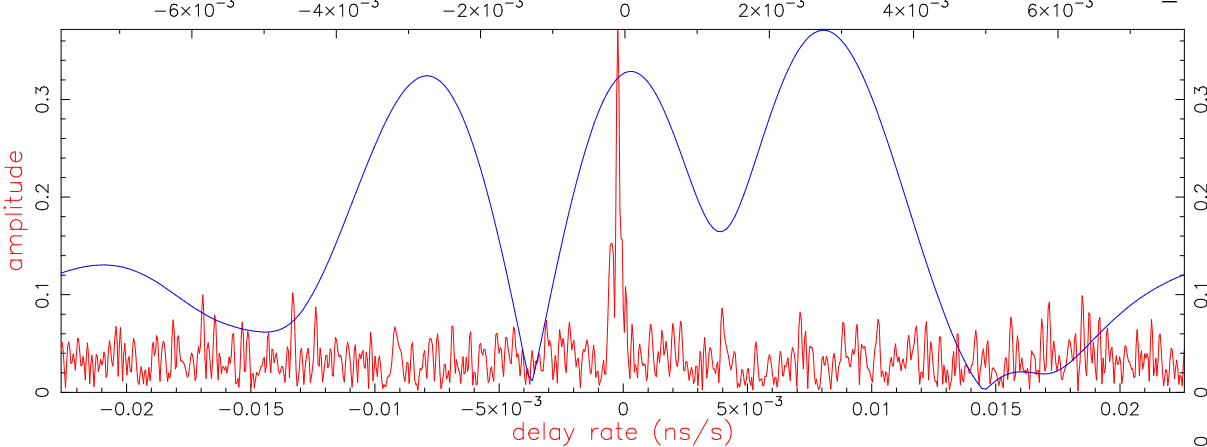
aux01

2013+370.3MP56K, No0500, Bh

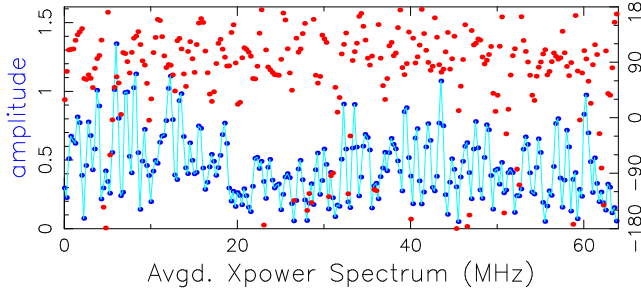
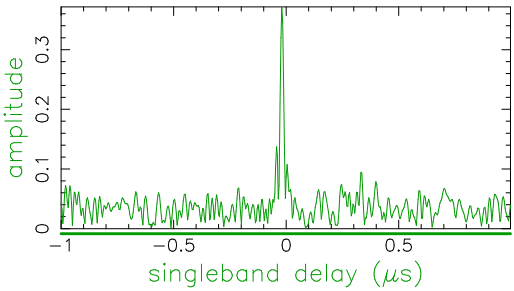
EFLSBERG - VLBA_HN, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 9

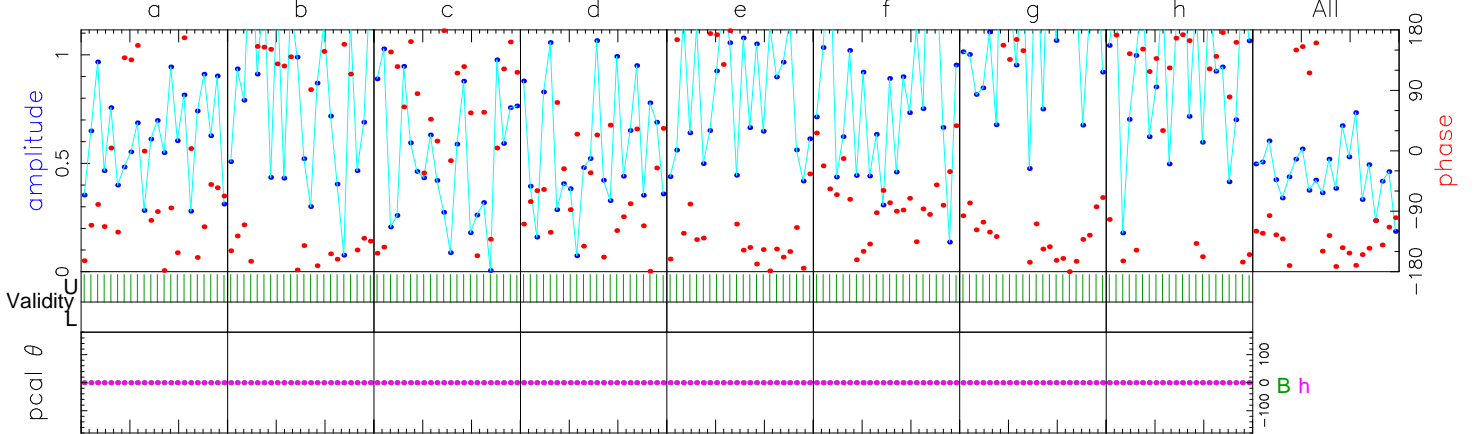


SNR 13.6
 Int time 179.963
 Amp 0.372
 Phase -352.3
 PFD 6.9e-34
 Delays (us)
 SBD -0.018913
 MBD 0.002780
 Fringe rate (Hz)
 -0.009973
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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
	-113.8	178.1	117.6	-72.6	-155.5	-73.8	-144.8	168.4	Phase	-149.8
	0.3	0.6	0.2	0.2	0.7	0.6	0.8	0.7	Ampl.	0.5
	249.4	251.5	175.5	253.1	252.4	252.9	251.5	249.6	Sbd box	252.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.02830540680E+03	Apriori delay (usec)	-5.02829256152E+03	Resid mbdelay (usec)	2.77972E-03	+/-	8.0E-05
Sband delay (usec)	-5.02831147477E+03	Apriori clock (usec)	-4.7815796E+01	Resid sbdelay (usec)	-1.89133E-02	+/-	6.3E-04
Phase delay (usec)	-5.02829257116E+03	Apriori clockrate (us/s)	-2.6847600E-07	Resid phdelay (usec)	-9.64591E-06	+/-	5.4E-07
Delay rate (us/s)	-9.81299951254E-01	Apriori rate (us/s)	-9.81299720070E-01	Resid rate (us/s)	-2.31184E-07	+/-	5.2E-09
Total phase (deg)	-29.7	Apriori accel (us/s/s)	3.26904879461E-05	Resid phase (deg)	-352.3	+/-	8.4

ph/seg (deg)	37.9	Theor.	19.7	Amplitude	0.372 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	40.7		34.4	Search (1024X32)	0.361	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	63.8		11.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	70.2		20.7	Inc. seg. avg.	0.430	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	0.509	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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 3549.295 1275.956 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bh.Q.97.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

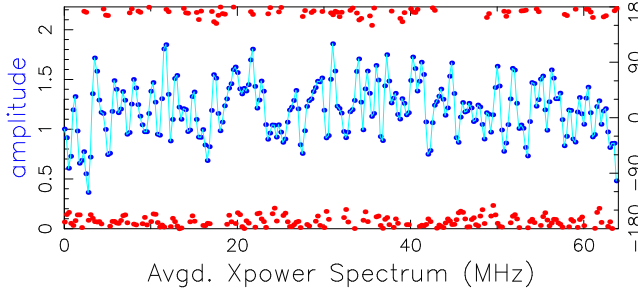
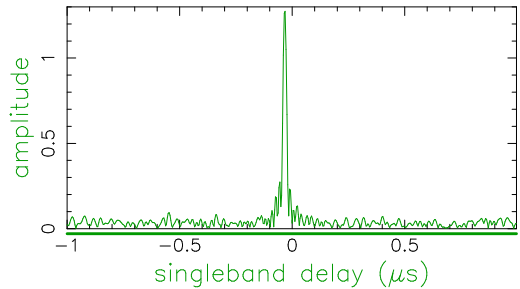
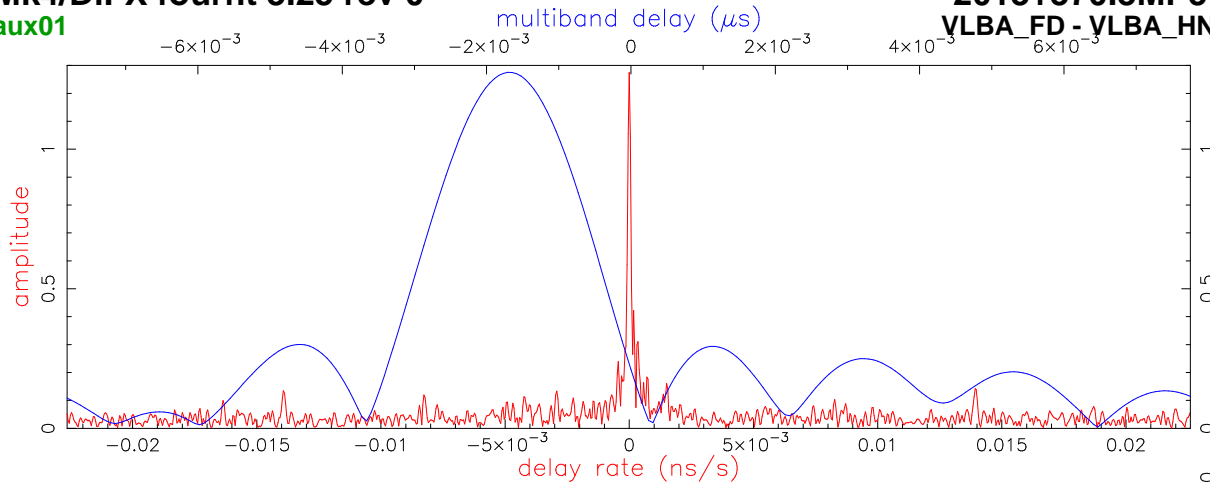
2013+370.3MP56K, No0500, fh

VLBA_FD - VLBA_HN, fgroup Q, pol RR

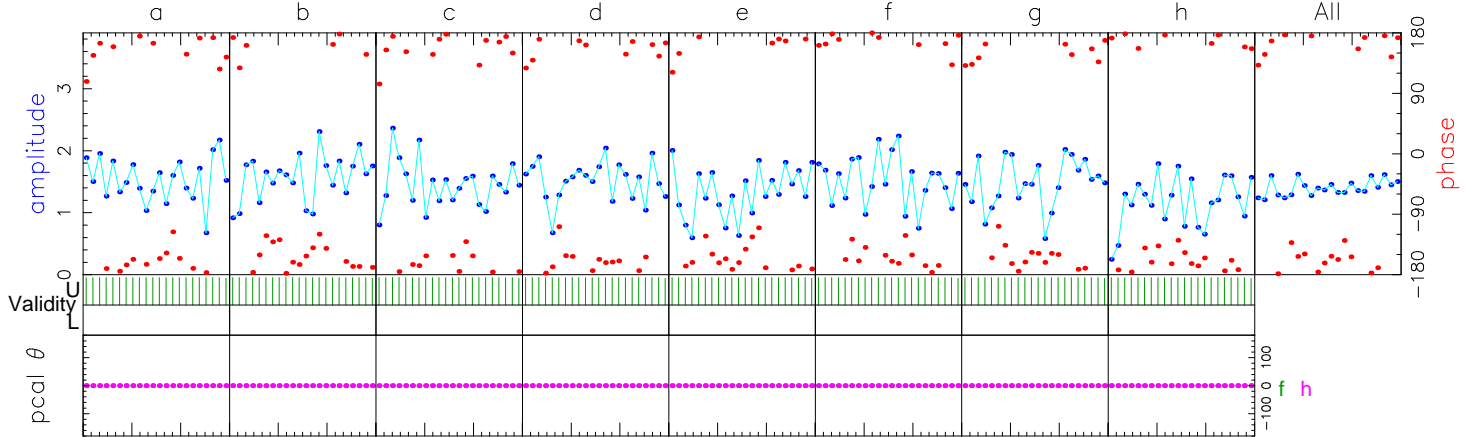
Fringe quality 7

SNR 47.7
 Int time 179.968
 Amp 1.300
 Phase -220.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.033020
 MBD -0.001726
 Fringe rate (Hz)
 -0.000272
 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	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
f:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-4.86429531884E+03	Apriori delay (usec)	-4.86426234281E+03	Resid mbdelay (usec)	-1.72603E-03	+/-	2.3E-05
Sband delay (usec)	-4.86429536256E+03	Apriori clock (usec)	-1.2364769E+01	Resid sbdelay (usec)	-3.30198E-02	+/-	1.8E-04
Phase delay (usec)	-4.86426235410E+03	Apriori clockrate (us/s)	-2.8717046E-08	Resid phdelay (usec)	-1.12926E-05	+/-	1.5E-07
Delay rate (us/s)	5.28835514668E-01	Apriori rate (us/s)	5.28835520975E-01	Resid rate (us/s)	-6.30725E-09	+/-	1.5E-09
Total phase (deg)	-29.2	Apriori accel (us/s/s)	1.40932944247E-05	Resid phase (deg)	-220.4	+/-	2.4

ph/seg (deg) 25.4 5.6 Theor. Amplitude 1.300 +/- 0.027
 amp/seg (%) 12.4 9.8 Search (1024X32) 1.245
 ph/frq (deg) 8.3 3.4 Inc. seg. avg. 1.395
 amp/frq (%) 8.2 5.9 Inc. frq. avg. 1.283
 f: az 66.6 el 46.8 pa -82.9 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1901.299 -171.607
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fh.Q.105.3MP56K

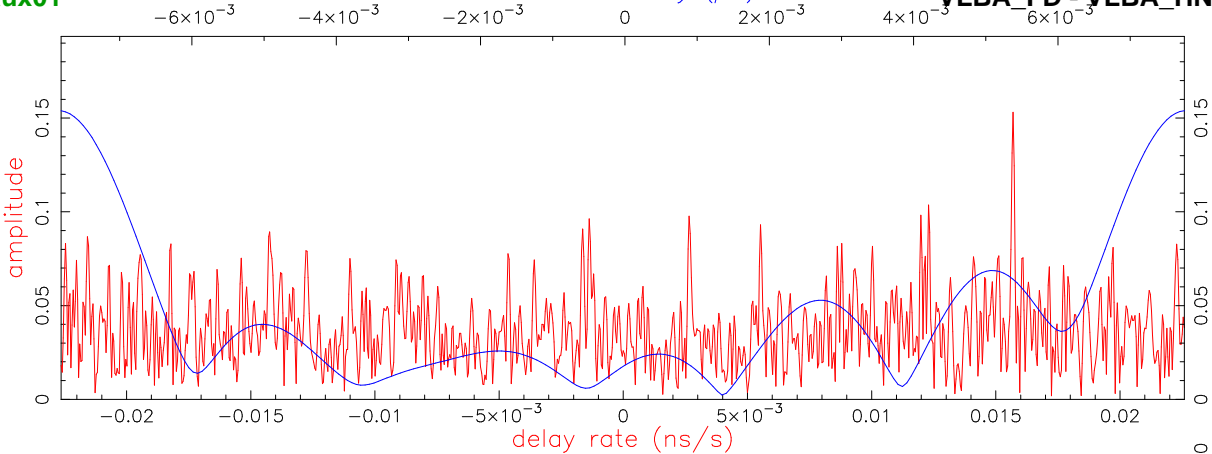
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, fh

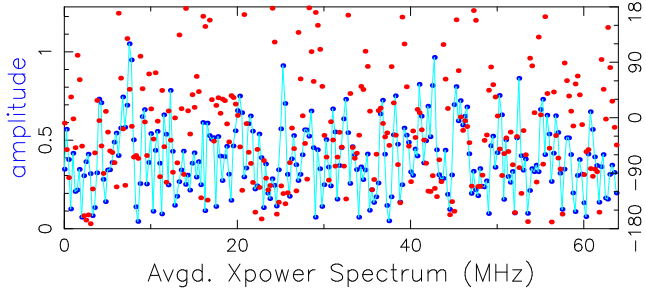
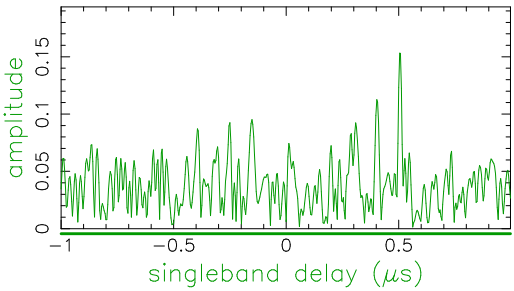
VLBA_FD - VLBA_HN, fgroup Q, pol LR

multiband delay (μ s)



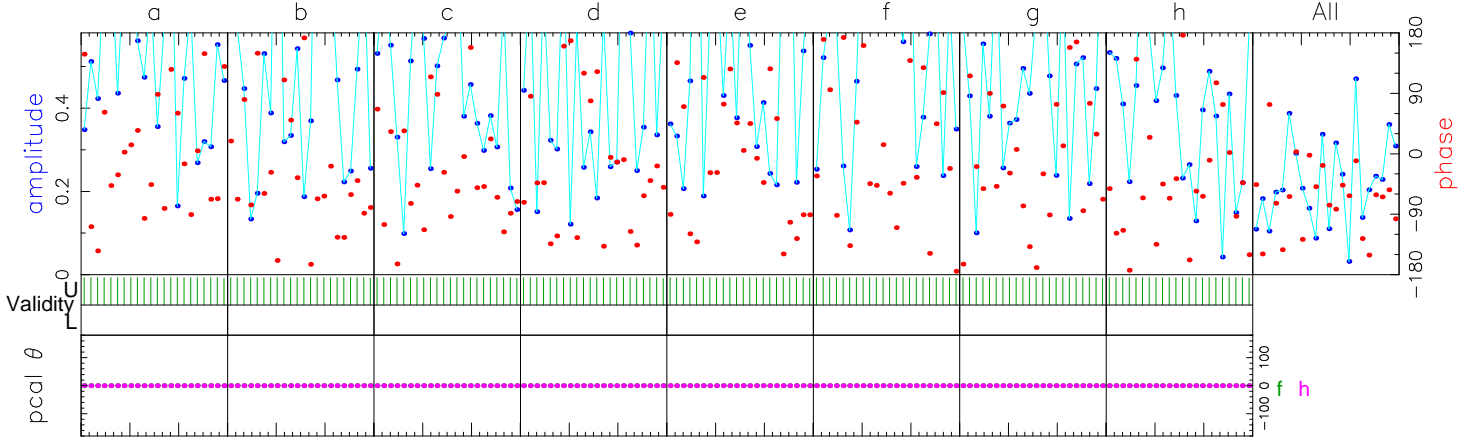
Fringe quality 0

SNR 5.8
 Int time 179.968
 Amp 0.194
 Phase 297.8
 PFD 6.4e-01
 Delays (us)
 SBD 0.505853
 MBD 0.007888
 Fringe rate (Hz) 0.680991
 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
	-26.1	-69.6	-60.4	-67.5	-79.6	-56.4	-53.1	-72.9	Phase	-62.2
	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	498.9	156.9	71.6	148.3	173.3	359.1	179.5	314.7	Sbd box	386.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-4.86375445460E+03	Apriori delay (usec)	-4.86426234281E+03	Resid mbdelay (usec)	7.88821E-03	+/-	1.9E-04
Sband delay (usec)	-4.86375648956E+03	Apriori clock (usec)	-1.2364769E+01	Resid sbdelay (usec)	5.05853E-01	+/-	1.5E-03
Phase delay (usec)	-4.86426234682E+03	Apriori clockrate (us/s)	-2.8717046E-08	Resid phdelay (usec)	-4.00743E-06	+/-	1.3E-06
Delay rate (us/s)	5.28851306584E-01	Apriori rate (us/s)	5.28835520975E-01	Resid rate (us/s)	1.57856E-05	+/-	1.2E-08
Total phase (deg)	129.0	Apriori accel (us/s/s)	1.40932944247E-05	Resid phase (deg)	297.8	+/-	19.9

ph/seg (deg)	53.9	Theor.	46.6	Amplitude	0.194 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	80.0		81.4	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	17.9		28.1	Inc. seg. avg.	0.207	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	32.9		49.1	Inc. frq. avg.	0.174	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 66.6 el 46.8 pa -82.9 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1901.299 -171.607 simultaneous interpolator

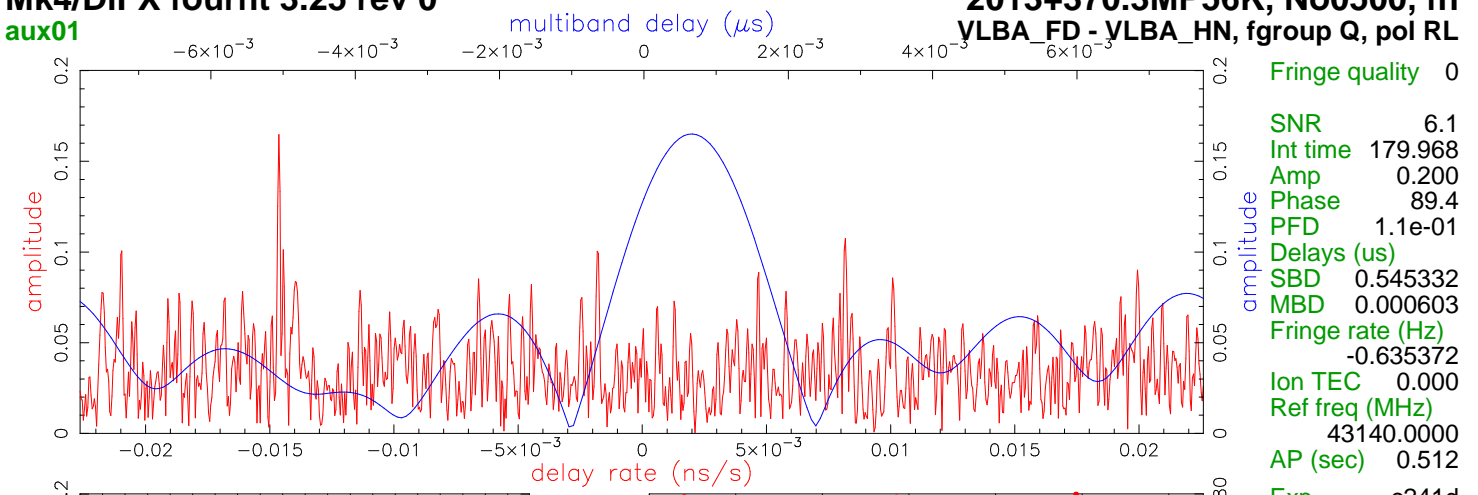
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fh.Q.116.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, fh

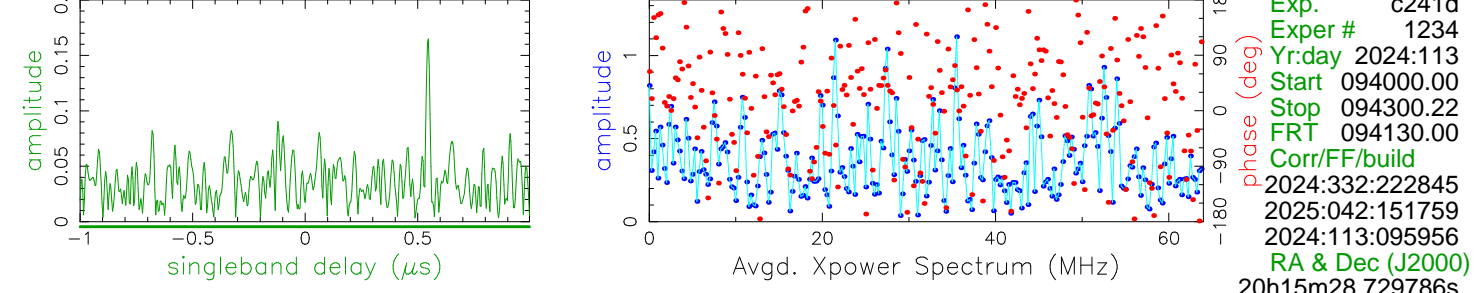
VLBA_FD - VLBA_HN, fgroup Q, pol RL



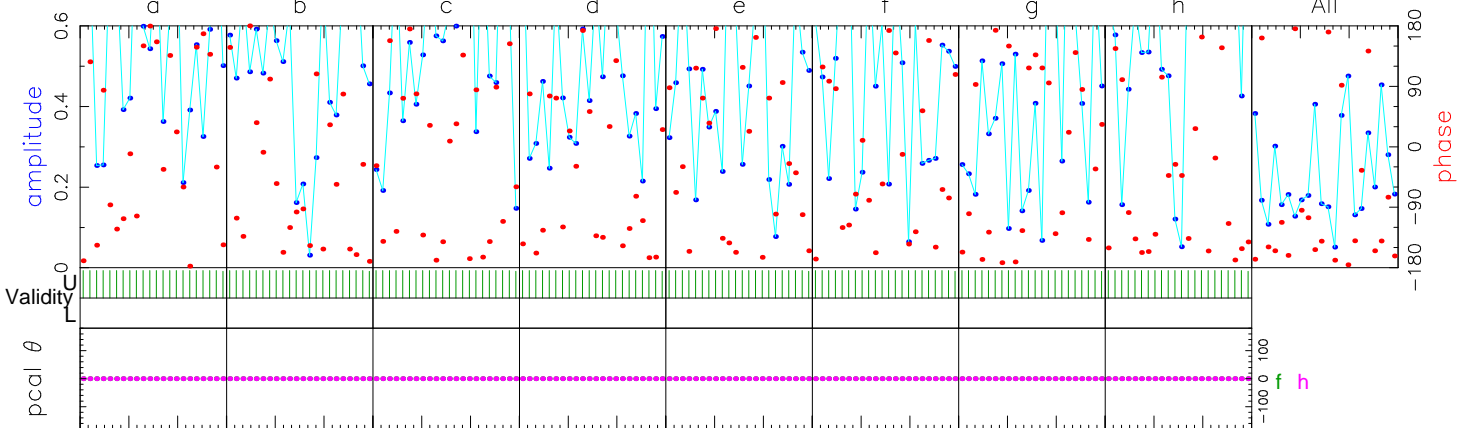
Fringe quality 0

SNR 6.1
 Int time 179.968
 Amp 0.200
 Phase 89.4
 PFD 1.1e-01
 Delays (us)
 SBD 0.545332
 MBD 0.000603
 Fringe rate (Hz)
 -0.635372
 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	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
f:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -4.86371486451E+03 Apriori delay (usec) -4.86426234281E+03 Resid mbdelay (usec) 6.03299E-04 +/- 1.8E-04
 Sband delay (usec) -4.86371701031E+03 Apriori clock (usec) -1.2364769E+01 Resid sbdelay (usec) 5.45332E-01 +/- 1.4E-03
 Phase delay (usec) -4.86426235299E+03 Apriori clockrate (us/s) -2.8717046E-08 Resid phdelay (usec) -1.01822E-05 +/- 1.2E-06
 Delay rate (us/s) 5.28820792839E-01 Apriori rate (us/s) 5.28835520975E-01 Resid rate (us/s) -1.47281E-05 +/- 1.2E-08
 Total phase (deg) 280.6 Apriori accel (us/s/s) 1.40932944247E-05 Resid phase (deg) 89.4 +/- 18.7

RMS Theor. Amplitude 0.200 +/- 0.033
 ph/seg (deg) 48.4 43.8 Search (1024X32) 0.164 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.5 76.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.5 26.4 Inc. seg. avg. 0.216 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.0 46.1 Inc. frq. avg. 0.187 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1901.299 -171.607 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fh.Q.131.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

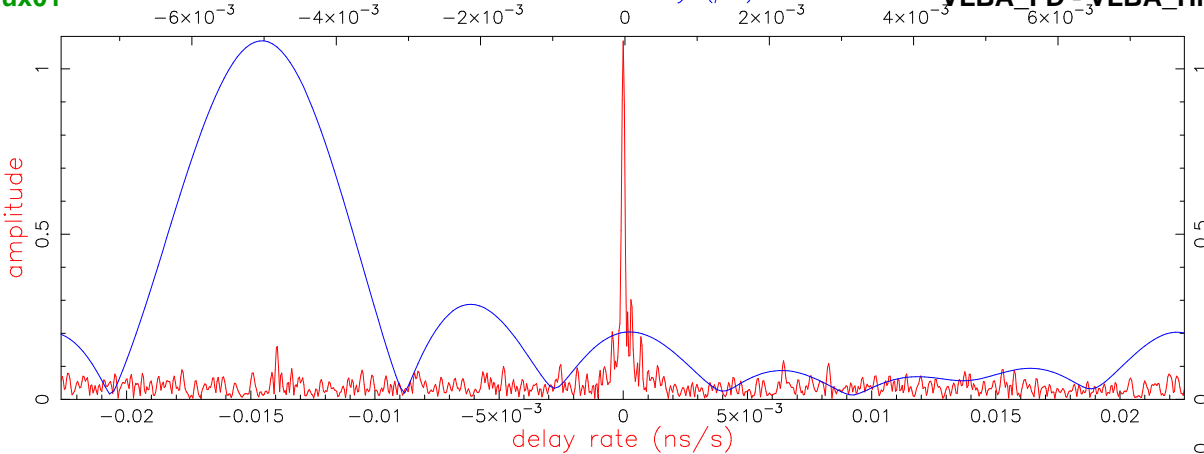
aux01

2013+370.3MP56K, No0500, fh

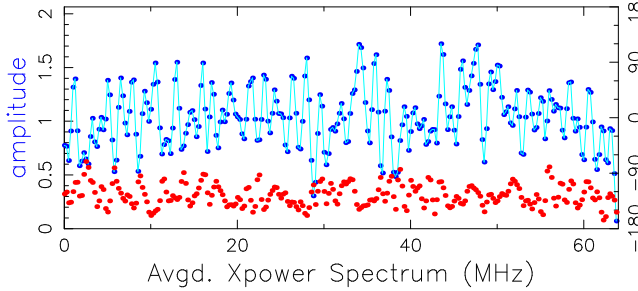
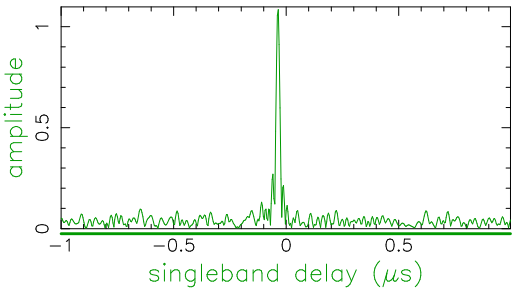
VLBA_FD - VLBA_HN, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 9

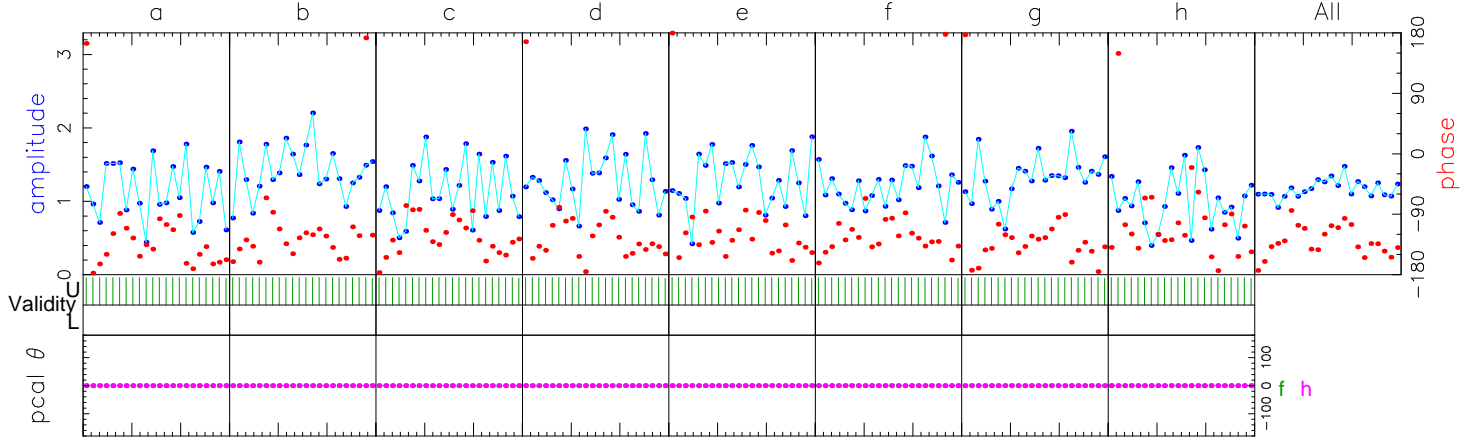


SNR 40.3
 Int time 179.968
 Amp 1.099
 Phase -174.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.036562
 MBD -0.005063
 Fringe rate (Hz)
 -0.000167
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

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



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

Group delay (usec) (SBD)	-4.86429865603E+03	Apriori delay (usec)	-4.86426234281E+03	Resid mbdelay (usec)	-5.06322E-03	+/-	2.7E-05
Sband delay (usec)	-4.86429890456E+03	Apriori clock (usec)	-1.2364769E+01	Resid sbdelay (usec)	-3.65617E-02	+/-	2.1E-04
Phase delay (usec)	-4.86426235113E+03	Apriori clockrate (us/s)	-2.8717046E-08	Resid phdelay (usec)	-8.32096E-06	+/-	1.8E-07
Delay rate (us/s)	5.28835517115E-01	Apriori rate (us/s)	5.28835520975E-01	Resid rate (us/s)	-3.85962E-09	+/-	1.8E-09
Total phase (deg)	-343.0	Apriori accel (us/s/s)	1.40932944247E-05	Resid phase (deg)	-174.2	+/-	2.8

ph/seg (deg) 21.9 6.7 Search (1024X32) 1.074 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 12.5 11.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.7 4.0 Inc. seg. avg. 1.161 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 12.3 7.0 Inc. frq. avg. 1.089 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -1901.299 -171.607 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/fh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fh.Q.88.3MP56K simultaneous interpolator

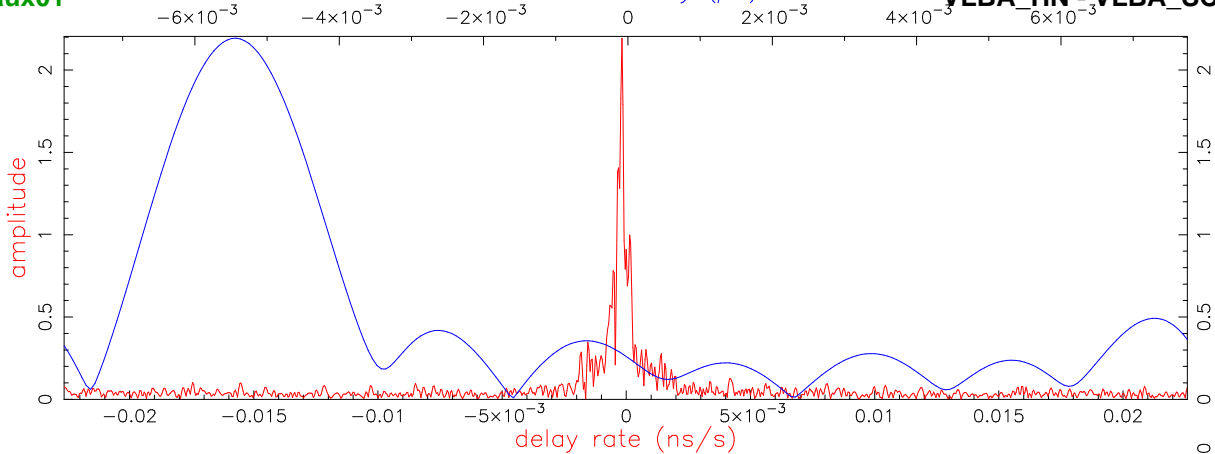
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hc

