

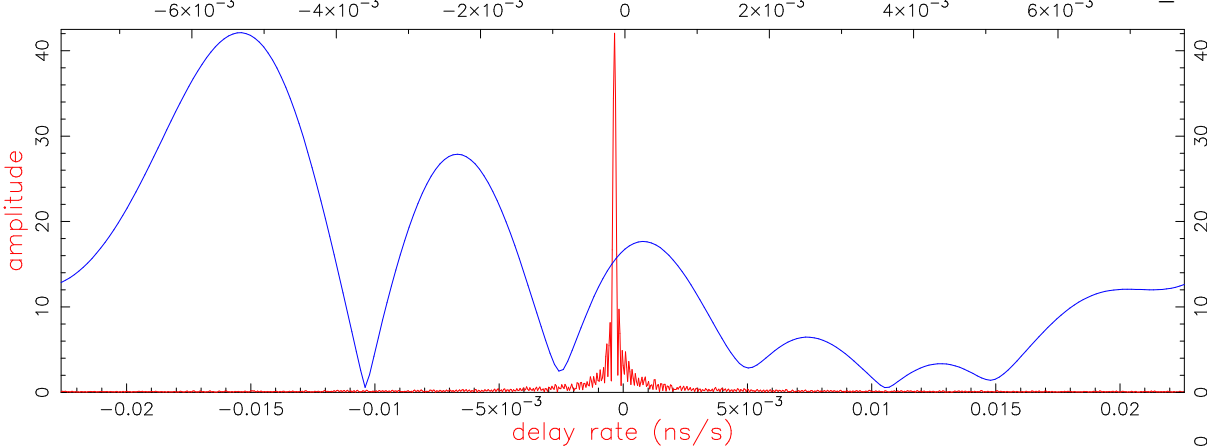
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

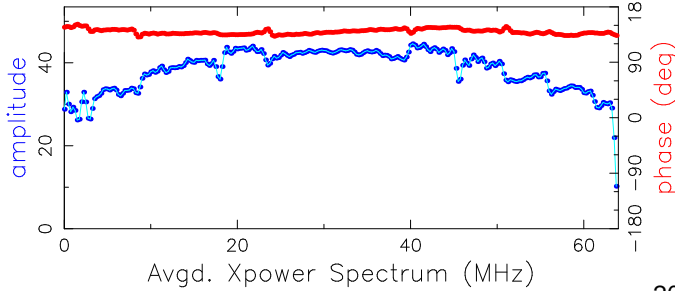
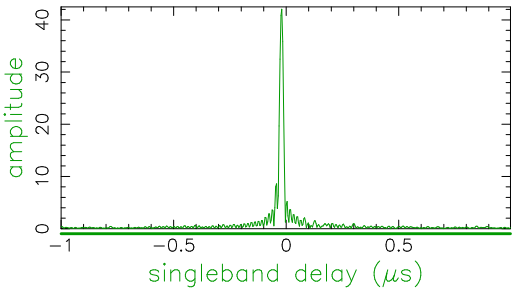
ALMA - VLBA_KP, fgroup Q, pol YR

multiband delay (μ s)



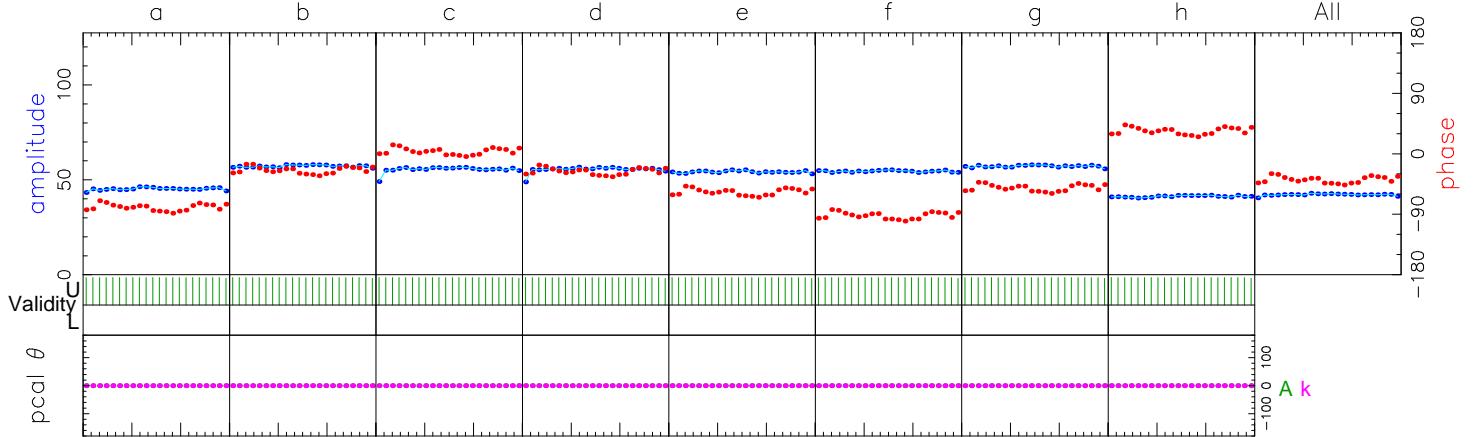
Fringe quality 6

SNR 1558.8
 Int time 179.986
 Amp 42.493
 Phase -241.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.020872
 MBD -0.005400
 Fringe rate (Hz)
 -0.015839
 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
 2025:042:151736
 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
	-79.6	-24.5	3.6	-26.2	-56.8	-91.9	-50.7	33.9	Phase	-38.6
	45.1	57.0	55.3	55.3	54.0	54.4	57.0	41.2	Ampl.	52.4
	253.5	251.6	251.5	251.5	251.3	251.4	251.9	253.7	Sbd box	251.7
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-6.18696727061E+03	Apriori delay (usec)	-6.18694624565E+03	Resid mbdelay (usec)	-5.39996E-03	+/-	7.0E-07
Sband delay (usec)	-6.18696711815E+03	Apriori clock (usec)	-2.1075728E+03	Resid sbdelay (usec)	-2.08725E-02	+/-	5.5E-06
Phase delay (usec)	-6.18694624814E+03	Apriori clockrate (us/s)	-1.6303799E-07	Resid phdelay (usec)	-2.48293E-06	+/-	4.7E-09
Delay rate (us/s)	-5.98141286447E-01	Apriori rate (us/s)	-5.98140919285E-01	Resid rate (us/s)	-3.67162E-07	+/-	4.5E-11
Total phase (deg)	-254.6	Apriori accel (us/s/s)	-4.09993538980E-05	Resid phase (deg)	-241.1	+/-	0.1

ph/seg (deg)	4.8	RMS	42.493 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	1.4	Theor.	41.131	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	45.4	Search (1024X32)	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	26.8	Interp.	42.185	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
		Inc. seg. avg.	52.419	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
		Inc. frq. avg.			ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u, v (fr/asec) 2130.826 -4482.352 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.13.3MP56K

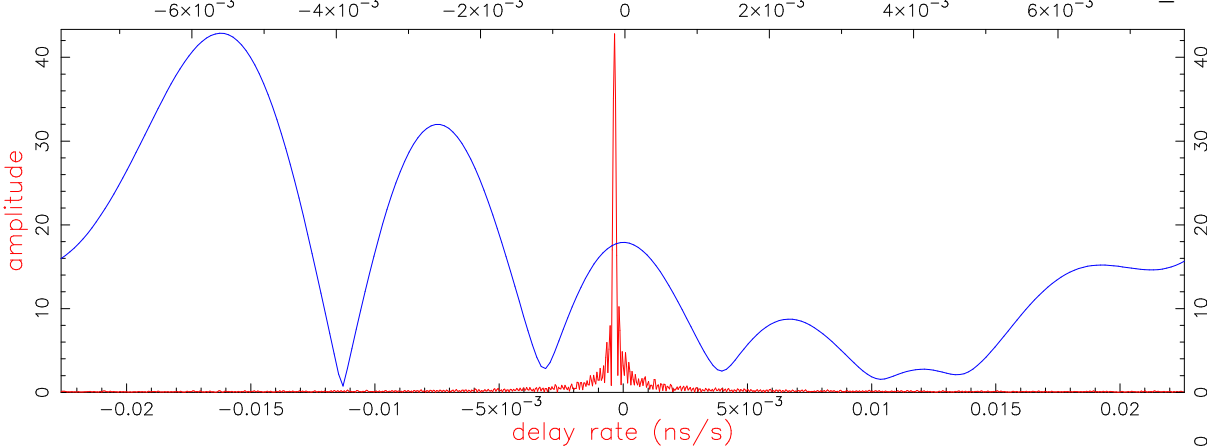
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

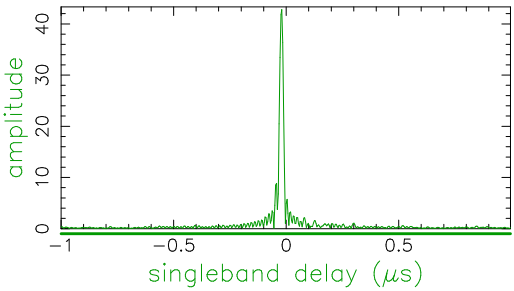
ALMA - VLBA_KP, fgroup Q, pol XR

multiband delay (μ s)

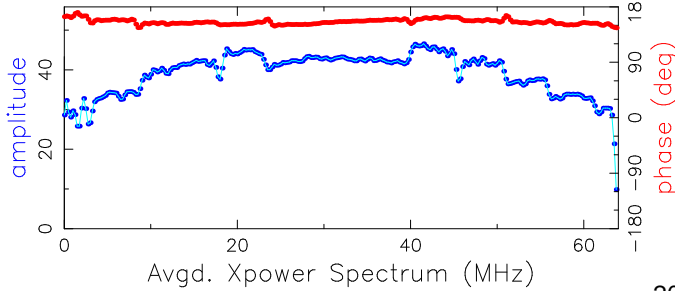


Fringe quality 6

SNR 1589.7
 Int time 179.986
 Amp 43.337
 Phase -222.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.020973
 MBD -0.005674
 Fringe rate (Hz)
 -0.015797
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



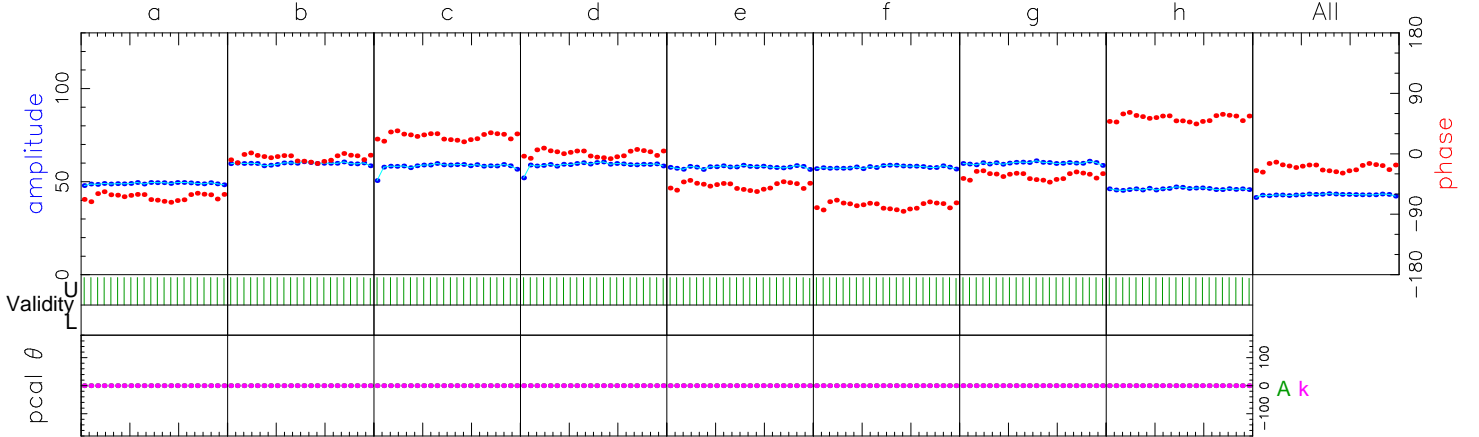
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151739
 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
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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:k	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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -6.18696754483E+03 Apriori delay (usec) -6.18694624565E+03 Resid mbdelay (usec) -5.67418E-03 +/- 6.8E-07
 Sband delay (usec) -6.18696721840E+03 Apriori clock (usec) -2.1075728E+03 Resid sbdelay (usec) -2.09727E-02 +/- 5.4E-06
 Phase delay (usec) -6.18694624696E+03 Apriori clockrate (us/s) -1.6303799E-07 Resid phdelay (usec) -1.30485E-06 +/- 4.6E-09
 Delay rate (us/s) -5.98141285474E-01 Apriori rate (us/s) -5.98140919285E-01 Resid rate (us/s) -3.66188E-07 +/- 4.5E-11
 Total phase (deg) -236.3 Apriori accel (us/s/s) -4.09993538980E-05 Resid phase (deg) -222.8 +/- 0.1

RMS Theor. Amplitude 43.337 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 4.8 0.2 Search (1024X32) 41.423 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.4 0.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 48.7 0.1 Inc. seg. avg. 42.951 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 31.0 0.2 Inc. frq. avg. 55.812 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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.23.3MP56K

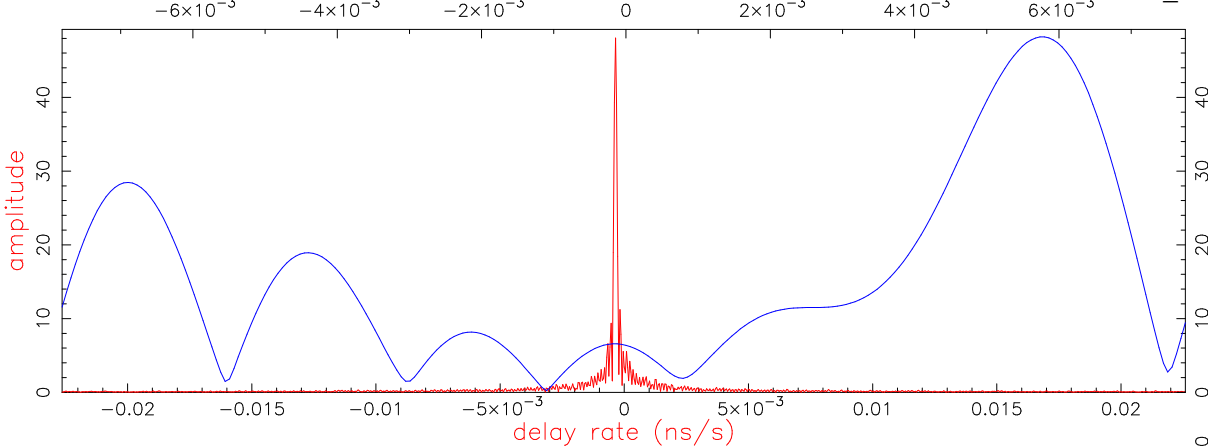
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

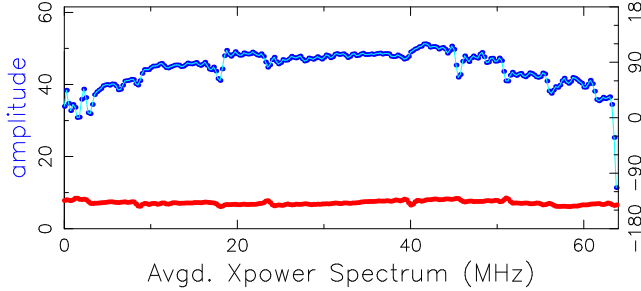
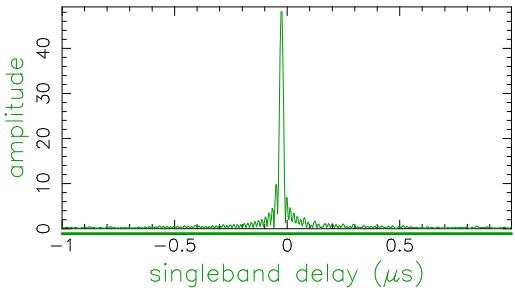
ALMA - VLBA_KP, fgroup Q, pol YL

multiband delay (μ s)

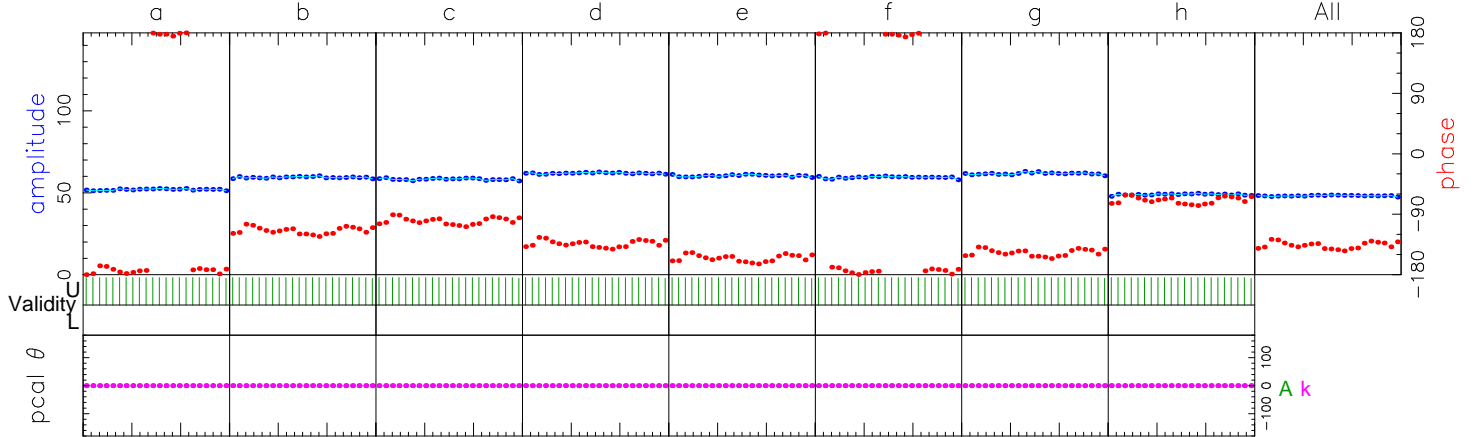


Fringe quality 7

SNR 1805.4
 Int time 179.984
 Amp 49.215
 Phase -181.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.025424
 MBD 0.005672
 Fringe rate (Hz)
 -0.015855
 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
 2025:042:151740
 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
	-176.0	-114.3	-99.8	-133.7	-155.3	-177.2	-147.1	-69.2	Phase	-136.1
	51.8	59.2	58.1	61.7	60.2	59.3	61.5	48.8	Ampl.	57.6
	252.1	250.2	250.3	250.5	250.3	250.4	250.5	252.5	Sbd box	250.5
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-6.18697182390E+03	Apriori delay (usec)	-6.18694624565E+03	Resid mbdelay (usec)	5.67176E-03	+/-	6.0E-07
Sband delay (usec)	-6.18697166915E+03	Apriori clock (usec)	-2.1075728E+03	Resid sbdelay (usec)	-2.54235E-02	+/-	4.8E-06
Phase delay (usec)	-6.18694625442E+03	Apriori clockrate (us/s)	-1.6303799E-07	Resid phdelay (usec)	-8.76196E-06	+/-	4.1E-09
Delay rate (us/s)	-5.98141286815E-01	Apriori rate (us/s)	-5.98140919285E-01	Resid rate (us/s)	-3.67530E-07	+/-	3.9E-11
Total phase (deg)		Apriori accel (us/s/s)	-4.09993538980E-05	Resid phase (deg)	-181.1	+/-	0.1

ph/seg (deg)	4.9	RMS	4.9	Theor.	0.1	Amplitude	49.215 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.1		0.1			Search (1024X32)	47.060	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.9		0.1			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	19.2		0.2			Inc. seg. avg.	48.214	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	57.589	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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.37.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

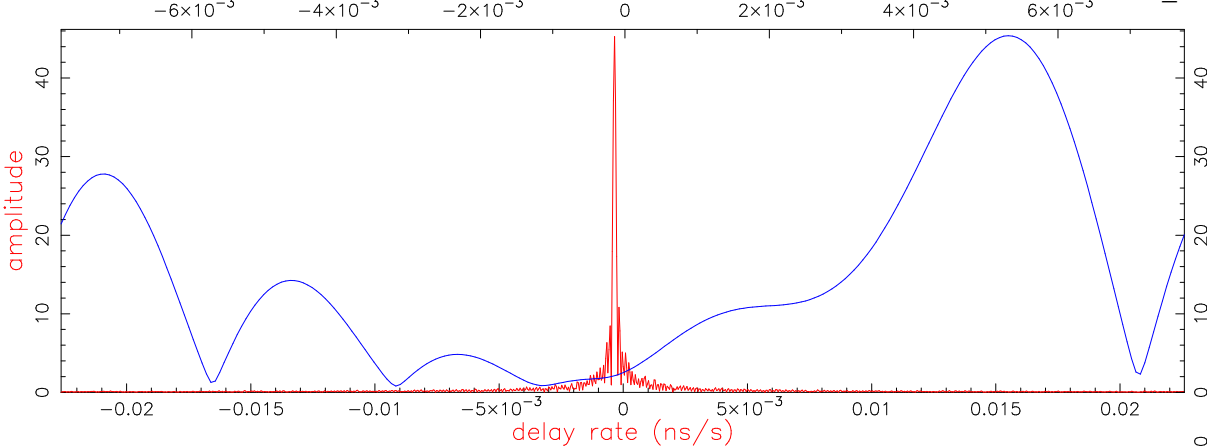
aux01

2013+370.3MP56K, No0500, Ak

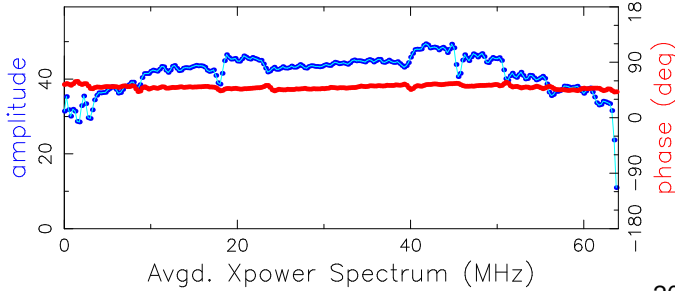
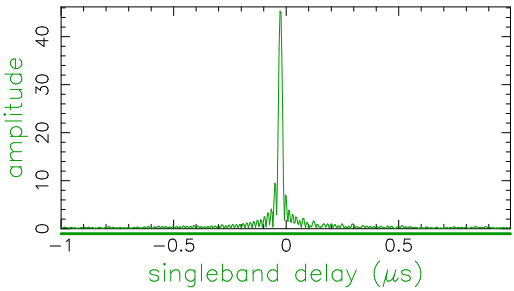
ALMA - VLBA_KP, fgroup Q, pol XL

multiband delay (μ s)

Fringe quality 6

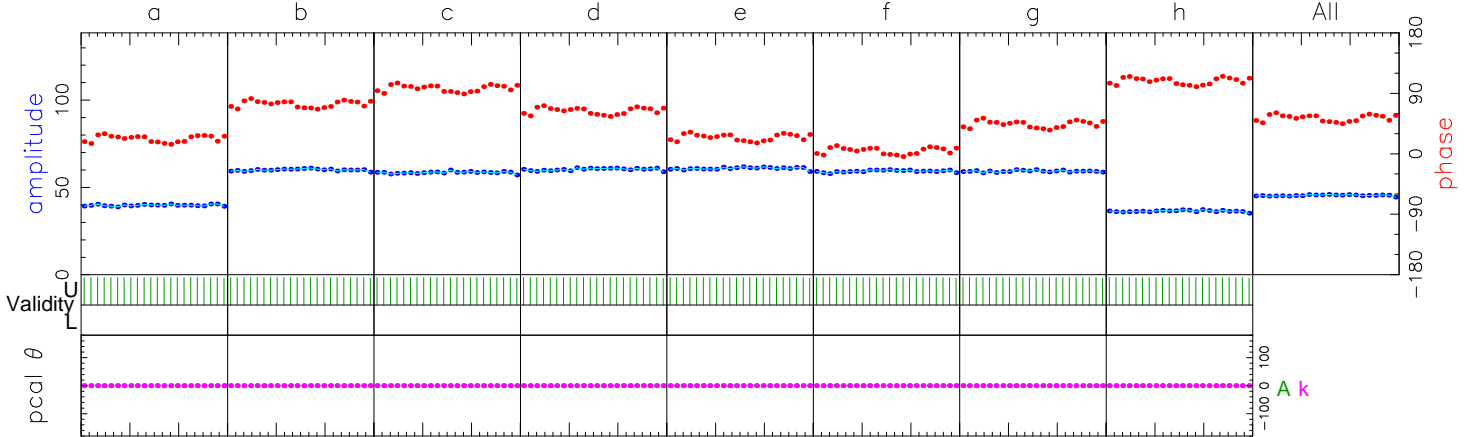


SNR 1694.5
 Int time 179.984
 Amp 46.192
 Phase -351.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.025563
 MBD 0.005393
 Fringe rate (Hz)
 -0.015815
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151733
 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
	22.4	74.0	97.4	63.9	24.5	4.4	44.0	108.2	Phase	53.1
	39.7	59.9	58.4	60.2	60.8	59.1	59.1	36.3	Ampl.	54.2
	252.0	250.2	250.2	250.4	250.3	250.4	250.5	252.2	Sbd box	250.5
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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	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	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -6.18697210268E+03 Apriori delay (usec) -6.18694624565E+03 Resid mbdelay (usec) 5.39298E-03 +/- 6.4E-07
 Sband delay (usec) -6.18697180815E+03 Apriori clock (usec) -2.1075728E+03 Resid sbdelay (usec) -2.55625E-02 +/- 5.1E-06
 Phase delay (usec) -6.18694624223E+03 Apriori clockrate (us/s) -1.6303799E-07 Resid phdelay (usec) 3.41949E-06 +/- 4.4E-09
 Delay rate (us/s) -5.98141285878E-01 Apriori rate (us/s) -5.98140919285E-01 Resid rate (us/s) -3.66593E-07 +/- 4.2E-11
 Total phase (deg) -5.4 Apriori accel (us/s/s) -4.09993538980E-05 Resid phase (deg) -351.9 +/- 0.1

RMS Theor. Amplitude 46.192 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 4.7 0.2 Search (1024X32) 44.477 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.8 0.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 40.4 0.1 Inc. seg. avg. 45.453 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 26.7 0.2 Inc. frq. avg. 54.175 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

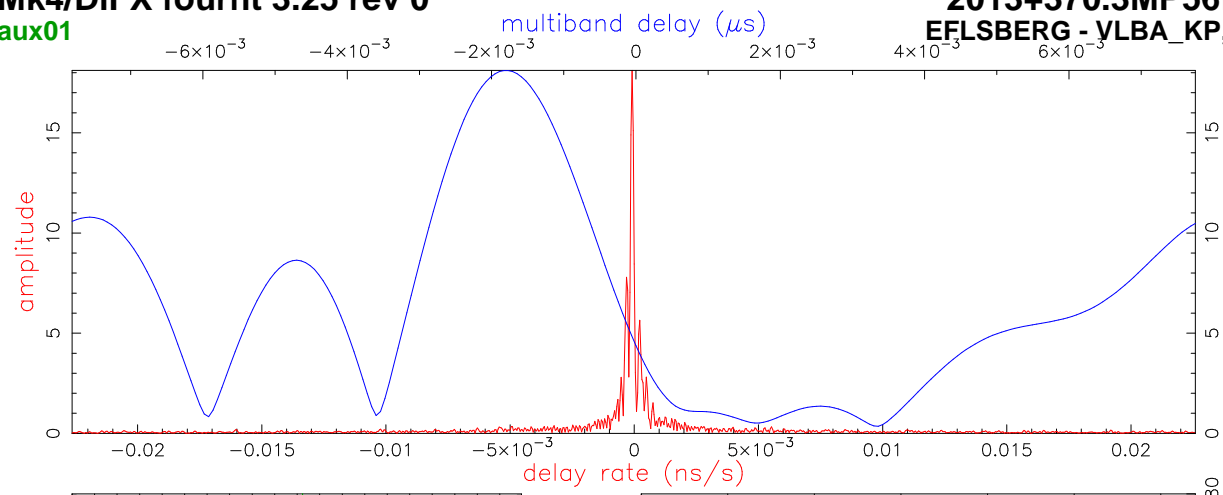
A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.6.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Bk

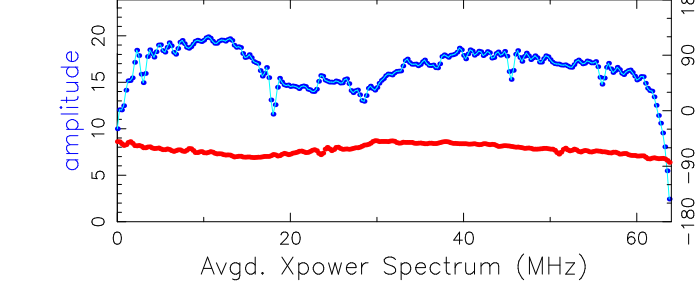
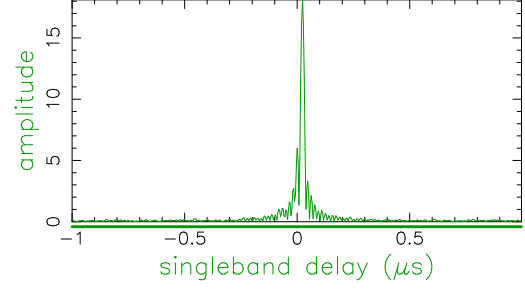
EFLSBERG - VLBA_KP, fgroup Q, pol RR



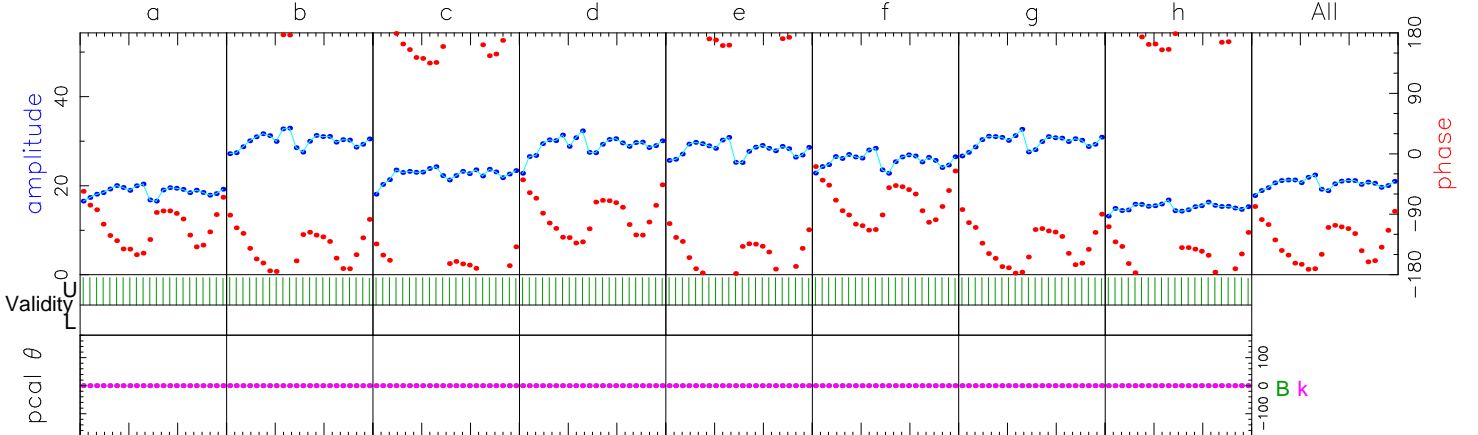
Fringe quality 4

SNR 664.6
 Int time 179.963
 Amp 18.116
 Phase 272.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.023413
 MBD -0.001802
 Fringe rate (Hz)
 -0.003123
 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	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 1.29405672441E+03 Apriori delay (usec) 1.29402727606E+03 Resid mbdelay (usec) -1.80165E-03 +/- 1.6E-06
 Sband delay (usec) 1.29405068906E+03 Apriori clock (usec) -3.5543552E+01 Resid sbdelay (usec) 2.34130E-02 +/- 1.3E-05
 Phase delay (usec) 1.29402726756E+03 Apriori clockrate (us/s) -3.4174508E-07 Resid phdelay (usec) -8.50392E-06 +/- 1.1E-08
 Delay rate (us/s) -1.57794976717E+00 Apriori rate (us/s) -1.57794969478E+00 Resid rate (us/s) -7.23848E-08 +/- 1.1E-10
 Total phase (deg) 161.1 Apriori accel (us/s/s) 9.49753649996E-06 Resid phase (deg) 272.9 +/- 0.2

ph/seg (deg) 27.9 0.4 Search (1024X32) 17.478 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 14.1 0.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.5 0.2 Inc. seg. avg. 20.446 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.6 0.4 Inc. frq. avg. 22.056 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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 5691.155 1104.209 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bk.Q.106.3MP56K

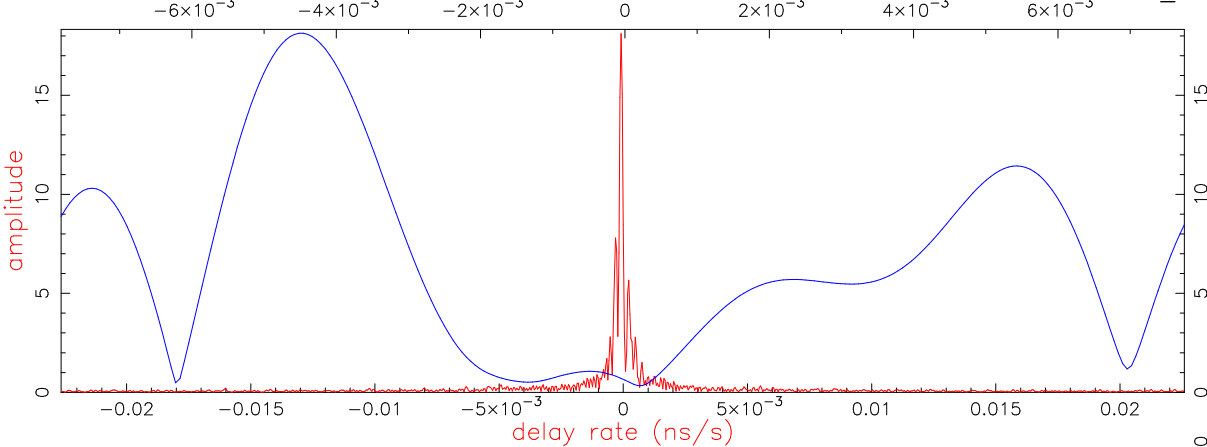
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Bk

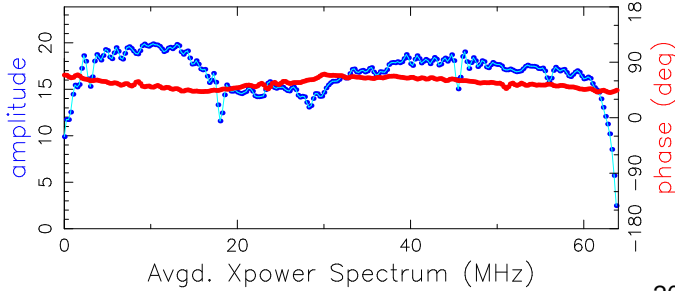
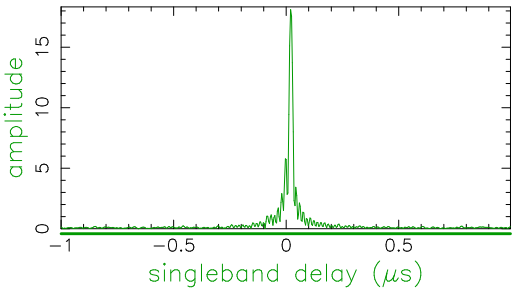
EFLSBERG - VLBA_KP, fgroup Q, pol LR

multiband delay (μ s)



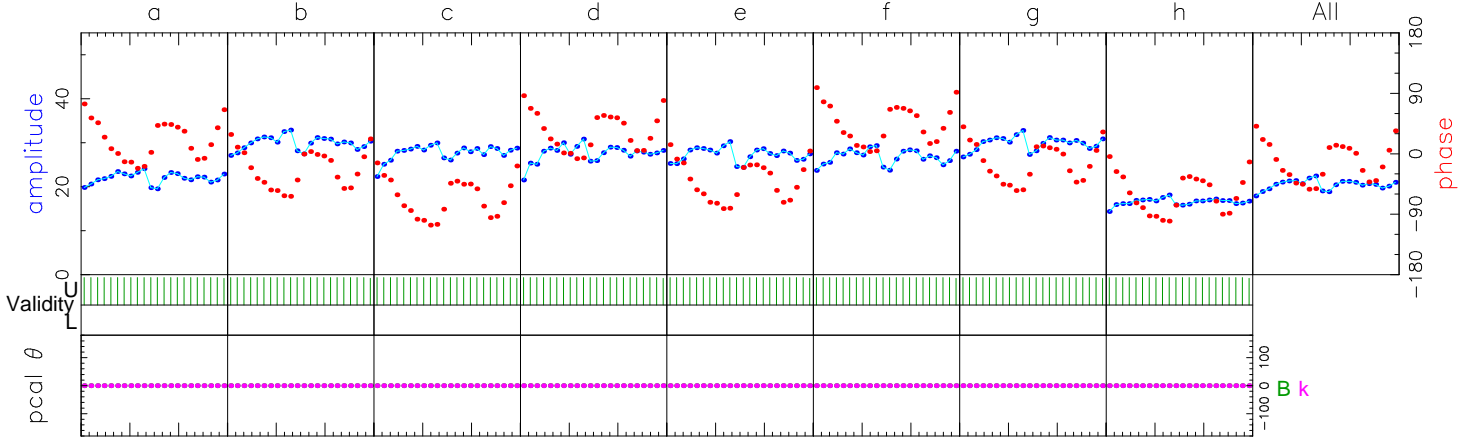
Fringe quality 4

SNR 672.4
 Int time 179.963
 Amp 18.330
 Phase 32.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.020870
 MBD -0.004425
 Fringe rate (Hz)
 -0.003122
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151756
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	1.29405410088E+03	Apriori delay (usec)	1.29402727606E+03	Resid mbdelay (usec)	-4.42519E-03	+/-	1.6E-06
Sband delay (usec)	1.29404814606E+03	Apriori clock (usec)	-3.5543552E+01	Resid sbdelay (usec)	2.08700E-02	+/-	1.3E-05
Phase delay (usec)	1.29402727524E+03	Apriori clockrate (us/s)	-3.4174508E-07	Resid phdelay (usec)	-8.21248E-07	+/-	1.1E-08
Delay rate (us/s)	-1.57794976716E+00	Apriori rate (us/s)	-1.57794969478E+00	Resid rate (us/s)	-7.23791E-08	+/-	1.1E-10
Total phase (deg)	280.4	Apriori accel (us/s/s)	9.49753649996E-06	Resid phase (deg)	32.2	+/-	0.2

ph/seg (deg)	28.0	RMS	28.0	Theor.	0.4	Amplitude	18.330 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	13.0		0.7	Search (1024X32)	17.632	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)	45.4		0.2	Inc. seg. avg.	20.460	Inc. seg. avg.	20.460	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	32.8		0.4	Inc. frq. avg.	23.005	Inc. frq. avg.	23.005	Data rate (Mb/s):	2048							

B: az 275.5 el 46.9 pa 52.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 5691.155 1104.209 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bk.Q.118.3MP56K

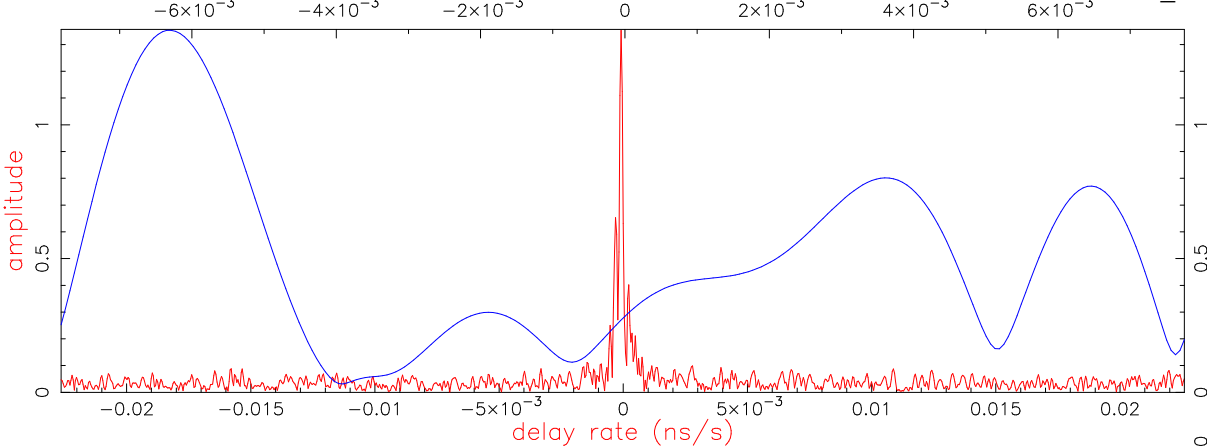
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Bk

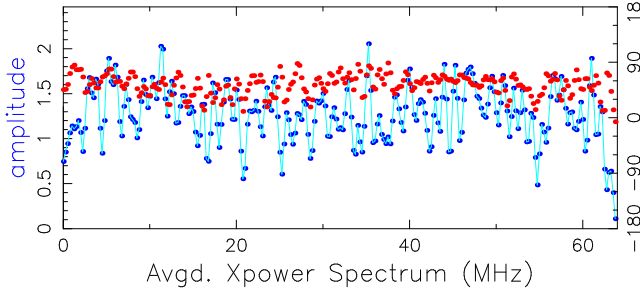
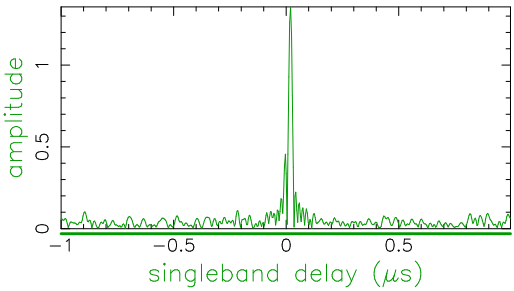
EFLSBERG - VLBA_KP, fgroup Q, pol RL

multiband delay (μ s)



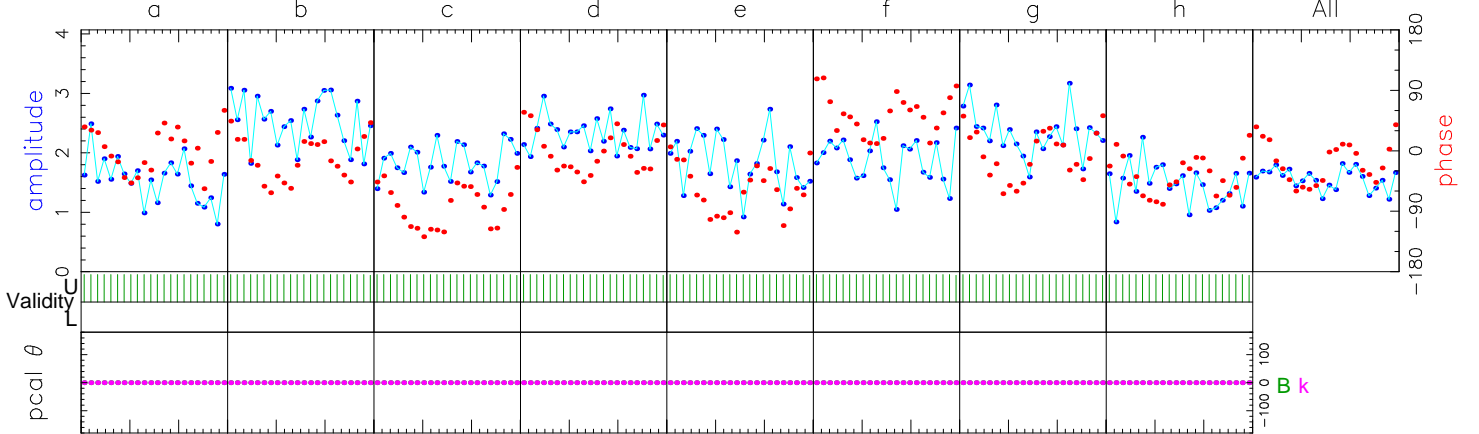
Fringe quality 4

SNR 49.8
 Int time 179.961
 Amp 1.357
 Phase 29.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.018900
 MBD -0.006338
 Fringe rate (Hz)
 -0.003430
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151758
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD) 1.29405218775E+03 Apriori delay (usec) 1.29402727606E+03 Resid mbdelay (usec) -6.33831E-03 +/- 2.2E-05
 Sband delay (usec) 1.29404617606E+03 Apriori clock (usec) -3.5543552E+01 Resid sbdelay (usec) 1.89000E-02 +/- 1.7E-04
 Phase delay (usec) 1.29402727506E+03 Apriori clockrate (us/s) -3.4174508E-07 Resid phdelay (usec) -1.00409E-06 +/- 1.5E-07
 Delay rate (us/s) -1.57794977428E+00 Apriori rate (us/s) -1.57794969478E+00 Resid rate (us/s) -7.95013E-08 +/- 1.4E-09
 Total phase (deg) 277.5 Apriori accel (us/s/s) 9.49753649996E-06 Resid phase (deg) 29.4 +/- 2.3

