

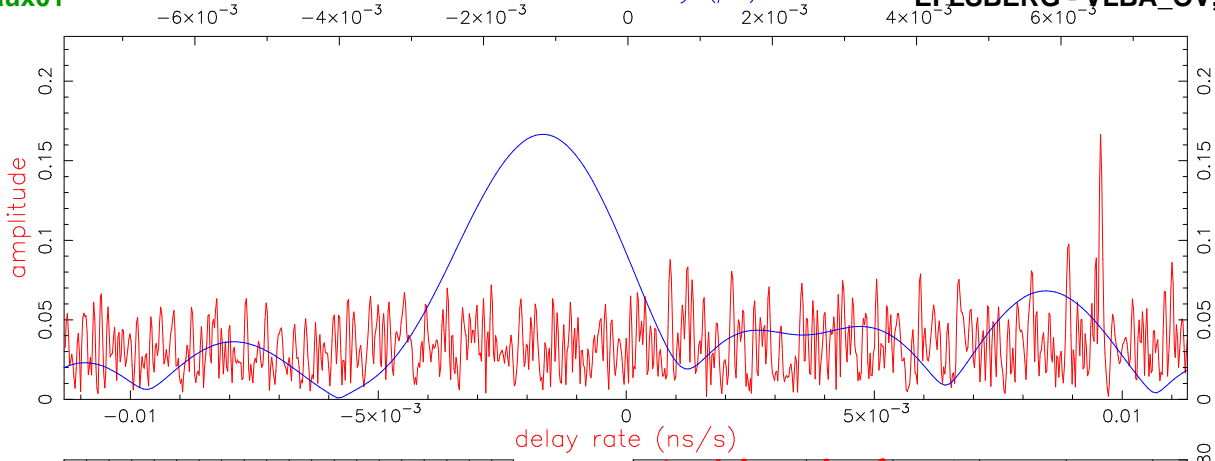
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bo

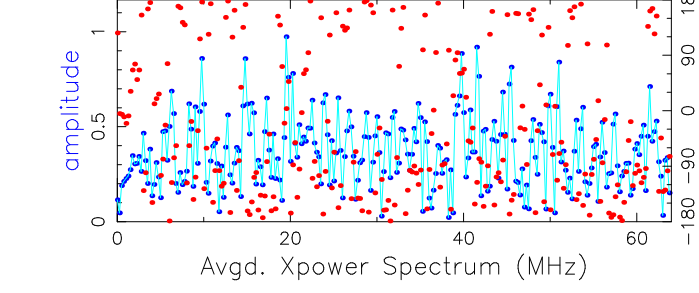
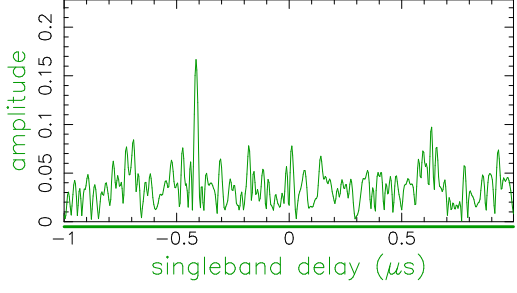
EFLSBERG - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



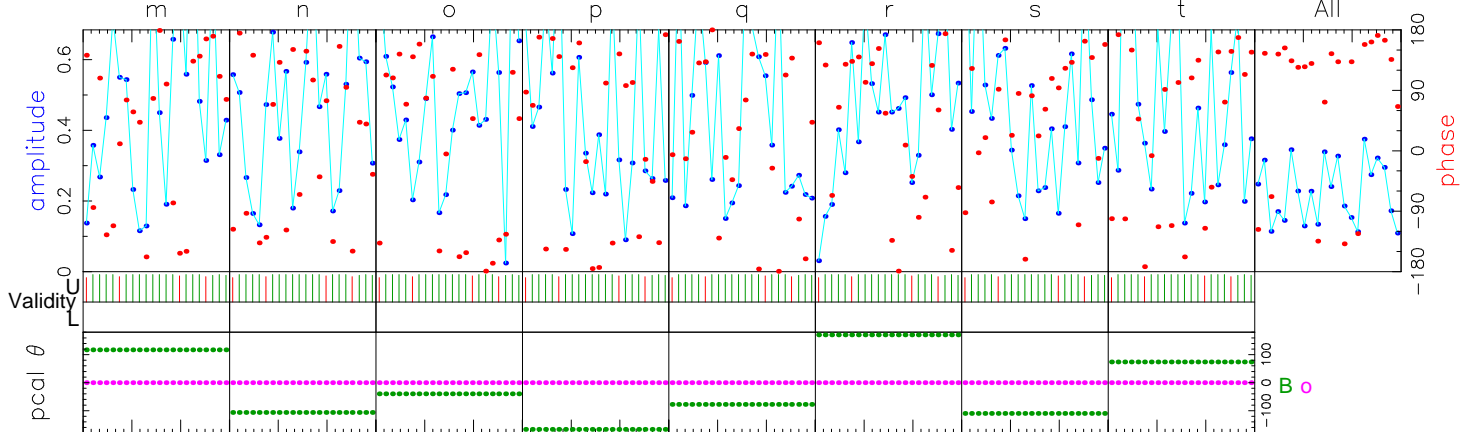
Fringe quality 0

SNR 6.1
Int time 177.068
Amp 0.228
Phase 149.9
PFD 1.6e-01
Delays (us)
SBD -0.413687
MBD -0.001167
Fringe rate (Hz) 0.825983
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
2025:041:105009
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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
B	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
B:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:0	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
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)	1.16222530721E+04	Apriori delay (usec)	1.16226604889E+04	Resid mbdelay (usec)	-1.16688E-03	+/-	1.8E-04
Sband delay (usec)	1.16222468017E+04	Apriori clock (usec)	-6.0464371E+01	Resid sbdelay (usec)	-4.13687E-01	+/-	1.4E-03
Phase delay (usec)	1.16226604938E+04	Apriori clockrate (us/s)	-6.7081106E-07	Resid phdelay (usec)	4.83400E-06	+/-	6.1E-07
Delay rate (us/s)	-1.413021156734E+00	Apriori rate (us/s)	-1.41302115618E+00	Resid rate (us/s)	9.58884E-06	+/-	5.9E-09
Total phase (deg)	336.4	Apriori accel (us/s/s)	-5.07240379345E-05	Resid phase (deg)	149.9	+/-	18.9

ph/seg (deg) 53.9 44.1 Search (1024X32) 0.165 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 62.1 77.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 25.0 26.7 Inc. seg. avg. 0.237 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 31.6 46.6 Inc. frq. avg. 0.220 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 252.9 el 63.3 pa 49.7 o: az 57.7 el 19.8 pa -57.9 u, v (fr/asec) 10128.432 -1917.726 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.102.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

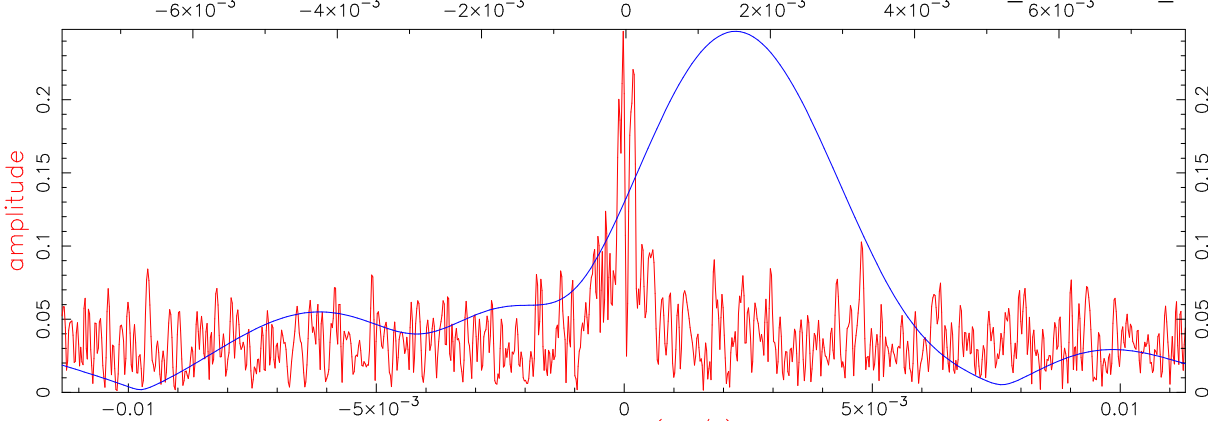
aux01

2013+370.3MP1N1, No0280, bo

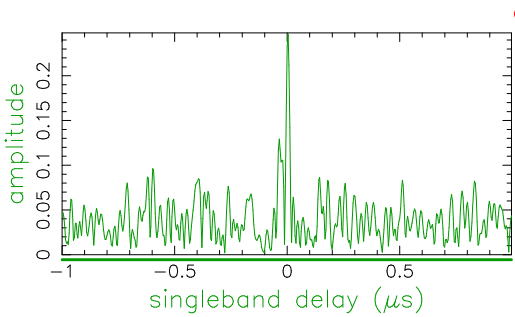
VLBA_BR - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

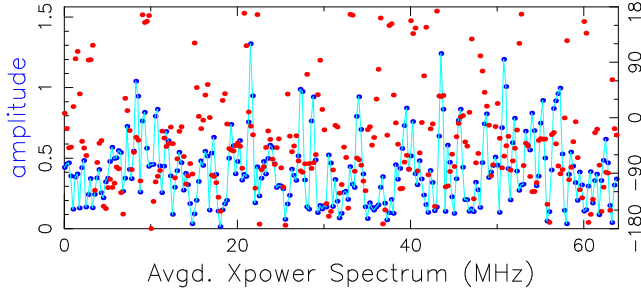
Fringe quality 9



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

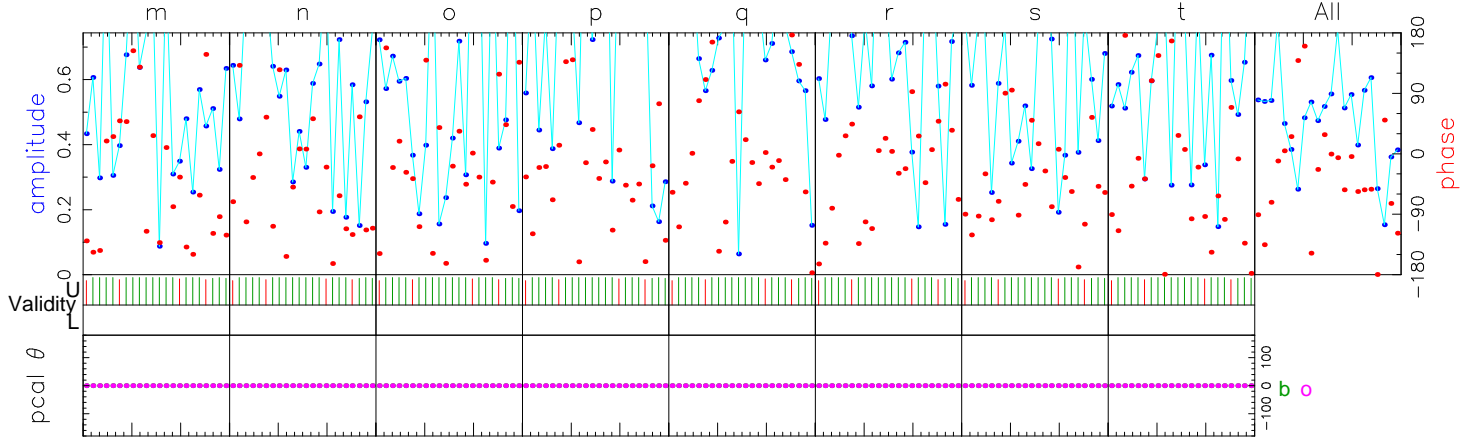


delay rate (ns/s)



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	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 (%)	46.2	31.3	Inc. frq. avg.	0.252	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.31.3MP1N1

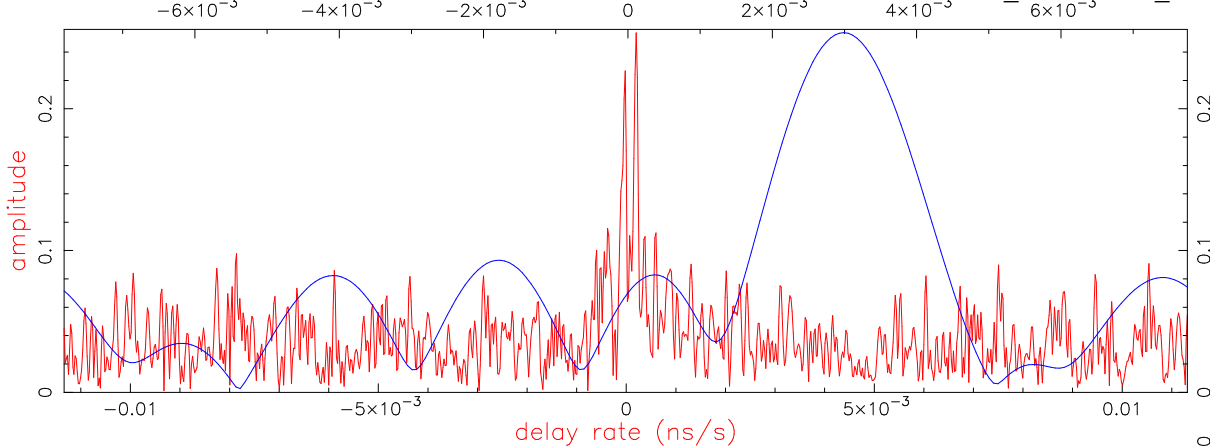
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bo

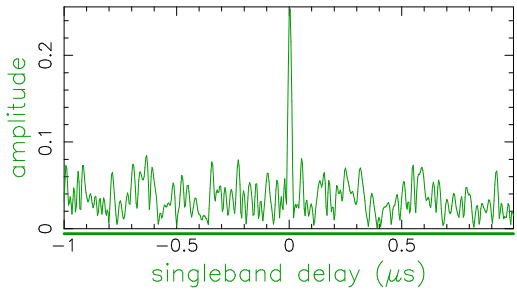
VLBA_BR - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

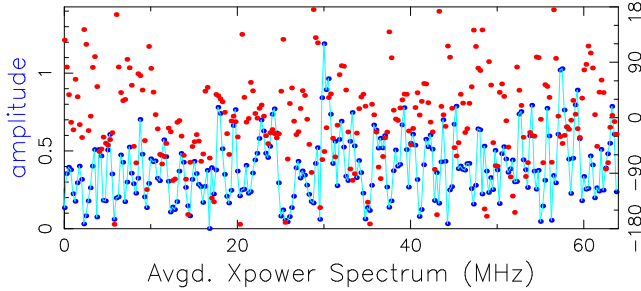


Fringe quality 9

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

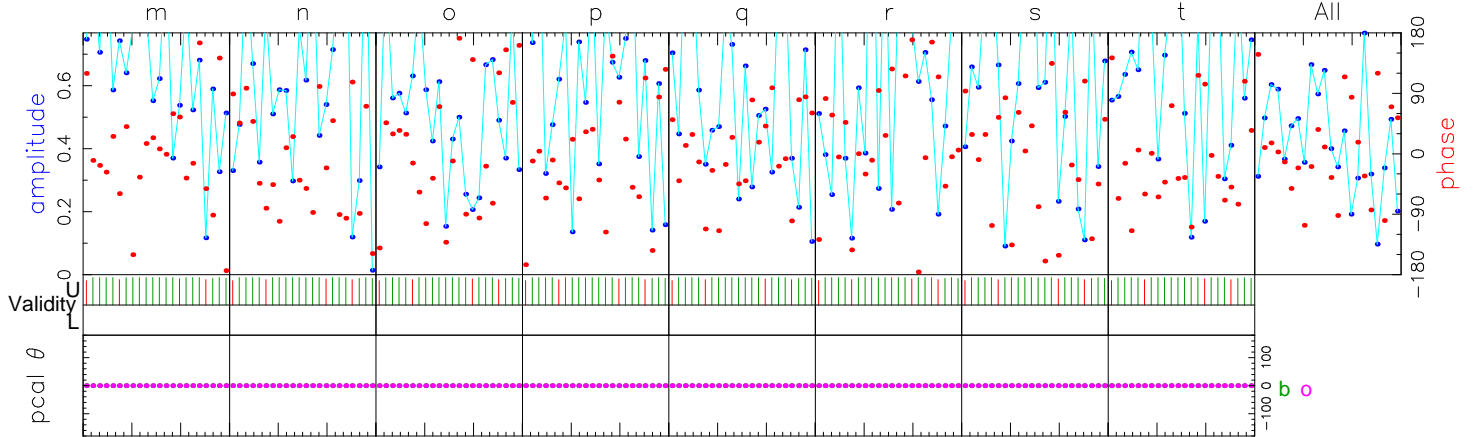


delay rate (ns/s)



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	
									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 0.256 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	94.7	50.1	Search (1024X32) 0.250		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000			
ph/frq (deg)	18.8	17.4	Interp. 0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008	
amp/frq (%)	30.8	30.4	Inc. seg. avg. 0.386		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011			
			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.42.3MP1N1							

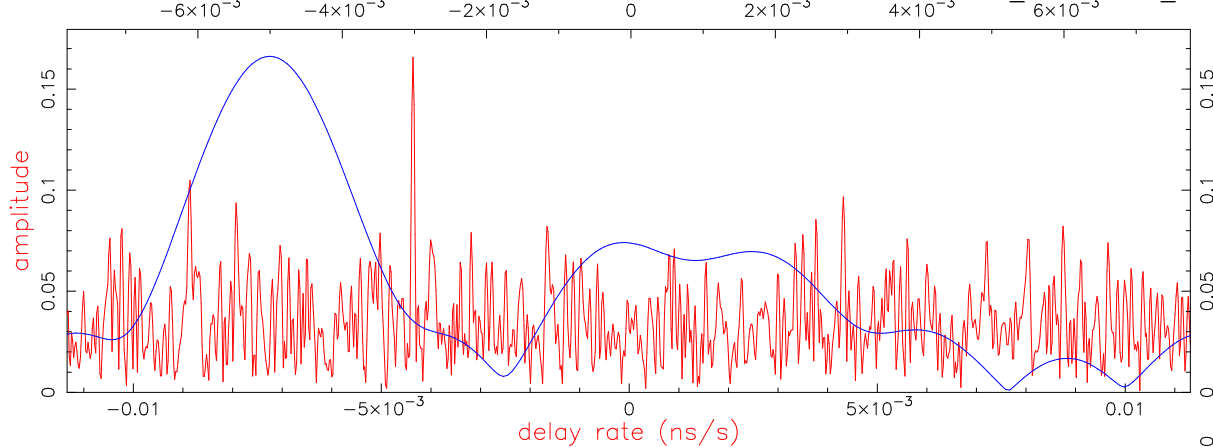
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bo

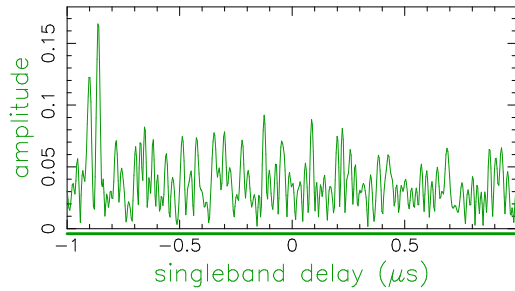
VLBA_BR - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

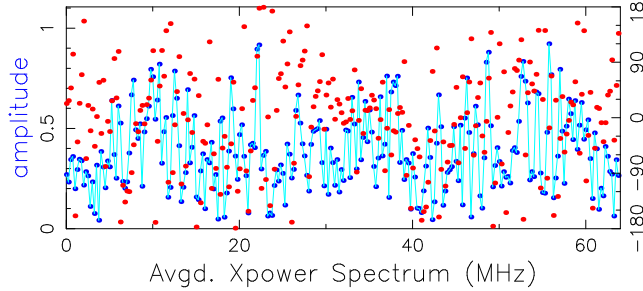


Fringe quality 0

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

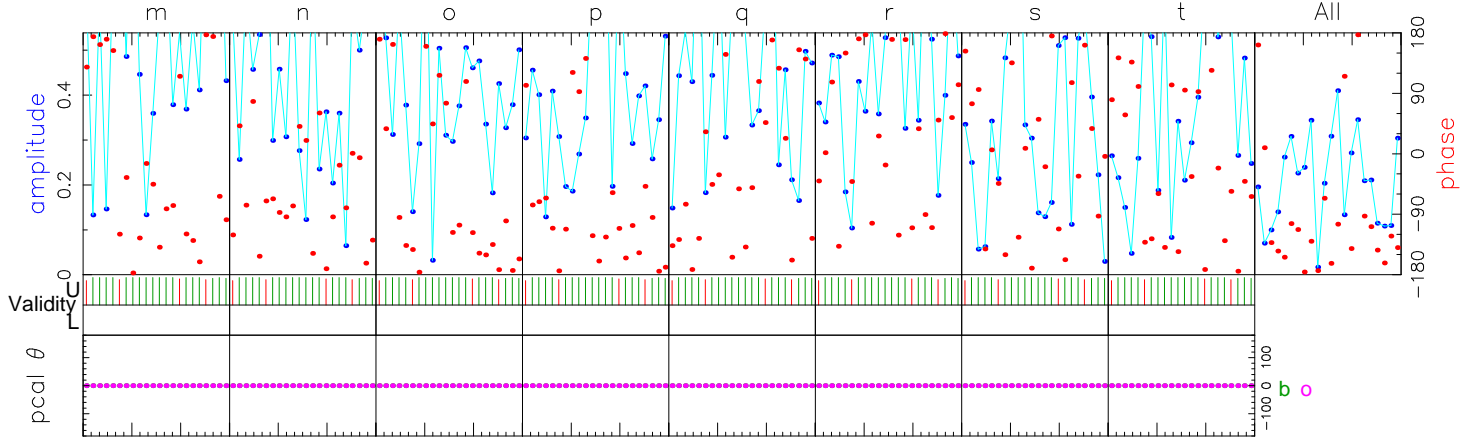


delay rate (ns/s)



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	Mani 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

ph/seg (deg) 49.8 43.6 Search (1024X32) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.5 76.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.8 26.4 Inc. seg. avg. 0.173 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.6 46.0 Inc. frq. avg. 0.173 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 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

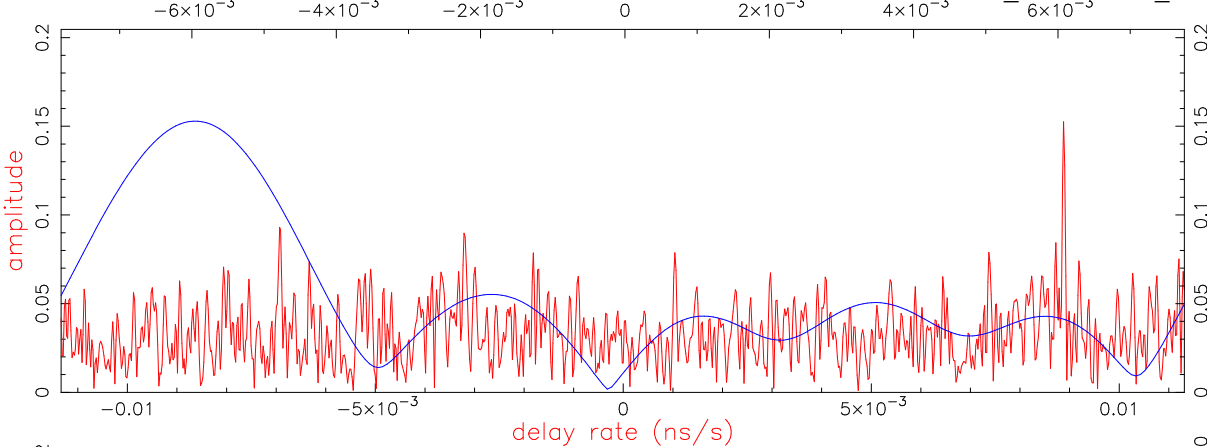
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, bo

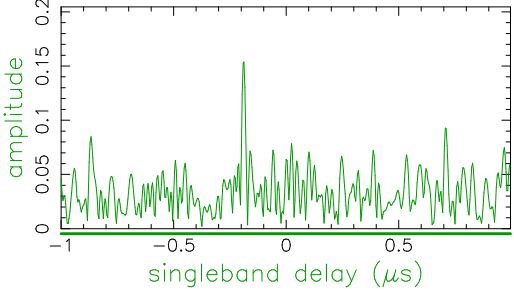
VLBA_BR - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

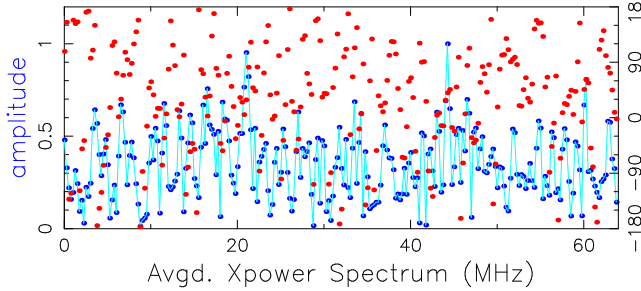


Fringe quality 0

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

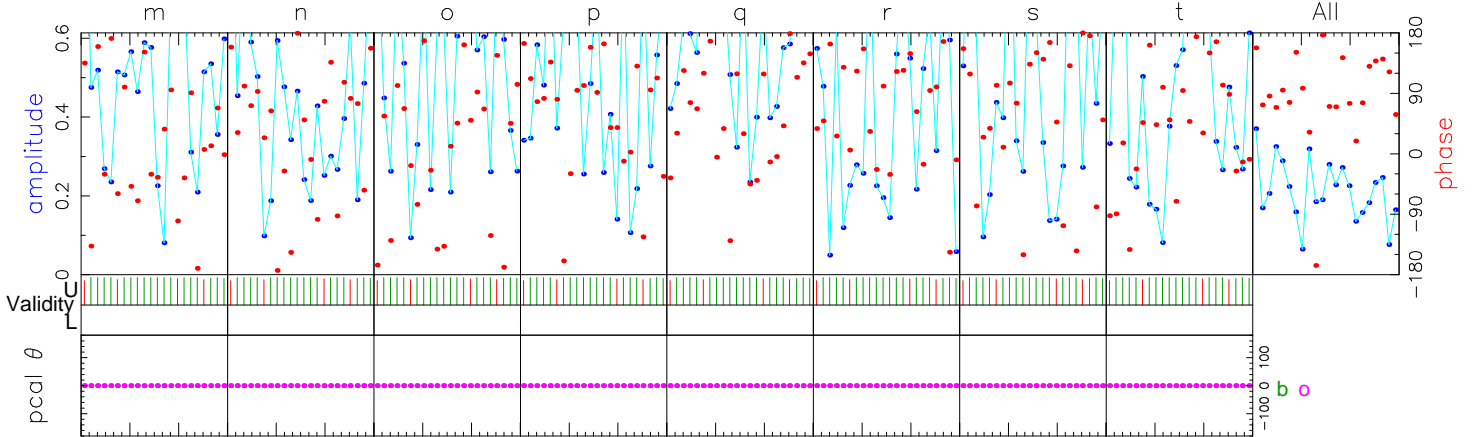


delay rate (ns/s)



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		
									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	
	RMS	Theor.	Amplitude	0.205 +/- 0.036		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	45.5	47.0	Search (1024X32)	0.152		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	59.7	82.0	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	49.6	28.4	Inc. seg. avg.	0.208		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	42.2	49.6	Inc. frq. avg.	0.208		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.58.3MP1N1								

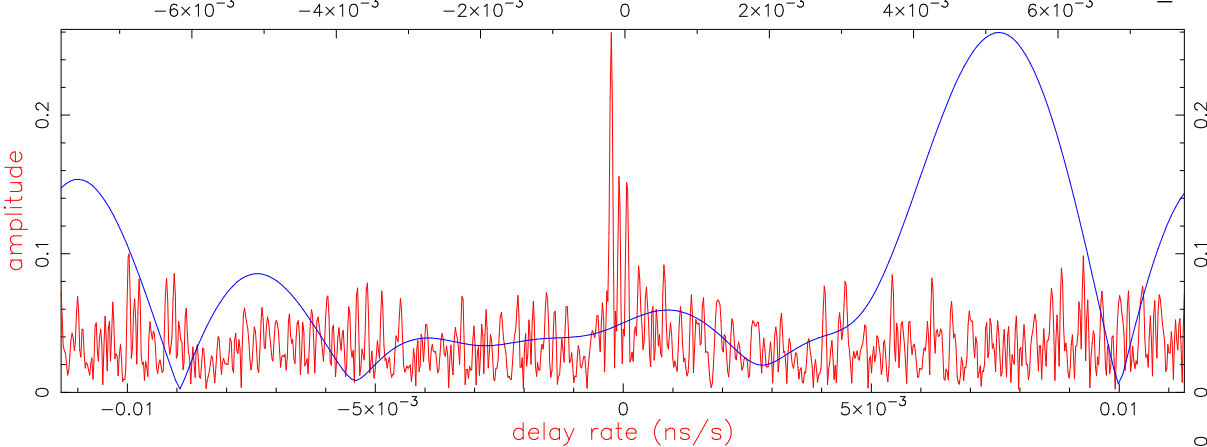
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bo

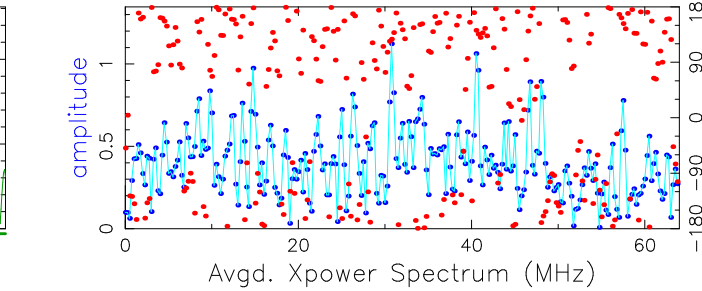
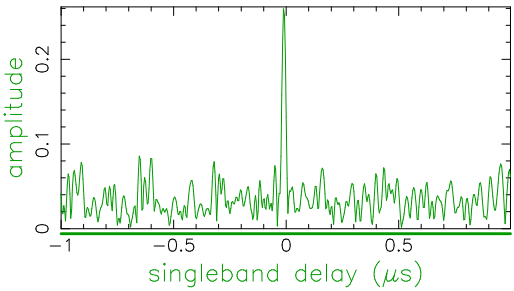
EFLSBERG - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)



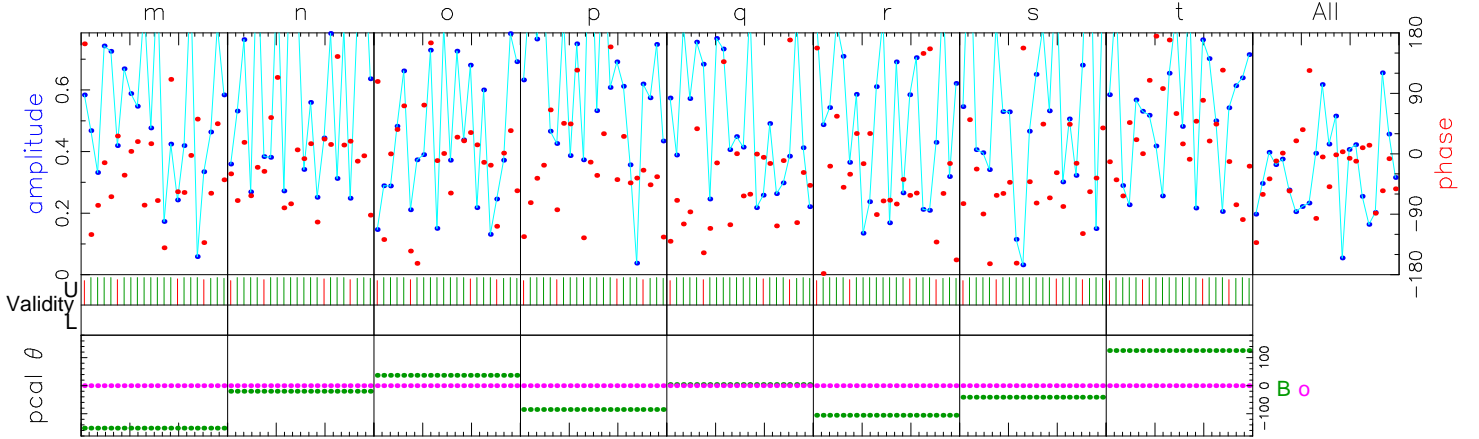
Fringe quality 9

SNR 9.5
 Int time 177.068
 Amp 0.262
 Phase -24.6
 PFD 3.3e-13
 Delays (us)
 SBD -0.010447
 MBD 0.005225
 Fringe rate (Hz) -0.021583
 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
 2025:041:105001
 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
	-33.5	-9.8	14.1	-20.5	-68.7	-61.0	-35.3	11.9		-24.6
	0.3	0.4	0.2	0.3	0.2	0.2	0.3	0.3		0.3
	254.6	254.2	253.4	254.4	255.6	375.1	254.4	257.3		254.3
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
B	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
B: o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B: o	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.16226500889E+04	Apriori delay (usec)	1.16226604889E+04	Resid mbdelay (usec)	5.22492E-03	+/-	1.1E-04
Sband delay (usec)	1.16226500417E+04	Apriori clock (usec)	-6.0464371E+01	Resid sbdelay (usec)	-1.04472E-02	+/-	9.0E-04
Phase delay (usec)	1.16226604882E+04	Apriori clockrate (us/s)	-6.7081106E-07	Resid phdelay (usec)	-7.92215E-07	+/-	3.9E-07
Delay rate (us/s)	-1.41302140674E+00	Apriori rate (us/s)	-1.41302115618E+00	Resid rate (us/s)	-2.50557E-07	+/-	3.8E-09
Total phase (deg)	161.9	Apriori accel (us/s/s)	-5.07240379345E-05	Resid phase (deg)	-24.6	+/-	12.0

ph/seg (deg)	51.4	Theor.	28.1	Amplitude	0.262 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.5		49.0	Search (1024X32)	0.252	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.0		17.0	Inc. seg. avg.	0.303	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.4		29.7	Inc. frq. avg.	0.277	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 252.9 el 63.3 pa 49.7 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10128.432 -1917.726 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.67.3MP1N1

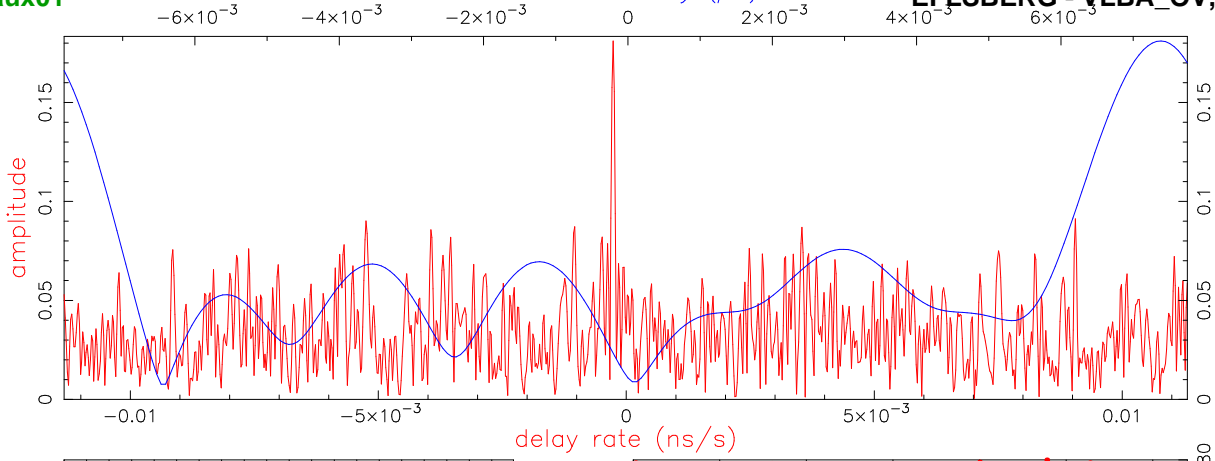
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bo

EFLSBERG - VLBA_OV, fgroup W, pol RR

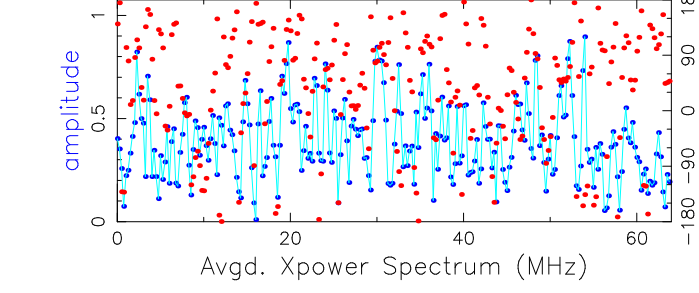
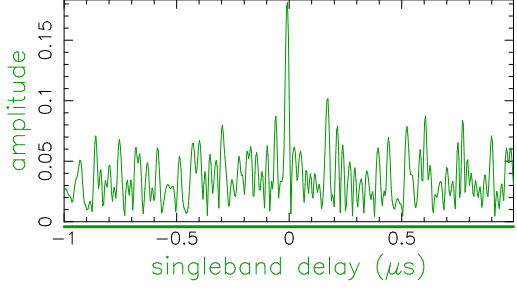
multiband delay (μ s)



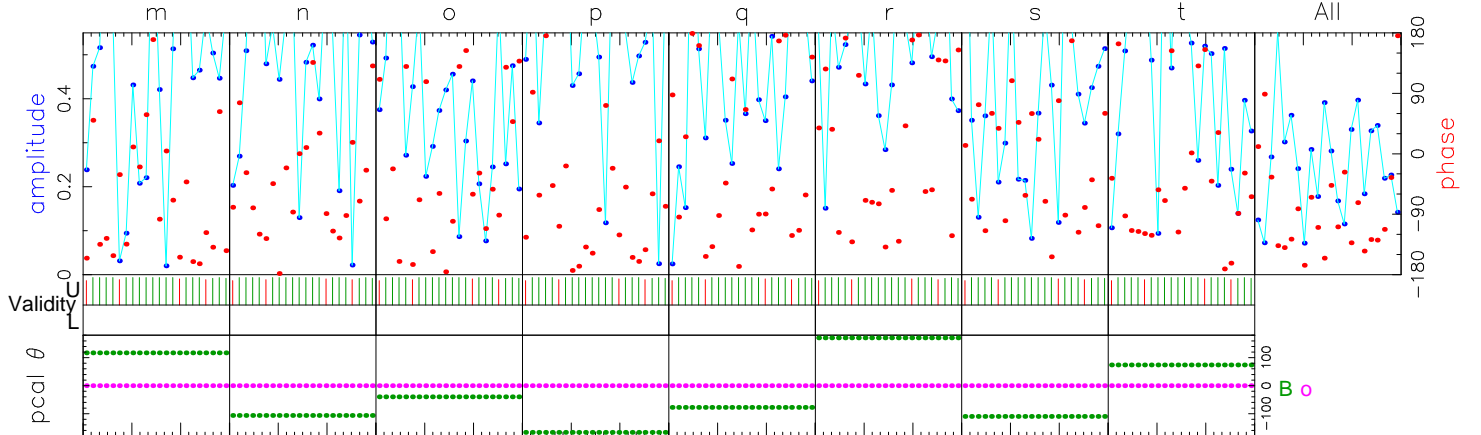
Fringe quality 0

SNR 6.7
 Int time 177.068
 Amp 0.183
 Phase -108.8
 PFD 3.6e-03
 Delays (us)
 SBD -0.009281
 MBD 0.007361
 Fringe rate (Hz) -0.022793
 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
 2025:041:105003
 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



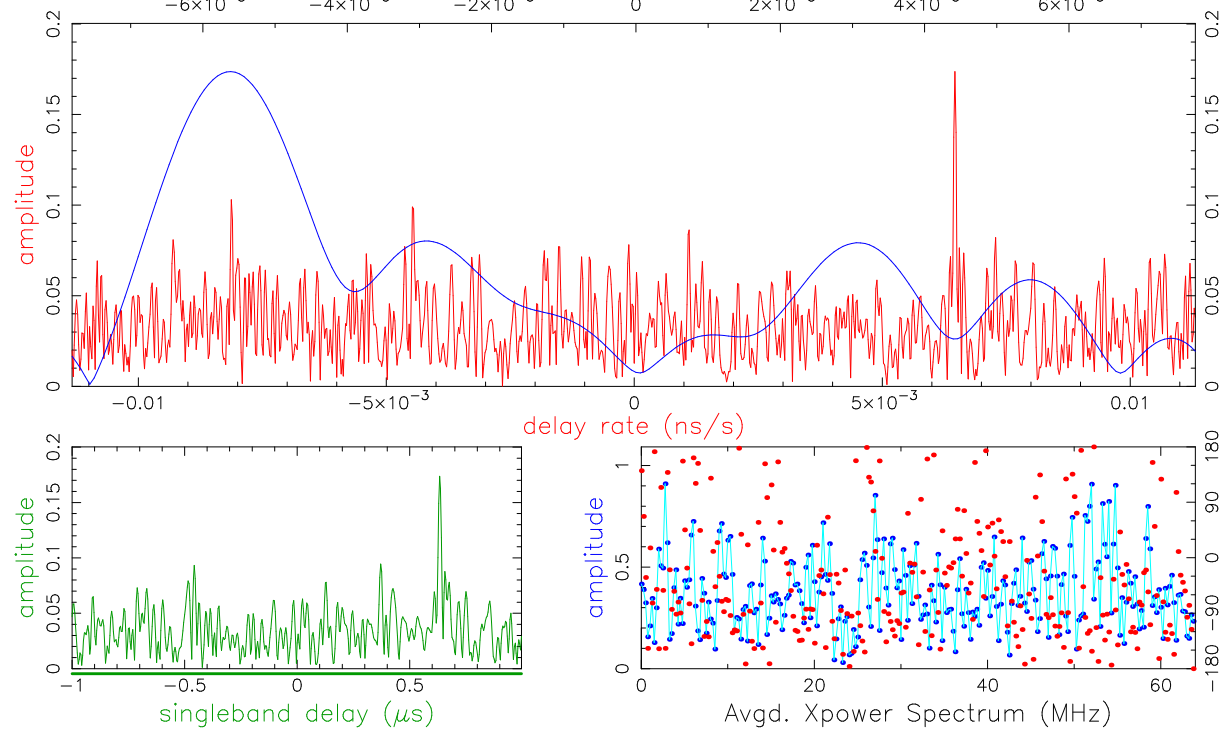
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-130.9	-77.5	-106.5	-105.0	-131.3	-144.9	-44.7	-104.0	Phase	-108.8
	0.2	0.3	0.1	0.3	0.3	0.1	0.1	0.3	Ampl.	0.2
	312.6	254.6	443.2	255.2	254.8	419.5	52.5	253.6	Sbd box	254.6
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	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	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	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	
									Tracks	
Group delay (usec) (SBD)	1.16226522251E+04		Apriori delay (usec)	1.16226604889E+04		Resid mbdelay (usec)	7.36112E-03	+/-	1.6E-04	
Sband delay (usec)	1.16226512077E+04		Apriori clock (usec)	-6.0464371E+01		Resid sbdelay (usec)	-9.28125E-03	+/-	1.3E-03	
Phase delay (usec)	1.16226604854E+04		Apriori clockrate (us/s)	-6.7081106E-07		Resid phdelay (usec)	-3.51004E-06	+/-	5.5E-07	
Delay rate (us/s)	-1.41302142079E+00		Apriori rate (us/s)	-1.41302115618E+00		Resid rate (us/s)	-2.64605E-07	+/-	5.4E-09	
Total phase (deg)		77.6	Apriori accel (us/s/s)	-5.07240379345E-05		Resid phase (deg)	-108.8	+/-	17.2	
	RMS	Theor.	Amplitude	0.183 +/- 0.027		Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
ph/seg (deg)	60.8	40.1	Search (1024X32)	0.180		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
amp/seg (%)	74.4	70.0	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	35.2	24.3	Inc. seg. avg.	0.204		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	39.8	42.4	Inc. frq. avg.	0.183		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 252.9 el 63.3 pa 49.7		o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) 10128.432 -1917.726						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.78.3MP1N1						