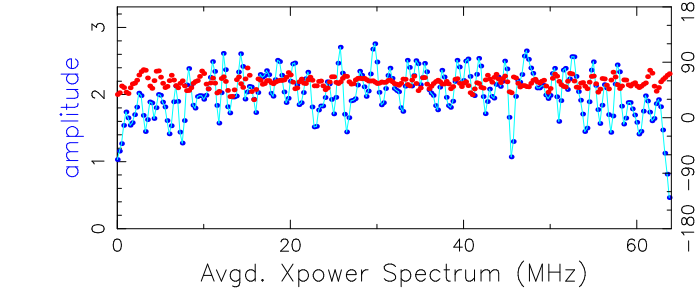
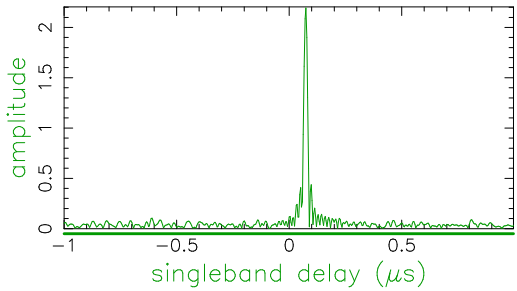
VLBA_HN - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



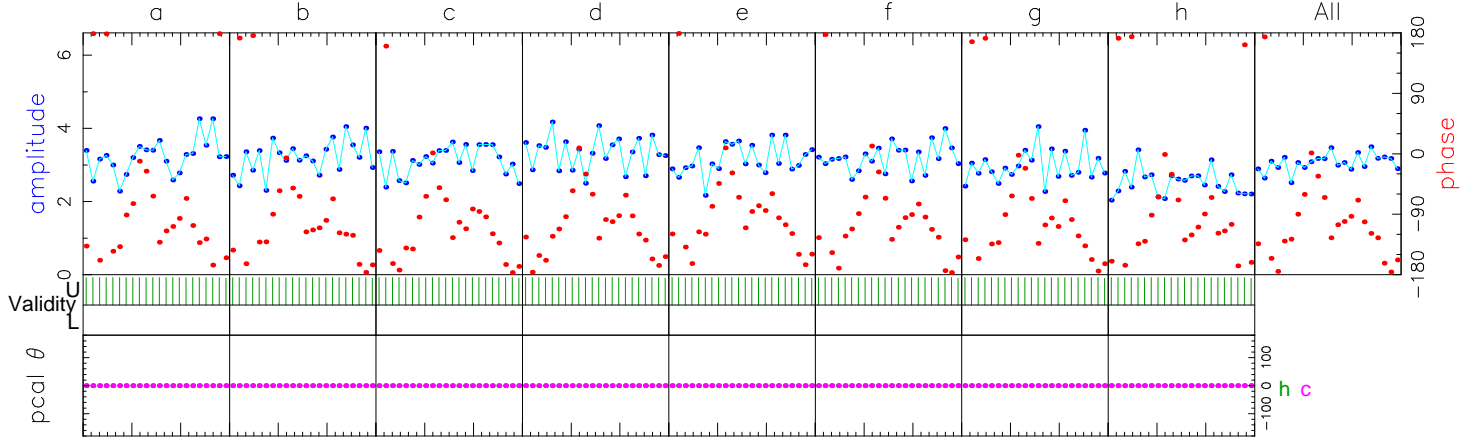
Fringe quality 5

SNR 80.9
 Int time 179.980
 Amp 2.205
 Phase 177.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.073305
 MBD -0.005463
 Fringe rate (Hz)
 -0.007400
 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
	-121.4	-117.7	-117.7	-113.0	-101.6	-114.8	-118.6	-119.4	Phase	-115.4
	2.3	2.3	2.2	2.5	2.2	2.3	2.0	1.7	Ampl.	2.2
	275.8	275.8	275.8	275.8	275.6	275.8	275.6	275.9	Sbd box	275.8
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	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	7.61607411048E+02	Apriori delay (usec)	7.61534749544E+02	Resid mbdelay (usec)	-5.46350E-03	+/-	1.3E-05
Sband delay (usec)	7.61608054294E+02	Apriori clock (usec)	8.6938744E+00	Resid sbdelay (usec)	7.33048E-02	+/-	1.1E-04
Phase delay (usec)	7.61534742114E+02	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	-7.42988E-06	+/-	9.1E-08
Delay rate (us/s)	5.43765069077E-02	Apriori rate (us/s)	5.43766784484E-02	Resid rate (us/s)	-1.71541E-07	+/-	8.8E-10
Total phase (deg)	211.4	Apriori accel (us/s/s)	2.16526410195E-05	Resid phase (deg)	177.1	+/-	1.4

ph/seg (deg)	47.0	RMS	3.3	Theor.	3.3	Amplitude	2.205 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	40.4		5.8		5.8	Search (1024X32)	2.180	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	6.7		2.0		2.0	Inc. seg. avg.	3.060	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.4		3.5		3.5	Inc. frq. avg.	2.203	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
h: az 103.5 el 73.6 pa -63.0		c: az 27.3 el 67.5 pa -147.2		u,v (fr/asec)	-184.065 1975.717			Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hc.Q.168.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

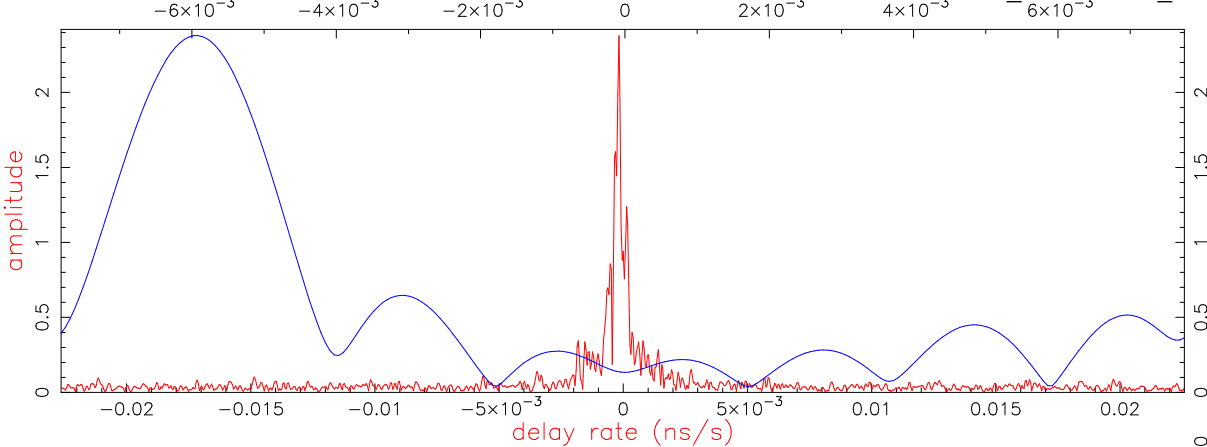
aux01

2013+370.3MP56K, No0500, hc

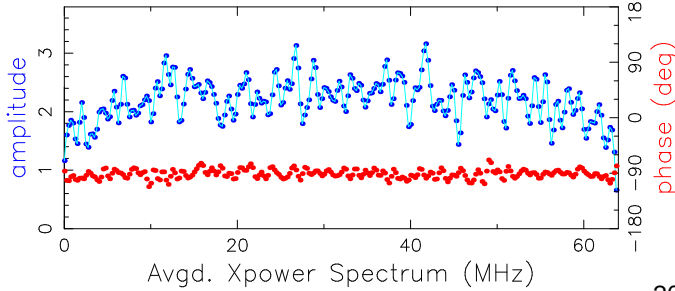
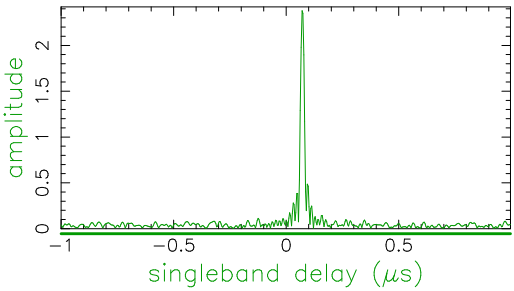
VLBA_HN - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 4

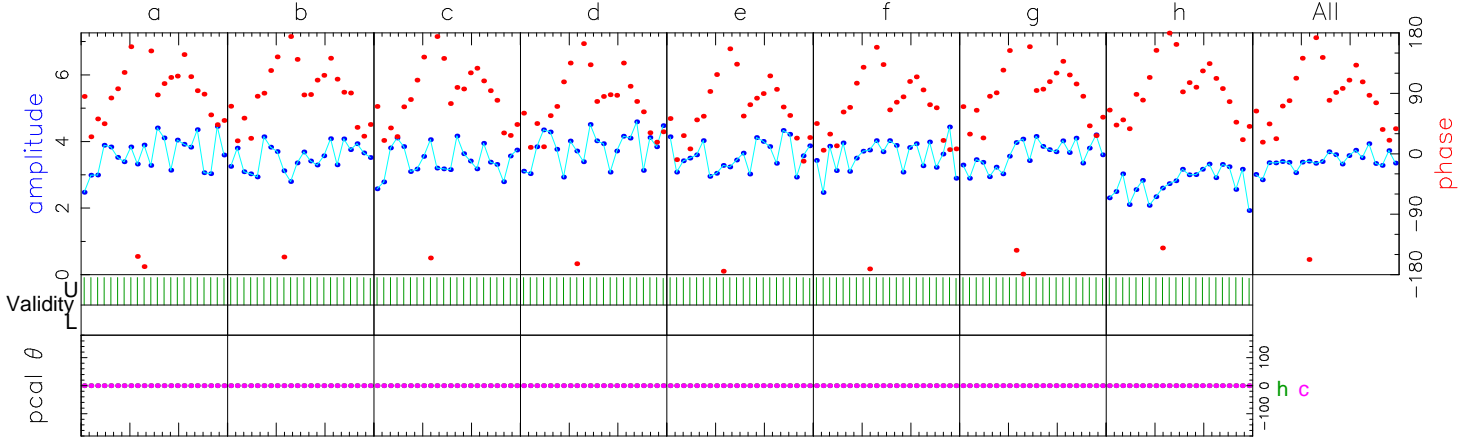


SNR 88.8
 Int time 179.980
 Amp 2.421
 Phase 18.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.072004
 MBD -0.005903
 Fringe rate (Hz) -0.007426
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151813
 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
99.4	99.4	92.1	87.6	77.5	67.0	74.9	97.9	94.8	Phase	86.2
2.6	2.5	2.4	2.7	2.5	2.4	2.5	2.5	1.9	Ampl.	2.4
275.4	275.5	275.3	275.1	275.4	275.7	275.7	275.7	275.7	Sbd box	275.4
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	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 7.61606971392E+02 Apriori delay (usec) 7.61534749544E+02 Resid mbdelay (usec) -5.90315E-03 +/- 1.2E-05
 Sband delay (usec) 7.61606753294E+02 Apriori clock (usec) 8.6938744E+07 Resid sbdelay (usec) 7.20038E-02 +/- 9.7E-05
 Phase delay (usec) 7.61534755093E+02 Apriori clockrate (us/s) 4.7220702E-07 Resid phdelay (usec) 5.54909E-06 +/- 8.3E-08
 Delay rate (us/s) 5.43765063191E-02 Apriori rate (us/s) 5.43766784484E-02 Resid rate (us/s) -1.72129E-07 +/- 8.0E-10
 Total phase (deg) 53.0 Apriori accel (us/s/s) 2.16526410195E-05 Resid phase (deg) 18.7 +/- 1.3

RMS Theor. Amplitude 2.421 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 48.7 3.0 Search (1024X32) 2.365 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 42.1 5.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.9 1.8 Inc. seg. avg. 3.406 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 8.5 3.2 Inc. frq. avg. 2.424 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 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -184.065 1975.717 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hc.Q.203.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

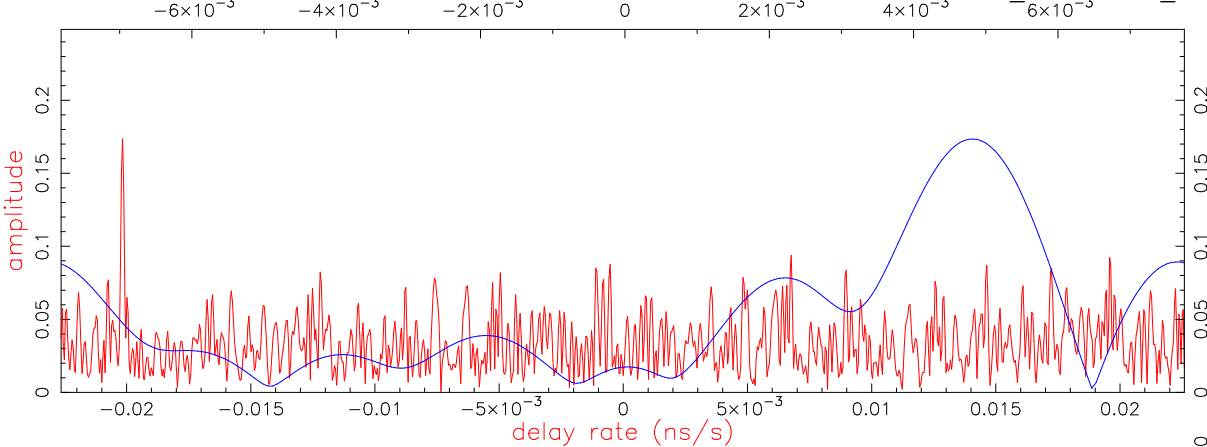
aux01

2013+370.3MP56K, No0500, hc

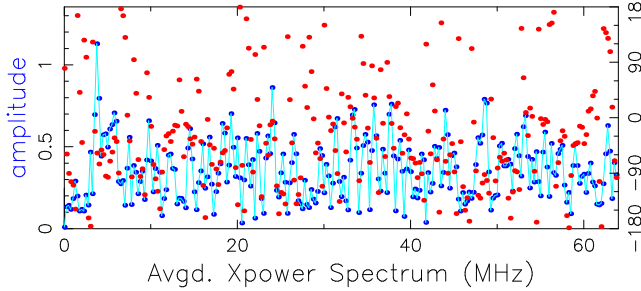
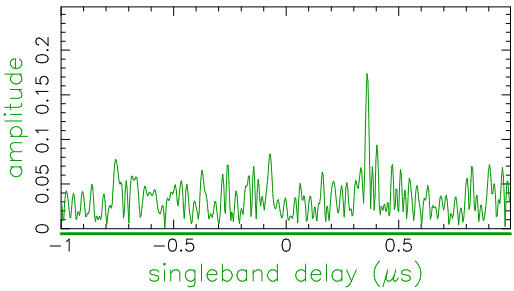
VLBA_HN - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 0

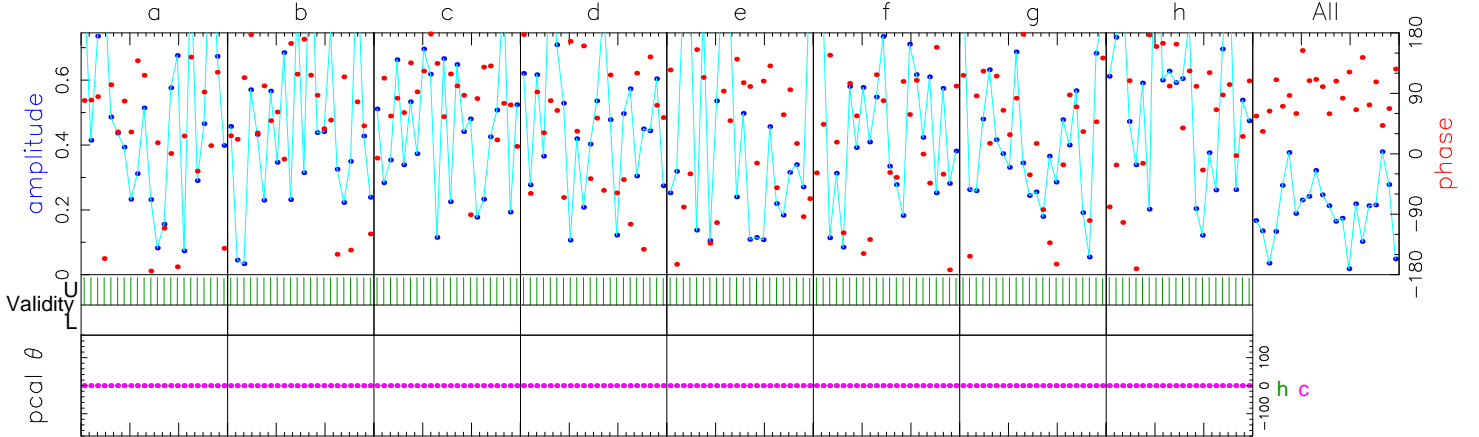


SNR 6.4
 Int time 179.980
 Amp 0.249
 Phase 61.8
 PFD 2.1e-02
 Delays (us)
 SBD 0.360295
 MBD 0.004819
 Fringe rate (Hz)
 -0.874057
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

Group delay (usec) (SBD)	7.61898943487E+02	Apriori delay (usec)	7.61534749544E+02	Resid mbdelay (usec)	4.81894E-03	+/-	1.7E-04
Sband delay (usec)	7.61895044544E+02	Apriori clock (usec)	8.6938744E+00	Resid sbdelay (usec)	3.60295E-01	+/-	1.3E-03
Phase delay (usec)	7.61534754970E+02	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	5.42570E-06	+/-	1.2E-06
Delay rate (us/s)	5.43564175109E-02	Apriori rate (us/s)	5.43766784484E-02	Resid rate (us/s)	-2.02609E-05	+/-	1.1E-08
Total phase (deg)	96.1	Apriori accel (us/s/s)	2.16526410195E-05	Resid phase (deg)	61.8	+/-	17.9

ph/seg (deg)	31.9	Theor.	42.0	Amplitude	0.249 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	56.4	Search (1024X32)	0.165	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	24.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.1	Inc. seg. avg.	0.224	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023 0.023
		Inc. frq. avg.	0.237	Data rate(Mb/s): 2048			ion window (TEC)	0.00 0.00

h: az 103.5 el 73.6 pa -63.0 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -184.065 1975.717 simultaneous interpolator

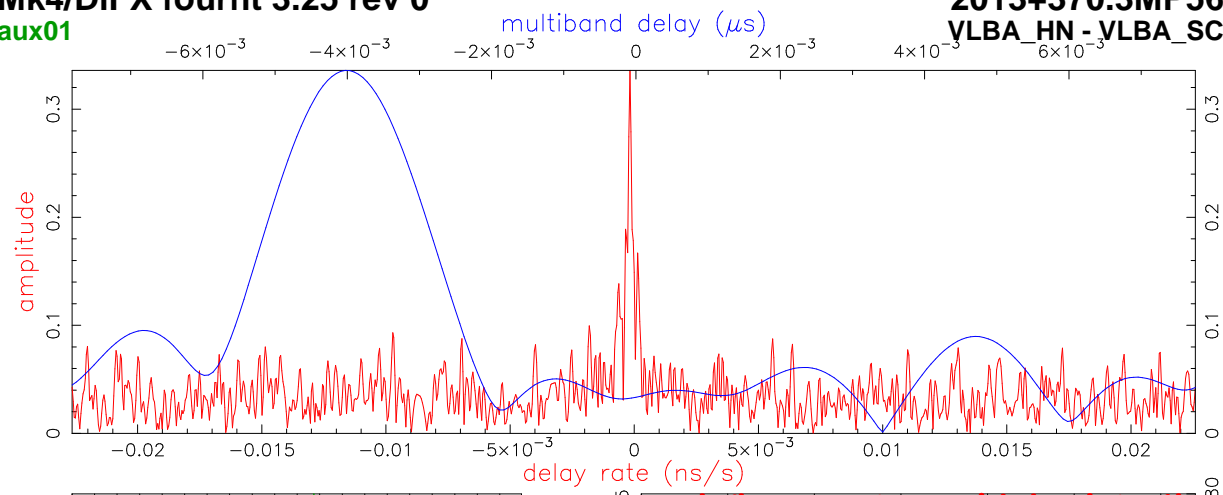
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hc.Q.215.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hc

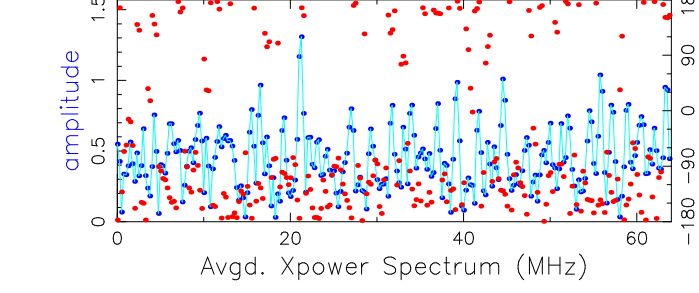
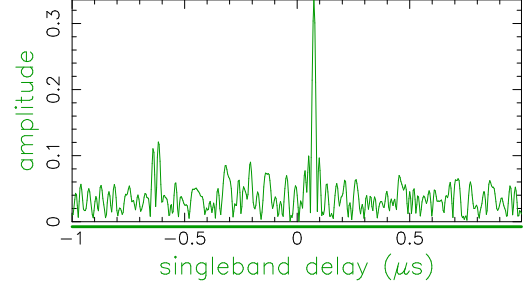
VLBA_HN - VLBA_SC, fgroup Q, pol RL



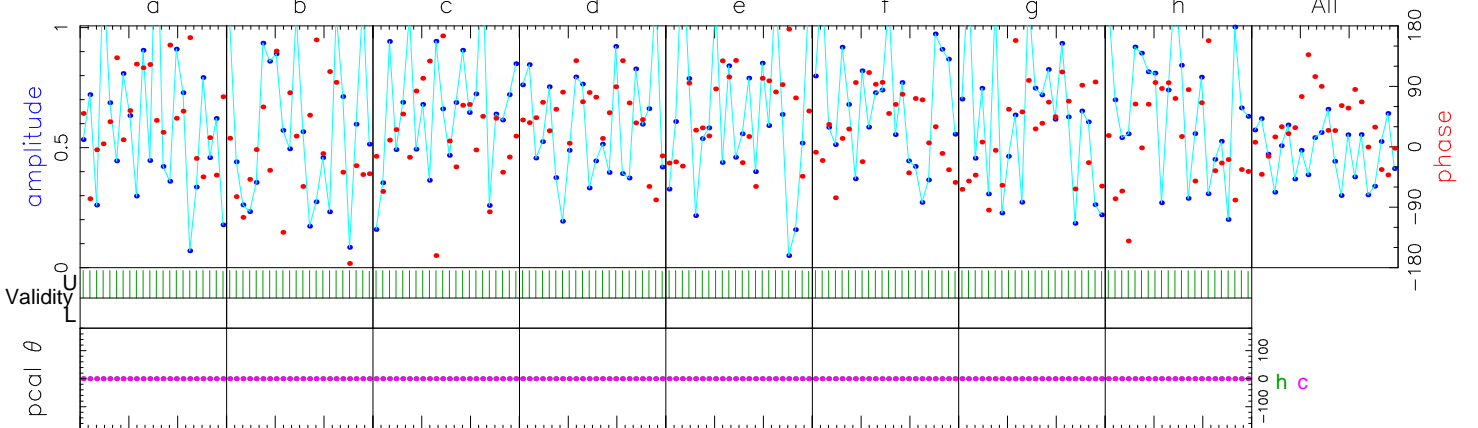
Fringe quality 9

SNR 12.3
 Int time 179.980
 Amp 0.336
 Phase 321.5
 PFD 1.8e-26
 Delays (us)
 SBD 0.074126
 MBD -0.004009
 Fringe rate (Hz)
 -0.007391
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
h:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
c	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Group delay (usec) (SBD)	7.61608865985E+02				7.61534749544E+02					
Sband delay (usec)	7.61608876044E+02				8.6938744E+00					
Phase delay (usec)	7.61534751410E+02				4.7220702E-07					
Delay rate (us/s)	5.43765071142E-02				5.43766784484E-02					
Total phase (deg)			355.8		2.16526410195E-05					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
pcal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
h c										
ph/seg (deg)	46.7	21.8			0.333					
amp/seg (%)	54.2	38.1			0.000					
ph/frq (deg)	18.6	13.2			0.447					
amp/frq (%)	18.0	23.0			0.339					
h: az 103.5 el 73.6 pa -63.0										
c: az 27.3 el 67.5 pa -147.2										
u,v (fr/asec) -184.065 1975.717										
Control file: cf_1234_gmva										
Input file: /Exps/c241d/v1/7mm/1234/No0500/hc..3MP56K										
Output file: /Exps/c241d/v1/7mm/1234/No0500/hc.Q.237.3MP56K										

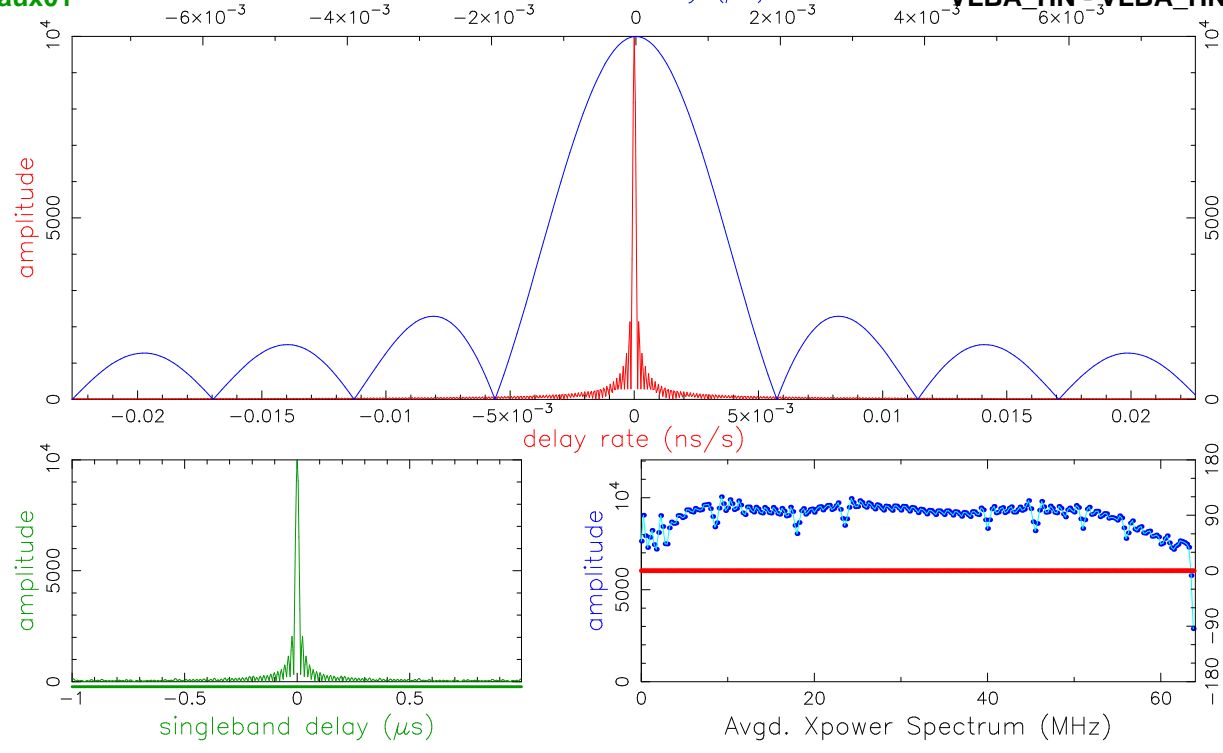
simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

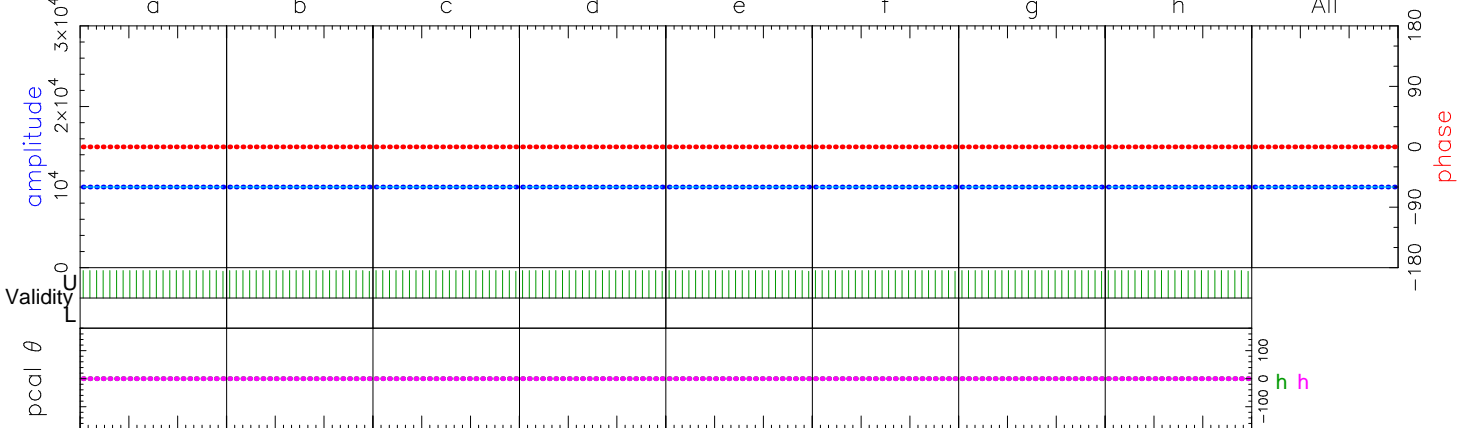
2013+370.3MP56K, No0500, hh

VLBA_HN - VLBA_HN, fgroup Q, pol LL



Fringe quality 9
 SNR 366867.5
 Int time 179.980
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 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	Ampl.	10000.0
h	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
h:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
h:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
h	1000	1000	1000	1000	1000	1000	1000	1000	ManI PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 0.00000000000E+00 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.00000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.00000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 2.0E-11
 Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.9E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 0.0 +/- 0.0

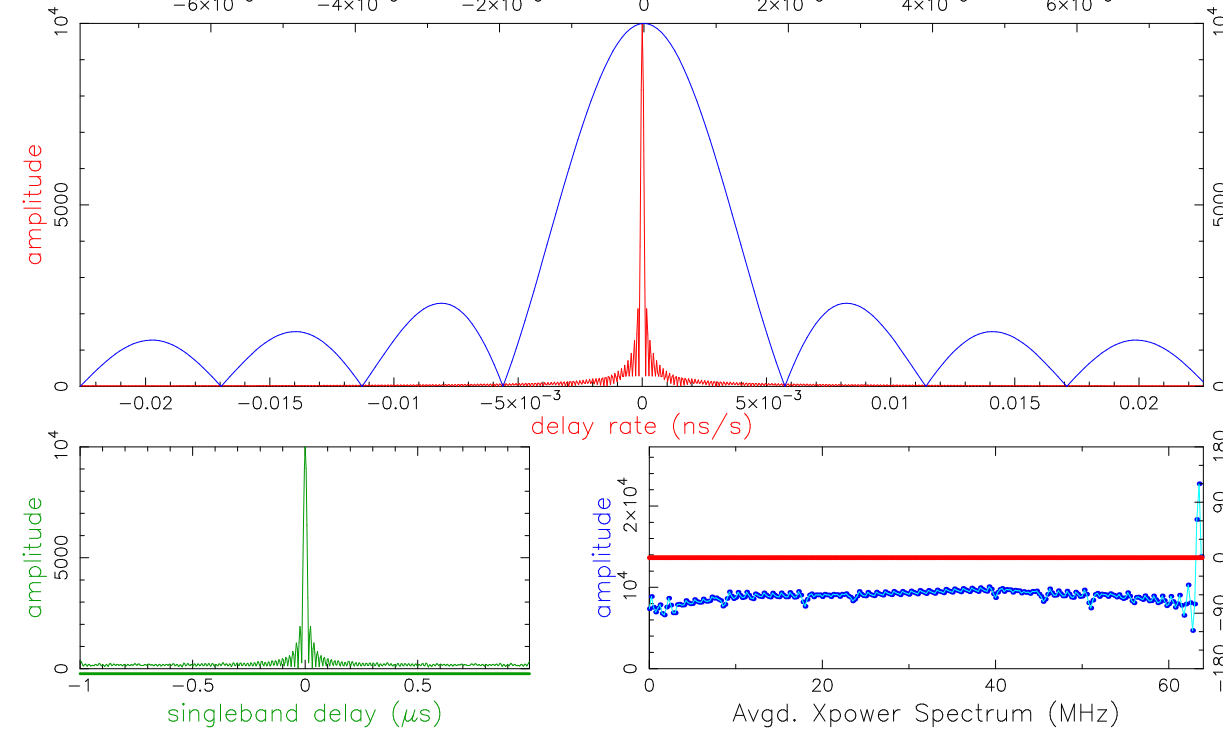
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb 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
 h: az 103.5 el 73.6 pa -63.0 h: az 103.5 el 73.6 pa -63.0 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/hh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hh.Q.169.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

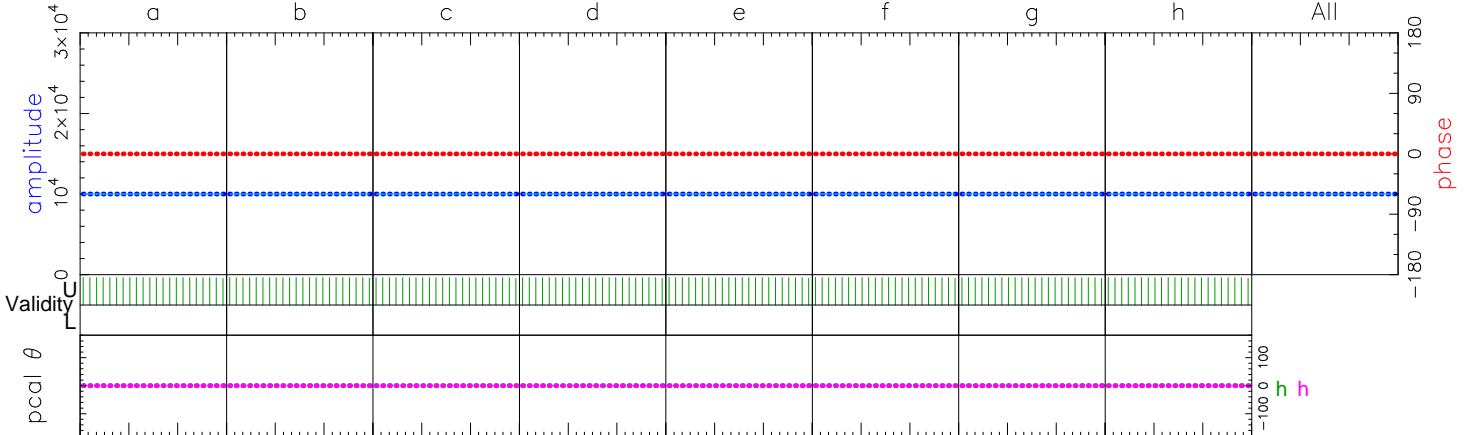
2013+370.3MP56K, No0500, hh

VLBA_HN - VLBA_HN, fgroup Q, pol RR



Fringe quality 9
 SNR 366867.5
 Int time 179.980
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151808
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

