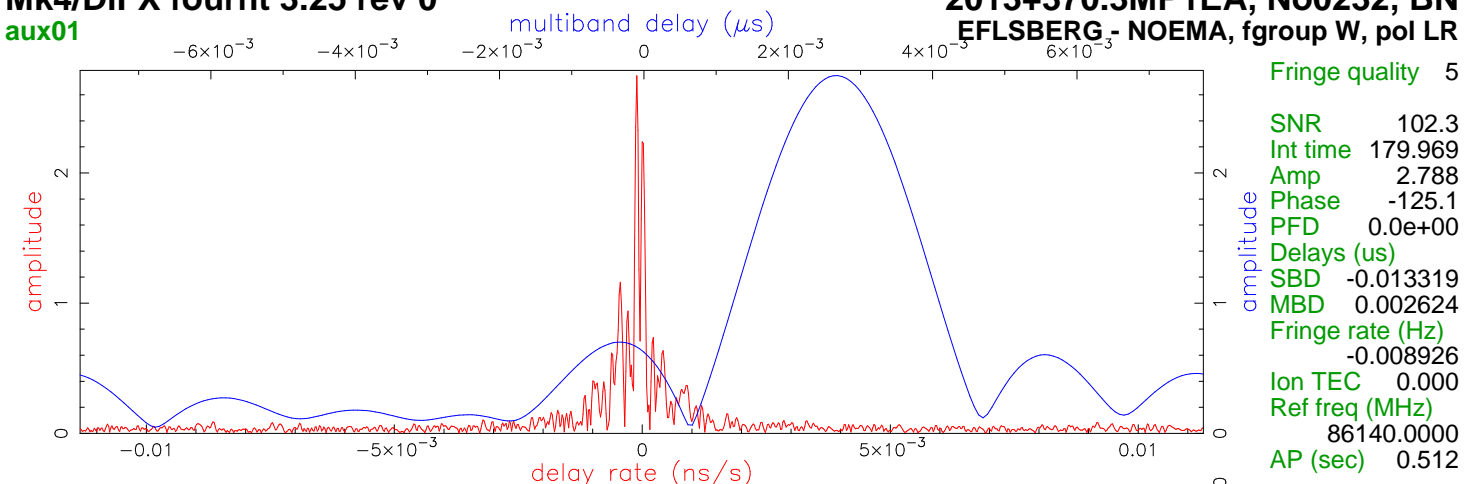


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, BN

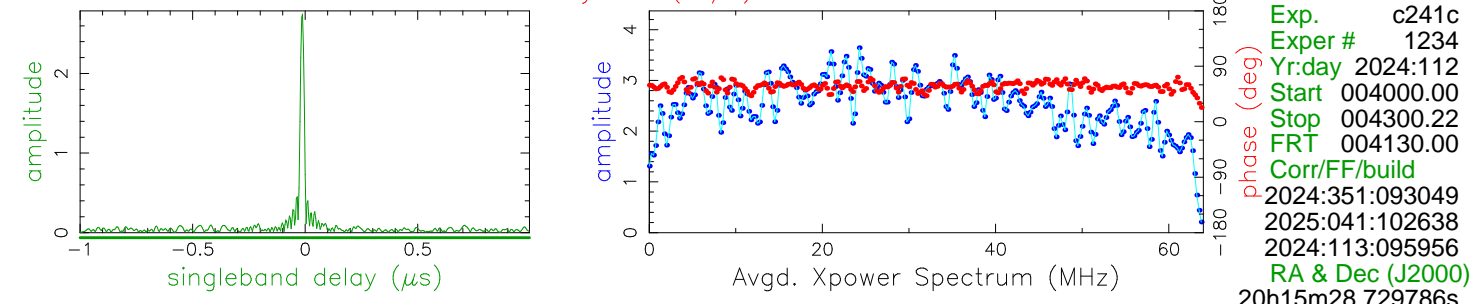
EFLSBERG - NOEMA, fgroup W, pol LR



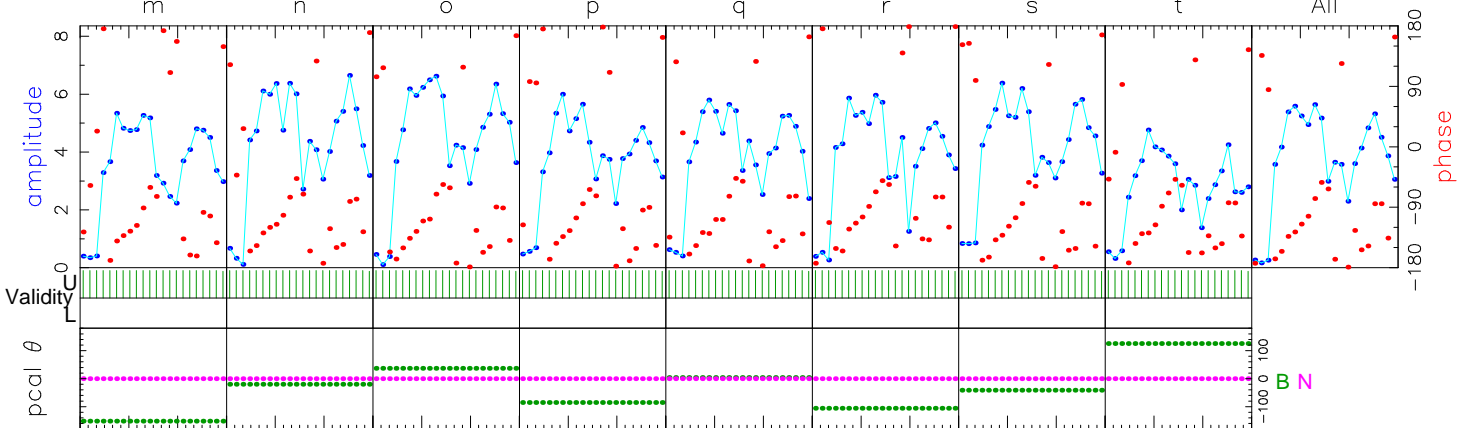
Fringe quality 5

SNR 102.3  
 Int time 179.969  
 Amp 2.788  
 Phase -125.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.013319  
 MBD 0.002624  
 Fringe rate (Hz) -0.008926  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102638  
 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



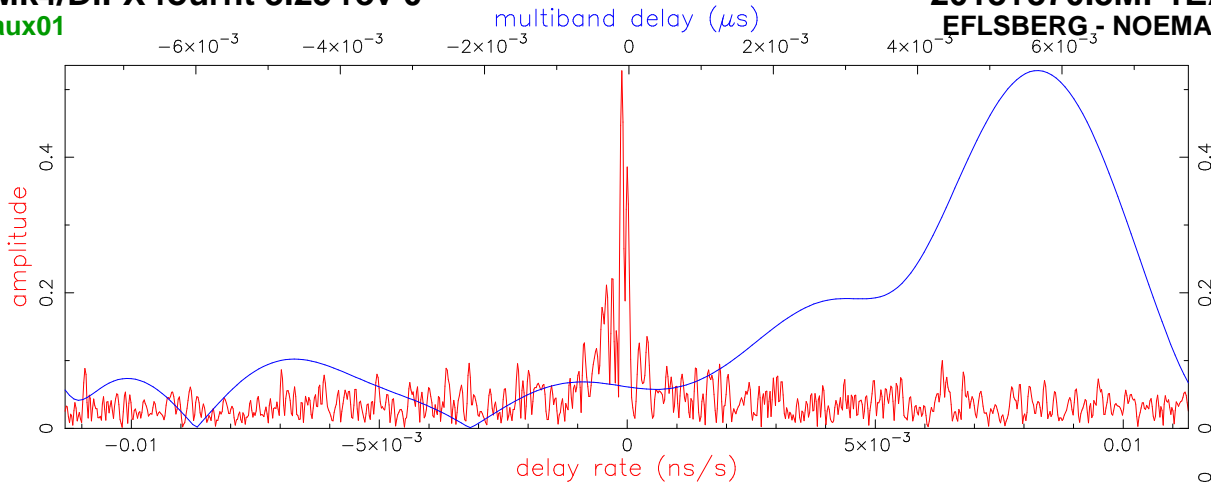
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-134.3	-120.6	-125.5	-134.2	-120.4	-113.7	-130.8	-121.7	Phase	-125.1	
	2.6	3.2	3.2	2.6	2.8	2.8	3.0	1.9	Ampl.	2.8	
	252.0	253.3	254.0	254.3	254.2	254.0	253.6	252.3	Sbd box	253.6	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
N	0	0	0	0	0	0	0	0	PC freqs		
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:N	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	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)	7.83536575085E+02		Apriori delay (usec)		7.83549575709E+02		Resid mbdelay (usec)		2.62438E-03	+/- 1.1E-05	
Sband delay (usec)	7.83536256459E+02		Apriori clock (usec)		-2.2039106E+01		Resid sbdelay (usec)		-1.33193E-02	+/- 8.4E-05	
Phase delay (usec)	7.83549571676E+02		Apriori clockrate (us/s)		-2.0383803E-07		Resid phdelay (usec)		-4.03262E-06	+/- 3.6E-08	
Delay rate (us/s)	-9.47474141006E-02		Apriori rate (us/s)		-9.47473104825E-02		Resid rate (us/s)		-1.03618E-07	+/- 3.5E-10	
Total phase (deg)	37.5		Apriori accel (us/s/s)		4.40997328901E-07		Resid phase (deg)		-125.1	+/- 1.1	
RMS	Theor.		Amplitude		2.788 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	58.8	2.6	Search (1024X32)		2.646		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	68.5	4.6	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	8.0	1.6	Inc. seg. avg.		3.737		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	13.7	2.8	Inc. frq. avg.		2.765		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
B: az 72.0 el 35.1 pa -49.5	N: az 67.7 el 32.5 pa -55.9		u, v (fr/asec)		683.190 509.836				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0232/BN..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232/BN.W.11.3MP1EA								

Mk4/DiFX fourfit 3.25 rev 0

aux01

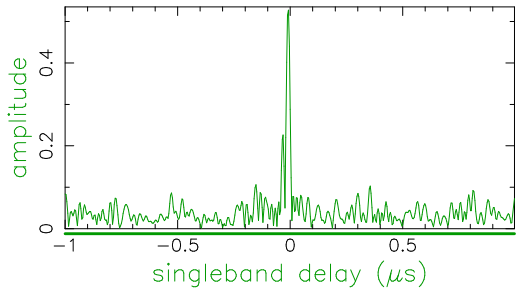
2013+370.3MP1EA, No0232, BN

EFLSBERG - NOEMA, fgroup W, pol RL

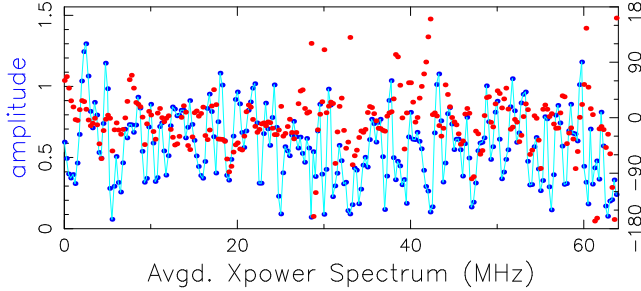


Fringe quality 8

SNR 19.6  
 Int time 179.970  
 Amp 0.536  
 Phase -174.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009324  
 MBD 0.005614  
 Fringe rate (Hz)  
 -0.009669  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