Mk4/DiFX fourfit 3.25 rev 0

aux01

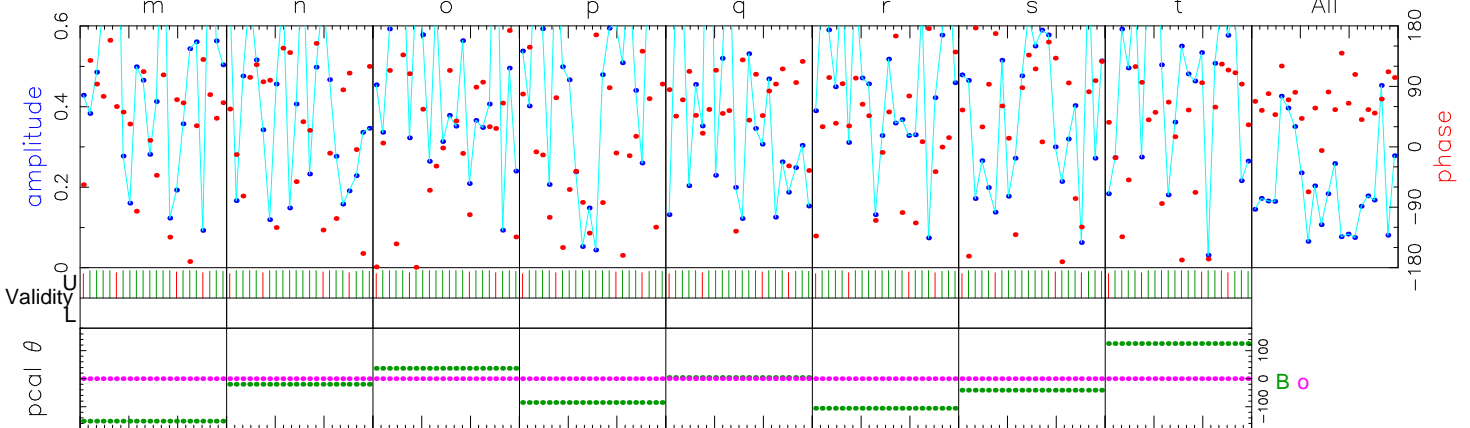
2013+370.3MP1N1, No0280, Bo

EFLSBERG - VLBA_OV, fgroup W, pol LR



Fringe quality 0
 SNR 6.3
 Int time 177.068
 Amp 0.200
 Phase 71.8
 PFD 3.0e-02
 Delays (us)
 SBD 0.633601
 MBD -0.005600
 Fringe rate (Hz) 0.558625
 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
 2025:041:105005
 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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
B	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
B:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:0	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	1.16232955139E+04	Apriori delay (usec)	1.16226604889E+04	Resid mbdelay (usec)	-5.60005E-03	+/-	1.7E-04
Sband delay (usec)	1.16232940902E+04	Apriori clock (usec)	-6.0464371E+01	Resid sbdelay (usec)	6.33601E-01	+/-	1.4E-03
Phase delay (usec)	1.16226604913E+04	Apriori clockrate (us/s)	-6.7081106E-07	Resid phdelay (usec)	2.31607E-06	+/-	5.8E-07
Delay rate (us/s)	-1.41301467110E+00	Apriori rate (us/s)	-1.41302115618E+00	Resid rate (us/s)	6.48509E-06	+/-	5.6E-09
Total phase (deg)	258.3	Apriori accel (us/s/s)	-5.07240379345E-05	Resid phase (deg)	71.8	+/-	18.1

ph/seg (deg)	43.1	Theor.	42.2	Amplitude	0.200 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	66.5	Search (1024X32)	0.170	Search	0.170	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	30.0	Inc. seg. avg.	0.181	Inc. seg. avg.	0.181	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	44.7	Inc. frq. avg.	0.196	Inc. frq. avg.	0.196	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 252.9 el 63.3 pa 49.7 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10128.432 -1917.726 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.84.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

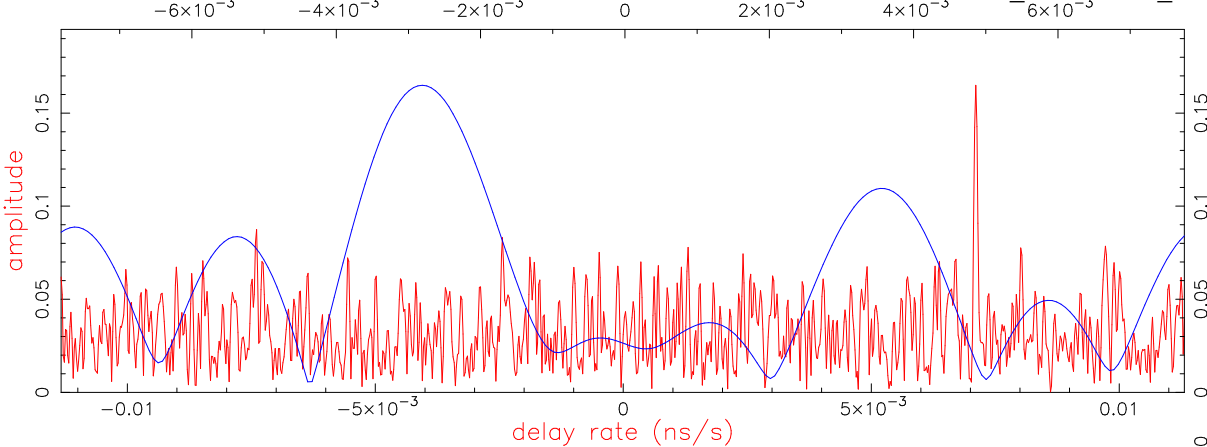
aux01

2013+370.3MP1N1, No0280, fo

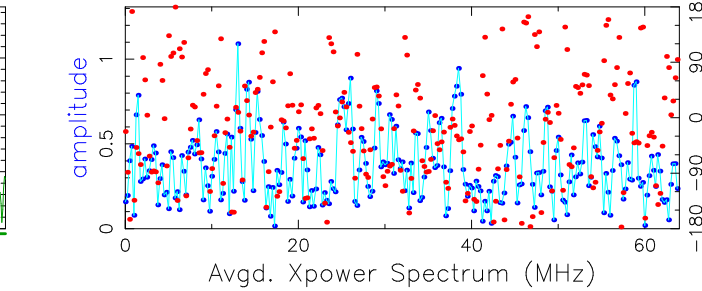
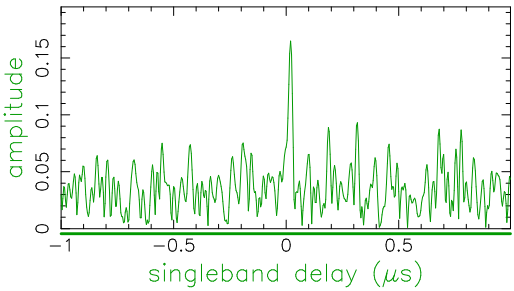
VLBA_FD - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

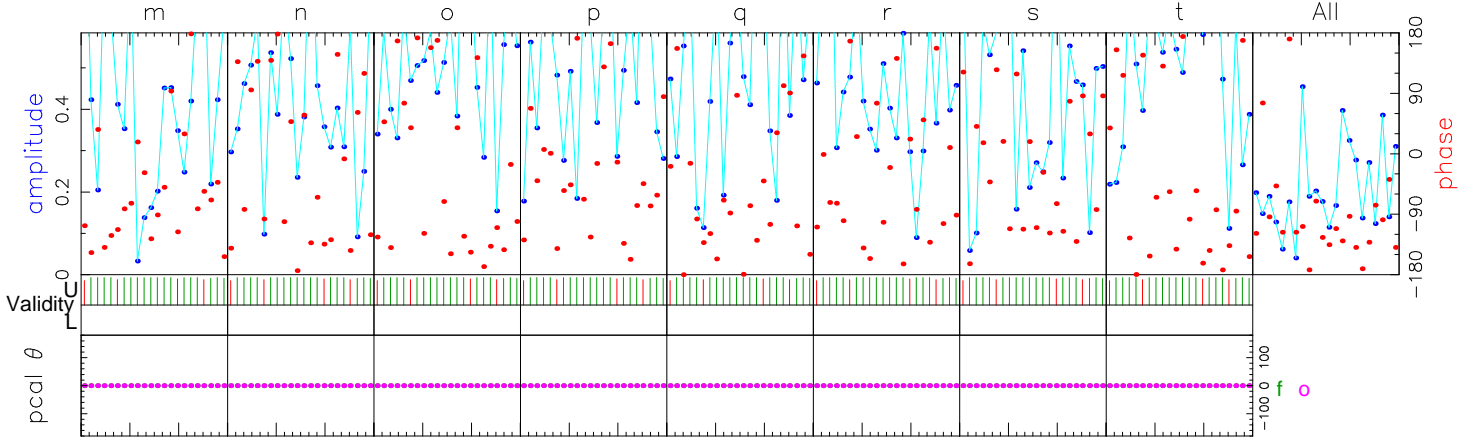


SNR 6.0
 Int time 177.092
 Amp 0.195
 Phase -117.1
 PFD 2.2e-01
 Delays (us)
 SBD 0.019552
 MBD -0.002810
 Fringe rate (Hz) 0.612368
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105015
 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
	-98.5	-159.8	-147.1	-72.2	-131.5	-88.6	-53.5	-132.8	Phase	-117.1
	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.4	Ampl.	0.2
	262.5	331.0	157.9	256.8	473.1	34.7	35.1	261.9	Sbd box	262.0
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 2.33549838587E+03 Apriori delay (usec) 2.33548557109E+03 Resid mbdelay (usec) -2.81022E-03 +/- 1.8E-04
 Sband delay (usec) 2.33550512309E+03 Apriori clock (usec) -2.5006969E+01 Resid sbdelay (usec) 1.95520E-02 +/- 1.4E-03
 Phase delay (usec) 2.33548556731E+03 Apriori clockrate (us/s) -4.3105211E-07 Resid phdelay (usec) -3.77656E-06 +/- 6.2E-07
 Delay rate (us/s) 5.56783676907E-02 Apriori rate (us/s) 5.56712587094E-02 Resid rate (us/s) 7.10898E-06 +/- 6.0E-09
 Total phase (deg) -83.4 Apriori accel (us/s/s) -1.90648966722E-05 Resid phase (deg) -117.1 +/- 19.1

RMS Theor. Amplitude 0.195 +/- 0.032 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 51.2 44.6 Search (1024X32) 0.164 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.3 77.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 41.6 27.0 Inc. seg. avg. 0.190 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.9 47.1 Inc. frq. avg. 0.203 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 60.7 el 26.7 pa -70.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -417.242 -1808.639 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/fo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fo.W.121.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

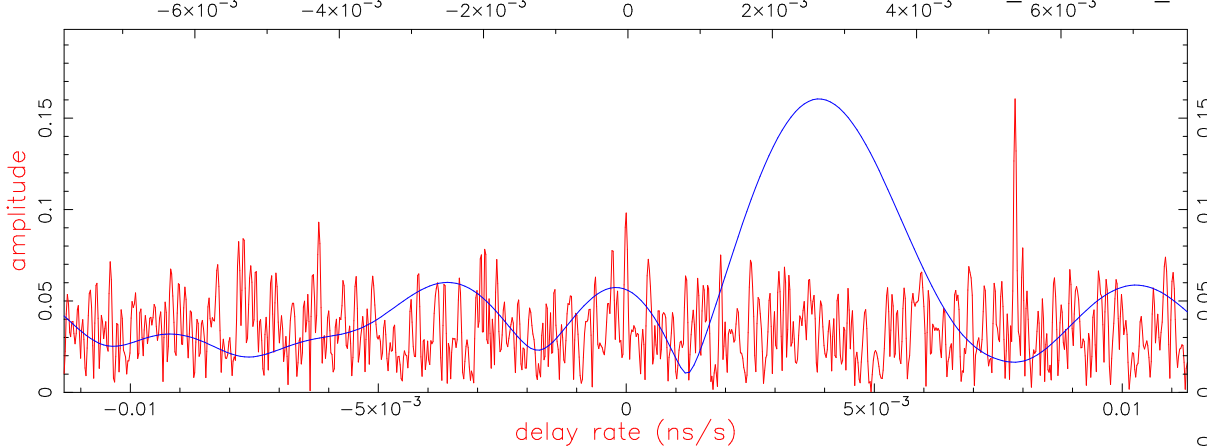
aux01

2013+370.3MP1N1, No0280, fo

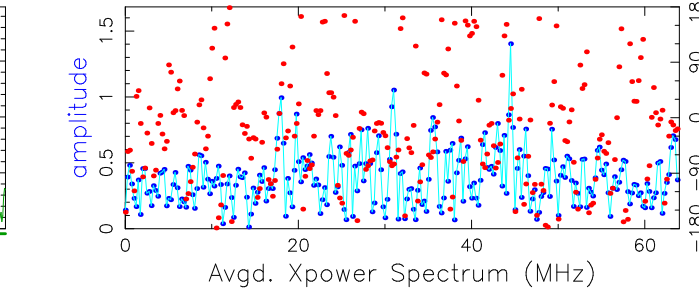
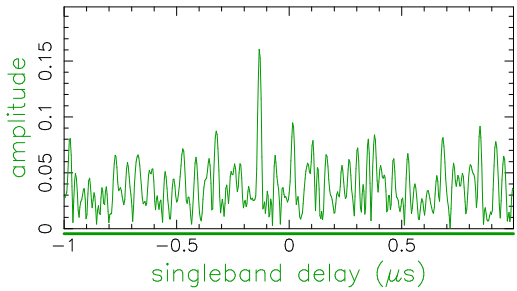
VLBA_FD - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

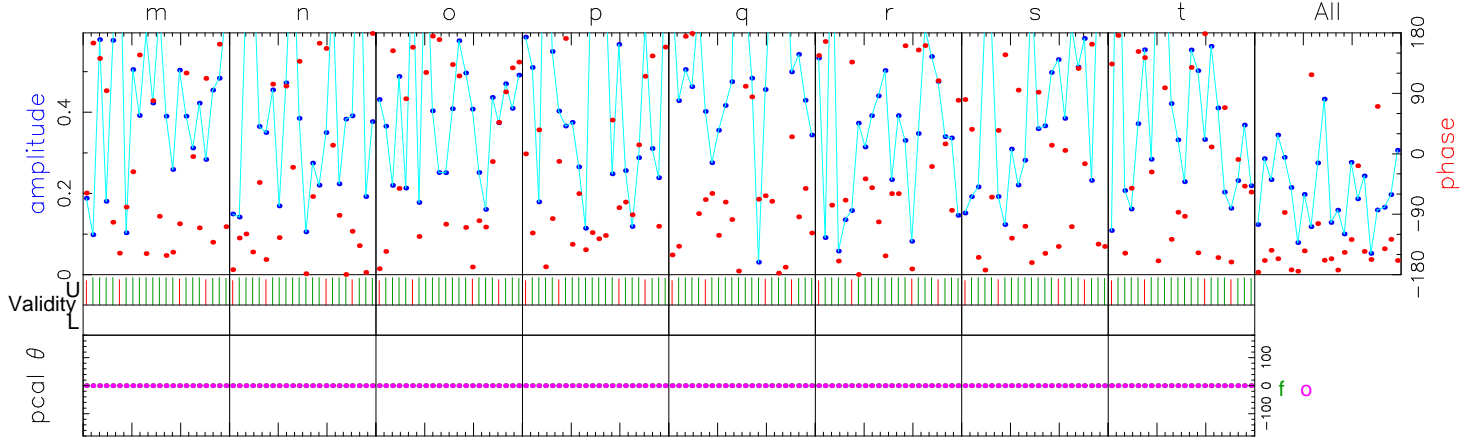


SNR 5.9
 Int time 177.092
 Amp 0.199
 Phase -146.3
 PFD 4.1e-01
 Delays (us)
 SBD -0.131823
 MBD 0.002641
 Fringe rate (Hz)
 0.677052
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105017
 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

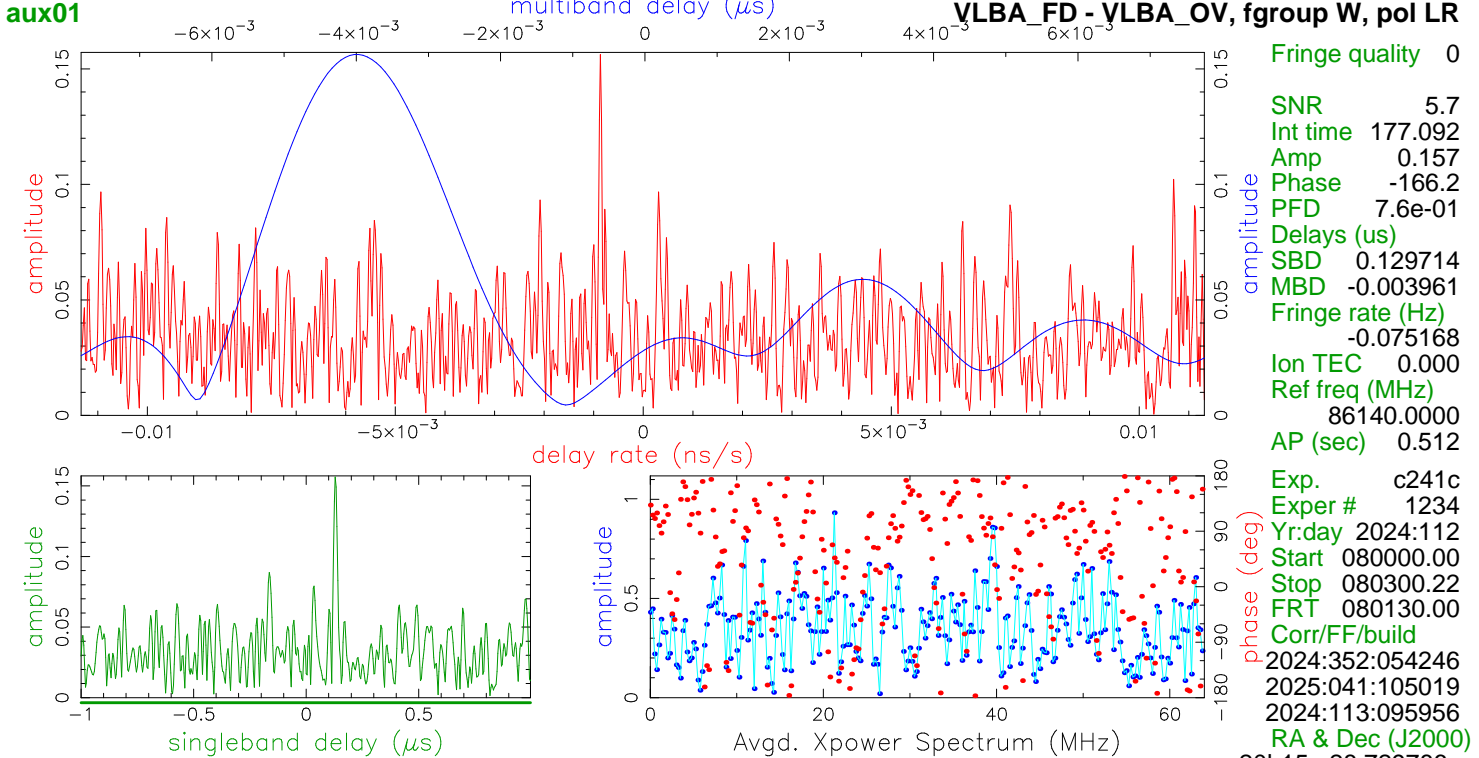


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-141.6	-143.3	157.2	-127.9	-131.6	-118.9	-138.5	-173.8	Phase	-146.3	
	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.2	Ampl.	0.2	
	9.8	60.9	443.8	479.0	223.1	385.9	206.5	49.7	Sbd box	223.3	
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
o	0	0	0	0	0	0	0	0	PC freqs		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	2.33534758681E+03		Apriori delay (usec)		2.33548557109E+03		Resid mbdelay (usec)		2.64072E-03	+/- 1.8E-04	
Sband delay (usec)	2.33535374809E+03		Apriori clock (usec)		-2.5006969E+01		Resid sbdelay (usec)		-1.31823E-01	+/- 1.5E-03	
Phase delay (usec)	2.33548556637E+03		Apriori clockrate (us/s)		-4.3105211E-07		Resid phdelay (usec)		-4.71871E-06	+/- 6.3E-07	
Delay rate (us/s)	5.56791186087E-02		Apriori rate (us/s)		5.56712587094E-02		Resid rate (us/s)		7.85990E-06	+/- 6.1E-09	
Total phase (deg)			Apriori accel (us/s/s)		-1.90648966722E-05		Resid phase (deg)		-146.3	+/- 19.5	
RMS	50.1	45.5	Amplitude		0.199 +/- 0.034		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	63.6	79.5	Search (1024X32)		0.160		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	29.8	27.6	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	30.7	48.1	Inc. seg. avg.		0.194		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)			Inc. frq. avg.		0.195		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
f: az 60.7 el 26.7 pa -70.6	o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec)		-417.242 -1808.639				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/fo..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/fo.W.131.3MP1N1								

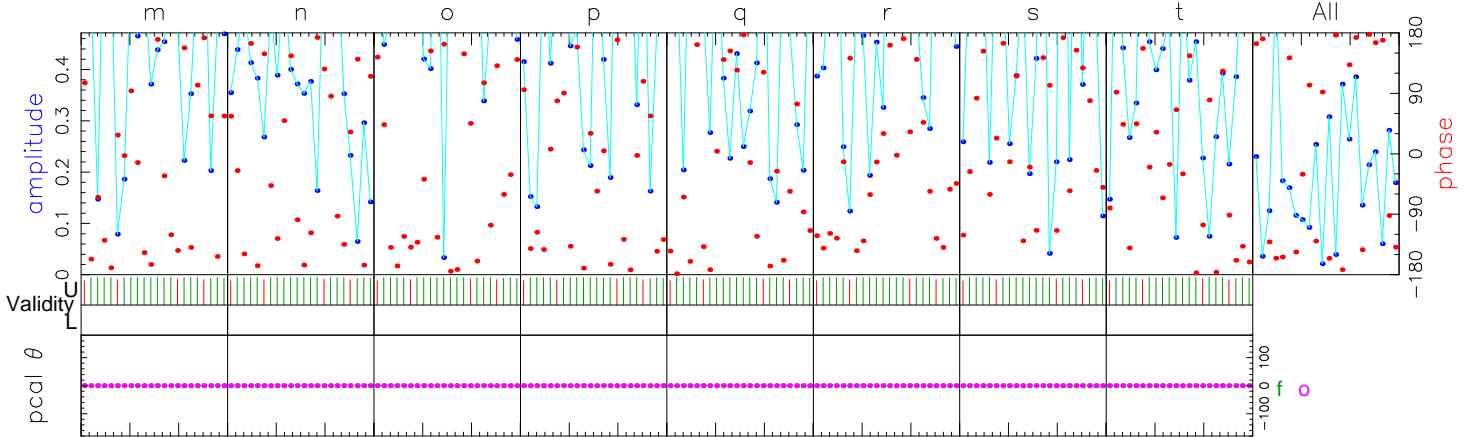
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, fo VLBA_FD - VLBA_OV, fgroup W, pol LR



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
	-172.0	-166.9	-159.6	-179.6	-164.8	-132.2	149.5	177.1	Phase	-166.2
	0.2	0.1	0.3	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	496.0	45.6	291.2	213.3	50.9	290.9	28.4	364.4	Sbd box	290.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	2.33562223487E+03		Apriori delay (usec)	2.33548557109E+03	Resid mbdelay (usec)	-3.96122E-03	+/-	1.9E-04		
Sband delay (usec)	2.33561528459E+03		Apriori clock (usec)	-2.5006969E+01	Resid sbdelay (usec)	1.29714E-01	+/-	1.5E-03		
Phase delay (usec)	2.33548556573E+03		Apriori clockrate (us/s)	-4.3105211E-07	Resid phdelay (usec)	-5.36053E-06	+/-	6.5E-07		
Delay rate (us/s)	5.56703860782E-02		Apriori rate (us/s)	5.56712587094E-02	Resid rate (us/s)	-8.72631E-07	+/-	6.3E-09		
Total phase (deg)		-132.5	Apriori accel (us/s/s)	-1.90648966722E-05	Resid phase (deg)	-166.2	+/-	20.1		
RMS	51.4	46.9	Amplitude	0.157 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5			
ph/seg (deg)	88.0	81.9	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	24.7	28.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	43.4	49.6	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 (%)			Inc. frq. avg.	0.149	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
f: az 60.7 el 26.7 pa -70.6			o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec)	-417.242 -1808.639			simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/fo..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/fo.W.141.3MP1N1					

Mk4/DiFX fourfit 3.25 rev 0

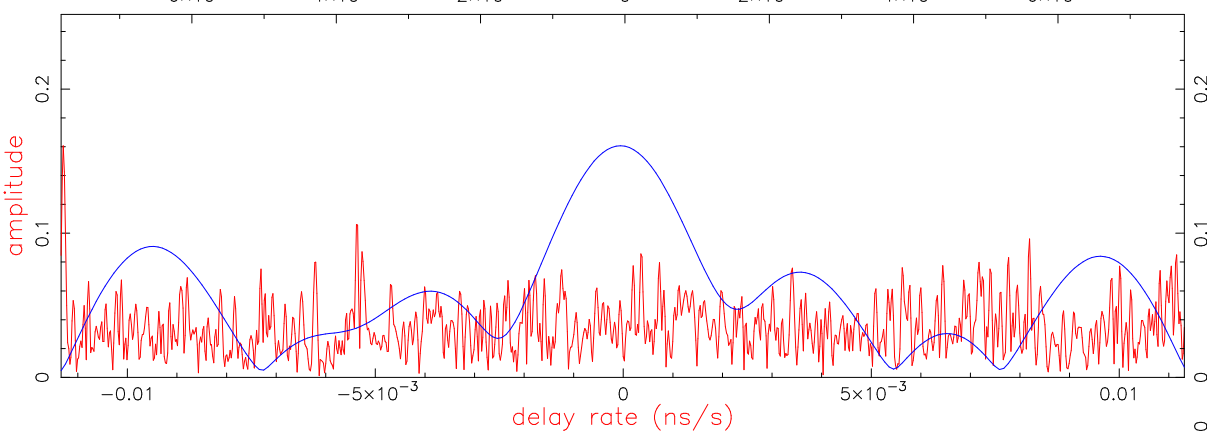
aux01

2013+370.3MP1N1, No0280, fo

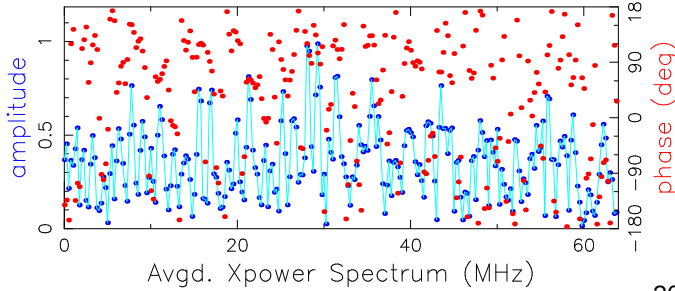
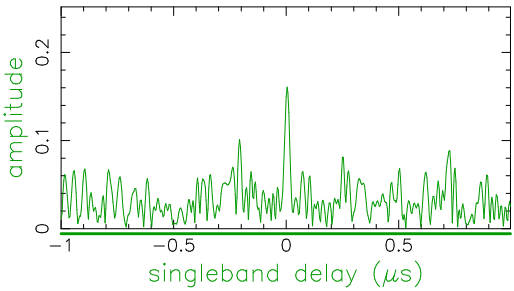
VLBA_FD - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

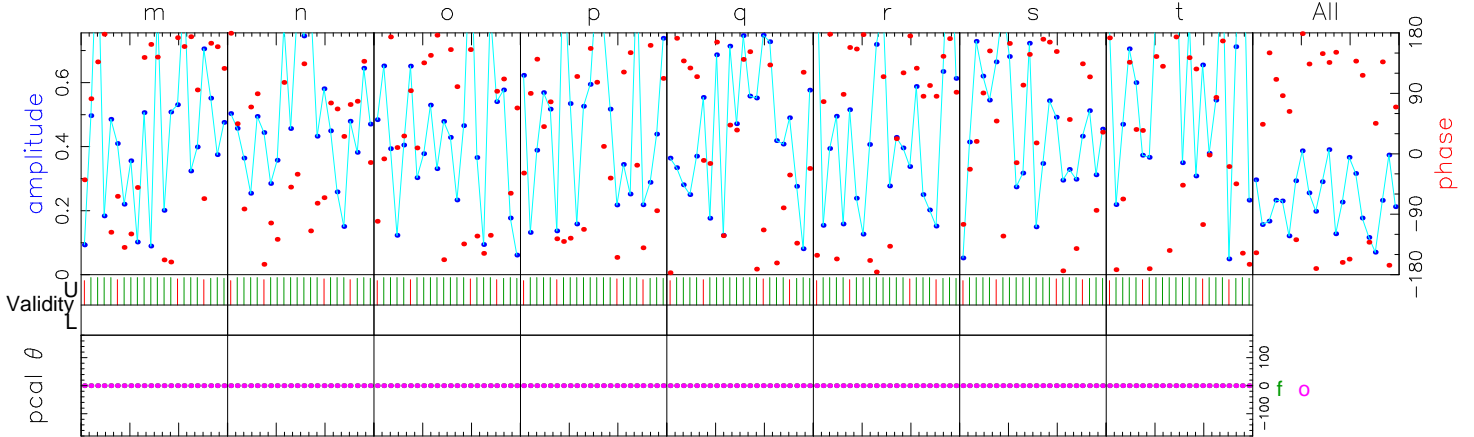


SNR 5.9
 Int time 177.092
 Amp 0.252
 Phase 156.5
 PFD 4.6e-01
 Delays (us)
 SBD 0.004450
 MBD -0.000052
 Fringe rate (Hz)
 -0.973445
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105021
 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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
f	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 2.33548551889E+03 Apriori delay (usec) 2.33548557109E+03 Resid mbdelay (usec) -5.21964E-05 +/- 1.9E-04
 Sband delay (usec) 2.33549002084E+03 Apriori clock (usec) -2.5006969E+01 Resid sbdelay (usec) 4.44975E-03 +/- 1.5E-03
 Phase delay (usec) 2.33548557614E+03 Apriori clockrate (us/s) -4.3105211E-07 Resid phdelay (usec) 5.04564E-06 +/- 6.3E-07
 Delay rate (us/s) 5.56599579736E-02 Apriori rate (us/s) 5.56712587094E-02 Resid rate (us/s) -1.13007E-05 +/- 6.1E-09
 Total phase (deg) 190.2 Apriori accel (us/s/s) -1.90648966722E-05 Resid phase (deg) 156.5 +/- 19.6

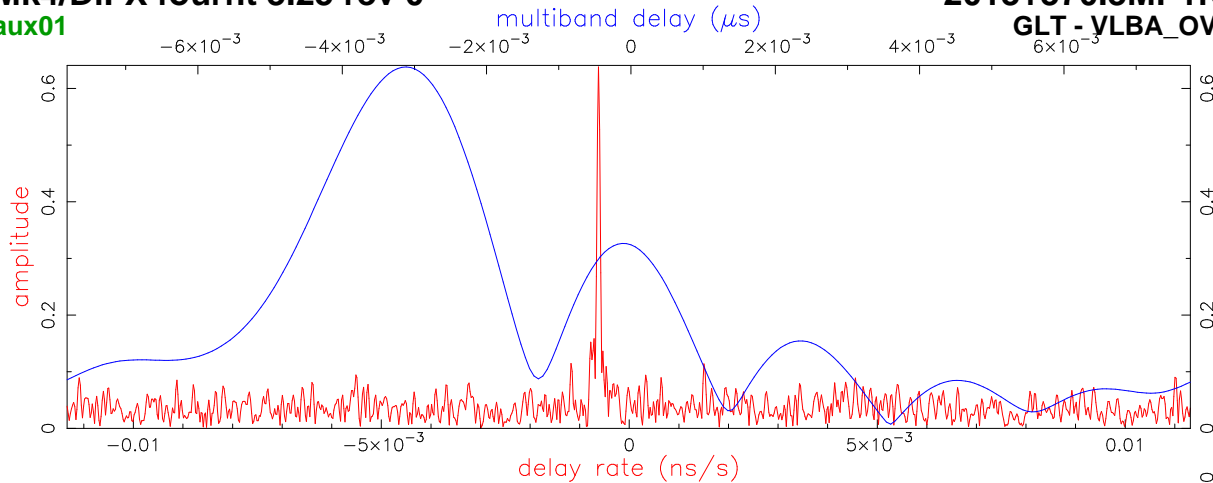
ph/seg (deg) 57.1 45.7 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.4 79.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.6 27.7 Inc. seg. avg. 0.283 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 63.2 48.3 Inc. frq. avg. 0.236 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 f: az 60.7 el 26.7 pa -70.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -417.242 -1808.639 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/fo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fo.W.152.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

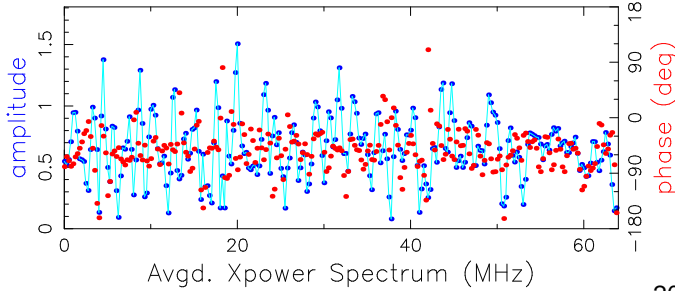
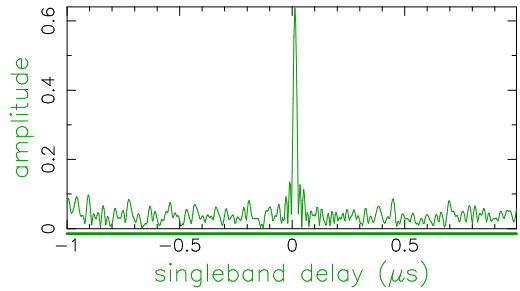
2013+370.3MP1N1, No0280, go

GLT - VLBA_OV, fgroup W, pol LL



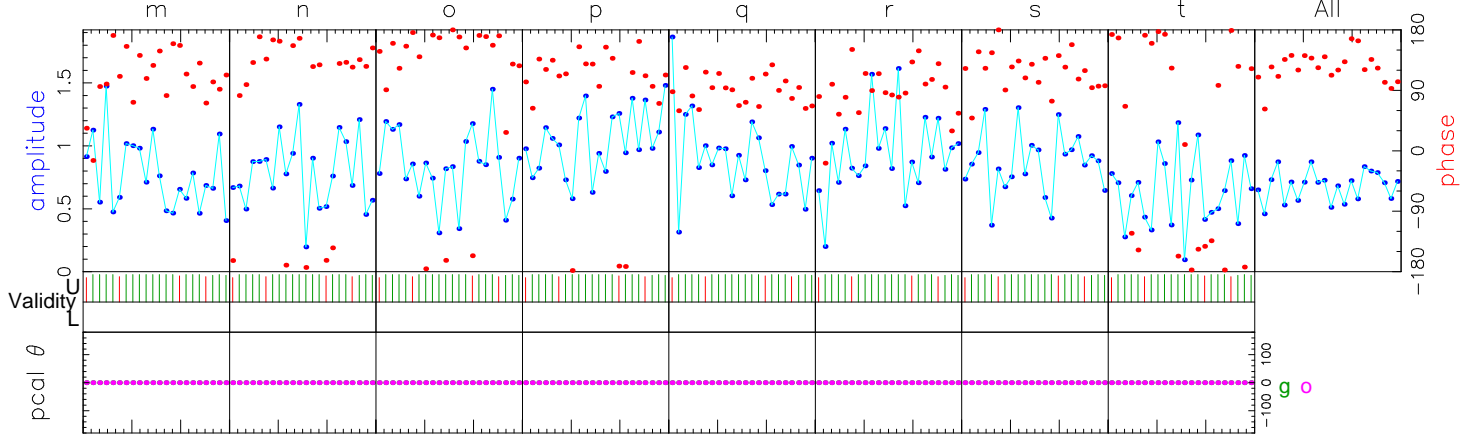
Fringe quality 8

SNR 23.3
 Int time 177.086
 Amp 0.641
 Phase 124.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.012424
 MBD -0.003092
 Fringe rate (Hz)
 -0.054155
 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
 2025:041:105023
 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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
g	0	0	0	0	0	0	0	0		
g:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	8.11733770222E+03	Apriori delay (usec)	8.11732516880E+03	Resid mbdelay (usec)	-3.09158E-03	+/-	4.7E-05
Sband delay (usec)	8.11733759330E+03	Apriori clock (usec)	-2.4623039E+01	Resid sbdelay (usec)	1.24245E-02	+/-	3.7E-04
Phase delay (usec)	8.11732517282E+03	Apriori clockrate (us/s)	3.0308893E-07	Resid phdelay (usec)	4.02649E-06	+/-	1.6E-07
Delay rate (us/s)	-7.89003107287E-01	Apriori rate (us/s)	-7.89002478598E-01	Resid rate (us/s)	-6.28689E-07	+/-	1.5E-09
Total phase (deg)	139.3	Apriori accel (us/s/s)	-1.81449346756E-05	Resid phase (deg)	124.9	+/-	4.9

ph/seg (deg)	22.6	Theor.	11.5	Amplitude	0.641 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	19.2	Search (1024X32)	0.612	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	35.1	Inc. seg. avg.	0.669	Inc. frq. avg.	0.722	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	22.8	Inc. frq. avg.	0.722			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
g: az 128.2 el 46.4 pa -13.2		o: az 57.7 el 19.8 pa -57.9		u, v (fr/asec)	5668.357 1476.704	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/go..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/go.W.163.3MP1N1			ion window (TEC) 0.00 0.00

simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

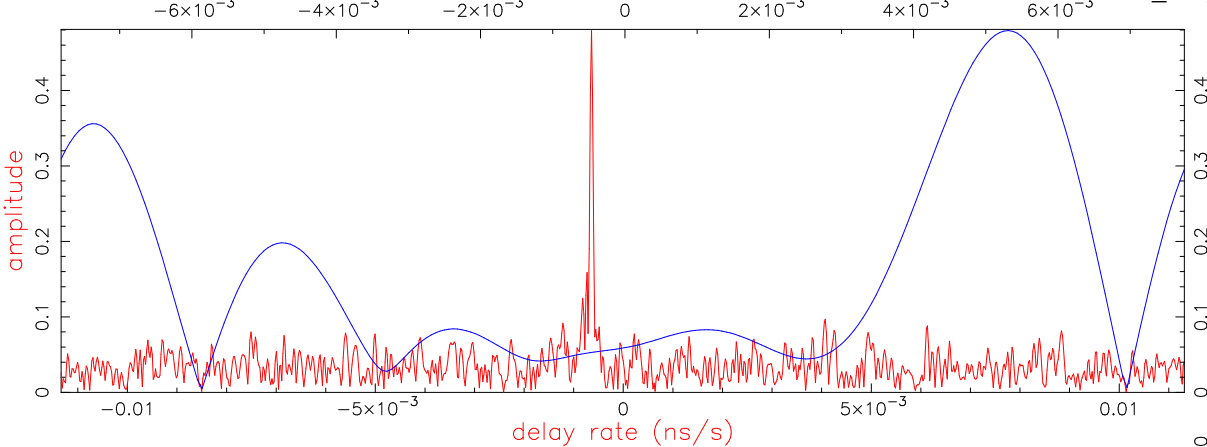
aux01

2013+370.3MP1N1, No0280, go

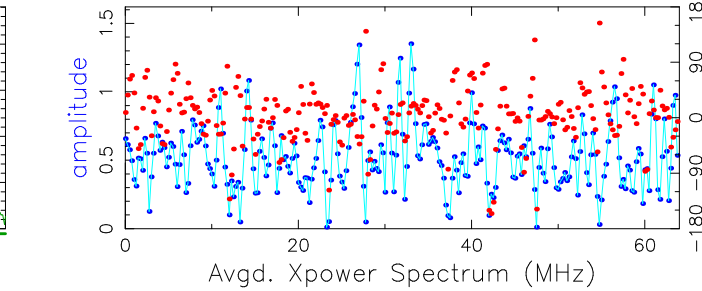
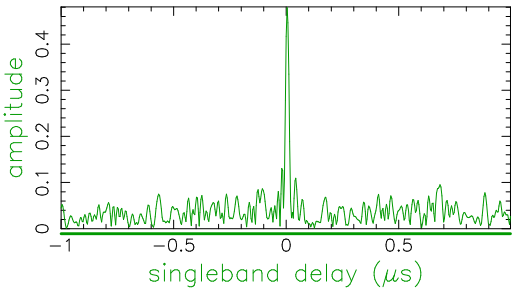
GLT - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

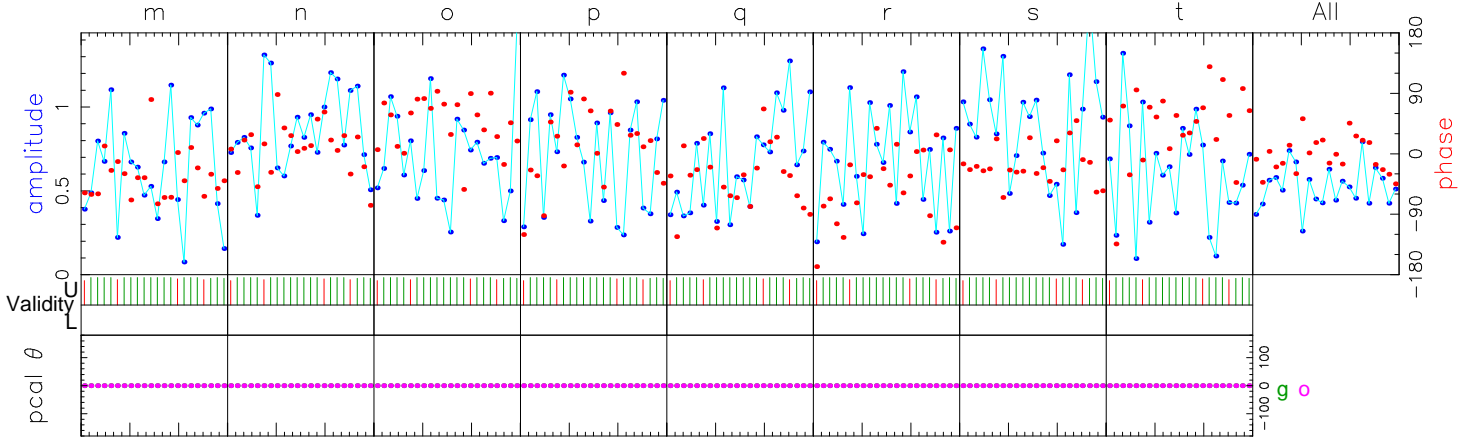


SNR 17.5
 Int time 177.086
 Amp 0.481
 Phase -3.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.004493
 MBD 0.005325
 Fringe rate (Hz) -0.054500
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105025
 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
	-36.0	11.0	47.9	12.1	-34.1	-48.7	-19.0	47.0	Phase	-3.3
	0.5	0.7	0.6	0.5	0.5	0.5	0.8	0.5	Ampl.	0.6
	259.7	258.7	258.4	258.0	257.6	258.1	258.7	260.2	Sbd box	258.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
g:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	8.11733049336E+03		Apriori delay (usec)		8.11732516880E+03		Resid mbdelay (usec)		5.32456E-03	+/- 6.2E-05
Sband delay (usec)	8.11732966205E+03		Apriori clock (usec)		-2.4623039E+01		Resid sbdelay (usec)		4.49325E-03	+/- 4.9E-04
Phase delay (usec)	8.11732516869E+03		Apriori clockrate (us/s)		3.0308893E-07		Resid phdelay (usec)		-1.05888E-07	+/- 2.1E-07
Delay rate (us/s)	-7.8900311288E-01		Apriori rate (us/s)		-7.89002478598E-01		Resid rate (us/s)		-6.32690E-07	+/- 2.0E-09
Total phase (deg)	11.2		Apriori accel (us/s/s)		-1.81449346756E-05		Resid phase (deg)		-3.3	+/- 6.6

ph/seg (deg) 25.7 15.3 Amplitude 0.481 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 26.9 26.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.7 9.3 Inc. seg. avg. 0.506 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.2 16.2 Inc. frq. avg. 0.566 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 128.2 el 46.4 pa -13.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 5668.357 1476.704 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/go..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/go.W.167.3MP1N1

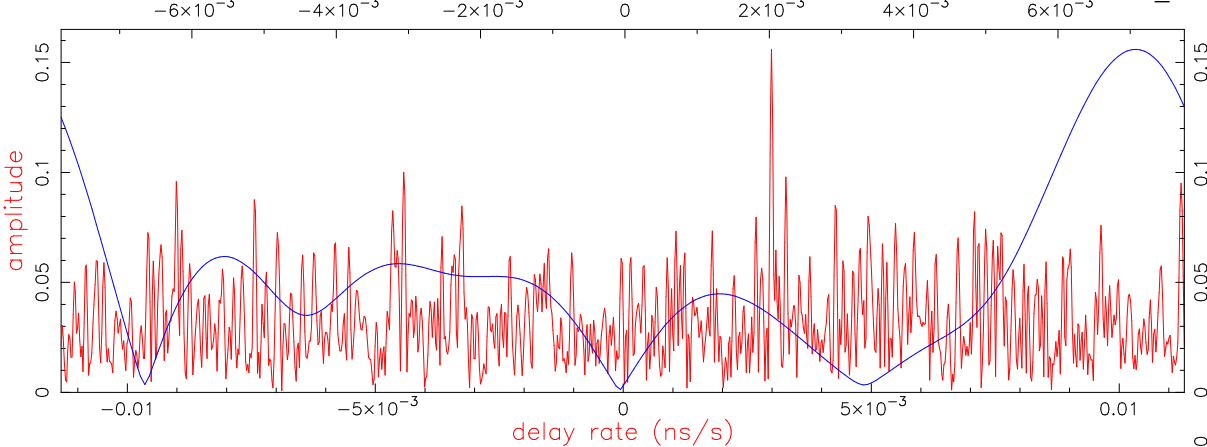
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, go

