

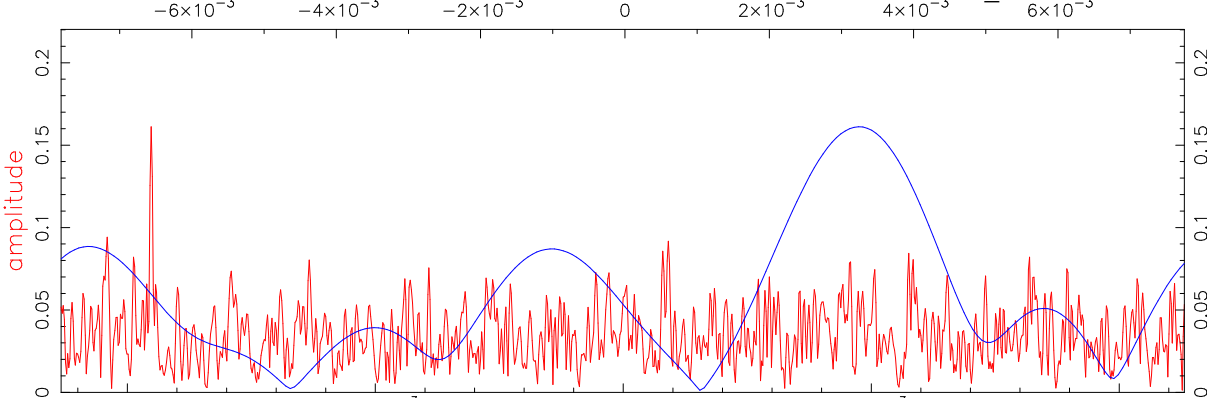
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bB

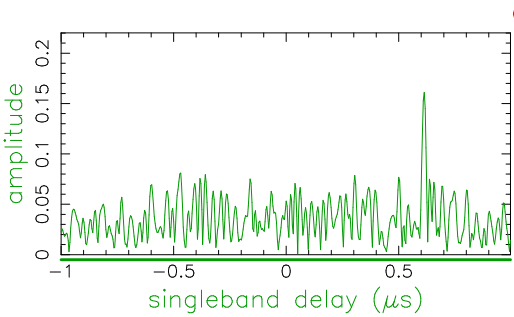
VLBA_BR - EFLSBERG, fgroup W, pol LR

multiband delay (μ s)

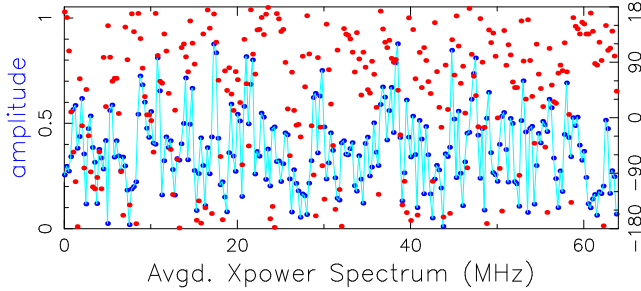


Fringe quality 0

SNR 5.9
 Int time 179.967
 Amp 0.220
 Phase -74.3
 PFD 3.3e-01
 Delays (us)
 SBD 0.612697
 MBD 0.003224
 Fringe rate (Hz)
 -0.822191
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

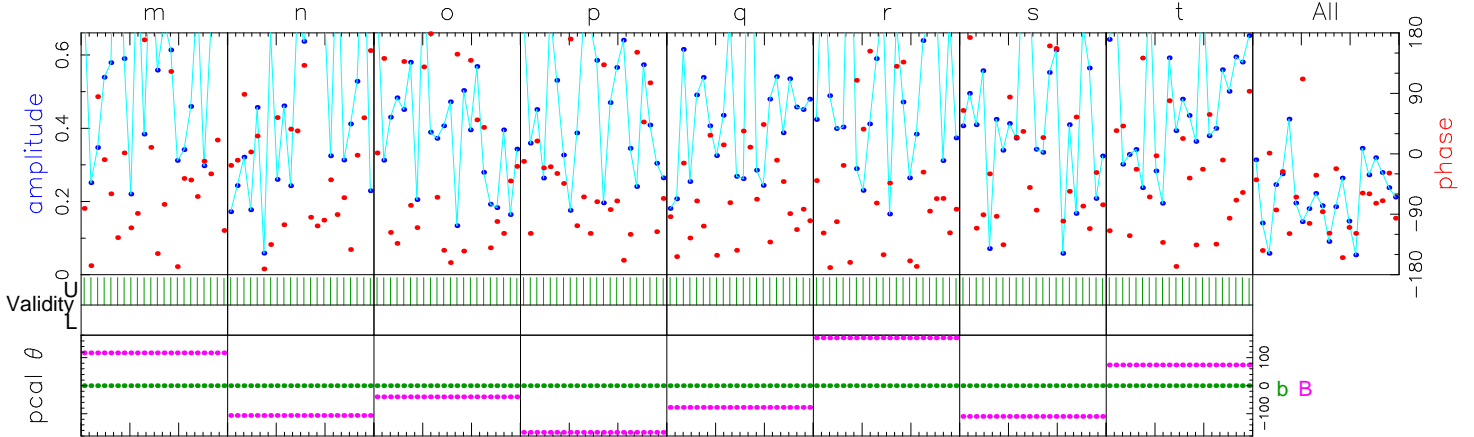


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104944
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-66.2	-56.4	-148.6	-66.5	-58.1	-119.2	-73.1	-36.8	Phase	-74.3
	0.4	0.2	0.1	0.3	0.3	0.3	0.2	0.2	Ampl.	0.2
	413.0	335.3	258.3	79.6	418.0	414.0	417.8	350.6	Sbd box	413.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
B	0	0	0	0	0	0	0	0	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	0:118	0:-106	0:-40	0:-167	0:-77	0:171	0:-110	0:74	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.00465680031E+04	Apriori delay (usec)	-1.00471806022E+04	Resid mbdelay (usec)	3.22410E-03	+/-	1.8E-04
Sband delay (usec)	-1.00465679057E+04	Apriori clock (usec)	4.0036194E+01	Resid sbdelay (usec)	6.12697E-01	+/-	1.5E-03
Phase delay (usec)	-1.00471806046E+04	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	-2.39664E-06	+/-	6.2E-07
Delay rate (us/s)	1.25328271612E+00	Apriori rate (us/s)	1.25329226094E+00	Resid rate (us/s)	-9.54483E-06	+/-	6.0E-09
Total phase (deg)	-100.1	Apriori accel (us/s/s)	5.17744375684E-05	Resid phase (deg)	-74.3	+/-	19.4

ph/seg (deg)	55.1	Theor.	45.4	Amplitude	0.220 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	66.3	Search (1024X32)	0.157	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	40.1	Inc. seg. avg.	0.227	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	42.5	Inc. frq. avg.	0.229	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
				Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 B: az 252.9 el 63.3 pa 49.7 u,v (fr/asec) -8976.042 2957.779 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bB..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bB.W.13.3MP1N1

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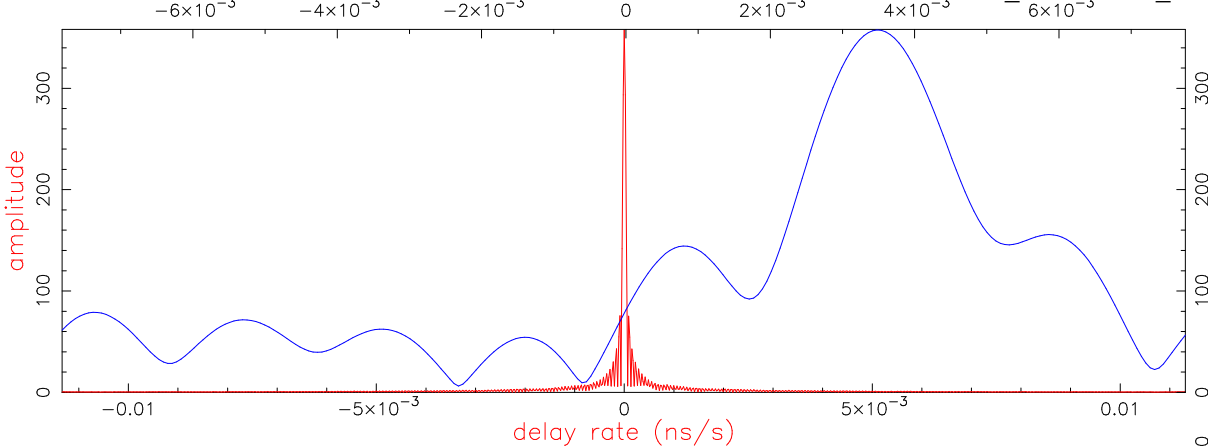
aux01

2013+370.3MP1N1, No0280, bb

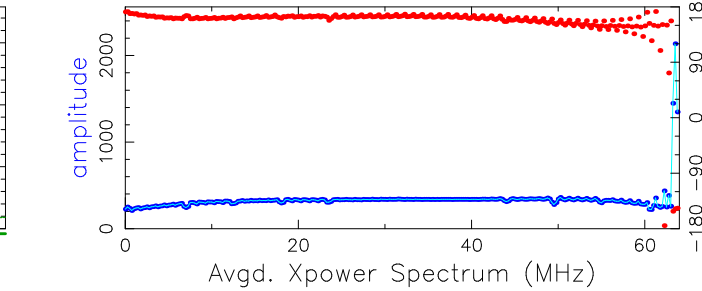
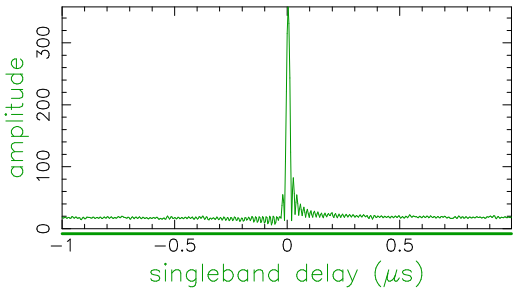
VLBA_BR - VLBA_BR, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 6

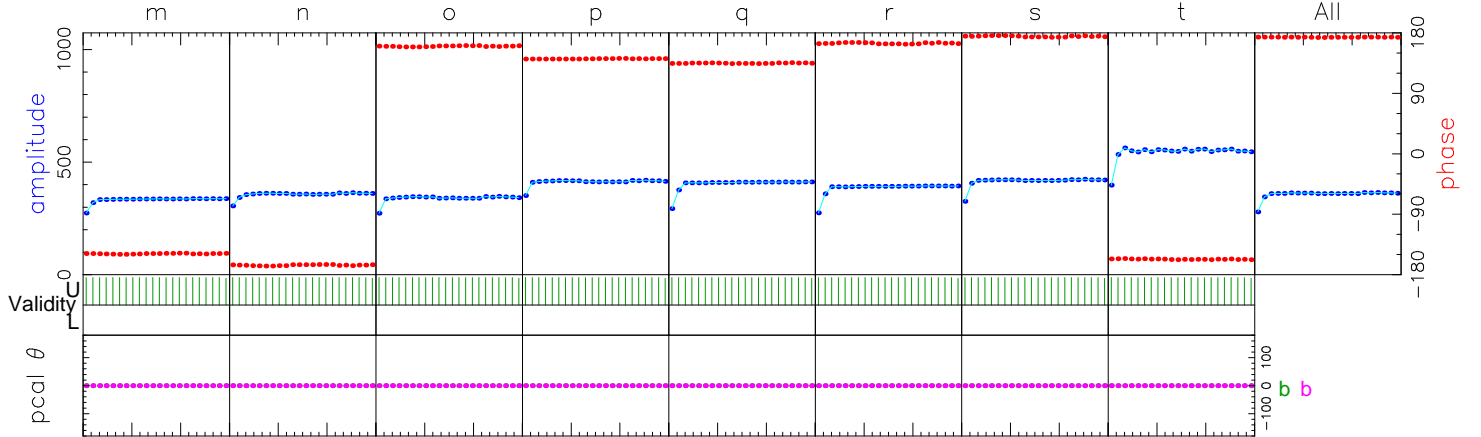


SNR 13139.3
 Int time 179.991
 Amp 358.136
 Phase 173.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004386
 MBD 0.003498
 Fringe rate (Hz)
 -0.000006
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104945
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-148.6	-165.7	160.0	141.3	134.8	164.4	174.7	-156.9	Phase	173.4
	332.9	356.8	339.9	412.4	403.6	385.9	415.6	544.5	Ampl.	399.0
	257.5	257.6	257.5	257.9	258.1	258.3	257.9	258.6	Sbd box	258.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b 0	0	0	0	0	0	0	0	0	PC freqs	
b 0	0	0	0	0	0	0	0	0	PC freqs	
b:b 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:b 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b 1000	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.49796875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.49797E-03	+/-	8.3E-08
Sband delay (usec)	4.38625000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.38625E-03	+/-	6.6E-07
Phase delay (usec)	5.59273058178E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.59273E-06	+/-	2.8E-10
Delay rate (us/s)	-6.80215314801E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-6.80215E-11	+/-	2.7E-12
Total phase (deg)	173.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	173.4	+/-	0.0

ph/seg (deg)	0.1	0.0	Search (1024X32)	356.839	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	4.9	0.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	30.4	0.0	Inc. seg. avg.	357.601	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	20.9	0.0	Inc. frq. avg.	398.960	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
b: az 60.8 el 24.5 pa -47.2		b: az 60.8 el 24.5 pa -47.2		u,v (fr/asec) 0.000	0.000	ion window (TEC)	0.00	0.00	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bb..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bb.W.18.3MP1N1

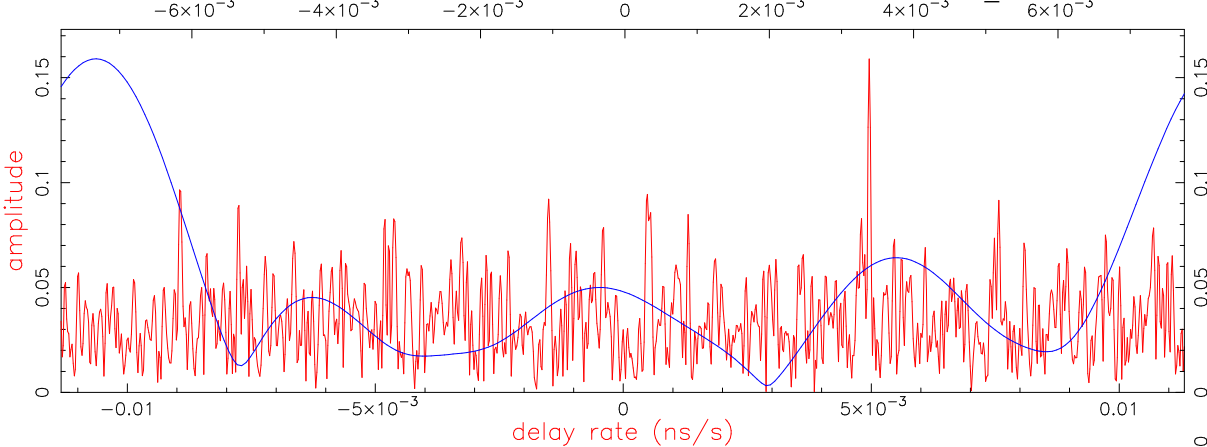
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bB

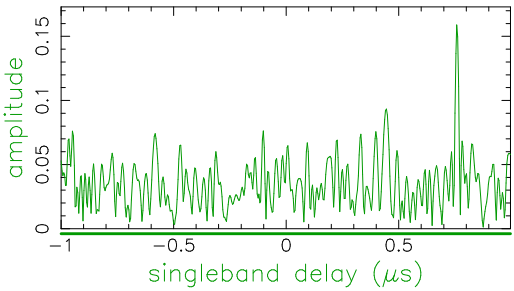
VLBA_BR - EFLSBERG, fgroup W, pol RL

multiband delay (μ s)

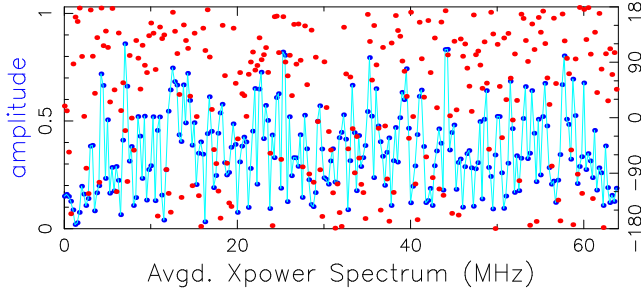


Fringe quality 0

SNR 5.9
 Int time 179.967
 Amp 0.173
 Phase -49.3
 PFD 4.5e-01
 Delays (us)
 SBD 0.758641
 MBD -0.007301
 Fringe rate (Hz)
 0.427606
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

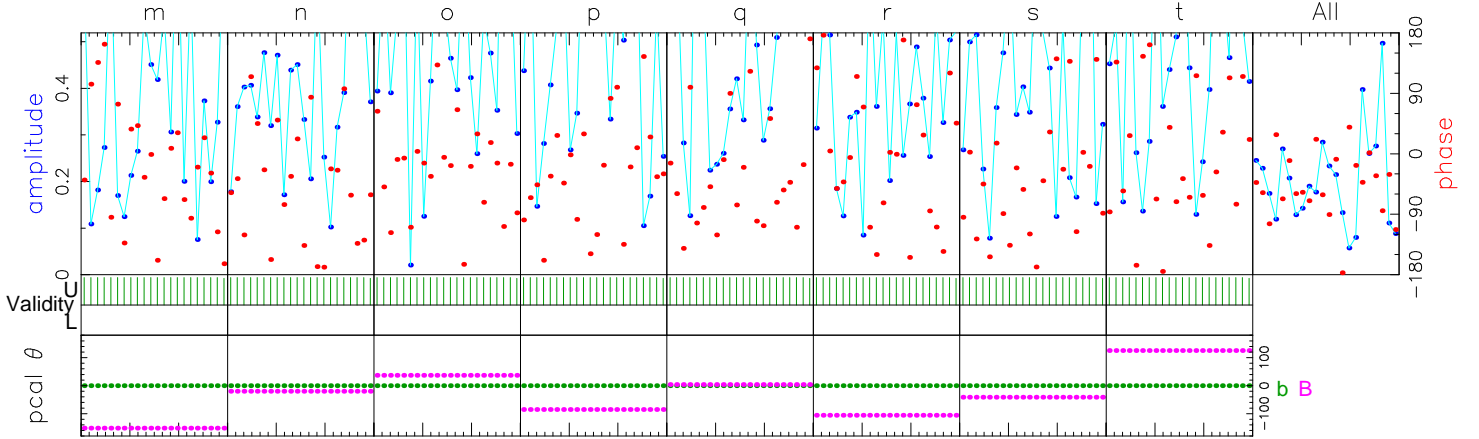


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104946
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-50.3	-77.4	-27.0	-35.1	-68.6	-79.7	-55.3	-41.0	Phase	-49.3
	0.1	0.1	0.3	0.2	0.3	0.0	0.2	0.2	Ampl.	0.2
	313.8	307.7	444.1	194.8	263.0	256.5	464.8	95.2	Sbd box	451.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
B	0	0	0	0	0	0	0	0	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	0:-151	0:-20	0:37	0:-85	0:4	0:-106	0:-41	0:125	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.00464222782E+04		Apriori delay (usec)		-1.00471806022E+04		Resid mbdelay (usec)		-7.30103E-03	+/- 1.9E-04
Sband delay (usec)	-1.00464219614E+04		Apriori clock (usec)		4.0036194E+01		Resid sbdelay (usec)		7.58641E-01	+/- 1.5E-03
Phase delay (usec)	-1.00471806038E+04		Apriori clockrate (us/s)		7.6597994E-07		Resid phdelay (usec)		-1.59035E-06	+/- 6.3E-07
Delay rate (us/s)	1.25329722502E+00		Apriori rate (us/s)		1.25329226094E+00		Resid rate (us/s)		4.96408E-06	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		5.17744375684E-05		Resid phase (deg)		-49.3	+/- 19.6

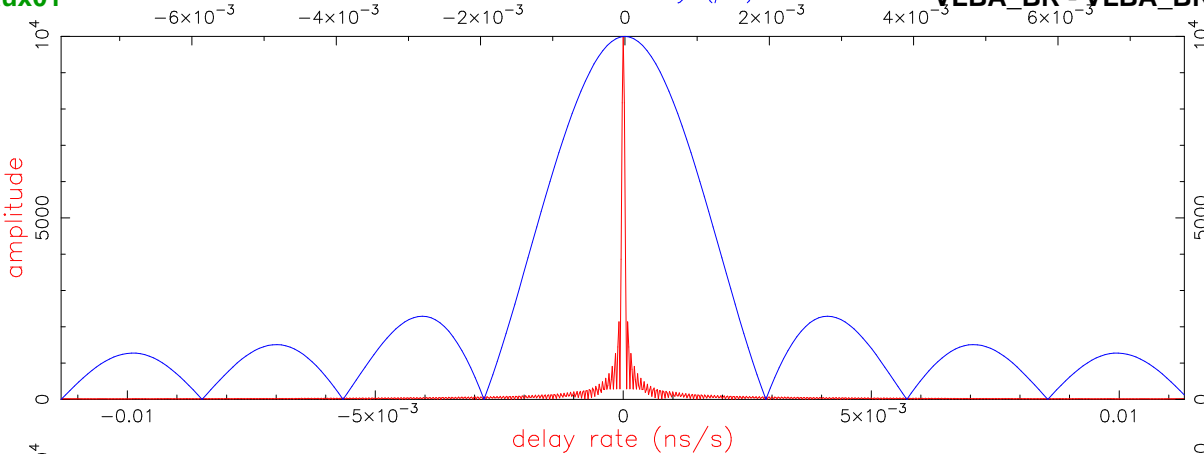
ph/seg (deg) 49.5 45.9 Search (1024X32) 0.156 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.8 80.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.0 27.7 Inc. seg. avg. 0.169 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.8 48.3 Inc. frq. avg. 0.161 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 B: az 252.9 el 63.3 pa 49.7 u,v (fr/asec) -8976.042 2957.779 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bB..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bB.W.20.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

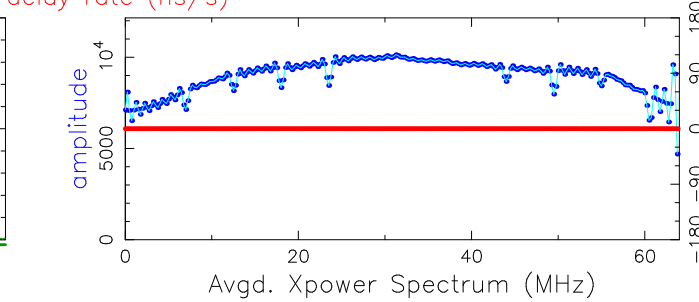
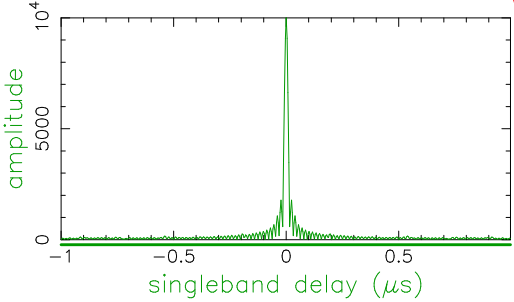
2013+370.3MP1N1, No0280, bb

VLBA_BR - VLBA_BR, fgroup W, pol LL



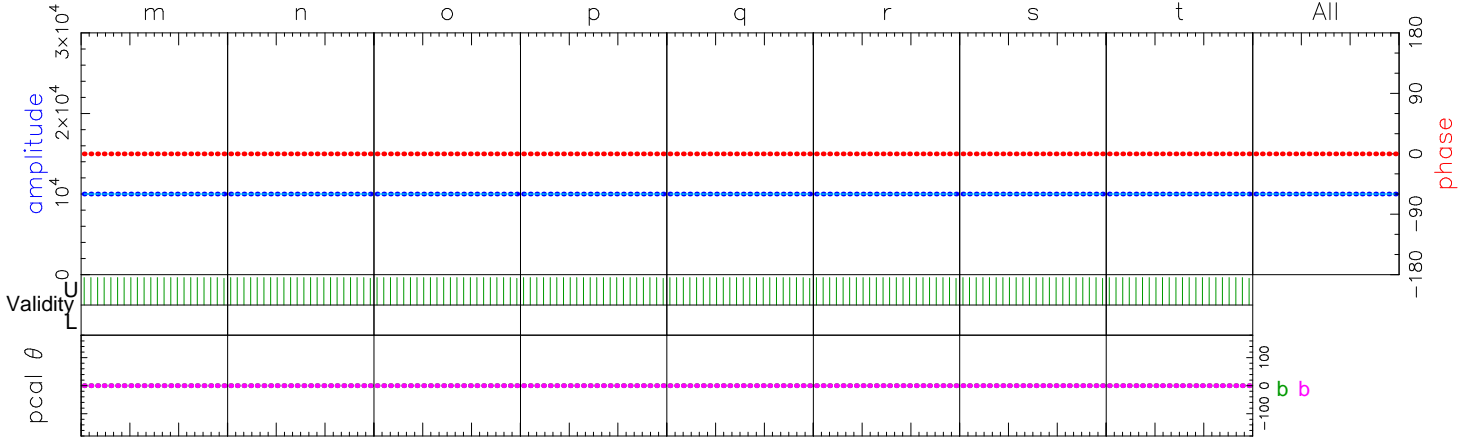
Fringe quality 9

SNR 366879.3
 Int time 179.991
 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) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104940
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:b	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		
b	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	2.3E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	9.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 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) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 b: az 60.8 el 24.5 pa -47.2 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/c241c/v2/3mm/1234/No0280/bb..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bb.W.2.3MP1N1 simultaneous interpolator

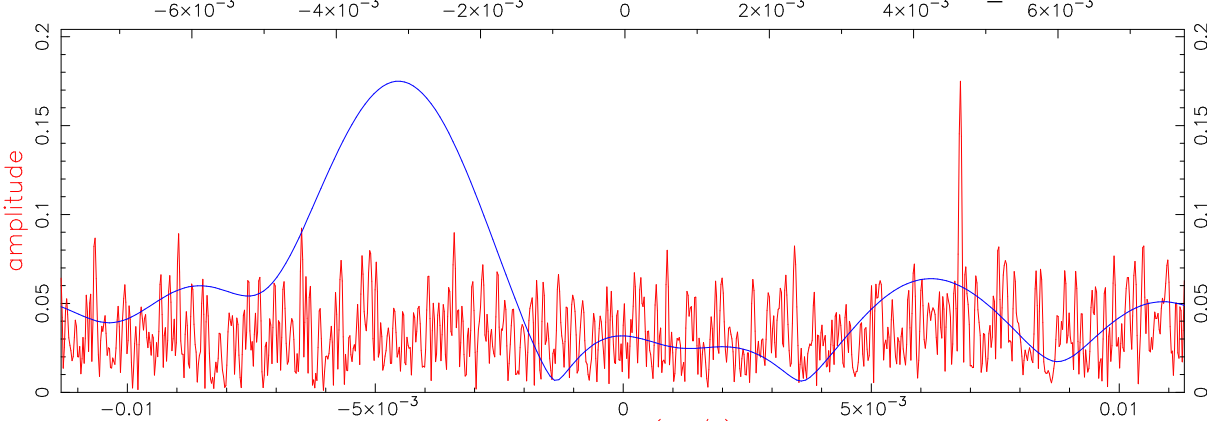
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bB

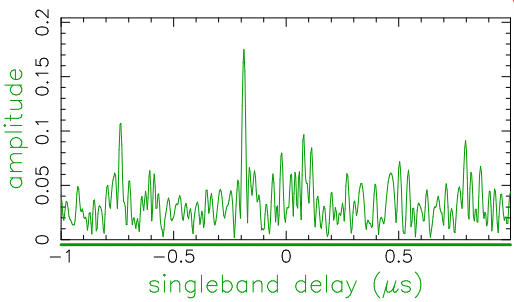
VLBA_BR - EFLSBERG, fgroup W, pol LL

multiband delay (μ s)

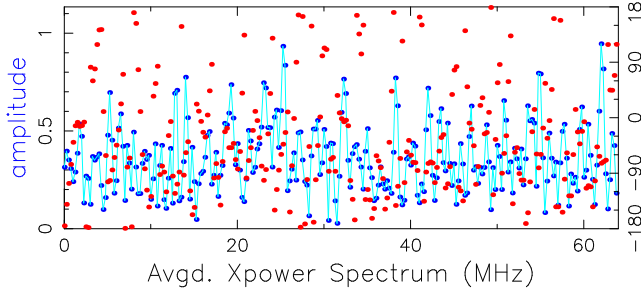


Fringe quality 0

SNR 6.4
 Int time 179.967
 Amp 0.204
 Phase -37.3
 PFD 1.8e-02
 Delays (us)
 SBD -0.188018
 MBD -0.003173
 Fringe rate (Hz)
 0.585908
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

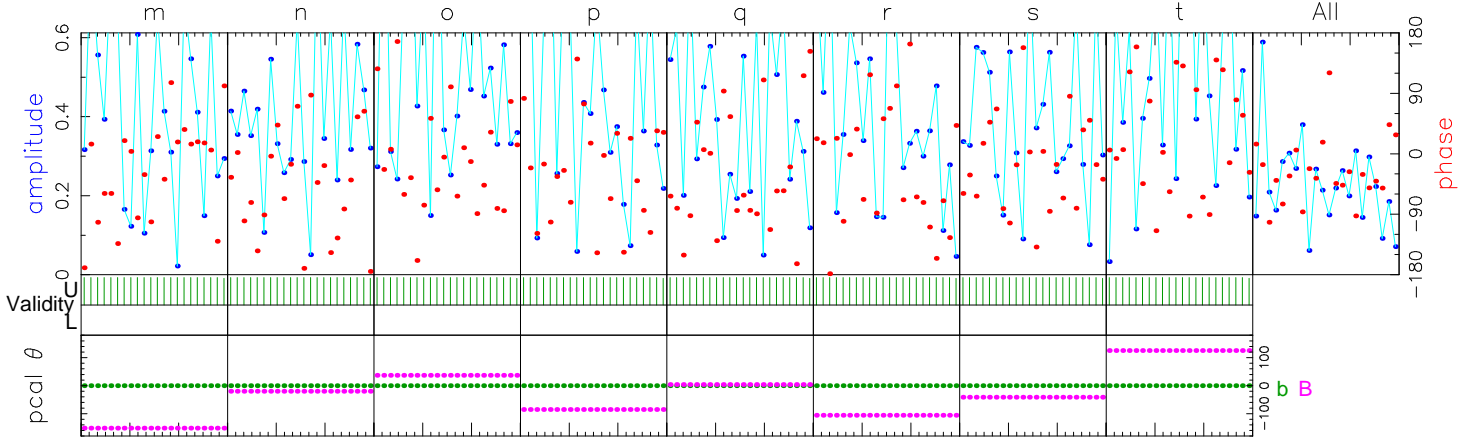


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104940
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-23.4	-42.5	-39.0	-38.1	-70.8	24.7	-29.8	-17.2		-37.3
	0.2	0.2	0.4	0.3	0.3	0.1	0.3	0.1	Ampl.	0.2
	241.1	241.6	208.5	219.0	68.6	335.6	209.8	285.9	Sbd box	208.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
B	0	0	0	0	0	0	0	0	PC freqs	
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:B	0:-151	0:-20	0:37	0:-85	0:4	0:-106	0:-41	0:125	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.00473712750E+04	Apriori delay (usec)	-1.00471806022E+04	Resid mbdelay (usec)	-3.17282E-03	+/-	1.7E-04
Sband delay (usec)	-1.00473686204E+04	Apriori clock (usec)	4.0036194E+01	Resid sbdelay (usec)	-1.88018E-01	+/-	1.3E-03
Phase delay (usec)	-1.00471806034E+04	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	-1.20337E-06	+/-	5.7E-07
Delay rate (us/s)	1.25329906276E+00	Apriori rate (us/s)	1.25329226094E+00	Resid rate (us/s)	6.80182E-06	+/-	5.5E-09
Total phase (deg)	-63.1	Apriori accel (us/s/s)	5.17744375684E-05	Resid phase (deg)	-37.3	+/-	17.8

ph/seg (deg)	50.2	Theor.	41.8	Amplitude	0.204 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.3		73.0	Search (1024X32)	0.171	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.7		25.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	48.3		44.0	Inc. seg. avg.	0.212	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.196	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 60.8 el 24.5 pa -47.2 B: az 252.9 el 63.3 pa 49.7 u,v (fr/asec) -8976.042 2957.779 simultaneous interpolator

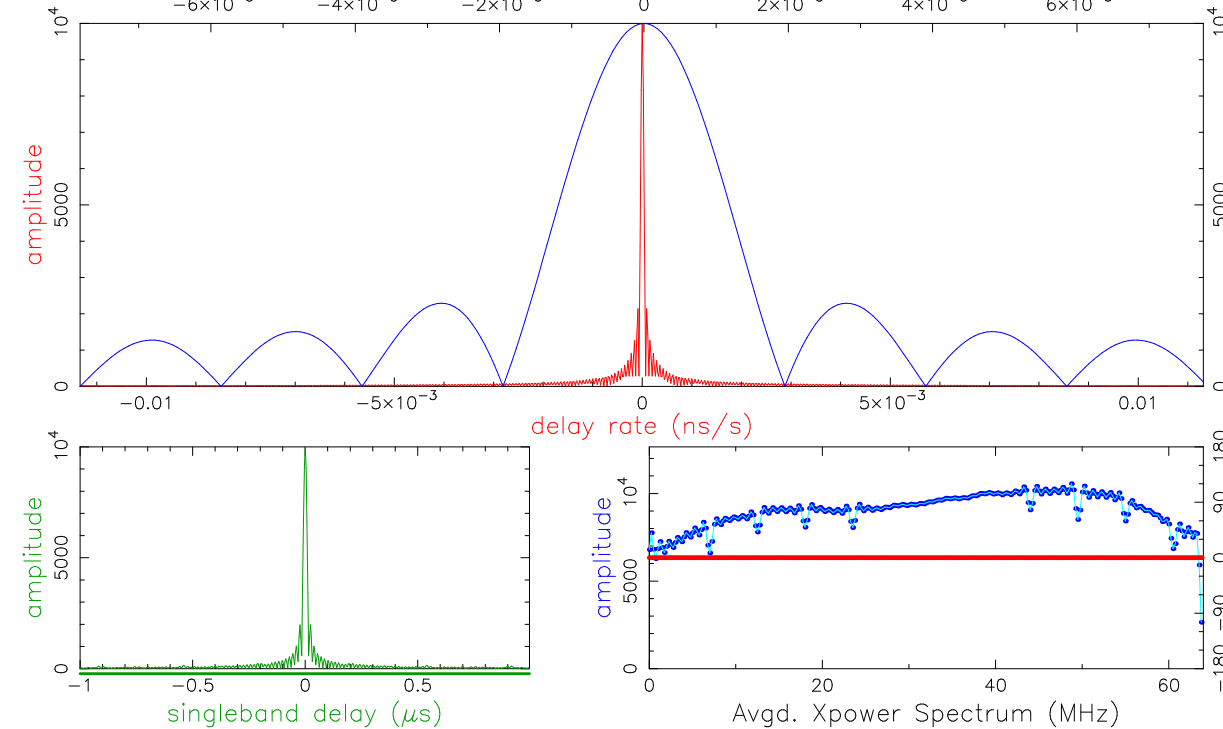
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bB..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bB.W.3.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

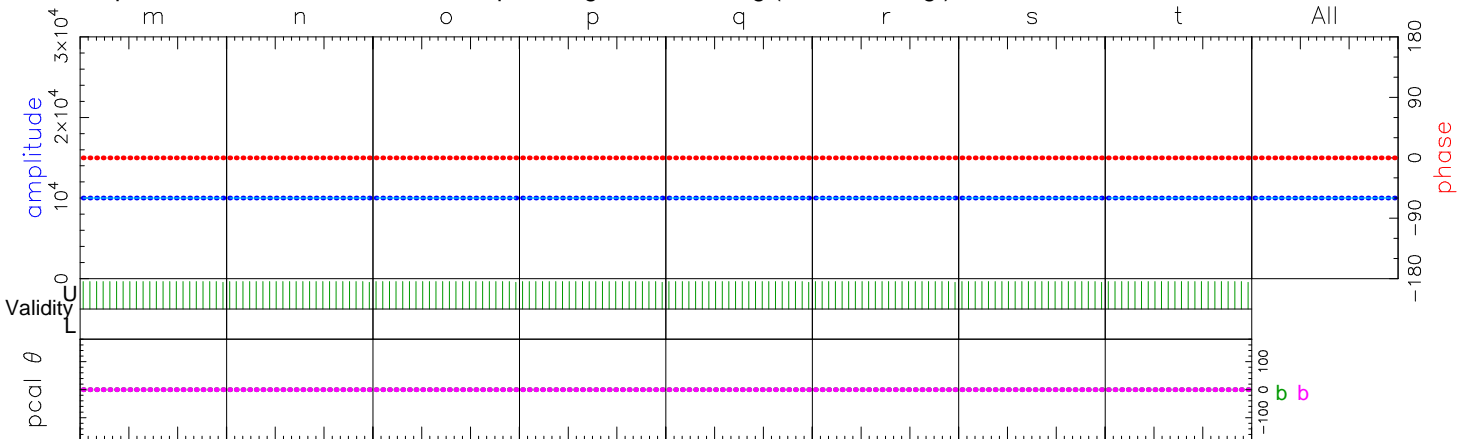
2013+370.3MP1N1, No0280, bb

VLBA_BR - VLBA_BR, fgroup W, pol RR



Fringe quality 9
 SNR 366879.3
 Int time 179.991
 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) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104942
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	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
b	0	0	0	0	0	0	0	0	Ampl.	257.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 3.0E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 2.3E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 1.0E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 9.7E-14
Total phase (deg)		0.0							Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	10000.001 +/- 0.027	10000.001	10000.001	10000.001	10000.001	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X32)	0.000	0.000	0.000	0.000	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	10000.000	10000.000	10000.000	10000.000	10000.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000	10000.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	10000.001	10000.001	10000.001	10000.001	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
b: az 60.8 el 24.5 pa -47.2			b: az 60.8 el 24.5 pa -47.2						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/bb..3MP1N1						u,v (fr/asec) 0.000 0.000	simultaneous interpolator
										Output file: /Exps/c241c/v2/3mm/1234/No0280/bb.W.6.3MP1N1

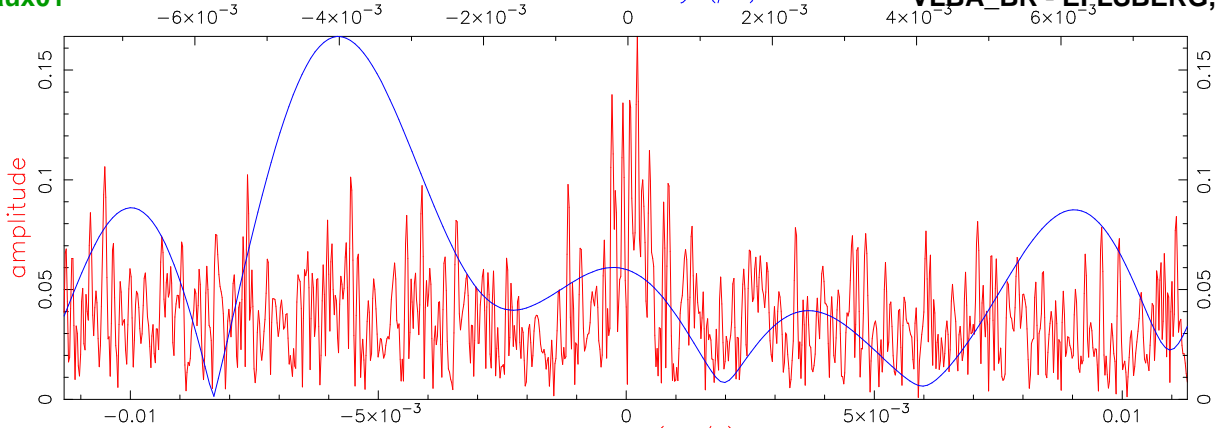
Mk4/DiFX fourfit 3.25 rev 0

aux01

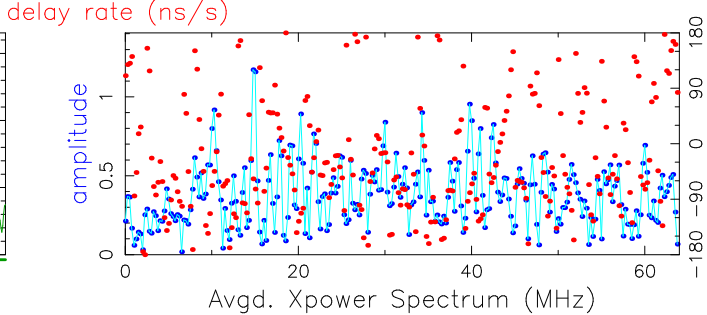
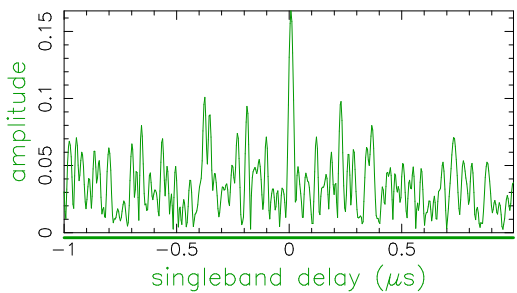
2013+370.3MP1N1, No0280, bB

VLBA_BR - EFLSBERG, fgroup W, pol RR

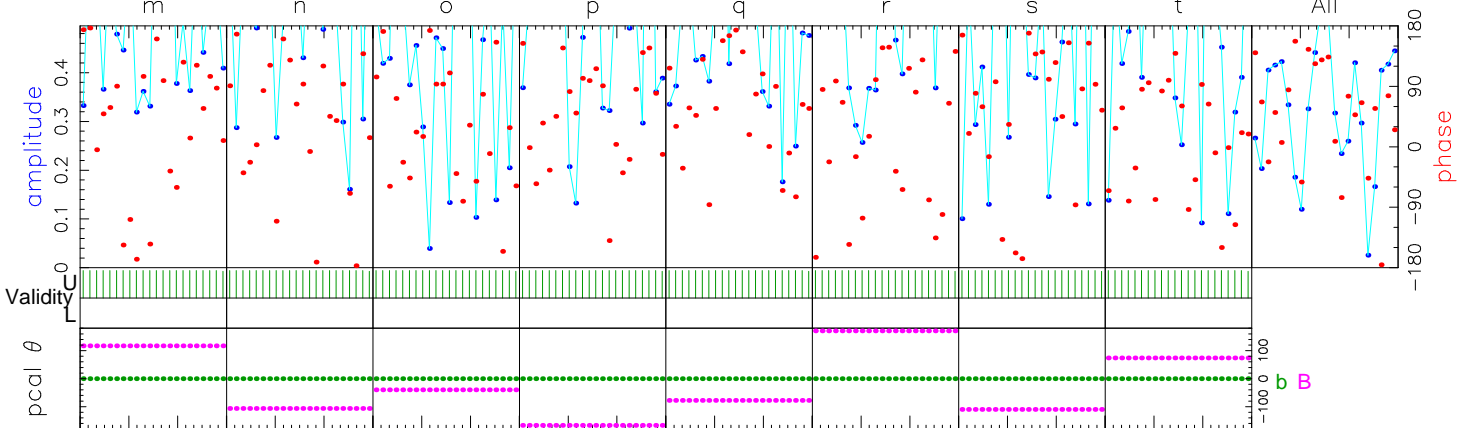
multiband delay (μ s)



Fringe quality 0
 SNR 6.1
 Int time 179.967
 Amp 0.165
 Phase 79.0
 PFD 1.6e-01
 Delays (us)
 SBD 0.007993
 MBD -0.004001
 Fringe rate (Hz) 0.018531
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104942
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
B	0	0	0	0	0	0	0	0		
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:B	0:118	0:-106	0:-40	0:-167	0:-77	0:171	0:-110	0:74		
b	1000	1000	1000	1000	1000	1000	1000	1000		
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.00471689783E+04	Apriori delay (usec)	-1.00471806022E+04	Resid mbdelay (usec)	-4.00116E-03	+/-	1.8E-04
Sband delay (usec)	-1.00471726097E+04	Apriori clock (usec)	4.0036194E+01	Resid sbdelay (usec)	7.99250E-03	+/-	1.4E-03
Phase delay (usec)	-1.00471805996E+04	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	2.54754E-06	+/-	6.1E-07
Delay rate (us/s)	1.25329247607E+00	Apriori rate (us/s)	1.25329226094E+00	Resid rate (us/s)	2.15132E-07	+/-	5.9E-09
Total phase (deg)		Apriori accel (us/s/s)	5.17744375684E-05	Resid phase (deg)	79.0	+/-	18.9

ph/seg (deg) 72.6 44.3 Search (1024X32) 0.162 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 124.8 77.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.0 26.7 Inc. seg. avg. 0.251 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.4 46.6 Inc. frq. avg. 0.183 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 60.8 el 24.5 pa -47.2 B: az 252.9 el 63.3 pa 49.7 u,v (fr/asec) -8976.042 2957.779 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bB..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bB.W.8.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