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

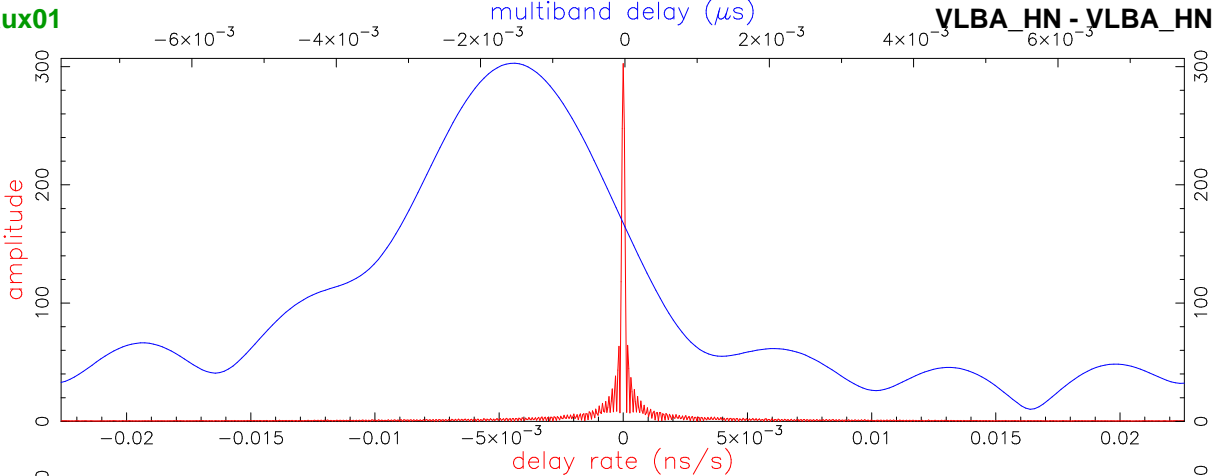
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb 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
 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hh.Q.181.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

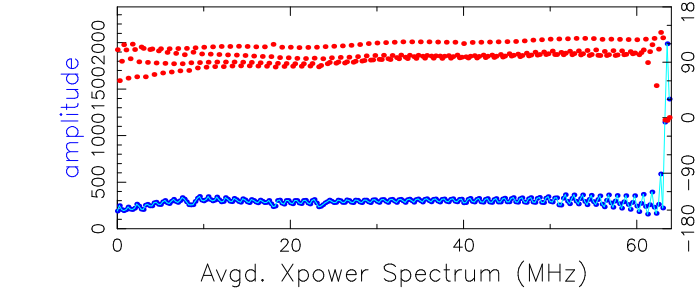
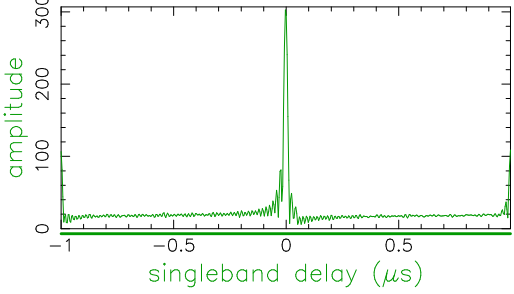
aux01

2013+370.3MP56K, No0500, hh

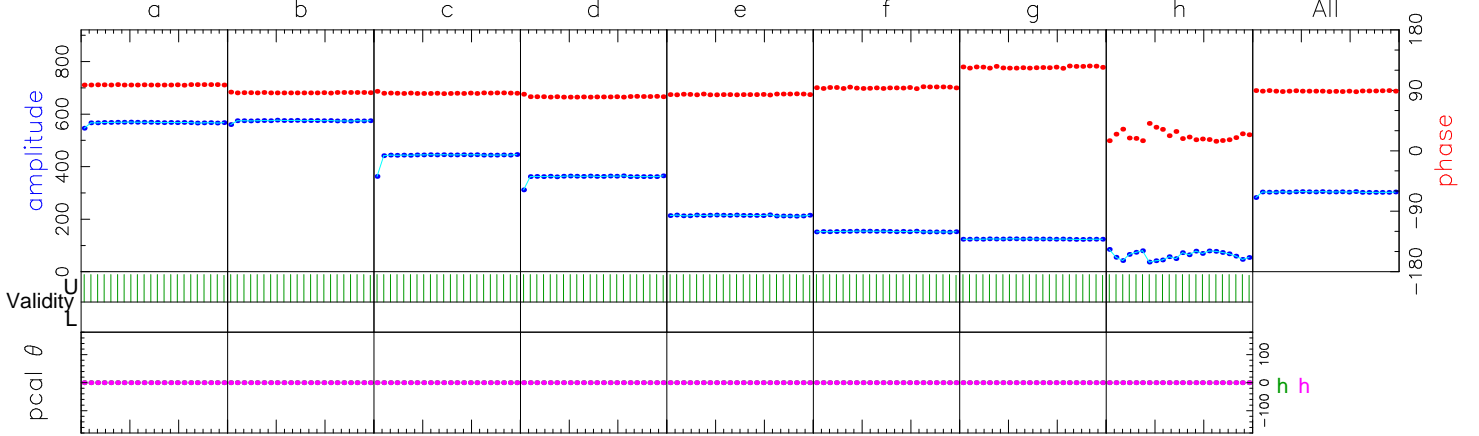
VLBA_HN - VLBA_HN, fgroup Q, pol LR



Fringe quality 5
 Error code G
 SNR 11261.0
 Int time 179.980
 Amp 306.949
 Phase 88.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002378
 MBD -0.001478
 Fringe rate (Hz) 0.000004
 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
 2025:042:151810
 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	
h:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
h:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.47793750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-1.47794E-03	+/-	9.6E-08
Sband delay (usec)	-2.37825000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.37825E-03	+/-	7.6E-07
Phase delay (usec)	5.71708384307E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.71708E-06	+/-	6.6E-10
Delay rate (us/s)	8.77185792249E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	8.77186E-11	+/-	6.3E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	88.8	+/-	0.0

ph/seg (deg)	0.5	0.0	RMS	306.949 +/- 0.027	PCal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.0	0.0	Theor.		PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.9	0.0	Search (1024X32)	302.413	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	61.5	0.0	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
h: az 103.5 el 73.6 pa -63.0	h: az 103.5 el 73.6 pa -63.0	u,v (fr/asec)	0.000 0.000		Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	

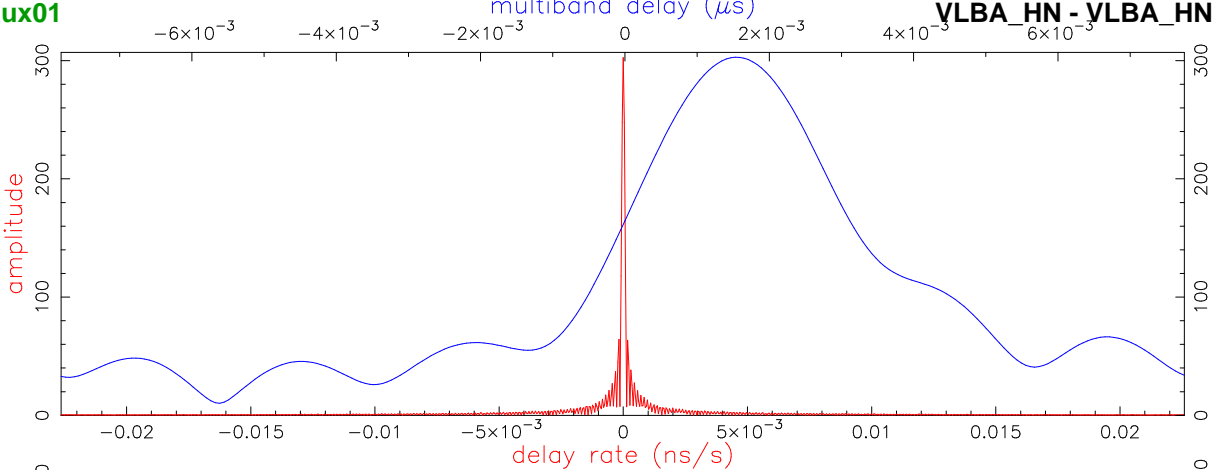
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hh.Q.186.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

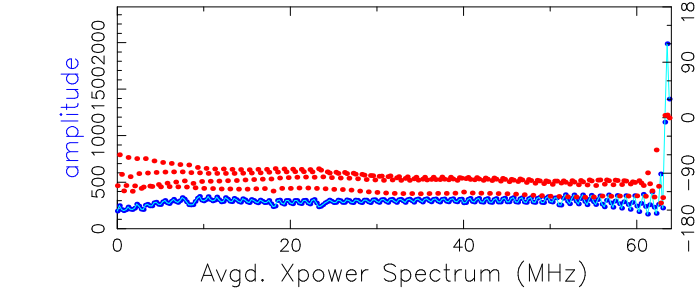
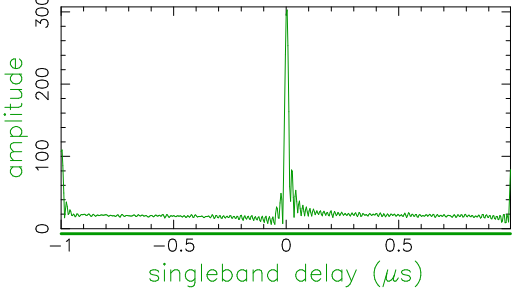
aux01

2013+370.3MP56K, No0500, hh

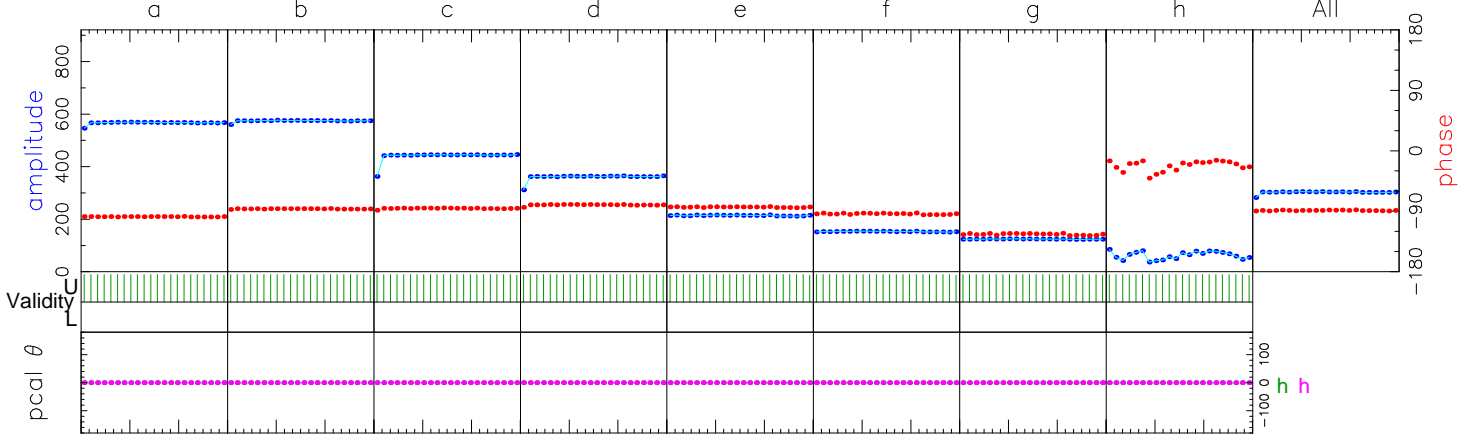
VLBA_HN - VLBA_HN, fgroup Q, pol RL



Fringe quality 5
 Error code G
 SNR 11261.0
 Int time 179.980
 Amp 306.949
 Phase -88.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.002378
 MBD 0.001478
 Fringe rate (Hz)
 -0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151812
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
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	Ampl.	312.1
h:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.6
h:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Mani PC	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD) 1.47793750000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.47794E-03 +/- 9.6E-08
 Sband delay (usec) 2.37825000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 2.37825E-03 +/- 7.6E-07
 Phase delay (usec) -5.71708384307E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -5.71708E-06 +/- 6.6E-10
 Delay rate (us/s) -8.77185792249E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -8.77186E-11 +/- 6.3E-12
 Total phase (deg) -88.8 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -88.8 +/- 0.0

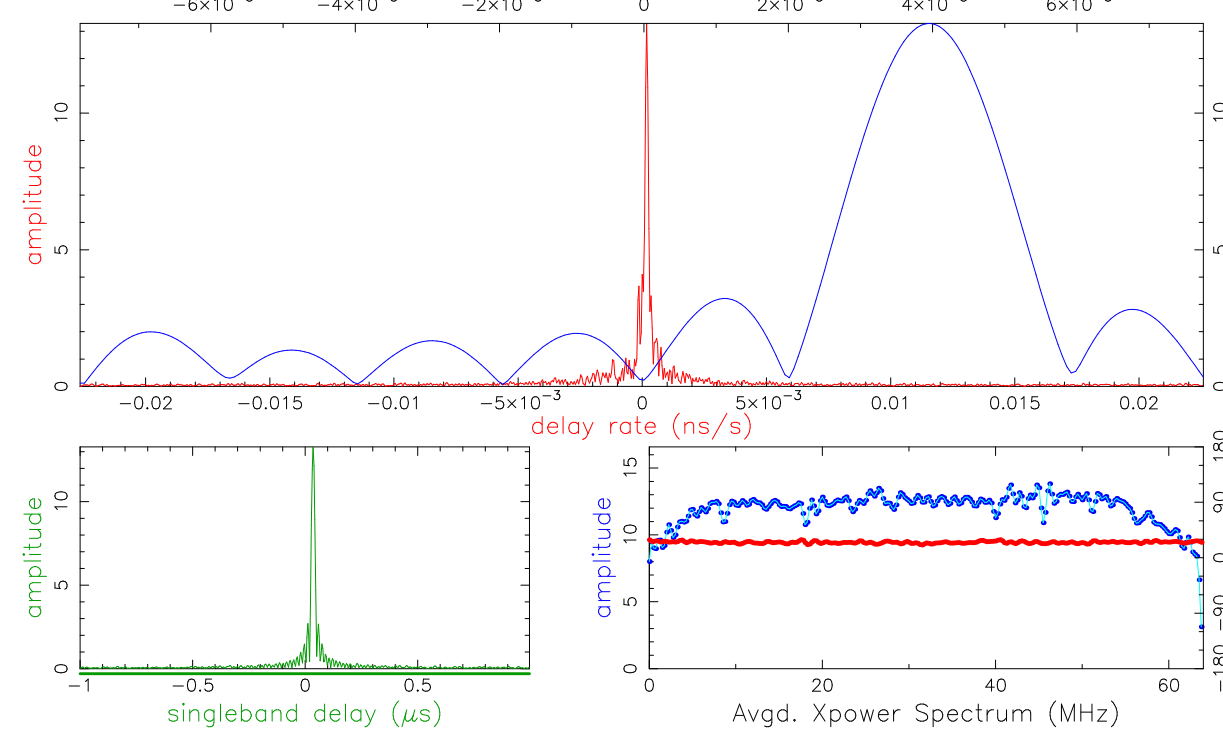
RMS Theor. Amplitude 306.949 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.5 0.0 Search (1024X32) 302.413 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 2.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 31.9 0.0 Inc. seg. avg. 302.574 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 61.5 0.0 Inc. frq. avg. 312.056 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 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hh..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hh.Q.199.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hk

VLBA_HN - VLBA_KP, fgroup Q, pol LL

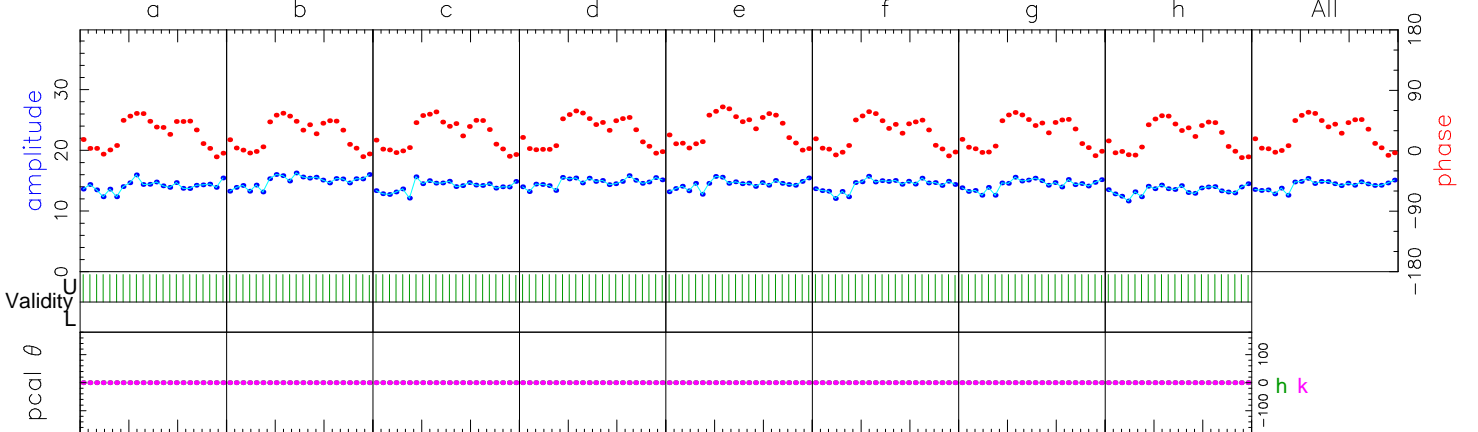


Fringe quality 8

SNR 487.4
 Int time 179.978
 Amp 13.287
 Phase 71.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.035310
 MBD 0.003954
 Fringe rate (Hz) 0.007290
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

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

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



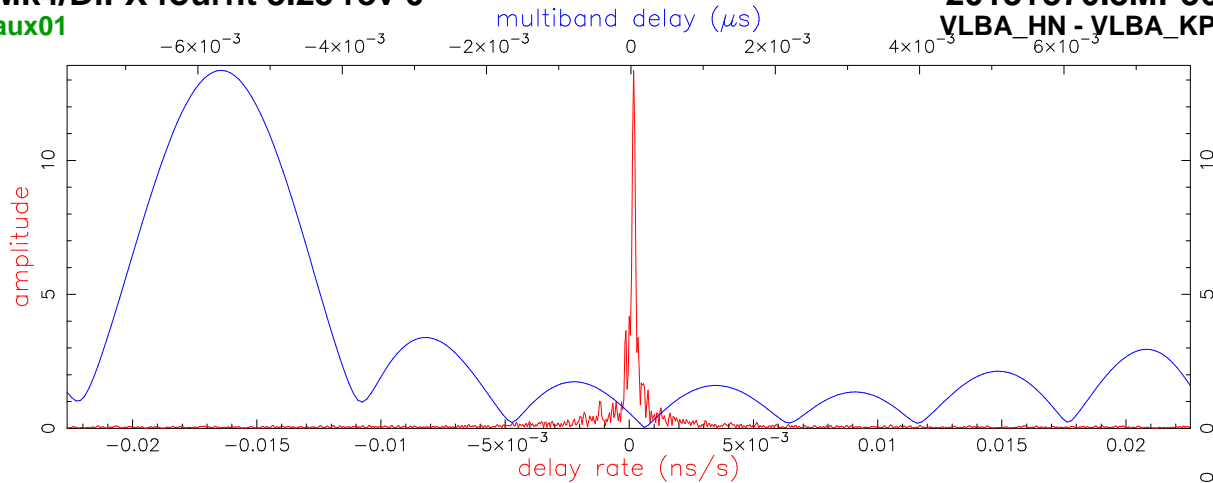
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
h	1000	1000	1000	1000	1000	1000	1000	1000	APs used		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
h:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
h:k	0:0	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		
k	1000	1000	1000	1000	1000	1000	1000	1000			
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.32235504145E+03		Apriori delay (usec)		6.32231983758E+03		Resid mbdelay (usec)		3.95387E-03	+/- 2.2E-06	
Sband delay (usec)	6.32235514783E+03		Apriori clock (usec)		1.2272242E+01		Resid sbdelay (usec)		3.53102E-02	+/- 1.8E-05	
Phase delay (usec)	6.32231983927E+03		Apriori clockrate (us/s)		-7.3269082E-08		Resid phdelay (usec)		1.68527E-06	+/- 1.5E-08	
Delay rate (us/s)	-5.96649805736E-01		Apriori rate (us/s)		-5.96649974713E-01		Resid rate (us/s)		1.68977E-07	+/- 1.5E-10	
Total phase (deg)	356.7		Apriori accel (us/s/s)		-2.31929514462E-05		Resid phase (deg)		71.2	+/- 0.2	
	RMS	Theor.	Amplitude	13.287 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	21.5	0.6	Search (1024X32)	13.174		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	9.1	1.0	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	3.7	0.3	Inc. seg. avg.	14.274		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023	
amp/frq (%)	3.0	0.6	Inc. frq. avg.	13.306		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	k: az 66.3 el 41.3 pa -77.6		u,v (fr/asec) 2141.861 -171.747						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hk..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hk.Q.194.3MP56K								

Mk4/DiFX fourfit 3.25 rev 0

aux01

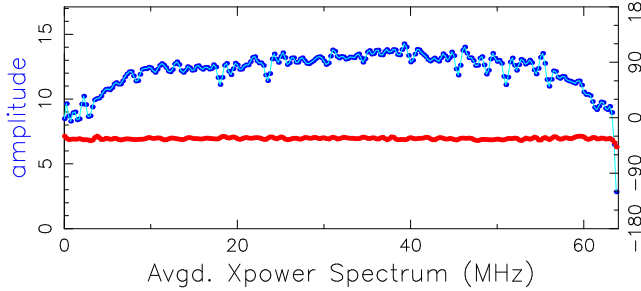
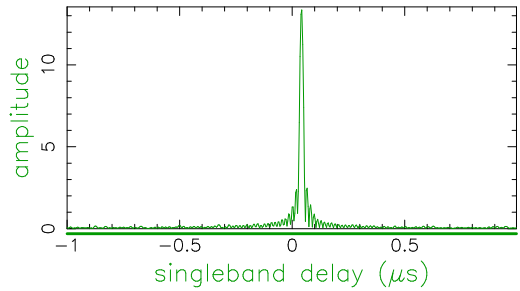
2013+370.3MP56K, No0500, hk

VLBA_HN - VLBA_KP, fgroup Q, pol RR



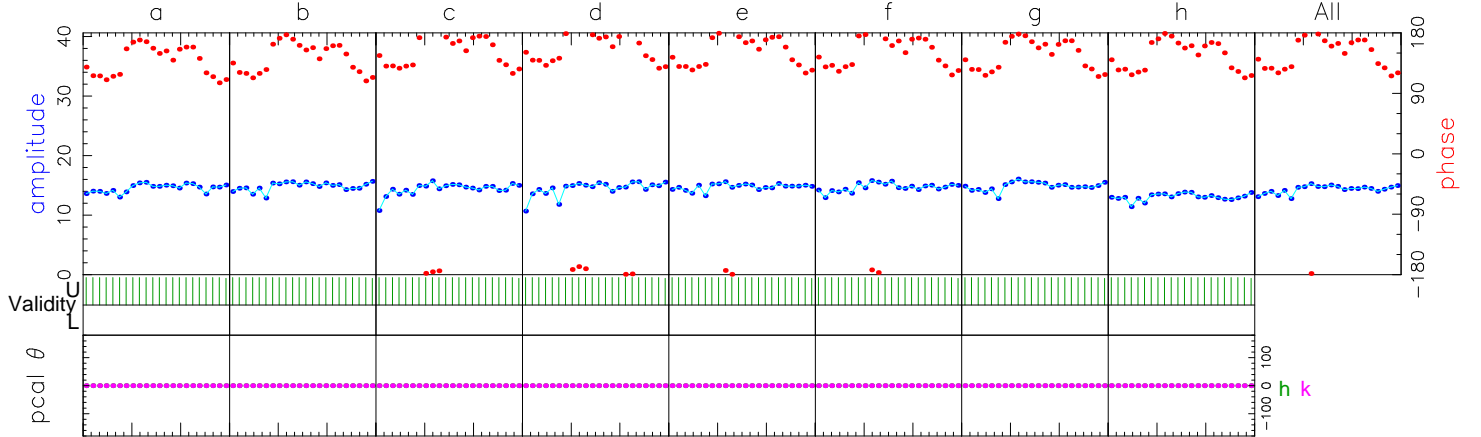
Fringe quality 8

SNR 497.0
 Int time 179.980
 Amp 13.546
 Phase 37.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.041444
 MBD -0.005715
 Fringe rate (Hz) 0.007256
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	6.32236099761E+03	Apriori delay (usec)	6.32231983758E+03	Resid mbdelay (usec)	-5.71497E-03	+/-	2.2E-06
Sband delay (usec)	6.32236128208E+03	Apriori clock (usec)	1.2272242E+01	Resid sbdelay (usec)	4.14445E-02	+/-	1.7E-05
Phase delay (usec)	6.32231984721E+03	Apriori clockrate (us/s)	-7.3269082E-08	Resid phdelay (usec)	9.62600E-06	+/-	1.5E-08
Delay rate (us/s)	-5.96649806514E-01	Apriori rate (us/s)	-5.96649974713E-01	Resid rate (us/s)	1.68199E-07	+/-	1.4E-10
Total phase (deg)	322.5	Apriori accel (us/s/s)	-2.31929514462E-05	Resid phase (deg)	37.0	+/-	0.2

ph/seg (deg)	21.6	RMS	Theor.	Amplitude	13.546 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	7.7	21.6	0.5	Search (1024X32)	13.089	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.7	7.7	0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	3.8	3.8	0.6	Inc. seg. avg.	14.363	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	13.446	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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2141.861 -171.747 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hk.Q.234.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

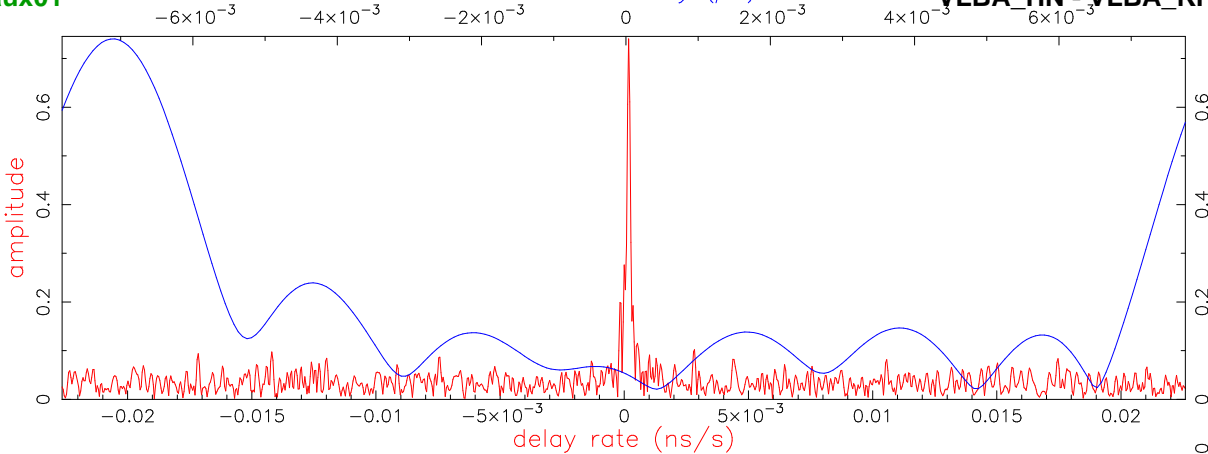
aux01

2013+370.3MP56K, No0500, hk

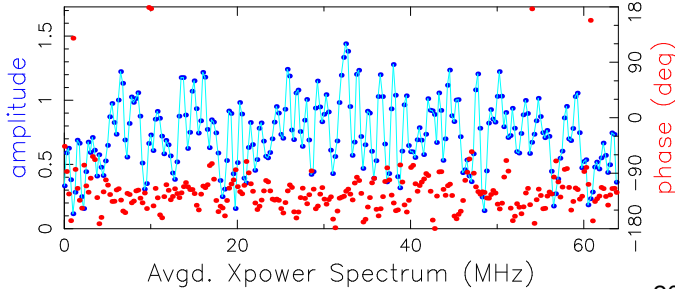
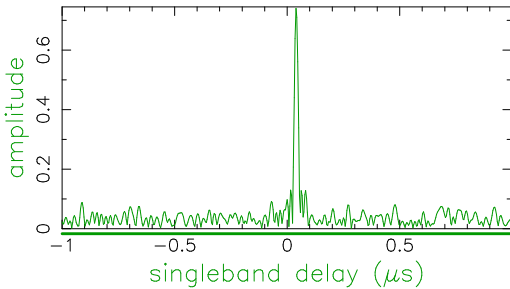
VLBA_HN - VLBA_KP, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 8

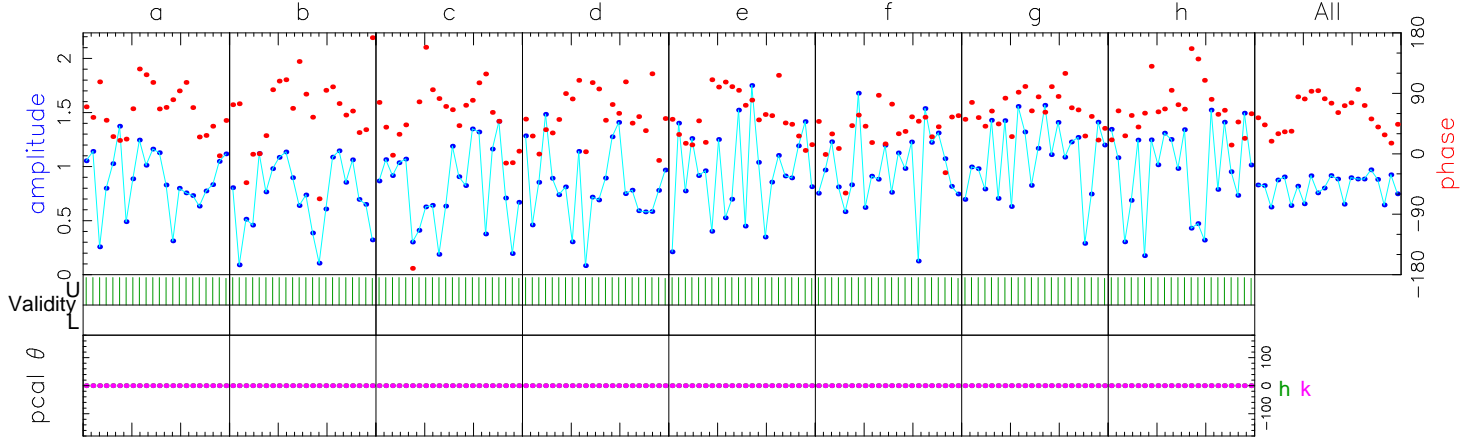


SNR 27.4
 Int time 179.980
 Amp 0.746
 Phase 306.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.040155
 MBD -0.007081
 Fringe rate (Hz) 0.007243
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



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

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



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

Group delay (usec) (SBD)	6.32235963186E+03	Apriori delay (usec)		6.32231983758E+03	Resid mbdelay (usec)		-7.08072E-03	+/-	4.0E-05	
Sband delay (usec)	6.32235999283E+03	Apriori clock (usec)		1.2272242E+01	Resid sbdelay (usec)		4.01553E-02	+/-	3.1E-04	
Phase delay (usec)	6.32231984136E+03	Apriori clockrate (us/s)		-7.3269082E-08	Resid phdelay (usec)		3.77742E-06	+/-	2.7E-07	
Delay rate (us/s)	-5.96649806822E-01	Apriori rate (us/s)		-5.96649974713E-01	Resid rate (us/s)		1.67891E-07	+/-	2.6E-09	
Total phase (deg)		231.7	Apriori accel (us/s/s)		-2.31929514462E-05	Resid phase (deg)		306.2	+/-	4.2

ph/seg (deg)	25.1	9.8	Amplitude		0.746 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	17.1	17.1	Search (1024X32)		0.721	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	11.7	5.9	Inc. seg. avg.		0.804	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.0	10.3	Inc. frq. avg.		0.749	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023	
h: az 103.5 el 73.6 pa -63.0	k: az 66.3 el 41.3 pa -77.6		u,v (fr/asec)		2141.861 -171.747	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

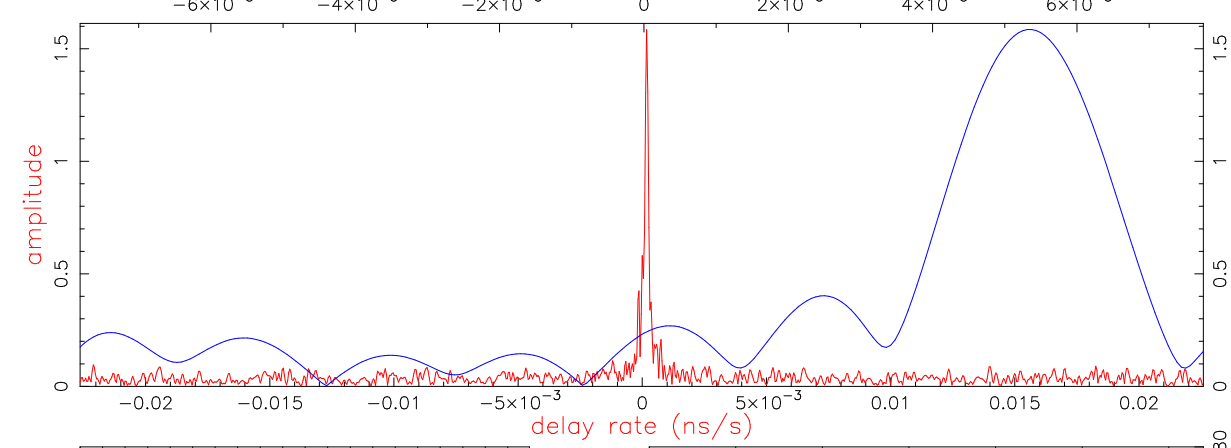
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hk.Q.243.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hk

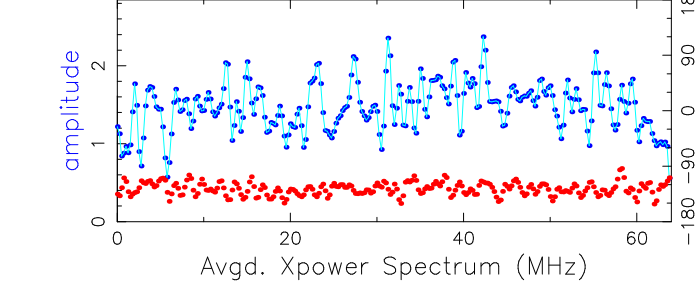
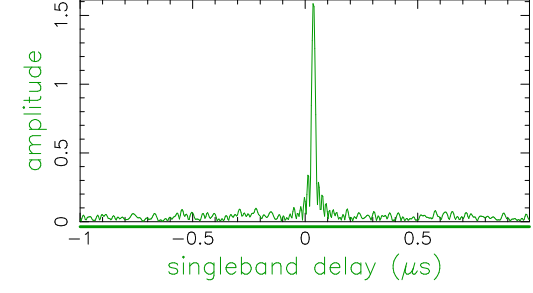
VLBA_HN - VLBA_KP, fgroup Q, pol RL



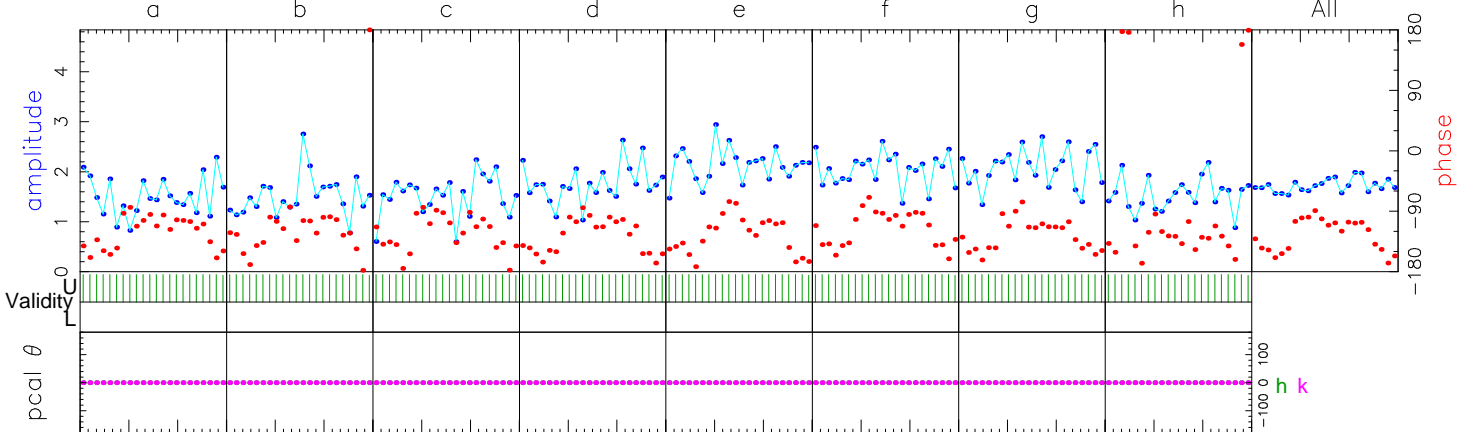
Fringe quality 7

SNR 59.2
 Int time 179.978
 Amp 1.613
 Phase 280.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.036819
 MBD 0.005387
 Fringe rate (Hz) 0.007284
 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