RMS Theor. Amplitude 1.357 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 30.1 5.4 Search (1024X32) 1.341 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 19.8 9.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 45.2 3.3 Inc. seg. avg. 1.554 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 33.2 5.7 Inc. frq. avg. 1.685 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

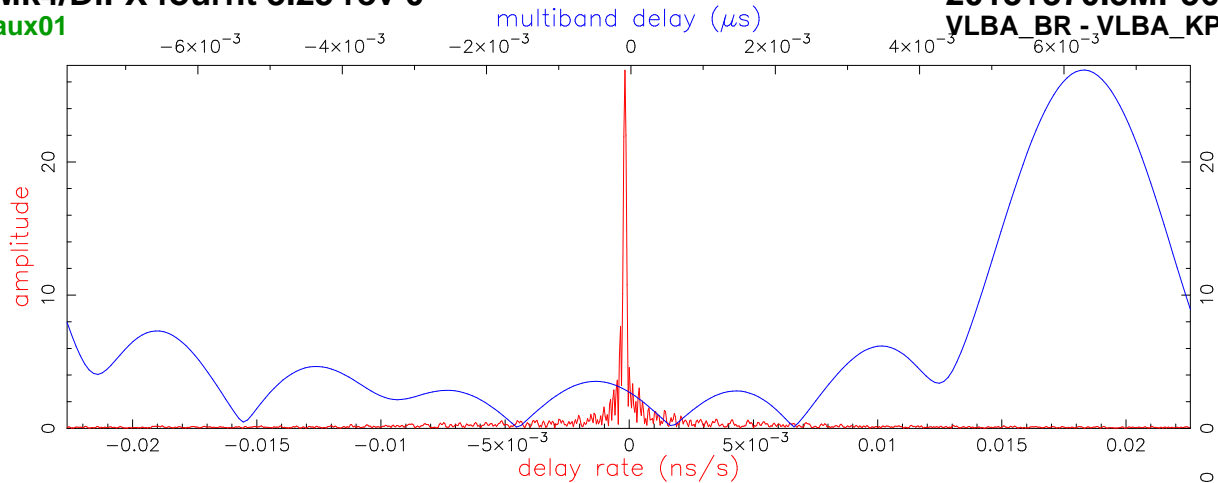
B: az 275.5 el 46.9 pa 52.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 5691.155 1104.209 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bk.Q.129.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

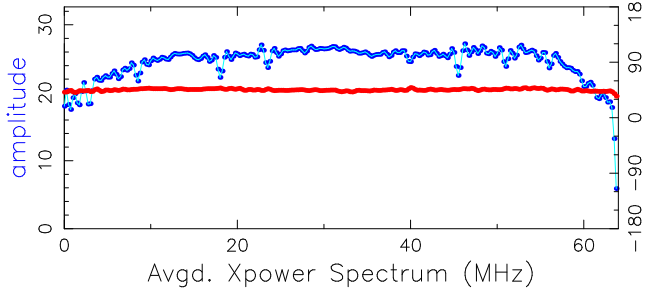
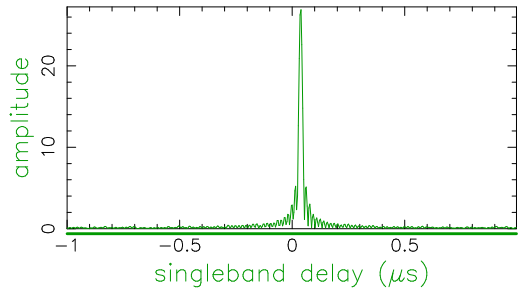
2013+370.3MP56K, No0500, bk

VLBA_BR - VLBA_KP, fgroup Q, pol LL



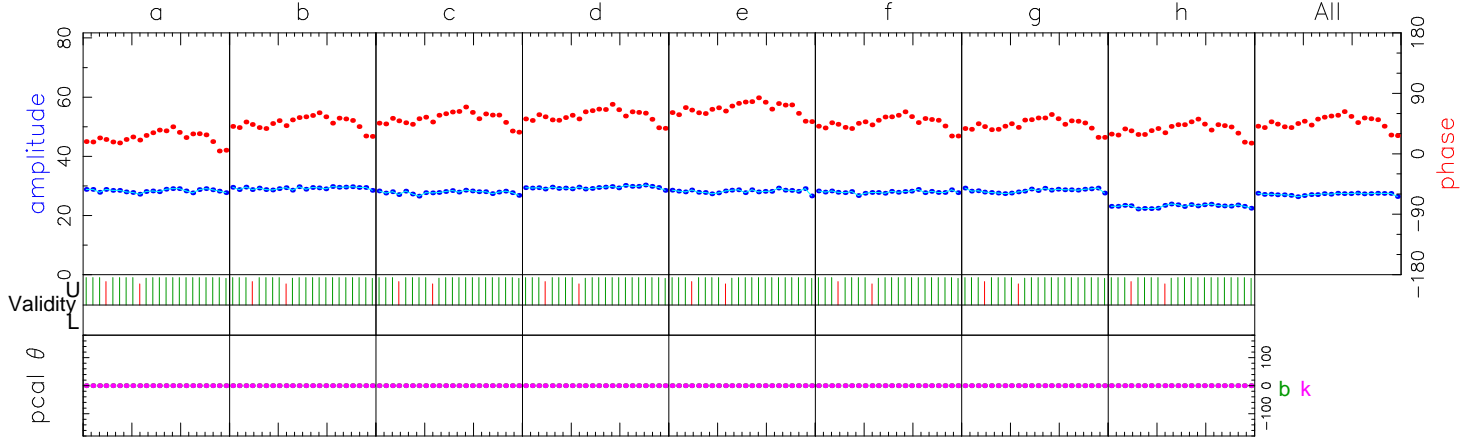
Fringe quality 8

SNR 990.3
 Int time 176.659
 Amp 27.247
 Phase 91.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.037592
 MBD 0.006235
 Fringe rate (Hz)
 -0.007606
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Yr:day 1234
 Start 2024:113
 Stop 2024:113
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151745
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	1000
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	1000
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	0:0
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	0:0
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
k	1000	1000	1000	1000	1000	1000	1000	1000		1000
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -2.14909846976E+02 Apriori delay (usec) -2.14947331699E+02 Resid mbdelay (usec) 6.23472E-03 +/- 1.1E-06
 Sband delay (usec) -2.14909739699E+02 Apriori clock (usec) 4.4722767E+00 Resid sbdelay (usec) 3.75920E-02 +/- 8.7E-06
 Phase delay (usec) -2.14947328694E+02 Apriori clockrate (us/s) 4.2423487E-07 Resid phdelay (usec) 3.00460E-06 +/- 7.5E-09
 Delay rate (us/s) -1.40168294810E-01 Apriori rate (us/s) -1.40168118498E-01 Resid rate (us/s) -1.76312E-07 +/- 7.2E-11
 Total phase (deg) 131.4 Apriori accel (us/s/s) 1.58703705792E-05 Resid phase (deg) 91.7 +/- 0.1

RMS Theor. Amplitude 27.247 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 8.8 0.3 Search (1024X32) 26.806 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.3 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 14.2 0.2 Inc. seg. avg. 27.203 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 6.8 0.3 Inc. frq. avg. 27.510 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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 513.181 1231.838 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bk.Q.60.3MP56K

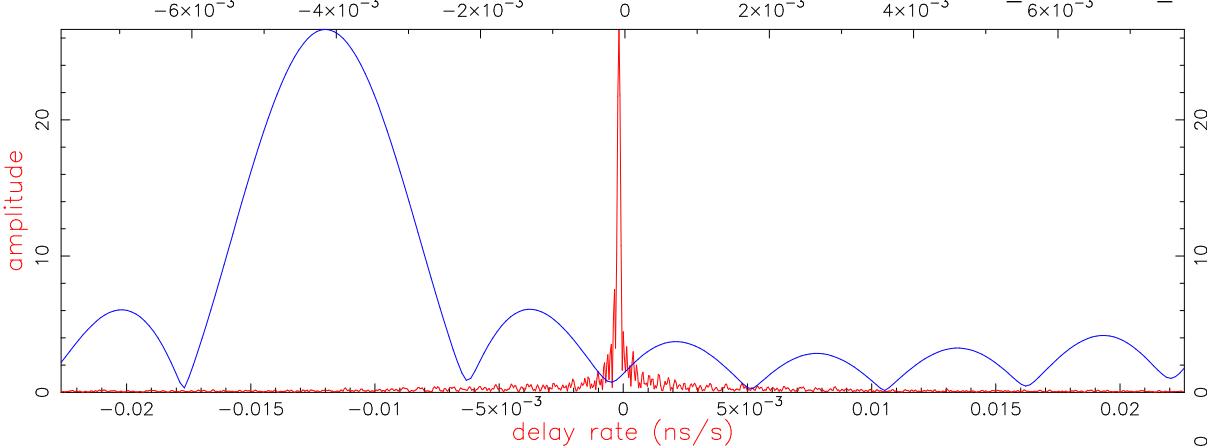
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, bk

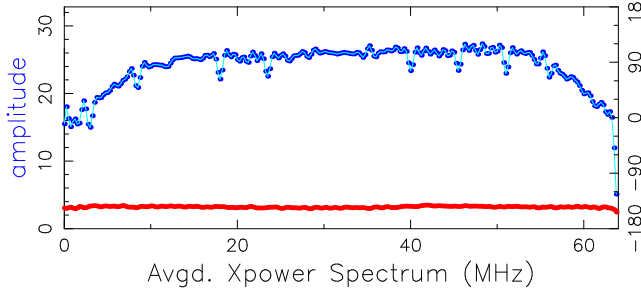
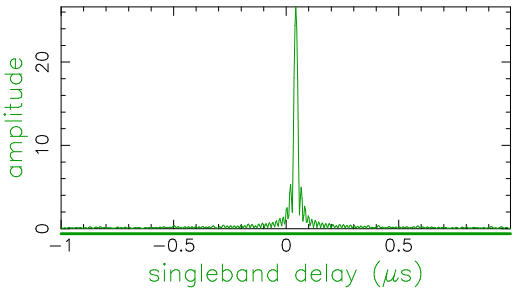
VLBA_BR - VLBA_KP, fgroup Q, pol RR

multiband delay (μ s)



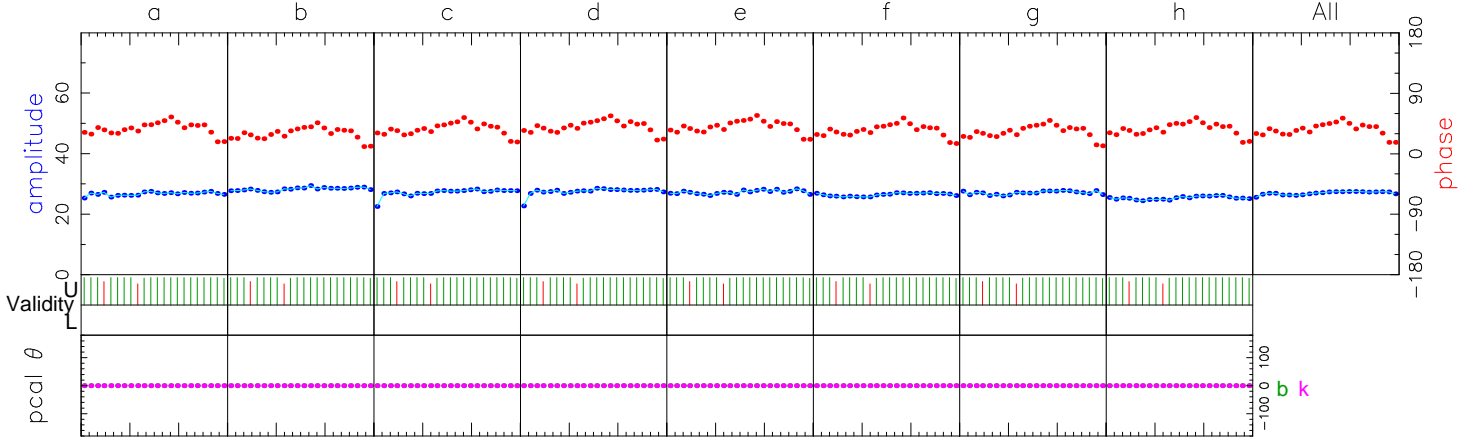
Fringe quality 9

SNR 968.1
 Int time 176.661
 Amp 26.637
 Phase 283.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.042815
 MBD -0.004152
 Fringe rate (Hz)
 -0.007625
 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	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -2.14904608320E+02 Apriori delay (usec) -2.14947331699E+02 Resid mbdelay (usec) -4.15162E-03 +/- 1.1E-06
 Sband delay (usec) -2.14904516949E+02 Apriori clock (usec) 4.4722767E+00 Resid sbdelay (usec) 4.28148E-02 +/- 8.9E-06
 Phase delay (usec) -2.14947329366E+02 Apriori clockrate (us/s) 4.2423487E-07 Resid phdelay (usec) 2.33236E-06 +/- 7.6E-09
 Delay rate (us/s) -1.40168295251E-01 Apriori rate (us/s) -1.40168118498E-01 Resid rate (us/s) -1.76753E-07 +/- 7.4E-11
 Total phase (deg) 323.5 Apriori accel (us/s/s) 1.58703705792E-05 Resid phase (deg) 283.7 +/- 0.1

RMS Theor. Amplitude 26.637 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 8.9 0.3 Search (1024X32) 26.008 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 2.3 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 3.9 0.2 Inc. seg. avg. 26.958 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 3.0 0.3 Inc. frq. avg. 26.681 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

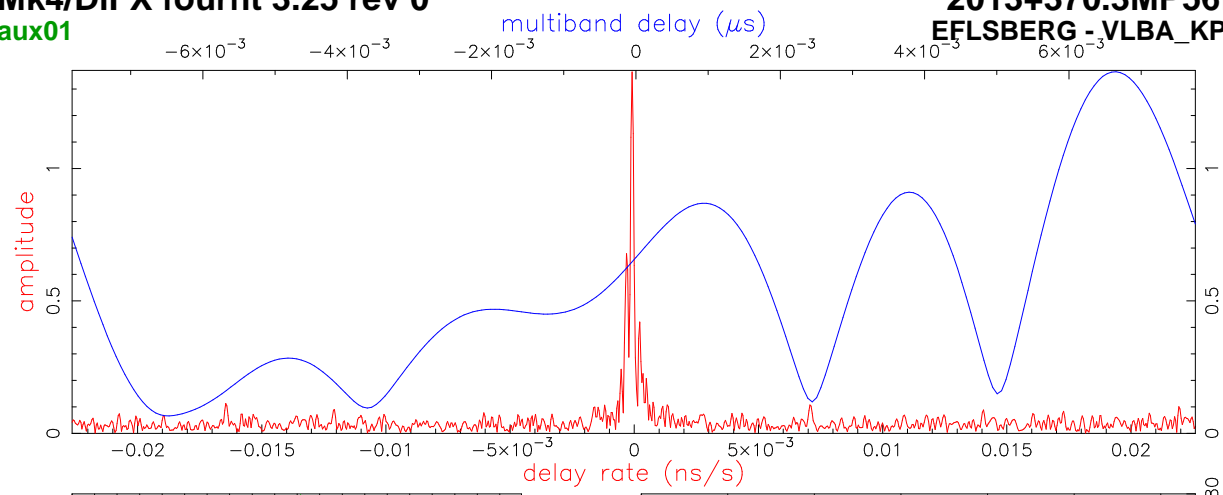
b: az 76.2 el 40.6 pa -54.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 513.181 1231.838 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bk.Q.72.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Bk

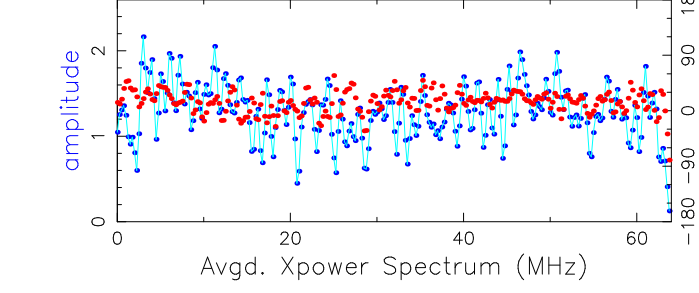
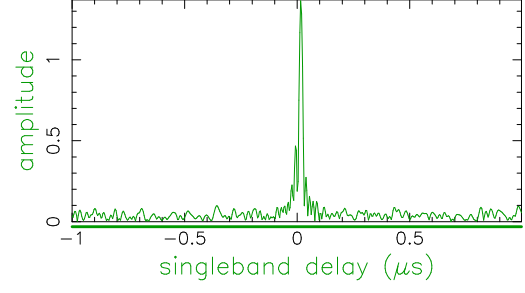
EFLSBERG - VLBA_KP, fgroup Q, pol LL



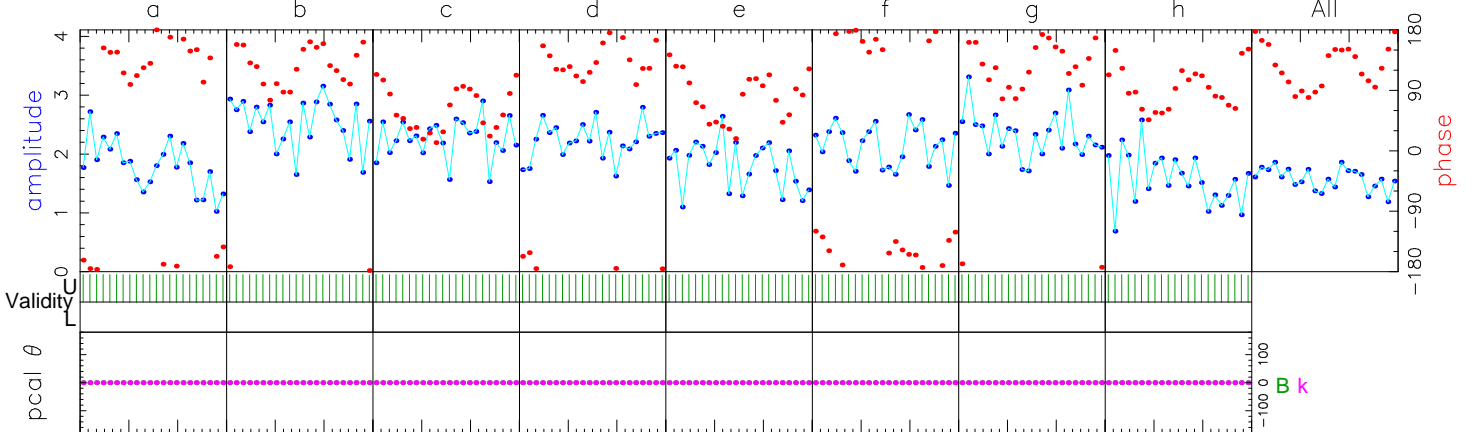
Fringe quality 3

SNR 50.3
 Int time 179.961
 Amp 1.371
 Phase 329.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.016436
 MBD 0.006679
 Fringe rate (Hz) -0.003411
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151753
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	157.7	133.1	60.8	144.5	79.5	-166.6	135.9	91.4	Phase	127.0
B	1.5	2.2	1.9	1.9	1.5	1.9	2.0	1.4	Ampl.	1.8
k	258.8	260.4	261.6	261.8	262.2	261.8	260.9	257.4	Sbd box	261.2
B:k	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B:k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) 1.29404957997E+03 Apriori delay (usec) 1.29402727606E+03 Resid mbdelay (usec) 6.67891E-03 +/- 2.2E-05
 Sband delay (usec) 1.29404371206E+03 Apriori clock (usec) -3.5543552E+01 Resid sbdelay (usec) 1.64360E-02 +/- 1.7E-04
 Phase delay (usec) 1.29402728424E+03 Apriori clockrate (us/s) -3.4174508E-07 Resid phdelay (usec) 8.17716E-06 +/- 1.5E-07
 Delay rate (us/s) -1.57794977384E+00 Apriori rate (us/s) -1.57794969478E+00 Resid rate (us/s) -7.90599E-08 +/- 1.4E-09
 Total phase (deg) 217.6 Apriori accel (us/s/s) 9.49753649996E-06 Resid phase (deg) 329.5 +/- 2.3

ph/seg (deg) 30.8 5.3 Search (1024X32) 1.332 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 20.3 9.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.8 3.2 Inc. seg. avg. 1.575 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.7 5.6 Inc. frq. avg. 1.784 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

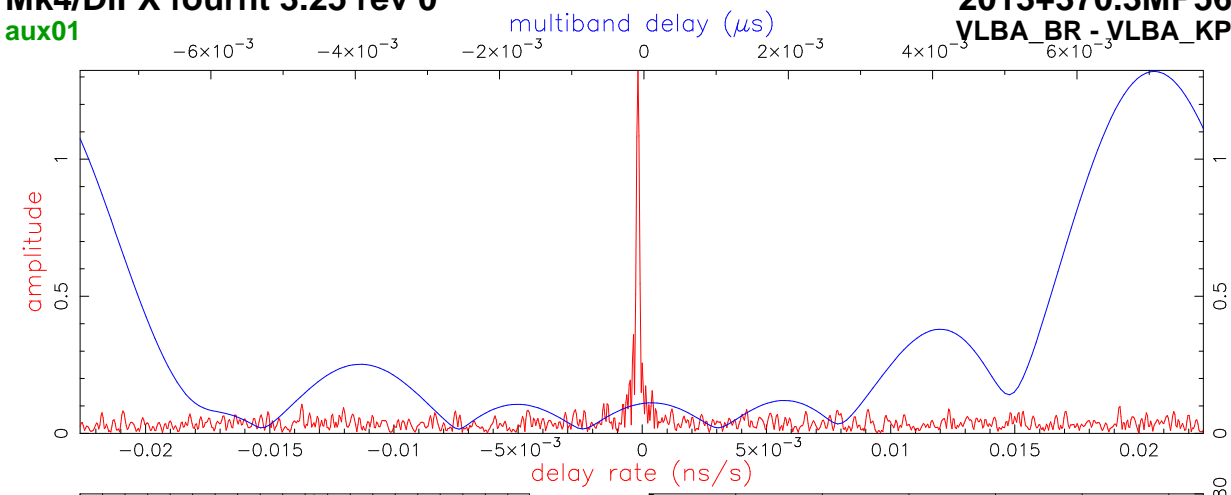
B: az 275.5 el 46.9 pa 52.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 5691.155 1104.209 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Bk.Q.94.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, bk

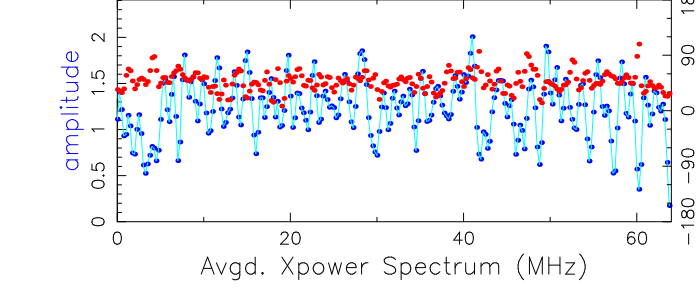
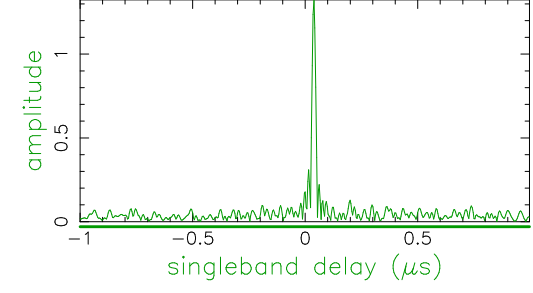
VLBA_BR - VLBA_KP, fgroup Q, pol RL



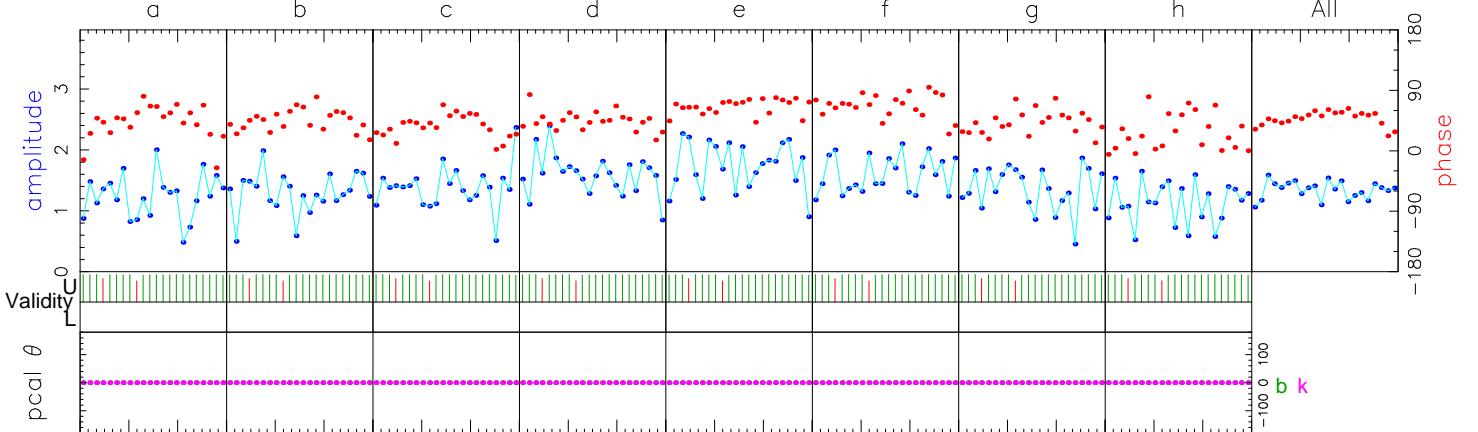
Fringe quality 8

SNR 48.1
 Int time 176.659
 Amp 1.324
 Phase 93.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.038397
 MBD 0.007053
 Fringe rate (Hz) -0.007544
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151753
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



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



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

Group delay (usec) (SBD) -2.14909028539E+02 Apriori delay (usec) -2.14947331699E+02 Resid mbdelay (usec) 7.05316E-03 +/- 2.3E-05
 Sband delay (usec) -2.14908934449E+02 Apriori clock (usec) 4.4722767E+00 Resid sbdelay (usec) 3.83972E-02 +/- 1.8E-04
 Phase delay (usec) -2.14947328592E+02 Apriori clockrate (us/s) 4.2423487E-07 Resid phdelay (usec) 3.10654E-06 +/- 1.5E-07
 Delay rate (us/s) -1.40168293378E-01 Apriori rate (us/s) -1.40168118498E-01 Resid rate (us/s) -1.74880E-07 +/- 1.5E-09
 Total phase (deg) 133.0 Apriori accel (us/s/s) 1.58703705792E-05 Resid phase (deg) 93.2 +/- 2.4

ph/seg (deg) 10.6 5.6 Search (1024X32) 1.290 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.8 9.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.9 3.4 Inc. seg. avg. 1.336 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.4 5.9 Inc. frq. avg. 1.352 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 b: az 76.2 el 40.6 pa -54.6 k: az 66.3 el 41.3 pa -77.6 u, v (fr/asec) 513.181 1231.838 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/bk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/bk.Q.96.3MP56K simultaneous interpolator

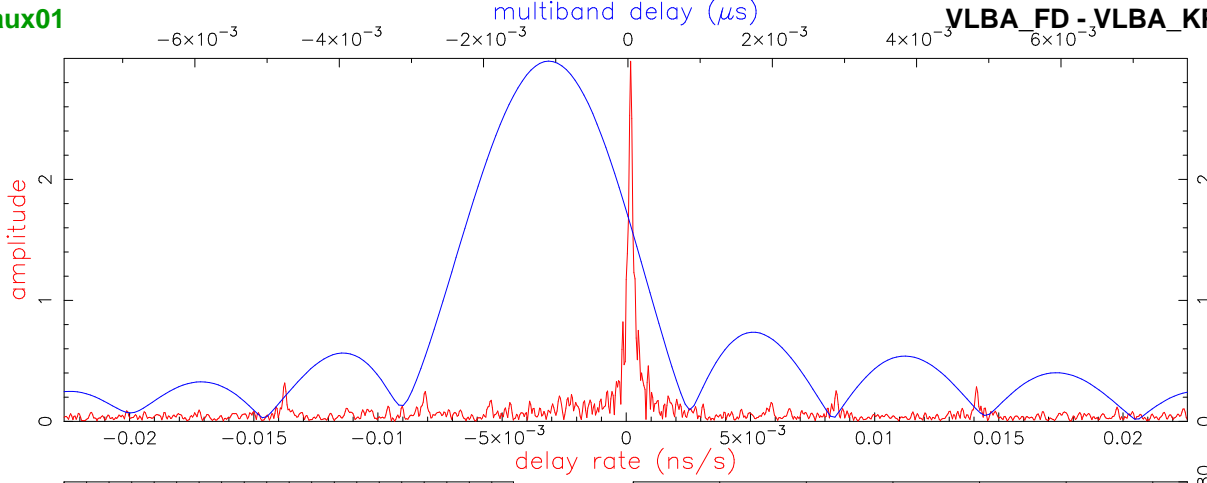
Mk4/DiFX fourfit 3.25 rev 0

aux01

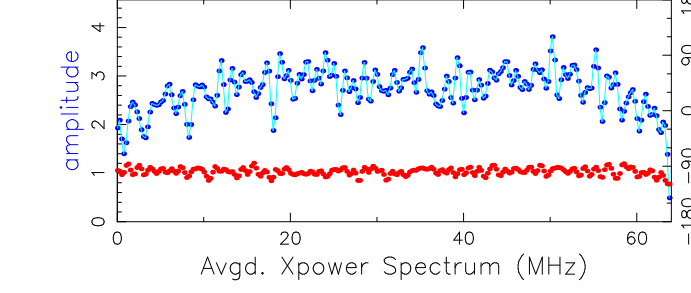
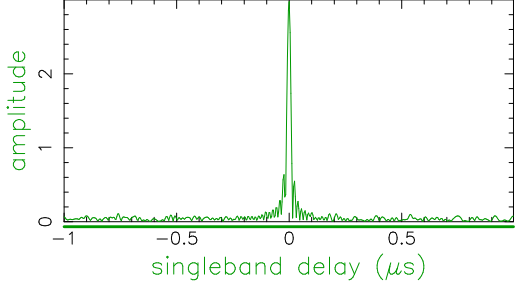
2013+370.3MP56K, No0500, fk

VLBA_FD - VLBA_KP, fgroup Q, pol LL

Fringe quality 6

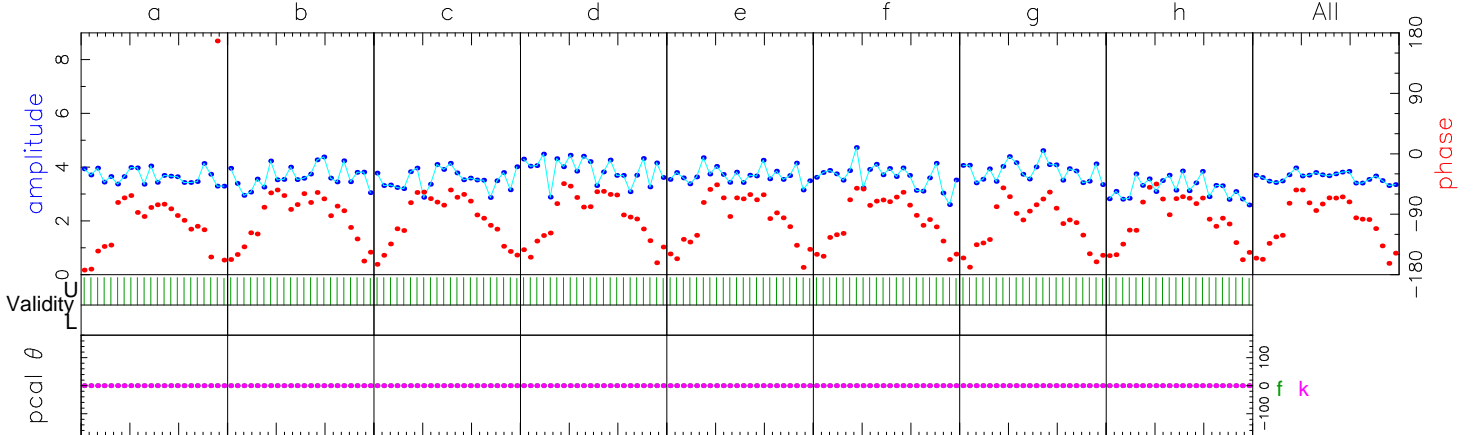


SNR 110.0
 Int time 179.972
 Amp 3.000
 Phase -98.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.001125
 MBD -0.001122
 Fringe rate (Hz)
 0.007134
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151753
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	3.0
k	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	256.7
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	1.45805637261E+03	Apriori delay (usec)		1.45805749477E+03	Resid mbdelay (usec)		-1.12216E-03	+/-	9.9E-06
Sband delay (usec)	1.45805637002E+03	Apriori clock (usec)		-9.2527390E-02	Resid sbdelay (usec)		-1.12475E-03	+/-	7.8E-05
Phase delay (usec)	1.45805748841E+03	Apriori clockrate (us/s)		-1.0198613E-07	Resid phdelay (usec)		-6.35698E-06	+/-	6.7E-08
Delay rate (us/s)	-6.78142883800E-02	Apriori rate (us/s)		-6.78144537380E-02	Resid rate (us/s)		1.65358E-07	+/-	6.4E-10
Total phase (deg)	18.0	Apriori accel (us/s/s)		-9.09965702144E-06	Resid phase (deg)		-98.7	+/-	1.0

ph/seg (deg) 35.2 2.4 Search (1024X32) 2.916 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 21.5 4.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 6.4 1.5 Inc. seg. avg. 3.617 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 4.9 2.6 Inc. frq. avg. 2.990 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 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 240.562 -343.354 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fk.Q.100.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

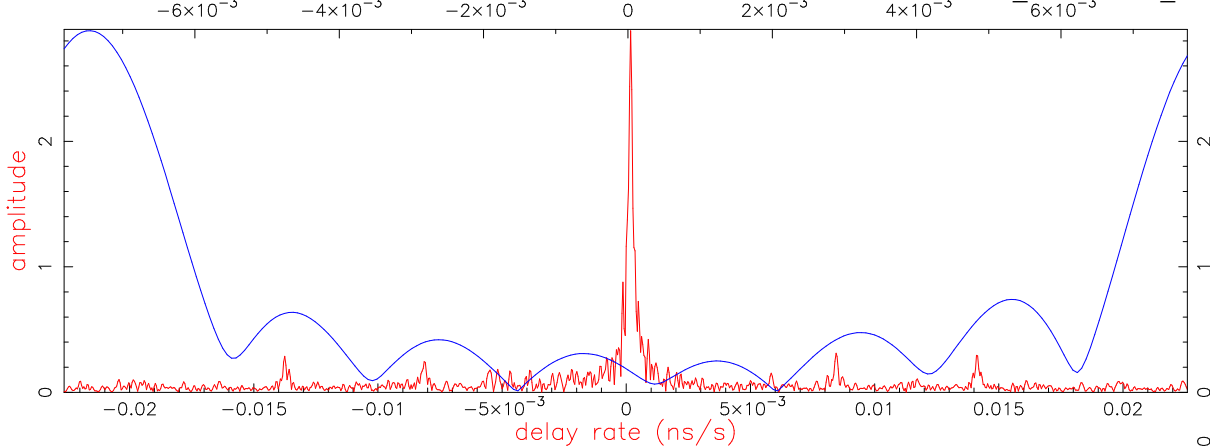
aux01

2013+370.3MP56K, No0500, fk

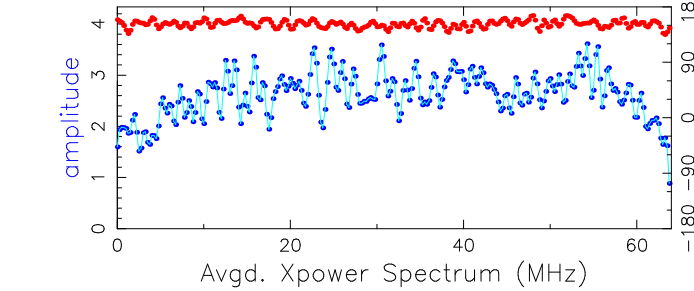
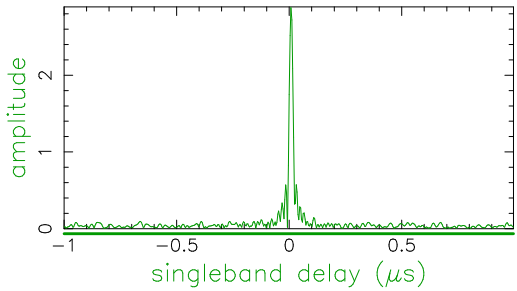
VLBA_FD - VLBA_KP, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 6

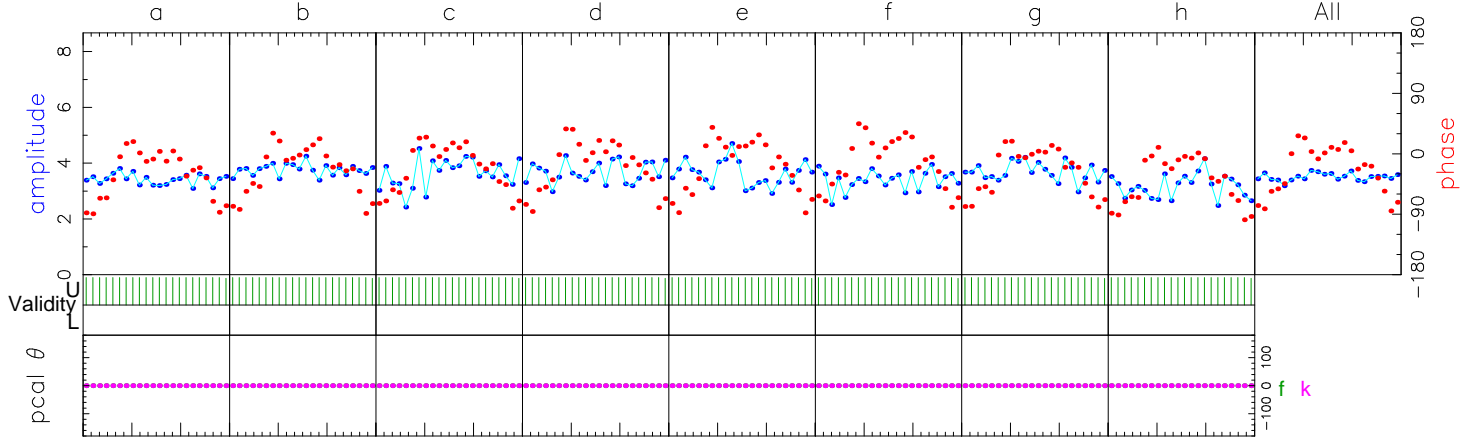


SNR 106.1
Int time 179.973
Amp 2.891
Phase 179.5
PFD 0.0e+00
Delays (us)
SBD 0.008582
MBD -0.007445
Fringe rate (Hz) 0.007084
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



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
	-30.6	-23.5	-19.1	-17.8	-19.6	-12.0	-24.8	-38.0	Phase	-23.0
	2.8	3.1	3.0	3.0	2.9	2.7	3.1	2.6	Ampl.	2.9
	259.6	259.3	258.9	259.1	259.2	259.3	259.2	258.9	Sbd box	259.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 1.45806567508E+03 Apriori delay (usec) 1.45805749477E+03 Resid mbdelay (usec) -7.44469E-03 +/- 1.0E-05
Sband delay (usec) 1.45806607727E+03 Apriori clock (usec) -9.2527390E-02 Resid sbdelay (usec) 8.58250E-03 +/- 8.1E-05
Phase delay (usec) 1.45805749328E+03 Apriori clockrate (us/s) -1.0198613E-07 Resid phdelay (usec) -1.48372E-06 +/- 7.0E-08
Delay rate (us/s) -6.78142895288E-02 Apriori rate (us/s) -6.78144537380E-02 Resid rate (us/s) 1.64209E-07 +/- 6.7E-10
Total phase (deg) 296.2 Apriori accel (us/s/s) -9.09965702144E-06 Resid phase (deg) 179.5 +/- 1.1

RMS Theor. Amplitude 2.891 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 35.2 2.5 Search (1024X32) 2.807 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
amp/seg (%) 21.8 4.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg) 8.7 1.5 Inc. seg. avg. 3.504 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
amp/frq (%) 5.7 2.7 Inc. frq. avg. 2.903 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

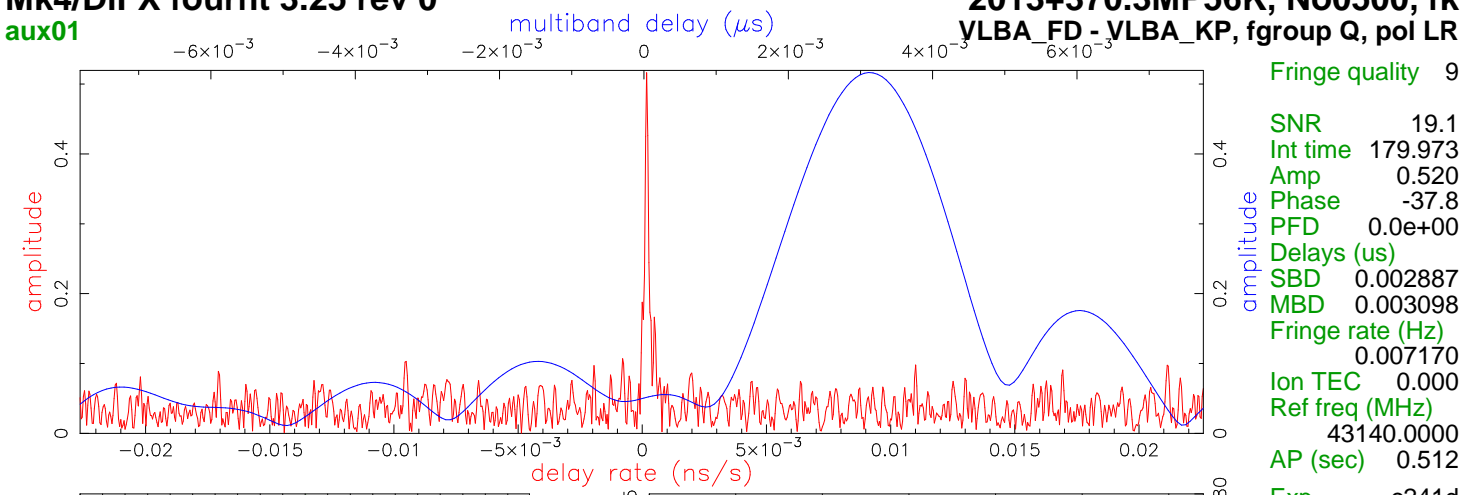
f: az 66.6 el 46.8 pa -82.9 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 240.562 -343.354 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/fk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/fk.Q.111.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, fk

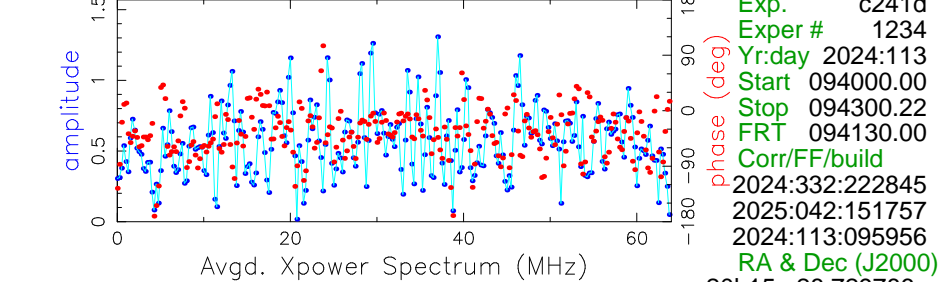
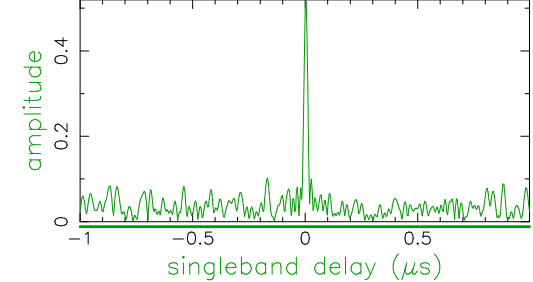
VLBA_FD - VLBA_KP, fgroup Q, pol LR



