

Mk4/DiFX fourfit 3.25 rev 0

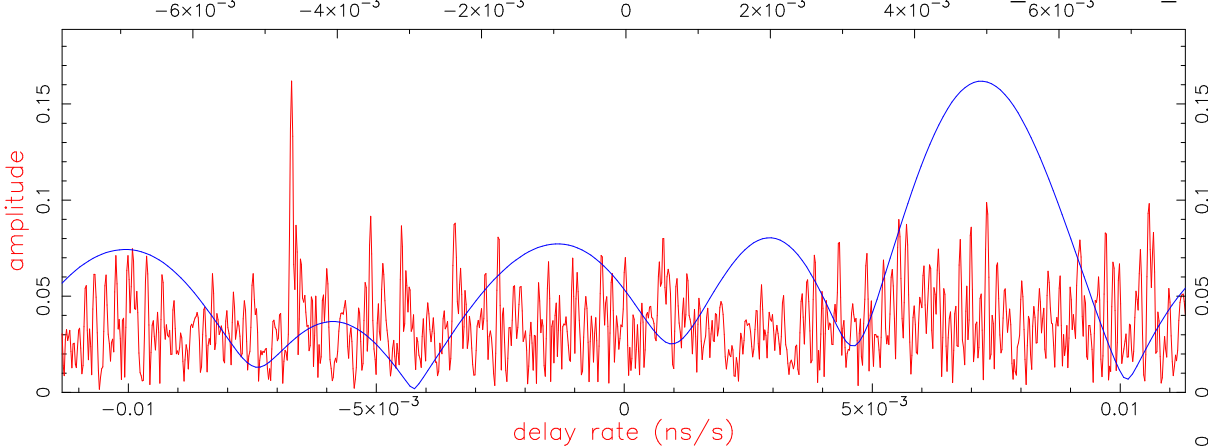
aux01

2013+370.3MP1N1, No0280, bn

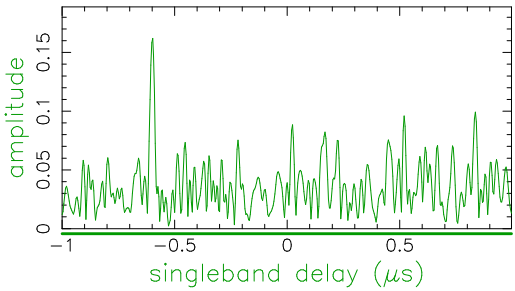
VLBA_BR - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

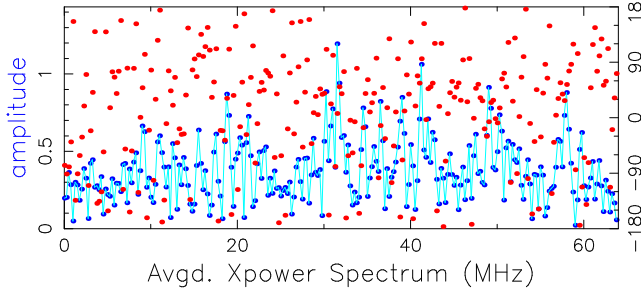
Fringe quality 0



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

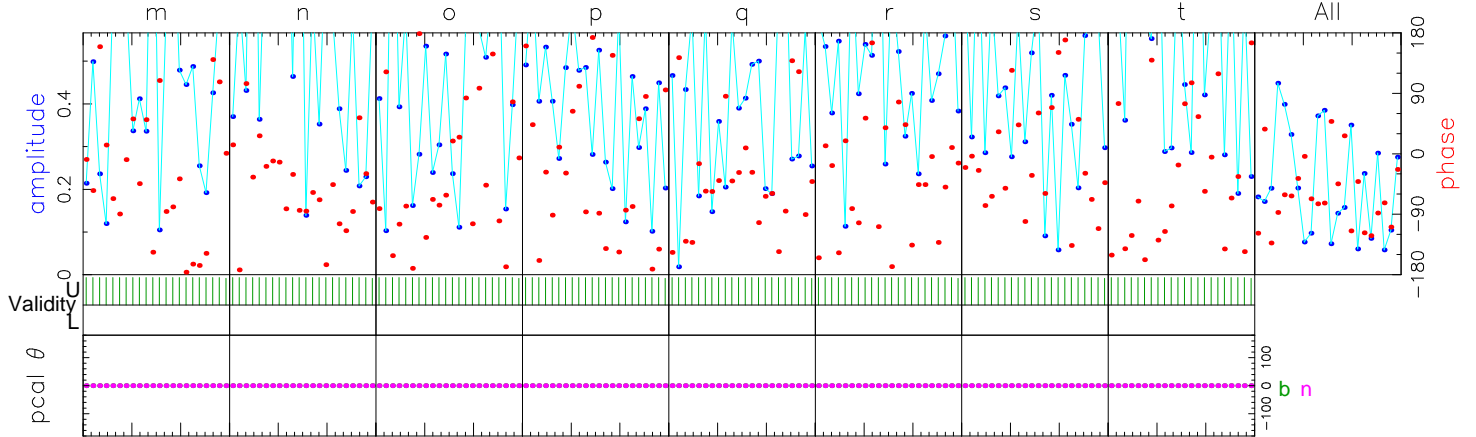


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:104946
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

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



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

Group delay (usec) (SBD)	-4.94497832628E+03	Apriori delay (usec)	-4.94437386162E+03	Resid mbdelay (usec)	4.91034E-03	+/-	1.8E-04
Sband delay (usec)	-4.94497263937E+03	Apriori clock (usec)	4.9170151E+00	Resid sbdelay (usec)	-5.98778E-01	+/-	1.4E-03
Phase delay (usec)	-4.94437386398E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-2.35404E-06	+/-	6.2E-07
Delay rate (us/s)	-1.45028690122E-02	Apriori rate (us/s)	-1.44961433407E-02	Resid rate (us/s)	-6.72567E-06	+/-	6.0E-09
Total phase (deg)	-231.5	Apriori accel (us/s/s)	3.16854114161E-05	Resid phase (deg)	-73.0	+/-	19.2

ph/seg (deg)	52.6	Theor.	45.0	Amplitude	0.189 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	81.0		78.6	Search (1024X32)	0.158	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	33.3		27.2	Inc. seg. avg.	0.189	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	56.8		47.4	Inc. frq. avg.	0.188	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
b: az 60.8 el 24.5 pa -47.2		n: az 72.1 el 40.3 pa -63.2		u, v (fr/asec)	130.687 2445.971	Data rate(Mb/s): 2048	t_cohere infinite			

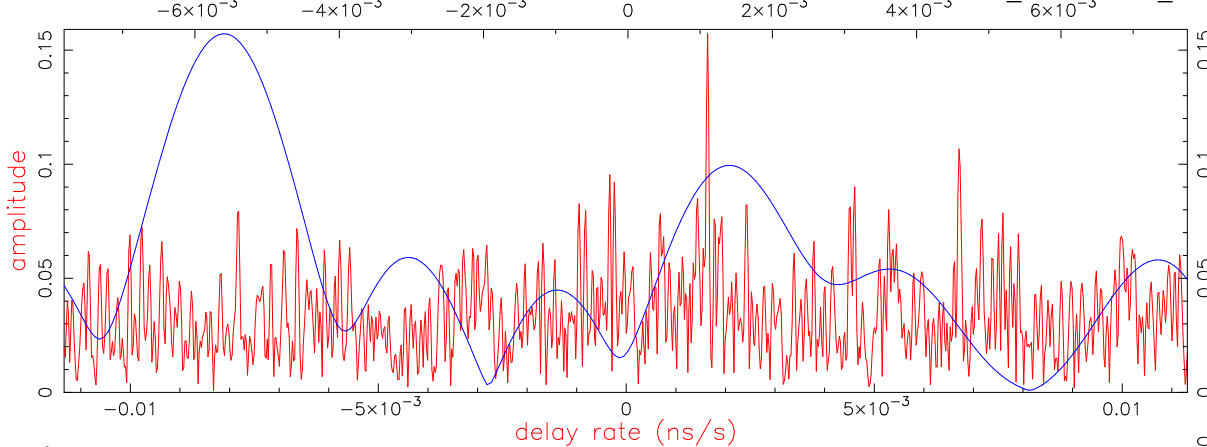
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.21.3MP1N1

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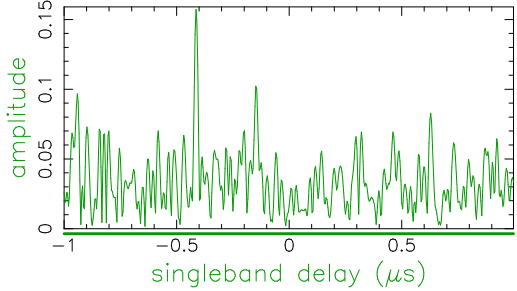
2013+370.3MP1N1, No0280, bn
VLBA_BR - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

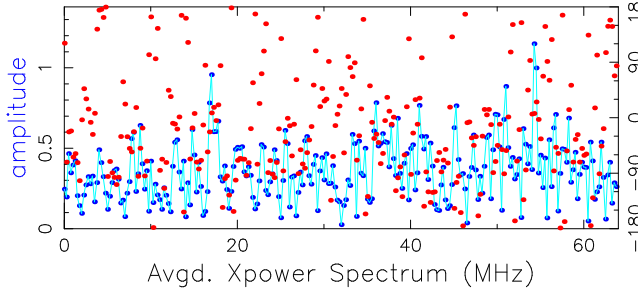


Fringe quality 0

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

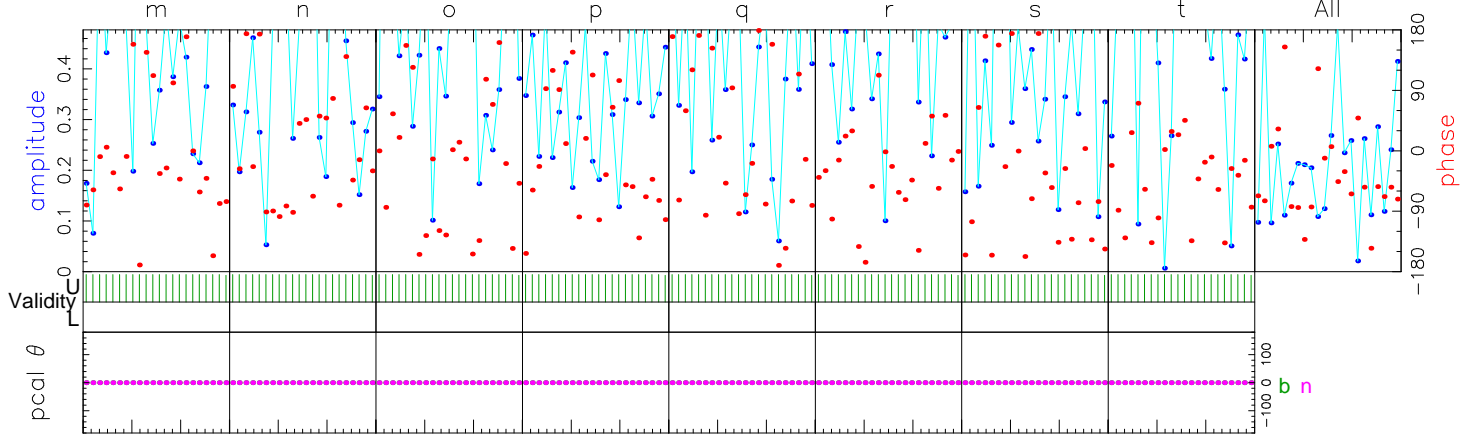


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:104948
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.7	-31.8	-78.1	-45.8	-102.8	-36.8	-106.3	-47.7	Phase	-57.7
	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.3	Ampl.	0.2
	432.0	493.0	380.8	207.2	101.5	150.5	389.8	152.5	Sbd box	151.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.94478568558E+03	Apriori delay (usec)	-4.94437386162E+03	Resid mbdelay (usec)	-5.57395E-03	+/-	1.9E-04
Sband delay (usec)	-4.94478712612E+03	Apriori clock (usec)	4.9170151E+00	Resid sbdelay (usec)	-4.13265E-01	+/-	1.5E-03
Phase delay (usec)	-4.94437386348E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-1.85920E-06	+/-	6.4E-07
Delay rate (us/s)	-1.44945060072E-02	Apriori rate (us/s)	-1.44961433407E-02	Resid rate (us/s)	1.63733E-06	+/-	6.1E-09
Total phase (deg)	-216.2	Apriori accel (us/s/s)	3.16854114161E-05	Resid phase (deg)	-57.7	+/-	19.8

ph/seg (deg)	67.7	Theor.	46.4	Amplitude	0.159 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	86.6	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	32.1	Inc. seg. avg.	0.166	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	50.8	Inc. frq. avg.	0.156	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
				nlags: 256 t_cohere infinite			

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

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.25.3MP1N1

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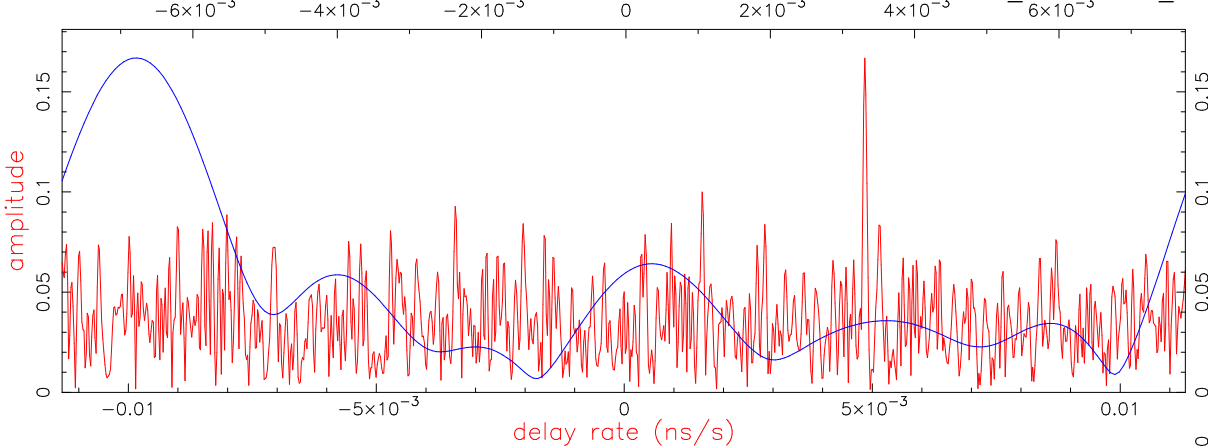
aux01

2013+370.3MP1N1, No0280, bn

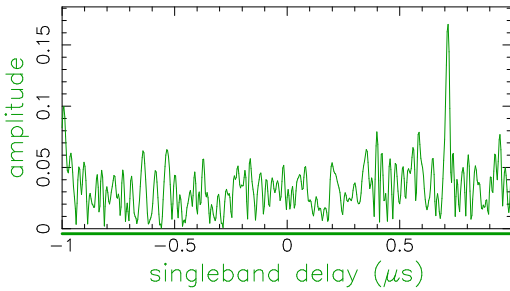
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

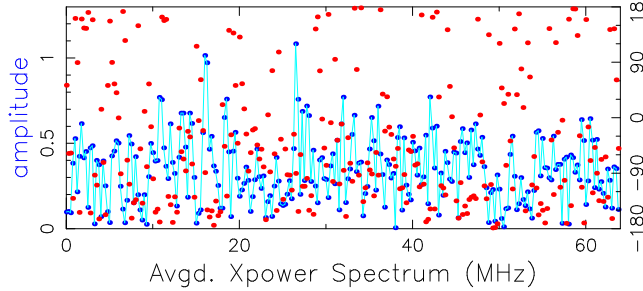
Fringe quality 0



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

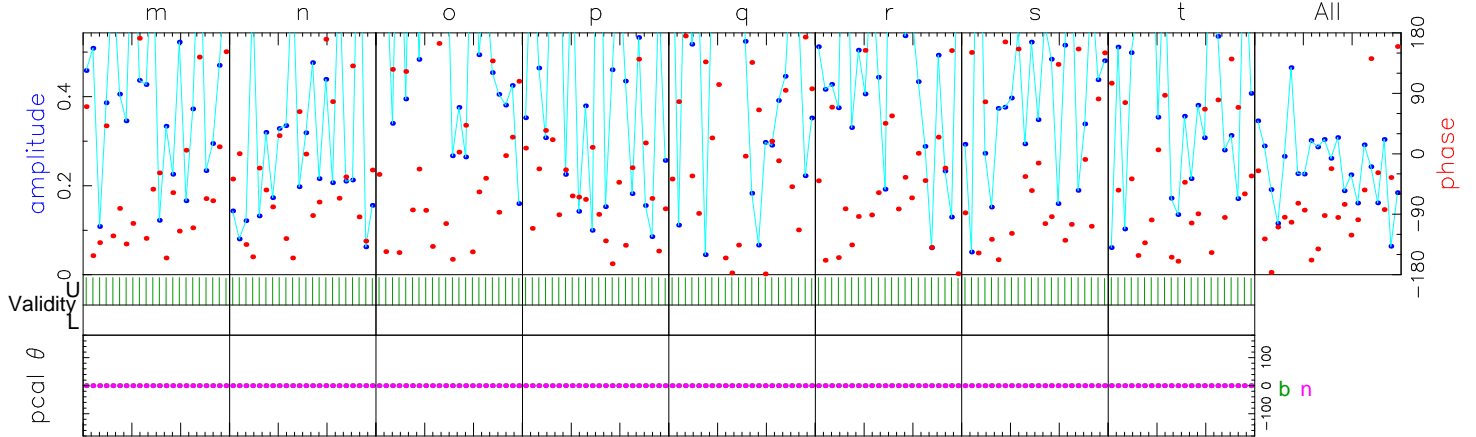


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:104950
2024:113:095956
RA & Dec (J2000)
20h15m28.729786s
+37°10'59.514736"

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



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

ph/seg (deg) 52.8 43.6 Search (1024X32) 0.165 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 68.2 76.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 22.5 26.3 Inc. seg. avg. 0.206 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 32.7 45.9 Inc. frq. avg. 0.174 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 60.8 el 24.5 pa -47.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 130.687 2445.971 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/bn.W.32.3MP1N1

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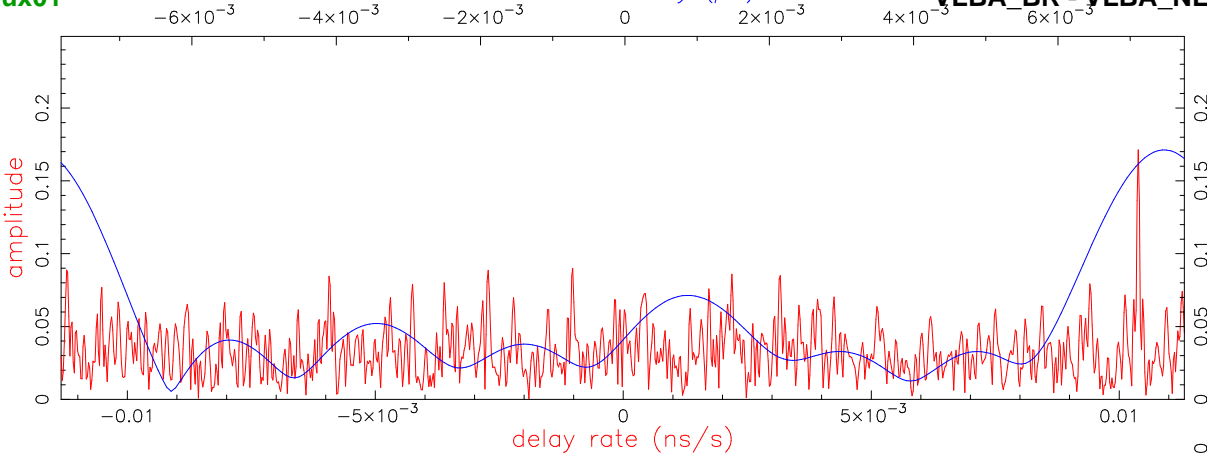
aux01

2013+370.3MP1N1, No0280, bn

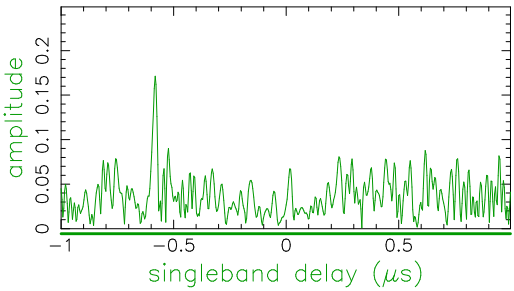
VLBA_BR - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

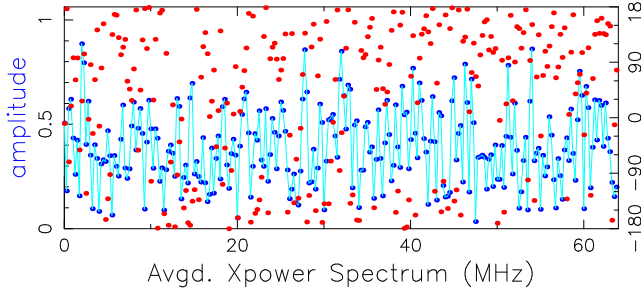
Fringe quality 0



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

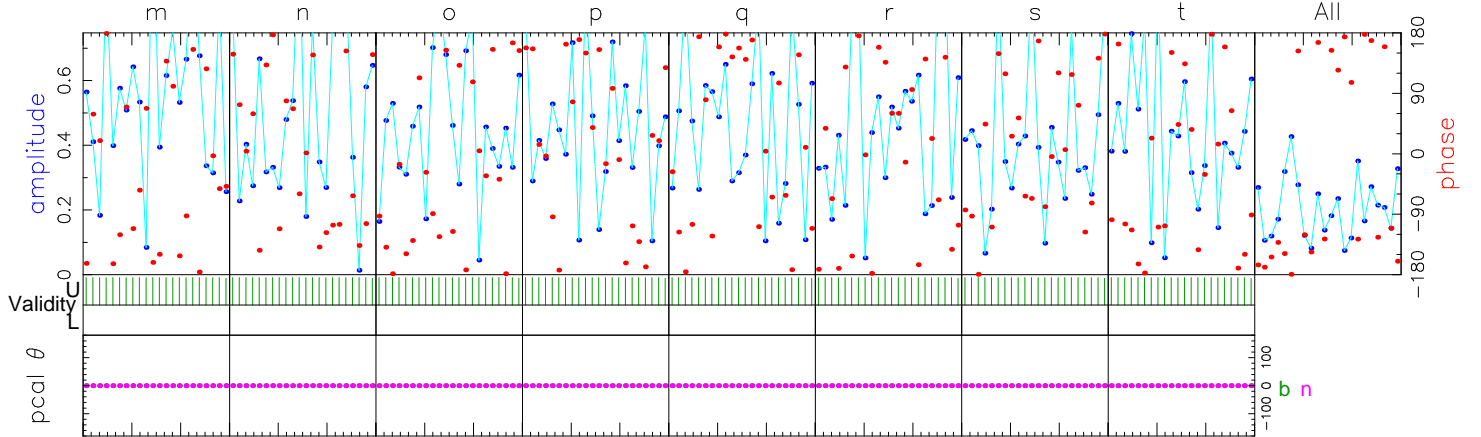


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:104953
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

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

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

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

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

Mk4/DiFX fourfit 3.25 rev 0

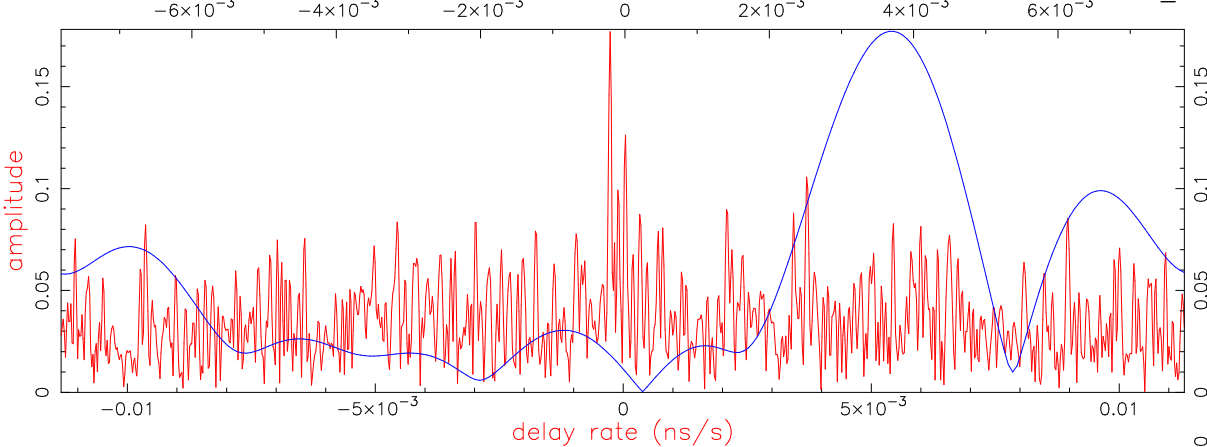
aux01

2013+370.3MP1N1, No0280, Bn

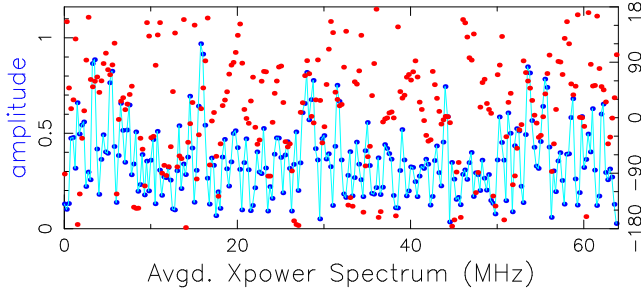
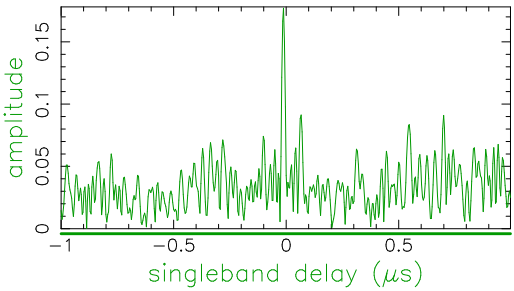
EFLSBERG - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

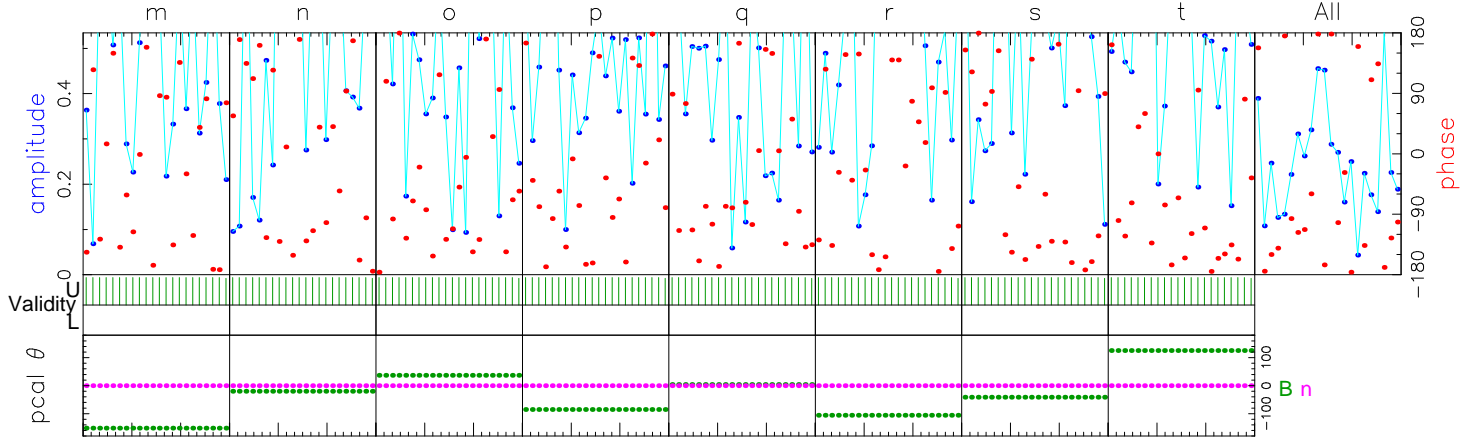
Fringe quality 0



SNR 6.5
 Int time 179.967
 Amp 0.178
 Phase -151.5
 PFD 9.0e-03
 Delays (us)
 SBD -0.012626
 MBD 0.003643
 Fringe rate (Hz) -0.023188
 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
	-178.7	-155.5	-141.6	-129.9	-124.9	148.0	-167.6	-131.0	Phase	-151.5
	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	Ampl.	0.2
	6.9	222.7	396.3	115.9	201.0	288.2	253.4	255.0	Sbd box	253.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 5.10279475817E+03 Apriori delay (usec) 5.10280674055E+03 Resid mbdelay (usec) 3.64262E-03 +/- 1.7E-04
 Sband delay (usec) 5.10279411480E+03 Apriori clock (usec) -3.5119179E+01 Resid sbdelay (usec) -1.26258E-02 +/- 1.3E-03
 Phase delay (usec) 5.10280673567E+03 Apriori clockrate (us/s) -4.8679897E-07 Resid phdelay (usec) -4.88479E-06 +/- 5.7E-07
 Delay rate (us/s) -1.26778867348E+00 Apriori rate (us/s) -1.26778840428E+00 Resid rate (us/s) -2.69194E-07 +/- 5.4E-09
 Total phase (deg) 75.7 Apriori accel (us/s/s) -2.00890261523E-05 Resid phase (deg) -151.5 +/- 17.5

RMS Theor. Amplitude 0.178 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 52.3 41.1 Search (1024X32) 0.173 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 79.1 71.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 32.6 24.8 Inc. seg. avg. 0.200 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 31.4 43.3 Inc. frq. avg. 0.178 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9106.729 -511.808 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bn.W.65.3MP1N1

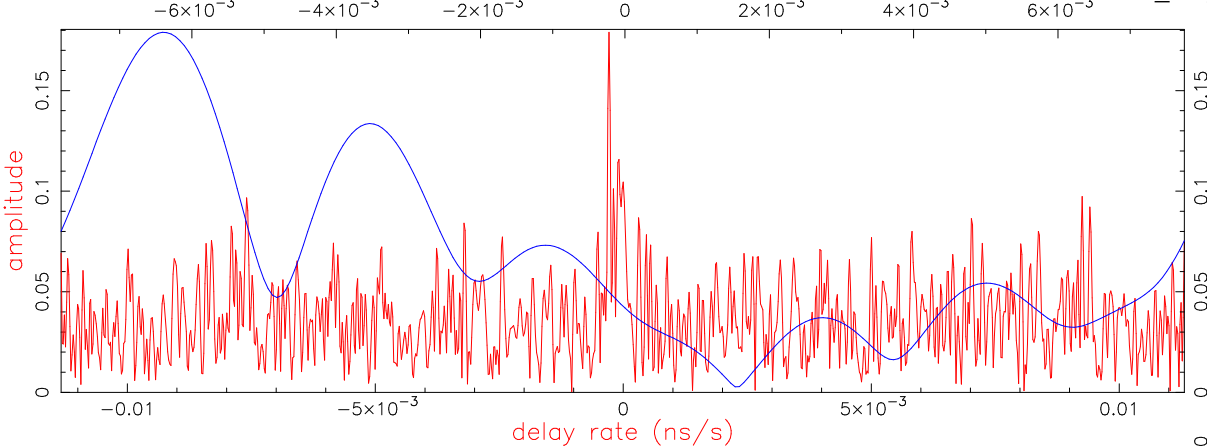
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bn

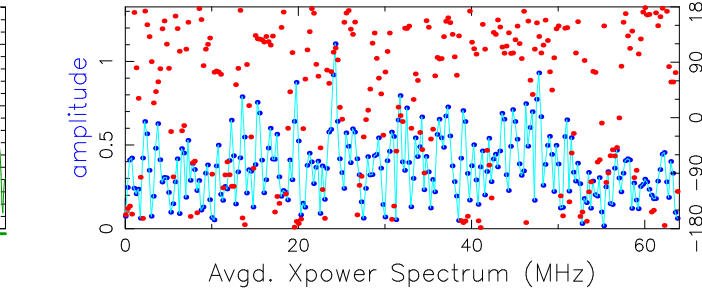
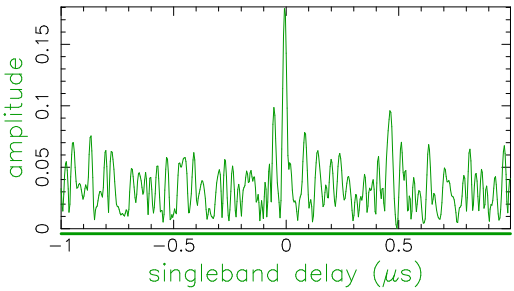
EFLSBERG - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)



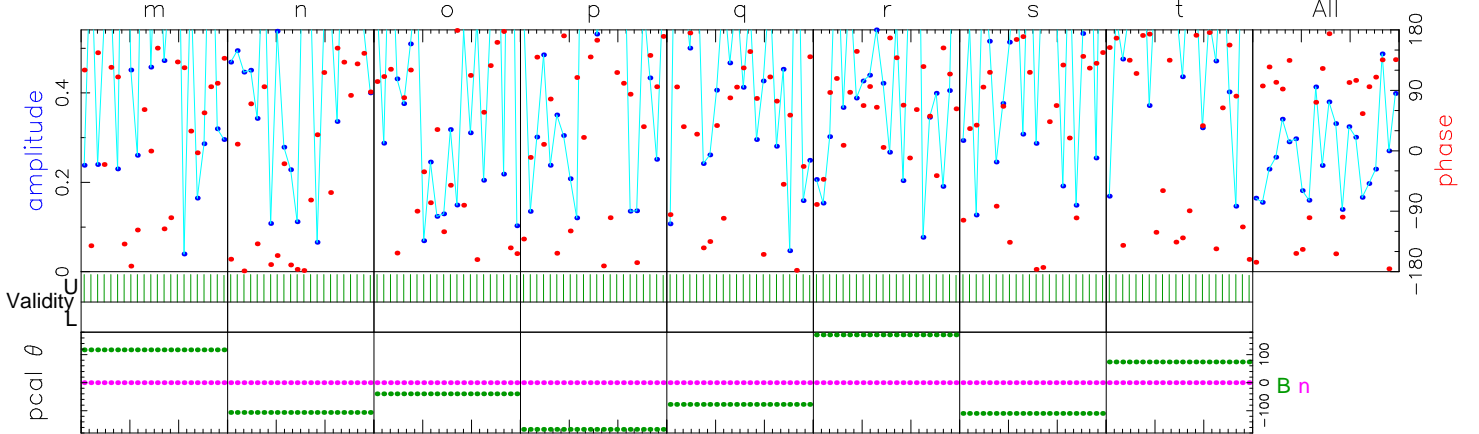
Fringe quality 0

SNR 6.6
 Int time 179.967
 Amp 0.180
 Phase 134.4
 PFD 5.2e-03
 Delays (us)
 SBD -0.006588
 MBD -0.006376
 Fringe rate (Hz)
 -0.024442
 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
U/L	137.0	144.8	171.4	134.9	112.5	70.7	121.6	-174.3	Phase	134.4
B	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	Ampl.	0.2
n	134.7	95.9	6.8	374.3	411.0	256.3	254.4	254.8	Sbd box	255.3
B	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	5.10280036425E+03		Apriori delay (usec)	5.10280674055E+03	Resid mbdelay (usec)	-6.37630E-03	+/-	1.6E-04		
Sband delay (usec)	5.10280015305E+03		Apriori clock (usec)	-3.5119179E+01	Resid sbdelay (usec)	-6.58750E-03	+/-	1.3E-03		
Phase delay (usec)	5.10280674489E+03		Apriori clockrate (us/s)	-4.8679897E-07	Resid phdelay (usec)	4.33428E-06	+/-	5.6E-07		
Delay rate (us/s)	-1.26778868803E+00		Apriori rate (us/s)	-1.26778840428E+00	Resid rate (us/s)	-2.83745E-07	+/-	5.4E-09		
Total phase (deg)		1.6	Apriori accel (us/s/s)	-2.00890261523E-05	Resid phase (deg)	134.4	+/-	17.3		

ph/seg (deg) 58.5 40.6 Search (1024X32) 0.177 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.0 70.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 38.3 24.5 Inc. seg. avg. 0.216 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.8 42.7 Inc. frq. avg. 0.204 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 252.9 el 63.3 pa 49.7 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9106.729 -511.808 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bn.W.77.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

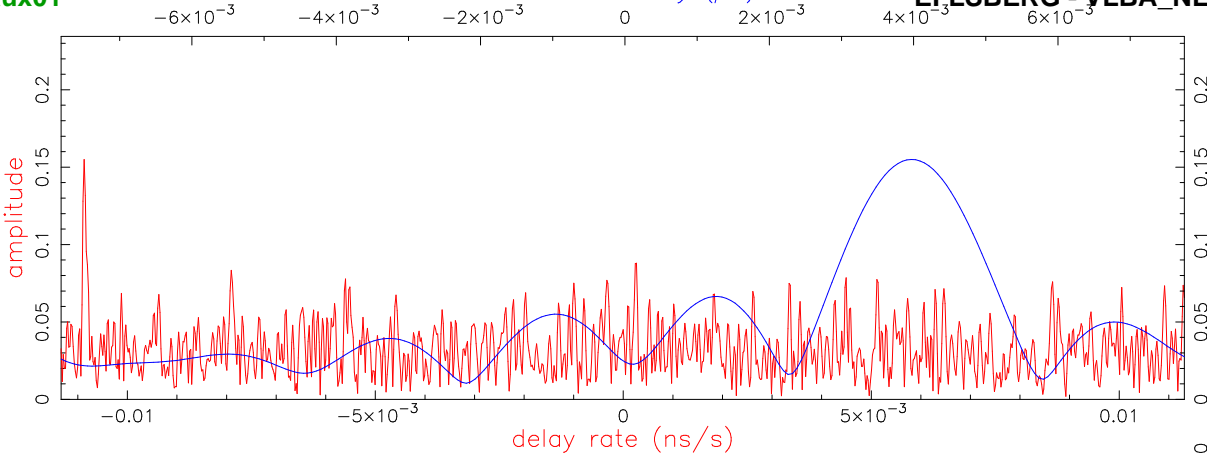
aux01

2013+370.3MP1N1, No0280, Bn

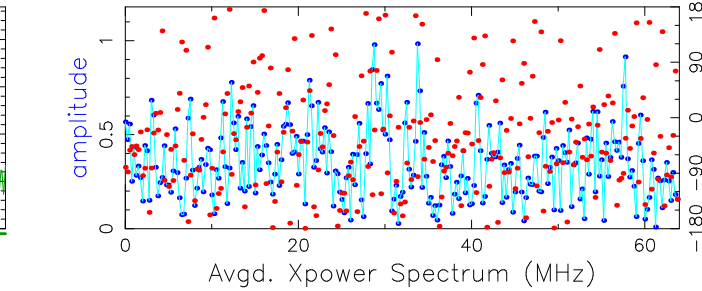
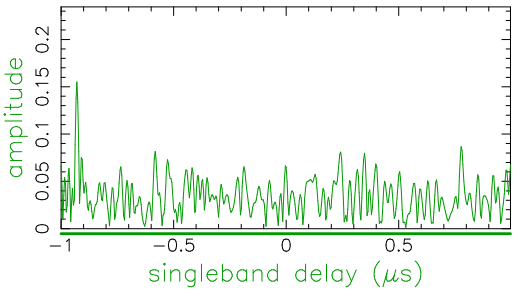
EFLSBERG - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

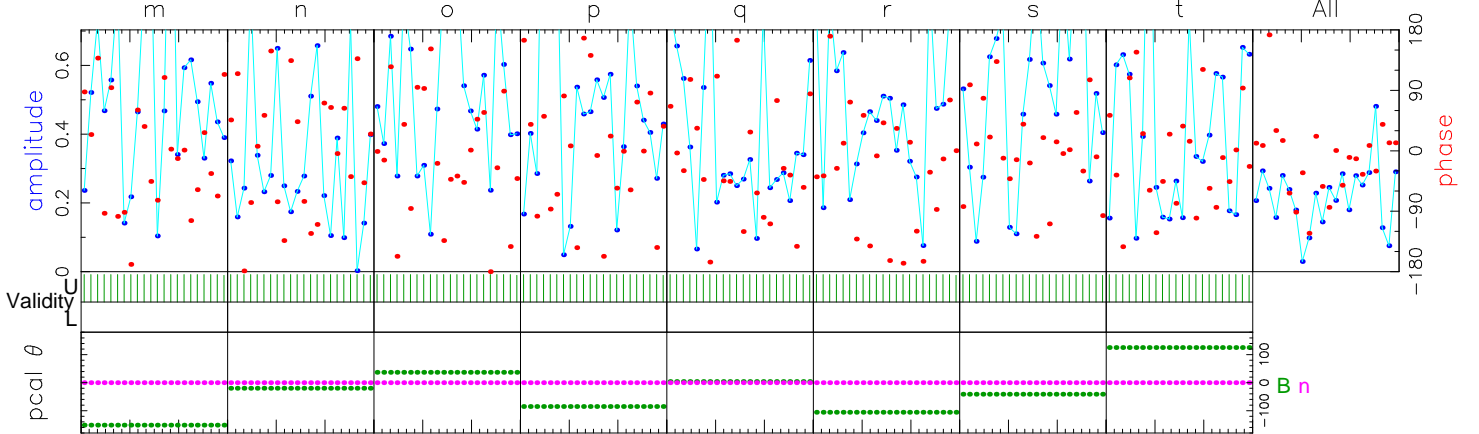


SNR 5.7
 Int time 179.967
 Amp 0.234
 Phase -17.2
 PFD 7.9e-01
 Delays (us)
 SBD -0.929889
 MBD 0.003959
 Fringe rate (Hz)
 -0.938475
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105004
 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
	-8.7	-51.9	-12.4	-10.1	-37.0	-14.2	-3.0	-31.1	Phase	-17.2
	0.3	0.2	0.3	0.2	0.1	0.2	0.4	0.3	Ampl.	0.2
	339.3	445.8	17.1	236.6	290.1	285.9	189.2	358.0	Sbd box	18.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:n	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.10187319925E+03	Apriori delay (usec)	5.10280674055E+03	Resid mbdelay (usec)	3.95870E-03	+/-	1.9E-04
Sband delay (usec)	5.10187685180E+03	Apriori clock (usec)	-3.5119179E+01	Resid sbdelay (usec)	-9.29889E-01	+/-	1.5E-03
Phase delay (usec)	5.10280674000E+03	Apriori clockrate (us/s)	-4.8679897E-07	Resid phdelay (usec)	-5.53856E-07	+/-	6.5E-07
Delay rate (us/s)	-1.26779929904E+00	Apriori rate (us/s)	-1.26778840428E+00	Resid rate (us/s)	-1.08948E-05	+/-	6.2E-09
Total phase (deg)	210.0	Apriori accel (us/s/s)	-2.00890261523E-05	Resid phase (deg)	-17.2	+/-	20.1

ph/seg (deg)	55.4	Theor.	47.2	Amplitude	0.234 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.7	Search (1024X32)	0.153	Search	0.153	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	18.9	Inc. seg. avg.	0.247	Inc. seg. avg.	0.247	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.5	Inc. frq. avg.	0.216	Inc. frq. avg.	0.216	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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9106.729 -511.808 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bn.W.83.3MP1N1