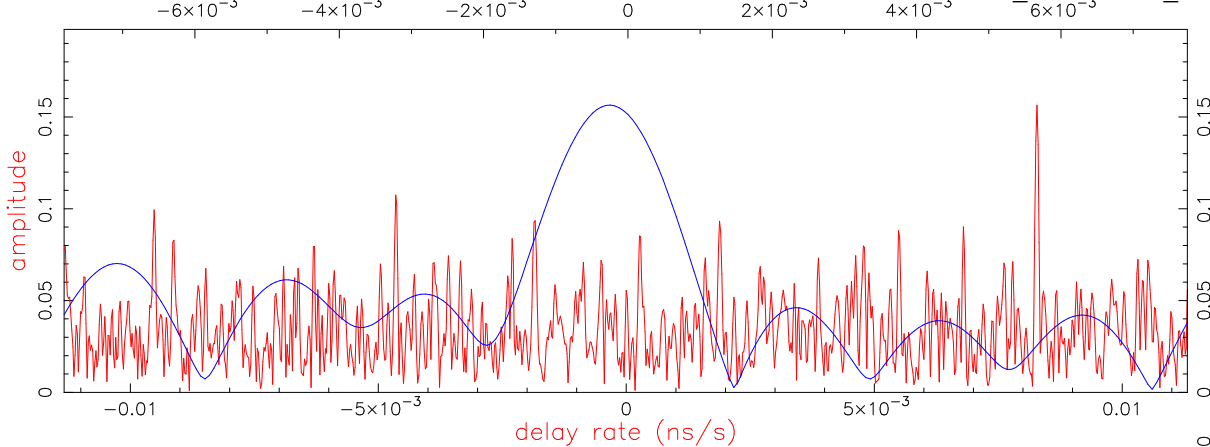
aux01

2013+370.3MP1N1, No0280, bf

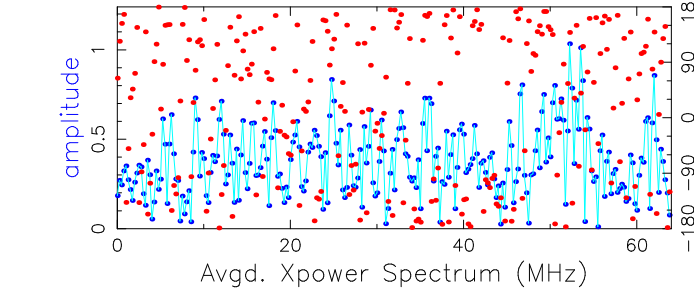
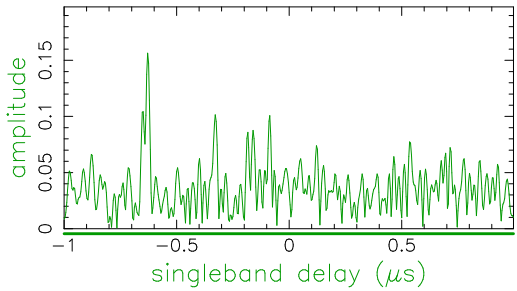
VLBA_BR - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

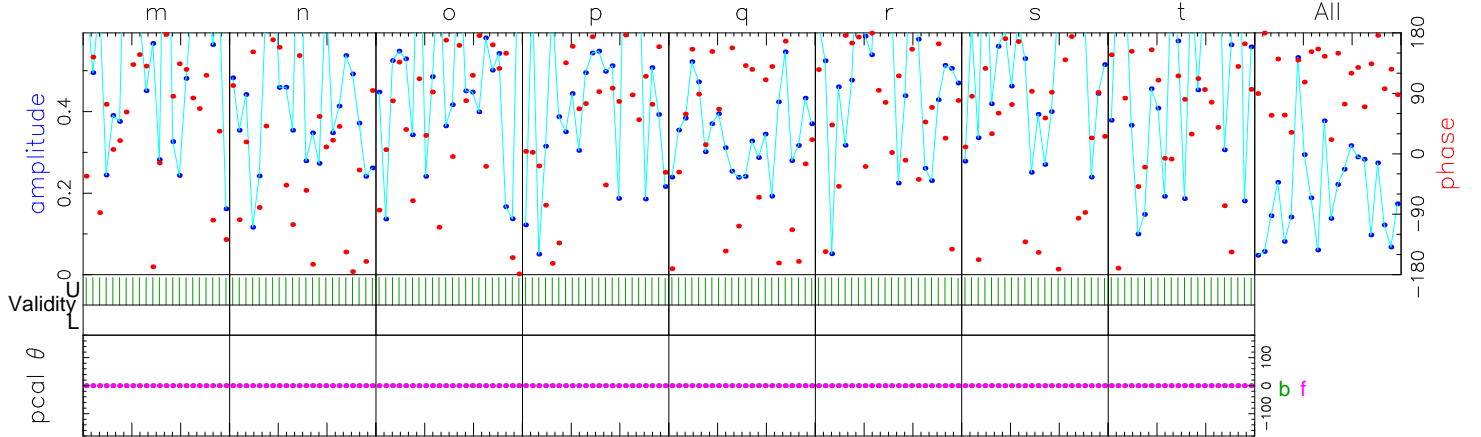


SNR 5.8
 Int time 179.990
 Amp 0.198
 Phase 118.3
 PFD 6.6e-01
 Delays (us)
 SBD -0.628188
 MBD -0.000222
 Fringe rate (Hz) 0.715351
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104940
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
f	0	0	0	0	0	0	0	0		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:f	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		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-7.60630906200E+02	Apriori delay (usec)	-7.60005684318E+02	Resid mbdelay (usec)	-2.21881E-04	+/-	1.9E-04
Sband delay (usec)	-7.60633872818E+02	Apriori clock (usec)	4.5787926E+00	Resid sbdelay (usec)	-6.28188E-01	+/-	1.5E-03
Phase delay (usec)	-7.60005680502E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	3.81602E-06	+/-	6.4E-07
Delay rate (us/s)	-2.15391849436E-01	Apriori rate (us/s)	-2.15400153949E-01	Resid rate (us/s)	8.30451E-06	+/-	6.2E-09
Total phase (deg)	-114.7	Apriori accel (us/s/s)	2.01152963062E-05	Resid phase (deg)	118.3	+/-	19.9

ph/seg (deg)	44.6	Theor.	46.7	Amplitude	0.198 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.7	Search (1024X32)	0.155	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.6	Inc. seg. avg.	0.189	Inc. frq. avg.	0.182	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	41.8	Inc. frq. avg.	0.182			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 f: az 60.7 el 26.7 pa -70.6 u,v (fr/asec) 1569.632 2848.692 simultaneous interpolator

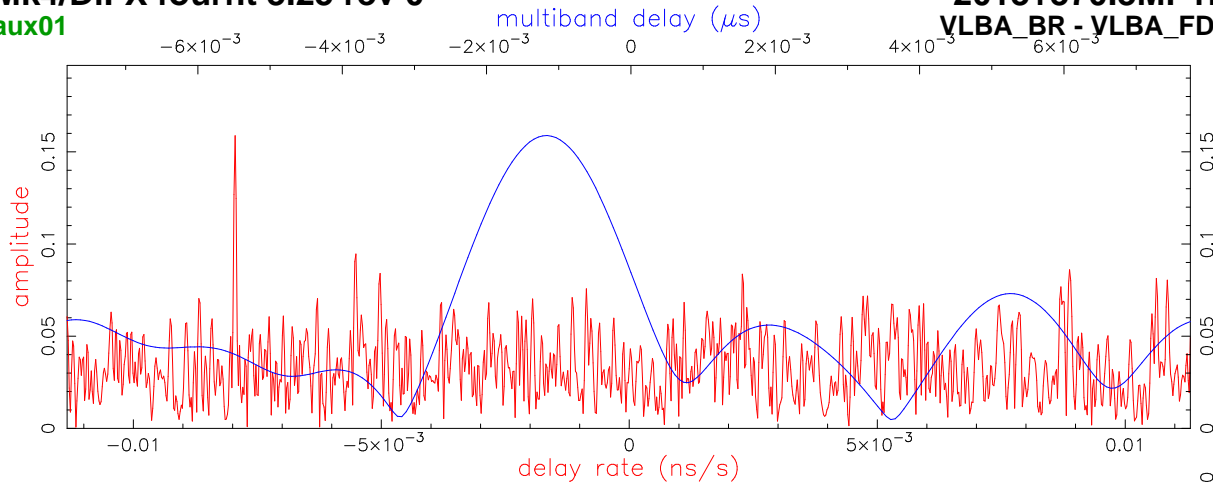
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bf..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bf.W.1.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

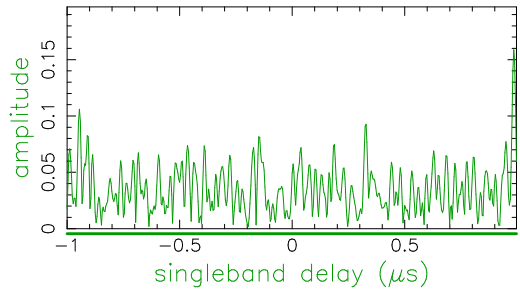
2013+370.3MP1N1, No0280, bf

VLBA_BR - VLBA_FD, fgroup W, pol LR

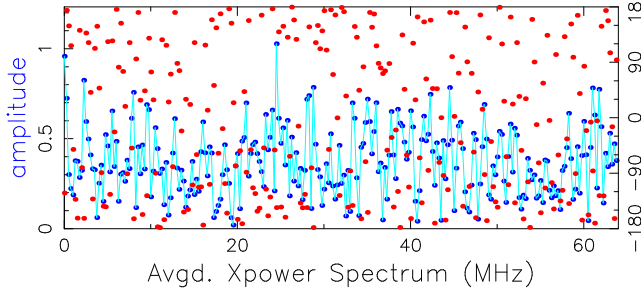


Fringe quality 0

SNR 5.8
 Int time 179.990
 Amp 0.197
 Phase 29.7
 PFD 4.8e-01
 Delays (us)
 SBD 0.985067
 MBD -0.001149
 Fringe rate (Hz)
 -0.686270
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

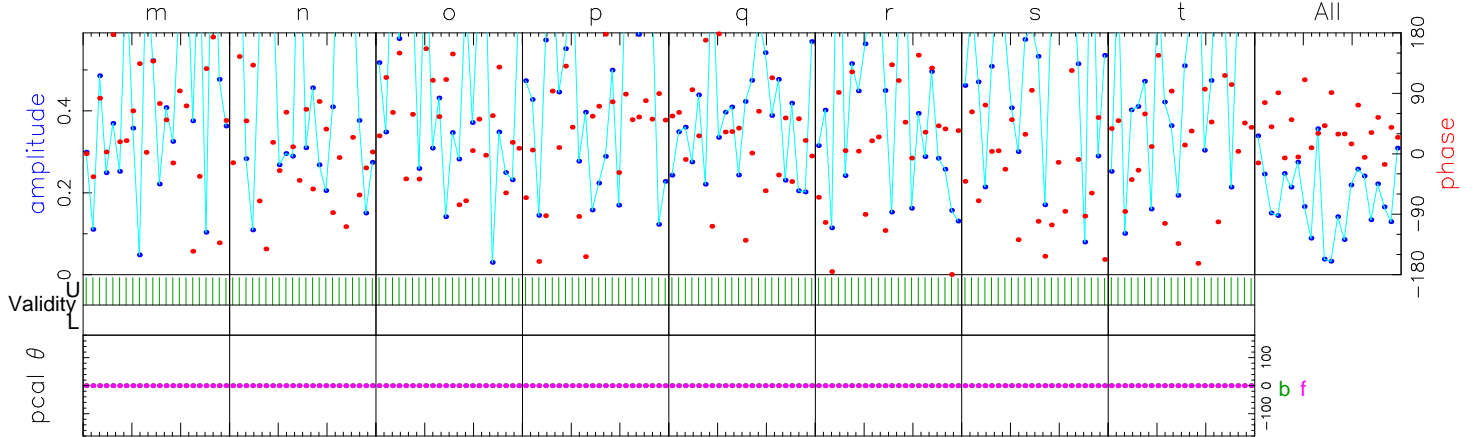


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104944
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-7.59022458255E+02	Apriori delay (usec)	-7.60005684318E+02	Resid mbdelay (usec)	-1.14894E-03	+/-	1.9E-04
Sband delay (usec)	-7.59020617568E+02	Apriori clock (usec)	4.5787926E+00	Resid sbdelay (usec)	9.85067E-01	+/-	1.5E-03
Phase delay (usec)	-7.60005683360E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	9.58635E-07	+/-	6.3E-07
Delay rate (us/s)	-2.15408120861E-01	Apriori rate (us/s)	-2.15400153949E-01	Resid rate (us/s)	-7.96691E-06	+/-	6.1E-09
Total phase (deg)	-203.3	Apriori accel (us/s/s)	2.01152963062E-05	Resid phase (deg)	29.7	+/-	19.6

ph/seg (deg)	RMS 35.5	Theor. 46.0	Amplitude Search (1024X32)	0.157	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	58.7	80.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	35.7	27.7	Inc. seg. avg.	0.179	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	23.4	48.4	Inc. frq. avg.	0.206	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 f: az 60.7 el 26.7 pa -70.6 u,v (fr/asec) 1569.632 2848.692 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bf..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bf.W.14.3MP1N1

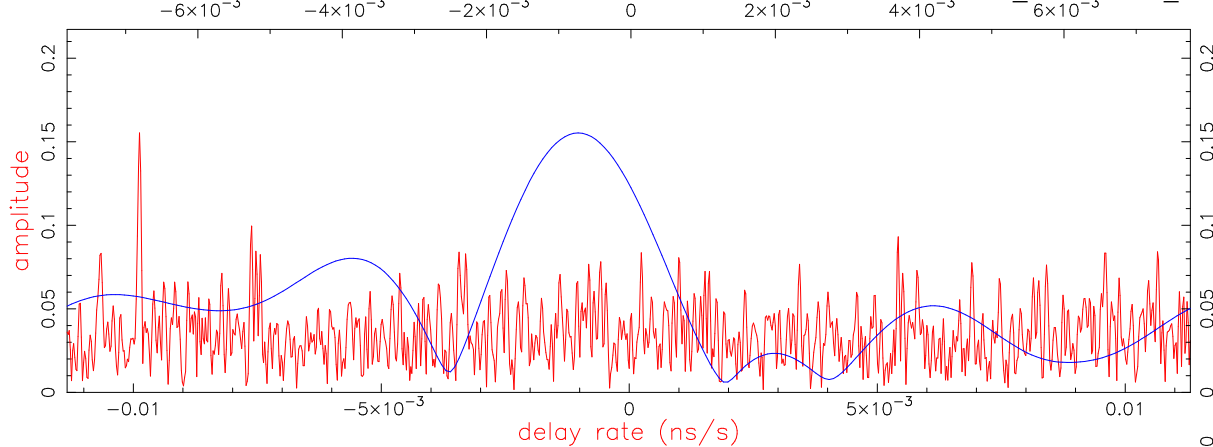
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bf

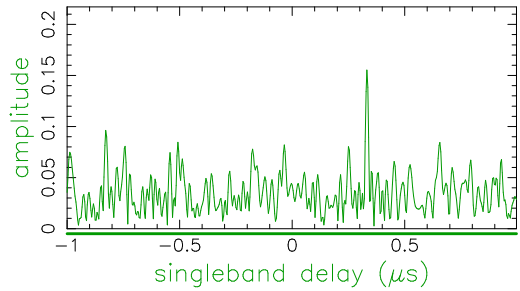
VLBA_BR - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)

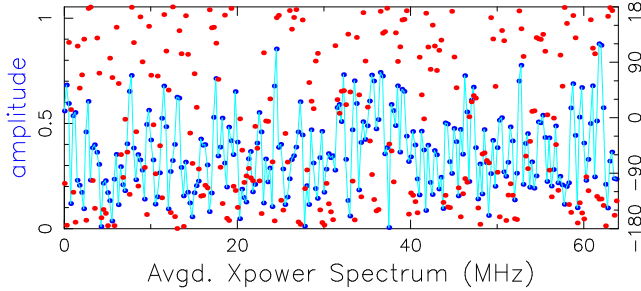


Fringe quality 0

SNR 5.7
 Int time 179.990
 Amp 0.217
 Phase 66.8
 PFD 7.8e-01
 Delays (us)
 SBD 0.332274
 MBD -0.000726
 Fringe rate (Hz)
 -0.852197
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

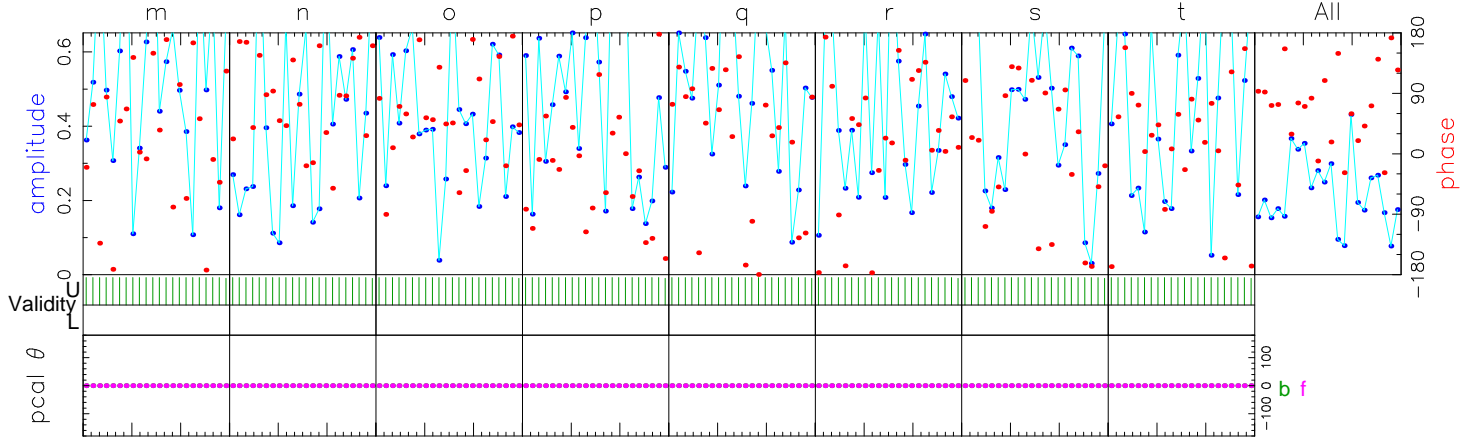


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104946
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
f	0	0	0	0	0	0	0	0		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:f	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		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-7.59678285512E+02	Apriori delay (usec)	-7.60005684318E+02	Resid mbdelay (usec)	-7.26193E-04	+/-	1.9E-04
Sband delay (usec)	-7.59673410568E+02	Apriori clock (usec)	4.5787926E+00	Resid sbdelay (usec)	3.32274E-01	+/-	1.5E-03
Phase delay (usec)	-7.60005682164E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	2.15487E-06	+/-	6.5E-07
Delay rate (us/s)	-2.15410047110E-01	Apriori rate (us/s)	-2.15400153949E-01	Resid rate (us/s)	-9.89316E-06	+/-	6.2E-09
Total phase (deg)	-166.2	Apriori accel (us/s/s)	2.01152963062E-05	Resid phase (deg)	66.8	+/-	20.1

ph/seg (deg)	56.0	Theor.	47.2	Amplitude	0.217 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.0	Search (1024X32)	0.152	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	37.2	Inc. seg. avg.	0.232	Inc. frq. avg.	0.228	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.5	Inc. frq. avg.	0.228			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 f: az 60.7 el 26.7 pa -70.6 u,v (fr/asec) 1569.632 2848.692 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bf..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bf.W.23.3MP1N1

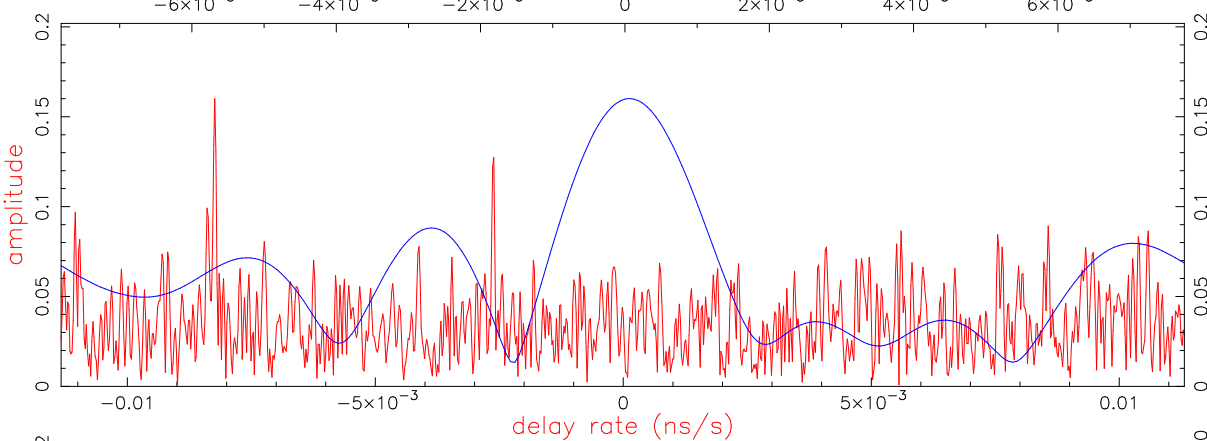
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bf

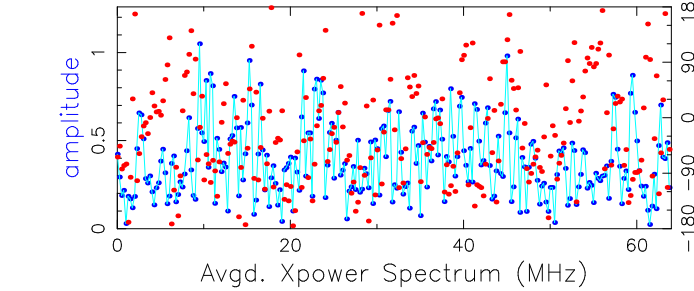
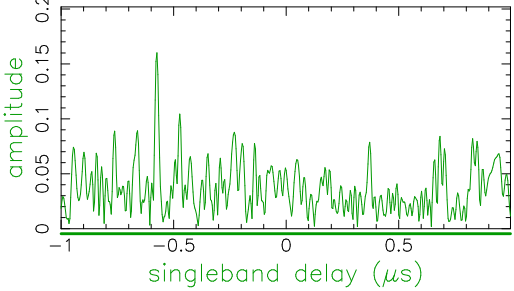
VLBA_BR - VLBA_FD, fgroup W, pol RR

multiband delay (μ s)



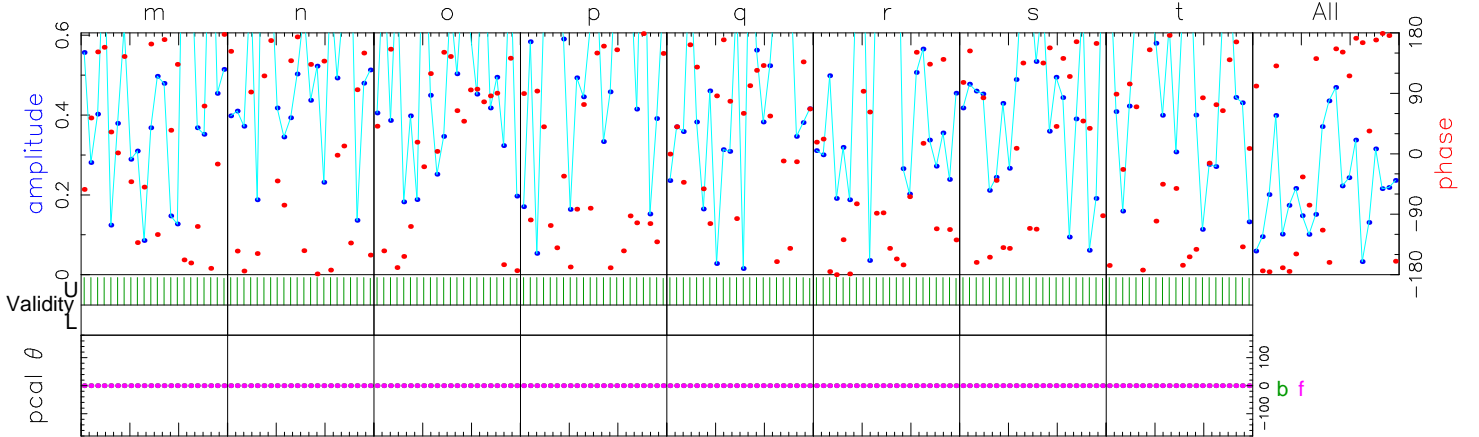
Fringe quality 0

SNR 5.9
 Int time 179.990
 Amp 0.202
 Phase 175.6
 PFD 3.7e-01
 Delays (us)
 SBD -0.575137
 MBD 0.000029
 Fringe rate (Hz)
 -0.709870
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104942
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-170.0	168.7	111.9	-147.0	134.2	-138.7	163.2	169.6	Phase	175.6
	0.3	0.3	0.3	0.3	0.1	0.2	0.2	0.3	Ampl.	0.2
	182.1	192.7	466.8	111.7	319.4	363.1	223.2	467.9	Sbd box	109.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-7.60583780632E+02	Apriori delay (usec)	-7.60005684318E+02	Resid mbdelay (usec)	2.86865E-05	+/-	1.8E-04
Sband delay (usec)	-7.60580821068E+02	Apriori clock (usec)	4.5787926E+00	Resid sbdelay (usec)	-5.75137E-01	+/-	1.5E-03
Phase delay (usec)	-7.60005678655E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	5.66353E-06	+/-	6.3E-07
Delay rate (us/s)	-2.15408394837E-01	Apriori rate (us/s)	-2.15400153949E-01	Resid rate (us/s)	-8.24089E-06	+/-	6.0E-09
Total phase (deg)	-57.4	Apriori accel (us/s/s)	2.01152963062E-05	Resid phase (deg)	175.6	+/-	19.4

ph/seg (deg)	58.7	Theor.	45.5	Amplitude	0.202 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	83.1	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	40.2	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.6	Inc. seg. avg.	0.211	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.217	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 f: az 60.7 el 26.7 pa -70.6 u,v (fr/asec) 1569.632 2848.692 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bf..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bf.W.7.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

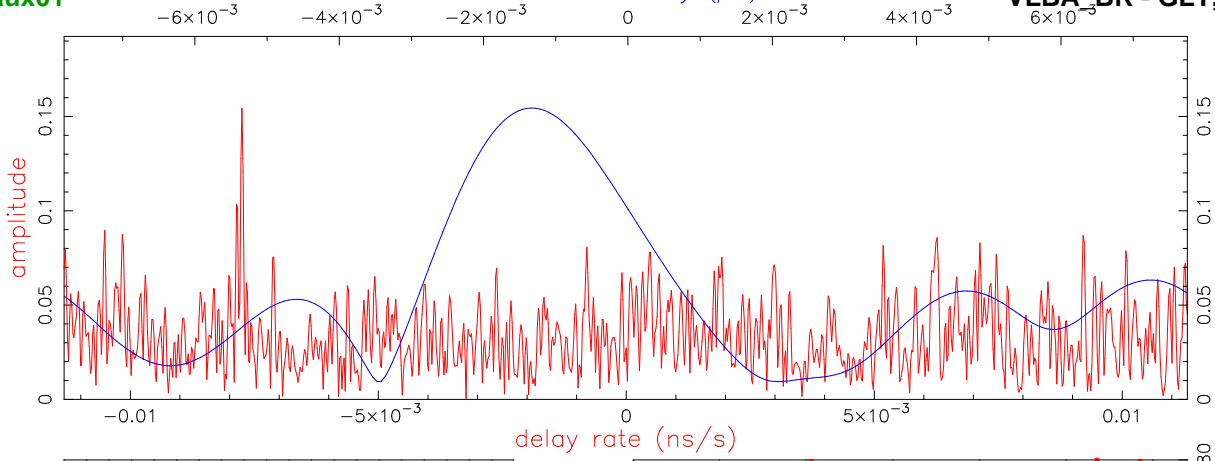
aux01

2013+370.3MP1N1, No0280, bg

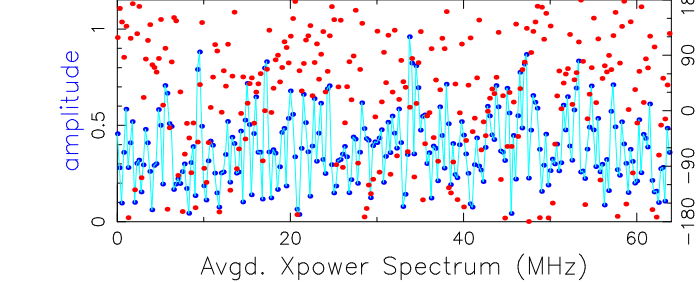
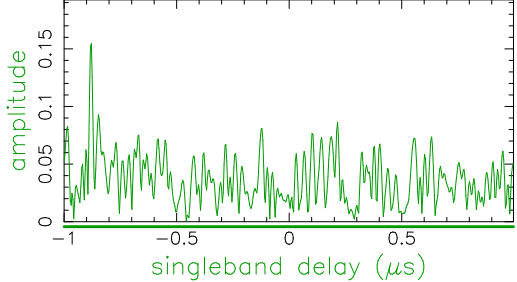
VLBA_BR - GLT, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

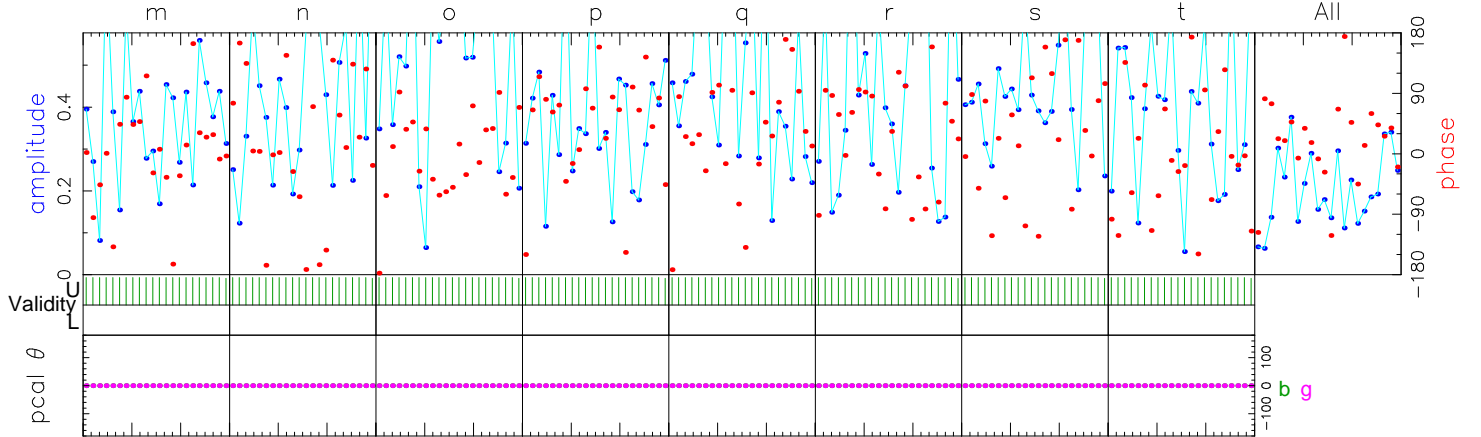


SNR 5.8
 Int time 179.985
 Amp 0.192
 Phase 27.3
 PFD 6.2e-01
 Delays (us)
 SBD -0.880557
 MBD -0.001386
 Fringe rate (Hz)
 -0.669205
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104944
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec) (SBD)	-6.54272166811E+03									
Sband delay (usec)	-6.54272583952E+03									
Phase delay (usec)	-6.54184528115E+03									
Delay rate (us/s)	6.29265814553E-01									
Total phase (deg)			-186.4							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 62.9 46.5 Search (1024X32) 0.153 Pcal period (AP's) 5, 5
 amp/seg (%) 63.3 81.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.9 28.1 Inc. seg. avg. 0.188 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.3 49.0 Inc. frq. avg. 0.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 g: az 128.2 el 46.4 pa -13.2 u,v (fr/asec) -4515.967 -436.651 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/c241c/v2/3mm/1234/No0280/bg..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bg.W.16.3MP1N1

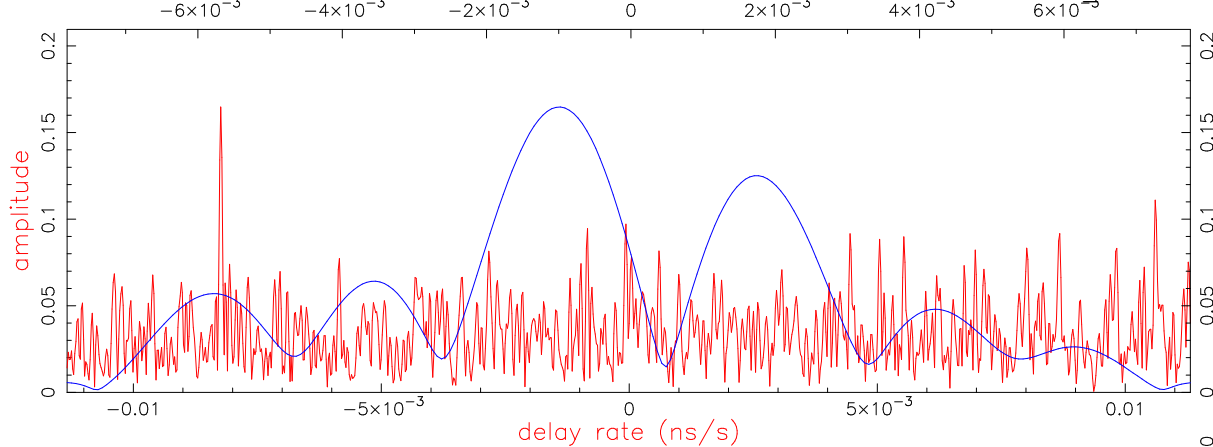
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bg

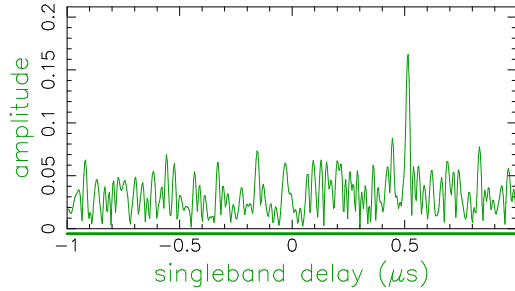
VLBA_BR - GLT, fgroup W, pol RL

multiband delay (μ s)

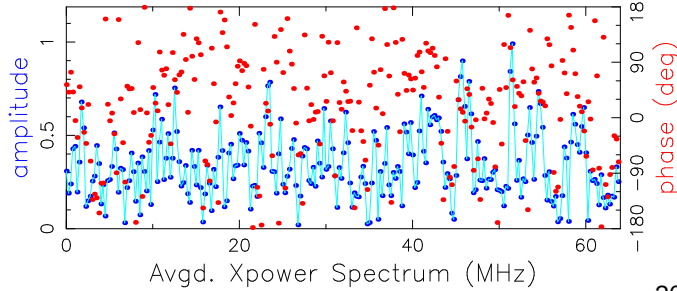


Fringe quality 0

SNR 6.1
 Int time 179.985
 Amp 0.210
 Phase -137.8
 PFD 1.2e-01
 Delays (us)
 SBD 0.514126
 MBD -0.001005
 Fringe rate (Hz)
 -0.710770
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

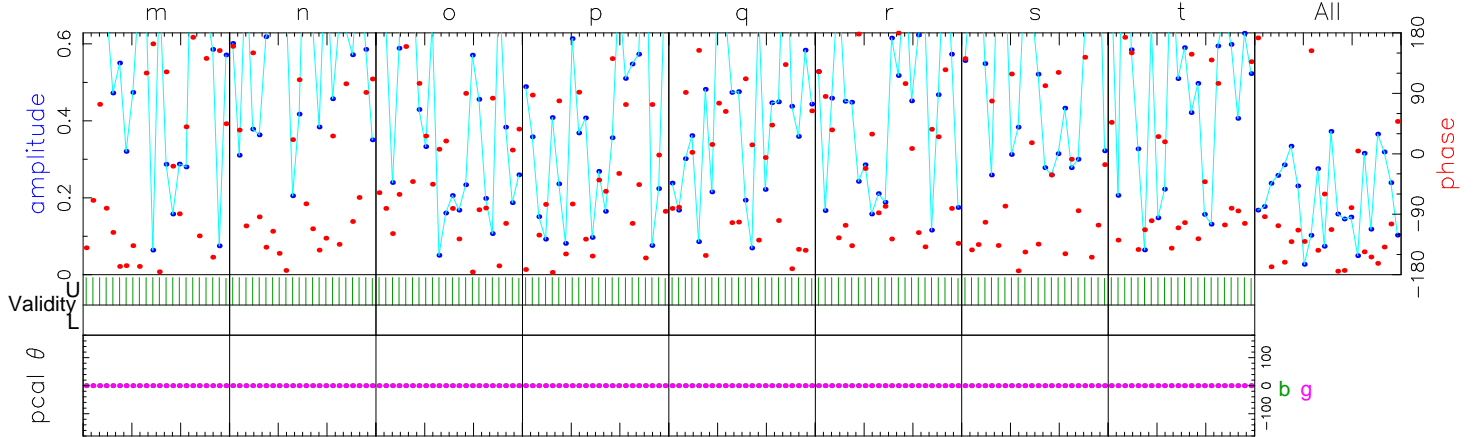


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104948
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.7	-132.2	-89.3	-106.4	168.6	-148.3	-138.0	-141.0	Phase	-137.8
	0.3	0.3	0.2	0.1	0.1	0.1	0.4	0.3	Ampl.	0.2
	371.3	388.6	152.1	510.7	280.8	122.4	388.1	487.5	Sbd box	388.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.54133066211E+03	Apriori delay (usec)	-6.54184528202E+03	Resid mbdelay (usec)	-1.00508E-03	+/-	1.8E-04
Sband delay (usec)	-6.54133115652E+03	Apriori clock (usec)	4.1948624E+00	Resid sbdelay (usec)	5.14126E-01	+/-	1.4E-03
Phase delay (usec)	-6.54184528647E+03	Apriori clockrate (us/s)	-2.0792005E-07	Resid phdelay (usec)	-4.44387E-06	+/-	6.0E-07
Delay rate (us/s)	6.29265332026E-01	Apriori rate (us/s)	6.29273583358E-01	Resid rate (us/s)	-8.25133E-06	+/-	5.8E-09
Total phase (deg)	-351.5	Apriori accel (us/s/s)	1.91953343096E-05	Resid phase (deg)	-137.8	+/-	18.7

ph/seg (deg)	59.1	Theor.	43.9	Amplitude	0.210 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.8		76.6	Search (1024X32)	0.155	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.4		26.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.3		46.2	Inc. seg. avg.	0.199	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.203	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 g: az 128.2 el 46.4 pa -13.2 u,v (fr/asec) -4515.967 -436.651 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bg..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bg.W.24.3MP1N1

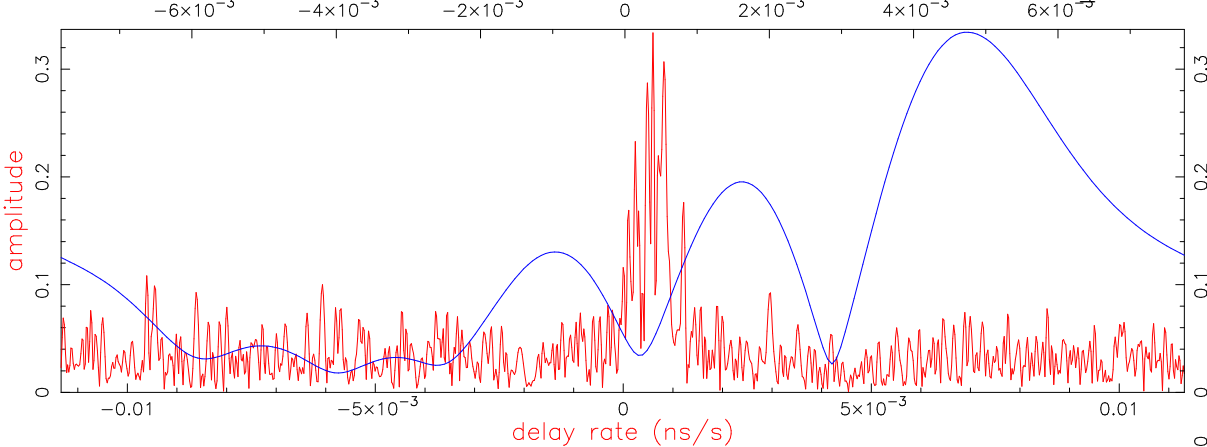
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bg

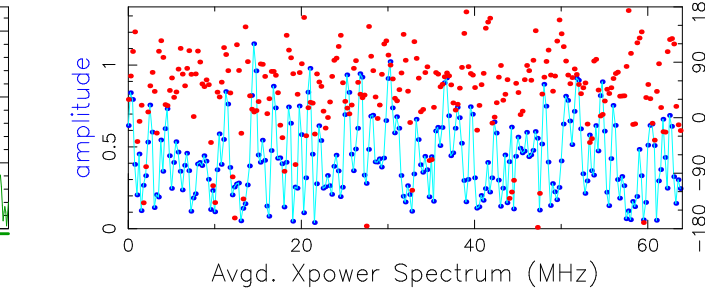
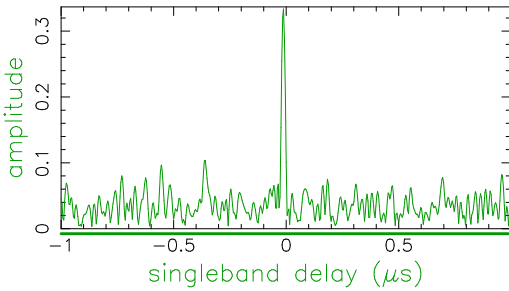
VLBA_BR - GLT, fgroup W, pol LL

multiband delay (μ s)



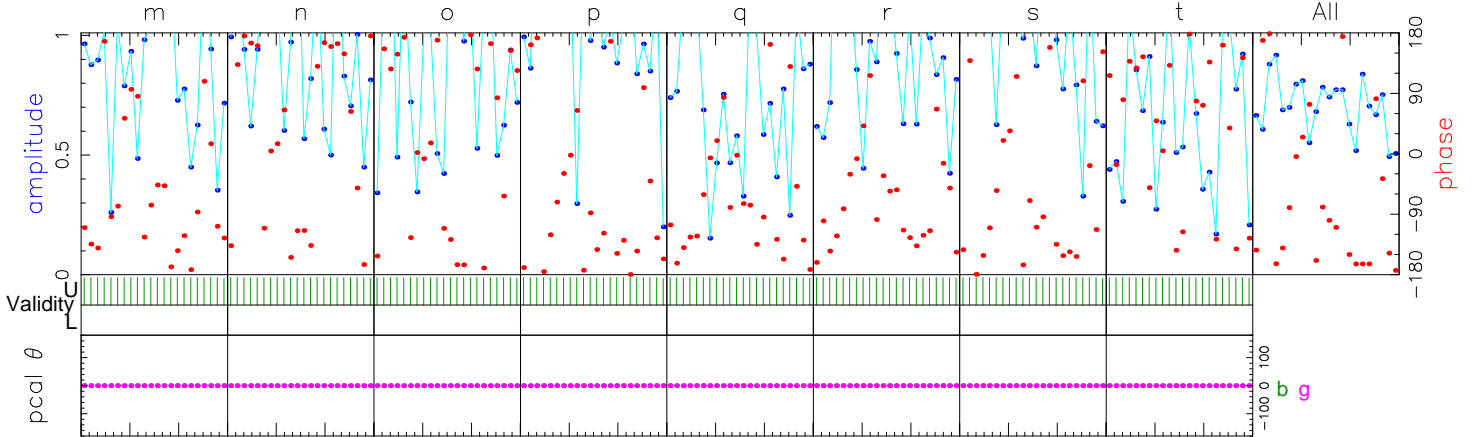
Fringe quality 9

SNR 12.3
 Int time 179.985
 Amp 0.337
 Phase -144.7
 PFD 1.3e-26
 Delays (us)
 SBD -0.012913
 MBD 0.004659
 Fringe rate (Hz) 0.052353
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104940
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.7	-175.6	173.8	-141.6	-116.7	-86.9	-143.3	136.7	Phase	-144.7
	0.3	0.4	0.5	0.5	0.4	0.5	0.4	0.3	Ampl.	0.4
	252.1	253.6	253.8	254.5	254.5	254.1	253.3	250.7	Sbd box	253.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.54185624818E+03	Apriori delay (usec)	-6.54184528202E+03	Resid mbdelay (usec)	4.65884E-03	+/-	8.8E-05
Sband delay (usec)	-6.54185819552E+03	Apriori clock (usec)	4.1948624E+00	Resid sbdelay (usec)	-1.29135E-02	+/-	7.0E-04
Phase delay (usec)	-6.54184528669E+03	Apriori clockrate (us/s)	-2.0792005E-07	Resid phdelay (usec)	-4.66582E-06	+/-	3.0E-07
Delay rate (us/s)	6.29274191122E-01	Apriori rate (us/s)	6.29273583358E-01	Resid rate (us/s)	6.07764E-07	+/-	2.9E-09
Total phase (deg)	-358.4	Apriori accel (us/s/s)	1.91953343096E-05	Resid phase (deg)	-144.7	+/-	9.3

ph/seg (deg)	73.1	Theor.	21.8	Amplitude	0.337 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	114.4	Search (1024X32)	0.316	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	47.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	37.0	Inc. seg. avg.	0.657	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.414	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 g: az 128.2 el 46.4 pa -13.2 u,v (fr/asec) -4515.967 -436.651 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bg..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bg.W.4.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