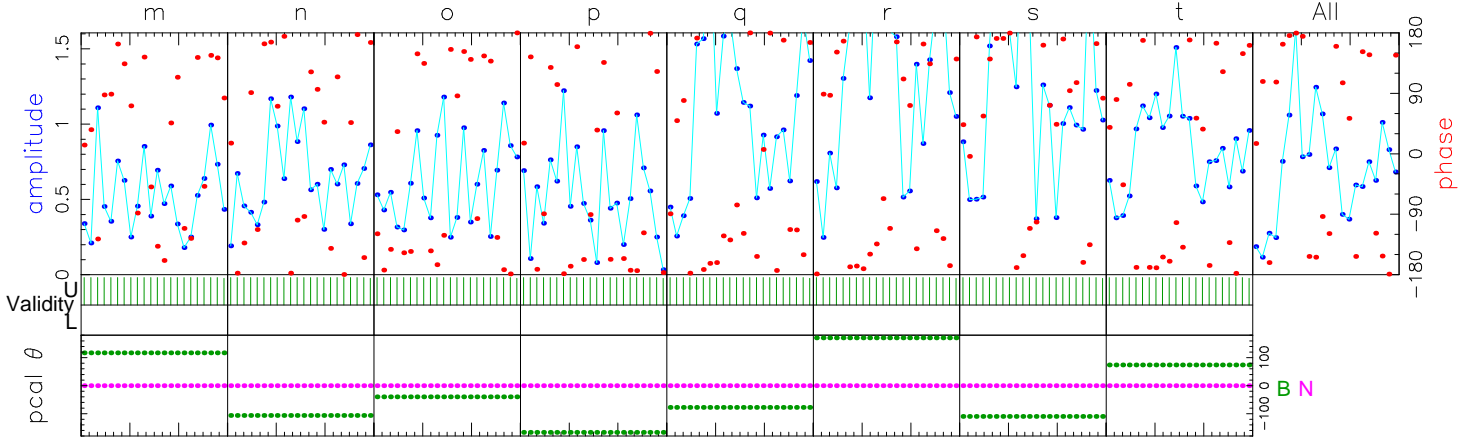


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102640  
 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
	155.7	174.4	-172.4	172.4	-152.0	-163.1	170.5	-177.6	Phase	-174.0
	0.2	0.4	0.5	0.3	0.8	0.9	0.8	0.5	Ampl.	0.5
	252.5	253.5	254.9	253.3	255.4	254.8	255.3	253.2	Sbd box	254.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	7.83539564585E+02	Apriori delay (usec)	7.83549575709E+02	Resid mbdelay (usec)	5.61388E-03	+/-	5.5E-05
Sband delay (usec)	7.83540252209E+02	Apriori clock (usec)	-2.2039106E+01	Resid sbdelay (usec)	-9.32350E-03	+/-	4.4E-04
Phase delay (usec)	7.83549570097E+02	Apriori clockrate (us/s)	-2.0383803E-07	Resid phdelay (usec)	-5.61201E-06	+/-	1.9E-07
Delay rate (us/s)	-9.47474227322E-02	Apriori rate (us/s)	-9.47473104825E-02	Resid rate (us/s)	-1.12250E-07	+/-	1.8E-09
Total phase (deg)		Apriori accel (us/s/s)	4.40997328901E-07	Resid phase (deg)	-174.0	+/-	5.8

ph/seg (deg)	RMS 62.6	Theor. 13.7	Amplitude Search (1024X32)	0.536 +/- 0.027	0.521	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.0	23.9	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)	18.7	8.2	Inc. seg. avg.	0.688	0.688	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.2	14.4	Inc. frq. avg.	0.541	0.541	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 72.0 el 35.1 pa -49.5      N: az 67.7 el 32.5 pa -55.9      u,v (fr/asec) 683.190 509.836      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241c/v2/3mm/1234/No0232/BN..3MP1EA      Output file: /Exps/c241c/v2/3mm/1234/No0232/BN.W.19.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

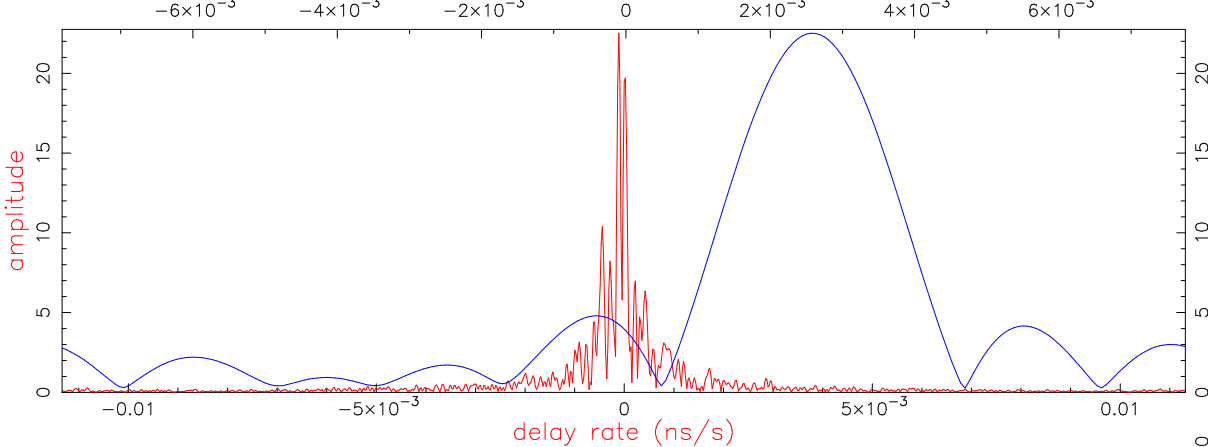
aux01

2013+370.3MP1EA, No0232, BN

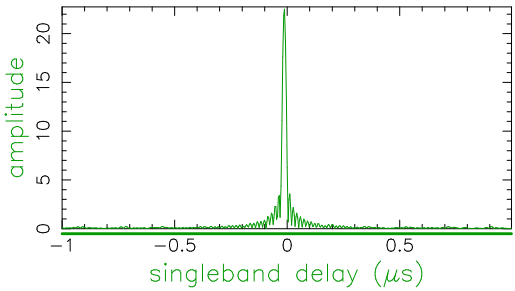
EFLSBERG<sub>3</sub>- NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)

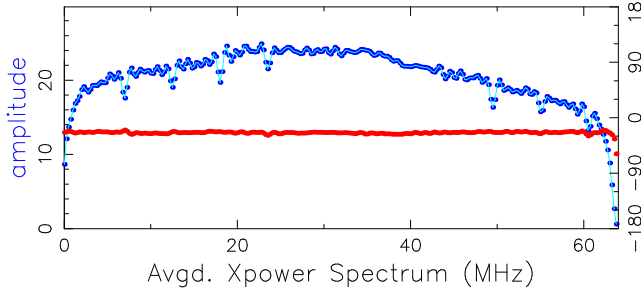
Fringe quality 5



SNR 834.7  
 Int time 179.970  
 Amp 22.753  
 Phase 156.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.013076  
 MBD 0.002553  
 Fringe rate (Hz)  
 -0.009236  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

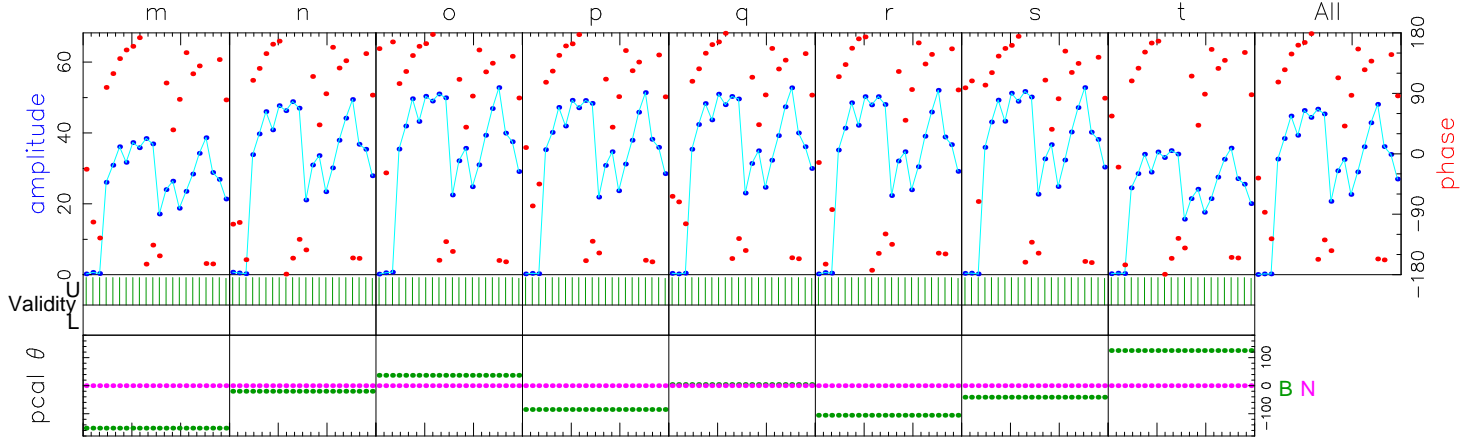


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102634  
 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	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	7.83536503835E+02	Apriori delay (usec)	7.83549575709E+02	Resid mbdelay (usec)	2.55313E-03	+/-	1.3E-06
Sband delay (usec)	7.83536499959E+02	Apriori clock (usec)	-2.2039106E+01	Resid sbdelay (usec)	-1.30758E-02	+/-	1.0E-05
Phase delay (usec)	7.83549580755E+02	Apriori clockrate (us/s)	-2.0383803E-07	Resid phdelay (usec)	5.04620E-06	+/-	4.4E-09
Delay rate (us/s)	-9.47474177015E-02	Apriori rate (us/s)	-9.47473104825E-02	Resid rate (us/s)	-1.07219E-07	+/-	4.3E-11
Total phase (deg)	319.0	Apriori accel (us/s/s)	4.40997328901E-07	Resid phase (deg)	156.5	+/-	0.1

ph/seg (deg)	65.2	RMS	22.753 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.4	Theor.	22.198	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	5.0	Search (1024X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	13.2	Interp.	31.692	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. seg. avg.	22.575	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
		Inc. frq. avg.						

B: az 72.0 el 35.1 pa -49.5 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 683.190 509.836 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/BN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/BN.W.2.3MP1EA

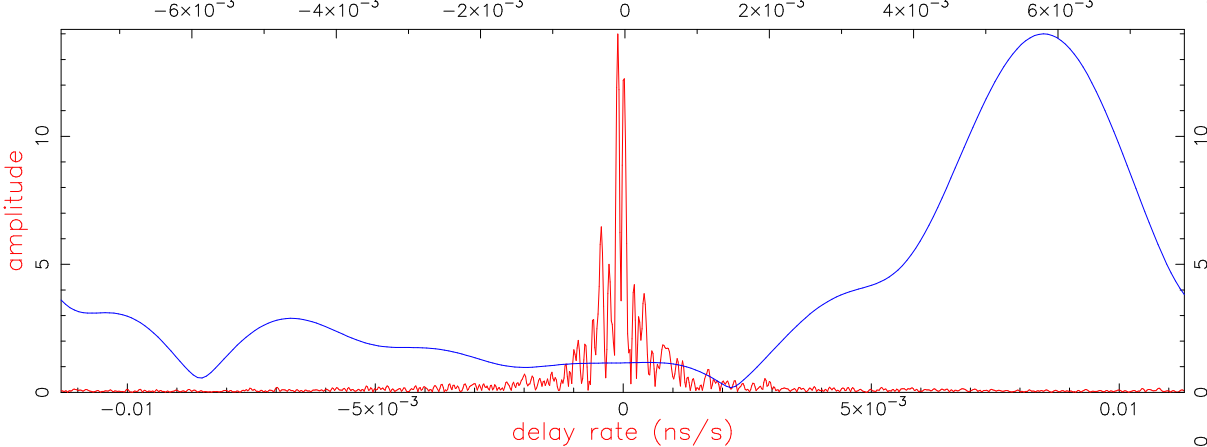
Mk4/DiFX fourfit 3.25 rev 0

aux01

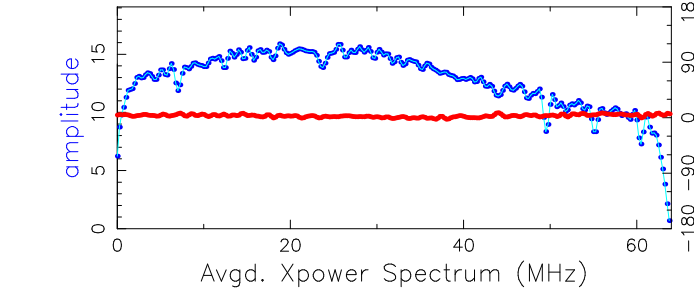
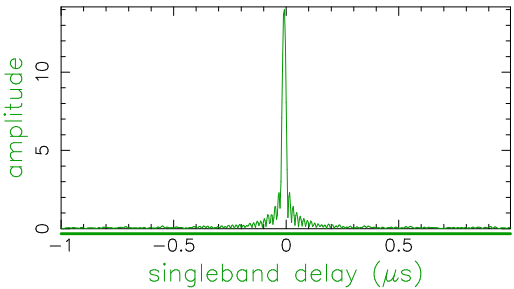
2013+370.3MP1EA, No0232, BN