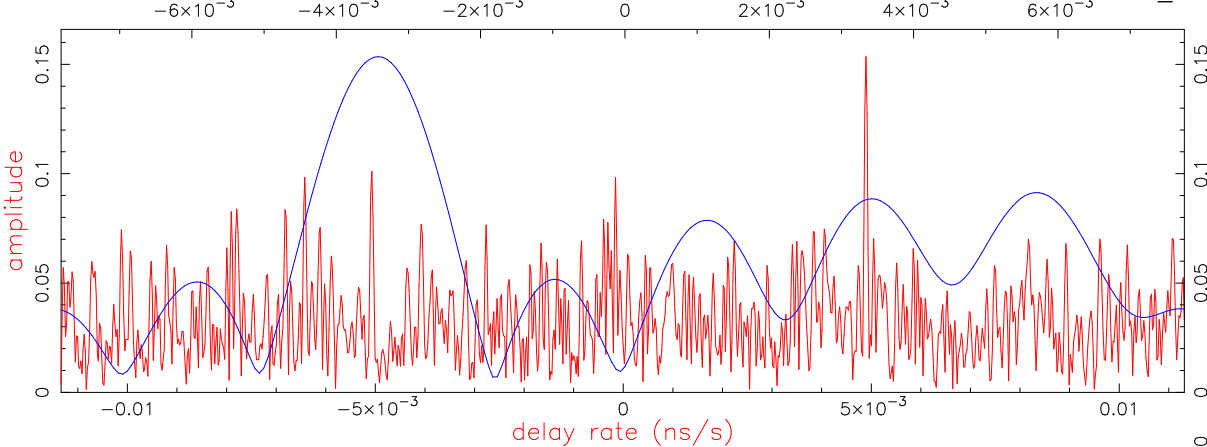
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Bn

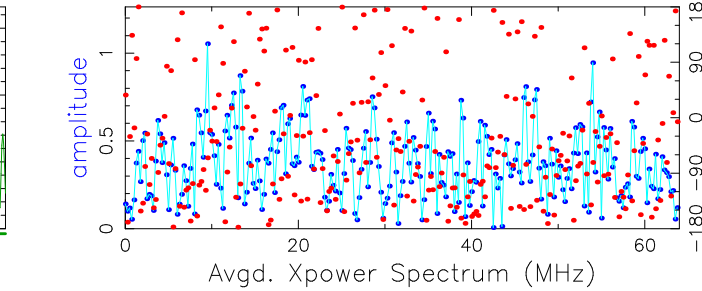
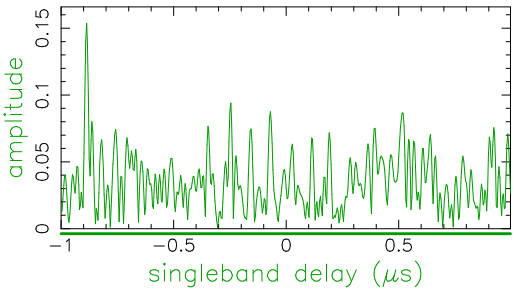
EFLSBERG - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



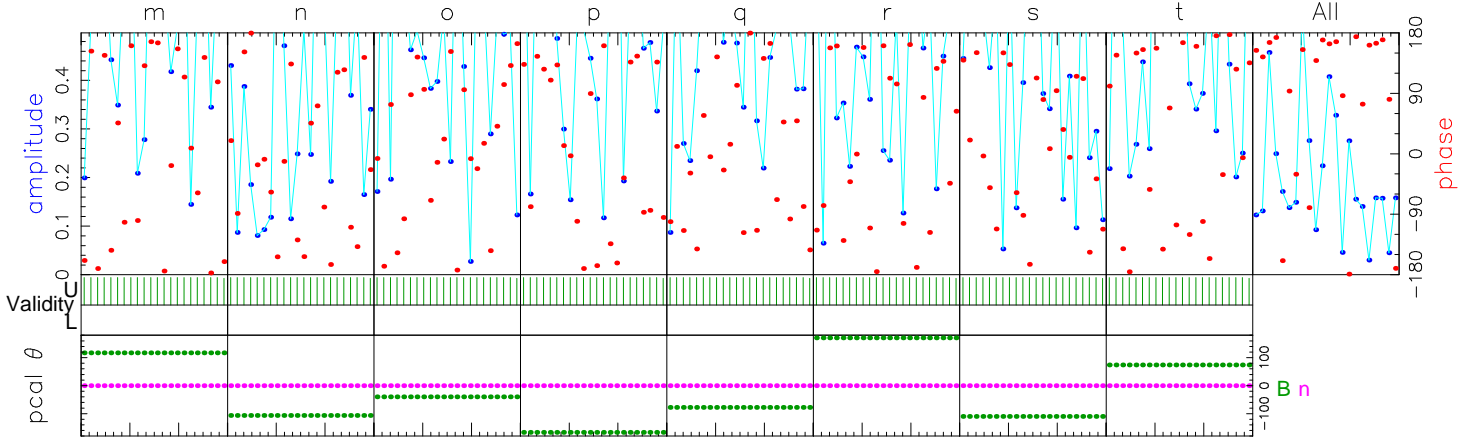
Fringe quality 0

SNR 5.6
 Int time 179.967
 Amp 0.166
 Phase 165.9
 PFD 8.8e-01
 Delays (us)
 SBD -0.886810
 MBD -0.003424
 Fringe rate (Hz)
 0.421529
 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
 2025:041:105006
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
B:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
Group delay (usec) (SBD)	5.10191269174E+03					5.10280674055E+03			Resid mbdelay (usec)	-3.42381E-03 +/- 1.9E-04
Sband delay (usec)	5.10191993055E+03					-3.5119179E+01			Resid sbdelay (usec)	-8.86810E-01 +/- 1.5E-03
Phase delay (usec)	5.10280674590E+03					-4.8679897E-07			Resid phdelay (usec)	5.34928E-06 +/- 6.6E-07
Delay rate (us/s)	-1.26778351075E+00					-1.26778840428E+00			Resid rate (us/s)	4.89354E-06 +/- 6.3E-09
Total phase (deg)			33.1			-2.00890261523E-05			Resid phase (deg)	165.9 +/- 20.3
ph/seg (deg)	56.7	47.7							Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	91.8	83.3							Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	61.0	28.8							Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	65.8	50.2							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

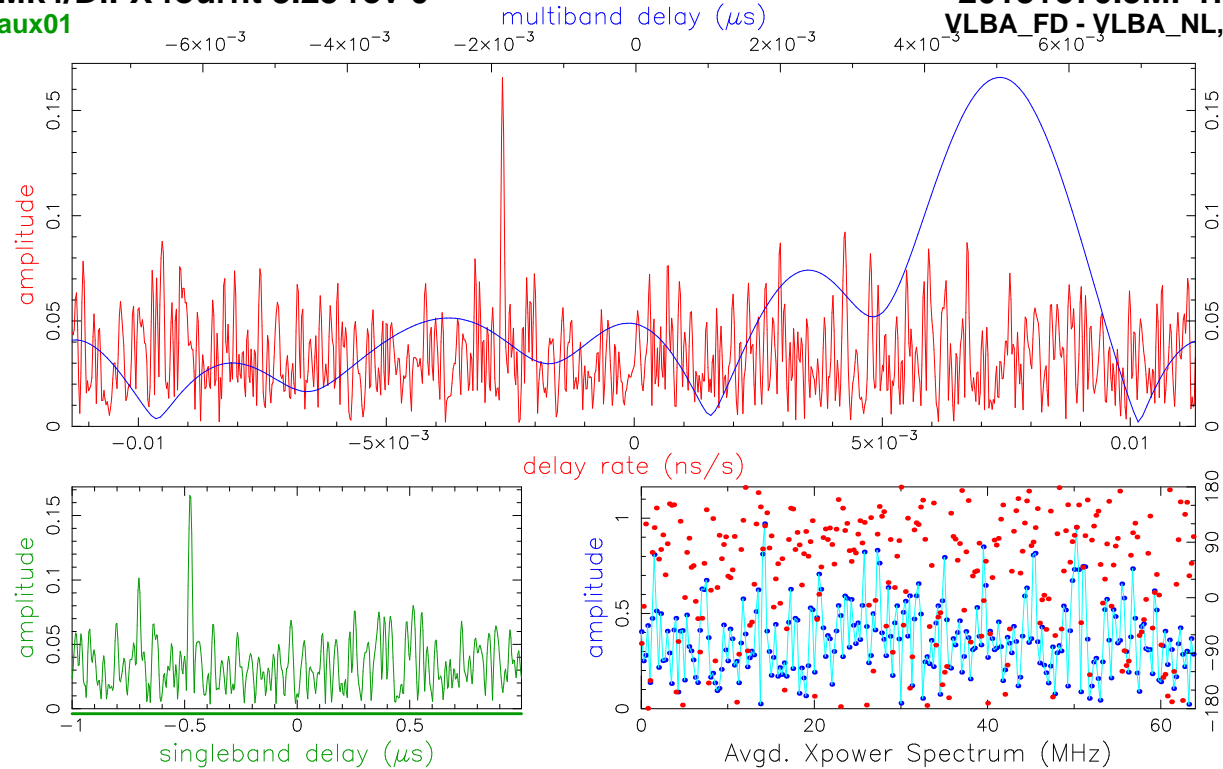
B: az 252.9 el 63.3 pa 49.7 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9106.729 -511.808 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Bn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Bn.W.93.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

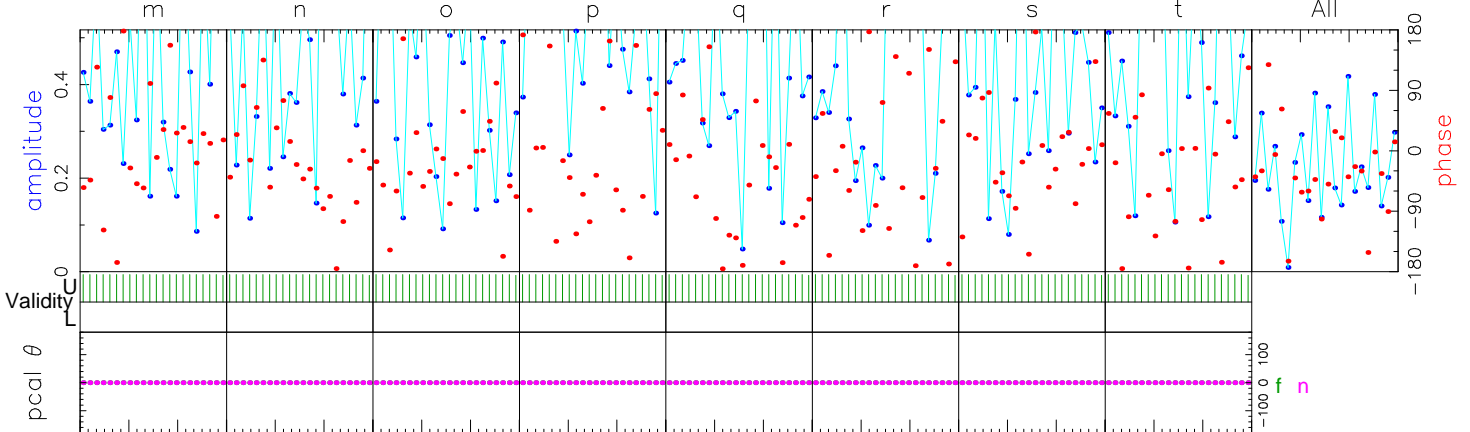
2013+370.3MP1N1, No0280, fn

VLBA_FD - VLBA_NL, fgroup W, pol RR



Fringe quality 0
 SNR 6.2
 Int time 179.986
 Amp 0.172
 Phase -31.3
 PFD 8.2e-02
 Delays (us)
 SBD -0.474828
 MBD 0.005070
 Fringe rate (Hz)
 -0.229334
 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
 2025:041:105011
 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
	-11.0	-28.6	-38.2	-60.1	-38.2	-108.3	-13.0	-30.0	Phase	-31.3
	0.2	0.2	0.2	0.1	0.2	0.0	0.2	0.1	Ampl.	0.2
	164.1	117.4	162.5	213.6	136.8	10.6	290.6	77.5	Sbd box	135.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.18484748195E+03	Apriori delay (usec)		-4.18436817731E+03	Resid mbdelay (usec)		5.07035E-03	+/-	1.8E-04	
Sband delay (usec)	-4.18484300556E+03	Apriori clock (usec)		3.3822250E-01	Resid sbdelay (usec)		-4.74828E-01	+/-	1.4E-03	
Phase delay (usec)	-4.18436817831E+03	Apriori clockrate (us/s)		-2.4704002E-07	Resid phdelay (usec)		-1.00799E-06	+/-	6.0E-07	
Delay rate (us/s)	2.00901348273E-01	Apriori rate (us/s)		2.00904010609E-01	Resid rate (us/s)		-2.66234E-06	+/-	5.7E-09	
Total phase (deg)		-316.8	Apriori accel (us/s/s)		1.15701151100E-05	Resid phase (deg)		-31.3	+/-	18.5

ph/seg (deg) 62.9 43.5 Search (1024X32) 0.162 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.4 75.9 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 26.2 Inc. seg. avg. 0.179 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.8 45.8 Inc. frq. avg. 0.162 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1438.945 -402.721 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/fn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fn.W.112.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

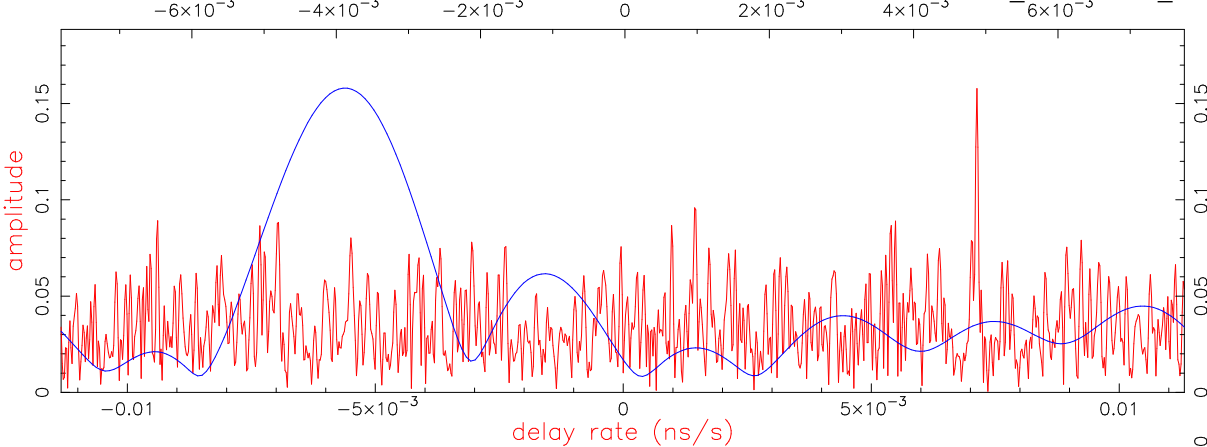
aux01

2013+370.3MP1N1, No0280, fn

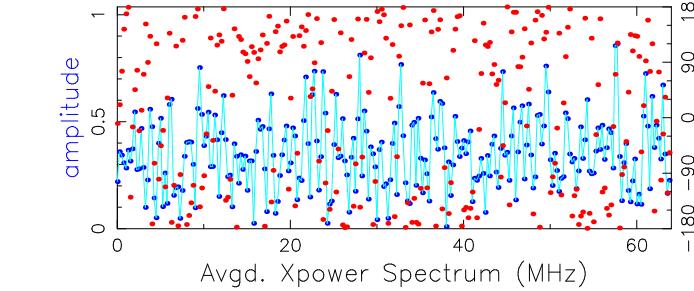
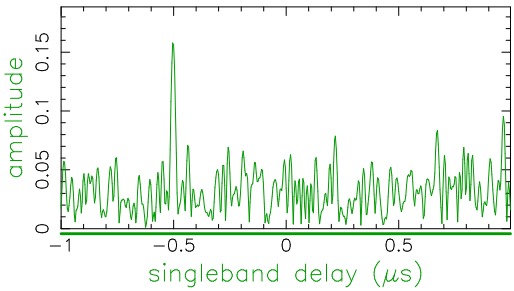
VLBA_FD - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

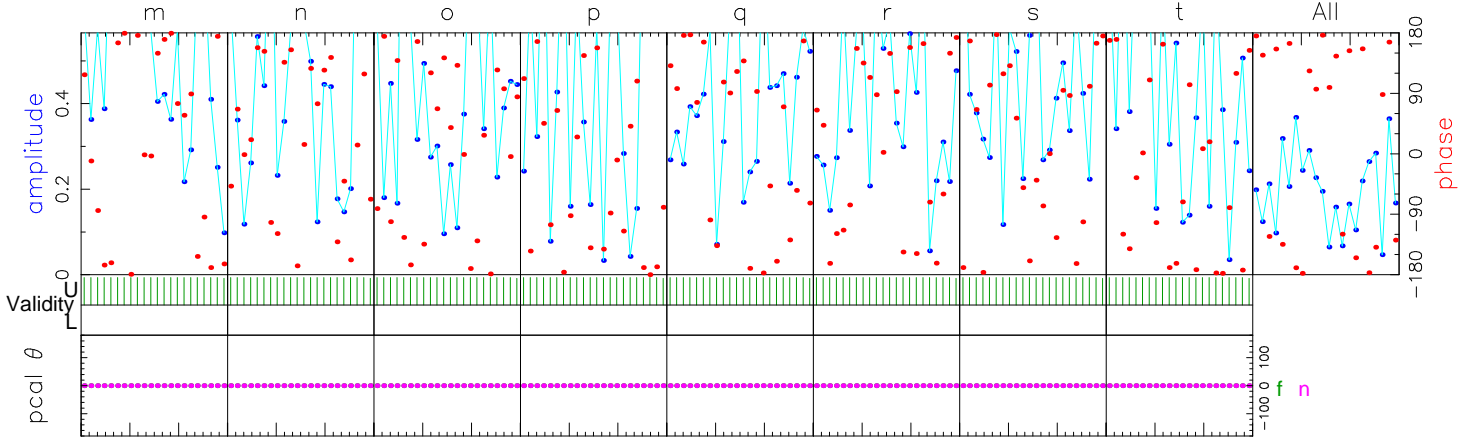


SNR 5.8
 Int time 179.986
 Amp 0.189
 Phase 176.7
 PFD 4.7e-01
 Delays (us)
 SBD -0.502392
 MBD -0.003821
 Fringe rate (Hz) 0.614463
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:105016
 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
	-178.8	158.7	-158.4	-171.0	156.6	161.3	170.3	-172.3	Phase	176.7
	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	103.2	277.5	11.9	502.7	183.9	74.9	32.2	124.0	Sbd box	128.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-4.18487199873E+03					-4.18436817731E+03			Resid mbdelay (usec)	-3.82142E-03 +/- 1.9E-04
Sband delay (usec)	-4.18487056906E+03					3.3822250E-01			Resid sbdelay (usec)	-5.02392E-01 +/- 1.5E-03
Phase delay (usec)	-4.18436817161E+03					-2.4704002E-07			Resid phdelay (usec)	5.69738E-06 +/- 6.3E-07
Delay rate (us/s)	2.00911143919E-01					2.00904010609E-01			Resid rate (us/s)	7.13331E-06 +/- 6.1E-09
Total phase (deg)			-108.9			1.15701151100E-05			Resid phase (deg)	176.7 +/- 19.6
	RMS	Theor.	Amplitude	0.189 +/- 0.032					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	44.1	46.0	Search (1024X32)	0.156					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	62.2	80.3	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	17.9	27.7	Inc. seg. avg.	0.179					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.9	48.4	Inc. frq. avg.	0.173					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			n: az 72.1 el 40.3 pa -63.2						u,v (fr/asec) -1438.945 -402.721	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/fn..3MP1N1						Output file: /Exps/c241c/v2/3mm/1234/No0280/fn.W.128.3MP1N1	

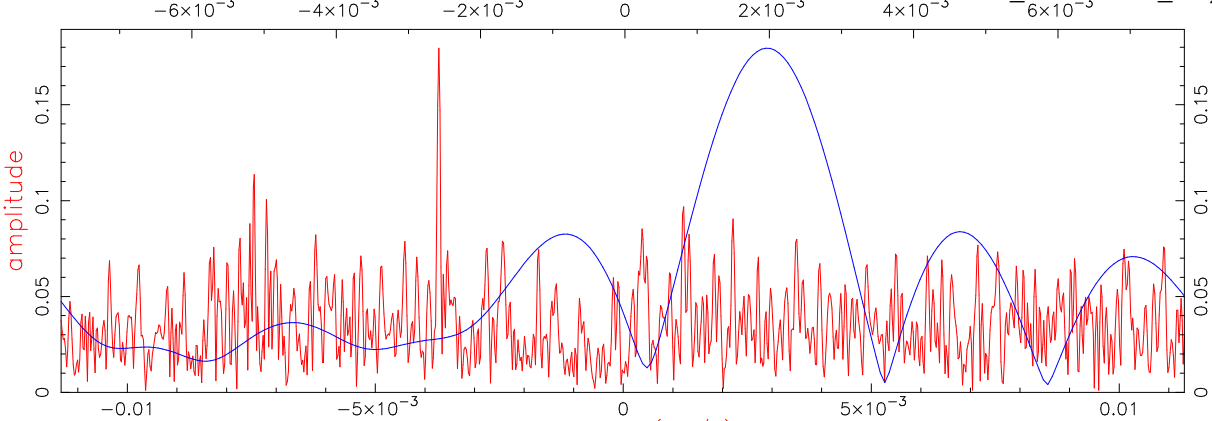
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, fn

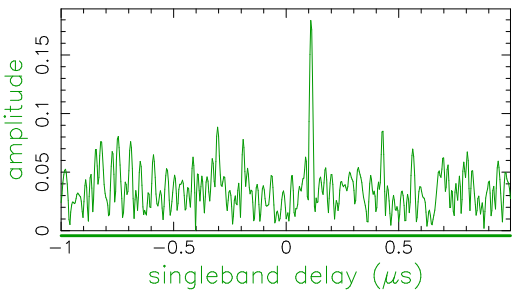
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

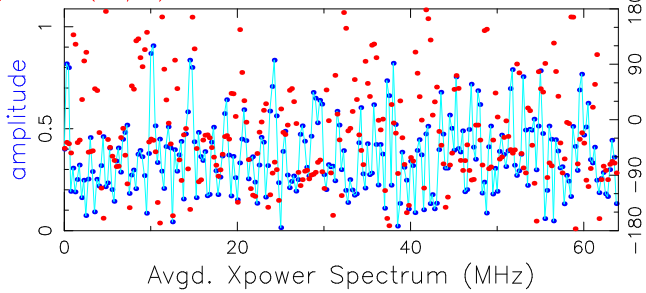


Fringe quality 0

SNR 6.6
 Int time 179.986
 Amp 0.189
 Phase 122.0
 PFD 4.4e-03
 Delays (us)
 SBD 0.110474
 MBD 0.001989
 Fringe rate (Hz)
 -0.320996
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

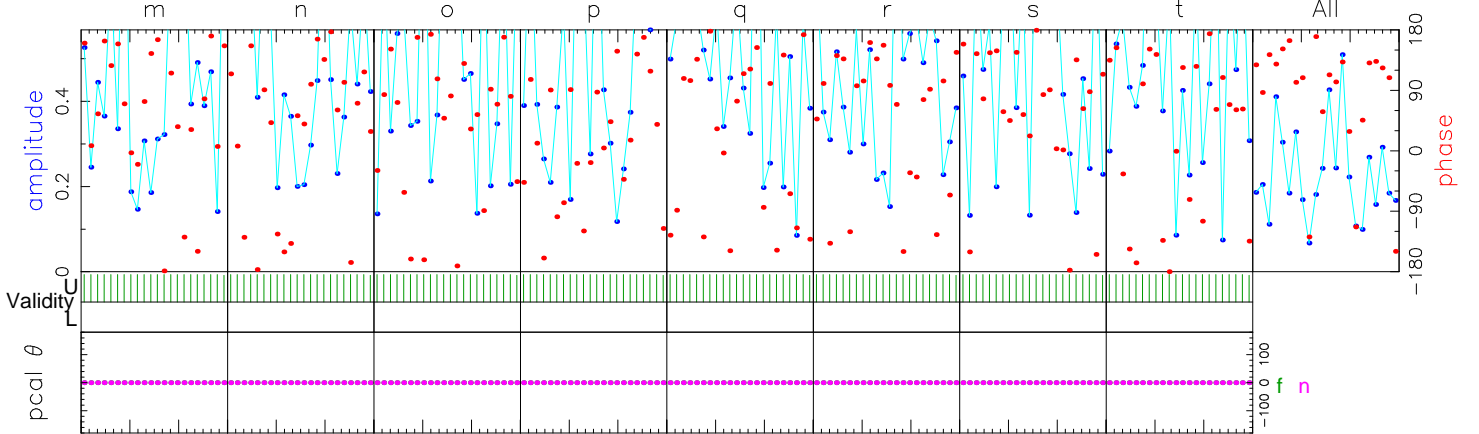


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105018
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	-4.18425681337E+03	Apriori delay (usec)	-4.18436817731E+03	Resid mbdelay (usec)	1.98894E-03	+/-	1.6E-04
Sband delay (usec)	-4.18425770281E+03	Apriori clock (usec)	3.3822250E-01	Resid sbdelay (usec)	1.10474E-01	+/-	1.3E-03
Phase delay (usec)	-4.18436817337E+03	Apriori clockrate (us/s)	-2.4704002E-07	Resid phdelay (usec)	3.93546E-06	+/-	5.6E-07
Delay rate (us/s)	2.00900284168E-01	Apriori rate (us/s)	2.00904010609E-01	Resid rate (us/s)	-3.72644E-06	+/-	5.3E-09
Total phase (deg)	-163.5	Apriori accel (us/s/s)	1.15701151100E-05	Resid phase (deg)	122.0	+/-	17.3

ph/seg (deg)	53.1	Theor.	Amplitude	0.189 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.6	40.5	Search (1024X32)	0.174	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.8	24.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.9	42.6	Inc. seg. avg.	0.193	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
			Inc. frq. avg.	0.182	Data rate(Mb/s): 2048				

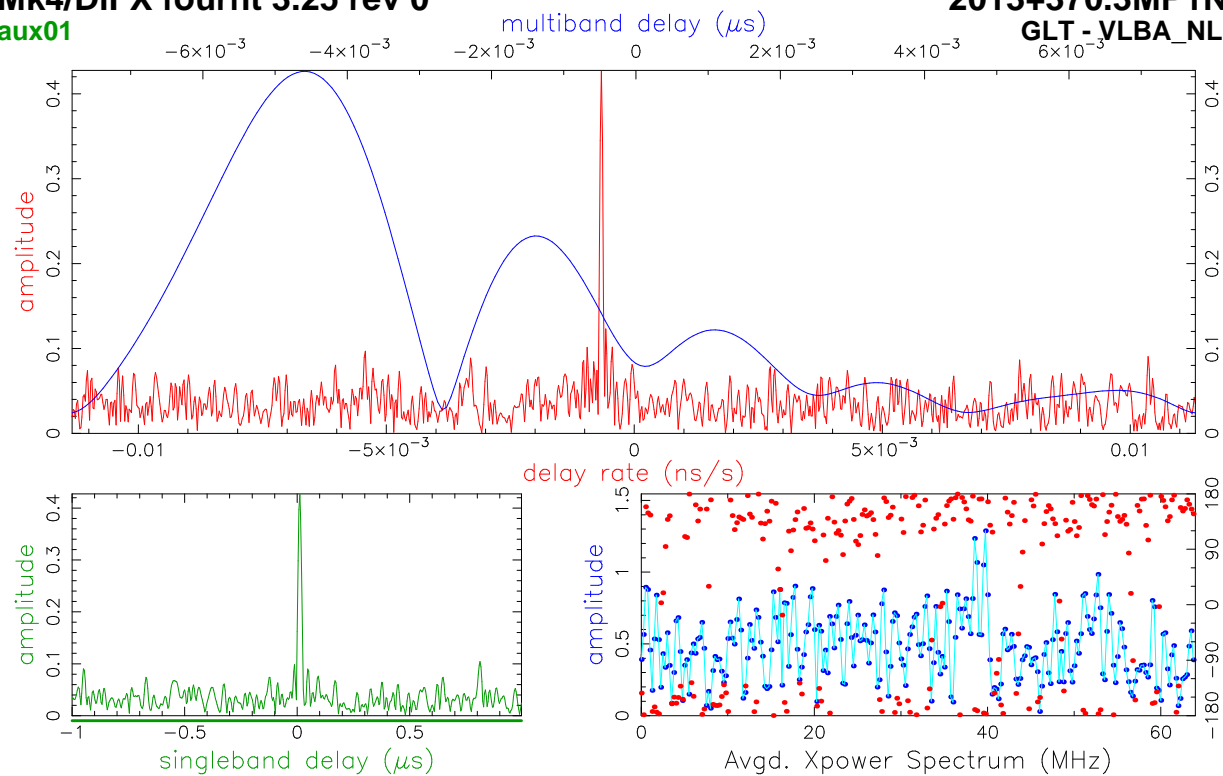
f: az 60.7 el 26.7 pa -70.6 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1438.945 -402.721 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/fn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/fn.W.139.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

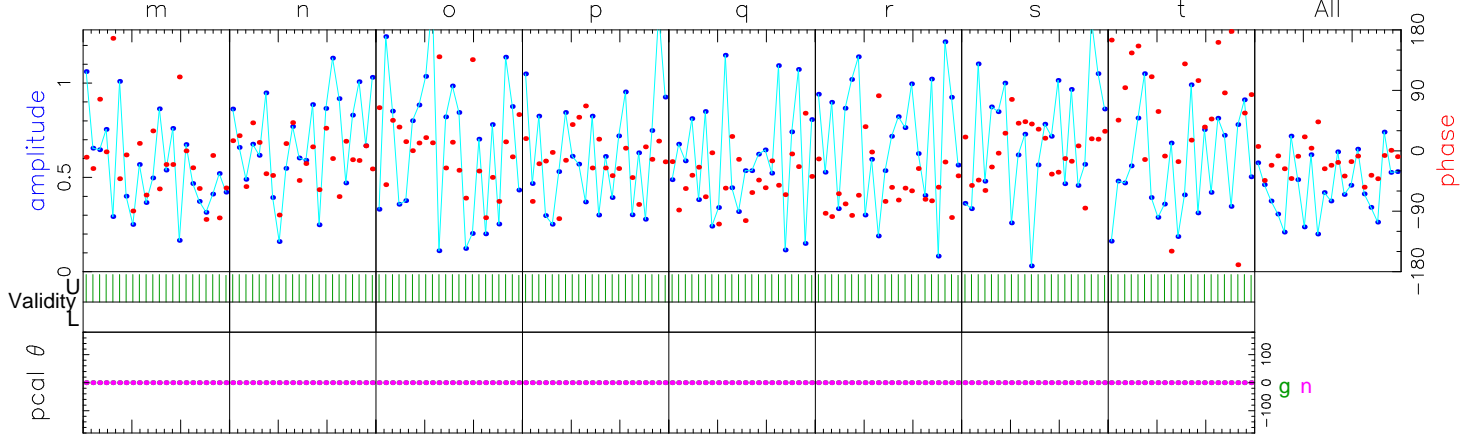
2013+370.3MP1N1, No0280, gn

GLT - VLBA_NL, fgroup W, pol LL



Fringe quality 8
 SNR 15.7
 Int time 179.985
 Amp 0.428
 Phase -16.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.011224
 MBD -0.004619
 Fringe rate (Hz)
 -0.057011
 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
 2025:041:105019
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-23.6	-7.3	-1.0	-9.8	-43.5	-59.9	-1.0	88.0	Phase	-16.5
	0.4	0.6	0.5	0.5	0.5	0.6	0.6	0.2	Ampl.	0.5
	261.4	260.4	259.1	259.5	259.9	259.6	260.1	262.3	Sbd box	259.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.59748242594E+03	Apriori delay (usec)	1.59747142040E+03	Resid mbdelay (usec)	-4.61946E-03	+/-	6.9E-05
Sband delay (usec)	1.59748264415E+03	Apriori clock (usec)	7.2215271E-01	Resid sbdelay (usec)	1.12238E-02	+/-	5.5E-04
Phase delay (usec)	1.59747141987E+03	Apriori clockrate (us/s)	4.8710103E-07	Resid phdelay (usec)	-5.33305E-07	+/-	2.4E-07
Delay rate (us/s)	-6.43770388537E-01	Apriori rate (us/s)	-6.43769726699E-01	Resid rate (us/s)	-6.61838E-07	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	1.24900771066E-05	Resid phase (deg)	-16.5	+/-	7.3

ph/seg (deg)	22.5	Theor.	17.2	Amplitude	0.428 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	37.2		29.9	Search (1024X32)	0.420	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	48.7		10.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.7		18.1	Inc. seg. avg.	0.434	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.490	Data rate(Mb/s): 2048				

g: az 128.2 el 46.4 pa -13.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 4646.654 2882.622 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/gn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/gn.W.143.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

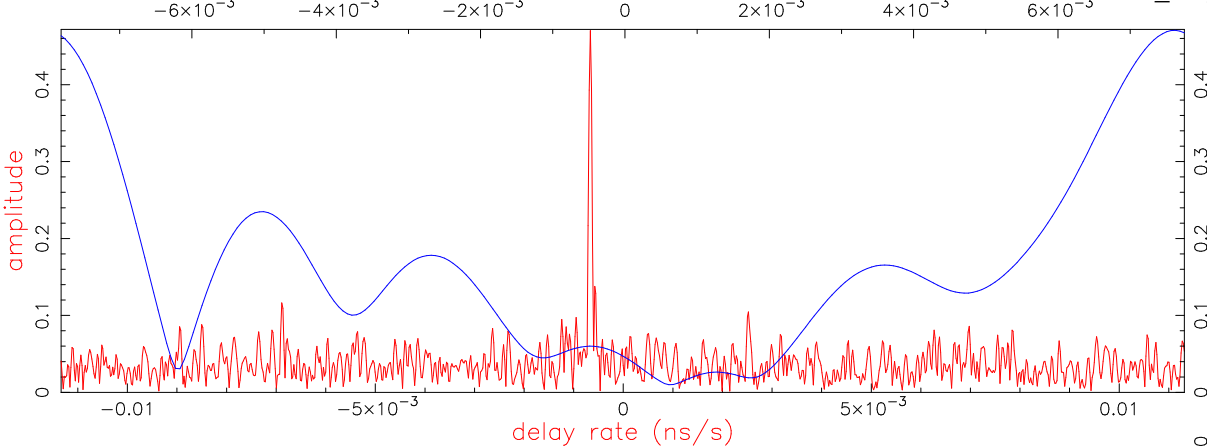
aux01

2013+370.3MP1N1, No0280, gn

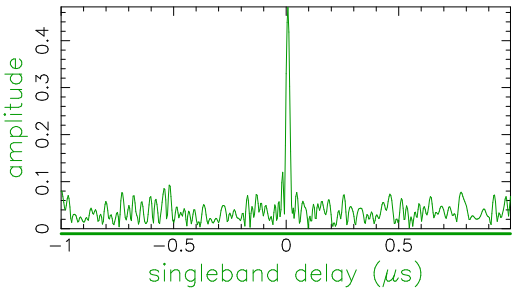
GLT - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

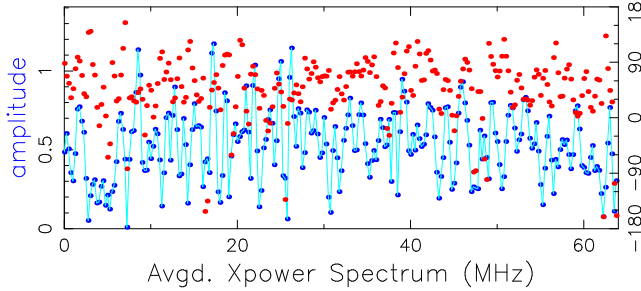
Fringe quality 8



SNR 17.3
 Int time 179.985
 Amp 0.472
 Phase -128.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.007304
 MBD -0.008039
 Fringe rate (Hz)
 -0.056984
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

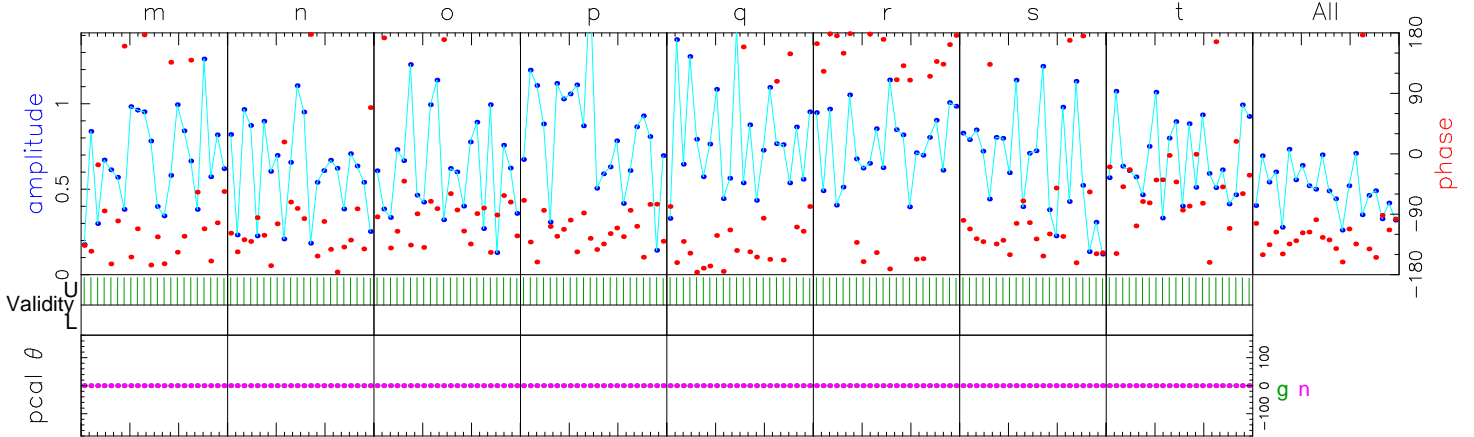


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105022
 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
	-137.2	-119.6	-101.6	-117.3	-146.5	167.1	-131.0	-59.5	Phase	-128.3
	0.5	0.5	0.5	0.7	0.6	0.6	0.6	0.5	Ampl.	0.6
	260.3	258.6	257.9	258.4	259.4	258.6	259.4	260.8	Sbd box	258.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.59747900599E+03	Apriori delay (usec)	1.59747142040E+03	Resid mbdelay (usec)	-8.03941E-03	+/-	6.3E-05
Sband delay (usec)	1.59747872415E+03	Apriori clock (usec)	7.2215271E-01	Resid sbdelay (usec)	7.30375E-03	+/-	5.0E-04
Phase delay (usec)	1.59747141626E+03	Apriori clockrate (us/s)	4.8710103E-07	Resid phdelay (usec)	-4.13592E-06	+/-	2.1E-07
Delay rate (us/s)	-6.43770388223E-01	Apriori rate (us/s)	-6.43769726699E-01	Resid rate (us/s)	-6.61524E-07	+/-	2.1E-09
Total phase (deg)	-73.1	Apriori accel (us/s/s)	1.24900771066E-05	Resid phase (deg)	-128.3	+/-	6.6

ph/seg (deg)	22.2	Theor.	15.5	Amplitude	0.472 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	30.1	Search (1024X32)	0.463	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	41.3	Inc. seg. avg.	0.482	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	28.2	Inc. frq. avg.	0.561	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		n: az 72.1 el 40.3 pa -63.2		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/gn..3MP1N1		u,v (fr/asec)	4646.654 2882.622				simultaneous interpolator
				Output file: /Exps/c241c/v2/3mm/1234/No0280/gn.W.153.3MP1N1					

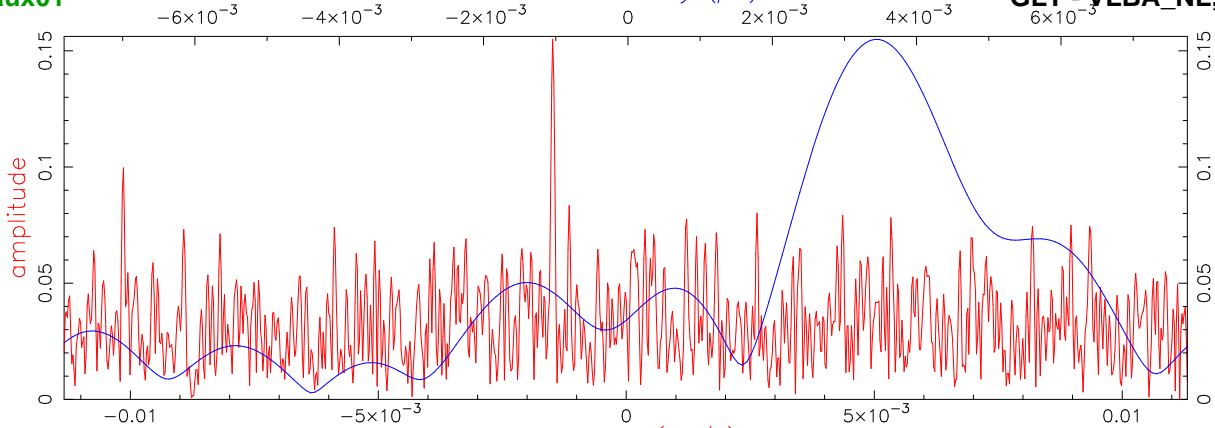
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, gn

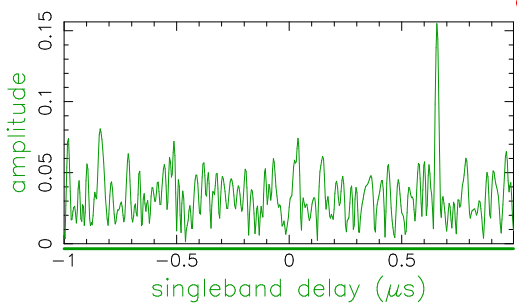
GLT - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

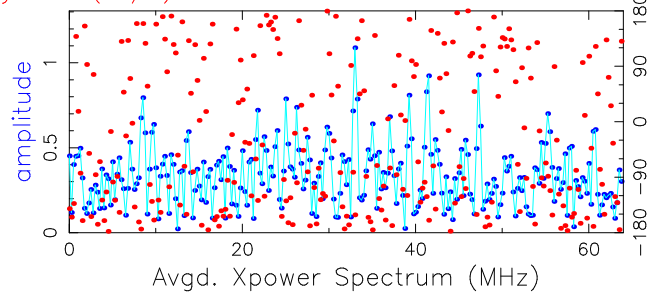


Fringe quality 0

SNR 5.7
 Int time 179.985
 Amp 0.156
 Phase 165.1
 PFD 7.9e-01
 Delays (us)
 SBD 0.656679
 MBD 0.003445
 Fringe rate (Hz)
 -0.127266
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