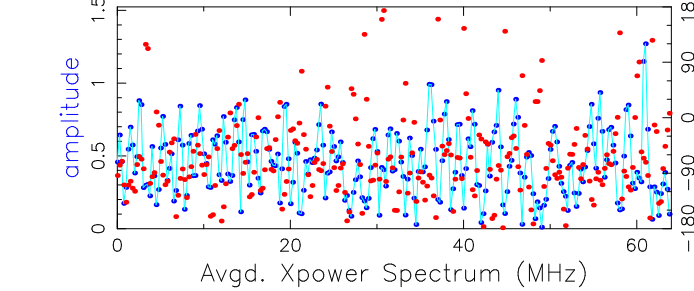
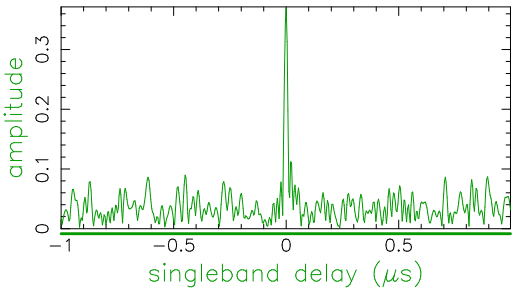
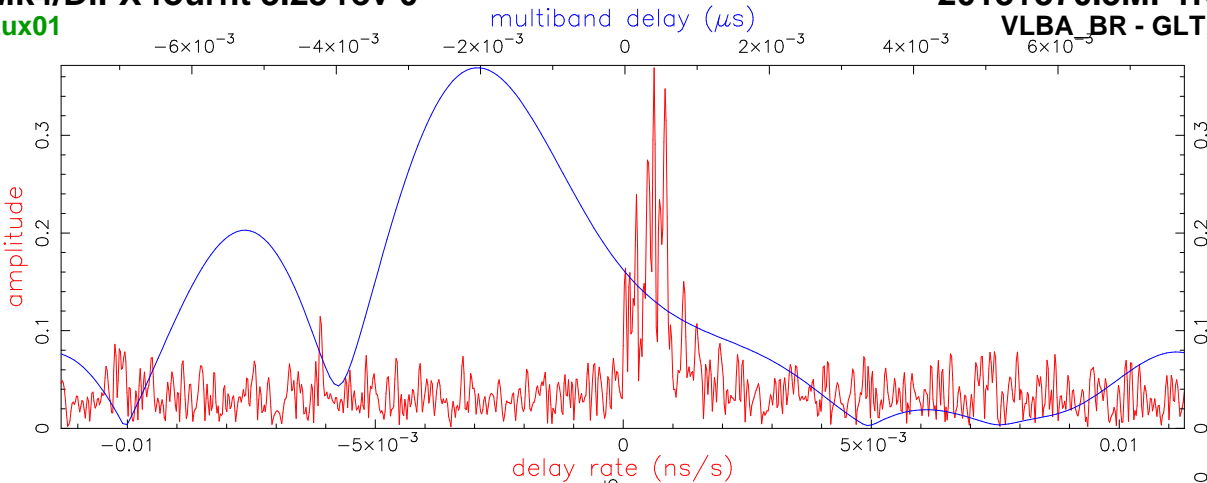
aux01

2013+370.3MP1N1, No0280, bg

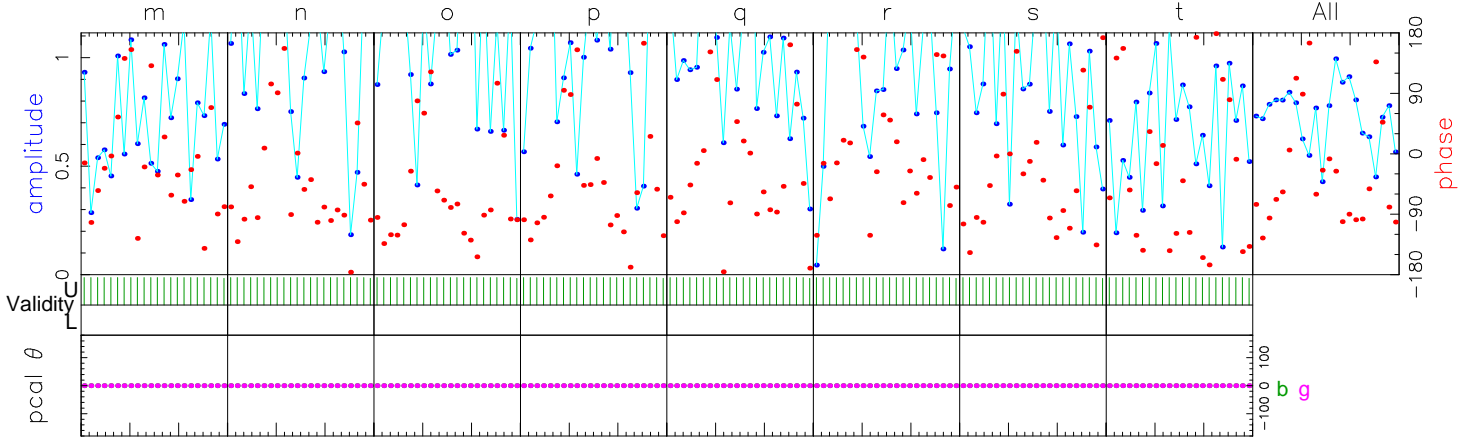
VLBA_BR - GLT, fgroup W, pol RR

Fringe quality 9

SNR 13.6
 Int time 179.985
 Amp 0.372
 Phase -67.3
 PFD 9.3e-34
 Delays (us)
 SBD -0.000901
 MBD -0.002075
 Fringe rate (Hz) 0.052621
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104942
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-26.6	-78.5	-100.0	-75.8	-39.7	-19.2	-71.8	-120.5	Phase	-67.3
	0.3	0.5	0.6	0.6	0.4	0.5	0.3	0.2	Ampl.	0.4
	254.3	256.6	256.4	256.8	257.1	257.0	256.0	253.7	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-6.54184735751E+03		Apriori delay (usec)		-6.54184528202E+03		Resid mbdelay (usec)		-2.07548E-03	+/- 8.0E-05
Sband delay (usec)	-6.54184618327E+03		Apriori clock (usec)		4.1948624E+00		Resid sbdelay (usec)		-9.01250E-04	+/- 6.3E-04
Phase delay (usec)	-6.54184528420E+03		Apriori clockrate (us/s)		-2.0792005E-07		Resid phdelay (usec)		-2.17115E-06	+/- 2.7E-07
Delay rate (us/s)	6.29274194238E-01		Apriori rate (us/s)		6.29273583358E-01		Resid rate (us/s)		6.10880E-07	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		1.91953343096E-05		Resid phase (deg)		-67.3	+/- 8.4

ph/seg (deg) RMS Theor. Amplitude 0.372 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 77.6 19.7 Search (1024X32) 0.354 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 103.5 34.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.4 11.9 Inc. seg. avg. 0.689 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.1 20.8 Inc. frq. avg. 0.419 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 60.8 el 24.5 pa -47.2 g: az 128.2 el 46.4 pa -13.2 u,v (fr/asec) -4515.967 -436.651 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bg..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bg.W.9.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

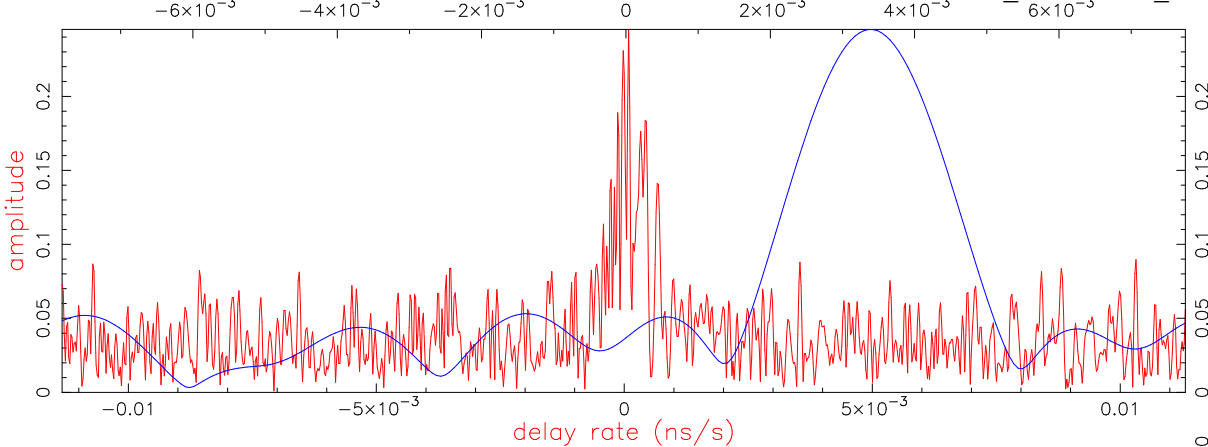
aux01

2013+370.3MP1N1, No0280, bk

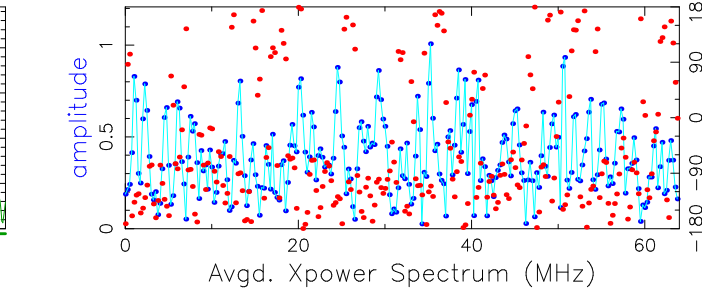
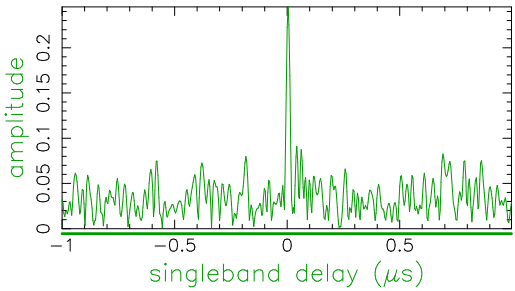
VLBA_BR - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

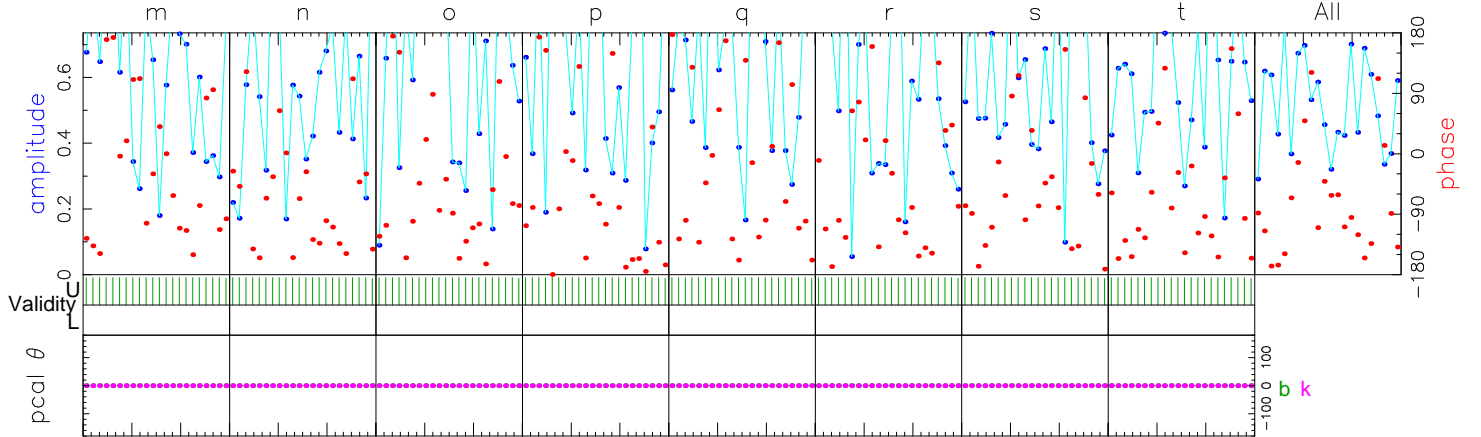


SNR 9.0
 Int time 179.991
 Amp 0.245
 Phase -113.4
 PFD 4.4e-11
 Delays (us)
 SBD 0.004016
 MBD 0.003391
 Fringe rate (Hz) 0.006802
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104943
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-111.0	-109.9	-96.1	-131.6	-122.5	-108.1	-97.3	-117.6	Phase	-113.4
	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	Ampl.	0.2
	257.0	69.0	169.2	257.3	258.6	480.0	184.6	258.5	Sbd box	258.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.32614336590E+02	Apriori delay (usec)	9.32610945954E+02	Resid mbdelay (usec)	3.39064E-03	+/-	1.2E-04
Sband delay (usec)	9.32614961954E+02	Apriori clock (usec)	4.4835548E+00	Resid sbdelay (usec)	4.01600E-03	+/-	9.6E-04
Phase delay (usec)	9.32610942298E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	-3.65591E-06	+/-	4.1E-07
Delay rate (us/s)	-2.21514879374E-01	Apriori rate (us/s)	-2.21514958338E-01	Resid rate (us/s)	7.89645E-08	+/-	3.9E-09
Total phase (deg)	205.0	Apriori accel (us/s/s)	9.76857733739E-06	Resid phase (deg)	-113.4	+/-	12.7

ph/seg (deg)	70.9	Theor.	29.9	Amplitude	0.245 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	124.9	Search (1024X32)	0.235	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	13.2	Inc. seg. avg.	0.457	Inc. frq. avg.	0.239	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	16.6	Inc. frq. avg.	0.239			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 k: az 58.7 el 21.7 pa -65.8 u, v (fr/asec) 1605.105 2091.474 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bk..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bk.W.10.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

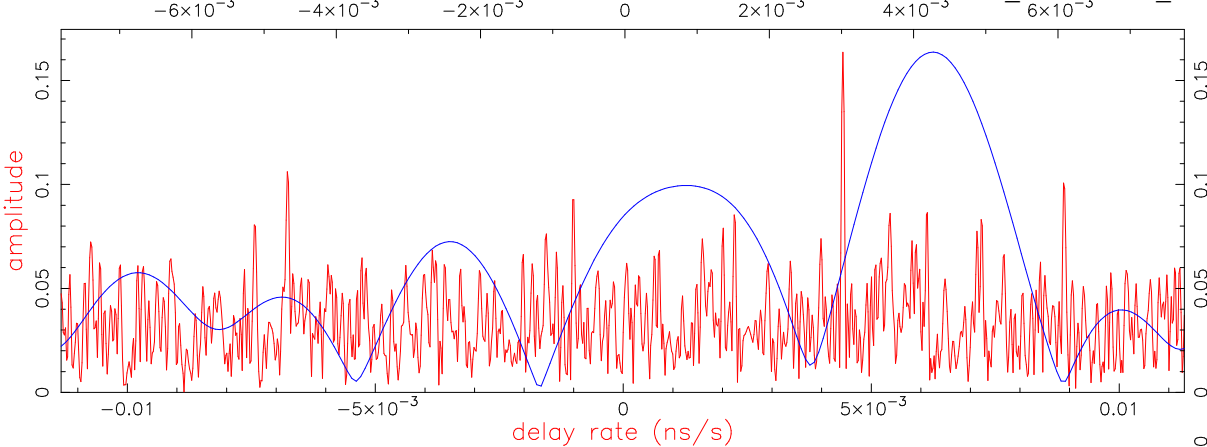
aux01

2013+370.3MP1N1, No0280, bk

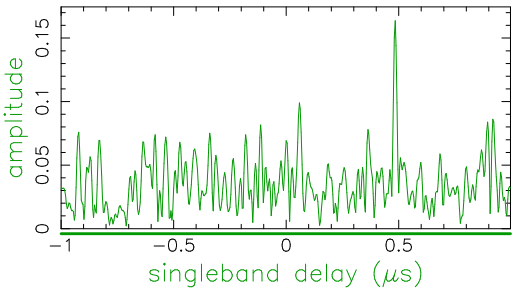
VLBA_BR - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

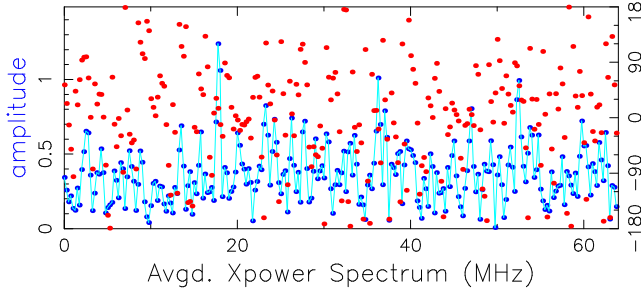
Fringe quality 0



SNR 6.0
 Int time 179.991
 Amp 0.175
 Phase 149.2
 PFD 2.1e-01
 Delays (us)
 SBD 0.483974
 MBD 0.004245
 Fringe rate (Hz)
 0.382017
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

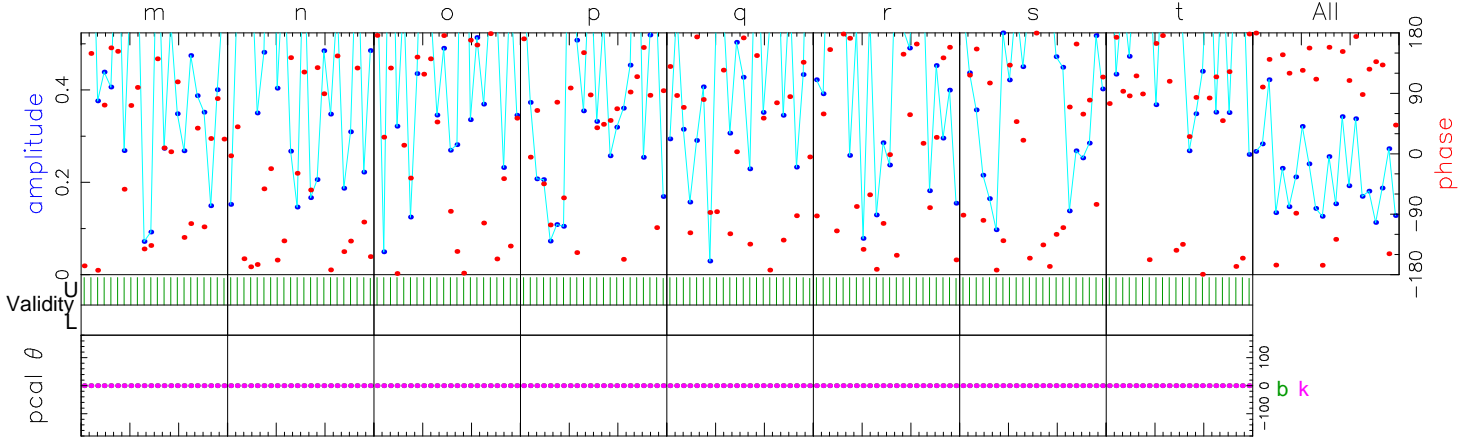


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104944
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	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	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.33099565821E+02	Apriori delay (usec)	9.32610945954E+02	Resid mbdelay (usec)	4.24487E-03	+/-	1.8E-04
Sband delay (usec)	9.33094920204E+02	Apriori clock (usec)	4.4835548E+00	Resid sbdelay (usec)	4.83974E-01	+/-	1.4E-03
Phase delay (usec)	9.32610950765E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	4.81143E-06	+/-	6.1E-07
Delay rate (us/s)	-2.21510523500E-01	Apriori rate (us/s)	-2.21514958338E-01	Resid rate (us/s)	4.43484E-06	+/-	5.9E-09
Total phase (deg)	107.6	Apriori accel (us/s/s)	9.76857733739E-06	Resid phase (deg)	149.2	+/-	19.1

ph/seg (deg)	49.8	RMS	44.7	Theor.	44.7	Amplitude	0.175 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	61.1	Search (1024X32)	0.160	Search (1024X32)	0.160	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	39.4	Inc. seg. avg.	0.181	Inc. seg. avg.	0.181	Inc. frq. avg.	0.184	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	43.6	Inc. frq. avg.	0.184	Inc. frq. avg.	0.184	Inc. frq. avg.	0.184	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
								Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
									ion window (TEC) 0.00 0.00

b: az 60.8 el 24.5 pa -47.2 k: az 58.7 el 21.7 pa -65.8 u,v (fr/asec) 1605.105 2091.474 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bk..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bk.W.17.3MP1N1

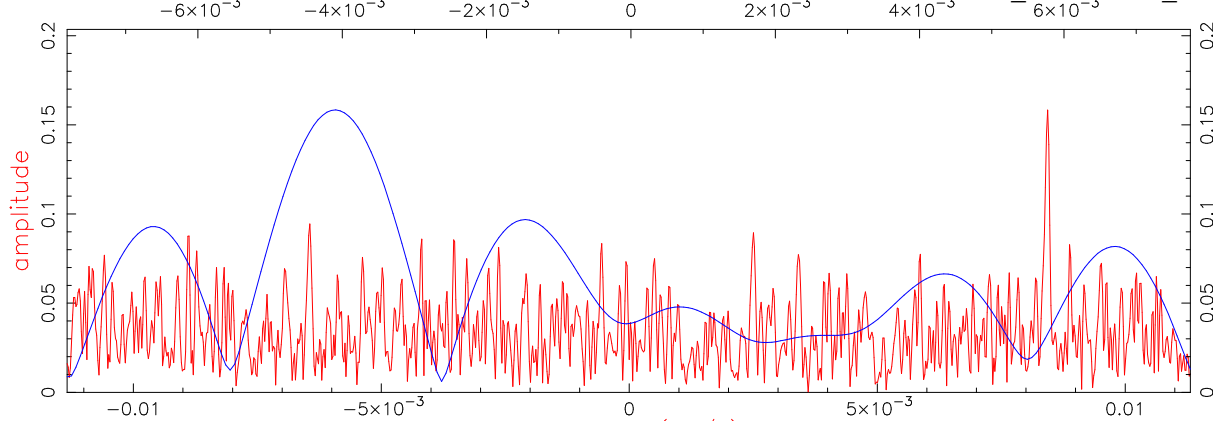
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bk

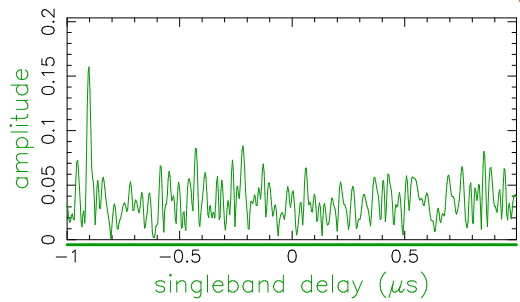
VLBA_BR - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)

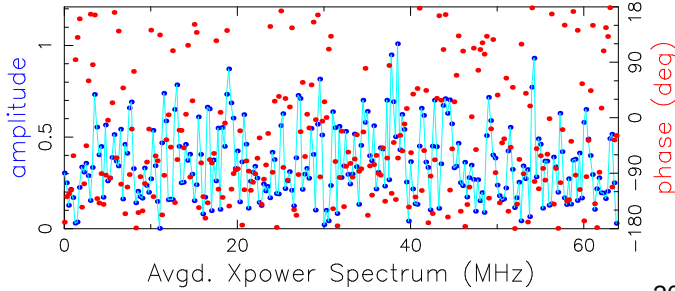


Fringe quality 0

SNR 5.9
 Int time 179.991
 Amp 0.204
 Phase -21.4
 PFD 4.2e-01
 Delays (us)
 SBD -0.903710
 MBD -0.004116
 Fringe rate (Hz) 0.728349
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

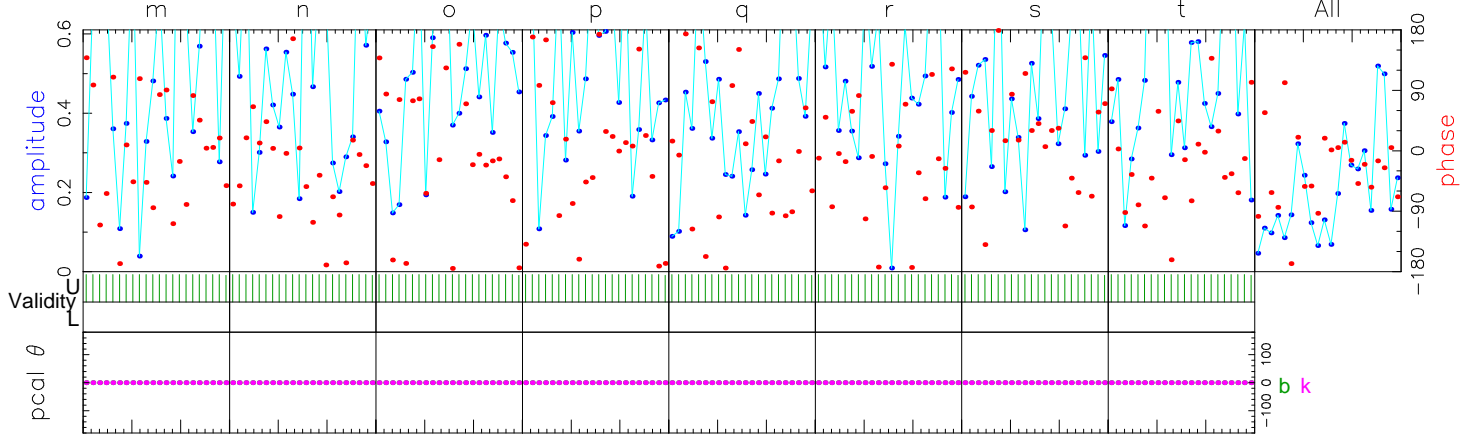


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104949
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-14.2	-34.9	43.0	-43.2	-92.5	-15.7	10.2	-22.8	Phase	-21.4
	0.3	0.4	0.1	0.1	0.1	0.2	0.2	0.4	Ampl.	0.2
	25.0	25.7	403.7	466.1	189.8	484.3	401.1	25.7	Sbd box	25.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.31700579639E+02	Apriori delay (usec)	9.32610945954E+02	Resid mbdelay (usec)	-4.11631E-03	+/-	1.8E-04
Sband delay (usec)	9.31707235954E+02	Apriori clock (usec)	4.4835548E+00	Resid sbdelay (usec)	-9.03710E-01	+/-	1.5E-03
Phase delay (usec)	9.32610945263E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	-6.91348E-07	+/-	6.3E-07
Delay rate (us/s)	-2.21506502933E-01	Apriori rate (us/s)	-2.21514958338E-01	Resid rate (us/s)	8.45540E-06	+/-	6.0E-09
Total phase (deg)	297.0	Apriori accel (us/s/s)	9.76857733739E-06	Resid phase (deg)	-21.4	+/-	19.5

ph/seg (deg)	57.1	Theor.	45.8	Amplitude	0.204 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	86.2	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	42.7	Inc. seg. avg.	0.200	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	54.4	Inc. frq. avg.	0.205	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
				Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 k: az 58.7 el 21.7 pa -65.8 u,v (fr/asec) 1605.105 2091.474 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bk..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bk.W.28.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

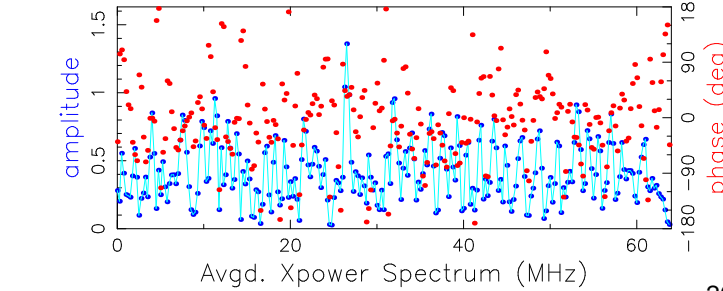
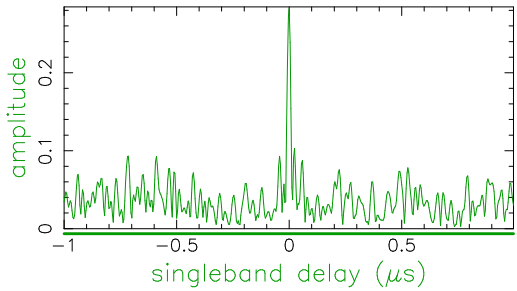
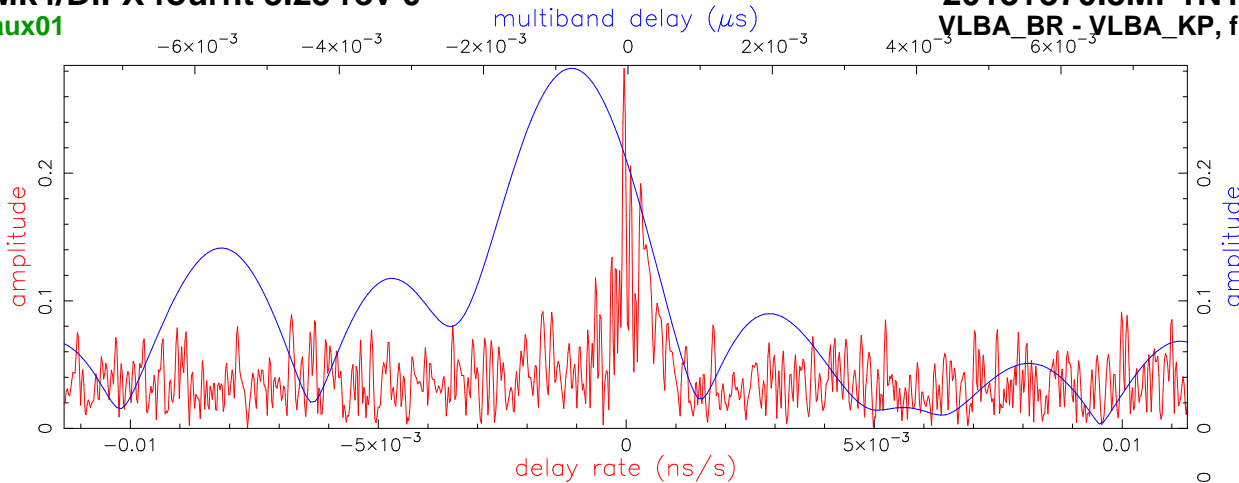
aux01

2013+370.3MP1N1, No0280, bk

VLBA_BR - VLBA_KP, fgroup W, pol LL

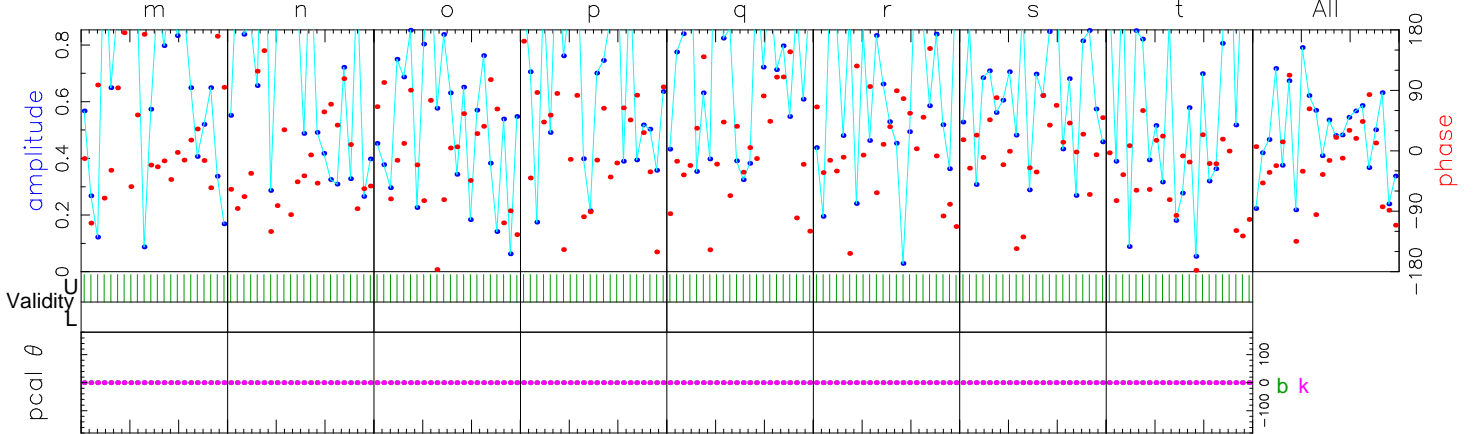
Fringe quality 9

SNR 10.4
 Int time 179.991
 Amp 0.285
 Phase -7.6
 PFD 3.6e-17
 Delays (us)
 SBD -0.001165
 MBD -0.000820
 Fringe rate (Hz)
 -0.004187
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104941
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-18.1	-47.5	18.7	33.9	-8.5	-6.9	11.1	-31.4		-7.6
	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.4		0.3
	256.8	256.0	198.9	256.2	257.4	312.3	256.8	256.7		256.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
k	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: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		1000
k	1000	1000	1000	1000	1000	1000	1000	1000		1000
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	9.32610125636E+02	Apriori delay (usec)	9.32610945954E+02	Resid mbdelay (usec)	-8.20318E-04	+/-	1.0E-04
Sband delay (usec)	9.32609780704E+02	Apriori clock (usec)	4.4835548E+00	Resid sbdelay (usec)	-1.16525E-03	+/-	8.3E-04
Phase delay (usec)	9.32610945710E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	-2.43532E-07	+/-	3.5E-07
Delay rate (us/s)	-2.21515006947E-01	Apriori rate (us/s)	-2.21514958338E-01	Resid rate (us/s)	-4.86085E-08	+/-	3.4E-09
Total phase (deg)	310.9	Apriori accel (us/s/s)	9.76857733739E-06	Resid phase (deg)	-7.6	+/-	11.0

ph/seg (deg)	62.0	Theor.	25.7	Amplitude	0.285 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	89.7		44.9	Search (1024X32)	0.274	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	29.0		15.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.7		27.1	Inc. seg. avg.	0.444	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.299	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 k: az 58.7 el 21.7 pa -65.8 u, v (fr/asec) 1605.105 2091.474 simultaneous interpolator

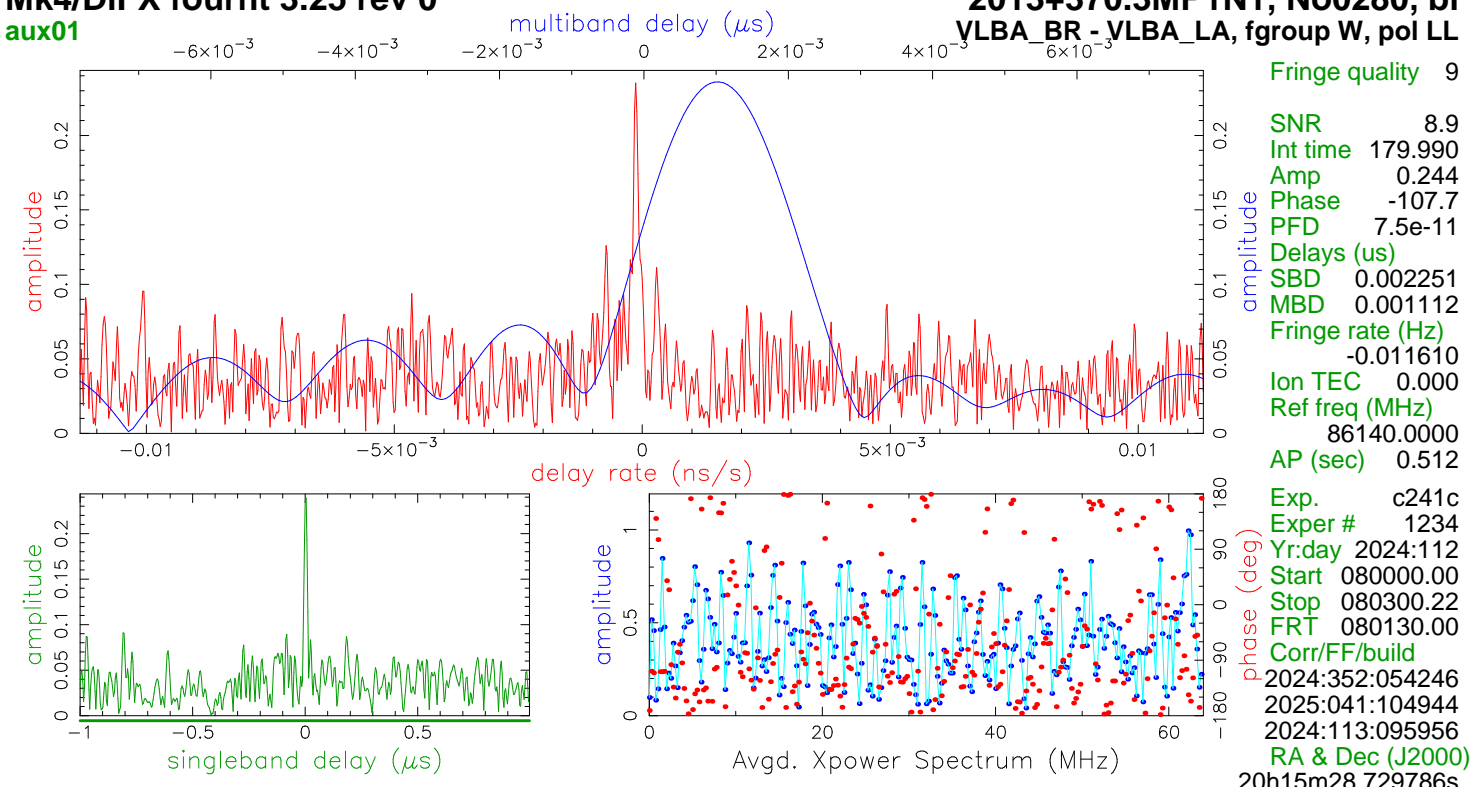
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bk..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bk.W.5.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

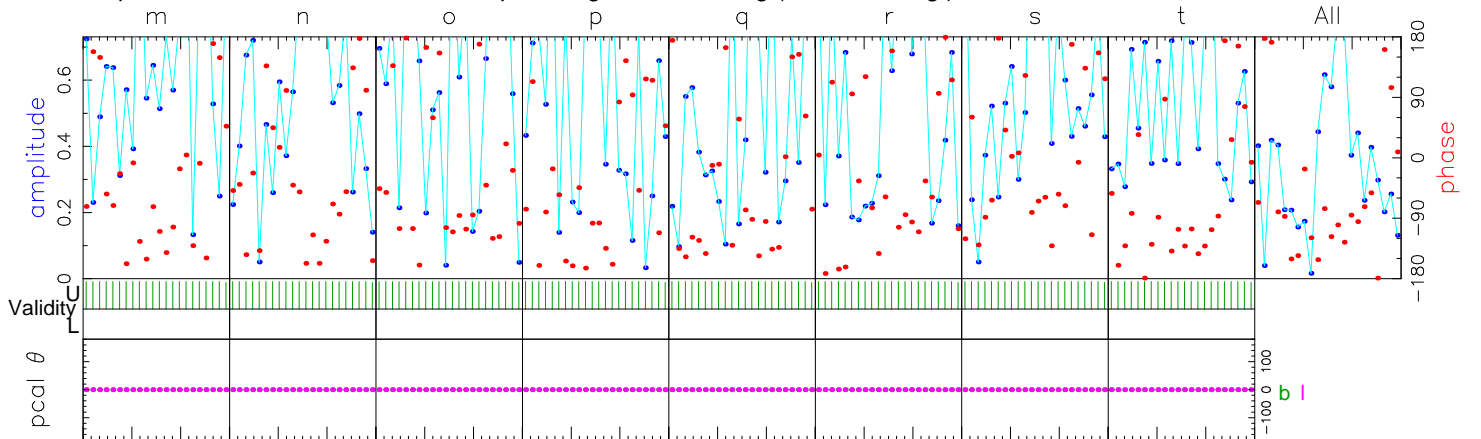
aux01

2013+370.3MP1N1, No0280, bl

VLBA_BR - VLBA_LA, fgroup W, pol LL



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-89.2	-103.3	-106.8	-119.1	-122.3	-109.2	-81.7	-123.5	Phase	-107.7
	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3	Ampl.	0.2
	425.9	155.7	359.4	258.6	257.5	223.0	472.8	258.3	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-9.97546223467E+02	Apriori delay (usec)	-9.97547335544E+02	Resid mbdelay (usec)	1.11208E-03	+/-	1.2E-04
Sband delay (usec)	-9.97545084544E+02	Apriori clock (usec)	1.2943375E+01	Resid sbdelay (usec)	2.25100E-03	+/-	9.6E-04
Phase delay (usec)	-9.97547339018E+02	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	-3.47395E-06	+/-	4.1E-07
Delay rate (us/s)	-1.64121581749E-01	Apriori rate (us/s)	-1.64121446969E-01	Resid rate (us/s)	-1.34780E-07	+/-	4.0E-09
Total phase (deg)	-281.9	Apriori accel (us/s/s)	1.62997323760E-05	Resid phase (deg)	-107.7	+/-	12.8

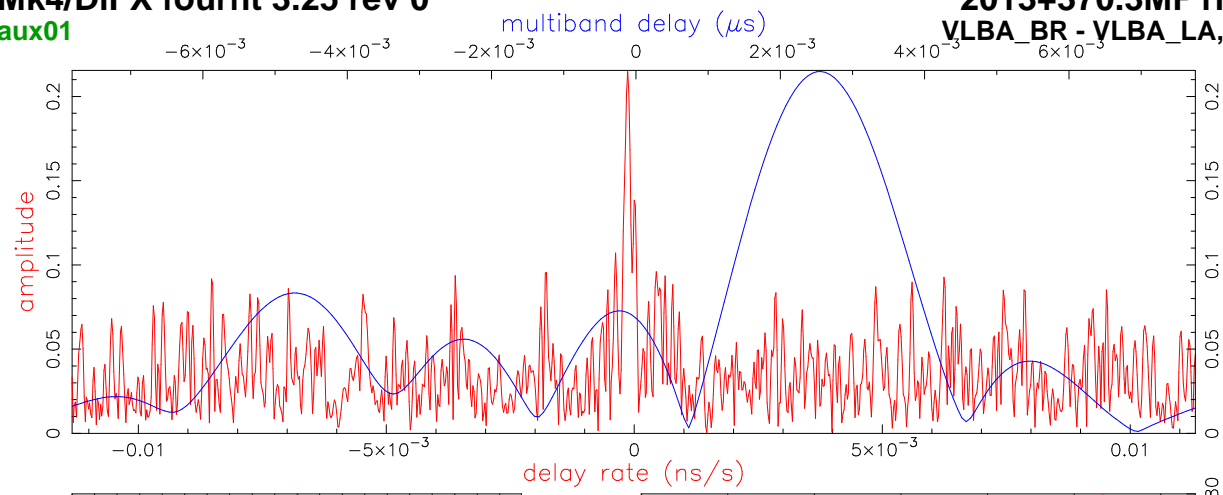
ph/seg (deg)	61.6	Theor.	30.1	Amplitude	0.244 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	94.2		52.5	Search (1024X32)	0.235	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.5		18.1	Inc. seg. avg.	0.302	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	10.6		31.6	Inc. frq. avg.	0.231	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
b: az 60.8 el 24.5 pa -47.2		l: az 62.2 el 27.5 pa -64.5		u, v (fr/asec)	1196.401 2094.166	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/c241c/v2/3mm/1234/No0280/bl..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bl.W.15.3MP1N1					simultaneous interpolator	

Mk4/DiFX fourfit 3.25 rev 0

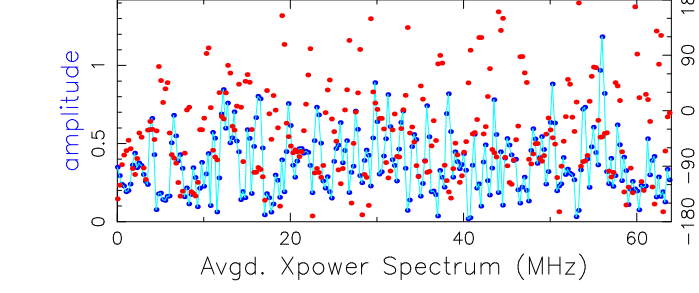
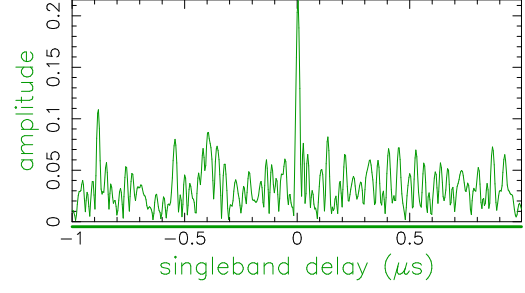
aux01