EFLSBERG - NOEMA, fgroup W, pol RR

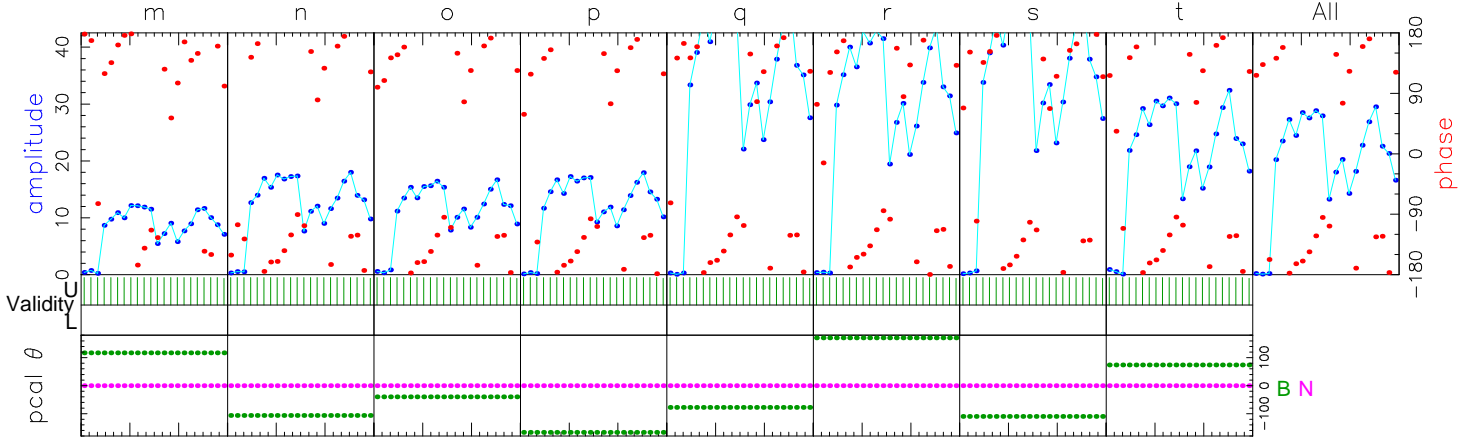
multiband delay ( $\mu$ s)



Fringe quality 3  
 Error code G  
 SNR 520.1  
 Int time 179.969  
 Amp 14.176  
 Phase -169.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009290  
 MBD 0.005765  
 Fringe rate (Hz)  
 -0.009205  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102635  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	169.4	-166.5	-168.6	-169.5	-168.1	-159.8	-175.4	-168.1	Phase	-169.2
	5.8	8.7	7.9	8.5	23.1	20.7	23.0	15.0	Ampl.	14.1
	252.6	254.3	255.1	254.9	255.2	255.0	254.8	253.3	Sbd box	254.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
B:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:N	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	

Group delay (usec) (SBD) 7.83539715835E+02 Apriori delay (usec) 7.83549575709E+02 Resid mbdelay (usec) 5.76513E-03 +/- 2.1E-06  
 Sband delay (usec) 7.83540286209E+02 Apriori clock (usec) -2.2039106E+01 Resid sbdelay (usec) -9.28950E-03 +/- 1.7E-05  
 Phase delay (usec) 7.83549570252E+02 Apriori clockrate (us/s) -2.0383803E-07 Resid phdelay (usec) -5.45645E-06 +/- 7.1E-09  
 Delay rate (us/s) -9.47474173387E-02 Apriori rate (us/s) -9.47473104825E-02 Resid rate (us/s) -1.06856E-07 +/- 6.8E-11  
 Total phase (deg) -6.7 Apriori accel (us/s/s) 4.40997328901E-07 Resid phase (deg) -169.2 +/- 0.2

RMS Theor. Amplitude 14.176 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 50.0 0.5 Search (1024X32) 13.897 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 74.4 0.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 9.9 0.3 Inc. seg. avg. 19.675 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 48.1 0.5 Inc. frq. avg. 14.101 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 72.0 el 35.1 pa -49.5 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 683.190 509.836 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/BN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/BN.W.6.3MP1EA

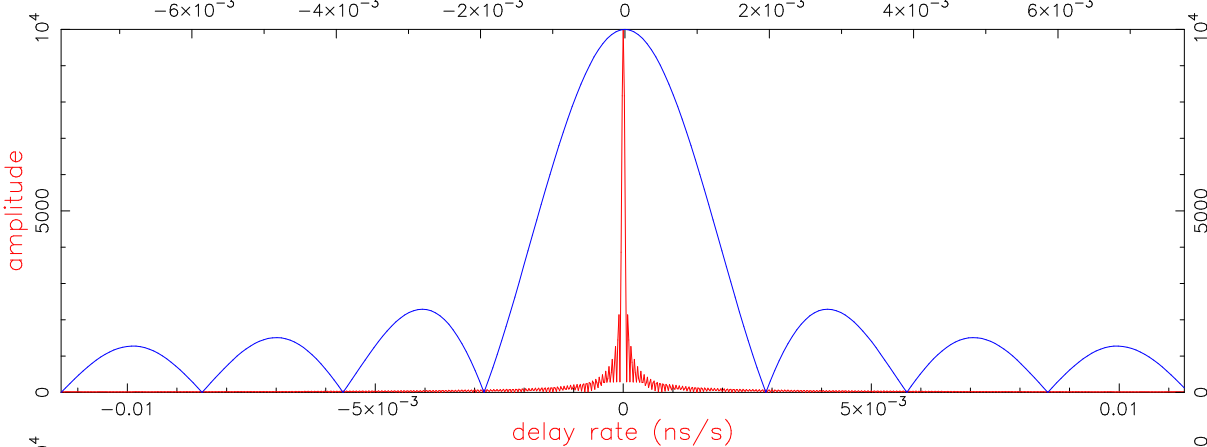
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NN

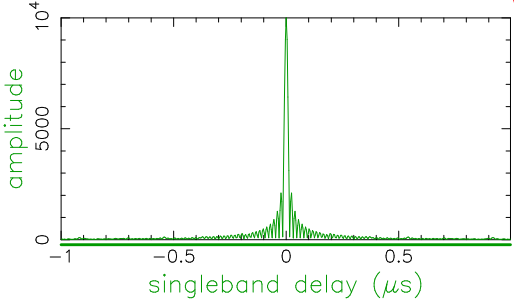
NOEMA - NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)

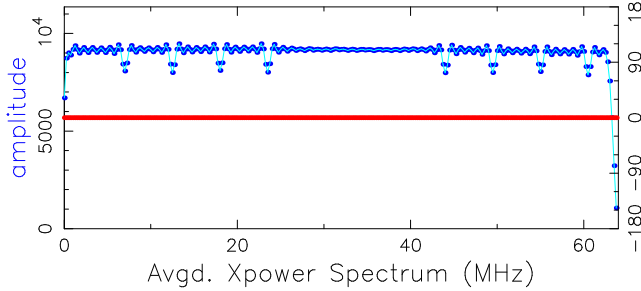


Fringe quality 9

SNR 366876.7  
 Int time 179.989  
 Amp 10000.001  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

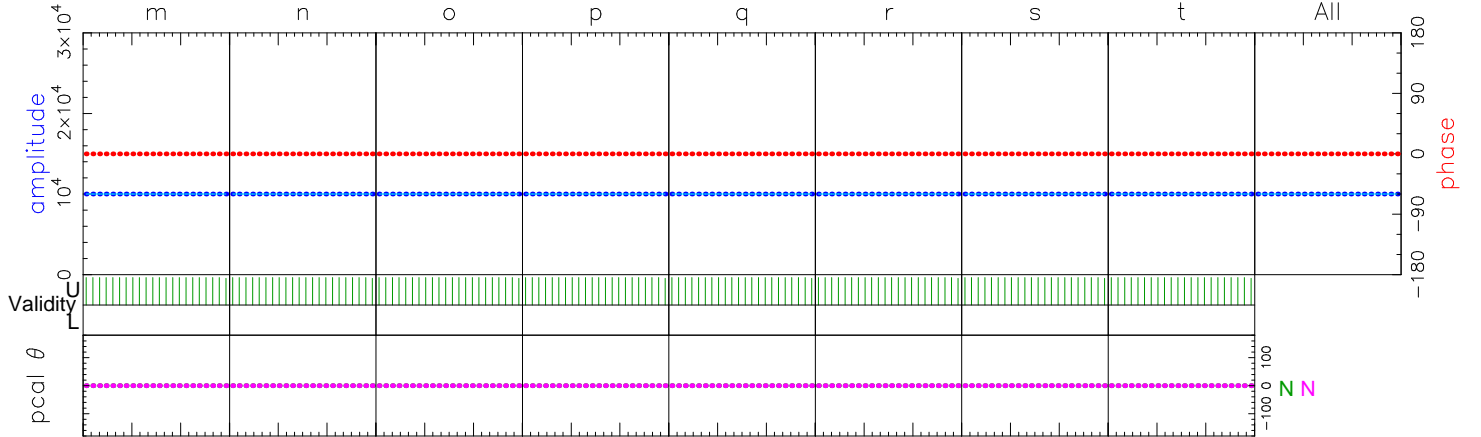


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102639  
 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

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 N: az 67.7 el 32.5 pa -55.9 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NN.W.16.3MP1EA simultaneous interpolator

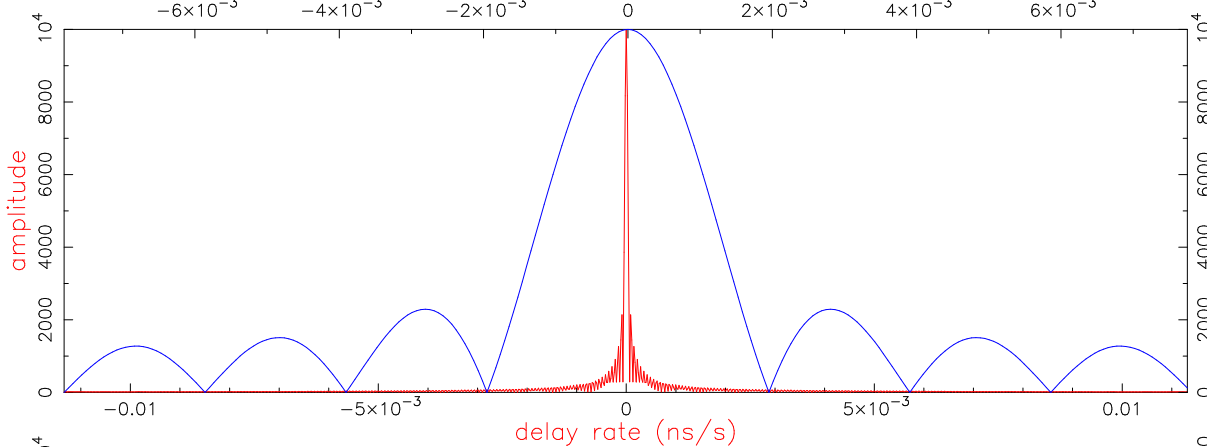
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NN

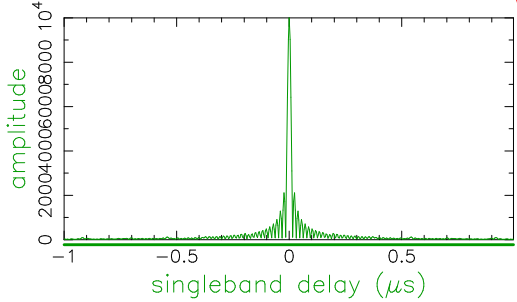
NOEMA - NOEMA, fgroup W, pol RR

multiband delay ( $\mu$ s)