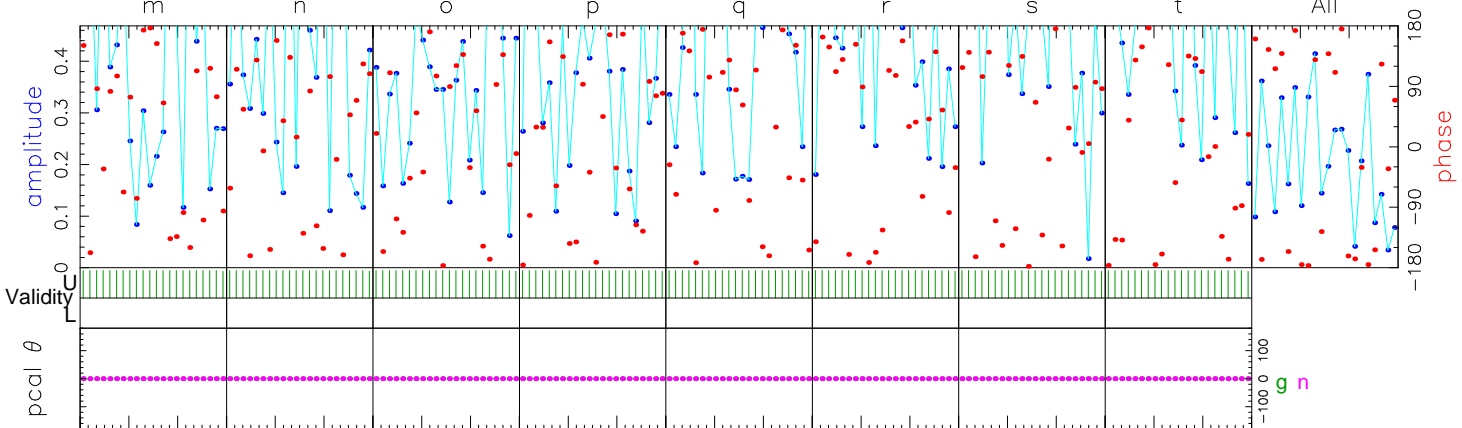


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105026
 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
	-161.1	165.4	118.3	155.3	159.0	150.9	166.4	-175.7	Phase	165.1
	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1
	177.7	5.5	128.0	202.8	486.9	284.7	511.1	425.9	Sbd box	425.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.59813111548E+03		Apriori delay (usec)		1.59747142040E+03		Resid mbdelay (usec)		3.44508E-03	+/- 1.9E-04
Sband delay (usec)	1.59812809965E+03		Apriori clock (usec)		7.2215271E-01		Resid sbdelay (usec)		6.56679E-01	+/- 1.5E-03
Phase delay (usec)	1.59747142572E+03		Apriori clockrate (us/s)		4.8710103E-07		Resid phdelay (usec)		5.32406E-06	+/- 6.5E-07
Delay rate (us/s)	-6.43771204127E-01		Apriori rate (us/s)		-6.43769726699E-01		Resid rate (us/s)		-1.47743E-06	+/- 6.2E-09
Total phase (deg)	220.3		Apriori accel (us/s/s)		1.24900771066E-05		Resid phase (deg)		165.1	+/- 20.1

ph/seg (deg) 61.9 47.2 Search (1024X32) 0.152 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.6 82.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.9 28.5 Inc. seg. avg. 0.157 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.6 49.7 Inc. frq. avg. 0.147 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 4646.654 2882.622 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/gn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/gn.W.176.3MP1N1

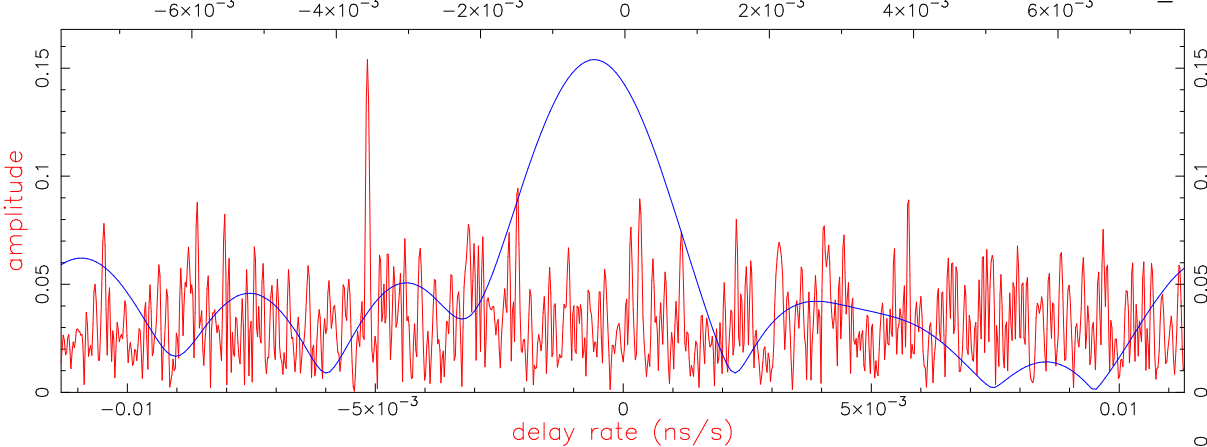
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, gn

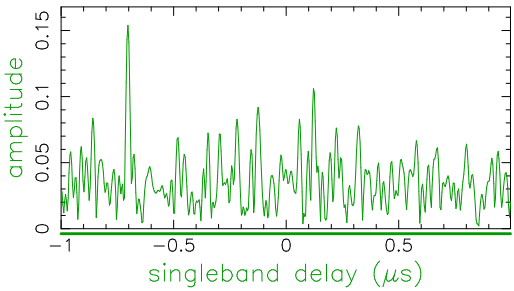
GLT - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

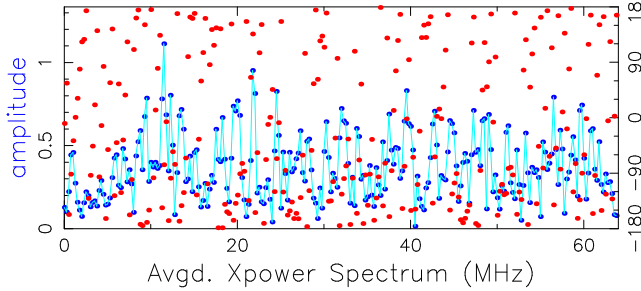


Fringe quality 0

SNR 5.6
 Int time 179.985
 Amp 0.168
 Phase 37.3
 PFD 8.6e-01
 Delays (us)
 SBD -0.703340
 MBD -0.000432
 Fringe rate (Hz)
 -0.444505
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

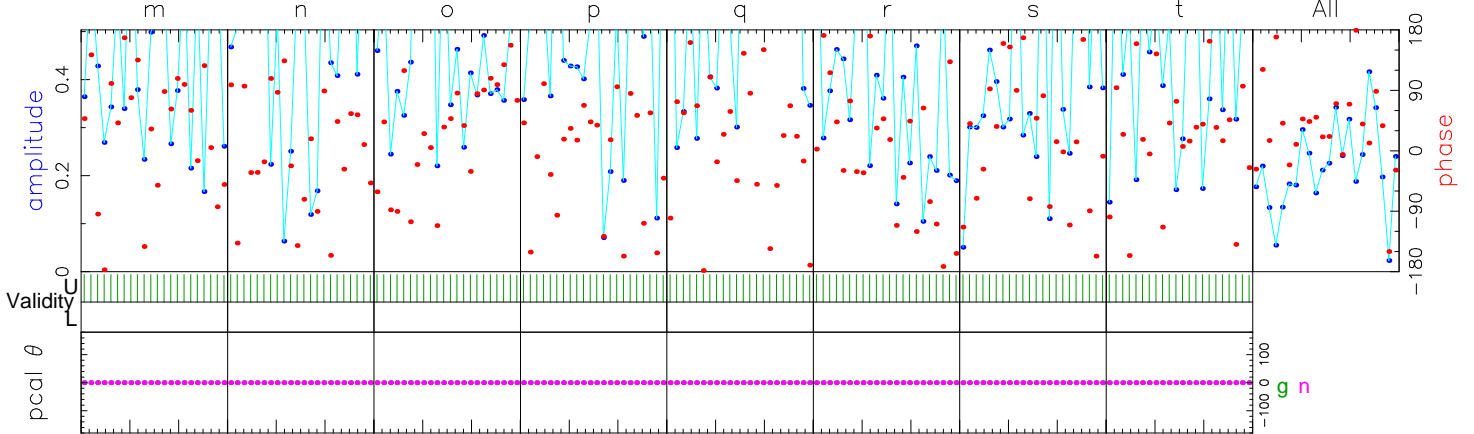


delay rate (ns/s)



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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
g	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.59676786311E+03	Apriori delay (usec)	1.59747142040E+03	Resid mbdelay (usec)	-4.32287E-04	+/-	1.9E-04
Sband delay (usec)	1.59676808090E+03	Apriori clock (usec)	7.2215271E-01	Resid sbdelay (usec)	-7.03340E-01	+/-	1.5E-03
Phase delay (usec)	1.59747142160E+03	Apriori clockrate (us/s)	4.8710103E-07	Resid phdelay (usec)	1.20360E-06	+/-	6.5E-07
Delay rate (us/s)	-6.43774886965E-01	Apriori rate (us/s)	-6.43769726699E-01	Resid rate (us/s)	-5.16027E-06	+/-	6.3E-09
Total phase (deg)		Apriori accel (us/s/s)	1.24900771066E-05	Resid phase (deg)	37.3	+/-	20.3

ph/seg (deg)	66.0	Theor.	47.6	Amplitude	0.168 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.2		83.0	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	26.9		28.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.2		50.1	Inc. seg. avg.	0.176	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.160	Data rate(Mb/s): 2048				

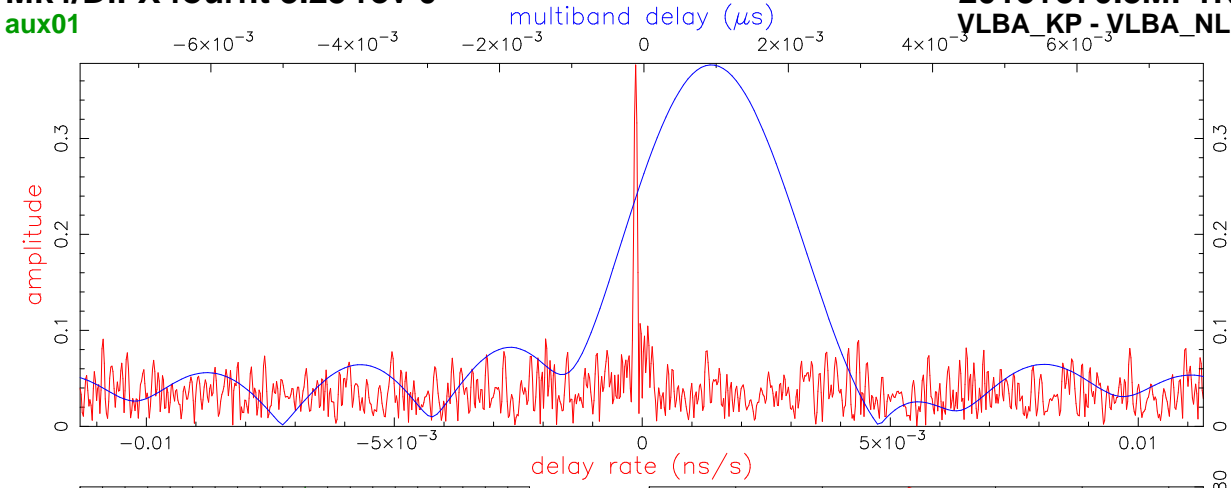
g: az 128.2 el 46.4 pa -13.2 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 4646.654 2882.622 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/gn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/gn.W.183.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, kn

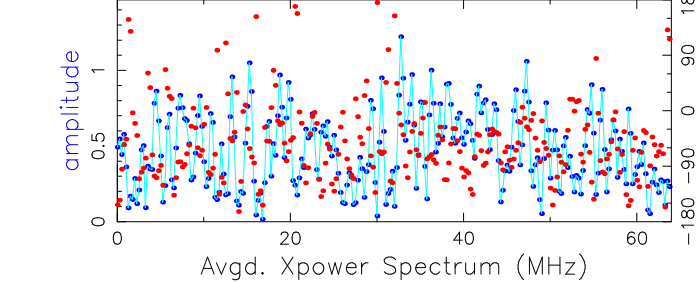
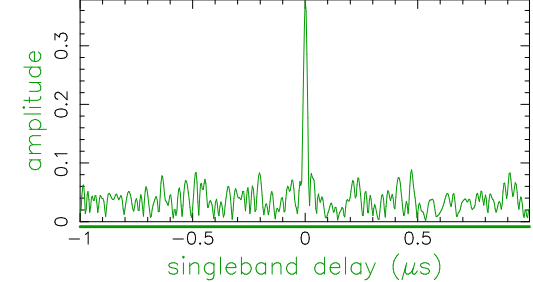
VLBA_KP - VLBA_NL, fgroup W, pol LL



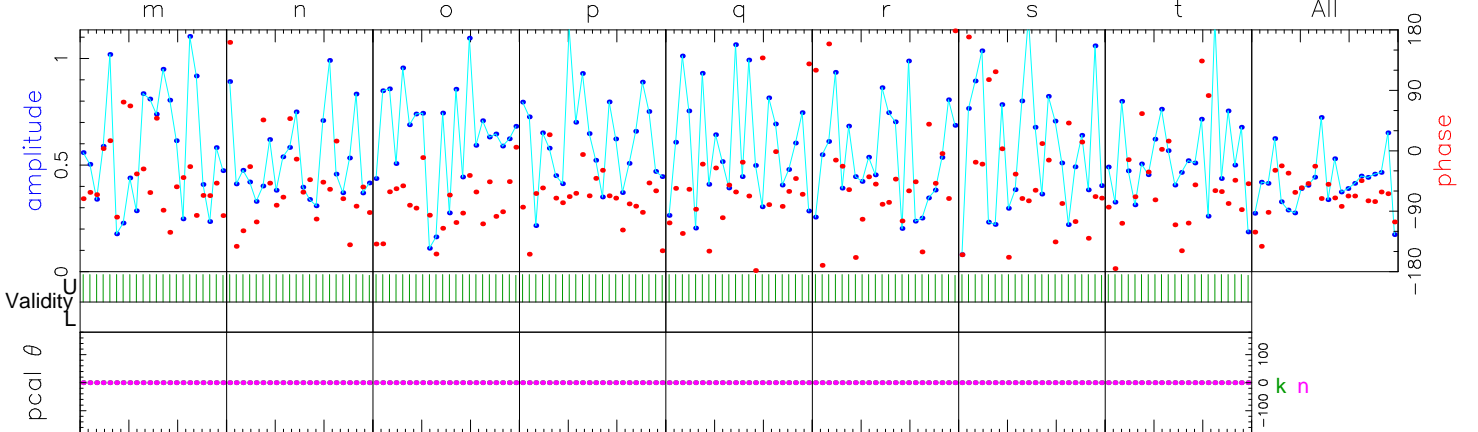
Fringe quality 9

SNR 13.9
 Int time 179.986
 Amp 0.378
 Phase -63.8
 PFD 2.6e-35
 Delays (us)
 SBD 0.000860
 MBD 0.000955
 Fringe rate (Hz) -0.011438
 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
 2025:041:105027
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"



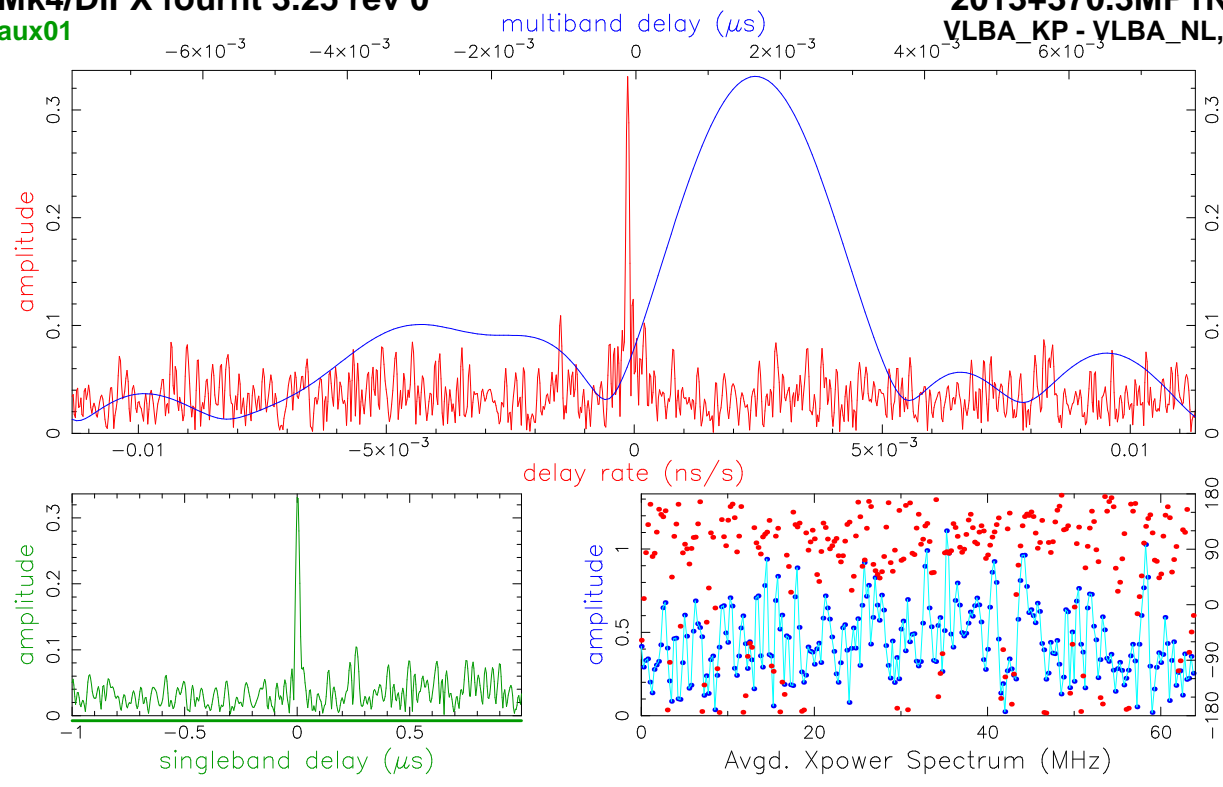
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-47.3	-64.7	-74.4	-67.8	-66.0	-67.7	-53.6	-64.2	Phase	-63.8
	0.4	0.3	0.5	0.5	0.4	0.3	0.3	0.3	Ampl.	0.4
	256.5	257.1	257.5	257.2	257.7	258.2	256.7	256.8	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

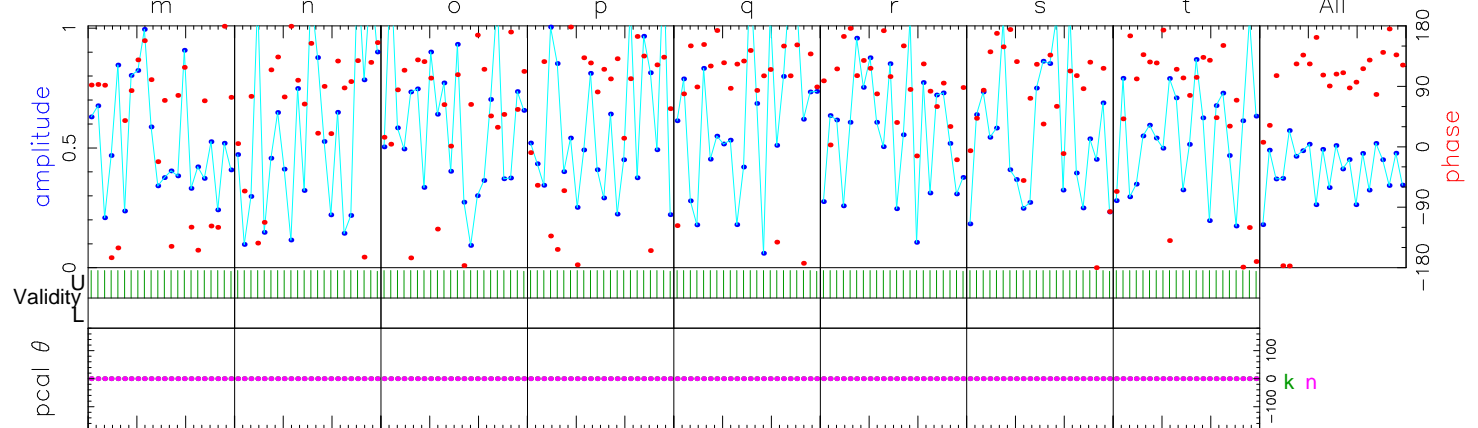
Group delay (usec) (SBD)	-5.87698385222E+03	Apriori delay (usec)	-5.87698480758E+03	Resid mbdelay (usec)	9.55358E-04	+/-	7.8E-05
Sband delay (usec)	-5.87698394708E+03	Apriori clock (usec)	4.3346024E-01	Resid sbdelay (usec)	8.60500E-04	+/-	6.2E-04
Phase delay (usec)	-5.87698480964E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	-2.05820E-06	+/-	2.7E-07
Delay rate (us/s)	2.07018682211E-01	Apriori rate (us/s)	2.07018814998E-01	Resid rate (us/s)	-1.32787E-07	+/-	2.6E-09
Total phase (deg)		Apriori accel (us/s/s)	2.19168340787E-05	Resid phase (deg)	-63.8	+/-	8.3

ph/seg (deg) 29.4 19.4 Search (1024X32) 0.376 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.0 33.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.4 11.7 Inc. seg. avg. 0.399 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.4 20.4 Inc. frq. avg. 0.373 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1474.418 354.498 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/kn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/kn.W.179.3MP1N1 simultaneous interpolator



Fringe quality 9
SNR 12.3
Int time 179.986
Amp 0.337
Phase 119.4
PFD 1.3e-26
Delays (us)
SBD 0.001820
MBD 0.001686
Fringe rate (Hz) -0.011700
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
2025:041:105029
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



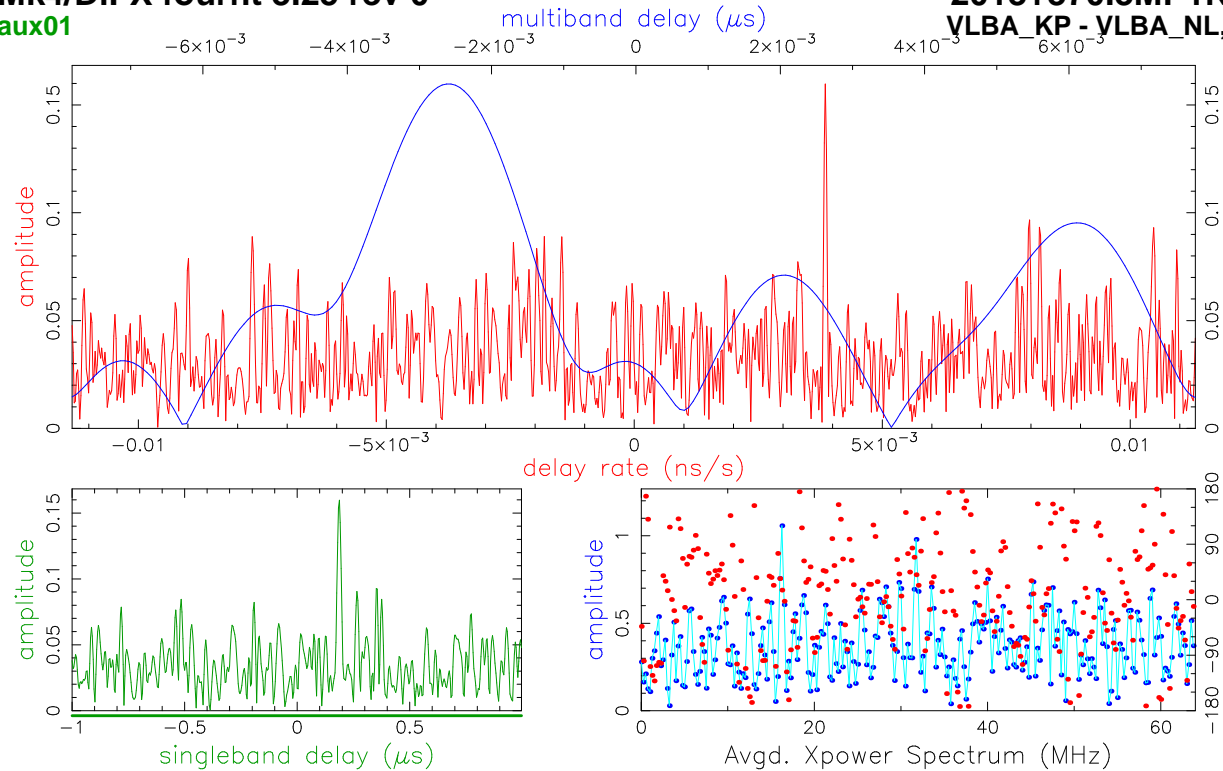
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-5.87698312160E+03									
Sband delay (usec)	-5.87698298733E+03									
Phase delay (usec)	-5.87698480373E+03									
Delay rate (us/s)	2.07018679171E-01									
Total phase (deg)			2.4							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
simultaneous interpolator										

Mk4/DiFX fourfit 3.25 rev 0

aux01

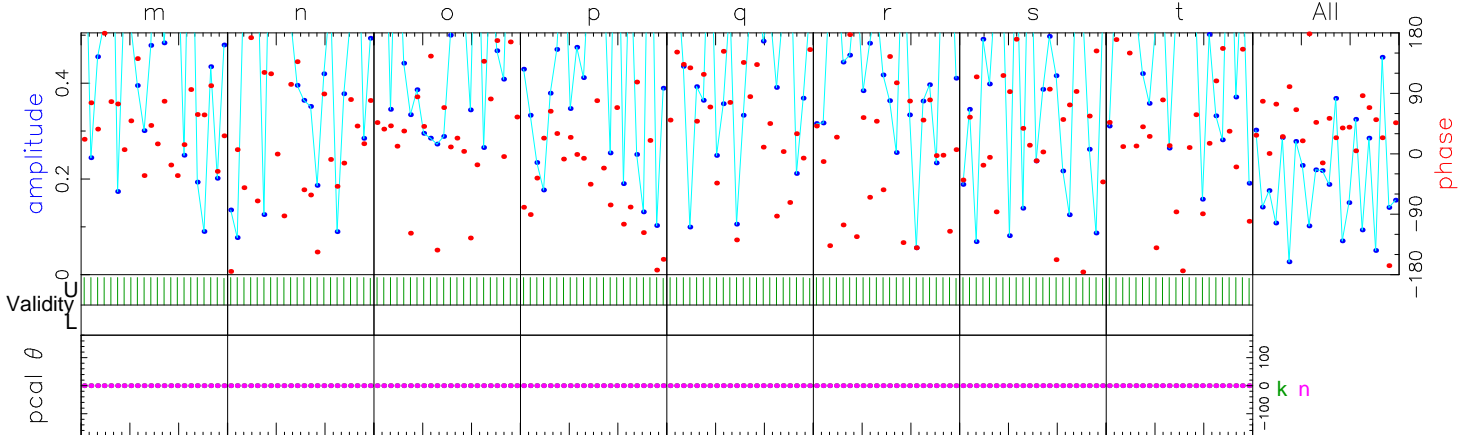
2013+370.3MP1N1, No0280, kn

VLBA_KP - VLBA_NL, fgroup W, pol LR



Fringe quality 0
 SNR 5.9
 Int time 179.986
 Amp 0.168
 Phase 36.7
 PFD 3.9e-01
 Delays (us)
 SBD 0.186528
 MBD -0.002624
 Fringe rate (Hz) 0.331643
 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		
	43.7	22.9	41.1	-0.7	76.9	-30.5	47.4	48.3	Phase	36.7		
	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.2	Ampl.	0.2		
	305.0	326.0	113.7	303.5	380.4	69.9	309.9	441.2	Sbd box	304.8		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used			
k	0	0	0	0	0	0	0	0	PC freqs			
n	0	0	0	0	0	0	0	0	PC freqs			
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
n	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	-5.87679993131E+03		Apriori delay (usec)		-5.87698480758E+03		Resid mbdelay (usec)		-2.62374E-03	+/- 1.8E-04		
Sband delay (usec)	-5.87679828008E+03		Apriori clock (usec)		4.3346024E-01		Resid sbdelay (usec)		1.86528E-01	+/- 1.5E-03		
Phase delay (usec)	-5.87698480640E+03		Apriori clockrate (us/s)		-1.4505389E-07		Resid phdelay (usec)		1.18202E-06	+/- 6.3E-07		
Delay rate (us/s)	2.07022665047E-01		Apriori rate (us/s)		2.07018814998E-01		Resid rate (us/s)		3.85005E-06	+/- 6.0E-09		
Total phase (deg)			Apriori accel (us/s/s)		2.19168340787E-05		Resid phase (deg)		36.7	+/- 19.5		
	RMS	Theor.	Amplitude	0.168 +/- 0.029		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	53.3	45.6	Search (1024X32)	0.158		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	70.8	79.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	36.6	27.5	Inc. seg. avg.	0.158		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	53.2	48.0	Inc. frq. avg.	0.167		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	n: az 72.1 el 40.3 pa -63.2		u, v (fr/asec) -1474.418 354.498						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/kn..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/kn.W.197.3MP1N1									

Mk4/DiFX fourfit 3.25 rev 0

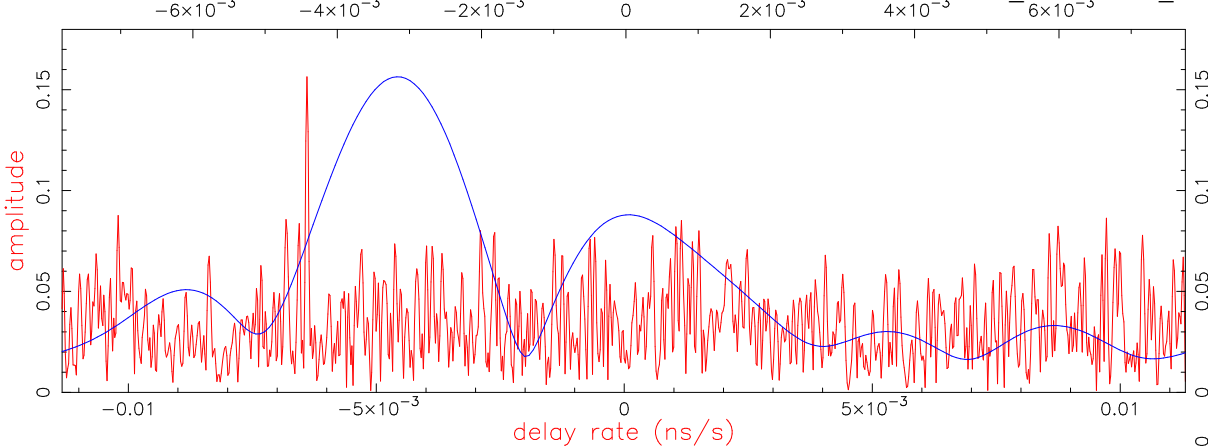
aux01

2013+370.3MP1N1, No0280, kn

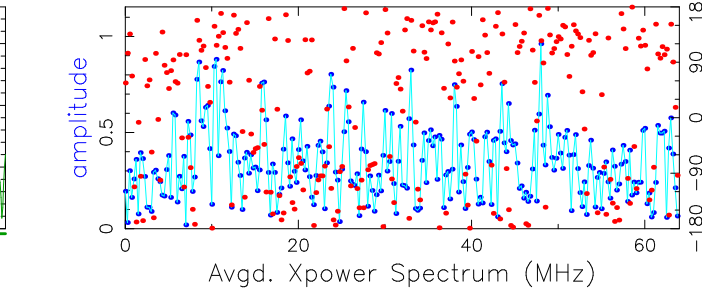
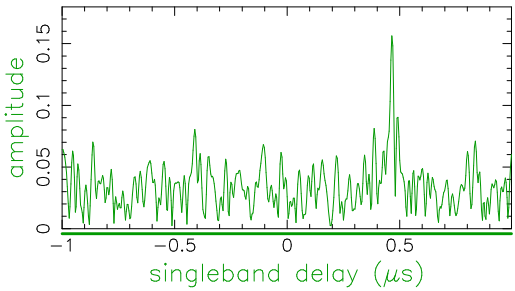
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

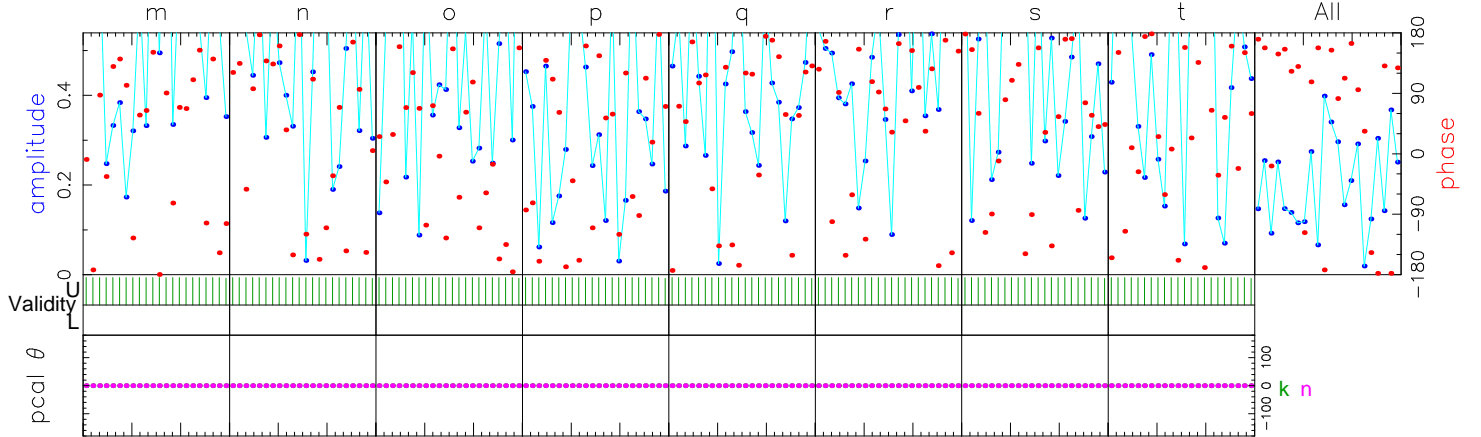


SNR 5.8
 Int time 179.986
 Amp 0.180
 Phase 148.8
 PFD 6.3e-01
 Delays (us)
 SBD 0.465775
 MBD -0.003137
 Fringe rate (Hz)
 -0.551177
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105033
 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
	119.1	168.2	-179.3	-154.4	148.3	138.0	150.6	128.9	Phase	148.8
	0.3	0.3	0.1	0.1	0.2	0.3	0.2	0.1	Ampl.	0.2
	10.6	376.8	216.4	35.8	171.4	109.2	372.1	7.3	Sbd box	376.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.87651919477E+03	Apriori delay (usec)	-5.87698480758E+03	Resid mbdelay (usec)	-3.13719E-03	+/-	1.9E-04
Sband delay (usec)	-5.87651903258E+03	Apriori clock (usec)	4.3346024E-01	Resid sbdelay (usec)	4.65775E-01	+/-	1.5E-03
Phase delay (usec)	-5.87698480278E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	4.79903E-06	+/-	6.4E-07
Delay rate (us/s)	2.07012416382E-01	Apriori rate (us/s)	2.07018814998E-01	Resid rate (us/s)	-6.39862E-06	+/-	6.2E-09
Total phase (deg)		Apriori accel (us/s/s)	2.19168340787E-05	Resid phase (deg)	148.8	+/-	19.9

	RMS	Theor.	Amplitude	0.180 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	56.8	46.6	Search (1024X32)	0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.2	81.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	31.7	28.1	Inc. seg. avg.	0.176	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	49.2	49.0	Inc. frq. avg.	0.172	Data rate(Mb/s): 2048				

k: az 58.7 el 21.7 pa -65.8 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1474.418 354.498 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/kn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/kn.W.210.3MP1N1

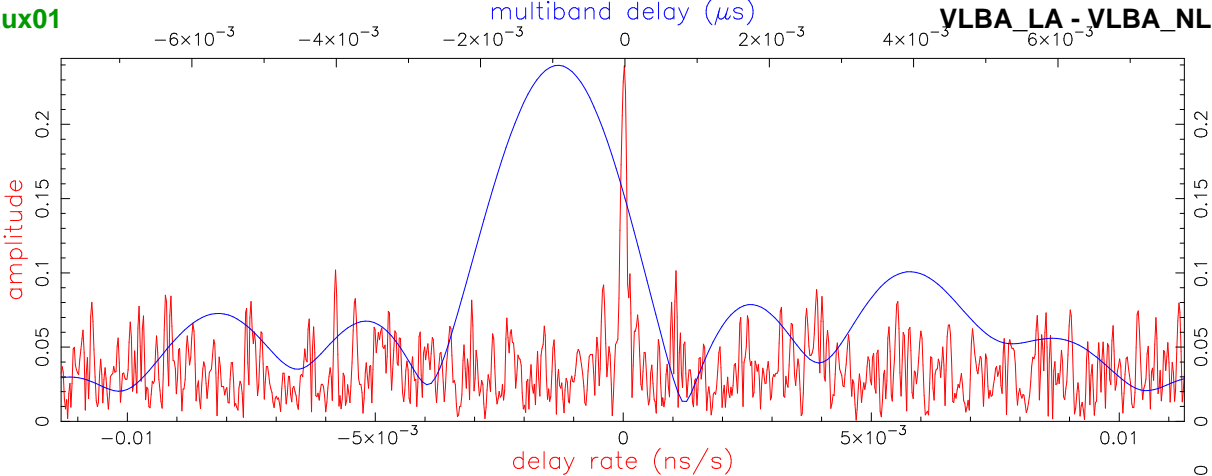
Mk4/DiFX fourfit 3.25 rev 0

aux01

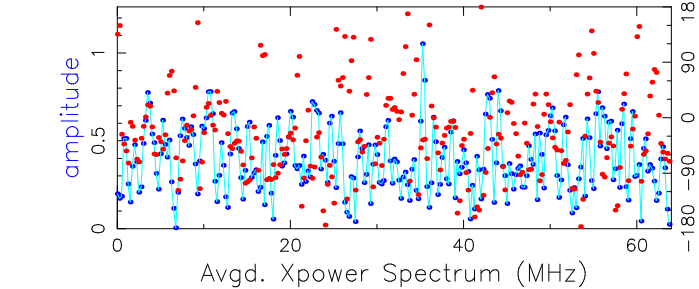
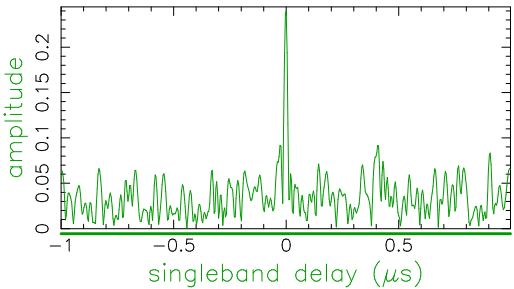
2013+370.3MP1N1, No0280, In

VLBA_LA - VLBA_NL, fgroup W, pol LL

Fringe quality 9

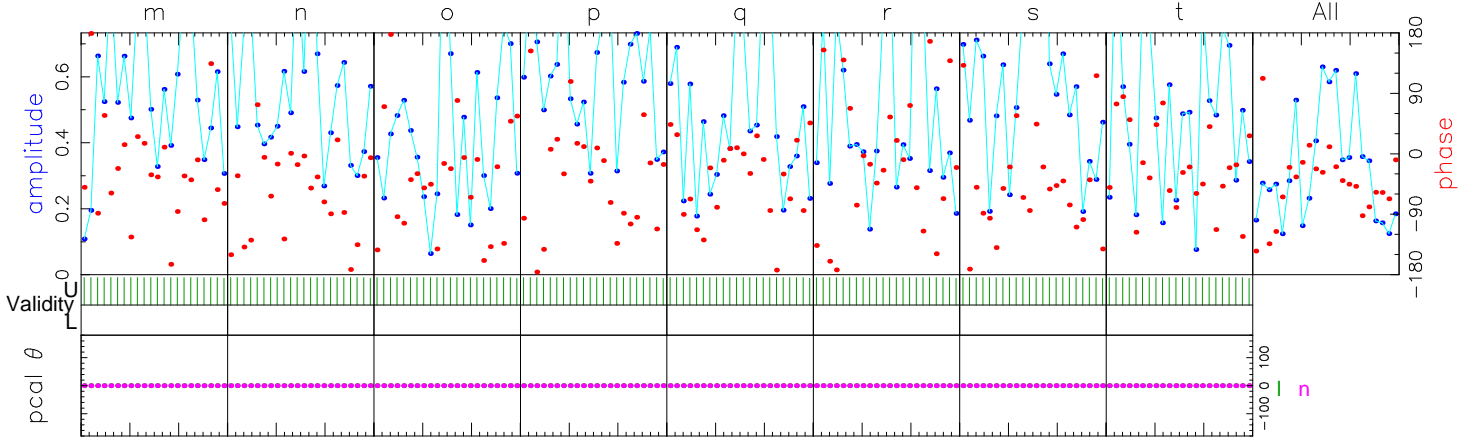


SNR 9.0
 Int time 179.986
 Amp 0.244
 Phase -39.5
 PFD 5.8e-11
 Delays (us)
 SBD -0.001722
 MBD -0.000983
 Fringe rate (Hz)
 0.002797
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105044
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	-3.94682750887E+03	Apriori delay (usec)	-3.94682652608E+03	Resid mbdelay (usec)	-9.82794E-04	+/-	1.2E-04
Sband delay (usec)	-3.94682824783E+03	Apriori clock (usec)	-8.0263596E+00	Resid sbdelay (usec)	-1.72175E-03	+/-	9.6E-04
Phase delay (usec)	-3.94682652735E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	-1.27398E-06	+/-	4.1E-07
Delay rate (us/s)	1.49625336098E-01	Apriori rate (us/s)	1.49625303628E-01	Resid rate (us/s)	3.24704E-08	+/-	4.0E-09
Total phase (deg)		Apriori accel (us/s/s)	1.53856790401E-05	Resid phase (deg)	-39.5	+/-	12.8

ph/seg (deg)	53.7	Theor.	30.0	Amplitude	0.244 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.0		52.3	Search (1024X32)	0.237	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	21.9		18.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.5		31.5	Inc. seg. avg.	0.287	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.238	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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1065.714 351.805 simultaneous interpolator

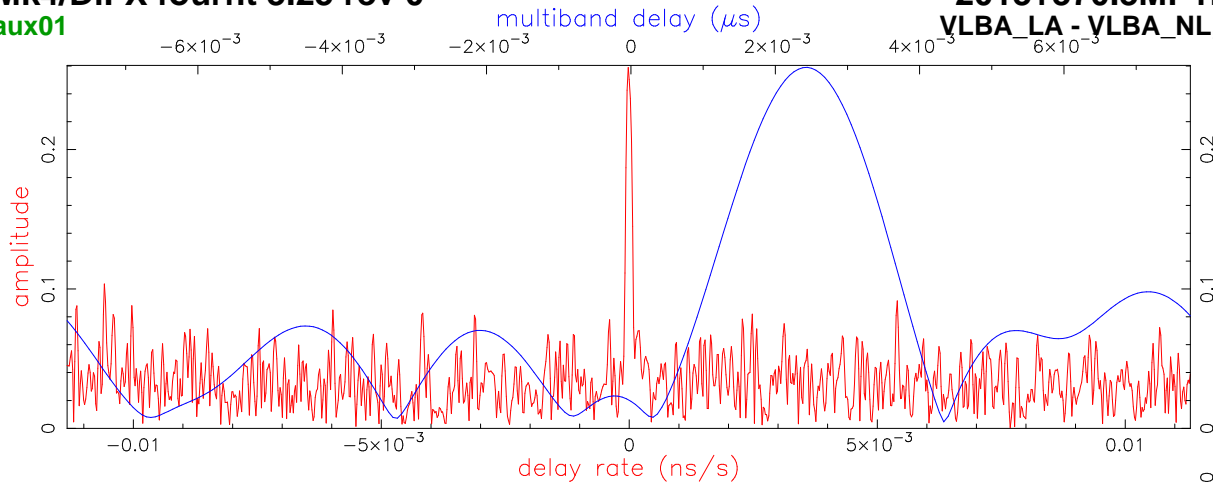
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/In..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/In.W.230.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

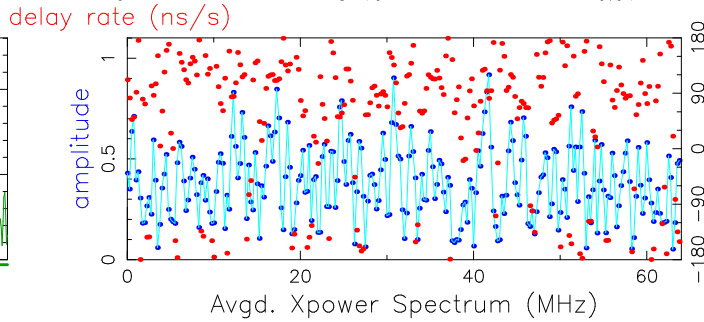
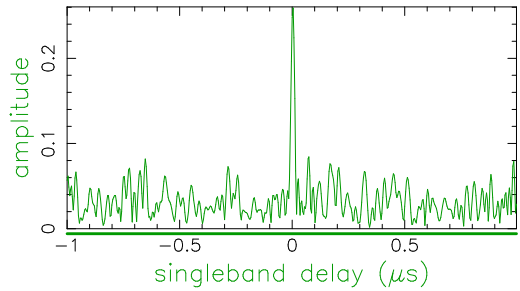
2013+370.3MP1N1, No0280, In