2013+370.3MP1N1, No0280, bl

VLBA_BR - VLBA_LA, fgroup W, pol RR

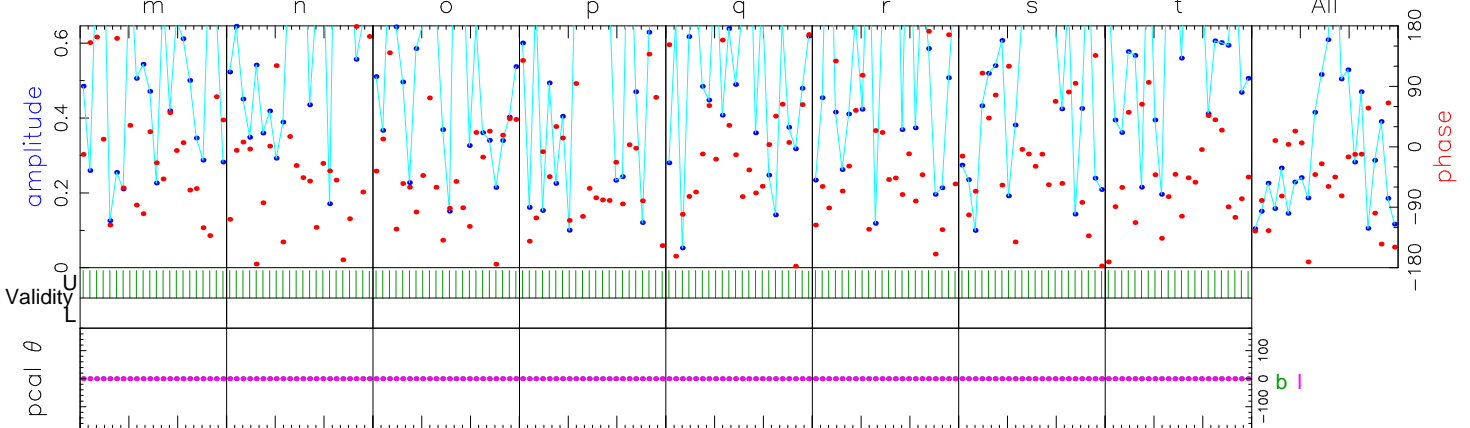


Fringe quality 9
 SNR 7.9
 Int time 179.990
 Amp 0.215
 Phase -45.0
 PFD 4.5e-07
 Delays (us)
 SBD 0.003164
 MBD 0.002521
 Fringe rate (Hz) -0.011273
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104946
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.4	-66.0	-43.2	-59.3	-28.2	-58.2	-12.3	-50.4	Phase	-45.0
	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	256.4	362.3	291.5	126.5	166.6	323.6	415.6	258.1	Sbd box	257.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
l	0	0	0	0	0	0	0	0	PC freqs	
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-9.97544814998E+02		Apriori delay (usec)		-9.97547335544E+02		Resid mbdelay (usec)		2.52055E-03	+/- 1.4E-04
Sband delay (usec)	-9.97544171294E+02		Apriori clock (usec)		1.2943375E+01		Resid sbdelay (usec)		3.16425E-03	+/- 1.1E-03
Phase delay (usec)	-9.97547336994E+02		Apriori clockrate (us/s)		8.1044199E-07		Resid phdelay (usec)		-1.45020E-06	+/- 4.7E-07
Delay rate (us/s)	-1.64121577841E-01		Apriori rate (us/s)		-1.64121446969E-01		Resid rate (us/s)		-1.30872E-07	+/- 4.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.62997323760E-05		Resid phase (deg)		-45.0	+/- 14.5

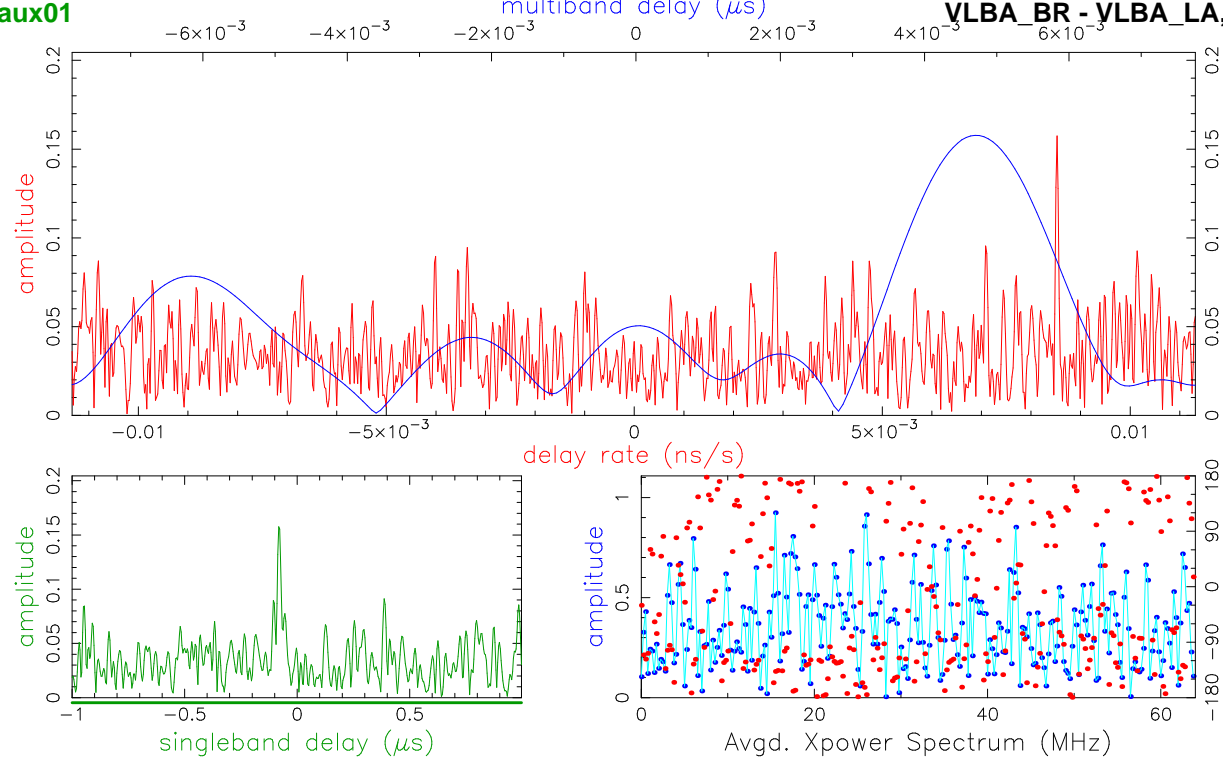
ph/seg (deg) 65.4 34.0 Amplitude 0.215 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 108.7 59.3 Search (1024X32) 0.213 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.6 20.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.2 35.8 Inc. seg. avg. 0.275 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 l: az 62.2 el 27.5 pa -64.5 u,v (fr/asec) 1196.401 2094.166 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bl..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bl.W.22.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

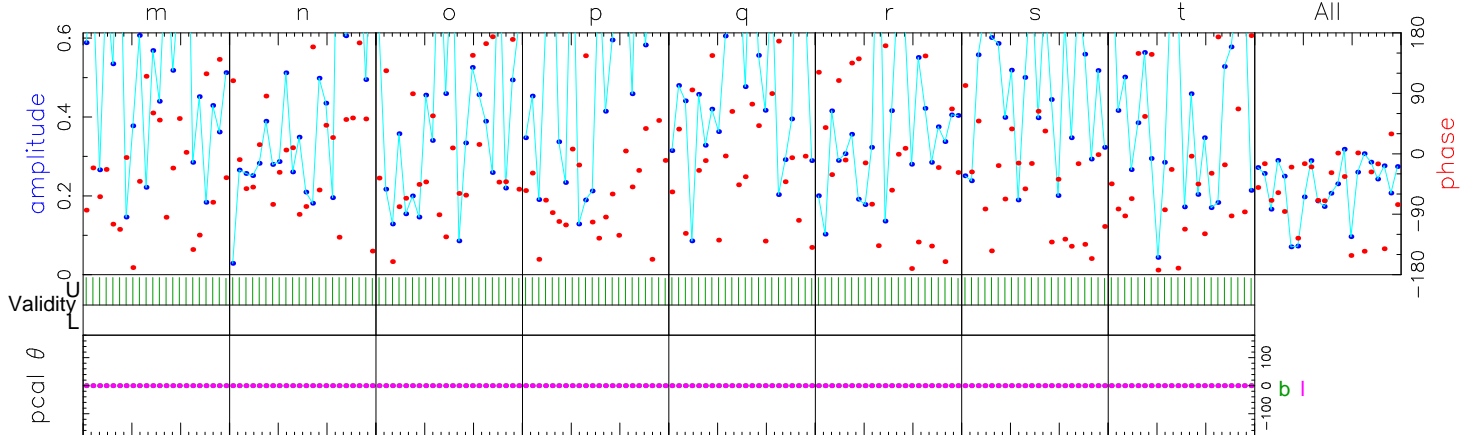
2013+370.3MP1N1, No0280, bl

VLBA_BR - VLBA_LA, fgroup W, pol LR



Fringe quality 0
 SNR 5.9
 Int time 179.990
 Amp 0.204
 Phase -46.3
 PFD 4.3e-01
 Delays (us)
 SBD -0.080397
 MBD 0.004781
 Fringe rate (Hz) 0.736028
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104948
 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



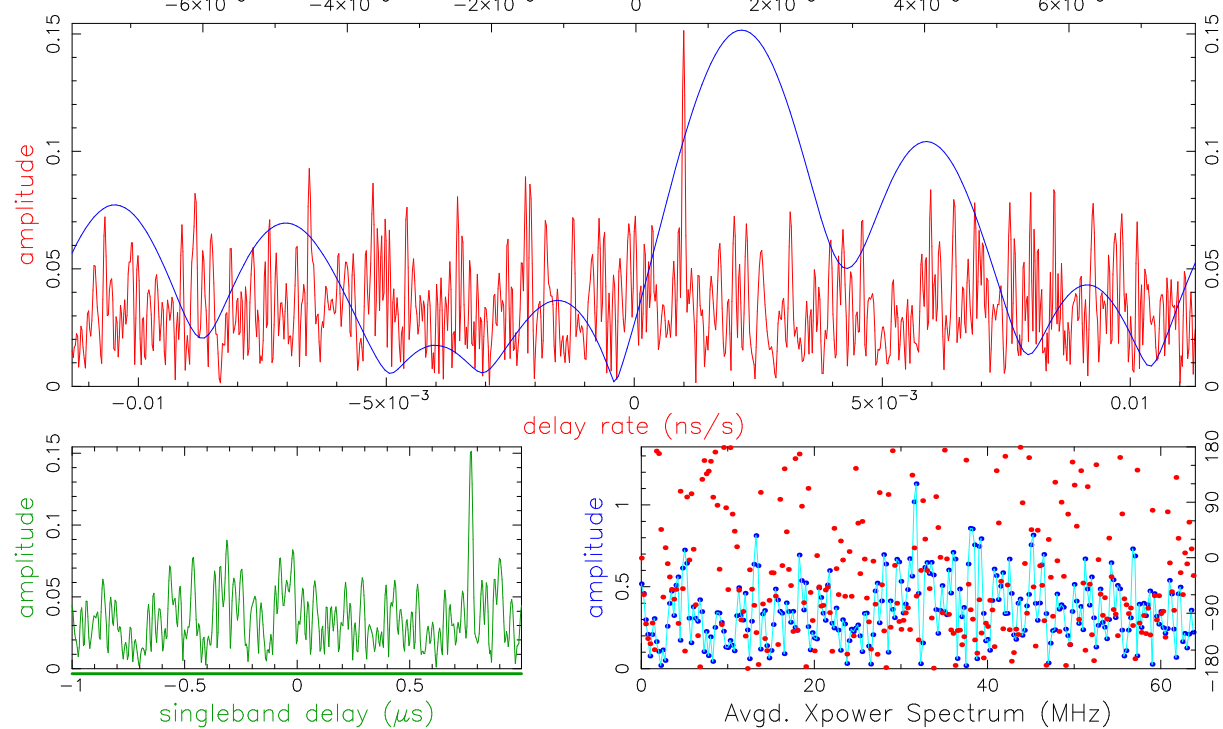
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-45.0	-20.2	-56.0	-54.2	-12.0	-68.6	-43.7	-65.3	Phase	-46.3		
	0.3	0.1	0.2	0.4	0.2	0.1	0.2	0.2	Ampl.	0.2		
	133.9	55.9	165.7	235.9	124.6	322.1	125.3	509.4	Sbd box	236.4		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
b	0	0	0	0	0	0	0	0	PC freqs			
l	0	0	0	0	0	0	0	0	PC freqs			
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:l	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			
l	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec) (SBD)	-9.97620679348E+02		Apriori delay (usec)		-9.97547335544E+02		Resid mbdelay (usec)		4.78120E-03	+/- 1.8E-04		
Sband delay (usec)	-9.97627732044E+02		Apriori clock (usec)		1.2943375E+01		Resid sbdelay (usec)		-8.03965E-02	+/- 1.5E-03		
Phase delay (usec)	-9.97547337038E+02		Apriori clockrate (us/s)		8.1044199E-07		Resid phdelay (usec)		-1.49409E-06	+/- 6.3E-07		
Delay rate (us/s)	-1.64112902419E-01		Apriori rate (us/s)		-1.64121446969E-01		Resid rate (us/s)		8.54455E-06	+/- 6.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		1.62997323760E-05		Resid phase (deg)		-46.3	+/- 19.5		
	RMS	Theor.	Amplitude	0.204 +/- 0.035		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	50.3	45.8	Search (1024X32)	0.156		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	59.8	79.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	21.9	27.6	Inc. seg. avg.	0.217		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	45.0	48.2	Inc. frq. avg.	0.188		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
b: az 60.8 el 24.5 pa -47.2	l: az 62.2 el 27.5 pa -64.5		u, v (fr/asec) 1196.401 2094.166						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bl..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bl.W.27.3MP1N1									

Mk4/DiFX fourfit 3.25 rev 0

aux01

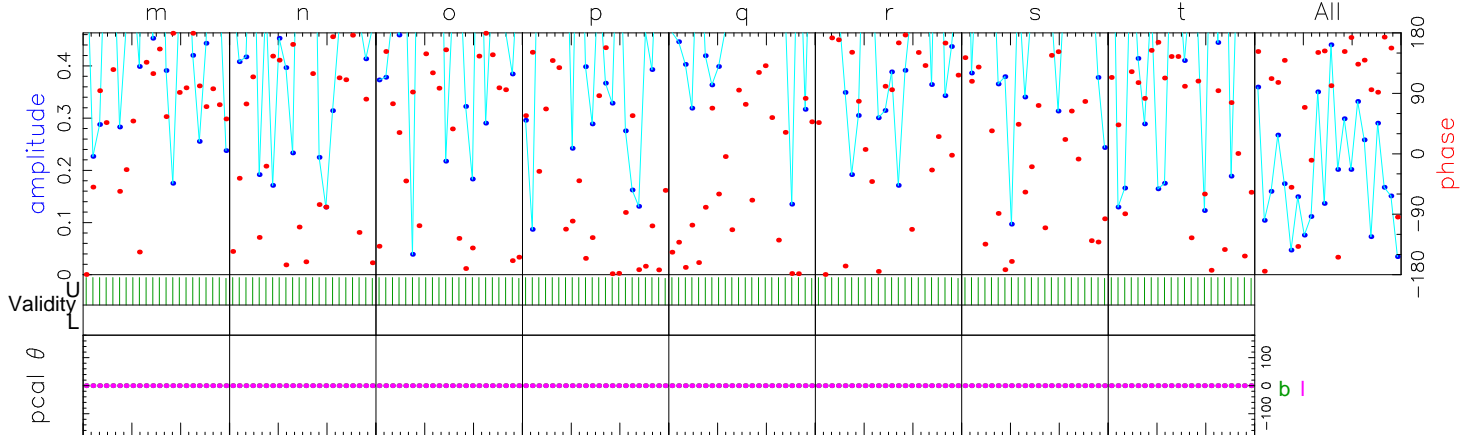
2013+370.3MP1N1, No0280, bl

VLBA_BR - VLBA_LA, fgroup W, pol RL



Fringe quality 0
 SNR 5.6
 Int time 179.990
 Amp 0.154
 Phase 139.7
 PFD 8.6e-01
 Delays (us)
 SBD 0.771629
 MBD 0.001404
 Fringe rate (Hz) 0.085119
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104952
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0	Phase	139.7
l	0	0	0	0	0	0	0	0	Ampl.	0.2
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	454.5
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	-9.96780306810E+02				-9.97547335544E+02				1.40373E-03	+/- 1.9E-04
Sband delay (usec)	-9.96775706294E+02				1.2943375E+01				7.71629E-01	+/- 1.5E-03
Phase delay (usec)	-9.97547331040E+02				8.1044199E-07				4.50429E-06	+/- 6.5E-07
Delay rate (us/s)	-1.64120458827E-01				-1.64121446969E-01				9.88142E-07	+/- 6.3E-09
Total phase (deg)			-34.5		1.62997323760E-05				139.7	+/- 20.3
	RMS	Theor.	Amplitude	0.154 +/- 0.027	PCal mode: MANUAL, MANUAL				PC period (AP's) 5, 5	
ph/seg (deg)	66.1	47.6	Search (1024X32)	0.148	PCal rate: 0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000
amp/seg (%)	76.5	83.0	Interp.	0.000	Bits/sample: 2x2				mb window (us)	-0.008 0.008
ph/frq (deg)	36.1	28.7	Inc. seg. avg.	0.149	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us				dr window (ns/s)	-0.011 0.011
amp/frq (%)	51.0	50.1	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2			l: az 62.2 el 27.5 pa -64.5		u, v (fr/asec) 1196.401 2094.166				simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/bl.3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bl.W.36.3MP1N1					

Mk4/DiFX fourfit 3.25 rev 0

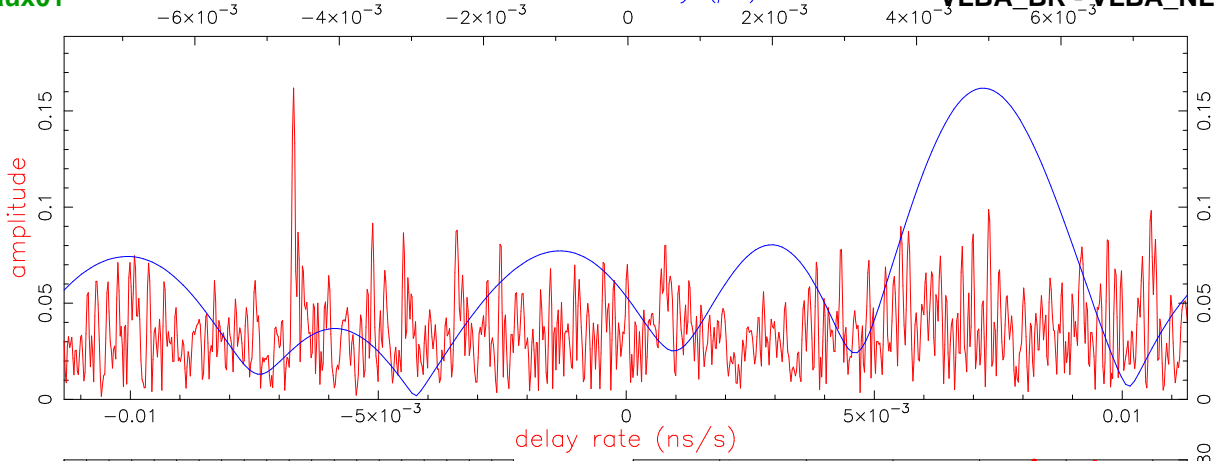
aux01

2013+370.3MP1N1, No0280, bn

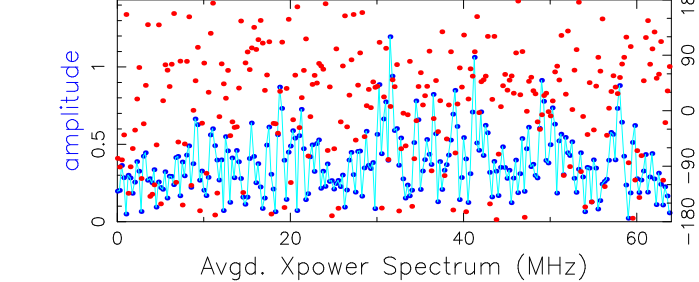
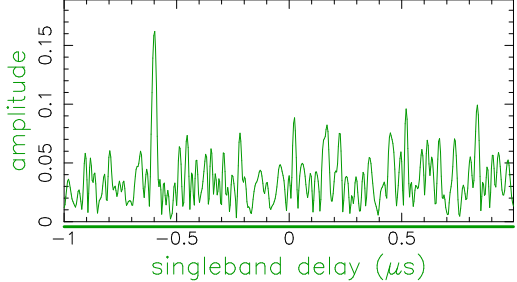
VLBA_BR - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

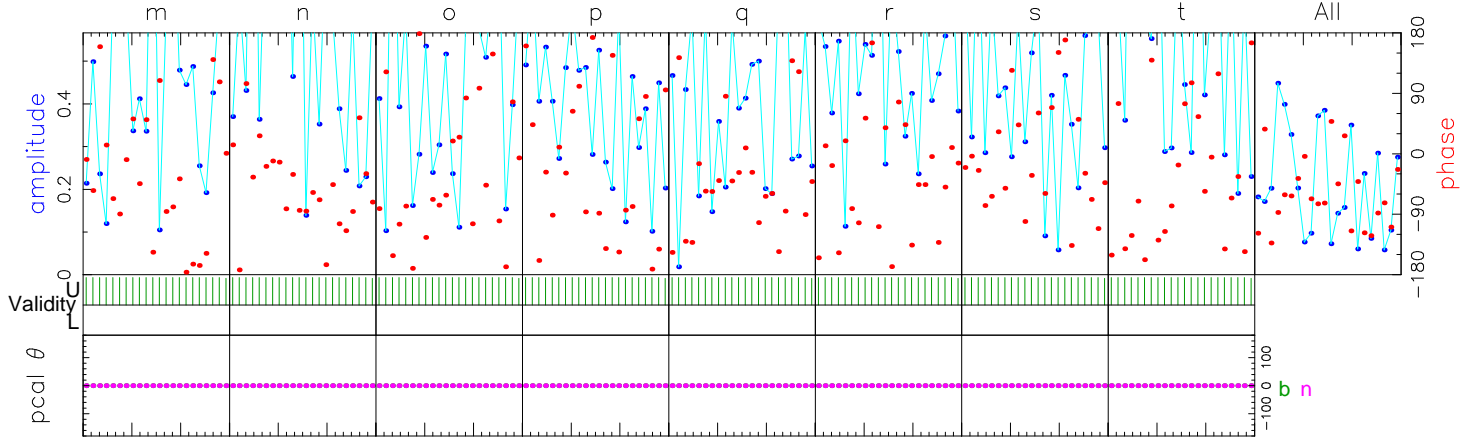


SNR 6.0
Int time 179.986
Amp 0.189
Phase -73.0
PFD 2.7e-01
Delays (us)
SBD -0.598778
MBD 0.004910
Fringe rate (Hz)
-0.579349
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:104946
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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-83.3	-58.0	-105.5	-108.8	-79.5	-69.3	-28.9	-117.7	Phase	-73.0
	0.2	0.4	0.2	0.0	0.3	0.2	0.2	0.2	Ampl.	0.2
	347.1	104.3	300.0	139.0	505.5	462.1	144.5	408.6	Sbd box	103.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.94497832628E+03	Apriori delay (usec)	-4.94437386162E+03	Resid mbdelay (usec)	4.91034E-03	+/-	1.8E-04
Sband delay (usec)	-4.94497263937E+03	Apriori clock (usec)	4.9170151E+00	Resid sbdelay (usec)	-5.98778E-01	+/-	1.4E-03
Phase delay (usec)	-4.94437386398E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-2.35404E-06	+/-	6.2E-07
Delay rate (us/s)	-1.45028690122E-02	Apriori rate (us/s)	-1.44961433407E-02	Resid rate (us/s)	-6.72567E-06	+/-	6.0E-09
Total phase (deg)		Apriori accel (us/s/s)	3.16854114161E-05	Resid phase (deg)	-73.0	+/-	19.2

ph/seg (deg)	52.6	Theor.	45.0	Amplitude	0.189 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	81.0	Search (1024X32)	0.158	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.3	Inc. seg. avg.	0.189	Inc. frq. avg.	0.188	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	56.8	Inc. frq. avg.	0.188			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 130.687 2445.971 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.21.3MP1N1

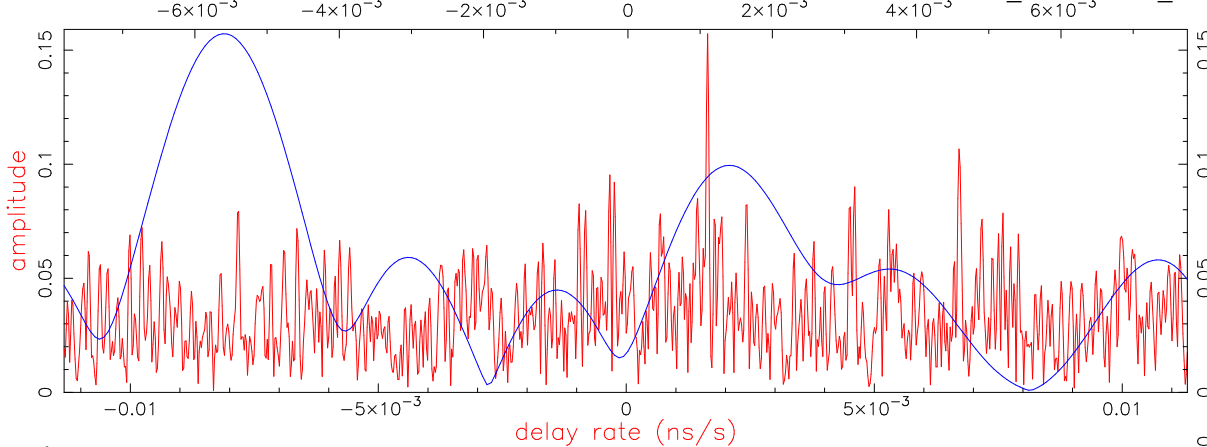
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bn

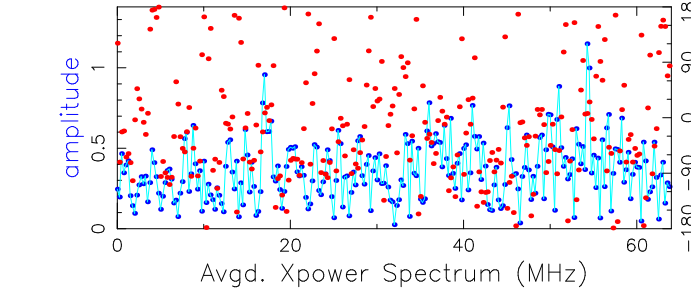
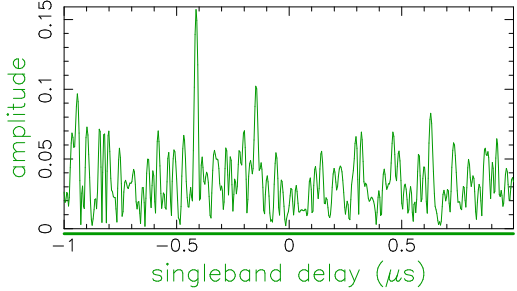
VLBA_BR - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)



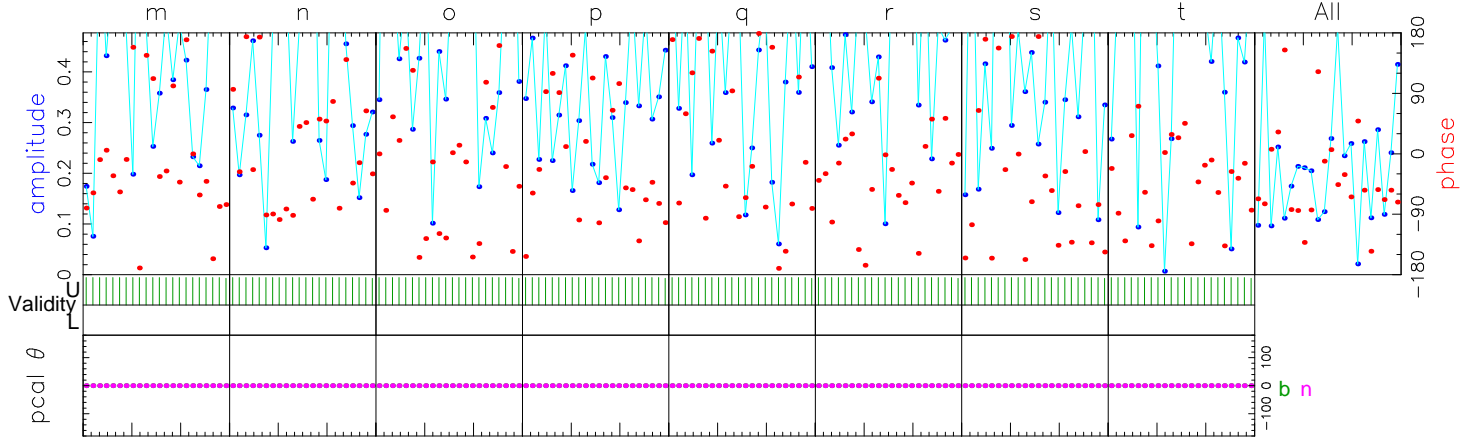
Fringe quality 0

SNR 5.8
 Int time 179.986
 Amp 0.159
 Phase -57.7
 PFD 5.9e-01
 Delays (us)
 SBD -0.413265
 MBD -0.005574
 Fringe rate (Hz)
 0.141040
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104948
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-59.7	-31.8	-78.1	-45.8	-102.8	-36.8	-106.3	-47.7	Phase	-57.7	
	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.3	Ampl.	0.2	
	432.0	493.0	380.8	207.2	101.5	150.5	389.8	152.5	Sbd box	151.2	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
n	0	0	0	0	0	0	0	0	PC freqs		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-4.94478568558E+03		Apriori delay (usec)		-4.94437386162E+03		Resid mbdelay (usec)		-5.57395E-03	+/- 1.9E-04	
Sband delay (usec)	-4.94478712612E+03		Apriori clock (usec)		4.9170151E+00		Resid sbdelay (usec)		-4.13265E-01	+/- 1.5E-03	
Phase delay (usec)	-4.94437386348E+03		Apriori clockrate (us/s)		2.7918098E-07		Resid phdelay (usec)		-1.85920E-06	+/- 6.4E-07	
Delay rate (us/s)	-1.44945060072E-02		Apriori rate (us/s)		-1.44961433407E-02		Resid rate (us/s)		1.63733E-06	+/- 6.1E-09	
Total phase (deg)			Apriori accel (us/s/s)		3.16854114161E-05		Resid phase (deg)		-57.7	+/- 19.8	
RMS	67.7	46.4	Amplitude		0.159 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	67.7	46.4	Search (1024X32)		0.155		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	86.6	81.1	Interp.		0.000		SampCntNorm: enabled		mb window (us)	-0.008 0.008	
ph/frq (deg)	32.1	28.0	Inc. seg. avg.		0.166		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	50.8	48.9	Inc. frq. avg.		0.156		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2	n: az 72.1 el 40.3 pa -63.2		u, v (fr/asec)		130.687 2445.971				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.25.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

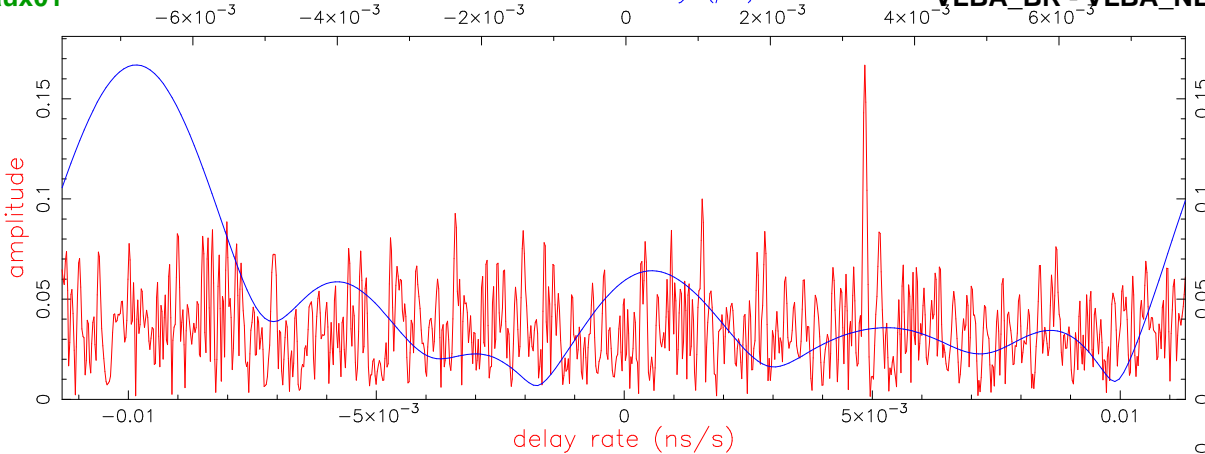
aux01

2013+370.3MP1N1, No0280, bn

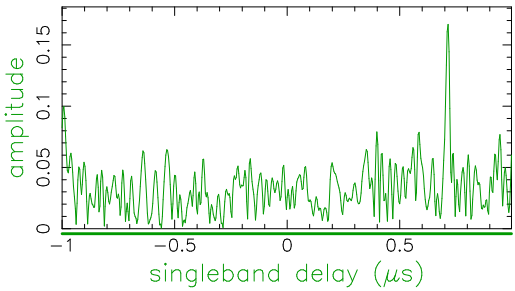
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

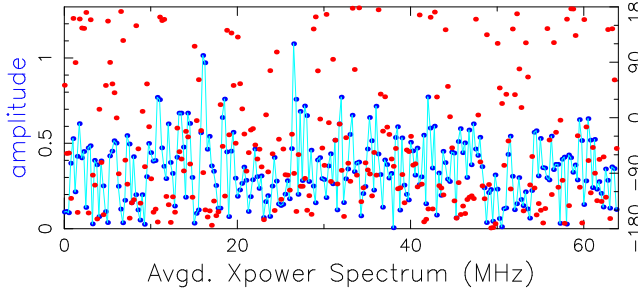
Fringe quality 0



SNR 6.2
 Int time 179.986
 Amp 0.181
 Phase -97.3
 PFD 9.3e-02
 Delays (us)
 SBD 0.713777
 MBD -0.006829
 Fringe rate (Hz)
 0.417383
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

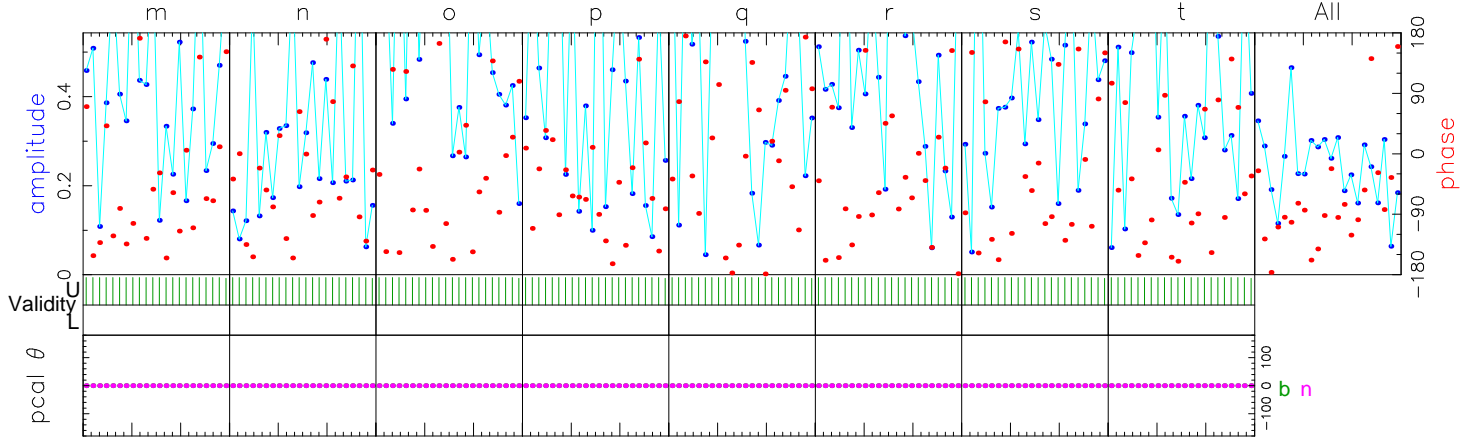


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104950
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-119.8	-93.7	-102.3	-74.2	-110.4	-67.7	-127.4	-93.0	Phase	-97.3
	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.1	Ampl.	0.2
	422.5	203.7	439.1	438.8	475.9	234.8	503.9	9.7	Sbd box	439.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-4.94366194063E+03		Apriori delay (usec)		-4.94437386162E+03		Resid mbdelay (usec)		-6.82900E-03	+/- 1.8E-04
Sband delay (usec)	-4.94366008462E+03		Apriori clock (usec)		4.9170151E+00		Resid sbdelay (usec)		7.13777E-01	+/- 1.4E-03
Phase delay (usec)	-4.94437386476E+03		Apriori clockrate (us/s)		2.7918098E-07		Resid phdelay (usec)		-3.13628E-06	+/- 6.0E-07
Delay rate (us/s)	-1.44912979375E-02		Apriori rate (us/s)		-1.44961433407E-02		Resid rate (us/s)		4.84540E-06	+/- 5.8E-09
Total phase (deg)			Apriori accel (us/s/s)		3.16854114161E-05		Resid phase (deg)		-97.3	+/- 18.6

ph/seg (deg) 52.8 43.6 Search (1024X32) 0.165 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.2 76.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 22.5 26.3 Inc. seg. avg. 0.206 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.7 45.9 Inc. frq. avg. 0.174 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 130.687 2445.971 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.32.3MP1N1

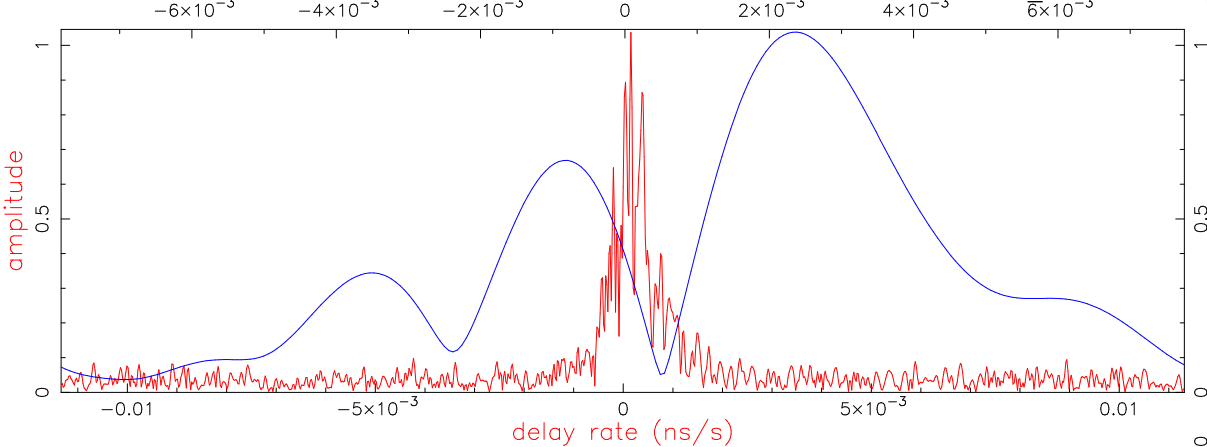
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bN

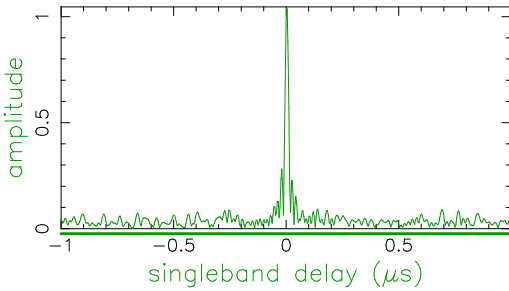
VLBA_BR - NOEMA, fgroup W, pol RR

multiband delay (μ s)

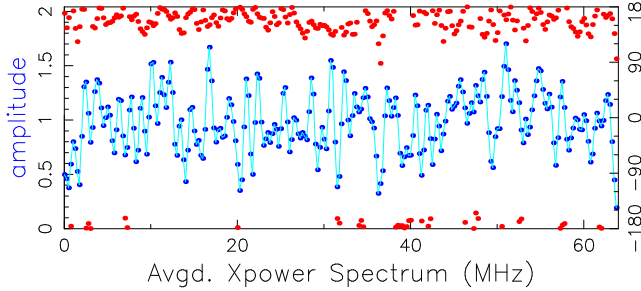


Fringe quality 4

SNR 38.4
 Int time 179.981
 Amp 1.046
 Phase 166.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002772
 MBD 0.002298
 Fringe rate (Hz)
 0.013609
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

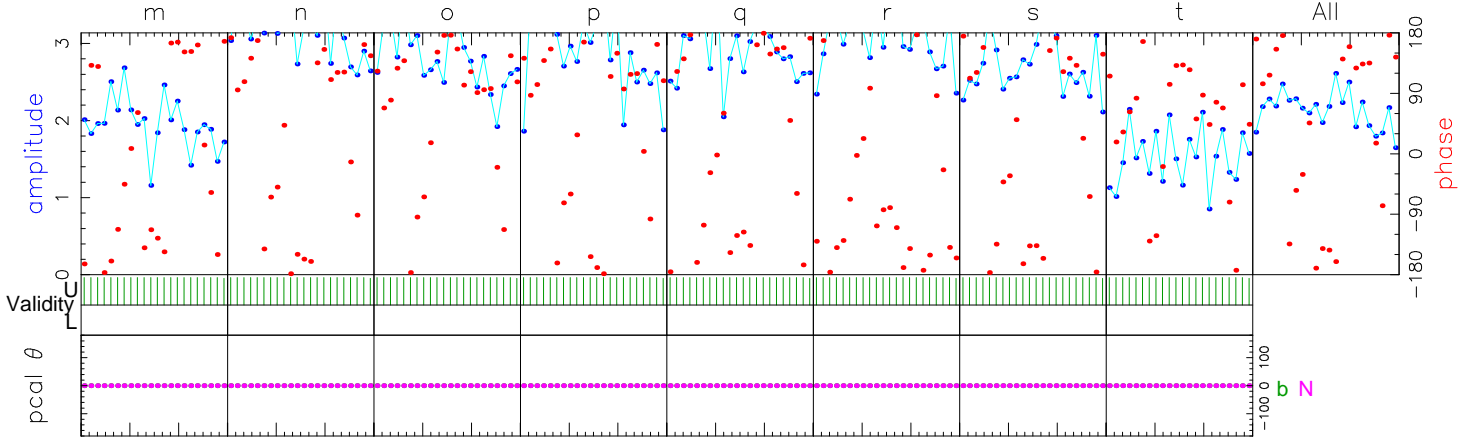


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104952
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.4	159.0	127.8	147.6	-172.3	-132.7	173.4	90.4	Phase	166.7
	0.9	1.5	1.5	1.4	1.4	1.5	1.3	0.8	Ampl.	1.3
	255.7	257.5	257.9	257.9	258.1	257.9	257.1	255.1	Sbd box	257.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.03705311551E+04	Apriori delay (usec)	-1.03705334531E+04	Resid mbdelay (usec)	2.29800E-03	+/-	2.8E-05
Sband delay (usec)	-1.03705306816E+04	Apriori clock (usec)	1.7991707E+01	Resid sbdelay (usec)	2.77150E-03	+/-	2.2E-04
Phase delay (usec)	-1.03705334477E+04	Apriori clockrate (us/s)	5.6214191E-07	Resid phdelay (usec)	5.37691E-06	+/-	9.6E-08
Delay rate (us/s)	1.29183685772E+00	Apriori rate (us/s)	1.29183669973E+00	Resid rate (us/s)	1.57986E-07	+/-	9.3E-10
Total phase (deg)	-66.8	Apriori accel (us/s/s)	5.81013509074E-05	Resid phase (deg)	166.7	+/-	3.0

ph/seg (deg)	RMS 73.4	Theor. 7.0	Amplitude Search (1024X32)	1.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	106.8	12.2	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)	45.8	4.2	Inc. seg. avg.	2.123	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.8	7.4	Inc. frq. avg.	1.279	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 N: az 263.8 el 65.1 pa 62.6 u,v (fr/asec) -9247.135 3825.323 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bN.W.37.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

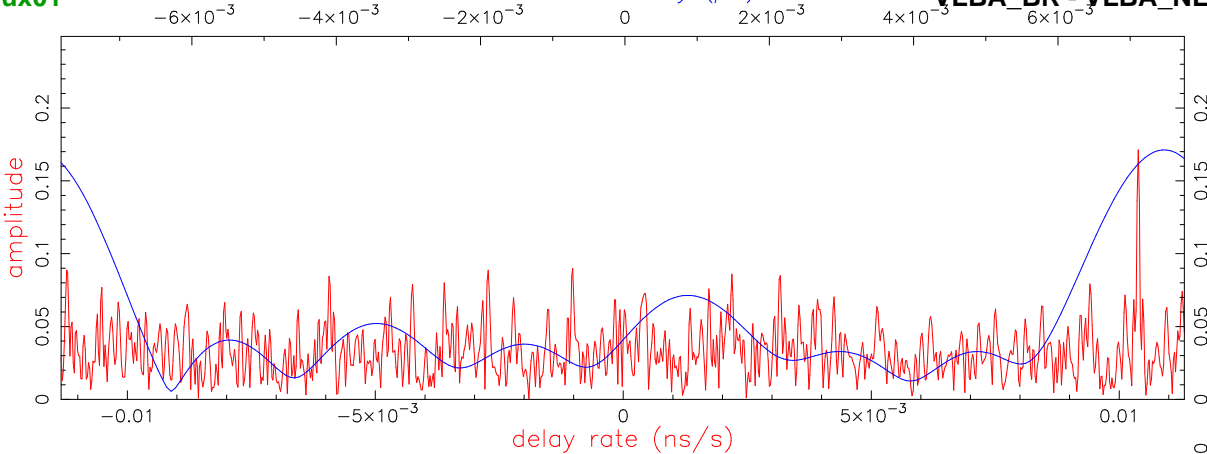
aux01

2013+370.3MP1N1, No0280, bn

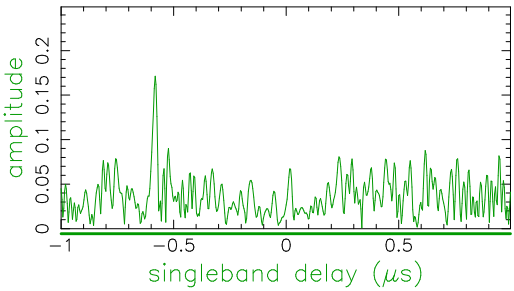
VLBA_BR - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