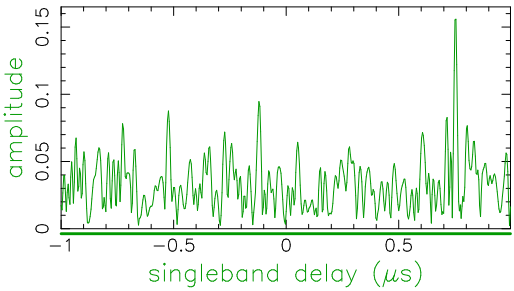
GLT - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

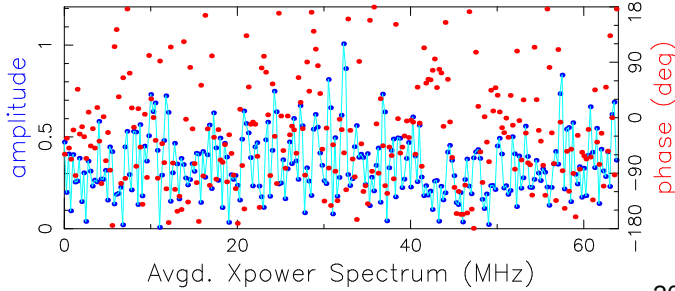


Fringe quality 0

SNR 5.8
 Int time 177.086
 Amp 0.165
 Phase -108.6
 PFD 4.9e-01
 Delays (us)
 SBD 0.752011
 MBD 0.007039
 Fringe rate (Hz) 0.257816
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

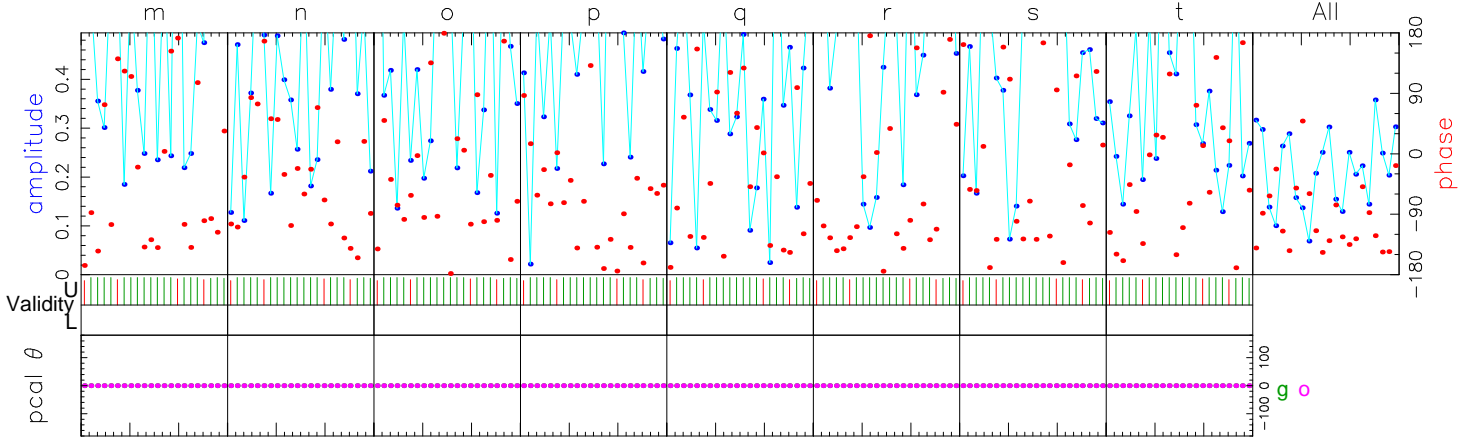


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105027
 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
	-144.9	-59.0	-108.5	-89.9	-87.2	-126.6	-124.8	-76.9	Phase	-108.6
	0.2	0.1	0.2	0.3	0.1	0.3	0.2	0.1	Ampl.	0.2
	271.1	75.7	335.2	450.0	437.4	450.7	208.0	66.4	Sbd box	449.5
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
g:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	8.11808220812E+03	Apriori delay (usec)	8.11732516880E+03	Resid mbdelay (usec)	7.03933E-03	+/-	1.9E-04
Sband delay (usec)	8.11807718005E+03	Apriori clock (usec)	-2.4623039E+01	Resid sbdelay (usec)	7.52011E-01	+/-	1.5E-03
Phase delay (usec)	8.11732516530E+03	Apriori clockrate (us/s)	3.0308893E-07	Resid phdelay (usec)	-3.50122E-06	+/-	6.3E-07
Delay rate (us/s)	-7.88999485611E-01	Apriori rate (us/s)	-7.89002478598E-01	Resid rate (us/s)	2.99299E-06	+/-	6.1E-09
Total phase (deg)	-94.1	Apriori accel (us/s/s)	-1.81449346756E-05	Resid phase (deg)	-108.6	+/-	19.6

ph/seg (deg)	53.4	Theor.	45.9	Amplitude	0.165 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.4	Search (1024X32)	0.154	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.1	Inc. seg. avg.	0.167	Inc. frq. avg.	0.158	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.3	Inc. frq. avg.	0.158	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
g: az 128.2 el 46.4 pa -13.2	o: az 57.7 el 19.8 pa -57.9	u, v (fr/asec)	5668.357 1476.704	simultaneous interpolator		ion window (TEC)	0.00 0.00			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/go..3MP1N1	Output file: /Exps/c241c/v2/3mm/1234/No0280/go.W.180.3MP1N1								

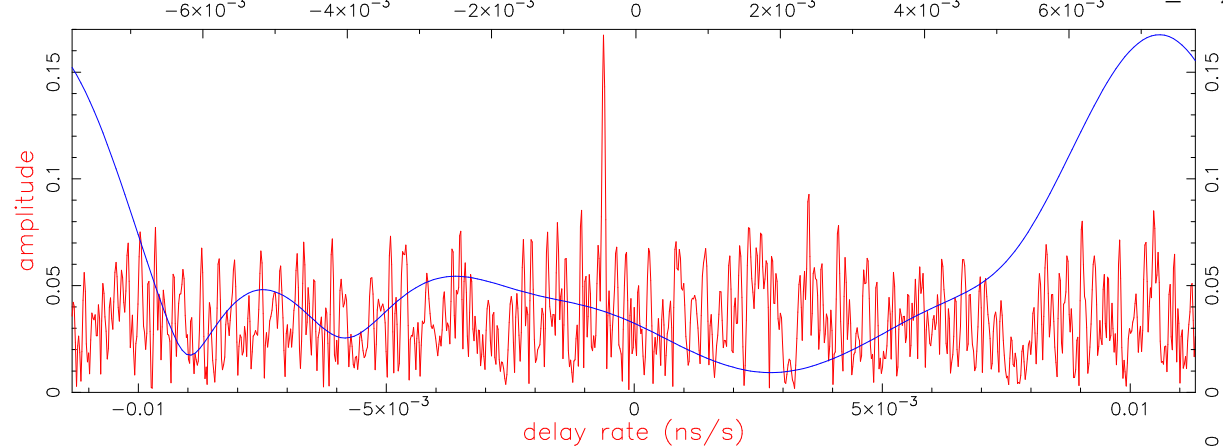
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, go

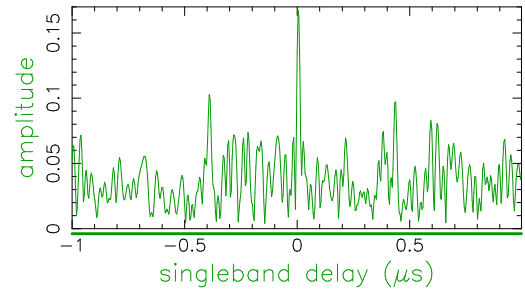
GLT - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

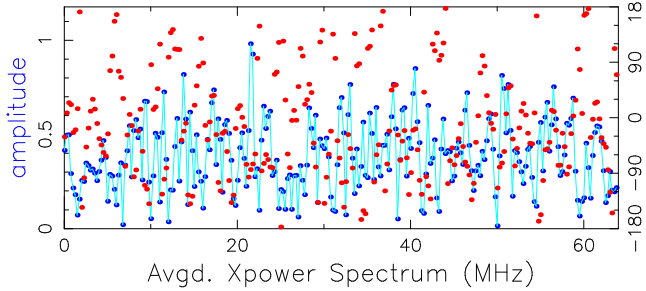


Fringe quality 0

SNR 6.2
 Int time 177.086
 Amp 0.170
 Phase -61.9
 PFD 8.2e-02
 Delays (us)
 SBD 0.005295
 MBD 0.007316
 Fringe rate (Hz)
 -0.053320
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

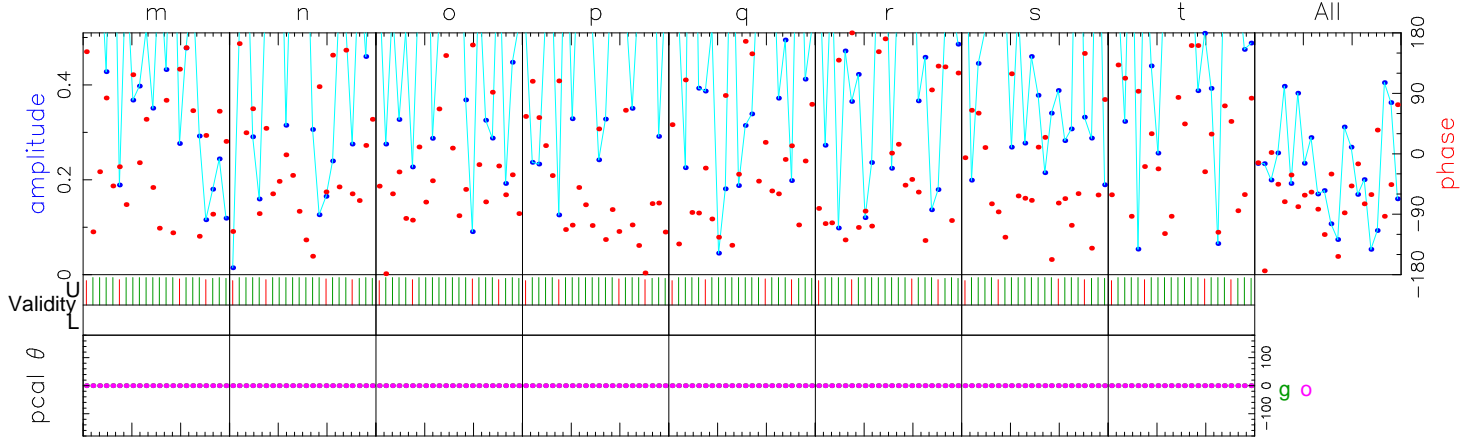


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105029
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

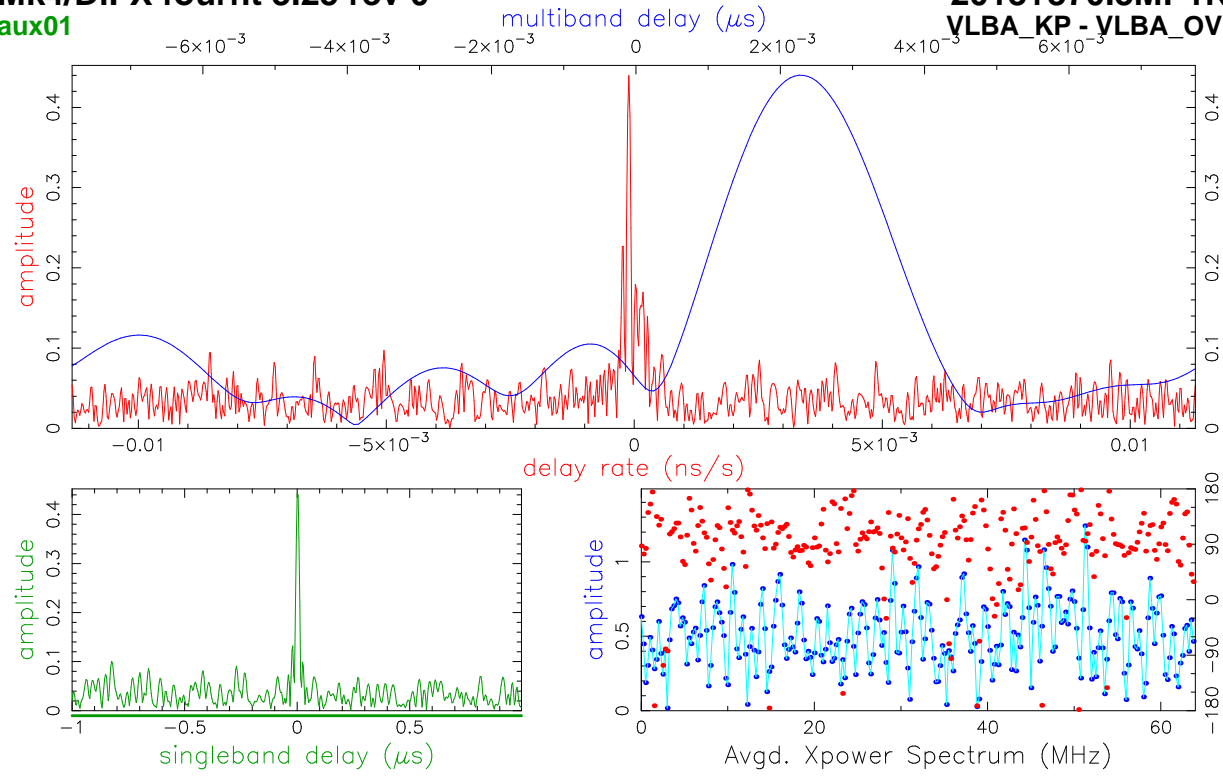
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
g	0	0	0	0	0	0	0	0		
g:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

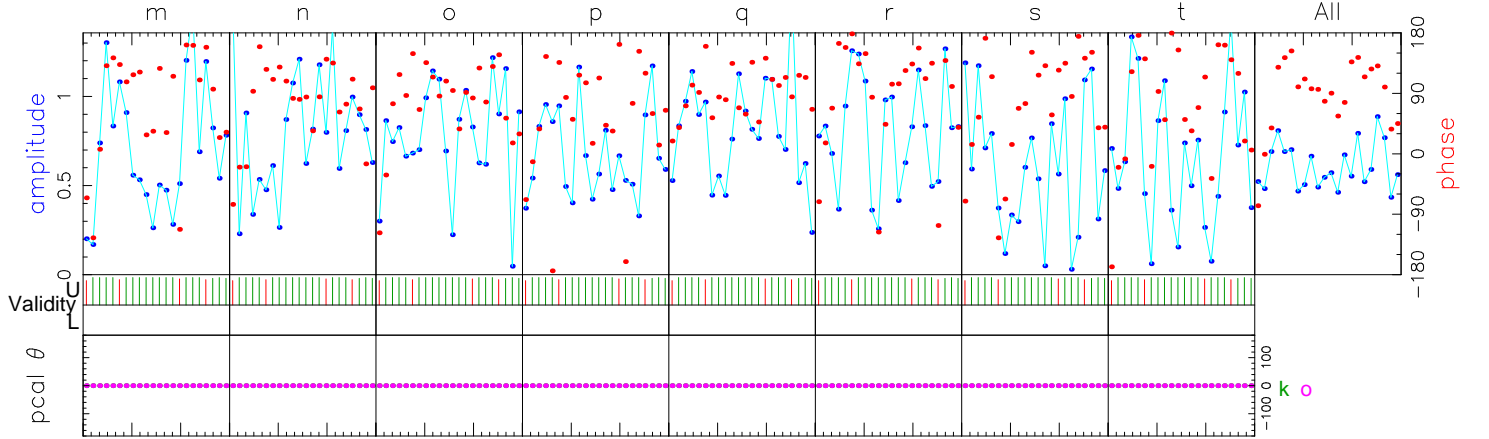
Group delay (usec) (SBD) 8.11733248500E+03 Apriori delay (usec) 8.11732516880E+03 Resid mbdelay (usec) 7.31620E-03 +/- 1.8E-04
 Sband delay (usec) 8.11733046355E+03 Apriori clock (usec) -2.4623039E+01 Resid sbdelay (usec) 5.29475E-03 +/- 1.4E-03
 Phase delay (usec) 8.11732516680E+03 Apriori clockrate (us/s) 3.0308893E-07 Resid phdelay (usec) -1.99517E-06 +/- 6.0E-07
 Delay rate (us/s) -7.89003097591E-01 Apriori rate (us/s) -7.89002478598E-01 Resid rate (us/s) -6.18993E-07 +/- 5.8E-09
 Total phase (deg) -47.4 Apriori accel (us/s/s) -1.81449346756E-05 Resid phase (deg) -61.9 +/- 18.5

ph/seg (deg) 54.5 43.3 Search (1024X32) 0.167 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.7 75.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.1 26.2 Inc. seg. avg. 0.176 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.2 45.8 Inc. frq. avg. 0.169 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 128.2 el 46.4 pa -13.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 5668.357 1476.704 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/go..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/go.W.184.3MP1N1 simultaneous interpolator



Fringe quality 9
SNR 16.5
Int time 177.093
Amp 0.452
Phase 101.4
PFD 0.0e+00
Delays (us)
SBD 0.001841
MBD 0.002228
Fringe rate (Hz)
-0.009400
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
2025:041:105031
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

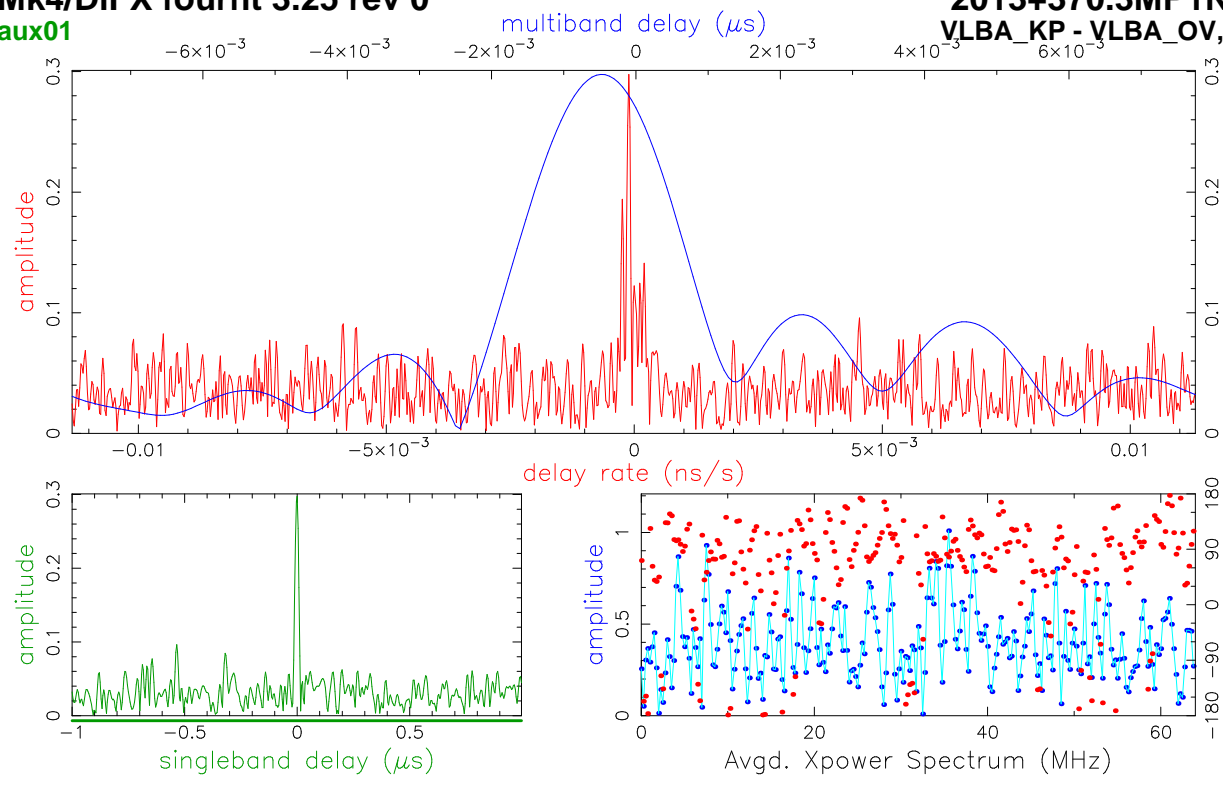


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0				
k	0	0	0	0	0	0	0	0				
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec) (SBD)	6.42871169069E+02		Apriori delay (usec)		6.42868940817E+02		Resid mbdelay (usec)		2.22825E-03	+/- 6.6E-05		
Sband delay (usec)	6.42870781567E+02		Apriori clock (usec)		-2.4911732E+01		Resid sbdelay (usec)		1.84075E-03	+/- 5.2E-04		
Phase delay (usec)	6.42868944087E+02		Apriori clockrate (us/s)		-3.2906598E-07		Resid phdelay (usec)		3.26934E-06	+/- 2.2E-07		
Delay rate (us/s)	6.17859539791E-02		Apriori rate (us/s)		6.17860630984E-02		Resid rate (us/s)		-1.09119E-07	+/- 2.2E-09		
Total phase (deg)	303.7		Apriori accel (us/s/s)		-8.71817770347E-06		Resid phase (deg)		101.4	+/- 7.0		
ph/seg (deg)	RMS 54.0	Theor. 16.3	Amplitude Search (1024X32)		0.452 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	44.0	28.4	Interp.		0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	15.1	9.8	Inc. seg. avg.		0.584		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.4	17.2	Inc. frq. avg.		0.445		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011		
k: az 58.7 el 21.7 pa -65.8		o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) -452.715 -1051.420		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/ko..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/ko.W.194.3MP1N1		simultaneous interpolator						

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, ko
VLBA_KP - VLBA_OV, fgroup W, pol RR

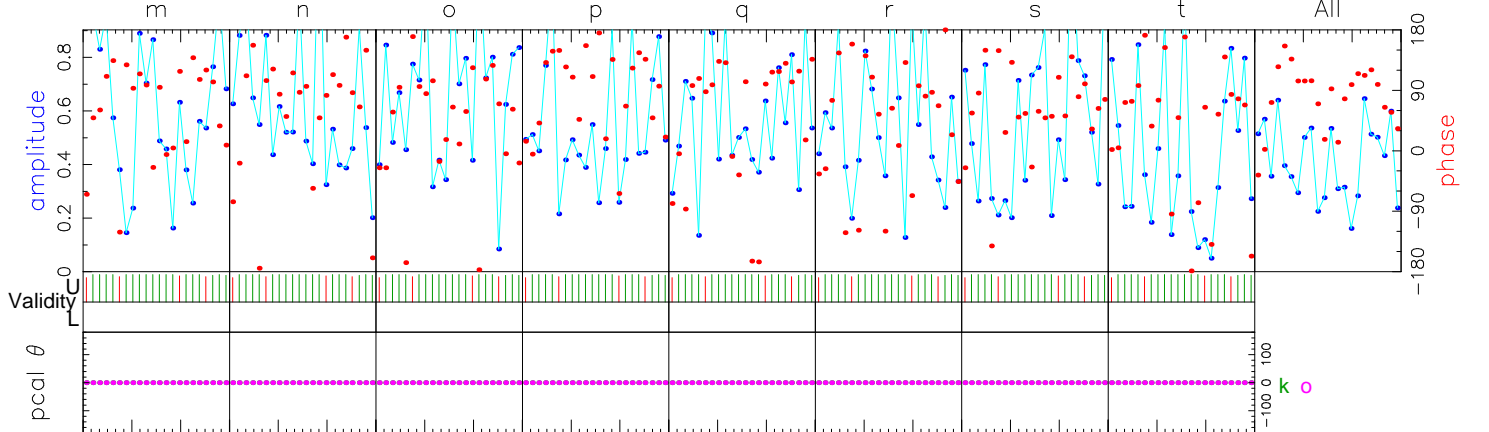


Fringe quality 9

SNR 11.0
Int time 177.093
Amp 0.301
Phase 86.1
PFD 1.5e-19
Delays (us)
SBD -0.001413
MBD -0.000503
Fringe rate (Hz)
-0.009021
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
2025:041:105032
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



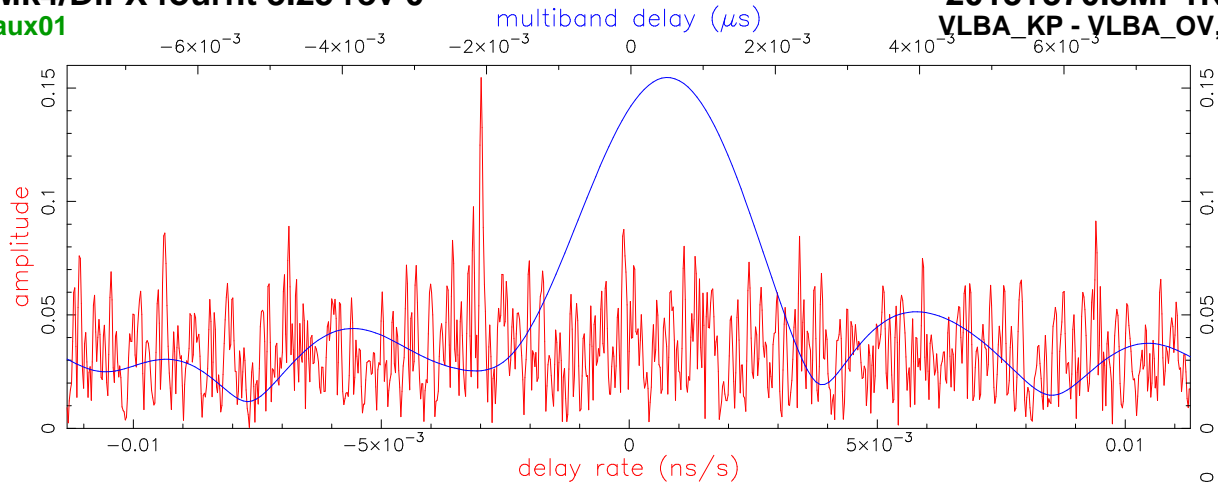
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
k	0	0	0	0	0	0	0	0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	6.42868437569E+02		Apriori delay (usec)		6.42868940817E+02		Resid mbdelay (usec)		-5.03248E-04	+/- 9.9E-05
Sband delay (usec)	6.42867528067E+02		Apriori clock (usec)		-2.4911732E+01		Resid sbdelay (usec)		-1.41275E-03	+/- 7.9E-04
Phase delay (usec)	6.42868943594E+02		Apriori clockrate (us/s)		-3.2906598E-07		Resid phdelay (usec)		-2.77634E-06	+/- 3.4E-07
Delay rate (us/s)	6.17859583736E-02		Apriori rate (us/s)		6.17860630984E-02		Resid rate (us/s)		-1.04725E-07	+/- 3.3E-09
Total phase (deg)	288.4		Apriori accel (us/s/s)		-8.71817770347E-06		Resid phase (deg)		86.1	+/- 10.5
ph/seg (deg)	RMS 46.9	Theor. 24.4	Amplitude 0.301 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000 1.000
amp/seg (%)	61.0	42.6	Search (1024X32) 0.293	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.008 0.008
ph/frq (deg)	15.4	14.8	Interp. 0.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)		-0.011 0.011
amp/frq (%)	20.2	25.8	Inc. seg. avg. 0.383	Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00		
k: az 58.7 el 21.7 pa -65.8		o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) -452.715 -1051.420		simultaneous interpolator				
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/ko..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/ko.W.207.3MP1N1						

Mk4/DiFX fourfit 3.25 rev 0

aux01

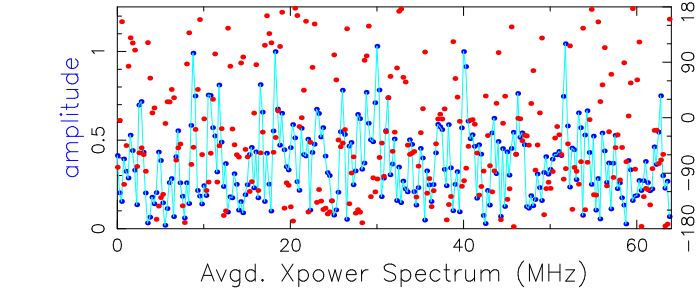
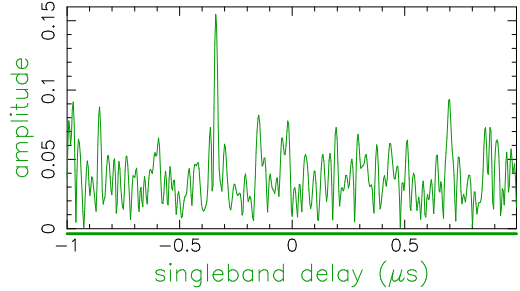
2013+370.3MP1N1, No0280, ko

VLBA_KP - VLBA_OV, fgroup W, pol LR



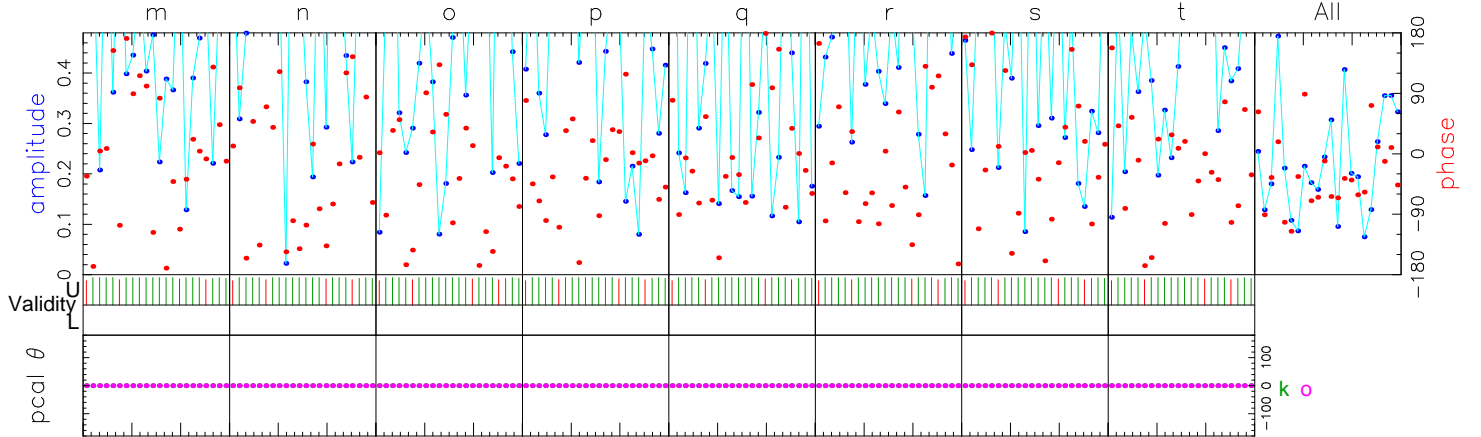
Fringe quality 0

SNR 5.7
 Int time 177.093
 Amp 0.160
 Phase -25.2
 PFD 8.5e-01
 Delays (us)
 SBD -0.338915
 MBD 0.000541
 Fringe rate (Hz)
 -0.257274
 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
 2025:041:105037
 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
	-10.3	-47.5	-22.1	-9.9	-27.9	-44.8	-68.1	-13.9	Phase	-25.2
	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.2	Ampl.	0.1
	53.9	67.0	8.4	169.5	231.5	225.0	102.8	94.8	Sbd box	170.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 6.42525731459E+02 Apriori delay (usec) 6.42868940817E+02 Resid mbdelay (usec) 5.40641E-04 +/- 1.9E-04
 Sband delay (usec) 6.42530025567E+02 Apriori clock (usec) -2.4911732E+01 Resid sbdelay (usec) -3.38915E-01 +/- 1.5E-03
 Phase delay (usec) 6.42868940004E+02 Apriori clockrate (us/s) -3.2906598E-07 Resid phdelay (usec) -8.13472E-07 +/- 6.5E-07
 Delay rate (us/s) 6.17830764076E-02 Apriori rate (us/s) 6.17860630984E-02 Resid rate (us/s) -2.98669E-06 +/- 6.3E-09
 Total phase (deg) 177.1 Apriori accel (us/s/s) -8.71817770347E-06 Resid phase (deg) -25.2 +/- 20.3

RMS Theor. Amplitude 0.160 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 53.2 47.3 Search (1024X32) 0.151 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 81.6 82.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 23.5 28.6 Inc. seg. avg. 0.172 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 47.9 50.0 Inc. frq. avg. 0.148 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 58.7 el 21.7 pa -65.8 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -452.715 -1051.420 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/ko..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/ko.W.216.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

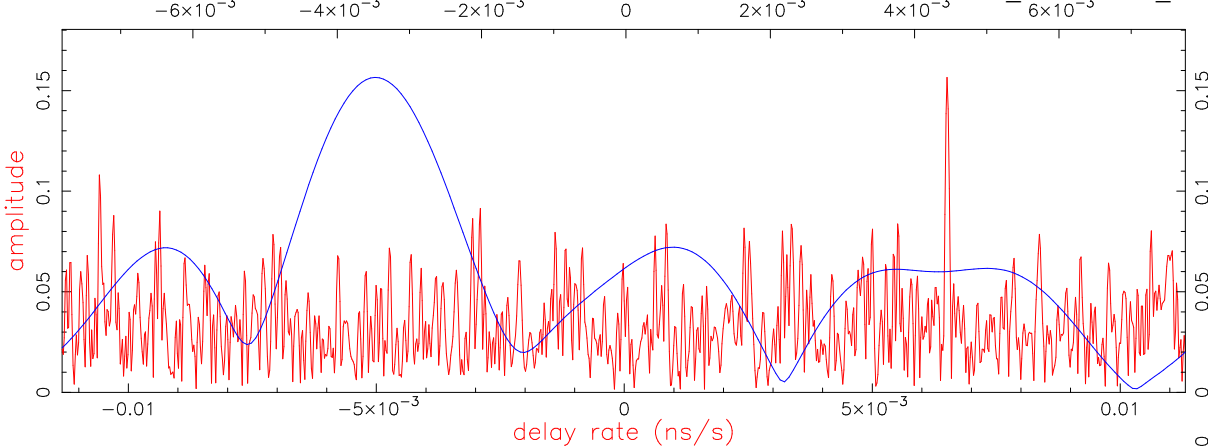
aux01

2013+370.3MP1N1, No0280, ko

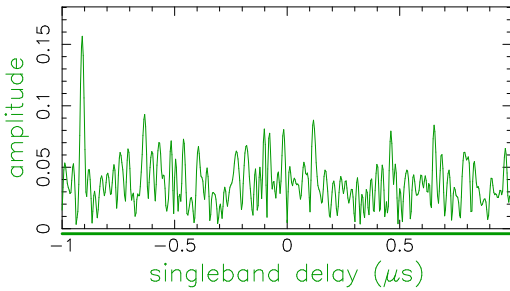
VLBA_KP - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

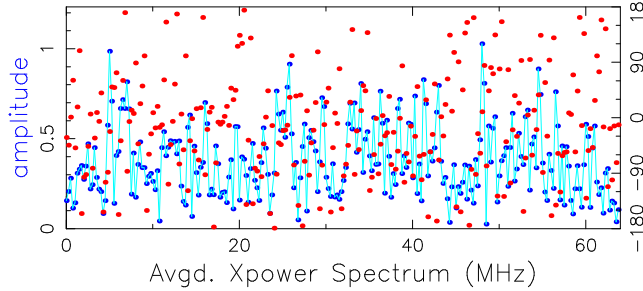
Fringe quality 0



SNR 5.7
Int time 177.093
Amp 0.180
Phase -34.9
PFD 7.6e-01
Delays (us)
SBD -0.910772
MBD -0.003487
Fringe rate (Hz) 0.561804
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

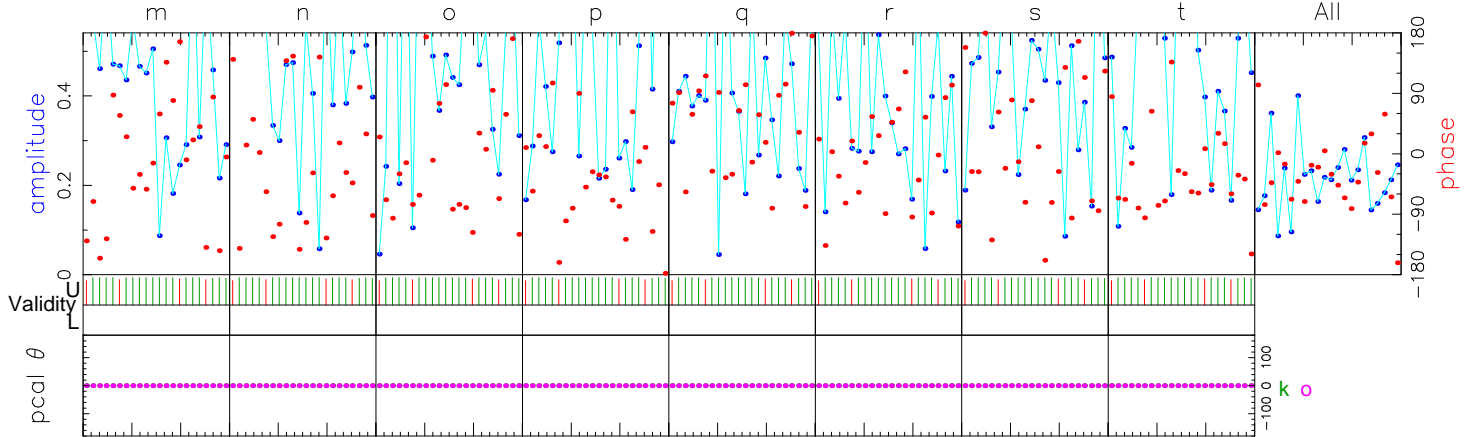


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build 2024:352:054246
2025:041:105042
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
	-28.6	-29.1	-64.8	-50.5	28.7	-7.9	-51.0	-45.0	Phase	-34.9
	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.4	Ampl.	0.2
	329.4	378.8	283.9	23.2	241.7	94.0	130.2	24.0	Sbd box	23.8
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.41959204152E+02	Apriori delay (usec)	6.42868940817E+02	Resid mbdelay (usec)	-3.48667E-03	+/-	1.9E-04
Sband delay (usec)	6.41958168817E+02	Apriori clock (usec)	-2.4911732E+01	Resid sbdelay (usec)	-9.10772E-01	+/-	1.5E-03
Phase delay (usec)	6.42868939693E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-1.12404E-06	+/-	6.5E-07
Delay rate (us/s)	6.17925850808E-02	Apriori rate (us/s)	6.17860630984E-02	Resid rate (us/s)	6.52198E-06	+/-	6.3E-09
Total phase (deg)	167.5	Apriori accel (us/s/s)	-8.71817770347E-06	Resid phase (deg)	-34.9	+/-	20.1

ph/seg (deg)	52.5	Theor.	46.9	Amplitude	0.180 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	61.2	Search (1024X32)	0.150	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.5	Inc. seg. avg.	0.188	Inc. frq. avg.	0.179	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.8	Inc. frq. avg.	0.179			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

k: az 58.7 el 21.7 pa -65.8 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -452.715 -1051.420 simultaneous interpolator

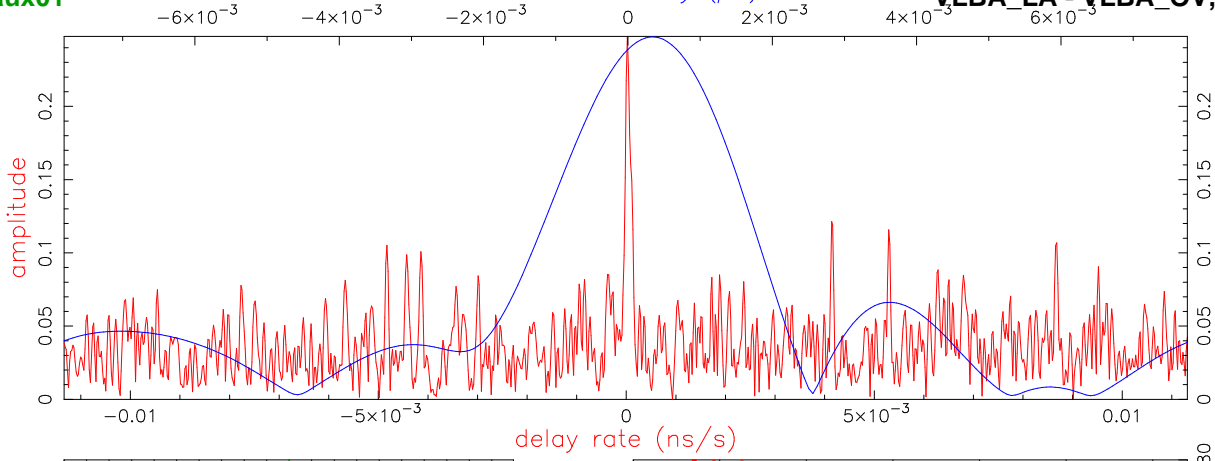
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/ko..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/ko.W.221.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

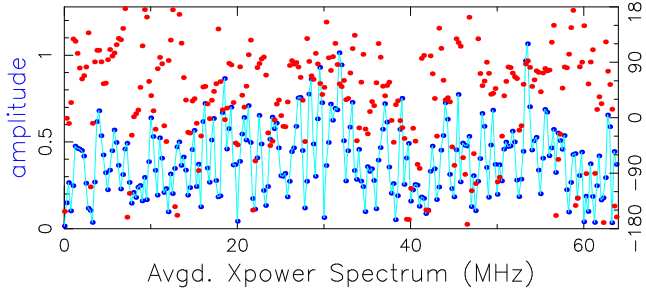
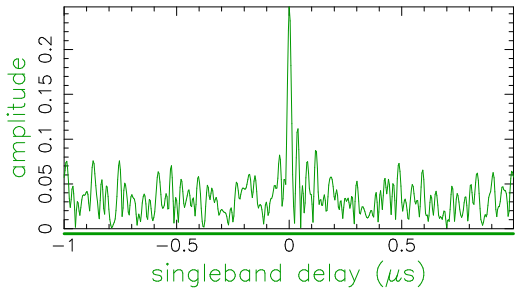
2013+370.3MP1N1, No0280, lo
VLBA_LA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

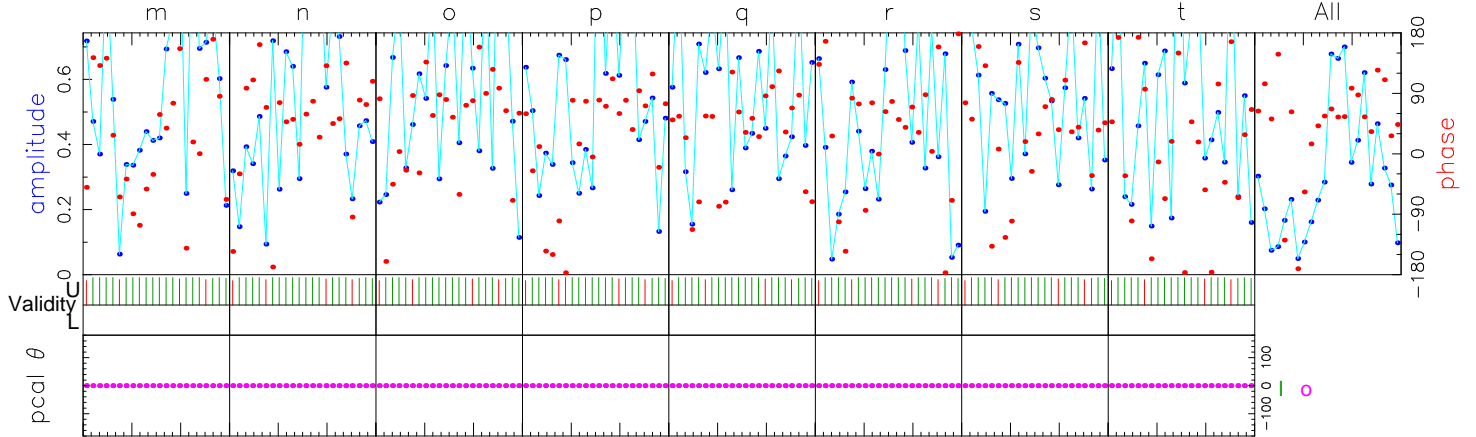


Fringe quality 9
SNR 9.0
Int time 177.091
Amp 0.248
Phase 66.8
PFD 3.7e-11
Delays (us)
SBD 0.000501
MBD 0.000354
Fringe rate (Hz) 0.002248
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:105043
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

delay rate (ns/s)