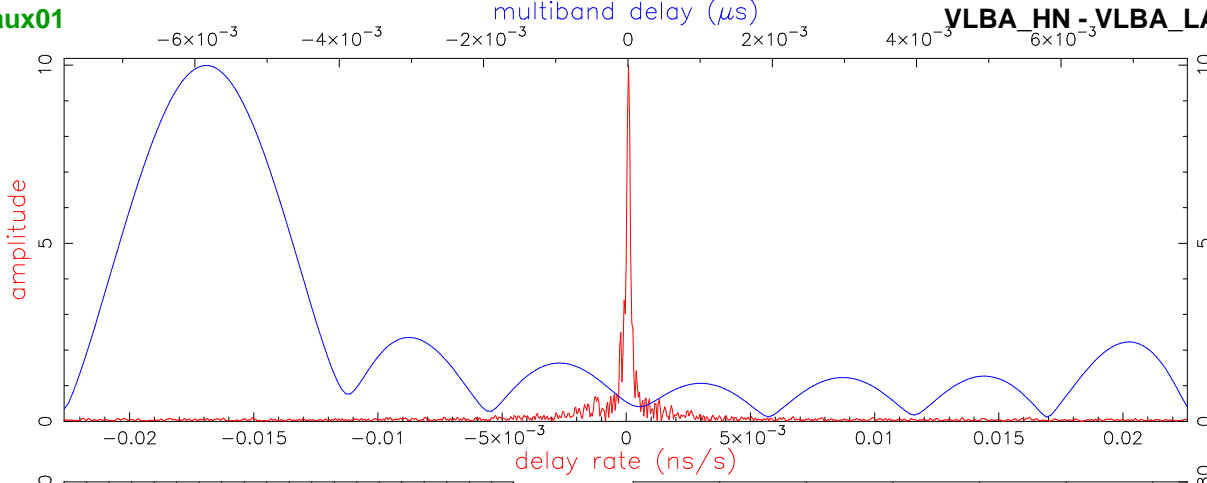
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:k	0:0	0:0	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
Group delay (usec) (SBD)	6.32235647501E+03					6.32231983758E+03			Resid mbdelay (usec)	5.38743E-03 +/- 1.8E-05
Sband delay (usec)	6.32235665633E+03					1.2272242E+01			Resid sbdelay (usec)	3.68188E-02 +/- 1.5E-04
Phase delay (usec)	6.32231982956E+03					-7.3269082E-08			Resid phdelay (usec)	-8.02413E-06 +/- 1.2E-07
Delay rate (us/s)	-5.96649805877E-01					-5.96649974713E-01			Resid rate (us/s)	1.68836E-07 +/- 1.2E-09
Total phase (deg)			205.9			-2.31929514462E-05			Resid phase (deg)	280.4 +/- 1.9
ph/seg (deg)	23.2	4.5							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	10.5	7.9							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	8.4	2.7							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	14.8	4.8							Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
h: az 103.5 el 73.6 pa -63.0									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva									u,v (fr/asec) 2141.861 -171.747	simultaneous interpolator
Input file: /Exps/c241d/v1/7mm/1234/No0500/hk..3MP56K									Output file: /Exps/c241d/v1/7mm/1234/No0500/hk.Q.251.3MP56K	

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hl

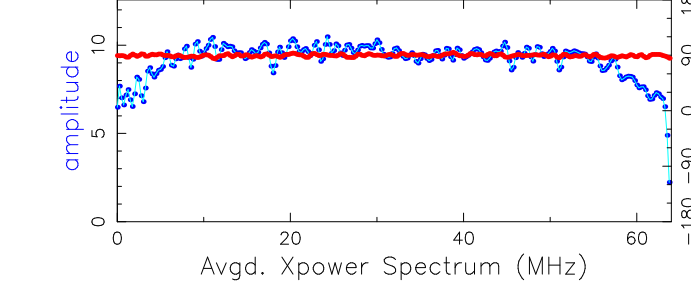
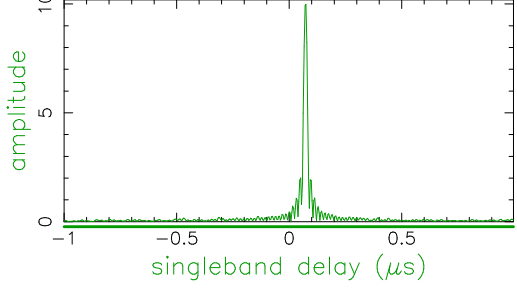
VLBA_HN - VLBA_LA, fgroup Q, pol LL



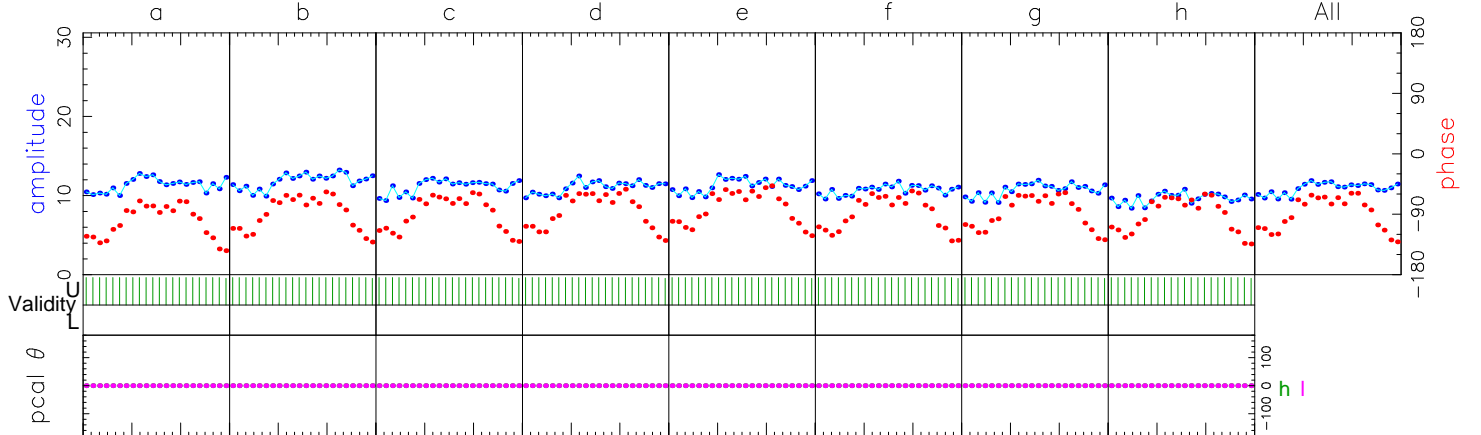
Fringe quality 7

SNR 373.9
 Int time 179.980
 Amp 10.191
 Phase 204.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.072419
 MBD -0.005889
 Fringe rate (Hz) 0.002885
 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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
h:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Group delay (usec) (SBD)	4.86272784473E+03	4.86272802680E+03	4.86265560264E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03		
Sband delay (usec)	4.86272802680E+03	4.86272802680E+03	4.86265560264E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03	4.86265560830E+03		
Phase delay (usec)	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03	4.86265560264E+03		
Delay rate (us/s)	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01	-5.05749135830E-01		
Total phase (deg)			183.7							
ph/seg (deg)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0		
amp/seg (%)	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9		
ph/frq (deg)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5		
amp/frq (%)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		
h: az 103.5 el 73.6 pa -63.0	l: az 71.2 el 46.9 pa -74.8		u,v (fr/asec) 1815.460 -244.450		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hl..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hl.Q.167.3MP56K		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000		ion window (TEC) 0.00 0.00	

Mk4/DiFX fourfit 3.25 rev 0

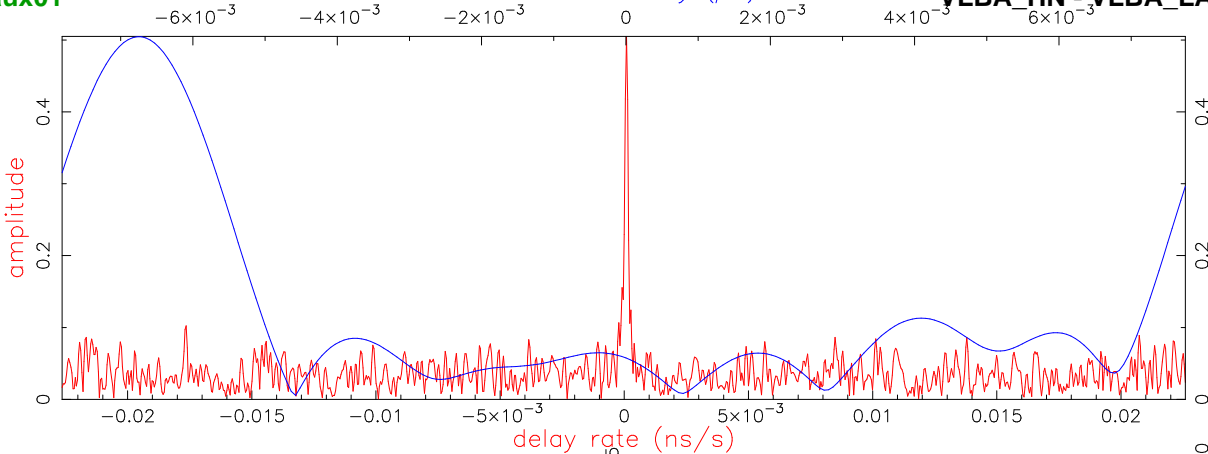
aux01

2013+370.3MP56K, No0500, hl

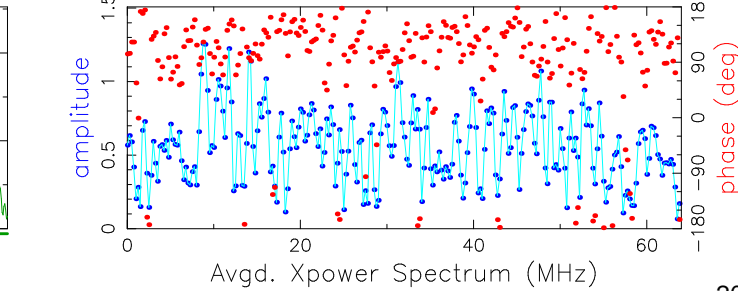
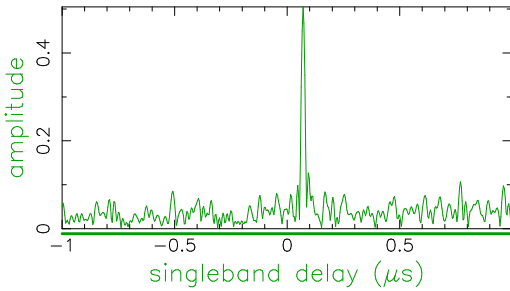
VLBA_HN - VLBA_LA, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

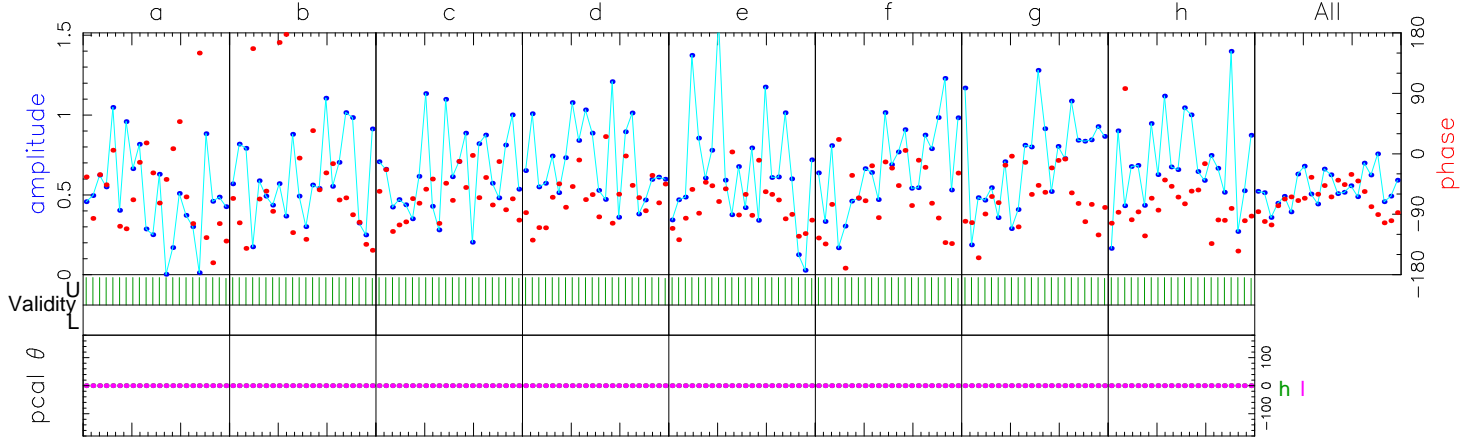


SNR 18.5
 Int time 179.980
 Amp 0.505
 Phase 224.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.070681
 MBD -0.006736
 Fringe rate (Hz) 0.002950
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
h:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
l	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) 4.86272699761E+03 Apriori delay (usec) 4.86265560830E+03 Resid mbdelay (usec) -6.73569E-03 +/- 5.9E-05
 Sband delay (usec) 4.86272628980E+03 Apriori clock (usec) 2.0721792E+01 Resid sbdelay (usec) 7.06815E-02 +/- 4.6E-04
 Phase delay (usec) 4.86265560390E+03 Apriori clockrate (us/s) 3.1293804E-07 Resid phdelay (usec) -4.39656E-06 +/- 4.0E-07
 Delay rate (us/s) -5.05749134339E-01 Apriori rate (us/s) -5.05749202717E-01 Resid rate (us/s) 6.83780E-08 +/- 3.8E-09
 Total phase (deg) 203.3 Apriori accel (us/s/s) -1.91634127262E-05 Resid phase (deg) 224.2 +/- 6.2

ph/seg (deg) 22.7 14.5 Search (1024X32) 0.485 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 21.3 25.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.8 8.7 Inc. seg. avg. 0.527 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.1 15.3 Inc. frq. avg. 0.504 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

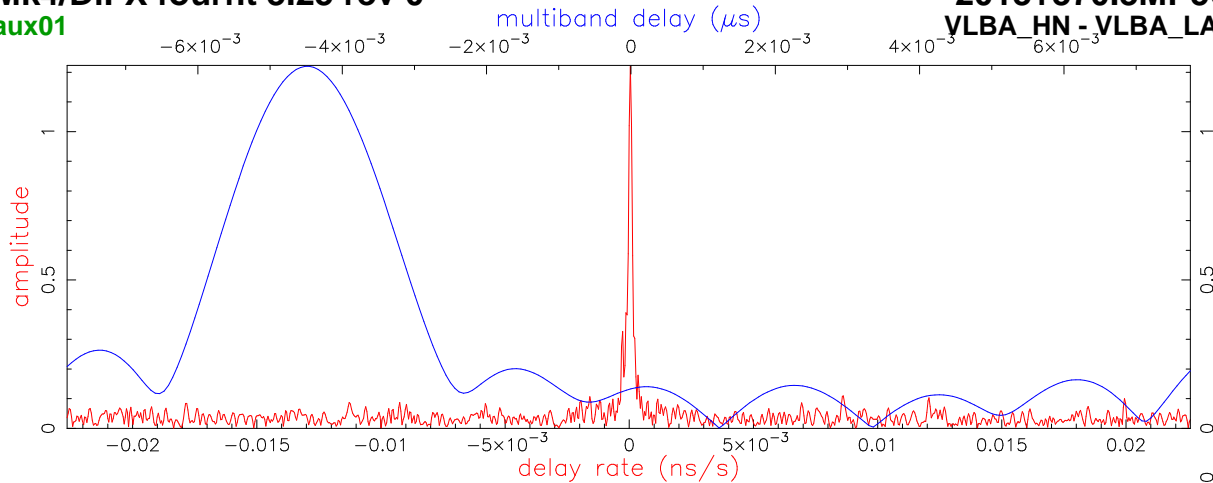
h: az 103.5 el 73.6 pa -63.0 l: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) 1815.460 -244.450 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hl..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hl.Q.216.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

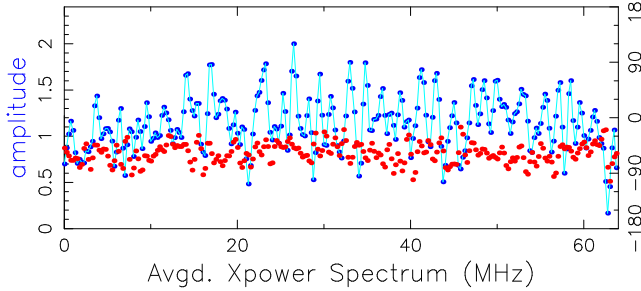
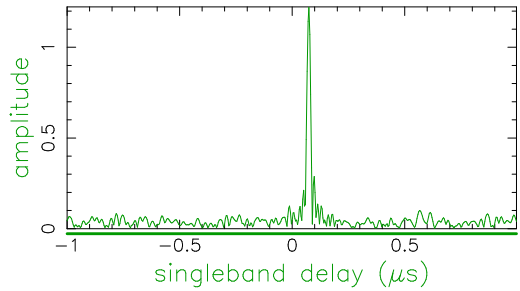
2013+370.3MP56K, No0500, hl

VLBA_HN - VLBA_LA, fgroup Q, pol RL



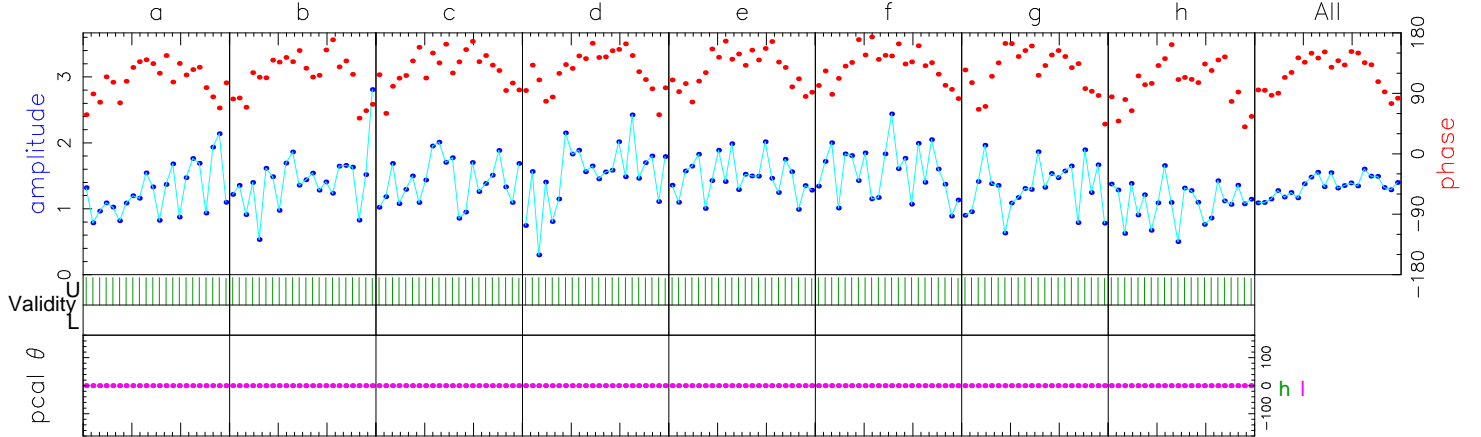
Fringe quality 8

SNR 44.9
 Int time 179.980
 Amp 1.223
 Phase 54.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.073593
 MBD -0.004501
 Fringe rate (Hz) 0.002844
 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
 2025:042:151817
 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



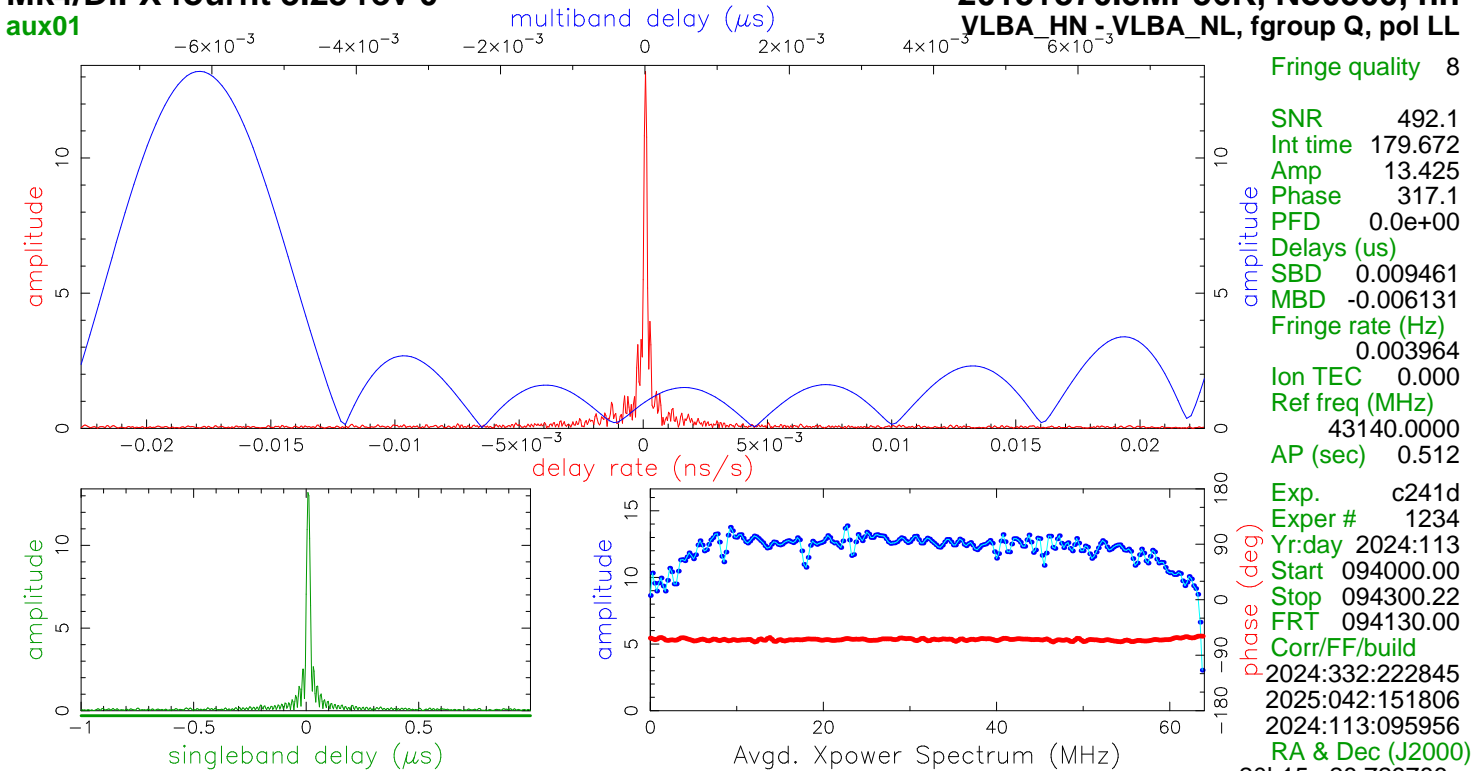
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
Group delay (usec) (SBD)	4.86272923220E+03		Apriori delay (usec)		4.86265560830E+03		Resid mbdelay (usec)		-4.50109E-03	+/- 2.4E-05
Sband delay (usec)	4.86272920180E+03		Apriori clock (usec)		2.0721792E+01		Resid sbdelay (usec)		7.35935E-02	+/- 1.9E-04
Phase delay (usec)	4.86265561616E+03		Apriori clockrate (us/s)		3.1293804E-07		Resid phdelay (usec)		7.86190E-06	+/- 1.6E-07
Delay rate (us/s)	-5.05749136804E-01		Apriori rate (us/s)		-5.05749202717E-01		Resid rate (us/s)		6.59134E-08	+/- 1.6E-09
Total phase (deg)			33.7		Apriori accel (us/s/s)		-1.91634127262E-05		54.6	+/- 2.6
ph/seg (deg)	RMS 25.0	Theor. 6.0	Amplitude 1.223 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000
amp/seg (%)	15.3	10.5	Search (1024X32) 1.163	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008		
ph/frq (deg)	10.9	3.6	Inc. seg. avg. 1.334	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.023 0.023		ion window (TEC) 0.00 0.00		
amp/frq (%)	12.2	6.3	Inc. frq. avg. 1.233	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		simultaneous interpolator		
h: az 103.5 el 73.6 pa -63.0	l: az 71.2 el 46.9 pa -74.8		u,v (fr/asec) 1815.460 -244.450							
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hl..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hl.Q.226.3MP56K							

Mk4/DiFX fourfit 3.25 rev 0

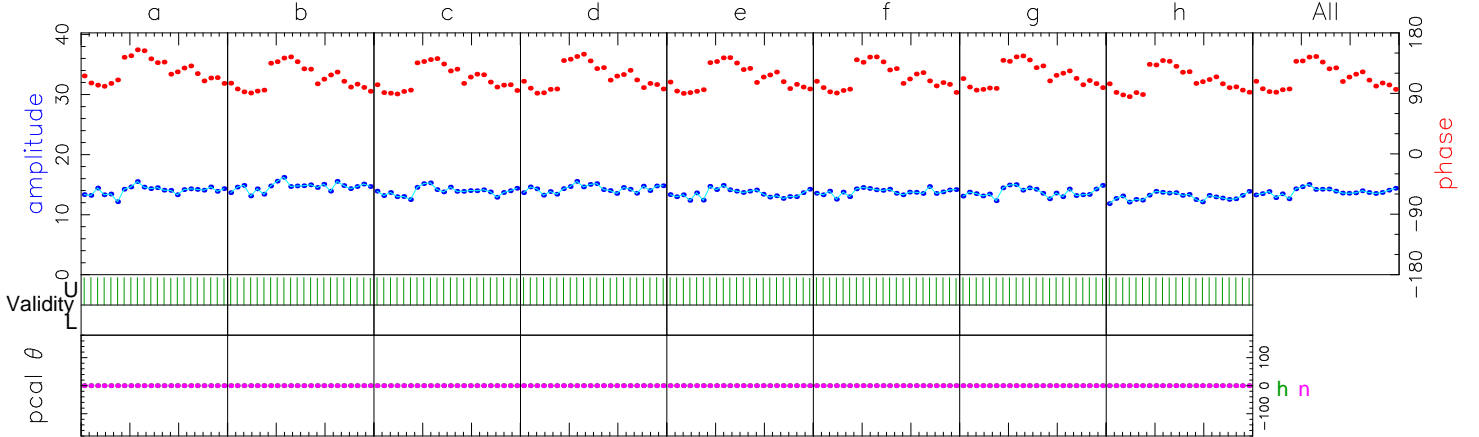
aux01

2013+370.3MP56K, No0500, hn

VLBA_HN - VLBA_NL, fgroup Q, pol LL



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
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	Manl 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	

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

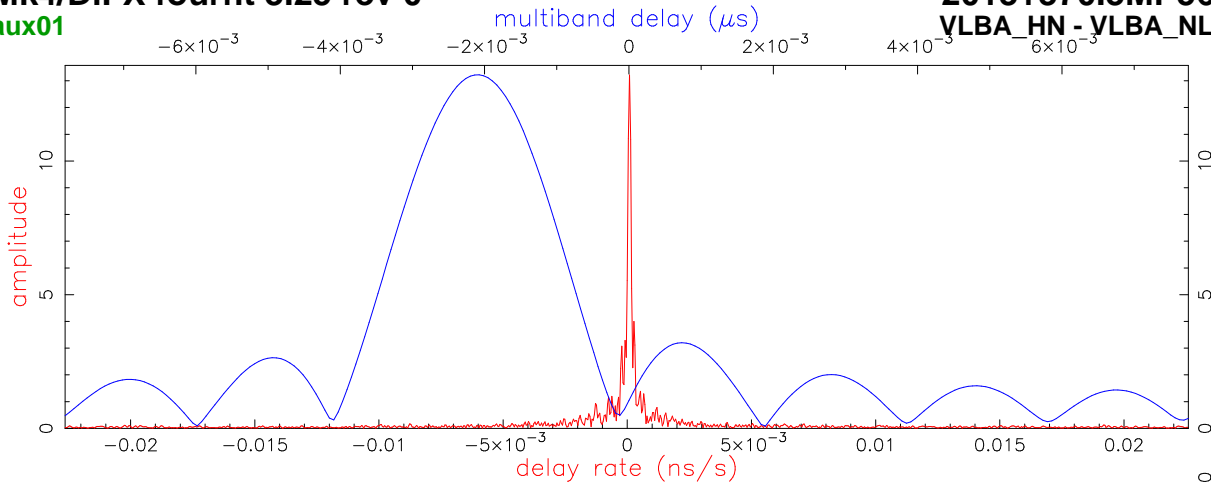
ph/seg (deg) 17.4 0.5 Search (1024X32) 13.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.1 1.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.6 0.3 Inc. seg. avg. 13.834 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 3.6 0.6 Inc. frq. avg. 13.228 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 h: az 103.5 el 73.6 pa -63.0 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 1000.114 -256.557 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/hn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.166.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

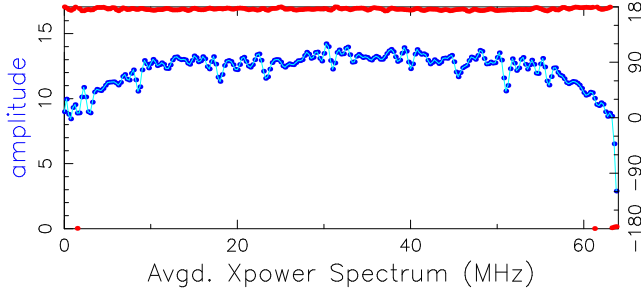
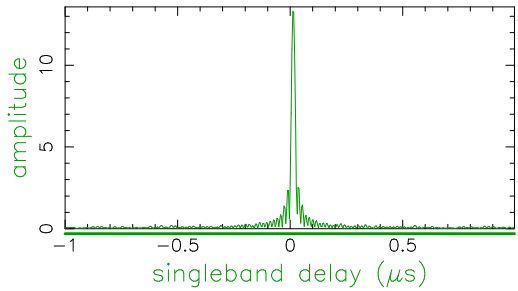
2013+370.3MP56K, No0500, hn

VLBA_HN - VLBA_NL, fgroup Q, pol RR



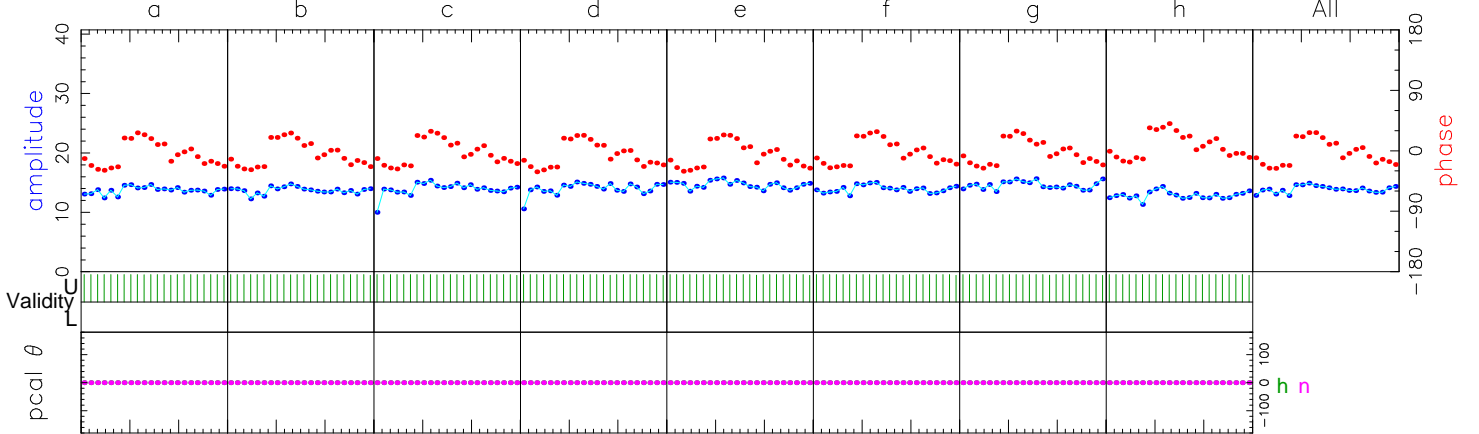
Fringe quality 8

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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
h:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

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

RMS Theor. Amplitude 13.577 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 17.8 0.5 Search (1024X32) 13.077 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.7 0.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 5.0 0.3 Inc. seg. avg. 13.886 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 4.4 0.6 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

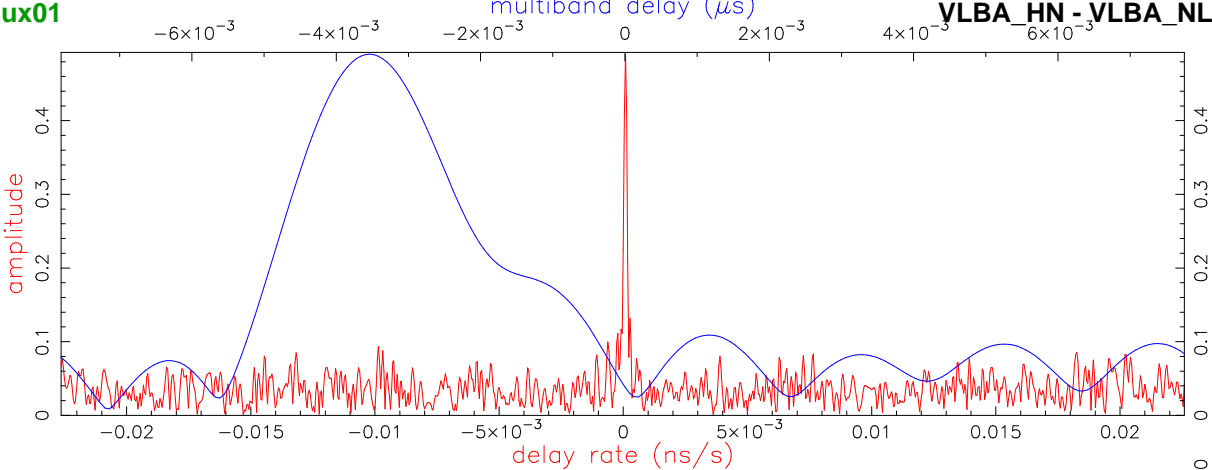
Mk4/DiFX fourfit 3.25 rev 0

aux01

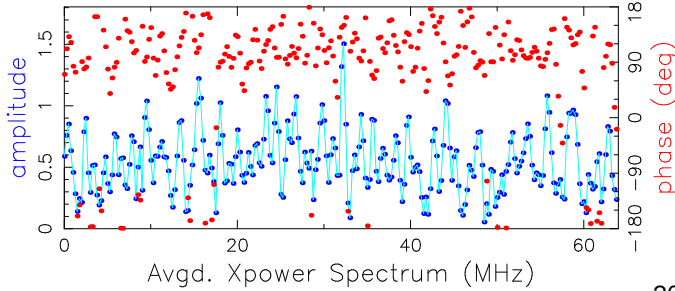
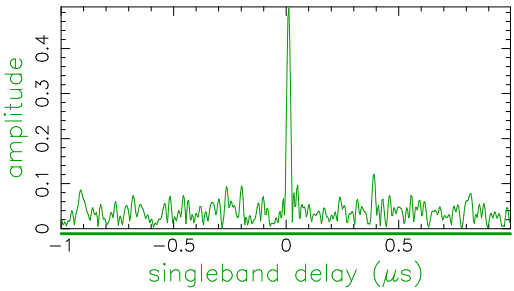
2013+370.3MP56K, No0500, hn