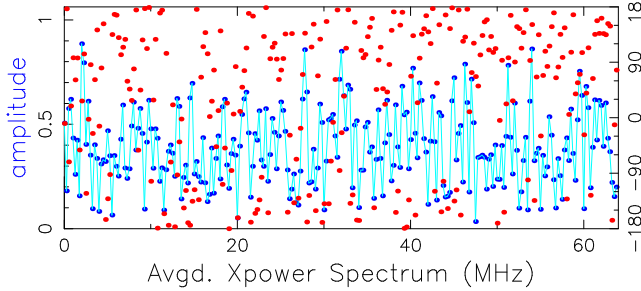
Fringe quality 0



SNR 6.3
 Int time 179.986
 Amp 0.249
 Phase -169.5
 PFD 4.1e-02
 Delays (us)
 SBD -0.581430
 MBD 0.007488
 Fringe rate (Hz)
 0.895390
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

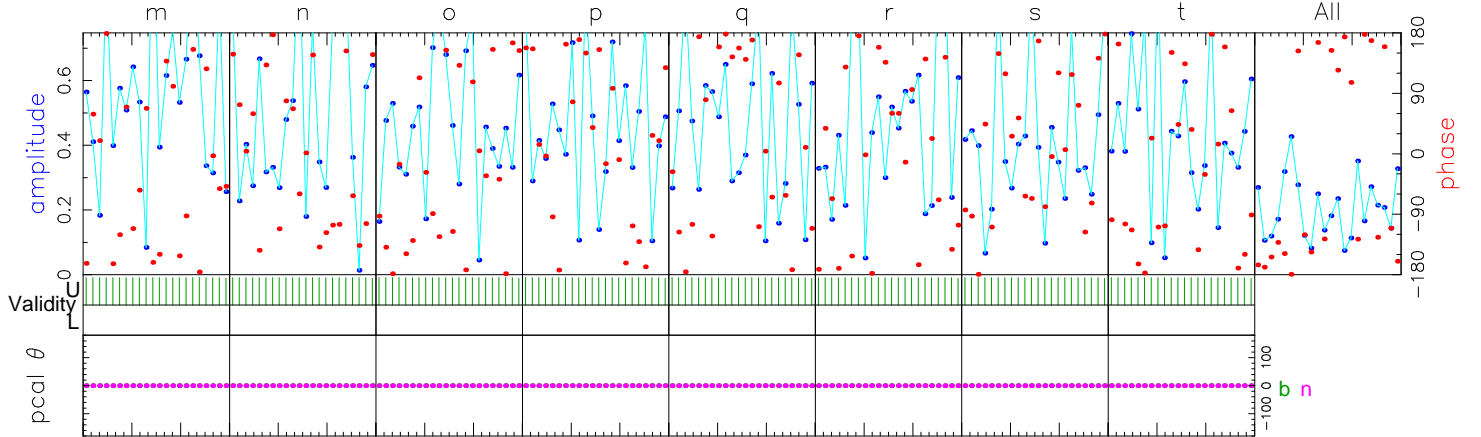


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104953
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.4	-158.9	-164.0	146.5	-159.4	173.4	178.2	-156.3	Phase	-169.5
	0.3	0.2	0.3	0.2	0.4	0.2	0.1	0.3	Ampl.	0.2
	105.3	444.5	147.5	464.0	129.0	439.3	264.7	331.6	Sbd box	108.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.94496012409E+03	Apriori delay (usec)	-4.94437386162E+03	Resid mbdelay (usec)	7.48754E-03	+/-	1.7E-04
Sband delay (usec)	-4.94495529187E+03	Apriori clock (usec)	4.9170151E+00	Resid sbdelay (usec)	-5.81430E-01	+/-	1.4E-03
Phase delay (usec)	-4.94437386709E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-5.46487E-06	+/-	5.9E-07
Delay rate (us/s)	-1.44857487452E-02	Apriori rate (us/s)	-1.44961433407E-02	Resid rate (us/s)	1.03946E-05	+/-	5.6E-09
Total phase (deg)	-328.0	Apriori accel (us/s/s)	3.16854114161E-05	Resid phase (deg)	-169.5	+/-	18.2

ph/seg (deg)	RMS 37.7	Theor. 42.7	Amplitude Search (1024X32)	0.249 +/- 0.040	0.161	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	58.3	74.5	Interp.	0.000	0.236	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	21.7	25.8	Inc. seg. avg.	0.236	0.236	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.6	44.9	Inc. frq. avg.	0.236	0.236	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 130.687 2445.971 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.38.3MP1N1

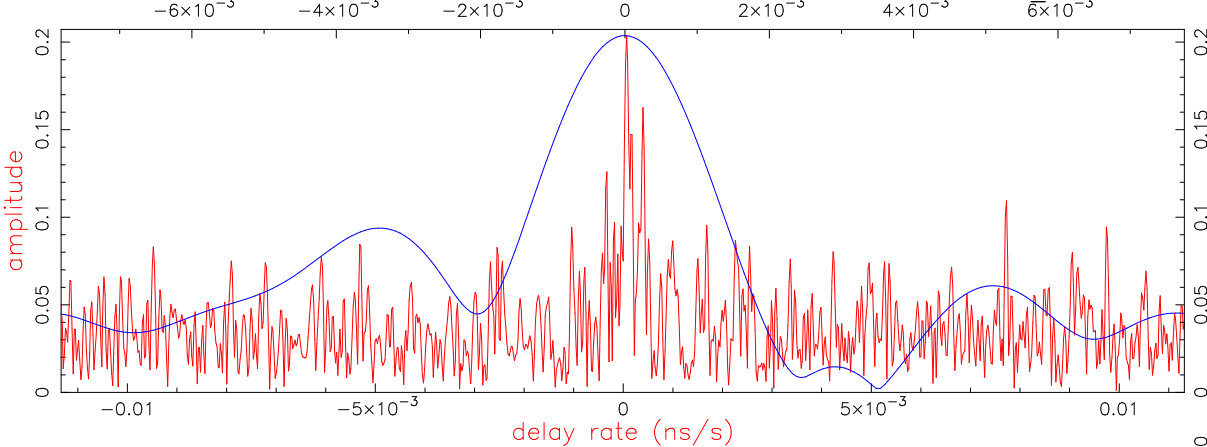
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bN

VLBA BR- NOEMA, fgroup W, pol LR

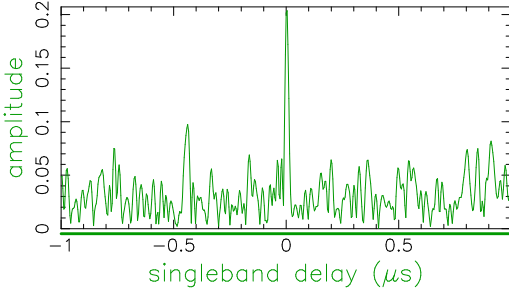
multiband delay (μ s)



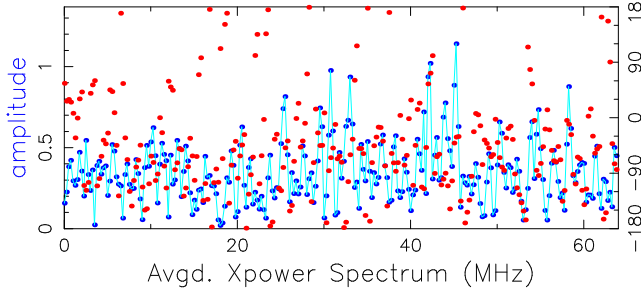
Fringe quality 9

SNR 7.6
 Int time 179.981
 Amp 0.207
 Phase -41.2
 PFD 4.6e-06
 Delays (us)
 SBD 0.002156
 MBD -0.000046
 Fringe rate (Hz) 0.004816
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

delay rate (ns/s)

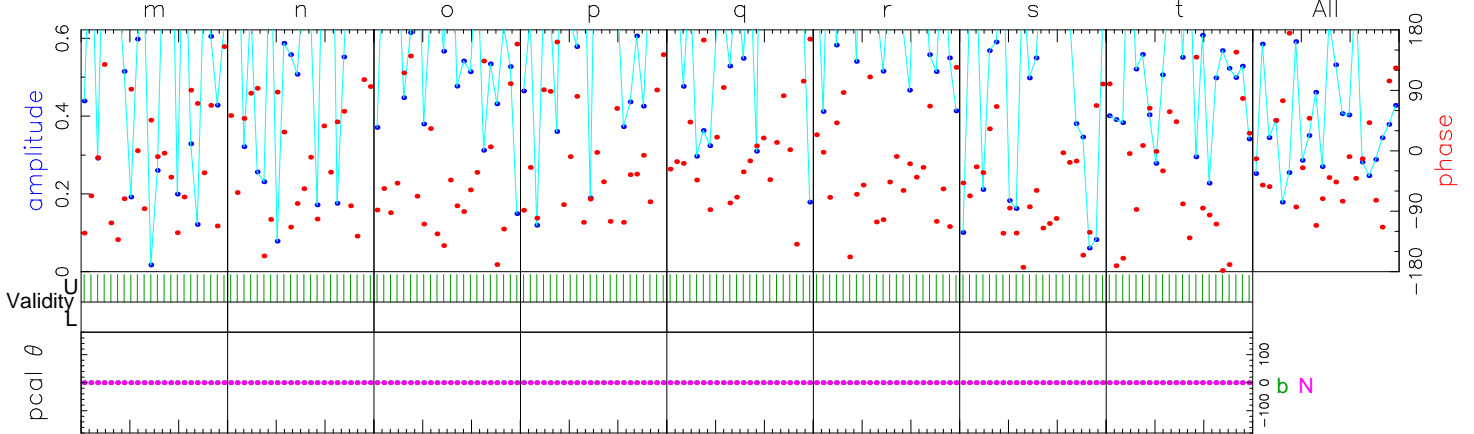


singleband delay (μ s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104954
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.6	-15.0	-75.3	-26.8	-5.2	-41.7	-69.2	-24.4	Phase	-41.2
	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.0	Ampl.	0.2
	208.6	503.6	258.4	475.0	257.9	257.1	252.0	28.1	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.03705334994E+04	Apriori delay (usec)	-1.03705334531E+04	Resid mbdelay (usec)	-4.63198E-05	+/-	1.4E-04
Sband delay (usec)	-1.03705312968E+04	Apriori clock (usec)	1.7991707E+01	Resid sbdelay (usec)	2.15625E-03	+/-	1.1E-03
Phase delay (usec)	-1.03705334544E+04	Apriori clockrate (us/s)	5.6214191E-07	Resid phdelay (usec)	-1.32798E-06	+/-	4.9E-07
Delay rate (us/s)	1.29183675564E+00	Apriori rate (us/s)	1.29183669973E+00	Resid rate (us/s)	5.59038E-08	+/-	4.7E-09
Total phase (deg)	-274.7	Apriori accel (us/s/s)	5.81013509074E-05	Resid phase (deg)	-41.2	+/-	15.1

ph/seg (deg)	RMS 74.6	Theor. 35.3	Amplitude Search (1024X32)	0.201	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	112.7	61.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	28.2	21.3	Inc. seg. avg.	0.330	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.7	37.2	Inc. frq. avg.	0.212	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 N: az 263.8 el 65.1 pa 62.6 u,v (fr/asec) -9247.135 3825.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bN.W.46.3MP1N1

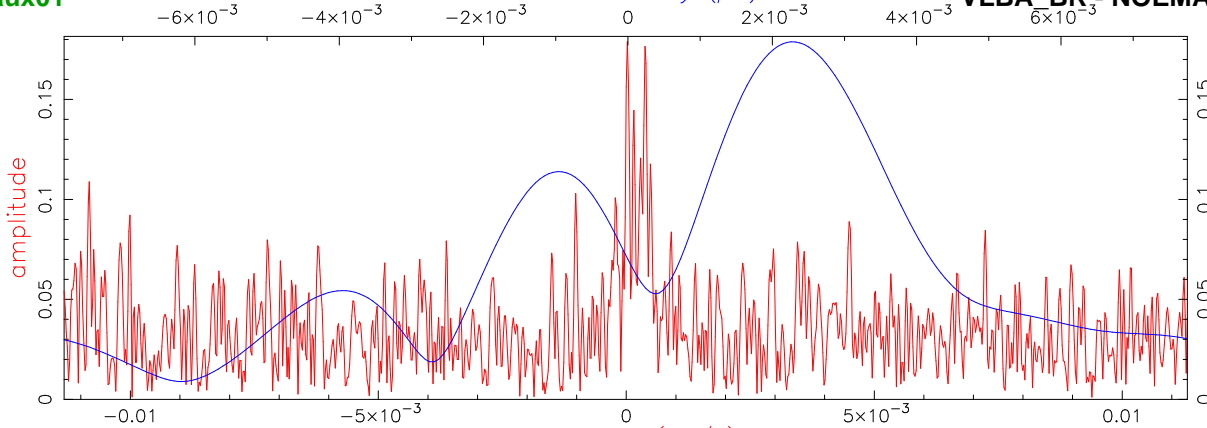
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bN

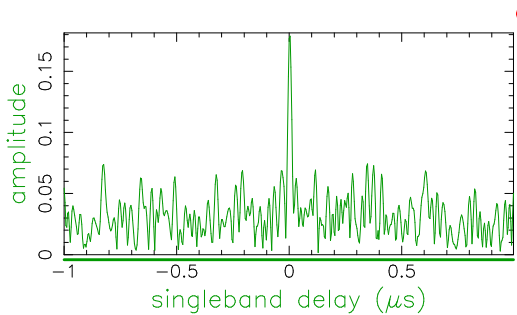
VLBA BR- NOEMA, fgroup W, pol RL

multiband delay (μ s)

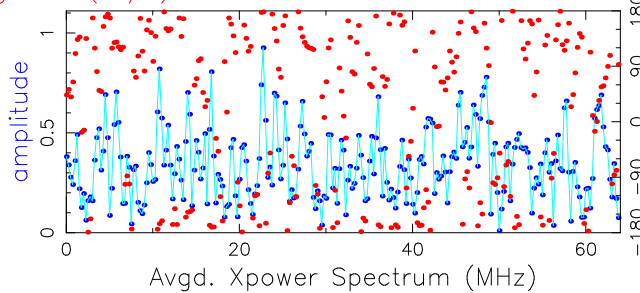


Fringe quality 0

SNR 6.7
 Int time 179.981
 Amp 0.182
 Phase 153.6
 PFD 3.9e-03
 Delays (us)
 SBD 0.002236
 MBD 0.002278
 Fringe rate (Hz) 0.002343
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

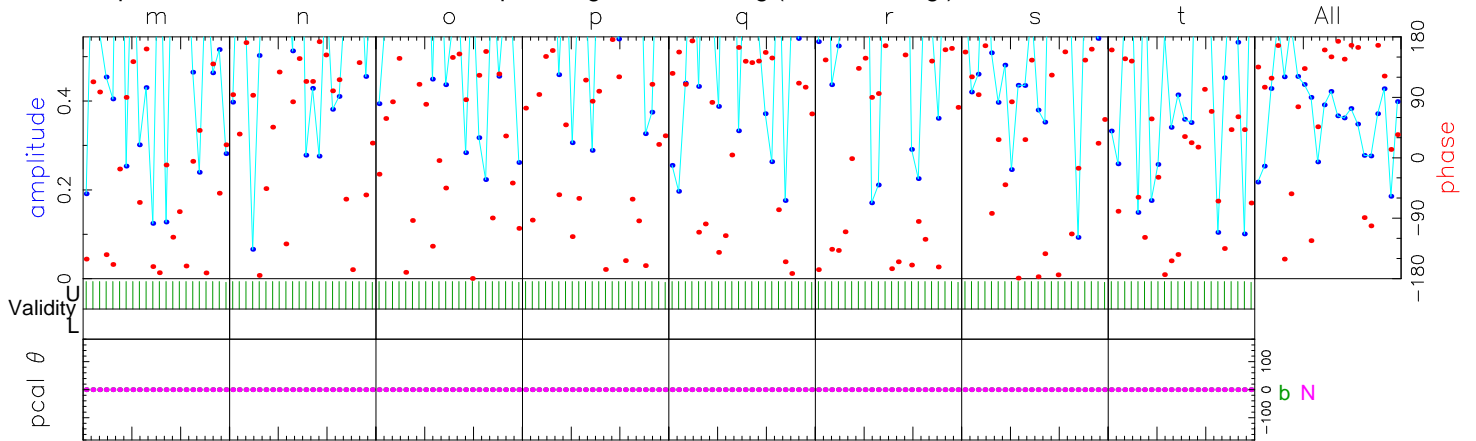


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104958
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-163.4	122.9	136.0	134.4	164.9	170.4	144.1	88.5	Phase	153.6
	0.1	0.2	0.1	0.1	0.2	0.5	0.3	0.0	Ampl.	0.2
	255.0	331.0	218.9	208.8	477.5	257.9	256.4	43.7	Sbd box	257.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.03705311750E+04	Apriori delay (usec)	-1.03705334531E+04	Resid mbdelay (usec)	2.27805E-03	+/-	1.6E-04
Sband delay (usec)	-1.03705312171E+04	Apriori clock (usec)	1.7991707E+01	Resid sbdelay (usec)	2.23600E-03	+/-	1.3E-03
Phase delay (usec)	-1.03705334481E+04	Apriori clockrate (us/s)	5.6214191E-07	Resid phdelay (usec)	4.95245E-06	+/-	5.5E-07
Delay rate (us/s)	1.29183672693E+00	Apriori rate (us/s)	1.29183669973E+00	Resid rate (us/s)	2.71973E-08	+/-	5.3E-09
Total phase (deg)	-79.9	Apriori accel (us/s/s)	5.81013509074E-05	Resid phase (deg)	153.6	+/-	17.2

ph/seg (deg)	RMS 72.7	Theor. 40.4	Amplitude Search (1024X32)	0.182 +/- 0.027	0.177	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	120.4	70.4	Interp.	0.000	0.177	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	37.0	24.3	Inc. seg. avg.	0.302	0.179	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	66.9	42.5	Inc. frq. avg.	0.179	0.179	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 N: az 263.8 el 65.1 pa 62.6 u,v (fr/asec) -9247.135 3825.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bN.W.55.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

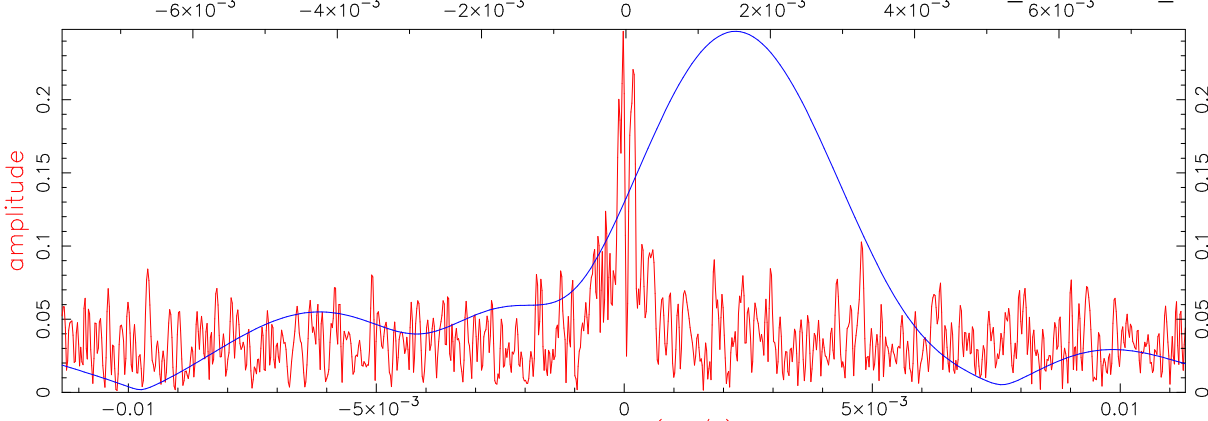
aux01

2013+370.3MP1N1, No0280, bo

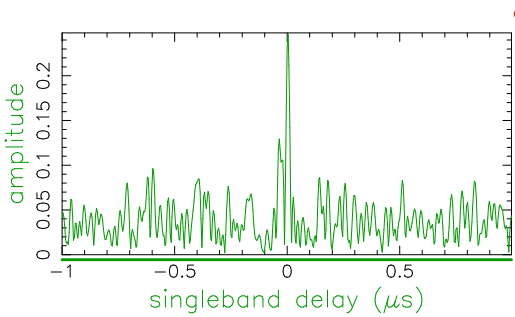
VLBA_BR - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

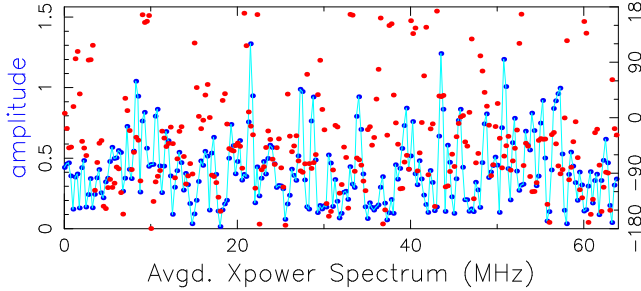
Fringe quality 9



SNR 9.0
 Int time 177.092
 Amp 0.248
 Phase -42.0
 PFD 3.4e-11
 Delays (us)
 SBD 0.003019
 MBD 0.001509
 Fringe rate (Hz)
 -0.001379
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

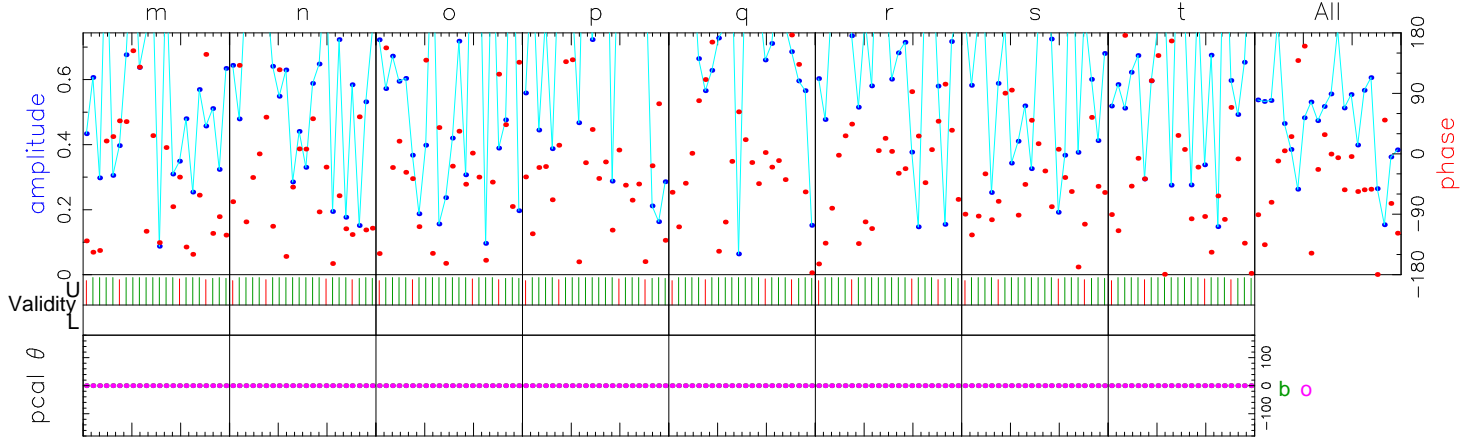


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104949
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.2	-59.3	-37.7	-35.5	-34.3	-14.6	-53.3	-97.7	Phase	-42.0
	0.1	0.2	0.2	0.4	0.4	0.4	0.3	0.1	Ampl.	0.3
	251.5	323.0	7.7	257.4	258.3	258.3	257.9	189.4	Sbd box	257.8
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.57548139588E+03	Apriori delay (usec)	1.57547988677E+03	Resid mbdelay (usec)	1.50911E-03	+/-	1.2E-04
Sband delay (usec)	1.57548290527E+03	Apriori clock (usec)	-2.0428177E+01	Resid sbdelay (usec)	3.01850E-03	+/-	9.5E-04
Phase delay (usec)	1.57547988542E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	-1.35592E-06	+/-	4.1E-07
Delay rate (us/s)	-1.59728911253E-01	Apriori rate (us/s)	-1.59728895240E-01	Resid rate (us/s)	-1.60134E-08	+/-	4.0E-09
Total phase (deg)	118.7	Apriori accel (us/s/s)	1.05039963392E-06	Resid phase (deg)	-42.0	+/-	12.7

ph/seg (deg)	RMS 77.5	Theor. 29.6	Amplitude Search (1024X32)	0.244	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	111.5	51.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.5	18.0	Inc. seg. avg.	0.427	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.2	31.3	Inc. frq. avg.	0.252	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1152.390 1040.054 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bo.W.31.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

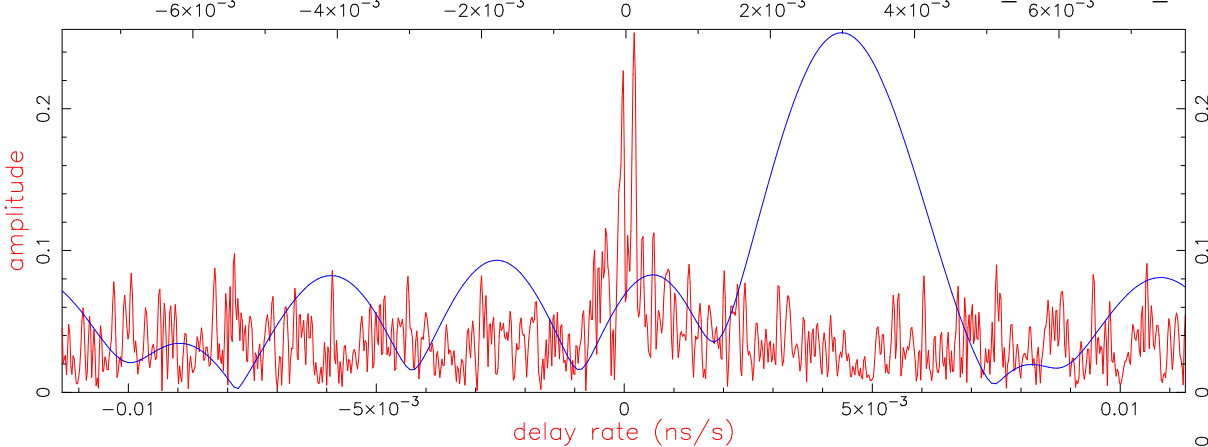
aux01

2013+370.3MP1N1, No0280, bo

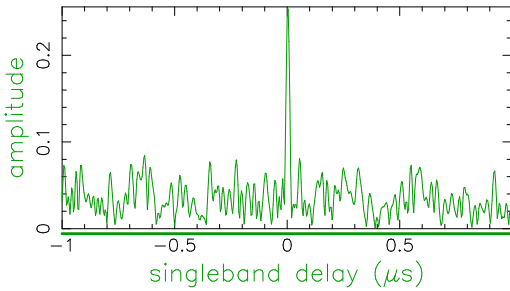
VLBA_BR - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

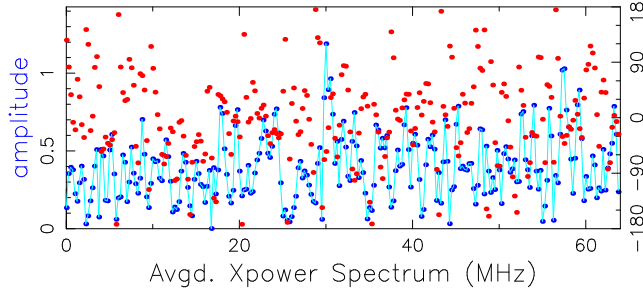
Fringe quality 9



SNR 9.3
 Int time 177.092
 Amp 0.256
 Phase -5.5
 PFD 2.4e-12
 Delays (us)
 SBD 0.002681
 MBD 0.002957
 Fringe rate (Hz) 0.017654
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

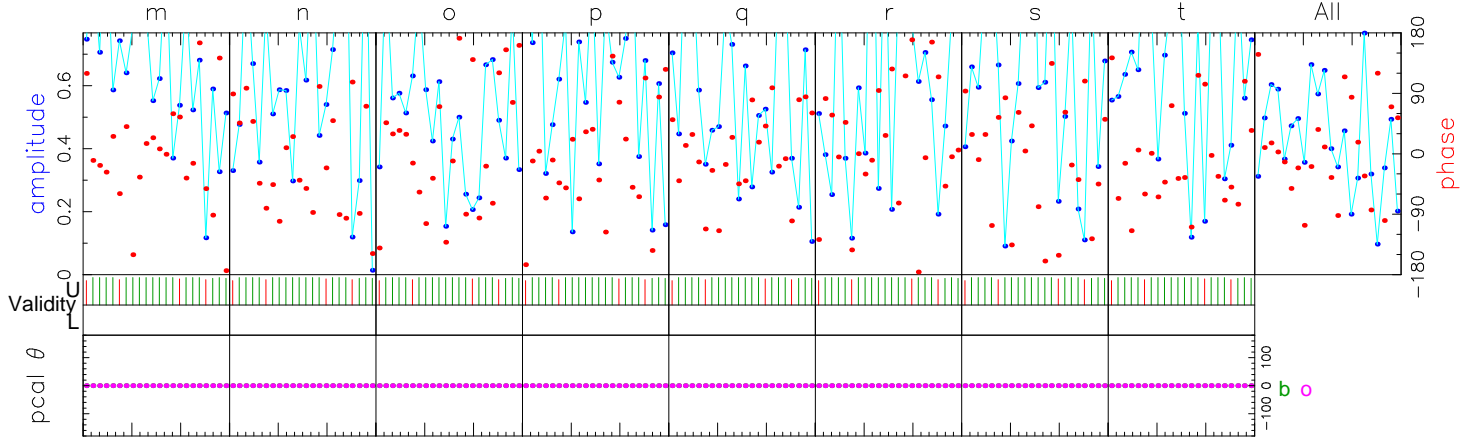


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104953
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-6.9	-28.0	6.2	-13.8	4.7	7.7	21.6	-25.3	Phase	-5.5
	0.3	0.2	0.1	0.2	0.4	0.2	0.2	0.3	Ampl.	0.3
	257.6	407.6	255.3	84.1	257.3	339.7	219.1	257.8	Sbd box	257.7
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.57548284347E+03	Apriori delay (usec)	1.57547988677E+03	Resid mbdelay (usec)	2.95670E-03	+/-	1.2E-04
Sband delay (usec)	1.57548256777E+03	Apriori clock (usec)	-2.0428177E+01	Resid sbdelay (usec)	2.68100E-03	+/-	9.2E-04
Phase delay (usec)	1.57547988660E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	-1.76321E-07	+/-	4.0E-07
Delay rate (us/s)	-1.59728690290E-01	Apriori rate (us/s)	-1.59728895240E-01	Resid rate (us/s)	2.04950E-07	+/-	3.8E-09
Total phase (deg)	155.3	Apriori accel (us/s/s)	1.05039963392E-06	Resid phase (deg)	-5.5	+/-	12.3

ph/seg (deg)	RMS 70.0	Theor. 28.7	Amplitude Search (1024X32)	0.256 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	94.7	50.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	18.8	17.4	Inc. seg. avg.	0.386	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	30.8	30.4	Inc. frq. avg.	0.252	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
					Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1152.390 1040.054 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bo.W.42.3MP1N1

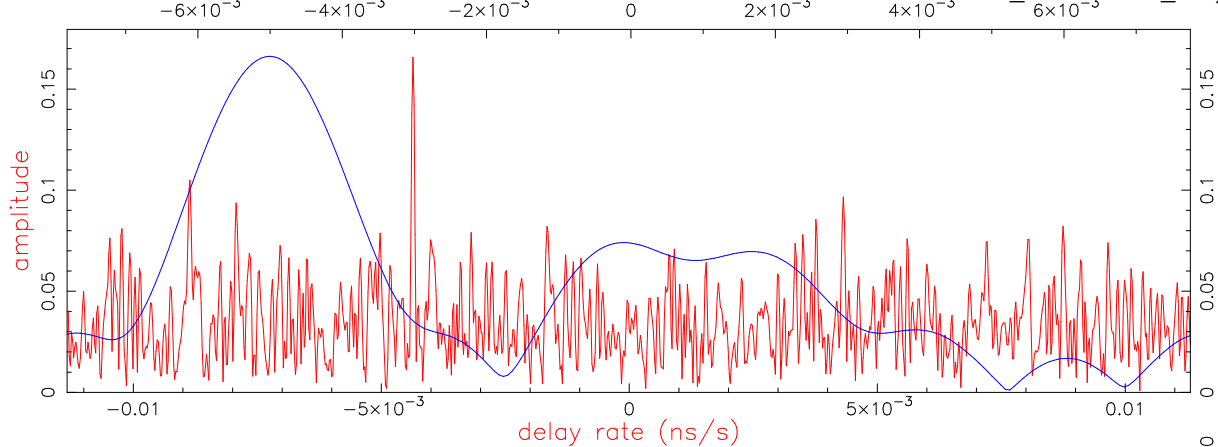
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bo

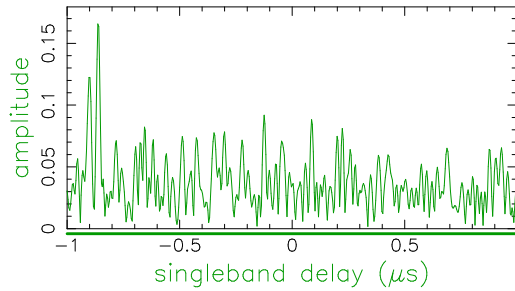
VLBA_BR - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

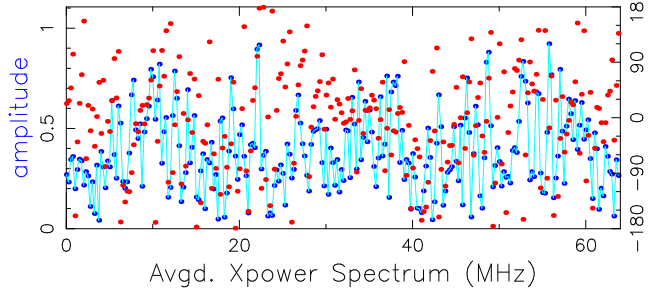


Fringe quality 0

SNR 6.1
 Int time 177.092
 Amp 0.180
 Phase -136.7
 PFD 1.0e-01
 Delays (us)
 SBD -0.861603
 MBD -0.004921
 Fringe rate (Hz)
 -0.376206
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

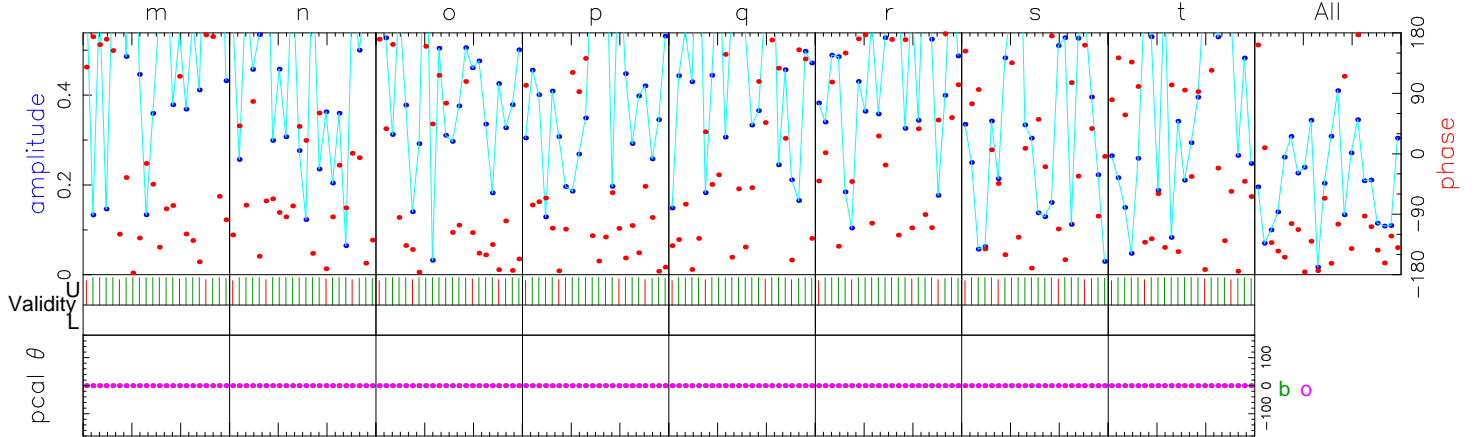


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104955
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-144.0	-90.0	-167.6	-130.5	-125.8	-144.0	-148.1	-149.4	Phase	-136.7	
	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	Ampl.	0.2	
	109.9	170.9	38.0	36.2	415.1	220.3	322.2	330.8	Sbd box	36.4	
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
o	0	0	0	0	0	0	0	0	PC freqs		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:0	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		
o	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.57461559093E+03		Apriori delay (usec)		1.57547988677E+03		Resid mbdelay (usec)		-4.92084E-03	+/- 1.8E-04	
Sband delay (usec)	1.57461828327E+03		Apriori clock (usec)		-2.0428177E+01		Resid sbdelay (usec)		-8.61603E-01	+/- 1.4E-03	
Phase delay (usec)	1.57547988236E+03		Apriori clockrate (us/s)		9.5168881E-08		Resid phdelay (usec)		-4.40832E-06	+/- 6.0E-07	
Delay rate (us/s)	-1.59733262618E-01		Apriori rate (us/s)		-1.59728895240E-01		Resid rate (us/s)		-4.36738E-06	+/- 5.8E-09	
Total phase (deg)	24.0		Apriori accel (us/s/s)		1.05039963392E-06		Resid phase (deg)		-136.7	+/- 18.7	
	RMS	Theor.	Amplitude	0.180 +/- 0.029		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	49.8	43.6	Search (1024X32)	0.161		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	64.5	76.0	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	24.8	26.4	Inc. seg. avg.	0.173		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	45.6	46.0	Inc. frq. avg.	0.173		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2	o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) 1152.390 1040.054						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bo..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bo.W.50.3MP1N1								

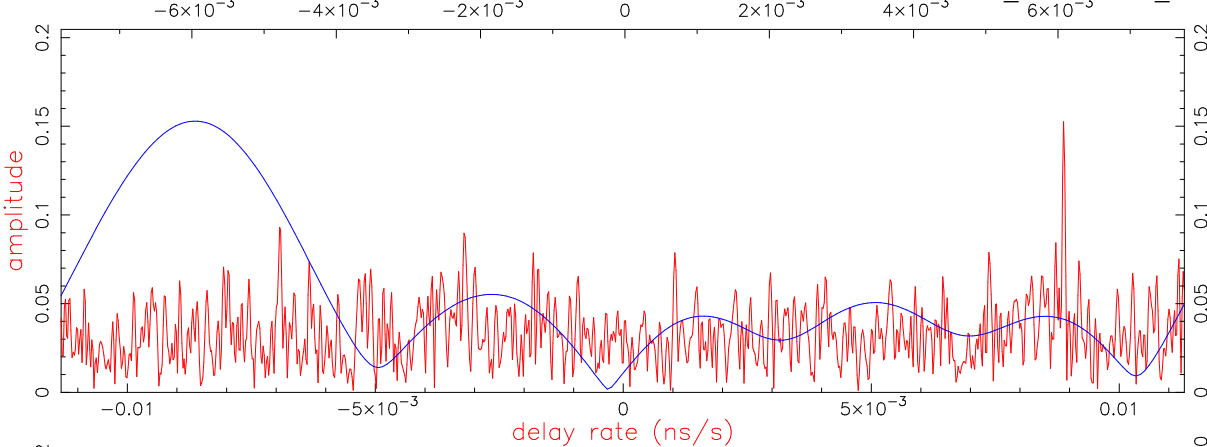
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bo

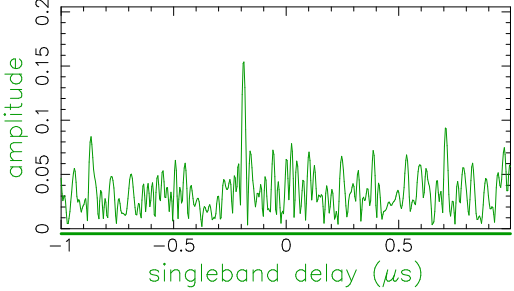
VLBA_BR - VLBA_OV, fgroup W, pol RL

multiband delay (μs)

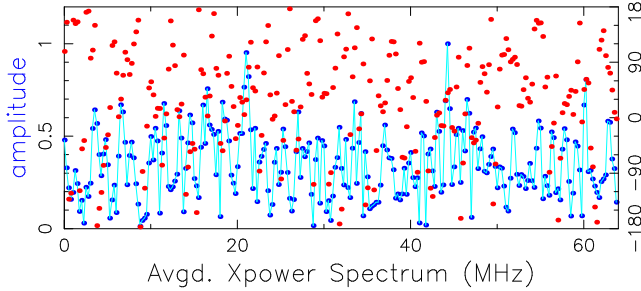


Fringe quality 0

SNR 5.7
 Int time 177.092
 Amp 0.205
 Phase 100.3
 PFD 7.7e-01
 Delays (us)
 SBD -0.189319
 MBD -0.005857
 Fringe rate (Hz)
 0.766328
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

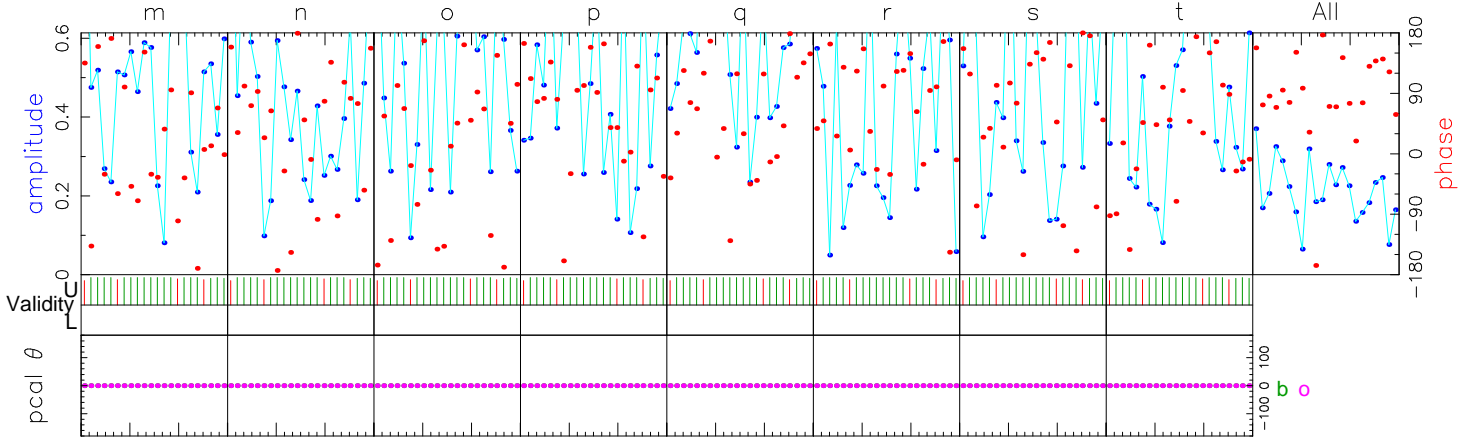


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104959
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	7.3	115.2	128.0	97.4	88.2	87.9	135.8	40.4	Phase	100.3
	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	Ampl.	0.2
	429.4	258.0	57.5	199.8	209.4	53.8	184.4	66.4	Sbd box	208.5
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.57528652954E+03	Apriori delay (usec)	1.57547988677E+03	Resid mbdelay (usec)	-5.85723E-03	+/-	1.9E-04
Sband delay (usec)	1.57529056777E+03	Apriori clock (usec)	-2.0428177E+01	Resid sbdelay (usec)	-1.89319E-01	+/-	1.5E-03
Phase delay (usec)	1.57547989001E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	3.23356E-06	+/-	6.5E-07
Delay rate (us/s)	-1.59719998929E-01	Apriori rate (us/s)	-1.59728895240E-01	Resid rate (us/s)	8.89631E-06	+/-	6.3E-09
Total phase (deg)	261.0	Apriori accel (us/s/s)	1.05039963392E-06	Resid phase (deg)	100.3	+/-	20.1

ph/seg (deg)	RMS 45.5	Theor. 47.0	Amplitude Search (1024X32)	0.152	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	59.7	82.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	49.6	28.4	Inc. seg. avg.	0.208	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.2	49.6	Inc. frq. avg.	0.208	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1152.390 1040.054 simultaneous interpolator