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
	70.4	74.0	63.8	75.1	40.7	70.2	56.2	113.7	Phase	66.8
	0.1	0.4	0.3	0.3	0.3	0.3	0.2	0.1	Ampl.	0.2
	246.8	257.2	257.6	442.2	256.8	295.4	164.7	287.2	Sbd box	257.1
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	2.57302757593E+03				2.57302722232E+03				Resid mbdelay (usec)	3.53612E-04 +/- 1.2E-04
Sband delay (usec)	2.57302772382E+03				-3.3371552E+01				Resid sbdelay (usec)	5.01500E-04 +/- 9.6E-04
Phase delay (usec)	2.57302722447E+03				-7.1527311E-07				Resid phdelay (usec)	2.15352E-06 +/- 4.1E-07
Delay rate (us/s)	4.39257782663E-03				4.39255172904E-03				Resid rate (us/s)	2.60976E-08 +/- 4.0E-09
Total phase (deg)			41.7		-1.52493327421E-05				Resid phase (deg)	66.8 +/- 12.7
	RMS	Theor.	Amplitude	0.248 +/- 0.027					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.4	29.7	Search (1024X32)	0.244					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	84.5	51.8	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	22.9	18.0	Inc. seg. avg.	0.270					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.8	31.4	Inc. frq. avg.	0.244					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
l: az 62.2 el 27.5 pa -64.5			o: az 57.7 el 19.8 pa -57.9						nlags: 256 t_cohere infinite	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/lo..3MP1N1						u,v (fr/asec) -44.011 -1054.112	
									Output file: /Exps/c241c/v2/3mm/1234/No0280/lo.W.226.3MP1N1	

Mk4/DiFX fourfit 3.25 rev 0

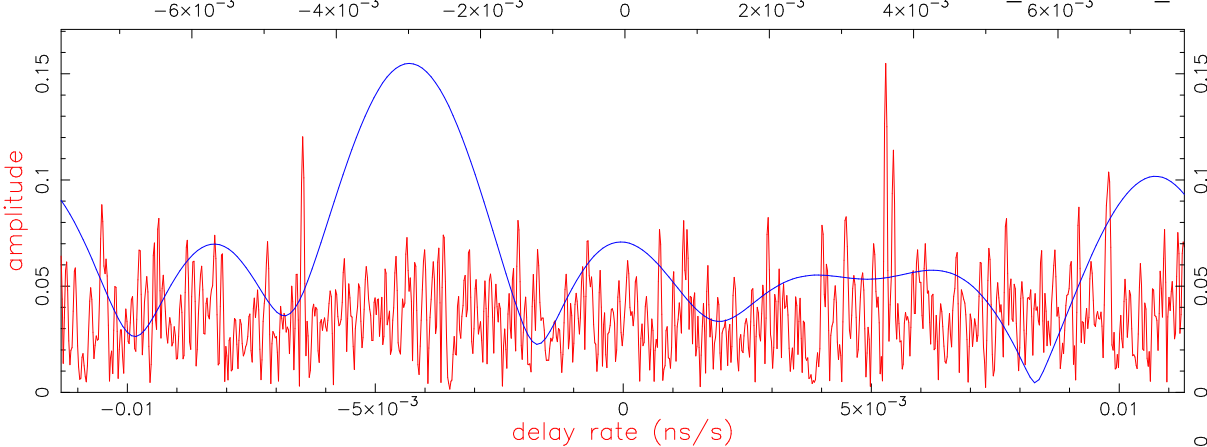
aux01

2013+370.3MP1N1, No0280, lo

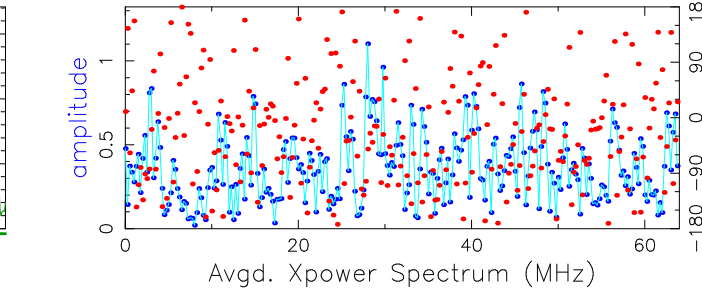
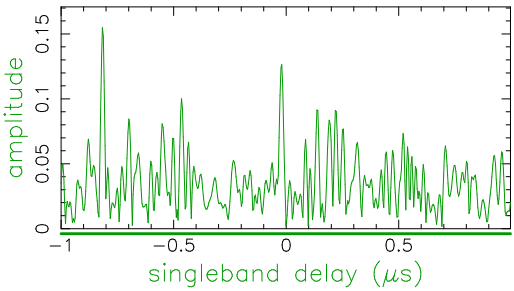
VLBA_LA - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

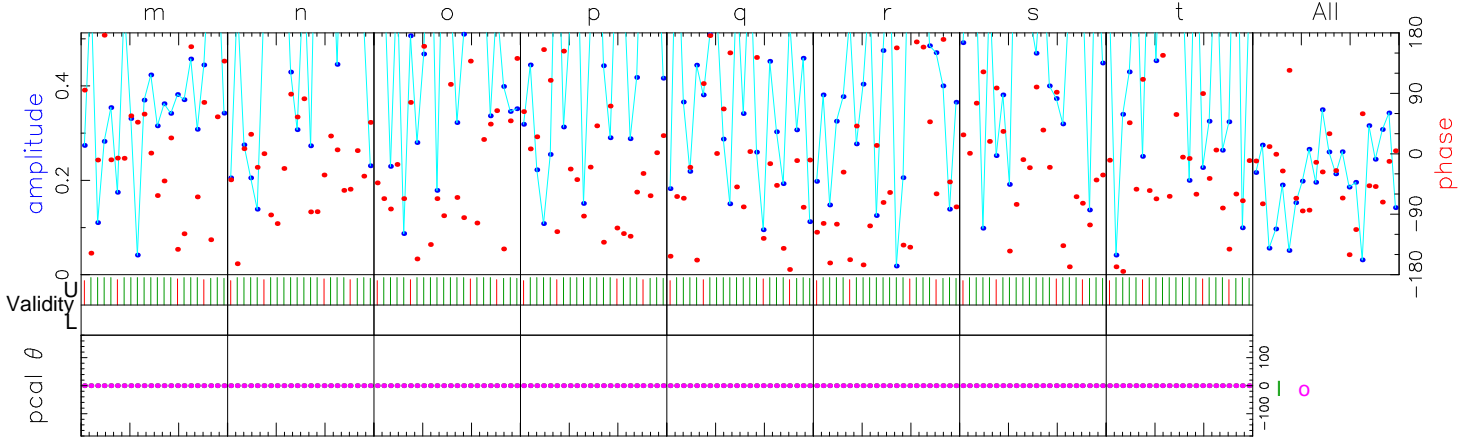


SNR 5.7
 Int time 177.091
 Amp 0.171
 Phase -43.9
 PFD 8.2e-01
 Delays (us)
 SBD -0.815356
 MBD -0.002983
 Fringe rate (Hz)
 0.456316
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105046
 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	330.8	47.5	278.5	291.9	272.3	306.4	49.1	267.9		
l	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	2.57221173934E+03	Apriori delay (usec)	2.57302722232E+03	Resid mbdelay (usec)	-2.98298E-03	+/-	1.9E-04
Sband delay (usec)	2.57221186582E+03	Apriori clock (usec)	-3.3371552E+01	Resid sbdelay (usec)	-8.15356E-01	+/-	1.5E-03
Phase delay (usec)	2.57302722090E+03	Apriori clockrate (us/s)	-7.1527311E-07	Resid phdelay (usec)	-1.41523E-06	+/-	6.5E-07
Delay rate (us/s)	4.39784910703E-03	Apriori rate (us/s)	4.39255172904E-03	Resid rate (us/s)	5.29738E-06	+/-	6.3E-09
Total phase (deg)	291.0	Apriori accel (us/s/s)	-1.52493327421E-05	Resid phase (deg)	-43.9	+/-	20.2

ph/seg (deg)	58.8	Theor.	47.2	Amplitude	0.171 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.9		82.3	Search (1024X32)	0.151	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.6		28.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	57.7		49.8	Inc. seg. avg.	0.169	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.182	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 62.2 el 27.5 pa -64.5 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -44.011 -1054.112 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/lo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/lo.W.235.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

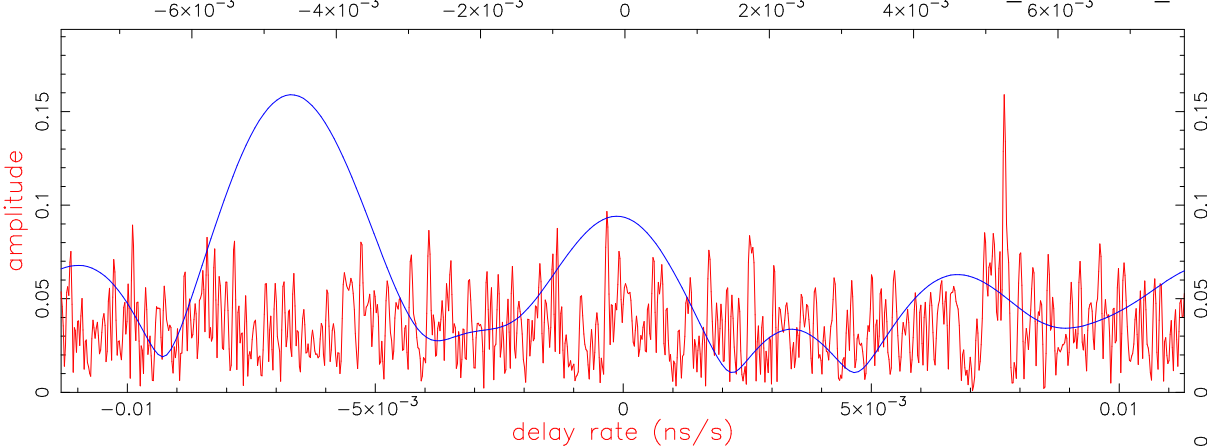
aux01

2013+370.3MP1N1, No0280, lo

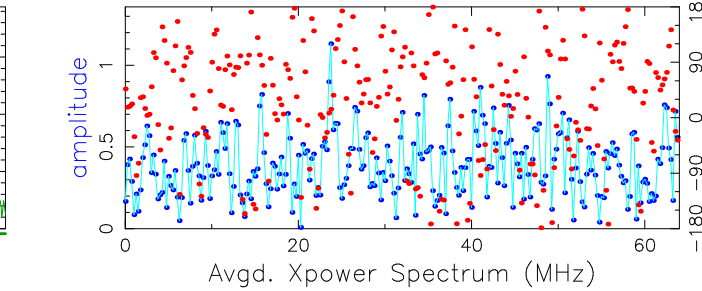
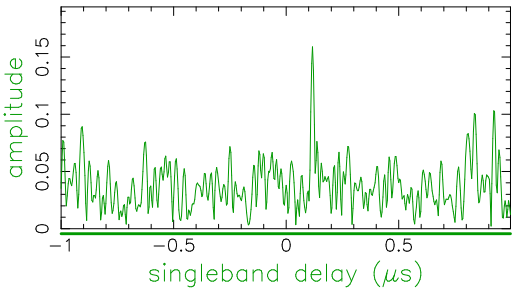
VLBA_LA - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

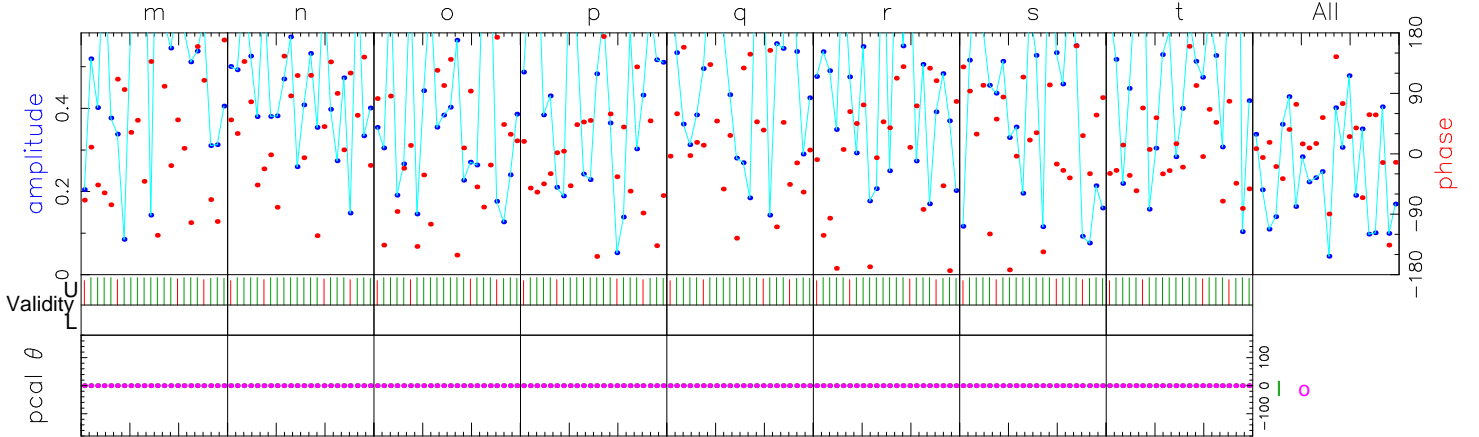


SNR 5.8
 Int time 177.091
 Amp 0.194
 Phase 16.8
 PFD 5.9e-01
 Delays (us)
 SBD 0.116842
 MBD -0.004639
 Fringe rate (Hz)
 0.663682
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105049
 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
	-7.1	58.9	-8.7	-33.7	19.1	49.3	52.8	-2.2		16.8
	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.4		0.2
	415.6	464.7	191.5	261.0	82.7	373.2	470.1	286.2		286.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
l	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD) 2.57314758300E+03 Apriori delay (usec) 2.57302722232E+03 Resid mbdelay (usec) -4.63932E-03 +/- 1.9E-04
 Sband delay (usec) 2.57314406407E+03 Apriori clock (usec) -3.3371552E+01 Resid sbdelay (usec) 1.16842E-01 +/- 1.5E-03
 Phase delay (usec) 2.57302722286E+03 Apriori clockrate (us/s) -7.1527311E-07 Resid phdelay (usec) 5.41692E-07 +/- 6.4E-07
 Delay rate (us/s) 4.40025642304E-03 Apriori rate (us/s) 4.39255172904E-03 Resid rate (us/s) 7.70469E-06 +/- 6.2E-09
 Total phase (deg) 351.7 Apriori accel (us/s/s) -1.52493327421E-05 Resid phase (deg) 16.8 +/- 19.8

RMS Theor. Amplitude 0.194 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 59.4 46.2 Search (1024X32) 0.158 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 92.7 80.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 37.1 28.0 Inc. seg. avg. 0.223 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 43.9 48.8 Inc. frq. avg. 0.202 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 62.2 el 27.5 pa -64.5 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) -44.011 -1054.112 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/lo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/lo.W.246.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

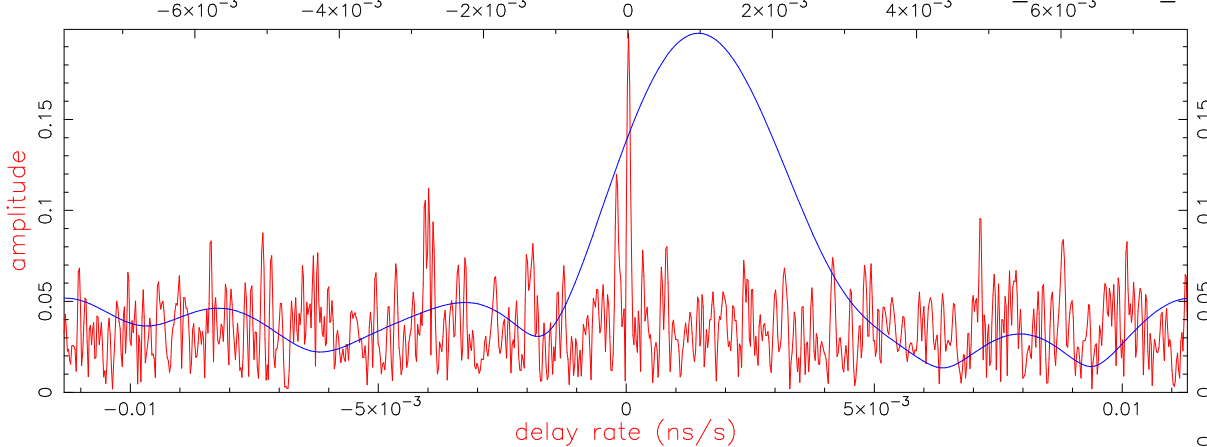
aux01

2013+370.3MP1N1, No0280, no

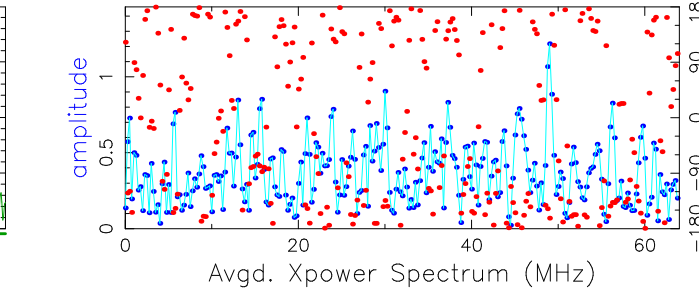
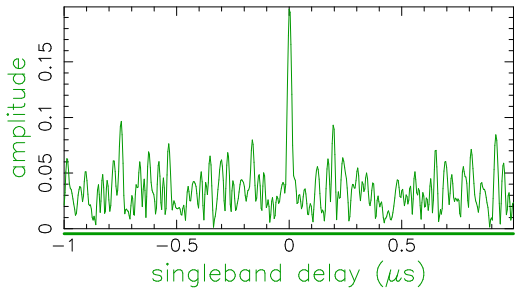
VLBA_NL - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

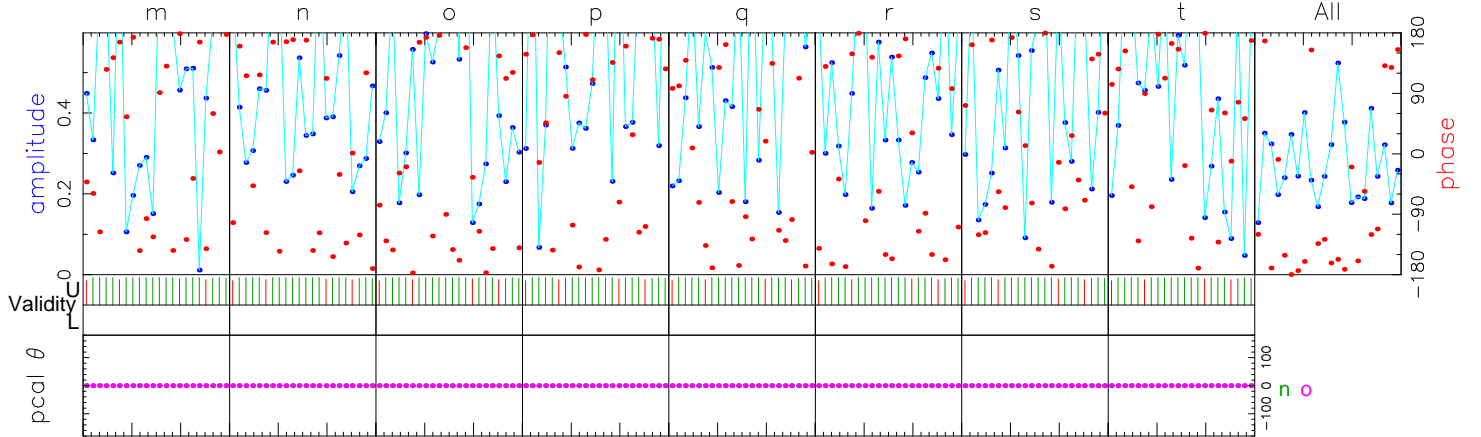


SNR 7.3
 Int time 177.088
 Amp 0.199
 Phase -161.9
 PFD 6.0e-05
 Delays (us)
 SBD 0.001529
 MBD 0.001006
 Fringe rate (Hz) 0.002993
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105053
 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
	-179.8	-150.7	-154.4	-172.6	-158.9	-151.7	-120.3	169.4	Phase	-161.9
	0.2	0.2	0.3	0.3	0.1	0.3	0.1	0.2	Ampl.	0.2
	214.3	182.0	256.3	257.5	45.1	141.9	434.7	266.2	Sbd box	257.4
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.51985475484E+03	Apriori delay (usec)	6.51985374840E+03	Resid mbdelay (usec)	1.00644E-03	+/-	1.5E-04
Sband delay (usec)	6.51985527715E+03	Apriori clock (usec)	-2.5345192E+01	Resid sbdelay (usec)	1.52875E-03	+/-	1.2E-03
Phase delay (usec)	6.51985374318E+03	Apriori clockrate (us/s)	-1.8401209E-07	Resid phdelay (usec)	-5.21930E-06	+/-	5.1E-07
Delay rate (us/s)	-1.45232717159E-01	Apriori rate (us/s)	-1.45232751899E-01	Resid rate (us/s)	3.47406E-08	+/-	4.9E-09
Total phase (deg)	157.4	Apriori accel (us/s/s)	-3.06350117822E-05	Resid phase (deg)	-161.9	+/-	15.8

ph/seg (deg)	59.4	Theor.	36.9	Amplitude	0.199 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	61.8	Search (1024X32)	0.191	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	23.4	Inc. seg. avg.	0.229	Inc. frq. avg.	0.191	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.7	Inc. frq. avg.	0.191			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

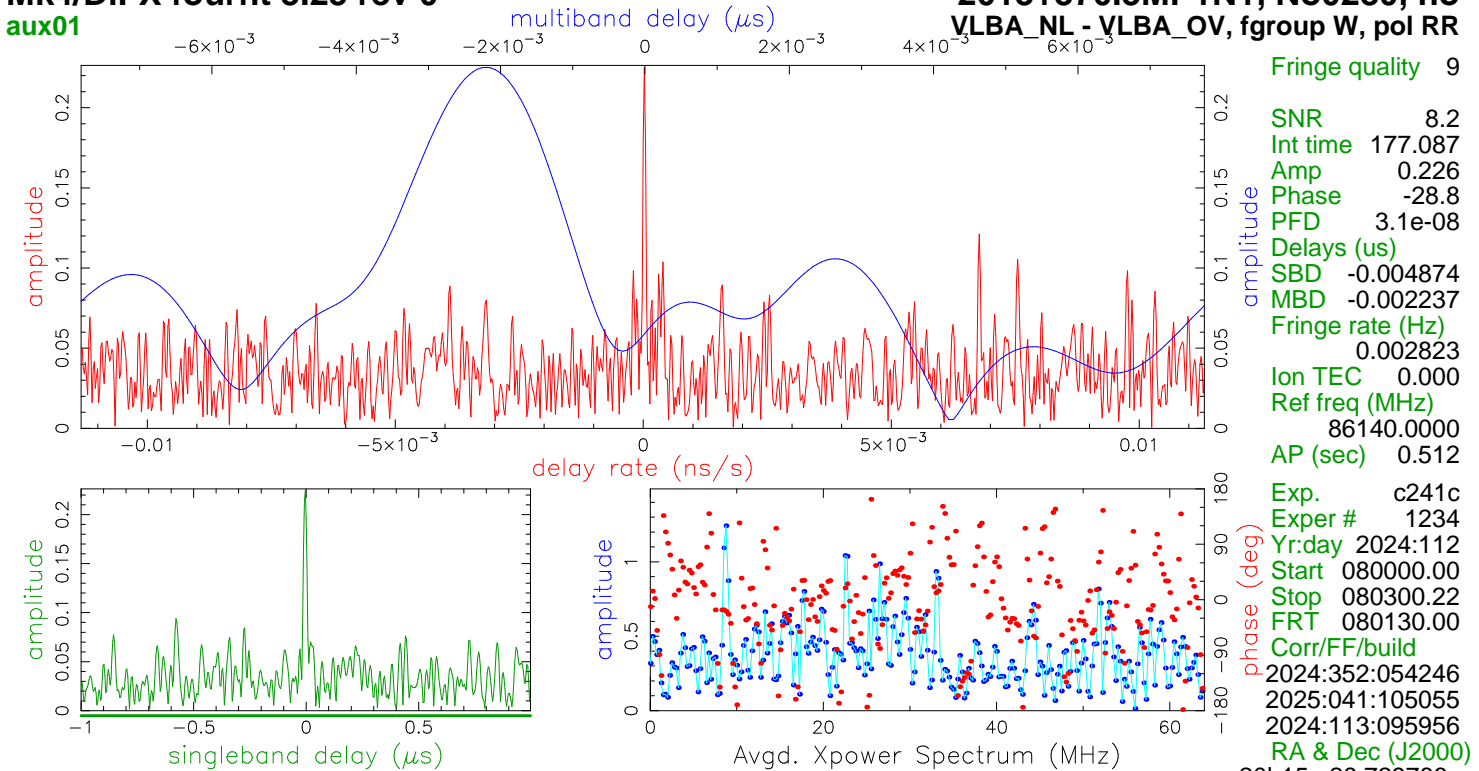
n: az 72.1 el 40.3 pa -63.2 o: az 57.7 el 19.8 pa -57.9 u, v (fr/asec) 1021.703 -1405.918 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/no..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.266.3MP1N1

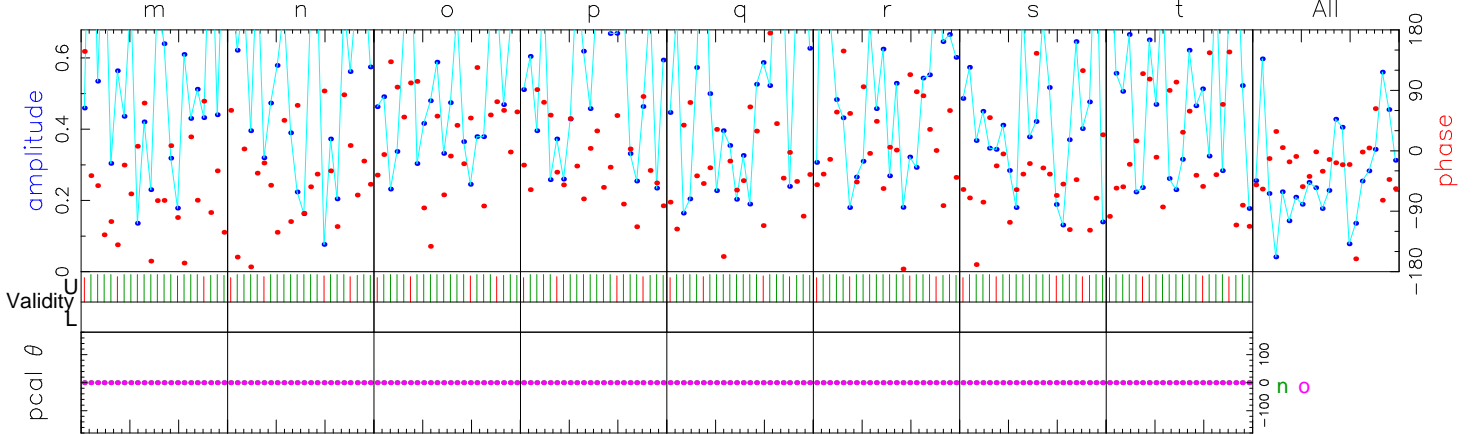
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, no VLBA_NL - VLBA_OV, fgroup W, pol RR



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		
	-78.1	-28.4	43.2	-16.4	-45.5	5.0	-54.4	-47.8	Phase	-28.8		
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	Ampl.	0.3		
	255.2	255.3	449.3	256.3	258.5	256.0	254.8	245.1	Sbd box	255.8		
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used			
n	0	0	0	0	0	0	0	0	PC freqs			
o	0	0	0	0	0	0	0	0	PC freqs			
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
o	1000	1000	1000	1000	1000	1000	1000	1000				
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	6.51985151104E+03		Apriori delay (usec)		6.51985374840E+03		Resid mbdelay (usec)		-2.23736E-03	+/- 1.3E-04		
Sband delay (usec)	6.51984887490E+03		Apriori clock (usec)		-2.5345192E+01		Resid sbdelay (usec)		-4.87350E-03	+/- 1.0E-03		
Phase delay (usec)	6.51985374747E+03		Apriori clockrate (us/s)		-1.8401209E-07		Resid phdelay (usec)		-9.28118E-07	+/- 4.5E-07		
Delay rate (us/s)	-1.45232719123E-01		Apriori rate (us/s)		-1.45232751899E-01		Resid rate (us/s)		3.27765E-08	+/- 4.3E-09		
Total phase (deg)	290.5		Apriori accel (us/s/s)		-3.06350117822E-05		Resid phase (deg)		-28.8	+/- 13.9		
	RMS	Theor.	Amplitude	0.226 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	42.0	32.5	Search (1024X32)	0.211		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	65.1	56.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	41.2	19.7	Inc. seg. avg.	0.236		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	29.2	34.3	Inc. frq. avg.	0.260		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
n: az 72.1 el 40.3 pa -63.2	o: az 57.7 el 19.8 pa -57.9		u, v (fr/asec) 1021.703 -1405.918						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/no..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.271.3MP1N1									

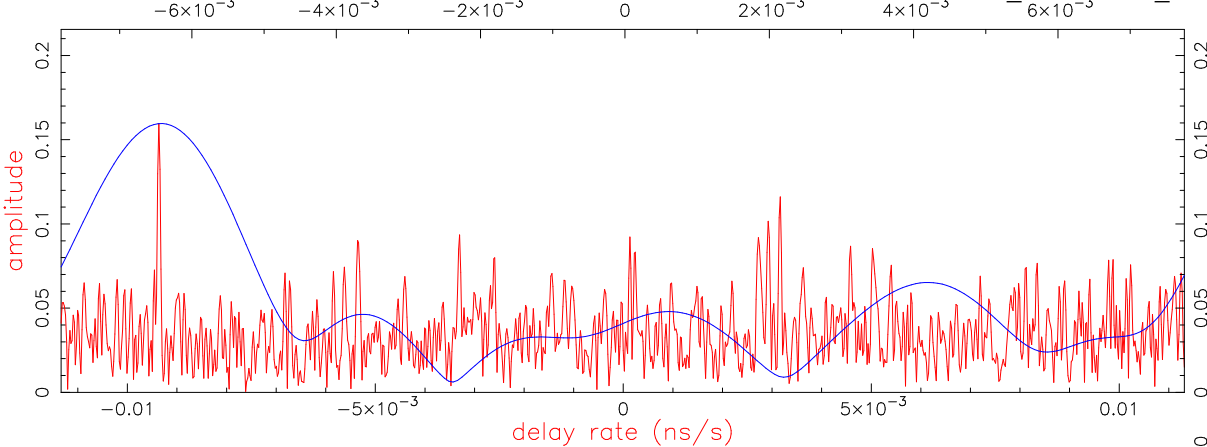
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, no

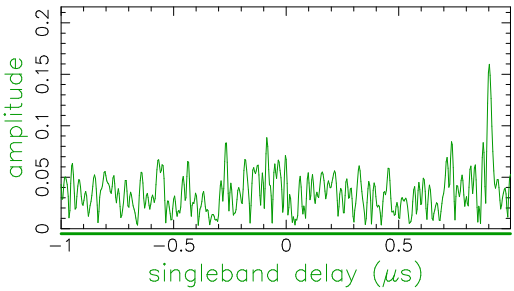
VLBA_NL - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

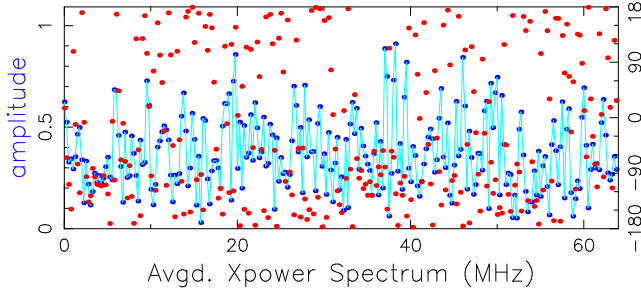


Fringe quality 0

SNR 5.8
 Int time 177.087
 Amp 0.216
 Phase -122.1
 PFD 5.4e-01
 Delays (us)
 SBD 0.901939
 MBD -0.006426
 Fringe rate (Hz)
 -0.808136
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

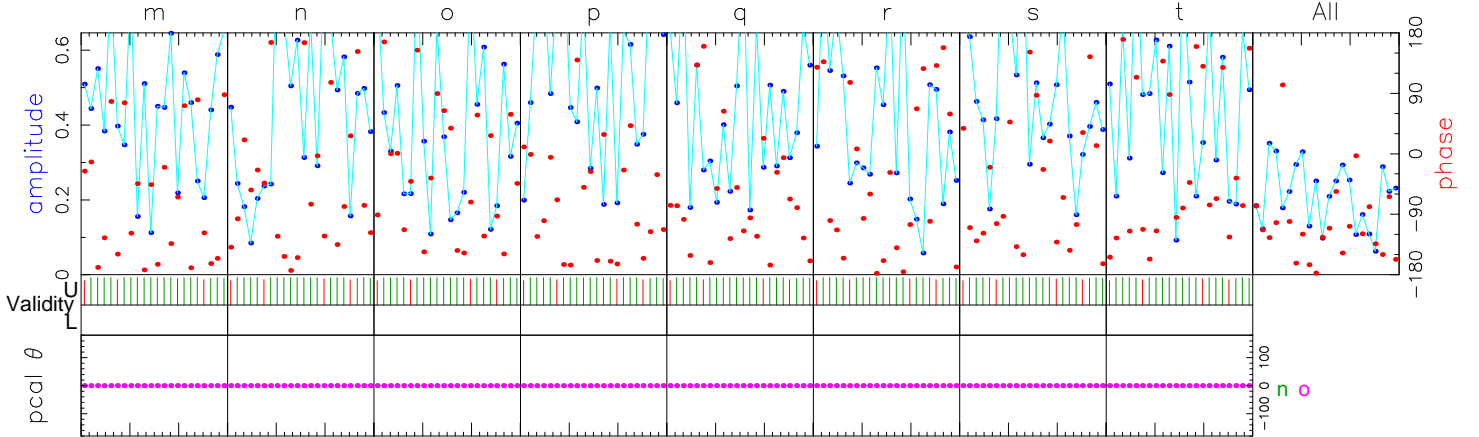


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105057
 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
	-158.7	-127.5	-102.5	-95.3	-105.7	-155.5	-104.6	-143.1	Phase	-122.1
	0.2	0.3	0.1	0.3	0.3	0.2	0.2	0.2	Ampl.	0.2
	457.3	488.6	190.2	13.6	9.4	339.7	23.9	55.0	Sbd box	487.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 6.52075357234E+03 Apriori delay (usec) 6.51985374840E+03 Resid mbdelay (usec) -6.42605E-03 +/- 1.9E-04
 Sband delay (usec) 6.52075568740E+03 Apriori clock (usec) -2.5345192E+01 Resid sbdelay (usec) 9.01939E-01 +/- 1.5E-03
 Phase delay (usec) 6.51985374446E+03 Apriori clockrate (us/s) -1.8401209E-07 Resid phdelay (usec) -3.93788E-06 +/- 6.4E-07
 Delay rate (us/s) -1.45242133553E-01 Apriori rate (us/s) -1.45232751899E-01 Resid rate (us/s) -9.38165E-06 +/- 6.2E-09
 Total phase (deg) 197.2 Apriori accel (us/s/s) -3.06350117822E-05 Resid phase (deg) -122.1 +/- 19.7

RMS Theor. Amplitude 0.216 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.1 46.0 Search (1024X32) 0.152 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 61.3 80.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 27.7 27.9 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 (%) 40.9 48.7 Inc. frq. avg. 0.209 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 72.1 el 40.3 pa -63.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1021.703 -1405.918 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/no..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.284.3MP1N1

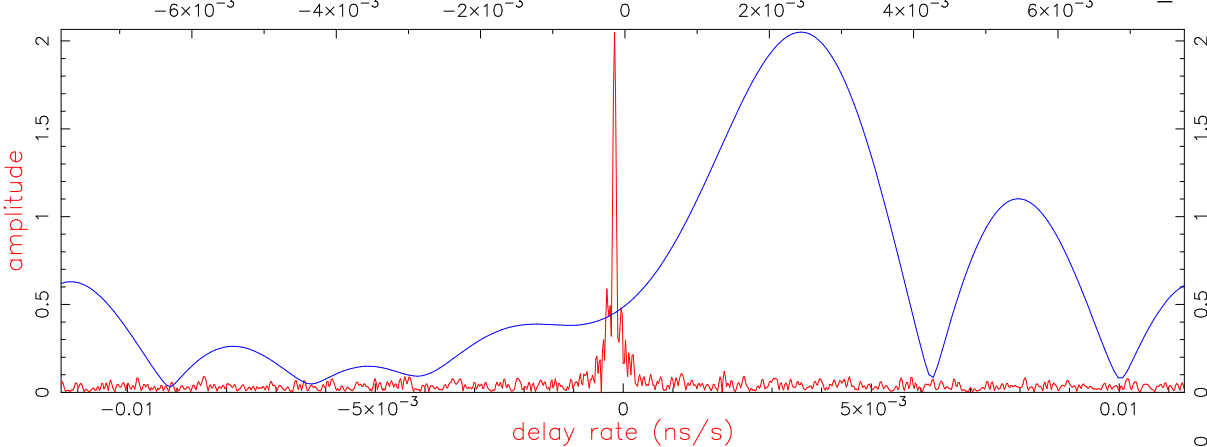
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, No

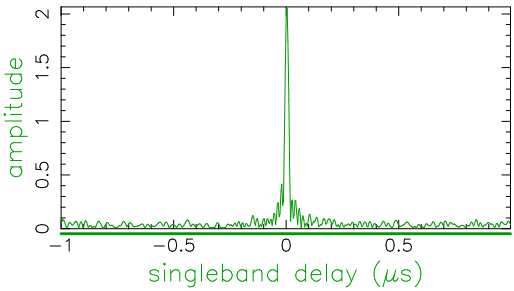
NOEMA - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

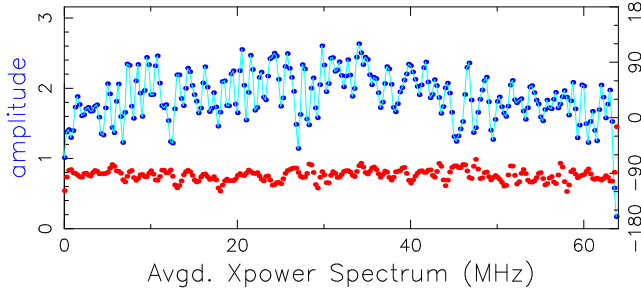


Fringe quality 4

SNR 75.2
 Int time 177.082
 Amp 2.066
 Phase -89.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.002744
 MBD 0.002384
 Fringe rate (Hz)
 -0.015318
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

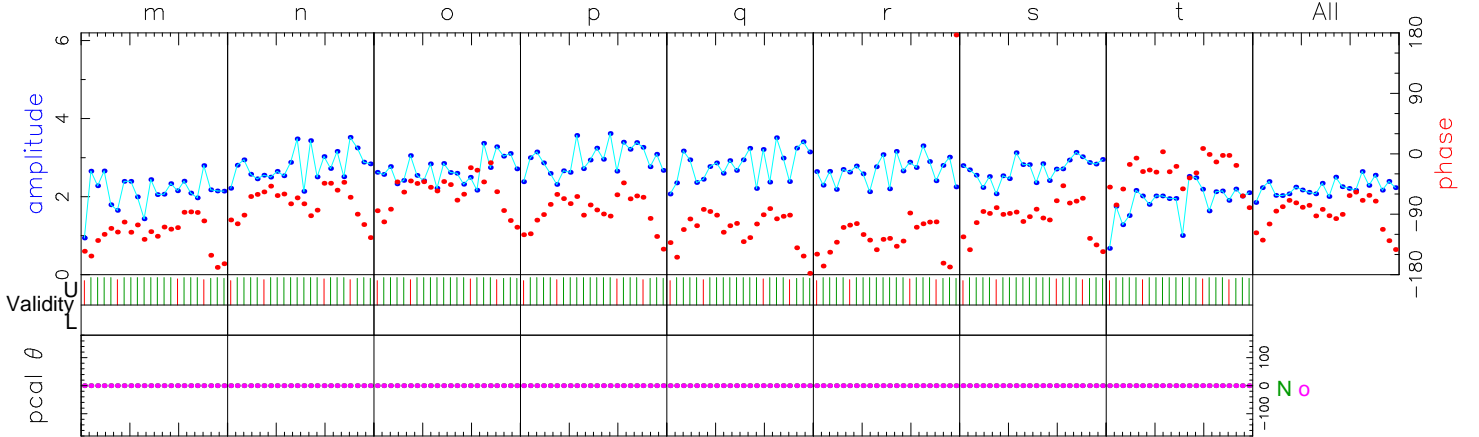


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105059
 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
	-118.8	-72.9	-57.6	-83.5	-112.4	-128.3	-95.0	-25.3		-89.0
	2.0	2.6	2.4	2.7	2.5	2.4	2.4	1.7		2.4
	259.2	257.7	257.2	257.3	257.3	257.5	258.0	259.6		257.7
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
N	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC freqs
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
N	1000	1000	1000	1000	1000	1000	1000	1000		Mani PC
o	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD)	1.19460157240E+04	Apriori delay (usec)	1.19460133399E+04	Resid mbdelay (usec)	2.38413E-03	+/-	1.4E-05
Sband delay (usec)	1.19460160836E+04	Apriori clock (usec)	-3.8419884E+01	Resid sbdelay (usec)	2.74375E-03	+/-	1.1E-04
Phase delay (usec)	1.19460133370E+04	Apriori clockrate (us/s)	-4.6697303E-07	Resid phdelay (usec)	-2.86933E-06	+/-	4.9E-08
Delay rate (us/s)	-1.45156577281E+00	Apriori rate (us/s)	-1.45156559497E+00	Resid rate (us/s)	-1.77831E-07	+/-	4.8E-10
Total phase (deg)		Apriori accel (us/s/s)	-5.70509512735E-05	Resid phase (deg)	-89.0	+/-	1.5

ph/seg (deg)	23.3	Theor.	3.6	Amplitude	2.066 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	11.9	Search (1024X32)	2.046	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	37.3	Inc. seg. avg.	2.222	Inc. frq. avg.	2.355	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	20.7	Inc. frq. avg.	2.355			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

N: az 263.8 el 65.1 pa 62.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10399.525 -2785.269 simultaneous interpolator

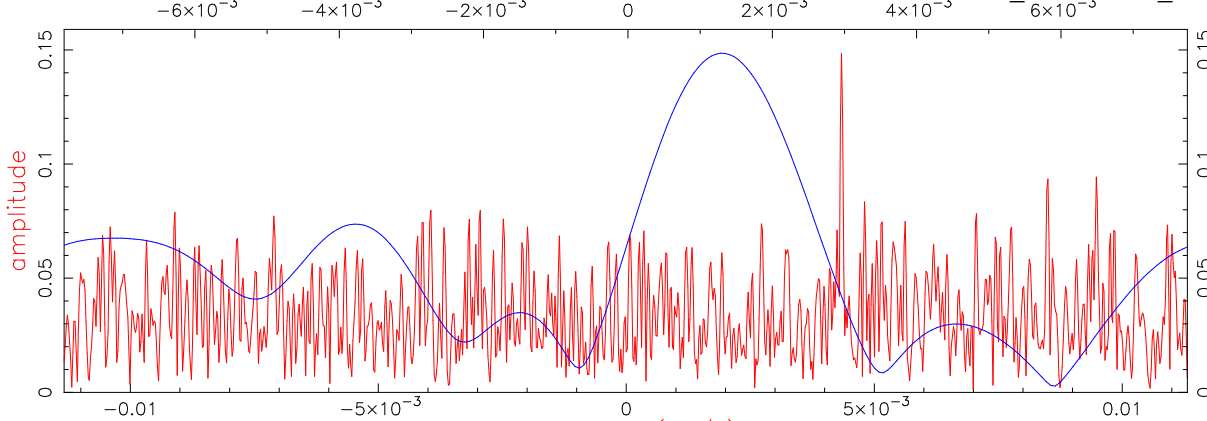
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280//No..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280//No.W.294.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