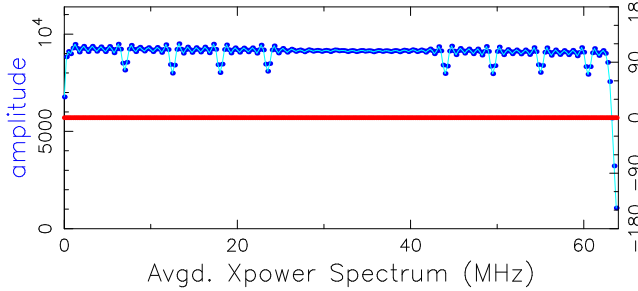


Fringe quality 9

SNR 366876.2  
 Int time 179.988  
 Amp 10000.000  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

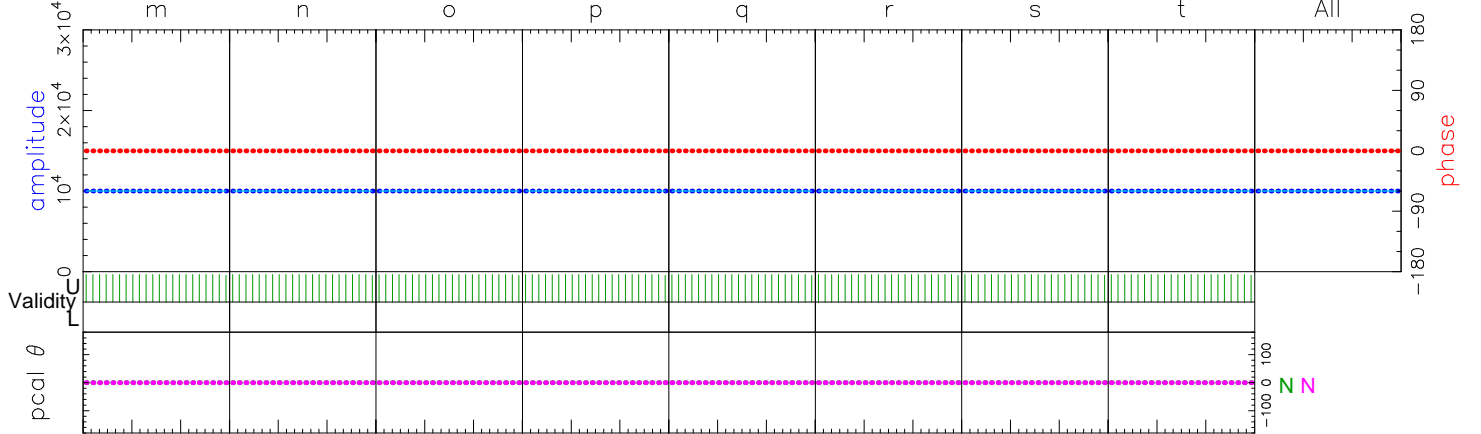


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102642  
 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09  
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-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

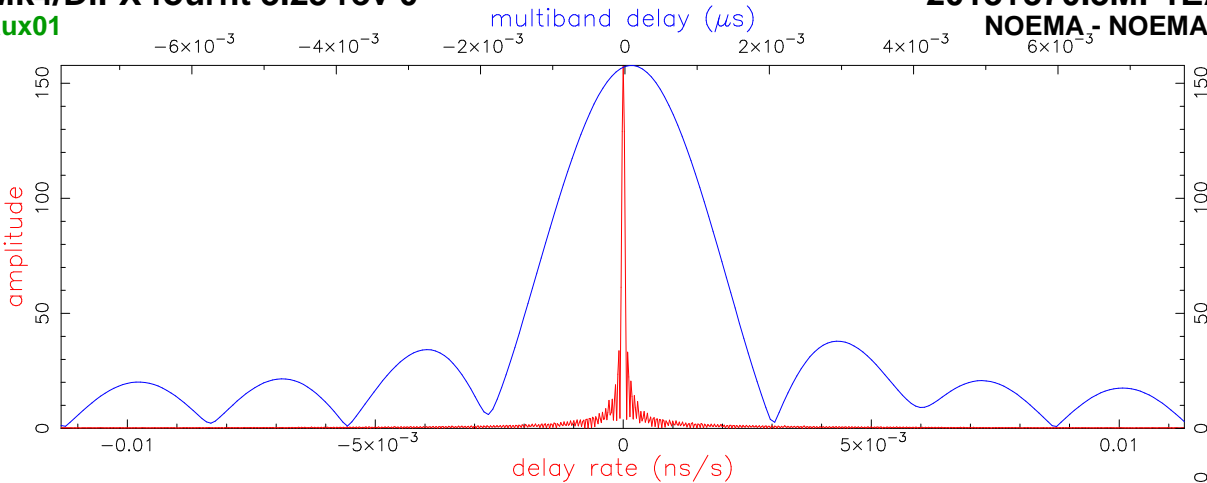
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 N: az 67.7 el 32.5 pa -55.9 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NN.W.23.3MP1EA simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

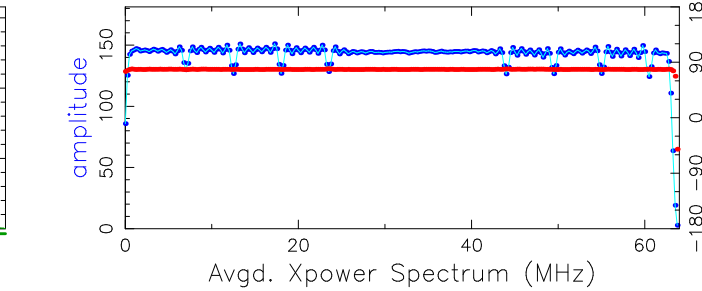
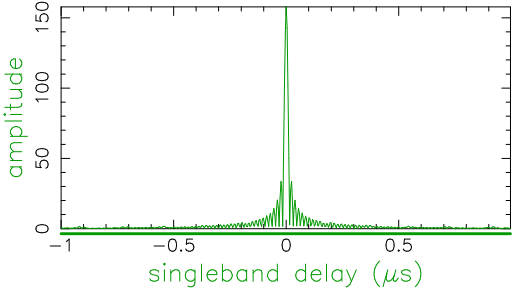
2013+370.3MP1EA, No0232, NN

NOEMA - NOEMA, fgroup W, pol LR



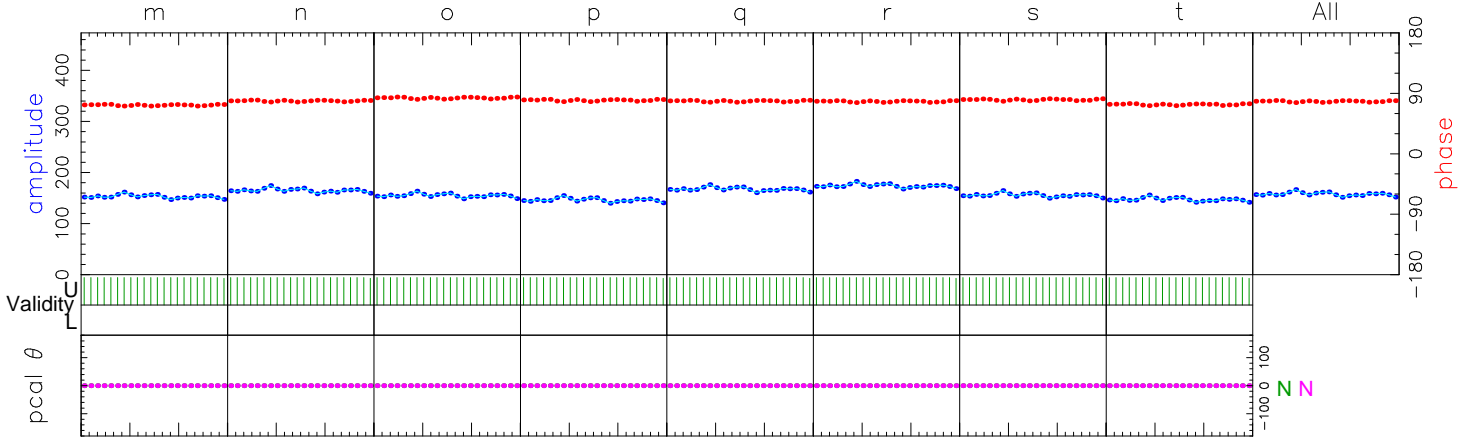
Fringe quality 9

SNR 5789.7  
 Int time 179.988  
 Amp 157.810  
 Phase 78.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000046  
 MBD 0.000088  
 Fringe rate (Hz)  
 0.000012  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102648  
 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
	72.4	78.6	83.0	79.7	78.4	77.9	80.4	73.3	Phase	78.0
	153.1	165.1	155.1	146.4	167.5	174.0	155.8	147.4	Ampl.	158.1
	257.0	257.0	257.2	256.9	257.0	257.1	257.0	256.9	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	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) 8.759375000000E-05 Apriori delay (usec) 0.000000000000E+00 Resid mbdelay (usec) 8.75937E-05 +/- 1.9E-07  
 Sband delay (usec) 4.600000000000E-05 Apriori clock (usec) 0.000000000000E+00 Resid sbdelay (usec) 4.60000E-05 +/- 1.5E-06  
 Phase delay (usec) 2.51579140374E-06 Apriori clockrate (us/s) 0.000000000000E+00 Resid phdelay (usec) 2.51579E-06 +/- 6.4E-10  
 Delay rate (us/s) 1.43128639156E-10 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 1.43129E-10 +/- 6.1E-12  
 Total phase (deg) 78.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 78.0 +/- 0.0

RMS Theor. Amplitude 157.810 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.9 0.0 Search (1024X32) 157.306 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 2.1 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 3.8 0.0 Inc. seg. avg. 157.829 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 5.9 0.0 Inc. frq. avg. 158.061 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

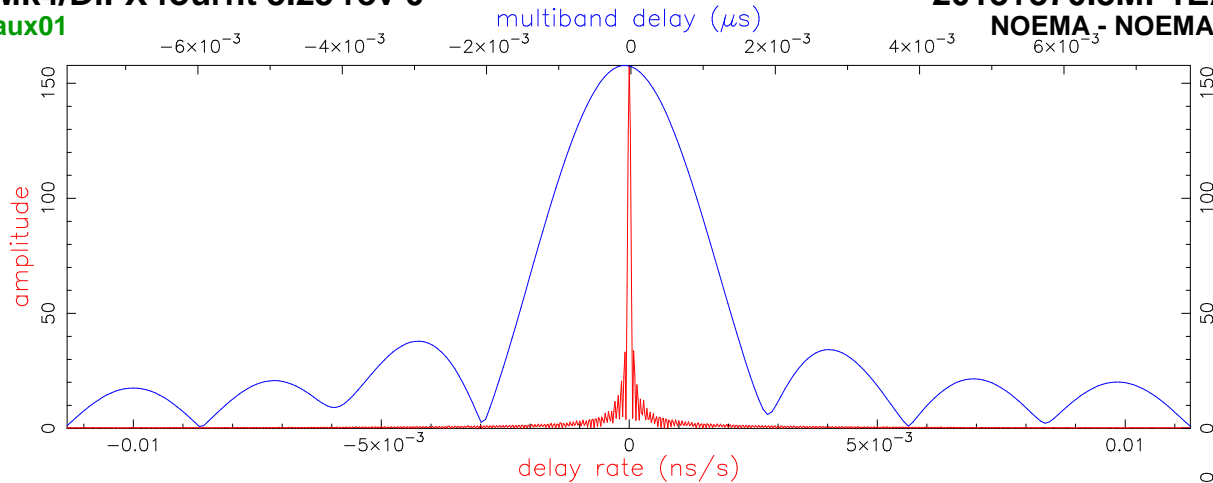
N: az 67.7 el 32.5 pa -55.9 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NN.W.36.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

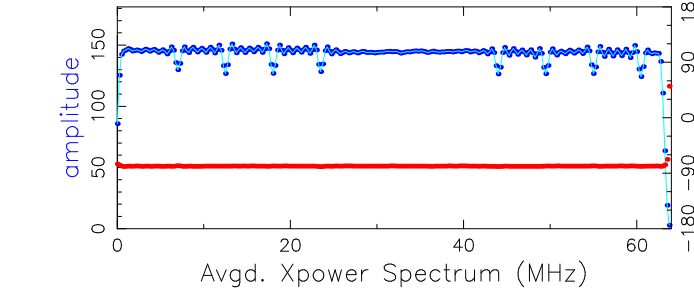
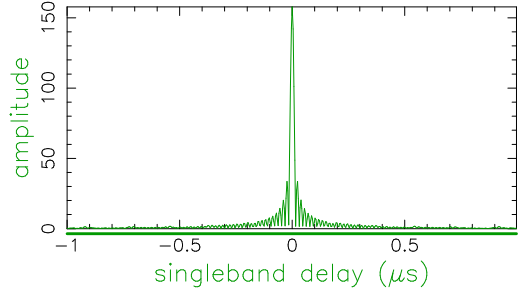
2013+370.3MP1EA, No0232, NN