VLBA_HN - VLBA_NL, fgroup Q, pol LR

Fringe quality 9

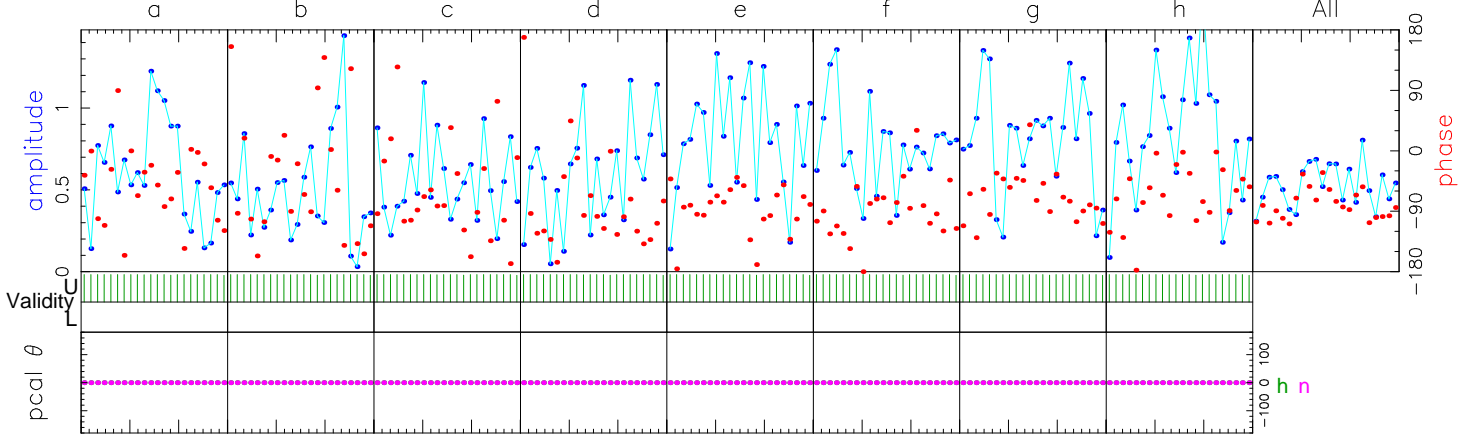


SNR 18.1
Int time 179.672
Amp 0.493
Phase 124.4
PFD 0.0e+00
Delays (us)
SBD 0.010783
MBD -0.003568
Fringe rate (Hz) 0.003796
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



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	Manl 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	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	36.2	Inc. frq. avg.	0.500			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.245.3MP56K

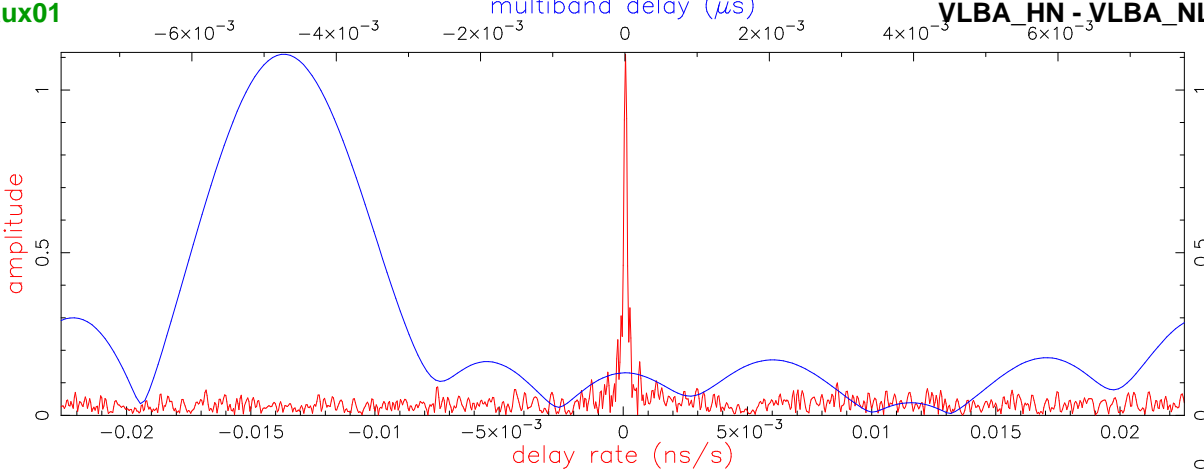
Mk4/DiFX fourfit 3.25 rev 0

aux01

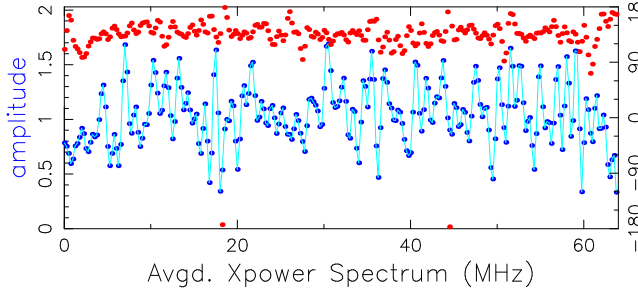
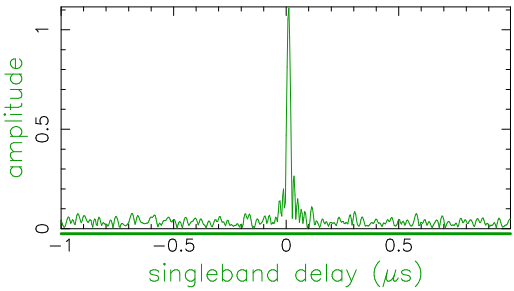
2013+370.3MP56K, No0500, hn

VLBA_HN - VLBA_NL, fgroup Q, pol RL

Fringe quality 8

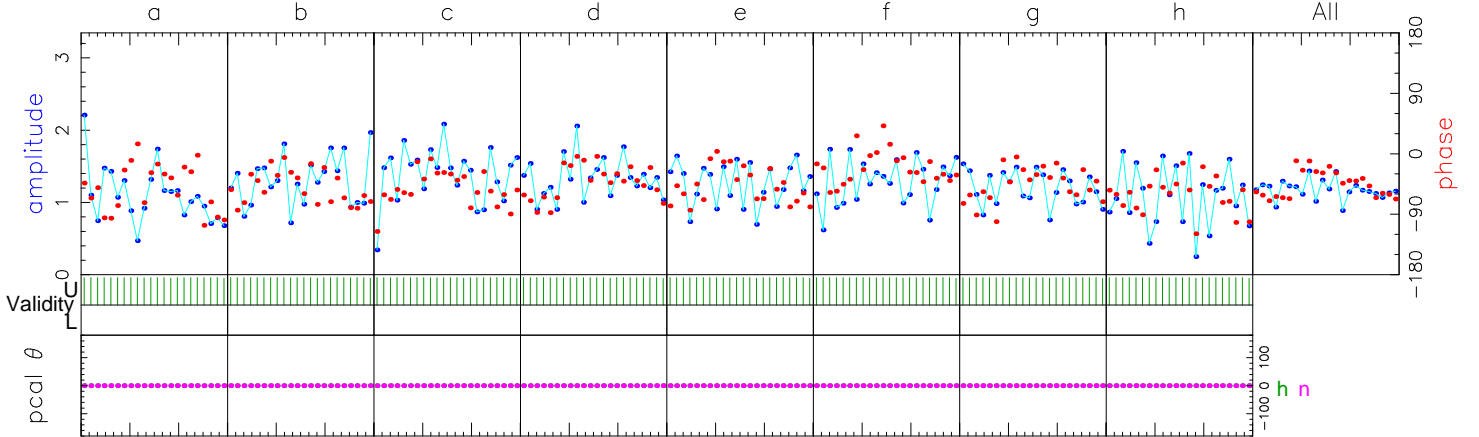


SNR 40.9
Int time 179.672
Amp 1.116
Phase 157.9
PFD 0.0e+00
Delays (us)
SBD 0.010819
MBD -0.004748
Fringe rate (Hz)
0.003936
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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	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	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)	80.9	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	sb window (us)	-1.000	1.000
amp/seg (%)	12.8		11.5	Search (1024X32)	1.098	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	12.0		4.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	9.7		6.9	Inc. seg. avg.	1.169	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	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		Inc. frq. avg.	1.125	Data rate(Mb/s): 2048				
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/hn..3MP56K		u,v (fr/asec)	1000.114 -256.557					

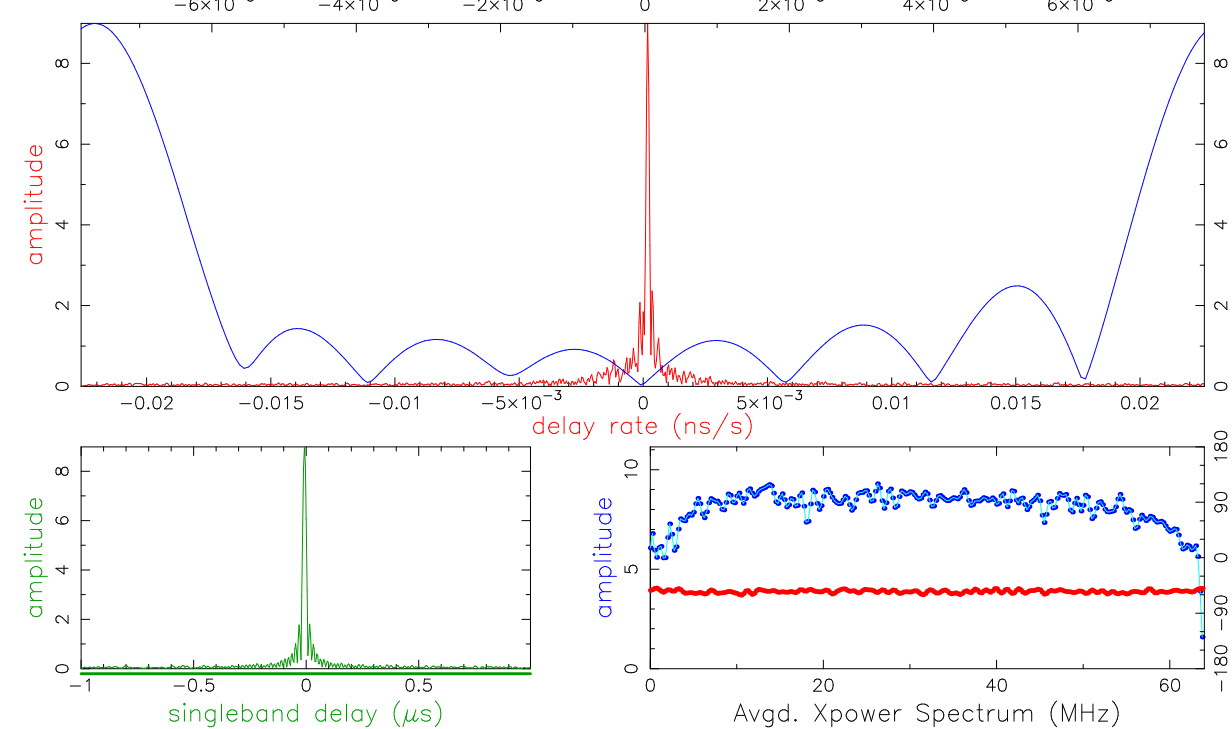
simultaneous interpolator
Output file: /Exps/c241d/v1/7mm/1234/No0500/hn.Q.259.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

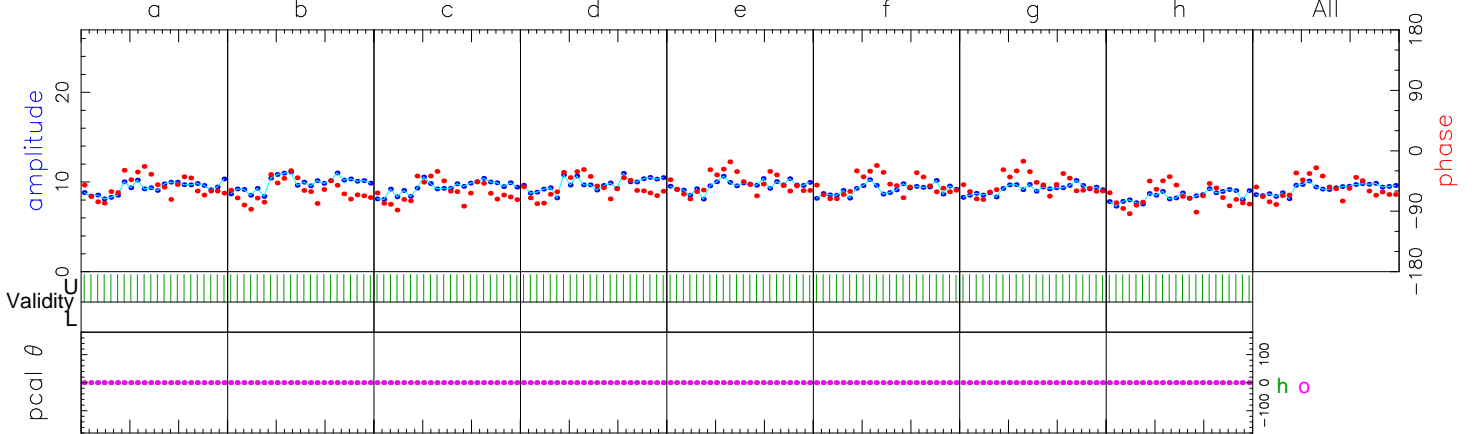
2013+370.3MP56K, No0500, ho

VLBA_HN - VLBA_OV, fgroup Q, pol LL



Fringe quality 8
 SNR 329.8
 Int time 179.980
 Amp 8.991
 Phase -55.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.007661
 MBD -0.007622
 Fringe rate (Hz) 0.007770
 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
 2025:042:151807
 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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:0	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
Group delay (usec) (SBD)	7.17073130056E+03		Apriori delay (usec)		7.17073892247E+03		Resid mbdelay (usec)		-7.62191E-03	+/- 3.3E-06
Sband delay (usec)	7.17073126172E+03		Apriori clock (usec)		-1.2630741E+01		Resid sbdelay (usec)		-7.66075E-03	+/- 2.6E-05
Phase delay (usec)	7.17073891891E+03		Apriori clockrate (us/s)		-4.0233507E-07		Resid phdelay (usec)		-3.56382E-06	+/- 2.2E-08
Delay rate (us/s)	-5.93653936436E-01		Apriori rate (us/s)		-5.93654116551E-01		Resid rate (us/s)		1.80115E-07	+/- 2.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.30041969853E-05		Resid phase (deg)		-55.3	+/- 0.3

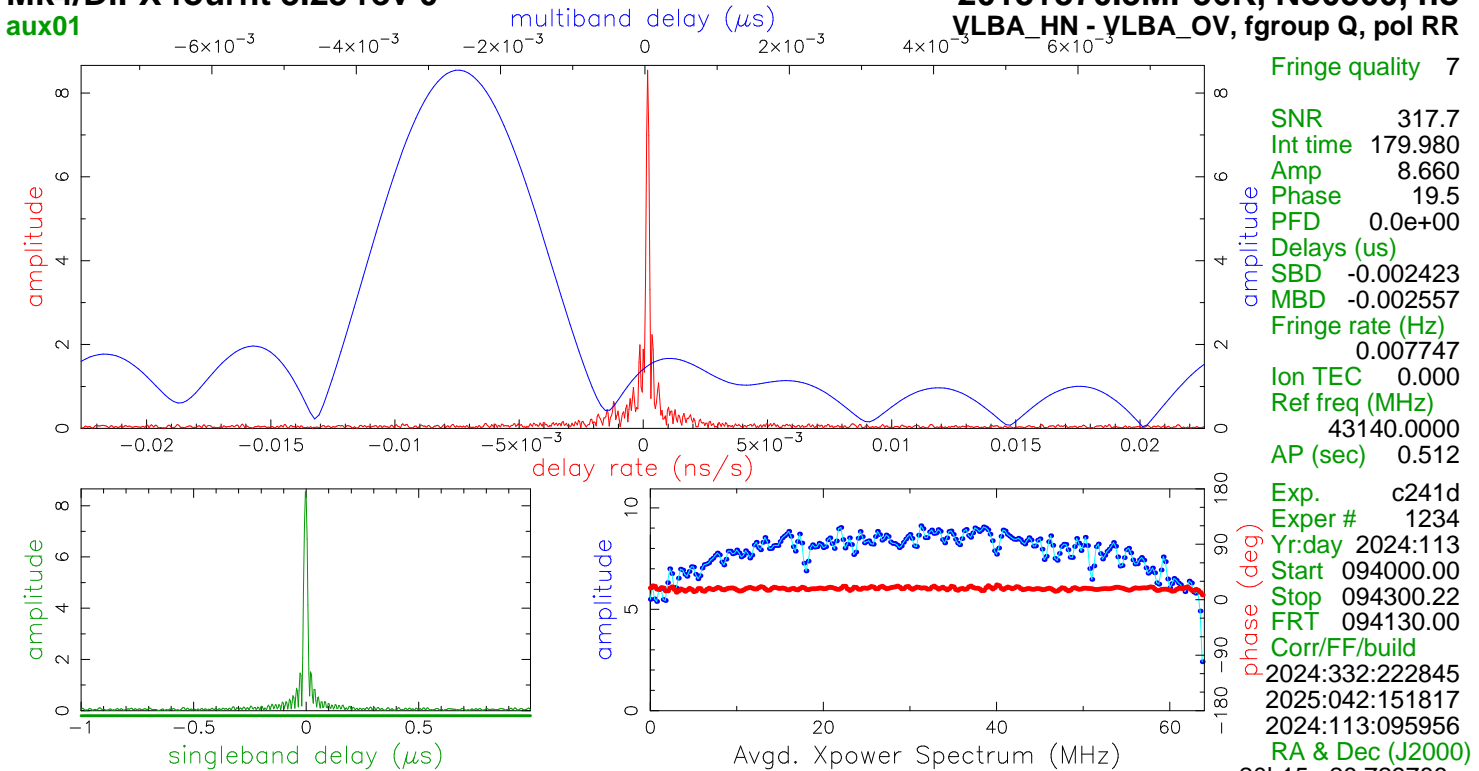
ph/seg (deg) 14.9 0.8
 amp/seg (%) 6.8 1.4
 ph/frq (deg) 7.3 0.5
 amp/frq (%) 4.7 0.9
 h: az 103.5 el 73.6 pa -63.0 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) 2126.524 -732.368
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ho..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ho.Q.170.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

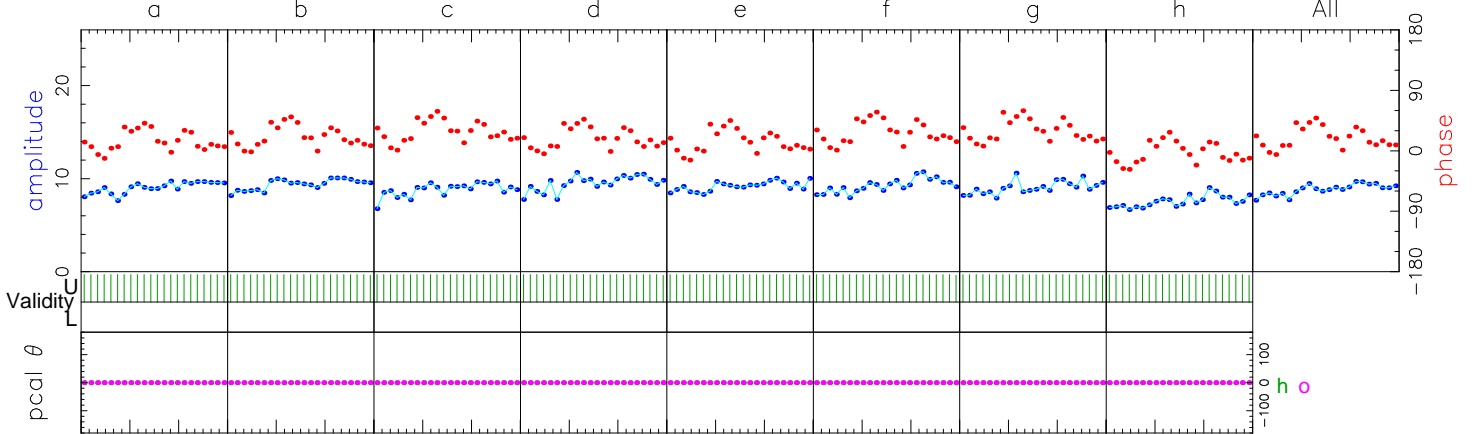
aux01

2013+370.3MP56K, No0500, ho

VLBA_HN - VLBA_OV, fgroup Q, pol RR



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



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

Group delay (usec) (SBD)	7.17073636550E+03	Apriori delay (usec)	7.17073892247E+03	Resid mbdelay (usec)	-2.55697E-03	+/-	3.4E-06
Sband delay (usec)	7.17073649972E+03	Apriori clock (usec)	-1.2630741E+01	Resid sbdelay (usec)	-2.42275E-03	+/-	2.7E-05
Phase delay (usec)	7.17073892373E+03	Apriori clockrate (us/s)	-4.0233507E-07	Resid phdelay (usec)	1.25831E-06	+/-	2.3E-08
Delay rate (us/s)	-5.93653936974E-01	Apriori rate (us/s)	-5.93654116551E-01	Resid rate (us/s)	1.79577E-07	+/-	2.2E-10
Total phase (deg)	61.1	Apriori accel (us/s/s)	-3.30041969853E-05	Resid phase (deg)	19.5	+/-	0.4

ph/seg (deg)	15.1	RMS	Theor.	Amplitude	8.660 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.8	15.1	0.8	Search (1024X32)	8.433	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	11.7	6.8	1.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	6.3	11.7	0.5	Inc. seg. avg.	8.847	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		6.3	0.9	Inc. frq. avg.	8.667	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

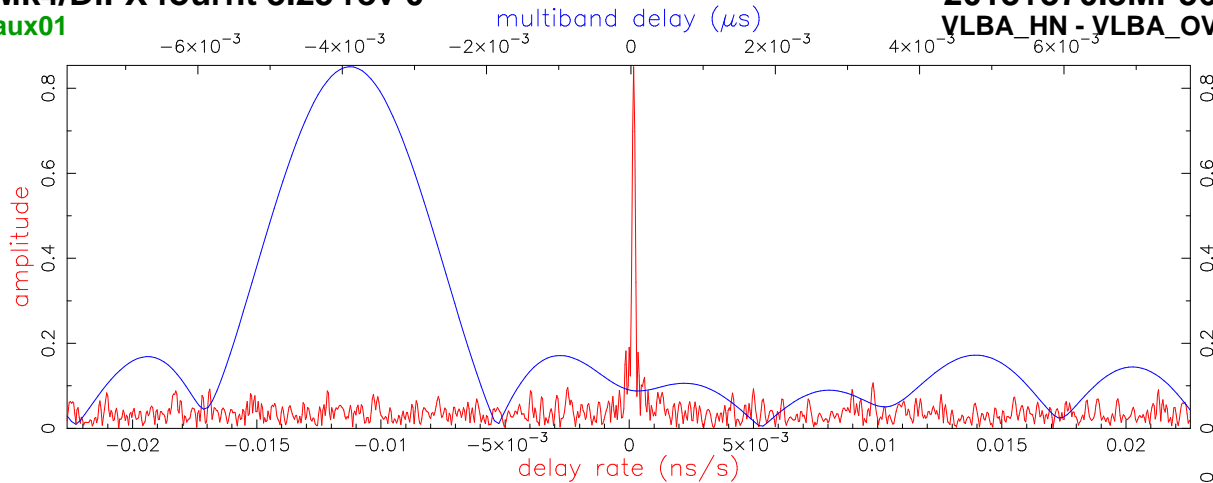
h: az 103.5 el 73.6 pa -63.0 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) 2126.524 -732.368 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ho..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ho.Q.229.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

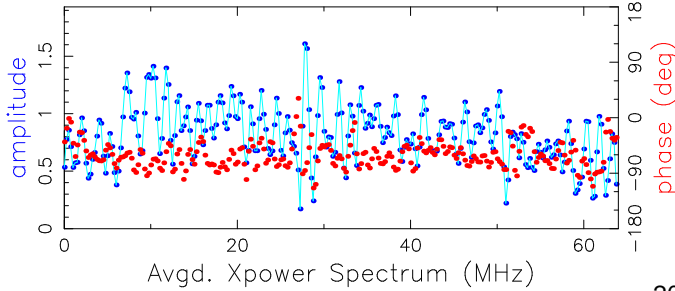
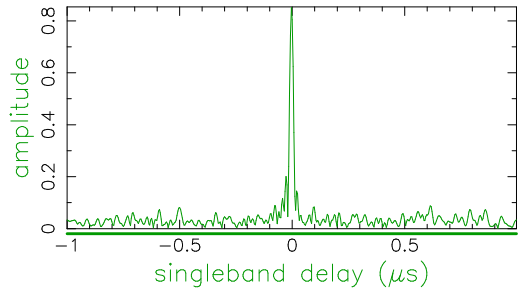
2013+370.3MP56K, No0500, ho

VLBA_HN - VLBA_OV, fgroup Q, pol LR



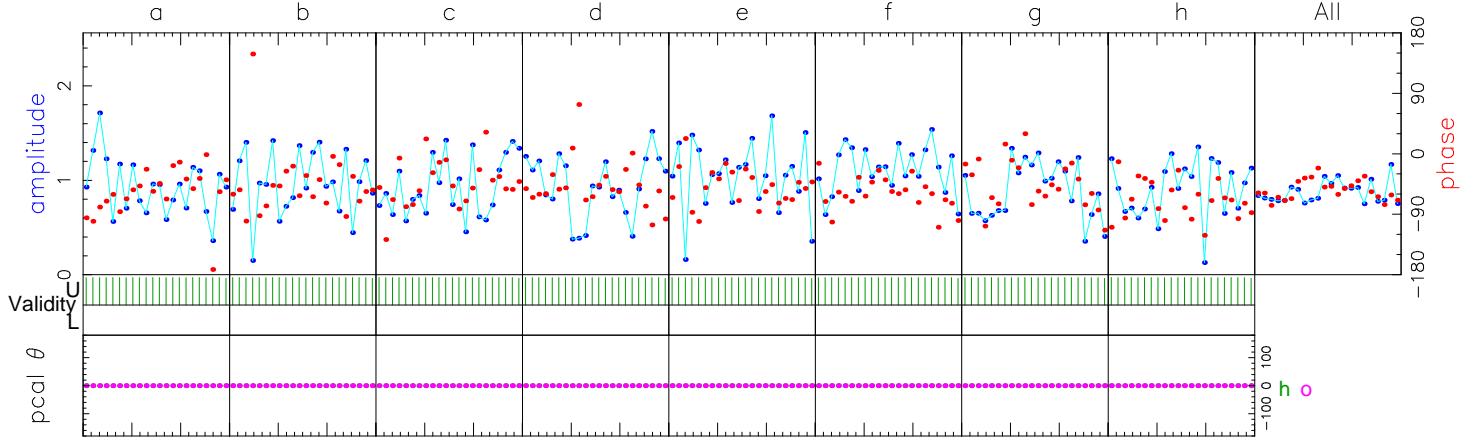
Fringe quality 9

SNR 31.3
 Int time 179.980
 Amp 0.854
 Phase -54.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.003130
 MBD -0.003873
 Fringe rate (Hz) 0.008011
 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
	-57.1	-56.8	-42.4	-56.3	-51.1	-58.1	-39.9	-67.6	Phase	-54.0
	0.8	0.9	0.8	0.8	1.0	1.0	0.7	0.8	Ampl.	0.9
	256.1	256.4	256.4	256.1	256.0	256.2	256.1	256.1	Sbd box	256.2
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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 7.17073504947E+03 Apriori delay (usec) 7.17073892247E+03 Resid mbdelay (usec) -3.87300E-03 +/- 3.5E-05
 Sband delay (usec) 7.17073579247E+03 Apriori clock (usec) -1.2630741E+01 Resid sbdelay (usec) -3.13000E-03 +/- 2.7E-04
 Phase delay (usec) 7.17073891900E+03 Apriori clockrate (us/s) -4.0233507E-07 Resid phdelay (usec) -3.47409E-06 +/- 2.4E-07
 Delay rate (us/s) -5.93653930856E-01 Apriori rate (us/s) -5.93654116551E-01 Resid rate (us/s) 1.85695E-07 +/- 2.3E-09
 Total phase (deg) -12.4 Apriori accel (us/s/s) -3.30041969853E-05 Resid phase (deg) -54.0 +/- 3.7

RMS Theor. Amplitude 0.854 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 14.5 8.6 Search (1024X32) 0.843 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 13.5 15.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.7 5.2 Inc. seg. avg. 0.867 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 10.2 9.0 Inc. frq. avg. 0.856 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 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) 2126.524 -732.368 simultaneous interpolator

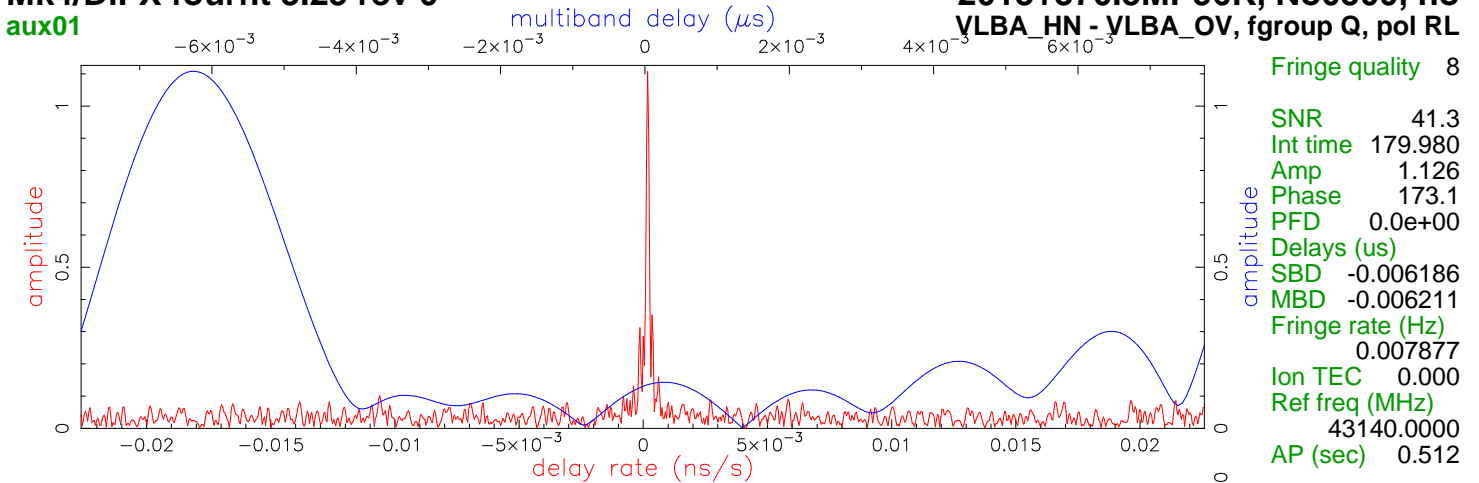
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ho..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ho.Q.248.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

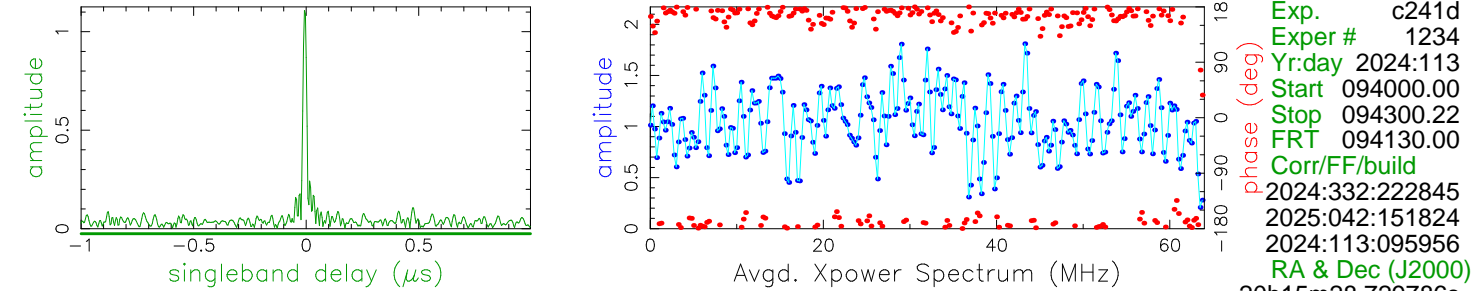
2013+370.3MP56K, No0500, ho

VLBA_HN - VLBA_OV, fgroup Q, pol RL



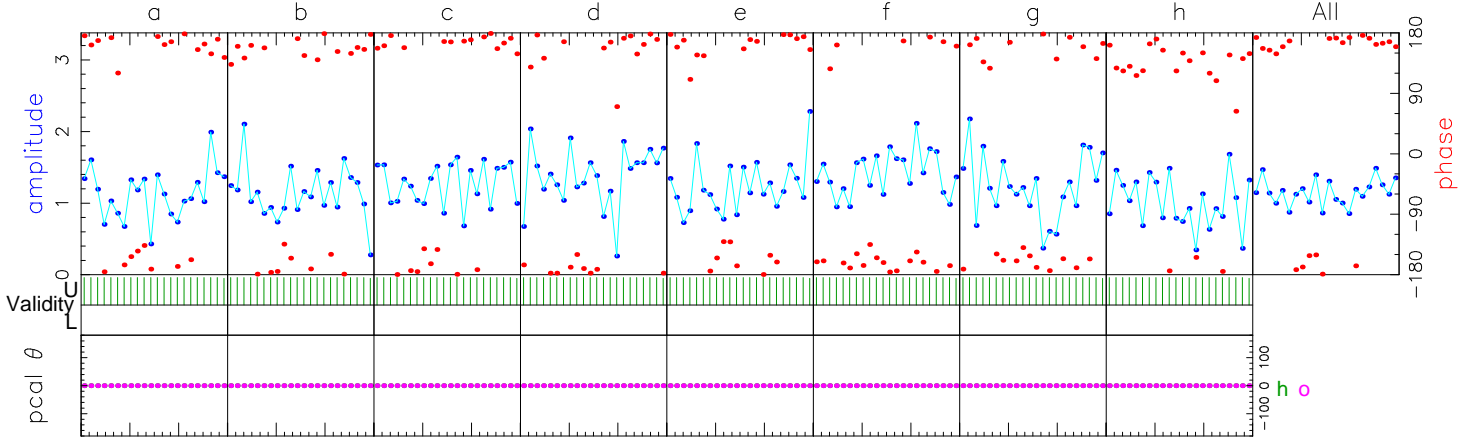
Fringe quality 8

SNR 41.3
 Int time 179.980
 Amp 1.126
 Phase 173.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.006186
 MBD -0.006211
 Fringe rate (Hz)
 0.007877
 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	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:0	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	7.17073271125E+03	Apriori delay (usec)	7.17073892247E+03	Resid mbdelay (usec)	-6.21122E-03	+/-	2.6E-05
Sband delay (usec)	7.17073273622E+03	Apriori clock (usec)	-1.2630741E+01	Resid sbdelay (usec)	-6.18625E-03	+/-	2.1E-04
Phase delay (usec)	7.17073893362E+03	Apriori clockrate (us/s)	-4.0233507E-07	Resid phdelay (usec)	1.11450E-05	+/-	1.8E-07
Delay rate (us/s)	-5.93653933966E-01	Apriori rate (us/s)	-5.93654116551E-01	Resid rate (us/s)	1.82585E-07	+/-	1.7E-09
Total phase (deg)	214.7	Apriori accel (us/s/s)	-3.30041969853E-05	Resid phase (deg)	173.1	+/-	2.8

ph/seg (deg)	15.9	Theor.	6.5	Amplitude	1.126 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	15.9		11.4	Search (1024X32)	1.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	14.4		3.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	11.9		6.8	Inc. seg. avg.	1.145	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	1.128	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
h: az 103.5 el 73.6 pa -63.0	o: az 68.4 el 38.3 pa -68.5	u,v (fr/asec)	2126.524 -732.368			ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ho..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ho.Q.262.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