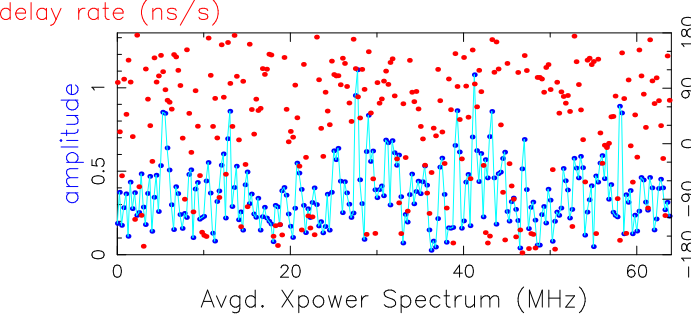
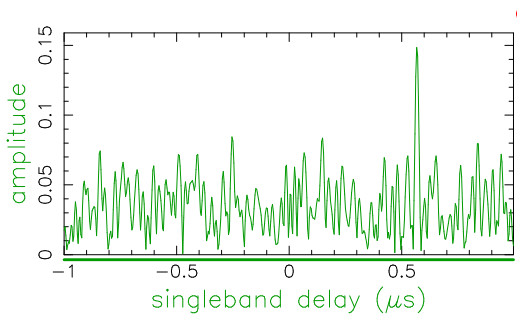
2013+370.3MP1N1, No0280, no VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



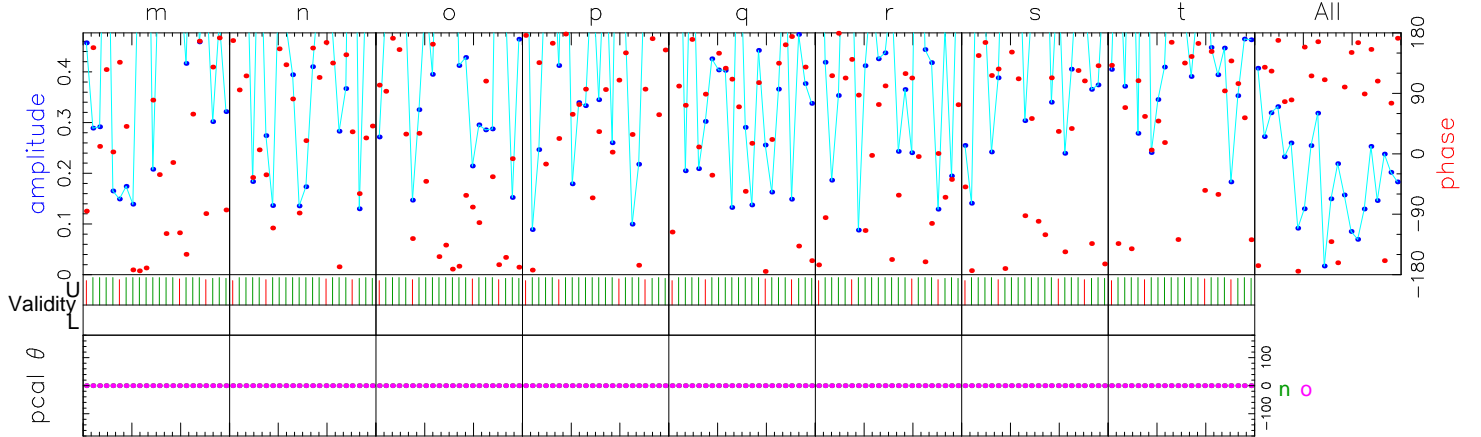
Fringe quality 0

SNR 5.4
 Int time 177.088
 Amp 0.159
 Phase 145.6
 PFD 1.0e+00
 Delays (us)
 SBD 0.567484
 MBD 0.001334
 Fringe rate (Hz) 0.373954
 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
 2025:041:105059
 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
	-165.1	98.7	-164.5	122.5	134.6	149.0	154.1	143.4	Phase	145.6
	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.2
	299.7	127.2	257.1	326.0	144.6	156.6	466.1	381.5	Sbd box	402.3
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.52041758203E+03 Apriori delay (usec) 6.51985374840E+03 Resid mbdelay (usec) 1.33364E-03 +/- 2.0E-04
 Sband delay (usec) 6.52042123215E+03 Apriori clock (usec) -2.5345192E+01 Resid sbdelay (usec) 5.67484E-01 +/- 1.6E-03
 Phase delay (usec) 6.51985375309E+03 Apriori clockrate (us/s) -1.8401209E-07 Resid phdelay (usec) 4.69543E-06 +/- 6.8E-07
 Delay rate (us/s) -1.45228410663E-01 Apriori rate (us/s) -1.45232751899E-01 Resid rate (us/s) 4.34124E-06 +/- 6.6E-09
 Total phase (deg) 104.9 Apriori accel (us/s/s) -3.06350117822E-05 Resid phase (deg) 145.6 +/- 21.1

RMS Theor. Amplitude 0.159 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 43.9 49.2 Search (1024X32) 0.147 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 72.2 85.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 36.2 29.8 Inc. seg. avg. 0.157 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.8 52.0 Inc. frq. avg. 0.165 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 n: az 72.1 el 40.3 pa -63.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1021.703 -1405.918 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/no..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.296.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

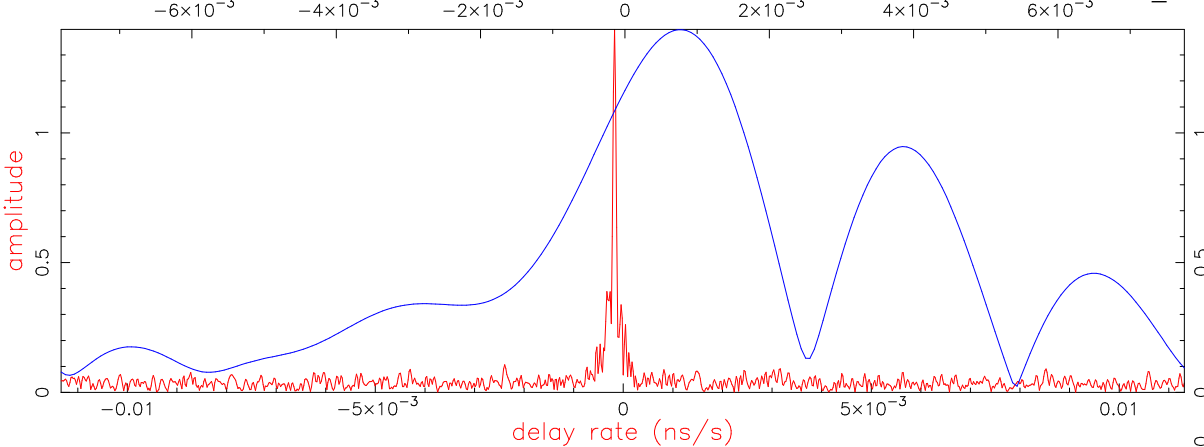
aux01

2013+370.3MP1N1, No0280, No

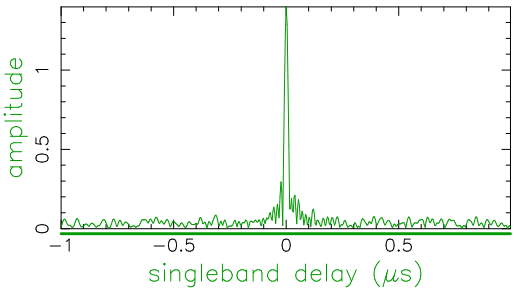
NOEMA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

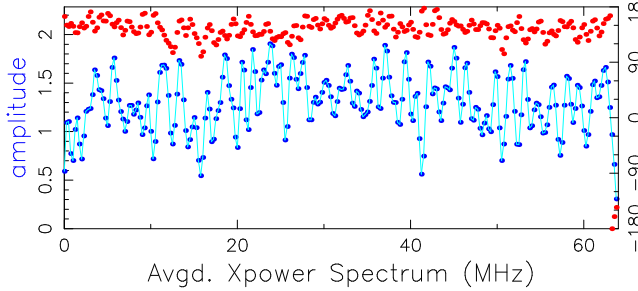
Fringe quality 4



SNR 50.9
 Int time 177.082
 Amp 1.399
 Phase 140.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.000308
 MBD 0.000781
 Fringe rate (Hz)
 -0.015332
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

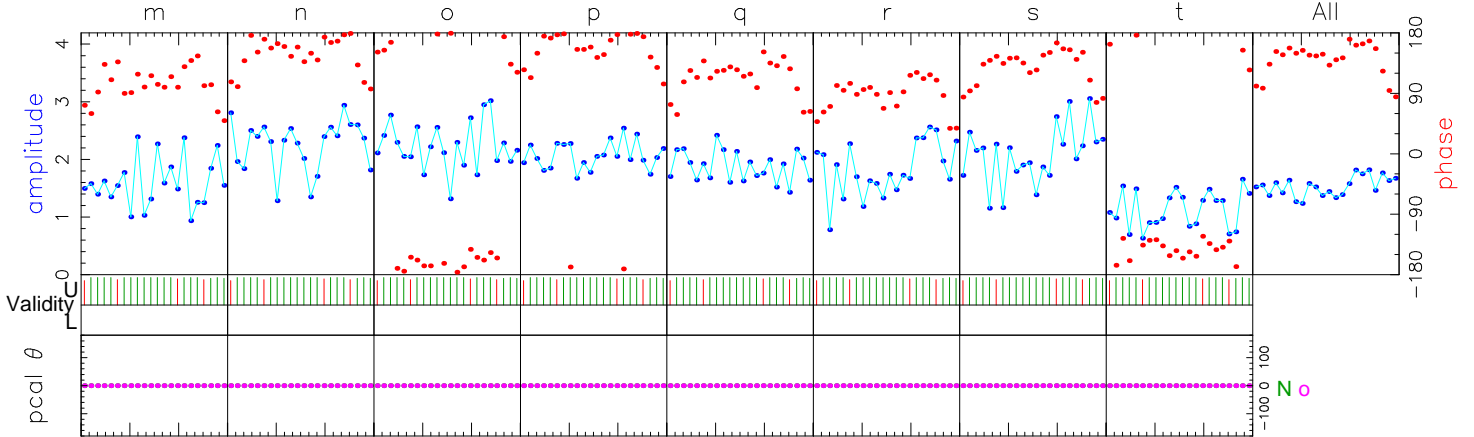


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105101
 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
	102.9	149.7	-174.7	159.7	112.8	89.2	129.1	-154.2	Phase	140.3
	1.5	2.0	2.0	1.9	1.7	1.7	1.9	1.0	Ampl.	1.7
	259.1	257.3	256.9	256.7	257.0	256.7	257.6	259.8	Sbd box	257.1
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.19460141209E+04	Apriori delay (usec)	1.19460133399E+04	Resid mbdelay (usec)	7.81072E-04	+/-	2.1E-05
Sband delay (usec)	1.19460136481E+04	Apriori clock (usec)	-3.8419884E+01	Resid sbdelay (usec)	3.08250E-04	+/-	1.7E-04
Phase delay (usec)	1.19460133444E+04	Apriori clockrate (us/s)	-4.6697303E-07	Resid phdelay (usec)	4.52351E-06	+/-	7.3E-08
Delay rate (us/s)	-1.45156577296E+00	Apriori rate (us/s)	-1.45156559497E+00	Resid rate (us/s)	-1.77987E-07	+/-	7.0E-10
Total phase (deg)	174.5	Apriori accel (us/s/s)	-5.70509512735E-05	Resid phase (deg)	140.3	+/-	2.3

ph/seg (deg)	24.0	RMS	5.3	Theor.	1.399 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	15.4	Search (1024X32)	1.375	Amplitude	1.399 +/- 0.027	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.1	Interp.	0.000	Search	1.375	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.1	Inc. seg. avg.	1.528	Inc. frq. avg.	1.702	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	1.702			Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

N: az 263.8 el 65.1 pa 62.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10399.525 -2785.269 simultaneous interpolator

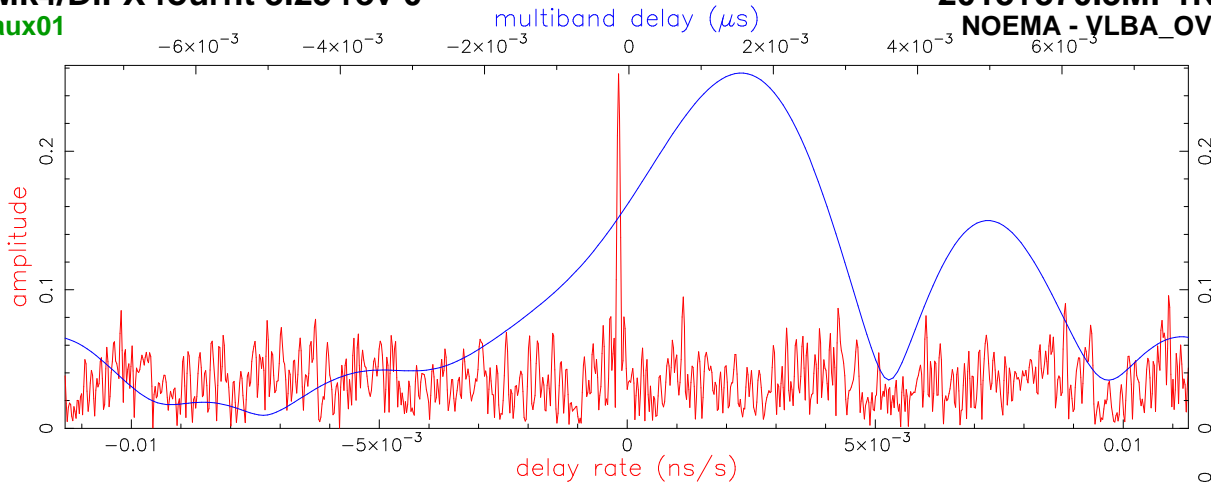
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/No..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/No.W.306.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

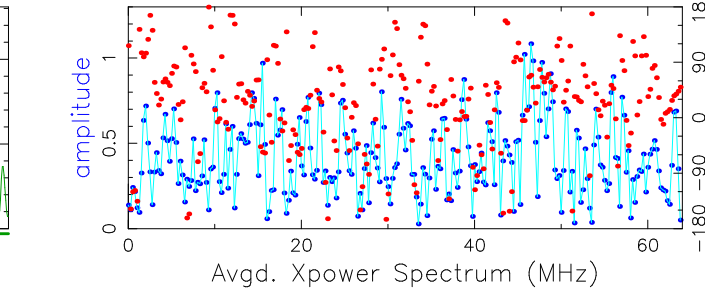
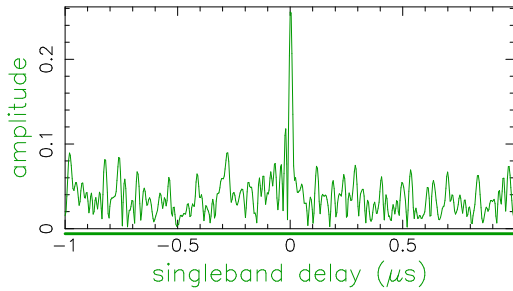
2013+370.3MP1N1, No0280, No

NOEMA - VLBA_OV, fgroup W, pol LR



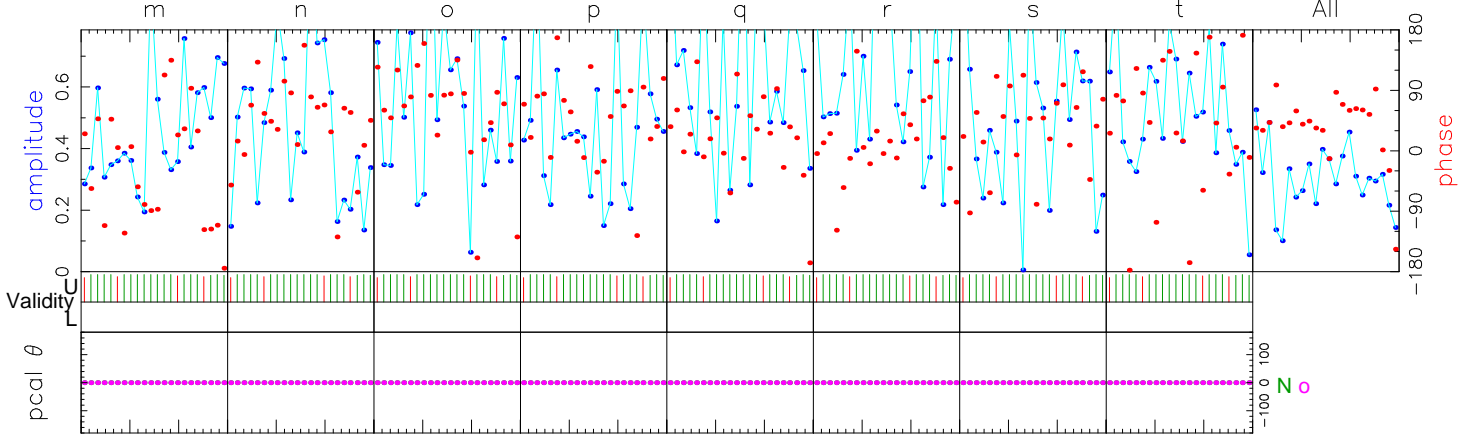
Fringe quality 9

SNR 9.5
 Int time 177.082
 Amp 0.262
 Phase 44.3
 PFD 3.2e-13
 Delays (us)
 SBD 0.001843
 MBD 0.001648
 Fringe rate (Hz)
 -0.015821
 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
 2025:041:105103
 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
	-52.2	52.7	90.7	62.7	24.4	6.7	41.8	95.5	Phase	44.3
	0.1	0.3	0.4	0.3	0.5	0.5	0.3	0.2	Ampl.	0.3
	259.6	257.0	257.0	256.6	256.9	257.0	258.7	127.5	Sbd box	257.5
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
N	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.19460149880E+04 Apriori delay (usec) 1.19460133399E+04 Resid mbdelay (usec) 1.64813E-03 +/- 1.1E-04
 Sband delay (usec) 1.19460151826E+04 Apriori clock (usec) -3.8419884E+01 Resid sbdelay (usec) 1.84275E-03 +/- 9.0E-04
 Phase delay (usec) 1.19460133413E+04 Apriori clockrate (us/s) -4.6697303E-07 Resid phdelay (usec) 1.42744E-06 +/- 3.9E-07
 Delay rate (us/s) -1.45156577864E+00 Apriori rate (us/s) -1.45156559497E+00 Resid rate (us/s) -1.83669E-07 +/- 3.8E-09
 Total phase (deg) 78.5 Apriori accel (us/s/s) -5.70509512735E-05 Resid phase (deg) 44.3 +/- 12.0

RMS Theor. Amplitude 0.262 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.8 28.1 Search (1024X32) 0.254 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 42.9 49.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 52.1 17.0 Inc. seg. avg. 0.270 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 48.7 29.7 Inc. frq. avg. 0.297 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

N: az 263.8 el 65.1 pa 62.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10399.525 -2785.269 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/No..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/No.W.314.3MP1N1

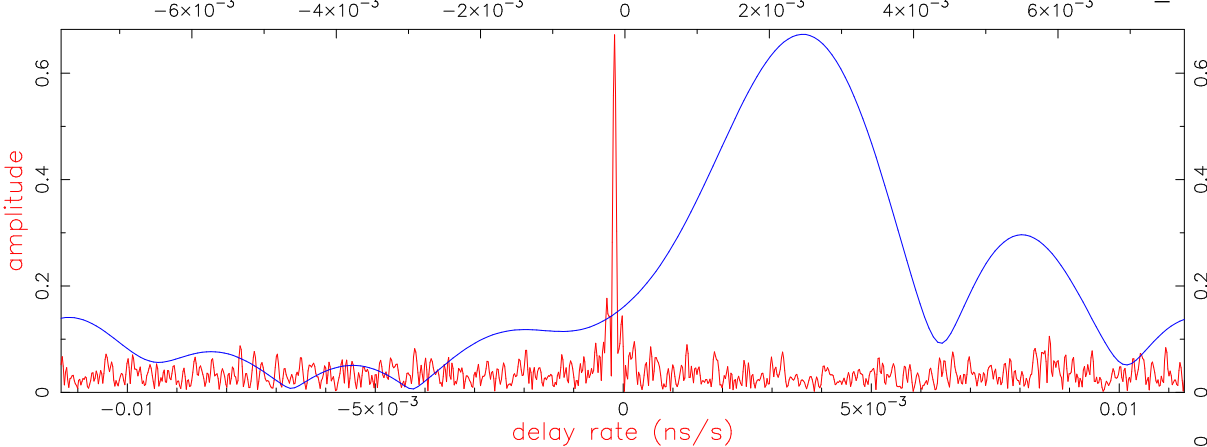
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, No

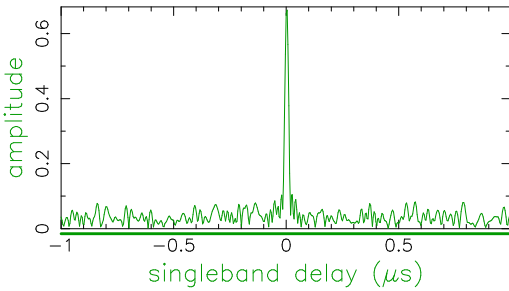
NOEMA - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

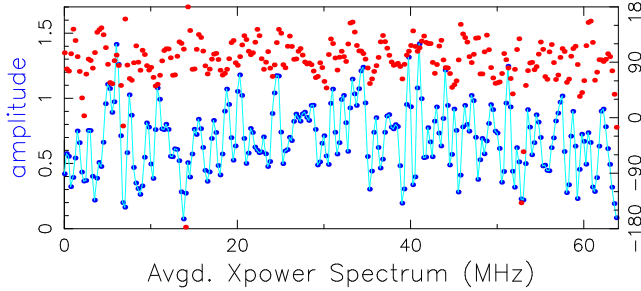


Fringe quality 8

SNR 24.8
Int time 177.082
Amp 0.682
Phase 96.0
PFD 0.0e+00
Delays (us)
SBD 0.002318
MBD 0.002394
Fringe rate (Hz)
-0.015530
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

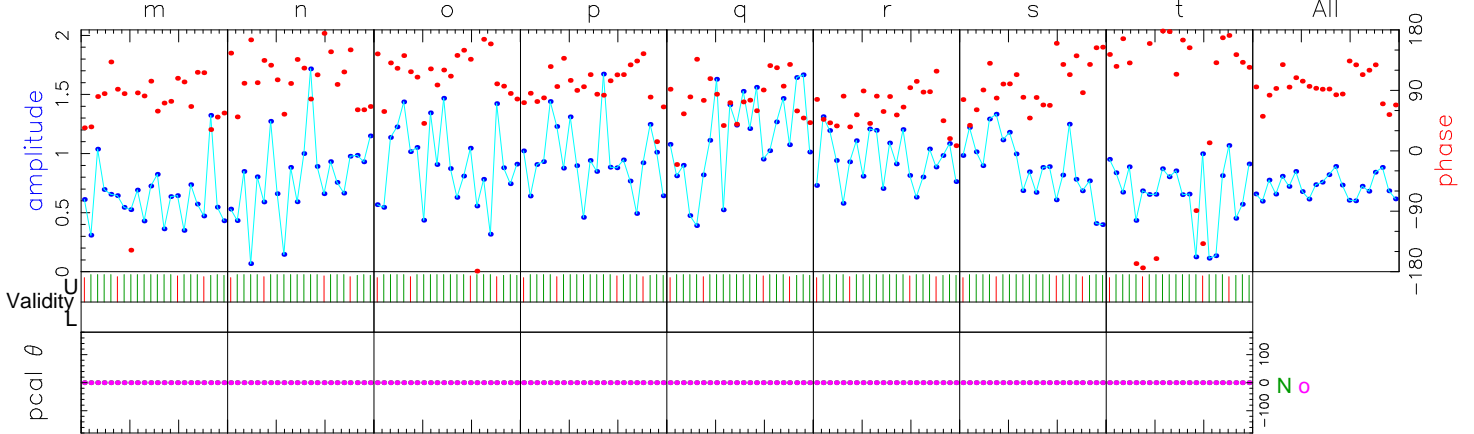


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:105106
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

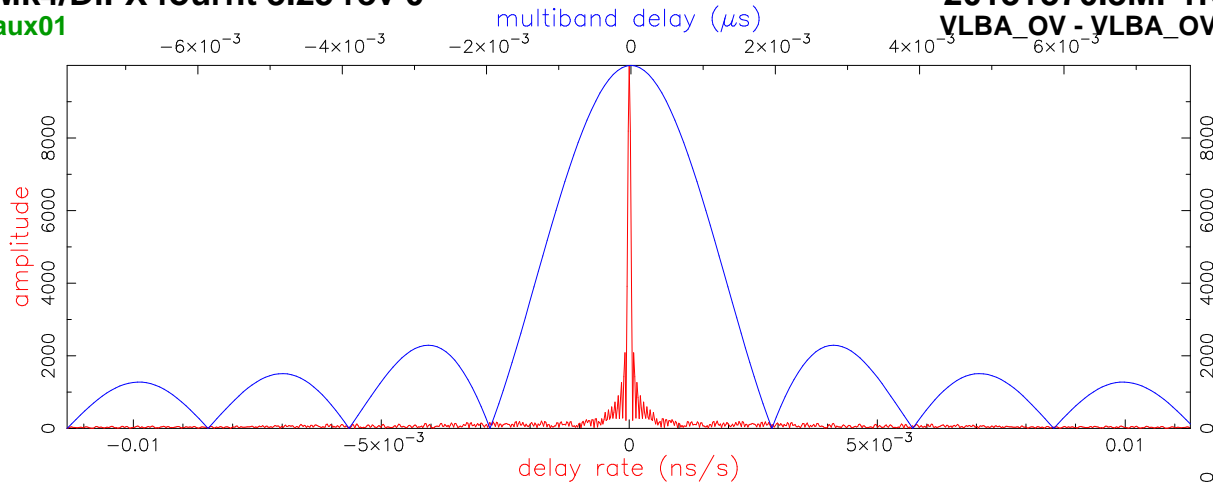


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
N	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

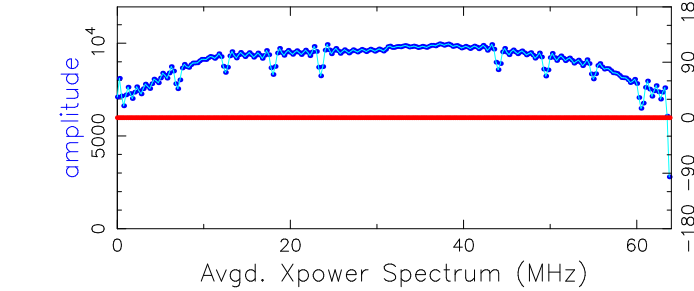
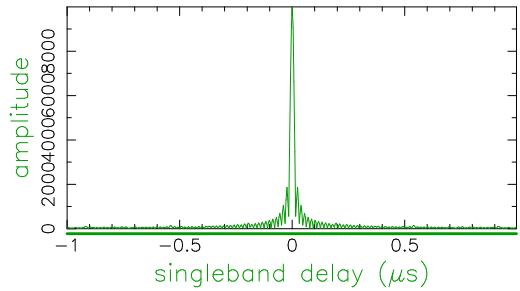
Group delay (usec) (SBD)	1.19460157335E+04	Apriori delay (usec)	1.19460133399E+04	Resid mbdelay (usec)	2.39360E-03	+/-	4.4E-05
Sband delay (usec)	1.19460156579E+04	Apriori clock (usec)	-3.8419884E+01	Resid sbdelay (usec)	2.31800E-03	+/-	3.5E-04
Phase delay (usec)	1.19460133430E+04	Apriori clockrate (us/s)	-4.6697303E-07	Resid phdelay (usec)	3.09578E-03	+/-	1.5E-07
Delay rate (us/s)	-1.45156577527E+00	Apriori rate (us/s)	-1.45156559497E+00	Resid rate (us/s)	-1.80291E-07	+/-	1.4E-09
Total phase (deg)	130.3	Apriori accel (us/s/s)	-5.70509512735E-05	Resid phase (deg)	96.0	+/-	4.6

ph/seg (deg)	22.7	Theor.	10.8	Amplitude	0.682 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.8	Search (1024X32)	0.669	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.0	Inc. seg. avg.	0.712	Inc. frq. avg.	0.745	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.1	Inc. frq. avg.	0.745	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
N: az 263.8 el 65.1 pa 62.6	o: az 57.7 el 19.8 pa -57.9	u, v (fr/asec)	10399.525 -2785.269	simultaneous interpolator		ion window (TEC)	0.00 0.00			

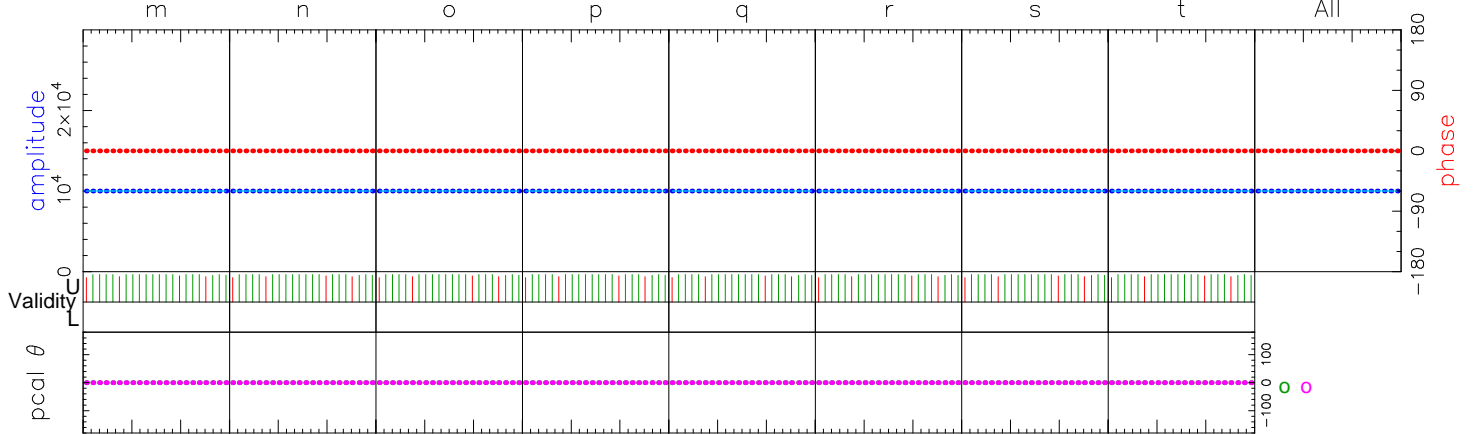
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/No..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/No.W.320.3MP1N1



Fringe quality 9
SNR 363914.6
Int time 177.094
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 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
2025:041:105107
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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.4E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.8E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

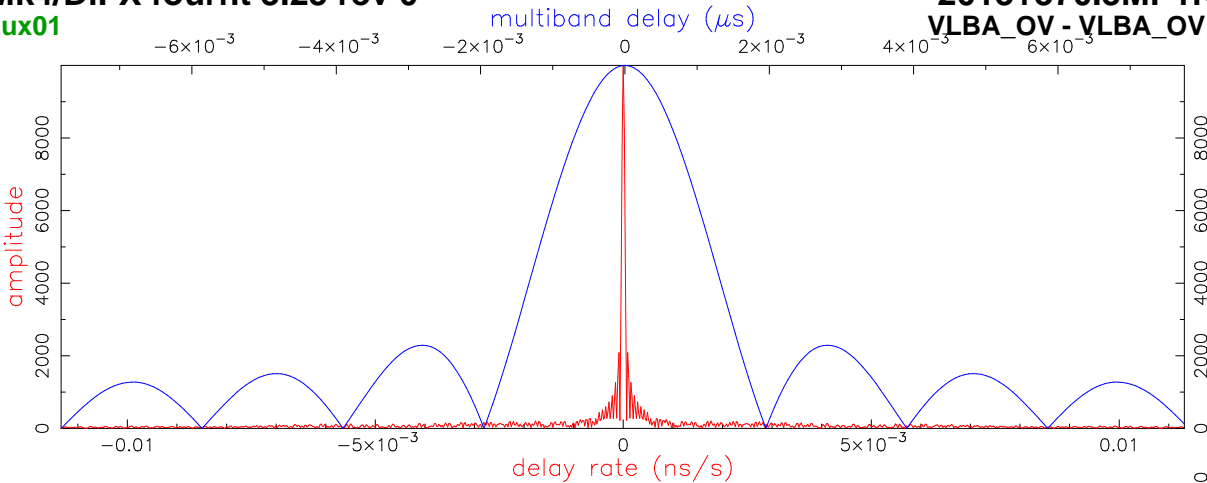
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (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
 o: az 57.7 el 19.8 pa -57.9 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oo.W.325.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

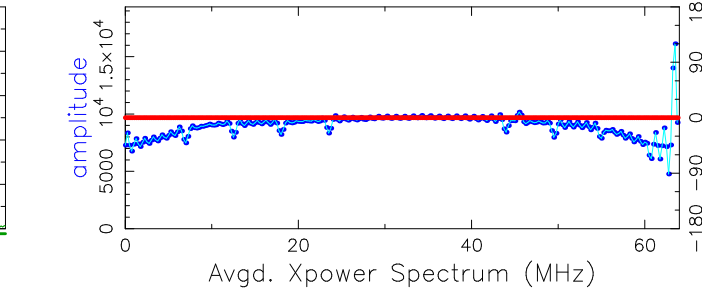
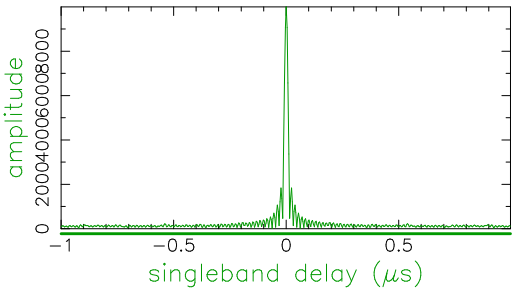
2013+370.3MP1N1, No0280, oo

VLBA_OV - VLBA_OV, fgroup W, pol RR



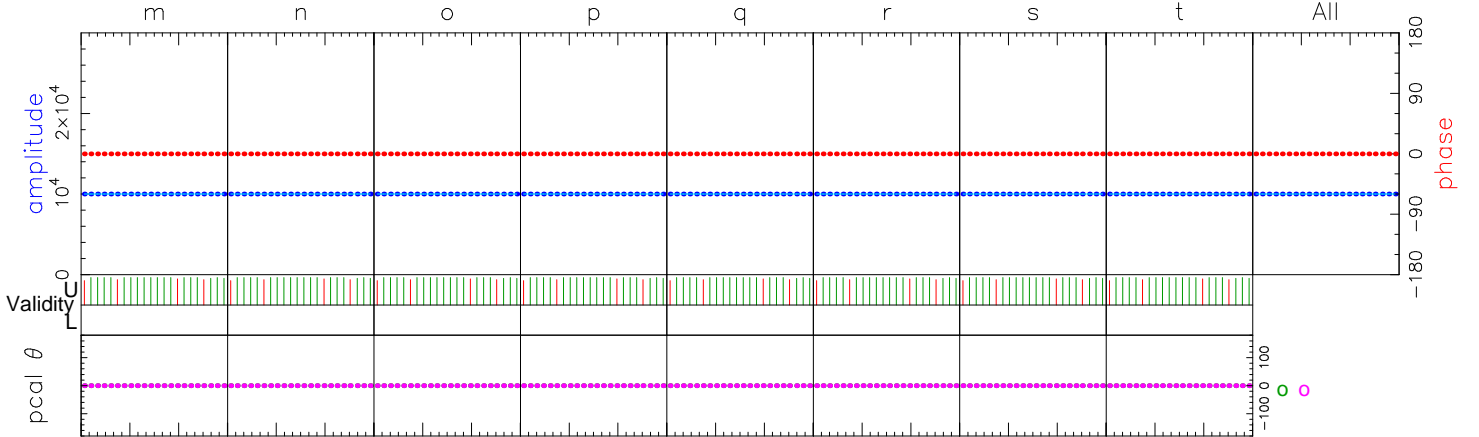
Fringe quality 9

SNR 363914.5
 Int time 177.094
 Amp 9999.998
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 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
 2025:041:105110
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

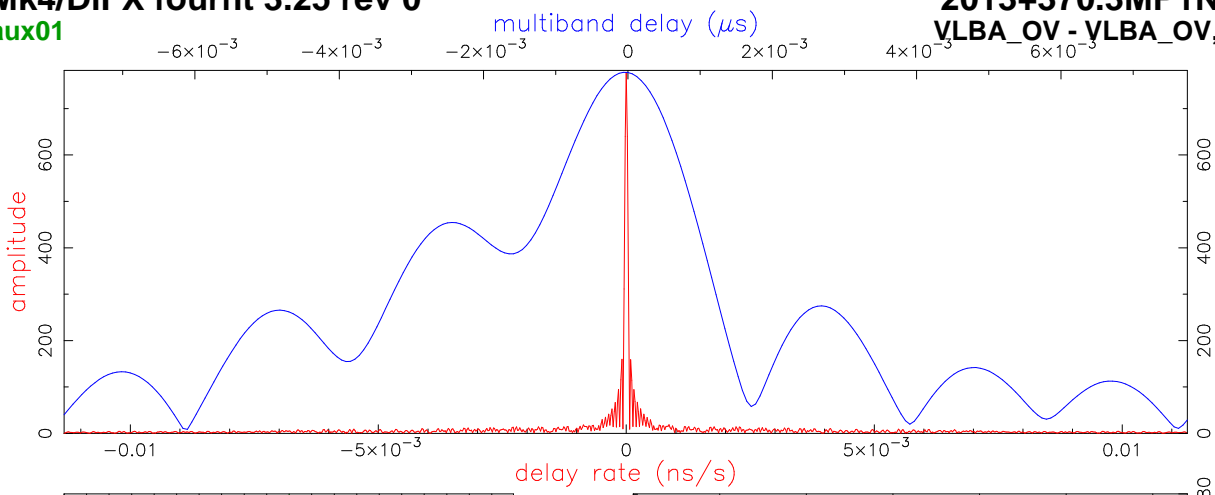
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



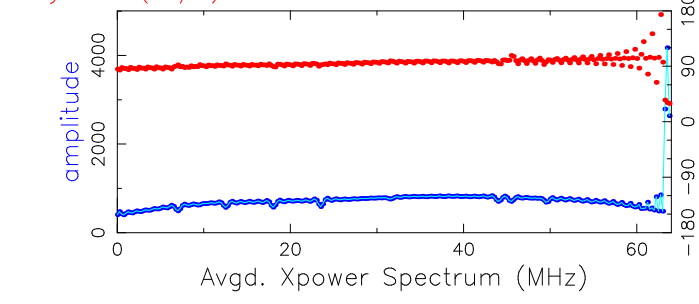
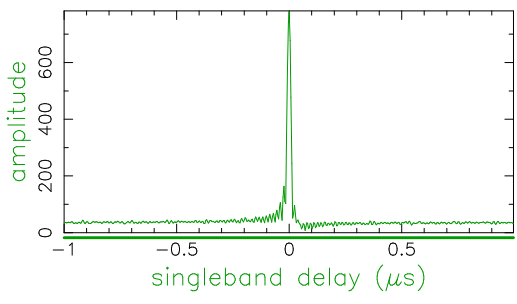
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.4E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.0E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.8E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

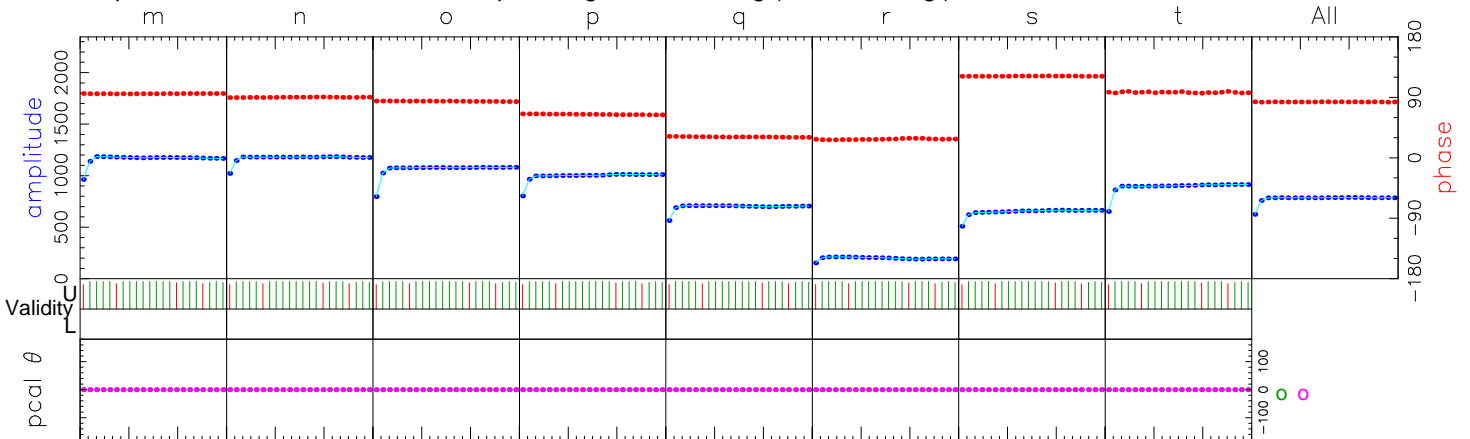
RMS Theor. Amplitude 9999.998 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.998 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.998 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 o: az 57.7 el 19.8 pa -57.9 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oo.W.331.3MP1N1



Fringe quality 5
Error code G
SNR 28471.6
Int time 177.094
Amp 782.370
Phase 83.1
PFD 0.0e+00
Delays (us)
SBD -0.000920
MBD -0.000052
Fringe rate (Hz)
0.000017
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
2025:041:105111
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"



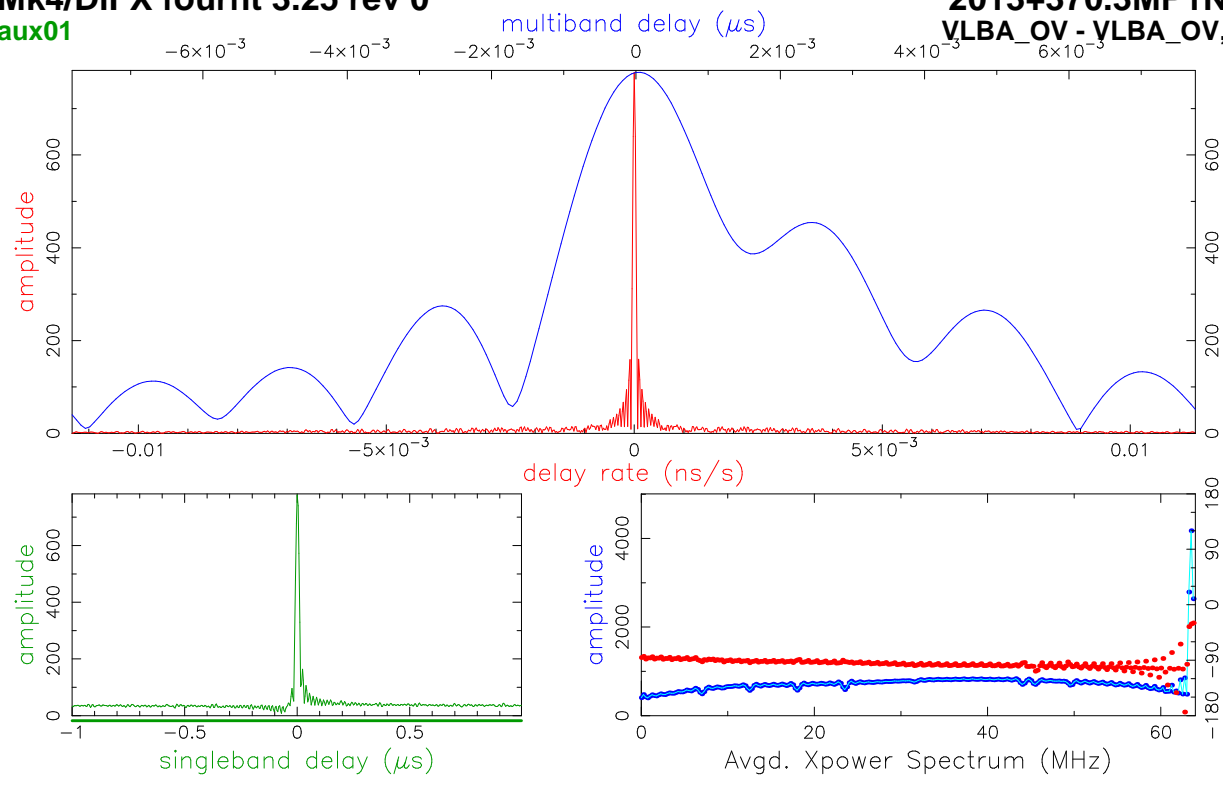
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
95.3	90.0	84.1	64.6	31.0	27.7	121.4	97.4	83.1	Phase	83.1
1165.3	1172.2	1064.3	995.1	698.3	198.9	649.4	892.9	854.5	Ampl.	854.5
256.9	256.6	256.9	256.8	256.8	258.2	256.8	255.8	256.8	Sbd box	256.8
U/L 349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o 0	0	0	0	0	0	0	0	0	PC freqs	
o 0	0	0	0	0	0	0	0	0	PC freqs	
o:0 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:0 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
o W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	