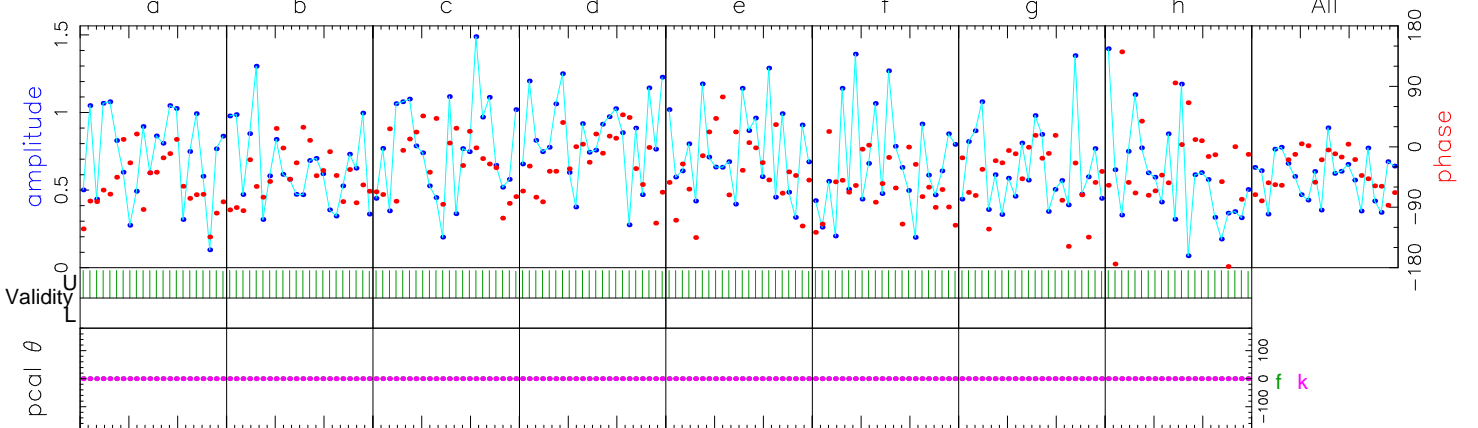
Fringe quality 9

SNR 19.1
 Int time 179.973
 Amp 0.520
 Phase -37.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.002887
 MBD 0.003098
 Fringe rate (Hz) 0.007170
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

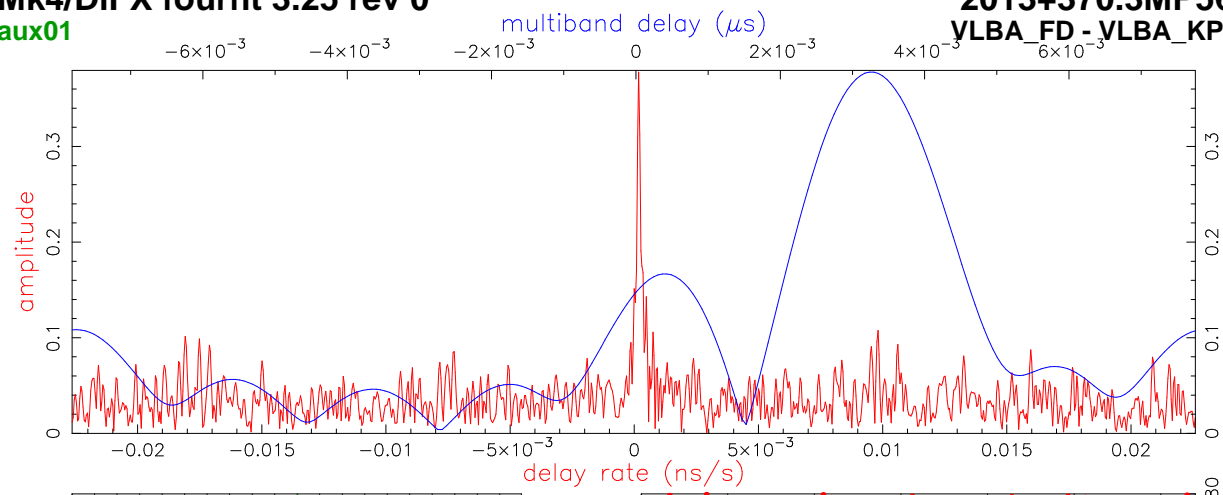
Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build 2024:332:222845
 2025:042:151757
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"



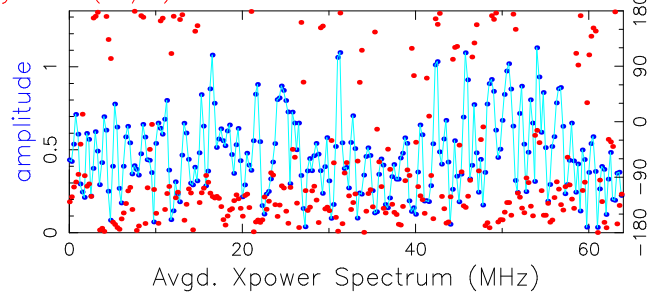
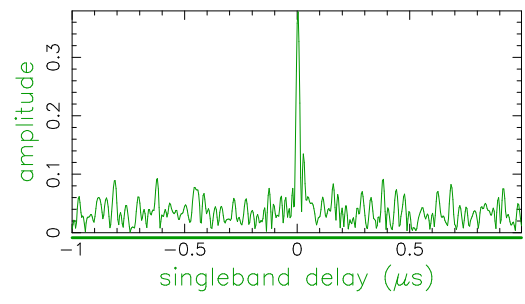
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



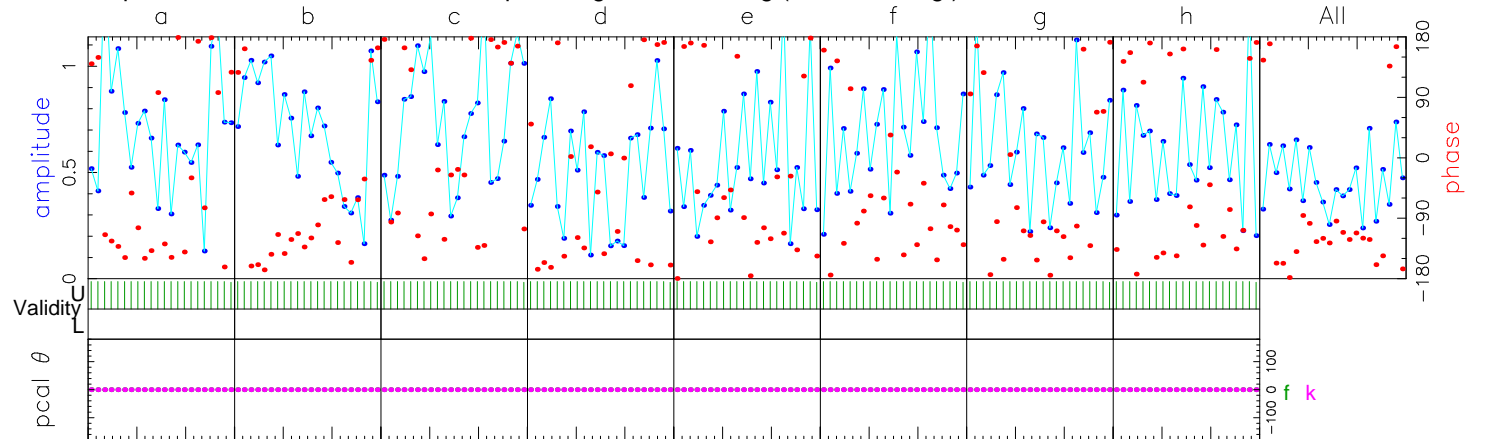
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-54.9	-45.7	-19.6	-20.3	-33.6	-59.7	-37.0	-34.1	Phase	-37.8
	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.4	Ampl.	0.5
	258.0	257.9	257.2	257.6	257.2	257.9	258.8	257.8	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.45806059314E+03		Apriori delay (usec)		1.45805749477E+03		Resid mbdelay (usec)		3.09837E-03 +/- 5.7E-05	
Sband delay (usec)	1.45806038227E+03		Apriori clock (usec)		-9.2527390E-02		Resid sbdelay (usec)		2.88750E-03 +/- 4.5E-04	
Phase delay (usec)	1.45805749234E+03		Apriori clockrate (us/s)		-1.0198613E-07		Resid phdelay (usec)		-2.43271E-06 +/- 3.9E-07	
Delay rate (us/s)	-6.78142875452E-02		Apriori rate (us/s)		-6.78144537380E-02		Resid rate (us/s)		1.66193E-07 +/- 3.7E-09	
Total phase (deg)	79.0		Apriori accel (us/s/s)		-9.09965702144E-06		Resid phase (deg)		-37.8 +/- 6.0	
RMS	28.3	14.1	Amplitude		0.520 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
ph/seg (deg)	32.0	24.6	Search (1024X32)		0.503		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000	
amp/seg (%)	15.8	8.5	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled mb window (us) -0.008 0.008	
ph/frq (deg)	15.3	14.8	Inc. seg. avg.		0.571		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.023 0.023	
amp/frq (%)			Inc. frq. avg.		0.527		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		k: az 66.3 el 41.3 pa -77.6		u, v (fr/asec) 240.562 -343.354		simultaneous interpolator				
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500/fk..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/fk.Q.125.3MP56K						



Fringe quality 9
SNR 13.9
Int time 179.972
Amp 0.380
Phase -143.4
PFD 1.3e-35
Delays (us)
SBD 0.003024
MBD 0.003226
Fringe rate (Hz) 0.007346
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512
Exp. c241d
Exper # 1234
Yr:day 2024:113
Start 094000.00
Stop 094300.22
FRT 094130.00
Corr/FF/build 2024:332:222845
2025:042:151801
2024:113:095956
RA & Dec (J2000) 20h15m28.729786s +37°10'59.514736"



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



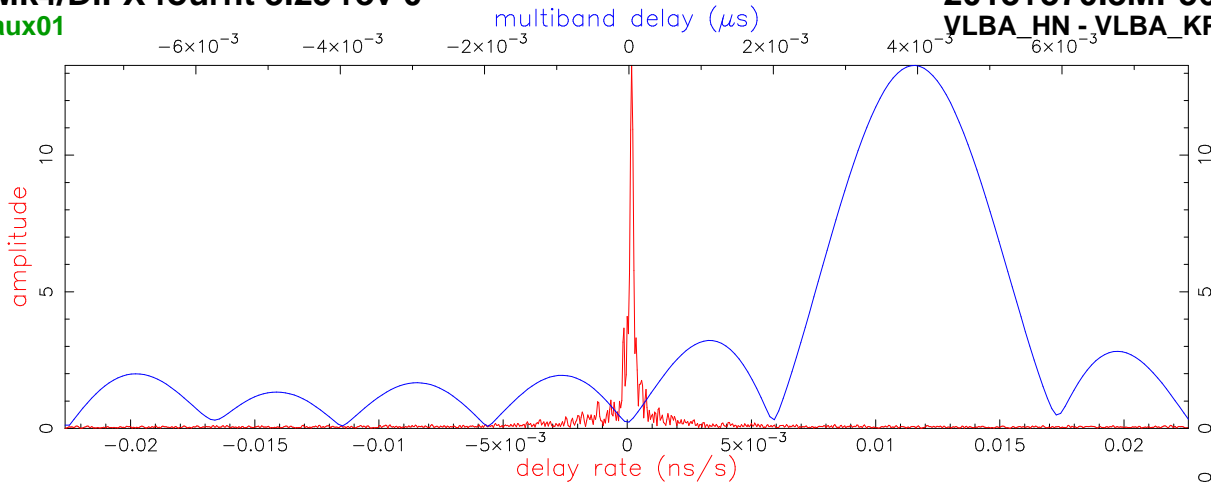
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All		
	-153.6	-143.8	-145.2	-160.7	-131.7	-105.9	-143.6	-166.1	Phase	-143.4		
	0.4	0.5	0.4	0.3	0.4	0.4	0.3	0.4	Ampl.	0.4		
	258.7	257.8	257.2	51.6	257.8	258.1	256.9	256.3	Sbd box	257.8		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
k	1000	1000	1000	1000	1000	1000	1000	1000				
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids			
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	1.45806072051E+03		Apriori delay (usec)		1.45805749477E+03		Resid mbdelay (usec)		3.22575E-03	+/- 7.8E-05		
Sband delay (usec)	1.45806051852E+03		Apriori clock (usec)		-9.2527390E-02		Resid sbdelay (usec)		3.02375E-03	+/- 6.2E-04		
Phase delay (usec)	1.45805748554E+03		Apriori clockrate (us/s)		-1.0198613E-07		Resid phdelay (usec)		-9.23098E-06	+/- 5.3E-07		
Delay rate (us/s)	-6.78142834564E-02		Apriori rate (us/s)		-6.78144537380E-02		Resid rate (us/s)		1.70282E-07	+/- 5.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-9.09965702144E-06		Resid phase (deg)		-143.4	+/- 8.2		
	RMS	Theor.	Amplitude	0.380 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	37.7	19.3	Search (1024X32)	0.370		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	44.1	33.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	20.3	11.6	Inc. seg. avg.	0.441		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023	0.023		
amp/frq (%)	16.7	20.3	Inc. frq. avg.	0.388		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	k: az 66.3 el 41.3 pa -77.6		u,v (fr/asec) 240.562 -343.354						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241d/v1/7mm/1234/No0500/fk.3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/fk.Q.147.3MP56K									

Mk4/DiFX fourfit 3.25 rev 0

aux01

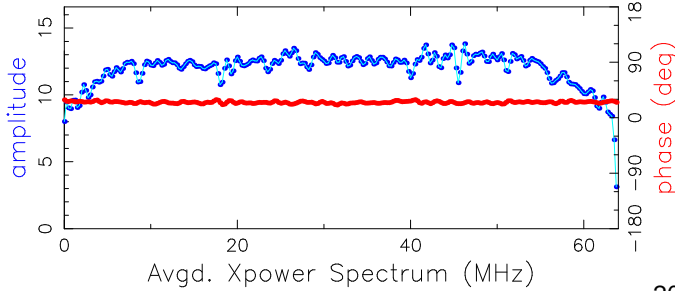
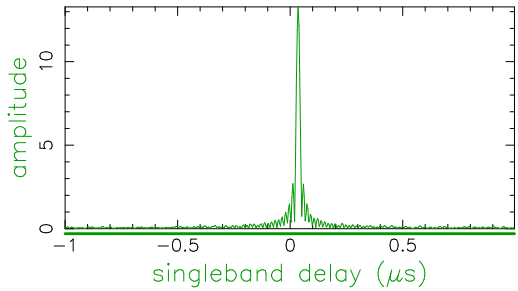
2013+370.3MP56K, No0500, hk

VLBA_HN - VLBA_KP, fgroup Q, pol LL



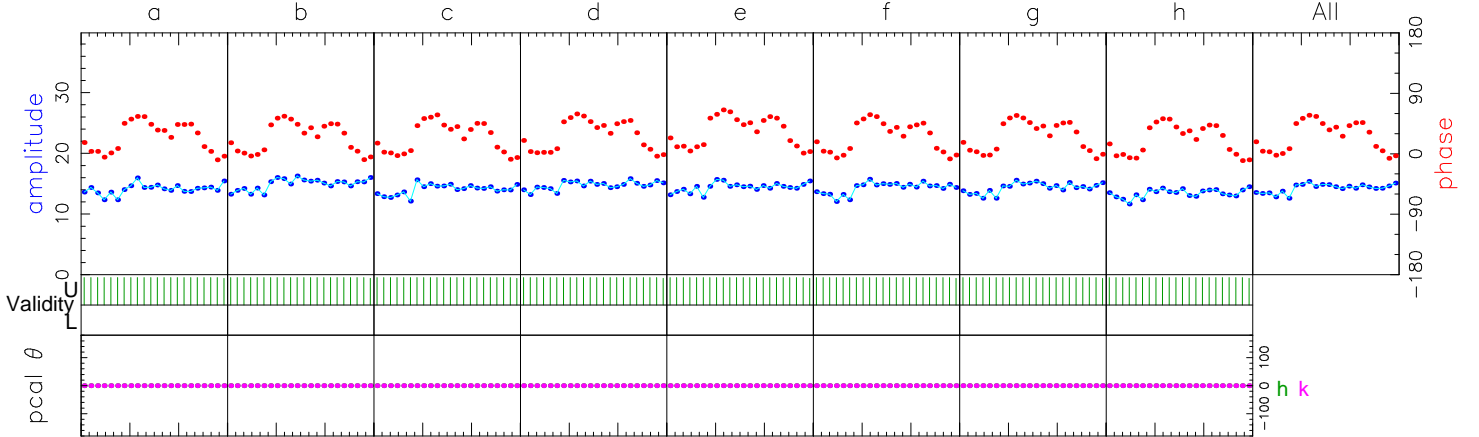
Fringe quality 8

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	

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

ph/seg (deg)	21.5	Theor.	Amplitude	13.287 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	9.1	0.6	Search (1024X32)	13.174	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	3.7	0.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	3.0	0.6	Inc. seg. avg.	14.274	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			Inc. frq. avg.	13.306	Data rate(Mb/s): 2048	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.194.3MP56K	

Mk4/DiFX fourfit 3.25 rev 0

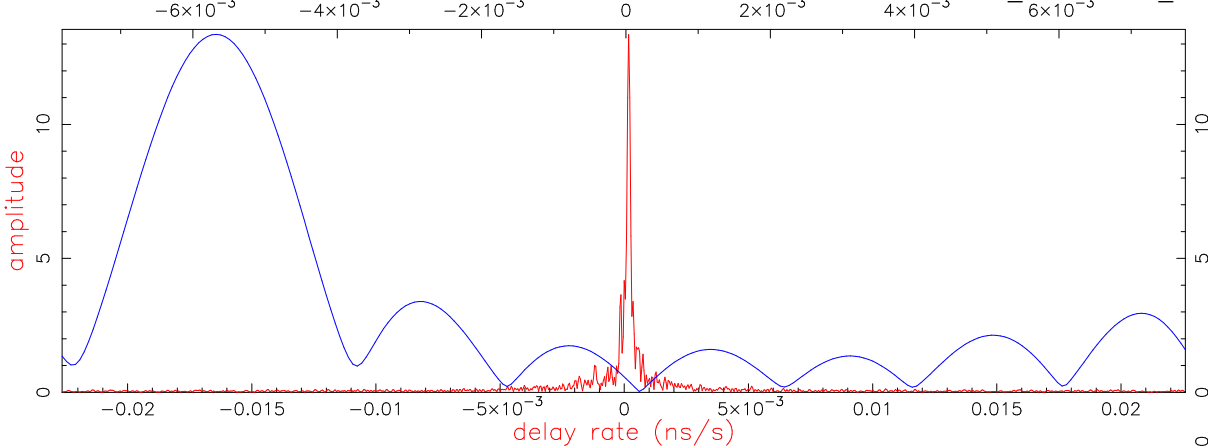
aux01

2013+370.3MP56K, No0500, hk

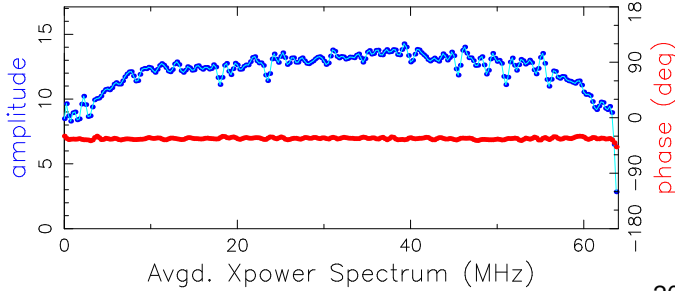
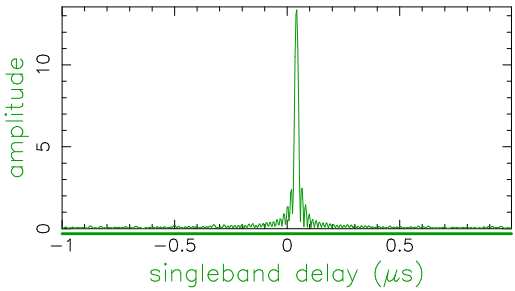
VLBA_HN - VLBA_KP, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 8

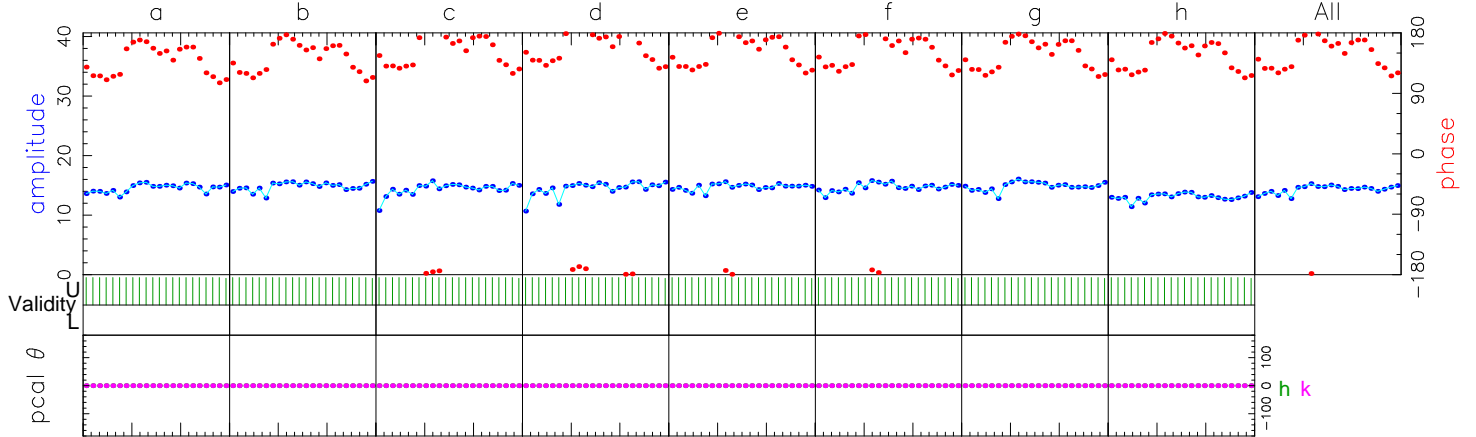


SNR 497.0
 Int time 179.980
 Amp 13.546
 Phase 37.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.041444
 MBD -0.005715
 Fringe rate (Hz) 0.007256
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512



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

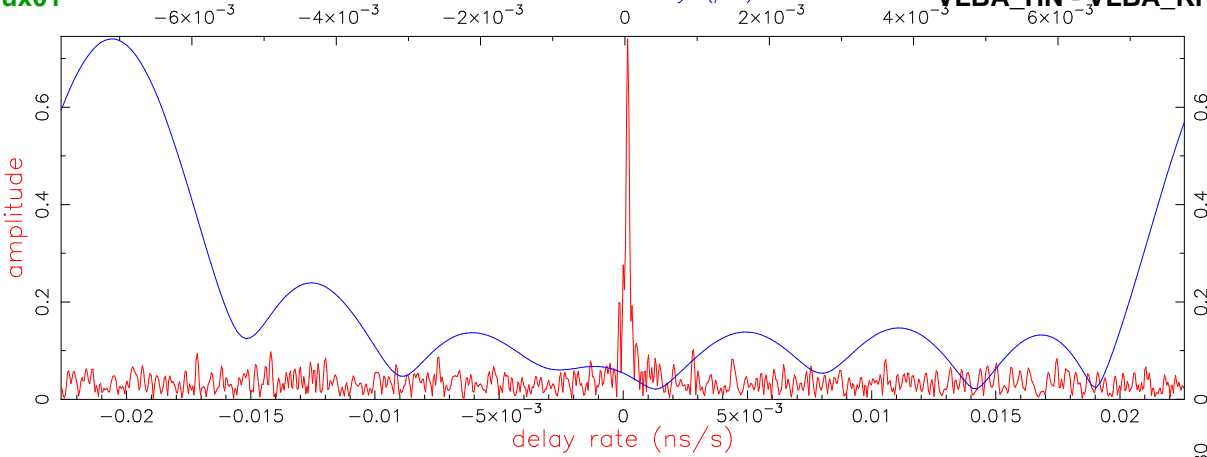
aux01

2013+370.3MP56K, No0500, hk

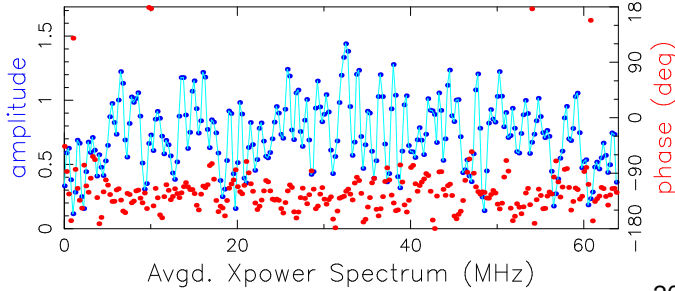
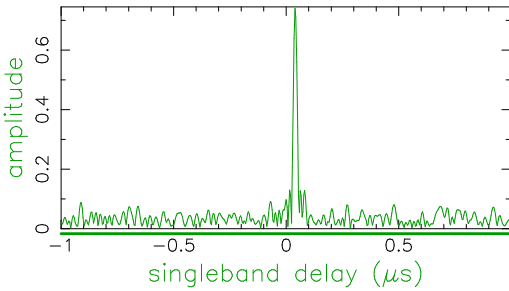
VLBA_HN - VLBA_KP, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 8

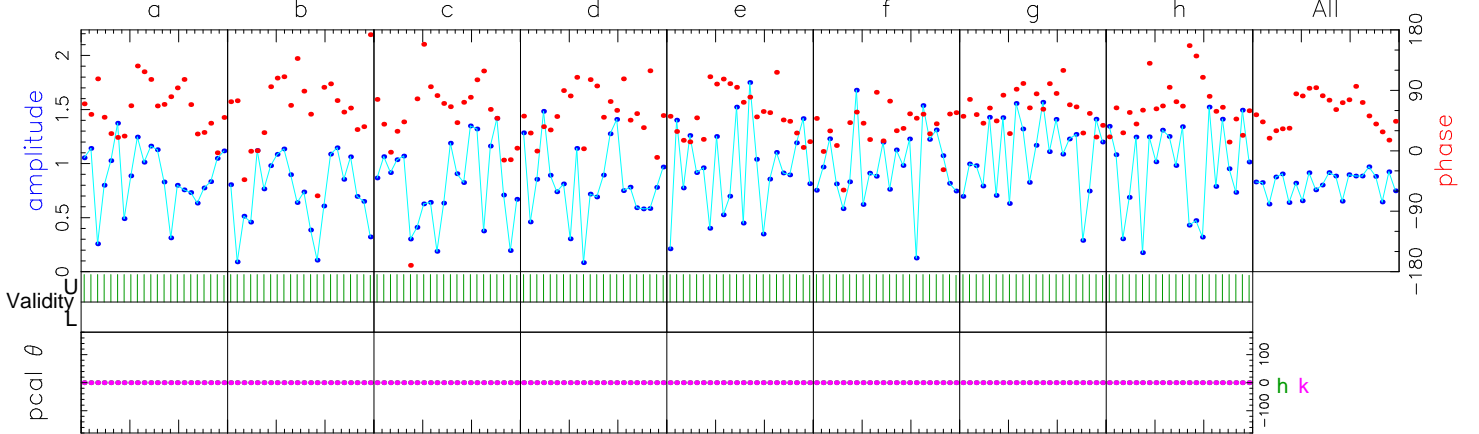


SNR 27.4
 Int time 179.980
 Amp 0.746
 Phase 306.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.040155
 MBD -0.007081
 Fringe rate (Hz)
 0.007243
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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	RMS	9.8	Theor.	Amplitude	0.746 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	17.1	Search (1024X32)	0.721	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	11.7	Inc. seg. avg.	0.804	Inc. frq. avg.	0.749		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.0	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

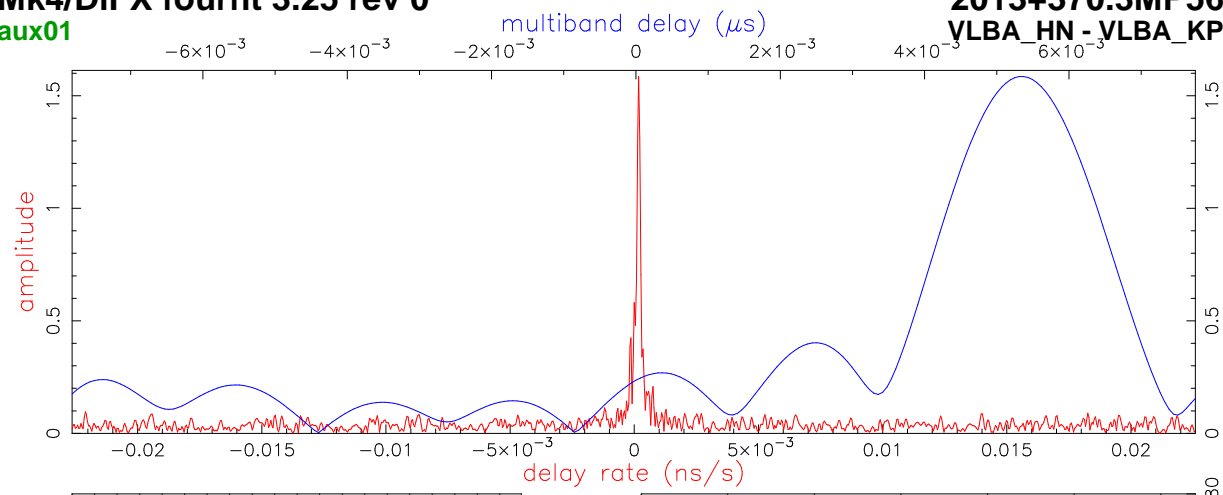
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/hk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/hk.Q.243.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, hk

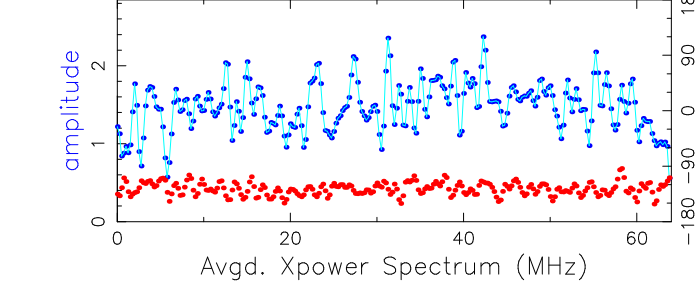
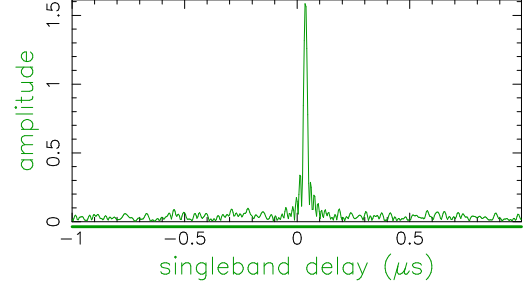
VLBA_HN - VLBA_KP, fgroup Q, pol RL



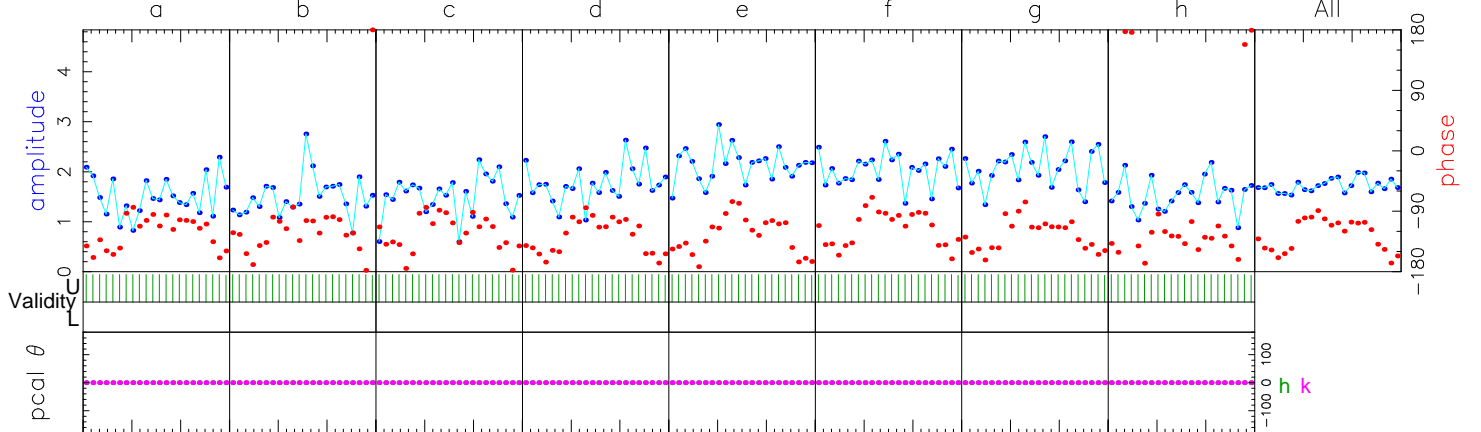
Fringe quality 7

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	
	-123.1	-123.4	-122.5	-127.7	-124.7	-114.1	-123.4	-141.9	Phase	-124.6	
	1.4	1.4	1.4	1.6	1.9	1.8	1.9	1.4	Ampl.	1.6	
	266.8	266.3	266.6	266.4	266.5	266.6	266.2	266.2	Sbd box	266.4	
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		
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	PC amp		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.32235647501E+03		Apriori delay (usec)		6.32231983758E+03		Resid mbdelay (usec)		5.38743E-03	+/- 1.8E-05	
Sband delay (usec)	6.32235665633E+03		Apriori clock (usec)		1.2272242E+01		Resid sbdelay (usec)		3.68188E-02	+/- 1.5E-04	
Phase delay (usec)	6.32231982956E+03		Apriori clockrate (us/s)		-7.3269082E-08		Resid phdelay (usec)		-8.02413E-06	+/- 1.2E-07	
Delay rate (us/s)	-5.96649805877E-01		Apriori rate (us/s)		-5.96649974713E-01		Resid rate (us/s)		1.68836E-07	+/- 1.2E-09	
Total phase (deg)	205.9		Apriori accel (us/s/s)		-2.31929514462E-05		Resid phase (deg)		280.4	+/- 1.9	
	RMS	Theor.	Amplitude	1.613 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	23.2	4.5	Search (1024X32)	1.572		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	10.5	7.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	8.4	2.7	Inc. seg. avg.	1.718		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023	
amp/frq (%)	14.8	4.8	Inc. frq. avg.	1.596		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.251.3MP56K								

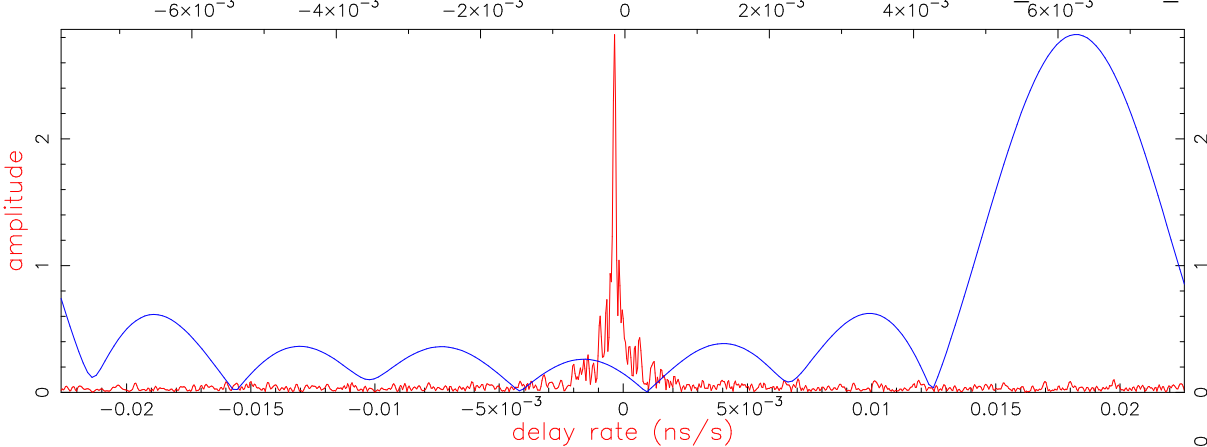
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kc

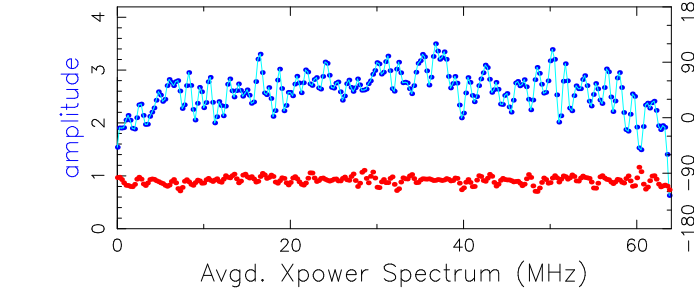
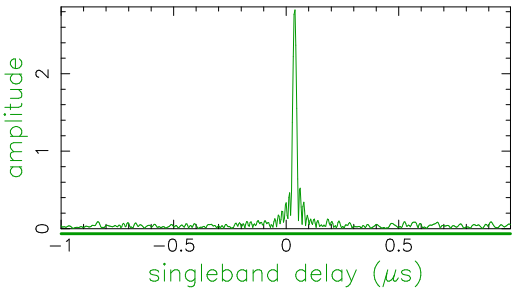
VLBA_KP - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



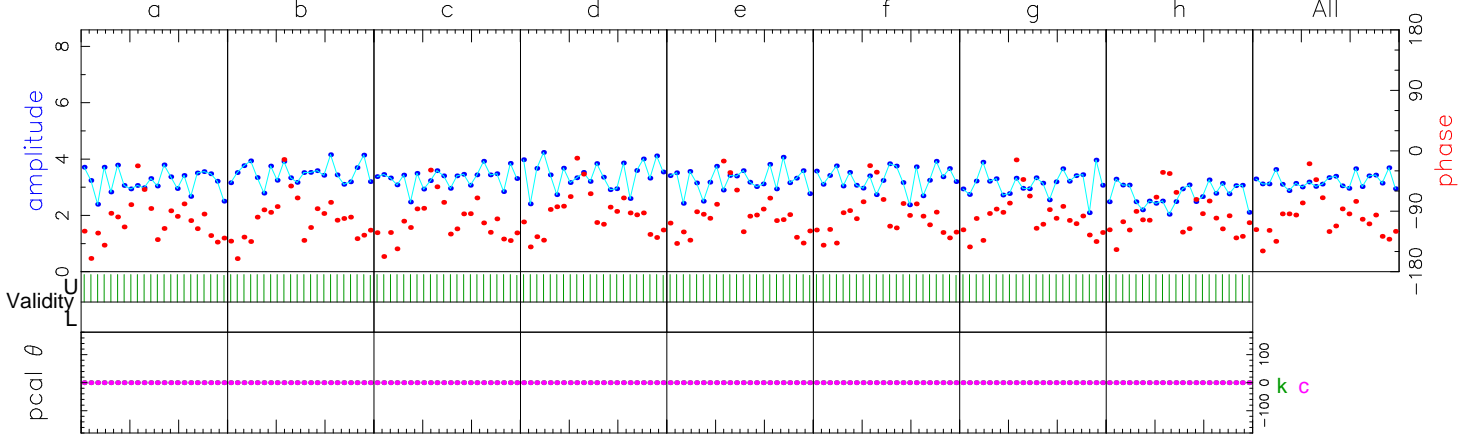
Fringe quality 7

SNR 105.0
 Int time 179.979
 Amp 2.863
 Phase 304.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.037527
 MBD 0.006209
 Fringe rate (Hz)
 -0.014669
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

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



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

Group delay (usec) (SBD)	-5.56074762872E+03	Apriori delay (usec)	-5.56078508804E+03	Resid mbdelay (usec)	6.20932E-03	+/-	1.0E-05
Sband delay (usec)	-5.56074756129E+03	Apriori clock (usec)	-3.5783672E+00	Resid sbdelay (usec)	3.75267E-02	+/-	8.2E-05
Phase delay (usec)	-5.56078509454E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	-6.50393E-06	+/-	7.0E-08
Delay rate (us/s)	6.51026313119E-01	Apriori rate (us/s)	6.51026653161E-01	Resid rate (us/s)	-3.40042E-07	+/-	6.8E-10
Total phase (deg)	52.8	Apriori accel (us/s/s)	4.48455924657E-05	Resid phase (deg)	304.0	+/-	1.1

ph/seg (deg)	29.6	RMS	2.6	Theor.	2.863 +/- 0.027	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	14.6	Search (1024X32)	2.752	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	4.1	Inc. seg. avg.	3.210	Inc. frq. avg.	2.826	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	6.1	Inc. frq. avg.	2.826			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

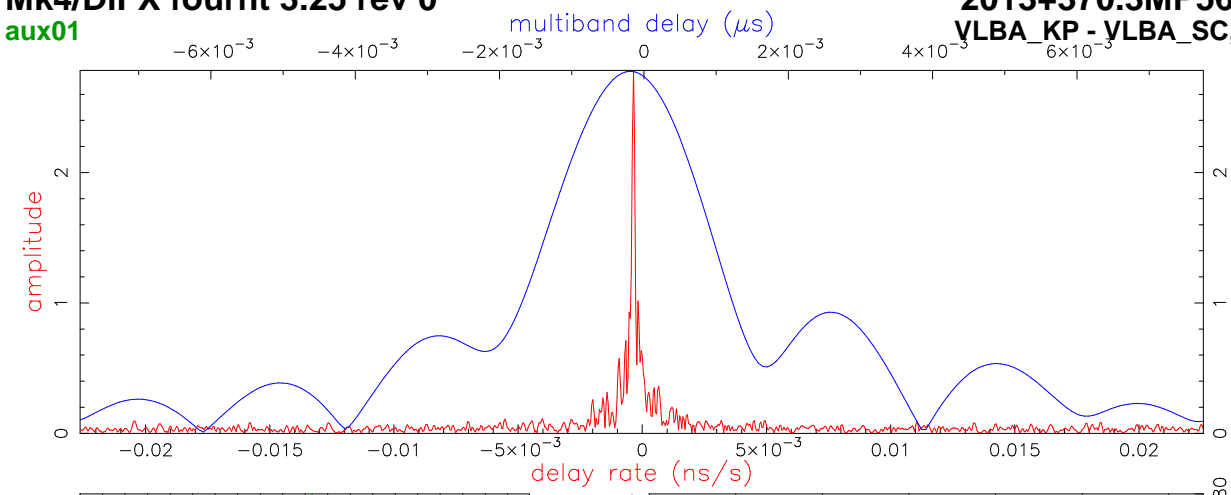
k: az 66.3 el 41.3 pa -77.6 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2325.926 2147.463 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kc.Q.242.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

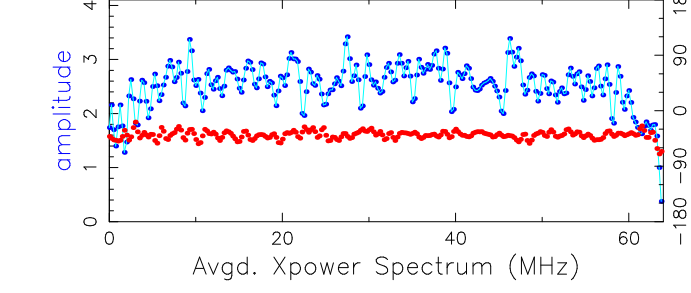
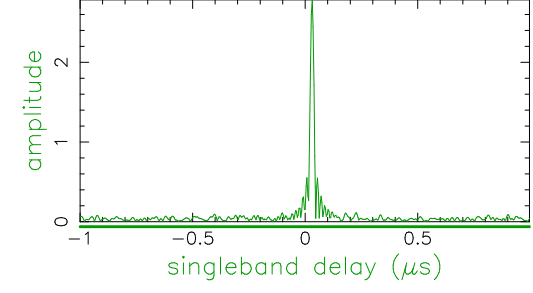
2013+370.3MP56K, No0500, kc