VLBA_LA - VLBA_NL, fgroup W, pol RR



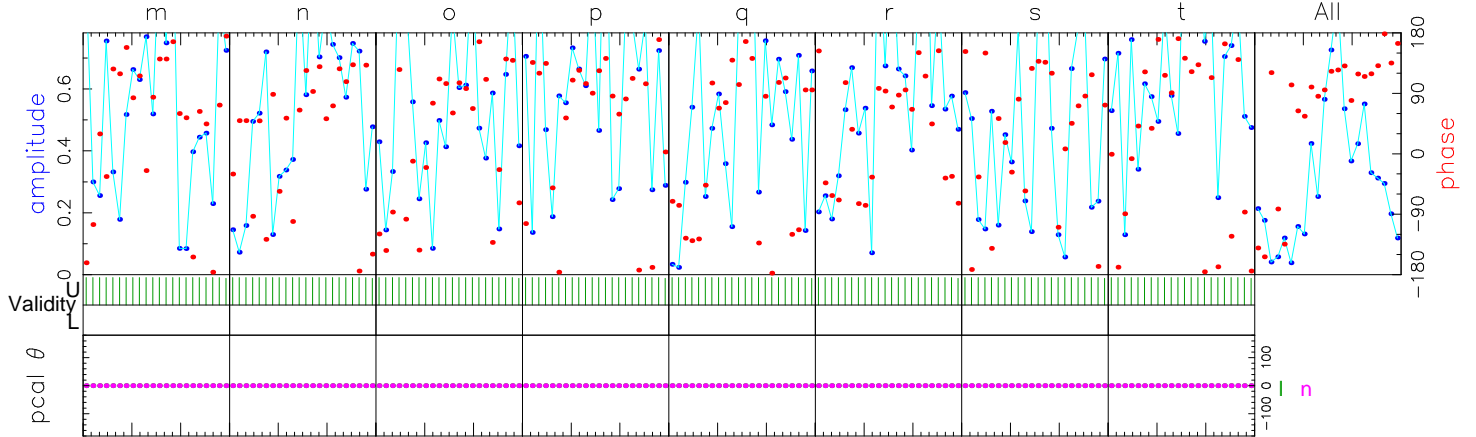
Fringe quality 9

SNR 9.6
 Int time 179.986
 Amp 0.260
 Phase 120.8
 PFD 2.5e-13
 Delays (us)
 SBD 0.002912
 MBD 0.002398
 Fringe rate (Hz)
 -0.002090
 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	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
l	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.94682412851E+03	Apriori delay (usec)	-3.94682652608E+03	Resid mbdelay (usec)	2.39758E-03	+/-	1.1E-04
Sband delay (usec)	-3.94682361383E+03	Apriori clock (usec)	-8.0263596E+00	Resid sbdelay (usec)	2.91225E-03	+/-	9.0E-04
Phase delay (usec)	-3.94682652219E+03	Apriori clockrate (us/s)	-5.3126102E-07	Resid phdelay (usec)	3.89448E-06	+/-	3.9E-07
Delay rate (us/s)	1.49625279364E-01	Apriori rate (us/s)	1.49625303628E-01	Resid rate (us/s)	-2.42638E-08	+/-	3.7E-09
Total phase (deg)	-223.6	Apriori accel (us/s/s)	1.53856790401E-05	Resid phase (deg)	120.8	+/-	12.0

ph/seg (deg)	56.6	28.1	Search (1024X32)	0.259	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	88.5	49.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	21.2	17.0	Inc. seg. avg.	0.281	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.6	29.6	Inc. frq. avg.	0.261	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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1065.714 351.805 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/In..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/In.W.236.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

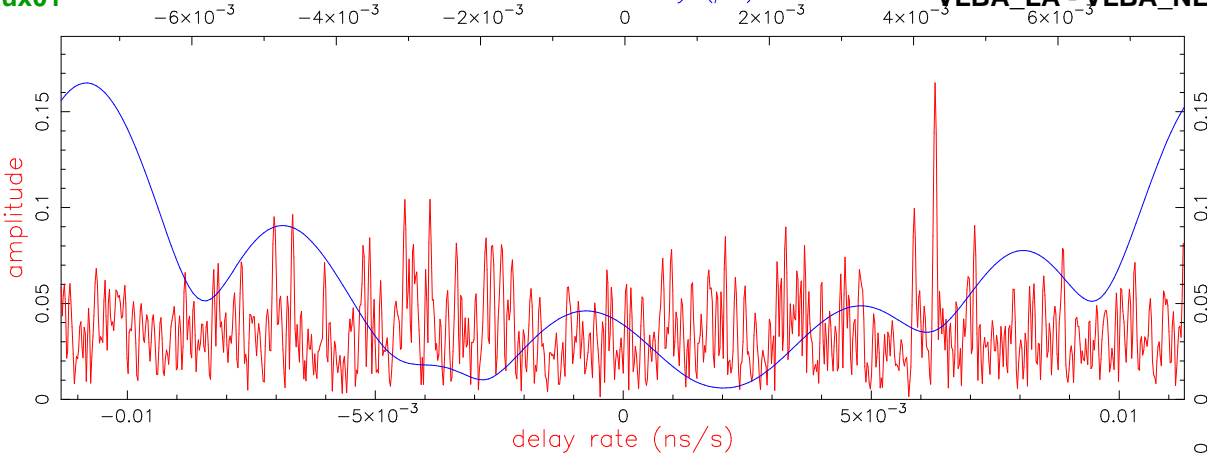
aux01

2013+370.3MP1N1, No0280, In

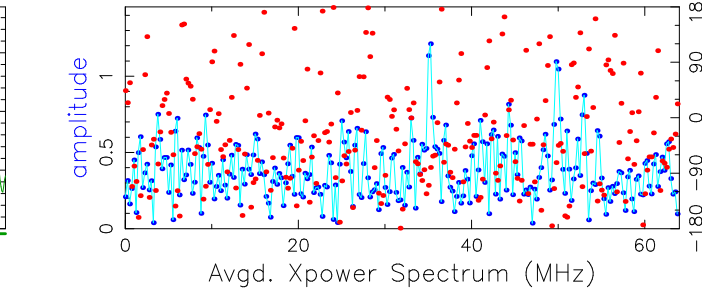
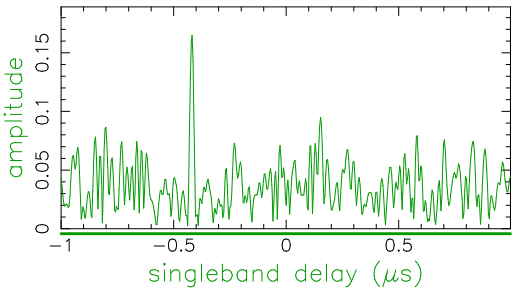
VLBA_LA - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

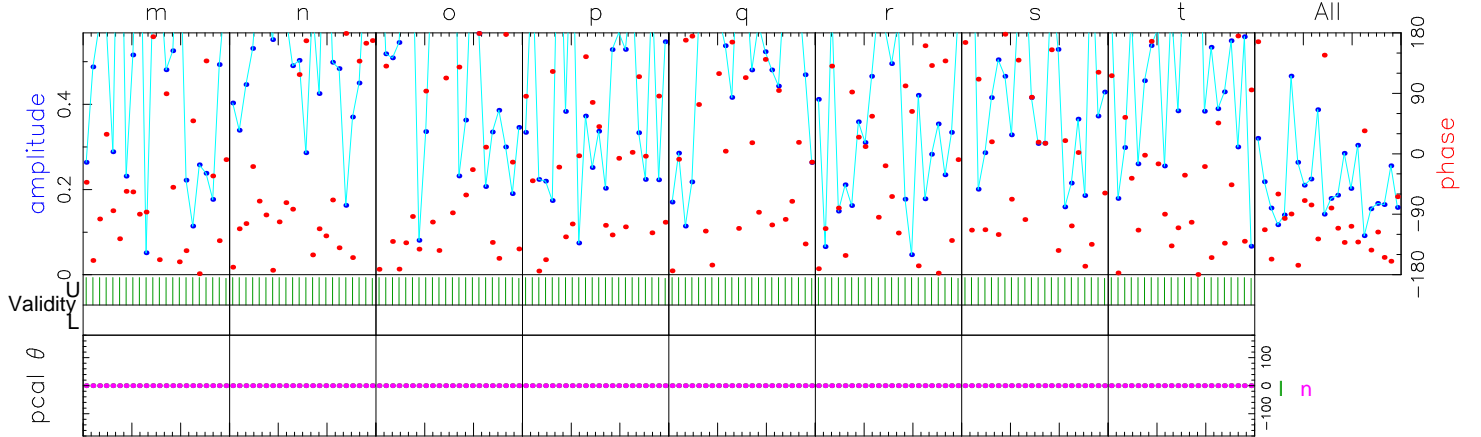


SNR 6.1
 Int time 179.986
 Amp 0.189
 Phase -121.8
 PFD 1.3e-01
 Delays (us)
 SBD -0.419085
 MBD -0.007485
 Fringe rate (Hz) 0.542117
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:105048
 2024:113:095956
 RA & Dec (J2000) 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0						
l	0	0	0	0	0	0	0	0	APs used					
n	0	0	0	0	0	0	0	0	PC freqs					
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC					
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp					
n	1000	1000	1000	1000	1000	1000	1000	1000						
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids					
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Tracks					
Group delay (usec) (SBD)	-3.94724026082E+03								Apriori delay (usec)	-3.94682652608E+03	Resid mbdelay (usec)	-7.48474E-03	+/-	1.8E-04
Sband delay (usec)	-3.94724561108E+03								Apriori clock (usec)	0.160	Resid sbdelay (usec)	-4.19085E-01	+/-	1.4E-03
Phase delay (usec)	-3.94682653001E+03								Apriori clockrate (us/s)	0.192	Resid phdelay (usec)	-3.92632E-06	+/-	6.1E-07
Delay rate (us/s)	1.49631597064E-01								Apriori rate (us/s)	0.181	Resid rate (us/s)	6.29344E-06	+/-	5.8E-09
Total phase (deg)			-106.1						Apriori accel (us/s/s)	0.189 +/- 0.031	Resid phase (deg)	-121.8	+/-	18.8

ph/seg (deg) 52.2 44.1 Search (1024X32) 0.160 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.9 76.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 25.8 26.6 Inc. seg. avg. 0.192 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.2 46.4 Inc. frq. avg. 0.181 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 l: az 62.2 el 27.5 pa -64.5 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1065.714 351.805 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/ln..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/ln.W.245.3MP1N1

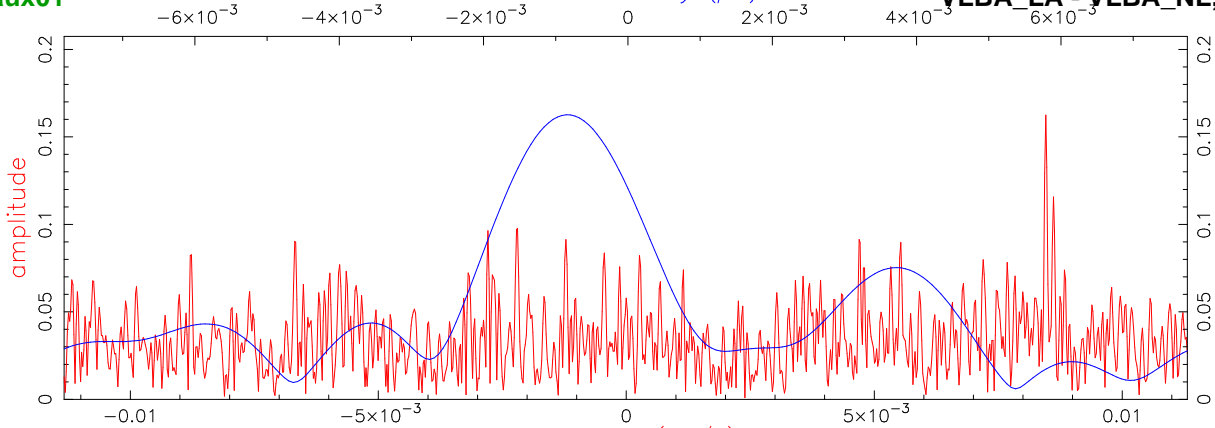
Mk4/DiFX fourfit 3.25 rev 0

aux01

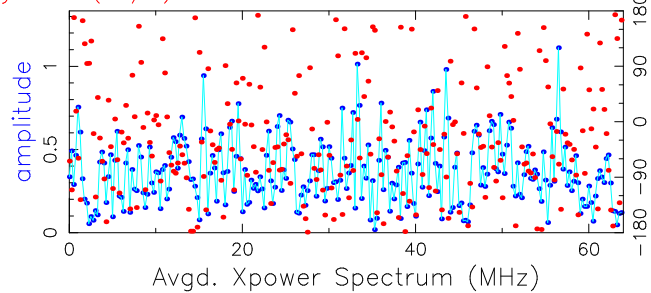
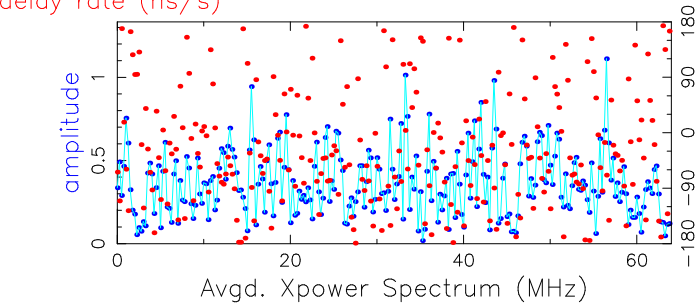
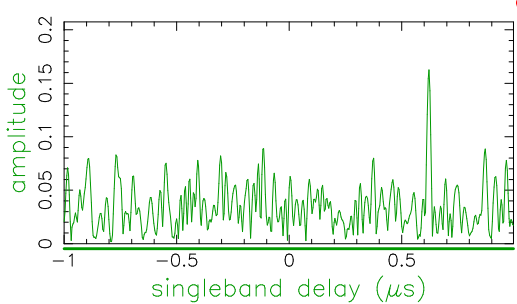
2013+370.3MP1N1, No0280, In

VLBA_LA - VLBA_NL, fgroup W, pol RL

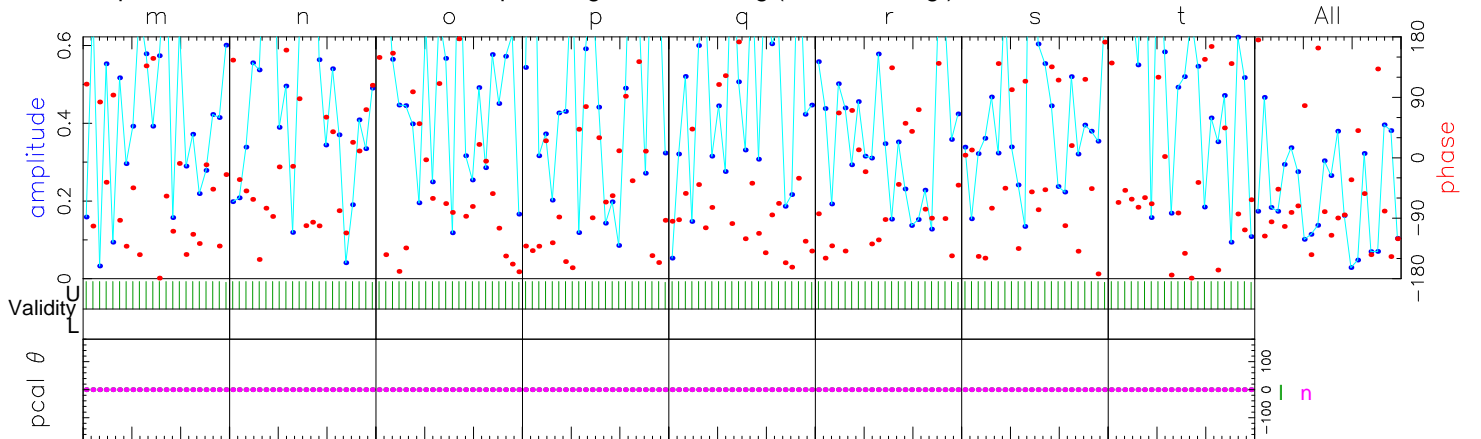
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 179.986
 Amp 0.207
 Phase -99.7
 PFD 2.5e-01
 Delays (us)
 SBD 0.620282
 MBD -0.000894
 Fringe rate (Hz) 0.729085
 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
	-93.1	-72.5	-146.9	-128.0	-92.5	-95.8	-82.4	-91.0	Phase	-99.7
	0.2	0.2	0.2	0.2	0.4	0.1	0.2	0.2	Ampl.	0.2
	116.7	329.4	281.9	112.1	414.9	247.8	391.2	330.5	Sbd box	415.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -3.94620242018E+03 Apriori delay (usec) -3.94682652608E+03 Resid mbdelay (usec) -8.94096E-04 +/- 1.8E-04
 Sband delay (usec) -3.94620624358E+03 Apriori clock (usec) -8.0263596E+00 Resid sbdelay (usec) 6.20282E-01 +/- 1.4E-03
 Phase delay (usec) -3.94682652929E+03 Apriori clockrate (us/s) -5.3126102E-07 Resid phdelay (usec) -3.21375E-06 +/- 6.2E-07
 Delay rate (us/s) 1.49633767580E-01 Apriori rate (us/s) 1.49625303628E-01 Resid rate (us/s) 8.46395E-06 +/- 5.9E-09
 Total phase (deg) -84.0 Apriori accel (us/s/s) 1.53856790401E-05 Resid phase (deg) -99.7 +/- 19.2

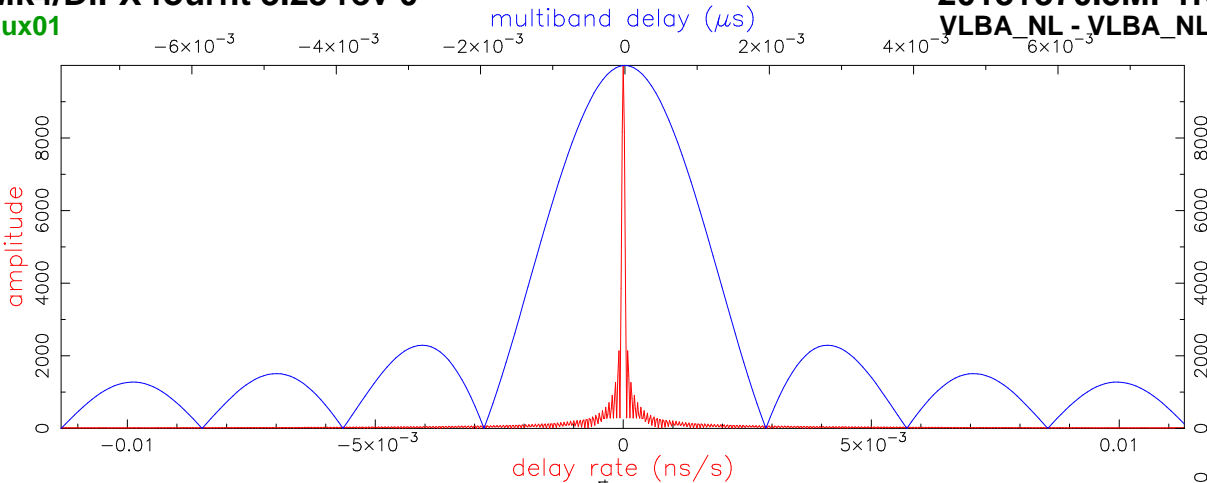
RMS Theor. Amplitude 0.207 +/- 0.035 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.4 44.9 Search (1024X32) 0.158 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 84.3 78.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 26.6 27.1 Inc. seg. avg. 0.212 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 32.3 47.3 Inc. frq. avg. 0.201 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) -1065.714 351.805 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/ln..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/ln.W.260.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

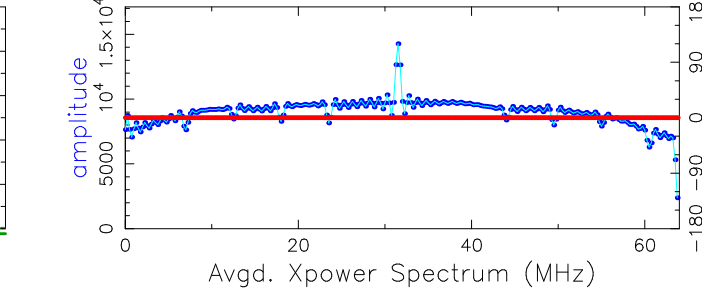
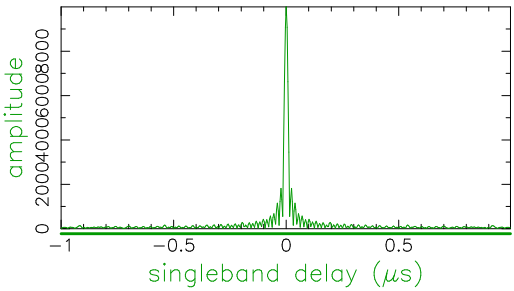
2013+370.3MP1N1, No0280, nn

VLBA_NL - VLBA_NL, fgroup W, pol LL



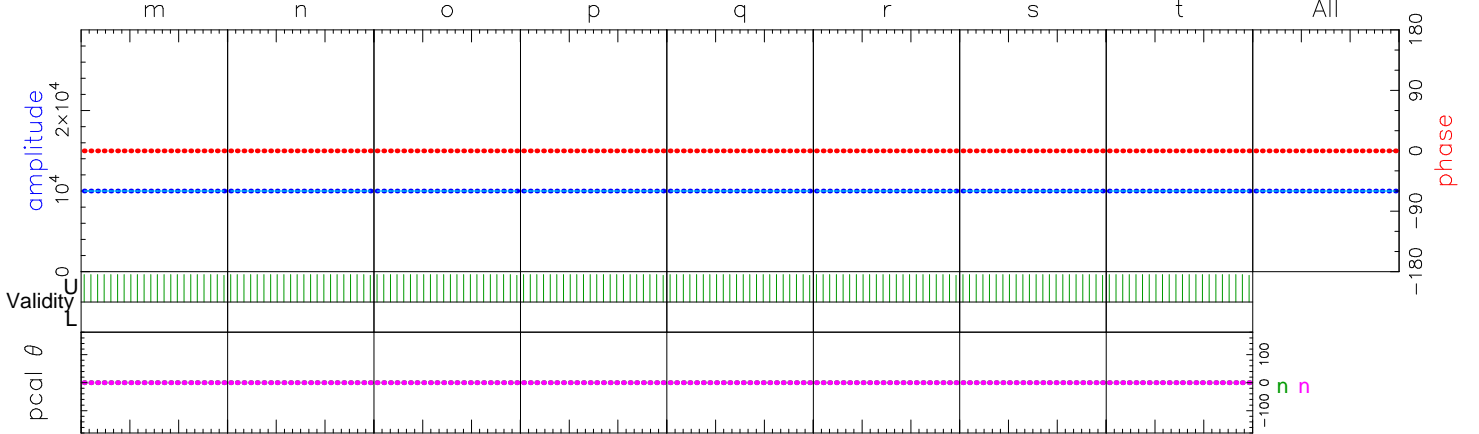
Fringe quality 9

SNR 366874.3
 Int time 179.986
 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
 2025:041:105051
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	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 +/- 2.3E-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 +/- 9.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

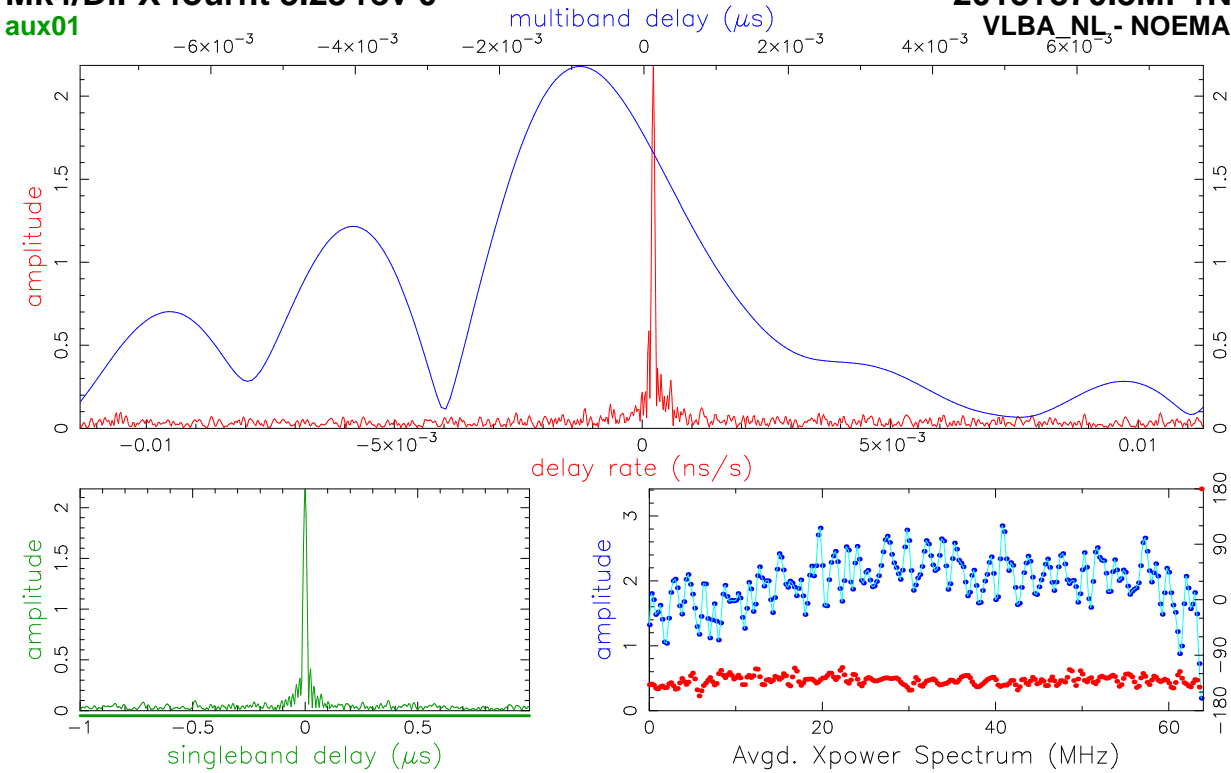
RMS Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 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. 9999.999 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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nn.W.255.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nN

VLBA_NL- NOEMA, fgroup W, pol LL

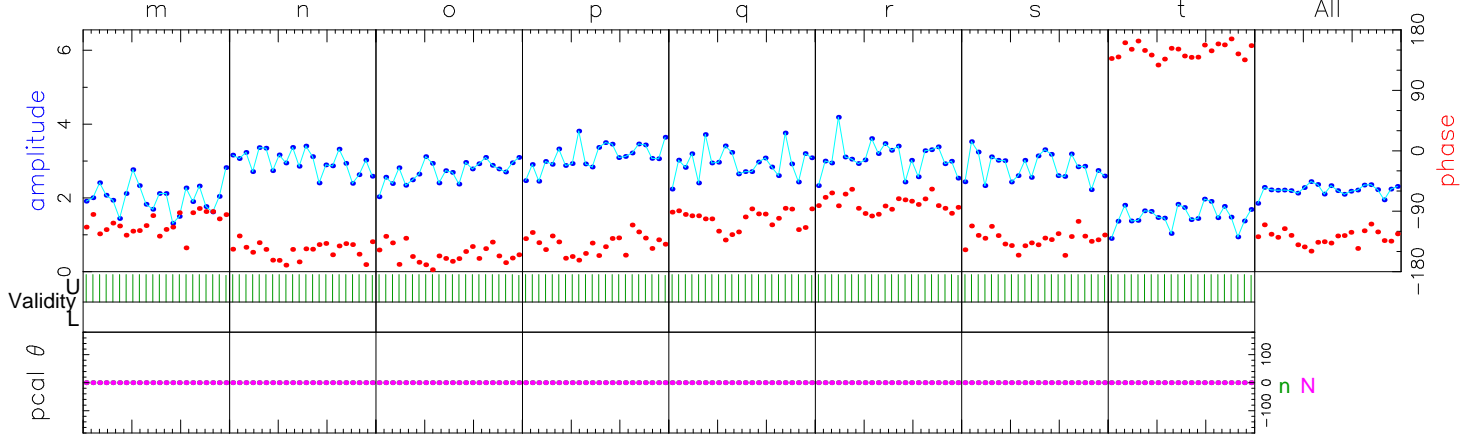


Fringe quality 6

SNR 80.2
 Int time 179.981
 Amp 2.185
 Phase -128.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.000708
 MBD -0.000917
 Fringe rate (Hz)
 0.018220
 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
	-109.3	-148.2	-154.8	-139.2	-102.0	-78.7	-131.2	148.6	Phase	-128.8
	1.9	2.9	2.6	3.0	2.9	3.0	2.8	1.5	Ampl.	2.6
	255.0	256.7	257.2	257.2	257.3	256.8	256.3	254.7	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	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	
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.42616050865E+03	Apriori delay (usec)	-5.42615959146E+03	Resid mbdelay (usec)	-9.17191E-04	+/-	1.4E-05
Sband delay (usec)	-5.42616029971E+03	Apriori clock (usec)	1.3074692E+01	Resid sbdelay (usec)	-7.08250E-04	+/-	1.1E-04
Phase delay (usec)	-5.42615959561E+03	Apriori clockrate (us/s)	2.8296094E-07	Resid phdelay (usec)	-4.15304E-06	+/-	4.6E-08
Delay rate (us/s)	1.30633305460E+00	Apriori rate (us/s)	1.30633284308E+00	Resid rate (us/s)	2.11521E-07	+/-	4.4E-10
Total phase (deg)		Apriori accel (us/s/s)	2.64159394913E-05	Resid phase (deg)	-128.8	+/-	1.4

ph/seg (deg) 10.5 3.4
 amp/seg (%) 6.2 5.9
 ph/frq (deg) 44.0 2.0
 amp/frq (%) 30.6 3.5

RMS Theor. Amplitude 2.185 +/- 0.027
 Search (1024X32) 2.089
 Interp. 0.000
 Inc. seg. avg. 2.213
 Inc. frq. avg. 2.587

Group delay (usec) (SBD) -5.42616050865E+03
 Sband delay (usec) -5.42616029971E+03
 Phase delay (usec) -5.42615959561E+03
 Delay rate (us/s) 1.30633305460E+00
 Total phase (deg) -203.8

Apriori delay (usec) -5.42615959146E+03
 Apriori clock (usec) 1.3074692E+01
 Apriori clockrate (us/s) 2.8296094E-07
 Apriori rate (us/s) 1.30633284308E+00
 Apriori accel (us/s/s) 2.64159394913E-05

Resid mbdelay (usec) -9.17191E-04
 Resid sbdelay (usec) -7.08250E-04
 Resid phdelay (usec) -4.15304E-06
 Resid rate (us/s) 2.11521E-07
 Resid phase (deg) -128.8

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

n: az 72.1 el 40.3 pa -63.2 N: az 263.8 el 65.1 pa 62.6 u, v (fr/asec) -9377.822 1379.351 simultaneous interpolator

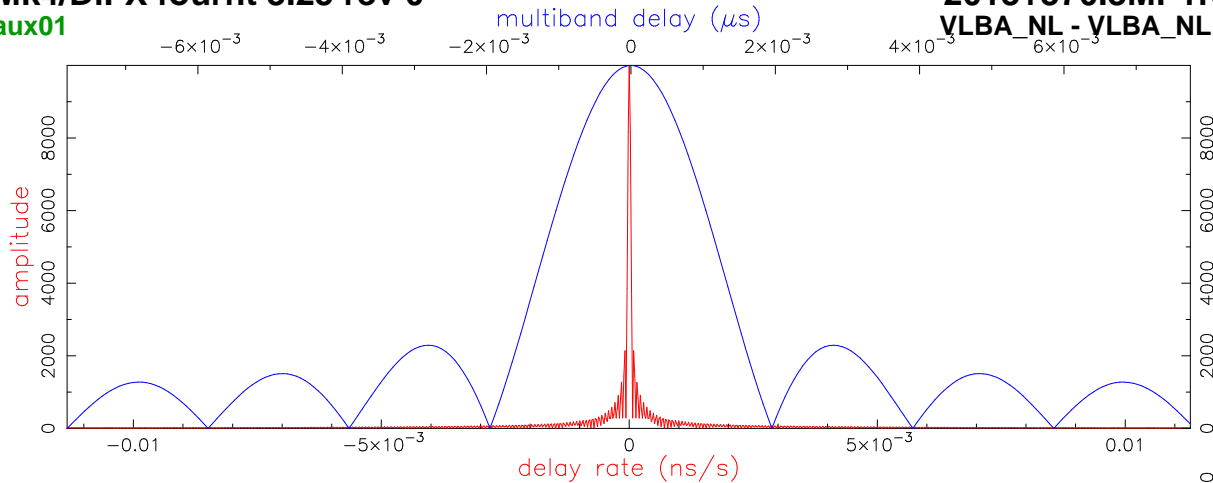
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nN.W.267.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

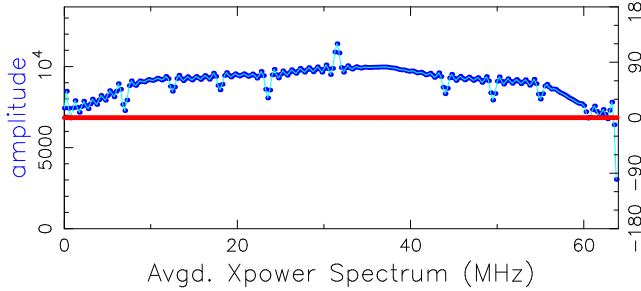
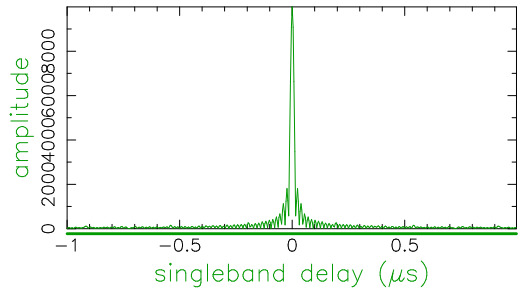
2013+370.3MP1N1, No0280, nn

VLBA_NL - VLBA_NL, fgroup W, pol RR



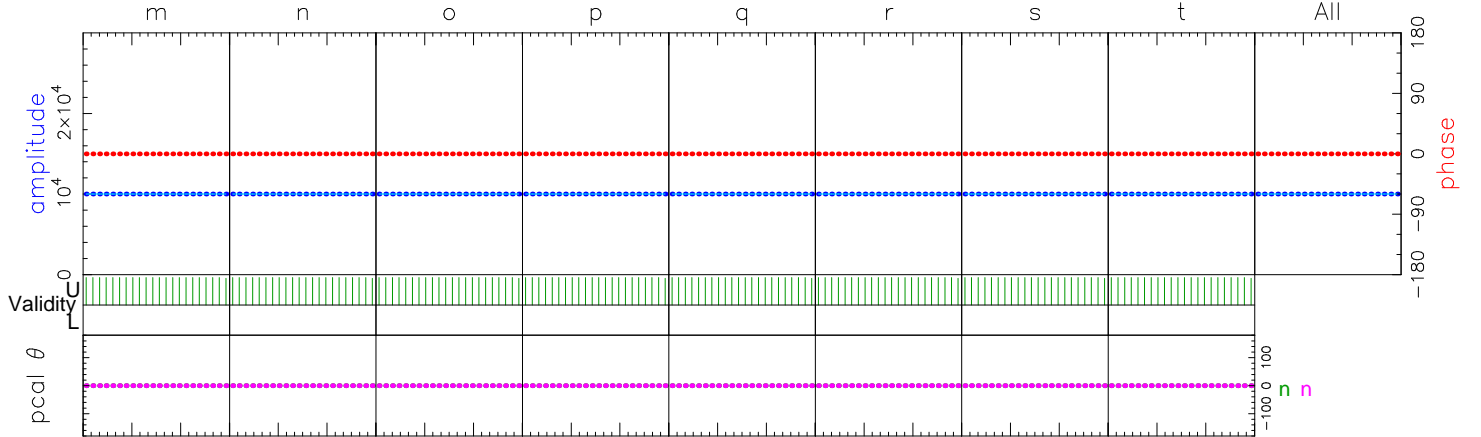
Fringe quality 9

SNR 366874.3
 Int time 179.986
 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
 2025:041:105055
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0	Ampl.	10000.0
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
n	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC freqs	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

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

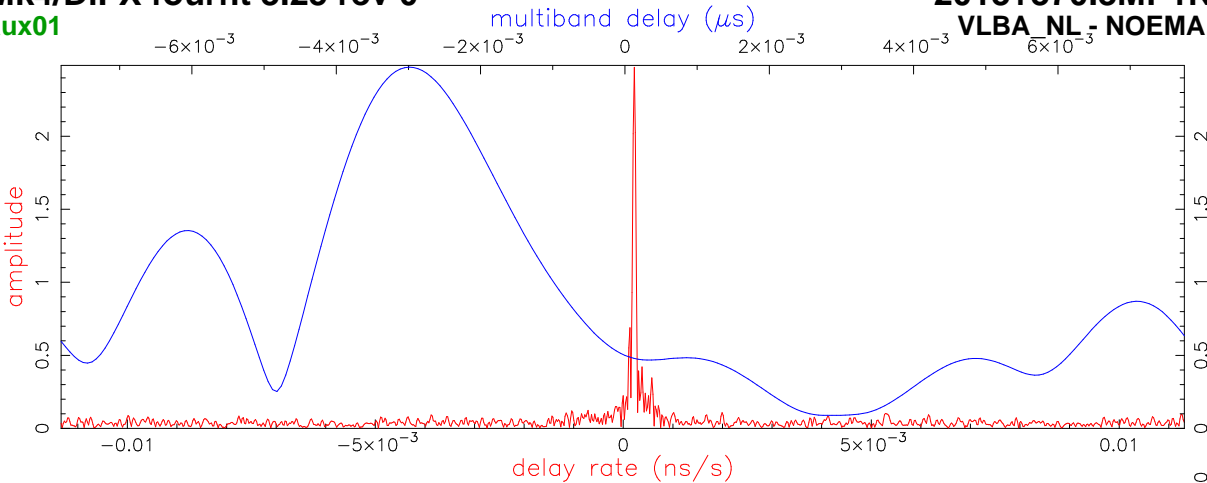
ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (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
 n: az 72.1 el 40.3 pa -63.2 n: az 72.1 el 40.3 pa -63.2 u, v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nn.W.272.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

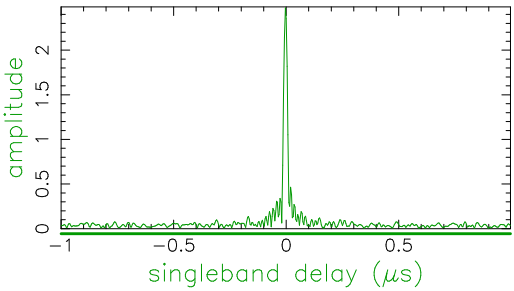
2013+370.3MP1N1, No0280, nN

VLBA_NL - NOEMA, fgroup W, pol RR

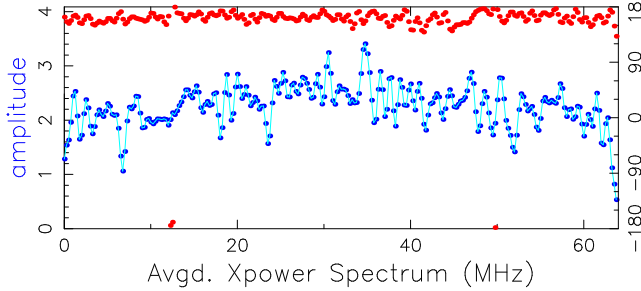


Fringe quality 6

SNR 91.2
 Int time 179.981
 Amp 2.486
 Phase 161.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.002984
 MBD -0.002938
 Fringe rate (Hz)
 0.018264
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

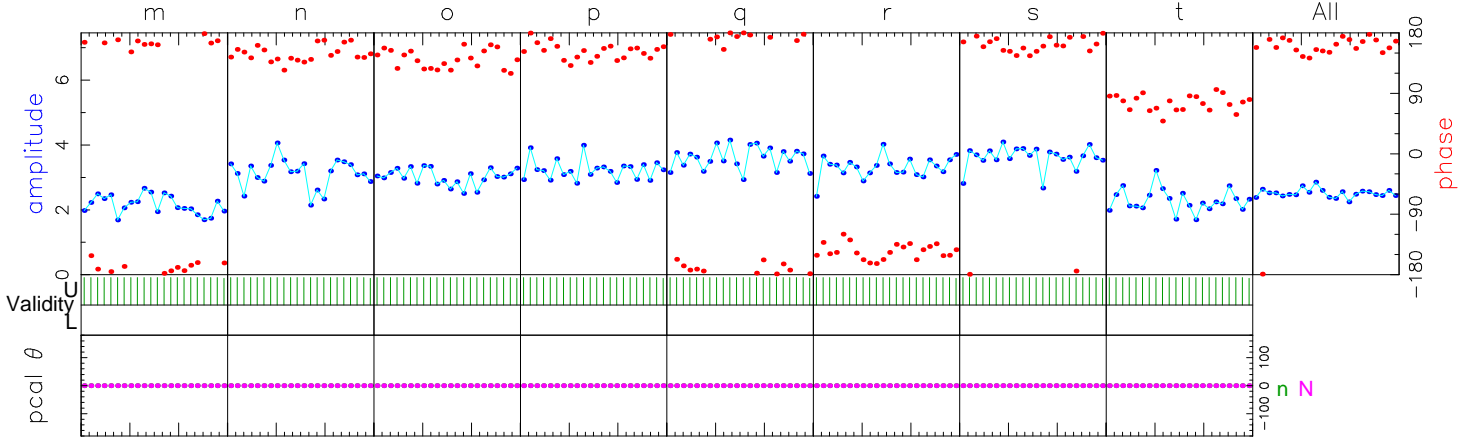


delay rate (ns/s)



Exp. c241c
 Yr:day 1234
 Start 2024:112
 Stop 2024:112
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105055
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0		
N	0	0	0	0	0	0	0	0		
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -5.42616252981E+03 Apriori delay (usec) -5.42615959146E+03 Resid mbdelay (usec) -2.93835E-03 +/- 1.2E-05
 Sband delay (usec) -5.42616257571E+03 Apriori clock (usec) 1.3074692E+01 Resid sbdelay (usec) -2.98425E-03 +/- 9.4E-05
 Phase delay (usec) -5.42615958624E+03 Apriori clockrate (us/s) 2.8296094E-07 Resid phdelay (usec) 5.21970E-06 +/- 4.1E-08
 Delay rate (us/s) 1.30633305510E+00 Apriori rate (us/s) 1.30633284308E+00 Resid rate (us/s) 2.12027E-07 +/- 3.9E-10
 Total phase (deg) 86.9 Apriori accel (us/s/s) 2.64159394913E-05 Resid phase (deg) 161.9 +/- 1.3

RMS Theor. Amplitude 2.486 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 10.4 2.9 Search (1024X32) 2.379 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 5.3 5.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 44.2 1.8 Inc. seg. avg. 2.511 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.6 3.1 Inc. frq. avg. 2.977 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