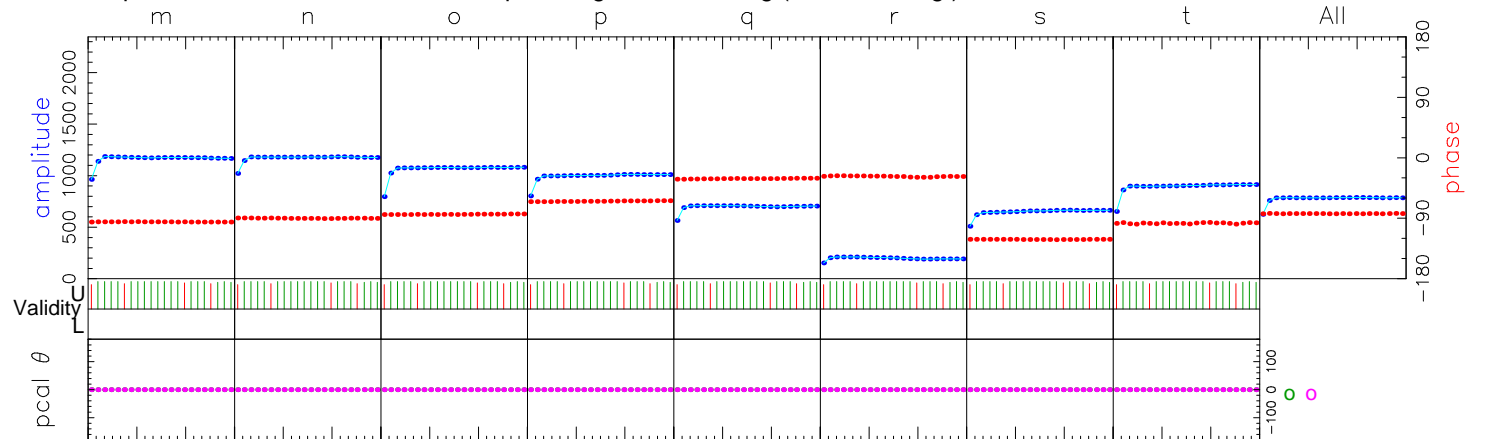
Group delay (usec) (SBD) -5.20937500000E-05 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -5.20938E-05 +/- 3.8E-08
 Sband delay (usec) -9.20000000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -9.20000E-04 +/- 3.0E-07
 Phase delay (usec) 2.67931313317E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 2.67931E-06 +/- 1.3E-10
 Delay rate (us/s) 2.02647479201E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 2.02647E-10 +/- 1.3E-12
 Total phase (deg) 83.1 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 83.1 +/- 0.0

ph/seg (deg) 0.1 0.0 Theor. Amplitude 782.370 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 4.2 0.0 Search (1024X32) 777.836 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.5 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.4 0.0 Inc. seg. avg. 778.374 Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 57.7 el 19.8 pa -57.9 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 0.000 0.000 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oo.W.340.3MP1N1 simultaneous interpolator



Fringe quality 5
Error code G
SNR 28471.6
Int time 177.094
Amp 782.370
Phase -83.1
PFD 0.0e+00
Delays (us)
SBD 0.000920
MBD 0.000052
Fringe rate (Hz)
-0.000017
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
2025:041:105113
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



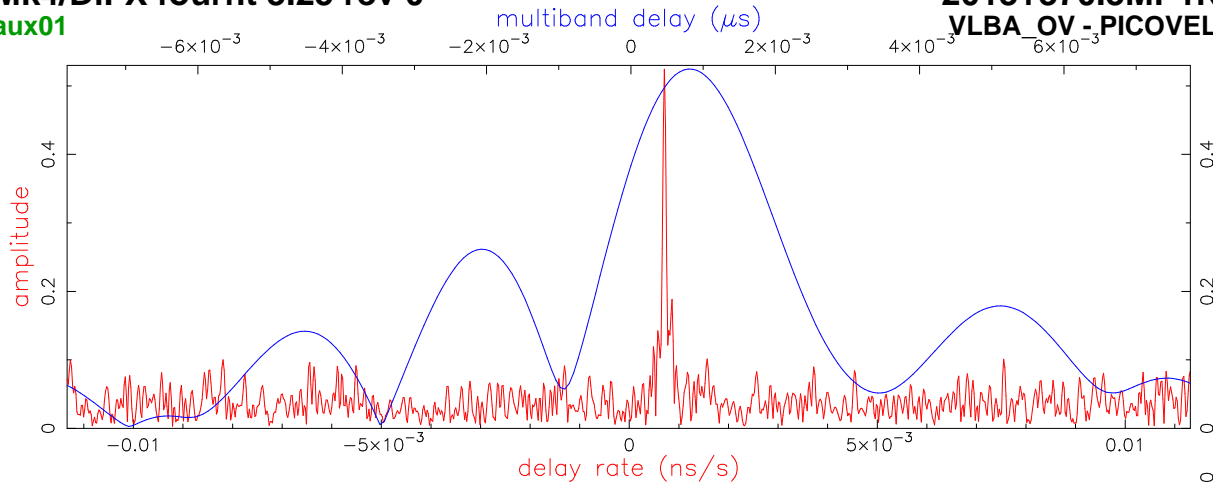
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-95.3	-90.0	-84.1	-64.6	-31.0	-27.7	-121.4	-97.4	Phase	-83.1	
	1165.3	1172.2	1064.3	995.1	698.3	198.9	649.4	892.9	Ampl.	854.5	
	257.1	257.4	257.1	257.2	257.2	255.8	257.2	258.2	Sbd box	257.2	
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used		
o	0	0	0	0	0	0	0	0	PC freqs		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000			
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	5.20937500000E-05		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		5.20938E-05	+/- 3.8E-08	
Sband delay (usec)	9.20000000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		9.20000E-04	+/- 3.0E-07	
Phase delay (usec)	-2.67931313312E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-2.67931E-06	+/- 1.3E-10	
Delay rate (us/s)	-2.02647479201E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.02647E-10	+/- 1.3E-12	
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-83.1	+/- 0.0	
	RMS	Theor.	Amplitude	782.370 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	0.1	0.0	Search (1024X32)	777.836	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	4.2	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	36.5	0.0	Inc. seg. avg.	778.374	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	40.4	0.0	Inc. frq. avg.	854.537	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
o: az 57.7 el 19.8 pa -57.9		o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) 0.000 0.000		simultaneous interpolator					
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/oo..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/oo.W.352.3MP1N1							

Mk4/DiFX fourfit 3.25 rev 0

aux01

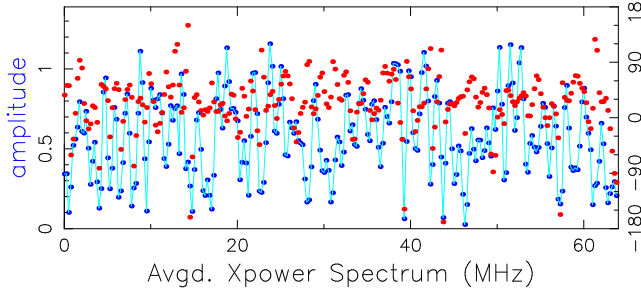
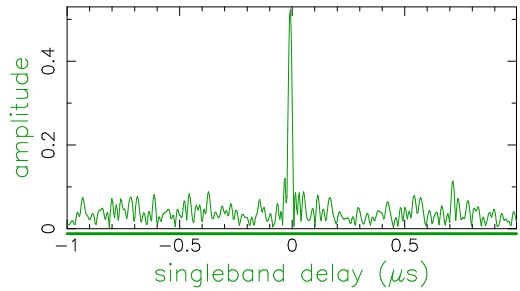
2013+370.3MP1N1, No0280, oP

VLBA_OV - PICOVEL, fgroup W, pol LL



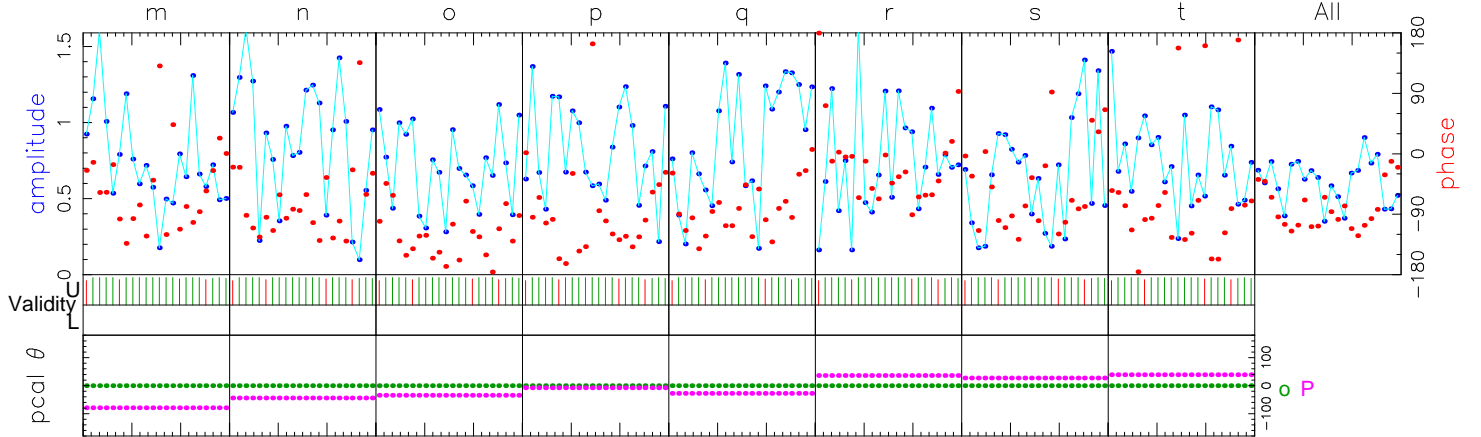
Fringe quality 8

SNR 19.3
 Int time 177.081
 Amp 0.530
 Phase -84.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.009037
 MBD 0.000774
 Fringe rate (Hz)
 0.060533
 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
 2025:041:105107
 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
	-67.1	-86.1	-120.1	-105.5	-80.6	-29.7	-69.1	-106.6	Phase	-84.6
	0.5	0.7	0.6	0.6	0.7	0.6	0.4	0.6	Ampl.	0.6
	253.4	254.8	255.1	255.5	255.1	255.0	254.8	253.5	Sbd box	254.7
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.29233636885E+04	Apriori delay (usec)	-1.29233488371E+04	Resid mbdelay (usec)	7.73589E-04	+/-	5.6E-05
Sband delay (usec)	-1.29233578743E+04	Apriori clock (usec)	2.5964048E+01	Resid sbdelay (usec)	-9.03725E-03	+/-	4.5E-04
Phase delay (usec)	-1.29233488398E+04	Apriori clockrate (us/s)	-1.1696503E-07	Resid phdelay (usec)	-2.72945E-06	+/-	1.9E-07
Delay rate (us/s)	1.36605962591E+00	Apriori rate (us/s)	1.36605892319E+00	Resid rate (us/s)	7.02723E-07	+/-	1.9E-09
Total phase (deg)	-22.5	Apriori accel (us/s/s)	6.90033462421E-05	Resid phase (deg)	-84.6	+/-	6.0

ph/seg (deg)	RMS 32.5	Theor. 13.9	Amplitude Search (1024X32)	0.530 +/- 0.028	0.505	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	31.2	24.3	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.0	8.4	Inc. seg. avg.	0.591	0.578	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	19.9	14.7	Inc. frq. avg.	0.578	0.578	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 57.7 el 19.8 pa -57.9 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9773.193 4199.560 simultaneous interpolator

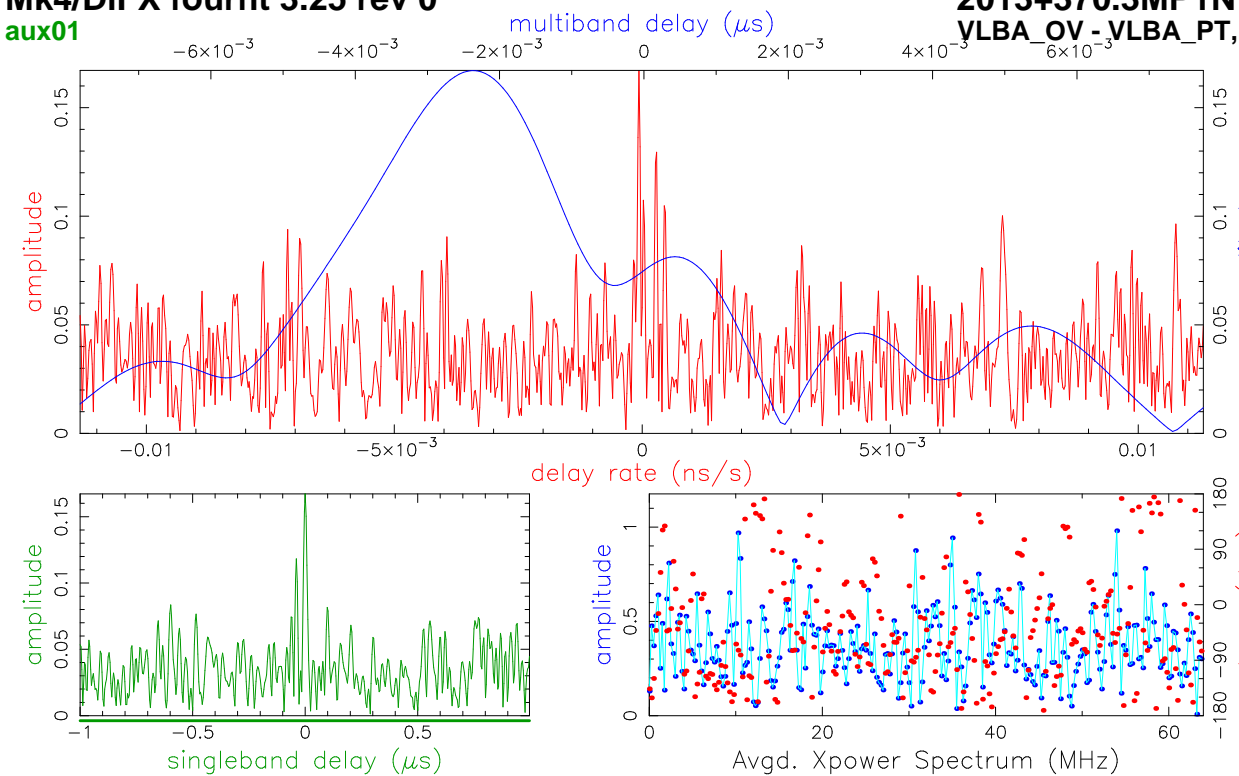
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oP.W.324.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, op

VLBA_OV - VLBA_PT, fgroup W, pol LL

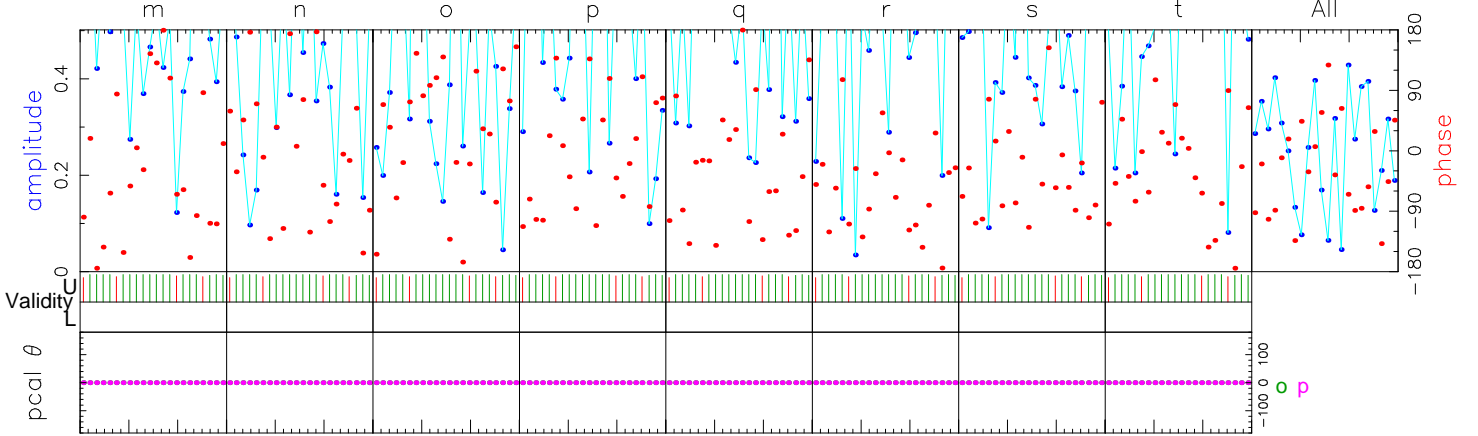


Fringe quality 0

SNR 6.1
 Int time 177.092
 Amp 0.167
 Phase -47.4
 PFD 1.4e-01
 Delays (us)
 SBD -0.000299
 MBD -0.002386
 Fringe rate (Hz)
 -0.005013
 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
 2025:041:105108
 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
	-113.1	-35.5	66.0	-34.6	-55.8	-64.0	-53.3	-30.9	Phase	-47.4
	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	17.3	242.0	492.2	88.1	258.3	256.3	496.1	468.7	Sbd box	256.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -1.90771393736E+03 Apriori delay (usec) -1.90771155183E+03 Resid mbdelay (usec) -2.38552E-03 +/- 1.8E-04
 Sband delay (usec) -1.90771185083E+03 Apriori clock (usec) 1.9355186E+01 Resid sbdelay (usec) -2.99000E-04 +/- 1.4E-03
 Phase delay (usec) -1.90771155336E+03 Apriori clockrate (us/s) 1.0257507E-07 Resid phdelay (usec) -1.52695E-06 +/- 6.1E-07
 Delay rate (us/s) -2.75864809208E-02 Apriori rate (us/s) -2.75864227269E-02 Resid rate (us/s) -5.81938E-08 +/- 5.9E-09
 Total phase (deg) -74.3 Apriori accel (us/s/s) 1.30726714014E-05 Resid phase (deg) -47.4 +/- 18.8

ph/seg (deg) RMS 71.4 Theor. 44.0 Amplitude 0.167 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 87.7 76.8 Search (1024X32) 0.162 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.0 26.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.7 46.5 Inc. seg. avg. 0.199 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

o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u, v (fr/asec) 209.516 1071.287 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.329.3MP1N1

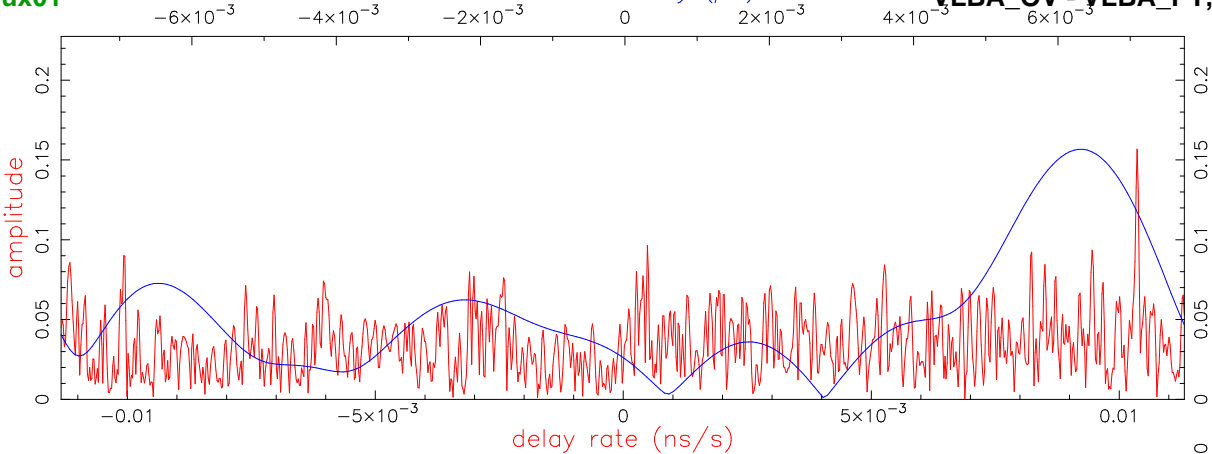
Mk4/DiFX fourfit 3.25 rev 0

aux01

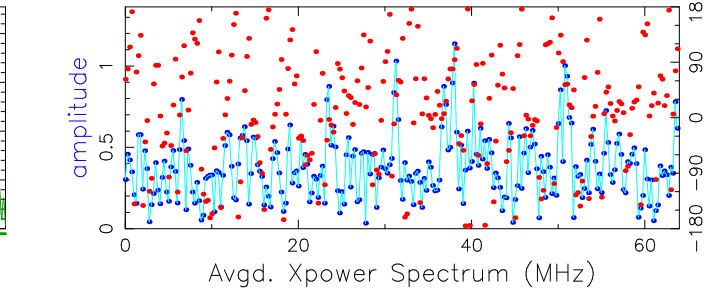
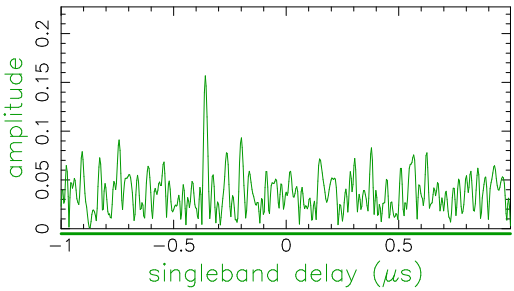
2013+370.3MP1N1, No0280, op VLBA_OV - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

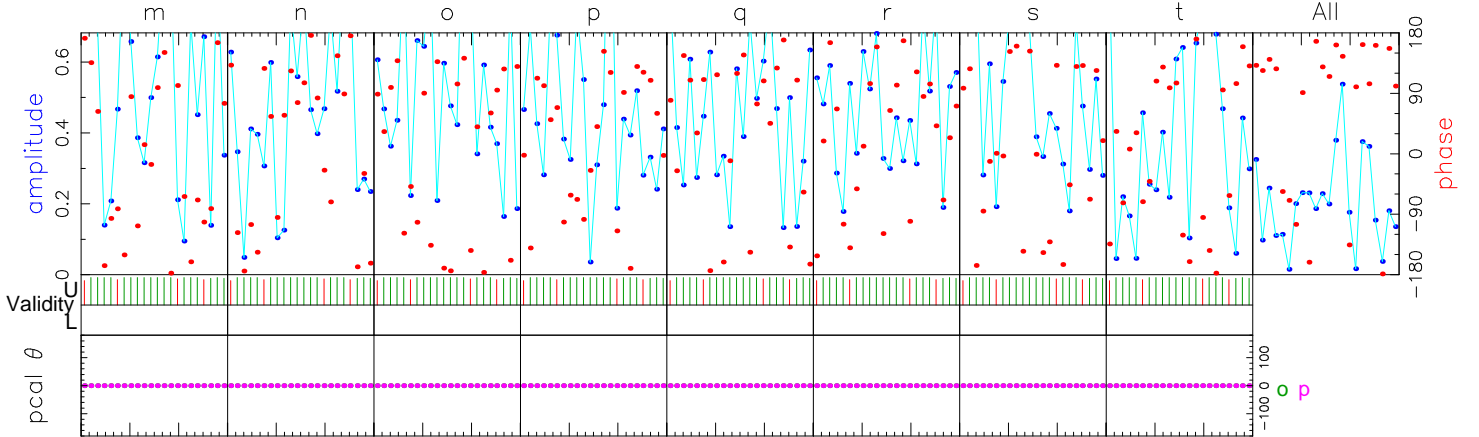


SNR 5.7
Int time 177.092
Amp 0.227
Phase 147.2
PFD 7.5e-01
Delays (us)
SBD -0.358937
MBD 0.006311
Fringe rate (Hz) 0.893028
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build 2024:352:054246
2025:041:105111
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
	171.7	132.3	164.5	107.1	127.6	95.0	153.5	-166.1	Phase	147.2
	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	Ampl.	0.2
	44.3	80.1	165.8	111.7	260.2	294.2	46.8	103.1	Sbd box	165.1
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	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)	-1.90806461606E+03					-1.90771155183E+03			Resid mbdelay (usec)	6.31077E-03 +/- 1.9E-04
Sband delay (usec)	-1.90807048908E+03					1.9355186E+01			Resid sbdelay (usec)	-3.58937E-01 +/- 1.5E-03
Phase delay (usec)	-1.90771154709E+03					1.0257507E-07			Resid phdelay (usec)	4.74687E-06 +/- 6.5E-07
Delay rate (us/s)	-2.7576055526E-02					-2.75864227269E-02			Resid rate (us/s)	1.03672E-05 +/- 6.3E-09
Total phase (deg)			120.3			1.30726714014E-05			Resid phase (deg)	147.2 +/- 20.1
	RMS	Theor.	Amplitude	0.227 +/- 0.040					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.9	46.9	Search (1024X32)	0.154					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	86.5	81.8	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	36.6	28.4	Inc. seg. avg.	0.224					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	28.1	49.5	Inc. frq. avg.	0.232					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
o: az 57.7 el 19.8 pa -57.9			p: az 60.8 el 25.4 pa -65.1			u, v (fr/asec) 209.516 1071.287			nlags: 256 t_cohere infinite	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1			Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.339.3MP1N1				

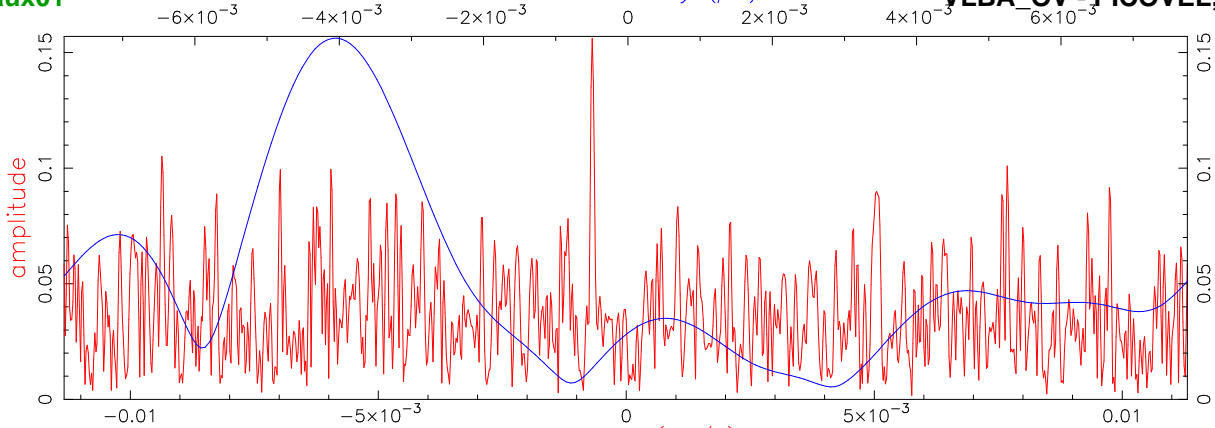
Mk4/DiFX fourfit 3.25 rev 0

aux01

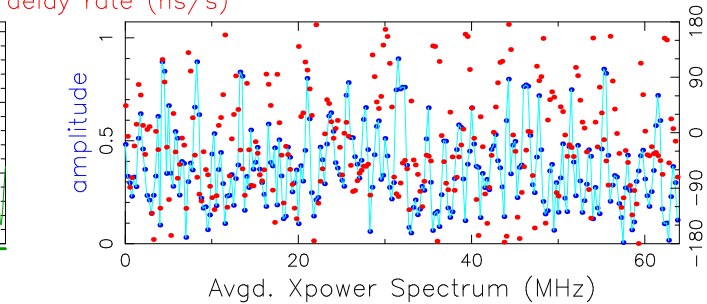
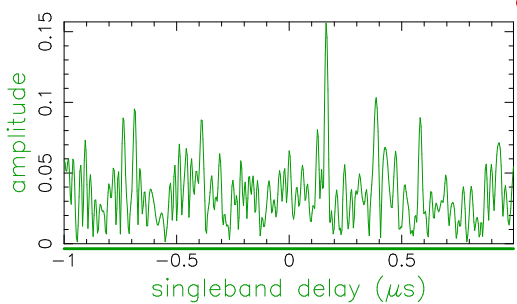
2013+370.3MP1N1, No0280, oP

VLBA_OV - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

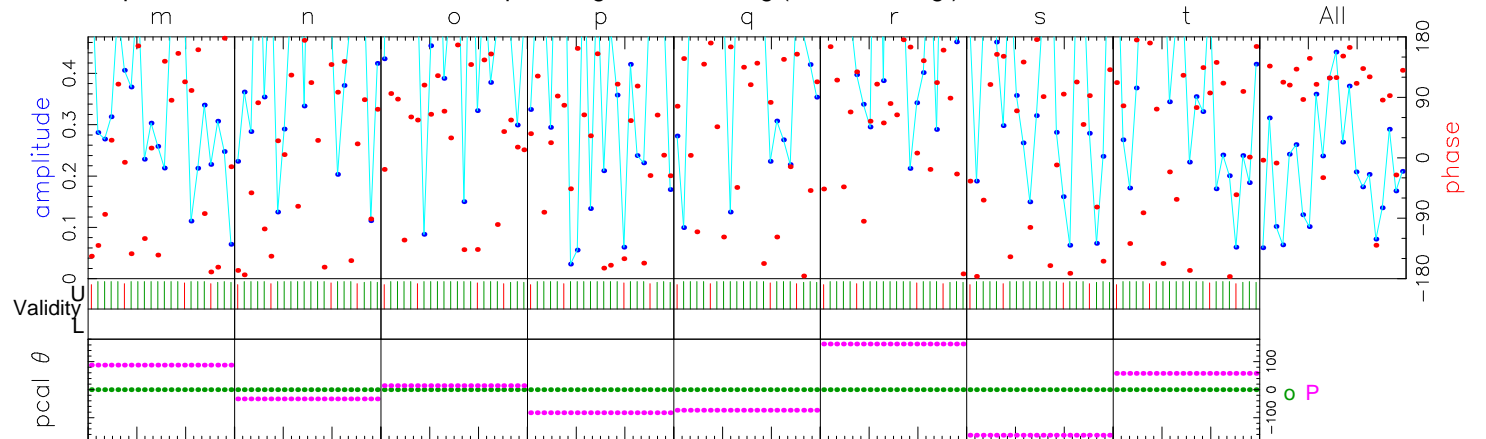


Fringe quality 0
 SNR 5.7
 Int time 177.081
 Amp 0.157
 Phase 119.2
 PFD 7.6e-01
 Delays (us)
 SBD 0.164788
 MBD -0.004020
 Fringe rate (Hz)
 -0.058846
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105113
 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
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -1.29231809824E+04 Apriori delay (usec) -1.29233488371E+04 Resid mbdelay (usec) -4.02026E-03 +/- 1.9E-04
 Sband delay (usec) -1.29231840496E+04 Apriori clock (usec) 2.5964048E+01 Resid sbdelay (usec) 1.64788E-01 +/- 1.5E-03
 Phase delay (usec) -1.29233488333E+04 Apriori clockrate (us/s) -1.1696503E-07 Resid phdelay (usec) 3.84303E-06 +/- 6.5E-07
 Delay rate (us/s) 1.36605824005E+00 Apriori rate (us/s) 1.36605892319E+00 Resid rate (us/s) -6.83139E-07 +/- 6.3E-09
 Total phase (deg) -178.7 Apriori accel (us/s/s) 6.90033462421E-05 Resid phase (deg) 119.2 +/- 20.1

ph/seg (deg) 65.4 Theor. 46.9 Amplitude 0.157 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.1 81.9 Search (1024X32) 0.154 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 34.0 28.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.0 49.6 Inc. seg. avg. 0.165 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 57.7 el 19.8 pa -57.9 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9773.193 4199.560 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oP.W.349.3MP1N1

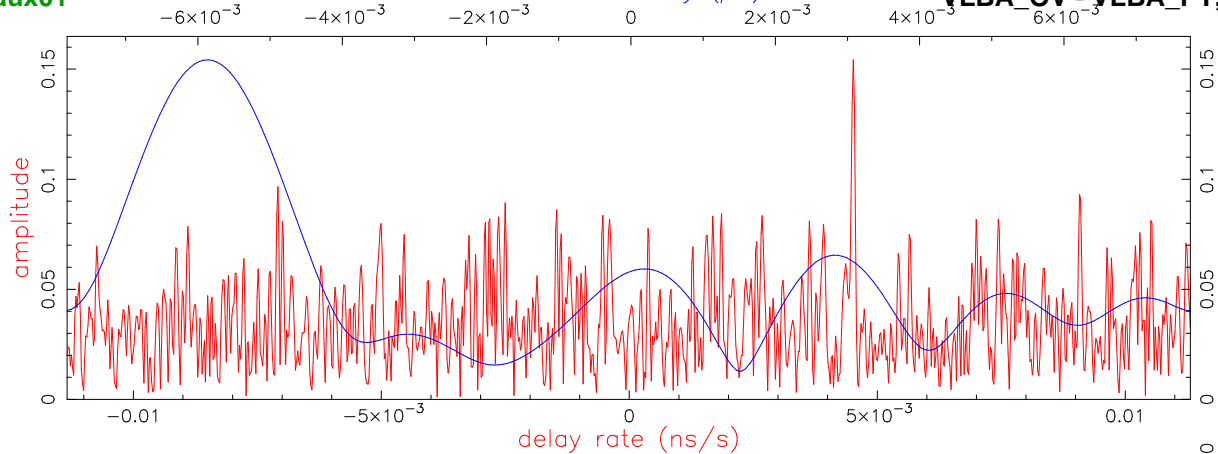
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, op

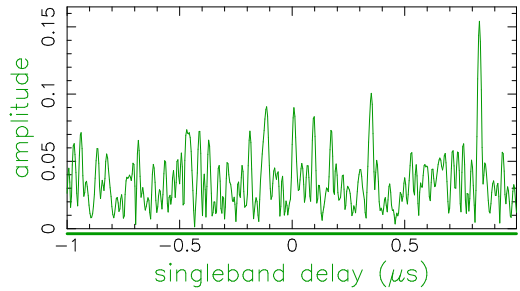
VLBA_OV - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

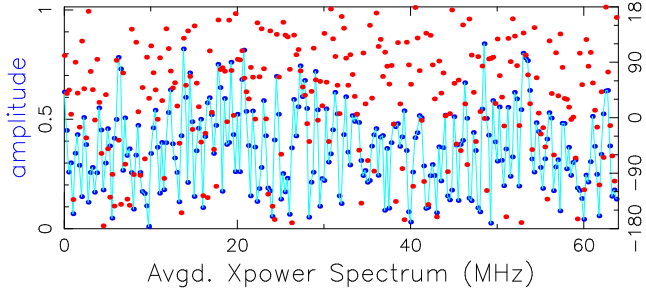


Fringe quality 0

SNR 5.6
 Int time 177.092
 Amp 0.165
 Phase -2.9
 PFD 9.1e-01
 Delays (us)
 SBD 0.831655
 MBD -0.005884
 Fringe rate (Hz)
 0.389355
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

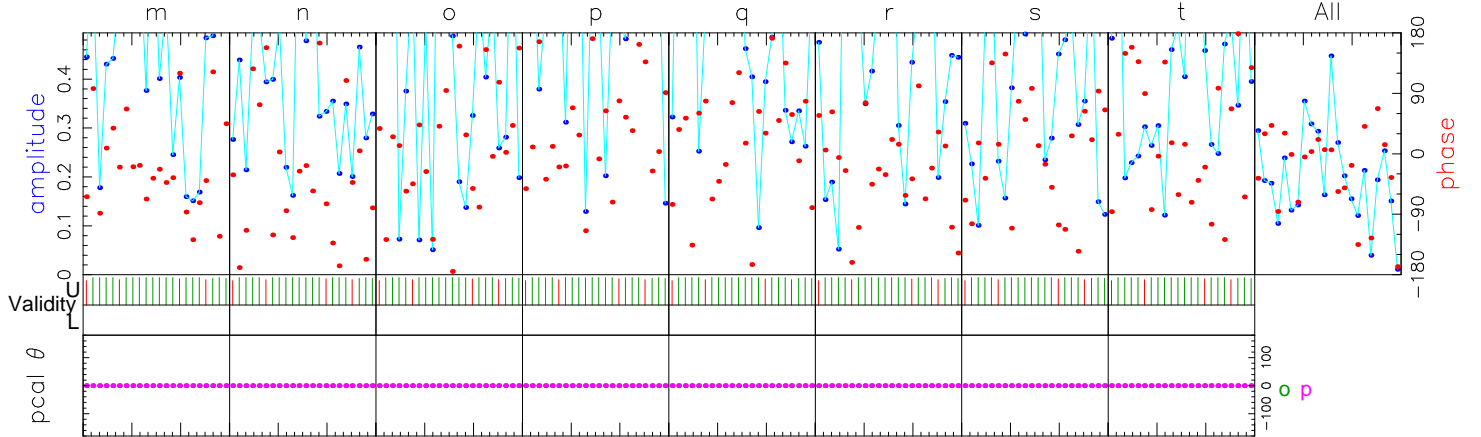


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105113
 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
	-12.3	-69.6	12.0	20.8	26.5	-21.1	24.5	-33.3	Phase	-2.9
	0.2	0.1	0.2	0.3	0.2	0.3	0.1	0.1	Ampl.	0.2
	36.1	509.3	228.2	258.3	82.1	254.3	9.2	133.7	Sbd box	469.9
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -1.90687368617E+03 Apriori delay (usec) -1.90771155183E+03 Resid mbdelay (usec) -5.88434E-03 +/- 1.9E-04
 Sband delay (usec) -1.90687989708E+03 Apriori clock (usec) 1.9355186E+01 Resid sbdelay (usec) 8.31655E-01 +/- 1.5E-03
 Phase delay (usec) -1.90771155192E+03 Apriori clockrate (us/s) 1.0257507E-07 Resid phdelay (usec) -9.25573E-08 +/- 6.6E-07
 Delay rate (us/s) -2.75819027018E-02 Apriori rate (us/s) -2.75864227269E-02 Resid rate (us/s) 4.52002E-06 +/- 6.4E-09
 Total phase (deg) -29.8 Apriori accel (us/s/s) 1.30726714014E-05 Resid phase (deg) -2.9 +/- 20.4

ph/seg (deg) 64.4 47.7 Search (1024X32) 0.153 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.6 83.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.9 28.9 Inc. seg. avg. 0.161 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.3 50.4 Inc. frq. avg. 0.164 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 209.516 1071.287 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.351.3MP1N1

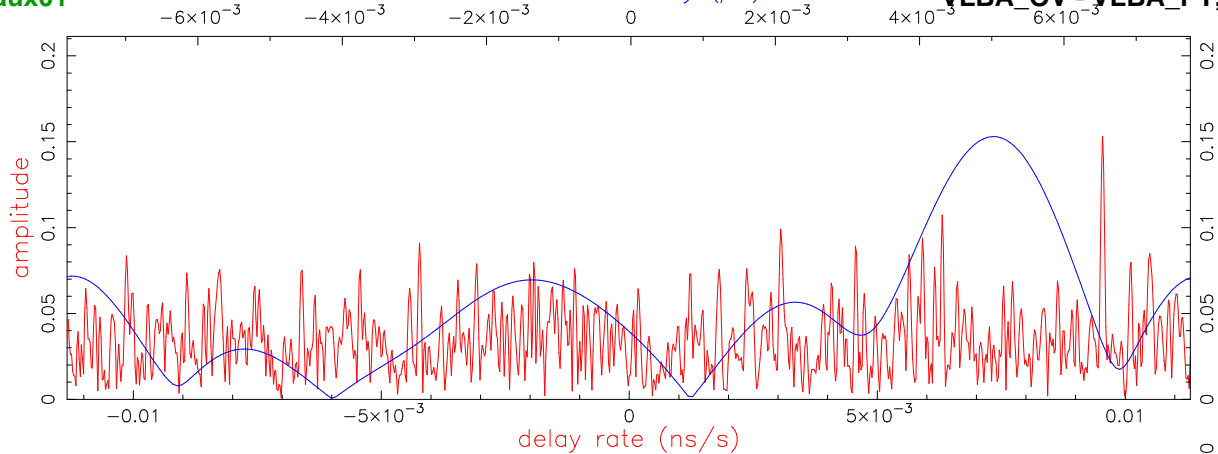
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, op

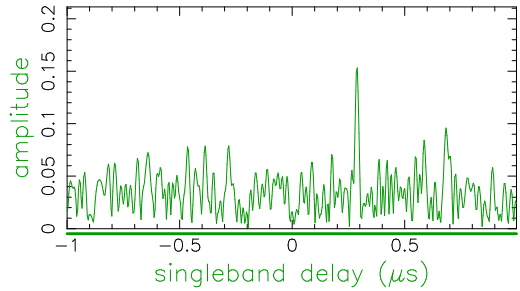
VLBA_OV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

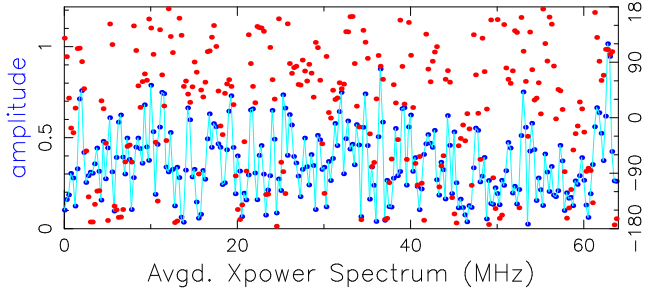


Fringe quality 0

SNR 5.6
 Int time 177.092
 Amp 0.211
 Phase 104.7
 PFD 8.9e-01
 Delays (us)
 SBD 0.287692
 MBD 0.005025
 Fringe rate (Hz)
 0.823540
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

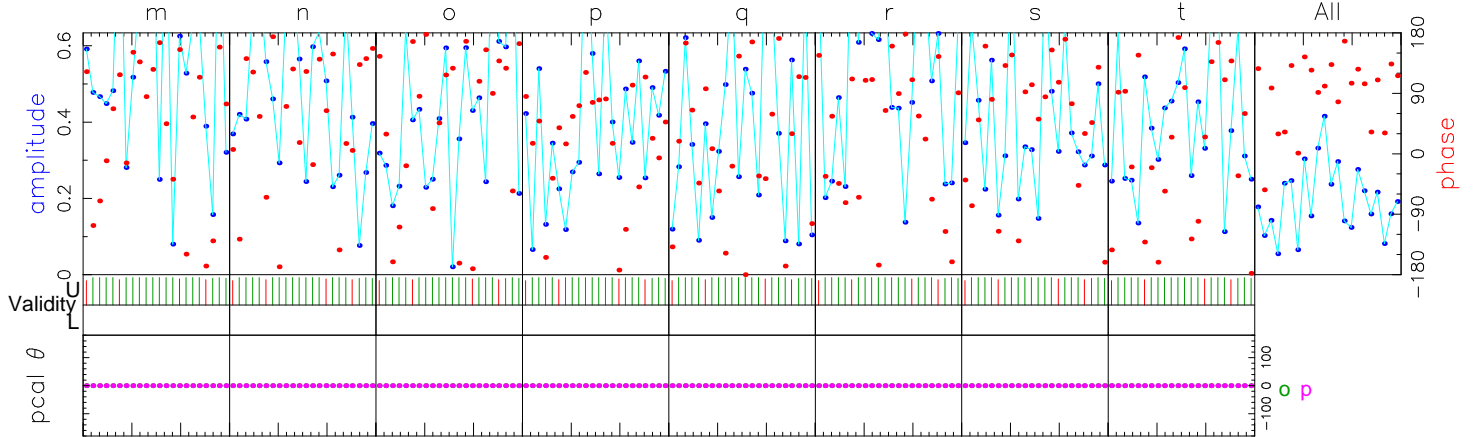


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105116
 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
	119.3	93.0	132.4	59.6	86.6	101.0	112.9	141.7	Phase	104.7
	0.4	0.2	0.2	0.3	0.1	0.3	0.2	0.1	Ampl.	0.2
	324.9	158.9	46.1	50.3	157.6	135.8	350.1	307.6	Sbd box	330.6
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.90742527660E+03	Apriori delay (usec)	-1.90771155183E+03	Resid mbdelay (usec)	5.02523E-03	+/-	1.9E-04
Sband delay (usec)	-1.90742385958E+03	Apriori clock (usec)	1.9355186E+01	Resid sbdelay (usec)	2.87692E-01	+/-	1.5E-03
Phase delay (usec)	-1.90771154845E+03	Apriori clockrate (us/s)	1.0257507E-07	Resid phdelay (usec)	3.37770E-06	+/-	6.6E-07
Delay rate (us/s)	-2.75768622468E-02	Apriori rate (us/s)	-2.75864227269E-02	Resid rate (us/s)	9.56048E-06	+/-	6.4E-09
Total phase (deg)	77.8	Apriori accel (us/s/s)	1.30726714014E-05	Resid phase (deg)	104.7	+/-	20.4

ph/seg (deg)	55.8	Theor.	47.5	Amplitude	0.211 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	64.4	Search (1024X32)	0.148	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.7	Inc. seg. avg.	0.200	Inc. frq. avg.	0.203	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.1	Inc. frq. avg.	0.203			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

o: az 57.7 el 19.8 pa -57.9 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 209.516 1071.287 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/op..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/op.W.362.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