VLBA_KP - VLBA_SC, fgroup Q, pol RR



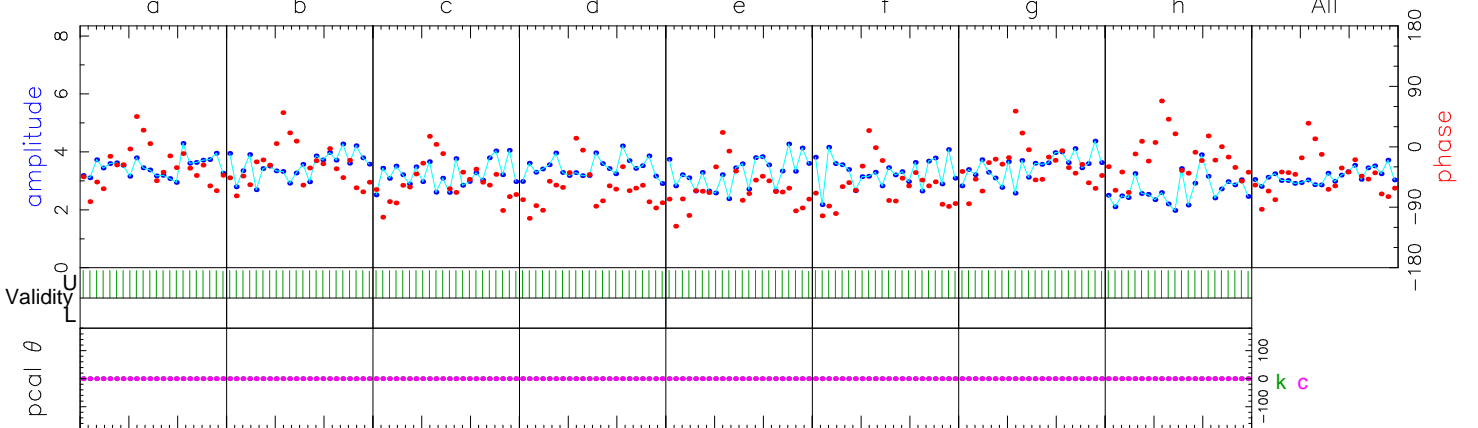
Fringe quality 6

SNR 102.1
 Int time 179.980
 Amp 2.784
 Phase 0.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.030619
 MBD -0.000202
 Fringe rate (Hz)
 -0.014739
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.56075403978E+03	Apriori delay (usec)	-5.56078508804E+03	Resid mbdelay (usec)	-2.01743E-04	+/-	1.1E-05
Sband delay (usec)	-5.56075446879E+03	Apriori clock (usec)	-3.5783672E+07	Resid sbdelay (usec)	3.06193E-02	+/-	8.4E-05
Phase delay (usec)	-5.56078509088E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	-2.84114E-06	+/-	7.2E-08
Delay rate (us/s)	6.51026311500E-01	Apriori rate (us/s)	6.51026653161E-01	Resid rate (us/s)	-3.41661E-07	+/-	6.9E-10
Total phase (deg)	109.6	Apriori accel (us/s/s)	4.48455924657E-05	Resid phase (deg)	0.9	+/-	1.1

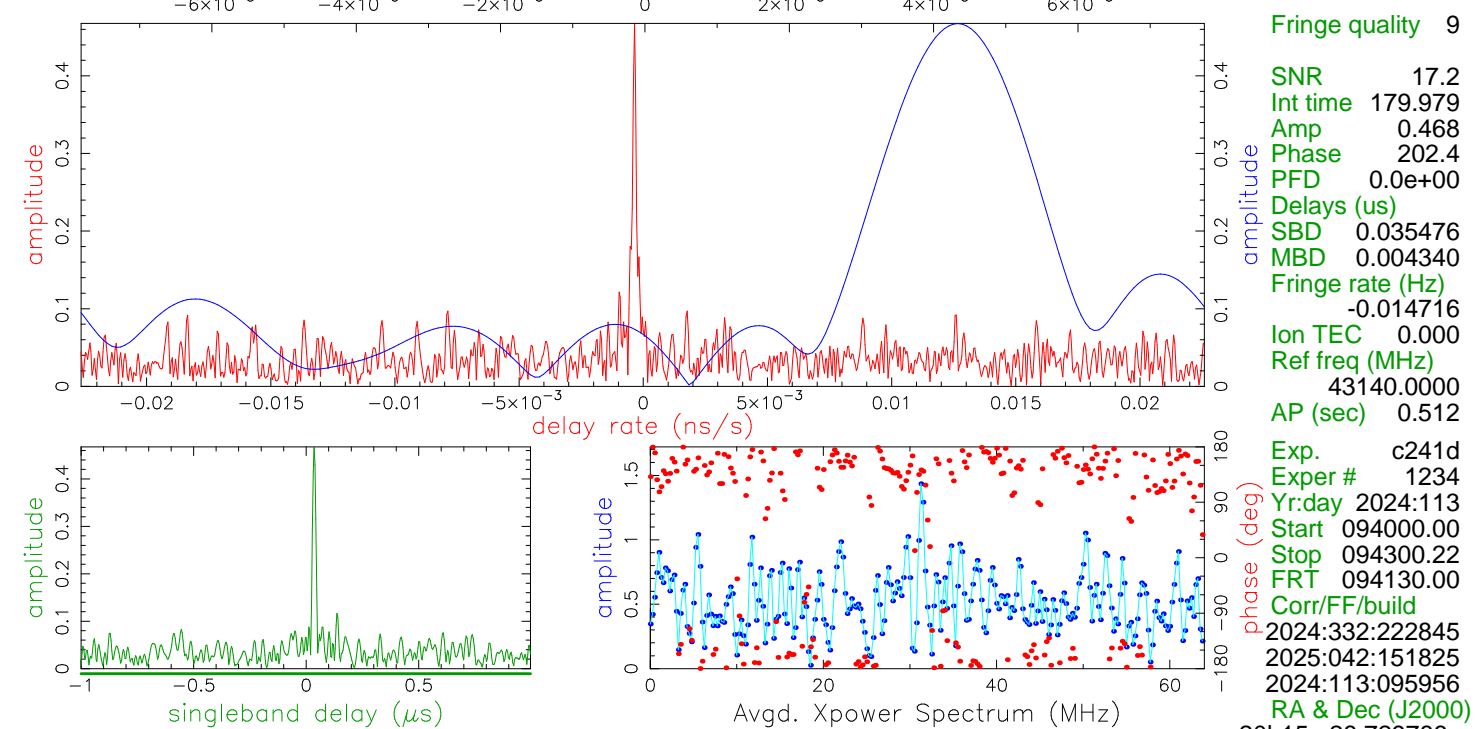
ph/seg (deg) 29.3 2.6 Search (1024X32) 2.697 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 15.5 4.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.2 1.6 Inc. seg. avg. 3.141 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 9.8 2.8 Inc. frq. avg. 2.904 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2325.926 2147.463 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/kc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kc.Q.254.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

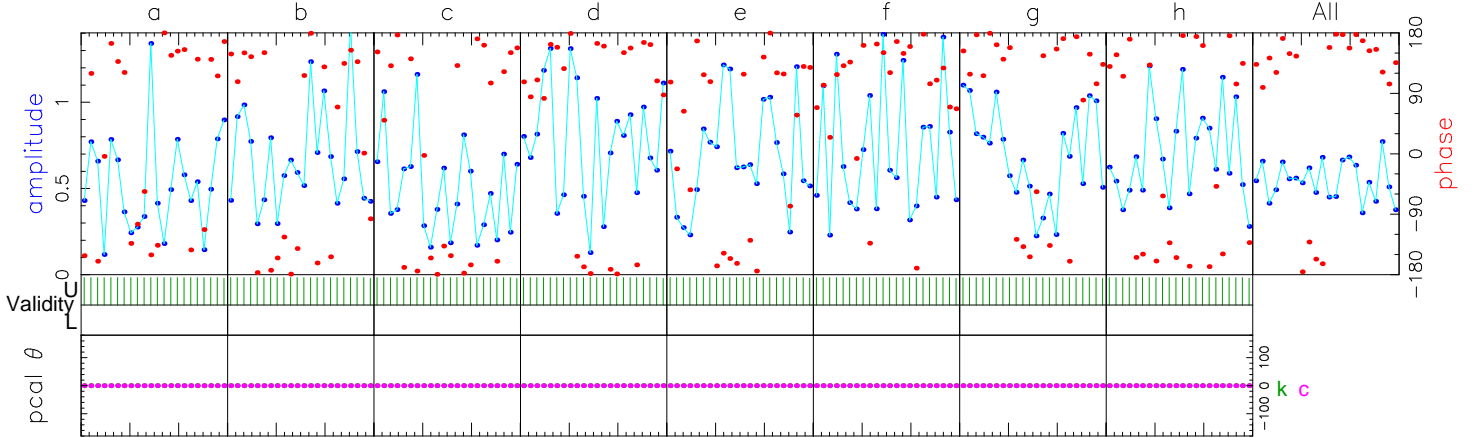
aux01

2013+370.3MP56K, No0500, kc

VLBA_KP - VLBA_SC, fgroup Q, pol LR



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



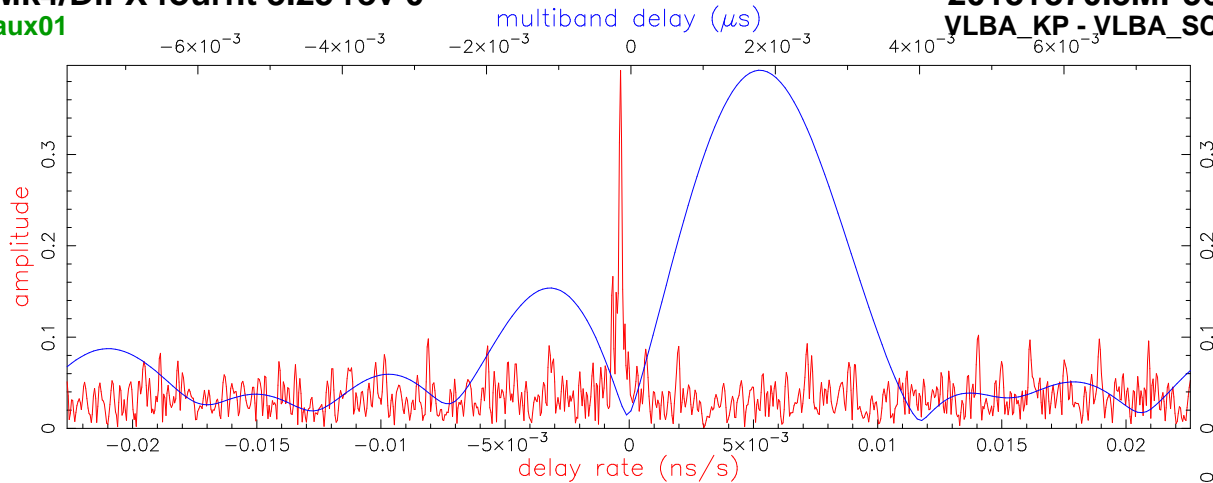
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
169.4	161.7	160.4	150.2	152.6	132.9	159.0	178.3	178.3	Phase	157.4
0.4	0.5	0.3	0.6	0.4	0.5	0.6	0.5	0.5	Ampl.	0.5
265.0	265.8	266.4	266.1	266.3	266.4	266.2	266.2	266.7	Sbd box	266.1
U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:c 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:c 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-5.56074949759E+03		Apriori delay (usec)	-5.56078508804E+03	Resid mbdelay (usec)	4.34044E-03	+/-	6.3E-05		
Sband delay (usec)	-5.56074961229E+03		Apriori clock (usec)	-3.5783672E+00	Resid sbdelay (usec)	3.54757E-02	+/-	5.0E-04		
Phase delay (usec)	-5.56078507790E+03		Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	1.01334E-05	+/-	4.3E-07		
Delay rate (us/s)	6.51026312049E-01		Apriori rate (us/s)	6.51026653161E-01	Resid rate (us/s)	-3.41112E-07	+/-	4.1E-09		
Total phase (deg)		311.1	Apriori accel (us/s/s)	4.48455924657E-05	Resid phase (deg)	202.4	+/-	6.7		
	RMS	Theor.	Amplitude	0.468 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	31.2	15.7	Search (1024X32)	0.458	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	29.0	27.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	14.6	9.4	Inc. seg. avg.	0.529	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023		
amp/frq (%)	18.3	16.5	Inc. frq. avg.	0.473	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
k: az 66.3 el 41.3 pa -77.6			c: az 27.3 el 67.5 pa -147.2		u, v (fr/asec) -2325.926 2147.463				simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241d/v1/7mm/1234/No0500/kc..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/kc.Q.270.3MP56K					

Mk4/DiFX fourfit 3.25 rev 0

aux01

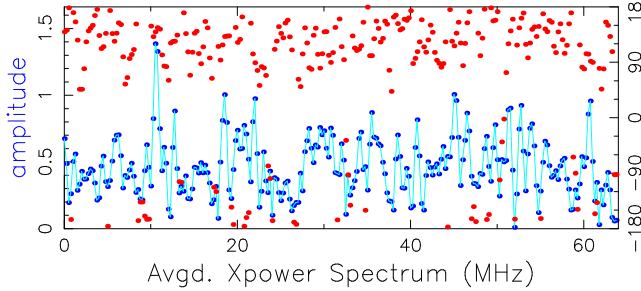
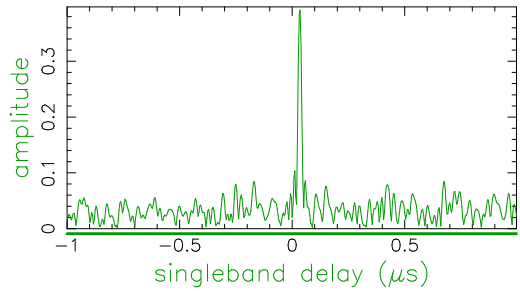
2013+370.3MP56K, No0500, kc

VLBA_KP - VLBA_SC, fgroup Q, pol RL



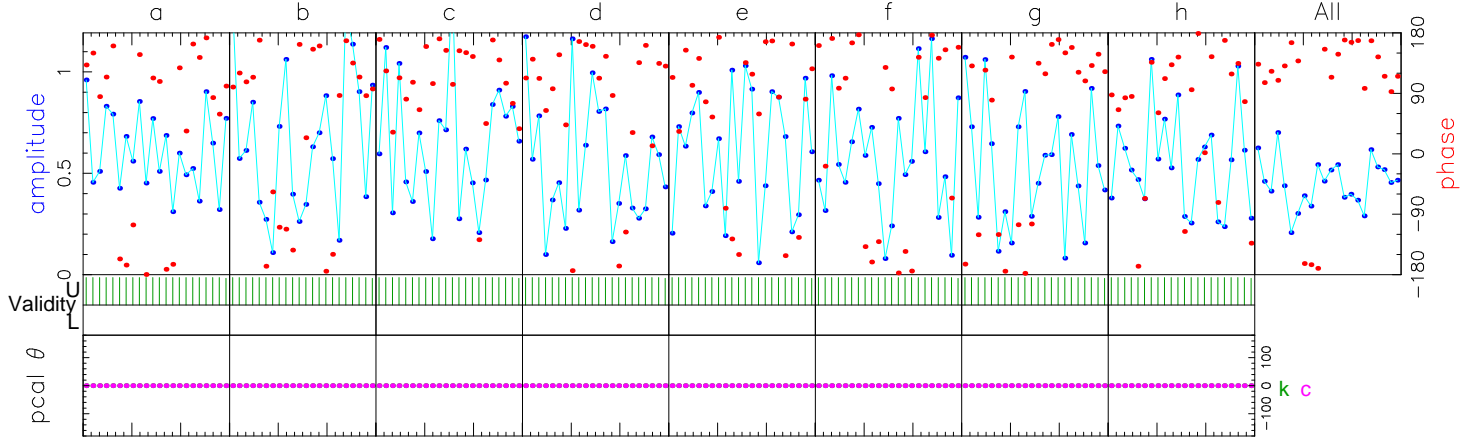
Fringe quality 9

SNR 14.6
 Int time 179.980
 Amp 0.398
 Phase 185.7
 PFD 1.1e-39
 Delays (us)
 SBD 0.033672
 MBD 0.001750
 Fringe rate (Hz)
 -0.014969
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

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



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

Group delay (usec) (SBD)	-5.56075208781E+03	Apriori delay (usec)	-5.56078508804E+03	Resid mbdelay (usec)	1.75023E-03	+/-	7.4E-05
Sband delay (usec)	-5.56075141629E+03	Apriori clock (usec)	-3.5783672E+00	Resid sbdelay (usec)	3.36718E-02	+/-	5.9E-04
Phase delay (usec)	-5.56078507897E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	9.06147E-06	+/-	5.1E-07
Delay rate (us/s)	6.51026306186E-01	Apriori rate (us/s)	6.51026653161E-01	Resid rate (us/s)	-3.46975E-07	+/-	4.9E-09
Total phase (deg)	294.5	Apriori accel (us/s/s)	4.48455924657E-05	Resid phase (deg)	185.7	+/-	7.9

ph/seg (deg)	31.1	RMS	18.4	Theor.	18.4	Amplitude	0.398 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	32.2	Search (1024X32)	0.386	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	17.6	Inc. seg. avg.	0.431	Inc. frq. avg.	0.399	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	11.6	Inc. frq. avg.	0.399			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 66.3 el 41.3 pa -77.6 c: az 27.3 el 67.5 pa -147.2 u,v (fr/asec) -2325.926 2147.463 simultaneous interpolator

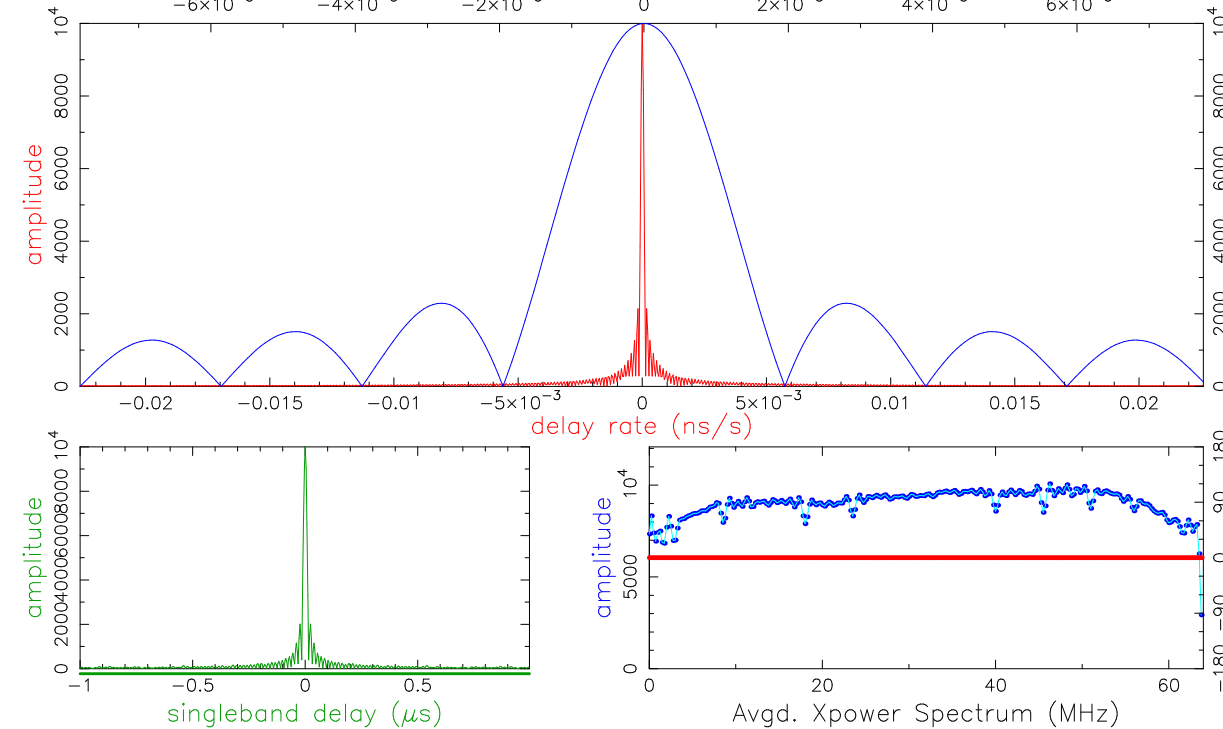
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kc..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kc.Q.298.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kk

VLBA_KP - VLBA_KP, fgroup Q, pol LL

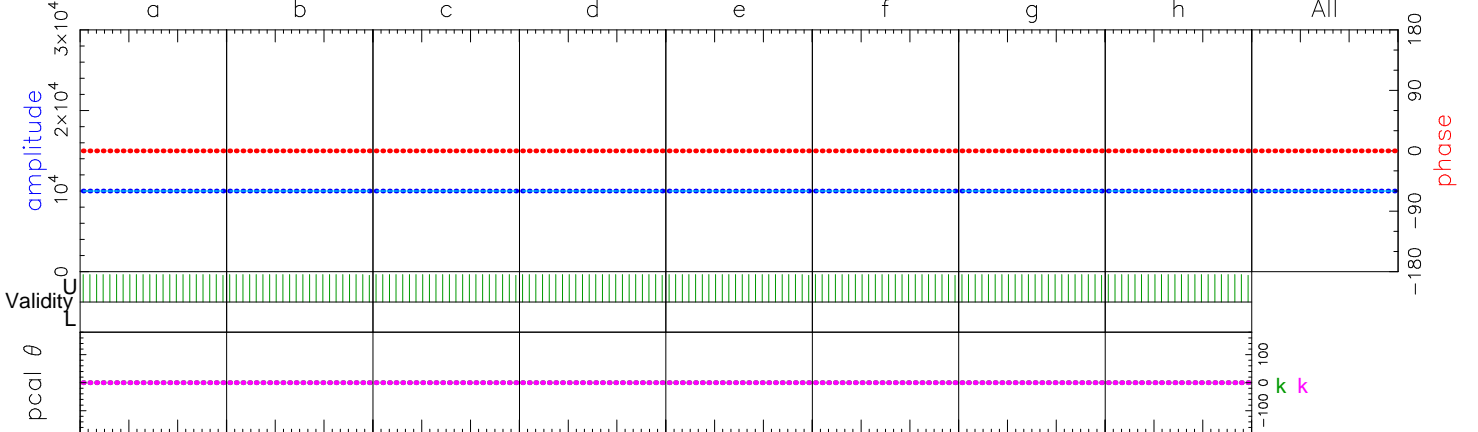


Fringe quality 9

SNR 366872.3
 Int time 179.984
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151813
 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	Ampl.	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
k	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

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

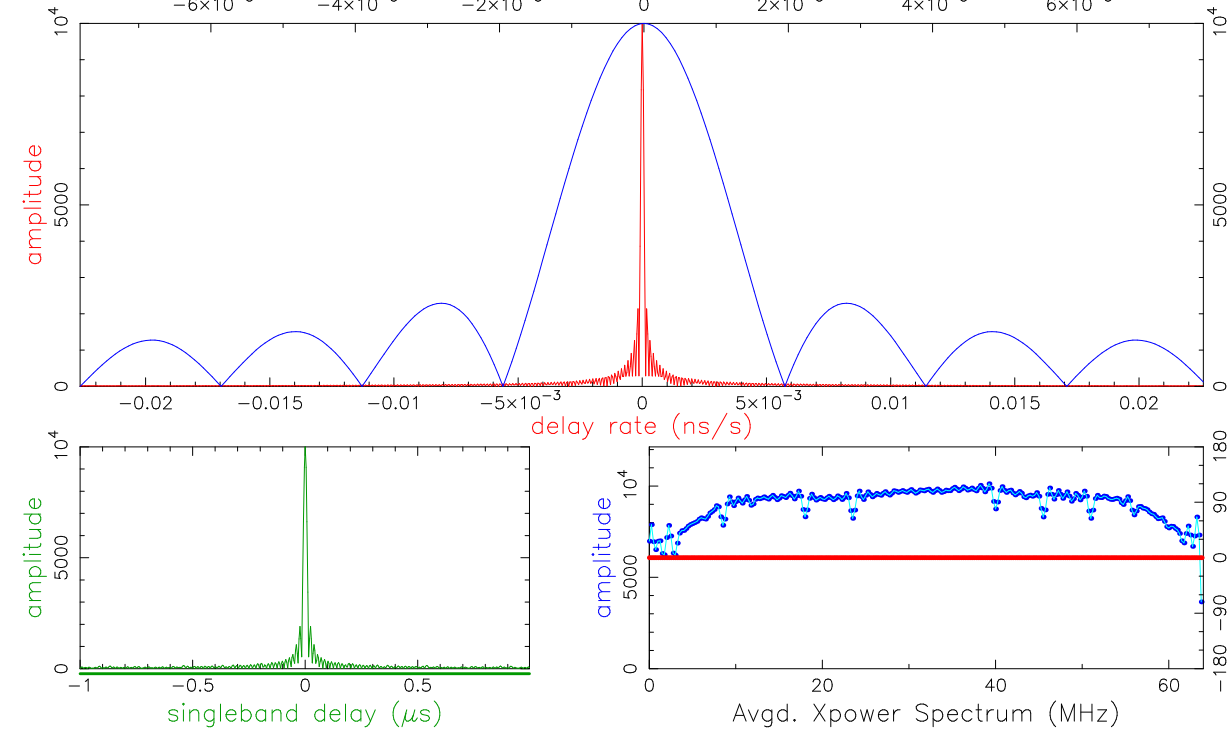
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 k: az 66.3 el 41.3 pa -77.6 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/kk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kk.Q.205.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

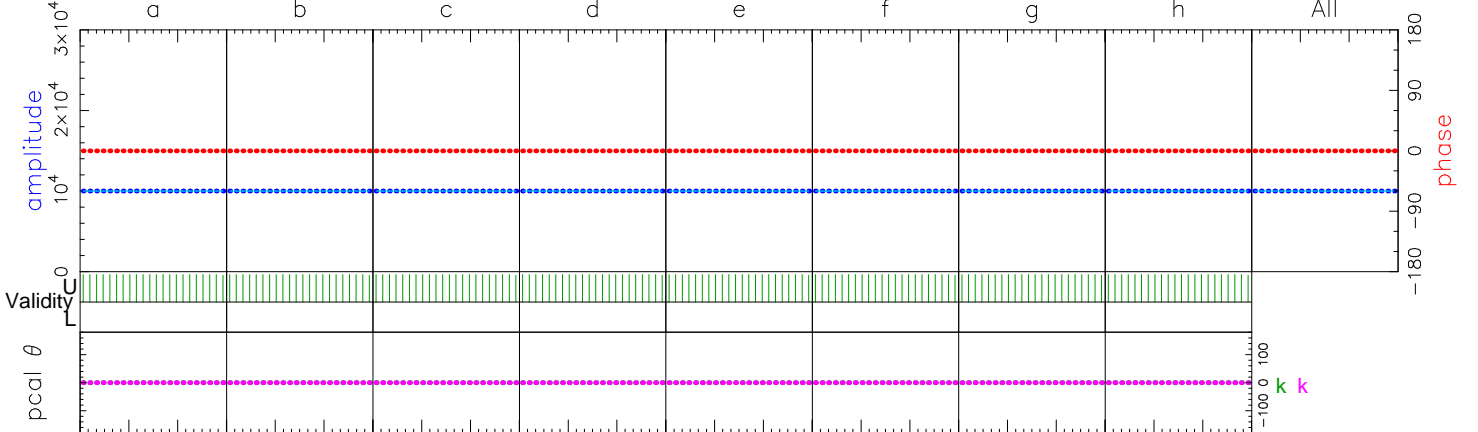
2013+370.3MP56K, No0500, kk

VLBA_KP - VLBA_KP, fgroup Q, pol RR



Fringe quality 9
 SNR 366874.0
 Int time 179.986
 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
 2025:042:151815
 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	10000.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	257.0
k	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

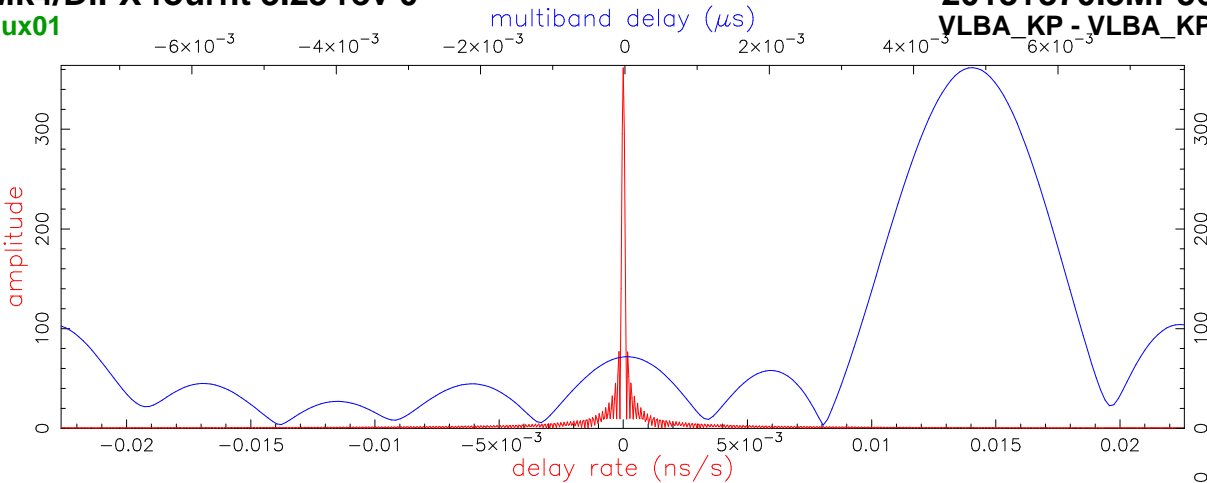
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (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
 k: az 66.3 el 41.3 pa -77.6 k: az 66.3 el 41.3 pa -77.6 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/kk.3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kk.Q.214.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

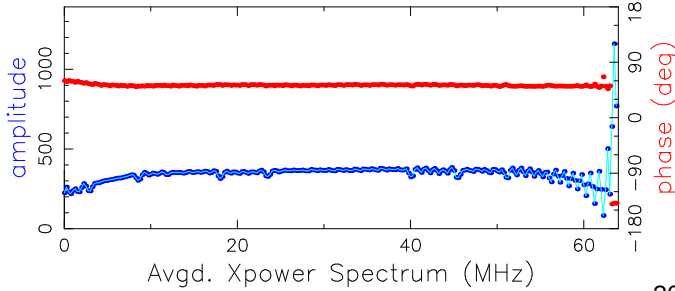
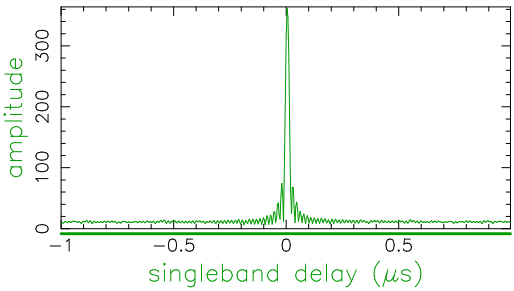
2013+370.3MP56K, No0500, kk

VLBA_KP - VLBA_KP, fgroup Q, pol LR



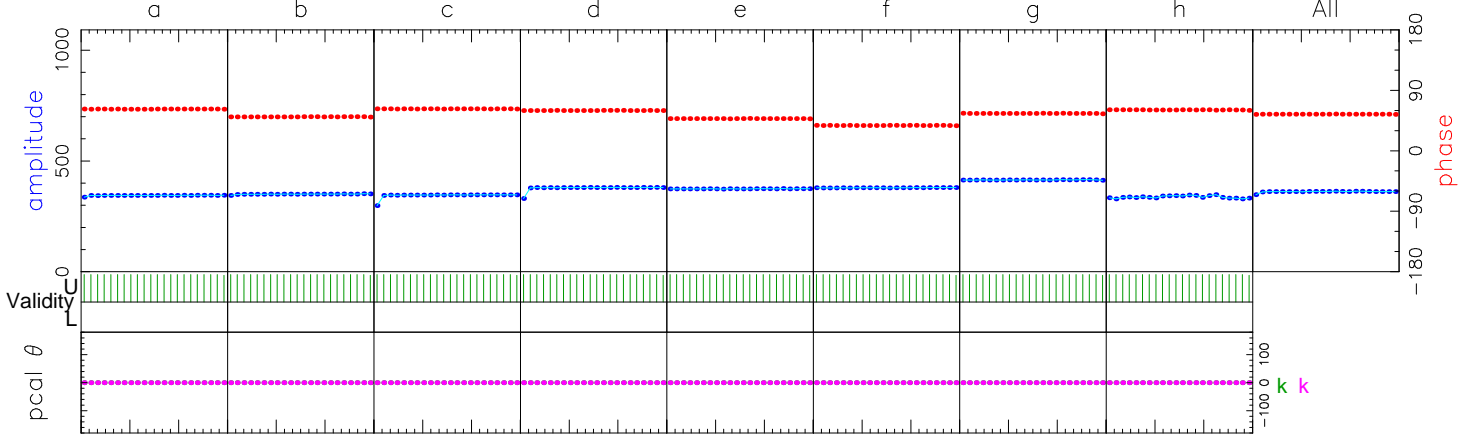
Fringe quality 9

SNR 13356.4
 Int time 179.984
 Amp 364.061
 Phase 54.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004998
 MBD 0.004848
 Fringe rate (Hz)
 -0.000005
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) 4.84771875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 4.84772E-03 +/- 8.1E-08
 Sband delay (usec) 4.99750000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 4.99750E-03 +/- 6.4E-07
 Phase delay (usec) 3.50386535844E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.50387E-06 +/- 5.5E-10
 Delay rate (us/s) -1.04696368752E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -1.04696E-10 +/- 5.3E-12
 Total phase (deg) 54.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 54.4 +/- 0.0

RMS Theor. Amplitude 364.061 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (1024X32) 361.048 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.4 0.0 Inc. seg. avg. 361.624 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 6.7 0.0 Inc. frq. avg. 365.324 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 66.3 el 41.3 pa -77.6 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kk.Q.235.3MP56K

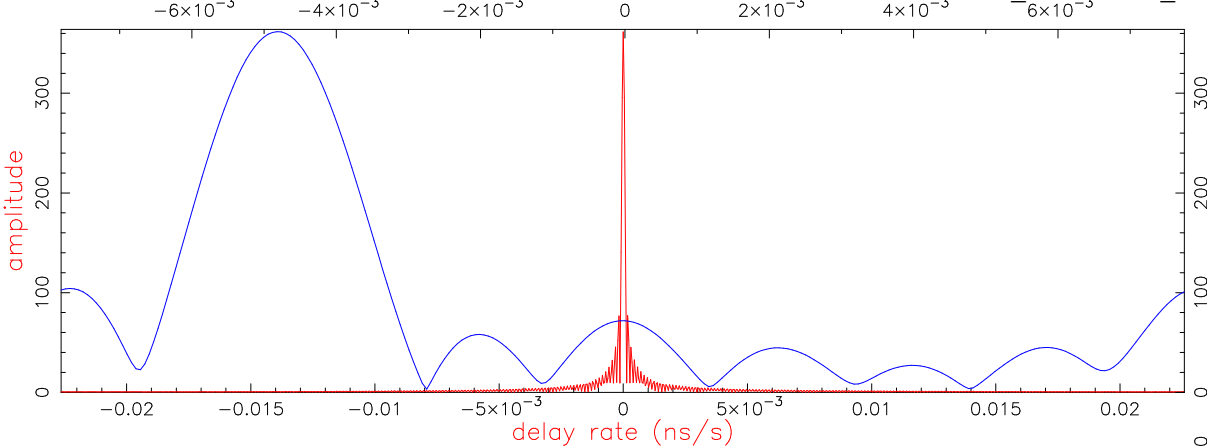
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kk

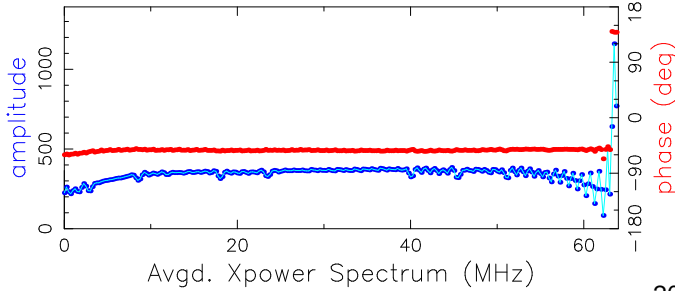
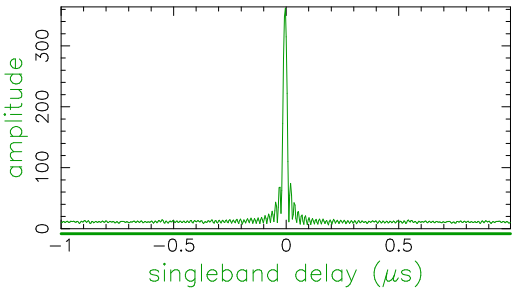
VLBA_KP - VLBA_KP, fgroup Q, pol RL

multiband delay (μ s)



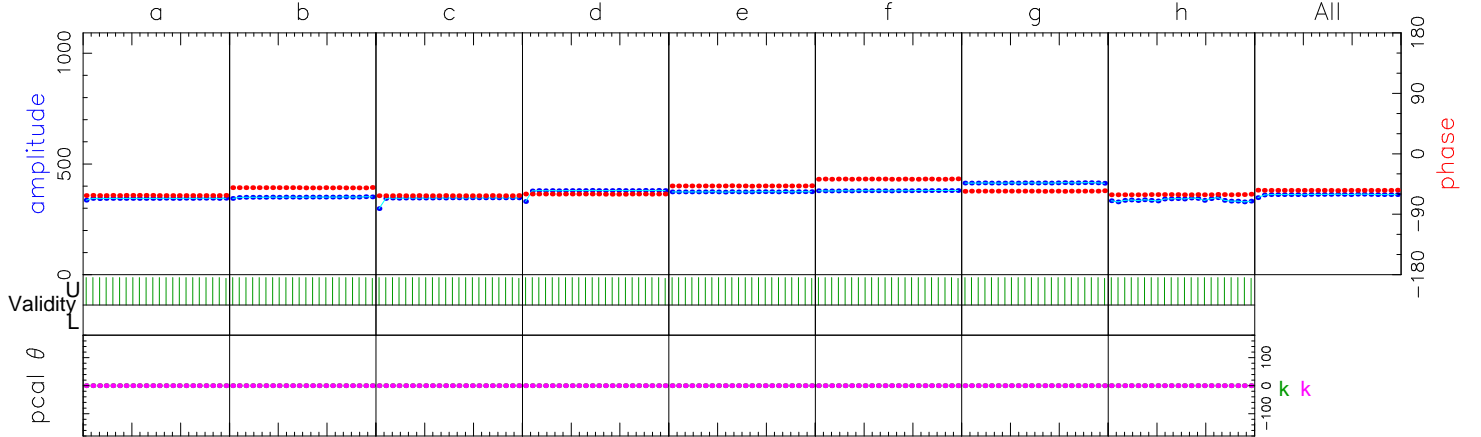
Fringe quality 9

SNR 13356.4
 Int time 179.984
 Amp 364.061
 Phase -54.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.004998
 MBD -0.004848
 Fringe rate (Hz) 0.000005
 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
 2025:042:151825
 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
	-62.0	-50.5	-62.3	-59.9	-47.9	-37.7	-55.6	-60.8	Phase	-54.4
	344.4	350.2	344.3	377.8	374.4	379.3	414.4	337.7	Ampl.	365.3
	255.7	255.7	255.7	256.0	255.9	255.8	255.5	254.3	Sbd box	255.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-4.84771875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.84772E-03	+/-	8.1E-08
Sband delay (usec)	-4.99750000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-4.99750E-03	+/-	6.4E-07
Phase delay (usec)	-3.50386535844E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-3.50387E-06	+/-	5.5E-10
Delay rate (us/s)	1.04696368752E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.04696E-10	+/-	5.3E-12
Total phase (deg)	-54.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-54.4	+/-	0.0

ph/seg (deg)	0.1	0.0	Search (1024X32)	361.048	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	1.1	0.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.008	0.008	
ph/frq (deg)	9.4	0.0	Inc. seg. avg.	361.624	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	6.7	0.0	Inc. frq. avg.	365.324	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
k: az 66.3 el 41.3 pa -77.6		k: az 66.3 el 41.3 pa -77.6		u,v (fr/asec) 0.000	0.000				simultaneous interpolator

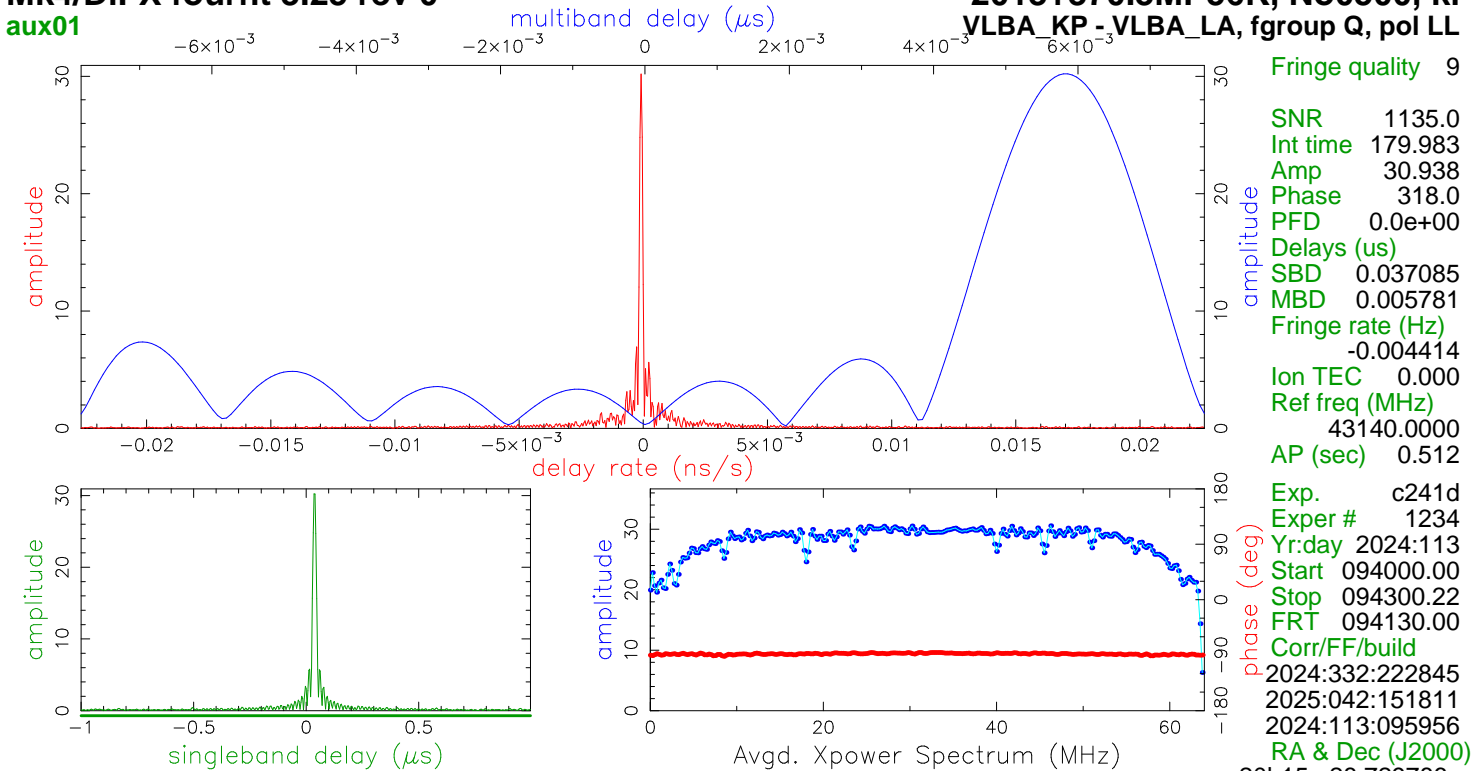
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kk..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kk.Q.269.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