NOEMA - NOEMA, fgroup W, pol RL



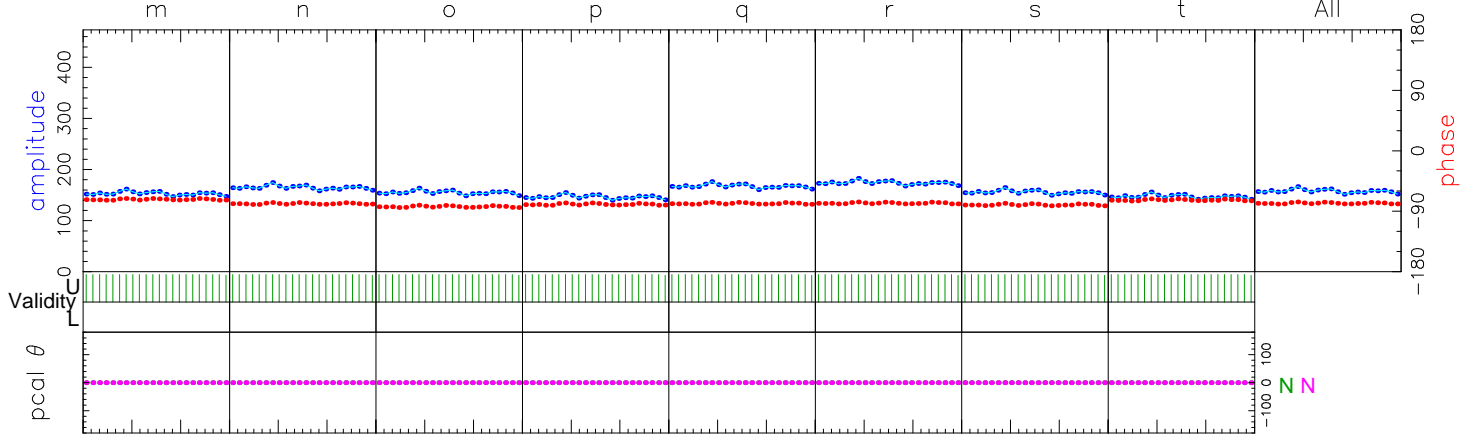
Fringe quality 9

SNR 5789.7  
 Int time 179.988  
 Amp 157.810  
 Phase -78.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000046  
 MBD -0.000088  
 Fringe rate (Hz)  
 -0.000012  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102653  
 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
	-72.4	-78.6	-83.0	-79.7	-78.4	-77.9	-80.4	-73.3	Phase	-78.0
	153.1	165.1	155.1	146.4	167.5	174.0	155.8	147.4	Ampl.	158.1
	257.0	257.0	256.8	257.1	257.0	256.9	257.0	257.1	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	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)	-8.759375000000E-05	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	-8.75937E-05	+/-	1.9E-07
Sband delay (usec)	-4.600000000000E-05	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	-4.60000E-05	+/-	1.5E-06
Phase delay (usec)	-2.51579140368E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	-2.51579E-06	+/-	6.4E-10
Delay rate (us/s)	-1.43128639156E-10	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-1.43129E-10	+/-	6.1E-12
Total phase (deg)		Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	-78.0	+/-	0.0

ph/seg (deg) 0.9 0.0 Search (1024X32) 157.306 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 2.1 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 3.8 0.0 Inc. seg. avg. 157.829 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 5.9 0.0 Inc. frq. avg. 158.061 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 N: az 67.7 el 32.5 pa -55.9 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NN.W.54.3MP1EA



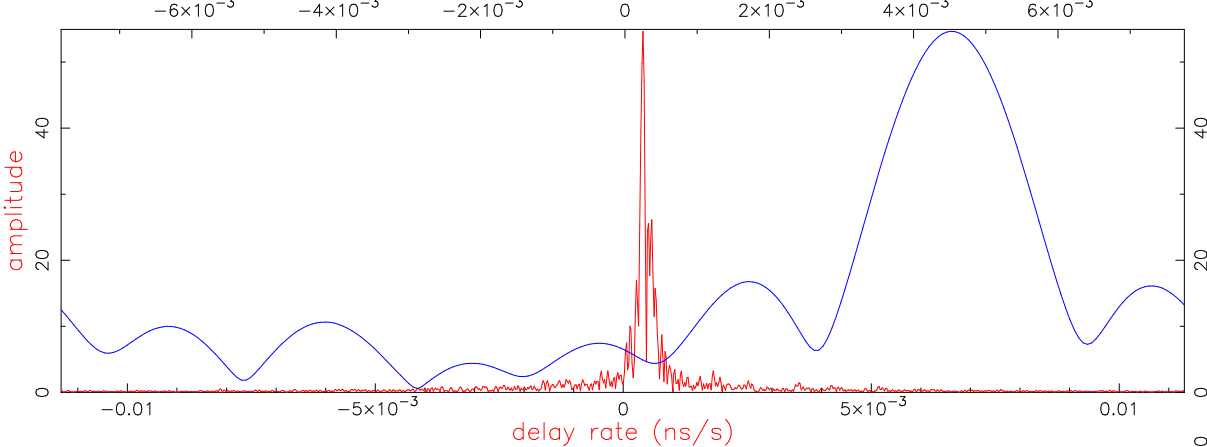
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NP

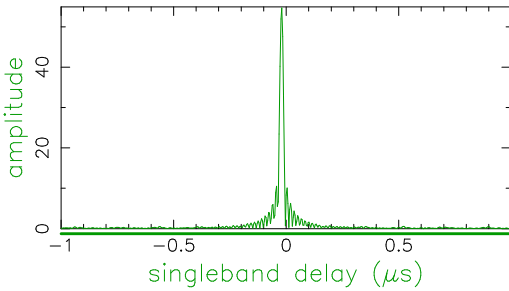
NOEMA - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

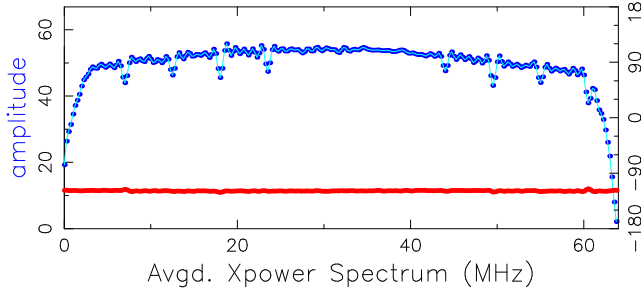


Fringe quality 5

SNR 2014.8  
 Int time 179.989  
 Amp 54.946  
 Phase -45.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020416  
 MBD 0.004519  
 Fringe rate (Hz) 0.034235  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

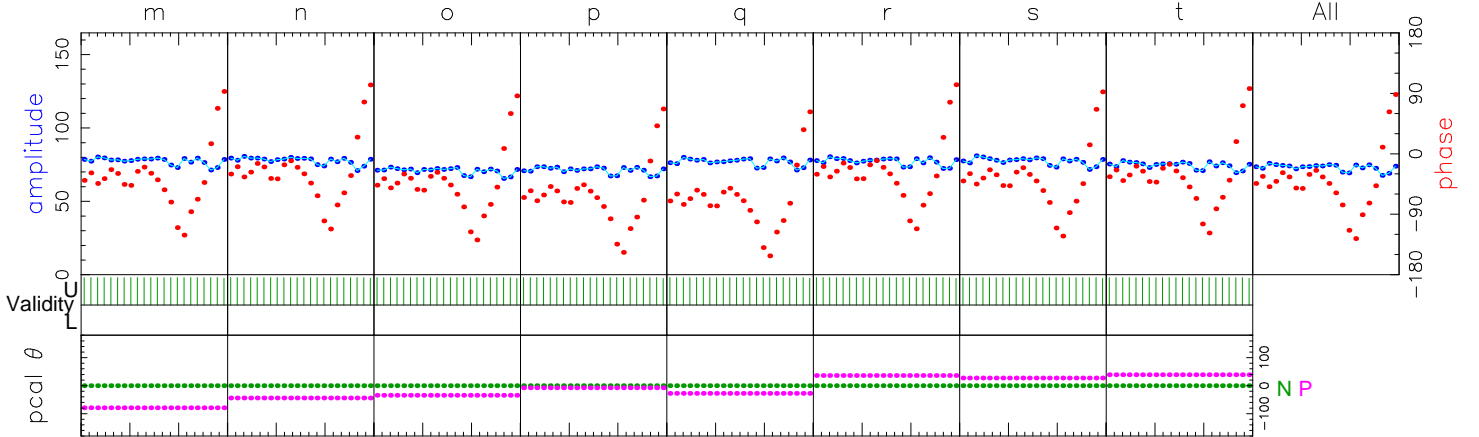


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2025:041:102642  
 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
	-40.8	-31.3	-48.0	-66.5	-71.8	-31.4	-42.0	-36.6	Phase	-45.7
	57.9	58.2	53.0	53.4	57.6	57.7	57.9	55.8	Ampl.	56.4
	251.8	251.8	251.5	251.7	251.9	251.8	252.1	251.9	Sbd box	251.8
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	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.15001332804E+03	Apriori delay (usec)	3.15004005881E+03	Resid mbdelay (usec)	4.51924E-03	+/-	5.4E-07
Sband delay (usec)	3.15001964306E+03	Apriori clock (usec)	-1.2440420E+01	Resid sbdelay (usec)	-2.04157E-02	+/-	4.3E-06
Phase delay (usec)	3.15004005733E+03	Apriori clockrate (us/s)	-5.8393806E-07	Resid phdelay (usec)	-1.47513E-06	+/-	1.8E-09
Delay rate (us/s)	-1.24061169557E-01	Apriori rate (us/s)	-1.24061566987E-01	Resid rate (us/s)	3.97430E-07	+/-	1.8E-11
Total phase (deg)	193.8	Apriori accel (us/s/s)	-9.99450169110E-06	Resid phase (deg)	-45.7	+/-	0.1

ph/seg (deg)	47.1	0.1	Search (1024X32)	54.260	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	33.4	0.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.6	0.1	Inc. seg. avg.	73.150	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	4.5	0.1	Inc. frq. avg.	56.441	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 67.7 el 32.5 pa -55.9 P: az 59.7 el 22.8 pa -60.1 u,v (fr/asec) 886.373 101.774 simultaneous interpolator

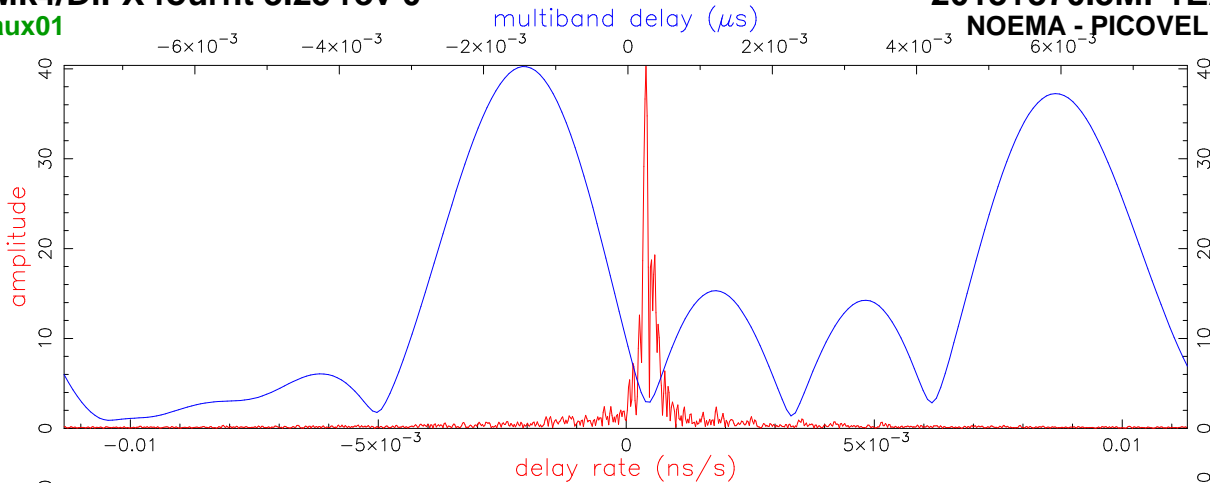
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NP..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NP.W.24.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