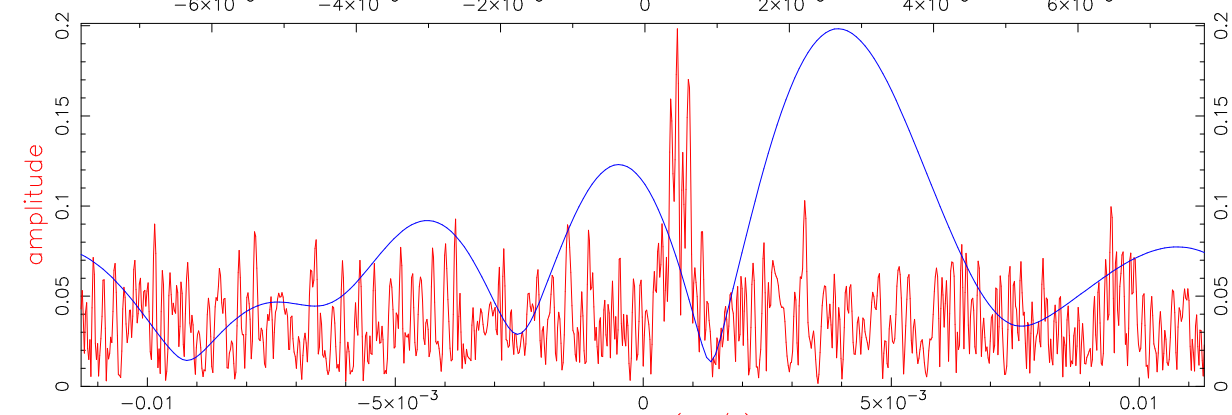
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bo.W.58.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

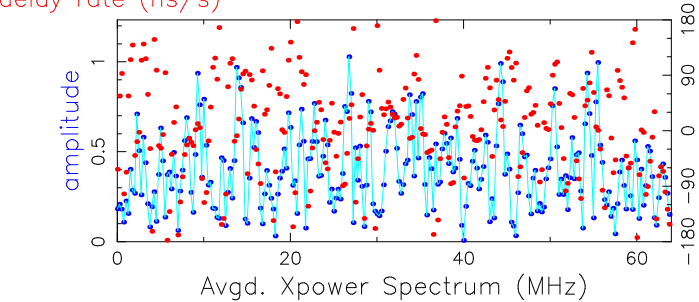
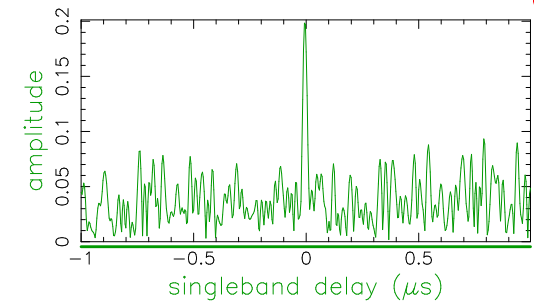
2013+370.3MP1N1, No0280, bP

VLBA_BR - PICOVEL, fgroup W, pol LL



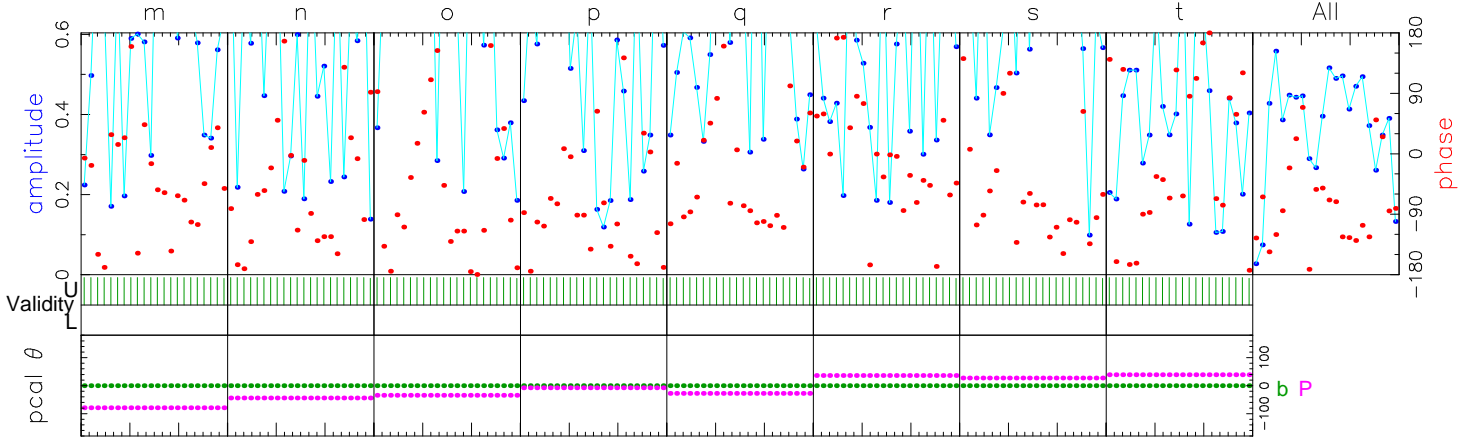
Fringe quality 9

SNR 7.4
 Int time 179.980
 Amp 0.201
 Phase -86.6
 PFD 2.6e-05
 Delays (us)
 SBD -0.006076
 MBD 0.002677
 Fringe rate (Hz)
 0.059219
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104950
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-68.6	-85.1	-140.6	-103.9	-70.9	-14.7	-91.7	-172.3	Phase	-86.6
	0.3	0.3	0.2	0.3	0.2	0.2	0.4	0.1	Ampl.	0.2
	253.0	256.1	178.2	255.6	498.0	146.7	255.2	412.3	Sbd box	255.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.13478818983E+04	Apriori delay (usec)	-1.13478689503E+04	Resid mbdelay (usec)	2.67701E-03	+/-	1.5E-04
Sband delay (usec)	-1.13478750261E+04	Apriori clock (usec)	5.5358715E+00	Resid sbdelay (usec)	-6.07575E-03	+/-	1.2E-03
Phase delay (usec)	-1.13478689531E+04	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	-2.79325E-06	+/-	5.0E-07
Delay rate (us/s)	1.20633071542E+00	Apriori rate (us/s)	1.20633002795E+00	Resid rate (us/s)	6.87477E-07	+/-	4.8E-09
Total phase (deg)	-223.8	Apriori accel (us/s/s)	7.00537458760E-05	Resid phase (deg)	-86.6	+/-	15.5

ph/seg (deg)	65.7	Theor.	36.4	Amplitude	0.201 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	109.2	Search (1024X32)	0.194	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	52.2	Inc. seg. avg.	0.309	Inc. frq. avg.	0.229	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	41.7	Inc. frq. avg.	0.229	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
									ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 P: az 277.4 el 72.2 pa 83.5 u, v (fr/asec) -8620.803 5239.614 simultaneous interpolator

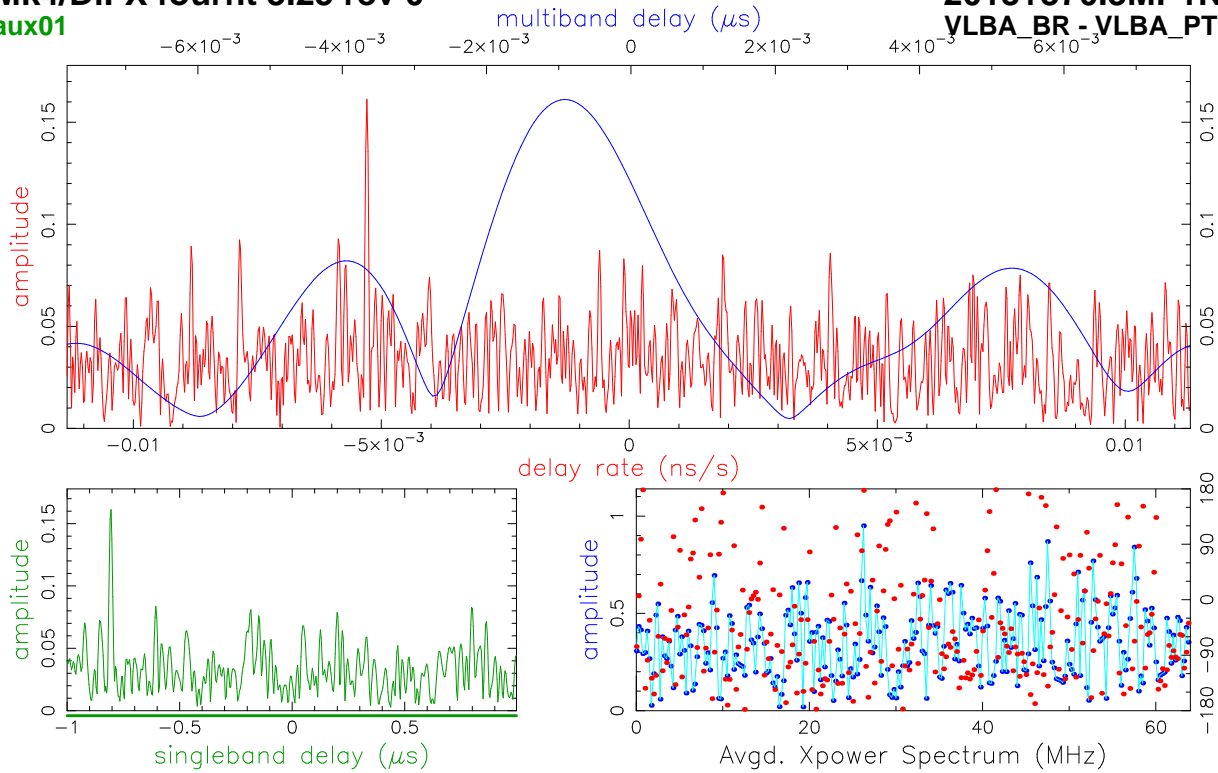
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bP.W.33.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bp

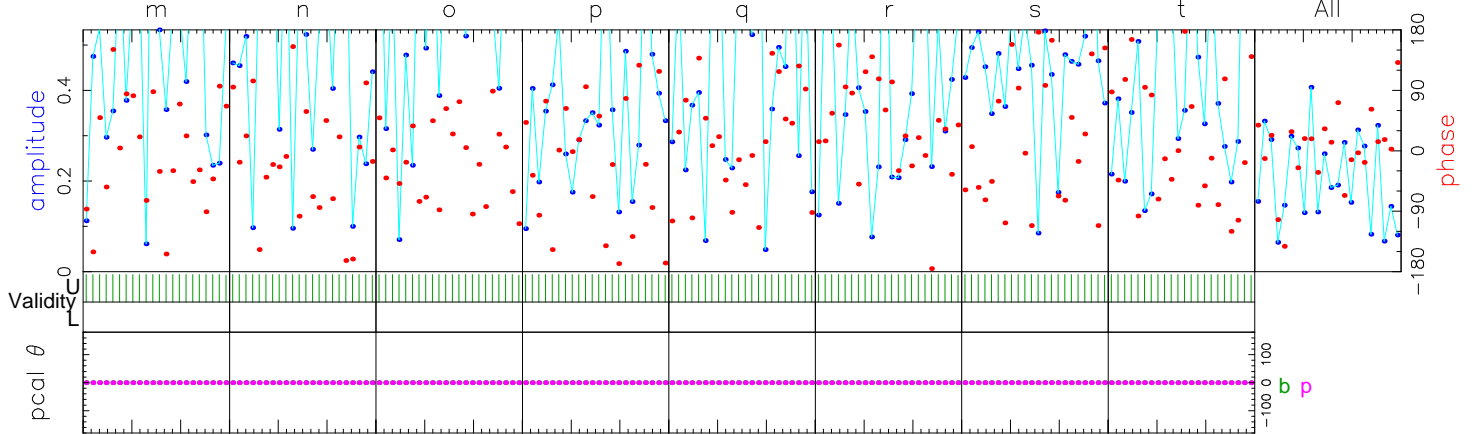
VLBA_BR - VLBA_PT, fgroup W, pol LL



Fringe quality 0

SNR 6.0
 Int time 179.991
 Amp 0.178
 Phase 5.0
 PFD 2.8e-01
 Delays (us)
 SBD -0.805721
 MBD -0.000915
 Fringe rate (Hz)
 -0.456516
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104951
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-3.33045080146E+02									
Sband delay (usec)	-3.33037385811E+02									
Phase delay (usec)	-3.32231664898E+02									
Delay rate (us/s)	-1.87320617663E-01									
Total phase (deg)			-221.2							
Apriori delay (usec)					-3.32231665061E+02					
Apriori clock (usec)					0.157					
Apriori clockrate (us/s)					1.9774395E-07					
Apriori rate (us/s)					-1.87315317967E-01					
Apriori accel (us/s/s)					1.41230710354E-05					
Resid mbdelay (usec)									-9.15085E-04	+/- 1.8E-04
Resid sbdelay (usec)									-8.05721E-01	+/- 1.4E-03
Resid phdelay (usec)									1.62275E-07	+/- 6.2E-07
Resid rate (us/s)									-5.29970E-06	+/- 6.0E-09
Resid phase (deg)									5.0	+/- 19.2
PCal mode:	MANUAL, MANUAL		PCal rate: 0.000E+00, 0.000E+00 (us/s)		PC period (AP's) 5, 5		sb window (us) -1.000 1.000			
Bits/sample:	2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008		dr window (ns/s) -0.011 0.011			
Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		ion window (TEC) 0.00 0.00		simultaneous interpolator			
Data rate (Mb/s):	2048									
b: az 60.8 el 24.5 pa -47.2	p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec) 1361.907 2111.340							
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.35.3MP1N1							

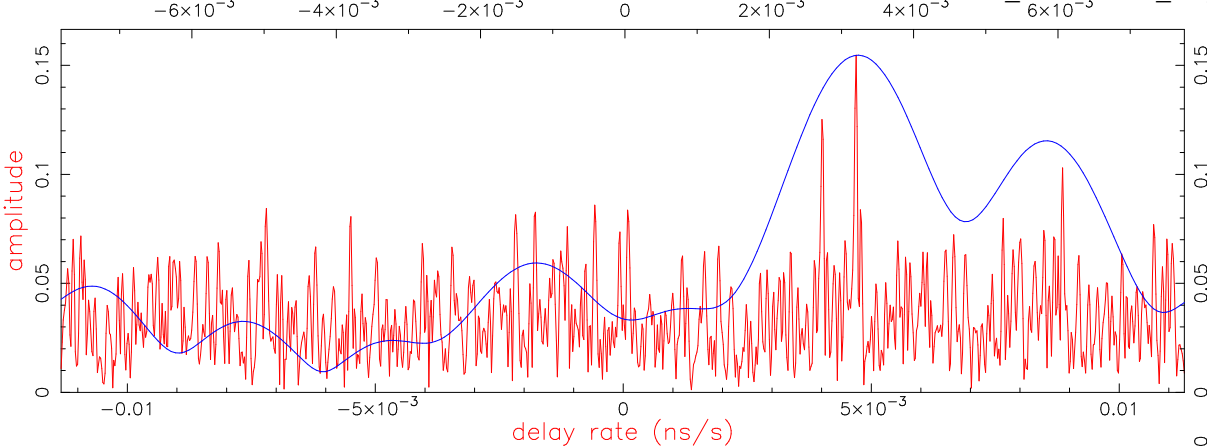
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bp

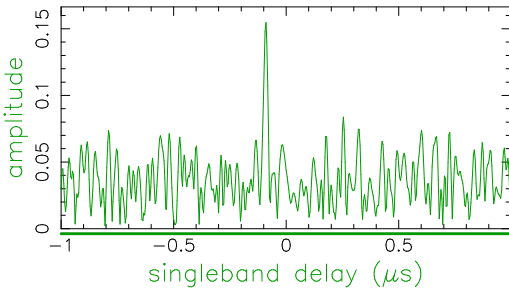
VLBA_BR - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

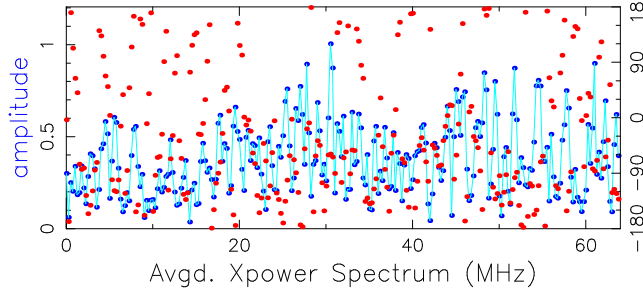


Fringe quality 0

SNR 5.7
Int time 179.991
Amp 0.166
Phase -101.9
PFD 8.0e-01
Delays (us)
SBD -0.090497
MBD 0.003231
Fringe rate (Hz) 0.405198
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

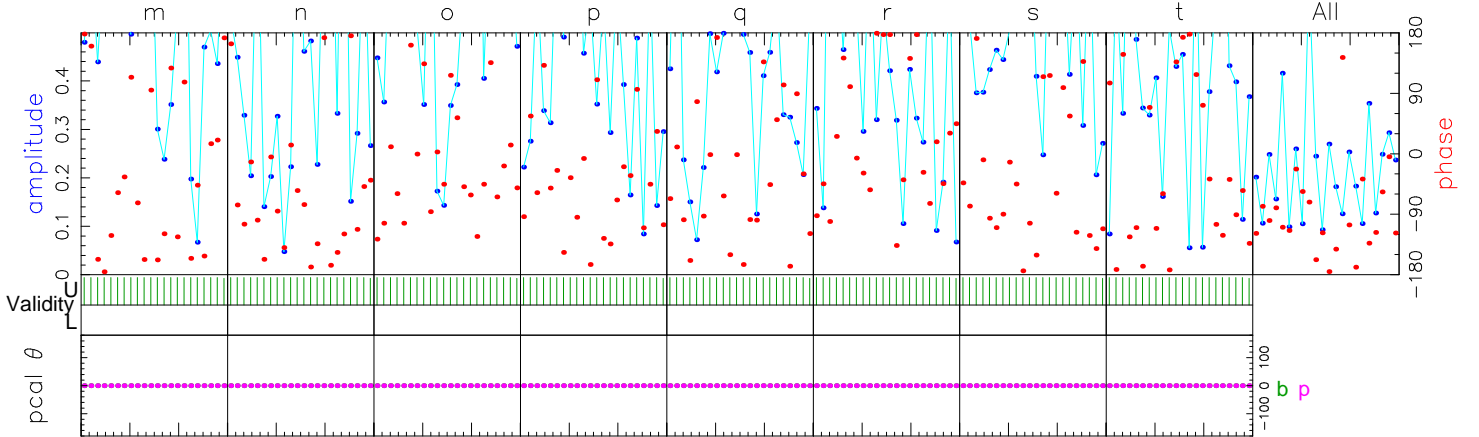


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:104953
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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-169.1	-111.7	-66.4	-68.0	-68.1	-74.6	-101.0	-140.5	Phase	-101.9
	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.2	Ampl.	0.2
	9.1	22.5	291.5	154.0	498.2	322.0	426.6	211.9	Sbd box	233.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.32322184472E+02				-3.32231665061E+02				Resid mbdelay (usec)	3.23059E-03 +/- 1.9E-04
Sband delay (usec)	-3.32322162311E+02				-1.0729904E+00				Resid sbdelay (usec)	-9.04972E-02 +/- 1.5E-03
Phase delay (usec)	-3.32231668346E+02				1.9774395E-07				Resid phdelay (usec)	-3.28500E-06 +/- 6.5E-07
Delay rate (us/s)	-1.87310614021E-01				-1.87315317967E-01				Resid rate (us/s)	4.70395E-06 +/- 6.2E-09
Total phase (deg)			-328.1		1.41230710354E-05				Resid phase (deg)	-101.9 +/- 20.2
	RMS	Theor.	Amplitude	0.166 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	50.5	47.3	Search (1024X32)	0.148					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	90.2	82.5	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	41.7	28.5	Inc. seg. avg.	0.180					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.2	49.8	Inc. frq. avg.	0.180					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
b: az 60.8 el 24.5 pa -47.2			p: az 60.8 el 25.4 pa -65.1						u,v (fr/asec) 1361.907 2111.340	ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1						Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.39.3MP1N1	simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

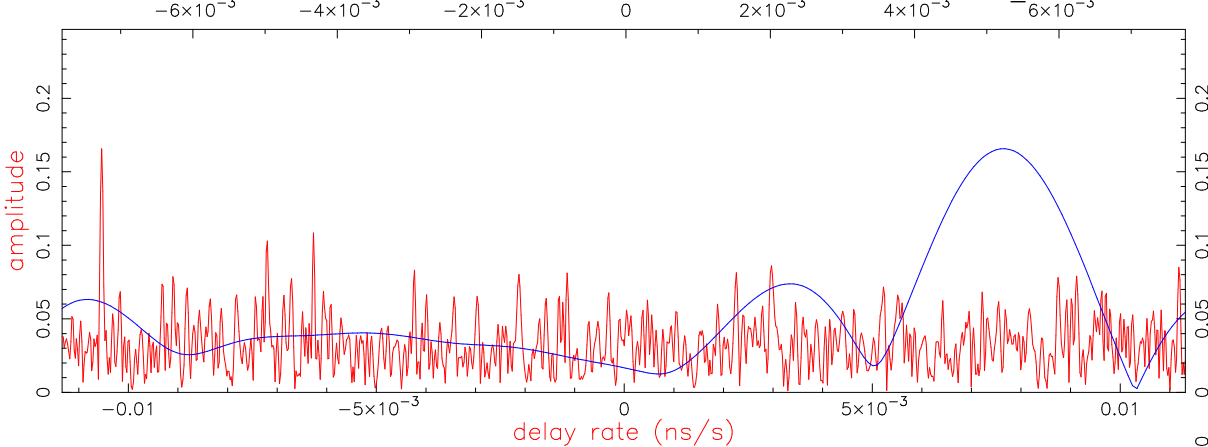
aux01

2013+370.3MP1N1, No0280, bP

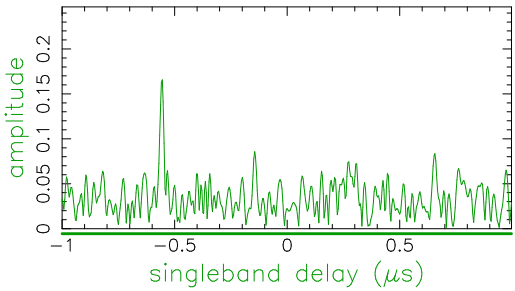
VLBA_BR - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

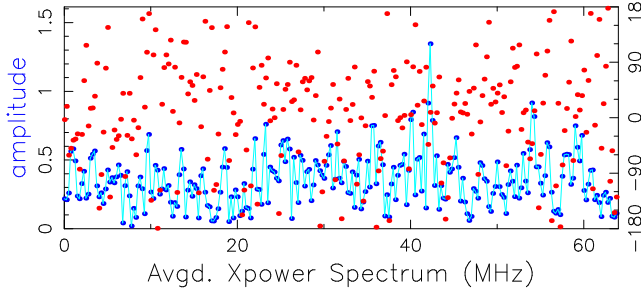
Fringe quality 0



SNR 6.2
 Int time 179.980
 Amp 0.247
 Phase 35.5
 PFD 9.7e-02
 Delays (us)
 SBD -0.556193
 MBD 0.005196
 Fringe rate (Hz)
 -0.910114
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

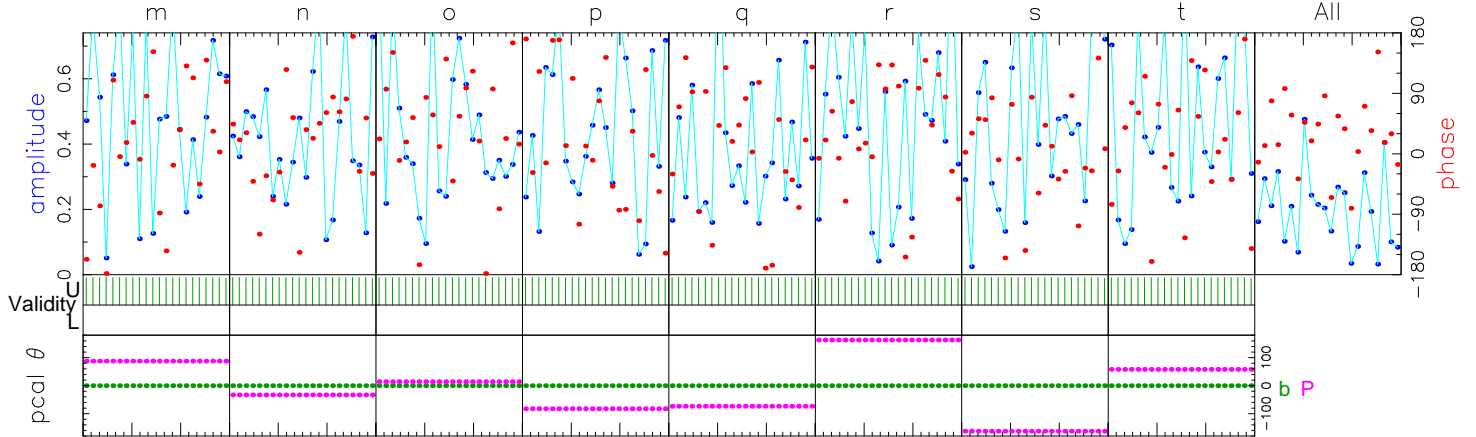


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104953
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
	31.0	21.2	55.8	-46.9	50.8	48.6	25.7	36.9	Phase	35.5				
	0.3	0.3	0.3	0.1	0.3	0.3	0.4	0.2	Ampl.	0.2				
	332.9	388.0	5.4	425.1	113.3	142.7	113.8	223.1	Sbd box	114.6				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used					
b	0	0	0	0	0	0	0	0	PC freqs					
P	0	0	0	0	0	0	0	0	PC freqs					
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
b:P	0:88	0:33	0:15	0:-82	0:-74	0:163	0:-163	0:58	Manl PC					
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
P	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids					
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Chan ids					
									Tracks					
Group delay (usec) (SBD)	-1.13484262541E+04								Apriori delay (usec)	-1.13478689503E+04	Resid mbdelay (usec)	5.19622E-03	+/-	1.8E-04
Sband delay (usec)	-1.13484251431E+04								Apriori clock (usec)	5.5358715E+00	Resid sbdelay (usec)	-5.56193E-01	+/-	1.4E-03
Phase delay (usec)	-1.13478689492E+04								Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	1.14564E-06	+/-	6.0E-07
Delay rate (us/s)	1.20631946243E+00								Apriori rate (us/s)	1.20633002795E+00	Resid rate (us/s)	-1.05655E-05	+/-	5.8E-09
Total phase (deg)			-101.6						Apriori accel (us/s/s)	7.00537458760E-05	Resid phase (deg)	35.5	+/-	18.6

ph/seg (deg) 52.5 43.7 Search (1024X32) 0.162 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.8 76.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.4 26.3 Inc. seg. avg. 0.229 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.1 46.0 Inc. frq. avg. 0.236 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 60.8 el 24.5 pa -47.2 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -8620.803 5239.614 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bP.W.41.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

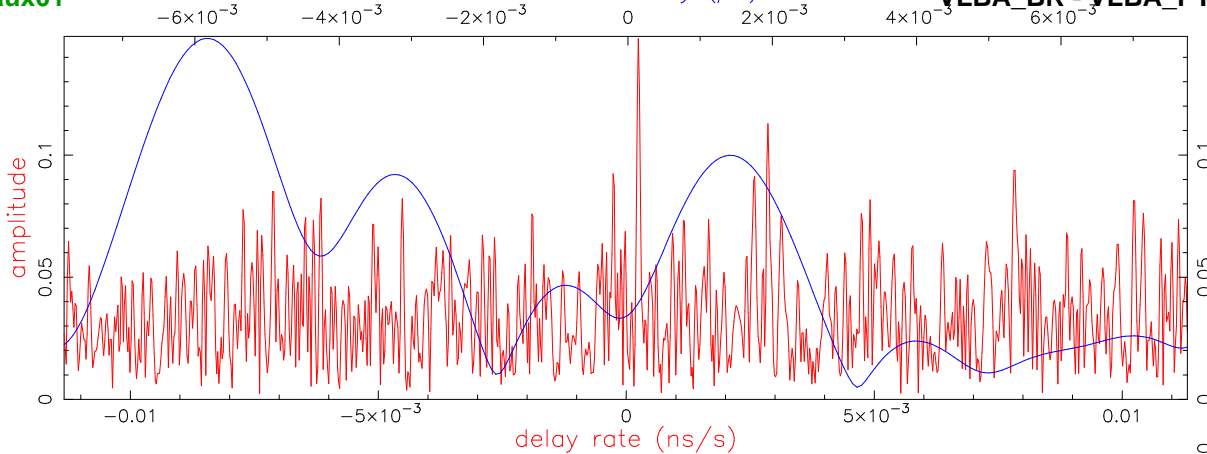
aux01

2013+370.3MP1N1, No0280, bp

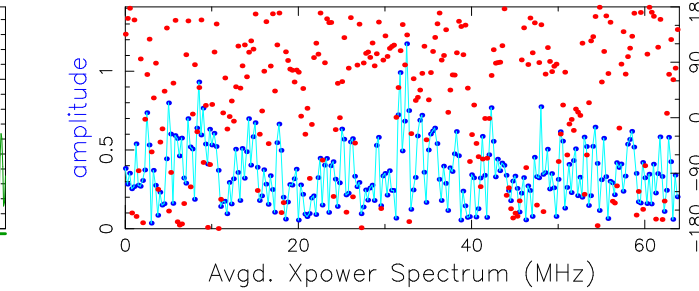
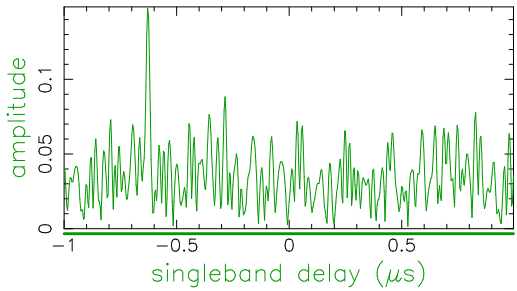
VLBA_BR - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

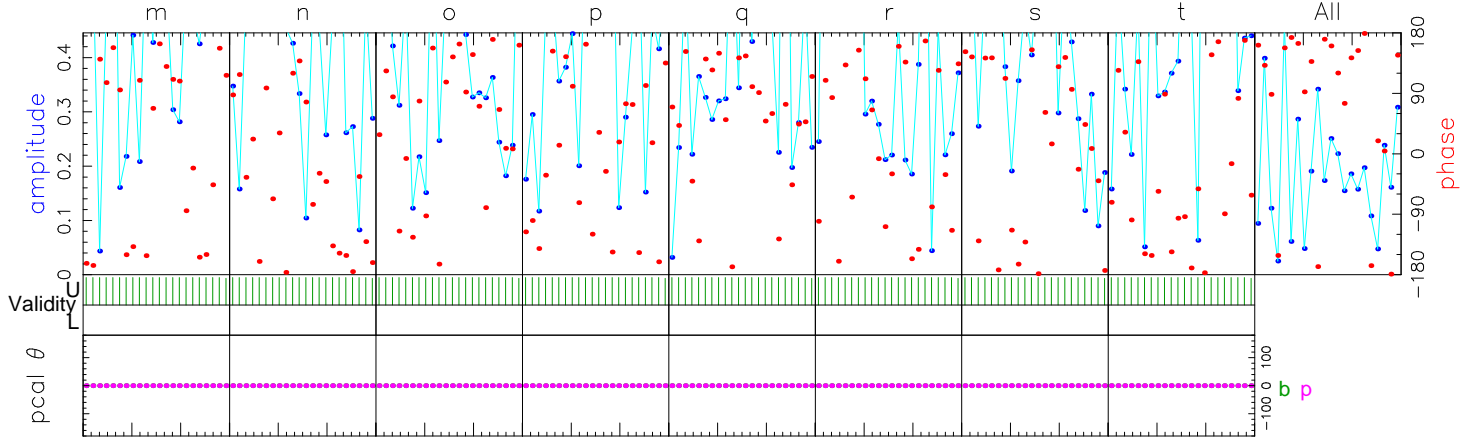


SNR 5.4
 Int time 179.991
 Amp 0.149
 Phase 150.1
 PFD 1.0e+00
 Delays (us)
 SBD -0.627864
 MBD -0.005787
 Fringe rate (Hz)
 0.020785
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104954
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	167.7	-139.4	125.3	175.2	103.0	150.4	137.4	-150.1	Phase	150.1
	0.3	0.1	0.2	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	488.5	278.0	236.2	81.4	365.9	237.0	472.7	484.1	Sbd box	96.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.32862452515E+02		Apriori delay (usec)		-3.32231665061E+02		Resid mbdelay (usec)		-5.78745E-03	+/- 2.0E-04
Sband delay (usec)	-3.32859529561E+02		Apriori clock (usec)		-1.0729904E+00		Resid sbdelay (usec)		-6.27864E-01	+/- 1.6E-03
Phase delay (usec)	-3.32231660220E+02		Apriori clockrate (us/s)		1.9774395E-07		Resid phdelay (usec)		4.84107E-06	+/- 6.8E-07
Delay rate (us/s)	-1.87315076677E-01		Apriori rate (us/s)		-1.87315317967E-01		Resid rate (us/s)		2.41289E-07	+/- 6.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.41230710354E-05		Resid phase (deg)		150.1	+/- 21.0

ph/seg (deg) RMS Theor. Amplitude 0.149 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.6 49.3 Search (1024X32) 0.147 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 81.3 86.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.6 29.7 Inc. seg. avg. 0.140 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 51.0 51.9 Inc. frq. avg. 0.158 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 60.8 el 24.5 pa -47.2 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 1361.907 2111.340 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.47.3MP1N1

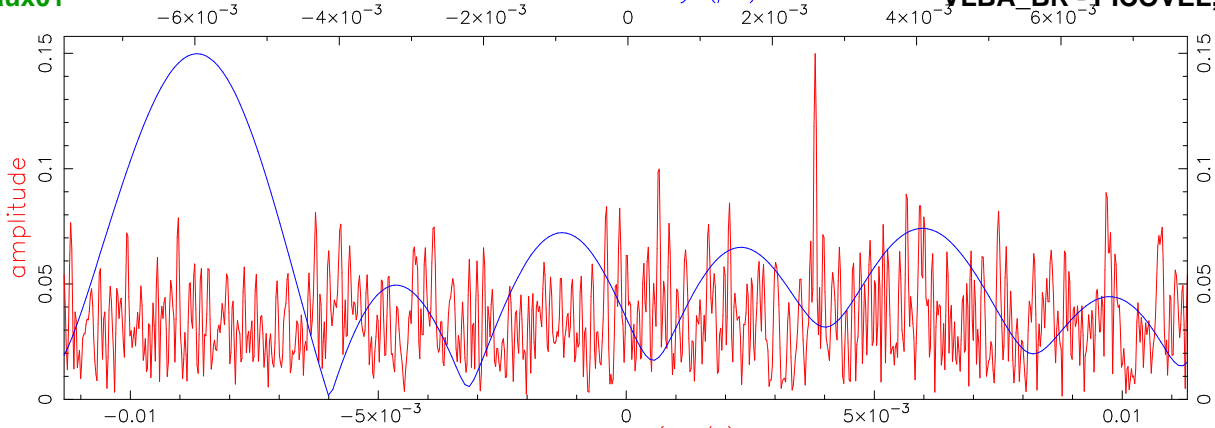
Mk4/DiFX fourfit 3.25 rev 0

aux01

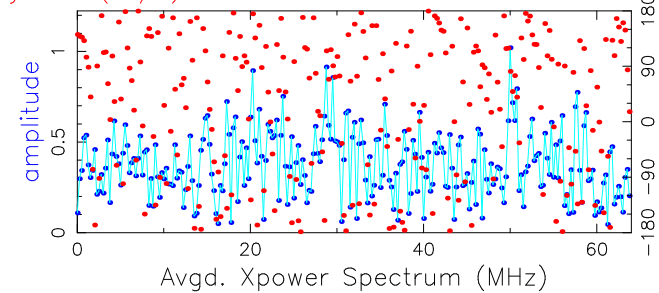
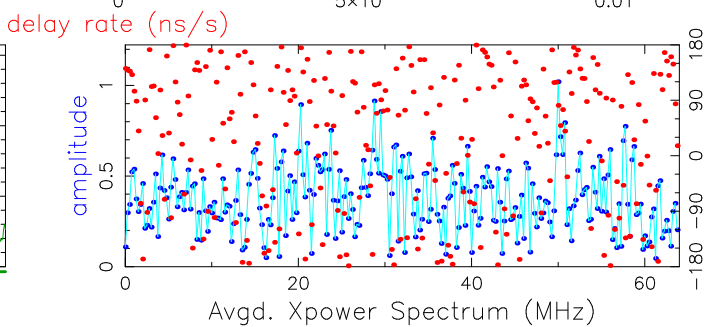
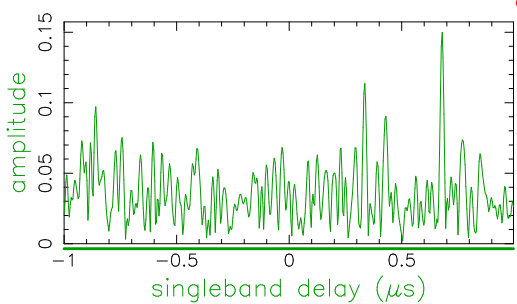
2013+370.3MP1N1, No0280, bP

VLBA_BR - PICOVEL, fgroup W, pol LR

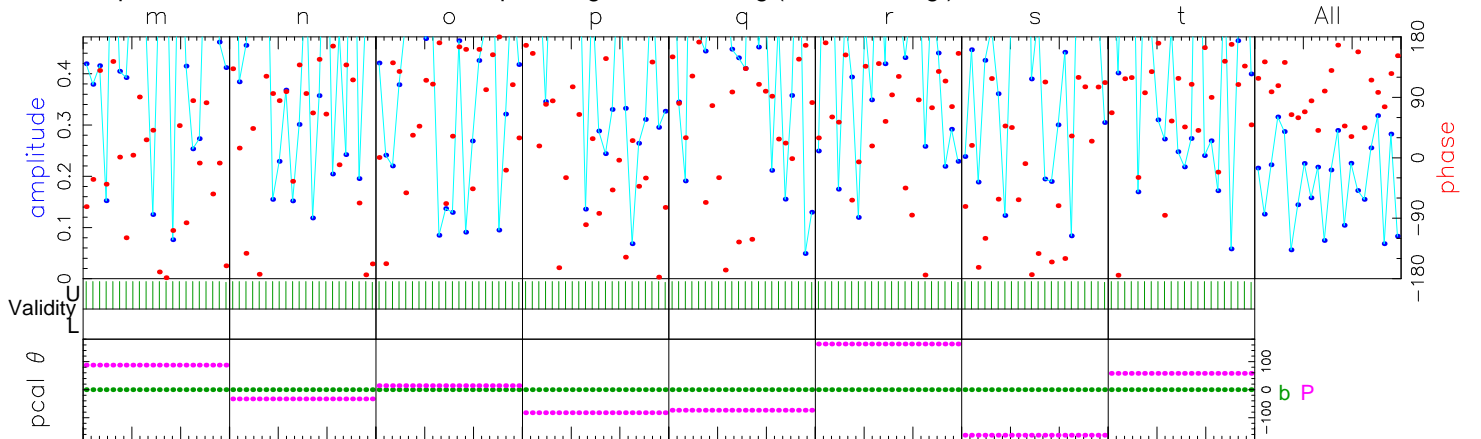
multiband delay (μ s)



Fringe quality 0
 SNR 5.5
 Int time 179.980
 Amp 0.157
 Phase 103.7
 PFD 9.9e-01
 Delays (us)
 SBD 0.679122
 MBD -0.005986
 Fringe rate (Hz) 0.328557
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:104955
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
b	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-1.13471874361E+04									
Sband delay (usec)	-1.13471898286E+04									
Phase delay (usec)	-1.13478689470E+04									
Delay rate (us/s)	1.20633384217E+00									
Total phase (deg)			-33.5							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
simultaneous interpolator										

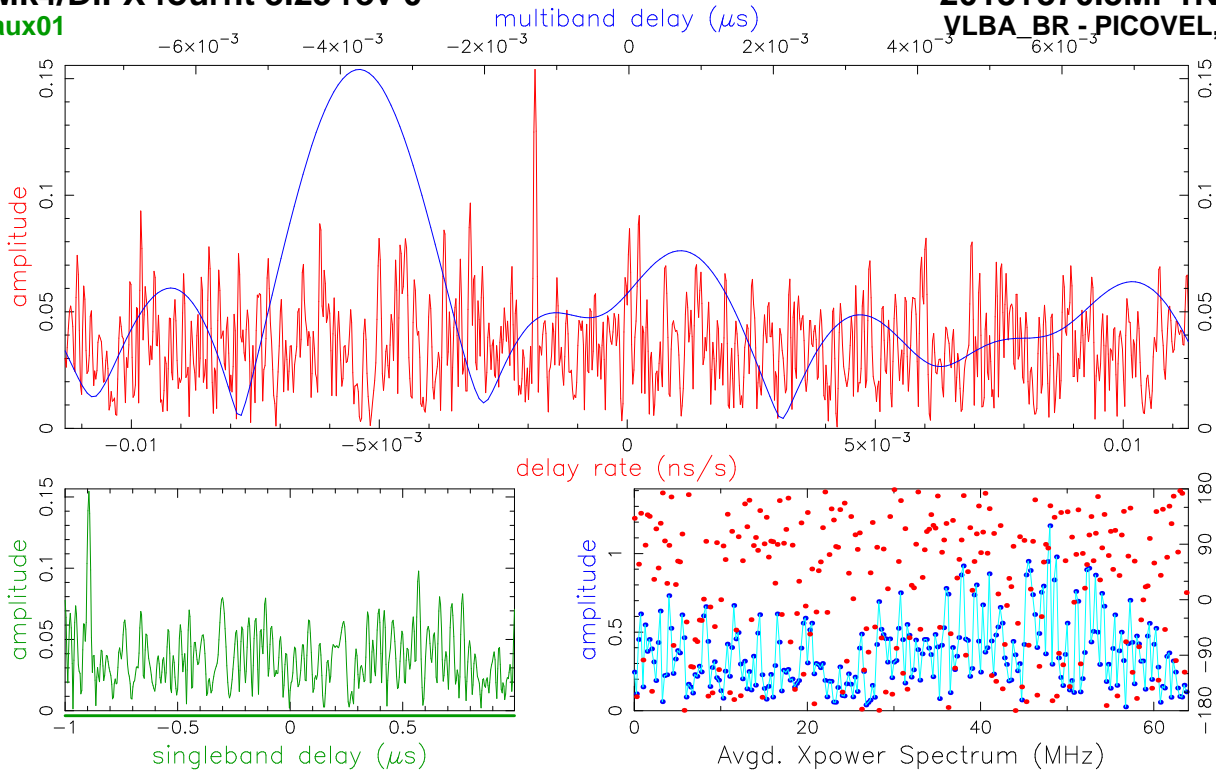
b: az 60.8 el 24.5 pa -47.2 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -8620.803 5239.614
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bP.W.49.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