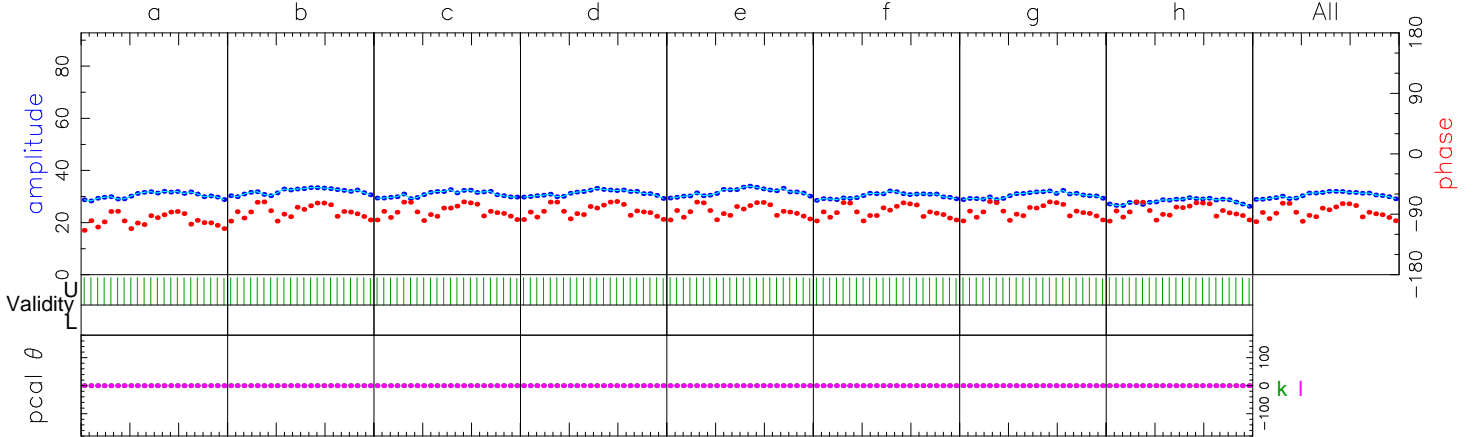
aux01

2013+370.3MP56K, No0500, kl

VLBA_KP - VLBA_LA, 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



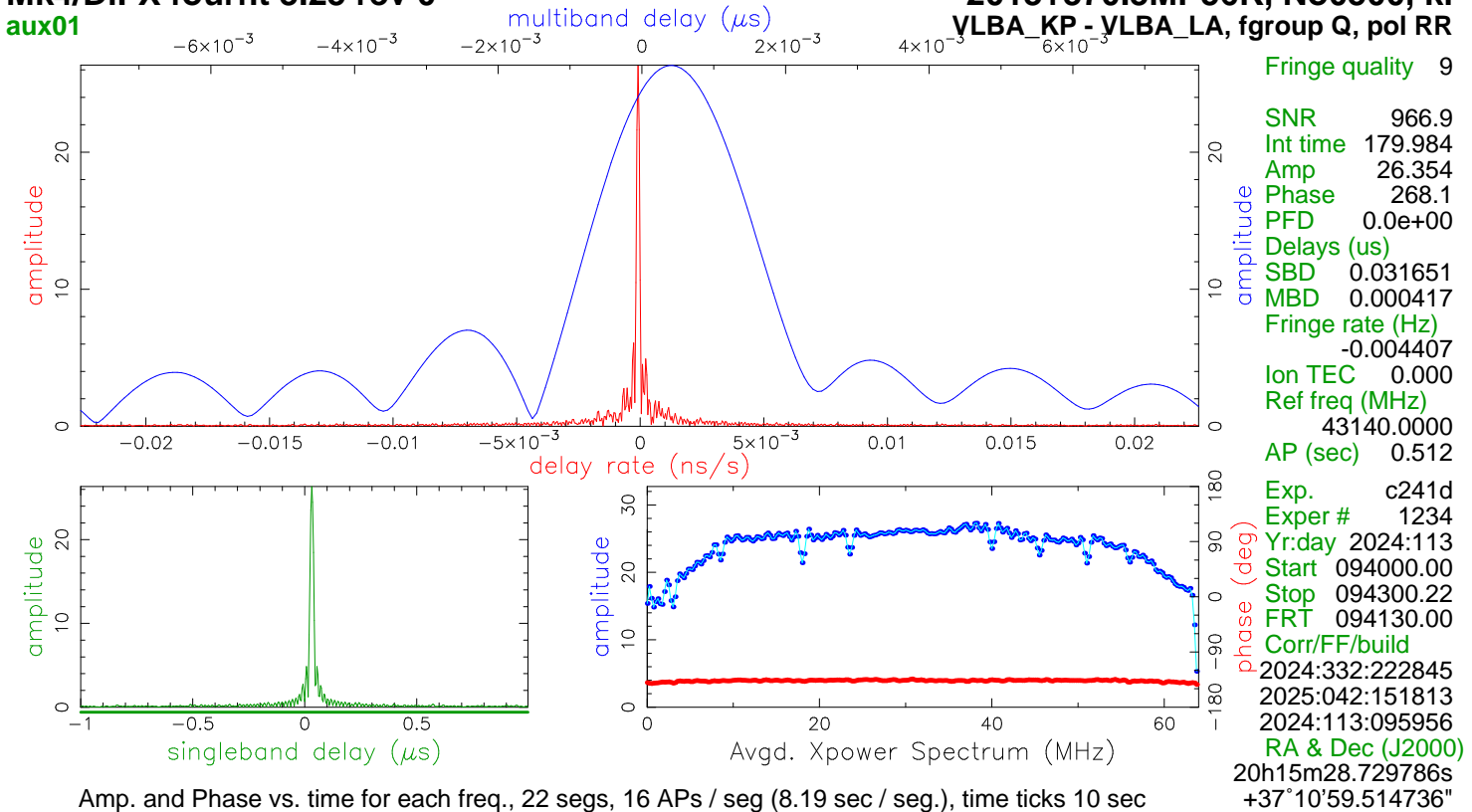
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-99.0	-85.7	-85.5	-84.6	-84.9	-86.4	-85.2	-85.1	Phase	-87.0
	30.0	31.6	30.5	30.9	31.4	29.9	30.1	27.8	Ampl.	30.3
	266.5	266.6	266.6	266.3	266.5	266.4	266.4	266.6	Sbd box	266.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	-1.45962719865E+03					-1.45966422928E+03			Resid mbdelay (usec)	5.78063E-03 +/- 9.6E-07
Sband delay (usec)	-1.45962714378E+03					8.4495506E+00			Resid sbdelay (usec)	3.70855E-02 +/- 7.6E-06
Phase delay (usec)	-1.45966423489E+03					3.8620713E-07			Resid phdelay (usec)	-5.60413E-06 +/- 6.5E-09
Delay rate (us/s)	9.09006696848E-02					9.09007719958E-02			Resid rate (us/s)	-1.02311E-07 +/- 6.2E-11
Total phase (deg)			11.5			4.02953872001E-06			Resid phase (deg)	318.0 +/- 0.1
	RMS	Theor.	Amplitude	30.938 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	8.8	0.2	Search (1024X32)	29.629					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	3.7	0.4	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	5.2	0.1	Inc. seg. avg.	30.551					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.1	0.2	Inc. frq. avg.	30.289					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
k: az 66.3 el 41.3 pa -77.6			l: az 71.2 el 46.9 pa -74.8			u, v (fr/asec) -326.401 -72.703				ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c241d/v1/7mm/1234/No0500/kl.1.3MP56K			Output file: /Exps/c241d/v1/7mm/1234/No0500/kl.Q.193.3MP56K				simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

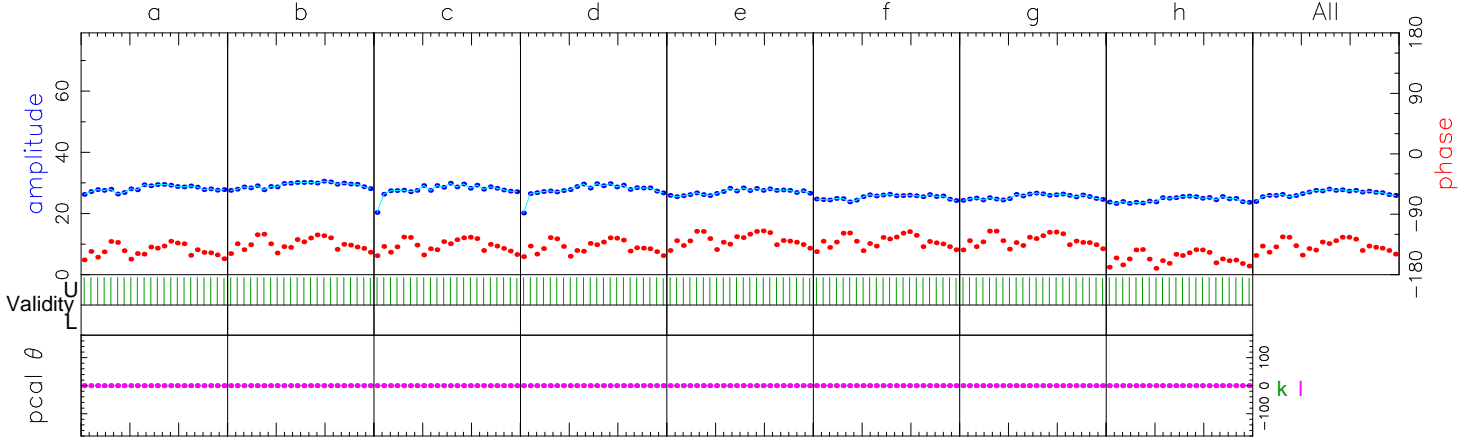
aux01

2013+370.3MP56K, No0500, kl

VLBA_KP - VLBA_LA, 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		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
l	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
Group delay (usec) (SBD)										
	-1.45963256222E+03								4.17064E-04	+/- 1.1E-06
Sband delay (usec)										
	-1.45963257828E+03								3.16510E-02	+/- 8.9E-06
Phase delay (usec)										
	-1.45966423810E+03								-8.81765E-06	+/- 7.6E-09
Delay rate (us/s)										
	9.09006698404E-02								-1.02155E-07	+/- 7.3E-11
Total phase (deg)										
			321.6						268.1	+/- 0.1
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)										
Sb window (us)										
Bits/sample: 2x2										
SampCntNorm: enabled										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
simultaneous interpolator										
k: az 66.3 el 41.3 pa -77.6										
l: az 71.2 el 46.9 pa -74.8										
u,v (fr/asec) -326.401 -72.703										
Control file: cf_1234_gmva										
Input file: /Exps/c241d/v1/7mm/1234/No0500/kl..3MP56K										
Output file: /Exps/c241d/v1/7mm/1234/No0500/kl.Q.206.3MP56K										

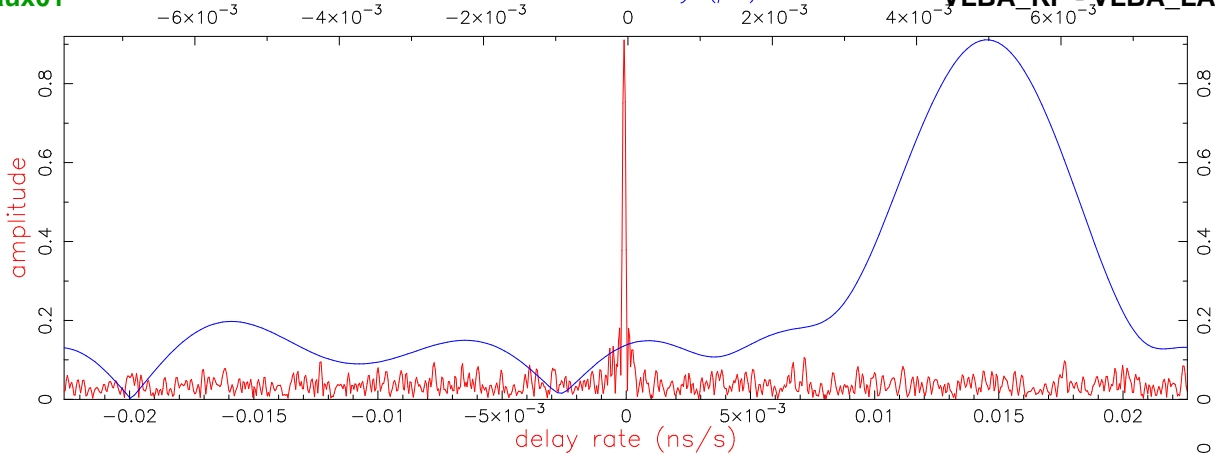
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kl

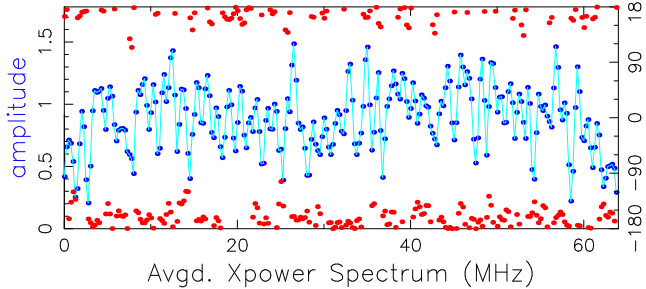
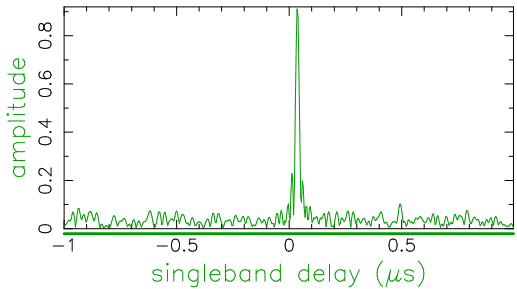
VLBA_KP - VLBA_LA, fgroup Q, pol LR

multiband delay (μ s)

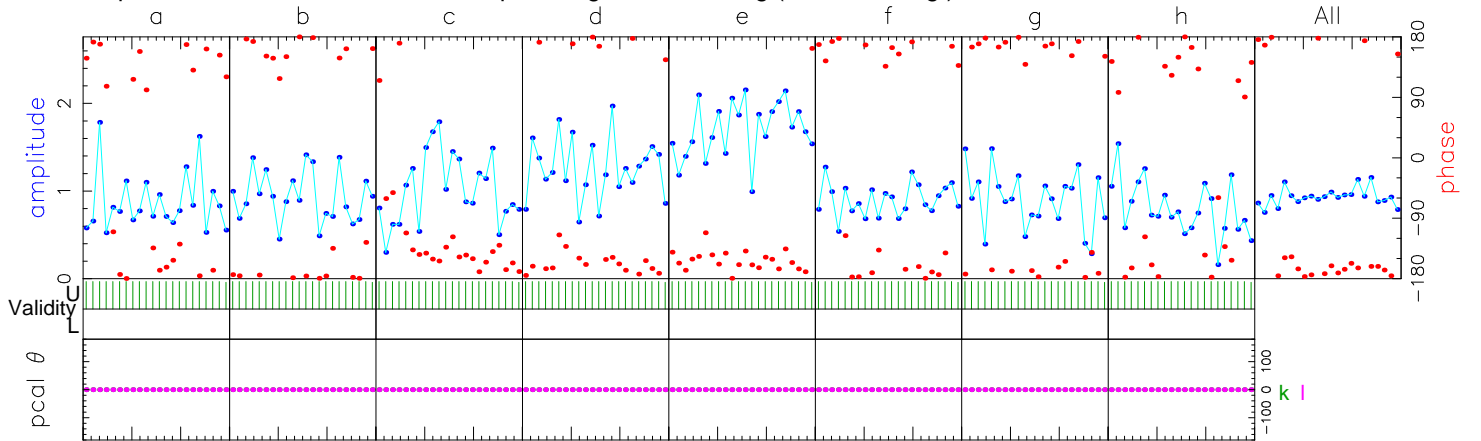


Fringe quality 7

SNR 33.8
 Int time 179.983
 Amp 0.920
 Phase 234.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.036426
 MBD 0.005019
 Fringe rate (Hz)
 -0.004185
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
l	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.45962796053E+03	Apriori delay (usec)	-1.45966422928E+03	Resid mbdelay (usec)	5.01875E-03	+/-	3.2E-05
Sband delay (usec)	-1.45962780353E+03	Apriori clock (usec)	8.4495506E+00	Resid sbdelay (usec)	3.64258E-02	+/-	2.6E-04
Phase delay (usec)	-1.45966424027E+03	Apriori clockrate (us/s)	3.8620713E-07	Resid phdelay (usec)	-1.09872E-05	+/-	2.2E-07
Delay rate (us/s)	9.09006749847E-02	Apriori rate (us/s)	9.09007719958E-02	Resid rate (us/s)	-9.70111E-08	+/-	2.1E-09
Total phase (deg)	287.9	Apriori accel (us/s/s)	4.02953872001E-06	Resid phase (deg)	234.4	+/-	3.4

ph/seg (deg)	13.5	Theor.	8.0	Amplitude	0.920 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	10.7	Search (1024X32)	0.901	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	18.4	Inc. seg. avg.	0.926	Inc. frq. avg.	0.942	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.4	Inc. frq. avg.	0.942			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 66.3 el 41.3 pa -77.6 l: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) -326.401 -72.703 simultaneous interpolator

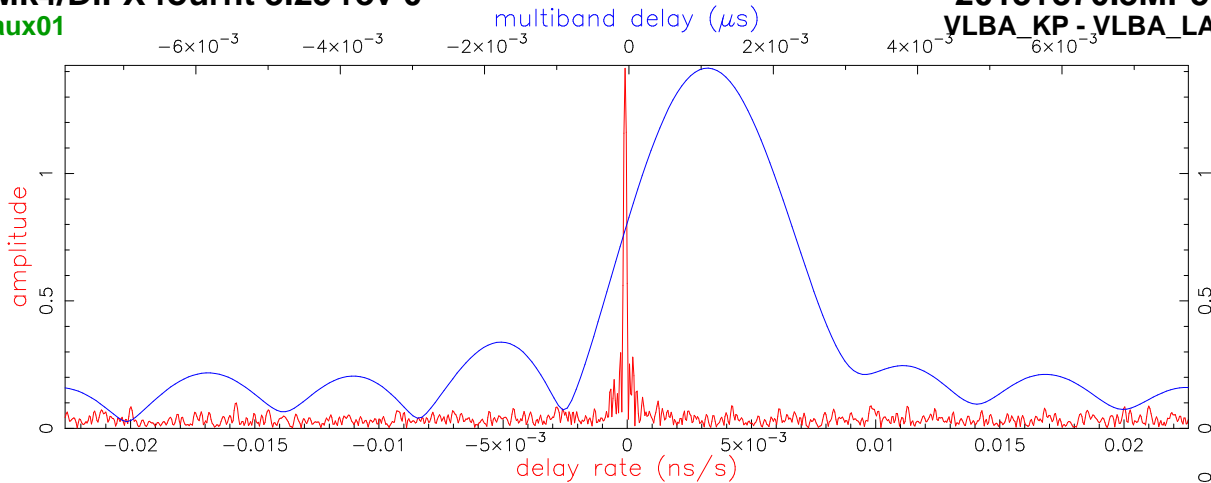
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kl..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kl.Q.217.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

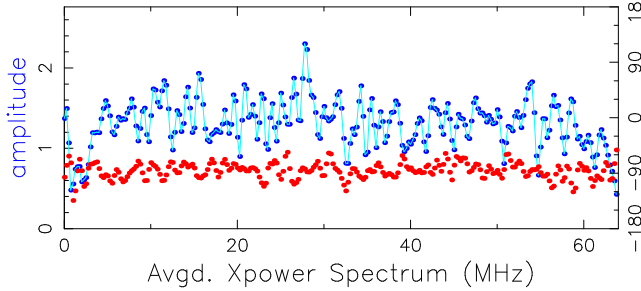
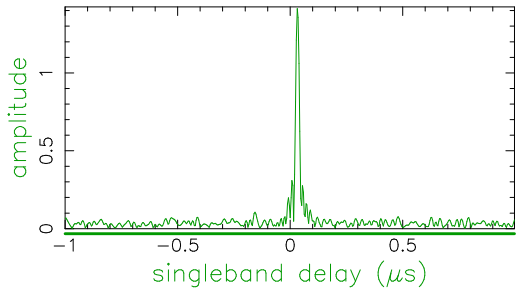
2013+370.3MP56K, No0500, kl

VLBA_KP - VLBA_LA, fgroup Q, pol RL



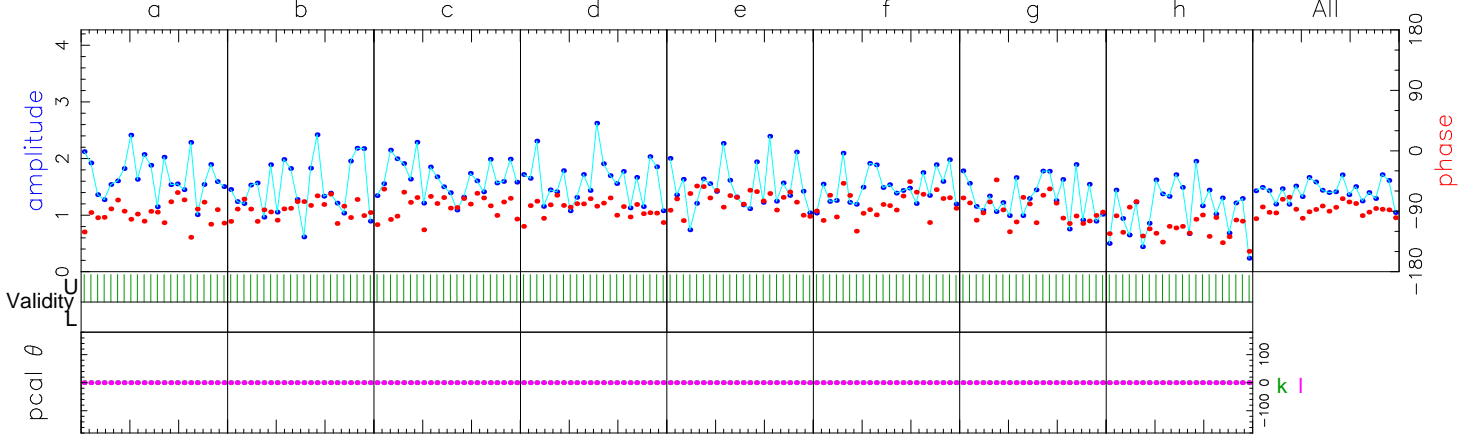
Fringe quality 8

SNR 52.3
 Int time 179.984
 Amp 1.424
 Phase 318.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.032365
 MBD 0.001116
 Fringe rate (Hz)
 -0.004358
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
l	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -1.45963186375E+03 Apriori delay (usec) -1.45966422928E+03 Resid mbdelay (usec) 1.11553E-03 +/- 2.1E-05
 Sband delay (usec) -1.45963186403E+03 Apriori clock (usec) 8.4495506E+00 Resid sbdelay (usec) 3.23653E-02 +/- 1.6E-04
 Phase delay (usec) -1.45966423484E+03 Apriori clockrate (us/s) 3.8620713E-07 Resid phdelay (usec) -5.55662E-06 +/- 1.4E-07
 Delay rate (us/s) 9.09006709751E-02 Apriori rate (us/s) 9.09007719958E-02 Resid rate (us/s) -1.01021E-07 +/- 1.4E-09
 Total phase (deg) 12.3 Apriori accel (us/s/s) 4.02953872001E-06 Resid phase (deg) 318.7 +/- 2.2

RMS Theor. Amplitude 1.424 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 8.9 5.1 Search (1024X32) 1.384 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 11.8 9.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 13.1 3.1 Inc. seg. avg. 1.424 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 12.4 5.4 Inc. frq. avg. 1.435 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

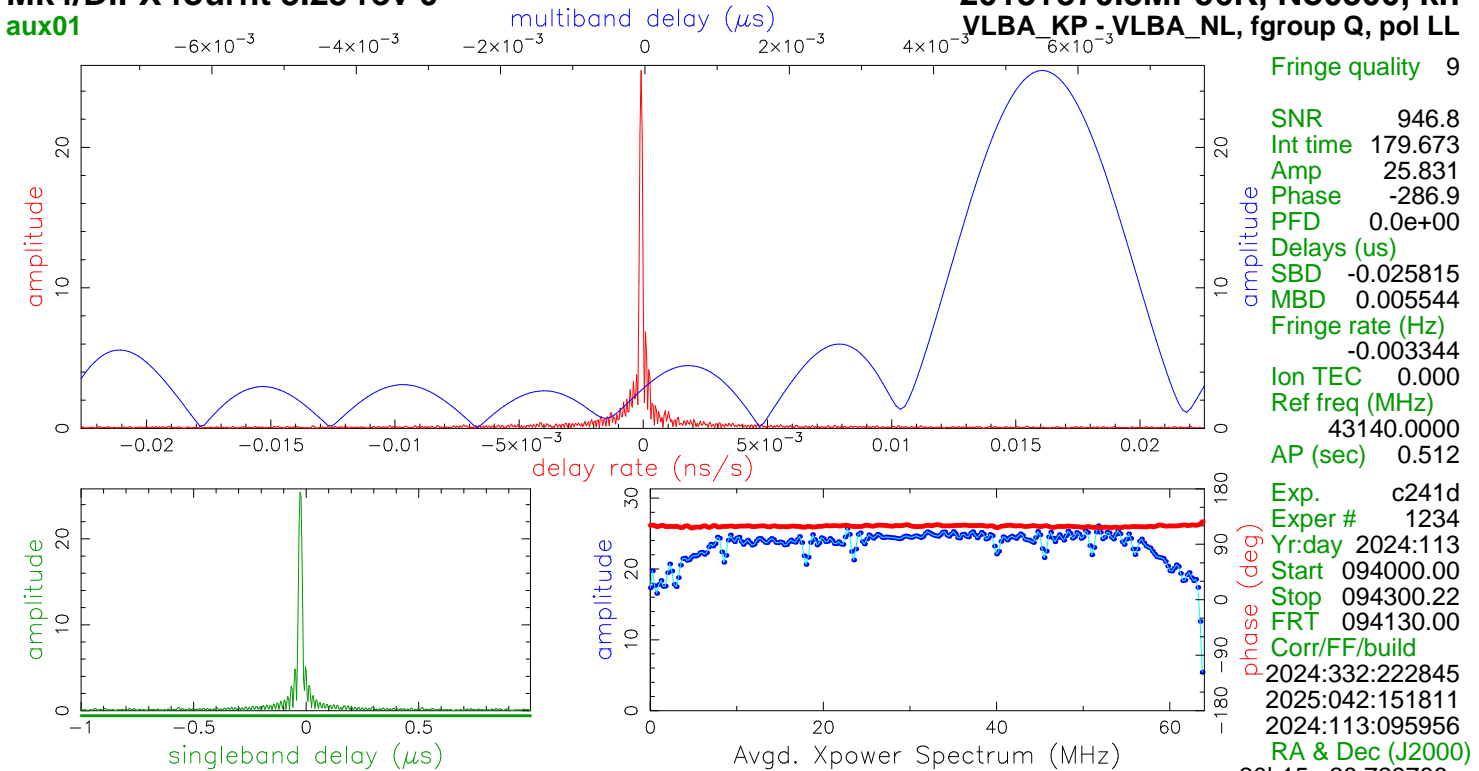
k: az 66.3 el 41.3 pa -77.6 l: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) -326.401 -72.703 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kl..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kl.Q.228.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kn

VLBA_KP - VLBA_NL, fgroup Q, pol LL



Fringe quality 9

SNR 946.8

Int time 179.673

Amp 25.831

Phase -286.9

PFD 0.0e+00

Delays (us)

SBD -0.025815

MBD 0.005544

Fringe rate (Hz)

-0.003344

Ion TEC 0.000

Ref freq (MHz)

43140.0000

AP (sec) 0.512

Exp. c241d

Exper # 1234

Yr:day 2024:113

Start 094000.00

Stop 094300.22

FRT 094130.00

Corr/FF/build

2024:332:222845

2025:042:151811

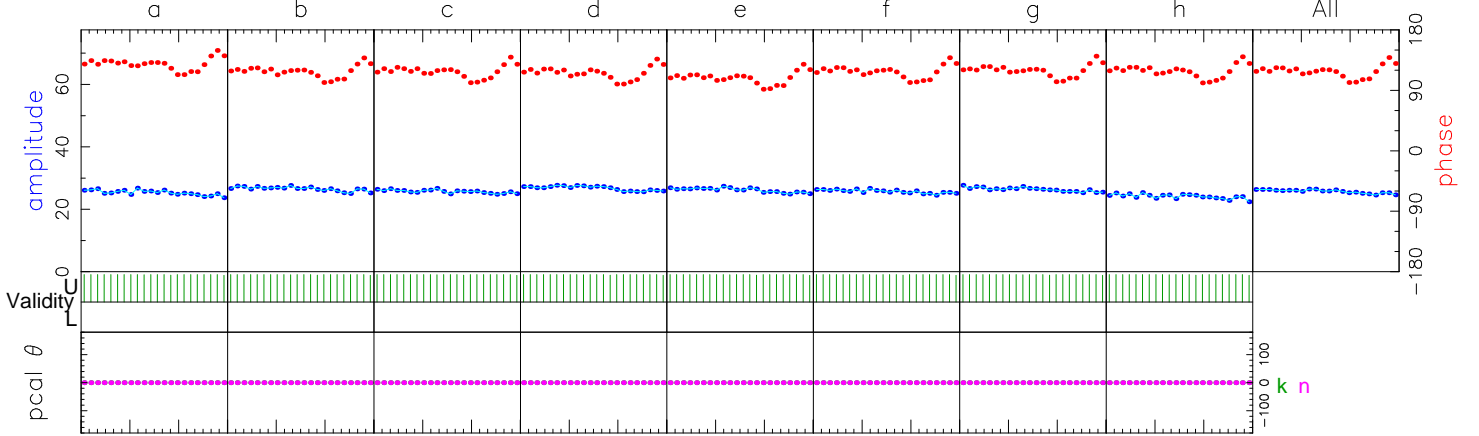
2024:113:095956

RA & Dec (J2000)

20h15m28.729786s

+37°10'59.514736"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	25.6
n	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	250.4
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
n	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	PC amp	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

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

ph/seg (deg)	8.7	Theor.	Amplitude	25.831 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.2	0.3	Search (1024X32)	24.939	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	6.1	0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	3.2	0.3	Inc. seg. avg.	25.743	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.	25.563	Data rate(Mb/s): 2048				

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

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.192.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

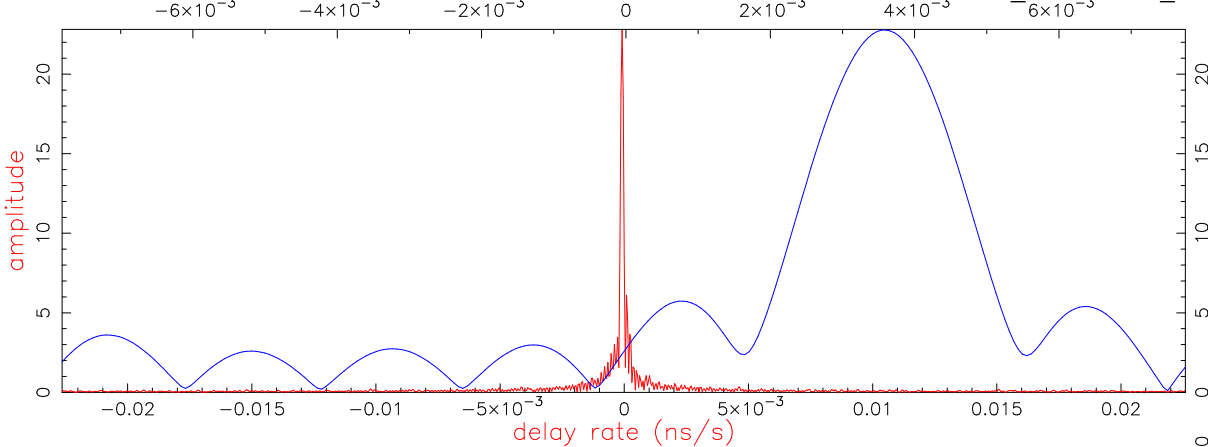
aux01

2013+370.3MP56K, No0500, kn

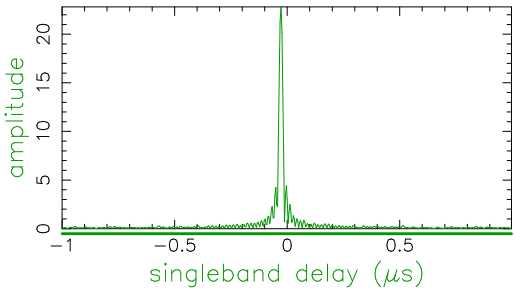
VLBA_KP - VLBA_NL, fgroup Q, pol RR

multiband delay (μ s)

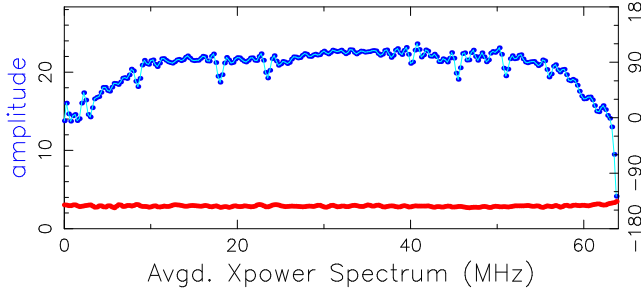
Fringe quality 9



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



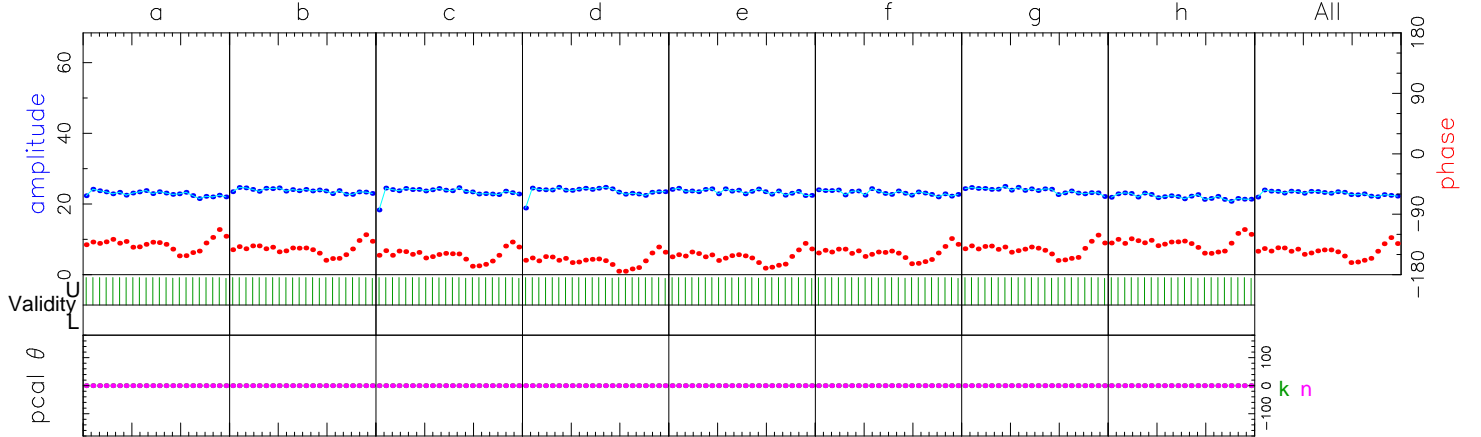
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

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

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-134.7	-141.8	-150.4	-158.8	-153.6	-147.6	-142.3	-132.6	Phase	-145.3
	22.6	23.5	23.2	23.3	23.3	22.9	23.6	21.8	Ampl.	23.0
	249.6	249.6	249.9	249.9	250.2	249.8	249.9	250.1	Sbd box	249.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

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

RMS Theor. Amplitude 22.814 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 8.7 0.3 Search (1024X32) 22.217 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 2.7 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.8 0.2 Inc. seg. avg. 23.038 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 amp/frq (%) 2.6 0.3 Inc. frq. avg. 23.028 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

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

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.209.3MP56K

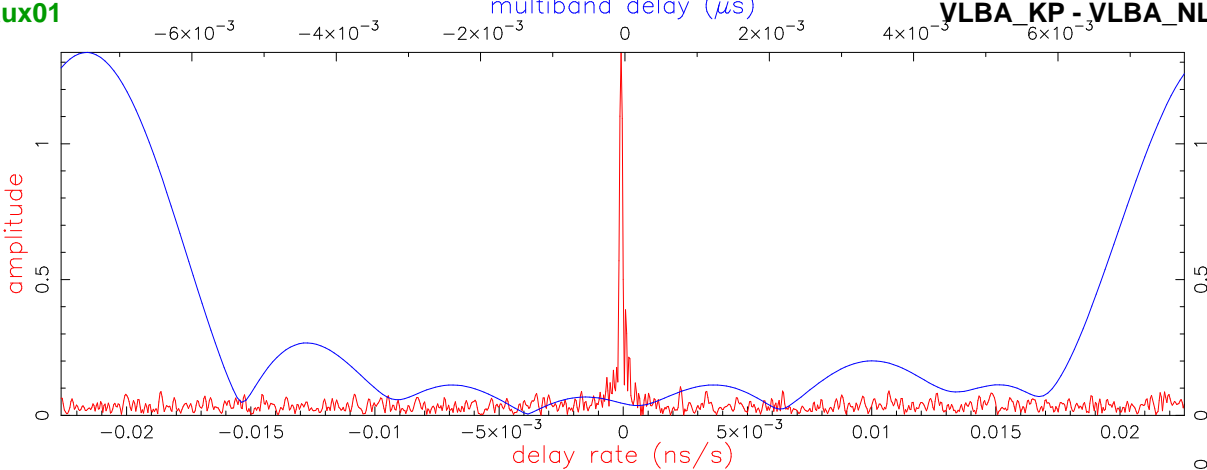
Mk4/DiFX fourfit 3.25 rev 0

aux01

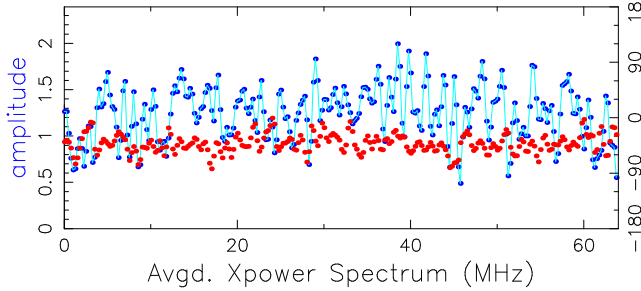
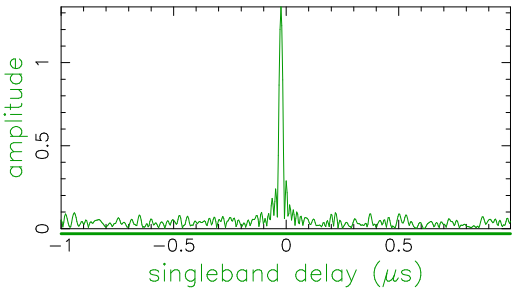
2013+370.3MP56K, No0500, kn

VLBA_KP - VLBA_NL, fgroup Q, pol LR

Fringe quality 8

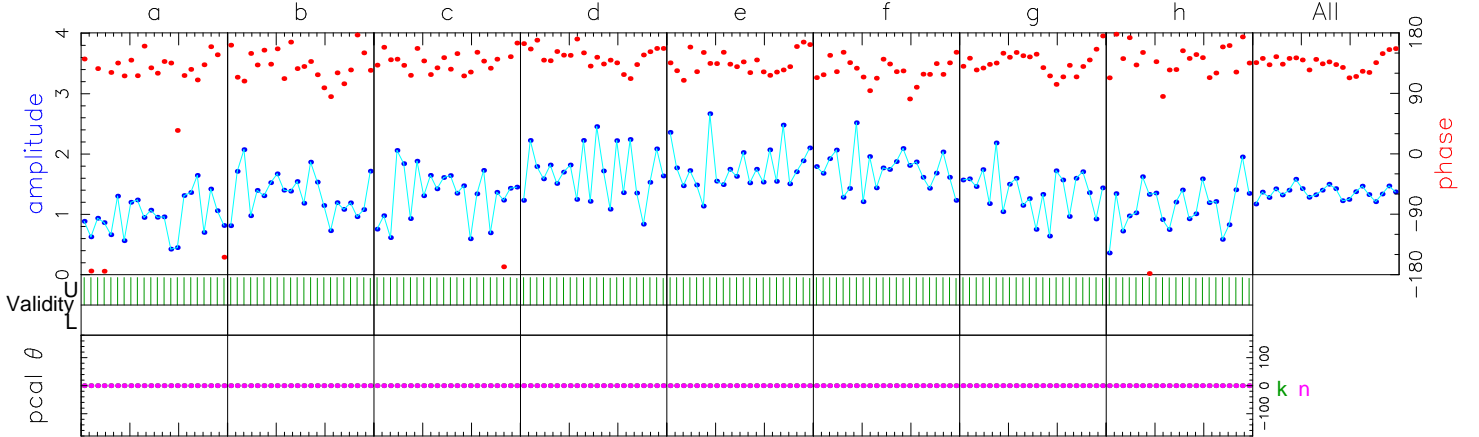


SNR 49.0
Int time 179.673
Amp 1.336
Phase -66.9
PFD 0.0e+00
Delays (us)
SBD -0.023264
MBD -0.007456
Fringe rate (Hz)
-0.003405
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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

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



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

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

ph/seg (deg)	11.2	Theor.	5.5	Amplitude	1.336 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	7.6		9.6	Search (1024X32)	1.316	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	7.9		3.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	21.2		5.8	Inc. seg. avg.	1.356	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	1.344	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
k: az 66.3 el 41.3 pa -77.6		n: az 85.1 el 59.3 pa -68.9		u, v (fr/asec)	-1141.747 -84.810					simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.223.3MP56K

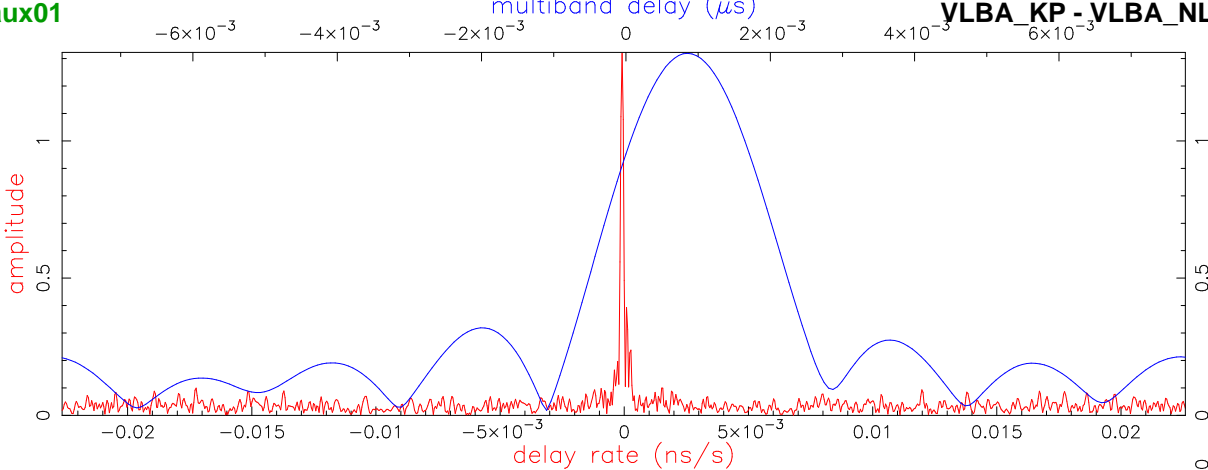
Mk4/DiFX fourfit 3.25 rev 0

aux01

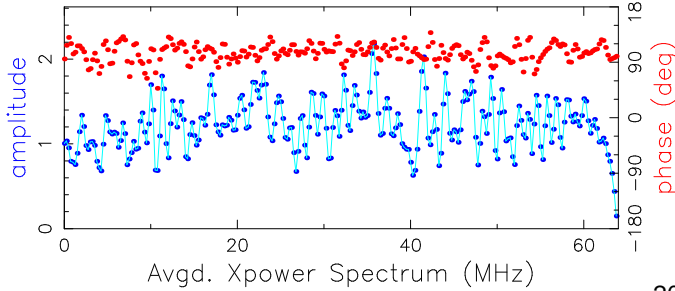
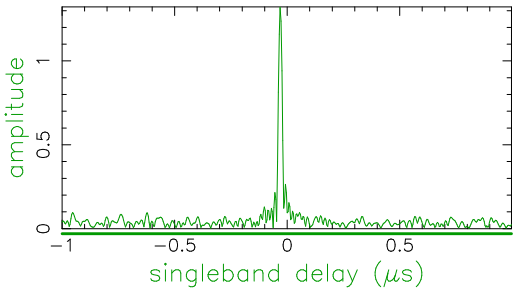
2013+370.3MP56K, No0500, kn