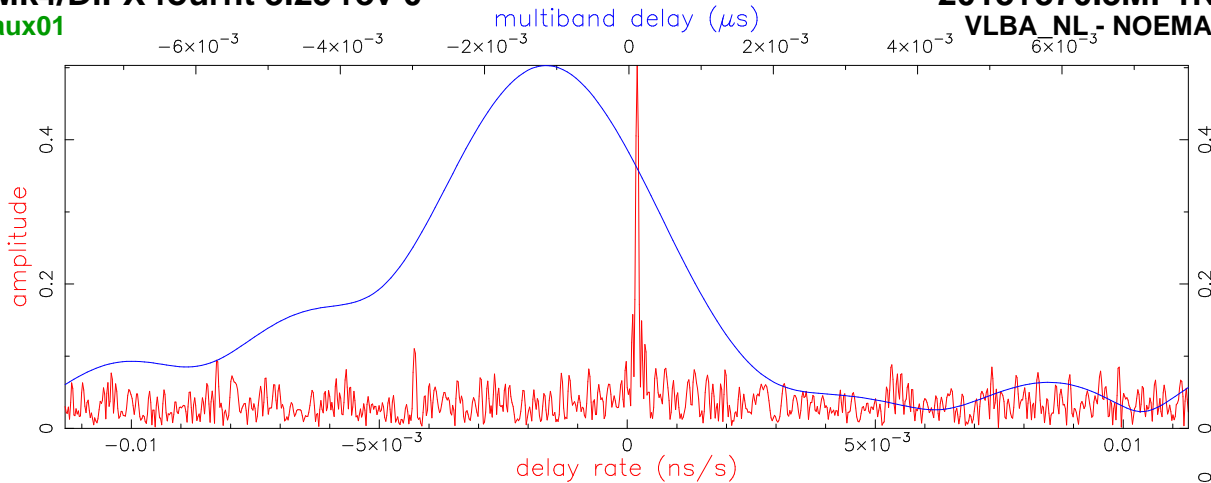
n: az 72.1 el 40.3 pa -63.2 N: az 263.8 el 65.1 pa 62.6 u, v (fr/asec) -9377.822 1379.351 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nN.W.276.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

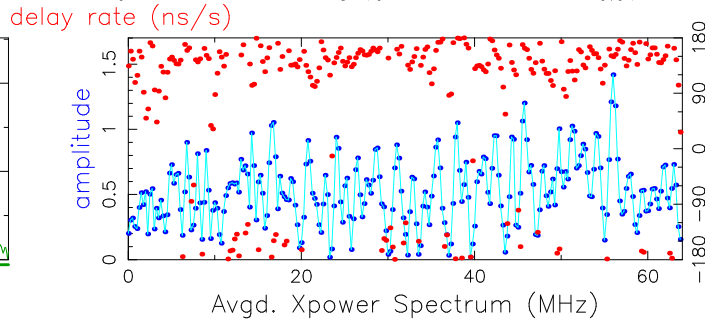
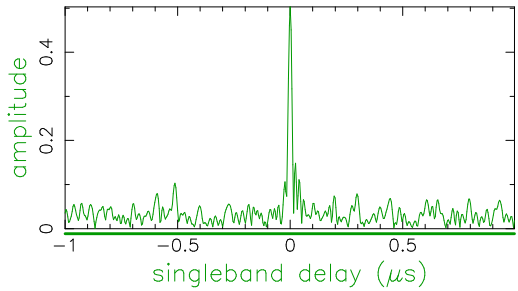
2013+370.3MP1N1, No0280, nN

VLBA_NL- NOEMA, fgroup W, pol LR



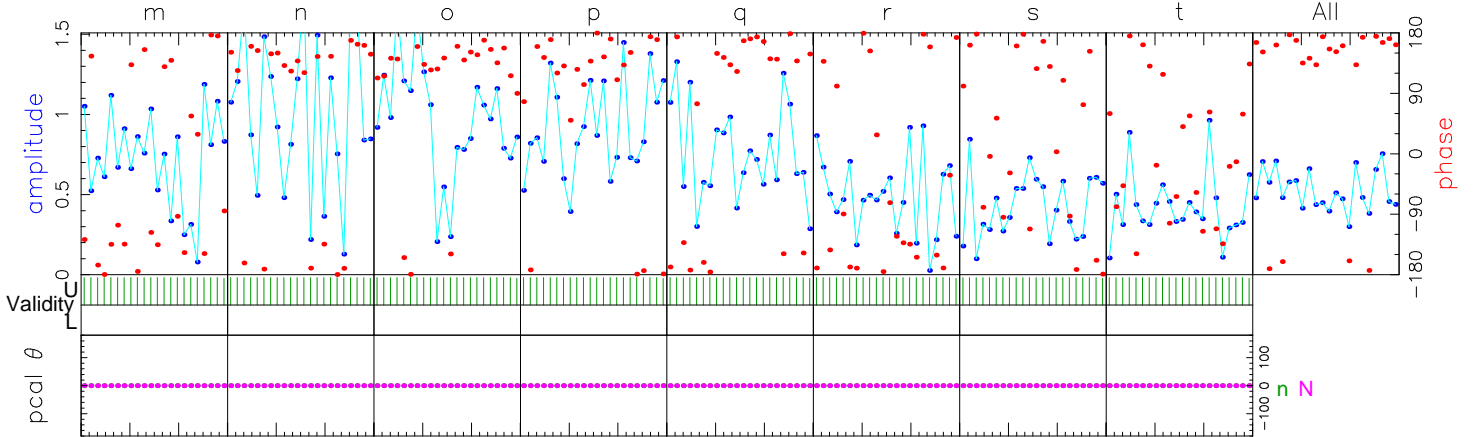
Fringe quality 7

SNR 18.5
 Int time 179.981
 Amp 0.503
 Phase 163.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000177
 MBD -0.001156
 Fringe rate (Hz)
 0.018061
 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
 2025:041:105058
 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
	-156.4	155.4	145.6	150.4	170.3	-160.3	168.5	170.6	Phase	163.9
	0.5	0.9	0.9	0.8	0.7	0.3	0.2	0.0	Ampl.	0.5
	255.3	256.8	257.3	257.1	257.1	257.0	404.2	16.1	Sbd box	257.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	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	
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-5.42616074723E+03	Apriori delay (usec)	-5.42615959146E+03	Resid mbdelay (usec)	-1.15577E-03	+/-	5.9E-05
Sband delay (usec)	-5.42615976896E+03	Apriori clock (usec)	1.3074692E+01	Resid sbdelay (usec)	-1.77500E-04	+/-	4.7E-04
Phase delay (usec)	-5.42615958617E+03	Apriori clockrate (us/s)	2.8296094E-07	Resid phdelay (usec)	5.28445E-06	+/-	2.0E-07
Delay rate (us/s)	1.30633305275E+00	Apriori rate (us/s)	1.30633284308E+00	Resid rate (us/s)	2.09674E-07	+/-	1.9E-09
Total phase (deg)		Apriori accel (us/s/s)	2.64159394913E-05	Resid phase (deg)	163.9	+/-	6.2

ph/seg (deg)	RMS 19.1	Theor. 14.6	Amplitude Search (1024X32)	0.503 +/- 0.027	0.476	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	24.9	25.4	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)	24.4	8.8	Inc. seg. avg.	0.513	0.513	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	64.0	15.3	Inc. frq. avg.	0.529	0.529	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 72.1 el 40.3 pa -63.2 N: az 263.8 el 65.1 pa 62.6 u,v (fr/asec) -9377.822 1379.351 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nN.W.286.3MP1N1

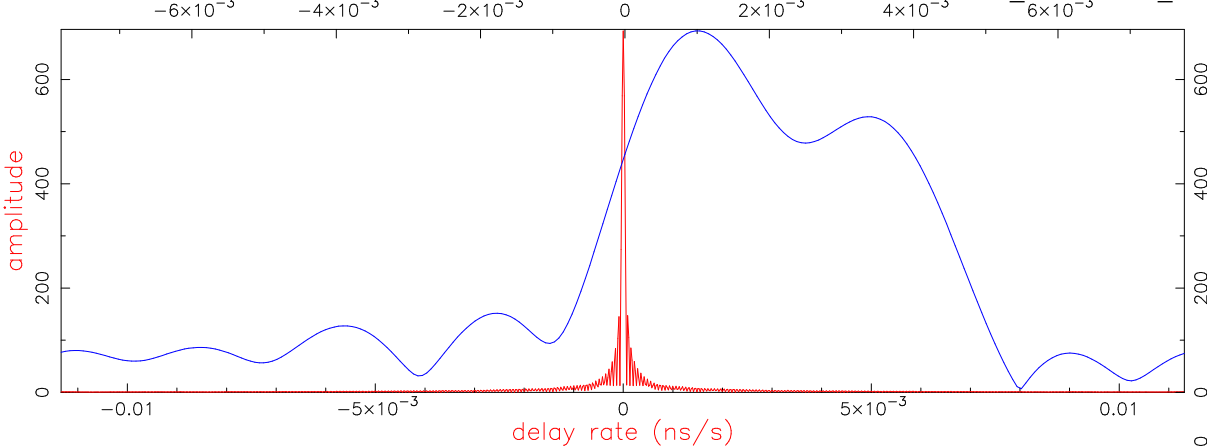
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nn

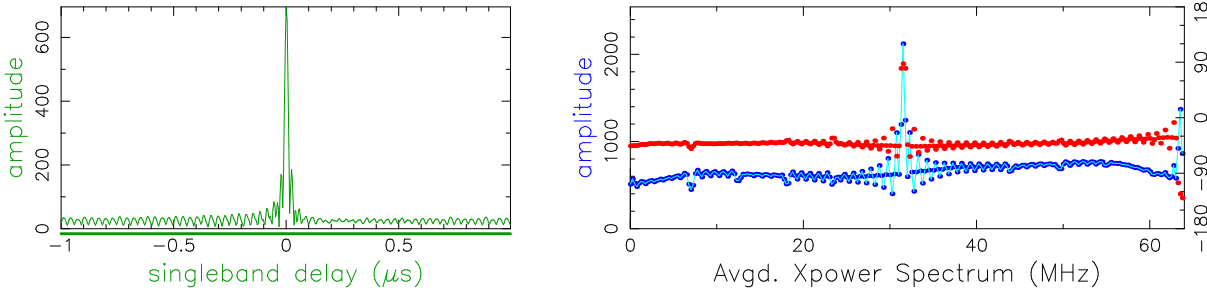
VLBA_NL - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

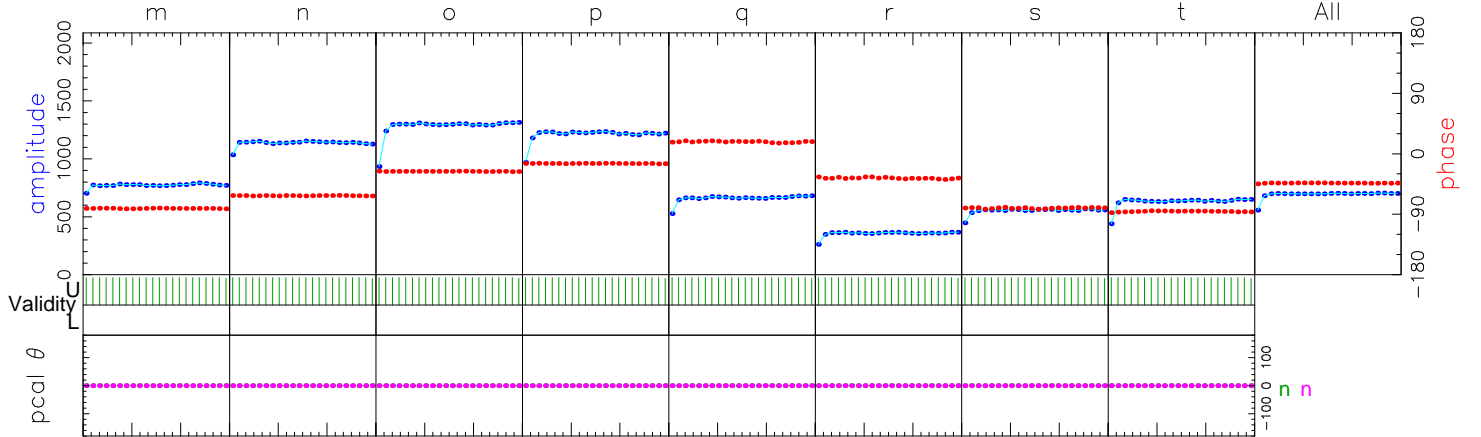


Fringe quality 5
 Error code G
 SNR 25534.8
 Int time 179.986
 Amp 696.010
 Phase -43.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.000797
 MBD 0.001034
 Fringe rate (Hz)
 -0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105058
 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
	-81.3	-62.3	-26.2	-14.5	17.9	-36.2	-80.8	-85.7	Phase	-43.6
	773.2	1137.0	1281.2	1210.0	660.2	356.6	553.4	630.2	Ampl.	825.2
	257.9	257.3	257.4	257.3	257.9	256.6	257.3	256.7	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.03365625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.03366E-03 +/- 4.3E-08
 Sband delay (usec) 7.97250000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 7.97250E-04 +/- 3.4E-07
 Phase delay (usec) -1.40485238528E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -1.40485E-06 +/- 1.4E-10
 Delay rate (us/s) -4.39305724142E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -4.39306E-11 +/- 1.4E-12
 Total phase (deg) -43.6 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -43.6 +/- 0.0

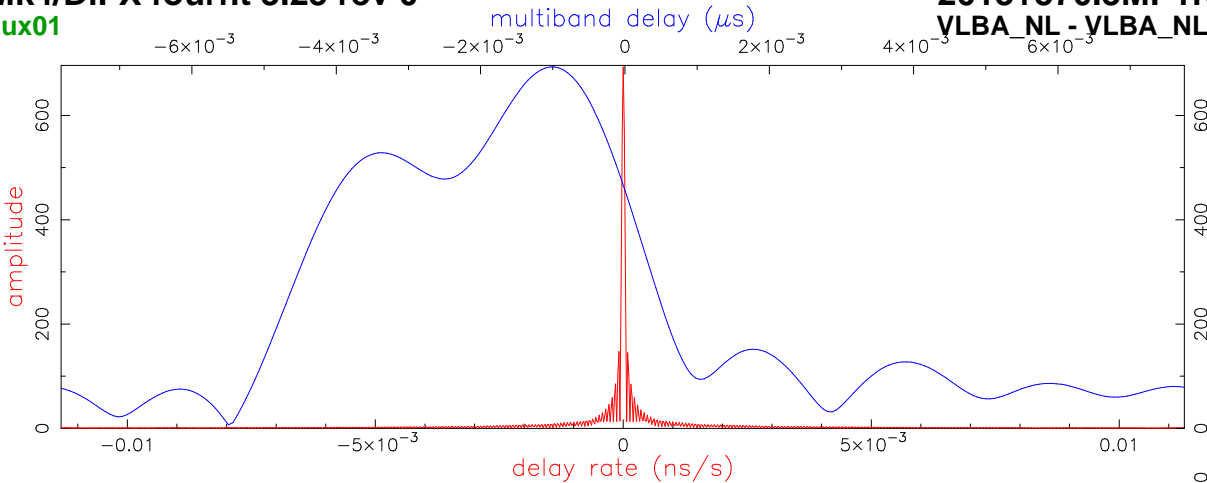
RMS Theor. Amplitude 696.010 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.3 0.0 Search (1024X32) 693.009 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.3 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 40.7 0.0 Inc. seg. avg. 693.083 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.5 0.0 Inc. frq. avg. 825.215 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 n: az 72.1 el 40.3 pa -63.2 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nn.W.287.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

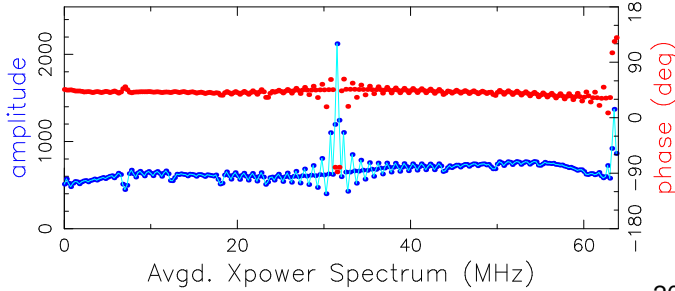
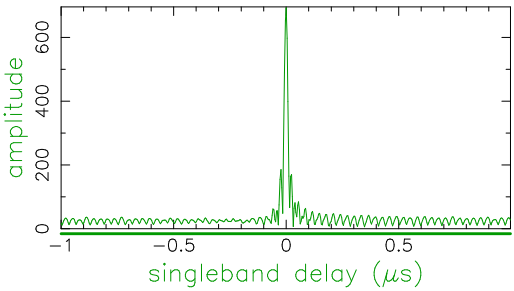
aux01

2013+370.3MP1N1, No0280, nn

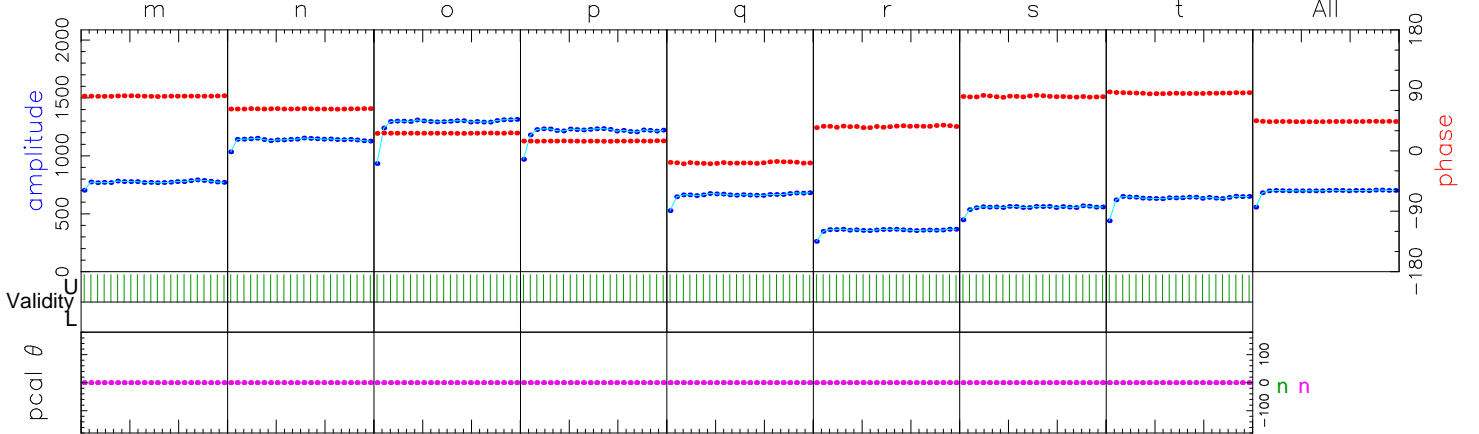
VLBA_NL - VLBA_NL, fgroup W, pol RL



Fringe quality 5
 Error code G
 SNR 25534.8
 Int time 179.986
 Amp 696.010
 Phase 43.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000797
 MBD -0.001034
 Fringe rate (Hz)
 0.000004
 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
 2025:041:105100
 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
	81.3	62.3	26.2	14.5	-17.9	36.2	80.8	85.7	Phase	43.6
	773.2	1137.0	1281.2	1210.0	660.2	356.6	553.4	630.2	Ampl.	825.2
	256.1	256.7	256.6	256.7	256.1	257.4	256.7	257.3	Sbd box	256.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -1.03365625000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -1.03366E-03 +/- 4.3E-08
 Sband delay (usec) -7.97250000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -7.97250E-04 +/- 3.4E-07
 Phase delay (usec) 1.40485238534E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 1.40485E-06 +/- 1.4E-10
 Delay rate (us/s) 4.39305724142E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 4.39306E-11 +/- 1.4E-12
 Total phase (deg) 43.6 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 43.6 +/- 0.0

RMS Theor. Amplitude 696.010 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.3 0.0 Search (1024X32) 693.009 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 4.3 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 40.7 0.0 Inc. seg. avg. 693.083 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.5 0.0 Inc. frq. avg. 825.215 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 n: az 72.1 el 40.3 pa -63.2 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nn.W.300.3MP1N1

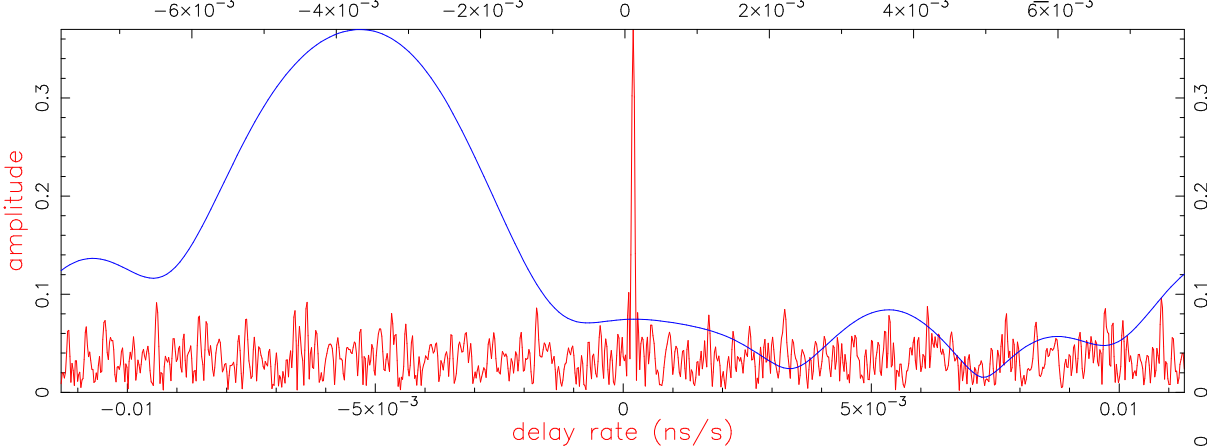
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nN

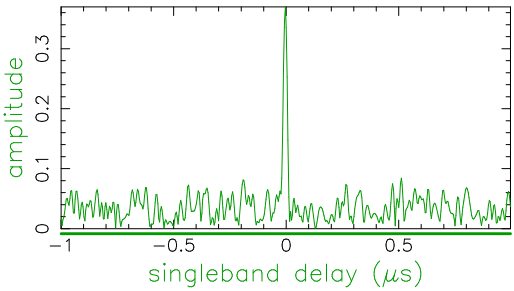
VLBA_NL- NOEMA, fgroup W, pol RL

multiband delay (μ s)

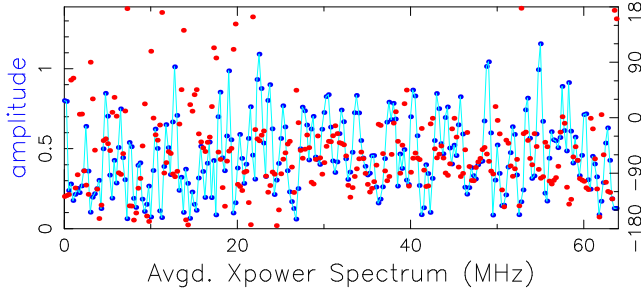


Fringe quality 9

SNR 13.6
 Int time 179.981
 Amp 0.370
 Phase -76.8
 PFD 1.8e-33
 Delays (us)
 SBD -0.004151
 MBD -0.003687
 Fringe rate (Hz) 0.017939
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

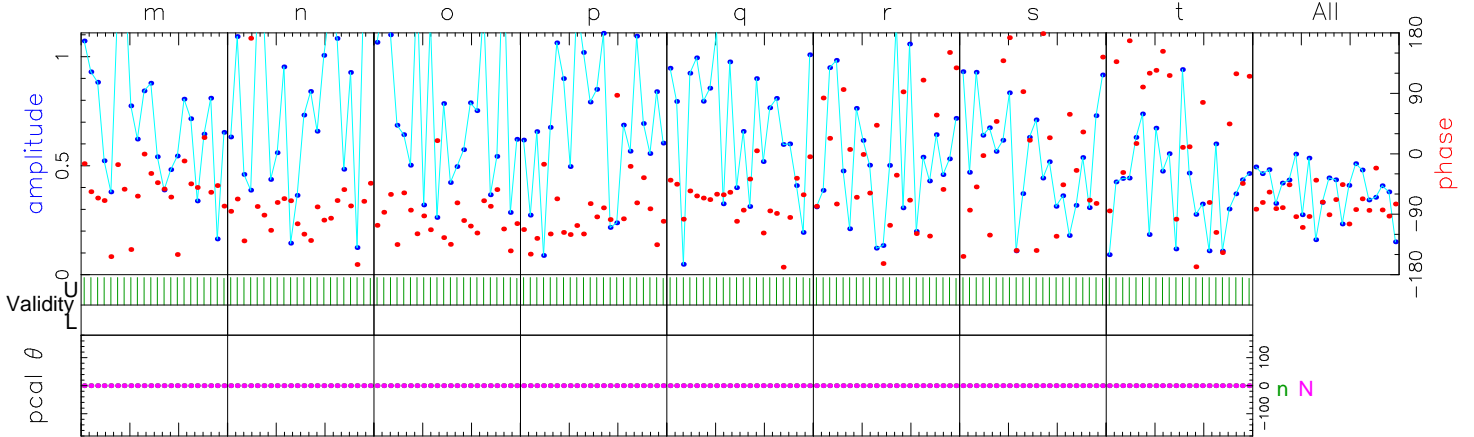


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105100
 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
	-47.3	-85.2	-97.9	-95.1	-61.5	-32.3	-101.7	89.9	Phase	-76.8
	0.6	0.7	0.7	0.6	0.6	0.2	0.1	0.1	Ampl.	0.4
	253.6	256.0	256.3	256.7	255.6	101.8	32.4	327.3	Sbd box	255.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -5.42616327826E+03 Apriori delay (usec) -5.42615959146E+03 Resid mbdelay (usec) -3.68680E-03 +/- 8.0E-05
 Sband delay (usec) -5.42616374196E+03 Apriori clock (usec) 1.3074692E+01 Resid sbdelay (usec) -4.15050E-03 +/- 6.3E-04
 Phase delay (usec) -5.42615959394E+03 Apriori clockrate (us/s) 2.8296094E-07 Resid phdelay (usec) -2.47580E-06 +/- 2.7E-07
 Delay rate (us/s) 1.30633305133E+00 Apriori rate (us/s) 1.30633284308E+00 Resid rate (us/s) 2.08256E-07 +/- 2.6E-09
 Total phase (deg) -151.8 Apriori accel (us/s/s) 2.64159394913E-05 Resid phase (deg) -76.8 +/- 8.4

RMS Theor. Amplitude 0.370 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 21.4 19.8 Search (1024X32) 0.357 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 30.1 34.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 73.4 11.9 Inc. seg. avg. 0.370 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 67.9 20.8 Inc. frq. avg. 0.420 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

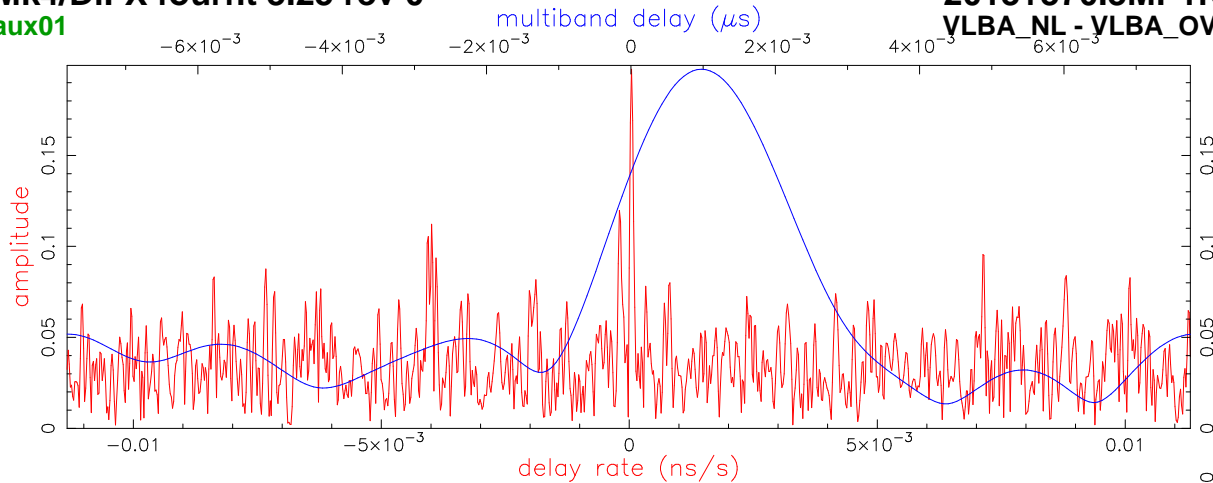
n: az 72.1 el 40.3 pa -63.2 N: az 263.8 el 65.1 pa 62.6 u,v (fr/asec) -9377.822 1379.351 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nN..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nN.W.301.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

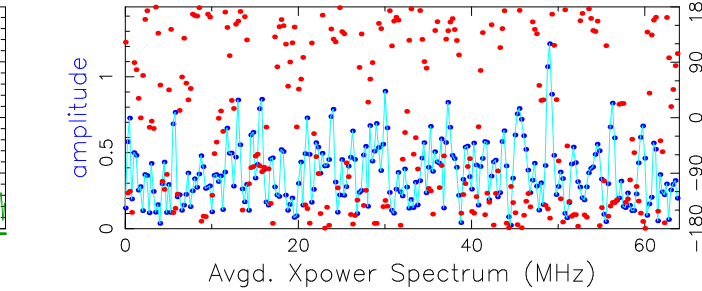
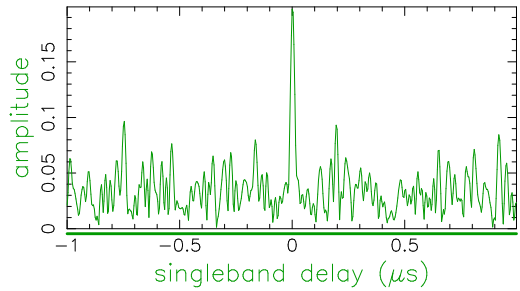
2013+370.3MP1N1, No0280, no

VLBA_NL - VLBA_OV, fgroup W, pol LL



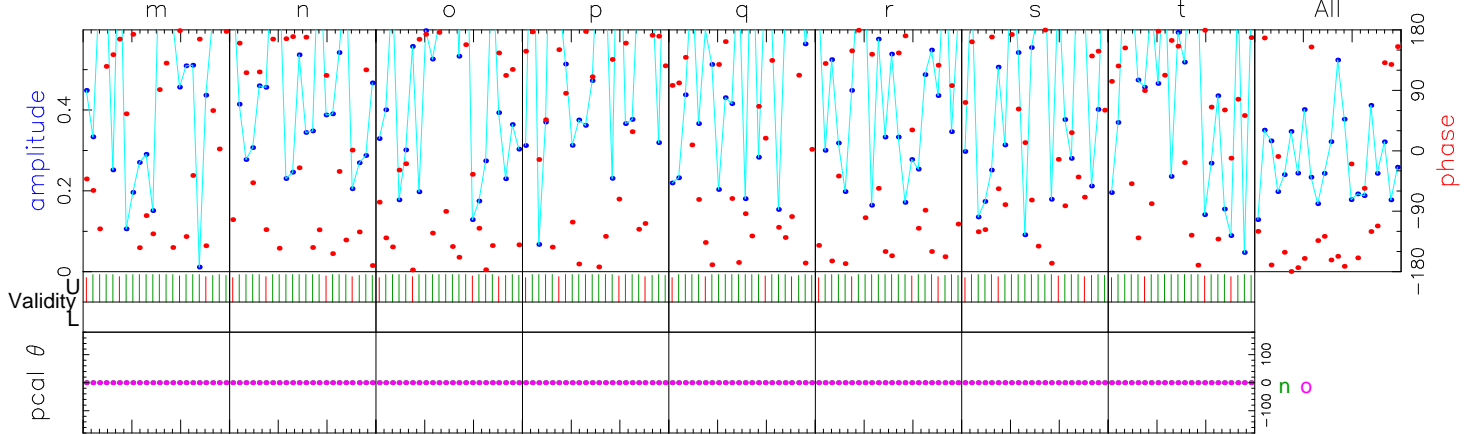
Fringe quality 9

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	Mani 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	

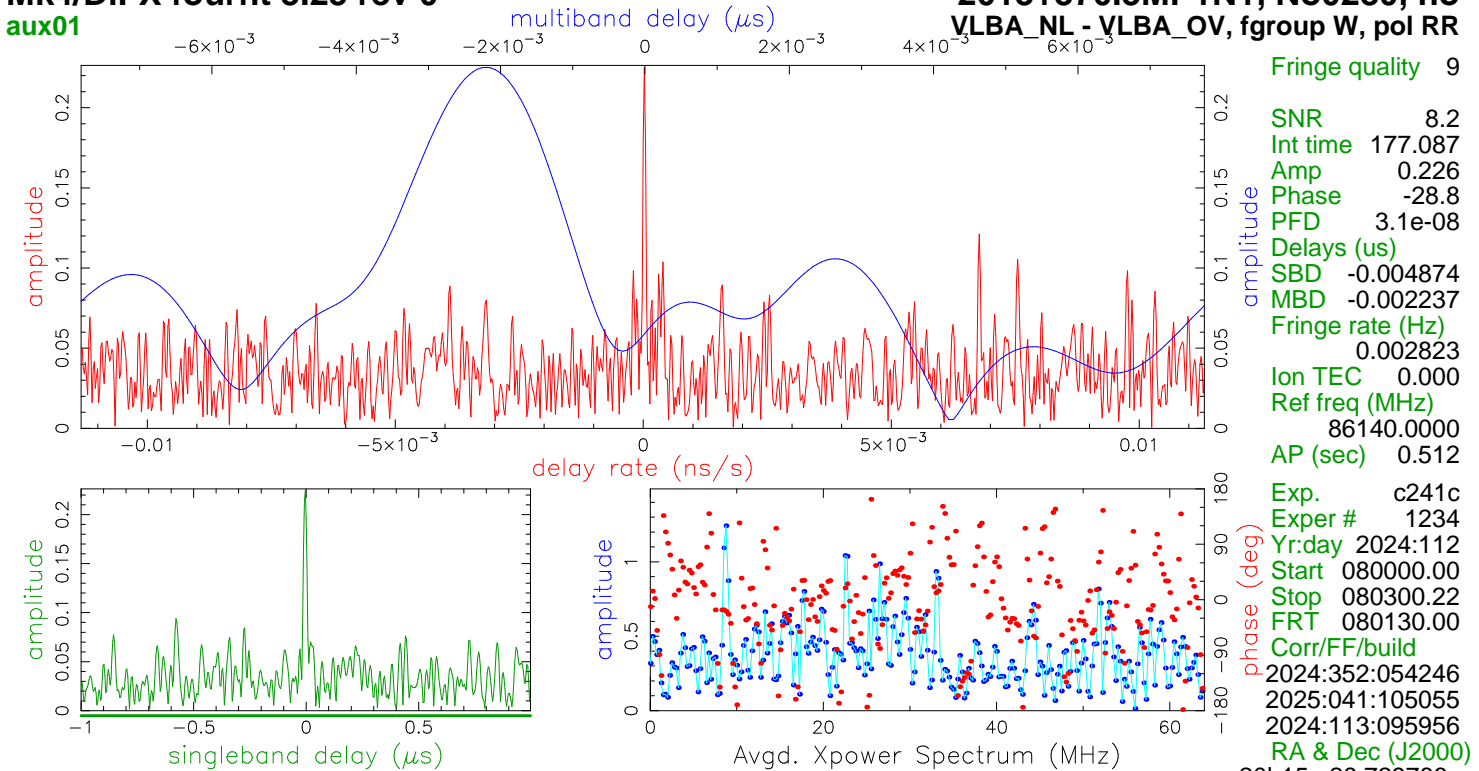
Group delay (usec) (SBD)	6.51985475484E+03	Apriori delay (usec)	6.51985374840E+03	Resid mbdelay (usec)	1.00644E-03	+/-	1.5E-04
Sband delay (usec)	6.51985527715E+03	Apriori clock (usec)	-2.5345192E+01	Resid sbdelay (usec)	1.52875E-03	+/-	1.2E-03
Phase delay (usec)	6.51985374318E+03	Apriori clockrate (us/s)	-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	
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	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/no..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.266.3MP1N1				simultaneous interpolator

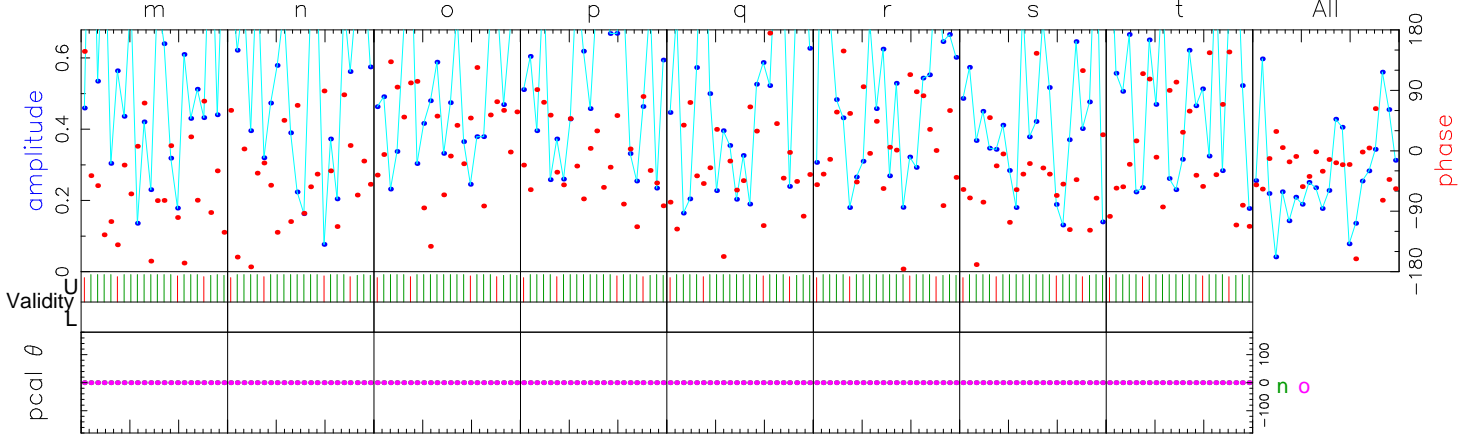
Mk4/DiFX fourfit 3.25 rev 0

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									

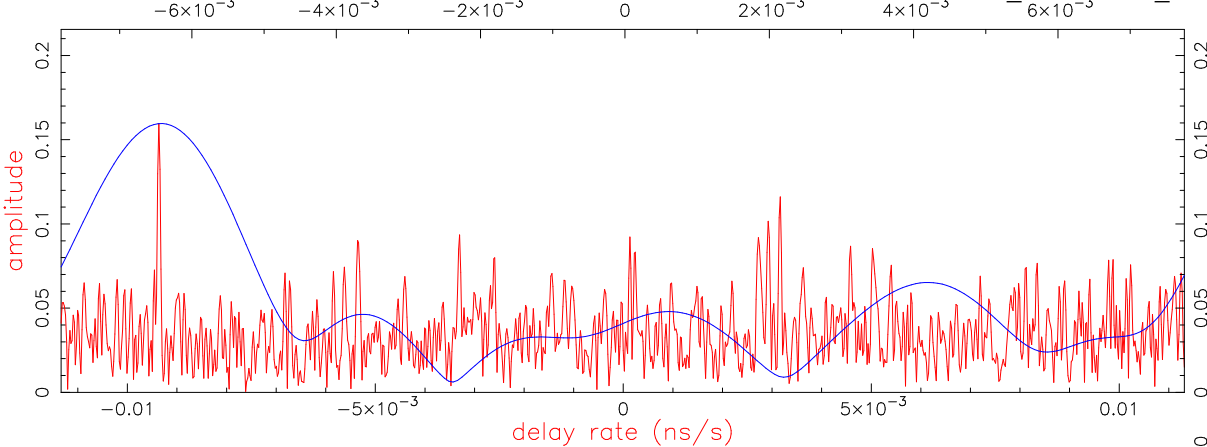
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, no

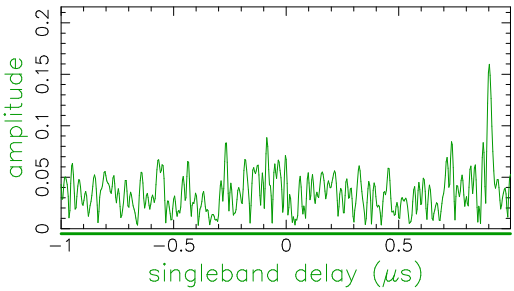
VLBA_NL - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

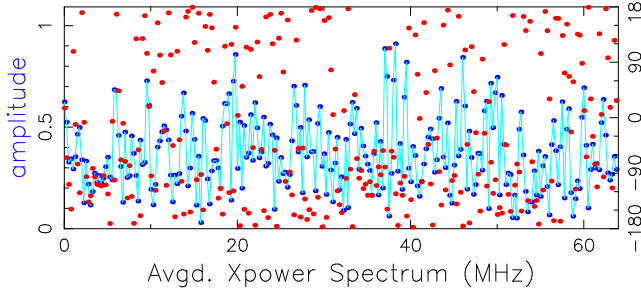


Fringe quality 0

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

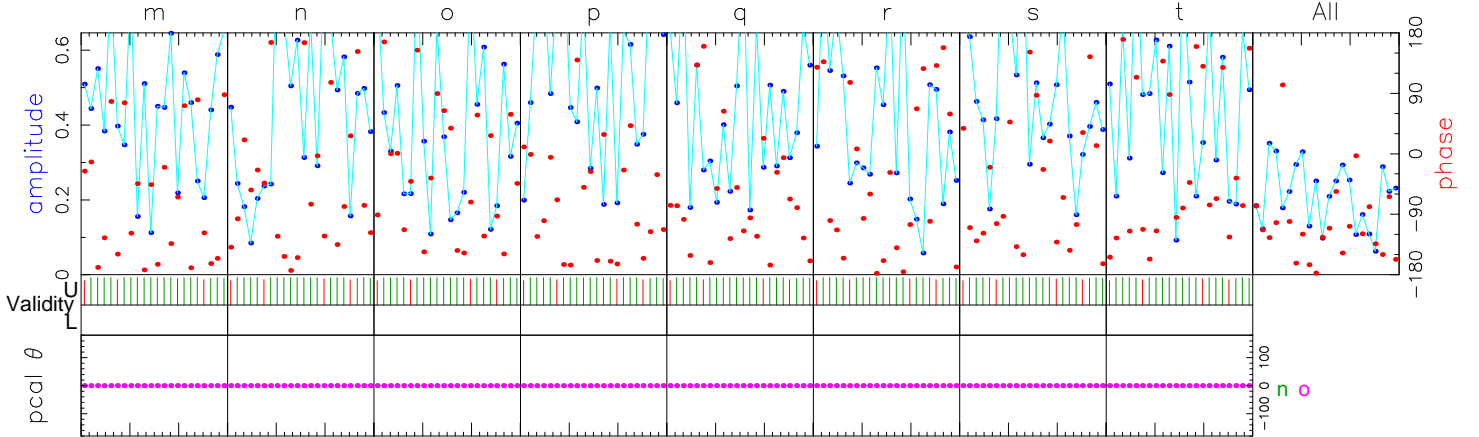


delay rate (ns/s)



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

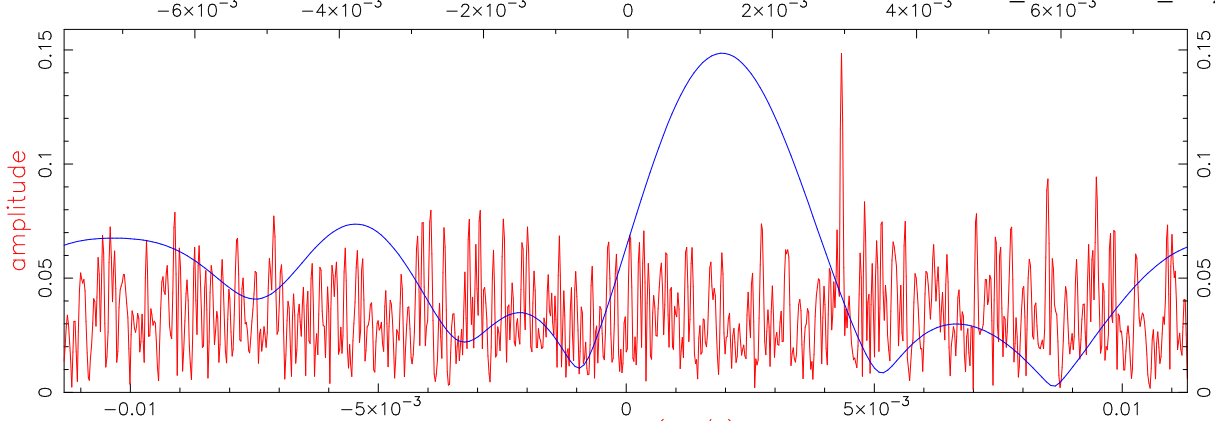
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, no