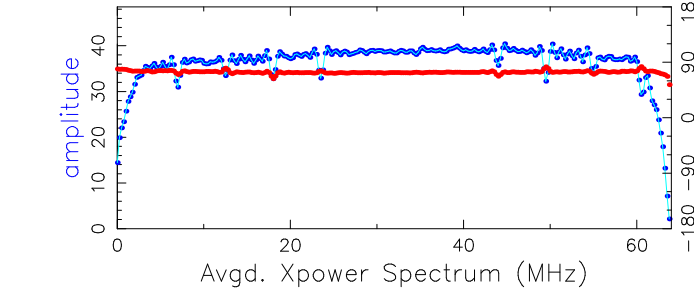
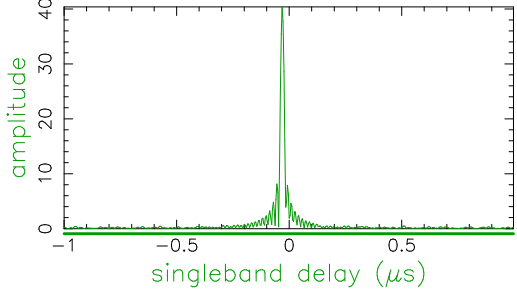
2013+370.3MP1EA, No0232, NP

NOEMA - PICOVEL, fgroup W, pol RR



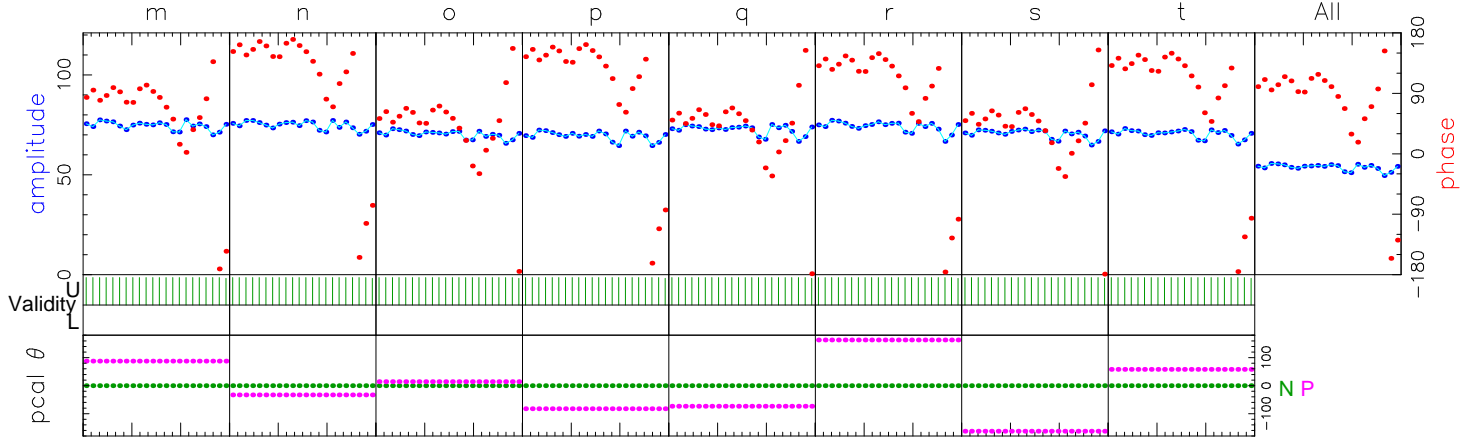
Fringe quality 3

SNR 1480.7  
 Int time 179.988  
 Amp 40.380  
 Phase 97.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.030631  
 MBD -0.001436  
 Fringe rate (Hz)  
 0.034230  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102645  
 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:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani 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)	3.15000737242E+03	Apriori delay (usec)	3.15004005881E+03	Resid mbdelay (usec)	-1.43639E-03	+/-	7.3E-07
Sband delay (usec)	3.15000942781E+03	Apriori clock (usec)	-1.2440420E+01	Resid sbdelay (usec)	-3.06310E-02	+/-	5.8E-06
Phase delay (usec)	3.15004006196E+03	Apriori clockrate (us/s)	-5.8393806E-07	Resid phdelay (usec)	3.15262E-06	+/-	2.5E-09
Delay rate (us/s)	-1.24061169611E-01	Apriori rate (us/s)	-1.24061566987E-01	Resid rate (us/s)	3.97376E-07	+/-	2.4E-11
Total phase (deg)	337.3	Apriori accel (us/s/s)	-9.99450169110E-06	Resid phase (deg)	97.8	+/-	0.1

ph/seg (deg)	46.9	RMS	46.9	Theor.	0.2	Amplitude	40.380 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	33.6		33.6		0.3	Search (1024X32)	40.129	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.6		48.6		0.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.0		34.0		0.2	Inc. seg. avg.	53.843	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	54.016	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

N: az 67.7 el 32.5 pa -55.9 P: az 59.7 el 22.8 pa -60.1 u,v (fr/asec) 886.373 101.774 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NP..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NP.W.28.3MP1EA

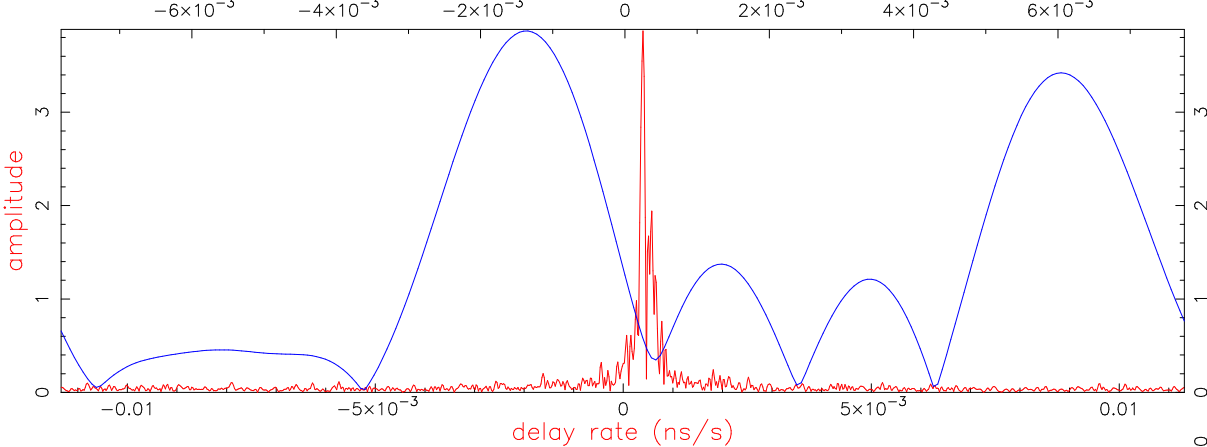
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NP

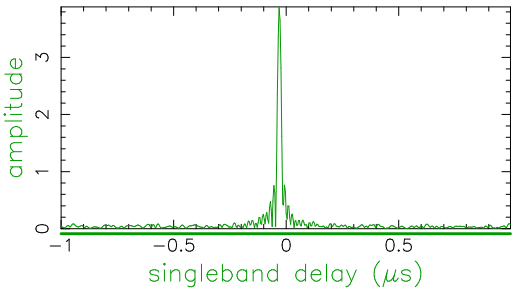
NOEMA - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

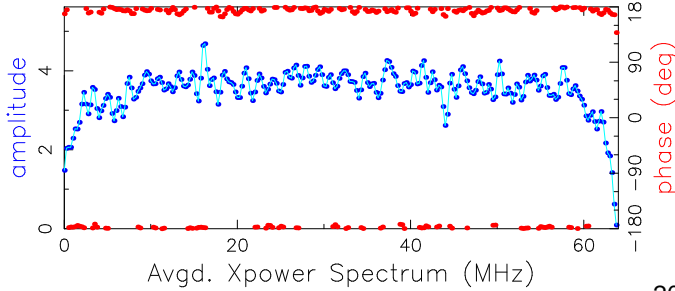


Fringe quality 3

SNR 142.5  
 Int time 179.989  
 Amp 3.887  
 Phase -158.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.030484  
 MBD -0.001364  
 Fringe rate (Hz) 0.034222  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

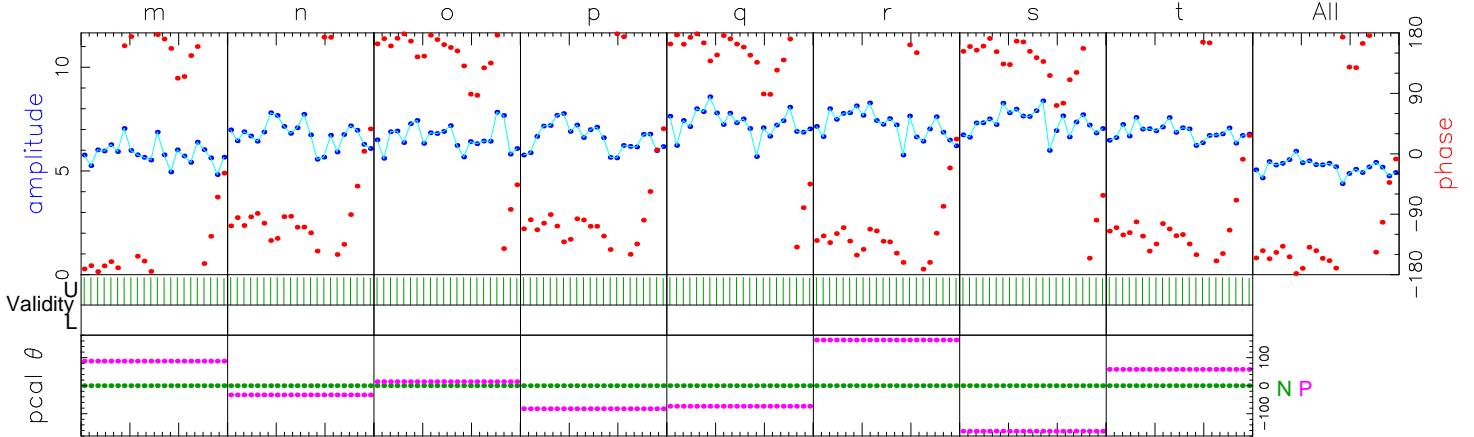


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102648  
 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
	-177.9	-109.0	160.2	-112.1	159.5	-132.9	147.6	-123.7	Phase	-158.7
	4.4	5.0	5.0	5.0	5.4	5.5	5.4	5.1	Ampl.	5.1
	249.3	249.8	249.3	249.4	249.9	249.3	249.8	249.7	Sbd box	249.2
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	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl 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) 3.15000744514E+03 Apriori delay (usec) 3.15004005881E+03 Resid mbdelay (usec) -1.36367E-03 +/- 7.6E-06  
 Sband delay (usec) 3.15000957481E+03 Apriori clock (usec) -1.2440420E+01 Resid sbdelay (usec) -3.04840E-02 +/- 6.0E-05  
 Phase delay (usec) 3.15004005369E+03 Apriori clockrate (us/s) -5.8393806E-07 Resid phdelay (usec) -5.11739E-06 +/- 2.6E-08  
 Delay rate (us/s) -1.24061169701E-01 Apriori rate (us/s) -1.24061566987E-01 Resid rate (us/s) 3.97285E-07 +/- 2.5E-10  
 Total phase (deg) 80.9 Apriori accel (us/s/s) -9.99450169110E-06 Resid phase (deg) -158.7 +/- 0.8

RMS Theor. Amplitude 3.887 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 49.8 1.9 Search (1024X32) 3.853 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 34.7 3.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 46.9 1.1 Inc. seg. avg. 5.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 32.5 2.0 Inc. frq. avg. 5.106 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