VLBA_KP - VLBA_NL, fgroup Q, pol RL

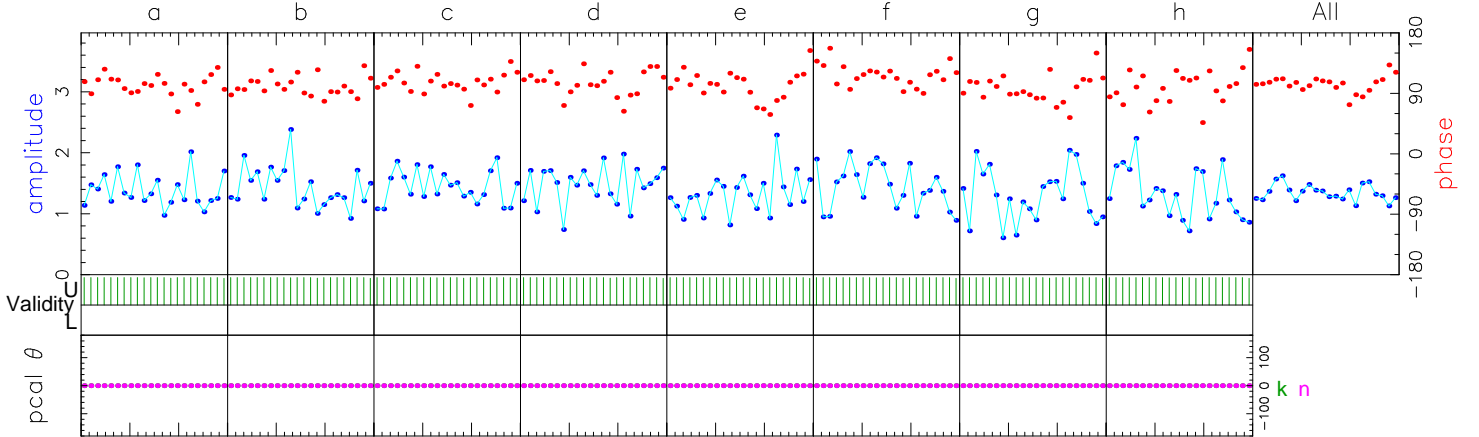
Fringe quality 8



SNR 48.5
 Int time 179.674
 Amp 1.323
 Phase -301.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.030597
 MBD 0.000870
 Fringe rate (Hz)
 -0.003412
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151819
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



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



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

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

ph/seg (deg)	12.0	Theor.	5.5	Amplitude	1.323 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	10.0		9.7	Search (1024X32)	1.299	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	7.3		3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	5.9		5.8	Inc. seg. avg.	1.341	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.	1.325	Data rate(Mb/s): 2048				

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

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kn..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kn.Q.239.3MP56K

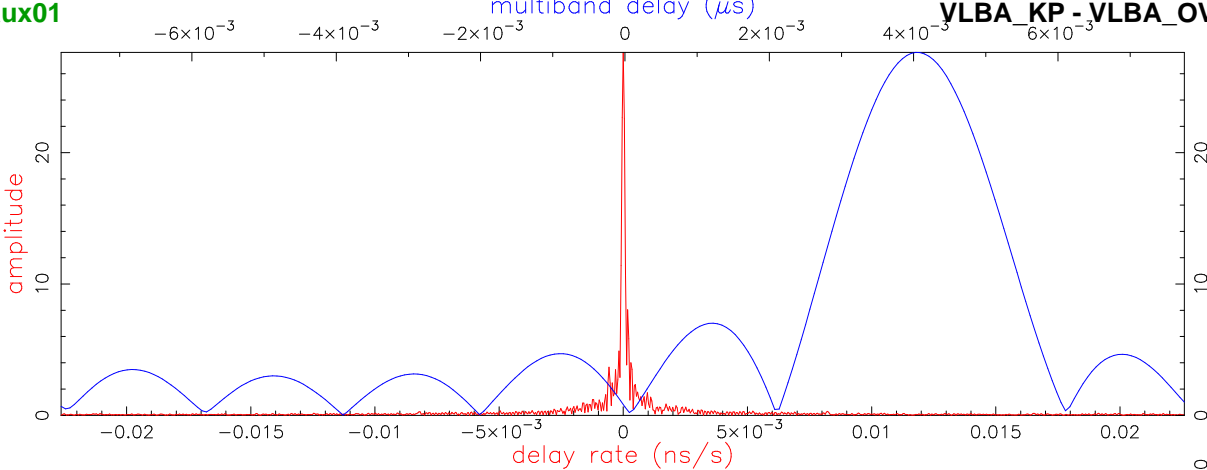
Mk4/DiFX fourfit 3.25 rev 0

aux01

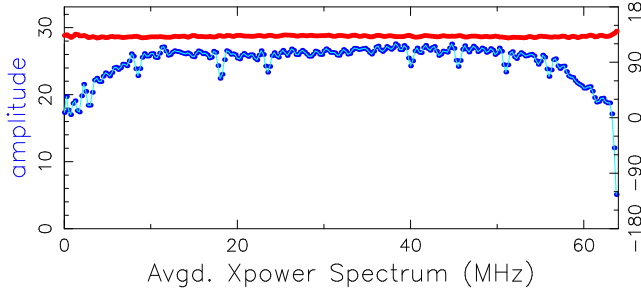
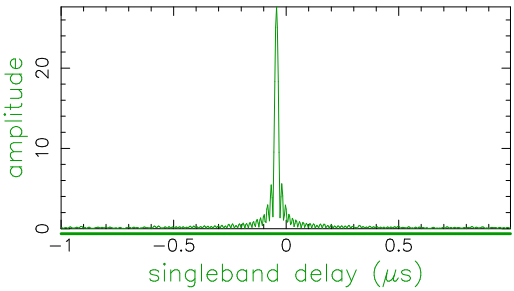
2013+370.3MP56K, No0500, ko

VLBA_KP - VLBA_OV, fgroup Q, pol LL

Fringe quality 8

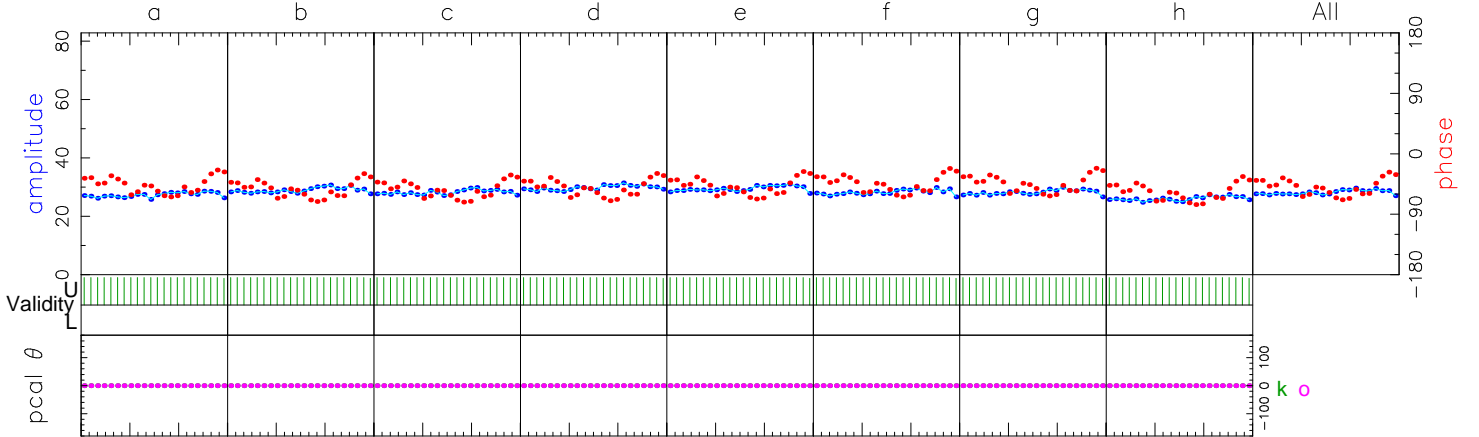


SNR 1013.6
Int time 179.984
Amp 27.628
Phase -297.0
PFD 0.0e+00
Delays (us)
SBD -0.042965
MBD 0.004051
Fringe rate (Hz)
0.000472
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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		
k	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	27.7
o	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	246.0
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	PC amp	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	8.48376261081E+02	Apriori delay (usec)	8.48419084894E+02	Resid mbdelay (usec)	4.05119E-03	+/-	1.1E-06
Sband delay (usec)	8.48376119644E+02	Apriori clock (usec)	-2.4902983E+01	Resid sbdelay (usec)	-4.29652E-02	+/-	8.5E-06
Phase delay (usec)	8.48419081704E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-3.18908E-06	+/-	7.3E-09
Delay rate (us/s)	2.99586909566E-03	Apriori rate (us/s)	2.99585816196E-03	Resid rate (us/s)	1.09337E-08	+/-	7.0E-11
Total phase (deg)	-181.0	Apriori accel (us/s/s)	-9.81124553911E-06	Resid phase (deg)	-297.0	+/-	0.1

ph/seg (deg)	11.9	0.3	Amplitude	27.628 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	3.5	0.5	Search (1024X32)	27.071	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	4.9	0.2	Inc. seg. avg.	28.236	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	4.0	0.3	Inc. frq. avg.	27.702	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023		
k: az 66.3 el 41.3 pa -77.6		o: az 68.4 el 38.3 pa -68.5		u, v (fr/asec)	-15.337 -560.622	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/ko..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/ko.Q.190.3MP56K		simultaneous interpolator				

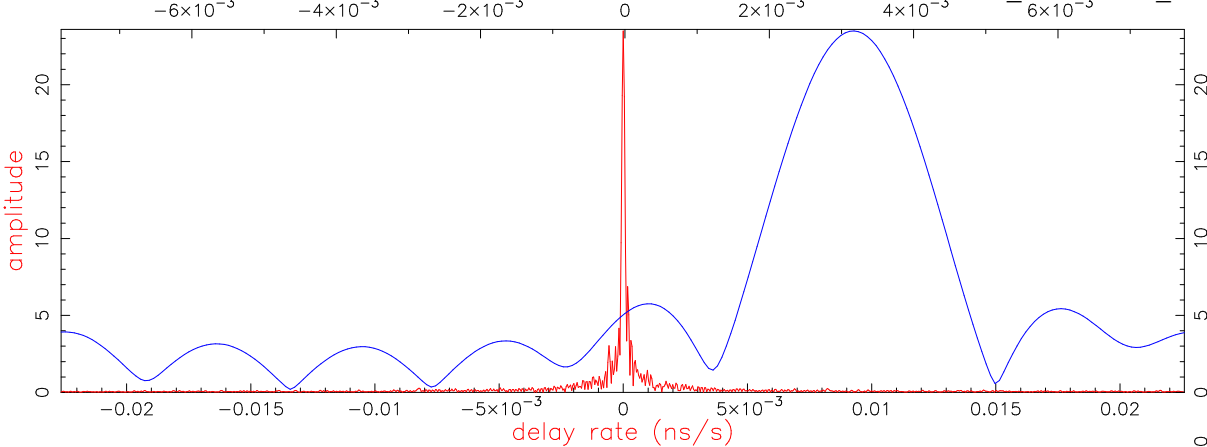
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, ko

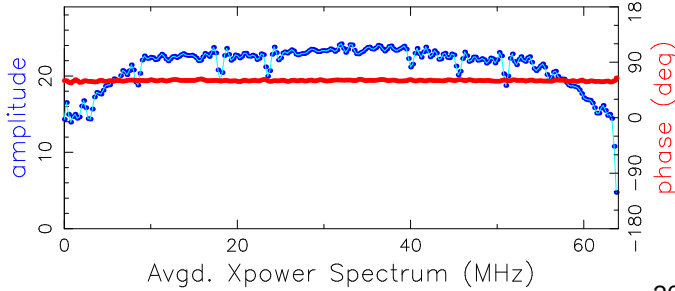
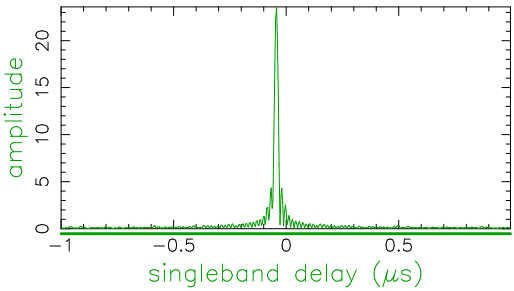
VLBA_KP - VLBA_OV, fgroup Q, pol RR

multiband delay (μ s)



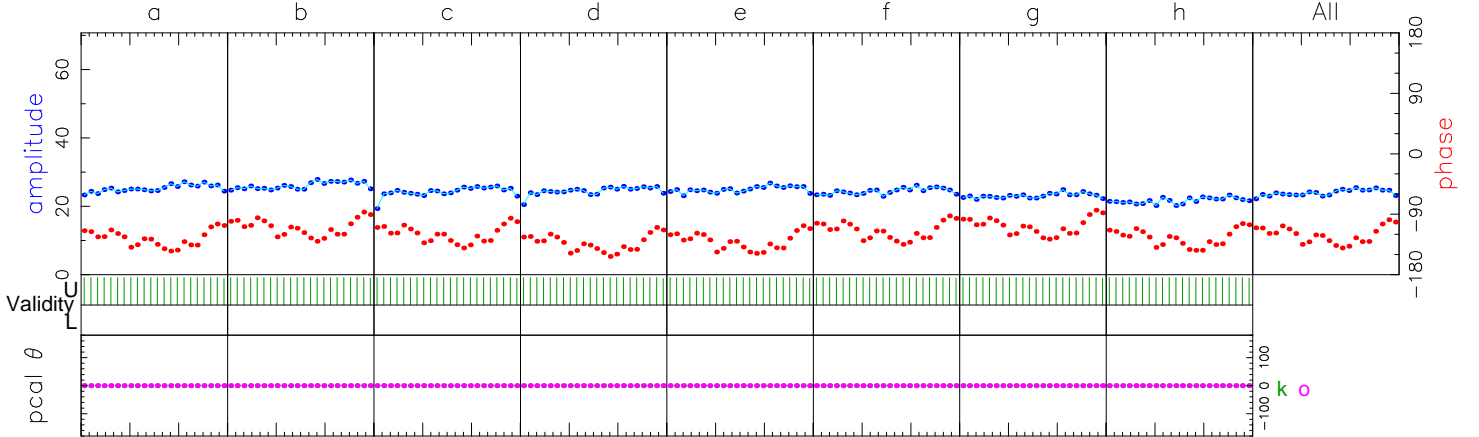
Fringe quality 8

SNR 865.5
 Int time 179.986
 Amp 23.591
 Phase -8.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.043825
 MBD 0.003149
 Fringe rate (Hz) 0.000479
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 8.48375358925E+02 Apriori delay (usec) 8.48419084894E+02 Resid mbdelay (usec) 3.14903E-03 +/- 1.3E-06
 Sband delay (usec) 8.48375260394E+02 Apriori clock (usec) -2.4902983E+01 Resid sbdelay (usec) -4.38245E-02 +/- 1.0E-05
 Phase delay (usec) 8.48419077122E+02 Apriori clockrate (us/s) -3.2906598E-07 Resid phdelay (usec) -7.77134E-06 +/- 8.5E-09
 Delay rate (us/s) 2.99586926543E-03 Apriori rate (us/s) 2.99585816196E-03 Resid rate (us/s) 1.11035E-08 +/- 8.2E-11
 Total phase (deg) -252.2 Apriori accel (us/s/s) -9.81124553911E-06 Resid phase (deg) -8.2 +/- 0.1

ph/seg (deg) 12.0 0.3 RMS Theor. Amplitude 23.591 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 4.1 0.5 Search (1024X32) 22.675 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.2 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.3 0.3 Inc. seg. avg. 24.012 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Inc. frq. avg. 23.768 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

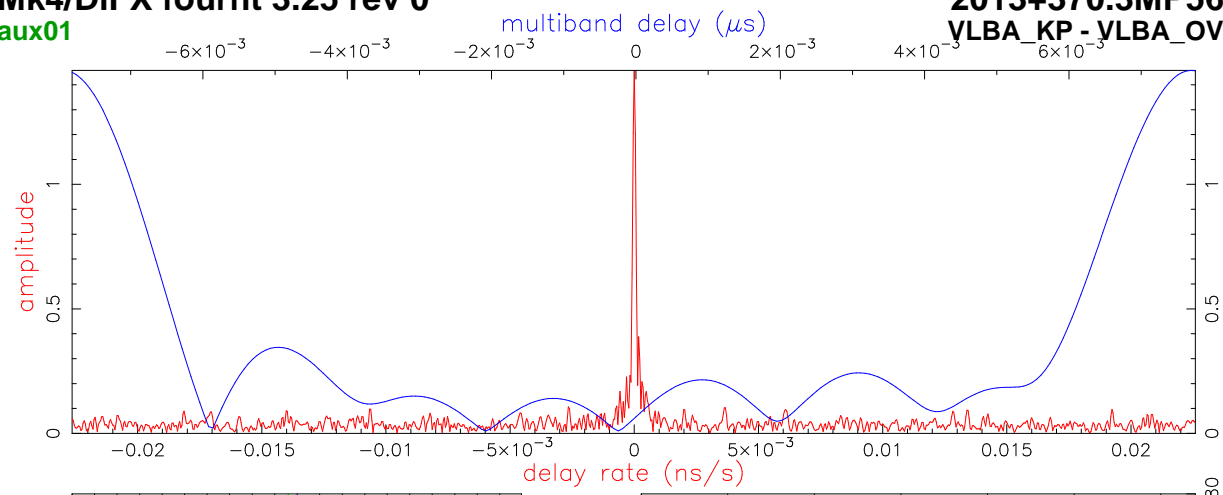
k: az 66.3 el 41.3 pa -77.6 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) -15.337 -560.622 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ko..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ko.Q.204.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, ko

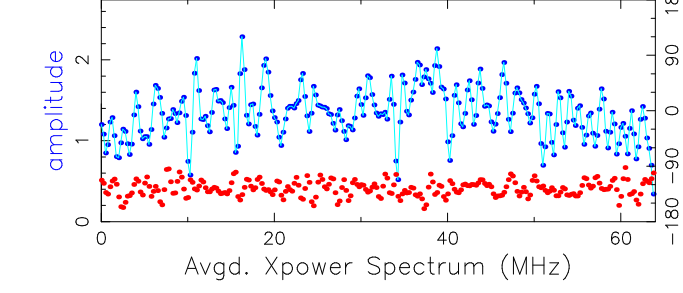
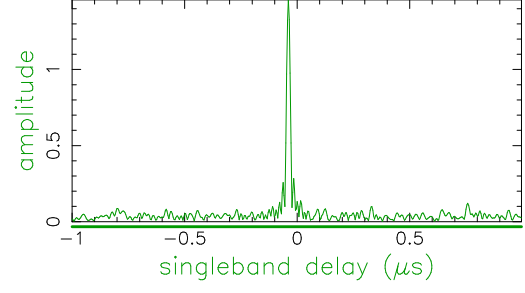
VLBA_KP - VLBA_OV, fgroup Q, pol LR



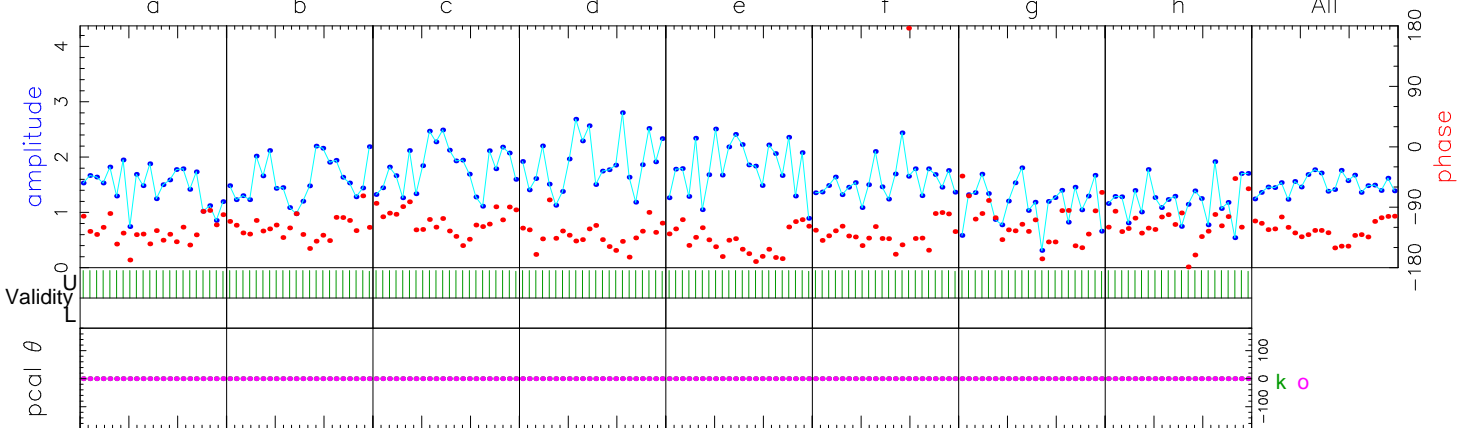
Fringe quality 7

SNR 53.5
 Int time 179.984
 Amp 1.458
 Phase -169.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.039023
 MBD -0.007932
 Fringe rate (Hz) 0.000491
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	8.48379903144E+02	Apriori delay (usec)	8.48419084894E+02	Resid mbdelay (usec)	-7.93175E-03	+/-	2.0E-05
Sband delay (usec)	8.48380061394E+02	Apriori clock (usec)	-2.4902983E+01	Resid sbdelay (usec)	-3.90235E-02	+/-	1.6E-04
Phase delay (usec)	8.48419076877E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-8.01660E-06	+/-	1.4E-07
Delay rate (us/s)	2.99586953425E-03	Apriori rate (us/s)	2.99585816196E-03	Resid rate (us/s)	1.13723E-08	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-9.81124553911E-06	Resid phase (deg)	-169.5	+/-	2.1

ph/seg (deg) 13.9 5.0
 amp/seg (%) 10.8 8.8
 ph/frq (deg) 11.7 3.0
 amp/frq (%) 17.9 5.3

RMS Theor. Amplitude 1.458 +/- 0.027
 Search (1024X32) 1.432
 Interp. 0.000
 Inc. seg. avg. 1.496
 Inc. frq. avg. 1.480

Group delay (usec) (SBD) 8.48379903144E+02
 Sband delay (usec) 8.48380061394E+02
 Phase delay (usec) 8.48419076877E+02
 Delay rate (us/s) 2.99586953425E-03
 Total phase (deg) -53.5

Apriori delay (usec) 8.48419084894E+02
 Apriori clock (usec) -2.4902983E+01
 Apriori clockrate (us/s) -3.2906598E-07
 Apriori rate (us/s) 2.99585816196E-03
 Apriori accel (us/s/s) -9.81124553911E-06

Resid mbdelay (usec) -7.93175E-03
 Resid sbdelay (usec) -3.90235E-02
 Resid phdelay (usec) -8.01660E-06
 Resid rate (us/s) 1.13723E-08
 Resid phase (deg) -169.5

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 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

k: az 66.3 el 41.3 pa -77.6
 o: az 68.4 el 38.3 pa -68.5
 u,v (fr/asec) -15.337 -560.622

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ko..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ko.Q.213.3MP56K

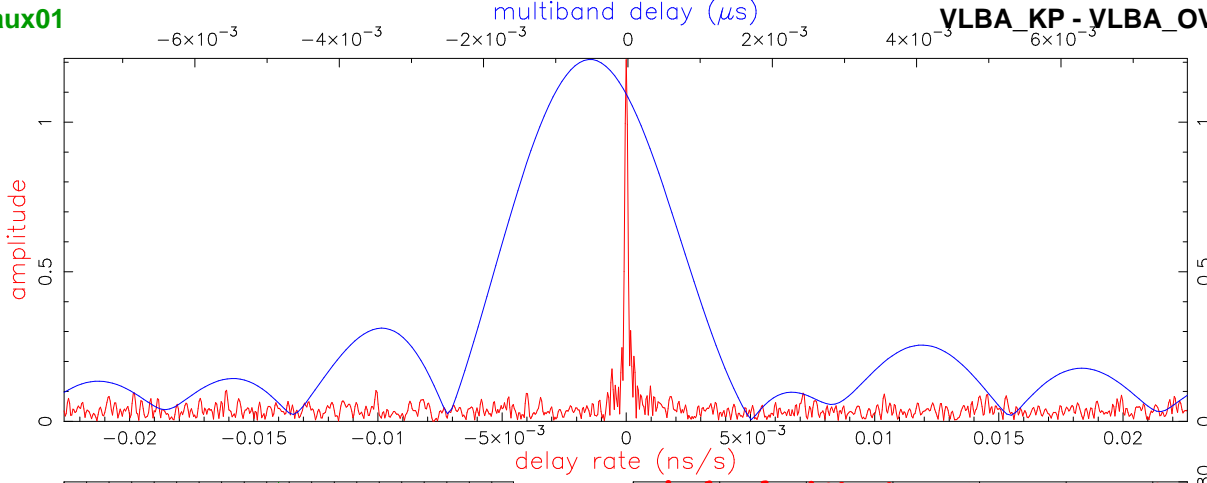
Mk4/DiFX fourfit 3.25 rev 0

aux01

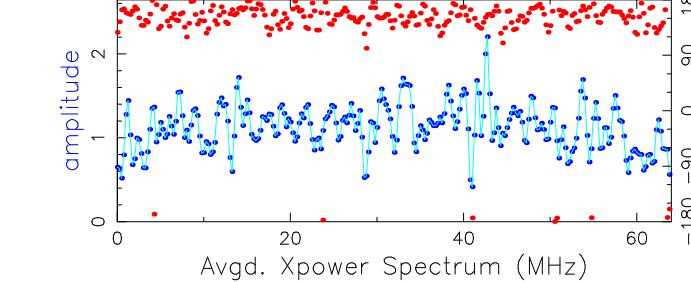
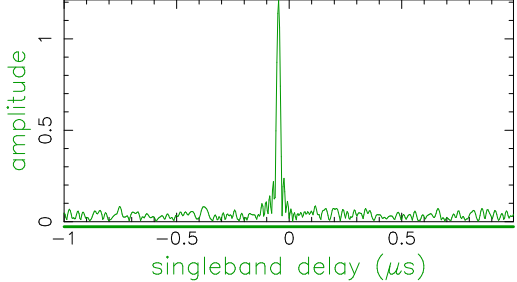
2013+370.3MP56K, No0500, ko

VLBA_KP - VLBA_OV, fgroup Q, pol RL

Fringe quality 9

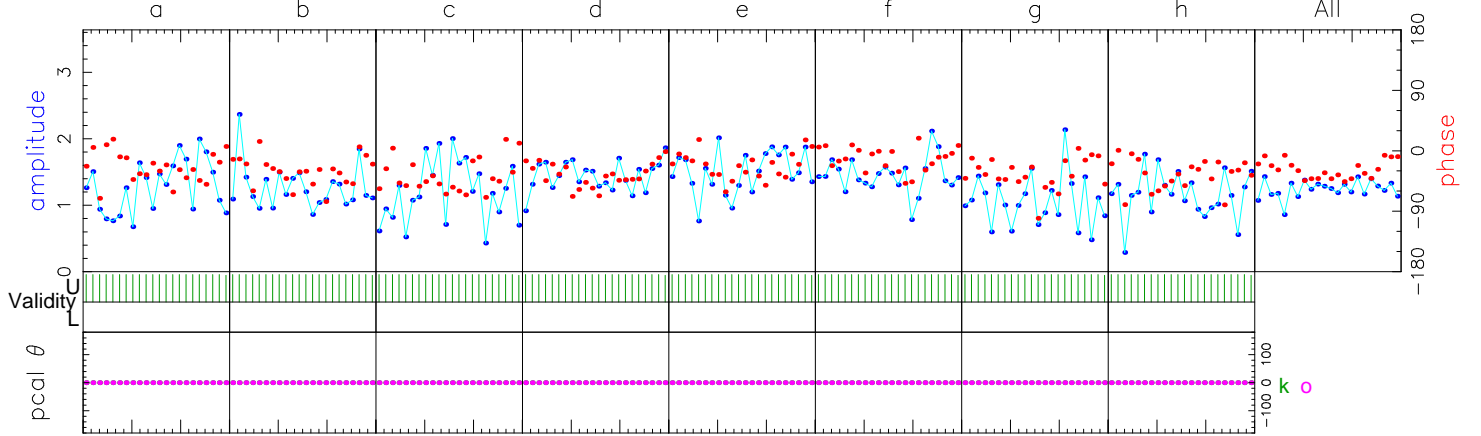


SNR 44.5
Int time 179.986
Amp 1.213
Phase -275.7
PFD 0.0e+00
Delays (us)
SBD -0.047588
MBD -0.000543
Fringe rate (Hz)
0.000520
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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

Group delay (usec) (SBD)	8.48371666800E+02	Apriori delay (usec)	8.48419084894E+02	Resid mbdelay (usec)	-5.43094E-04	+/-	2.4E-05
Sband delay (usec)	8.48371497144E+02	Apriori clock (usec)	-2.4902983E+01	Resid sbdelay (usec)	-4.75877E-02	+/-	1.9E-04
Phase delay (usec)	8.48419083081E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-1.81257E-06	+/-	1.7E-07
Delay rate (us/s)	2.99587020487E-03	Apriori rate (us/s)	2.99585816196E-03	Resid rate (us/s)	1.20429E-08	+/-	1.6E-09
Total phase (deg)	-159.6	Apriori accel (us/s/s)	-9.81124553911E-06	Resid phase (deg)	-275.7	+/-	2.6

ph/seg (deg)	13.2	Theor.	6.0	Amplitude	1.213 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	10.9		10.5	Search (1024X32)	1.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.4		3.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.0		6.4	Inc. seg. avg.	1.235	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	1.220	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 66.3 el 41.3 pa -77.6 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) -15.337 -560.622 simultaneous interpolator

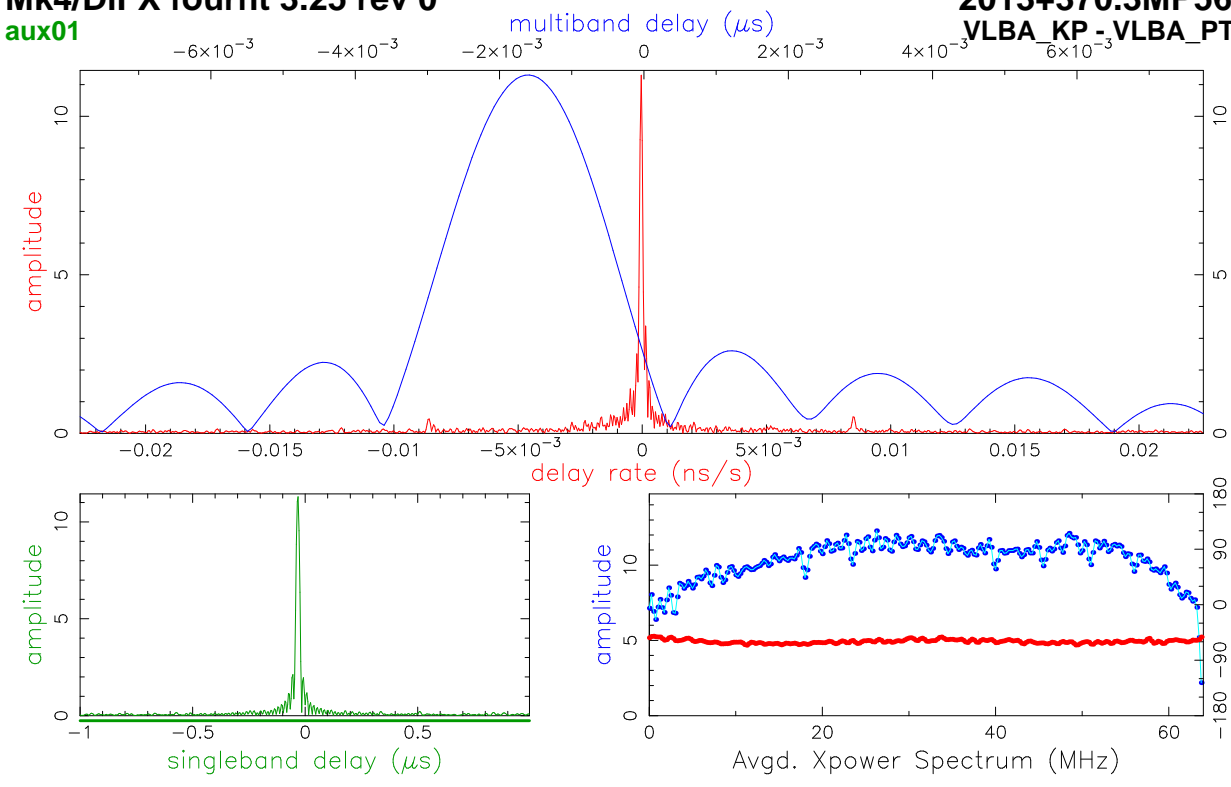
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/ko..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/ko.Q.230.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol LL

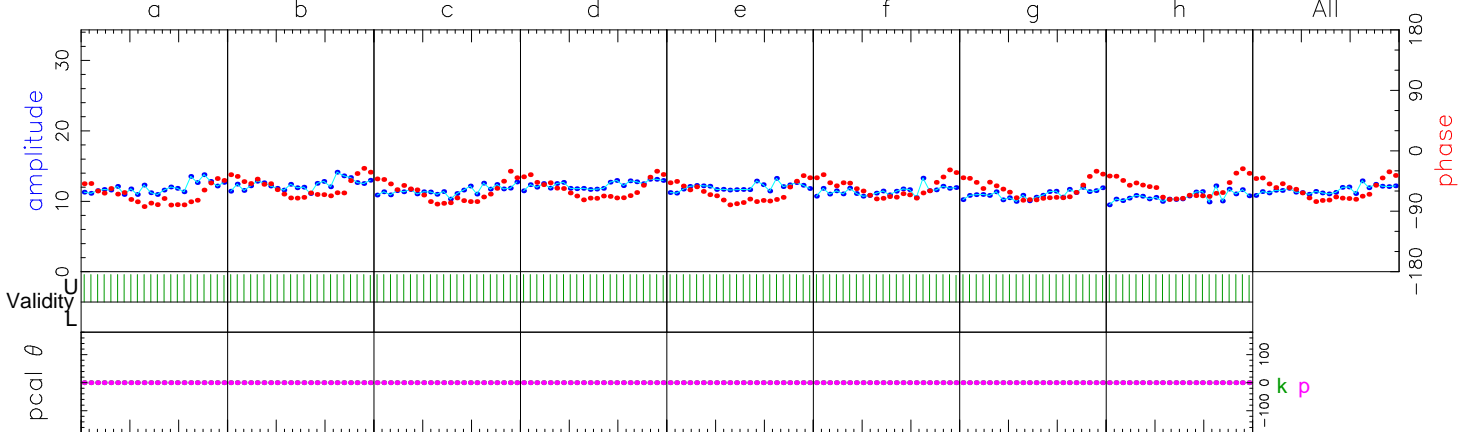


Fringe quality 8

SNR 420.0
 Int time 179.974
 Amp 11.449
 Phase -103.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.032722
 MBD -0.001641
 Fringe rate (Hz)
 -0.002681
 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
	-65.7	-52.9	-60.6	-56.1	-62.5	-54.6	-56.9	-54.3	Phase	-58.0
	11.6	12.1	11.2	12.0	11.7	11.1	10.7	10.3	Ampl.	11.3
	249.0	248.9	248.5	248.6	248.6	248.5	248.4	248.8	Sbd box	248.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-9.75659508442E+02		Apriori delay (usec)		-9.75626617005E+02		Resid mbdelay (usec)		-1.64144E-03	+/- 2.6E-06
Sband delay (usec)	-9.75659339505E+02		Apriori clock (usec)		-5.5505199E+07		Resid sbdelay (usec)		-3.27225E-02	+/- 2.1E-05
Phase delay (usec)	-9.75626620738E+02		Apriori clockrate (us/s)		-2.2649092E-07		Resid phdelay (usec)		-3.73238E-06	+/- 1.8E-08
Delay rate (us/s)	5.69530583484E-02		Apriori rate (us/s)		5.69531204927E-02		Resid rate (us/s)		-6.21444E-08	+/- 1.7E-10
Total phase (deg)			Apriori accel (us/s/s)		2.81684944949E-06		Resid phase (deg)		-103.0	+/- 0.3

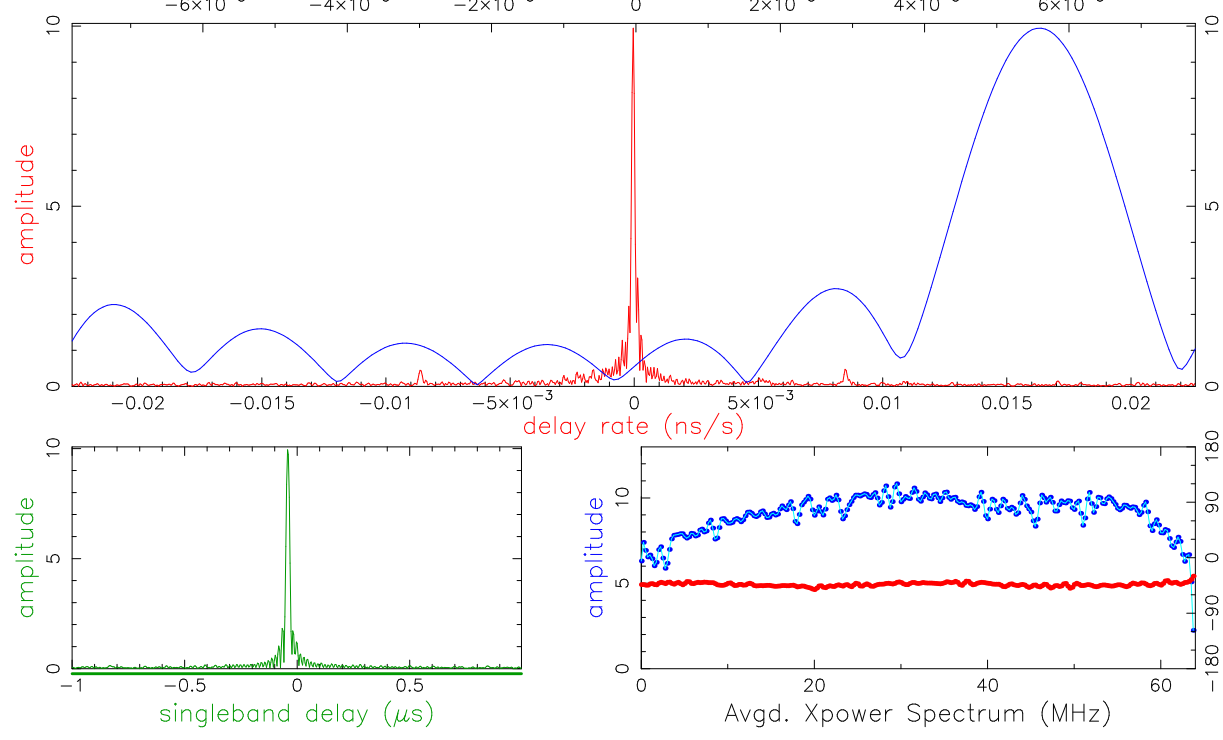
ph/seg (deg) RMS 13.5 Theor. 0.6 Amplitude 11.449 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 4.8 1.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.9 0.4 Inc. seg. avg. 11.619 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.1 0.7 Inc. frq. avg. 11.330 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.195.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RR

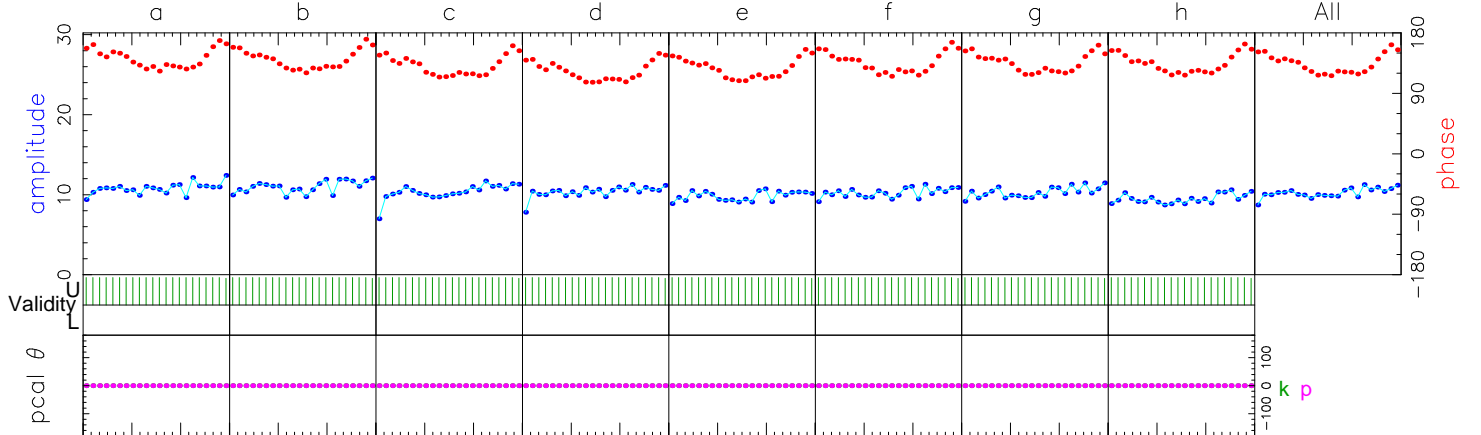


Fringe quality 8

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

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

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	-9.75667869005E+02									
Sband delay (usec)	-9.75668097255E+02									
Phase delay (usec)	-9.75626608374E+02									
Delay rate (us/s)	5.69530585125E-02									
Total phase (deg)			-206.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

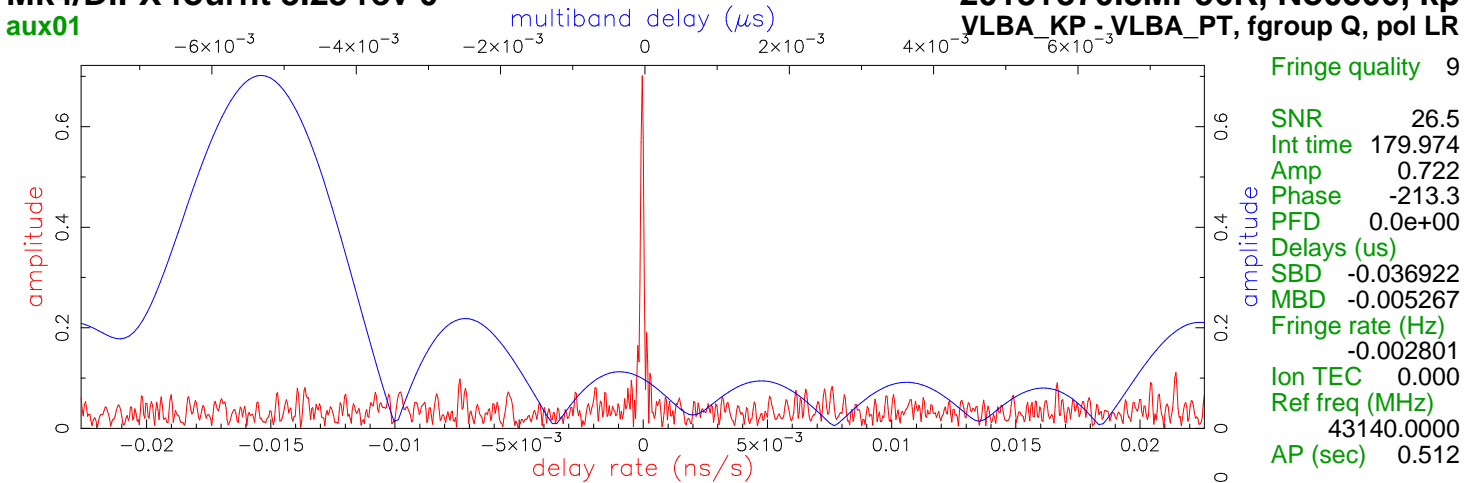
ph/seg (deg) 13.9 0.7 Search (1024X32) 9.425 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.9 1.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.0 0.4 Inc. seg. avg. 10.240 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008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

Mk4/DiFX fourfit 3.25 rev 0

aux01

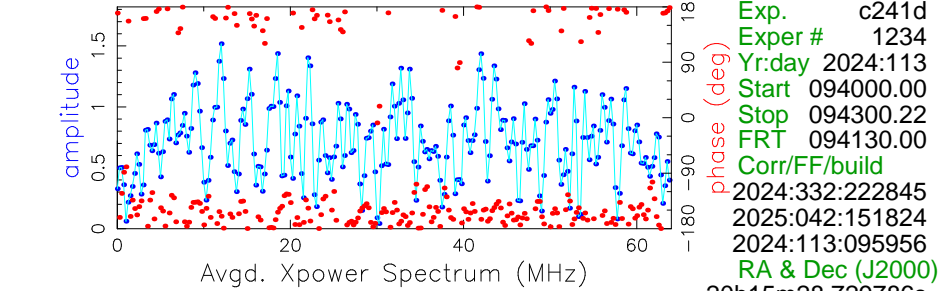
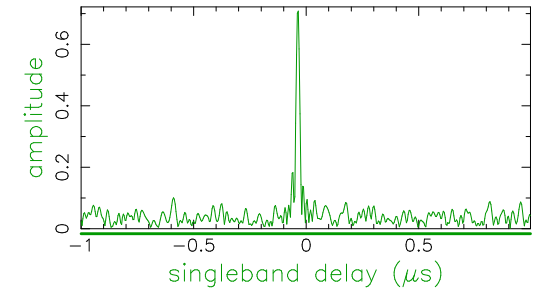
2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol LR