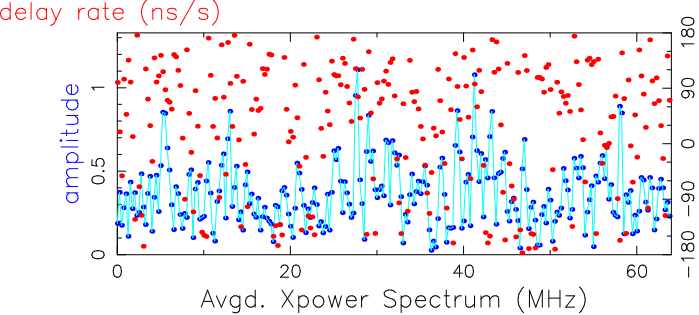
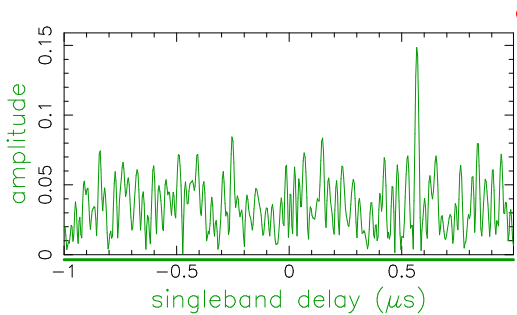
VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



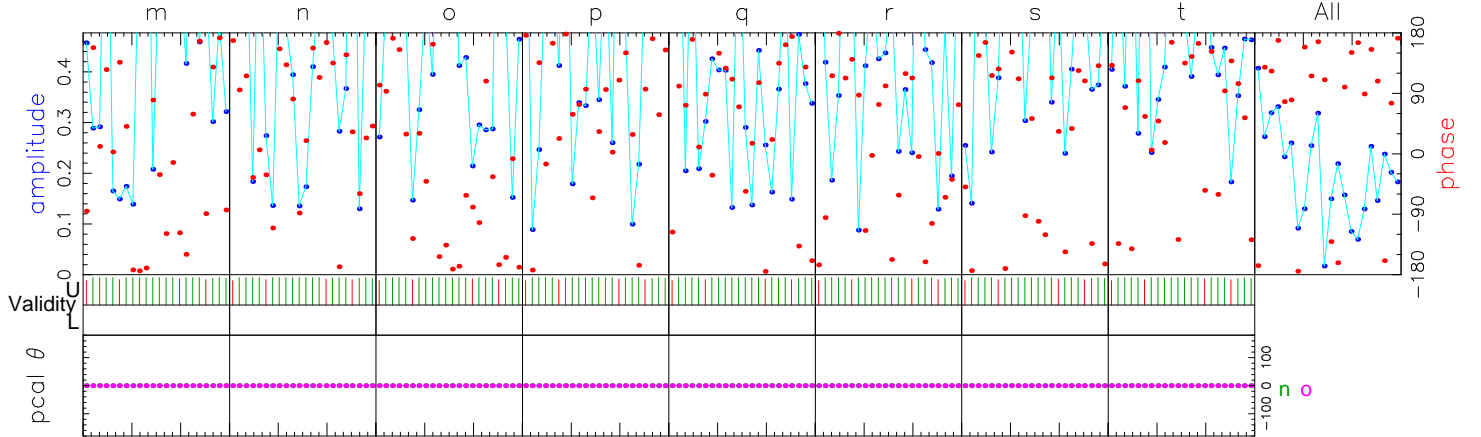
Fringe quality 0

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	Mani 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

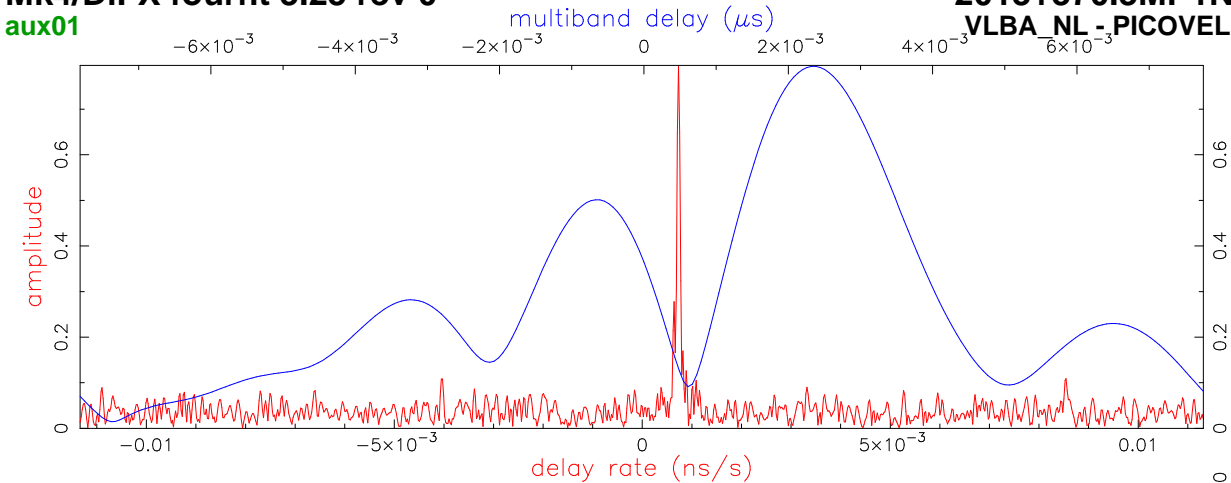
n: az 72.1 el 40.3 pa -63.2 o: az 57.7 el 19.8 pa -57.9 u,v (fr/asec) 1021.703 -1405.918 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/no..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/no.W.296.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

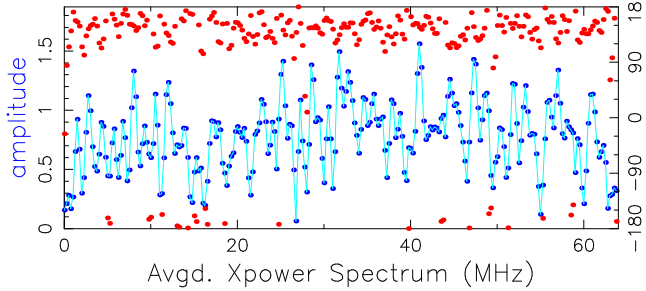
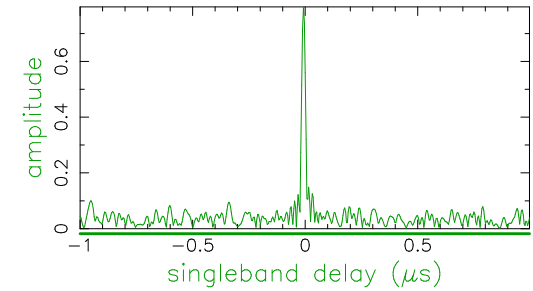
2013+370.3MP1N1, No0280, nP

VLBA_NL - PICOVEL, fgroup W, pol LL



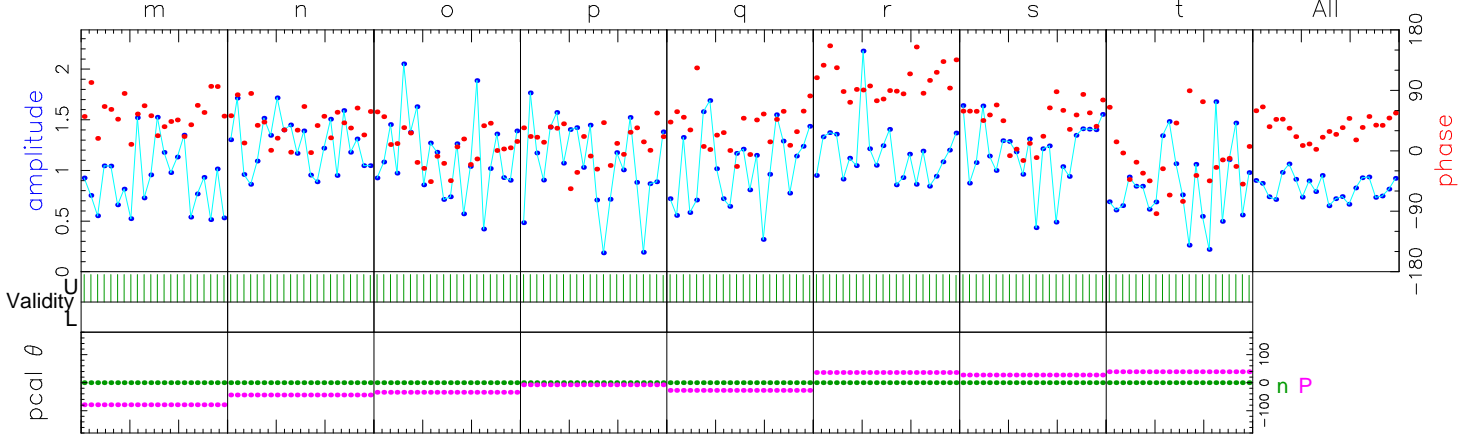
Fringe quality 6

SNR 29.2
 Int time 179.980
 Amp 0.796
 Phase 35.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.007422
 MBD 0.002363
 Fringe rate (Hz)
 0.063275
 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
 2025:041:105056
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
n	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-6.40350835059E+03	Apriori delay (usec)	-6.40349508870E+03	Resid mbdelay (usec)	2.36311E-03	+/-	3.7E-05
Sband delay (usec)	-6.40350251095E+03	Apriori clock (usec)	6.1885643E-01	Resid sbdelay (usec)	-7.42225E-03	+/-	3.0E-04
Phase delay (usec)	-6.40349508756E+03	Apriori clockrate (us/s)	-3.0097713E-07	Resid phdelay (usec)	1.13512E-06	+/-	1.3E-07
Delay rate (us/s)	1.22082690584E+00	Apriori rate (us/s)	1.22082617129E+00	Resid rate (us/s)	7.34556E-07	+/-	1.2E-09
Total phase (deg)	-303.4	Apriori accel (us/s/s)	3.83683344599E-05	Resid phase (deg)	35.2	+/-	3.9

ph/seg (deg) 16.8 9.2 Amplitude 0.796 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 14.5 16.1 Interp. 0.777 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.7 5.6 Inc. seg. avg. 0.820 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.5 9.7 Inc. frq. avg. 0.950 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 72.1 el 40.3 pa -63.2 P: az 277.4 el 72.2 pa 83.5 u, v (fr/asec) -8751.490 2793.643 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/nP..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nP.W.282.3MP1N1 simultaneous interpolator

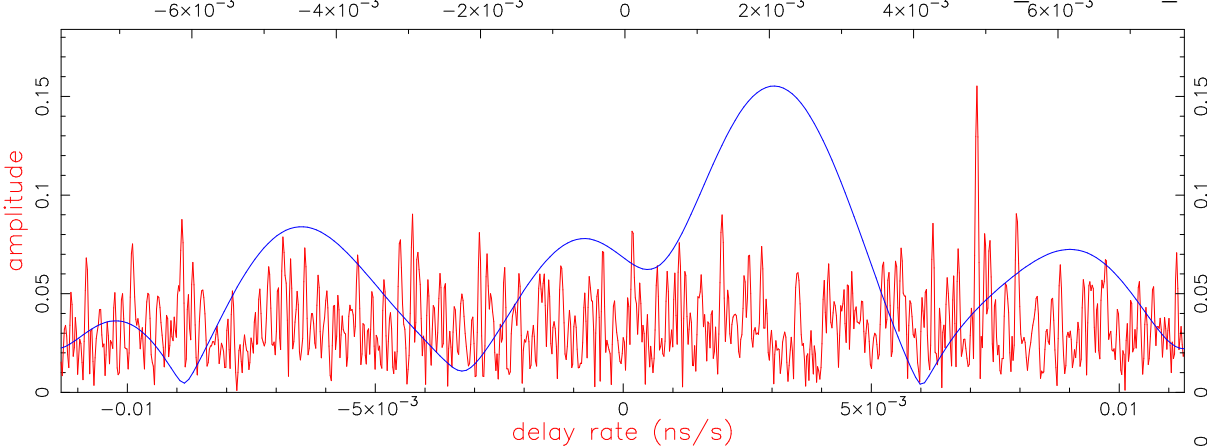
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

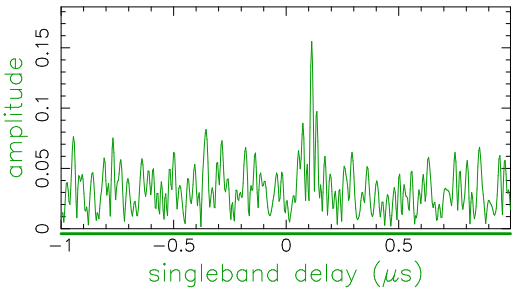
VLBA_NL - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

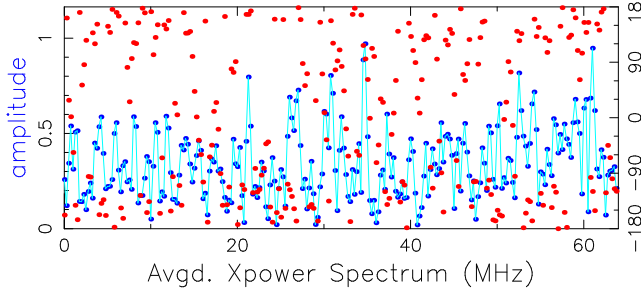


Fringe quality 0

SNR 5.7
 Int time 179.986
 Amp 0.184
 Phase 17.5
 PFD 7.7e-01
 Delays (us)
 SBD 0.113435
 MBD 0.002073
 Fringe rate (Hz)
 0.615836
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

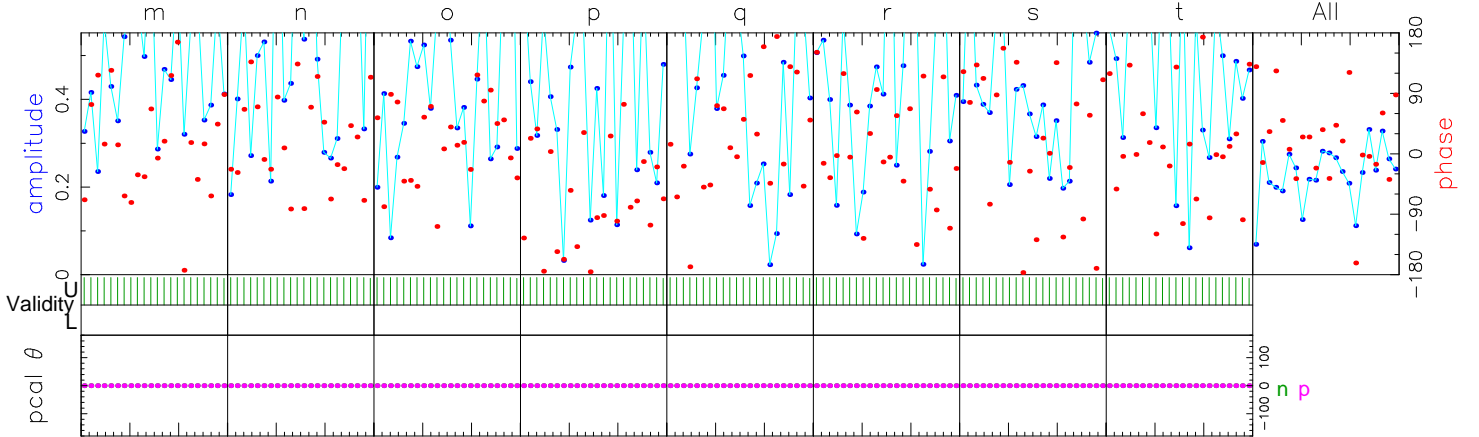


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105056
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	4.61225364410E+03					4.61214219656E+03			2.07254E-03	+/- 1.9E-04
Sband delay (usec)	4.61225563181E+03					-5.9900055E+00			1.13435E-01	+/- 1.5E-03
Phase delay (usec)	4.61214219713E+03					-8.1437027E-08			5.65421E-07	+/- 6.5E-07
Delay rate (us/s)	-1.72812025379E-01					-1.72819174626E-01			7.14925E-06	+/- 6.2E-09
Total phase (deg)			309.9			-1.75623403808E-05			17.5	+/- 20.1
	RMS	Theor.	Amplitude	0.184 +/- 0.032						
ph/seg (deg)	63.7	47.2	Search (1024X32)	0.154						
amp/seg (%)	63.5	82.3	Interp.	0.000						
ph/frq (deg)	49.5	28.4	Inc. seg. avg.	0.204						
amp/frq (%)	38.4	49.6	Inc. frq. avg.	0.206						
n: az 72.1 el 40.3 pa -63.2			p: az 60.8 el 25.4 pa -65.1			u, v (fr/asec) 1231.220 -334.631				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1			Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.283.3MP1N1				

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite
 sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

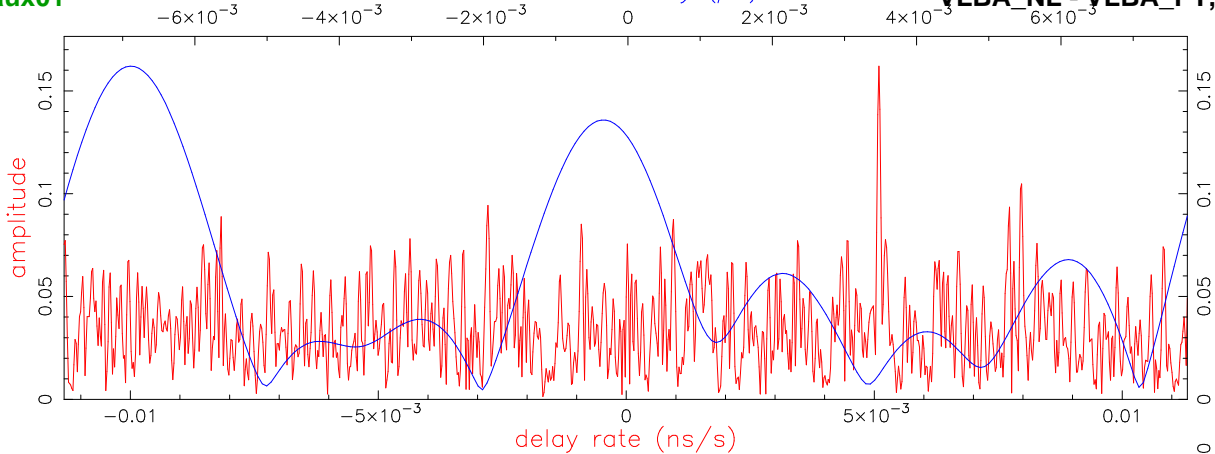
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

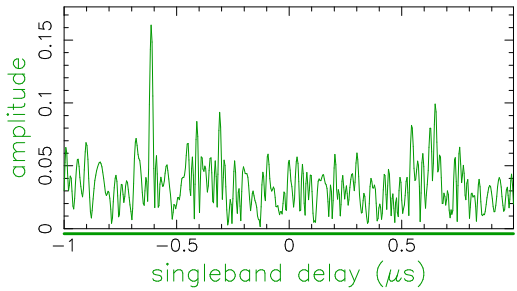
VLBA_NL - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

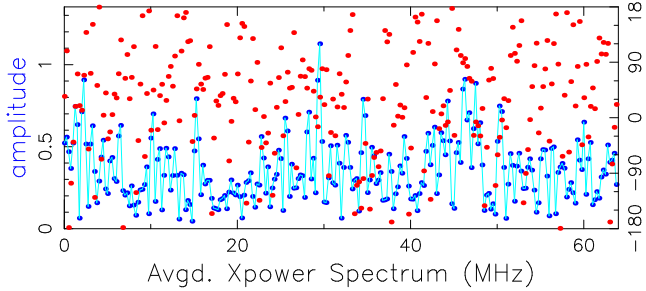


Fringe quality 0

SNR 5.9
 Int time 179.986
 Amp 0.176
 Phase -97.2
 PFD 2.9e-01
 Delays (us)
 SBD -0.612902
 MBD -0.006875
 Fringe rate (Hz)
 0.439561
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

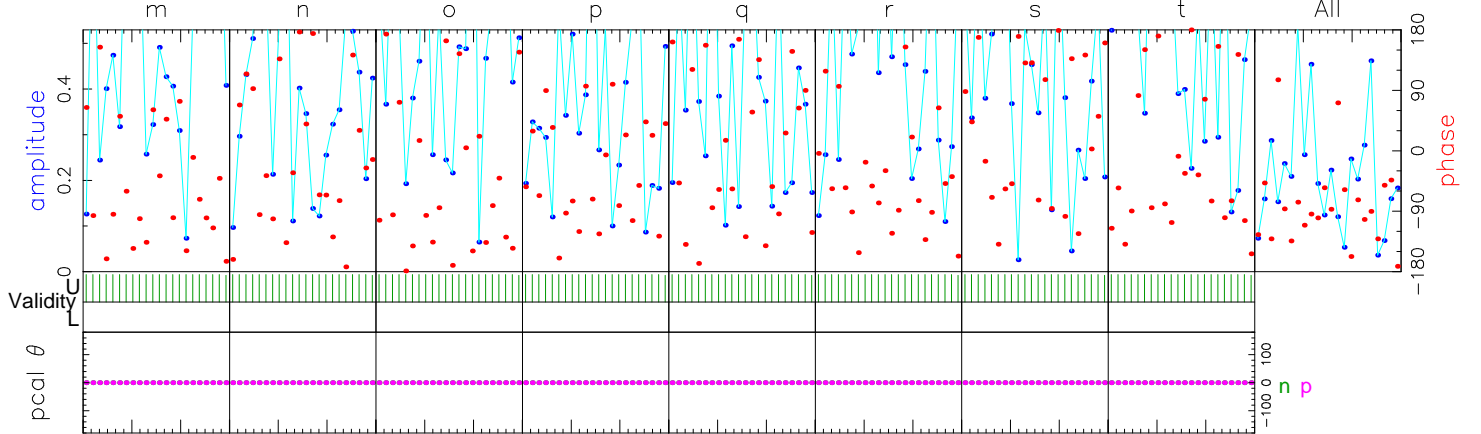


delay rate (ns/s)



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
	-83.0	-135.0	-124.5	-56.8	-123.2	-76.8	179.0	-101.2	Phase	-97.2
	0.3	0.1	0.3	0.2	0.1	0.3	0.1	0.3	Ampl.	0.2
	101.5	318.7	100.7	417.3	213.3	100.4	280.5	99.9	Sbd box	100.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	4.61152594658E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-6.87499E-03	+/-	1.8E-04
Sband delay (usec)	4.61152929456E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	-6.12902E-01	+/-	1.4E-03
Phase delay (usec)	4.61214219343E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-3.13439E-06	+/-	6.2E-07
Delay rate (us/s)	-1.72814071761E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	5.10286E-06	+/-	6.0E-09
Total phase (deg)	195.1	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	-97.2	+/-	19.3

ph/seg (deg)	59.9	Theor.	45.2	Amplitude	0.176 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	85.5		78.9	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	45.0		27.2	Inc. seg. avg.	0.178	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	62.5		47.5	Inc. frq. avg.	0.178	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 72.1 el 40.3 pa -63.2 p: az 60.8 el 25.4 pa -65.1 u, v (fr/asec) 1231.220 -334.631 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.291.3MP1N1

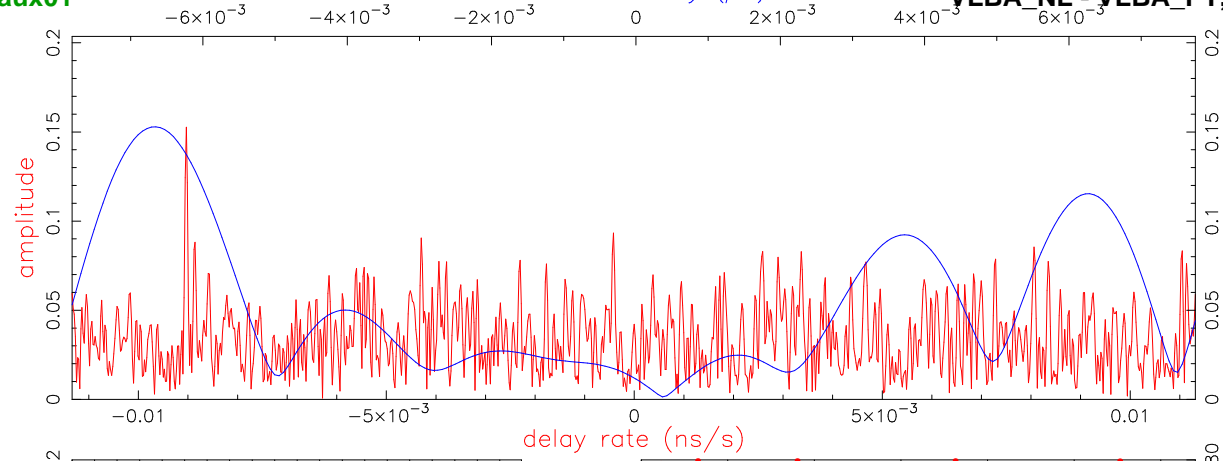
Mk4/DiFX fourfit 3.25 rev 0

aux01

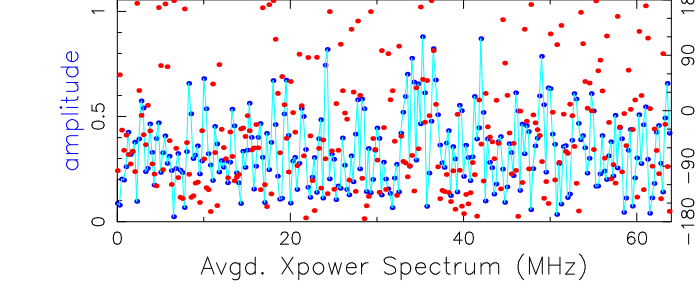
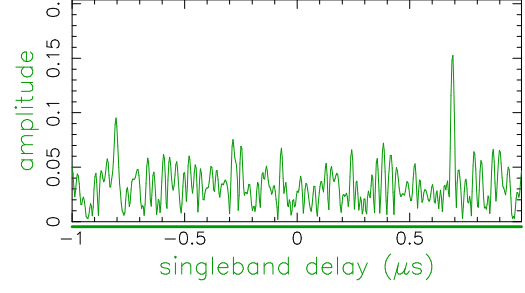
2013+370.3MP1N1, No0280, np

VLBA_NL - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

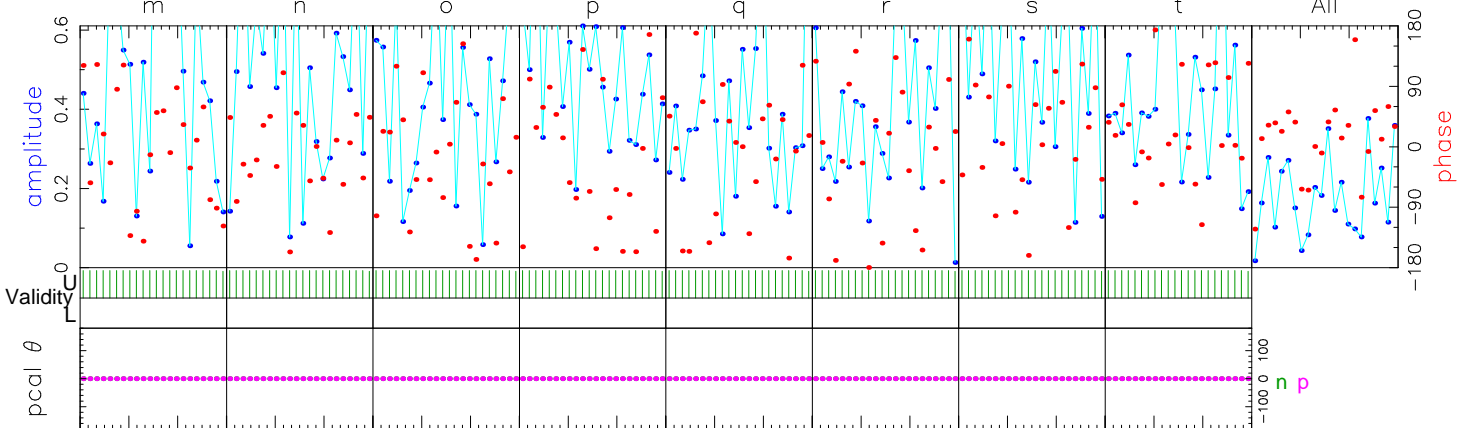


Fringe quality 0
 SNR 5.7
 Int time 179.986
 Amp 0.204
 Phase 22.6
 PFD 8.4e-01
 Delays (us)
 SBD 0.690060
 MBD -0.006727
 Fringe rate (Hz) -0.778646
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build 2024:352:054246
 2025:041:105101
 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
	41.2	6.9	-13.7	84.2	17.7	56.4	54.2	6.5	Phase	22.6
	0.3	0.4	0.2	0.0	0.2	0.1	0.3	0.3	Ampl.	0.2
	325.1	435.1	201.0	106.5	508.7	32.1	392.1	432.8	Sbd box	433.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	4.61283859440E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-6.72716E-03	+/-	1.9E-04
Sband delay (usec)	4.61283225631E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	6.90060E-01	+/-	1.5E-03
Phase delay (usec)	4.61214219729E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	7.28867E-07	+/-	6.5E-07
Delay rate (us/s)	-1.72828213934E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	-9.03931E-06	+/-	6.3E-09
Total phase (deg)	314.9	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	22.6	+/-	20.2

ph/seg (deg) 57.2 47.4 Search (1024X32) 0.150 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.9 82.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.8 28.6 Inc. seg. avg. 0.179 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 58.0 49.9 Inc. frq. avg. 0.196 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 72.1 el 40.3 pa -63.2 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 1231.220 -334.631 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/np..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.307.3MP1N1 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

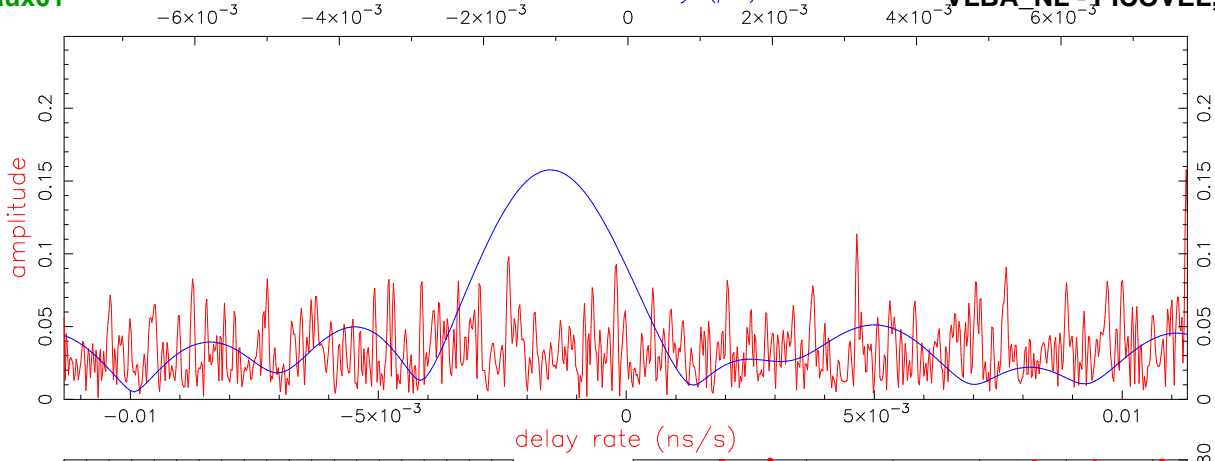
aux01

2013+370.3MP1N1, No0280, nP

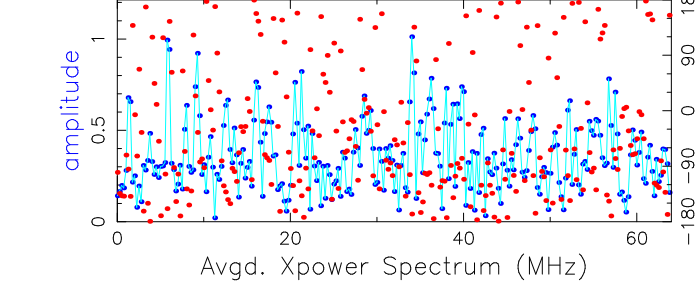
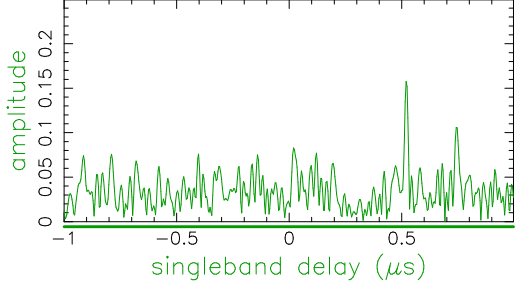
VLBA_NL - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

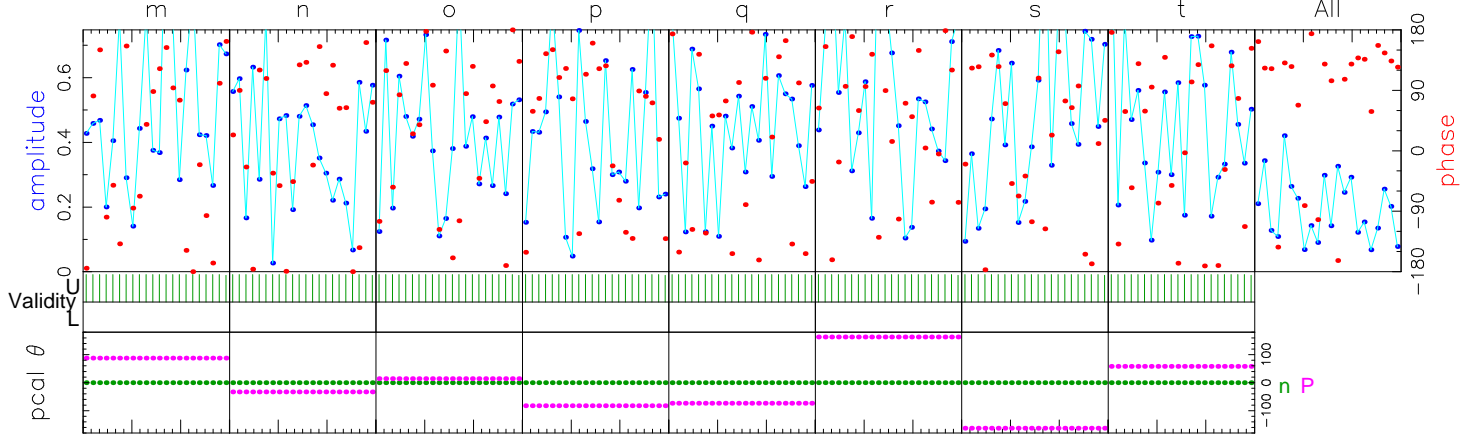


SNR 5.8
Int time 179.980
Amp 0.249
Phase 136.4
PFD 4.9e-01
Delays (us)
SBD 0.520752
MBD -0.001085
Fringe rate (Hz) 0.974152
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build 2024:352:054246
2025:041:105101
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
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
n	0	0	0	0	0	0	0	0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
n:P	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	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-6.40298054827E+03	Apriori delay (usec)	-6.40349508870E+03	Resid mbdelay (usec)	-1.08457E-03	+/-	1.9E-04
Sband delay (usec)	-6.40297433670E+03	Apriori clock (usec)	6.1885643E-01	Resid sbdelay (usec)	5.20752E-01	+/-	1.5E-03
Phase delay (usec)	-6.40349508430E+03	Apriori clockrate (us/s)	-3.0097713E-07	Resid phdelay (usec)	4.39866E-06	+/-	6.3E-07
Delay rate (us/s)	1.22083748022E+00	Apriori rate (us/s)	1.22082617129E+00	Resid rate (us/s)	1.13089E-05	+/-	6.1E-09
Total phase (deg)	-202.2	Apriori accel (us/s/s)	3.83683344599E-05	Resid phase (deg)	136.4	+/-	19.6

ph/seg (deg)	52.7	Theor.	46.0	Amplitude	0.249 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.4	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)	18.3	Inc. seg. avg.	0.233	Inc. frq. avg.	0.230	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	21.0	Inc. frq. avg.	0.230	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 72.1 el 40.3 pa -63.2		P: az 277.4 el 72.2 pa 83.5		u, v (fr/asec)	-8751.490 2793.643	ion window (TEC)	0.00 0.00	simultaneous interpolator		
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/nP..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/nP.W.309.3MP1N1						

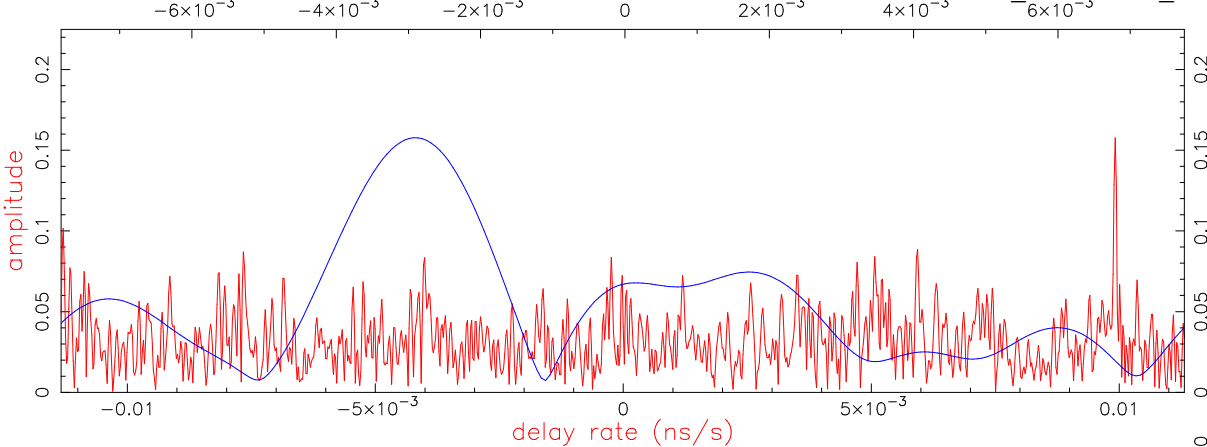
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, np

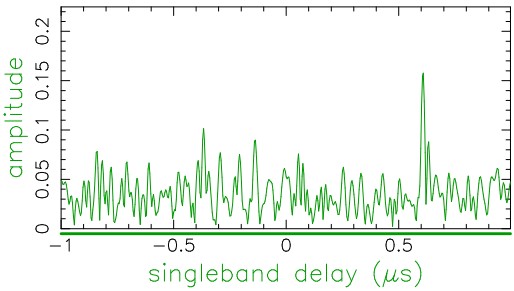
VLBA_NL - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

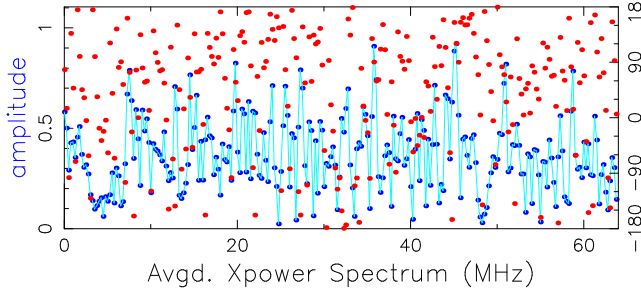


Fringe quality 0

SNR 5.9
Int time 179.986
Amp 0.225
Phase -69.2
PFD 4.1e-01
Delays (us)
SBD 0.607798
MBD -0.002944
Fringe rate (Hz)
0.855936
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

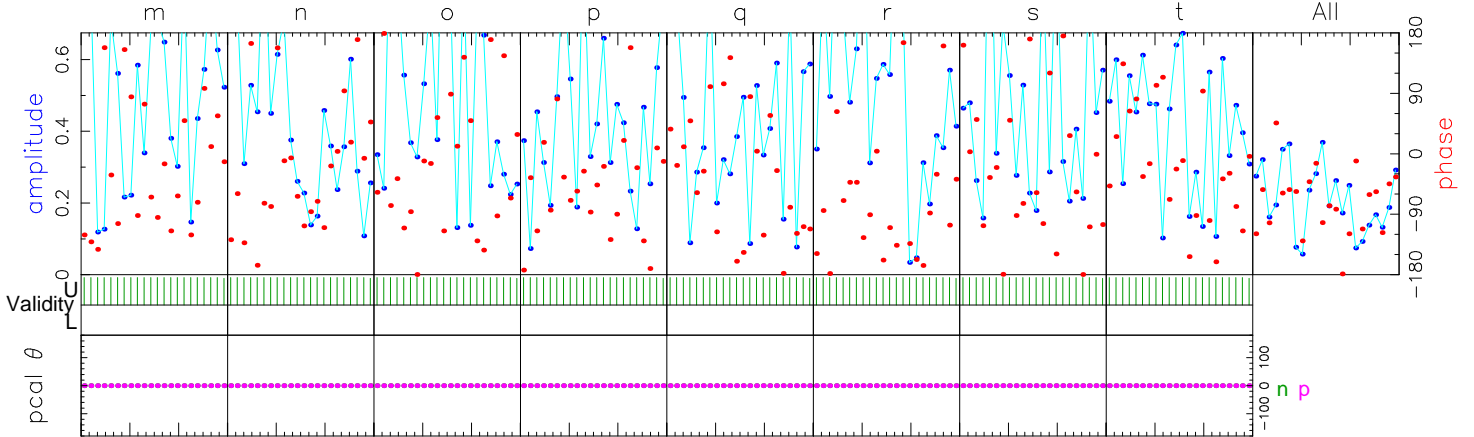


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 080000.00
Stop 080300.22
FRT 080130.00
Corr/FF/build
2024:352:054246
2025:041:105103
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
	-56.3	-81.2	-95.4	-44.8	-31.3	-108.2	-92.4	-25.4	Phase	-69.2
	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	Ampl.	0.2
	329.5	275.6	255.5	156.9	221.9	112.9	360.2	134.1	Sbd box	412.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.61274862729E+03	Apriori delay (usec)	4.61214219656E+03	Resid mbdelay (usec)	-2.94427E-03	+/-	1.8E-04
Sband delay (usec)	4.61274999456E+03	Apriori clock (usec)	-5.9900055E+00	Resid sbdelay (usec)	6.07798E-01	+/-	1.5E-03
Phase delay (usec)	4.61214219433E+03	Apriori clockrate (us/s)	-8.1437027E-08	Resid phdelay (usec)	-2.23309E-06	+/-	6.3E-07
Delay rate (us/s)	-1.72809238061E-01	Apriori rate (us/s)	-1.72819174626E-01	Resid rate (us/s)	9.93657E-06	+/-	6.0E-09
Total phase (deg)	223.1	Apriori accel (us/s/s)	-1.75623403808E-05	Resid phase (deg)	-69.2	+/-	19.5

ph/seg (deg)	47.9	Theor.	45.7	Amplitude	0.225 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	66.6	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	34.2	Inc. seg. avg.	0.225	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.6	Inc. frq. avg.	0.228	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
				Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 72.1 el 40.3 pa -63.2 p: az 60.8 el 25.4 pa -65.1 u,v (fr/asec) 1231.220 -334.631 simultaneous interpolator