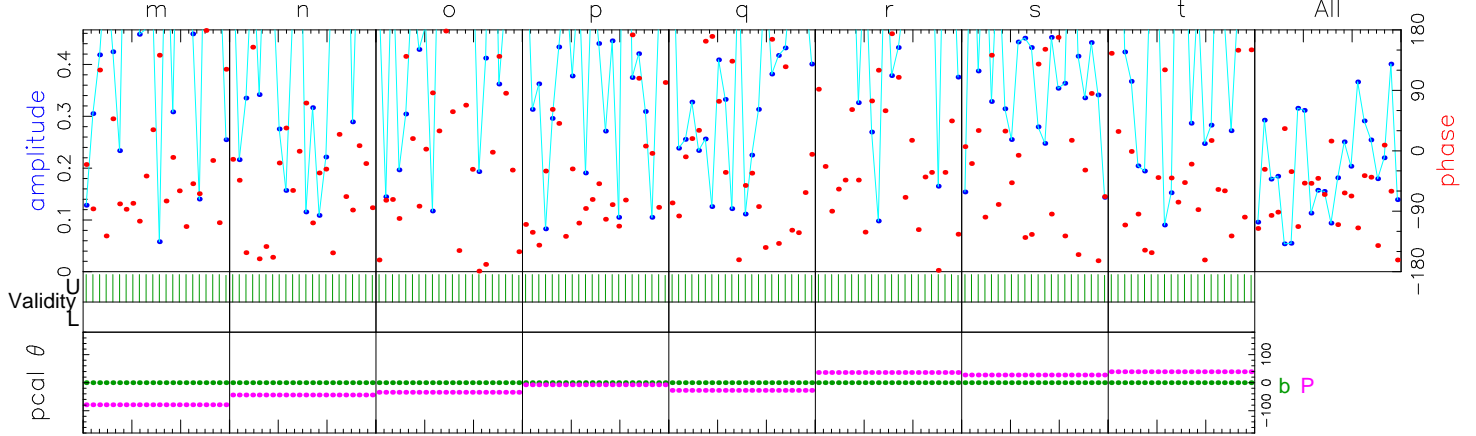
2013+370.3MP1N1, No0280, bP

VLBA_BR - PICOVEL, fgroup W, pol RL



Fringe quality 0
 SNR 5.6
 Int time 179.980
 Amp 0.156
 Phase -67.8
 PFD 8.6e-01
 Delays (us)
 SBD -0.894657
 MBD -0.003745
 Fringe rate (Hz)
 -0.160205
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104957
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.3	-61.2	-8.1	-86.2	-105.1	-27.1	-68.8	-80.8	Phase	-67.8
	0.3	0.2	0.1	0.2	0.1	0.2	0.1	0.2	Ampl.	0.2
	27.2	208.7	285.5	130.9	11.7	440.9	204.1	367.7	Sbd box	28.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.13487633202E+04	Apriori delay (usec)	-1.13478689503E+04	Resid mbdelay (usec)	-3.74489E-03	+/-	1.9E-04
Sband delay (usec)	-1.13487636076E+04	Apriori clock (usec)	5.5358715E+00	Resid sbdelay (usec)	-8.94657E-01	+/-	1.5E-03
Phase delay (usec)	-1.13478689525E+04	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	-2.18533E-06	+/-	6.5E-07
Delay rate (us/s)	1.20632816813E+00	Apriori rate (us/s)	1.20633002795E+00	Resid rate (us/s)	-1.85982E-06	+/-	6.3E-09
Total phase (deg)	-204.9	Apriori accel (us/s/s)	7.00537458760E-05	Resid phase (deg)	-67.8	+/-	20.3

ph/seg (deg)	49.0	Theor.	47.6	Amplitude	0.156 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	69.7		83.1	Search (1024X32)	0.150	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	34.7		28.7	Inc. seg. avg.	0.154	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.9		50.1	Inc. frq. avg.	0.153	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
b: az 60.8 el 24.5 pa -47.2		P: az 277.4 el 72.2 pa 83.5		u, v (fr/asec)	-8620.803 5239.614	Data rate(Mb/s): 2048	t_cohere infinite			

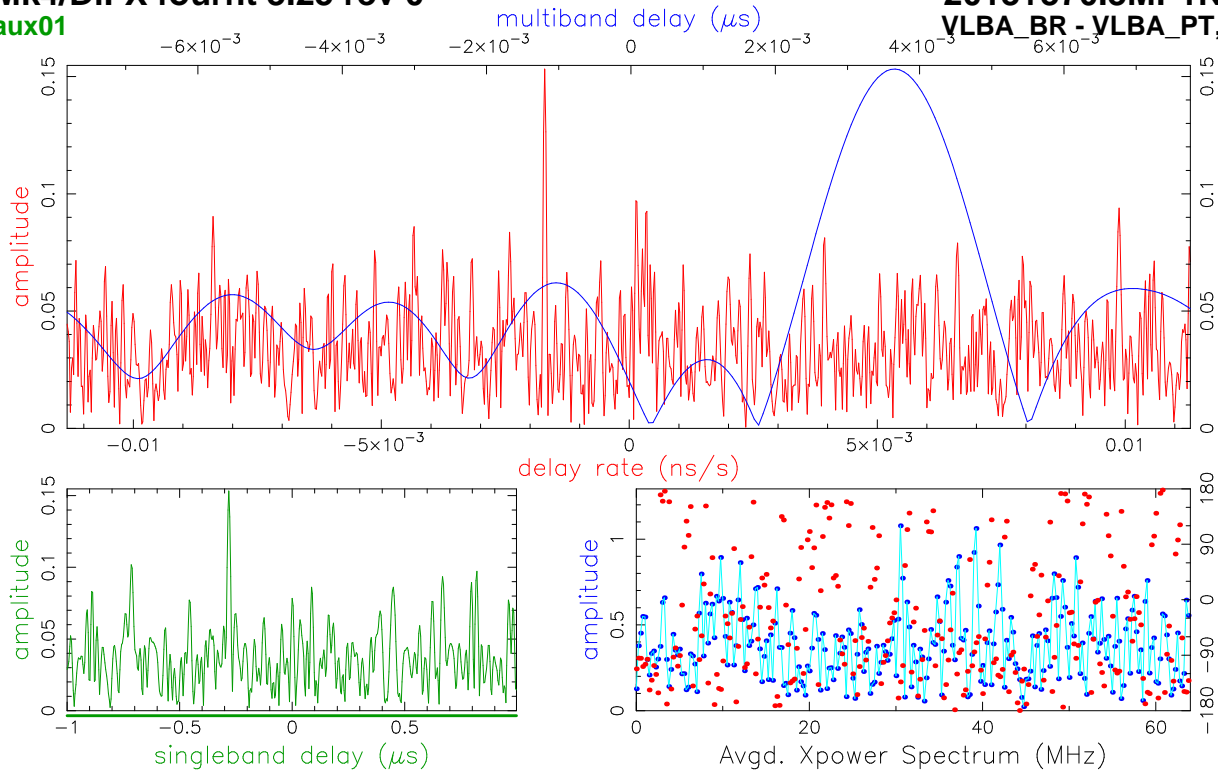
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bP.W.51.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bp

VLBA_BR - VLBA_PT, fgroup W, pol RL

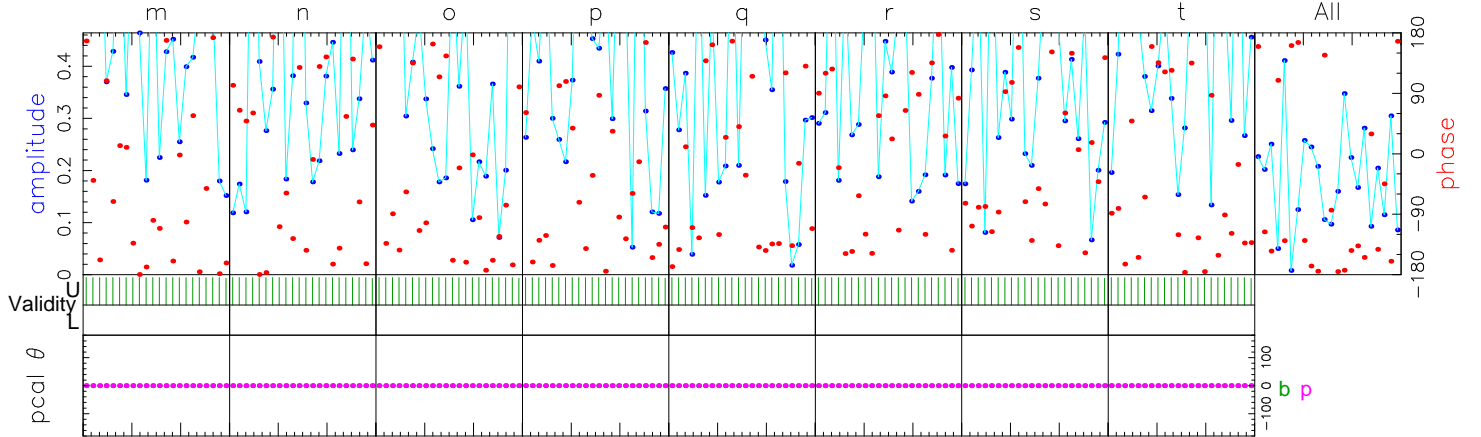


Fringe quality 0

SNR 5.6
 Int time 179.991
 Amp 0.155
 Phase -154.2
 PFD 9.0e-01
 Delays (us)
 SBD -0.281569
 MBD 0.003641
 Fringe rate (Hz)
 -0.146878
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104959
 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



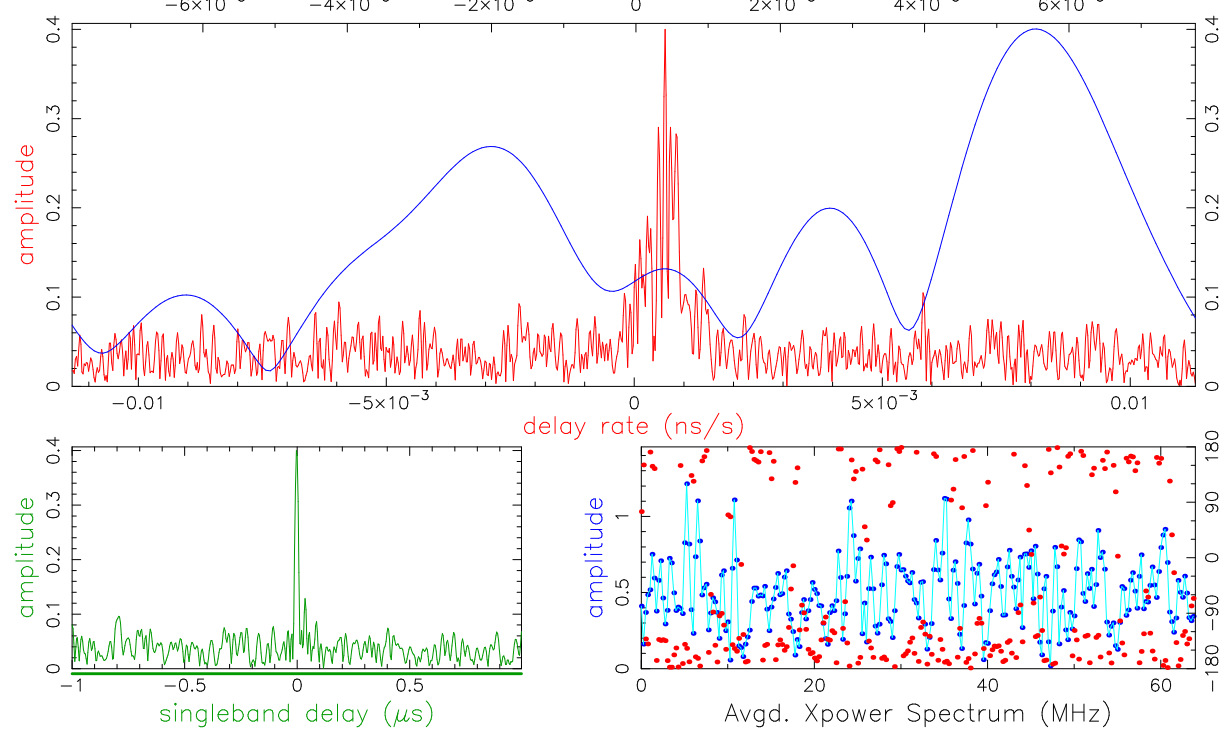
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-132.4	146.2	-153.9	-110.4	-155.2	163.3	-143.5	-149.7	Phase	-154.2	
	0.2	0.1	0.3	0.1	0.2	0.1	0.2	0.2	Ampl.	0.2	
	275.1	63.4	89.8	201.8	373.7	30.0	357.8	344.9	Sbd box	184.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
p	0	0	0	0	0	0	0	0	PC freqs		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
p	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-3.32509274165E+02		Apriori delay (usec)		-3.32231665061E+02		Resid mbdelay (usec)		3.64090E-03	+/- 1.9E-04	
Sband delay (usec)	-3.32513233811E+02		Apriori clock (usec)		-1.0729904E+00		Resid sbdelay (usec)		-2.81569E-01	+/- 1.5E-03	
Phase delay (usec)	-3.32231670033E+02		Apriori clockrate (us/s)		1.9774395E-07		Resid phdelay (usec)		-4.97204E-06	+/- 6.6E-07	
Delay rate (us/s)	-1.87317023070E-01		Apriori rate (us/s)		-1.87315317967E-01		Resid rate (us/s)		-1.70510E-06	+/- 6.3E-09	
Total phase (deg)			Apriori accel (us/s/s)		1.41230710354E-05		Resid phase (deg)		-154.2	+/- 20.4	
	RMS	Theor.	Amplitude	0.155 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	57.6	47.8	Search (1024X32)	0.152		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	68.0	83.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	36.2	28.8	Inc. seg. avg.	0.142		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	30.4	50.3	Inc. frq. avg.	0.155		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2	p: az 60.8 el 25.4 pa -65.1		u, v (fr/asec)		1361.907 2111.340				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bp..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bp.W.56.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bX

VLBA_BR - ONSALA60, fgroup W, pol LL

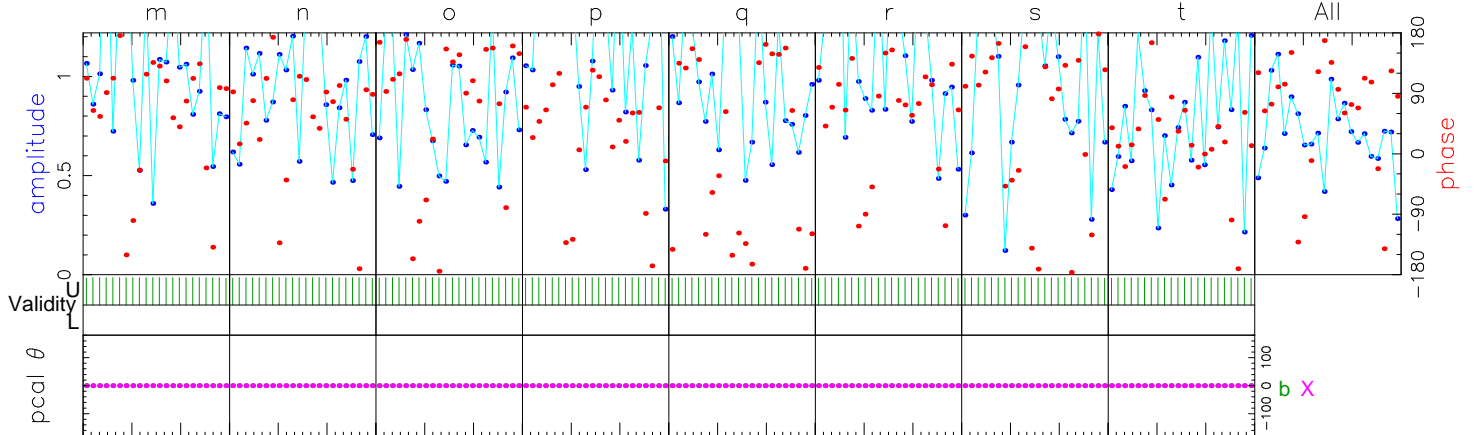


Fringe quality 8

SNR 14.9
 Int time 179.812
 Amp 0.407
 Phase 105.0
 PFD 1.1e-41
 Delays (us)
 SBD -0.002390
 MBD 0.005584
 Fringe rate (Hz)
 0.053710
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104949
 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



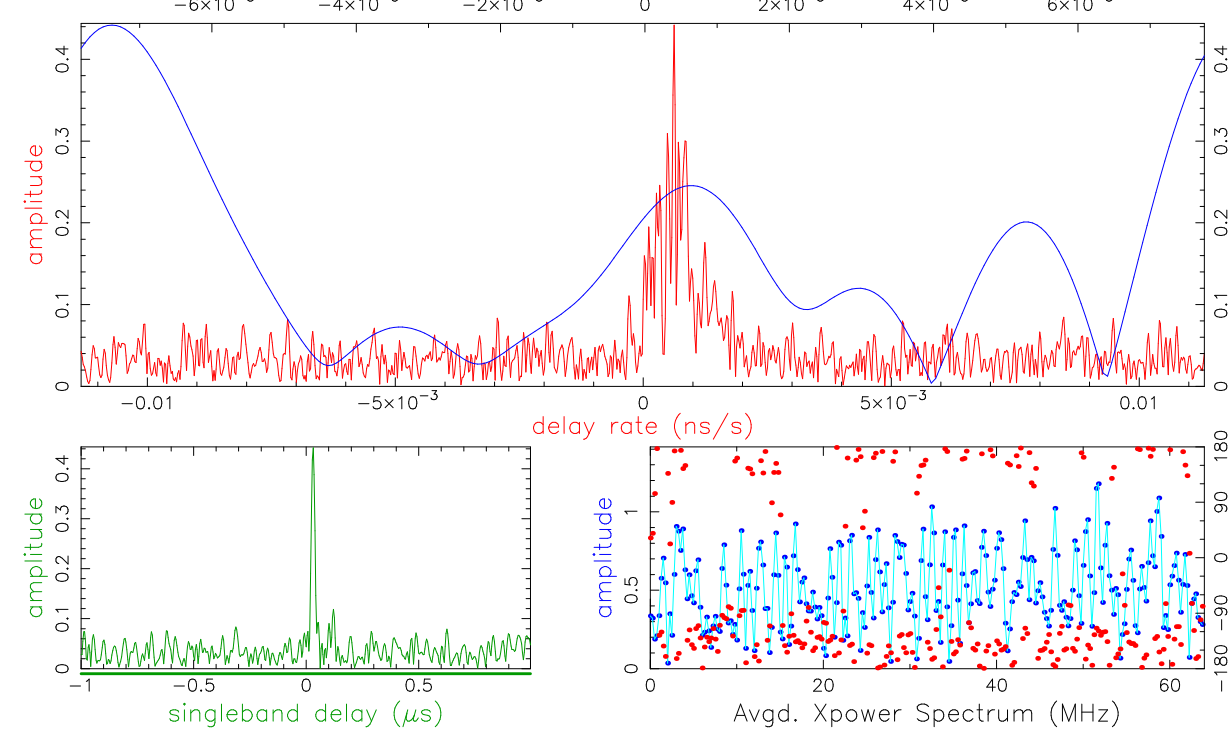
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	102.8	77.4	146.8	75.7	174.6	98.3	138.9	21.1	Phase	105.0		
	0.5	0.6	0.5	0.6	0.5	0.7	0.5	0.4	Ampl.	0.5		
	256.0	255.7	255.6	255.6	255.5	256.0	255.7	254.2	Sbd box	256.4		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
b	0	0	0	0	0	0	0	0	PC freqs			
X	0	0	0	0	0	0	0	0	PC freqs			
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
b:X	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			
X	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	-9.25877303326E+03		Apriori delay (usec)		-9.25876299275E+03		Resid mbdelay (usec)		5.58448E-03	+/- 7.3E-05		
Sband delay (usec)	-9.25876538250E+03		Apriori clock (usec)		-1.0825700E+02		Resid sbdelay (usec)		-2.38975E-03	+/- 5.8E-04		
Phase delay (usec)	-9.25876298936E+03		Apriori clockrate (us/s)		-6.4018213E-07		Resid phdelay (usec)		3.38679E-06	+/- 2.5E-07		
Delay rate (us/s)	1.23573588551E+00		Apriori rate (us/s)		1.23573526198E+00		Resid rate (us/s)		6.23524E-07	+/- 2.4E-09		
Total phase (deg)	34.7		Apriori accel (us/s/s)		4.19684336619E-05		Resid phase (deg)		105.0	+/- 7.7		
	RMS	Theor.	Amplitude	0.407 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	67.2	18.0	Search (1024X32)	0.394		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	89.6	31.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	52.4	10.9	Inc. seg. avg.	0.685		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	35.2	19.0	Inc. frq. avg.	0.525		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
b: az 60.8 el 24.5 pa -47.2	X: az 247.2 el 58.1 pa 38.6		u, v (fr/asec) -8858.720 1873.072						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bX..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bX.W.30.3MP1N1									

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bX

VLBA_BR - ONSALA60, fgroup W, pol RR

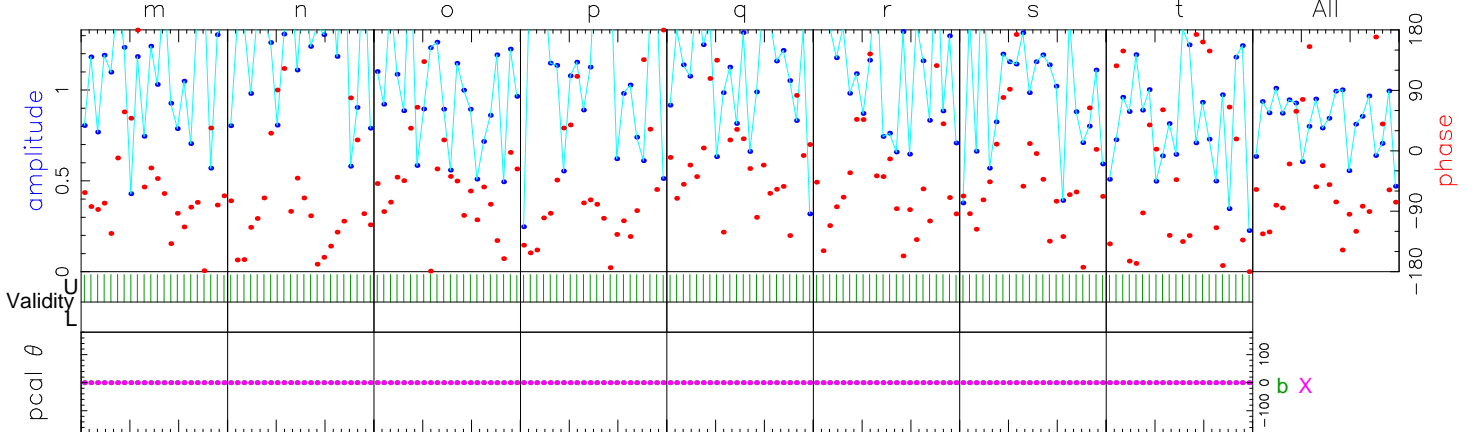


Fringe quality 8

SNR 16.3
 Int time 179.812
 Amp 0.444
 Phase -79.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.030488
 MBD -0.007401
 Fringe rate (Hz) 0.053996
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104953
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-76.1	-110.4	-51.1	-105.7	-28.6	-79.0	-54.2	-159.7	Phase	-79.2	
	0.6	0.7	0.5	0.6	0.6	0.5	0.4	0.3	Ampl.	0.5	
	264.9	264.7	264.3	264.4	264.2	264.3	263.3	262.9	Sbd box	264.8	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
X	0	0	0	0	0	0	0	0	PC freqs		
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
X	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-9.25873914376E+03		Apriori delay (usec)		-9.25876299275E+03		Resid mbdelay (usec)		-7.40102E-03	+/- 6.7E-05	
Sband delay (usec)	-9.25873250450E+03		Apriori clock (usec)		-1.0825700E+02		Resid sbdelay (usec)		3.04883E-02	+/- 5.3E-04	
Phase delay (usec)	-9.25876299530E+03		Apriori clockrate (us/s)		-6.4018213E-07		Resid phdelay (usec)		-2.55409E-06	+/- 2.3E-07	
Delay rate (us/s)	1.23573588882E+00		Apriori rate (us/s)		1.23573526198E+00		Resid rate (us/s)		6.26840E-07	+/- 2.2E-09	
Total phase (deg)			Apriori accel (us/s/s)		4.19684336619E-05		Resid phase (deg)		-79.2	+/- 7.0	
	RMS	Theor.	Amplitude	0.444 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	69.3	16.5	Search (1024X32)	0.428		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	93.5	28.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	45.0	10.0	Inc. seg. avg.	0.796		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	33.5	17.4	Inc. frq. avg.	0.532		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
b: az 60.8 el 24.5 pa -47.2	X: az 247.2 el 58.1 pa 38.6		u, v (fr/asec)		-8858.720 1873.072				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bX..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bX.W.40.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

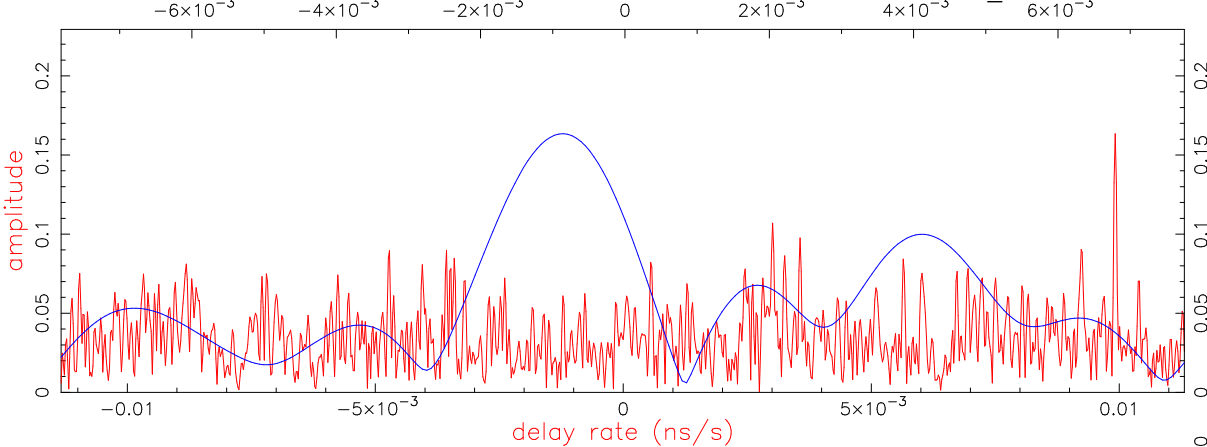
aux01

2013+370.3MP1N1, No0280, bX

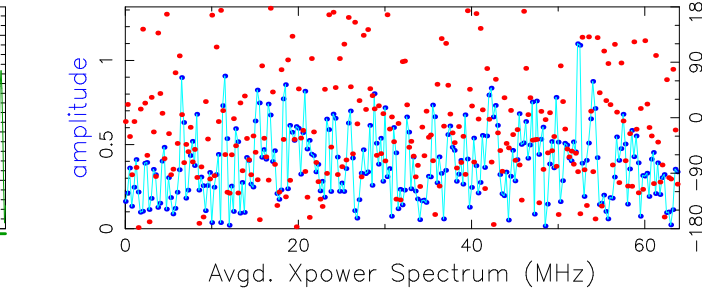
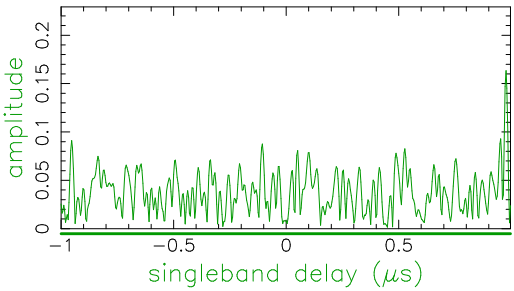
VLBA_BR - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

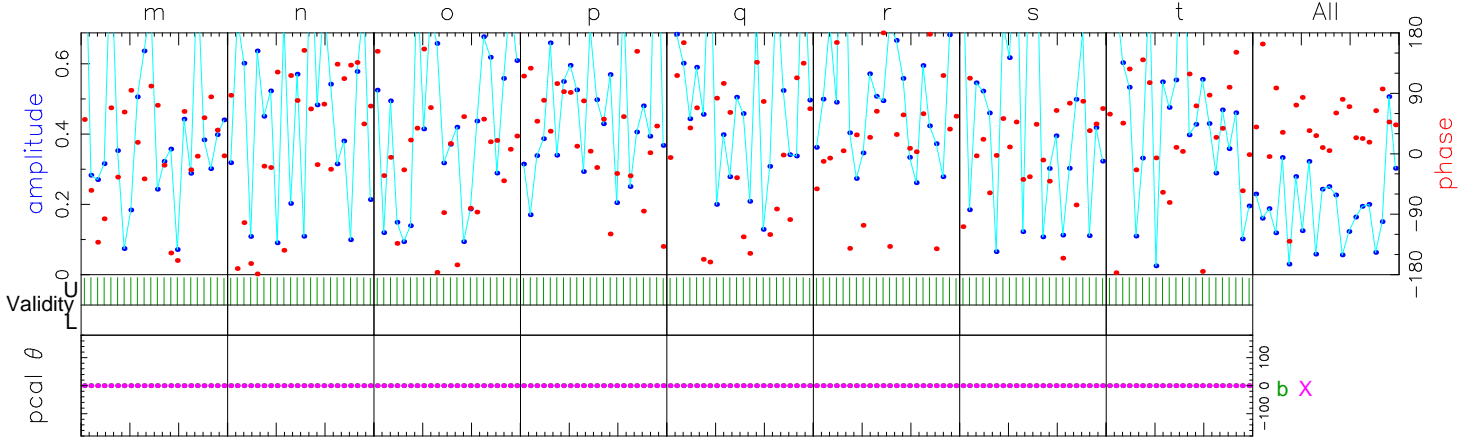


SNR 6.0
Int time 179.812
Amp 0.229
Phase 43.3
PFD 2.3e-01
Delays (us)
SBD 0.976434
MBD -0.000870
Fringe rate (Hz) 0.856115
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build 2024:352:054246
2025:041:104955
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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	0	0	0	0	0	0	0	0		
X	0	0	0	0	0	0	0	0		
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-9.25777948758E+03	Apriori delay (usec)	-9.25876299275E+03	Resid mbdelay (usec)	-8.69832E-04	+/-	1.8E-04
Sband delay (usec)	-9.25778655875E+03	Apriori clock (usec)	-1.0825700E+02	Resid sbdelay (usec)	9.76434E-01	+/-	1.4E-03
Phase delay (usec)	-9.25876299135E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	1.39680E-06	+/-	6.2E-07
Delay rate (us/s)	1.23574520063E+00	Apriori rate (us/s)	1.23573526198E+00	Resid rate (us/s)	9.93865E-06	+/-	5.9E-09
Total phase (deg)	-27.0	Apriori accel (us/s/s)	4.19684336619E-05	Resid phase (deg)	43.3	+/-	19.1

ph/seg (deg)	53.3	Theor.	44.8	Amplitude	0.229 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.7		78.2	Search (1024X32)	0.158	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.7		27.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.4		47.2	Inc. seg. avg.	0.211	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.239	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

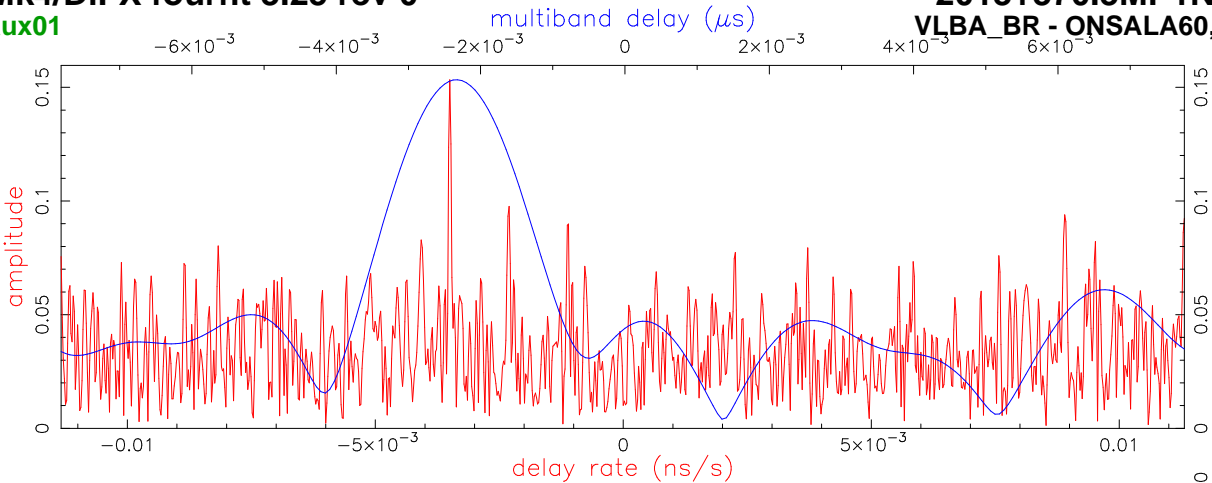
b: az 60.8 el 24.5 pa -47.2 X: az 247.2 el 58.1 pa 38.6 u,v (fr/asec) -8858.720 1873.072 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bX..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bX.W.48.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bX

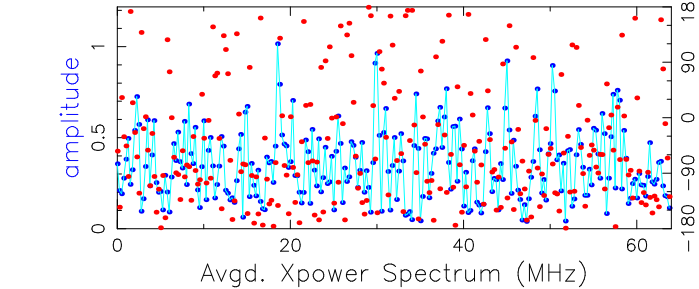
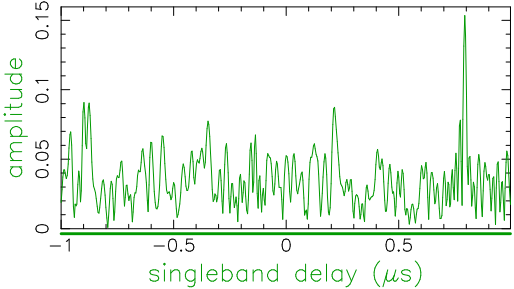
VLBA_BR - ONSALA60, fgroup W, pol RL



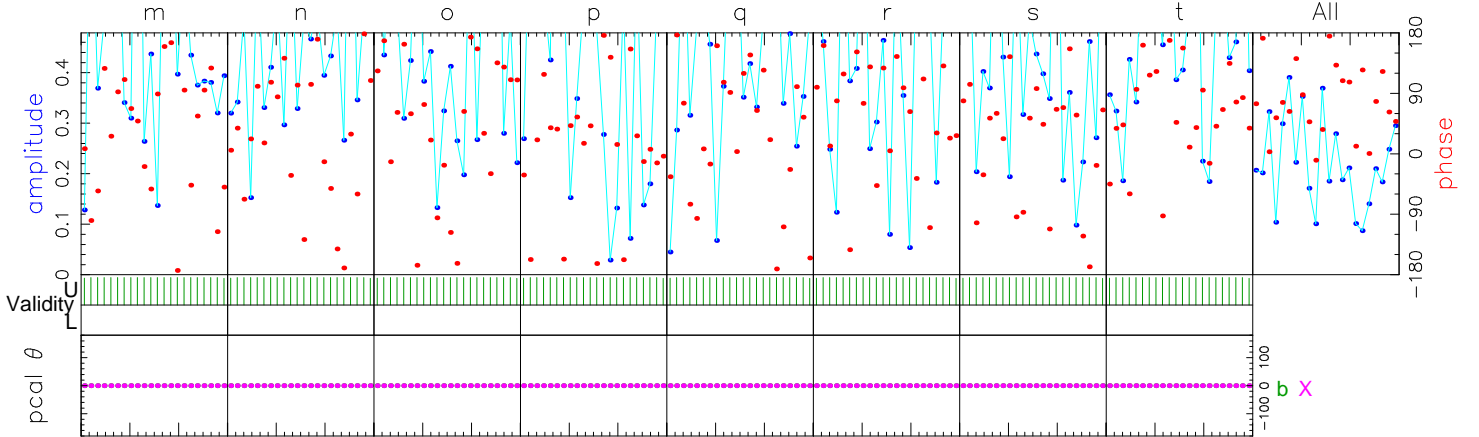
Fringe quality 0

SNR 5.6
 Int time 179.812
 Amp 0.160
 Phase 76.5
 PFD 8.9e-01
 Delays (us)
 SBD 0.793324
 MBD -0.002320
 Fringe rate (Hz)
 -0.301039
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104957
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	79.2	71.4	113.2	33.2	70.6	96.2	63.7	79.7	Phase	76.5
	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	20.5	392.1	369.2	106.9	87.2	244.8	151.7	151.9	Sbd box	460.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-9.25796843725E+03	Apriori delay (usec)	-9.25876299275E+03	Resid mbdelay (usec)	-2.31950E-03	+/-	1.9E-04
Sband delay (usec)	-9.25796966925E+03	Apriori clock (usec)	-1.0825700E+02	Resid sbdelay (usec)	7.93324E-01	+/-	1.5E-03
Phase delay (usec)	-9.25876299028E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	2.46570E-06	+/-	6.6E-07
Delay rate (us/s)	1.23573176722E+00	Apriori rate (us/s)	1.23573526198E+00	Resid rate (us/s)	-3.49476E-06	+/-	6.3E-09
Total phase (deg)	6.1	Apriori accel (us/s/s)	4.19684336619E-05	Resid phase (deg)	76.5	+/-	20.4

ph/seg (deg)	52.1	Theor.	47.7	Amplitude	0.160 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	72.1	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	25.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.4	Inc. seg. avg.	0.171	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.153	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 X: az 247.2 el 58.1 pa 38.6 u, v (fr/asec) -8858.720 1873.072 simultaneous interpolator

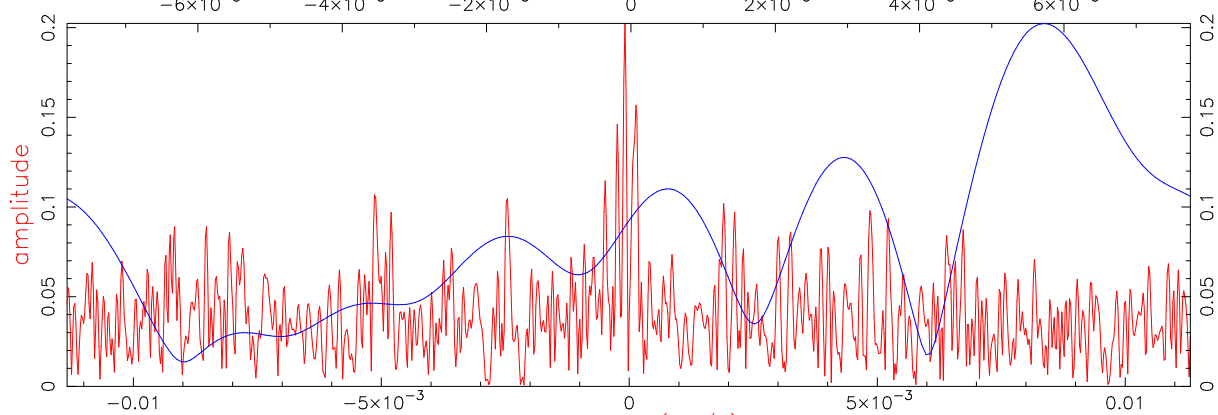
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bX..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bX.W.53.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

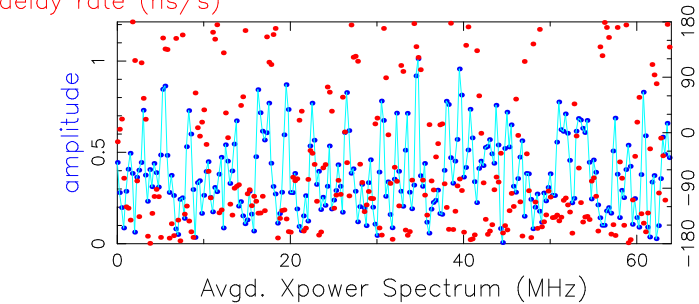
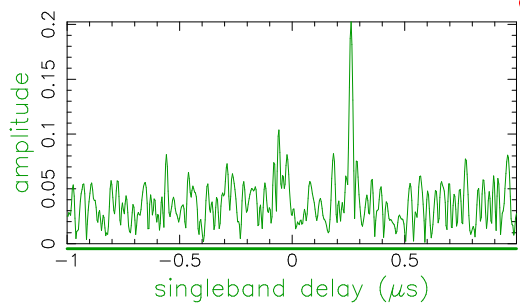
aux01

2013+370.3MP1N1, No0280, bY

VLBA_BR - YEBES40M, fgroup W, pol LL

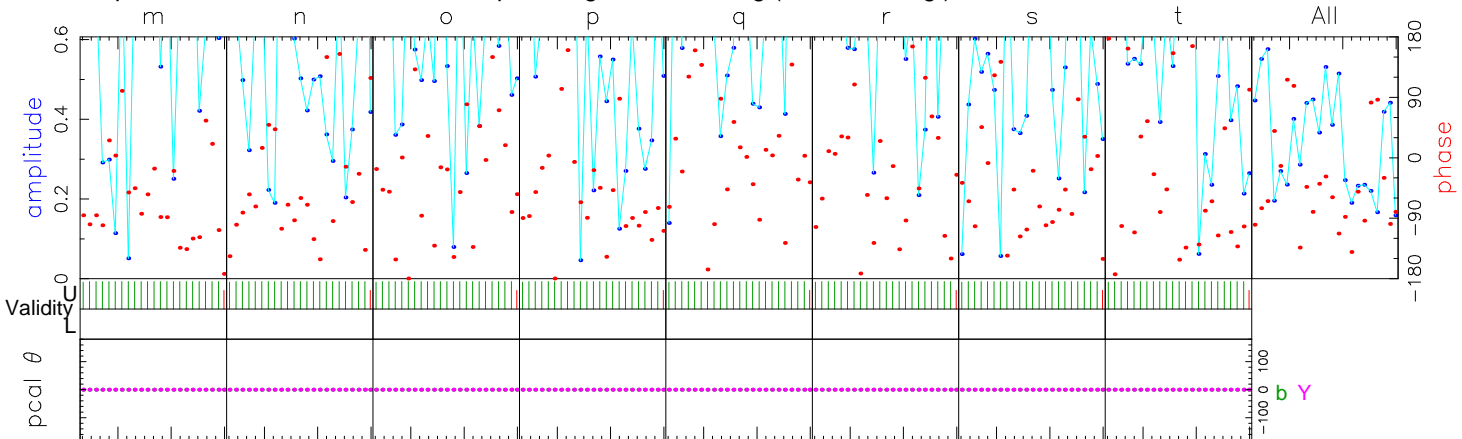


Fringe quality 0
 SNR 7.0
 Int time 162.316
 Amp 0.202
 Phase -66.5
 PFD 2.7e-04
 Delays (us)
 SBD 0.261424
 MBD 0.005722
 Fringe rate (Hz) -0.007720
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105112
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-76.6	-96.5	-32.1	-74.7	22.6	-33.8	-64.5	-137.8	Phase	-66.5
	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.2	Ampl.	0.2
	324.8	323.1	193.4	325.0	321.9	448.2	323.4	435.8	Sbd box	323.9
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.12202395739E+04	Apriori delay (usec)	-1.12204952961E+04	Resid mbdelay (usec)	5.72222E-03	+/-	1.5E-04
Sband delay (usec)	-1.12202338718E+04	Apriori clock (usec)	1.1528241E+02	Resid sbdelay (usec)	2.61424E-01	+/-	1.2E-03
Phase delay (usec)	-1.12204952982E+04	Apriori clockrate (us/s)	2.0322099E-02	Resid phdelay (usec)	-2.14582E-06	+/-	5.2E-07
Delay rate (us/s)	1.19280616644E+00	Apriori rate (us/s)	1.19280625606E+00	Resid rate (us/s)	-8.96198E-08	+/-	5.6E-09
Total phase (deg)	-356.0	Apriori accel (us/s/s)	6.67597134438E-05	Resid phase (deg)	-66.5	+/-	16.3

ph/seg (deg)	79.0	Theor.	39.0	Amplitude	0.202 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	96.8	Search (1024X32)	0.200	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	52.2	Inc. seg. avg.	0.283	Inc. seg. avg.	0.283	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	41.0	Inc. frq. avg.	0.245	Inc. frq. avg.	0.245	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -8526.915 4711.780 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bY.W.344.3MP1N1

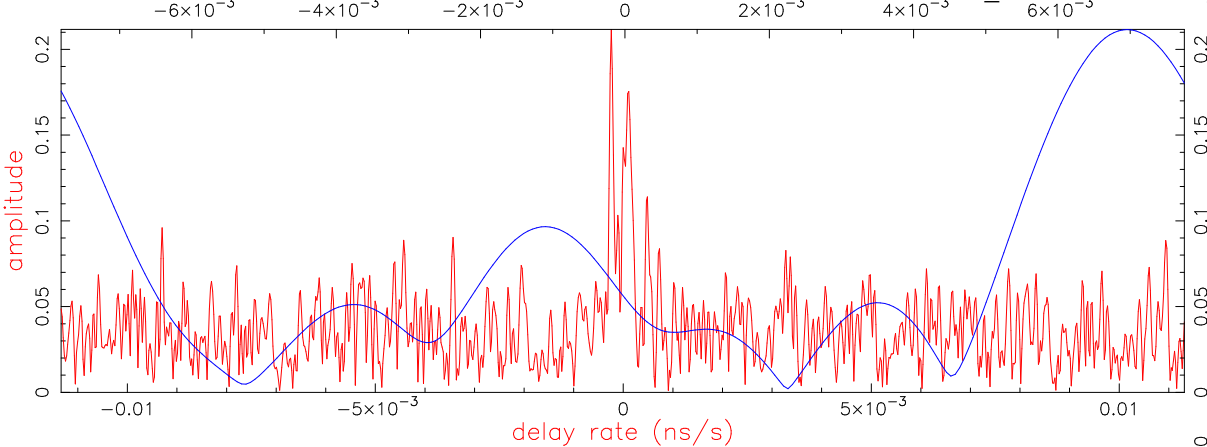
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bY

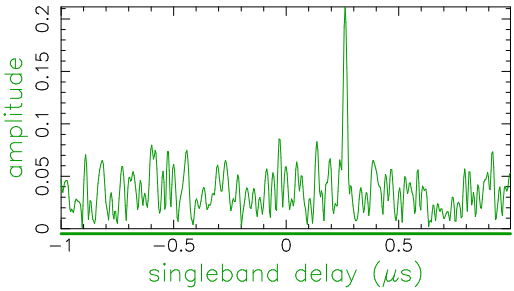
VLBA_BR - YEYES40M, fgroup W, pol RR

multiband delay (μ s)