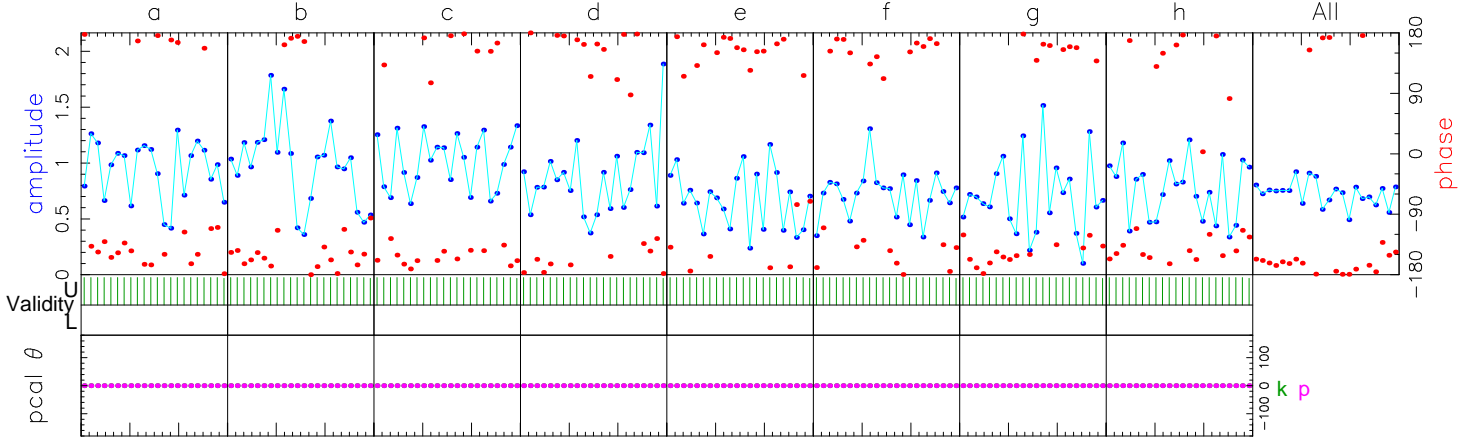
Fringe quality 9

SNR 26.5
 Int time 179.974
 Amp 0.722
 Phase -213.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.036922
 MBD -0.005267
 Fringe rate (Hz)
 -0.002801
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151824
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

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

ph/seg (deg)	15.8	Theor.	10.1	Amplitude	0.722 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	14.6		17.7	Search (1024X32)	0.675	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	13.8		6.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	18.8		10.7	Inc. seg. avg.	0.718	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.711	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

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

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

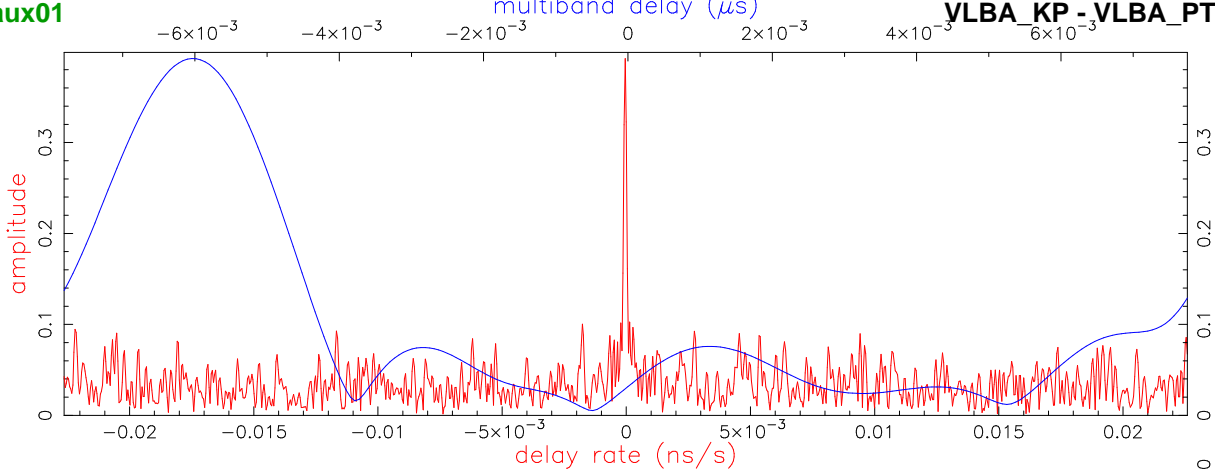
Mk4/DiFX fourfit 3.25 rev 0

aux01

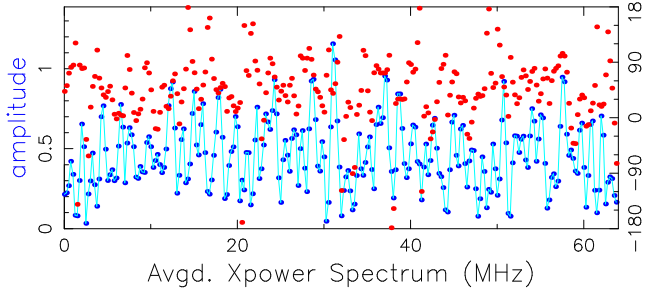
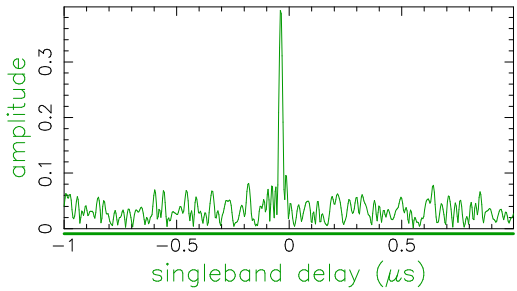
2013+370.3MP56K, No0500, kp

VLBA_KP - VLBA_PT, fgroup Q, pol RL

Fringe quality 9

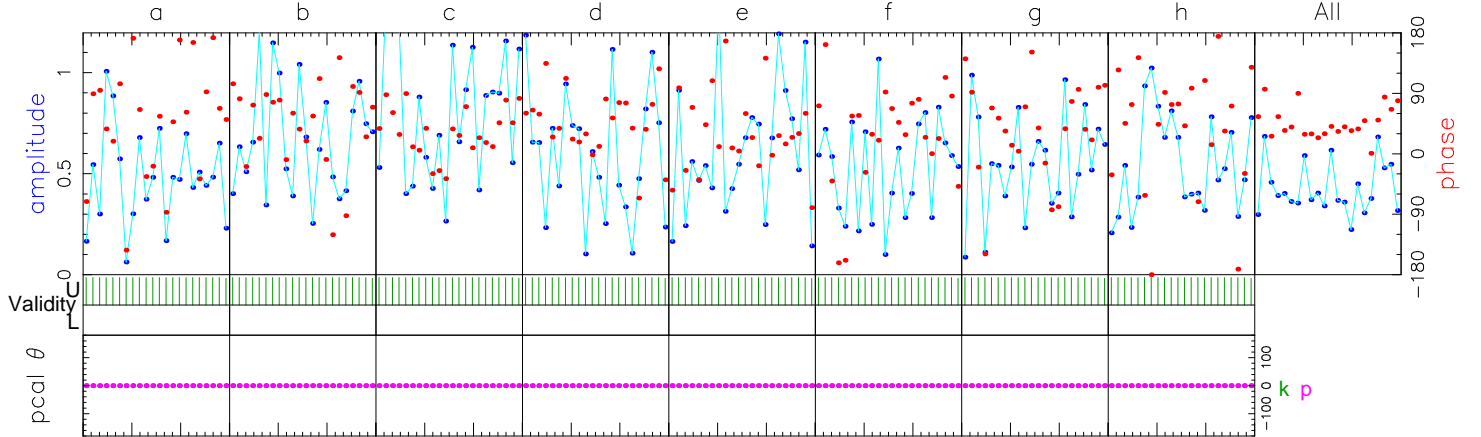


SNR 14.6
Int time 179.975
Amp 0.399
Phase -357.1
PFD 4.7e-40
Delays (us)
SBD -0.037419
MBD -0.006020
Fringe rate (Hz)
-0.002856
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



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

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



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

Group delay (usec) (SBD) -9.75663887035E+02 Apriori delay (usec) -9.75626617005E+02 Resid mbdelay (usec) -6.02003E-03 +/- 7.4E-05
 Sband delay (usec) -9.75664036005E+02 Apriori clock (usec) -5.5505199E+00 Resid sbdelay (usec) -3.74190E-02 +/- 5.9E-04
 Phase delay (usec) -9.75626613924E+02 Apriori clockrate (us/s) -2.2649092E-07 Resid phdelay (usec) 3.08115E-06 +/- 5.0E-07
 Delay rate (us/s) 5.69530542850E-02 Apriori rate (us/s) 5.69531204927E-02 Resid rate (us/s) -6.62077E-08 +/- 4.8E-09
 Total phase (deg) -89.9 Apriori accel (us/s/s) 2.81684944949E-06 Resid phase (deg) -357.1 +/- 7.8

ph/seg (deg) 23.3 18.4 Search (1024X32) 0.371 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 31.9 32.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.0 11.1 Inc. seg. avg. 0.408 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.7 19.3 Inc. frq. avg. 0.393 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 66.3 el 41.3 pa -77.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) -204.387 -35.518 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kp..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kp.Q.278.3MP56K

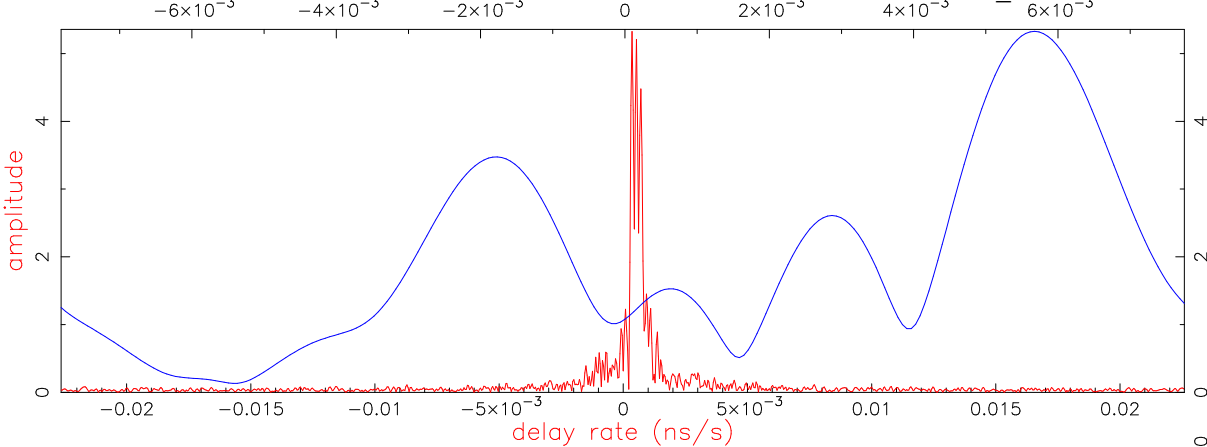
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kX

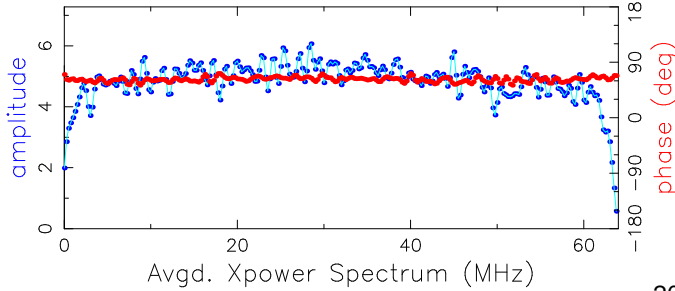
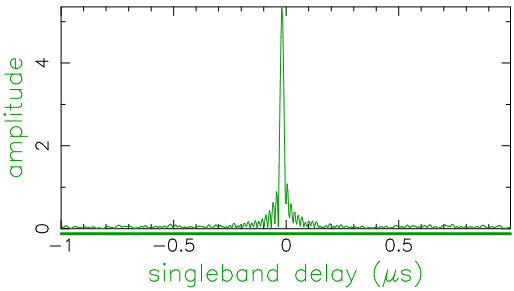
VLBA_KP - QNSALA60, fgroup Q, pol LL

multiband delay (μ s)

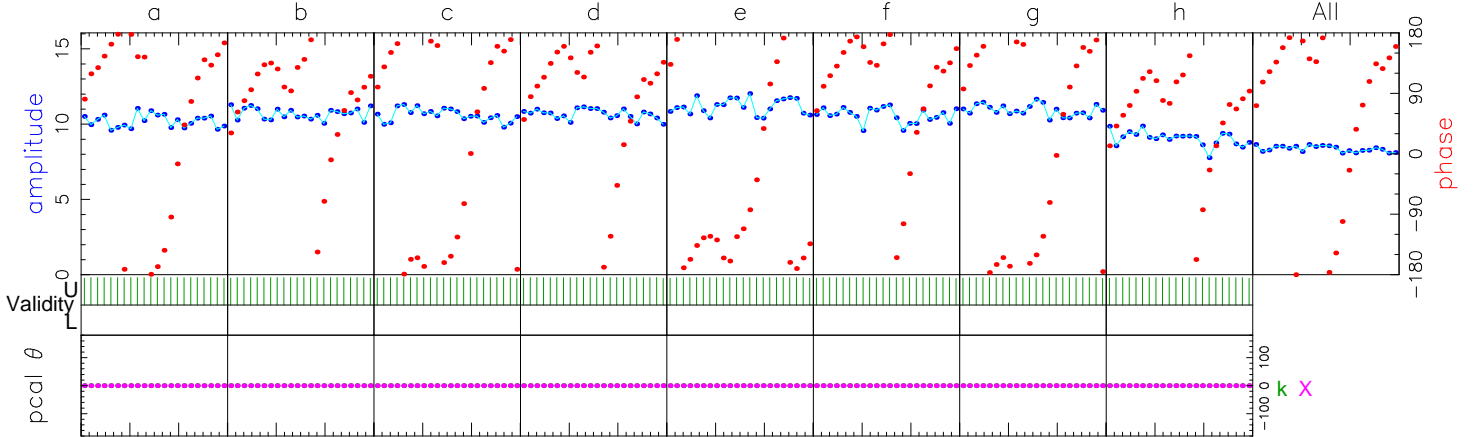


Fringe quality 2

SNR 196.4
 Int time 179.833
 Amp 5.357
 Phase -262.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.018581
 MBD 0.005704
 Fringe rate (Hz) 0.014680
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-7.98793064421E+02	Apriori delay (usec)	-7.98767518163E+02	Resid mbdelay (usec)	5.70374E-03	+/-	5.5E-06
Sband delay (usec)	-7.98786098663E+02	Apriori clock (usec)	-1.1277026E+02	Resid sbdelay (usec)	-1.85805E-02	+/-	4.4E-05
Phase delay (usec)	-7.98767509008E+02	Apriori clockrate (us/s)	-1.0644170E-06	Resid phdelay (usec)	9.15581E-06	+/-	3.8E-08
Delay rate (us/s)	1.50311369190E+00	Apriori rate (us/s)	1.50311335162E+00	Resid rate (us/s)	3.40283E-07	+/-	3.6E-10
Total phase (deg)	-166.9	Apriori accel (us/s/s)	-1.77448004325E-05	Resid phase (deg)	-262.8	+/-	0.6

ph/seg (deg)	59.2	1.4	Search (1024X32)	5.100	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	56.3	2.4	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)	44.4	0.8	Inc. seg. avg.	8.364	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	26.2	1.4	Inc. frq. avg.	6.708	Data rate(Mb/s): 2048	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 66.3 el 41.3 pa -77.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -5425.408 -1602.154 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kX.Q.189.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

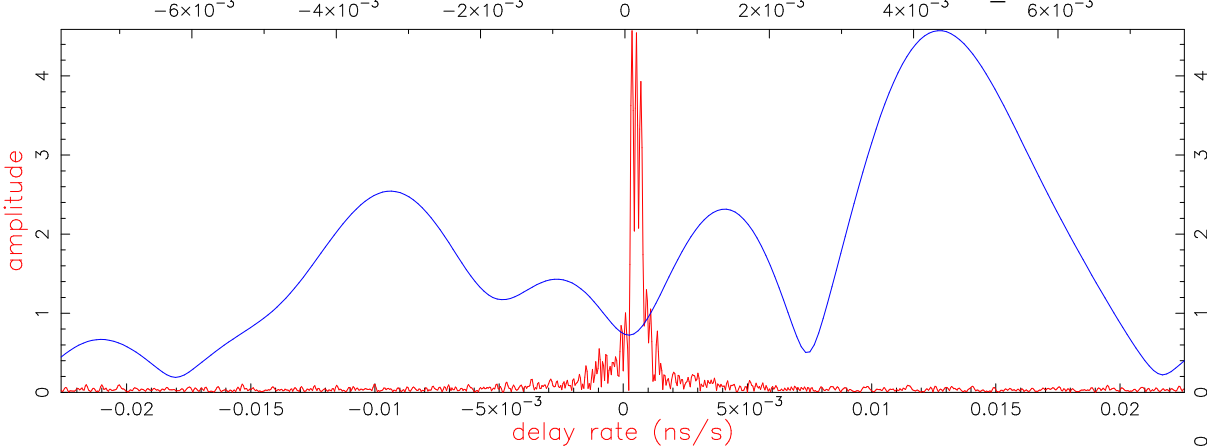
aux01

2013+370.3MP56K, No0500, kX

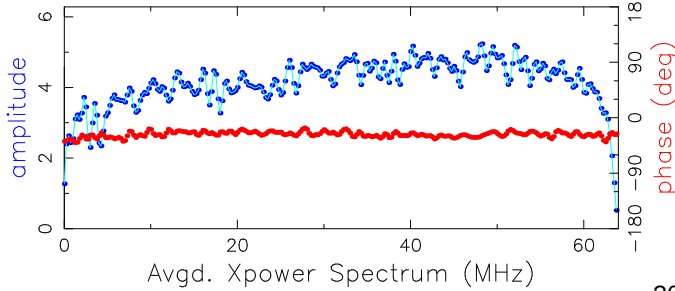
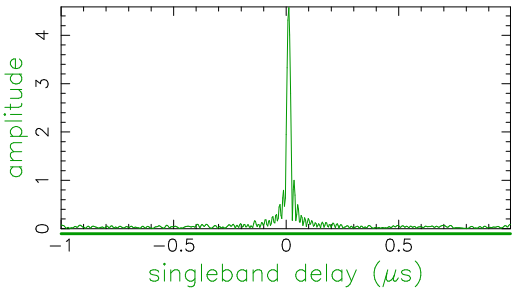
VLBA_KP - ONSALA60, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 2

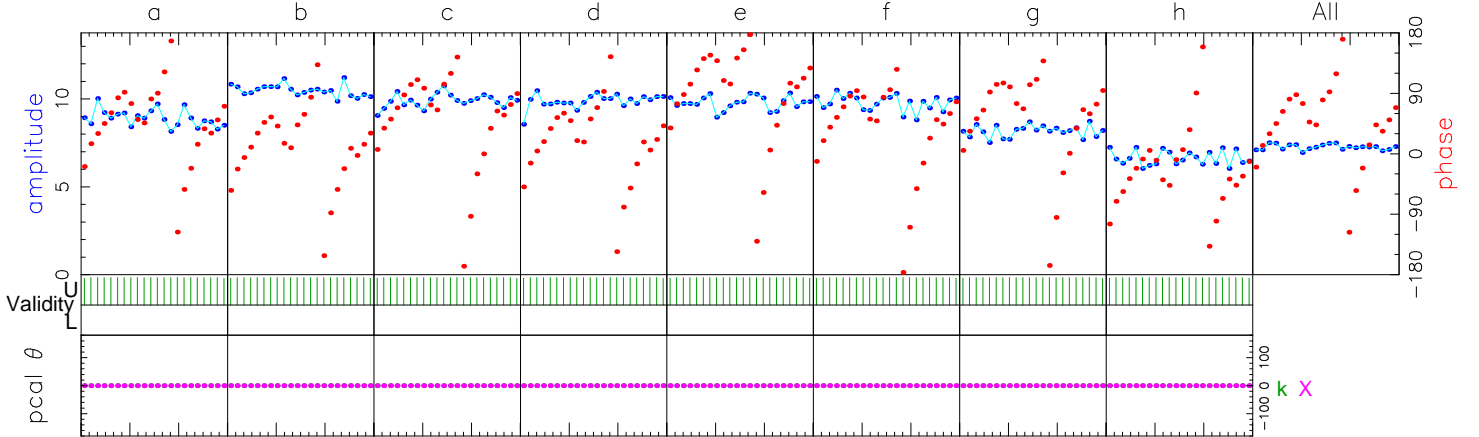


SNR 168.3
Int time 179.835
Amp 4.589
Phase 49.4
PFD 0.0e+00
Delays (us)
SBD 0.010987
MBD 0.004333
Fringe rate (Hz) 0.014663
Ion TEC 0.000
Ref freq (MHz) 43140.0000
AP (sec) 0.512



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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-7.98763184733E+02	Apriori delay (usec)	-7.98767518163E+02	Resid mbdelay (usec)	4.33343E-03	+/-	6.5E-06
Sband delay (usec)	-7.98756531163E+02	Apriori clock (usec)	-1.1277026E+02	Resid sbdelay (usec)	1.09870E-02	+/-	5.1E-05
Phase delay (usec)	-7.98767514980E+02	Apriori clockrate (us/s)	-1.0644170E-06	Resid phdelay (usec)	3.18375E-06	+/-	4.4E-08
Delay rate (us/s)	1.50311369152E+00	Apriori rate (us/s)	1.50311335162E+00	Resid rate (us/s)	3.39898E-07	+/-	4.2E-10
Total phase (deg)	-214.6	Apriori accel (us/s/s)	-1.77448004325E-05	Resid phase (deg)	49.4	+/-	0.7

ph/seg (deg)	59.5	RMS	1.6	Theor.	4.589 +/- 0.027	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.5	Search (1024X32)	4.447	Amplitude	4.589 +/- 0.027	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.6	Inc. seg. avg.	7.266	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.1	Inc. frq. avg.	5.815	Inc. seg. avg.	7.266	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	5.815	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 66.3 el 41.3 pa -77.6 X: az 272.4 el 44.4 pa 42.5 u, v (fr/asec) -5425.408 -1602.154 simultaneous interpolator

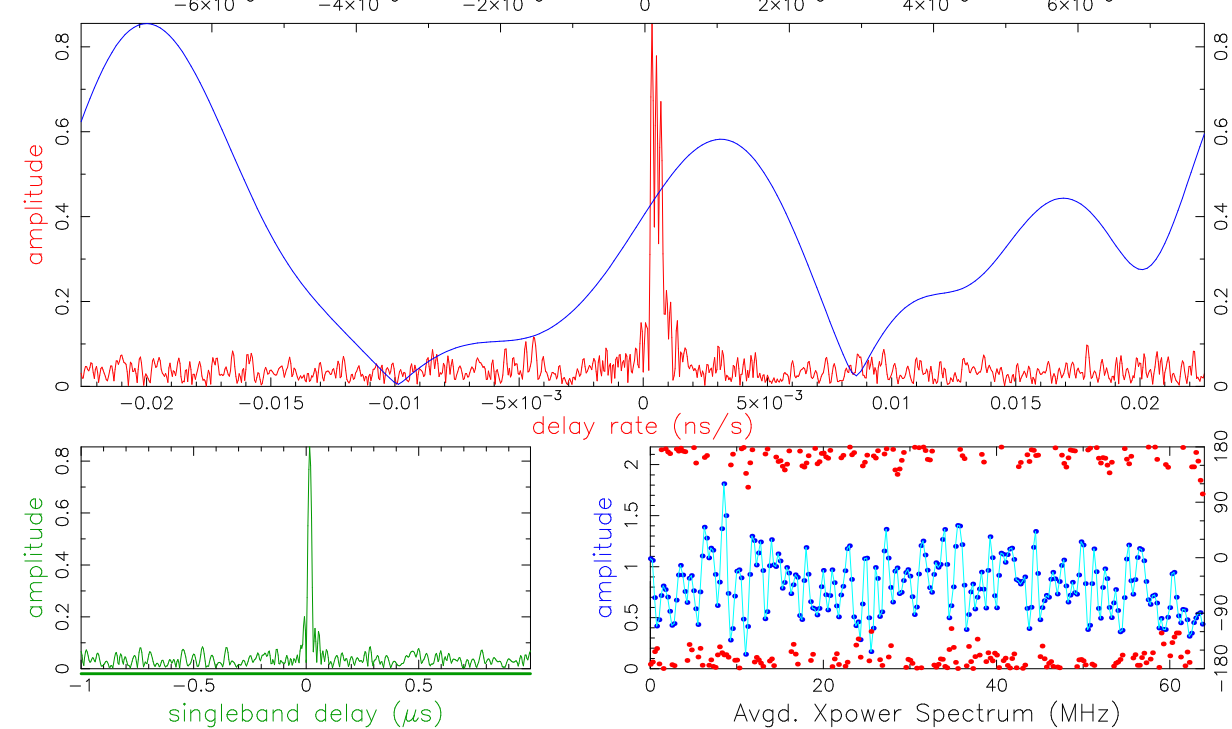
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kX...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kX.Q.232.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

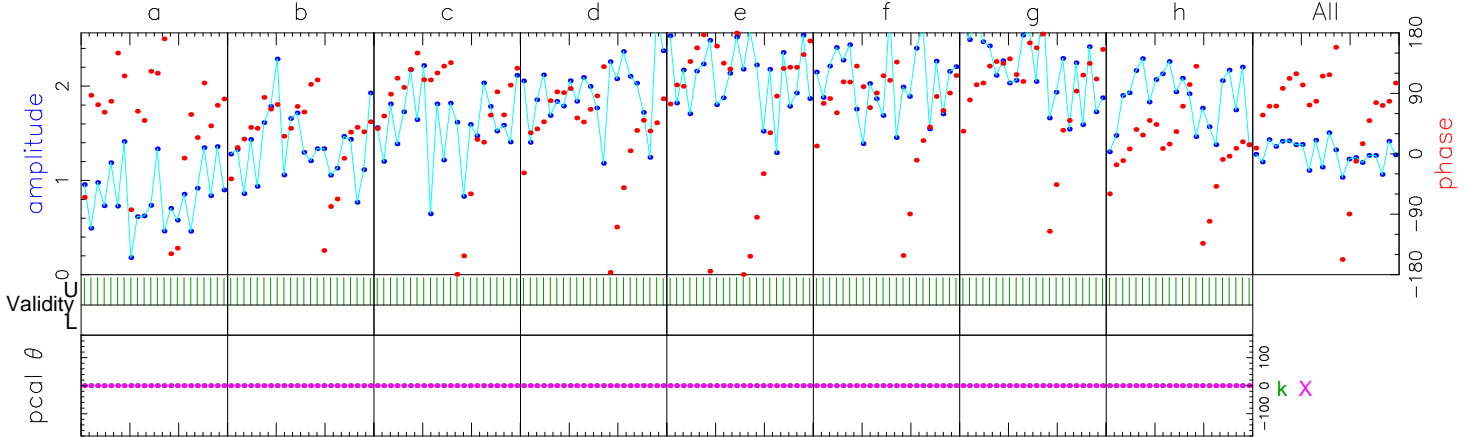
2013+370.3MP56K, No0500, kX

VLBA_KP - ONSALA60, fgroup Q, pol LR



Fringe quality 3
 Error code G
 SNR 31.4
 Int time 179.833
 Amp 0.855
 Phase 285.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.015835
 MBD -0.006899
 Fringe rate (Hz)
 0.014568
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094000.00
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151824
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



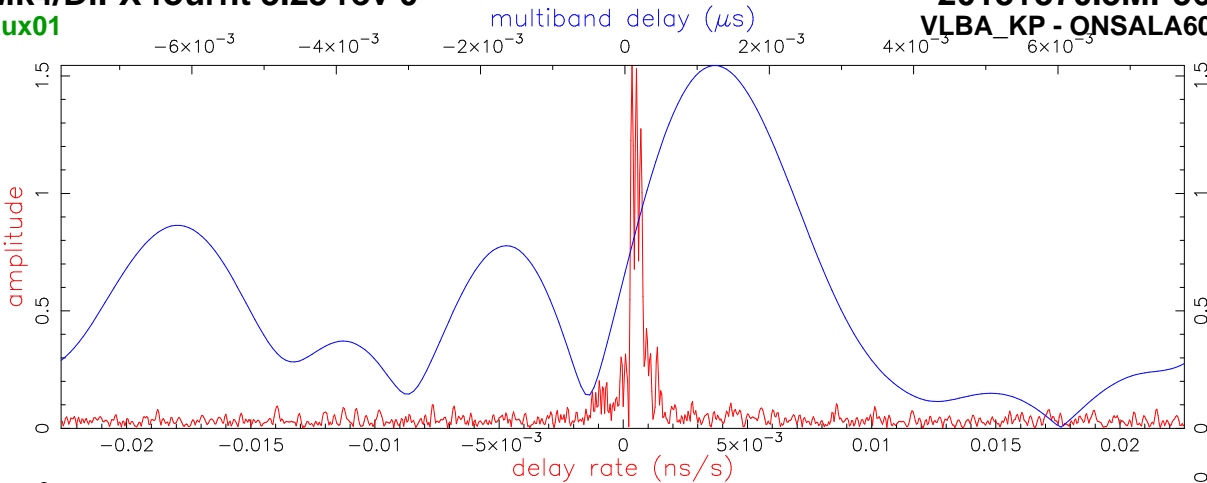
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	-7.98758791858E+02				-7.98767518163E+02				-6.89869E-03	+/- 3.5E-05
Sband delay (usec)	-7.98751683413E+02				-1.1277026E+02				1.58348E-02	+/- 2.7E-04
Phase delay (usec)	-7.98767512797E+02				-1.0644170E-06				5.36643E-06	+/- 2.4E-07
Delay rate (us/s)	1.50311368932E+00				1.50311335162E+00				3.37702E-07	+/- 2.3E-09
Total phase (deg)			21.8		-1.77448004325E-05				285.8	+/- 3.7
ph/seg (deg)	59.1	8.6			0.826					
amp/seg (%)	52.9	15.0			0.000					
ph/frq (deg)	45.4	5.2			1.275					
amp/frq (%)	46.3	9.0			1.118					
k: az 66.3 el 41.3 pa -77.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -5425.408 -1602.154 simultaneous interpolator Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kX.Q.258.3MP56K										

Mk4/DiFX fourfit 3.25 rev 0

aux01

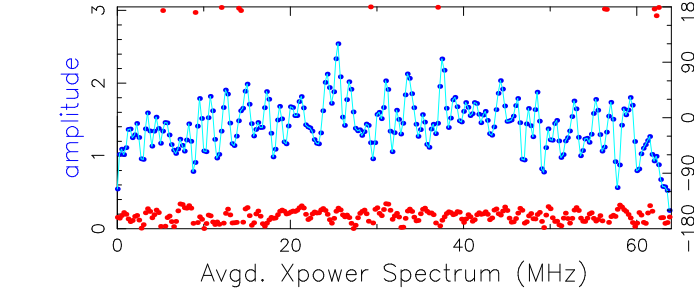
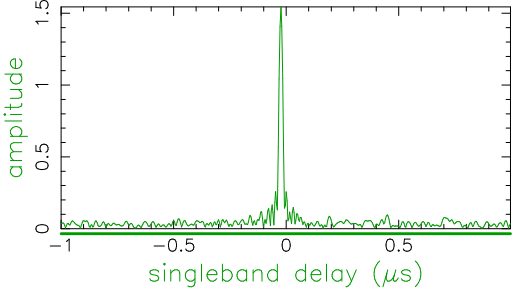
2013+370.3MP56K, No0500, kX

VLBA_KP - ONSALA60, fgroup Q, pol RL



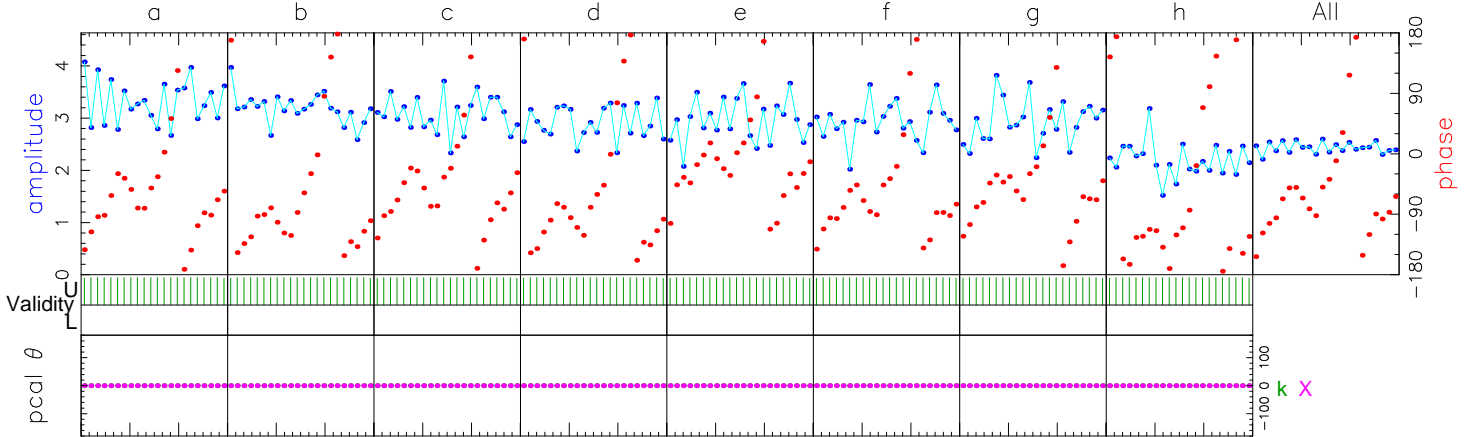
Fringe quality 2

SNR 56.7
 Int time 179.835
 Amp 1.545
 Phase -129.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.023428
 MBD 0.001245
 Fringe rate (Hz)
 0.014667
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-79.5	-117.8	-66.2	-113.7	-26.4	-83.9	-59.4	-149.5	Phase	-84.2
	2.1	1.9	1.9	1.8	1.9	2.0	1.9	1.4	Ampl.	1.9
	250.9	250.8	250.8	250.4	250.8	250.5	250.3	249.3	Sbd box	251.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.98797523546E+02	Apriori delay (usec)	-7.98767518163E+02	Resid mbdelay (usec)	1.24462E-03	+/-	1.9E-05
Sband delay (usec)	-7.98790945913E+02	Apriori clock (usec)	-1.1277026E+02	Resid sbdelay (usec)	-2.34278E-02	+/-	1.5E-04
Phase delay (usec)	-7.98767523586E+02	Apriori clockrate (us/s)	-1.0644170E-06	Resid phdelay (usec)	-5.42274E-06	+/-	1.3E-07
Delay rate (us/s)	1.50311369161E+00	Apriori rate (us/s)	1.50311335162E+00	Resid rate (us/s)	3.39992E-07	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.77448004325E-05	Resid phase (deg)	-129.2	+/-	2.0

ph/seg (deg)	57.8	Theor.	4.7	Search (1024X32)	1.471	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	58.1		8.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	42.0		2.9	Inc. seg. avg.	2.428	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	24.0		5.0	Inc. frq. avg.	1.862	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 66.3 el 41.3 pa -77.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -5425.408 -1602.154 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kX.Q.272.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

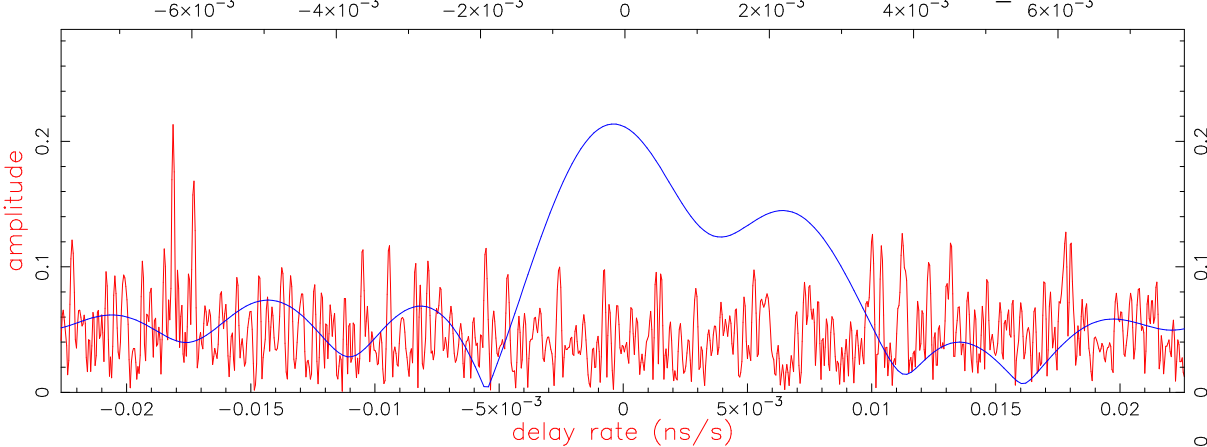
aux01

2013+370.3MP56K, No0500, kY

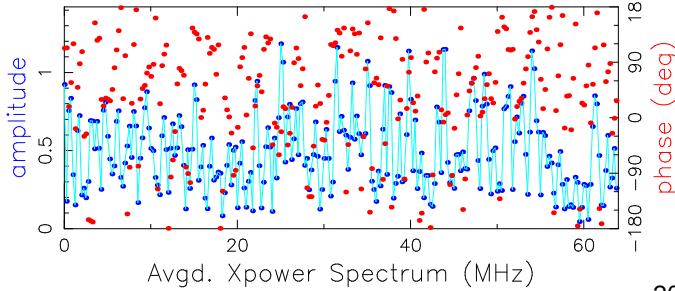
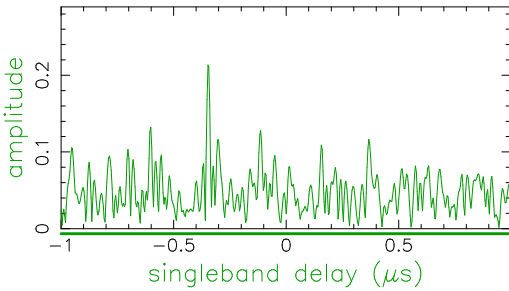
VLBA_KP - YEBES40M, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 0

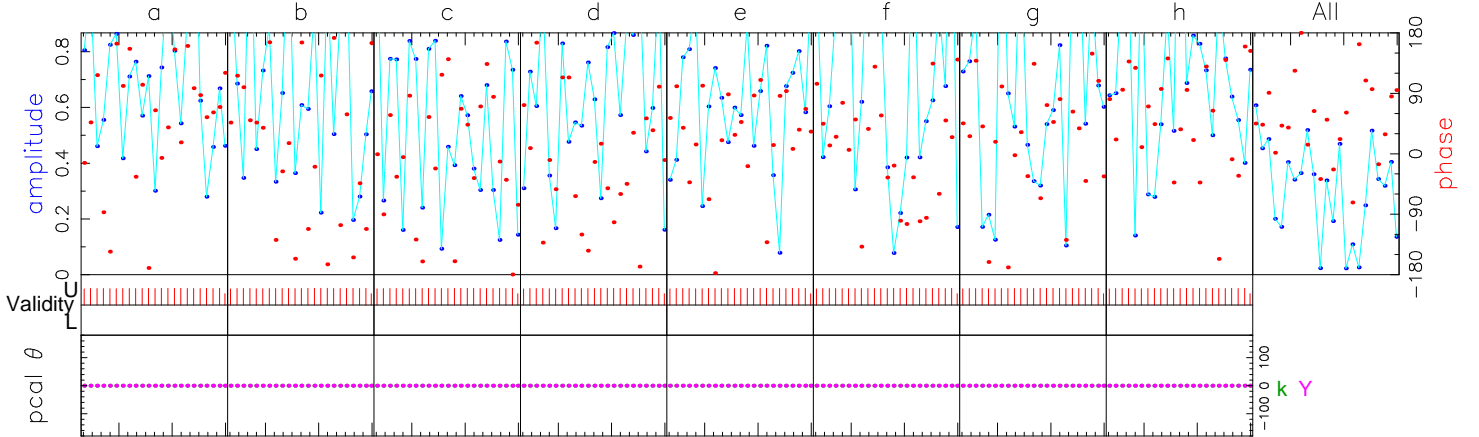


SNR 5.9
 Int time 97.780
 Amp 0.289
 Phase -81.3
 PFD 3.7e-01
 Delays (us)
 SBD -0.345946
 MBD -0.000085
 Fringe rate (Hz)
 -0.785705
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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
	91.9	70.3	32.4	-45.1	36.8	25.9	66.0	73.6	Phase	53.7
	0.4	0.1	0.2	0.1	0.4	0.4	0.5	0.4	Ampl.	0.3
	172.8	353.3	175.1	378.1	405.4	475.0	167.3	228.0	Sbd box	168.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-2.54528897553E+03	Apriori delay (usec)	-2.54494514016E+03	Resid mbdelay (usec)	-8.53735E-05	+/-	1.8E-04
Sband delay (usec)	-2.54529108591E+03	Apriori clock (usec)	1.1113740E+02	Resid sbdelay (usec)	-3.45946E-01	+/-	1.5E-03
Phase delay (usec)	-2.54494513670E+03	Apriori clockrate (us/s)	1.1608971E-06	Resid phdelay (usec)	3.45471E-06	+/-	1.3E-06
Delay rate (us/s)	1.61385074006E+00	Apriori rate (us/s)	1.61386895297E+00	Resid rate (us/s)	-1.82129E-05	+/-	1.3E-08
Total phase (deg)	-206.0	Apriori accel (us/s/s)	5.90226853292E-06	Resid phase (deg)	-81.3	+/-	19.4

ph/seg (deg)	RMS 60.5	Theor. 46.6	Amplitude Search (1024X32)	0.289 +/- 0.049	0.209	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.1	81.3	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	47.5	27.5	Inc. seg. avg.	0.308	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	49.8	47.9	Inc. frq. avg.	0.291	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00	

k: az 66.3 el 41.3 pa -77.6 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -5813.410 -211.144 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kY.Q.345.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

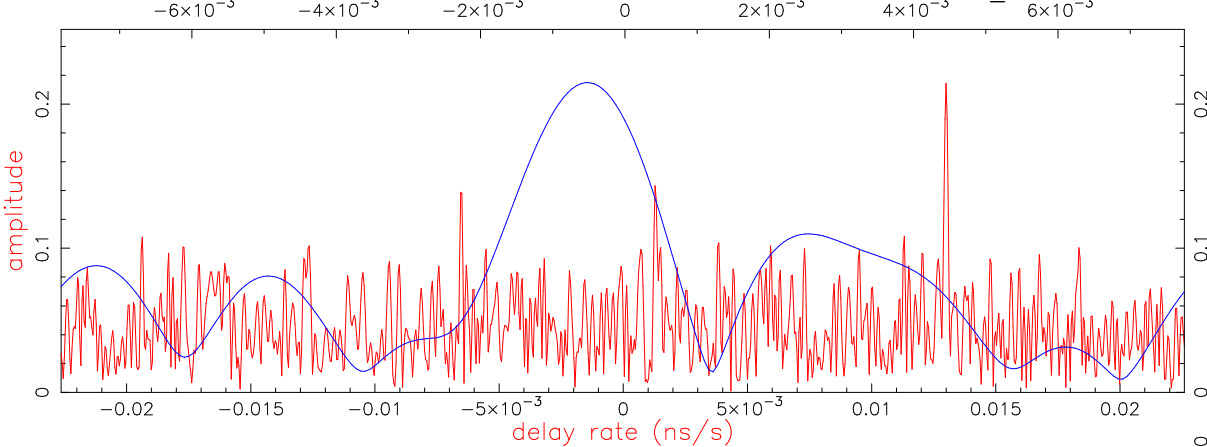
aux01

2013+370.3MP56K, No0500, kY

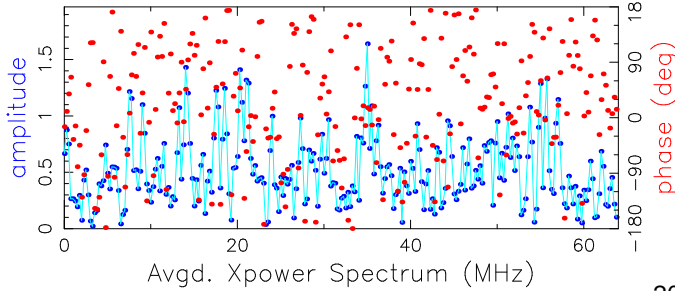
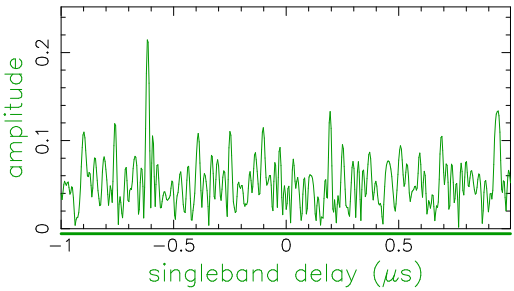
VLBA_KP - YEBES40M, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 0