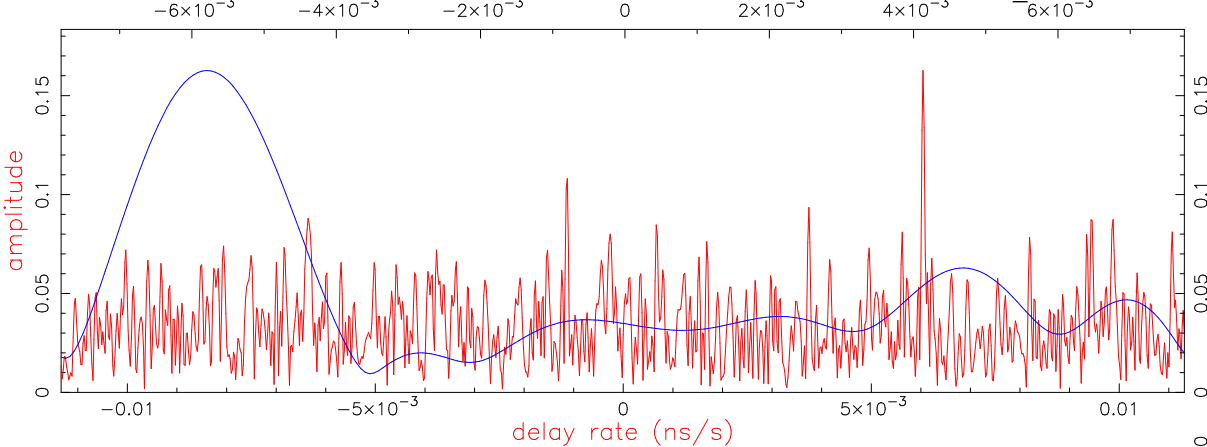
aux01

2013+370.3MP1N1, No0280, oP

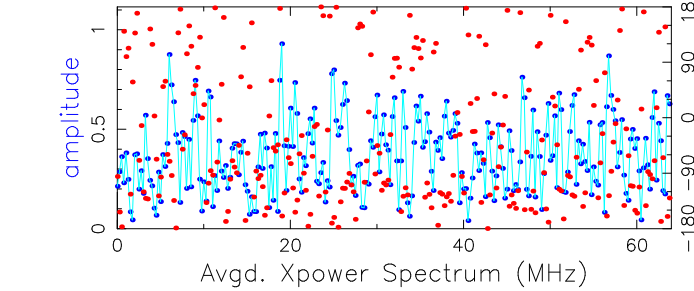
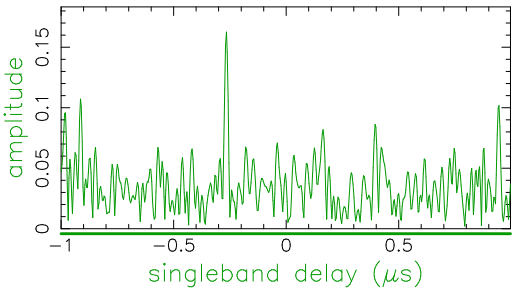
VLBA_OV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

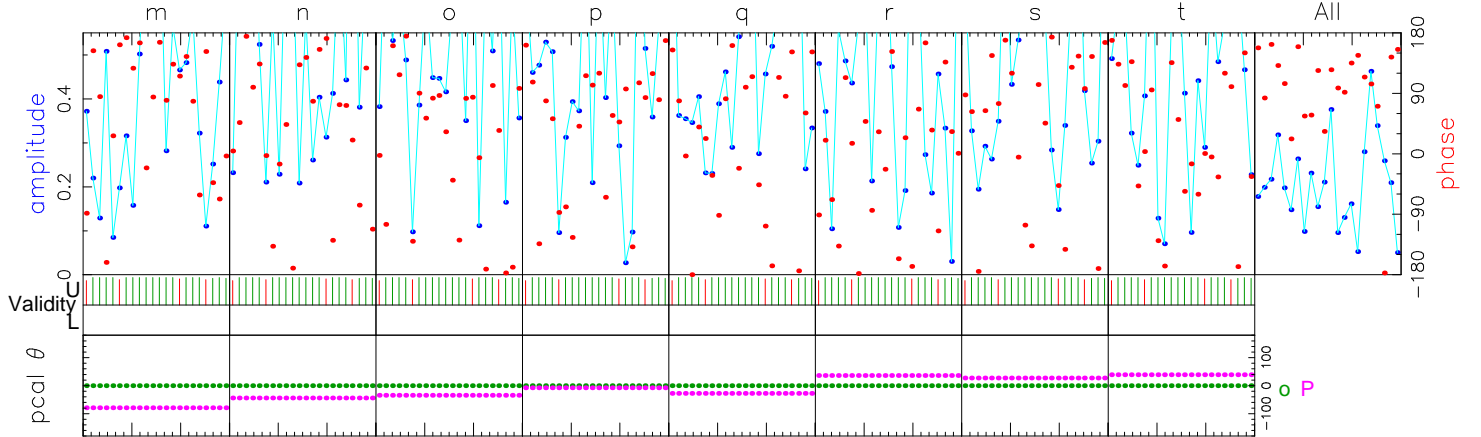


SNR 5.9
 Int time 177.081
 Amp 0.183
 Phase 113.6
 PFD 3.3e-01
 Delays (us)
 SBD -0.265942
 MBD -0.005798
 Fringe rate (Hz)
 0.520829
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105116
 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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-1.29236202599E+04									
Sband delay (usec)	-1.29236147788E+04									
Phase delay (usec)	-1.29233488334E+04									
Delay rate (us/s)	1.36606496949E+00									
Total phase (deg)			-184.2							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
simultaneous interpolator										

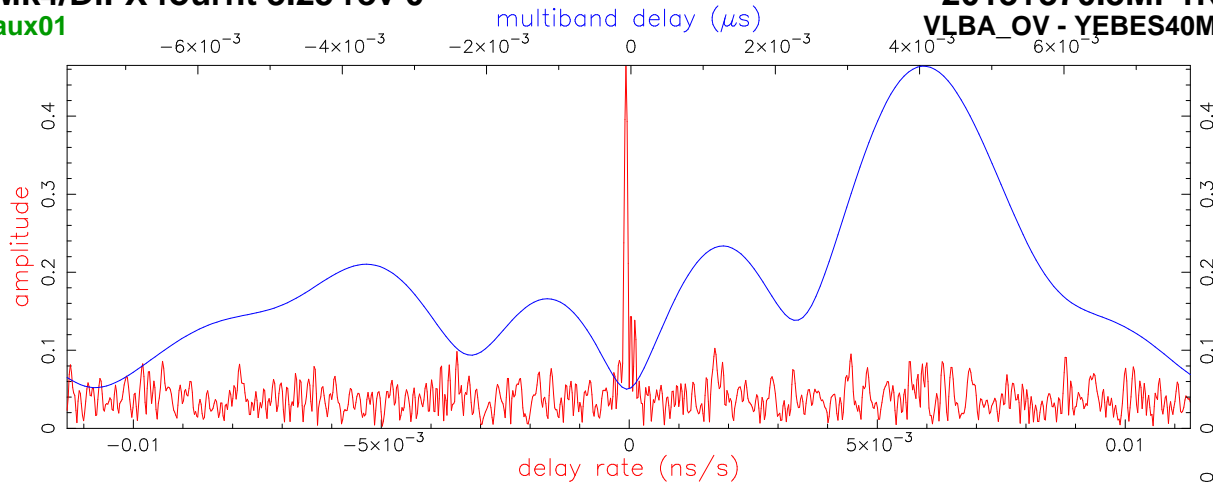
ph/seg (deg) 42.8 45.2 Search (1024X32) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.7 78.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.3 27.4 Inc. seg. avg. 0.181 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.3 47.8 Inc. frq. avg. 0.174 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 57.7 el 19.8 pa -57.9 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -9773.193 4199.560 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/oP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oP.W.364.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

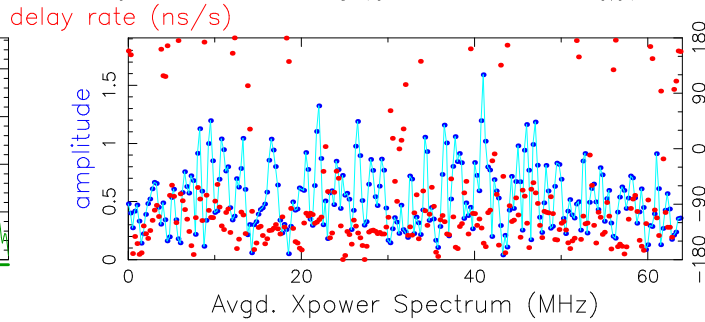
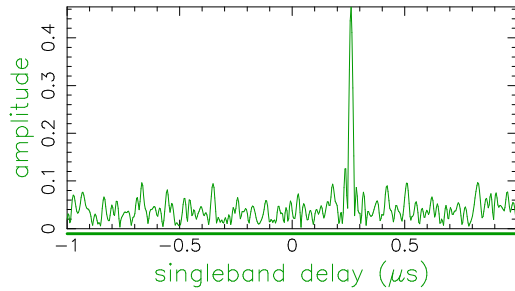
2013+370.3MP1N1, No0280, oY

VLBA_OV - YEBES40M, fgroup W, pol LL



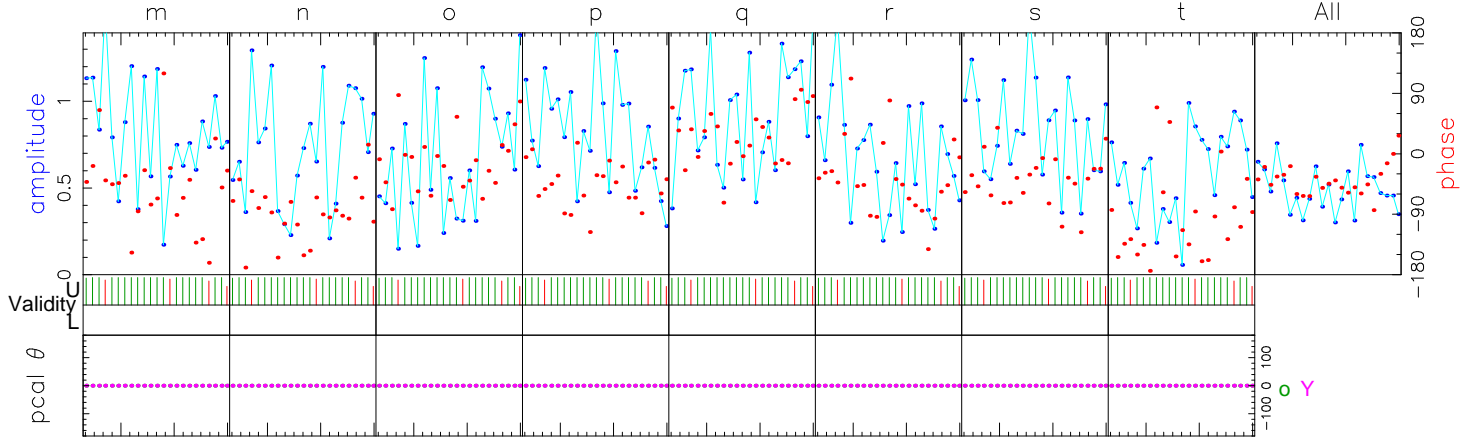
Fringe quality 8

SNR 16.1
 Int time 160.333
 Amp 0.465
 Phase -41.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.261111
 MBD 0.004040
 Fringe rate (Hz)
 -0.006189
 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
	-52.1	-83.0	-15.8	-43.6	27.3	-46.2	-37.1	-114.2	Phase	-41.3
	0.5	0.6	0.5	0.7	0.7	0.5	0.7	0.4	Ampl.	0.6
	323.5	323.8	323.2	323.8	323.4	323.0	323.4	322.5	Sbd box	323.8
U/L	316/0	316/0	316/0	316/0	316/0	316/0	316/0	316/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.27957211432E+04	Apriori delay (usec)	-1.27959751828E+04	Resid mbdelay (usec)	4.03960E-03	+/-	6.7E-05
Sband delay (usec)	-1.27957140716E+04	Apriori clock (usec)	1.3571059E+02	Resid sbdelay (usec)	2.61111E-01	+/-	5.4E-04
Phase delay (usec)	-1.27959751842E+04	Apriori clockrate (us/s)	1.9370410E-02	Resid phdelay (usec)	-1.33307E-06	+/-	2.3E-07
Delay rate (us/s)	1.35253507946E+00	Apriori rate (us/s)	1.35253515130E+00	Resid rate (us/s)	-7.18492E-08	+/-	2.5E-09
Total phase (deg)	-131.6	Apriori accel (us/s/s)	6.57093138099E-05	Resid phase (deg)	-41.3	+/-	7.1

ph/seg (deg) 22.1 17.0 Amplitude 0.465 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 28.4 29.7 Search (1024X32) 0.456 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.8 10.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.5 17.6 Inc. seg. avg. 0.475 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 57.7 el 19.8 pa -57.9 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -9679.305 3671.727 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/oY...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oY.W.379.3MP1N1 simultaneous interpolator

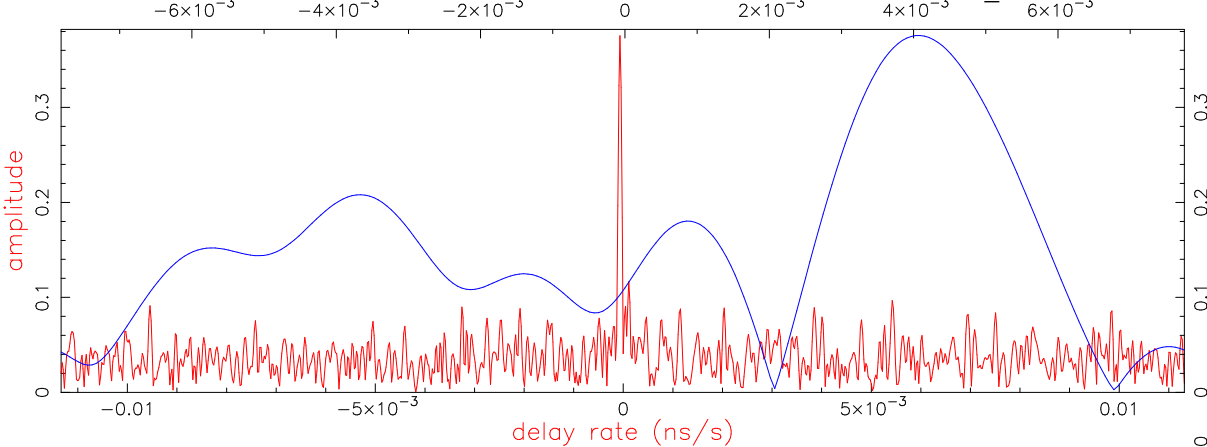
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, oY

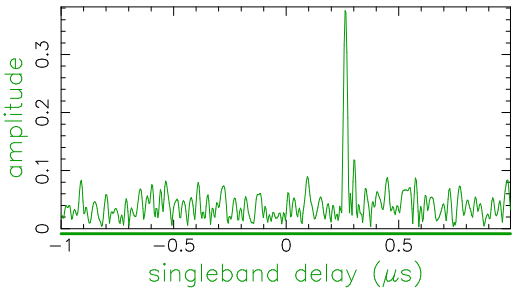
VLBA_OV - YEYES40M, fgroup W, pol RR

multiband delay (μ s)

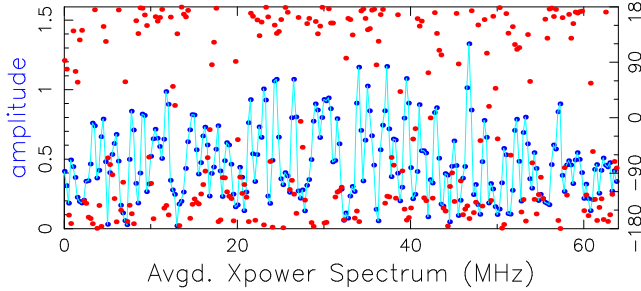


Fringe quality 9

SNR 13.2
 Int time 160.333
 Amp 0.382
 Phase -63.9
 PFD 1.6e-31
 Delays (us)
 SBD 0.263460
 MBD 0.004117
 Fringe rate (Hz)
 -0.006402
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

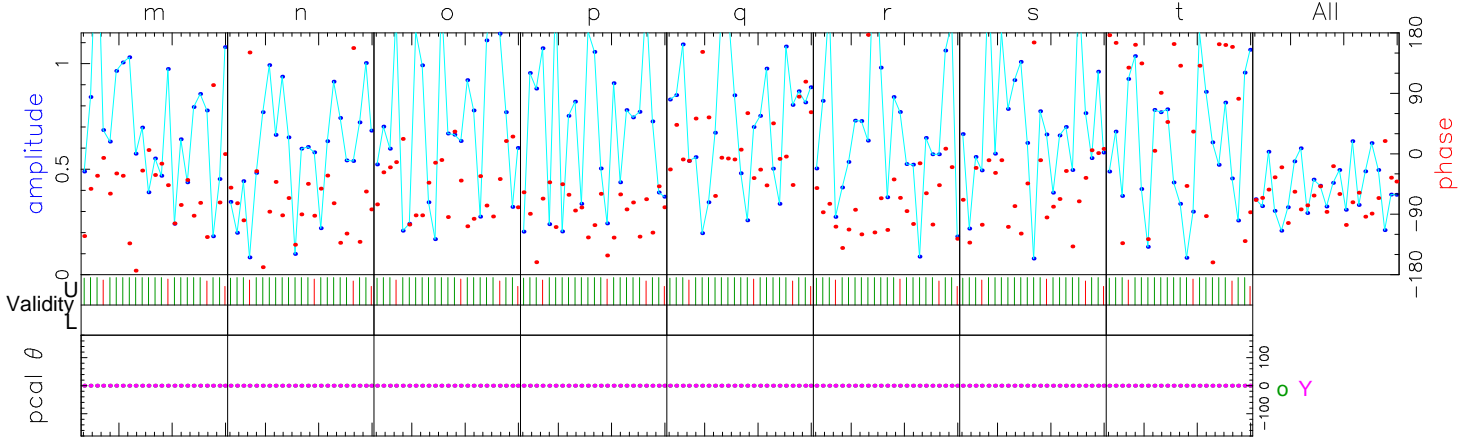


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105121
 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
	-54.2	-85.2	-53.8	-93.5	2.9	-78.9	-49.8	160.2	Phase	-63.9
	0.5	0.4	0.5	0.6	0.5	0.5	0.5	0.3	Ampl.	0.5
	324.0	324.7	324.5	323.8	323.3	323.3	322.9	321.9	Sbd box	324.4
U/L	316/0	316/0	316/0	316/0	316/0	316/0	316/0	316/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.27957054406E+04	Apriori delay (usec)	-1.27959751828E+04	Resid mbdelay (usec)	4.11726E-03	+/-	8.2E-05
Sband delay (usec)	-1.27957117228E+04	Apriori clock (usec)	1.3571059E+02	Resid sbdelay (usec)	2.63460E-01	+/-	6.5E-04
Phase delay (usec)	-1.27959751849E+04	Apriori clockrate (us/s)	1.9370410E-06	Resid phdelay (usec)	-2.05963E-06	+/-	2.8E-07
Delay rate (us/s)	1.35253507698E+00	Apriori rate (us/s)	1.35253515130E+00	Resid rate (us/s)	-7.43263E-08	+/-	3.0E-09
Total phase (deg)	-154.1	Apriori accel (us/s/s)	6.57093138099E-05	Resid phase (deg)	-63.9	+/-	8.7

ph/seg (deg)	29.3	Theor.	20.7	Amplitude	0.382 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	33.6	Search (1024X32)	0.367	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	64.4	Inc. seg. avg.	0.388	Inc. frq. avg.	0.484	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	38.2	Inc. frq. avg.	0.484	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
o: az 57.7 el 19.8 pa -57.9	Y: az 266.8 el 72.1 pa 72.3	u, v (fr/asec)	-9679.305 3671.727	ion window (TEC)	0.00 0.00	simultaneous interpolator				

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oY.W.387.3MP1N1

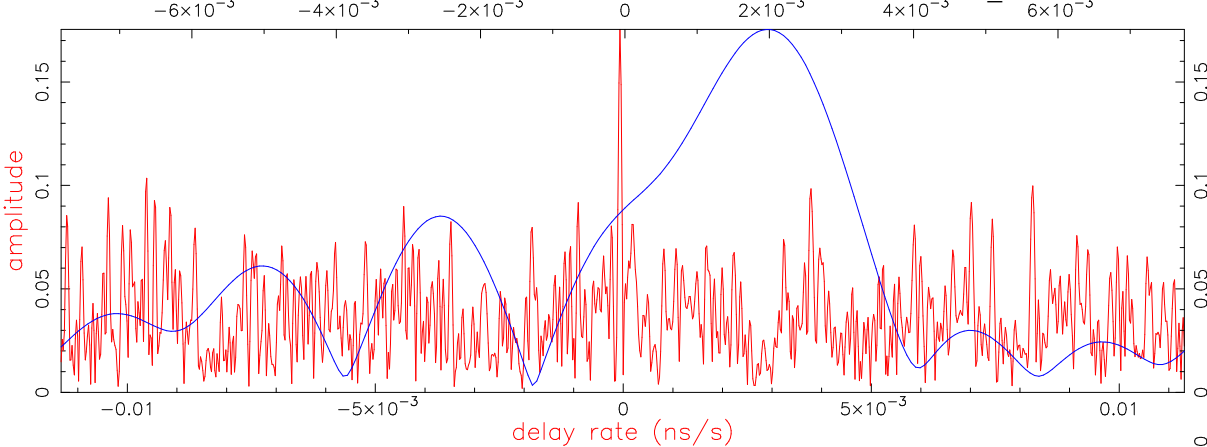
Mk4/DiFX fourfit 3.25 rev 0

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2013+370.3MP1N1, No0280, oY

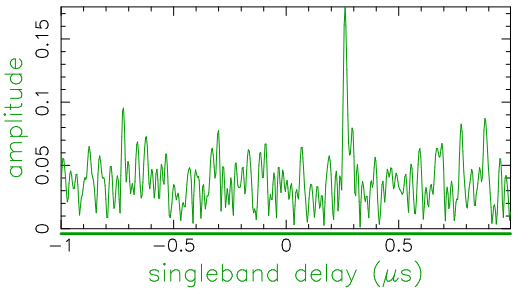
VLBA_OV - YESES40M, fgroup W, pol LR

multiband delay (μ s)

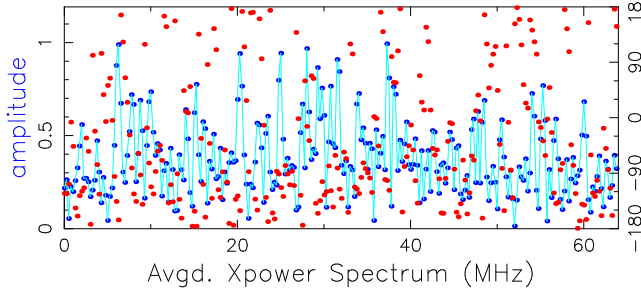


Fringe quality 0

SNR 6.1
Int time 160.333
Amp 0.175
Phase -6.7
PFD 1.5e-01
Delays (us)
SBD 0.261559
MBD 0.001978
Fringe rate (Hz)
-0.005607
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

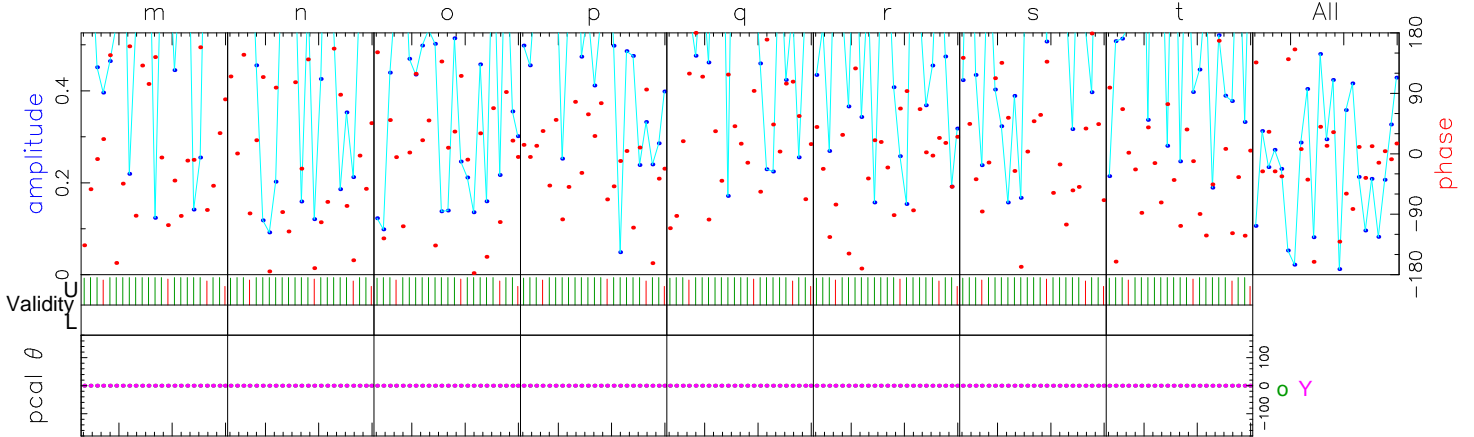


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080017.41
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:105128
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
	-45.6	-87.4	40.8	2.3	16.0	-8.5	8.9	-38.5	Phase	-6.7
	0.2	0.0	0.2	0.3	0.2	0.2	0.3	0.3	Ampl.	0.2
	2.6	329.5	291.7	177.9	322.3	235.0	448.0	320.2	Sbd box	324.0
U/L	316/0	316/0	316/0	316/0	316/0	316/0	316/0	316/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.27957075797E+04	Apriori delay (usec)	-1.27959751828E+04	Resid mbdelay (usec)	1.97816E-03	+/-	1.8E-04
Sband delay (usec)	-1.27957136238E+04	Apriori clock (usec)	1.3571059E+02	Resid sbdelay (usec)	2.61559E-01	+/-	1.4E-03
Phase delay (usec)	-1.27959751831E+04	Apriori clockrate (us/s)	1.9370410E-02	Resid phdelay (usec)	-2.16157E-07	+/-	6.1E-07
Delay rate (us/s)	1.35253508621E+00	Apriori rate (us/s)	1.35253515130E+00	Resid rate (us/s)	-6.50952E-08	+/-	6.5E-09
Total phase (deg)	-96.9	Apriori accel (us/s/s)	6.57093138099E-05	Resid phase (deg)	-6.7	+/-	18.9

ph/seg (deg)	RMS 74.7	Theor. 45.1	Amplitude Search (1024X32)	0.175	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	86.8	78.7	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)	45.0	26.7	Inc. seg. avg.	0.183	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.9	46.6	Inc. frq. avg.	0.180	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 57.7 el 19.8 pa -57.9 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -9679.305 3671.727 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oY.W.396.3MP1N1

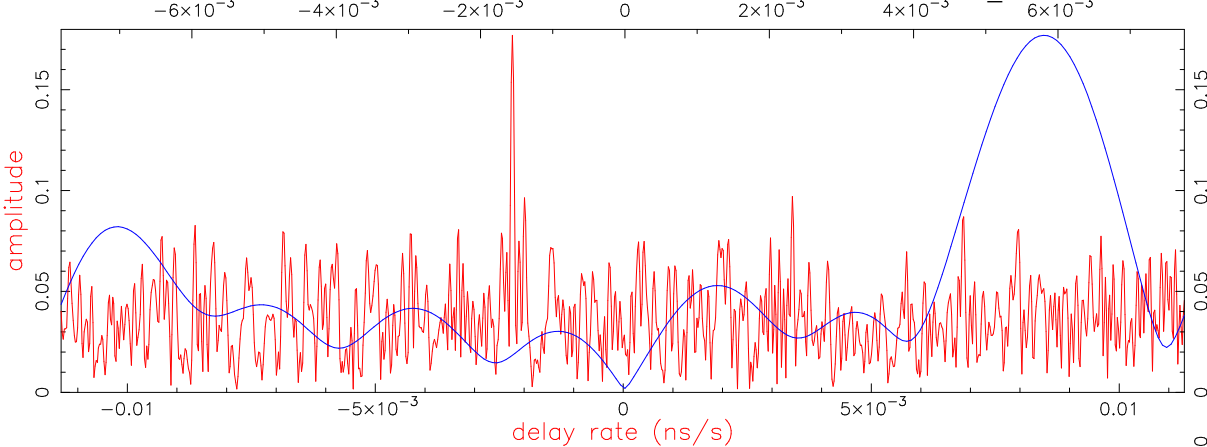
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, oY

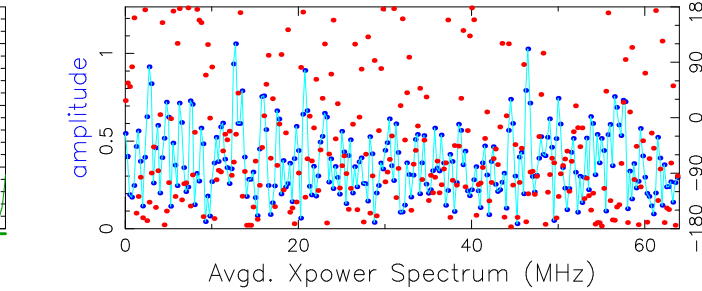
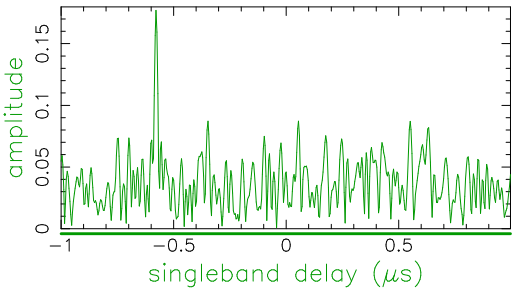
VLBA_OV - YESES40M, fgroup W, pol RL

multiband delay (μ s)



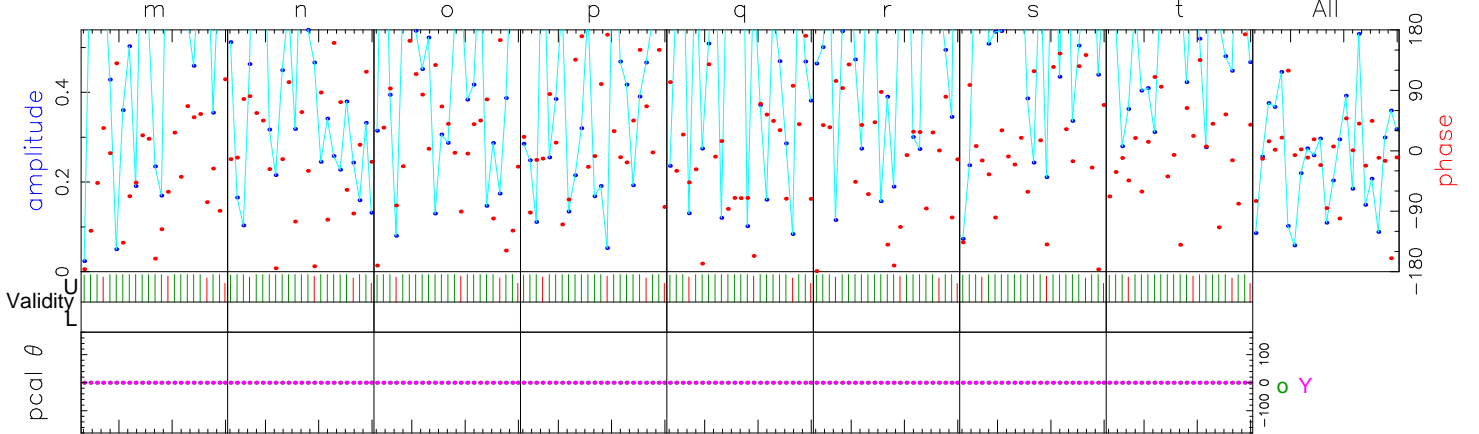
Fringe quality 0

SNR 6.1
 Int time 160.333
 Amp 0.180
 Phase 3.5
 PFD 1.1e-01
 Delays (us)
 SBD -0.577957
 MBD 0.005811
 Fringe rate (Hz)
 -0.193228
 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
 2025:041:105130
 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
	-19.9	40.1	31.9	-2.2	-22.4	6.5	14.6	-5.1		Phase 3.5
	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2		Ampl. 0.2
	251.0	384.1	152.8	354.8	103.7	345.0	464.3	113.6		Sbd box 109.0
U/L	316/0	316/0	316/0	316/0	316/0	316/0	316/0	316/0		APs used
o	0	0	0	0	0	0	0	0		PC freqs
Y	0	0	0	0	0	0	0	0		PC freqs
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
o	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD)	-1.27965474967E+04	Apriori delay (usec)	-1.27959751828E+04	Resid mbdelay (usec)	5.81120E-03	+/-	1.8E-04
Sband delay (usec)	-1.27965531396E+04	Apriori clock (usec)	1.3571059E+02	Resid sbdelay (usec)	-5.77957E-01	+/-	1.4E-03
Phase delay (usec)	-1.27959751827E+04	Apriori clockrate (us/s)	1.9370410E-06	Resid phdelay (usec)	1.12792E-07	+/-	6.0E-07
Delay rate (us/s)	1.35253290812E+00	Apriori rate (us/s)	1.35253515130E+00	Resid rate (us/s)	-2.24318E-06	+/-	6.5E-09
Total phase (deg)	-86.7	Apriori accel (us/s/s)	6.57093138099E-05	Resid phase (deg)	3.5	+/-	18.7

ph/seg (deg)	56.8	Theor.	44.7	Amplitude	0.180 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	82.0	Search (1024X32)	0.173	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	24.5	Inc. seg. avg.	0.199	Inc. frq. avg.	0.173	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.6	Inc. frq. avg.	0.173	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
o: az 57.7 el 19.8 pa -57.9	Y: az 266.8 el 72.1 pa 72.3	u, v (fr/asec)	-9679.305 3671.727	ion window (TEC)	0.00 0.00	simultaneous interpolator				

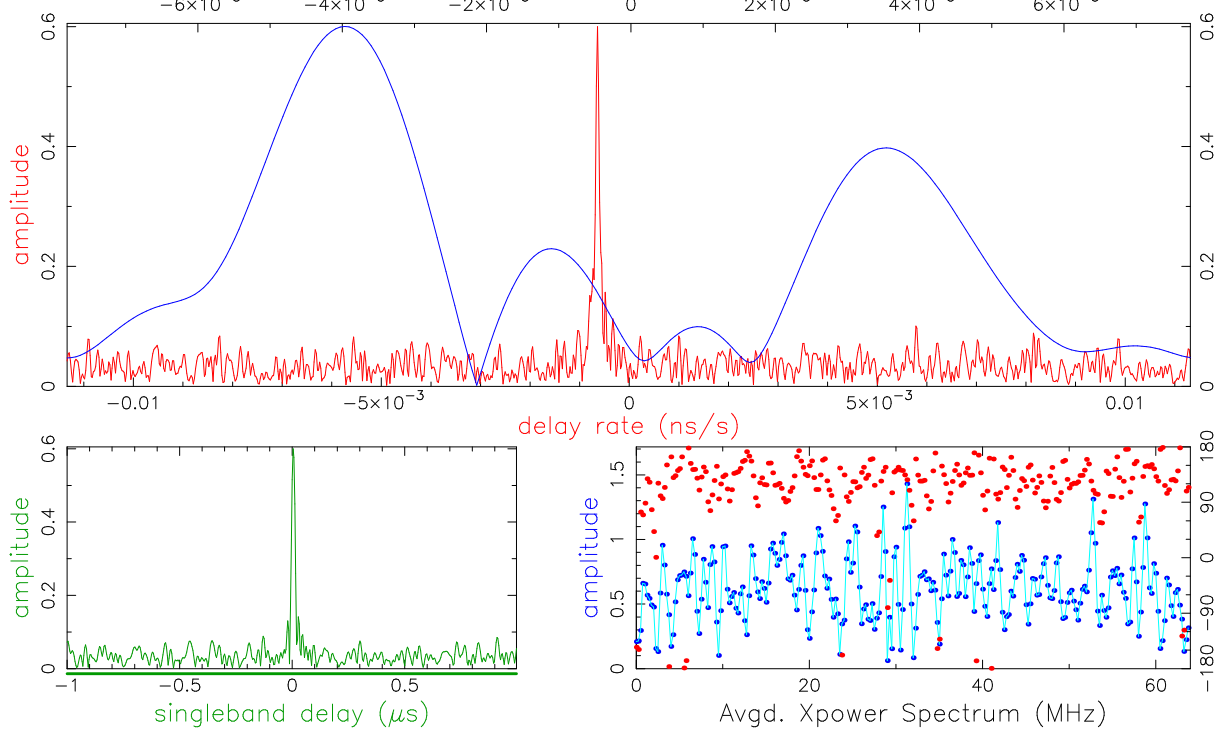
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/oY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/oY.W.404.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xo

ONSALA60 - VLBA_OV, fgroup W, pol LL

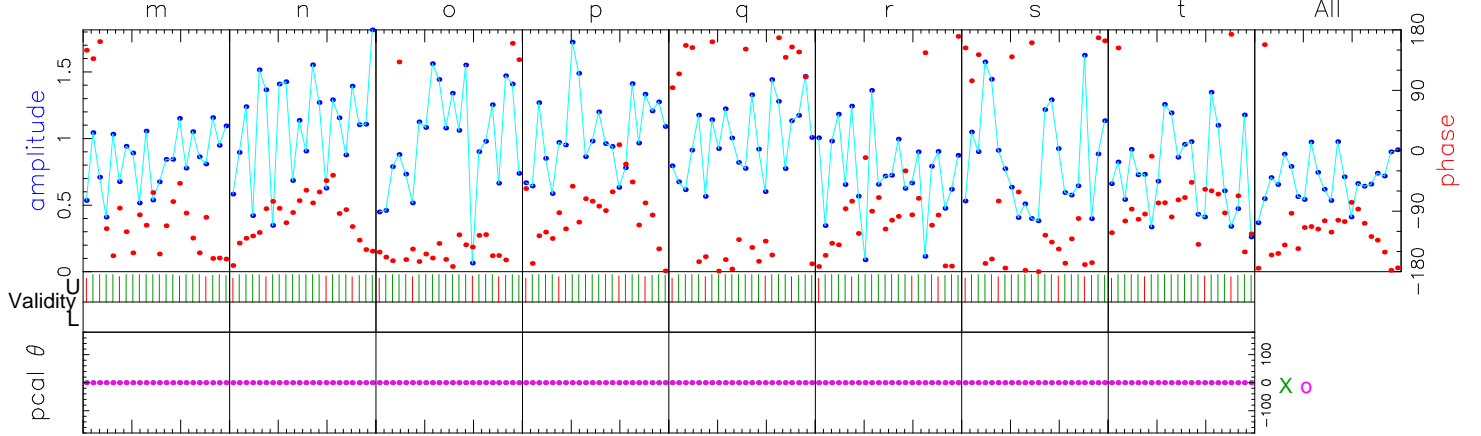


Fringe quality 8

SNR 22.0
 Int time 176.913
 Amp 0.605
 Phase -130.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.005020
 MBD -0.003931
 Fringe rate (Hz)
 -0.056063
 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
 2025:041:105107
 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
	-131.7	-100.6	-159.0	-91.8	173.3	-111.9	-166.7	-89.0	Phase	-130.0
	0.6	0.9	0.9	0.8	0.8	0.6	0.6	0.6	Ampl.	0.7
	258.6	258.3	258.3	259.1	258.9	258.9	259.1	259.6	Sbd box	258.3
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.08342545733E+04	Apriori delay (usec)	1.08342428795E+04	Resid mbdelay (usec)	-3.93122E-03	+/-	4.9E-05
Sband delay (usec)	1.08342478998E+04	Apriori clock (usec)	8.7828819E+01	Resid sbdelay (usec)	5.02025E-03	+/-	3.9E-04
Phase delay (usec)	1.08342428753E+04	Apriori clockrate (us/s)	7.3535102E-07	Resid phdelay (usec)	-4.19277E-06	+/-	1.7E-07
Delay rate (us/s)	-1.39546480806E+00	Apriori rate (us/s)	-1.39546415722E+00	Resid rate (us/s)	-6.50840E-07	+/-	1.6E-09
Total phase (deg)	101.1	Apriori accel (us/s/s)	-4.09180340280E-05	Resid phase (deg)	-130.0	+/-	5.2

ph/seg (deg)	32.0	Theor.	12.2	Amplitude	0.605 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	30.7	Search (1024X32)	0.581	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.3	Inc. seg. avg.	0.681	Inc. frq. avg.	0.729	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.3	Inc. frq. avg.	0.729	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
X: az 247.2 el 58.1 pa 38.6		o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec)	10011.110 -833.019	ion window (TEC)	0.00 0.00	simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Xo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Xo.W.323.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

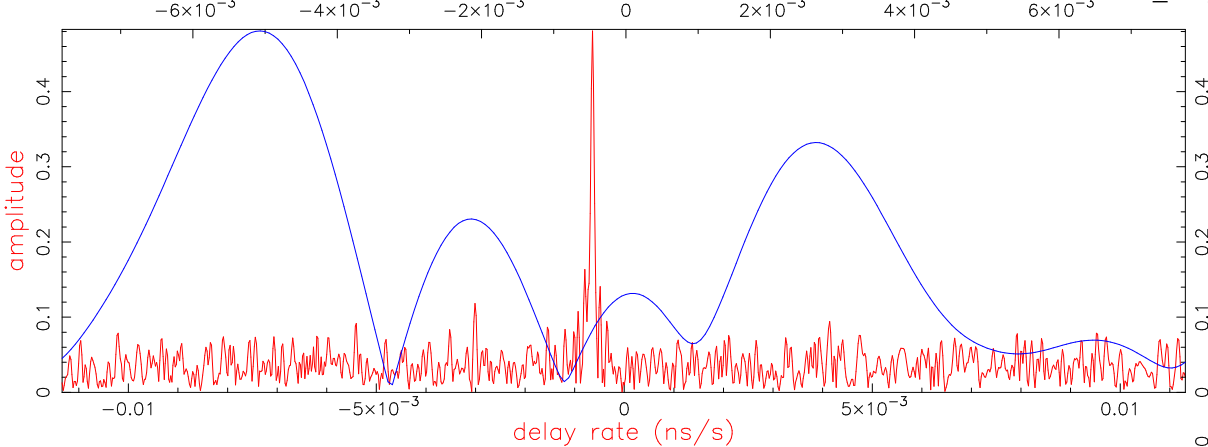
aux01

2013+370.3MP1N1, No0280, Xo

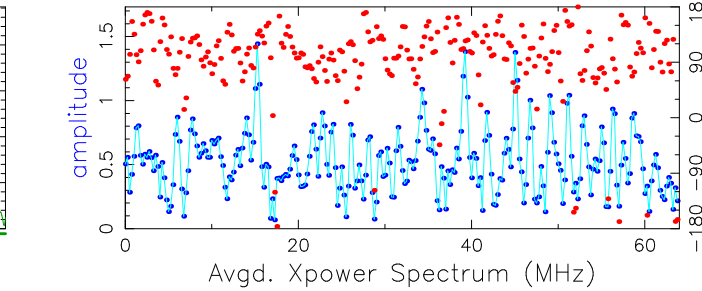
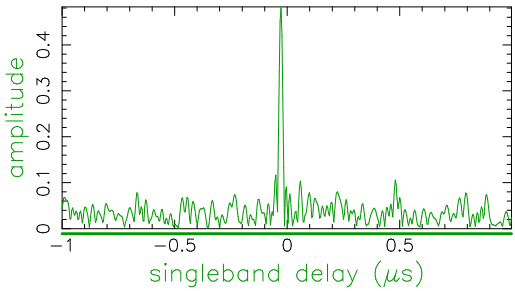
ONSALA60 - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