N: az 67.7 el 32.5 pa -55.9 P: az 59.7 el 22.8 pa -60.1 u,v (fr/asec) 886.373 101.774 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NP..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NP.W.41.3MP1EA

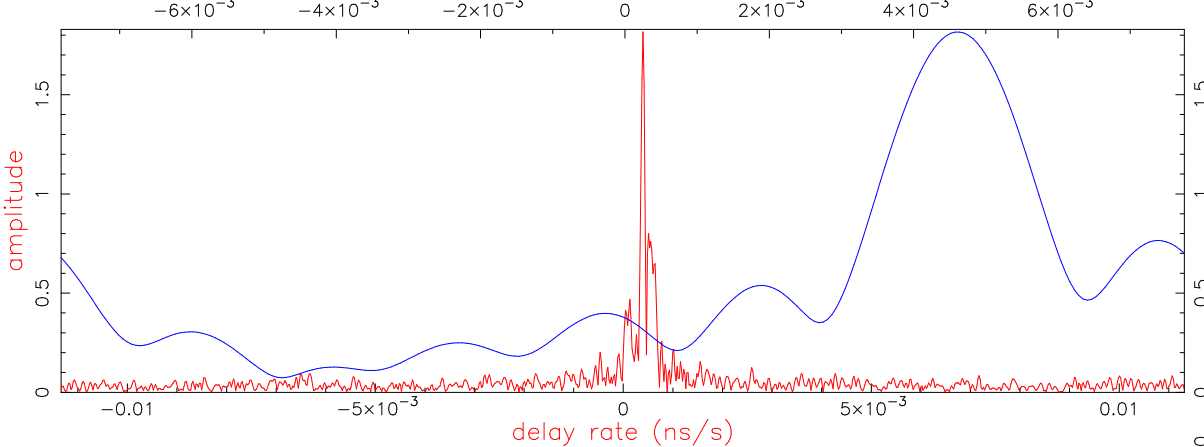
# Mk4/DiFX fourfit 3.25 rev 0

aux01

# 2013+370.3MP1EA, No0232, NP

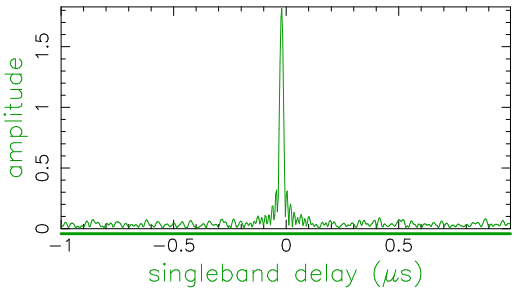
NOEMA - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu\text{s}$ )

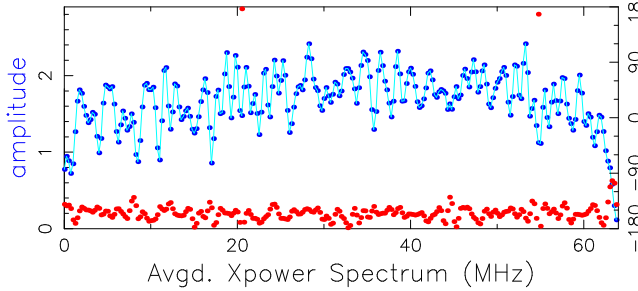


Fringe quality 3

SNR 67.1  
 Int time 179.988  
 Amp 1.829  
 Phase -85.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020576  
 MBD 0.004601  
 Fringe rate (Hz)  
 0.034287  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

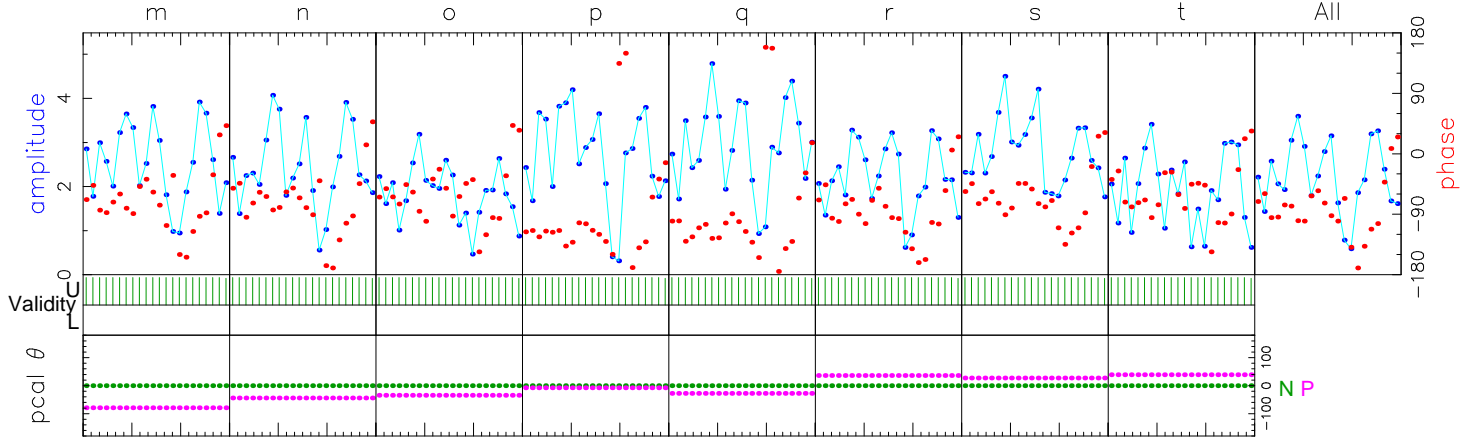


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102652  
 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
	-72.8	-75.7	-66.2	-121.6	-117.1	-86.1	-69.2	-66.9	Phase	-85.8
	2.1	1.9	1.5	2.2	2.2	1.8	2.3	1.6	Ampl.	2.0
	251.6	251.5	251.1	252.0	252.3	251.7	252.5	251.1	Sbd box	251.7
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:-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)	3.15001340979E+03	Apriori delay (usec)	3.15004005881E+03	Resid mbdelay (usec)	4.60099E-03	+/-	1.6E-05
Sband delay (usec)	3.15001948231E+03	Apriori clock (usec)	-1.2440420E+01	Resid sbdelay (usec)	-2.05765E-02	+/-	1.3E-04
Phase delay (usec)	3.15004005604E+03	Apriori clockrate (us/s)	-5.8393806E-07	Resid phdelay (usec)	-2.76749E-06	+/-	5.5E-08
Delay rate (us/s)	-1.24061168953E-01	Apriori rate (us/s)	-1.24061566987E-01	Resid rate (us/s)	3.98034E-07	+/-	5.3E-10
Total phase (deg)	153.8	Apriori accel (us/s/s)	-9.99450169110E-06	Resid phase (deg)	-85.8	+/-	1.7

ph/seg (deg)	42.7	Theor.	4.0	Amplitude	1.829 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	47.6		7.0	Search (1024X32)	1.785	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	24.3		2.4	Inc. seg. avg.	2.220	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.3		4.2	Inc. frq. avg.	1.953	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 67.7 el 32.5 pa -55.9 P: az 59.7 el 22.8 pa -60.1 u,v (fr/asec) 886.373 101.774 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NP..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NP.W.50.3MP1EA

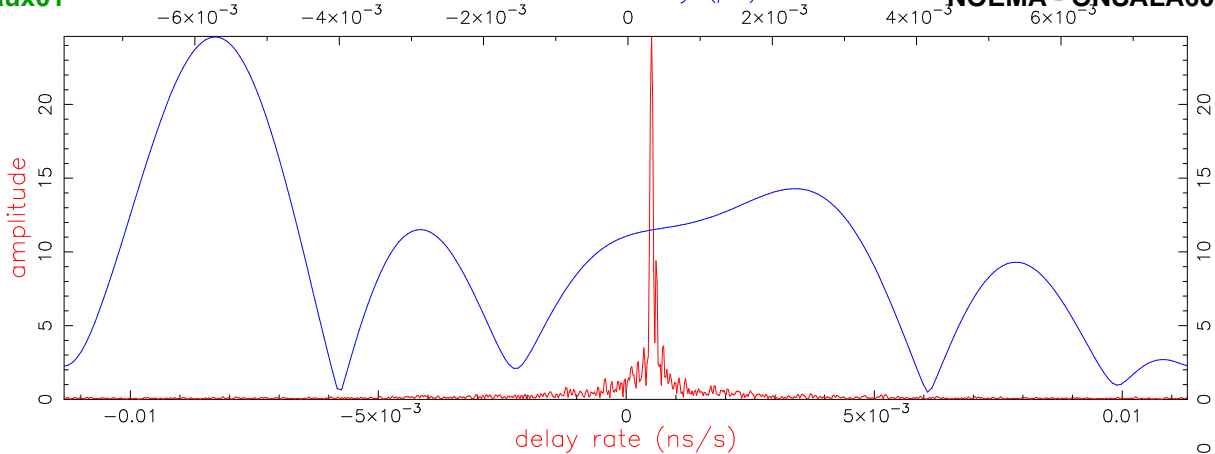
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NX

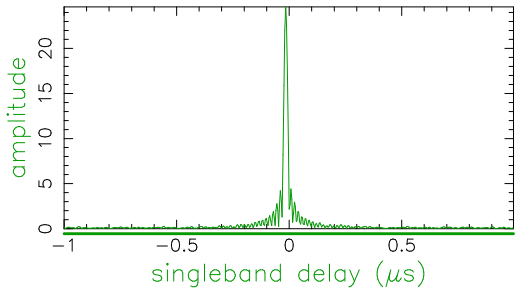
NOEMA - ONSALA60, fgroup W, pol LL

multiband delay ( $\mu$ s)

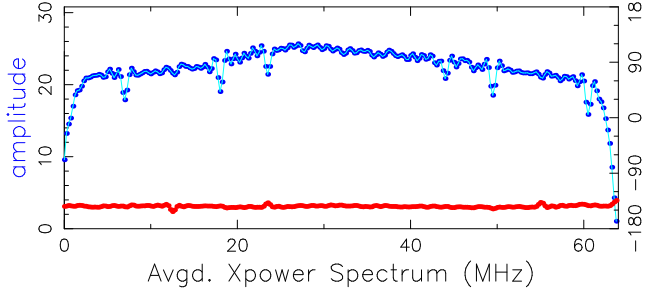


Fringe quality 5

SNR 899.8  
 Int time 178.950  
 Amp 24.618  
 Phase 105.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.015305  
 MBD -0.005712  
 Fringe rate (Hz)  
 0.043951  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

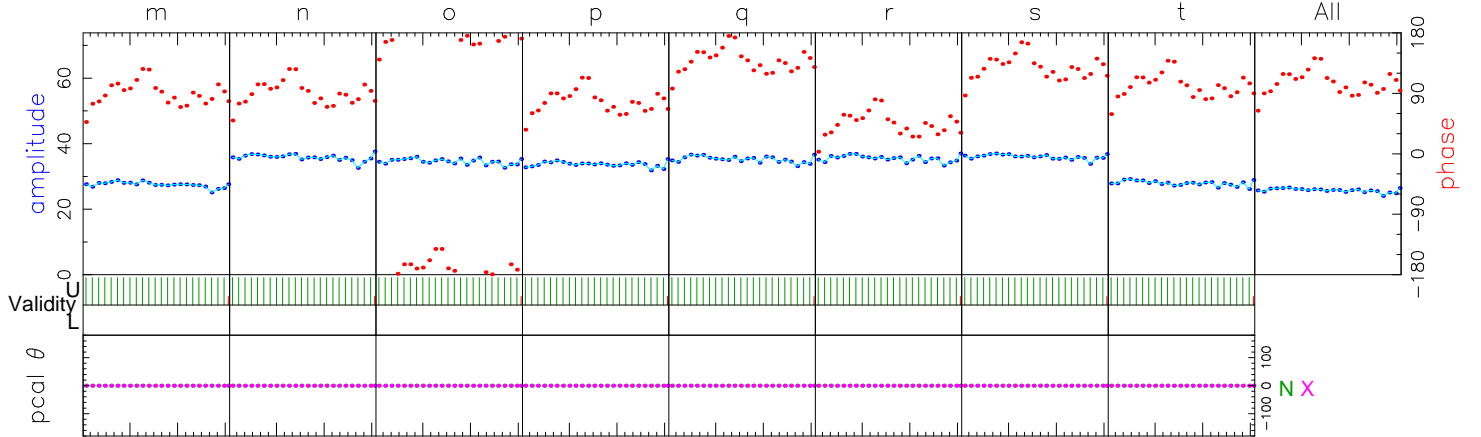


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004001.02  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102644  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	89.9	90.2	-177.3	77.2	138.1	44.3	128.3	100.6	Phase	105.6
	26.3	34.2	33.0	32.2	33.7	33.9	34.3	26.7	Ampl.	31.8
	254.5	252.9	252.8	252.2	252.4	252.6	252.9	253.4	Sbd box	253.1
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	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	