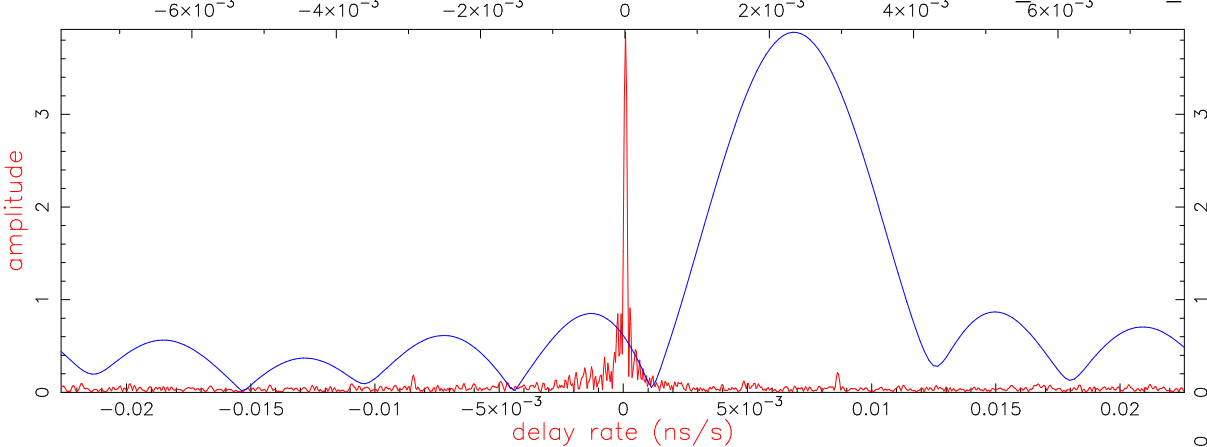
aux01

2013+370.3MP56K, No0500, hp

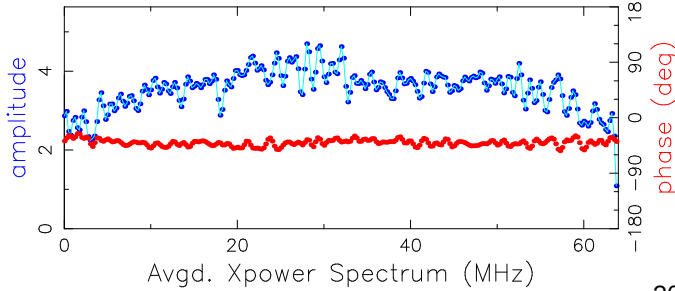
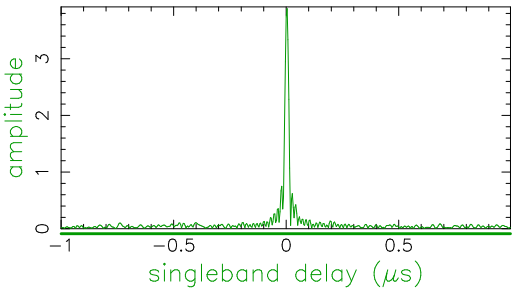
VLBA_HH - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 8

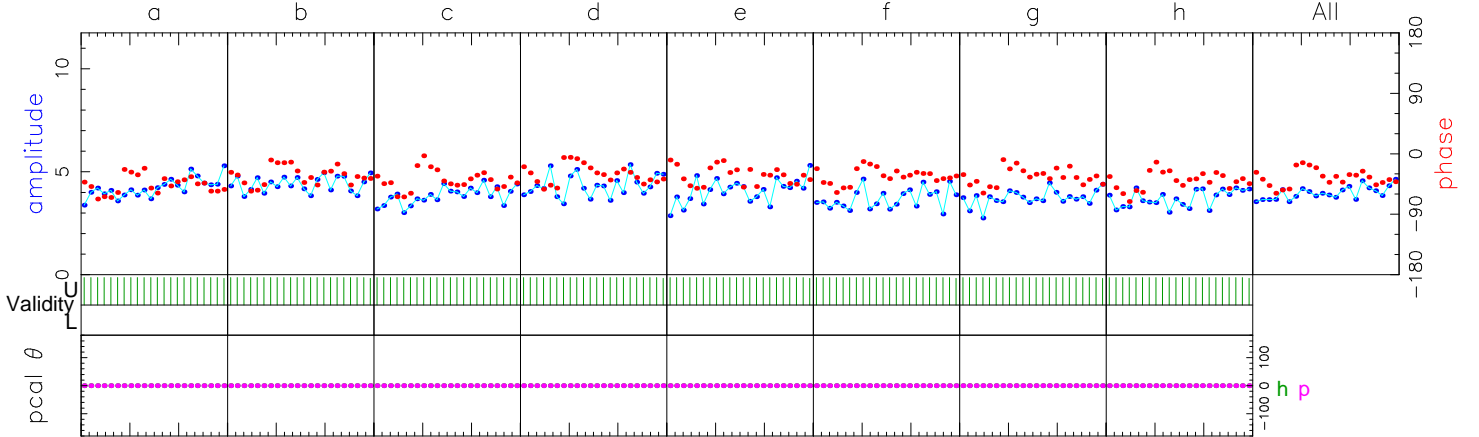


SNR 143.7
 Int time 179.970
 Amp 3.917
 Phase -35.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002741
 MBD 0.002316
 Fringe rate (Hz) 0.004627
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151808
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
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	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	5.34669553614E+03	Apriori delay (usec)	5.34669322057E+03	Resid mbdelay (usec)	2.31556E-03	+/-	7.6E-06
Sband delay (usec)	5.34669596107E+03	Apriori clock (usec)	6.7217216E+00	Resid sbdelay (usec)	2.74050E-03	+/-	6.0E-05
Phase delay (usec)	5.34669321828E+03	Apriori clockrate (us/s)	-2.9976000E-07	Resid phdelay (usec)	-2.29889E-06	+/-	5.1E-08
Delay rate (us/s)	-5.39696746957E-01	Apriori rate (us/s)	-5.39696854220E-01	Resid rate (us/s)	1.07263E-07	+/-	4.9E-10
Total phase (deg)	157.1	Apriori accel (us/s/s)	-2.03761019967E-05	Resid phase (deg)	-35.7	+/-	0.8

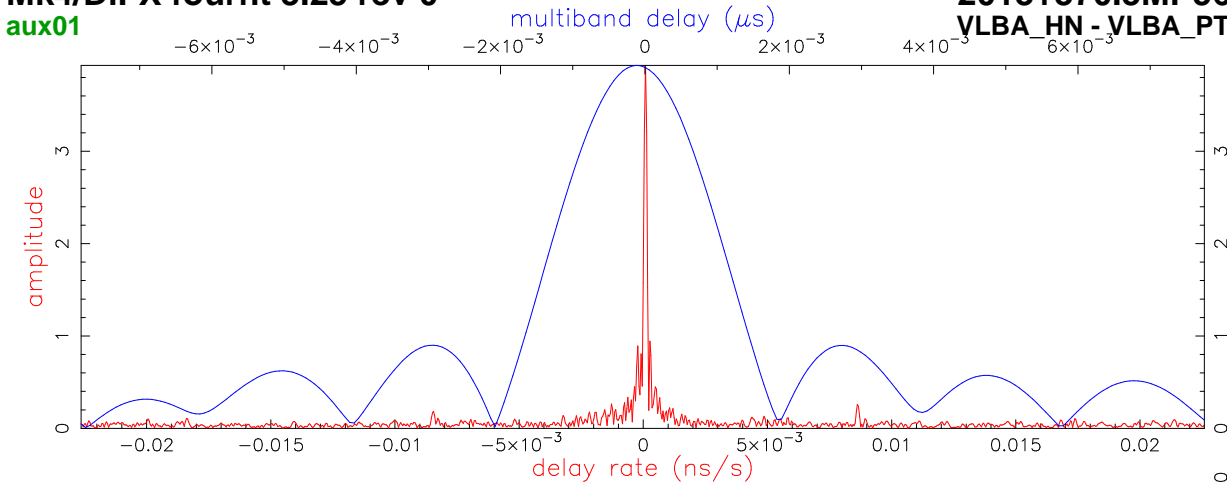
ph/seg (deg)	12.1	RMS	1.9	Theor.	3.917 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	7.9	Search (1024X32)	3.728	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	5.8	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	6.7	Inc. seg. avg.	3.969	Inc. frq. avg.	3.899	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
h: az 103.5 el 73.6 pa -63.0		h:p	0:0	p: az 69.2 el 44.9 pa -76.1		Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
Control file: cf_1234_gmva		h:p	0:0	u,v (fr/asec)	1937.474 -207.265				simultaneous interpolator	
Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K		h:p	0:0	Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.180.3MP56K						

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aux01

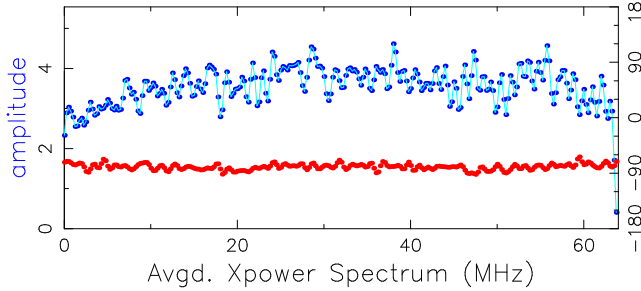
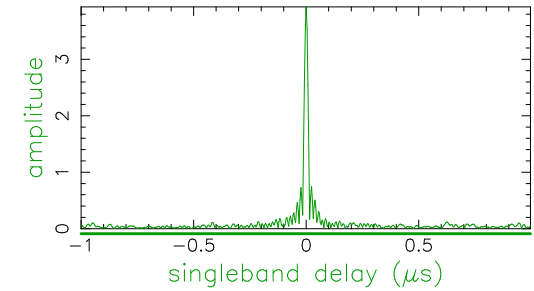
2013+370.3MP56K, No0500, hp

VLBA_HN - VLBA_PT, fgroup Q, pol RR



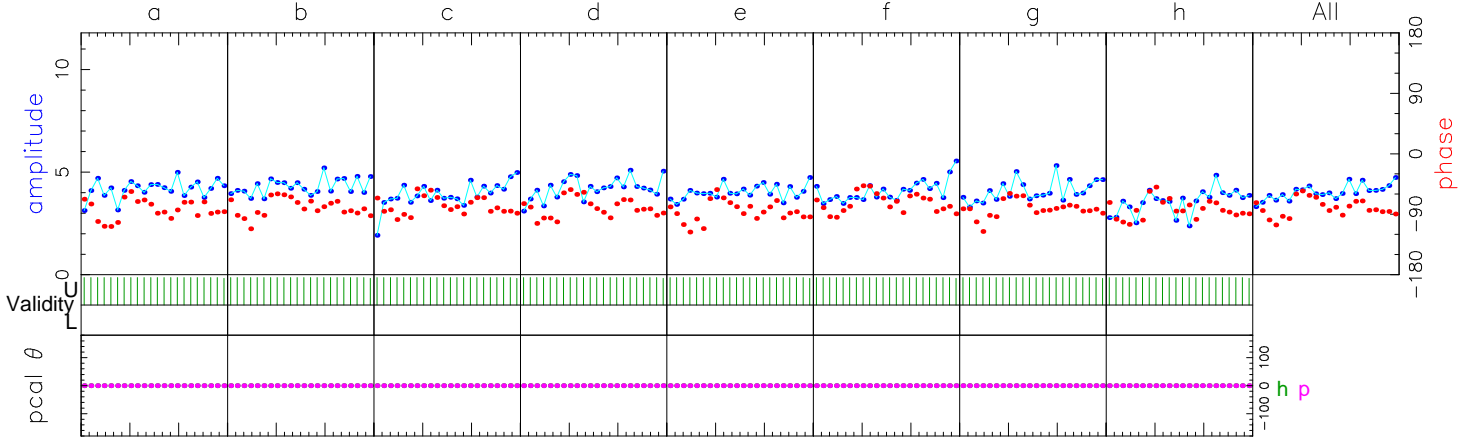
Fringe quality 8

SNR 144.2
 Int time 179.970
 Amp 3.930
 Phase -80.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000153
 MBD -0.000116
 Fringe rate (Hz) 0.004593
 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
 2025:042:151810
 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	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	5.34669310473E+03	Apriori delay (usec)	5.34669322057E+03	Resid mbdelay (usec)	-1.15846E-04	+/-	7.5E-06
Sband delay (usec)	5.34669306782E+03	Apriori clock (usec)	6.7217216E+00	Resid sbdelay (usec)	-1.52750E-04	+/-	6.0E-05
Phase delay (usec)	5.34669321541E+03	Apriori clockrate (us/s)	-2.9976000E-07	Resid phdelay (usec)	-5.16387E-06	+/-	5.1E-08
Delay rate (us/s)	-5.39696747758E-01	Apriori rate (us/s)	-5.39696854220E-01	Resid rate (us/s)	1.06462E-07	+/-	4.9E-10
Total phase (deg)	112.6	Apriori accel (us/s/s)	-2.03761019967E-05	Resid phase (deg)	-80.2	+/-	0.8

ph/seg (deg)	12.8	RMS	Theor.	Amplitude	3.930 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	9.3	12.8	1.9	Search (1024X32)	3.780	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	4.2	9.3	3.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	5.4	4.2	1.1	Inc. seg. avg.	4.027	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		5.4	2.0	Inc. frq. avg.	3.937	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 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1937.474 -207.265 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.185.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

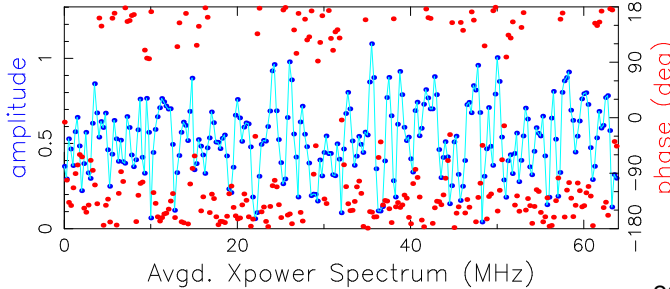
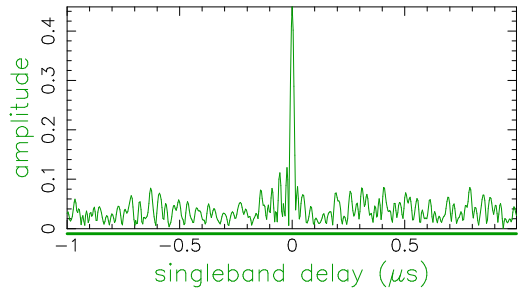
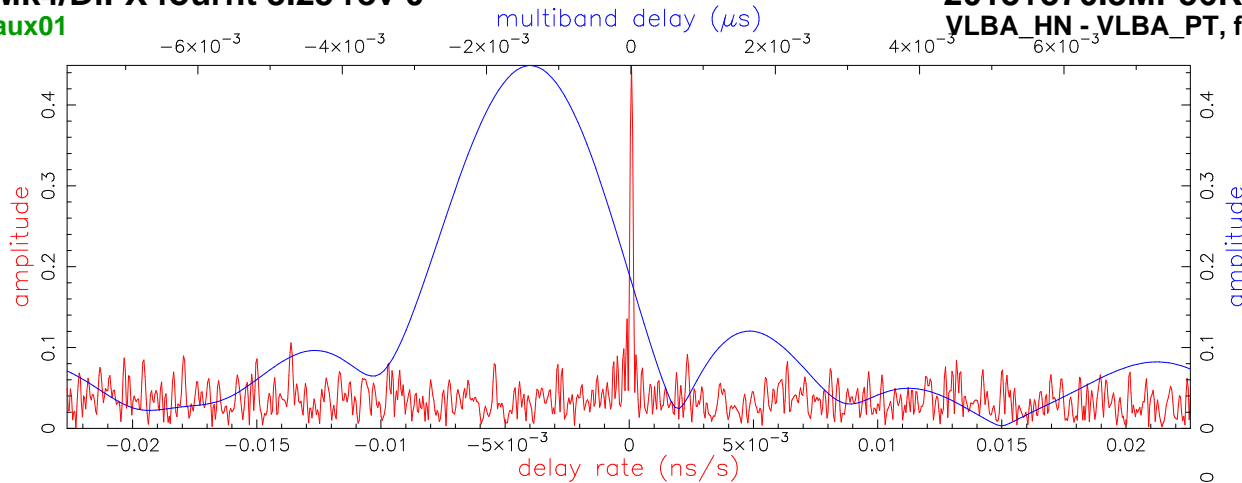
aux01

2013+370.3MP56K, No0500, hp

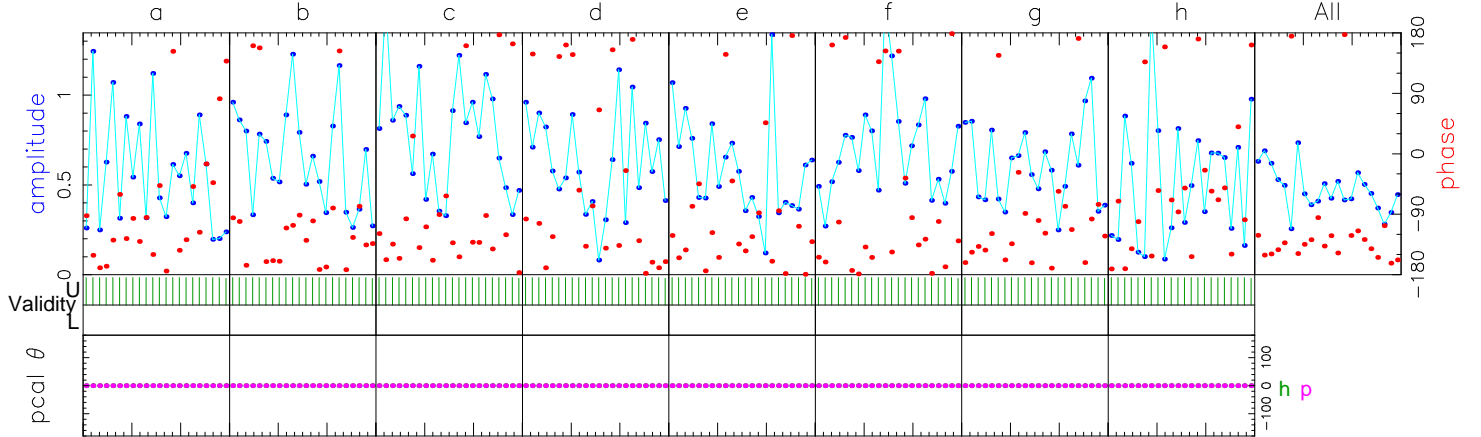
VLBA_HN - VLBA_PT, fgroup Q, pol LR

Fringe quality 9

SNR 16.5
 Int time 179.970
 Amp 0.449
 Phase -138.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000208
 MBD -0.001400
 Fringe rate (Hz) 0.004323
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151812
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-128.9	-134.7	-138.6	-157.1	-134.6	-157.5	-128.2	-118.3	Phase	-138.7
	0.4	0.5	0.6	0.4	0.4	0.5	0.5	0.3	Ampl.	0.5
	257.8	256.9	257.0	256.3	256.6	257.1	256.8	233.2	Sbd box	256.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	5.34669182042E+03		Apriori delay (usec)		5.34669322057E+03		Resid mbdelay (usec)		-1.40016E-03	+/- 6.6E-05
Sband delay (usec)	5.34669301257E+03		Apriori clock (usec)		6.7217216E+00		Resid sbdelay (usec)		-2.08000E-04	+/- 5.2E-04
Phase delay (usec)	5.34669321164E+03		Apriori clockrate (us/s)		-2.9976000E-07		Resid phdelay (usec)		-8.93389E-06	+/- 4.5E-07
Delay rate (us/s)	-5.39696754023E-01		Apriori rate (us/s)		-5.39696854220E-01		Resid rate (us/s)		1.00197E-07	+/- 4.3E-09
Total phase (deg)	54.1		Apriori accel (us/s/s)		-2.03761019967E-05		Resid phase (deg)		-138.7	+/- 7.0
ph/seg (deg)	RMS 21.7	Theor. 16.3	Amplitude Search (1024X32)	0.441	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	27.2	28.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	15.0	9.8	Inc. seg. avg.	0.457	Bits/sample: 2x2		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023
amp/frq (%)	23.5	17.2	Inc. frq. avg.	0.453	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	p: az 69.2 el 44.9 pa -76.1		u,v (fr/asec) 1937.474 -207.265						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/hp..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/hp.Q.200.3MP56K							

Mk4/DiFX fourfit 3.25 rev 0

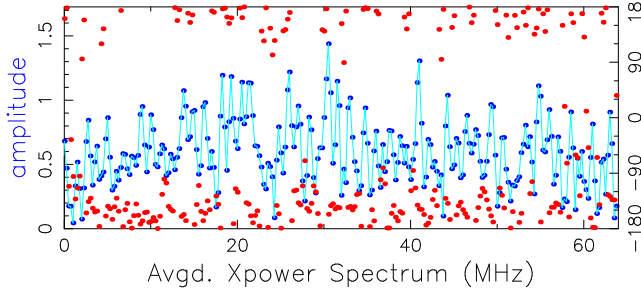
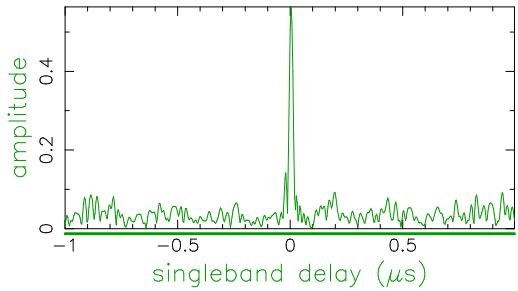
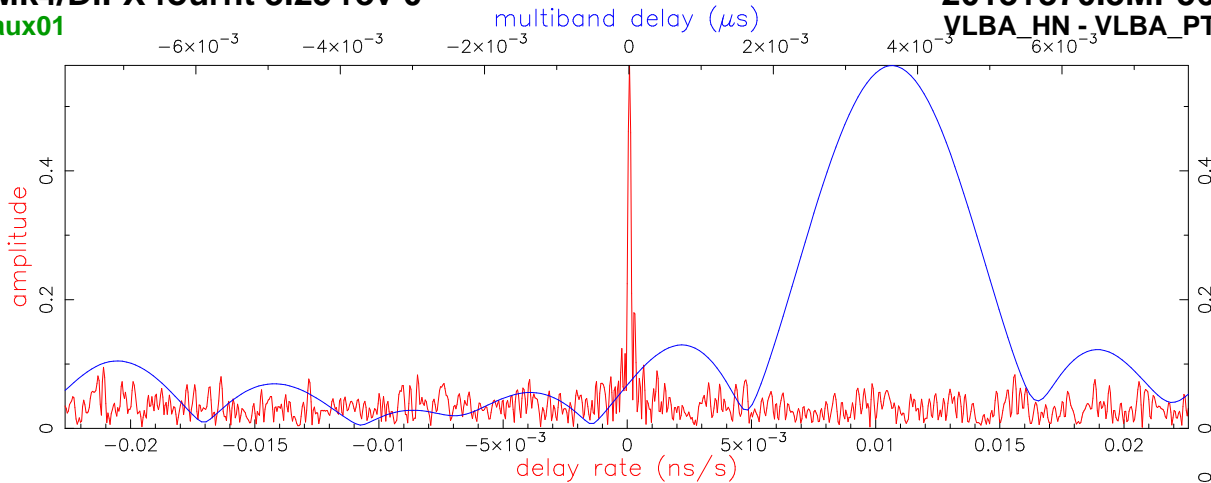
aux01

2013+370.3MP56K, No0500, hp

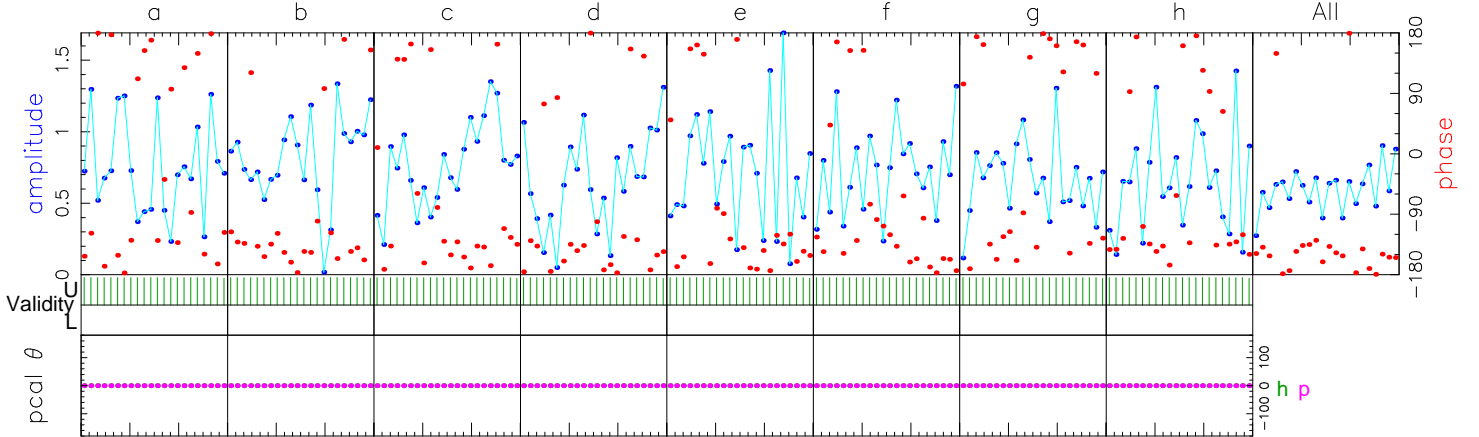
VLBA_HN - VLBA_PT, fgroup Q, pol RL

Fringe quality 9

SNR 20.7
 Int time 179.970
 Amp 0.564
 Phase -156.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004233
 MBD 0.003656
 Fringe rate (Hz) 0.004440
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151816
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s
 +37°10'59.514736"



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



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

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

ph/seg (deg)	19.5	Theor.	13.0	Amplitude	0.564 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	26.7	Search (1024X32)	0.541	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	6.6	Inc. seg. avg.	0.583	Inc. frq. avg.	0.561	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	13.4	Inc. frq. avg.	0.561			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

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

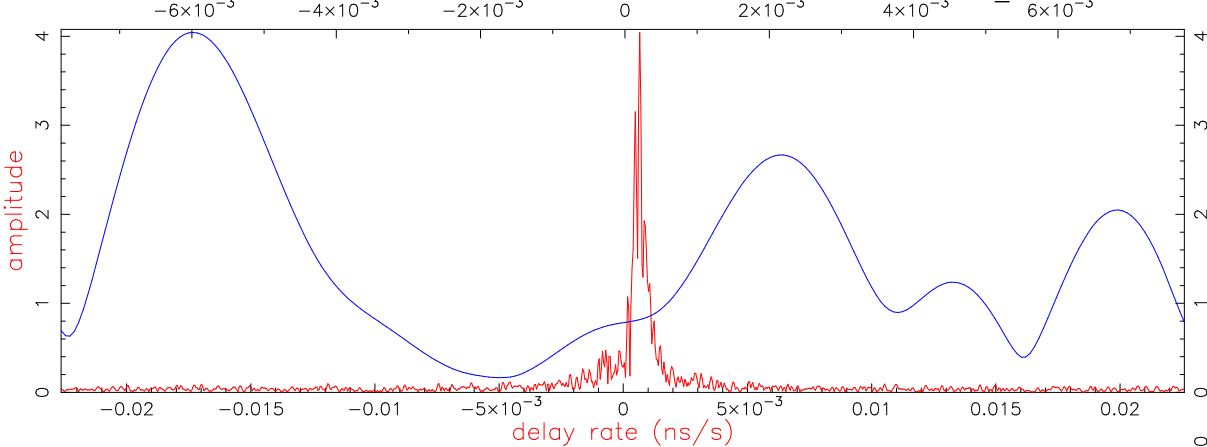
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hX

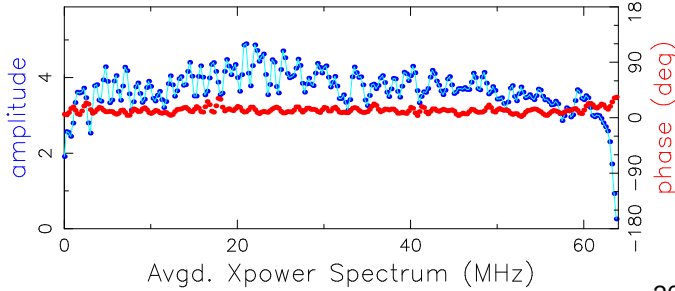
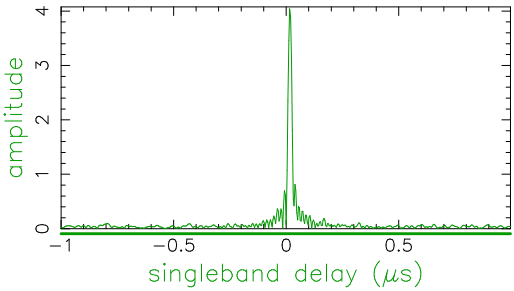
VLBA_HN - QNSALA60, fgroup Q, pol LL

multiband delay (μ s)



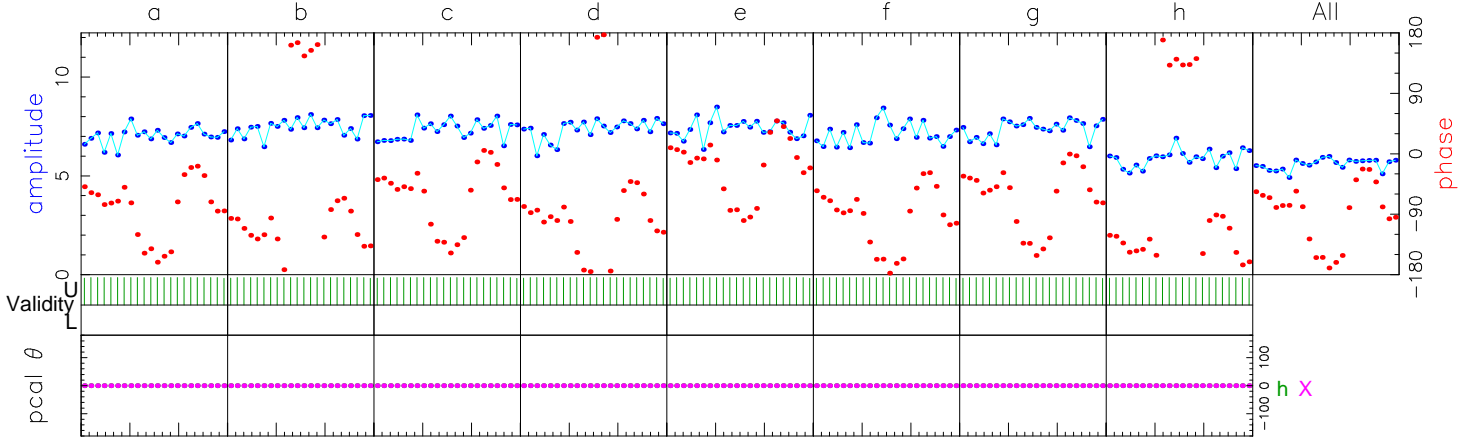
Fringe quality 3

SNR 149.5
 Int time 179.835
 Amp 4.078
 Phase 116.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.016802
 MBD -0.005948
 Fringe rate (Hz)
 0.029492
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151808
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	5.52356199659E+03	Apriori delay (usec)	5.52355231942E+03	Resid mbdelay (usec)	-5.94783E-03	+/-	7.3E-06
Sband delay (usec)	5.52356912167E+03	Apriori clock (usec)	-1.0049802E+02	Resid sbdelay (usec)	1.68022E-02	+/-	5.8E-05
Phase delay (usec)	5.52355231386E+03	Apriori clockrate (us/s)	-1.1376861E-02	Resid phdelay (usec)	-5.55531E-06	+/-	4.9E-08
Delay rate (us/s)	9.06464060538E-01	Apriori rate (us/s)	9.06463376904E-01	Resid rate (us/s)	6.83633E-07	+/-	4.7E-10
Total phase (deg)	137.7	Apriori accel (us/s/s)	-4.09377518787E-05	Resid phase (deg)	116.2	+/-	0.8

ph/seg (deg)	44.5	1.8	Search (1024X32)	3.772	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	37.7	3.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	46.6	1.1	Inc. seg. avg.	5.588	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	28.2	1.9	Inc. frq. avg.	5.176	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 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3283.547 -1773.900 simultaneous interpolator

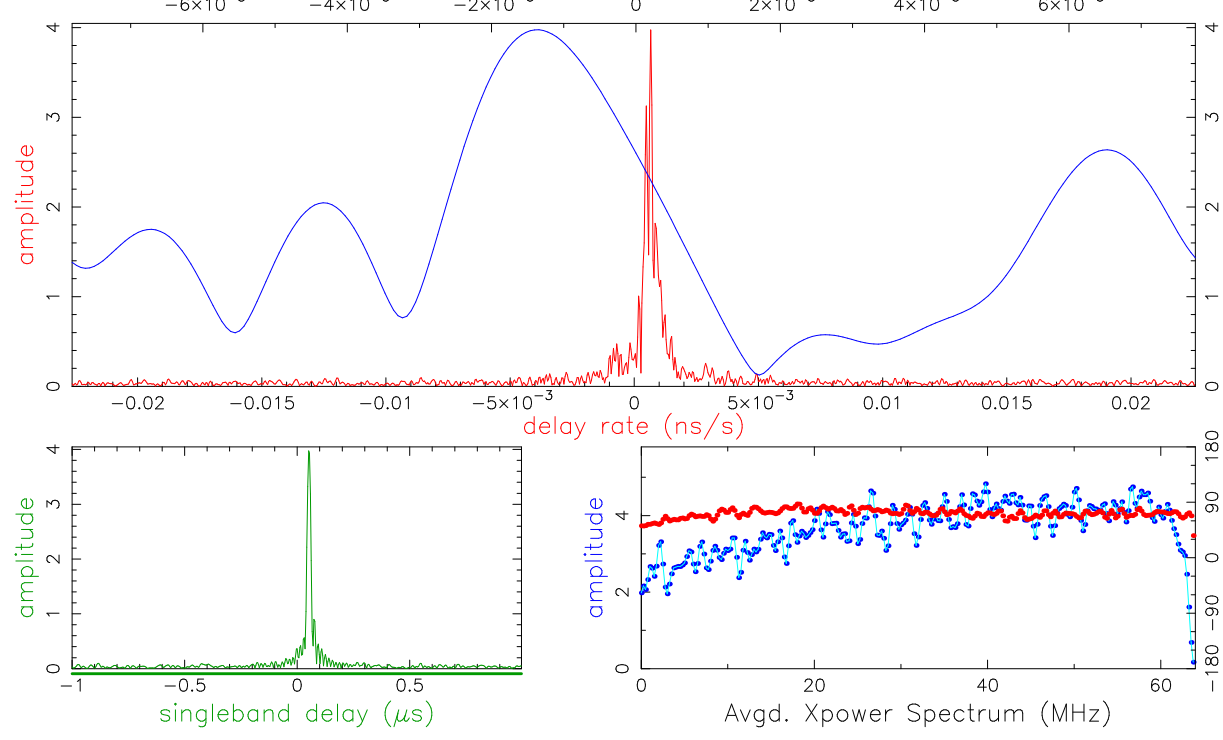
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hX.Q.179.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