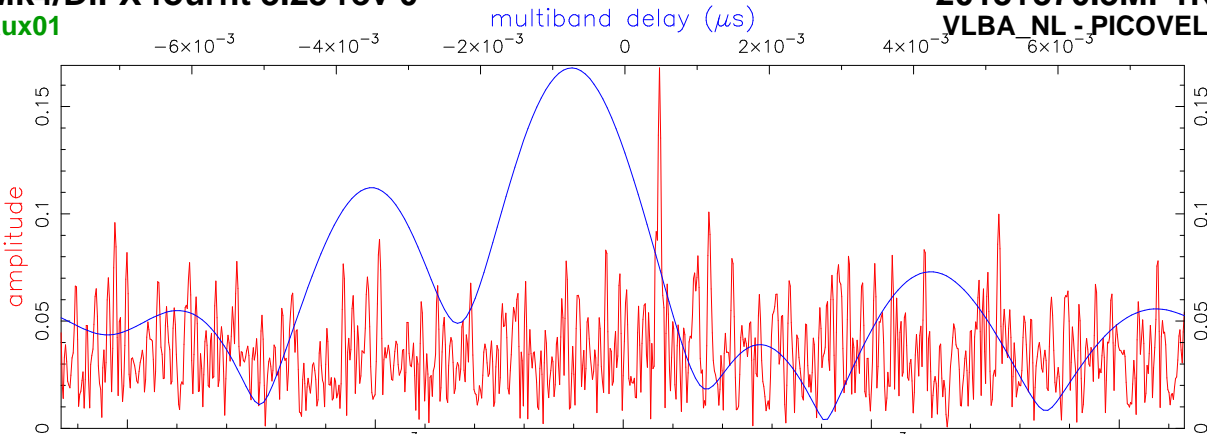
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/np..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/np.W.315.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

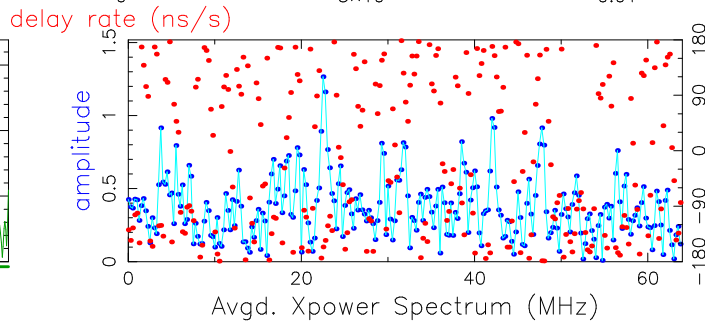
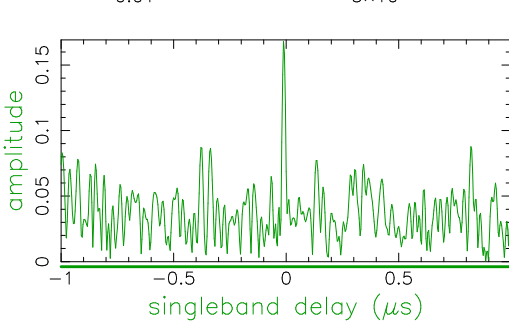
2013+370.3MP1N1, No0280, nP

VLBA_NL - PICOVEL, fgroup W, pol RL



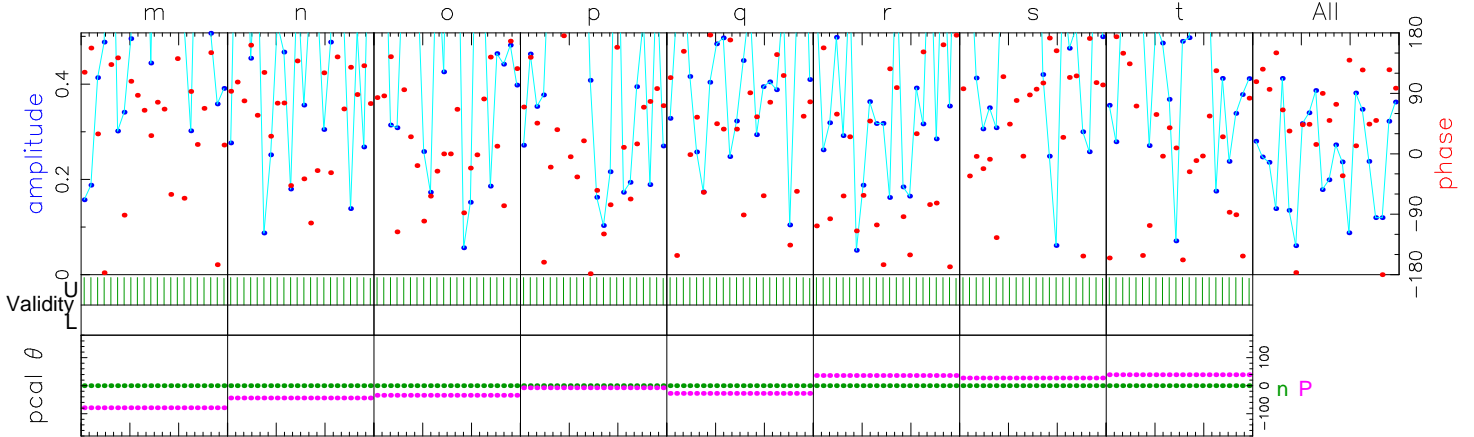
Fringe quality 0

SNR 6.2
 Int time 179.980
 Amp 0.169
 Phase 72.4
 PFD 7.4e-02
 Delays (us)
 SBD -0.010837
 MBD -0.000717
 Fringe rate (Hz) 0.063503
 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
	83.9	87.4	37.0	46.0	80.9	-159.8	78.0	56.0	Phase	72.4
	0.3	0.3	0.2	0.1	0.1	0.1	0.3	0.1	Ampl.	0.2
	203.2	255.5	255.0	301.0	427.1	25.7	240.7	431.5	Sbd box	254.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.40351143056E+03	Apriori delay (usec)	-6.40349508870E+03	Resid mbdelay (usec)	-7.16862E-04	+/-	1.8E-04
Sband delay (usec)	-6.40350592620E+03	Apriori clock (usec)	6.1885643E-01	Resid sbdelay (usec)	-1.08375E-02	+/-	1.4E-03
Phase delay (usec)	-6.40349508636E+03	Apriori clockrate (us/s)	-3.0097713E-07	Resid phdelay (usec)	2.33529E-06	+/-	6.0E-07
Delay rate (us/s)	1.22082690850E+00	Apriori rate (us/s)	1.22082617129E+00	Resid rate (us/s)	7.37209E-07	+/-	5.7E-09
Total phase (deg)	-266.2	Apriori accel (us/s/s)	3.83683344599E-05	Resid phase (deg)	72.4	+/-	18.5

ph/seg (deg) 55.9 43.4 Search (1024X32) 0.162 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.1 75.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.3 26.2 Inc. seg. avg. 0.192 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.2 45.6 Inc. frq. avg. 0.175 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 n: az 72.1 el 40.3 pa -63.2 P: az 277.4 el 72.2 pa 83.5 u,v (fr/asec) -8751.490 2793.643 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/nP...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nP.W.317.3MP1N1 simultaneous interpolator

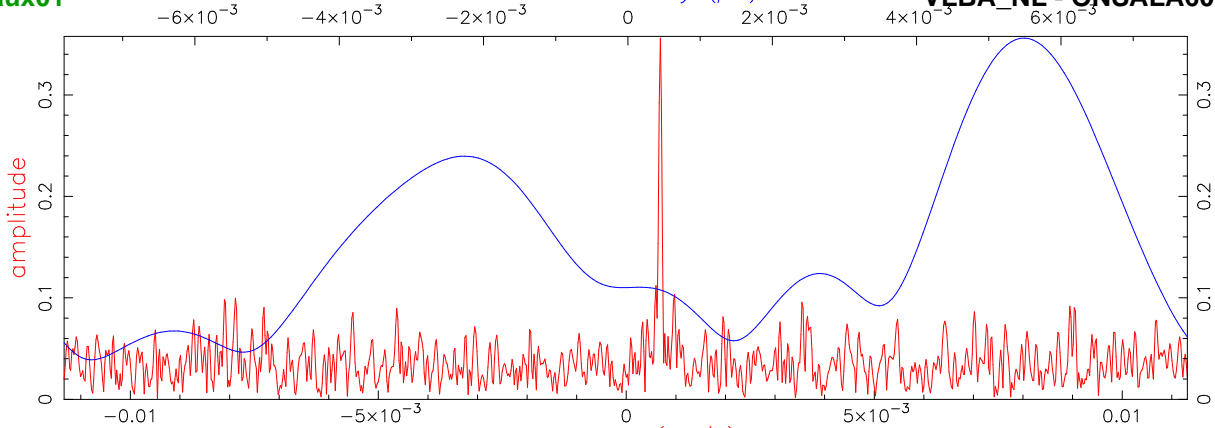
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nX

VLBA_NL - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

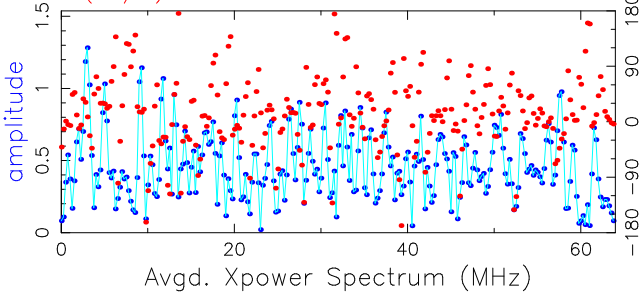
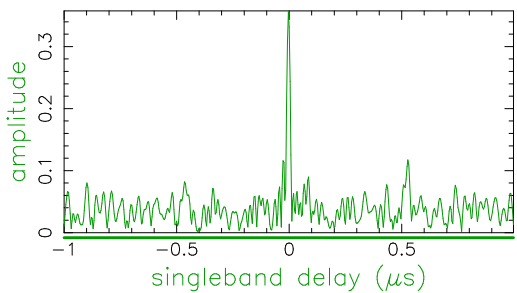


Fringe quality 9

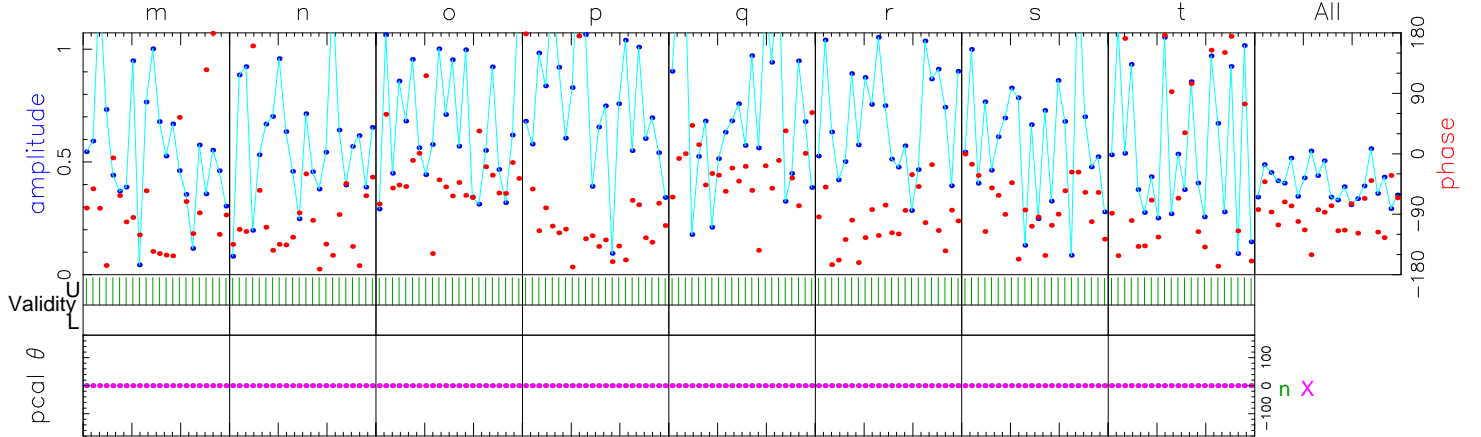
SNR 13.1
 Int time 179.812
 Amp 0.358
 Phase -88.5
 PFD 9.7e-31
 Delays (us)
 SBD -0.003241
 MBD 0.005498
 Fringe rate (Hz) 0.058562
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

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"

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	
	-107.3	-115.2	-35.9	-124.2	-27.6	-101.7	-71.0	-167.7	Phase	-88.5	
	0.4	0.4	0.5	0.6	0.6	0.6	0.4	0.3	Ampl.	0.5	
	255.6	255.8	255.8	255.7	256.0	255.7	255.1	252.9	Sbd box	256.2	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
n	0	0	0	0	0	0	0	0	PC freqs		
X	0	0	0	0	0	0	0	0	PC freqs		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
X	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-4.31439925840E+03		Apriori delay (usec)		-4.31438913112E+03		Resid mbdelay (usec)		5.49773E-03	+/- 8.3E-05	
Sband delay (usec)	-4.31439237262E+03		Apriori clock (usec)		-1.1317401E+02		Resid sbdelay (usec)		-3.24150E-03	+/- 6.6E-04	
Phase delay (usec)	-4.31438913398E+03		Apriori clockrate (us/s)		-9.1936311E-07		Resid phdelay (usec)		-2.85406E-06	+/- 2.8E-07	
Delay rate (us/s)	1.25023208516E+00		Apriori rate (us/s)		1.25023140532E+00		Resid rate (us/s)		6.79841E-07	+/- 2.7E-09	
Total phase (deg)			Apriori accel (us/s/s)		1.02830222457E-05		Resid phase (deg)		-88.5	+/- 8.8	
	RMS	Theor.	Amplitude	0.358 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	29.2	20.5	Search (1024X32)	0.348		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	25.7	35.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	50.9	12.4	Inc. seg. avg.	0.385		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	46.1	21.6	Inc. frq. avg.	0.465		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	X: az 247.2 el 58.1 pa 38.6		u, v (fr/asec) -8989.407 -572.899						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0280/nX..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/nX.W.268.3MP1N1								

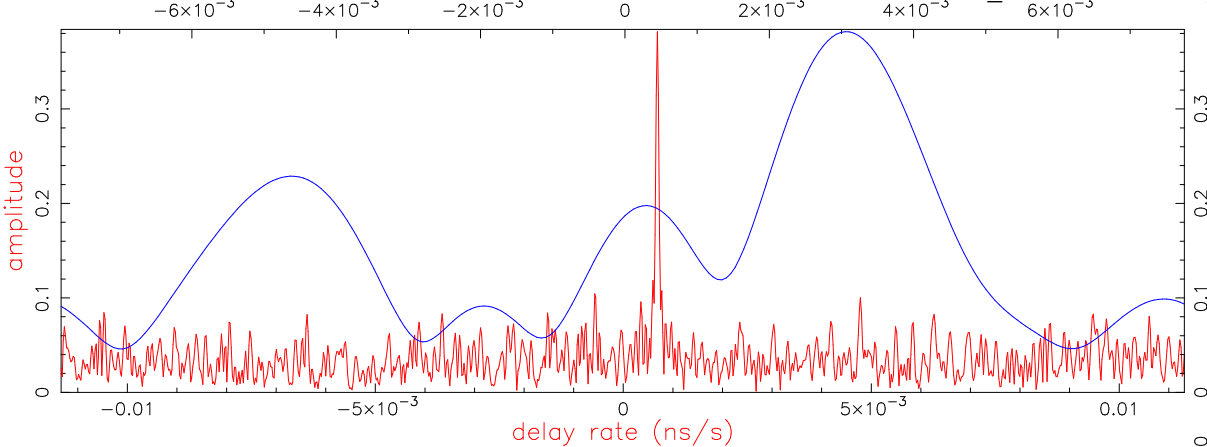
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nX

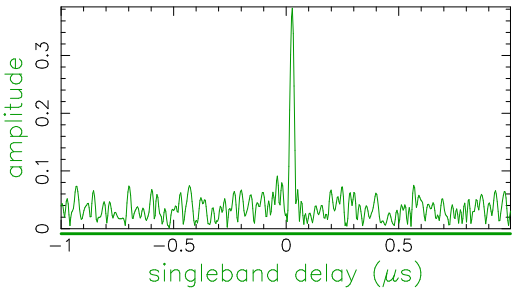
VLBA_NL - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

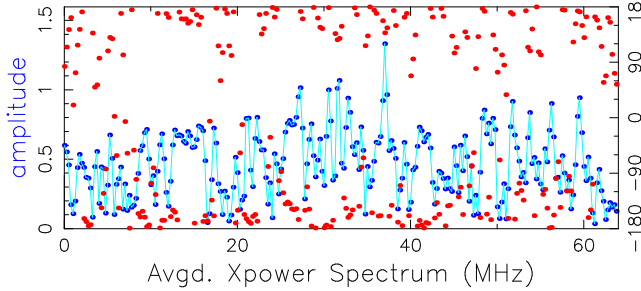


Fringe quality 9

SNR 14.1
 Int time 179.812
 Amp 0.384
 Phase 88.8
 PFD 1.7e-36
 Delays (us)
 SBD 0.026380
 MBD 0.003045
 Fringe rate (Hz) 0.058682
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

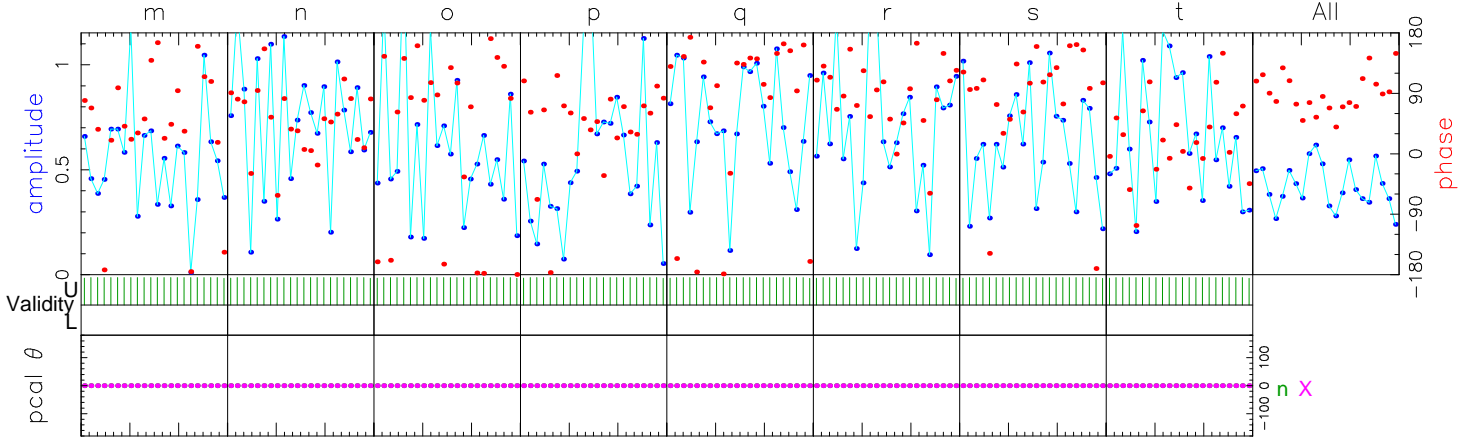


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105055
 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
	71.0	57.2	135.0	53.8	144.8	93.7	111.1	27.3	Phase	88.8
	0.3	0.6	0.5	0.4	0.6	0.5	0.5	0.5	Ampl.	0.5
	262.9	263.2	263.0	263.7	263.1	263.2	262.4	262.8	Sbd box	263.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.31437046099E+03	Apriori delay (usec)	-4.31438913112E+03	Resid mbdelay (usec)	3.04513E-03	+/-	7.7E-05
Sband delay (usec)	-4.31436275137E+03	Apriori clock (usec)	-1.1317401E+02	Resid sbdelay (usec)	2.63797E-02	+/-	6.1E-04
Phase delay (usec)	-4.31438912826E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	2.86435E-06	+/-	2.6E-07
Delay rate (us/s)	1.25023208656E+00	Apriori rate (us/s)	1.25023140532E+00	Resid rate (us/s)	6.81238E-07	+/-	2.5E-09
Total phase (deg)	-183.0	Apriori accel (us/s/s)	1.02830222457E-05	Resid phase (deg)	88.8	+/-	8.1

ph/seg (deg)	28.0	Theor.	19.1	Amplitude	0.384 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	28.9	Search (1024X32)	0.375	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.9	Inc. seg. avg.	0.401	Inc. seg. avg.	0.401	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.4	Inc. frq. avg.	0.481	Inc. frq. avg.	0.481	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 X: az 247.2 el 58.1 pa 38.6 u, v (fr/asec) -8989.407 -572.899 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nX..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nX.W.277.3MP1N1

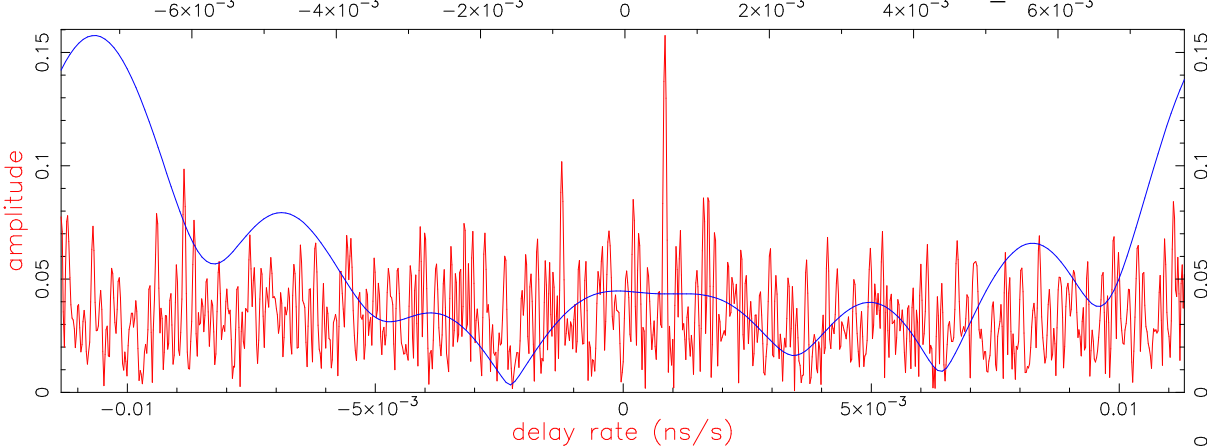
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nX

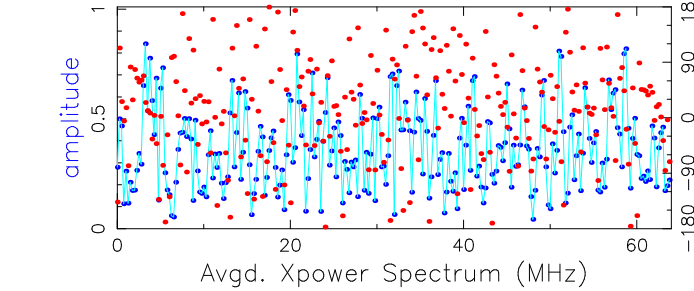
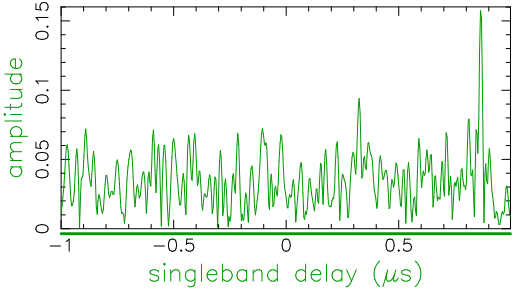
VLBA_NL - ONSALA60, fgroup W, pol LR

multiband delay (μ s)



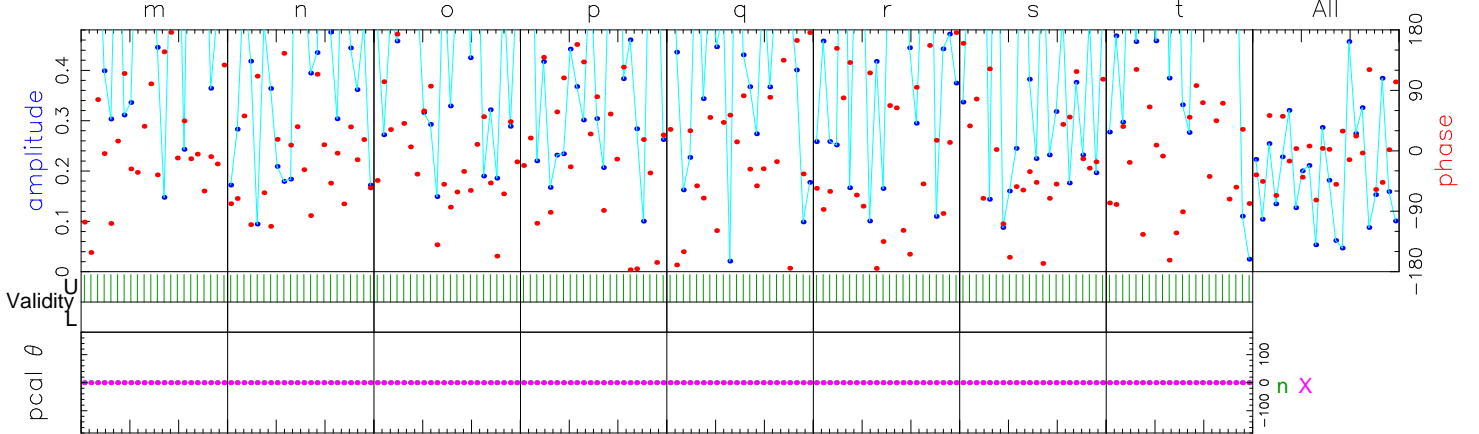
Fringe quality 0

SNR 5.9
 Int time 179.812
 Amp 0.160
 Phase -7.2
 PFD 4.4e-01
 Delays (us)
 SBD 0.864645
 MBD -0.007336
 Fringe rate (Hz)
 0.072708
 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
	-3.5	-16.7	-13.7	26.2	13.9	-136.2	-16.3	-9.9	Phase	-7.2
	0.2	0.2	0.3	0.1	0.1	0.0	0.2	0.2	Ampl.	0.2
	478.0	156.4	248.7	301.6	198.6	52.2	337.5	134.9	Sbd box	478.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.31352146761E+03	Apriori delay (usec)	-4.31438913112E+03	Resid mbdelay (usec)	-7.33649E-03	+/-	1.9E-04
Sband delay (usec)	-4.31352448637E+03	Apriori clock (usec)	-1.1317401E+02	Resid sbdelay (usec)	8.64645E-01	+/-	1.5E-03
Phase delay (usec)	-4.31438913136E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	-2.31968E-07	+/-	6.3E-07
Delay rate (us/s)	1.25023224939E+00	Apriori rate (us/s)	1.25023140532E+00	Resid rate (us/s)	8.44068E-07	+/-	6.1E-09
Total phase (deg)	-279.0	Apriori accel (us/s/s)	1.02830222457E-05	Resid phase (deg)	-7.2	+/-	19.6

ph/seg (deg)	50.0	Theor.	45.9	Amplitude	0.160 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.0		80.0	Search (1024X32)	0.156	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	55.4		27.7	Inc. seg. avg.	0.151	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.5		48.3	Inc. frq. avg.	0.151	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 X: az 247.2 el 58.1 pa 38.6 u, v (fr/asec) -8989.407 -572.899 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nX...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nX.W.292.3MP1N1

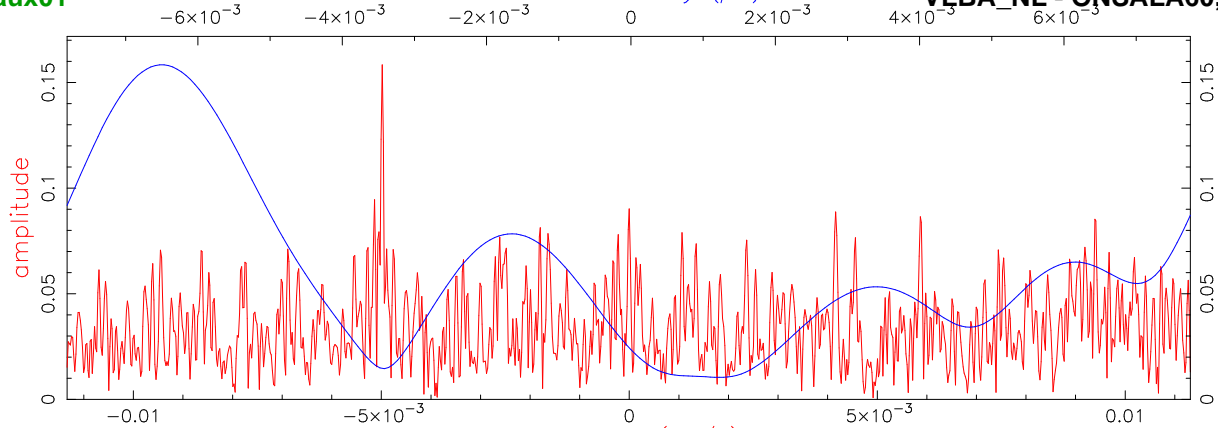
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nX

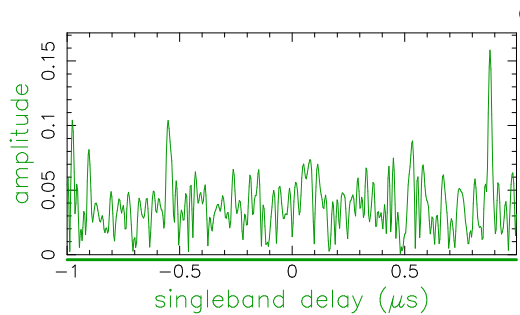
VLBA_NL - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

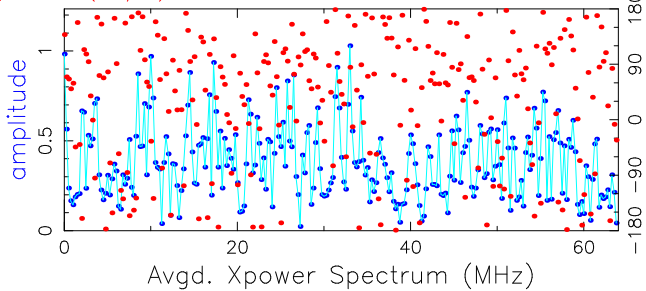


Fringe quality 0

SNR 5.8
 Int time 179.812
 Amp 0.172
 Phase -134.0
 PFD 5.5e-01
 Delays (us)
 SBD 0.878766
 MBD -0.006499
 Fringe rate (Hz)
 -0.430377
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

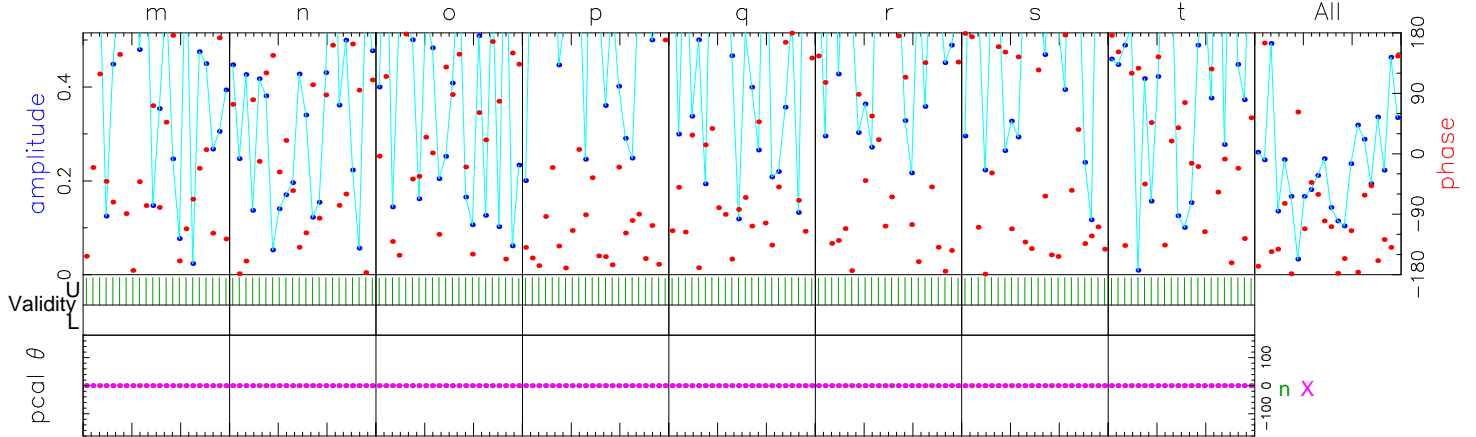


delay rate (ns/s)



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
	-101.0	169.3	134.7	-122.6	-111.1	-143.6	-141.8	-113.3	Phase	-134.0
	0.2	0.1	0.1	0.4	0.3	0.3	0.3	0.1	Ampl.	0.2
	349.8	477.5	243.6	481.0	236.8	64.4	476.4	110.0	Sbd box	482.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.31350500497E+03	Apriori delay (usec)	-4.31438913112E+03	Resid mbdelay (usec)	-6.49885E-03	+/-	1.9E-04
Sband delay (usec)	-4.31351036462E+03	Apriori clock (usec)	-1.1317401E+02	Resid sbdelay (usec)	8.78766E-01	+/-	1.5E-03
Phase delay (usec)	-4.31438913545E+03	Apriori clockrate (us/s)	-9.1936311E-07	Resid phdelay (usec)	-4.32197E-06	+/-	6.4E-07
Delay rate (us/s)	1.25022640908E+00	Apriori rate (us/s)	1.25023140532E+00	Resid rate (us/s)	-4.99625E-06	+/-	6.1E-09
Total phase (deg)		Apriori accel (us/s/s)	1.02830222457E-05	Resid phase (deg)	-134.0	+/-	19.7

ph/seg (deg)	59.6	RMS	46.3	Theor.	Amplitude	0.172 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	82.9	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)	48.1	Inc. seg. avg.	0.191	Inc. frq. avg.	0.178	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	60.0	Inc. frq. avg.	0.178			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
n: az 72.1 el 40.3 pa -63.2		X: az 247.2 el 58.1 pa 38.6		u, v (fr/asec)	-8989.407 -572.899	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/nX..3MP1N1		Output file: /Exps/c241c/v2/3mm/1234/No0280/nX.W.304.3MP1N1				simultaneous interpolator	

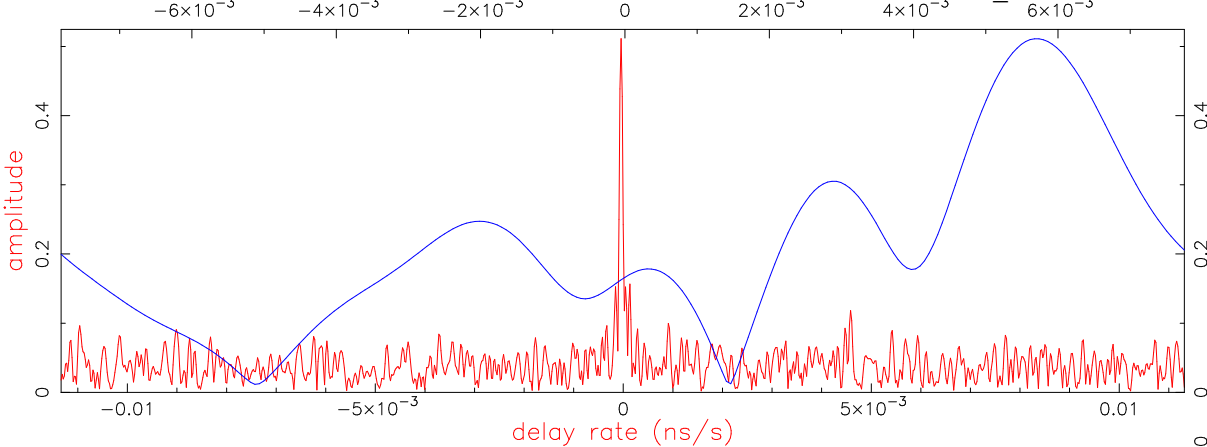
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nY

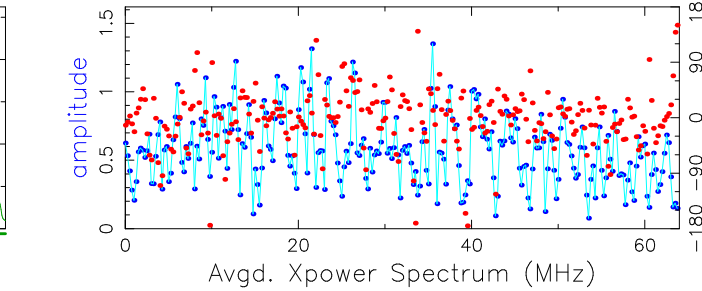
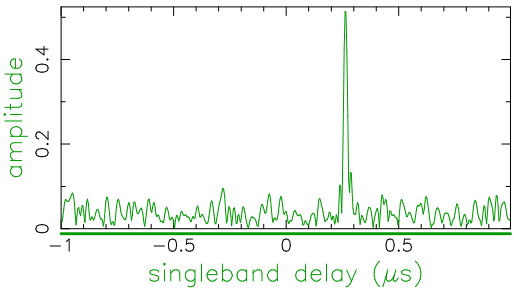
VLBA_NL - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



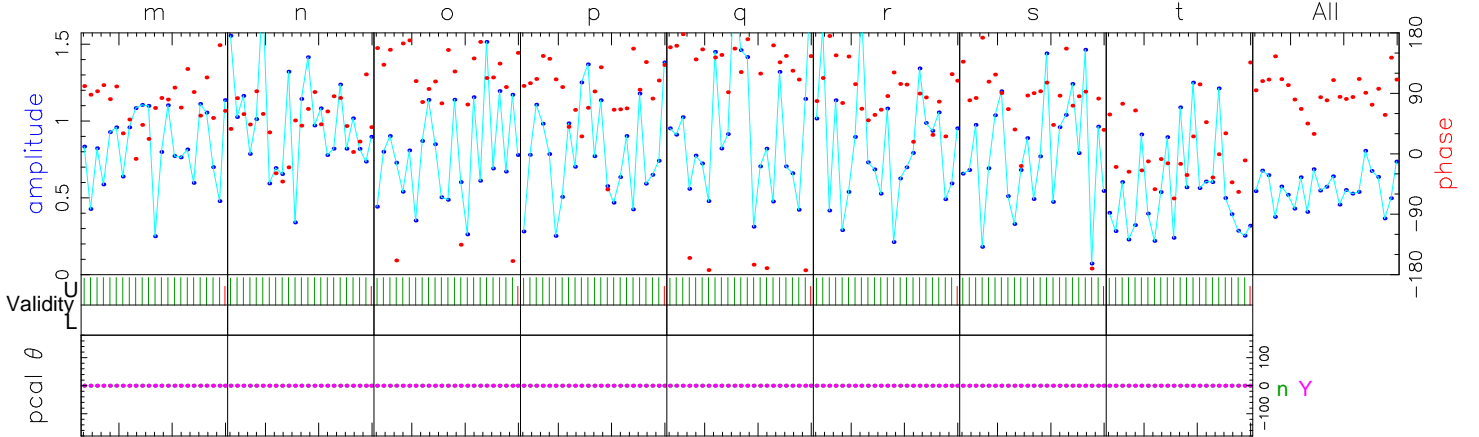
Fringe quality 8

SNR 18.3
 Int time 162.316
 Amp 0.525
 Phase 91.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.263556
 MBD 0.005682
 Fringe rate (Hz)
 -0.003485
 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
 2025:041:105117
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
n	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -6.27585012747E+03 Apriori delay (usec) -6.27612143445E+03 Resid mbdelay (usec) 5.68198E-03 +/- 5.9E-05
 Sband delay (usec) -6.27585787820E+03 Apriori clock (usec) 1.1036539E+02 Resid sbdelay (usec) 2.63556E-01 +/- 4.7E-04
 Phase delay (usec) -6.27612143151E+03 Apriori clockrate (us/s) 1.7530289E-02 Resid phdelay (usec) 2.94041E-06 +/- 2.0E-07
 Delay rate (us/s) 1.20730235894E+00 Apriori rate (us/s) 1.20730239941E+00 Resid rate (us/s) -4.04629E-08 +/- 2.2E-09
 Total phase (deg) -39.8 Apriori accel (us/s/s) 3.50743020277E-05 Resid phase (deg) 91.2 +/- 6.3

ph/seg (deg) 26.8 15.0 Search (1024X32) 0.506 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 22.5 26.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.1 8.9 Inc. seg. avg. 0.546 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.9 15.5 Inc. frq. avg. 0.661 Data rate(Mb/s): 128 MBbps 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 Y: az 266.8 el 72.1 pa 72.3 u, v (fr/asec) -8657.602 2265.809 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nY...3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nY.W.369.3MP1N1

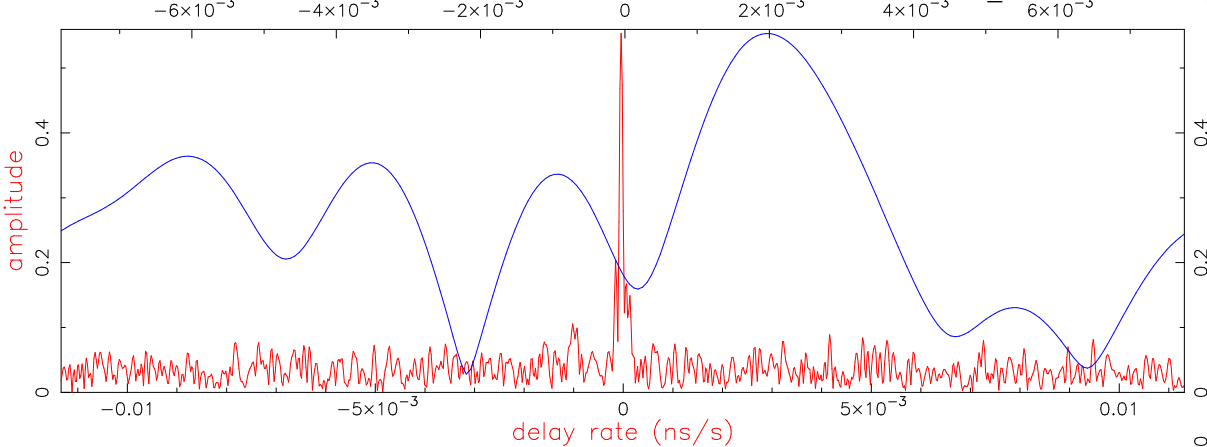
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nY

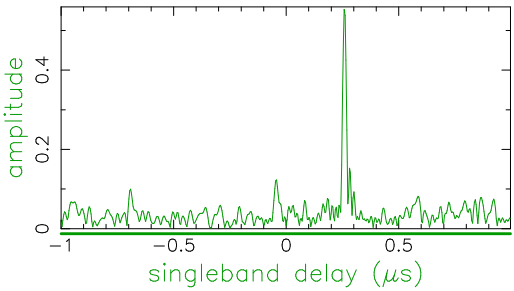
VLBA_NL - YEYES40M, fgroup W, pol RR

multiband delay (μ s)

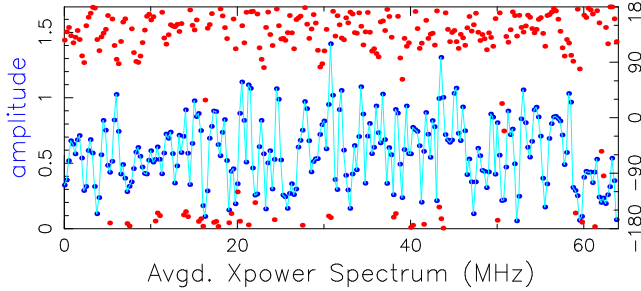


Fringe quality 7

SNR 19.5
 Int time 162.316
 Amp 0.560
 Phase -126.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.259187
 MBD 0.001975
 Fringe rate (Hz)
 -0.003458
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