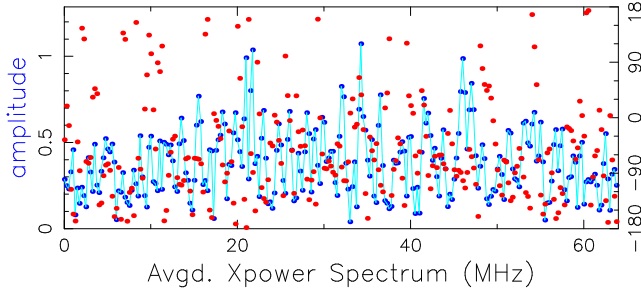


Fringe quality 9

SNR 7.4
 Int time 162.316
 Amp 0.212
 Phase -26.9
 PFD 2.6e-05
 Delays (us)
 SBD 0.261950
 MBD 0.006966
 Fringe rate (Hz)
 -0.020515
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

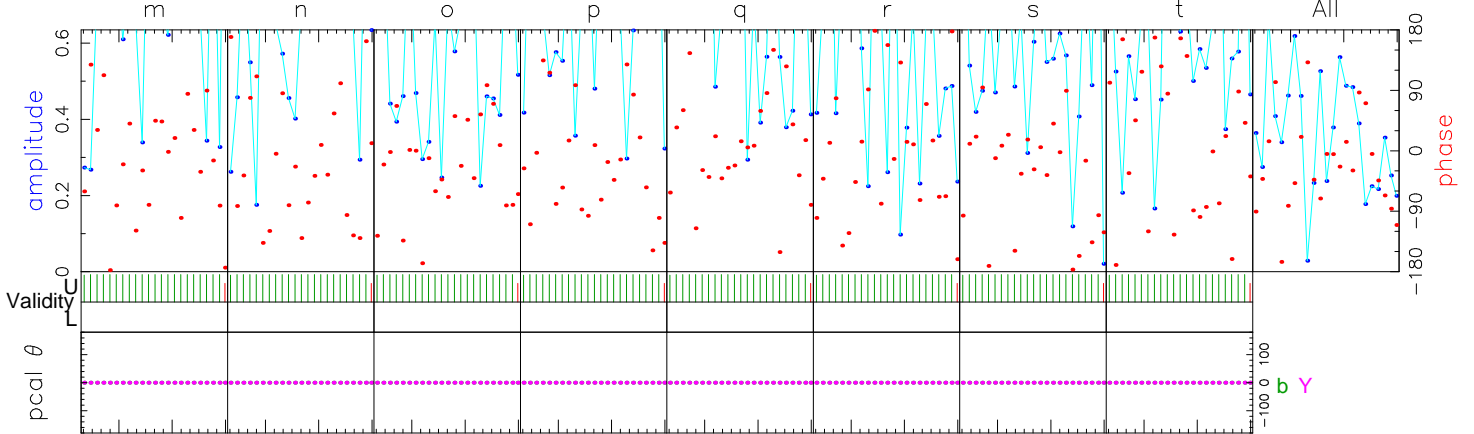


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105114
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	1.5	-67.9	-24.1	-46.1	-4.3	-46.2	-26.7	129.0	Phase	-26.9
	0.2	0.2	0.3	0.3	0.4	0.2	0.3	0.1	Ampl.	0.2
	399.9	29.7	323.6	323.9	323.9	93.0	267.7	352.5	Sbd box	324.1
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.12202383304E+04	Apriori delay (usec)	-1.12204952961E+04	Resid mbdelay (usec)	6.96566E-03	+/-	1.5E-04
Sband delay (usec)	-1.12202333466E+04	Apriori clock (usec)	1.1528241E+02	Resid sbdelay (usec)	2.61950E-01	+/-	1.2E-03
Phase delay (usec)	-1.12204952969E+04	Apriori clockrate (us/s)	2.0322099E-02	Resid phdelay (usec)	-8.67533E-07	+/-	5.0E-07
Delay rate (us/s)	1.19280601790E+00	Apriori rate (us/s)	1.19280625606E+00	Resid rate (us/s)	-2.38160E-07	+/-	5.3E-09
Total phase (deg)	-316.4	Apriori accel (us/s/s)	6.67597134438E-05	Resid phase (deg)	-26.9	+/-	15.5

ph/seg (deg)	69.8	Theor.	37.3	Amplitude	0.212 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	103.1	Search (1024X32)	0.208	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	68.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	45.1	Inc. seg. avg.	0.302	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.225	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

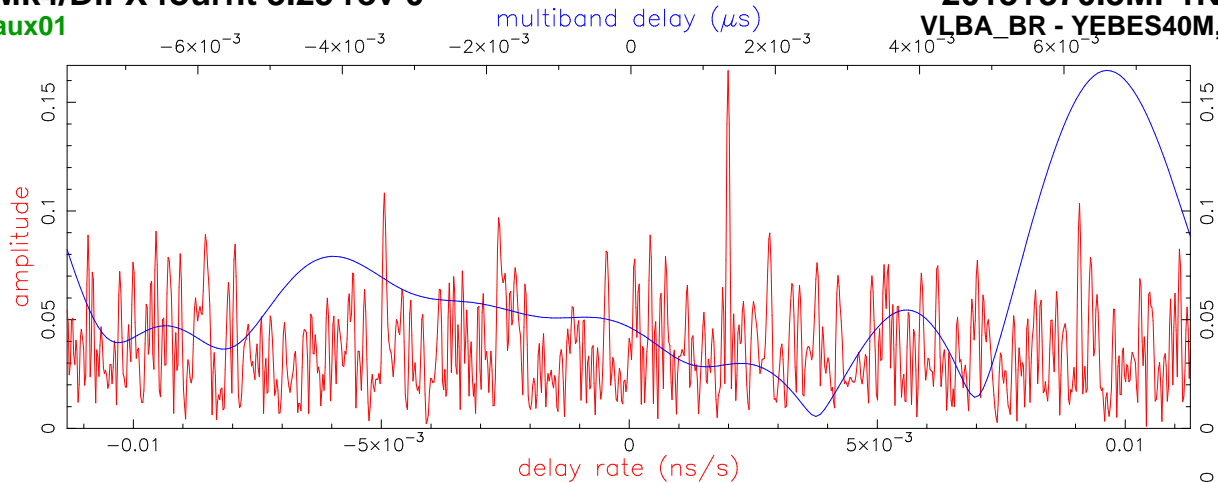
b: az 60.8 el 24.5 pa -47.2 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -8526.915 4711.780 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bY.W.356.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

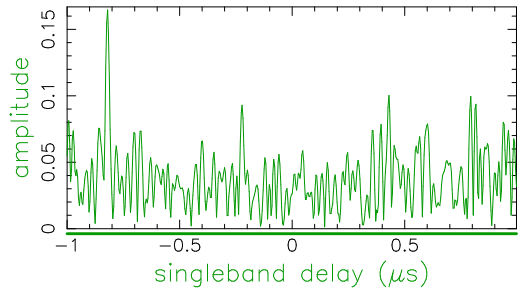
2013+370.3MP1N1, No0280, bY

VLBA_BR - YEYES40M, fgroup W, pol LR

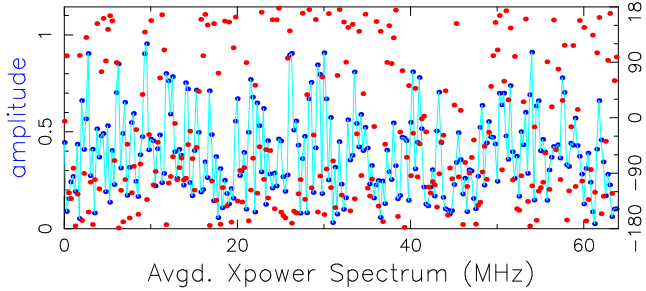


Fringe quality 0

SNR 5.7
 Int time 162.316
 Amp 0.167
 Phase 52.6
 PFD 6.9e-01
 Delays (us)
 SBD -0.820858
 MBD 0.006565
 Fringe rate (Hz)
 0.172855
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

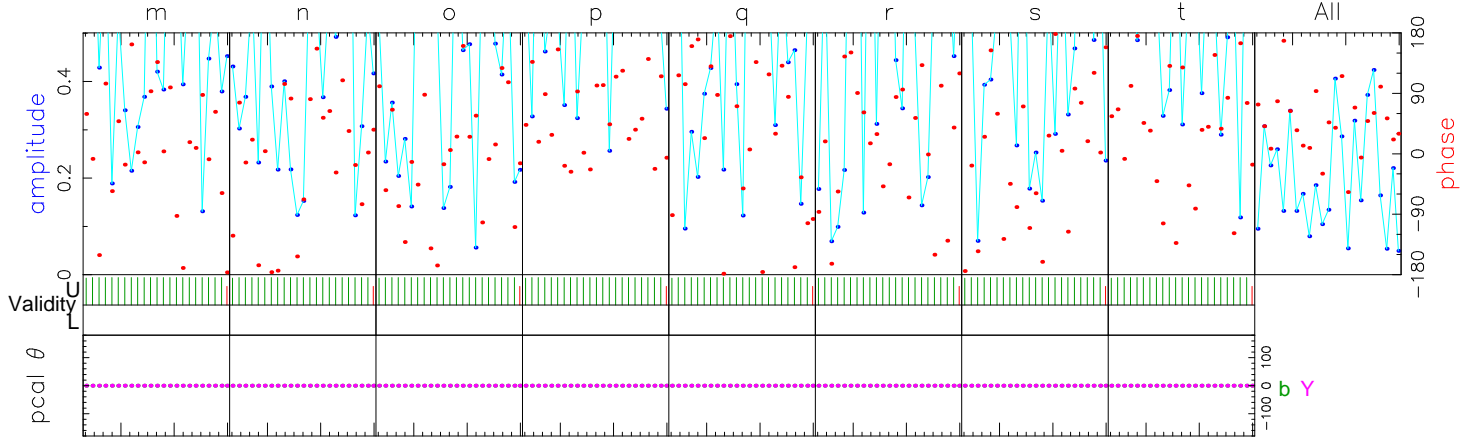


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105117
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
b	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
b:Y	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		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.12213168563E+04	Apriori delay (usec)	-1.12204952961E+04	Resid mbdelay (usec)	6.56479E-03	+/-	1.9E-04
Sband delay (usec)	-1.12213161541E+04	Apriori clock (usec)	1.1528241E+02	Resid sbdelay (usec)	-8.20858E-01	+/-	1.5E-03
Phase delay (usec)	-1.12204952944E+04	Apriori clockrate (us/s)	2.0322099E-02	Resid phdelay (usec)	1.69582E-06	+/-	6.4E-07
Delay rate (us/s)	1.19280826274E+00	Apriori rate (us/s)	1.19280625606E+00	Resid rate (us/s)	2.00667E-06	+/-	6.8E-09
Total phase (deg)	-236.9	Apriori accel (us/s/s)	6.67597134438E-05	Resid phase (deg)	52.6	+/-	20.0

ph/seg (deg)	48.1	Theor.	47.9	Amplitude	0.167 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.8	Search (1024X32)	0.159	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.4	Inc. seg. avg.	0.154	Inc. frq. avg.	0.167	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.5	Inc. frq. avg.	0.167			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 Y: az 266.8 el 72.1 pa 72.3 u, v (fr/asec) -8526.915 4711.780 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bY...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bY.W.368.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

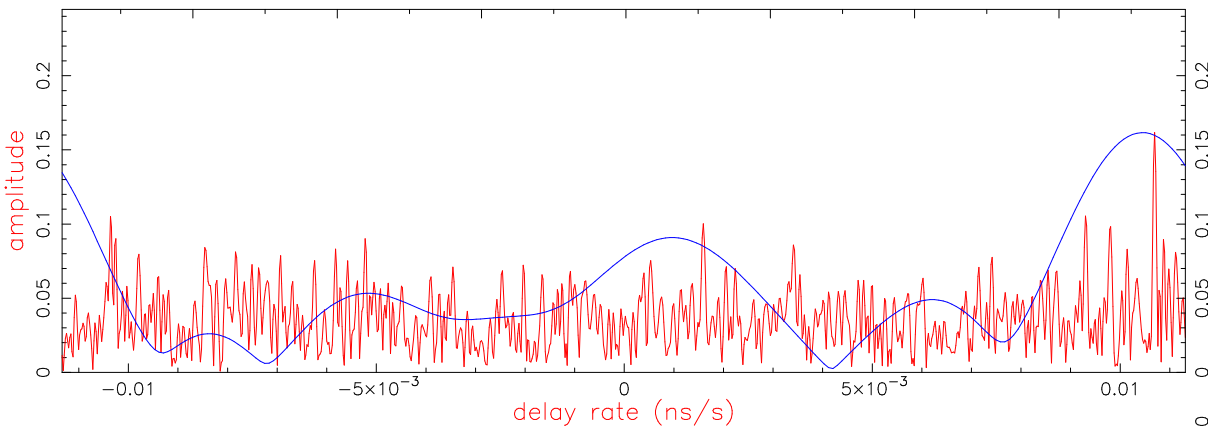
aux01

2013+370.3MP1N1, No0280, bY

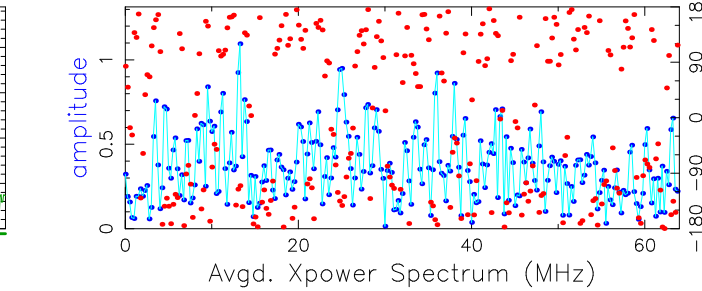
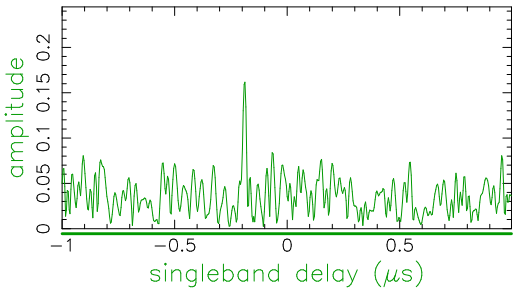
VLBA_BR - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

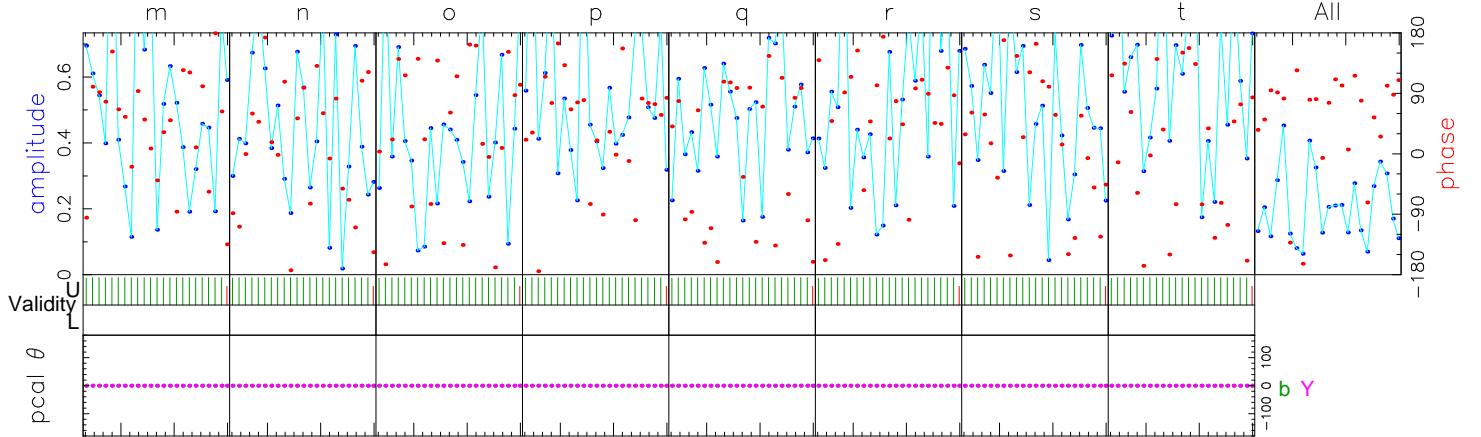


SNR 5.7
 Int time 162.316
 Amp 0.245
 Phase 78.9
 PFD 7.3e-01
 Delays (us)
 SBD -0.189100
 MBD 0.007152
 Fringe rate (Hz) 0.922830
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105119
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	73.3	65.4	121.7	64.0	144.8	78.8	43.7	82.2	Phase	78.9
	0.3	0.2	0.1	0.4	0.2	0.4	0.2	0.2	Ampl.	0.2
	255.0	55.9	61.2	209.0	176.6	208.0	506.4	318.6	Sbd box	208.6
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.12206912688E+04	Apriori delay (usec)	-1.12204952961E+04	Resid mbdelay (usec)	7.15231E-03	+/-	1.9E-04
Sband delay (usec)	-1.12206843963E+04	Apriori clock (usec)	1.1528241E+02	Resid sbdelay (usec)	-1.89100E-01	+/-	1.5E-03
Phase delay (usec)	-1.12204952935E+04	Apriori clockrate (us/s)	2.0322099E-02	Resid phdelay (usec)	2.54331E-06	+/-	6.5E-07
Delay rate (us/s)	1.19281696921E+00	Apriori rate (us/s)	1.19280625606E+00	Resid rate (us/s)	1.07131E-05	+/-	6.9E-09
Total phase (deg)	-210.6	Apriori accel (us/s/s)	6.67597134438E-05	Resid phase (deg)	78.9	+/-	20.0

ph/seg (deg)	60.9	Theor.	48.0	Amplitude	0.245 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.5	Search (1024X32)	0.160	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	36.2	Inc. seg. avg.	0.230	Inc. frq. avg.	0.240	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.6	Inc. frq. avg.	0.240			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 60.8 el 24.5 pa -47.2 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -8526.915 4711.780 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bY.W.380.3MP1N1

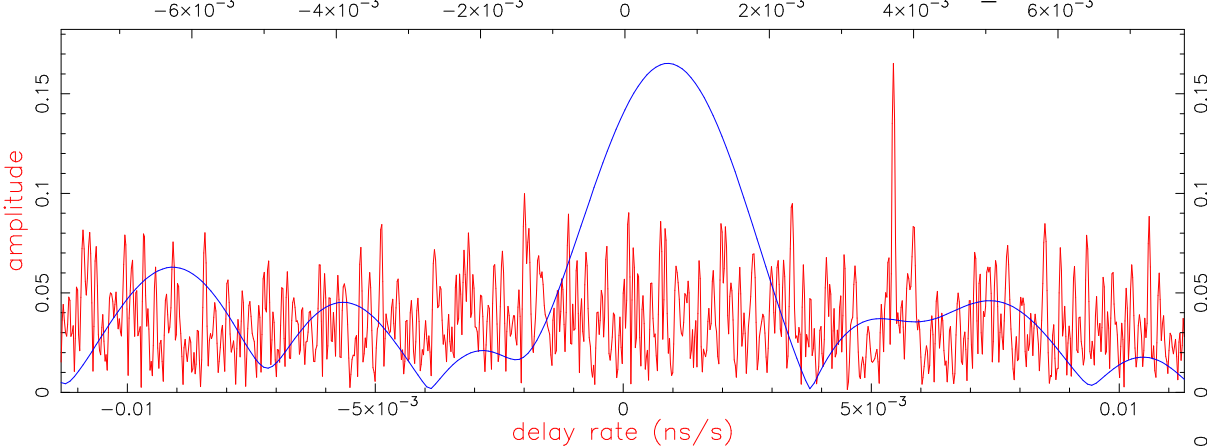
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bZ

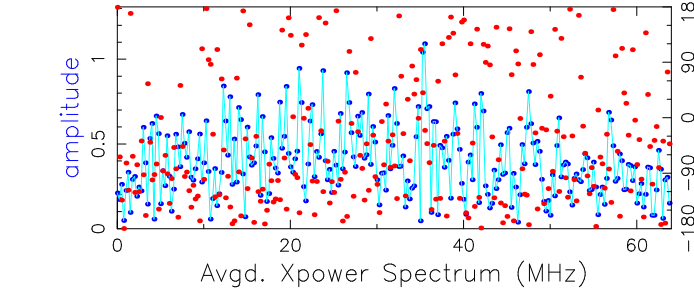
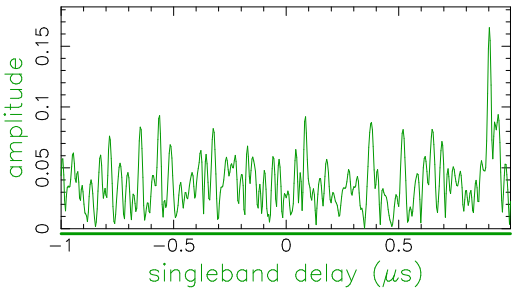
VLBA_BR - METSAHOV, fgroup W, pol LL

multiband delay (μ s)



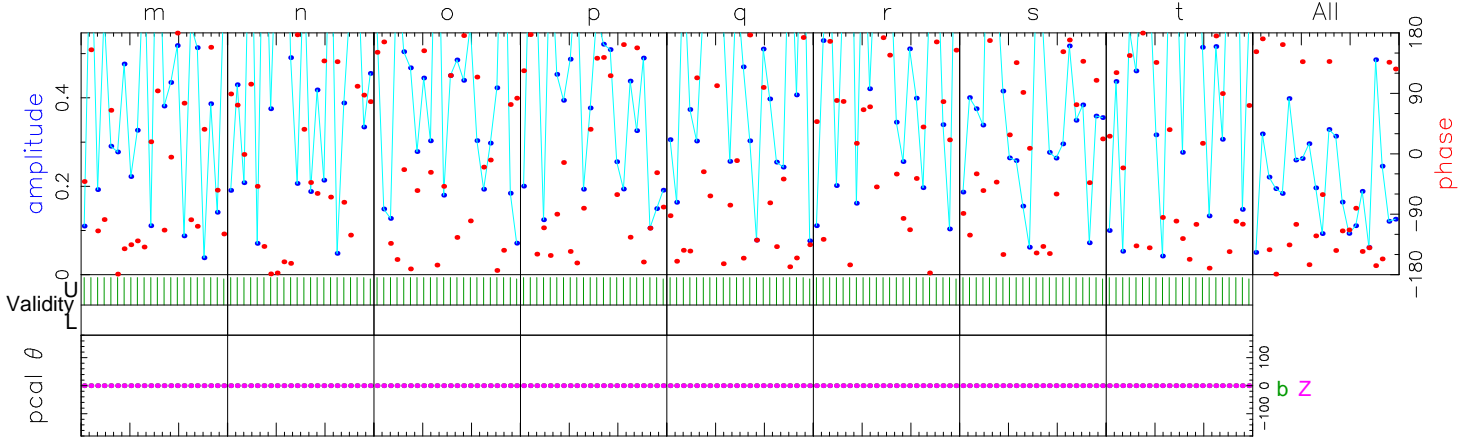
Fringe quality 0

SNR 6.1
 Int time 179.774
 Amp 0.182
 Phase -161.2
 PFD 1.5e-01
 Delays (us)
 SBD 0.902867
 MBD 0.000617
 Fringe rate (Hz)
 0.469306
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104944
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.0	176.2	-157.7	-163.3	-141.9	158.8	-159.6	-150.5	Phase	-161.2
	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2
	68.4	381.3	279.2	487.9	122.2	440.6	332.2	16.9	Sbd box	488.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-7.63246859563E+03	Apriori delay (usec)	-7.63337546284E+03	Resid mbdelay (usec)	6.17214E-04	+/-	1.8E-04
Sband delay (usec)	-7.63247259584E+03	Apriori clock (usec)	4.4128723E+00	Resid sbdelay (usec)	9.02867E-01	+/-	1.4E-03
Phase delay (usec)	-7.63337546804E+03	Apriori clockrate (us/s)	-3.3419014E-08	Resid phdelay (usec)	-5.19816E-06	+/-	6.1E-07
Delay rate (us/s)	1.29915056553E+00	Apriori rate (us/s)	1.29914511735E+00	Resid rate (us/s)	5.44818E-06	+/-	5.9E-09
Total phase (deg)	-294.1	Apriori accel (us/s/s)	3.21765624526E-05	Resid phase (deg)	-161.2	+/-	18.9

ph/seg (deg)	47.2	Theor.	44.3	Amplitude	0.182 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.6		77.3	Search (1024X32)	0.163	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.9		26.7	Inc. seg. avg.	0.182	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	23.7		46.6	Inc. frq. avg.	0.173	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 60.8 el 24.5 pa -47.2 Z: az 257.0 el 51.1 pa 37.4 u,v (fr/asec) -9323.077 1110.718 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bZ..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bZ.W.12.3MP1N1

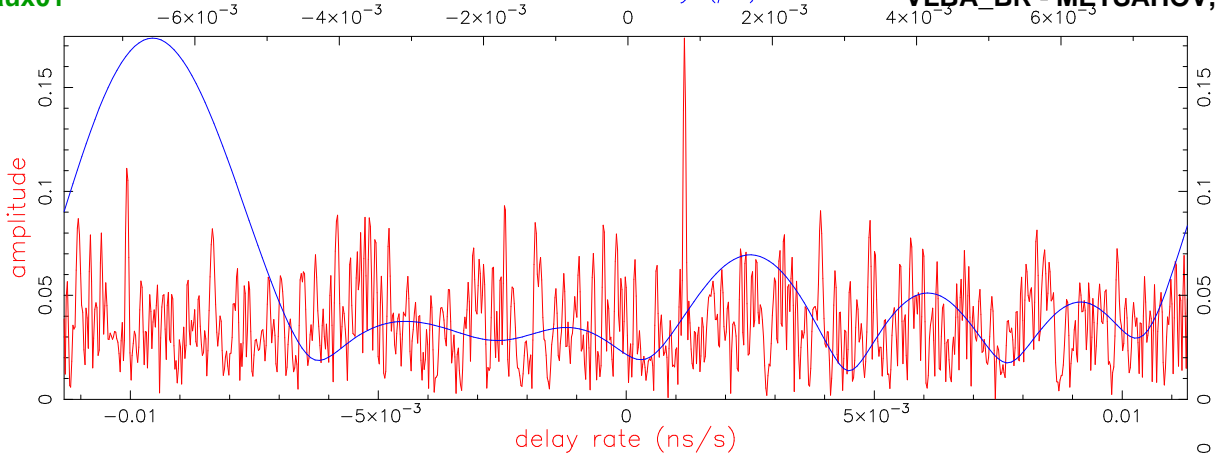
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bZ

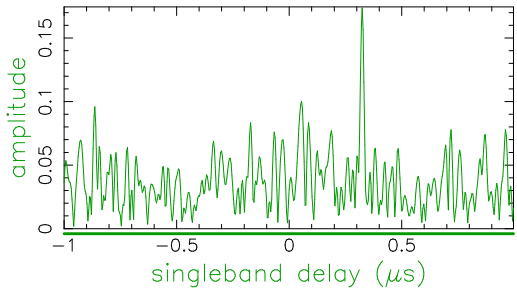
VLBA_BR - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

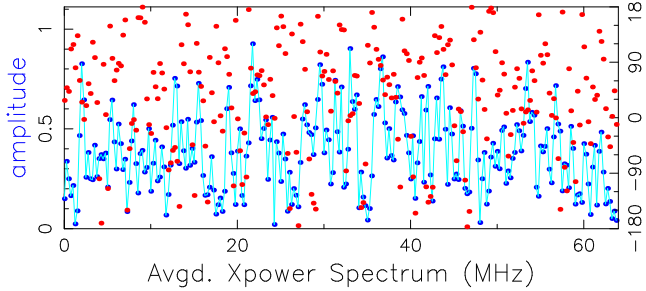


Fringe quality 0

SNR 6.4
 Int time 179.774
 Amp 0.175
 Phase -83.6
 PFD 2.5e-02
 Delays (us)
 SBD 0.324029
 MBD -0.006591
 Fringe rate (Hz)
 0.102010
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

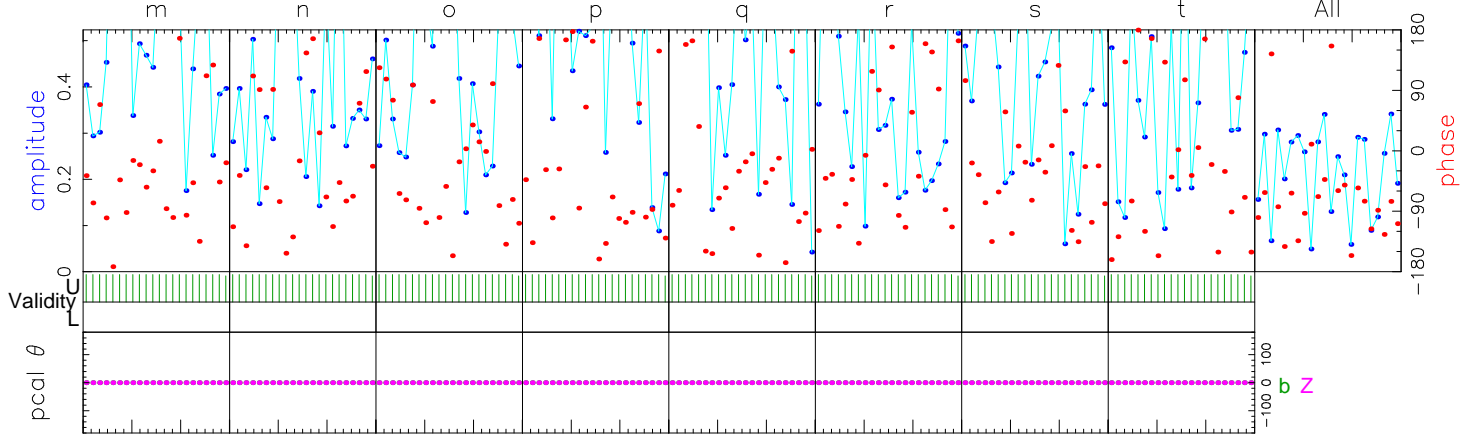


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104945
 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



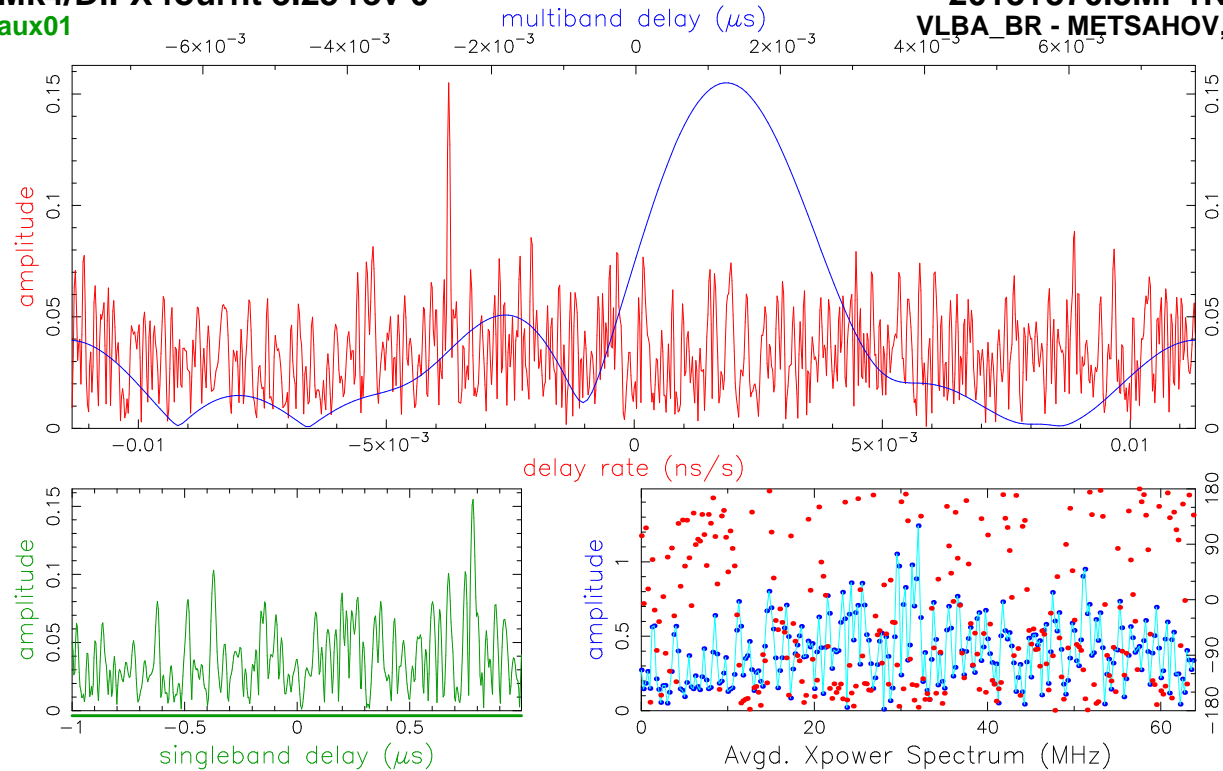
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-74.7	-79.5	-86.0	-109.9	-78.0	-99.7	-41.0	-124.6	Phase	-83.6	
	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	Ampl.	0.2	
	264.3	34.2	490.6	339.3	35.2	212.8	283.9	250.3	Sbd box	340.0	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-7.63305392837E+03		Apriori delay (usec)		-7.63337546284E+03		Resid mbdelay (usec)		-6.59052E-03	+/- 1.7E-04	
Sband delay (usec)	-7.63305143384E+03		Apriori clock (usec)		4.4128723E-08		Resid sbdelay (usec)		3.24029E-01	+/- 1.4E-03	
Phase delay (usec)	-7.63337546554E+03		Apriori clockrate (us/s)		-3.3419014E-08		Resid phdelay (usec)		-2.69713E-06	+/- 5.8E-07	
Delay rate (us/s)	1.29914630158E+00		Apriori rate (us/s)		1.29914511735E+00		Resid rate (us/s)		1.18423E-06	+/- 5.6E-09	
Total phase (deg)			Apriori accel (us/s/s)		3.21765624526E-05		Resid phase (deg)		-83.6	+/- 18.0	
	RMS	Theor.	Amplitude	0.175 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	52.7	42.2	Search (1024X32)	0.163		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
amp/seg (%)	58.6	73.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	27.6	25.4	Inc. seg. avg.	0.171		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	32.9	44.4	Inc. frq. avg.	0.173		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
b: az 60.8 el 24.5 pa -47.2	Z: az 257.0 el 51.1 pa 37.4		u, v (fr/asec) -9323.077 1110.718						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/bZ..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/bZ.W.19.3MP1N1								

Mk4/DiFX fourfit 3.25 rev 0

aux01

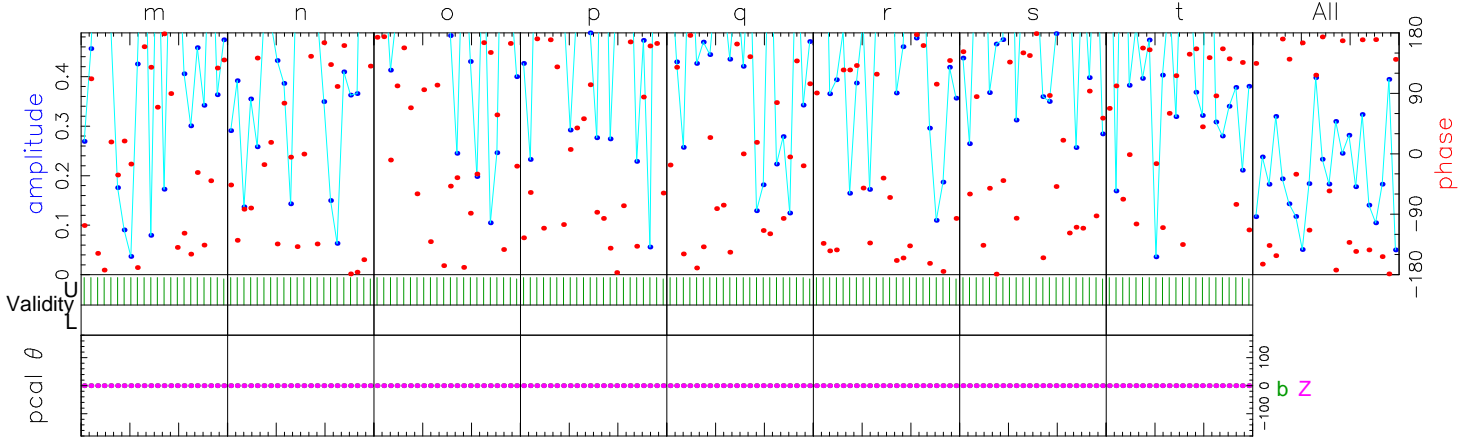
2013+370.3MP1N1, No0280, bZ

VLBA_BR - METSAHOV, fgroup W, pol LR



Fringe quality 0
 SNR 5.7
 Int time 179.774
 Amp 0.163
 Phase -171.7
 PFD 7.6e-01
 Delays (us)
 SBD 0.780236
 MBD 0.001233
 Fringe rate (Hz) -0.322549
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104948
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	175.4	-167.0	174.6	-162.5	-155.4	-156.1	-163.8	154.5	175.4	-171.7
b	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1
Z	59.2	318.6	331.4	159.8	232.1	165.8	461.2	463.7	456.7	456.7
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
b:Z	0:0	0:0	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	1000	1000
Z	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-7.63259297939E+03		Apriori delay (usec)		-7.63337546284E+03		Resid mbdelay (usec)		1.23345E-03	+/- 1.9E-04
Sband delay (usec)	-7.63259522709E+03		Apriori clock (usec)		4.4128723E+00		Resid sbdelay (usec)		7.80236E-01	+/- 1.5E-03
Phase delay (usec)	-7.63337546838E+03		Apriori clockrate (us/s)		-3.3419014E-08		Resid phdelay (usec)		-5.53735E-06	+/- 6.5E-07
Delay rate (us/s)	1.29914137288E+00		Apriori rate (us/s)		1.29914511735E+00		Resid rate (us/s)		-3.74447E-06	+/- 6.2E-09
Total phase (deg)			Apriori accel (us/s/s)		3.21765624526E-05		Resid phase (deg)		-171.7	+/- 20.1

ph/seg (deg) 50.8 47.1 Search (1024X32) 0.152 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.5 82.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.0 28.4 Inc. seg. avg. 0.163 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.7 49.6 Inc. frq. avg. 0.150 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 60.8 el 24.5 pa -47.2 Z: az 257.0 el 51.1 pa 37.4 u,v (fr/asec) -9323.077 1110.718 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bZ..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bZ.W.26.3MP1N1

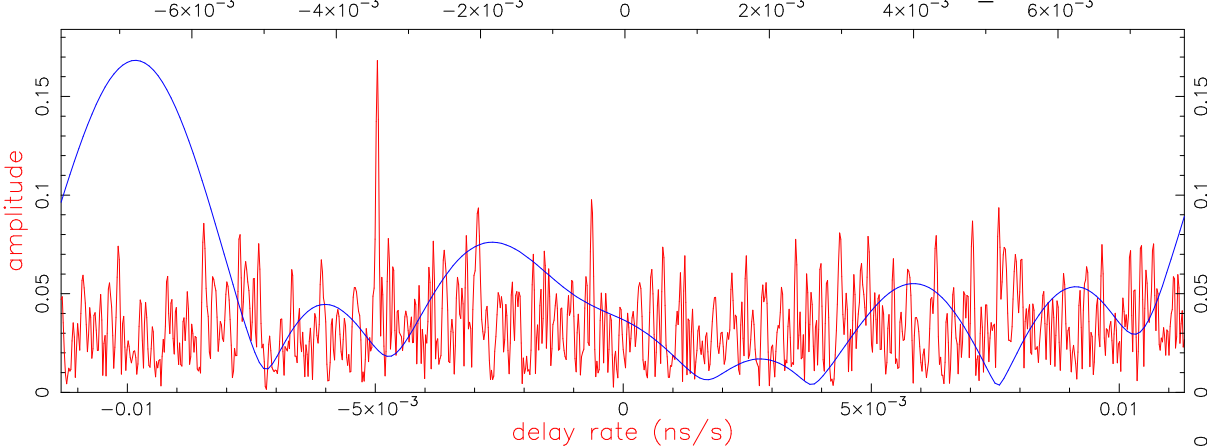
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bZ

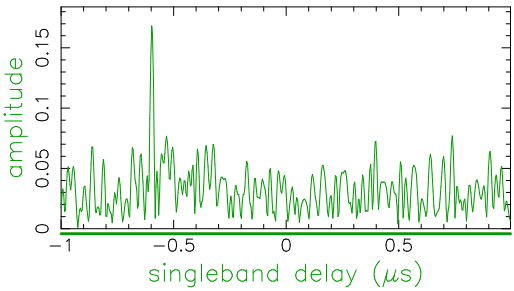
VLBA_BR - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

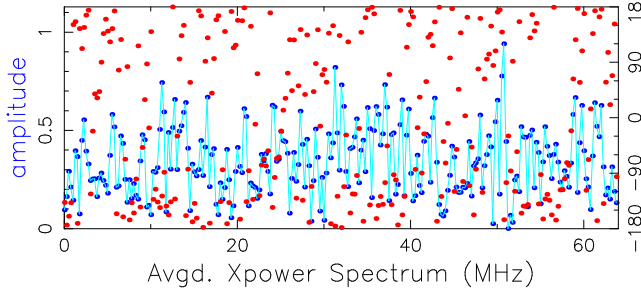


Fringe quality 0

SNR 6.2
 Int time 179.774
 Amp 0.184
 Phase -128.8
 PFD 6.2e-02
 Delays (us)
 SBD -0.596500
 MBD -0.006763
 Fringe rate (Hz)
 -0.427741
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

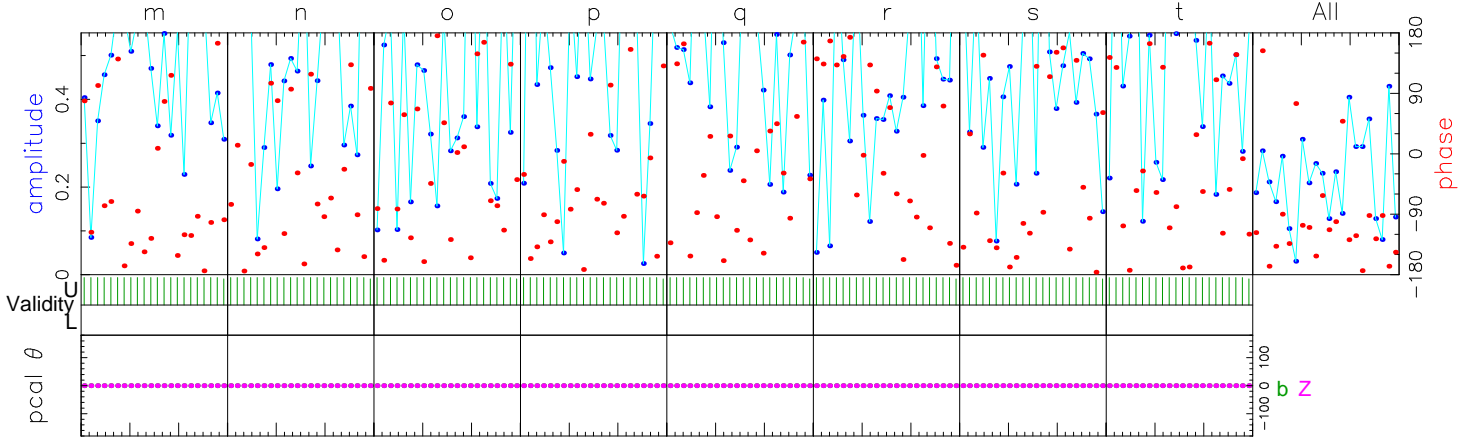


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104950
 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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-138.4	-121.3	-158.4	-118.9	-93.8	-142.7	-131.7	-142.0	Phase	-128.8
	0.3	0.2	0.1	0.3	0.2	0.1	0.3	0.2	Ampl.	0.2
	120.1	343.6	125.9	104.5	212.9	223.6	218.3	416.5	Sbd box	104.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-7.63397597615E+03	Apriori delay (usec)	-7.63337546284E+03	Resid mbdelay (usec)	-6.76331E-03	+/-	1.7E-04
Sband delay (usec)	-7.63397196284E+03	Apriori clock (usec)	4.4128723E+00	Resid sbdelay (usec)	-5.96500E-01	+/-	1.4E-03
Phase delay (usec)	-7.63337546700E+03	Apriori clockrate (us/s)	-3.3419014E-08	Resid phdelay (usec)	-4.15415E-06	+/-	5.9E-07
Delay rate (us/s)	1.29914015169E+00	Apriori rate (us/s)	1.29914511735E+00	Resid rate (us/s)	-4.96565E-06	+/-	5.7E-09
Total phase (deg)		Apriori accel (us/s/s)	3.21765624526E-05	Resid phase (deg)	-128.8	+/-	18.4

ph/seg (deg)	59.9	RMS	43.2	Theor.	59.9	Amplitude	0.184 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	67.2		75.3		67.2	Search (1024X32)	0.165	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008	
ph/frq (deg)	21.3		26.0		21.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	38.8		45.4		38.8	Inc. seg. avg.	0.187	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.	0.172	Data rate(Mb/s):	2048						

b: az 60.8 el 24.5 pa -47.2 Z: az 257.0 el 51.1 pa 37.4 u,v (fr/asec) -9323.077 1110.718 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bZ..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bZ.W.34.3MP1N1