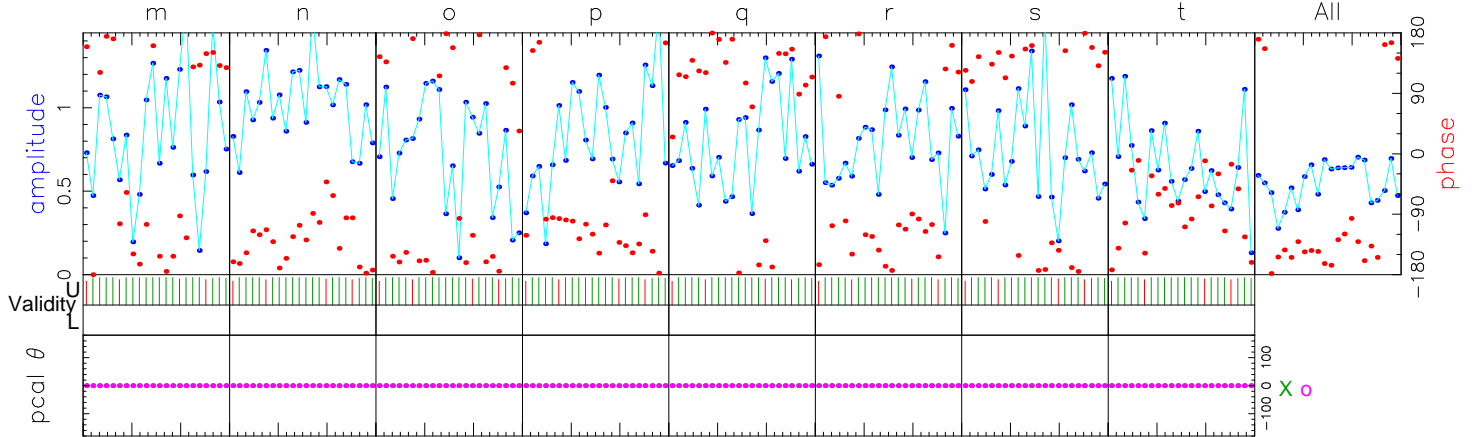


SNR 17.5
 Int time 176.913
 Amp 0.483
 Phase -156.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.028050
 MBD -0.005108
 Fringe rate (Hz)
 -0.055903
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105110
 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
	-175.2	-123.6	179.6	-128.7	146.0	-144.0	164.7	-79.3	Phase	-156.0
	0.6	0.8	0.6	0.7	0.6	0.6	0.6	0.5	Ampl.	0.6
	249.7	250.1	250.3	250.3	250.6	250.3	250.3	251.4	Sbd box	249.8
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.08342221468E+04 Apriori delay (usec) 1.08342428795E+04 Resid mbdelay (usec) -5.10775E-03 +/- 6.2E-05
 Sband delay (usec) 1.08342148300E+04 Apriori clock (usec) 8.7828819E+01 Resid sbdelay (usec) -2.80495E-02 +/- 4.9E-04
 Phase delay (usec) 1.08342428745E+04 Apriori clockrate (us/s) 7.3535102E-07 Resid phdelay (usec) -5.02979E-06 +/- 2.1E-07
 Delay rate (us/s) -1.39546480620E+00 Apriori rate (us/s) -1.39546415722E+00 Resid rate (us/s) -6.48978E-07 +/- 2.0E-09
 Total phase (deg) 75.1 Apriori accel (us/s/s) -4.09180340280E-05 Resid phase (deg) -156.0 +/- 6.5

RMS Theor. Amplitude 0.483 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 29.3 15.3 Search (1024X32) 0.467 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 28.3 26.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 47.8 9.2 Inc. seg. avg. 0.532 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 34.7 16.1 Inc. frq. avg. 0.608 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

X: az 247.2 el 58.1 pa 38.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10011.110 -833.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Xo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Xo.W.332.3MP1N1

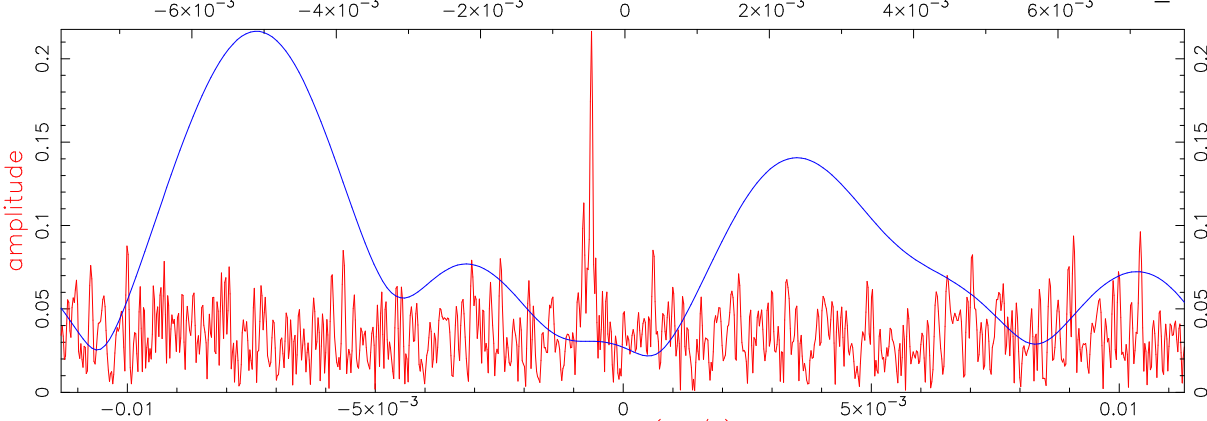
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xo

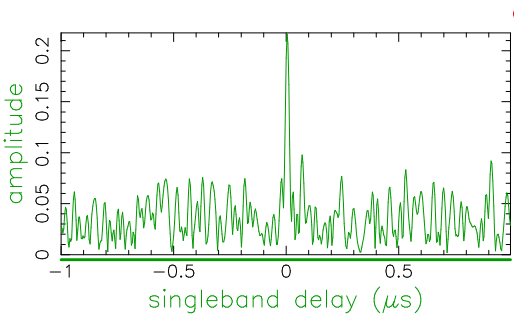
ONSALA60 - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

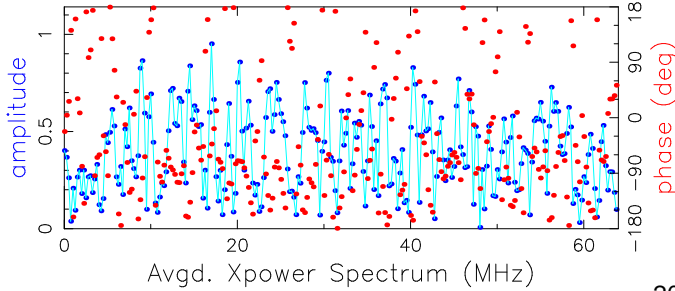


Fringe quality 9

SNR 7.9
 Int time 176.913
 Amp 0.218
 Phase 18.5
 PFD 4.6e-07
 Delays (us)
 SBD 0.004757
 MBD -0.005087
 Fringe rate (Hz)
 -0.055450
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

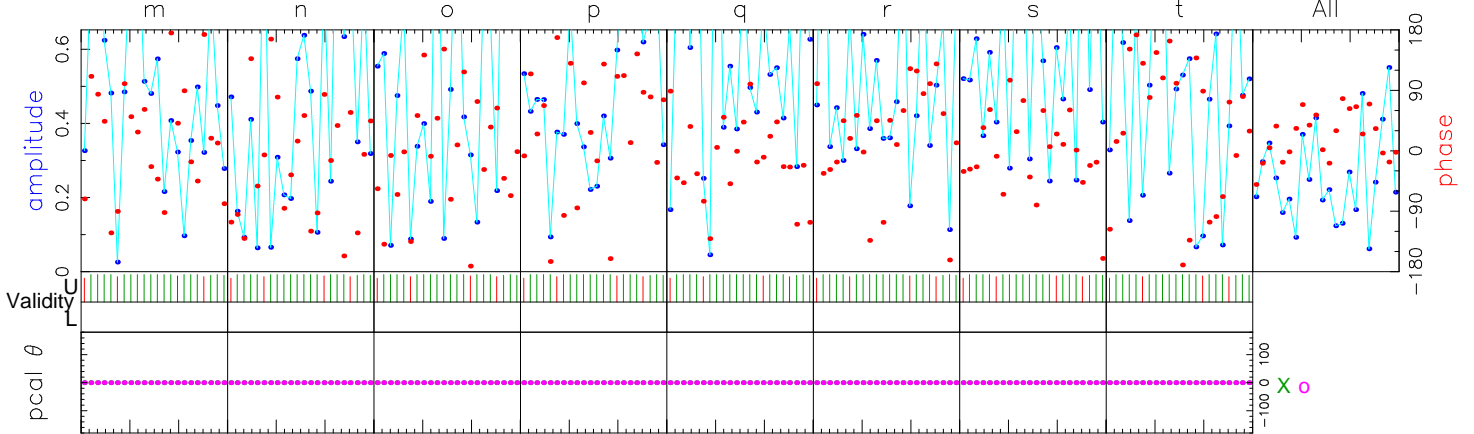


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105112
 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
	35.6	21.7	-10.3	86.7	-12.2	35.4	-1.7	105.1	Phase	18.5
	0.2	0.2	0.3	0.2	0.5	0.3	0.4	0.1	Ampl.	0.3
	259.0	252.7	258.8	311.5	258.0	259.0	258.3	448.2	Sbd box	258.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.08342534176E+04	Apriori delay (usec)	1.08342428795E+04	Resid mbdelay (usec)	-5.08691E-03	+/-	1.4E-04
Sband delay (usec)	1.08342476368E+04	Apriori clock (usec)	8.7828819E+01	Resid sbdelay (usec)	4.75725E-03	+/-	1.1E-03
Phase delay (usec)	1.08342428801E+04	Apriori clockrate (us/s)	7.3535102E-07	Resid phdelay (usec)	5.95057E-07	+/-	4.7E-07
Delay rate (us/s)	-1.39546480094E+00	Apriori rate (us/s)	-1.39546415722E+00	Resid rate (us/s)	-6.43719E-07	+/-	4.5E-09
Total phase (deg)	249.5	Apriori accel (us/s/s)	-4.09180340280E-05	Resid phase (deg)	18.5	+/-	14.5

ph/seg (deg)	RMS 34.9	Theor. 33.9	Amplitude Search (1024X32)	0.218 +/- 0.028	0.213	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.4	59.1	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	49.9	20.5	Inc. seg. avg.	0.219	0.219	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	52.3	35.8	Inc. frq. avg.	0.251	0.251	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 247.2 el 58.1 pa 38.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10011.110 -833.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Xo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Xo.W.343.3MP1N1

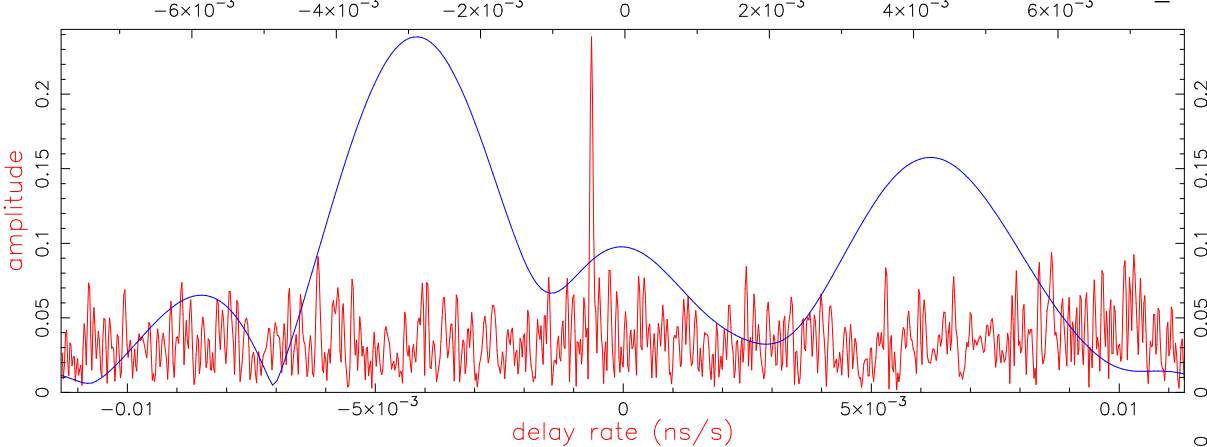
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Xo

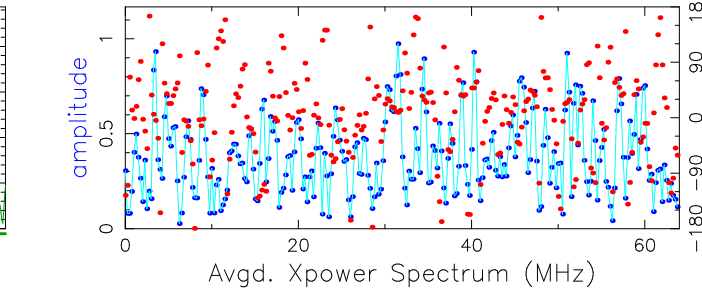
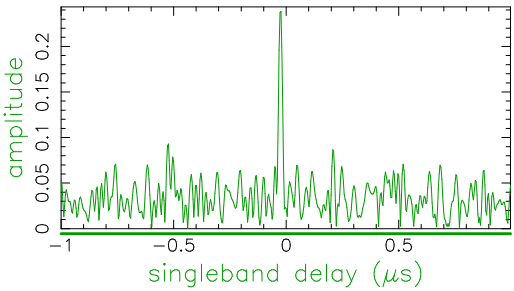
ONSALA60 - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



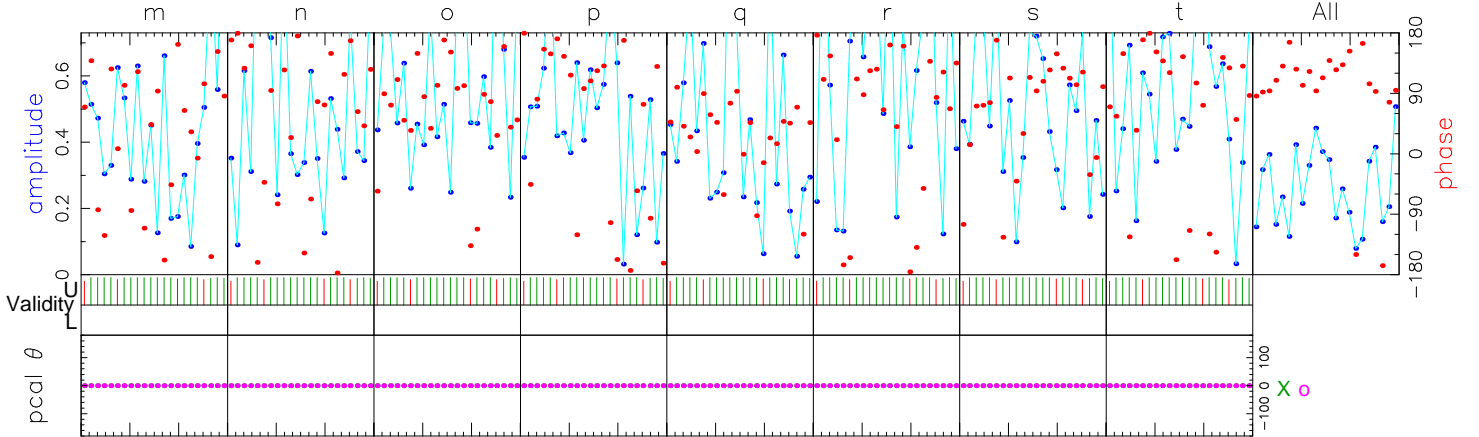
Fringe quality 9

SNR 8.8
 Int time 176.913
 Amp 0.243
 Phase 113.6
 PFD 1.8e-10
 Delays (us)
 SBD -0.025302
 MBD -0.002928
 Fringe rate (Hz)
 -0.055676
 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
 2025:041:105114
 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	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
X	0	0	0	0	0	0	0	0		
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.08342243264E+04	Apriori delay (usec)	1.08342428795E+04	Resid mbdelay (usec)	-2.92816E-03	+/-	1.2E-04
Sband delay (usec)	1.08342175770E+04	Apriori clock (usec)	8.7828819E+01	Resid sbdelay (usec)	-2.53025E-02	+/-	9.7E-04
Phase delay (usec)	1.08342428832E+04	Apriori clockrate (us/s)	7.3535102E-07	Resid phdelay (usec)	3.66212E-06	+/-	4.2E-07
Delay rate (us/s)	-1.39546480357E+00	Apriori rate (us/s)	-1.39546415722E+00	Resid rate (us/s)	-6.46345E-07	+/-	4.1E-09
Total phase (deg)	344.6	Apriori accel (us/s/s)	-4.09180340280E-05	Resid phase (deg)	113.6	+/-	13.0

ph/seg (deg)	36.0	Theor.	30.3	Amplitude	0.243 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	49.1		52.8	Search (1024X32)	0.234	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.9		18.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	38.5		32.0	Inc. seg. avg.	0.234	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.278	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

X: az 247.2 el 58.1 pa 38.6 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10011.110 -833.019 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Xo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Xo.W.355.3MP1N1

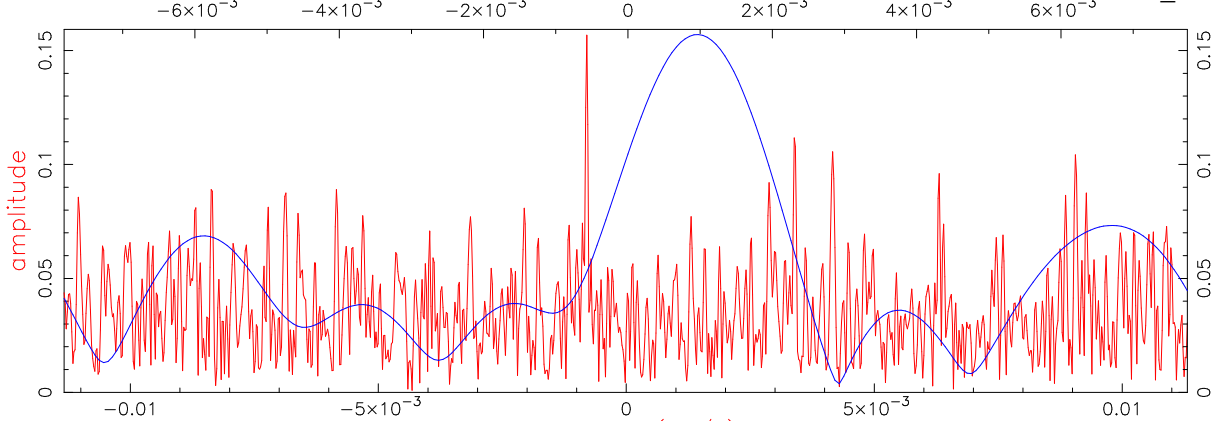
Mk4/DiFX fourfit 3.25 rev 0

aux01

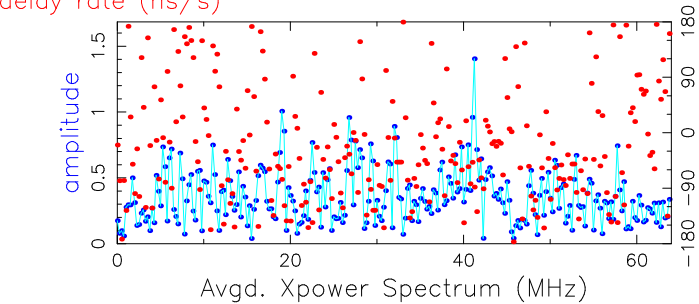
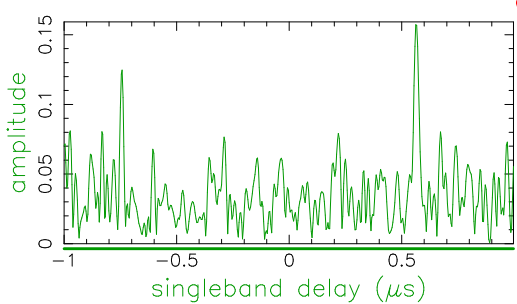
2013+370.3MP1N1, No0280, Zo

MEṬSAHOV - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

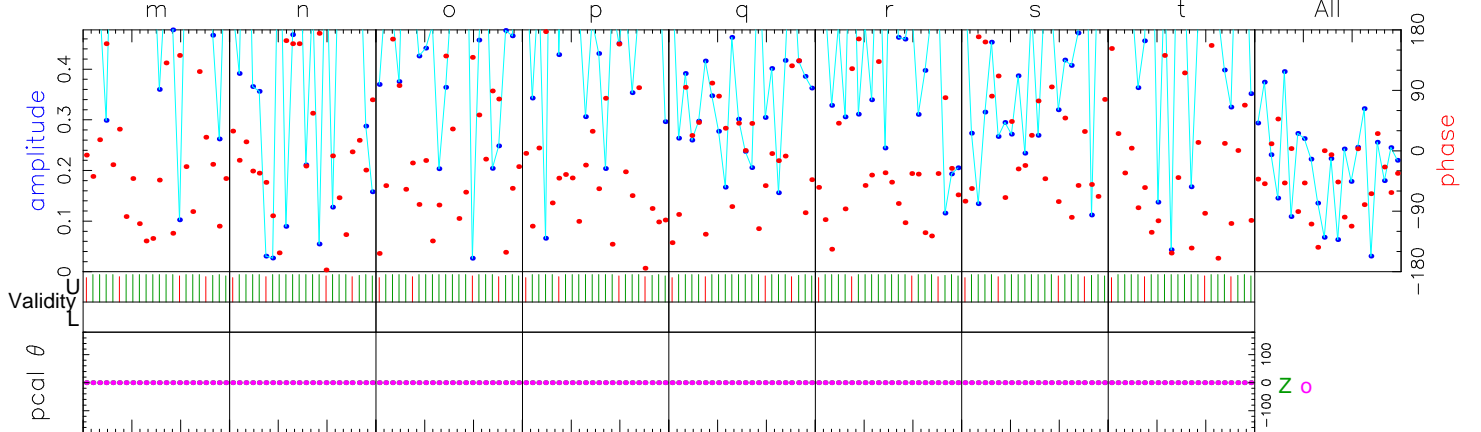


Fringe quality 0
 SNR 5.8
 Int time 176.875
 Amp 0.159
 Phase -46.5
 PFD 6.1e-01
 Delays (us)
 SBD 0.564328
 MBD 0.000893
 Fringe rate (Hz) -0.068476
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105047
 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
	-47.5	-23.1	-51.2	-62.0	-22.5	-70.1	-0.9	-43.7	Phase	-46.5
	0.3	0.1	0.2	0.3	0.1	0.2	0.2	0.1	Ampl.	0.1
	402.5	279.6	184.7	401.4	138.5	390.2	399.5	309.7	Sbd box	401.5
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD) 9.20941874251E+03 Apriori delay (usec) 9.20885534961E+03 Resid mbdelay (usec) 8.92900E-04 +/- 1.9E-04
 Sband delay (usec) 9.20941967736E+03 Apriori clock (usec) -2.4841049E+01 Resid sbdelay (usec) 5.64328E-01 +/- 1.5E-03
 Phase delay (usec) 9.20885534811E+03 Apriori clockrate (us/s) 1.2858790E-07 Resid phdelay (usec) -1.49866E-06 +/- 6.4E-07
 Delay rate (us/s) -1.45887480752E+00 Apriori rate (us/s) -1.45887401259E+00 Resid rate (us/s) -7.94934E-07 +/- 6.2E-09
 Total phase (deg) 247.2 Apriori accel (us/s/s) -3.11261628187E-05 Resid phase (deg) -46.5 +/- 19.8

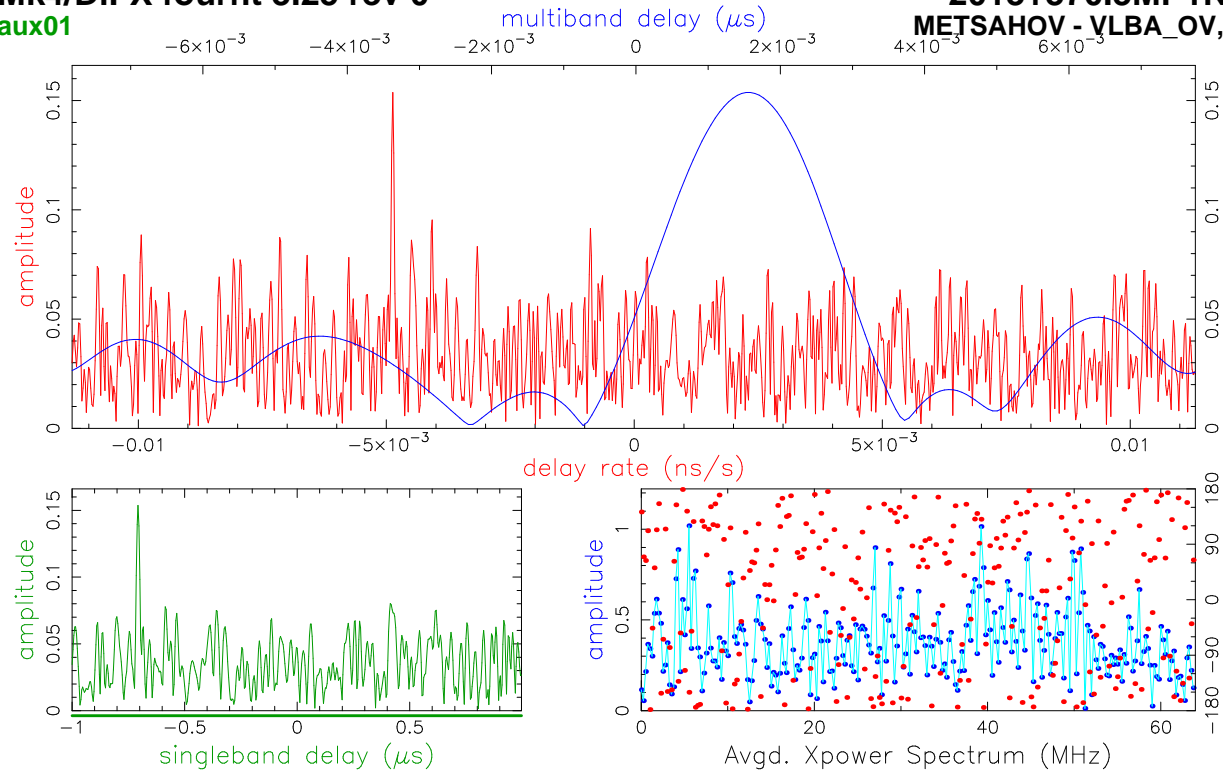
ph/seg (deg) 48.0 46.3 Amplitude 0.159 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.2 80.8 Search (1024X32) 0.156 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.9 28.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.2 48.9 Inc. seg. avg. 0.162 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
 Z: az 257.0 el 51.1 pa 37.4 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10475.468 -70.664 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zo.W.242.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

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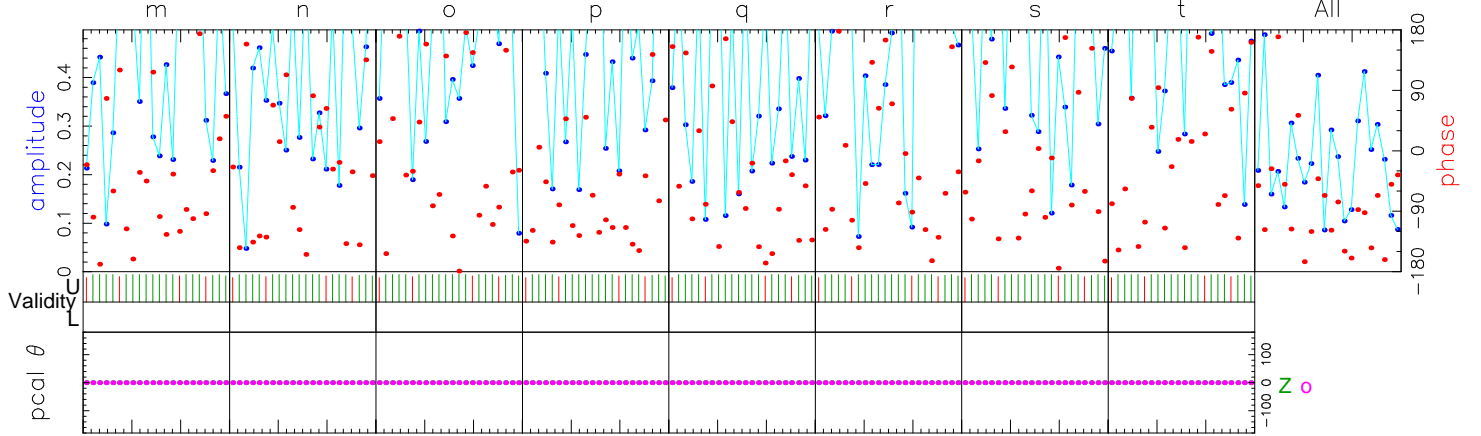
2013+370.3MP1N1, No0280, Zo

METSAHOV - VLBA_OV, fgroup W, pol RR



Fringe quality 0
 SNR 5.6
 Int time 176.875
 Amp 0.166
 Phase -98.2
 PFD 9.3e-01
 Delays (us)
 SBD -0.707098
 MBD 0.001557
 Fringe rate (Hz)
 -0.420043
 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
 2025:041:105050
 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
	-101.1	-84.4	-110.1	-95.0	-99.2	-87.0	-125.6	-75.2	Phase	-98.2
	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.1	Ampl.	0.2
	163.9	135.4	409.4	74.7	221.5	365.6	308.6	477.1	Sbd box	76.0
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 9.20815378141E+03 Apriori delay (usec) 9.20885534961E+03 Resid mbdelay (usec) 1.55680E-03 +/- 1.9E-04
 Sband delay (usec) 9.20814825186E+03 Apriori clock (usec) -2.4841049E+01 Resid sbdelay (usec) -7.07098E-01 +/- 1.5E-03
 Phase delay (usec) 9.20885534645E+03 Apriori clockrate (us/s) 1.2858790E-07 Resid phdelay (usec) -3.16723E-06 +/- 6.6E-07
 Delay rate (us/s) -1.45887888887E+00 Apriori rate (us/s) -1.45887401259E+00 Resid rate (us/s) -4.87628E-06 +/- 6.4E-09
 Total phase (deg) 195.4 Apriori accel (us/s/s) -3.11261628187E-05 Resid phase (deg) -98.2 +/- 20.5

RMS Theor. Amplitude 0.166 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 57.2 47.9 Search (1024X32) 0.151 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 86.4 83.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 17.1 29.0 Inc. seg. avg. 0.186 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 37.4 50.6 Inc. frq. avg. 0.152 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

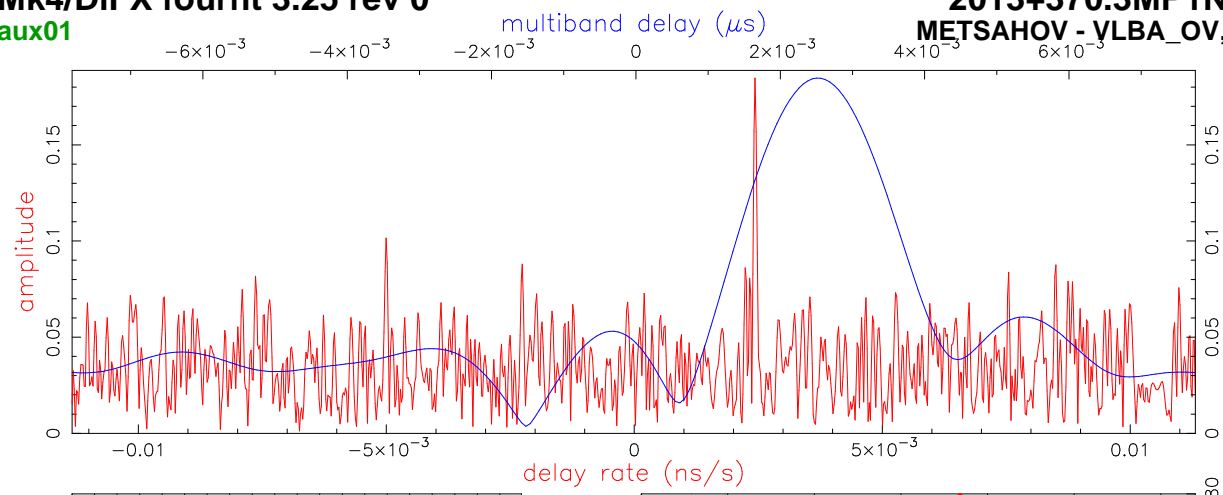
Z: az 257.0 el 51.1 pa 37.4 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10475.468 -70.664 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zo.W.254.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

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2013+370.3MP1N1, No0280, Zo

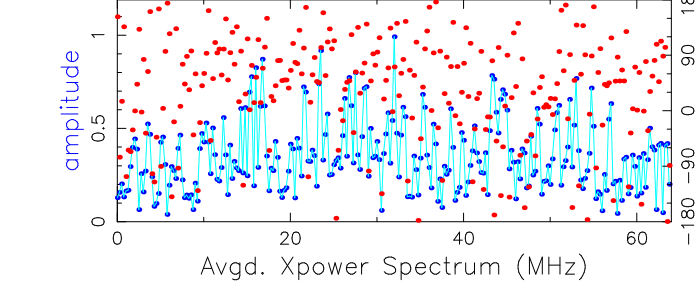
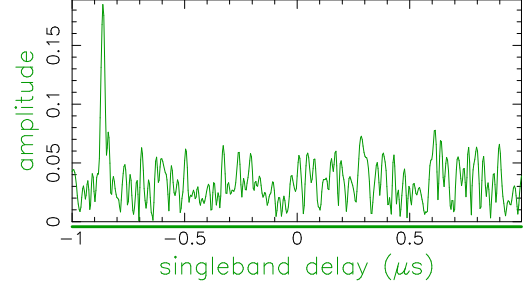
METSAHOV - VLBA_OV, fgroup W, pol LR



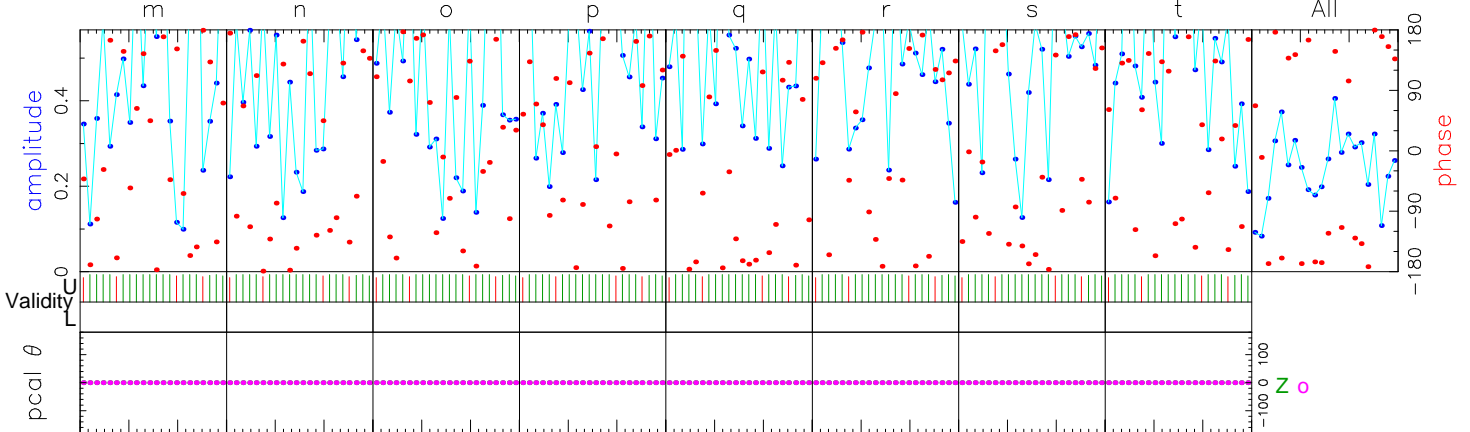
Fringe quality 0

SNR 6.7
 Int time 176.875
 Amp 0.189
 Phase 179.6
 PFD 2.4e-03
 Delays (us)
 SBD -0.862645
 MBD 0.002528
 Fringe rate (Hz) 0.210745
 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
 2025:041:105052
 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
	175.3	-163.9	165.0	155.4	-174.0	164.0	-153.5	167.2	Phase	179.6
	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	102.5	35.2	198.0	333.8	429.1	34.5	36.3	43.4	Sbd box	36.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.20799850291E+03	Apriori delay (usec)	9.20885534961E+03	Resid mbdelay (usec)	2.52829E-03	+/-	1.6E-04
Sband delay (usec)	9.20799270486E+03	Apriori clock (usec)	-2.4841049E+01	Resid sbdelay (usec)	-8.62645E-01	+/-	1.3E-03
Phase delay (usec)	9.20885535540E+03	Apriori clockrate (us/s)	1.2858790E-07	Resid phdelay (usec)	5.79124E-06	+/-	5.5E-07
Delay rate (us/s)	-1.45887156605E+00	Apriori rate (us/s)	-1.45887401259E+00	Resid rate (us/s)	2.44654E-06	+/-	5.3E-09
Total phase (deg)	113.2	Apriori accel (us/s/s)	-3.11261628187E-05	Resid phase (deg)	179.6	+/-	17.0

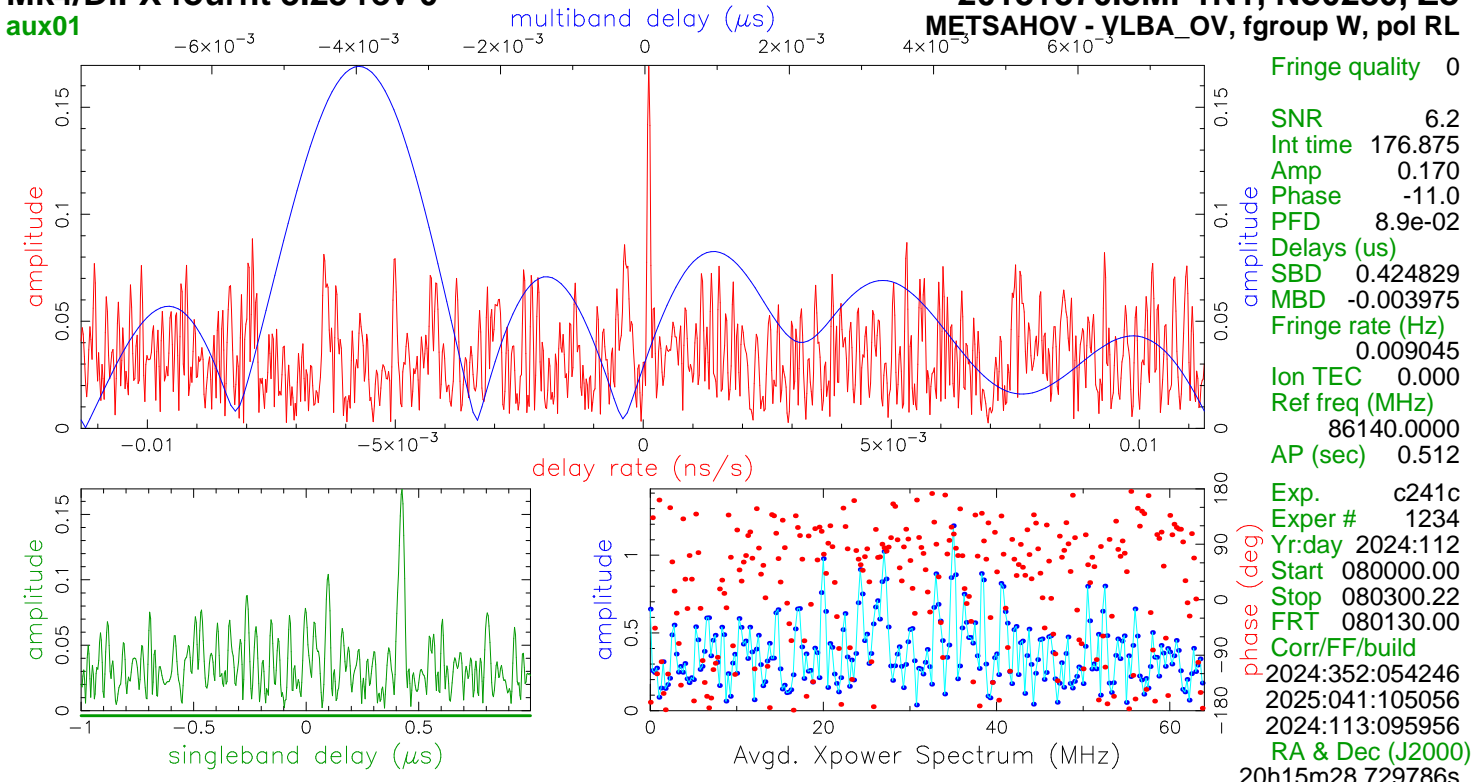
ph/seg (deg) 55.1 39.7 Search (1024X32) 0.175 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.5 69.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.4 24.1 Inc. seg. avg. 0.201 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.7 42.0 Inc. frq. avg. 0.181 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 257.0 el 51.1 pa 37.4 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 10475.468 -70.664 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/Zo..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zo.W.264.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

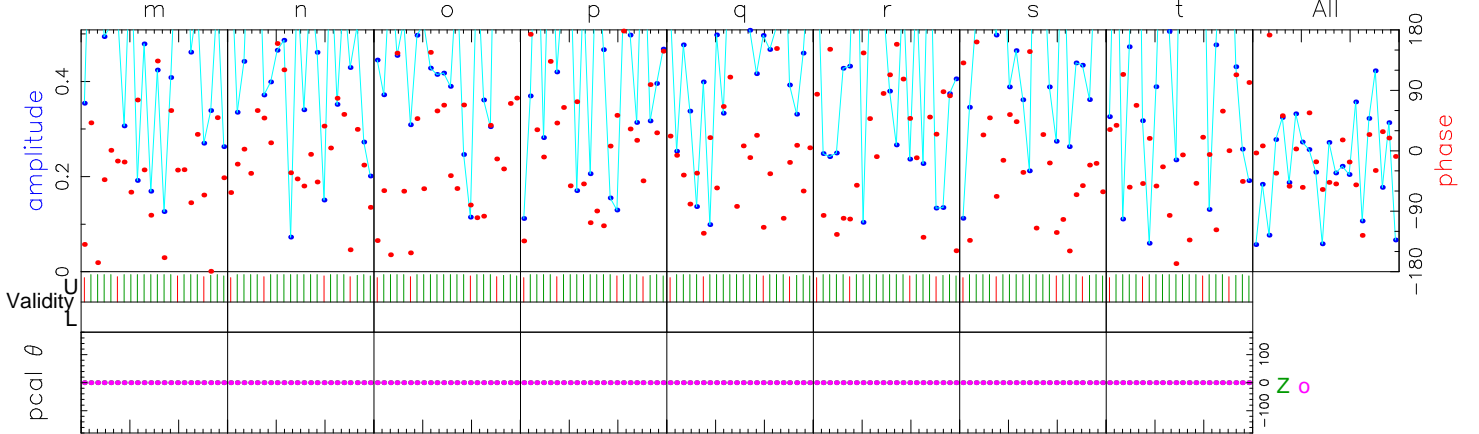
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2013+370.3MP1N1, No0280, Zo

METSAHOV - VLBA_OV, fgroup W, pol RL



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
	-19.9	2.0	-23.0	6.9	-29.7	52.0	-39.5	1.4		-11.0
	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3		0.2
	258.7	365.4	120.1	241.8	142.7	272.9	352.0	85.0	Sbd box	365.8
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.20927324983E+03		Apriori delay (usec)		9.20885534961E+03		Resid mbdelay (usec)		-3.97478E-03	+/- 1.8E-04
Sband delay (usec)	9.20928017836E+03		Apriori clock (usec)		-2.4841049E+01		Resid sbdelay (usec)		4.24829E-01	+/- 1.4E-03
Phase delay (usec)	9.20885534926E+03		Apriori clockrate (us/s)		1.2858790E-07		Resid phdelay (usec)		-3.55936E-07	+/- 6.0E-07
Delay rate (us/s)	-1.45887390758E+00		Apriori rate (us/s)		-1.45887401259E+00		Resid rate (us/s)		1.05005E-07	+/- 5.8E-09
Total phase (deg)	282.6		Apriori accel (us/s/s)		-3.11261628187E-05		Resid phase (deg)		-11.0	+/- 18.6
RMS	56.4	43.4	Search (1024X32)	0.167	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
ph/seg (deg)	67.4	75.8	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled		mb window (us)	-0.008	0.008
amp/seg (%)	31.6	26.3	Inc. seg. avg.	0.174	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite		dr window (ns/s)	-0.011	0.011
ph/frq (deg)	37.9	45.9	Inc. frq. avg.	0.166	Data rate(Mb/s): 2048	ion window (TEC)		0.00	0.00	0.00
Z: az 257.0 el 51.1 pa 37.4	o: az 57.7 el 19.8 pa -57.9		u,v (fr/asec) 10475.468 -70.664		simultaneous interpolator					
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/Zo..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/Zo.W.280.3MP1N1							