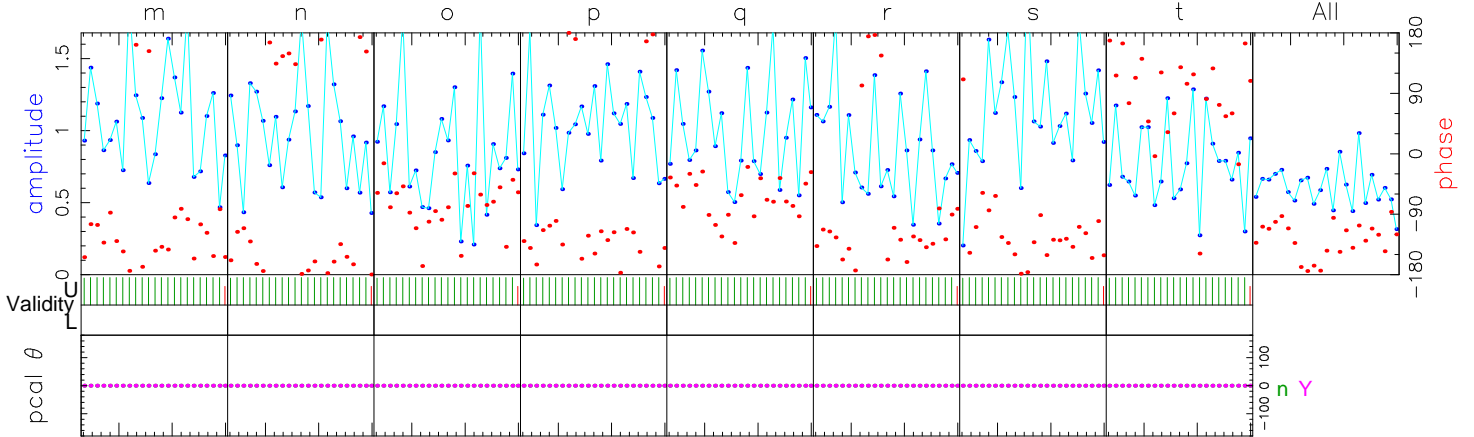


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105119
 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
	-132.3	-173.8	-66.9	-141.7	-62.5	-138.9	-125.9	94.4	Phase	-126.9
	0.9	0.9	0.7	0.9	0.9	0.7	1.0	0.5	Ampl.	0.8
	323.0	322.6	323.5	323.7	322.7	322.6	322.2	321.0	Sbd box	323.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-6.27586945987E+03	Apriori delay (usec)	-6.27612143445E+03	Resid mbdelay (usec)	1.97458E-03	+/-	5.6E-05
Sband delay (usec)	-6.27586224695E+03	Apriori clock (usec)	1.1036539E+02	Resid sbdelay (usec)	2.59187E-01	+/-	4.4E-04
Phase delay (usec)	-6.27612143855E+03	Apriori clockrate (us/s)	1.7530289E-02	Resid phdelay (usec)	-4.09304E-06	+/-	1.9E-07
Delay rate (us/s)	1.20730235926E+00	Apriori rate (us/s)	1.20730239941E+00	Resid rate (us/s)	-4.01440E-08	+/-	2.0E-09
Total phase (deg)	-257.9	Apriori accel (us/s/s)	3.50743020277E-05	Resid phase (deg)	-126.9	+/-	5.9

ph/seg (deg)	25.9	Theor.	14.1	Amplitude	0.560 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	26.4		24.6	Search (1024X32)	0.549	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	70.2		8.3	Inc. seg. avg.	0.596	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011			
amp/frq (%)	52.3		14.5	Inc. frq. avg.	0.811	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 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -8657.602 2265.809 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nY.W.382.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

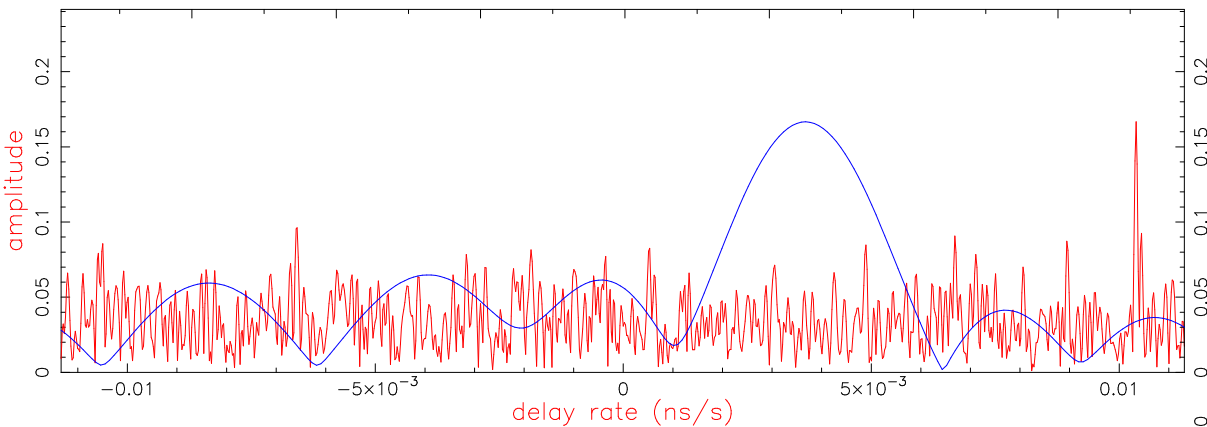
aux01

2013+370.3MP1N1, No0280, nY

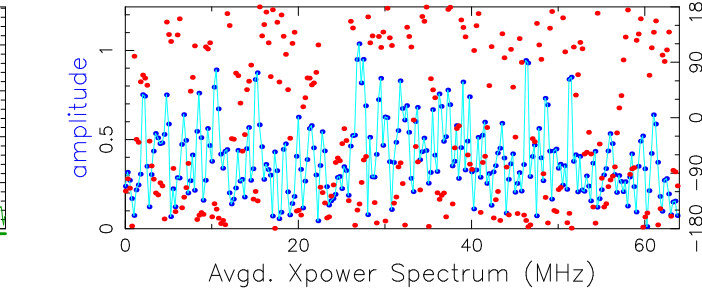
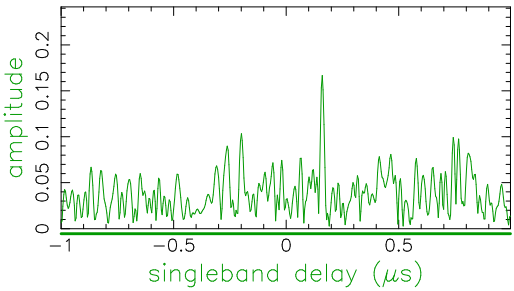
VLBA_NL - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

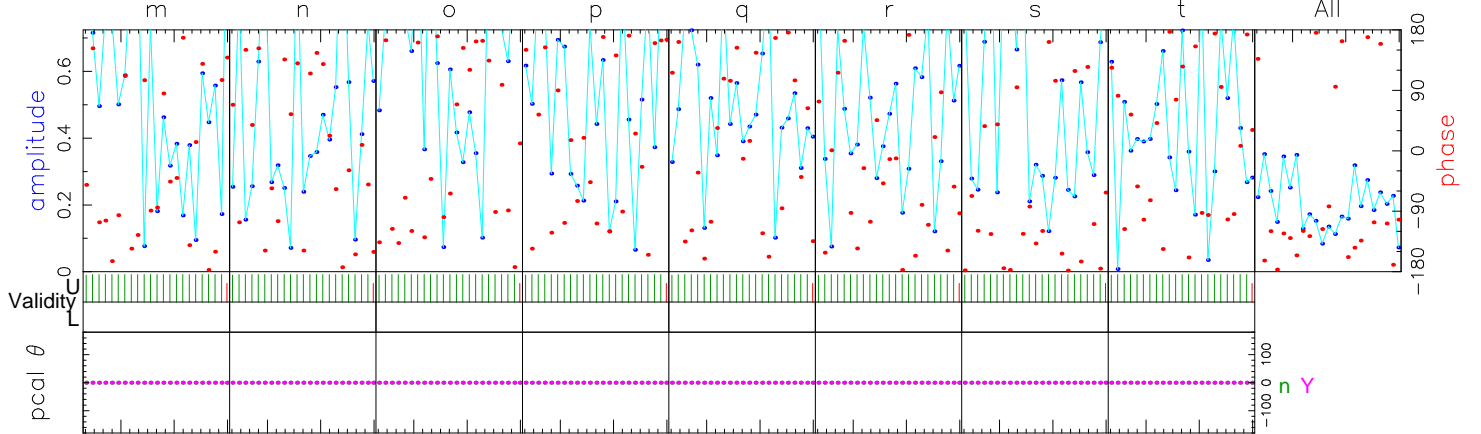


SNR 5.8
 Int time 162.316
 Amp 0.241
 Phase -151.6
 PFD 5.5e-01
 Delays (us)
 SBD 0.159968
 MBD 0.002498
 Fringe rate (Hz)
 0.892182
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080017.41
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105128
 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
	-144.1	-162.8	-147.0	-166.5	-172.4	-102.2	-158.4	-144.6	Phase	-151.6
	0.4	0.2	0.3	0.3	0.2	0.2	0.4	0.1	Ampl.	0.2
	319.4	284.3	446.6	322.4	229.1	133.8	297.3	271.3	Sbd box	298.0
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-6.27596268602E+03	Apriori delay (usec)	-6.27612143445E+03	Resid mbdelay (usec)	2.49844E-03	+/-	1.9E-04
Sband delay (usec)	-6.27596146670E+03	Apriori clock (usec)	1.1036539E+02	Resid sbdelay (usec)	1.59968E-01	+/-	1.5E-03
Phase delay (usec)	-6.27612143934E+03	Apriori clockrate (us/s)	1.7530289E-02	Resid phdelay (usec)	-4.88993E-06	+/-	6.4E-07
Delay rate (us/s)	1.20731275675E+00	Apriori rate (us/s)	1.20730239941E+00	Resid rate (us/s)	1.03573E-05	+/-	6.8E-09
Total phase (deg)	-282.6	Apriori accel (us/s/s)	3.50743020277E-05	Resid phase (deg)	-151.6	+/-	19.7

ph/seg (deg)	43.0	Theor.	47.3	Amplitude	0.241 +/- 0.042	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	53.5	Search (1024X32)	0.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	23.8	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	39.2	Inc. seg. avg.	0.224	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.226	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 Y: az 266.8 el 72.1 pa 72.3 u,v (fr/asec) -8657.602 2265.809 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nY.W.396.3MP1N1

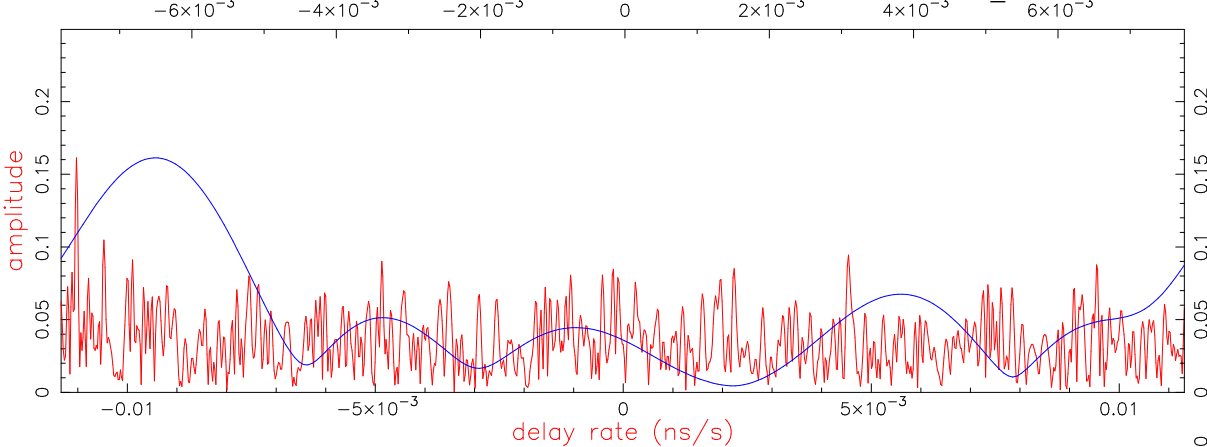
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, nY

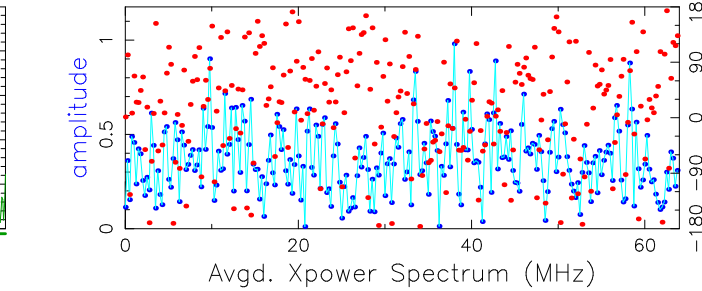
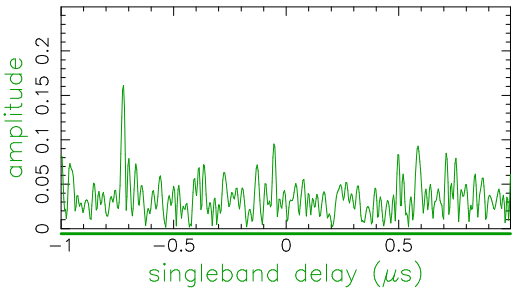
VLBA_NL - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



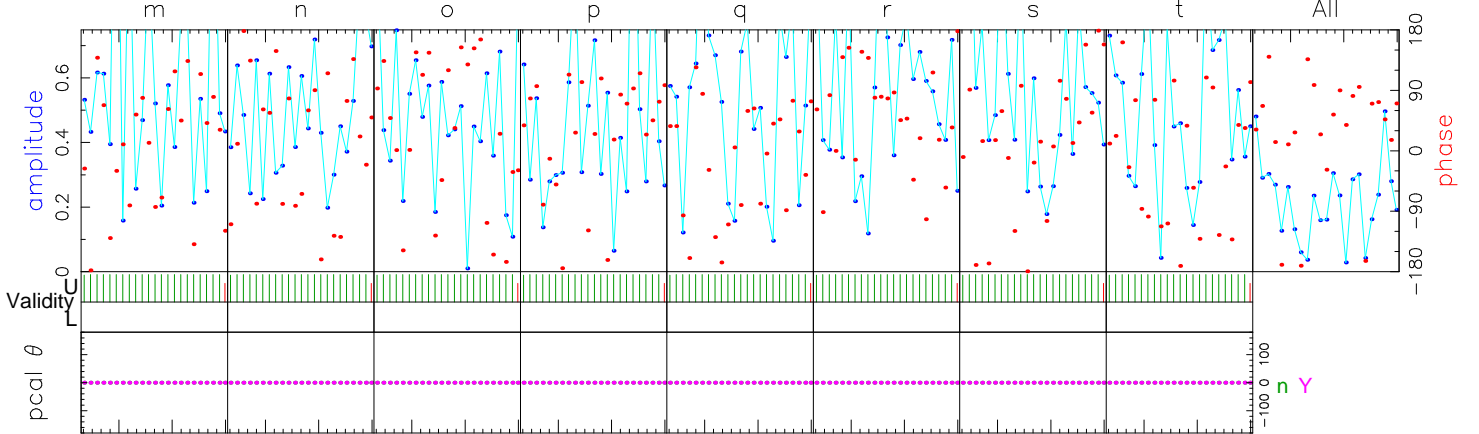
Fringe quality 0

SNR 5.7
 Int time 162.316
 Amp 0.250
 Phase 58.1
 PFD 8.2e-01
 Delays (us)
 SBD -0.723912
 MBD -0.006540
 Fringe rate (Hz)
 -0.952188
 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
	39.8	38.3	101.0	71.7	37.9	58.2	61.9	20.4	Phase	58.1
	0.3	0.1	0.2	0.4	0.2	0.4	0.4	0.1	Ampl.	0.2
	482.2	298.5	53.2	70.5	12.0	72.0	87.9	196.7	Sbd box	71.7
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.27684672432E+03	Apriori delay (usec)	-6.27612143445E+03	Resid mbdelay (usec)	-6.53987E-03	+/-	1.9E-04
Sband delay (usec)	-6.27684534620E+03	Apriori clock (usec)	1.1036539E+02	Resid sbdelay (usec)	-7.23912E-01	+/-	1.5E-03
Phase delay (usec)	-6.27612143258E+03	Apriori clockrate (us/s)	1.7530289E-02	Resid phdelay (usec)	1.87483E-06	+/-	6.5E-07
Delay rate (us/s)	1.20729134544E+00	Apriori rate (us/s)	1.20730239941E+00	Resid rate (us/s)	-1.10540E-05	+/-	6.9E-09
Total phase (deg)	-72.8	Apriori accel (us/s/s)	3.50743020277E-05	Resid phase (deg)	58.1	+/-	20.2

ph/seg (deg)	62.5	Theor.	48.4	Amplitude	0.250 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	83.0		84.5	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	27.7		28.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	54.1		49.8	Inc. seg. avg.	0.250	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.231	Data rate(Mb/s): 2048	t_cohere infinite			

n: az 72.1 el 40.3 pa -63.2 Y: az 266.8 el 72.1 pa 72.3 u, v (fr/asec) -8657.602 2265.809 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/nY..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/nY.W.406.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

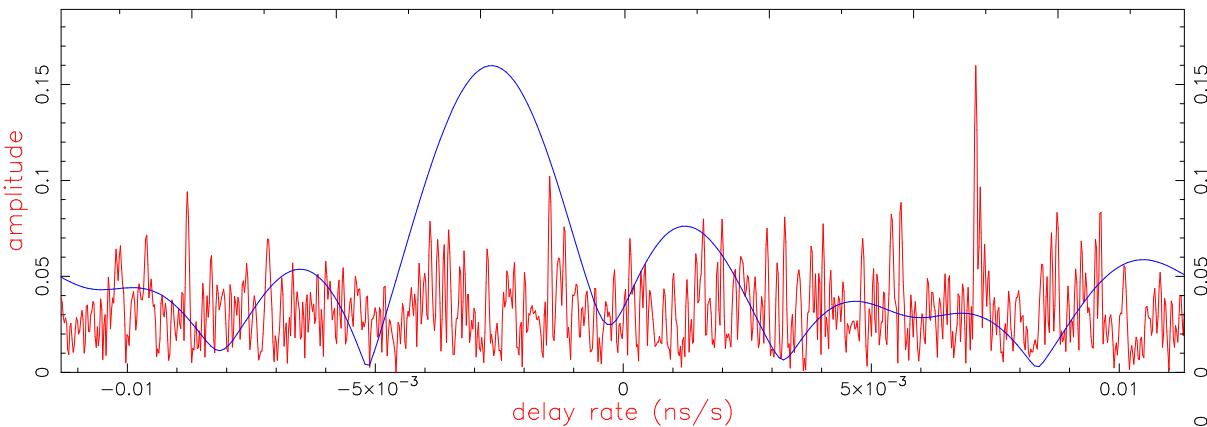
aux01

2013+370.3MP1N1, No0280, Zn

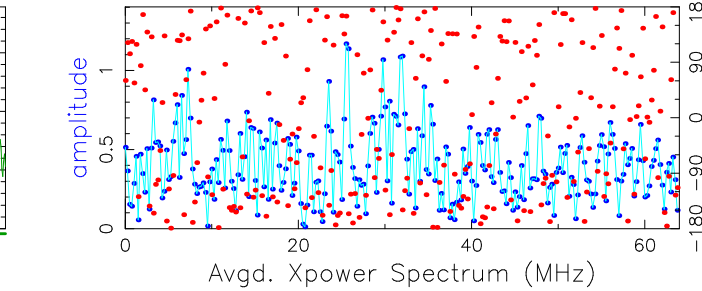
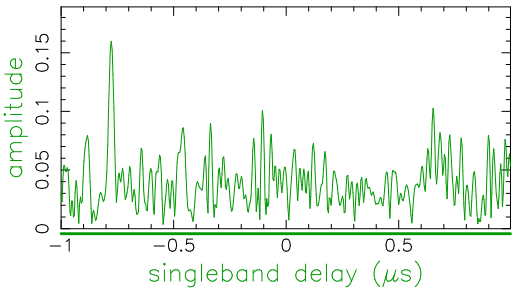
MEṬSAHOV - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

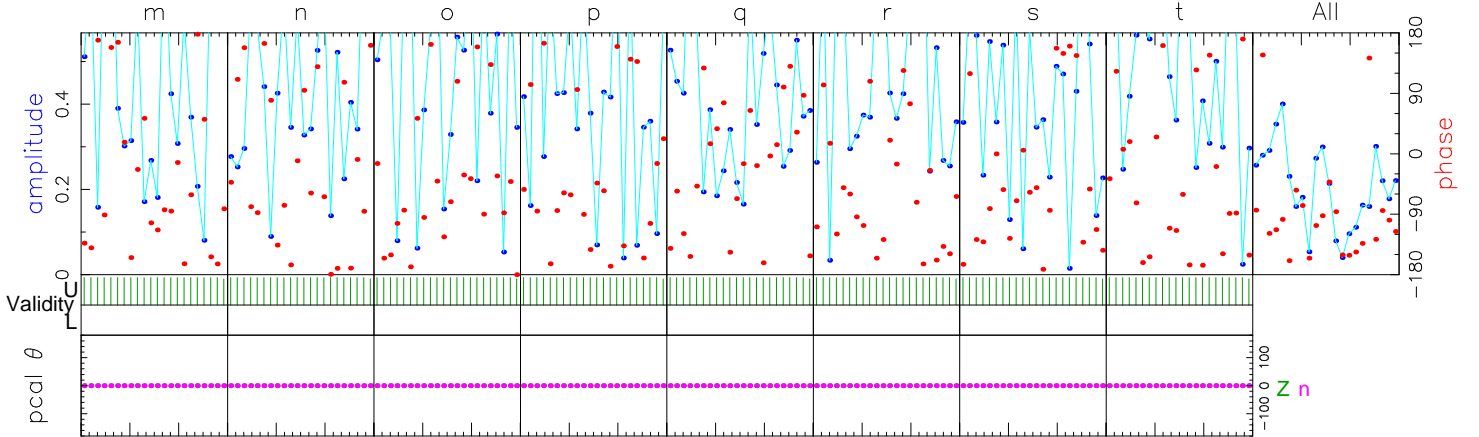


SNR 5.9
 Int time 179.774
 Amp 0.189
 Phase -112.1
 PFD 4.4e-01
 Delays (us)
 SBD -0.777341
 MBD -0.001849
 Fringe rate (Hz)
 0.614093
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



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
	-120.8	-116.4	-90.0	-117.1	-27.5	-120.6	-115.7	-115.0	Phase	-112.1
	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.2	Ampl.	0.2
	58.6	113.2	437.2	379.2	321.3	220.0	473.8	122.9	Sbd box	58.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.68821850192E+03	Apriori delay (usec)	2.68900160122E+03	Resid mbdelay (usec)	-1.84929E-03	+/-	1.9E-04
Sband delay (usec)	2.68822426047E+03	Apriori clock (usec)	5.0414276E-01	Resid sbdelay (usec)	-7.77341E-01	+/-	1.5E-03
Phase delay (usec)	2.68900159760E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	-3.61553E-06	+/-	6.3E-07
Delay rate (us/s)	-1.31363413167E+00	Apriori rate (us/s)	-1.31364126069E+00	Resid rate (us/s)	7.12901E-06	+/-	6.1E-09
Total phase (deg)	222.2	Apriori accel (us/s/s)	-4.91151036442E-07	Resid phase (deg)	-112.1	+/-	19.6

ph/seg (deg)	44.2	Theor.	45.9	Amplitude	0.189 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	65.9	Search (1024X32)	0.159	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	36.2	Inc. seg. avg.	0.186	Inc. frq. avg.	0.177	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	38.5	Inc. frq. avg.	0.177	u,v (fr/asec)	9453.764 1335.253	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	mb window (us) -0.008 0.008
Z: az 257.0 el 51.1 pa 37.4		n: az 72.1 el 40.3 pa -63.2				Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0280/Zn..3MP1N1				nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00
							simultaneous interpolator

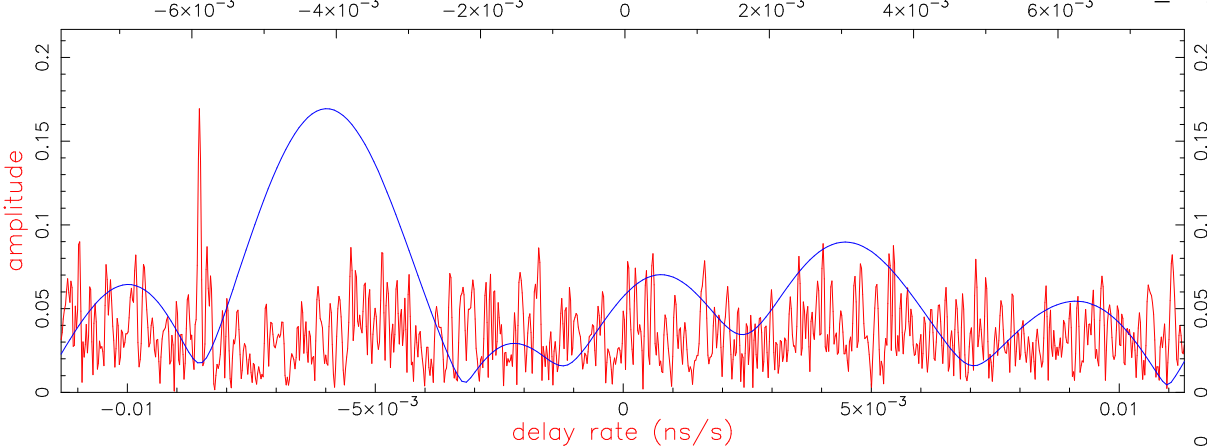
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1N1, No0280, Zn

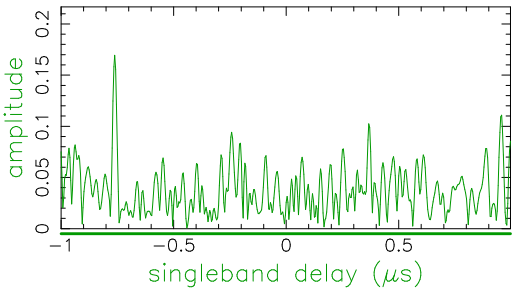
METSAHOV - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

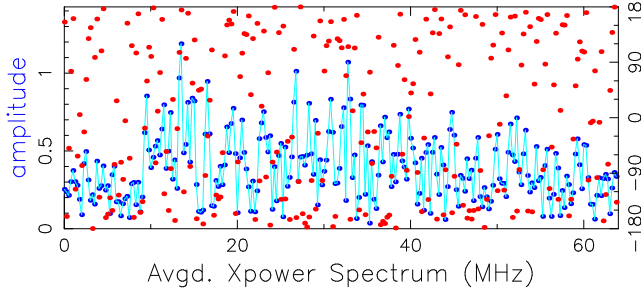


Fringe quality 0

SNR 6.2
 Int time 179.774
 Amp 0.217
 Phase 79.7
 PFD 6.8e-02
 Delays (us)
 SBD -0.761930
 MBD -0.004139
 Fringe rate (Hz)
 -0.736800
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

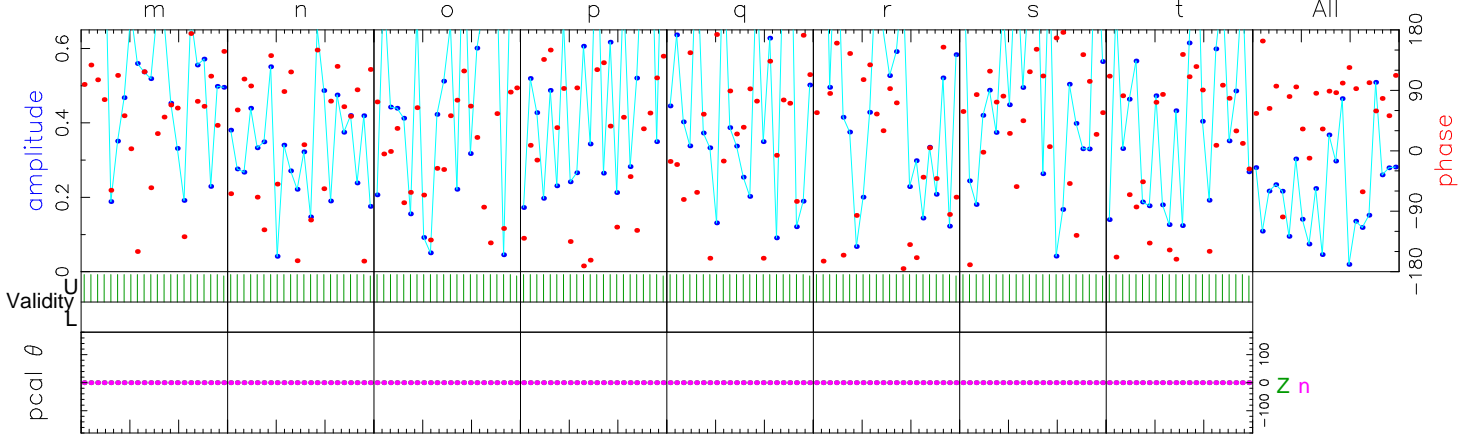


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105049
 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
	84.9	113.0	38.2	90.1	52.6	132.4	63.8	88.0	Phase	79.7
	0.4	0.1	0.3	0.3	0.2	0.2	0.3	0.2	Ampl.	0.2
	62.5	193.6	246.4	160.7	465.5	20.7	63.0	205.1	Sbd box	61.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.68824746193E+03	Apriori delay (usec)	2.68900160122E+03	Resid mbdelay (usec)	-4.13929E-03	+/-	1.7E-04
Sband delay (usec)	2.68823967122E+03	Apriori clock (usec)	5.0414276E-01	Resid sbdelay (usec)	-7.61930E-01	+/-	1.4E-03
Phase delay (usec)	2.68900160379E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	2.56911E-06	+/-	5.9E-07
Delay rate (us/s)	-1.31364981420E+00	Apriori rate (us/s)	-1.31364126069E+00	Resid rate (us/s)	-8.55351E-06	+/-	5.7E-09
Total phase (deg)	54.0	Apriori accel (us/s/s)	-4.91151036442E-07	Resid phase (deg)	79.7	+/-	18.4

ph/seg (deg)	59.6	RMS	43.3	Theor.	59.6	Amplitude	0.217 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	79.0	Search (1024X32)	0.165	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	0.165	SampCntNorm: enabled	mb window (us)	-1.000 1.000
ph/frq (deg)	33.7	Inc. seg. avg.	0.218	Inc. frq. avg.	0.221	Bits/sample: 2x2	0.218	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011
amp/frq (%)	39.1	Inc. frq. avg.	0.221	u,v (fr/asec)	9453.764 1335.253	Data rate(Mb/s): 2048	0.221	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

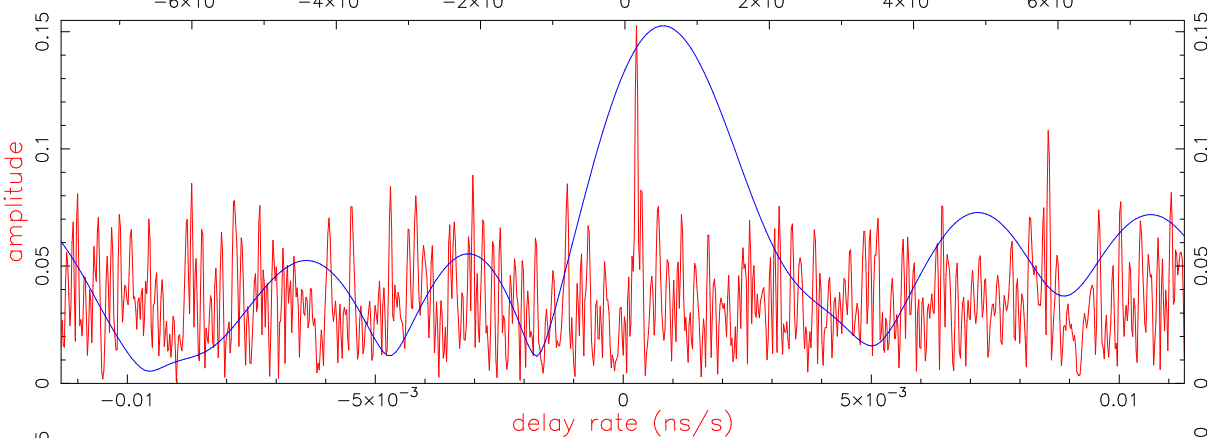
Z: az 257.0 el 51.1 pa 37.4 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9453.764 1335.253 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zn.W.247.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

aux01

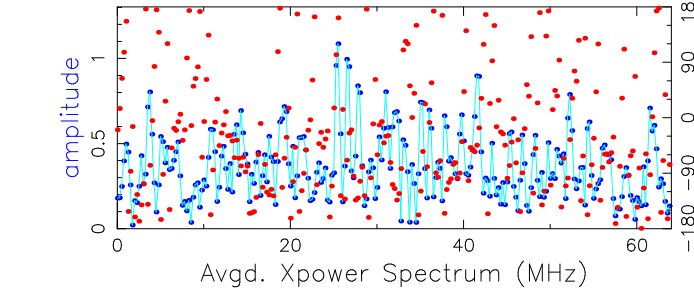
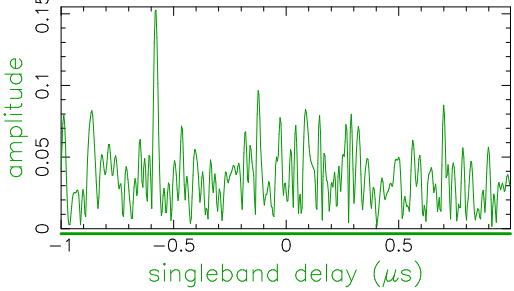
2013+370.3MP1N1, No0280, Zn

ME TSAHOV - VLBA_NL, fgroup W, pol LR



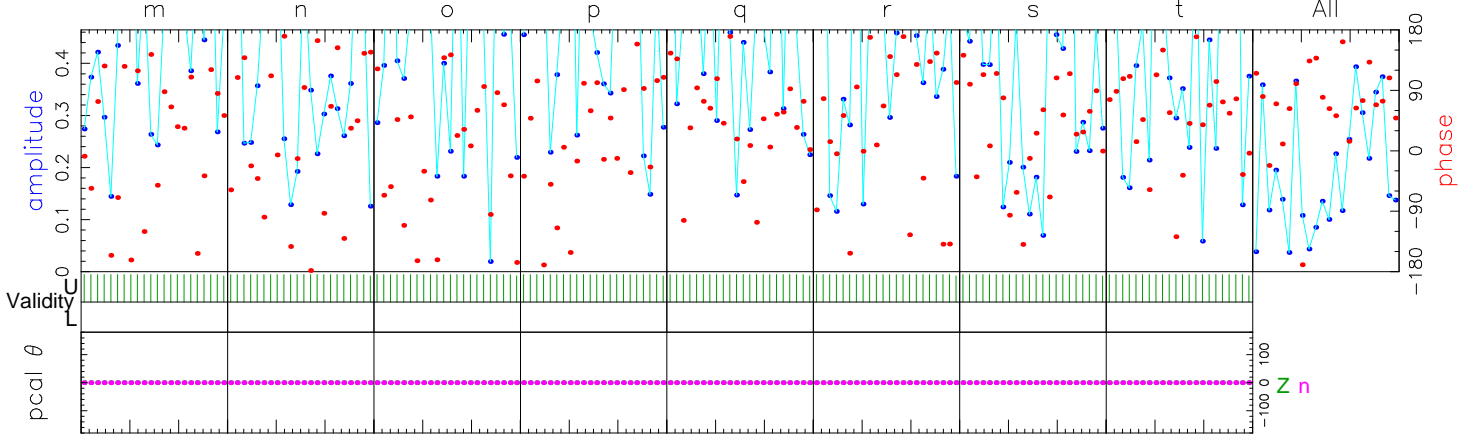
Fringe quality 0

SNR 5.7
 Int time 179.774
 Amp 0.155
 Phase 75.5
 PFD 8.2e-01
 Delays (us)
 SBD -0.579931
 MBD 0.000505
 Fringe rate (Hz)
 0.022671
 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
 2025:041:105051
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	2.68842398084E+03	Apriori delay (usec)	2.68900160122E+03	Resid mbdelay (usec)	5.04627E-04	+/-	1.9E-04
Sband delay (usec)	2.68842166997E+03	Apriori clock (usec)	5.0414276E-01	Resid sbdelay (usec)	-5.79931E-01	+/-	1.5E-03
Phase delay (usec)	2.68900160365E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	2.43604E-06	+/-	6.5E-07
Delay rate (us/s)	-1.31364099749E+00	Apriori rate (us/s)	-1.31364126069E+00	Resid rate (us/s)	2.63192E-07	+/-	6.3E-09
Total phase (deg)	49.9	Apriori accel (us/s/s)	-4.91151036442E-07	Resid phase (deg)	75.5	+/-	20.2

ph/seg (deg)	49.5	Theor.	47.4	Amplitude	0.155 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	78.5	Search (1024X32)	0.152	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.3	Inc. seg. avg.	0.144	Inc. frq. avg.	0.151	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.3	Inc. frq. avg.	0.151			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 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9453.764 1335.253 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zn.W.257.3MP1N1

Mk4/DiFX fourfit 3.25 rev 0

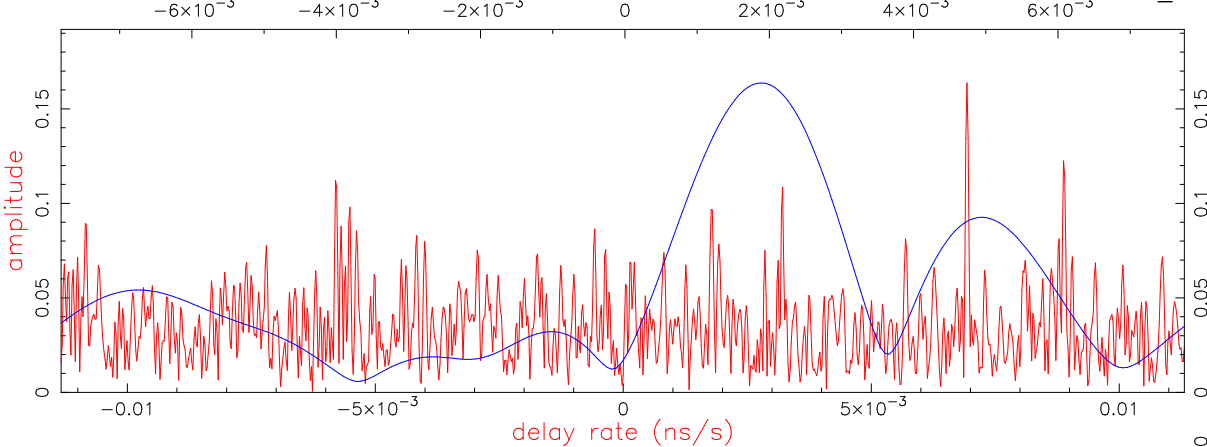
aux01

2013+370.3MP1N1, No0280, Zn

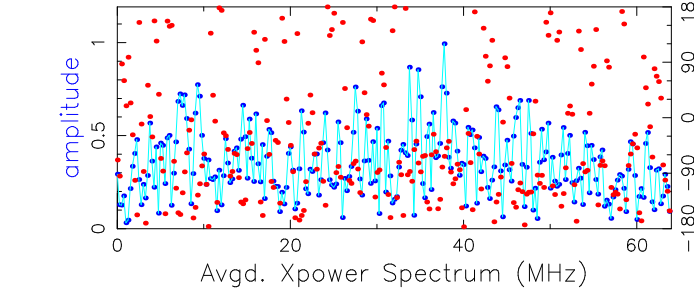
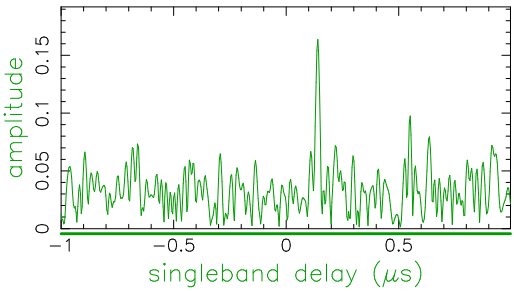
MEṬSAHOV - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

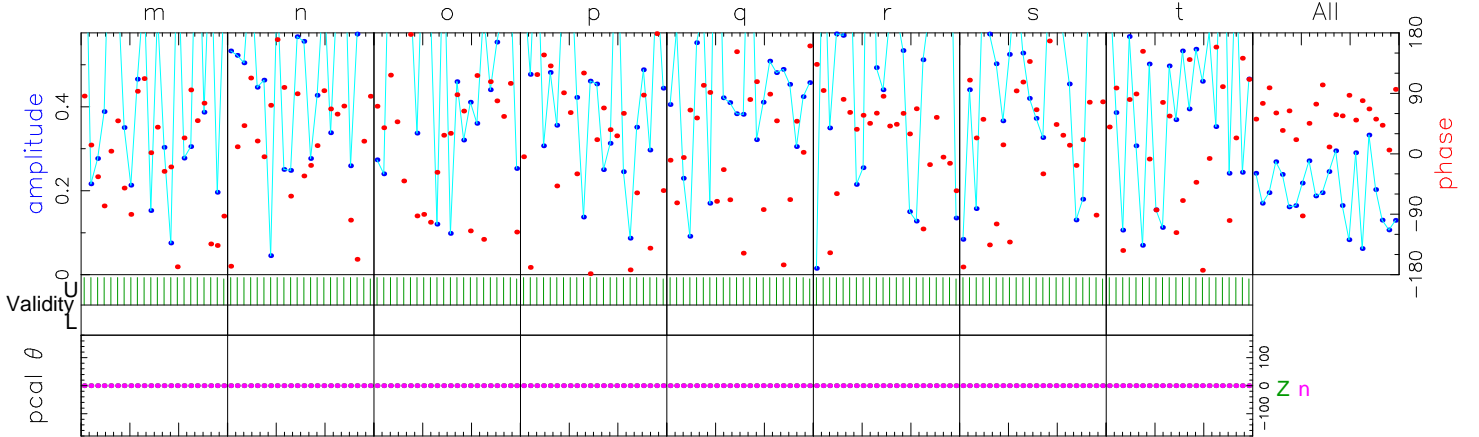


SNR 6.0
 Int time 179.774
 Amp 0.192
 Phase 55.2
 PFD 2.2e-01
 Delays (us)
 SBD 0.140348
 MBD 0.001881
 Fringe rate (Hz)
 0.597889
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 080000.00
 Stop 080300.22
 FRT 080130.00
 Corr/FF/build
 2024:352:054246
 2025:041:105054
 2024:113:095956
 RA & Dec (J2000)
 20h15m28.729786s
 +37°10'59.514736"

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



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

Group delay (usec) (SBD)	2.68914410769E+03	Apriori delay (usec)	2.68900160122E+03	Resid mbdelay (usec)	1.88148E-03	+/-	1.8E-04
Sband delay (usec)	2.68914194947E+03	Apriori clock (usec)	5.0414276E-01	Resid sbdelay (usec)	1.40348E-01	+/-	1.4E-03
Phase delay (usec)	2.68900160300E+03	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	1.78077E-06	+/-	6.2E-07
Delay rate (us/s)	-1.31363431979E+00	Apriori rate (us/s)	-1.31364126069E+00	Resid rate (us/s)	6.94090E-06	+/-	5.9E-09
Total phase (deg)	29.6	Apriori accel (us/s/s)	-4.91151036442E-07	Resid phase (deg)	55.2	+/-	19.1

ph/seg (deg)	40.7	Theor.	44.8	Amplitude	0.192 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	47.4		78.1	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	22.7		27.0	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	49.2		47.1	Inc. seg. avg.	0.178	SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.181	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC) 0.00 0.00
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite

Z: az 257.0 el 51.1 pa 37.4 n: az 72.1 el 40.3 pa -63.2 u,v (fr/asec) 9453.764 1335.253 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0280/Zn..3MP1N1 Output file: /Exps/c241c/v2/3mm/1234/No0280/Zn.W.270.3MP1N1