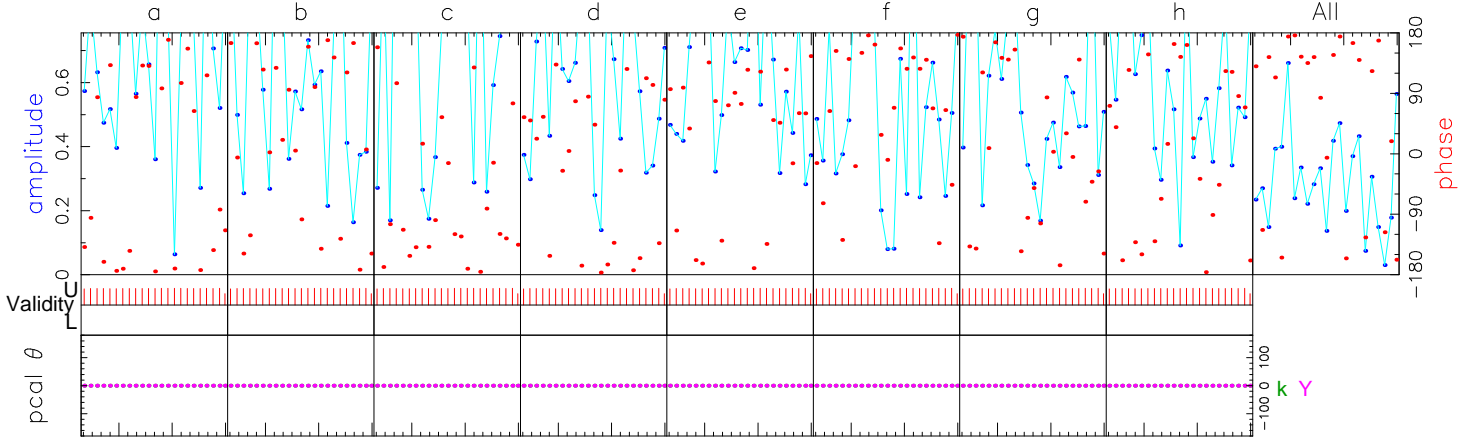


SNR 5.9
 Int time 97.781
 Amp 0.252
 Phase -179.2
 PFD 3.5e-01
 Delays (us)
 SBD -0.615454
 MBD -0.000441
 Fringe rate (Hz)
 0.564343
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241d
 Exper # 1234
 Yr:day 2024:113
 Start 094017.41
 Stop 094300.22
 FRT 094130.00
 Corr/FF/build
 2024:332:222845
 2025:042:151853
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-2.54555495637E+03	Apriori delay (usec)	-2.54494514016E+03	Resid mbdelay (usec)	-4.41210E-04	+/-	1.8E-04
Sband delay (usec)	-2.54556059441E+03	Apriori clock (usec)	1.1113740E+02	Resid sbdelay (usec)	-6.15454E-01	+/-	1.5E-03
Phase delay (usec)	-2.54494512996E+03	Apriori clockrate (us/s)	1.1608971E-06	Resid phdelay (usec)	1.01955E-05	+/-	1.2E-06
Delay rate (us/s)	1.61388203464E+00	Apriori rate (us/s)	1.61386895297E+00	Resid rate (us/s)	1.30817E-05	+/-	1.3E-08
Total phase (deg)	-303.9	Apriori accel (us/s/s)	5.90226853292E-06	Resid phase (deg)	-179.2	+/-	19.4

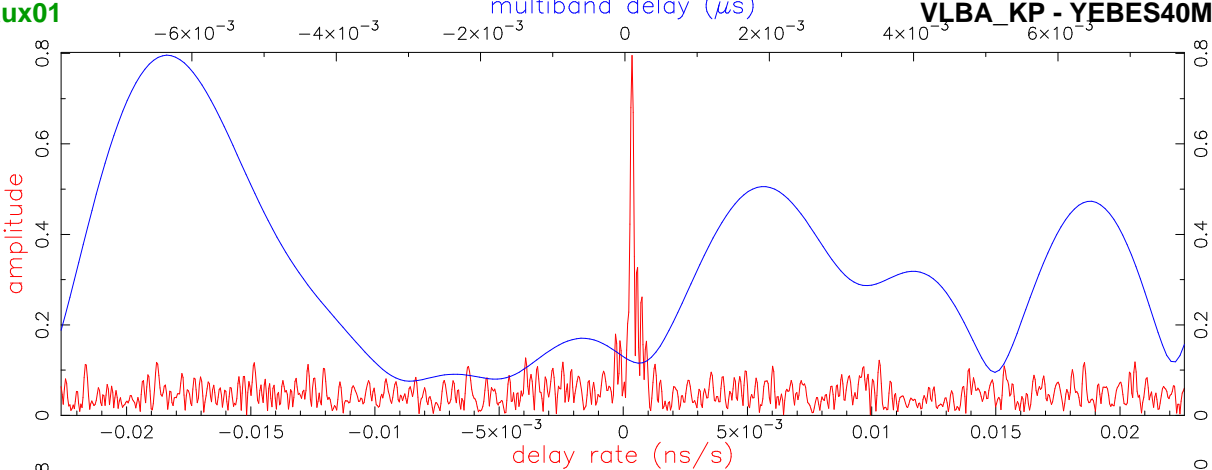
ph/seg (deg)	61.4	Theor.	46.5	Amplitude	0.252 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.2		81.1	Search (1024X32)	0.213	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.5		27.4	Inc. seg. avg.	0.255	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.8		47.8	Inc. frq. avg.	0.253	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
k: az 66.3 el 41.3 pa -77.6		Y: az 281.3 el 52.4 pa 69.4		u, v (fr/asec)	-5813.410 -211.144	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/kY...3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500/kY.Q.364.3MP56K		simultaneous interpolator				

Mk4/DiFX fourfit 3.25 rev 0

aux01

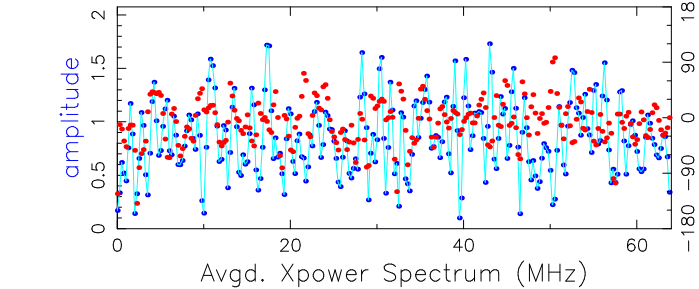
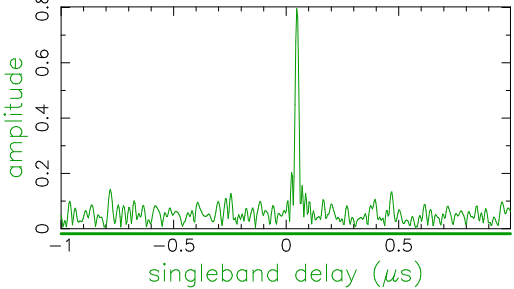
2013+370.3MP56K, No0500, kY

VLBA_KP - YEBES40M, fgroup Q, pol LR



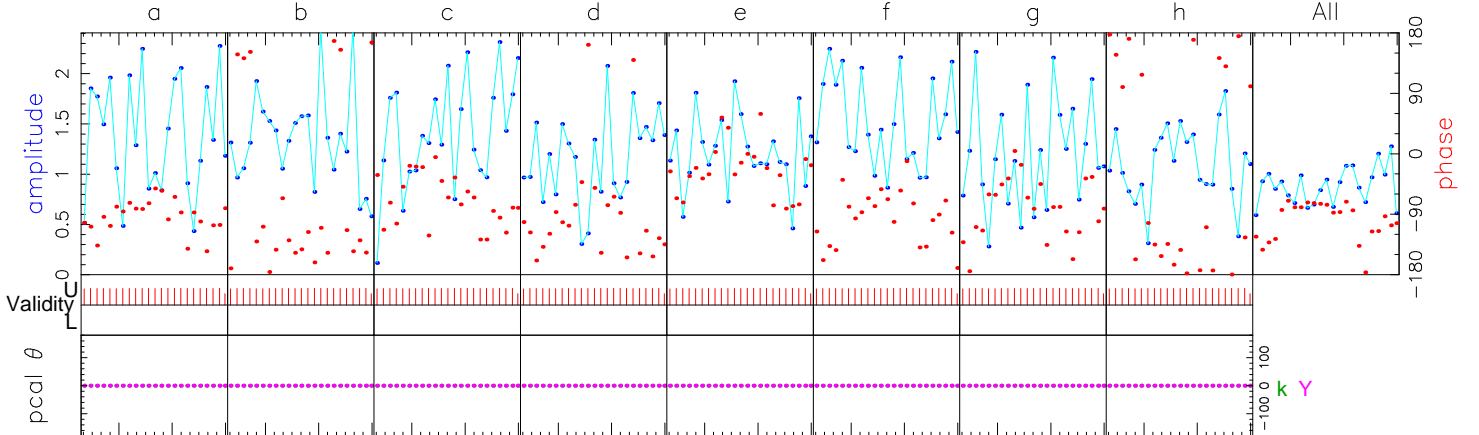
Fringe quality 8

SNR 21.7
 Int time 97.780
 Amp 0.802
 Phase 148.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.048005
 MBD -0.006305
 Fringe rate (Hz)
 0.015463
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

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



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

Group delay (usec) (SBD)	-2.54490456967E+03	Apriori delay (usec)	-2.54494514016E+03	Resid mbdelay (usec)	-6.30451E-03	+/-	5.0E-05
Sband delay (usec)	-2.54489713466E+03	Apriori clock (usec)	1.1113740E+02	Resid sbdelay (usec)	4.80055E-02	+/-	4.0E-04
Phase delay (usec)	-2.54494514656E+03	Apriori clockrate (us/s)	1.1608971E+00	Resid phdelay (usec)	-6.40187E-06	+/-	3.4E-07
Delay rate (us/s)	1.61386931140E+00	Apriori rate (us/s)	1.61386895297E+00	Resid rate (us/s)	3.58429E-07	+/-	3.6E-09
Total phase (deg)	23.4	Apriori accel (us/s/s)	5.90226853292E-06	Resid phase (deg)	148.1	+/-	5.3

ph/seg (deg) 28.2 12.7 Search (1024X32) 0.792 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 24.8 22.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.9 7.5 Inc. seg. avg. 0.869 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.8 13.0 Inc. frq. avg. 1.035 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -5813.410 -211.144 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kY.Q.390.3MP56K

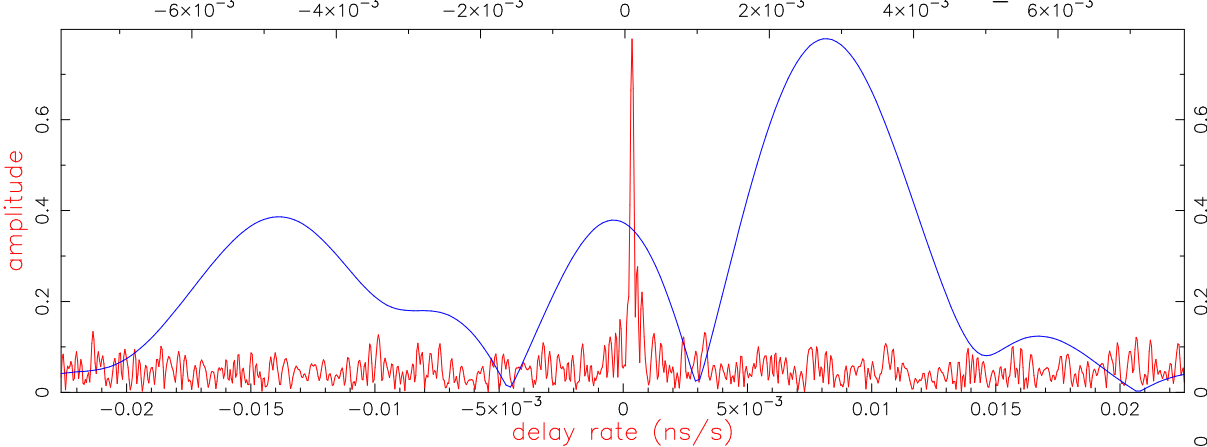
Mk4/DiFX fourfit 3.25 rev 0

aux01

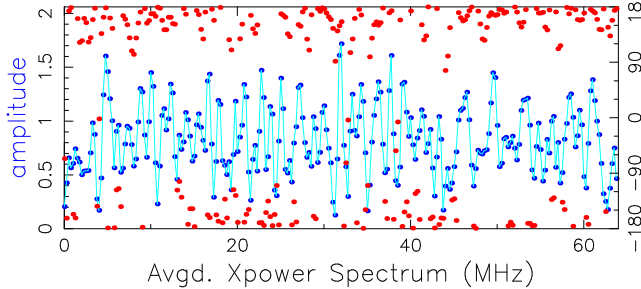
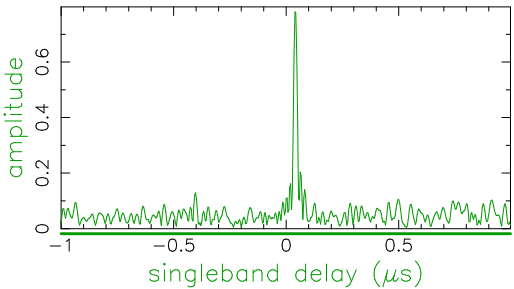
2013+370.3MP56K, No0500, kY

VLBA_KP - YEBES40M, fgroup Q, pol RL

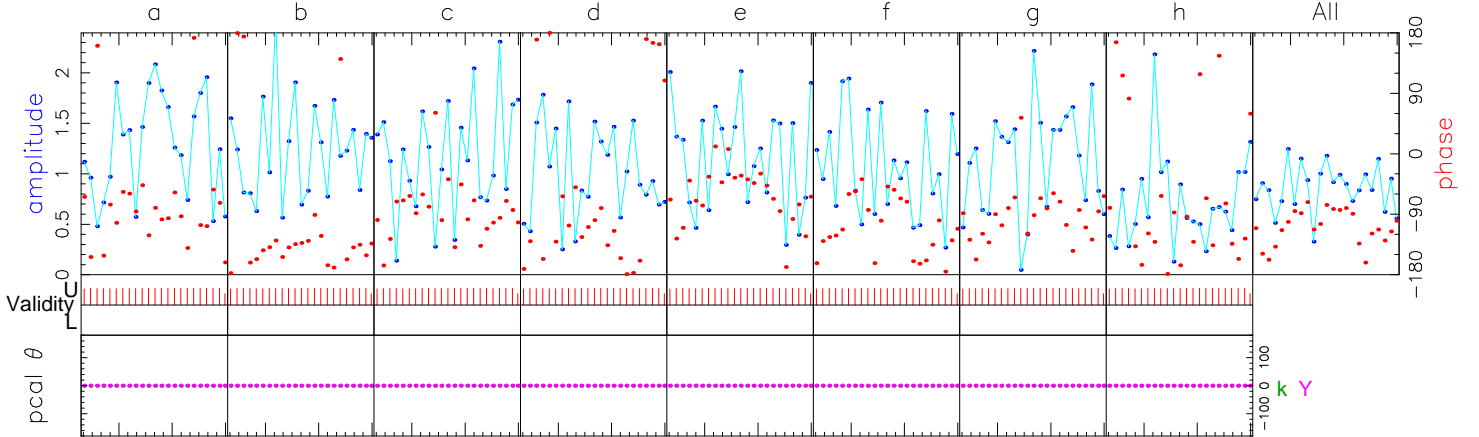
multiband delay (μ s)



Fringe quality 8
 Error code G
 SNR 21.6
 Int time 97.781
 Amp 0.799
 Phase 297.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.040939
 MBD 0.002732
 Fringe rate (Hz)
 0.015270
 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
 2025:042:151903
 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
	-96.0	-147.2	-86.7	-145.6	-58.9	-106.0	-98.1	-145.0	Phase	-107.5
	1.0	1.1	1.0	0.8	1.0	0.9	1.0	0.4	Ampl.	0.9
	267.6	267.4	267.1	266.8	266.7	267.1	266.8	263.4	Sbd box	267.5
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-2.54491115860E+03	Apriori delay (usec)	-2.54494514016E+03	Resid mbdelay (usec)	2.73155E-03	+/-	5.0E-05
Sband delay (usec)	-2.54490420141E+03	Apriori clock (usec)	1.1113740E+02	Resid sbdelay (usec)	4.09387E-02	+/-	4.0E-04
Phase delay (usec)	-2.54494514708E+03	Apriori clockrate (us/s)	1.1608971E-06	Resid phdelay (usec)	-6.92019E-06	+/-	3.4E-07
Delay rate (us/s)	1.61386930693E+00	Apriori rate (us/s)	1.61386895297E+00	Resid rate (us/s)	3.53956E-07	+/-	3.6E-09
Total phase (deg)	172.8	Apriori accel (us/s/s)	5.90226853292E-06	Resid phase (deg)	297.5	+/-	5.3

ph/seg (deg)	25.7	Theor.	12.7	Amplitude	0.799 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	28.6		22.2	Search (1024X32)	0.767	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	35.2		7.5	Inc. seg. avg.	0.843	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	28.2		13.1	Inc. frq. avg.	0.887	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

k: az 66.3 el 41.3 pa -77.6 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -5813.410 -211.144 simultaneous interpolator

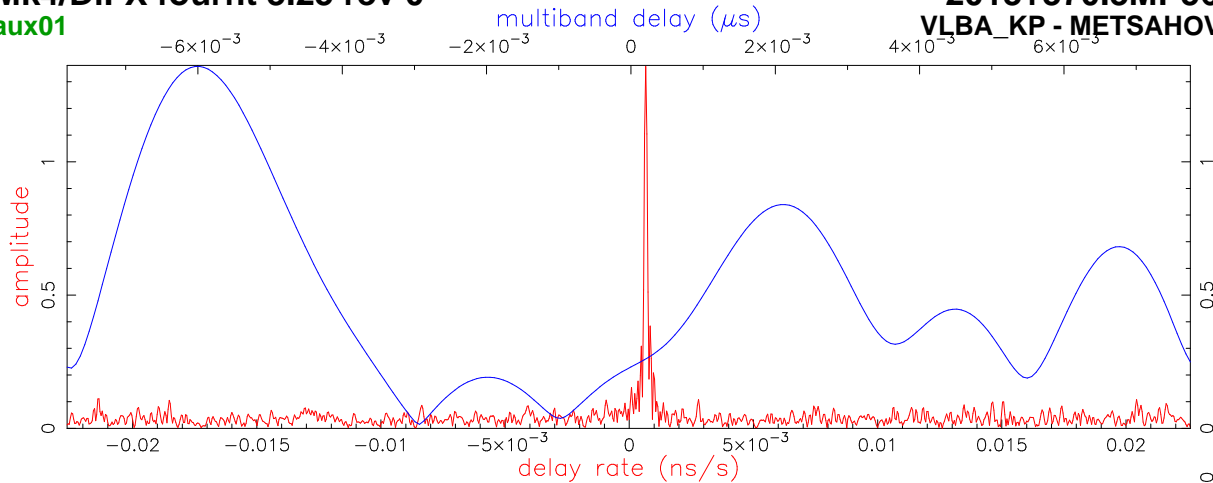
Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kY.Q.400.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

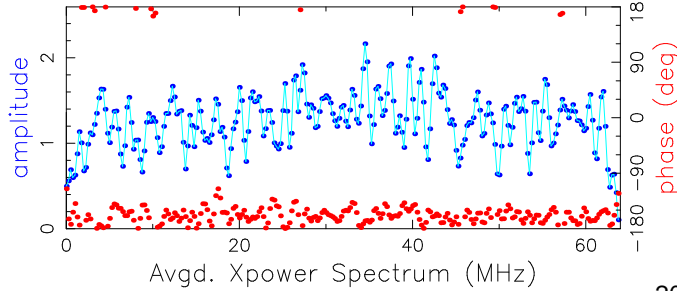
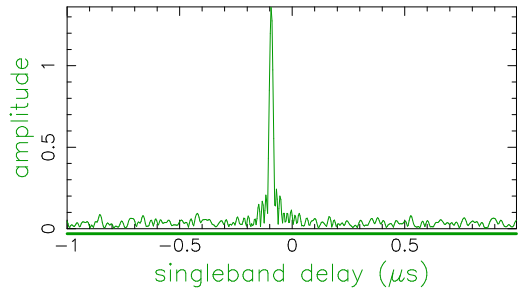
2013+370.3MP56K, No0500, kZ

VLBA_KP - METSAHOV, fgroup Q, pol LL



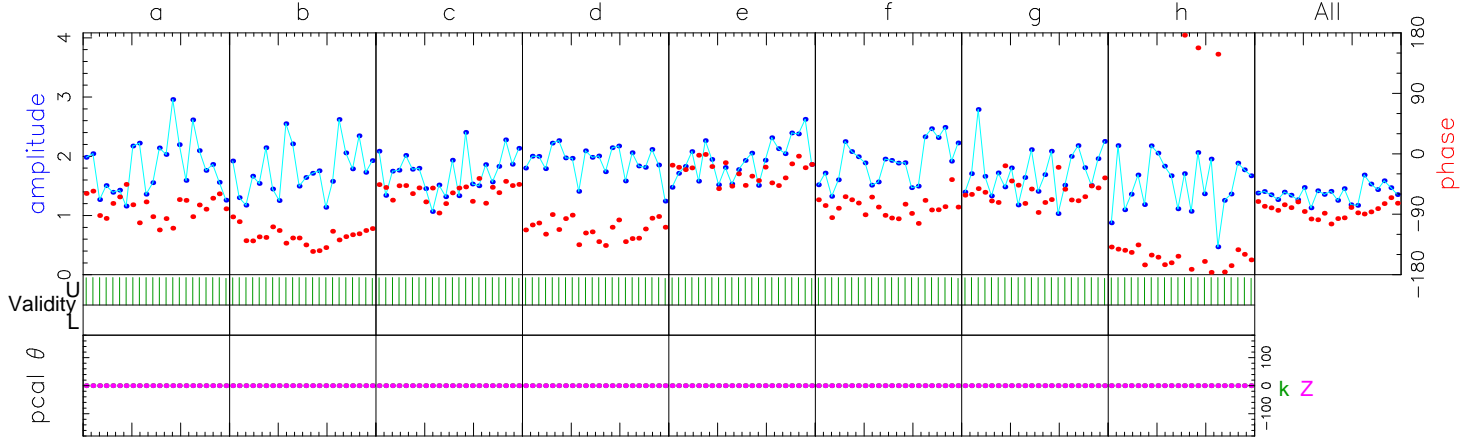
Fringe quality 6

SNR 49.9
 Int time 179.945
 Amp 1.362
 Phase -218.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.093107
 MBD -0.005987
 Fringe rate (Hz)
 0.027927
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	0	0	0	0	0	0	0	0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	1.02147078968E+03	Apriori delay (usec)	1.02157052639E+03	Resid mbdelay (usec)	-5.98670E-03	+/-	2.2E-05
Sband delay (usec)	1.02147741939E+03	Apriori clock (usec)	5.1485062E-02	Resid sbdelay (usec)	-9.31070E-02	+/-	1.7E-04
Phase delay (usec)	1.02157052099E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-5.39492E-06	+/-	1.5E-07
Delay rate (us/s)	1.50110207020E+00	Apriori rate (us/s)	1.50110142285E+00	Resid rate (us/s)	6.47352E-07	+/-	1.4E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.85725176402E-05	Resid phase (deg)	-218.8	+/-	2.3

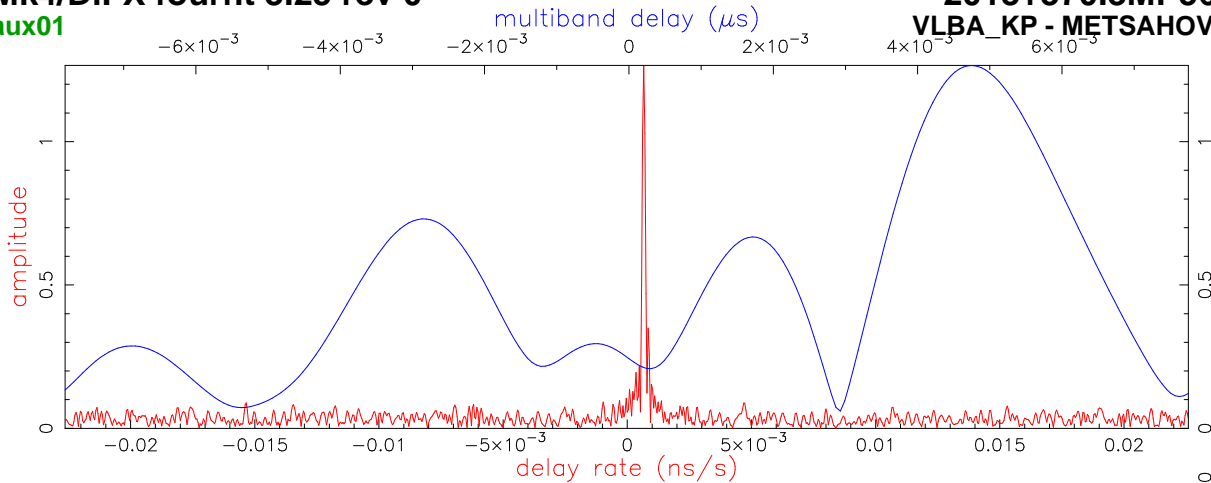
ph/seg (deg) 9.9 5.4 Amplitude 1.362 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 9.7 9.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.8 3.2 Inc. seg. avg. 1.373 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.9 5.7 Inc. frq. avg. 1.732 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023
 k: az 66.3 el 41.3 pa -77.6 Z: az 280.0 el 38.3 pa 37.9 u, v (fr/asec) -5422.661 -2016.453 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/kZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kZ.Q.174.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

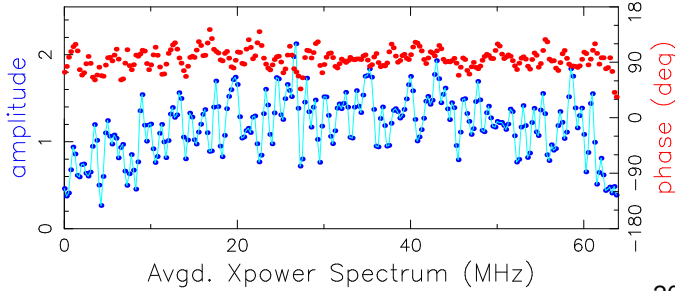
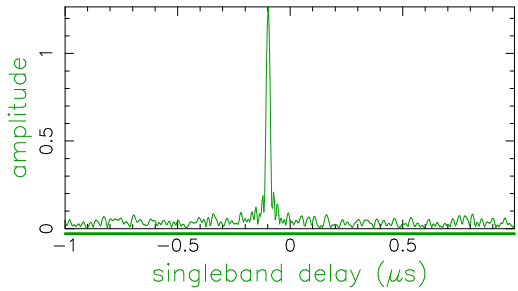
2013+370.3MP56K, No0500, kZ

VLBA_KP - METSAHOV, fgroup Q, pol RR



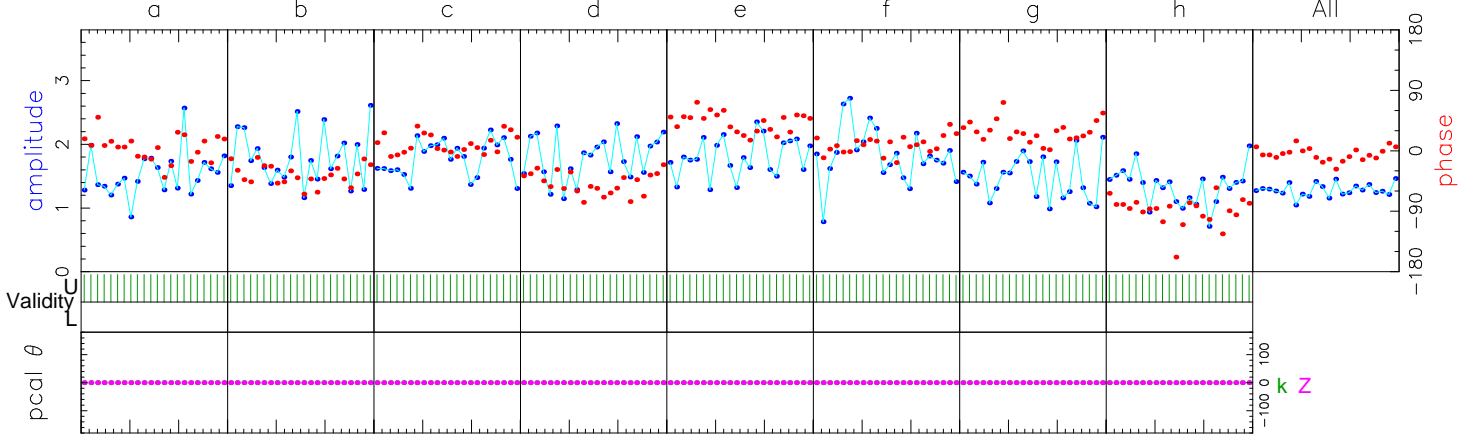
Fringe quality 6

SNR 46.4
 Int time 179.947
 Amp 1.266
 Phase -342.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.097770
 MBD 0.004743
 Fringe rate (Hz)
 0.027847
 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		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	0	0	0	0	0	0	0	0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	1.02146589440E+03	Apriori delay (usec)	1.02157052639E+03	Resid mbdelay (usec)	4.74302E-03	+/-	2.3E-05
Sband delay (usec)	1.02147275614E+03	Apriori clock (usec)	5.1485062E-02	Resid sbdelay (usec)	-9.77703E-02	+/-	1.9E-04
Phase delay (usec)	1.02157052605E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-3.36983E-07	+/-	1.6E-07
Delay rate (us/s)	1.50110206834E+00	Apriori rate (us/s)	1.50110142285E+00	Resid rate (us/s)	6.45493E-07	+/-	1.5E-09
Total phase (deg)	-159.7	Apriori accel (us/s/s)	-2.85725176402E-05	Resid phase (deg)	-342.7	+/-	2.5

ph/seg (deg)	RMS 9.6	Theor. 5.8	Amplitude 1.266 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	7.8	10.1	Search (1024X32) 1.206	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	47.5	3.5	Inc. seg. avg. 1.277	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.023	0.023
amp/frq (%)	30.9	6.1	Inc. frq. avg. 1.607	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 66.3 el 41.3 pa -77.6 Z: az 280.0 el 38.3 pa 37.9 u,v (fr/asec) -5422.661 -2016.453 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kZ.Q.184.3MP56K

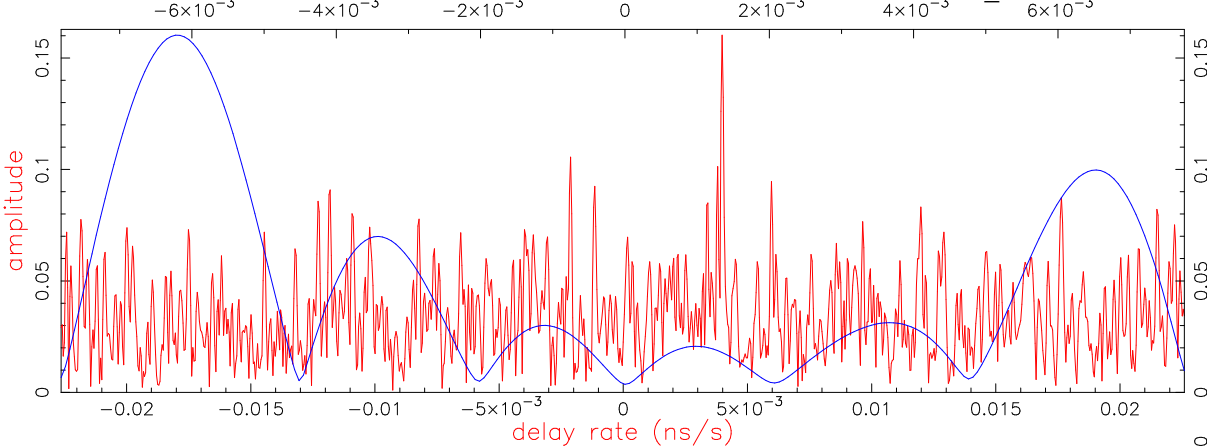
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, kZ

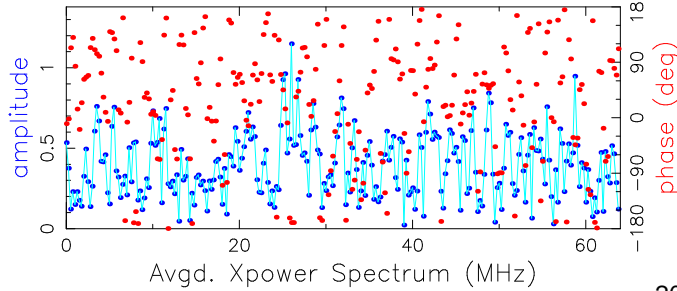
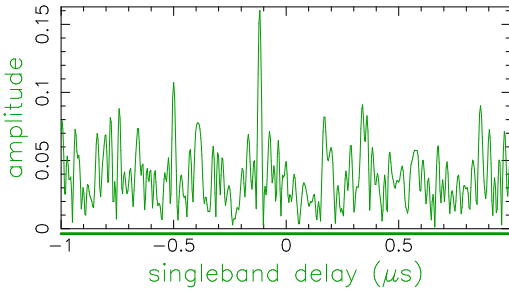
VLBA_KP - METSAHOV, fgroup Q, pol LR

multiband delay (μ s)



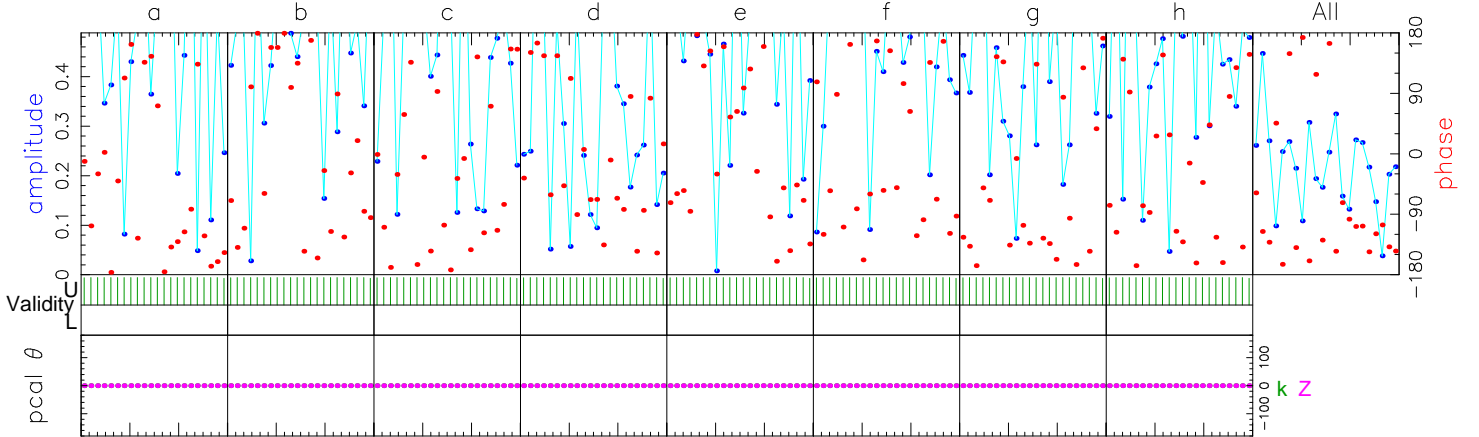
Fringe quality 0

SNR 5.9
 Int time 179.945
 Amp 0.163
 Phase -115.7
 PFD 3.8e-01
 Delays (us)
 SBD -0.117917
 MBD -0.006226
 Fringe rate (Hz)
 0.172746
 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
	-133.9	-149.8	-150.6	-127.2	-103.4	-126.3	-149.8	-132.2	Phase	-138.2
	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.1	Ampl.	0.1
	18.6	226.9	277.6	360.2	345.2	214.4	225.5	181.9	Sbd box	226.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	1.02145492521E+03	Apriori delay (usec)	1.02157052639E+03	Resid mbdelay (usec)	-6.22618E-03	+/-	1.8E-04
Sband delay (usec)	1.02145260989E+03	Apriori clock (usec)	5.1485062E-02	Resid sbdelay (usec)	-1.17917E-01	+/-	1.5E-03
Phase delay (usec)	1.02157051749E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-8.89957E-06	+/-	1.3E-06
Delay rate (us/s)	1.50110542717E+00	Apriori rate (us/s)	1.50110142285E+00	Resid rate (us/s)	4.00432E-06	+/-	1.2E-08
Total phase (deg)	-292.7	Apriori accel (us/s/s)	-2.85725176402E-05	Resid phase (deg)	-115.7	+/-	19.4

ph/seg (deg)	RMS 56.6	Theor. 45.6	Amplitude Search (1024X32)	0.163 +/- 0.028	0.152	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.8	79.5	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	18.0	27.5	Inc. seg. avg.	0.169	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	47.1	48.0	Inc. frq. avg.	0.150	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00	

k: az 66.3 el 41.3 pa -77.6 Z: az 280.0 el 38.3 pa 37.9 u,v (fr/asec) -5422.661 -2016.453 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/kZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kZ.Q.197.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

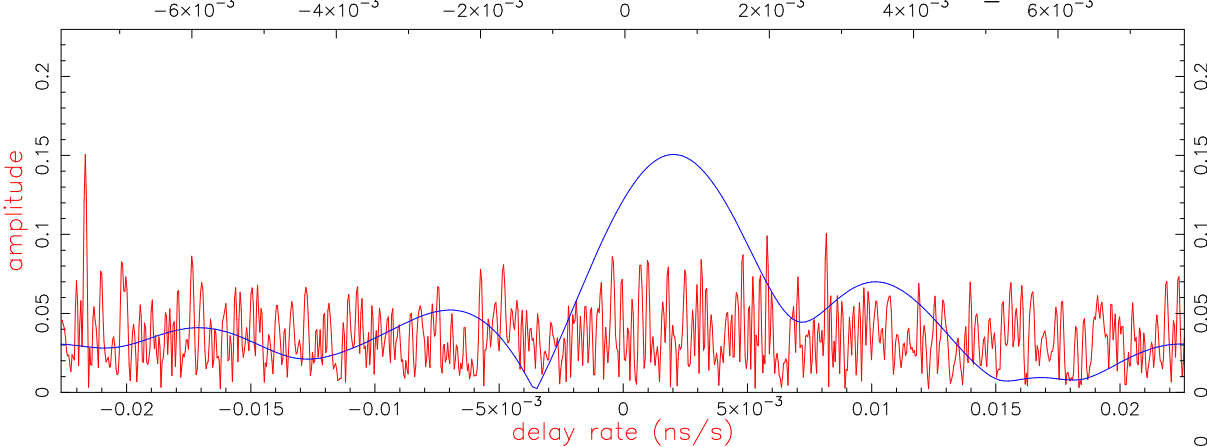
aux01

2013+370.3MP56K, No0500, kZ

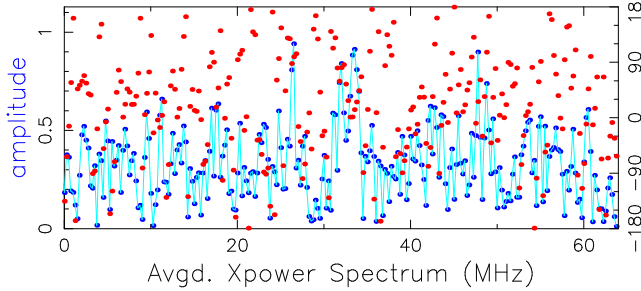
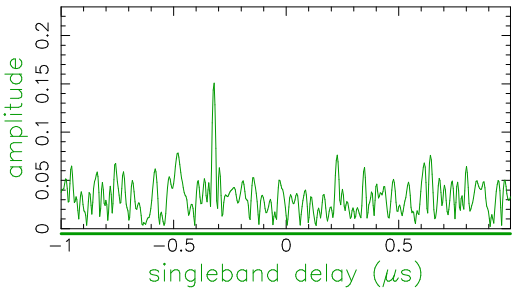
VLBA_KP - METSAHOV, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 0

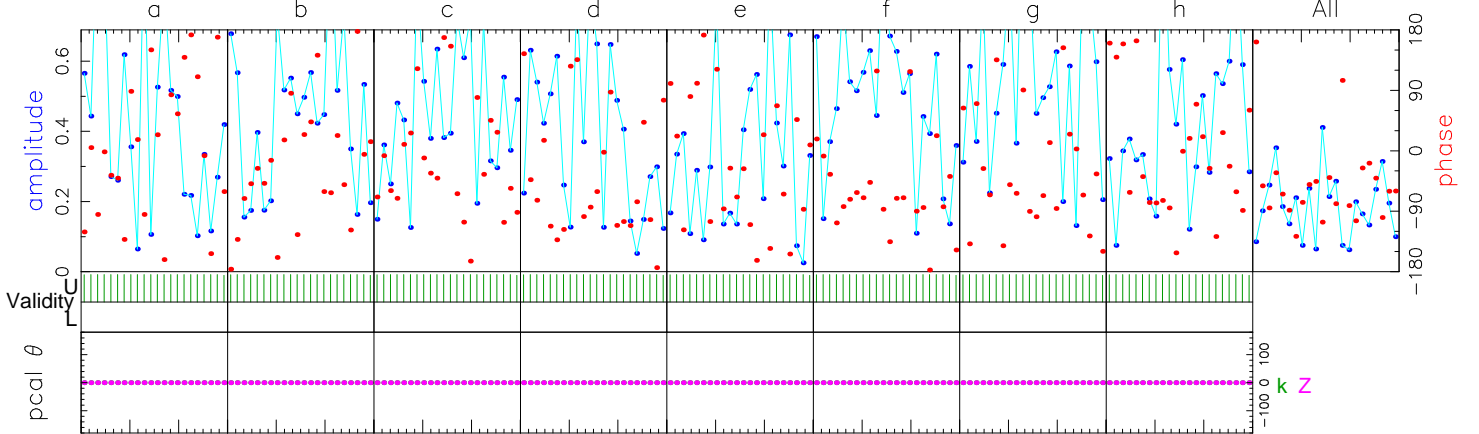


SNR 5.6
 Int time 179.947
 Amp 0.230
 Phase -3.0
 PFD 9.6e-01
 Delays (us)
 SBD -0.321329
 MBD 0.000660
 Fringe rate (Hz)
 -0.940189
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



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

Group delay (usec) (SBD)	1.02124306164E+03	Apriori delay (usec)	1.02157052639E+03	Resid mbdelay (usec)	6.60256E-04	+/-	2.0E-04
Sband delay (usec)	1.02124919739E+03	Apriori clock (usec)	5.1485062E-02	Resid sbdelay (usec)	-3.21329E-01	+/-	1.5E-03
Phase delay (usec)	1.02157052185E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-4.53750E-06	+/-	1.3E-06
Delay rate (us/s)	1.50107962895E+00	Apriori rate (us/s)	1.50110142285E+00	Resid rate (us/s)	-2.17939E-05	+/-	1.3E-08
Total phase (deg)	-180.0	Apriori accel (us/s/s)	-2.85725176402E-05	Resid phase (deg)	-3.0	+/-	20.6

ph/seg (deg)	53.9	Theor.	48.3	Amplitude	0.230 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	65.6	Search (1024X32)	0.147	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	32.9	Inc. seg. avg.	0.210	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	39.6	Inc. frq. avg.	0.216	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023	
k: az 66.3 el 41.3 pa -77.6	Z: az 280.0 el 38.3 pa 37.9	u, v (fr/asec)	-5422.661 -2016.453	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/kZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/kZ.Q.212.3MP56K