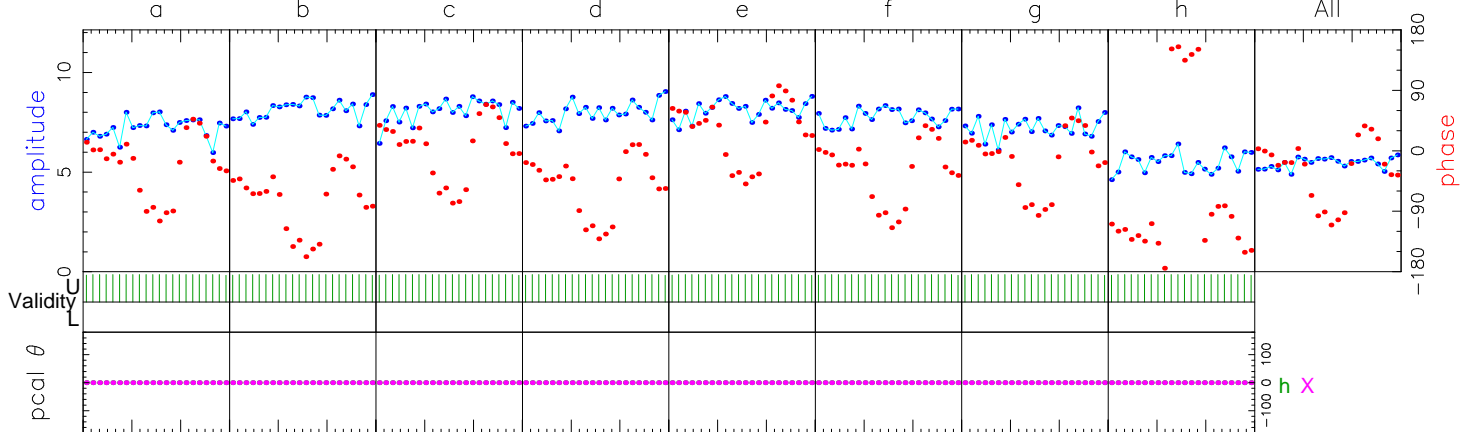
2013+370.3MP56K, No0500, hX

VLBA_HN - ONSALA60, fgroup Q, pol RR



Fringe quality 3
 SNR 148.4
 Int time 179.835
 Amp 4.047
 Phase 220.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.052510
 MBD -0.001315
 Fringe rate (Hz) 0.029473
 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
 2025:042:151813
 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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
h:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) 5.52359787937E+03 Apriori delay (usec) 5.52355231942E+03 Resid mbdelay (usec) -1.31504E-03 +/- 7.3E-06
 Sband delay (usec) 5.52360482892E+03 Apriori clock (usec) -1.0049802E+02 Resid sbdelay (usec) 5.25095E-02 +/- 5.8E-05
 Phase delay (usec) 5.52355231770E+03 Apriori clockrate (us/s) -1.1376861E-02 Resid phdelay (usec) -1.71976E-06 +/- 5.0E-08
 Delay rate (us/s) 9.06464060102E-01 Apriori rate (us/s) 9.06463376904E-01 Resid rate (us/s) 6.83198E-07 +/- 4.8E-10
 Total phase (deg) 242.3 Apriori accel (us/s/s) -4.09377518787E-05 Resid phase (deg) 220.8 +/- 0.8

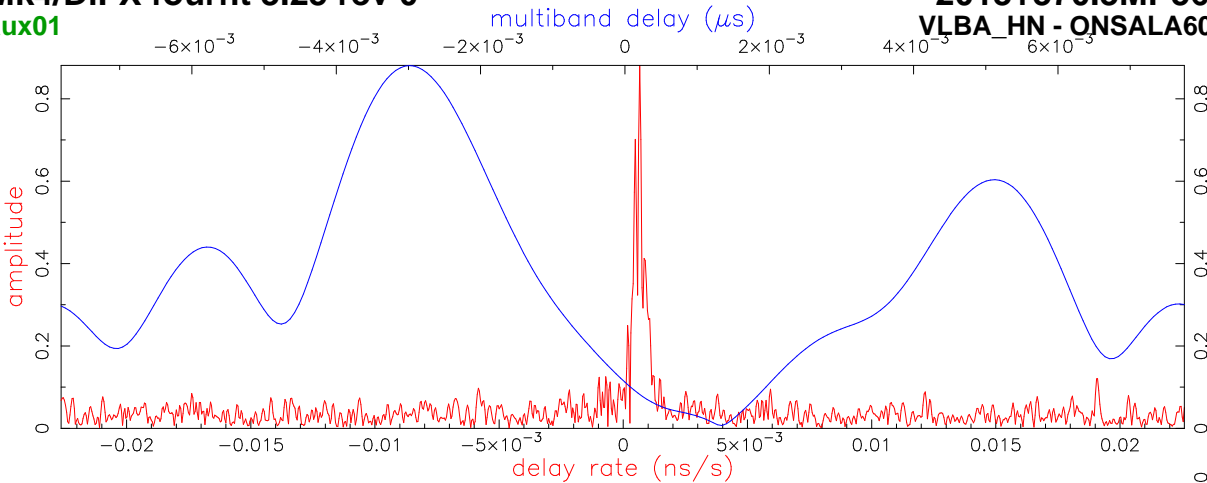
ph/seg (deg) 44.3 1.8 Theor. Amplitude 4.047 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.7 3.2 Search (1024X32) 3.767 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.4 1.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.5 1.9 Inc. seg. avg. 5.466 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 h: az 103.5 el 73.6 pa -63.0 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3283.547 -1773.900 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/hX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hX.Q.202.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

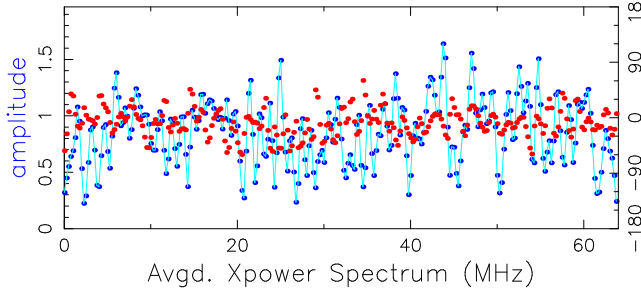
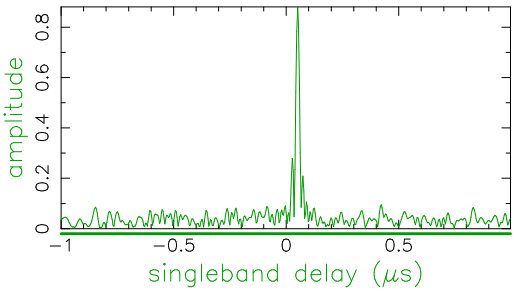
2013+370.3MP56K, No0500, hX

VLBA_HN - ONSALA60, fgroup Q, pol LR



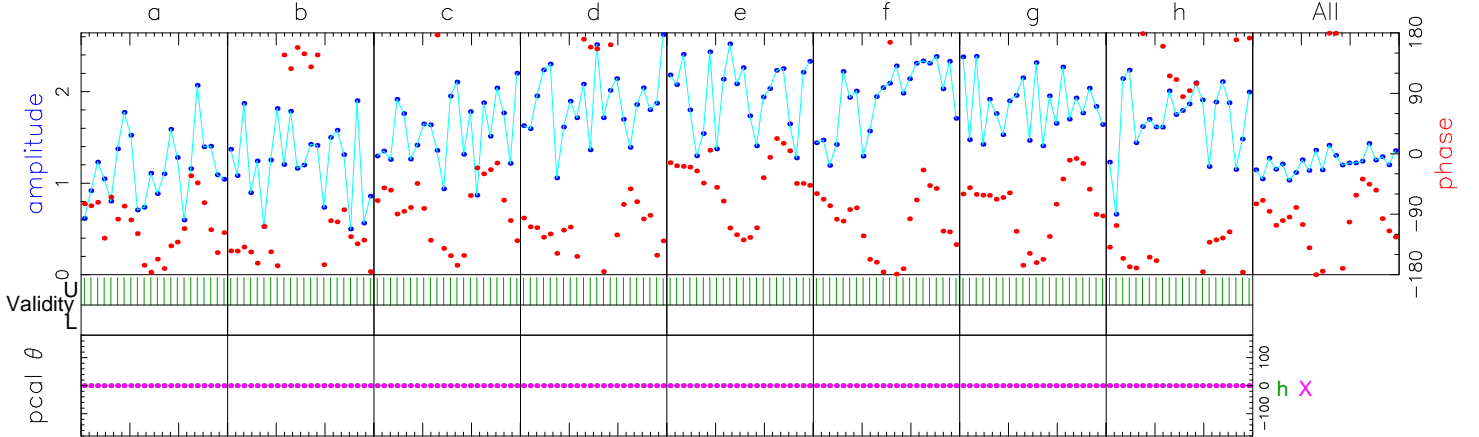
Fringe quality 4

SNR 32.3
 Int time 179.835
 Amp 0.881
 Phase 140.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.051027
 MBD -0.002973
 Fringe rate (Hz)
 0.029491
 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
	-104.4	-159.4	-86.6	-128.9	-40.2	-106.3	-75.6	-179.6	Phase	-106.7
	0.9	0.9	1.1	1.4	1.4	1.3	1.3	1.2	Ampl.	1.2
	270.4	269.8	269.8	269.5	269.2	269.5	269.3	268.0	Sbd box	270.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	5.52359622097E+03	Apriori delay (usec)	5.52355231942E+03	Resid mbdelay (usec)	-2.97345E-03	+/-	3.4E-05
Sband delay (usec)	5.52360334617E+03	Apriori clock (usec)	-1.0049802E+02	Resid sbdelay (usec)	5.10268E-02	+/-	2.7E-04
Phase delay (usec)	5.52355231254E+03	Apriori clockrate (us/s)	-1.1376861E-06	Resid phdelay (usec)	-6.87164E-06	+/-	2.3E-07
Delay rate (us/s)	9.06464060507E-01	Apriori rate (us/s)	9.06463376904E-01	Resid rate (us/s)	6.83602E-07	+/-	2.2E-09
Total phase (deg)	162.2	Apriori accel (us/s/s)	-4.09377518787E-05	Resid phase (deg)	140.8	+/-	3.5

ph/seg (deg)	44.7	RMS	44.7	Theor.	8.3	Amplitude	0.881 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	41.2		41.2		14.5	Search (1024X32)	0.828	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.0		49.0		5.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.0		40.0		8.8	Inc. seg. avg.	1.216	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	1.170	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 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3283.547 -1773.900 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hX.Q.211.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

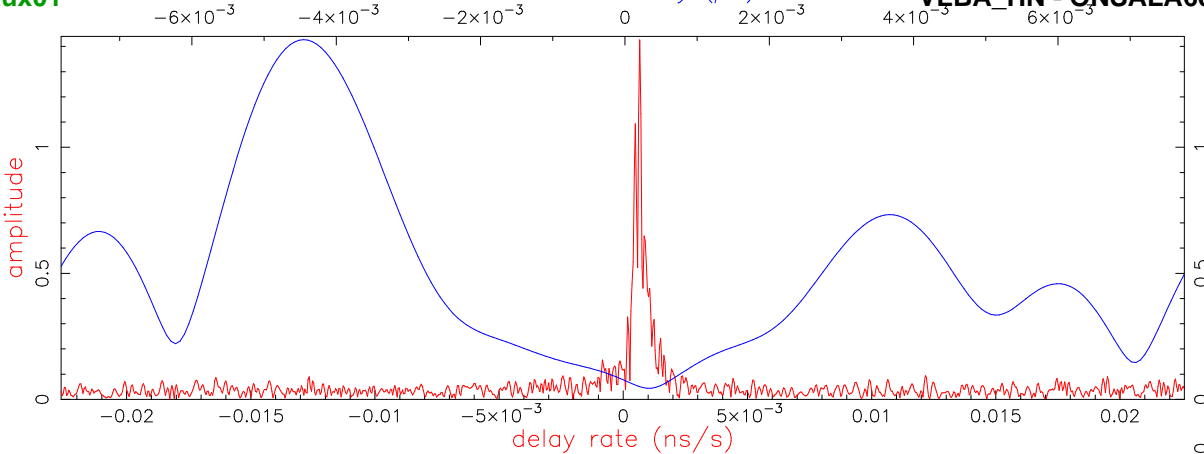
aux01

2013+370.3MP56K, No0500, hX

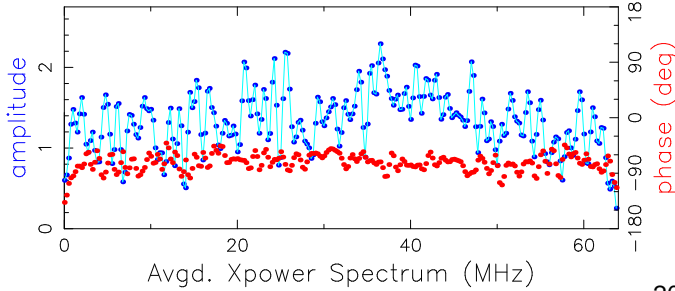
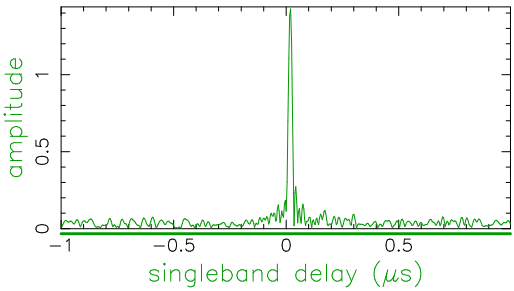
VLBA_HN - ONSALA60, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 3

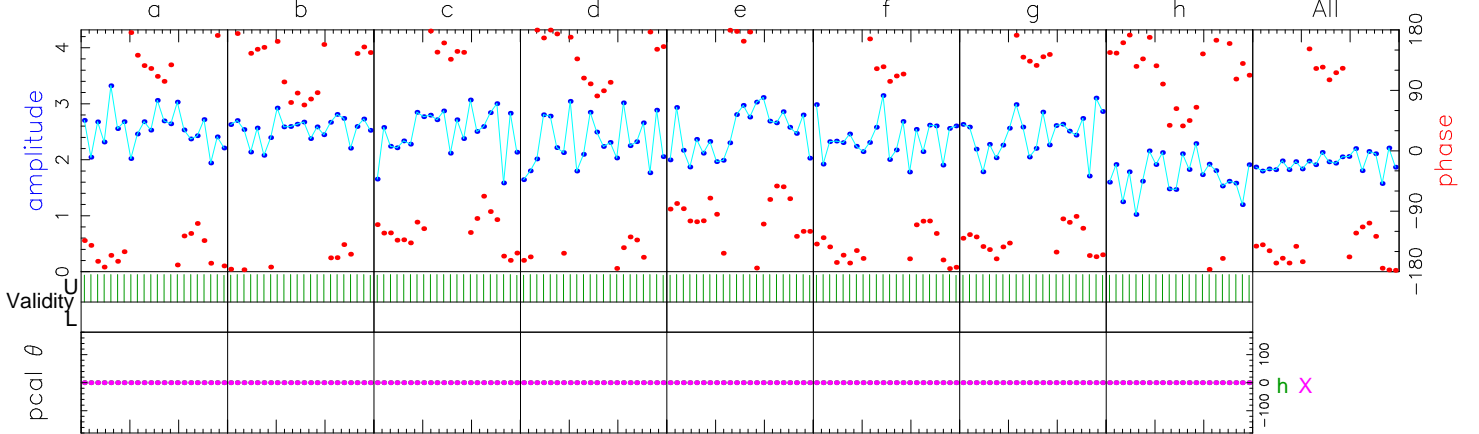


SNR 52.8
 Int time 179.835
 Amp 1.440
 Phase 31.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.018288
 MBD -0.004488
 Fringe rate (Hz)
 0.029501
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151817
 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
	-175.4	151.1	-141.7	167.2	-113.5	-167.5	-154.6	126.1	Phase	-170.6
	1.9	1.8	1.8	1.7	1.8	1.7	1.9	1.2	Ampl.	1.7
	262.1	261.4	261.3	261.0	261.2	261.0	261.0	260.0	Sbd box	261.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	5.52356345687E+03	Apriori delay (usec)	5.52355231942E+03	Resid mbdelay (usec)	-4.48754E-03	+/-	2.1E-05
Sband delay (usec)	5.52357060742E+03	Apriori clock (usec)	-1.0049802E+02	Resid sbdelay (usec)	1.82880E-02	+/-	1.6E-04
Phase delay (usec)	5.52355230843E+03	Apriori clockrate (us/s)	-1.1376861E-01	Resid phdelay (usec)	-1.09876E-05	+/-	1.4E-07
Delay rate (us/s)	9.06464060747E-01	Apriori rate (us/s)	9.06463376904E-01	Resid rate (us/s)	6.83843E-07	+/-	1.3E-09
Total phase (deg)	53.3	Apriori accel (us/s/s)	-4.09377518787E-05	Resid phase (deg)	31.9	+/-	2.2

ph/seg (deg)	43.7	RMS	43.7	Theor.	5.1	Amplitude	1.440 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	36.9		36.9		8.9	Search (1024X32)	1.341	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008	
ph/frq (deg)	41.5		41.5		3.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	23.9		23.9		5.4	Inc. seg. avg.	1.942	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00
h:	az 103.5 el 73.6 pa -63.0	X:	az 272.4 el 44.4 pa 42.5	u,v (fr/asec)	-3283.547 -1773.900									simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hX.Q.224.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

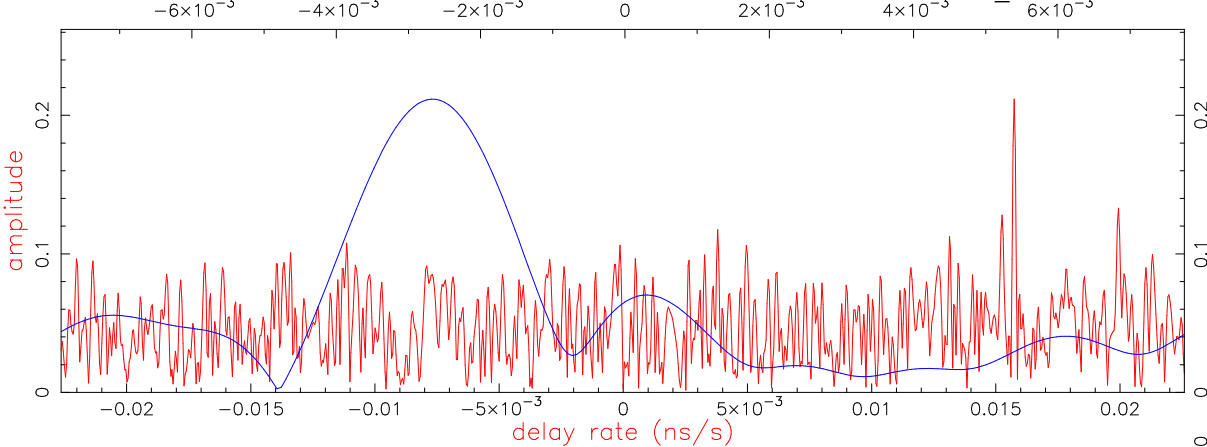
aux01

2013+370.3MP56K, No0500, hY

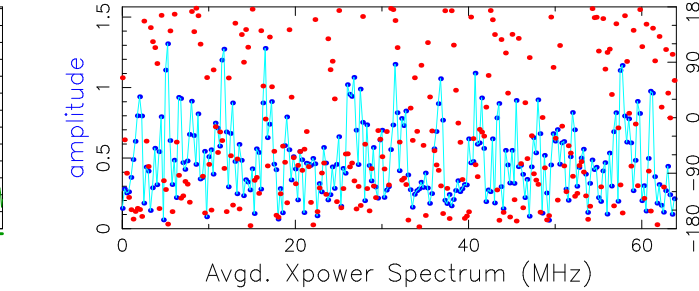
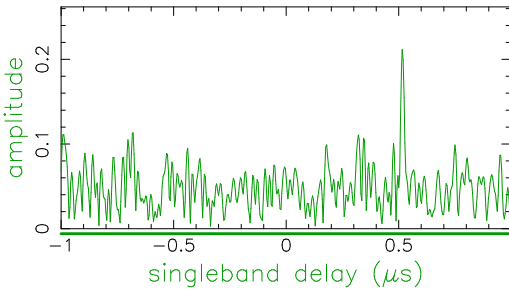
VLBA_HN - YEBES40M, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 0

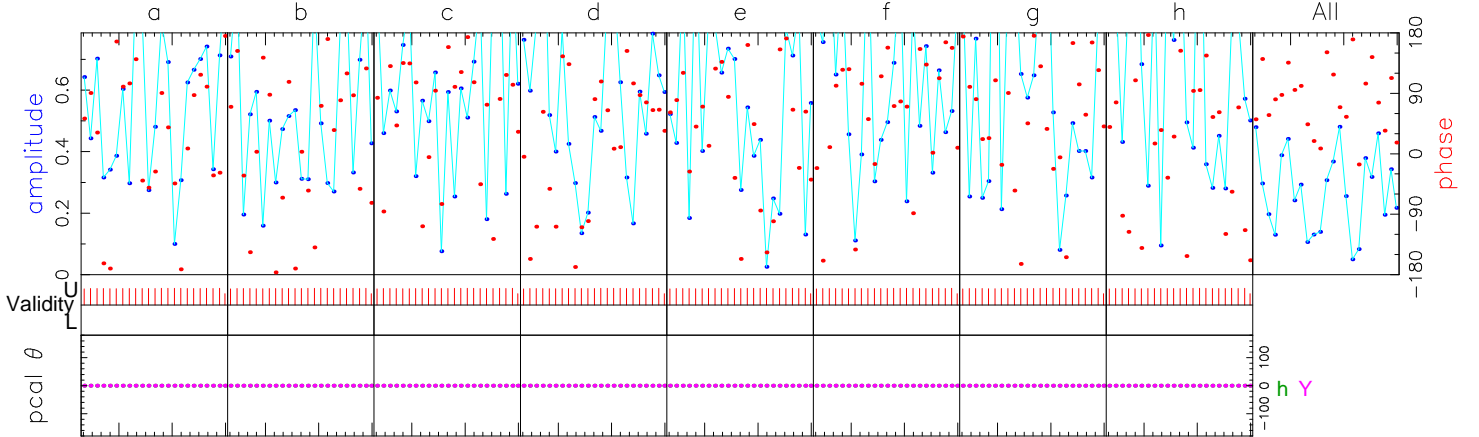


SNR 5.7
 Int time 97.781
 Amp 0.262
 Phase 292.6
 PFD 6.8e-01
 Delays (us)
 SBD 0.516345
 MBD -0.002639
 Fringe rate (Hz)
 0.683224
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094017.41
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151841
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
h:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	3.77788768294E+03	Apriori delay (usec)	3.77737469742E+03	Resid mbdelay (usec)	-2.63949E-03	+/-	1.9E-04
Sband delay (usec)	3.77789104242E+03	Apriori clock (usec)	1.2340964E+02	Resid sbdelay (usec)	5.16345E-01	+/-	1.5E-03
Phase delay (usec)	3.77737470322E+03	Apriori clockrate (us/s)	1.0876280E-02	Resid phdelay (usec)	5.80175E-06	+/-	1.3E-06
Delay rate (us/s)	1.01723481563E+00	Apriori rate (us/s)	1.01721897826E+00	Resid rate (us/s)	1.58374E-05	+/-	1.4E-08
Total phase (deg)		Apriori accel (us/s/s)	-1.72906829133E-05	Resid phase (deg)	292.6	+/-	20.0

ph/seg (deg)	49.6	Theor.	47.8	Amplitude	0.262 +/- 0.046	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	67.5	Search (1024X32)	0.209	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	20.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	23.1	Inc. seg. avg.	0.251	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023	
		Inc. frq. avg.	0.244	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 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3671.549 -382.891 simultaneous interpolator

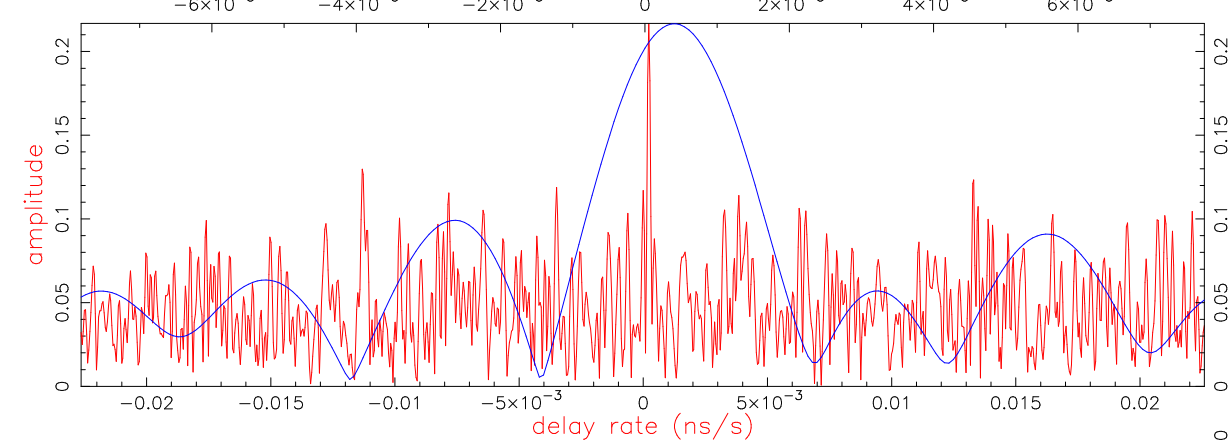
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hY.Q.347.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

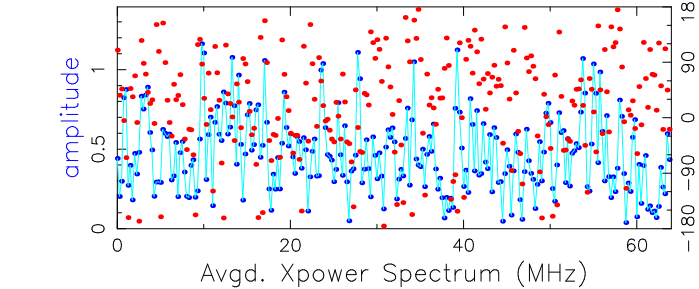
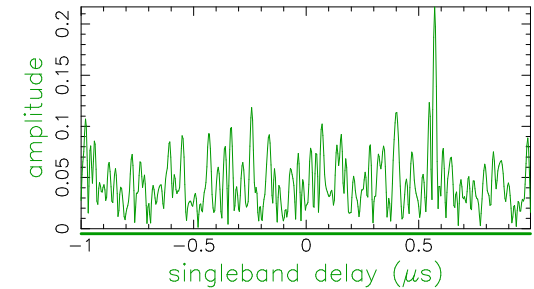
aux01

2013+370.3MP56K, No0500, hY

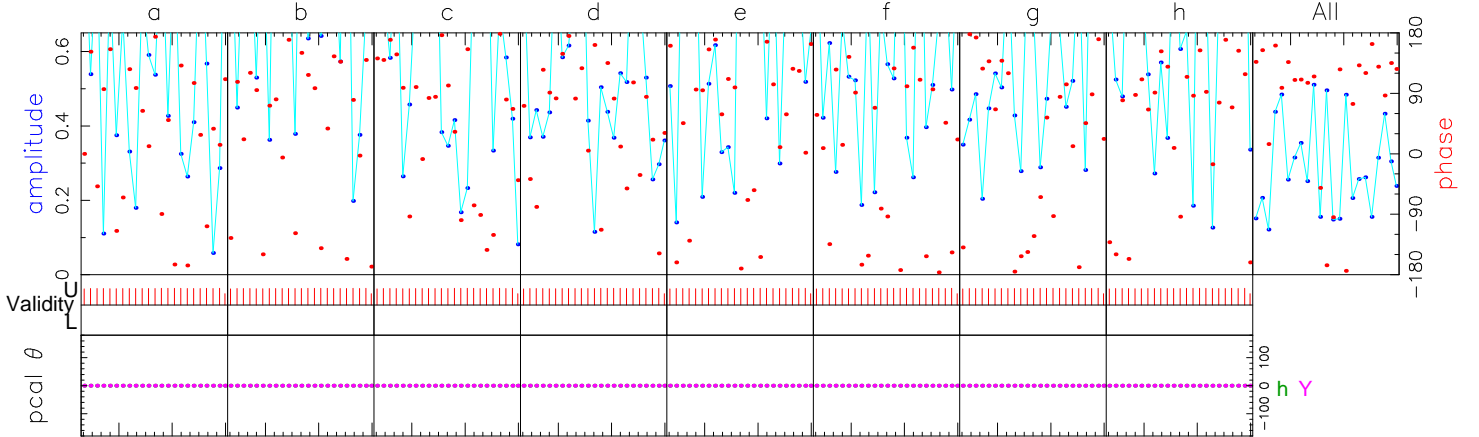
VLBA_HN - YEBES40M, fgroup Q, pol RR



Fringe quality 0
 SNR 5.9
 Int time 97.781
 Amp 0.217
 Phase 220.8
 PFD 4.4e-01
 Delays (us)
 SBD 0.570698
 MBD 0.000407
 Fringe rate (Hz) 0.009414
 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
 2025:042:151857
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
h:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Chan ids
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Tracks

Group delay (usec) (SBD)	3.77793760401E+03	Apriori delay (usec)	3.77737469742E+03	Resid mbdelay (usec)	4.06585E-04	+/-	1.9E-04
Sband delay (usec)	3.77794539517E+03	Apriori clock (usec)	1.2340964E+02	Resid sbdelay (usec)	5.70698E-01	+/-	1.5E-03
Phase delay (usec)	3.77737470584E+03	Apriori clockrate (us/s)	1.0876280E-02	Resid phdelay (usec)	8.42023E-06	+/-	1.3E-06
Delay rate (us/s)	1.01721919648E+00	Apriori rate (us/s)	1.01721897826E+00	Resid rate (us/s)	2.18218E-07	+/-	1.3E-08
Total phase (deg)	21.6	Apriori accel (us/s/s)	-1.72906829133E-05	Resid phase (deg)	220.8	+/-	19.5

ph/seg (deg)	59.9	Theor.	46.9	Amplitude	0.217 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.5	Search (1024X32)	0.215	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.9	Inc. seg. avg.	0.219	Inc. frq. avg.	0.204	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.2	Inc. frq. avg.	0.204			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

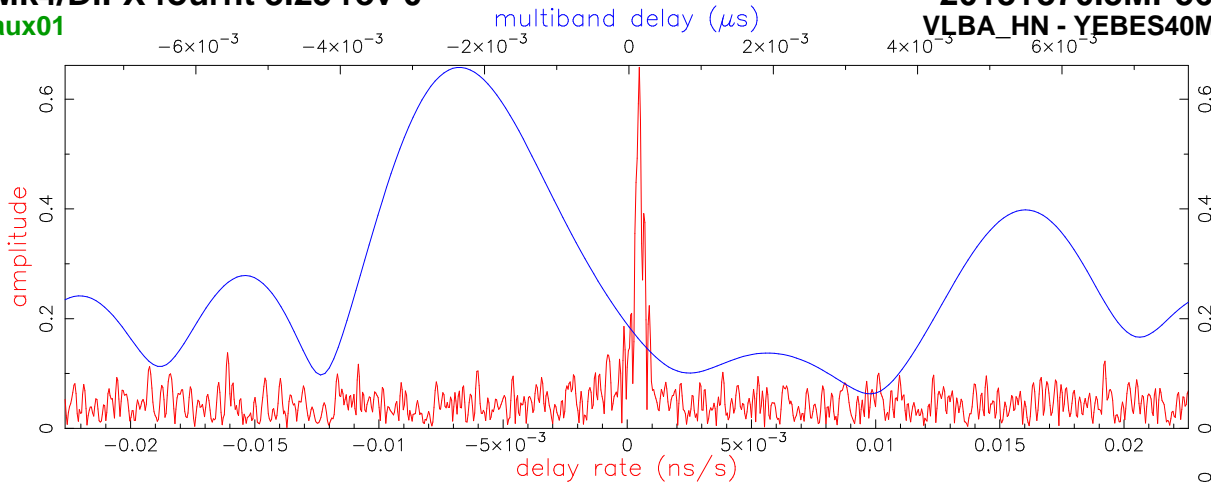
h: az 103.5 el 73.6 pa -63.0 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3671.549 -382.891 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hY.Q.380.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

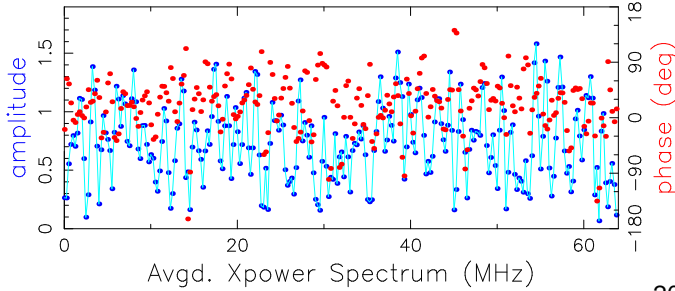
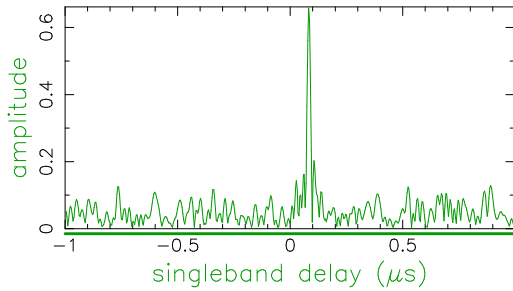
2013+370.3MP56K, No0500, hY

VLBA_HN - YEBES40M, fgroup Q, pol LR



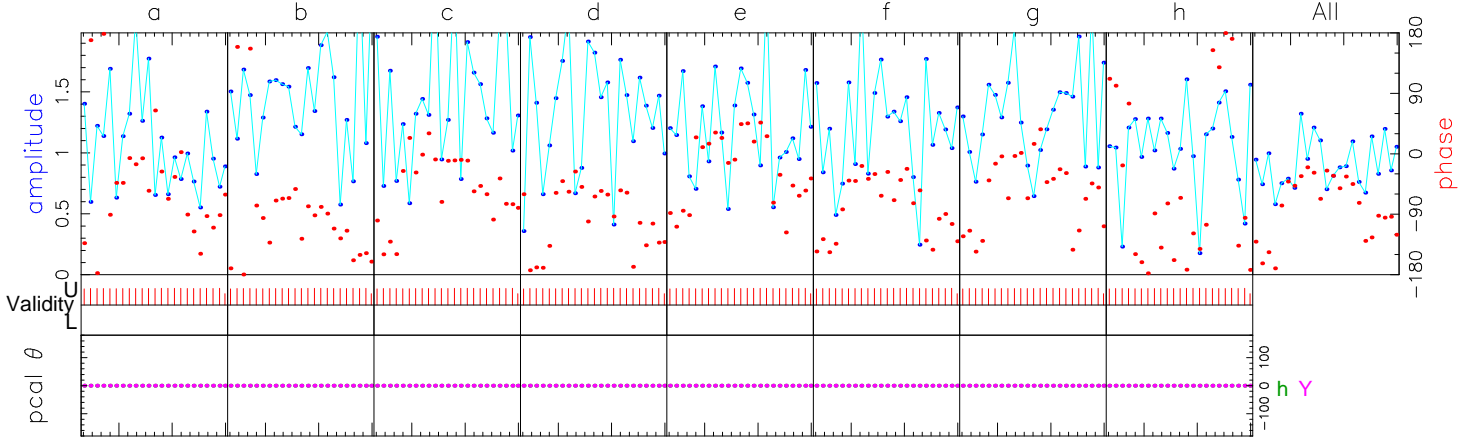
Fringe quality 8

SNR 17.9
 Int time 97.781
 Amp 0.662
 Phase 218.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.082904
 MBD -0.002336
 Fringe rate (Hz)
 0.021976
 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
 2025:042:151859
 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
	-67.5	-116.8	-44.0	-91.0	-13.3	-74.6	-53.3	-164.1	Phase	-74.4
	0.6	1.1	1.1	1.0	0.8	0.9	0.9	0.6	Ampl.	0.8
	278.2	277.8	277.9	277.4	277.5	278.0	277.3	275.5	Sbd box	278.2
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
h:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
h:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	3.77745048651E+03	Apriori delay (usec)	3.77737469742E+03	Resid mbdelay (usec)	-2.33591E-03	+/-	6.1E-05
Sband delay (usec)	3.77745760117E+03	Apriori clock (usec)	1.2340964E+02	Resid sbdelay (usec)	8.29038E-02	+/-	4.8E-04
Phase delay (usec)	3.77737469263E+03	Apriori clockrate (us/s)	1.0876280E-02	Resid phdelay (usec)	-4.79062E-06	+/-	4.1E-07
Delay rate (us/s)	1.01721948768E+00	Apriori rate (us/s)	1.01721897826E+00	Resid rate (us/s)	5.09419E-07	+/-	4.4E-09
Total phase (deg)	19.0	Apriori accel (us/s/s)	-1.72906829133E-05	Resid phase (deg)	218.1	+/-	6.4

ph/seg (deg)	46.6	RMS	15.4	Theor.	15.4	Amplitude	0.662 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	47.5	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)	50.4	Inc. seg. avg.	0.879	Inc. frq. avg.	0.838	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	38.0	Inc. frq. avg.	0.838			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

h: az 103.5 el 73.6 pa -63.0 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3671.549 -382.891 simultaneous interpolator

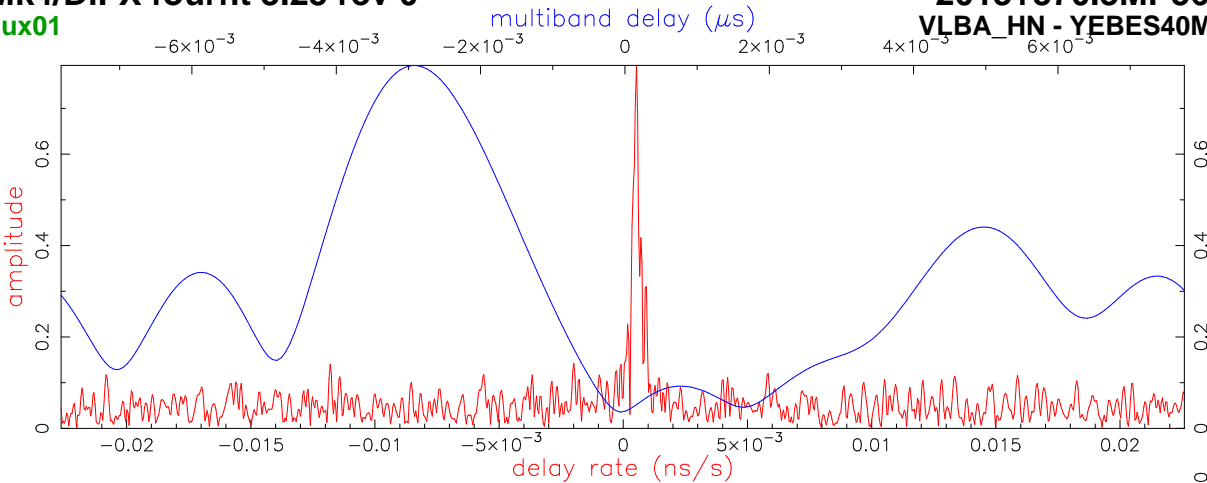
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hY.Q.392.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

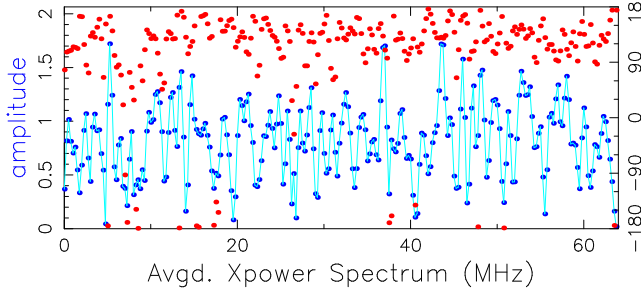
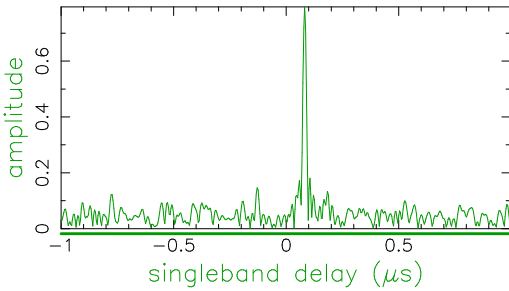
2013+370.3MP56K, No0500, hY

VLBA_HN - YEBES40M, fgroup Q, pol RL



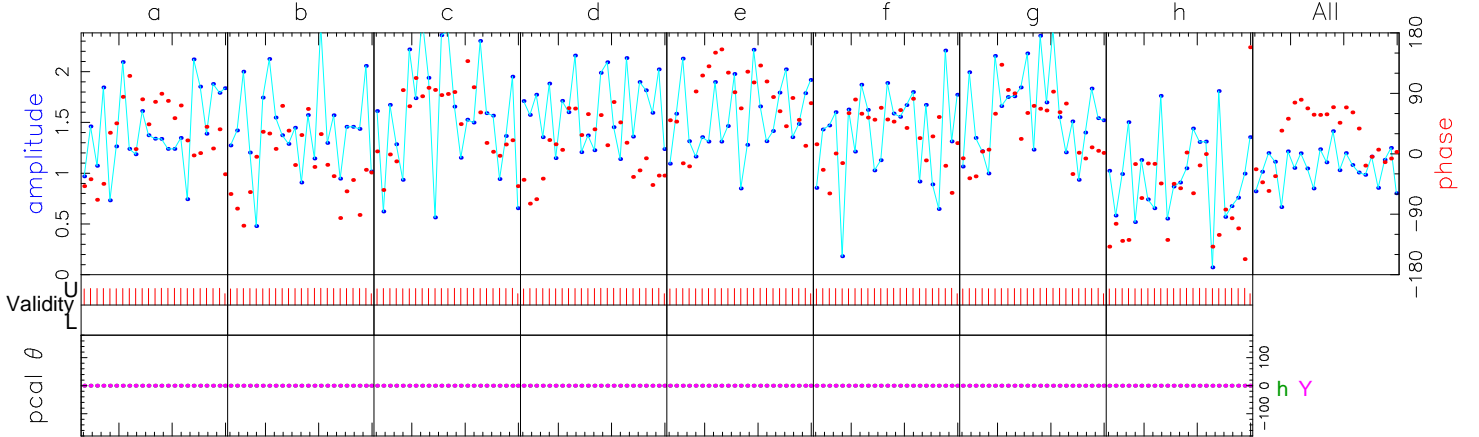
Fringe quality 8

SNR 21.5
 Int time 97.781
 Amp 0.794
 Phase 321.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.082033
 MBD -0.002918
 Fringe rate (Hz)
 0.022256
 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
 2025:042:151904
 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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
h:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	3.77744990427E+03	Apriori delay (usec)	3.77737469742E+03	Resid mbdelay (usec)	-2.91815E-03	+/-	5.1E-05
Sband delay (usec)	3.77745672992E+03	Apriori clock (usec)	1.2340964E+02	Resid sbdelay (usec)	8.20325E-02	+/-	4.0E-04
Phase delay (usec)	3.77737469929E+03	Apriori clockrate (us/s)	1.0876280E-06	Resid phdelay (usec)	1.86774E-06	+/-	3.4E-07
Delay rate (us/s)	1.01721949417E+00	Apriori rate (us/s)	1.01721897826E+00	Resid rate (us/s)	5.15913E-07	+/-	3.7E-09
Total phase (deg)	122.4	Apriori accel (us/s/s)	-1.72906829133E-05	Resid phase (deg)	321.5	+/-	5.3

ph/seg (deg)	42.1	Theor.	12.8	Search (1024X32)	0.779	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	40.4		22.3	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)	53.9		7.5	Inc. seg. avg.	1.041	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	35.0		13.2	Inc. frq. avg.	1.001	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 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3671.549 -382.891 simultaneous interpolator

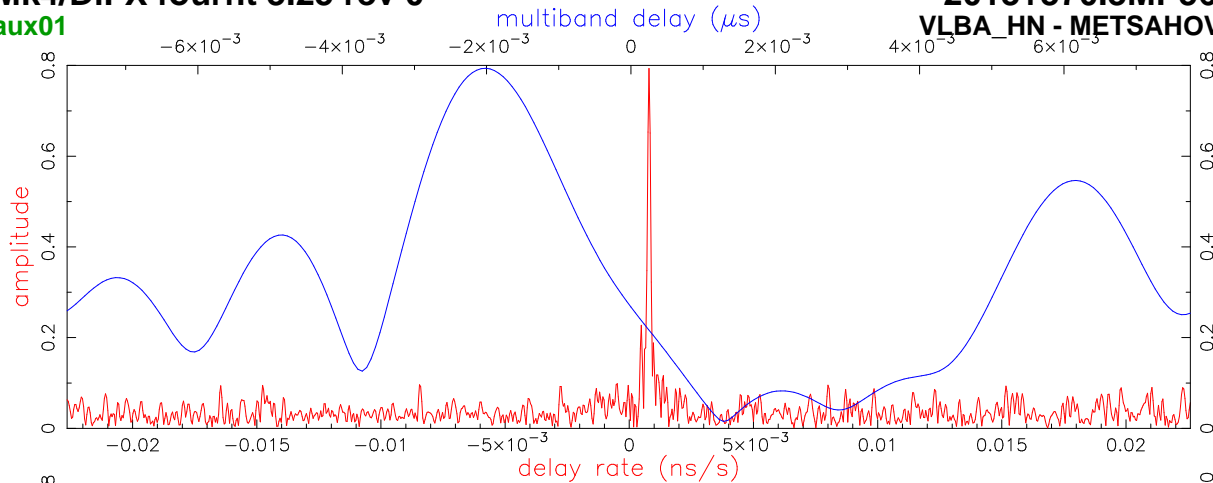
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hY...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hY.Q.402.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

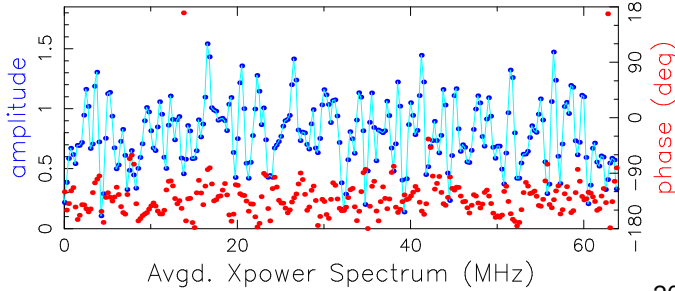
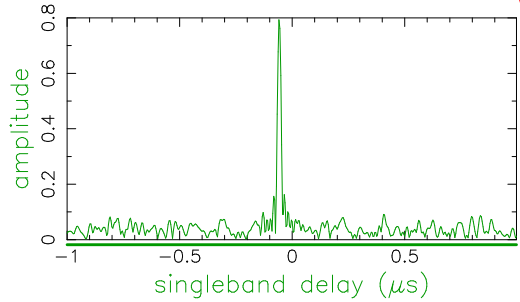
2013+370.3MP56K, No0500, hZ

VLBA_HN - METSAHOV, fgroup Q, pol LL



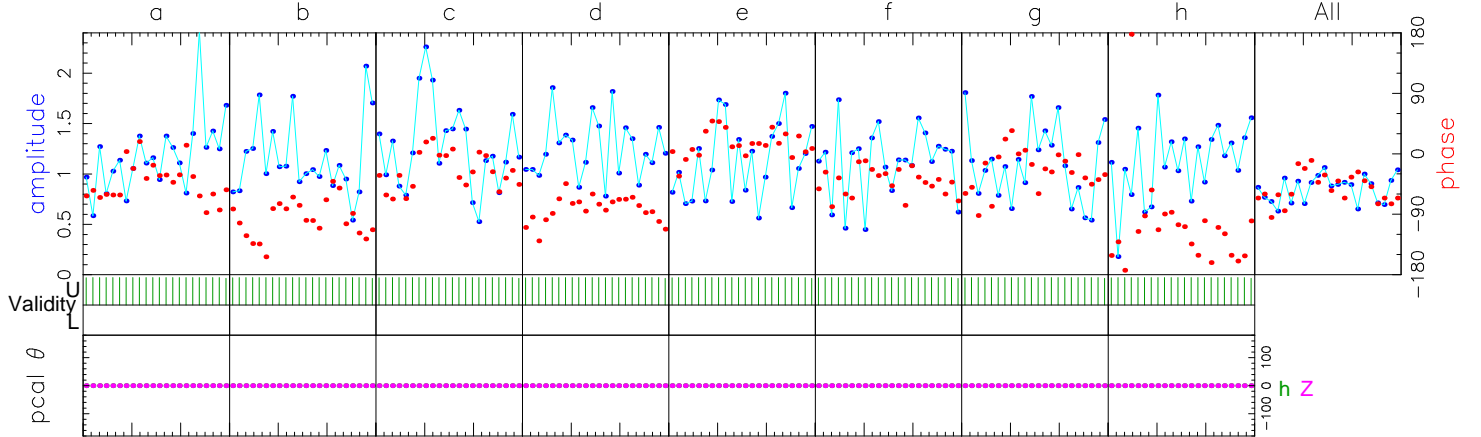
Fringe quality 6

SNR 29.3
 Int time 179.947
 Amp 0.800
 Phase -141.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.057462
 MBD -0.001980
 Fringe rate (Hz)
 0.035049
 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		
Z	0	0	0	0	0	0	0	0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		Chan ids
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		Tracks

Group delay (usec) (SBD)	7.34382588423E+03	Apriori delay (usec)	7.34389036397E+03	Resid mbdelay (usec)	-1.97973E-03	+/-	3.7E-05
Sband delay (usec)	7.34383290172E+03	Apriori clock (usec)	1.2323727E+01	Resid sbdelay (usec)	-5.74622E-02	+/-	2.9E-04
Phase delay (usec)	7.34389036066E+03	Apriori clockrate (us/s)	-5.3092296E-07	Resid phdelay (usec)	-3.30143E-06	+/-	2.5E-07
Delay rate (us/s)	9.04452260592E-01	Apriori rate (us/s)	9.04451448134E-01	Resid rate (us/s)	8.12458E-07	+/-	2.4E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.17654690864E-05	Resid phase (deg)	-141.3	+/-	3.9

ph/seg (deg)	22.1	RMS	9.2	Theor.	22.1	Amplitude	0.800 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	17.3	Search (1024X32)	0.760	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	49.9	Inc. seg. avg.	0.844	Inc. frq. avg.	1.054	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	33.5	Inc. frq. avg.	1.054			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

h: az 103.5 el 73.6 pa -63.0 Z: az 280.0 el 38.3 pa 37.9 u,v (fr/asec) -3280.800 -2188.200 simultaneous interpolator

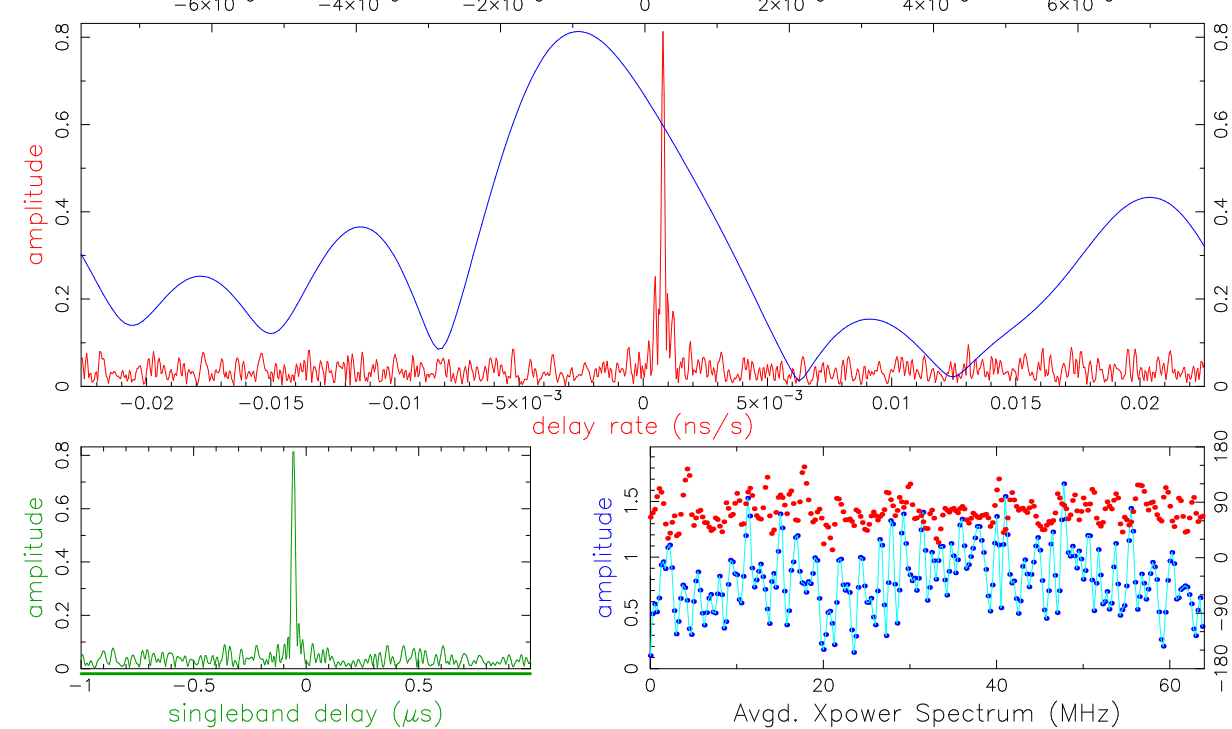
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hZ.Q.191.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hZ

VLBA_HN - METSAHOV, fgroup Q, pol RR

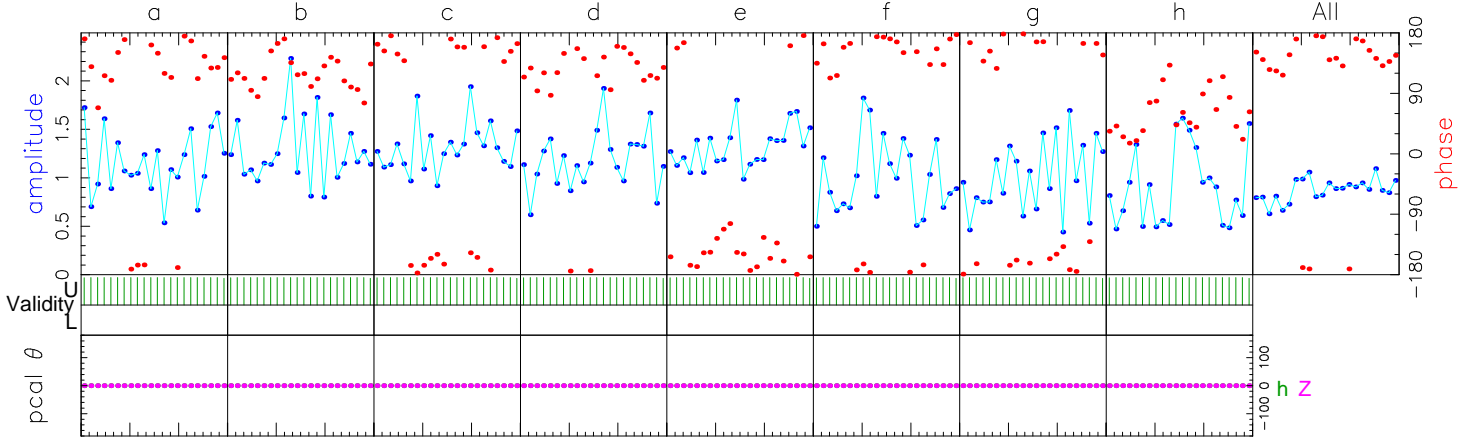


Fringe quality 6

SNR 30.5
 Int time 179.947
 Amp 0.832
 Phase -296.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.056628
 MBD -0.000964
 Fringe rate (Hz)
 0.034986
 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
 2025:042:151817
 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		
Z	0	0	0	0	0	0	0	0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Chan ids
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Tracks

Group delay (usec) (SBD)	7.34382690032E+03	Apriori delay (usec)	7.34389036397E+03	Resid mbdelay (usec)	-9.63641E-04	+/-	3.6E-05
Sband delay (usec)	7.34383373597E+03	Apriori clock (usec)	1.2323727E+01	Resid sbdelay (usec)	-5.66280E-02	+/-	2.8E-04
Phase delay (usec)	7.34389037387E+03	Apriori clockrate (us/s)	-5.3092296E-07	Resid phdelay (usec)	9.90342E-06	+/-	2.4E-07
Delay rate (us/s)	9.04452259120E-01	Apriori rate (us/s)	9.04451448134E-01	Resid rate (us/s)	8.10987E-07	+/-	2.3E-09
Total phase (deg)	-187.7	Apriori accel (us/s/s)	-5.17654690864E-05	Resid phase (deg)	-296.2	+/-	3.8

ph/seg (deg)	22.0	Theor.	8.8	Amplitude	0.832 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.6	Search (1024X32)	0.789	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.7	Interp.	0.000	Inc. seg. avg.	0.866	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.7	Inc. frq. avg.	1.031	Inc. frq. avg.	1.031	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
h: az 103.5 el 73.6 pa -63.0		Z: az 280.0 el 38.3 pa 37.9		u,v (fr/asec)	-3280.800 -2188.200	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/hZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hZ.Q.227.3MP56K

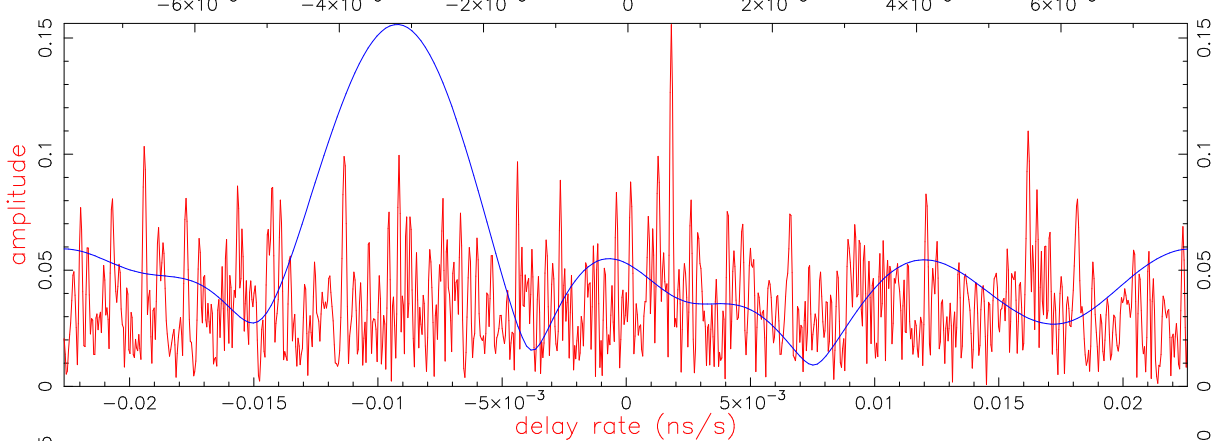
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hZ

VLBA_HN - METSAHOV, fgroup Q, pol LR

multiband delay (μ s)



Fringe quality 0

SNR 5.7

Int time 179.947

Amp 0.156

Phase 246.4

PFD 7.3e-01

Delays (us)

SBD 0.632518

MBD -0.003209

Fringe rate (Hz)

0.078280

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

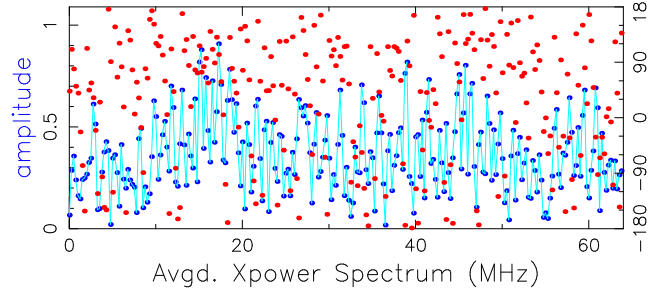
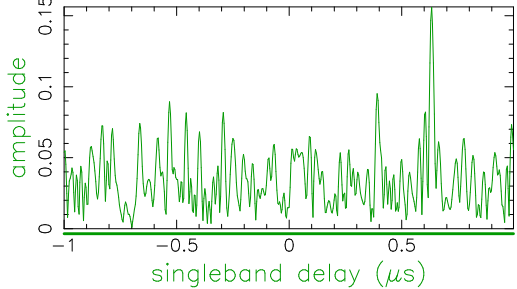
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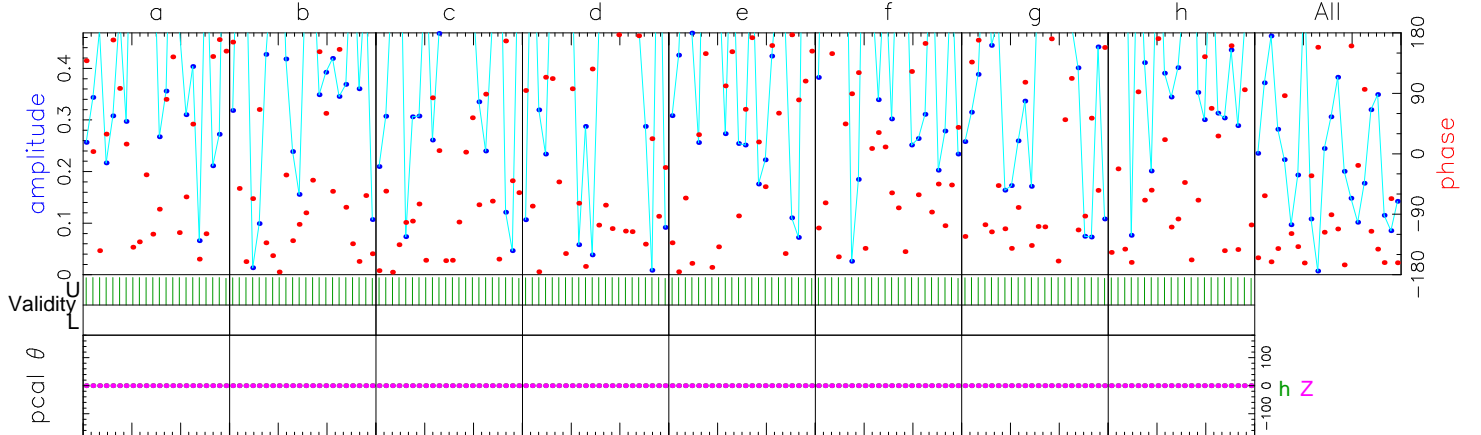
RA & Dec (J2000)

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

Group delay (usec) (SBD)	7.34452777990E+03	Apriori delay (usec)	7.34389036397E+03	Resid mbdelay (usec)	-3.20907E-03	+/-	1.9E-04
Sband delay (usec)	7.34452288147E+03	Apriori clock (usec)	1.2323727E+01	Resid sbdelay (usec)	6.32518E-01	+/-	1.5E-03
Phase delay (usec)	7.34389035520E+03	Apriori clockrate (us/s)	-5.3092296E-07	Resid phdelay (usec)	-8.76274E-06	+/-	1.3E-06
Delay rate (us/s)	9.04453262686E-01	Apriori rate (us/s)	9.04451448134E-01	Resid rate (us/s)	1.81455E-06	+/-	1.2E-08
Total phase (deg)	354.9	Apriori accel (us/s/s)	-5.17654690864E-05	Resid phase (deg)	246.4	+/-	20.0

ph/seg (deg) 62.7 47.0 Search (1024X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 99.5 82.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 34.3 28.3 Inc. seg. avg. 0.175 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 25.2 49.5 Inc. frq. avg. 0.161 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023

h: az 103.5 el 73.6 pa -63.0 Z: az 280.0 el 38.3 pa 37.9 u,v (fr/asec) -3280.800 -2188.200 simultaneous interpolator

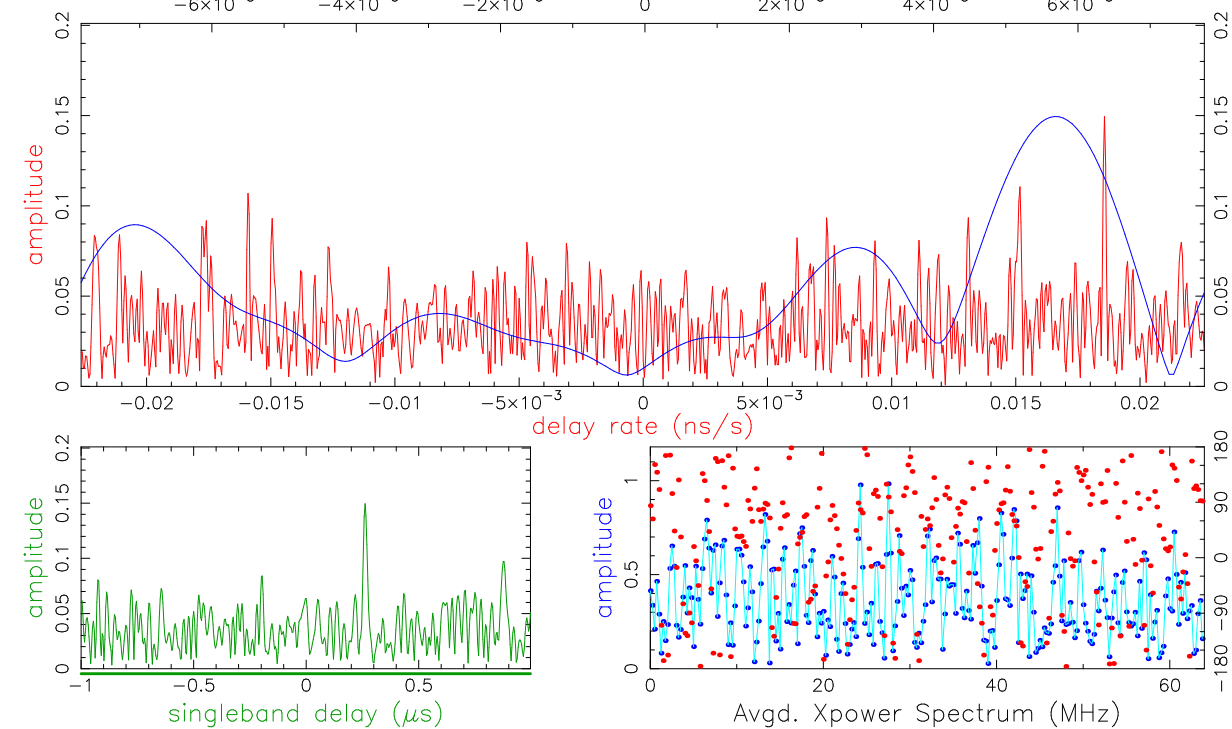
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hZ.Q.241.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

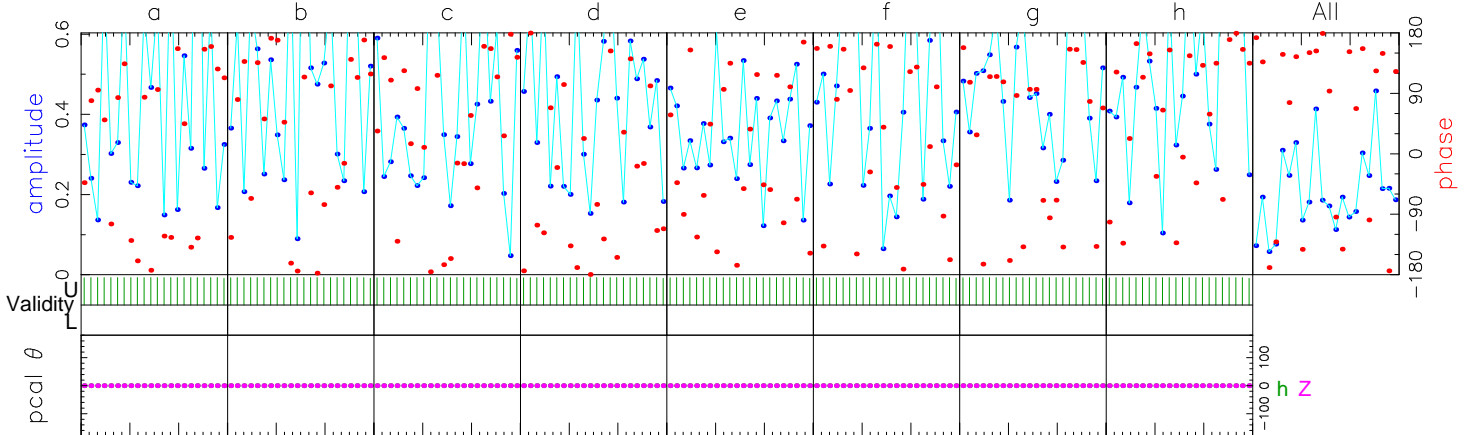
2013+370.3MP56K, No0500, hZ

VLBA_HN - METSAHOV, fgroup Q, pol RL



Fringe quality 0
 SNR 5.5
 Int time 179.947
 Amp 0.201
 Phase 152.4
 PFD 9.9e-01
 Delays (us)
 SBD 0.261764
 MBD 0.005693
 Fringe rate (Hz) 0.804502
 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		
Z	0	0	0	0	0	0	0	0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Chan ids
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		Tracks
Group delay (usec) (SBD)	7.34414605656E+03					7.34389036397E+03			Resid mbdelay (usec)	5.69259E-03 +/- 2.0E-04
Sband delay (usec)	7.34415212822E+03					1.2323727E+01			Resid sbdelay (usec)	2.61764E-01 +/- 1.6E-03
Phase delay (usec)	7.34389037378E+03					-5.3092296E-07			Resid phdelay (usec)	9.81276E-06 +/- 1.3E-06
Delay rate (us/s)	9.04470096770E-01					9.04451448134E-01			Resid rate (us/s)	1.86486E-05 +/- 1.3E-08
Total phase (deg)		260.9				-5.17654690864E-05			Resid phase (deg)	152.4 +/- 20.9
ph/seg (deg)	53.0	49.0	Search (1024X32)	0.146	0.201 +/- 0.037				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	78.8	85.5	Interp.	0.000	0.146				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	43.9	29.6	Inc. seg. avg.	0.207	0.000				Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	41.9	51.6	Inc. frq. avg.	0.198	0.000				Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
h: az 103.5 el 73.6 pa -63.0		Z: az 280.0 el 38.3 pa 37.9			u,v (fr/asec) -3280.800 -2188.200				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/hZ..3MP56K			Output file: /Exps/c241d/v1/7mm/1234/No0500/hZ.Q.258.3MP56K					simultaneous interpolator