Group delay (usec) (SBD)	-2.25324094243E+03	Apriori delay (usec)	-2.25321960568E+03	Resid mbdelay (usec)	-5.71175E-03	+/-	1.2E-06
Sband delay (usec)	-2.25323491018E+03	Apriori clock (usec)	-1.2621696E+02	Resid sbdelay (usec)	-1.53045E-02	+/-	9.6E-06
Phase delay (usec)	-2.25321960227E+03	Apriori clockrate (us/s)	-1.2023240E-02	Resid phdelay (usec)	3.40525E-06	+/-	4.1E-09
Delay rate (us/s)	2.26958103673E-01	Apriori rate (us/s)	2.26957593445E-01	Resid rate (us/s)	5.10228E-07	+/-	4.0E-11
Total phase (deg)	-194.4	Apriori accel (us/s/s)	1.76051565536E-06	Resid phase (deg)	105.6	+/-	0.1

ph/seg (deg)	RMS 17.4	Theor. 0.3	Amplitude Search (1024X32)	24.618 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	5.2	0.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.8	0.2	Inc. seg. avg.	25.771	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.7	0.3	Inc. frq. avg.	31.773	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 67.7 el 32.5 pa -55.9 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) -1633.846 -870.475 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NX.W.26.3MP1EA

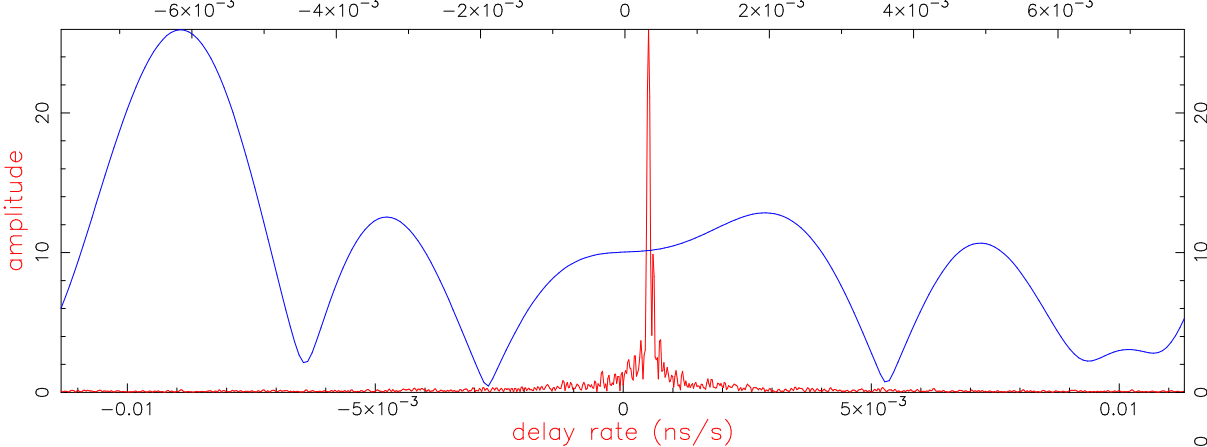
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NX

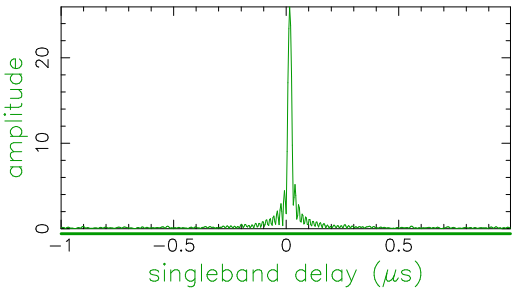
NOEMA - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)

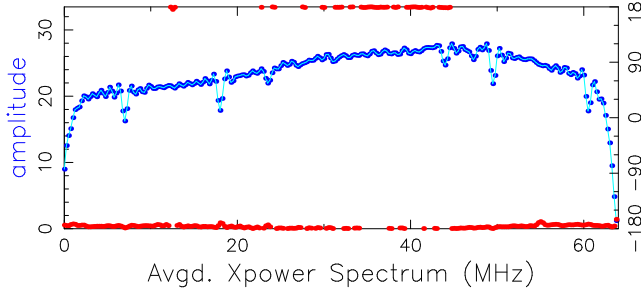


Fringe quality 5

SNR 949.3  
 Int time 178.950  
 Amp 25.972  
 Phase 75.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.015807  
 MBD -0.006152  
 Fringe rate (Hz)  
 0.043964  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

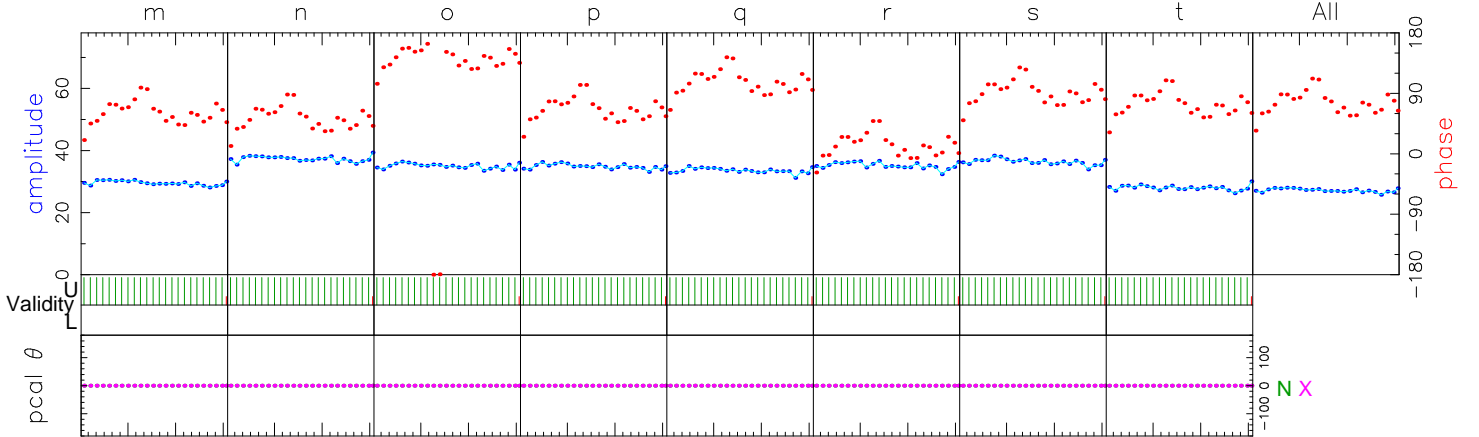


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004001.02  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102648  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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
	61.3	52.5	144.9	66.3	106.5	12.3	91.1	73.3	Phase	75.5
	28.3	35.6	33.5	33.4	32.1	33.6	34.8	26.7	Ampl.	32.2
	262.0	261.0	260.5	260.3	260.1	260.5	260.8	261.8	Sbd box	261.0
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	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	
									Tracks	
Group delay (usec) (SBD)	-2.25321013234E+03					-2.25321960568E+03			Resid mbdelay (usec)	-6.15166E-03 +/- 1.1E-06
Sband delay (usec)	-2.25320379843E+03					-1.2621696E+02			Resid sbdelay (usec)	1.58073E-02 +/- 9.1E-06
Phase delay (usec)	-2.25321960324E+03					-1.2023240E-02			Resid phdelay (usec)	2.43503E-06 +/- 3.9E-09
Delay rate (us/s)	2.26958103827E-01					2.26957593445E-01			Resid rate (us/s)	5.10383E-07 +/- 3.8E-11
Total phase (deg)			-224.5			1.76051565536E-06			Resid phase (deg)	75.5 +/- 0.1

ph/seg (deg) 17.3 0.3  
 amp/seg (%) 5.1 0.5  
 ph/frq (deg) 42.5 0.2  
 amp/frq (%) 26.6 0.3

RMS Theor. Amplitude 25.972 +/- 0.027  
 Search (1024X32) 25.536  
 Interp. 0.000  
 Inc. seg. avg. 27.176  
 Inc. frq. avg. 32.240

Group delay (usec) (SBD) -2.25321013234E+03  
 Sband delay (usec) -2.25320379843E+03  
 Phase delay (usec) -2.25321960324E+03  
 Delay rate (us/s) 2.26958103827E-01  
 Total phase (deg) -224.5

Apriori delay (usec) -2.25321960568E+03  
 Apriori clock (usec) -1.2621696E+02  
 Apriori clockrate (us/s) -1.2023240E-02  
 Apriori rate (us/s) 2.26957593445E-01  
 Apriori accel (us/s/s) 1.76051565536E-06

Resid mbdelay (usec) -6.15166E-03 +/- 1.1E-06  
 Resid sbdelay (usec) 1.58073E-02 +/- 9.1E-06  
 Resid phdelay (usec) 2.43503E-06 +/- 3.9E-09  
 Resid rate (us/s) 5.10383E-07 +/- 3.8E-11  
 Resid phase (deg) 75.5 +/- 0.1

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 67.7 el 32.5 pa -55.9 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) -1633.846 -870.475 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NX.W.42.3MP1EA

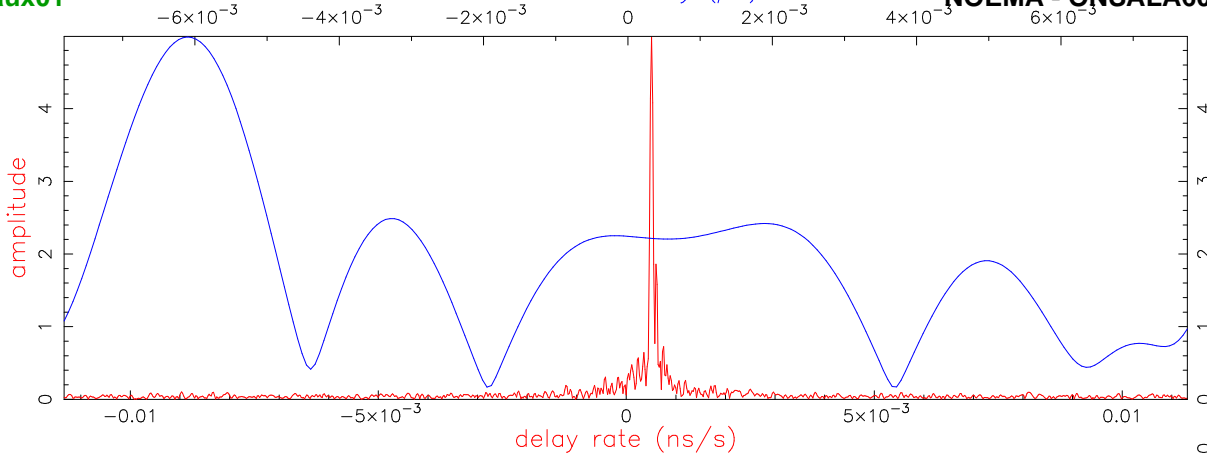
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NX

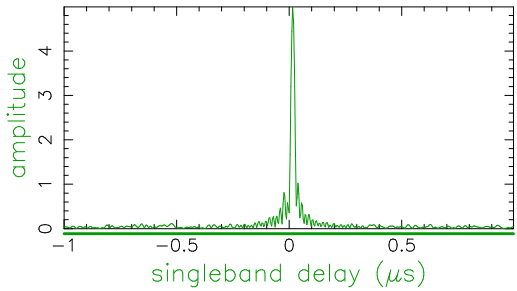
NOEMA - ONSALA60, fgroup W, pol LR

multiband delay ( $\mu$ s)

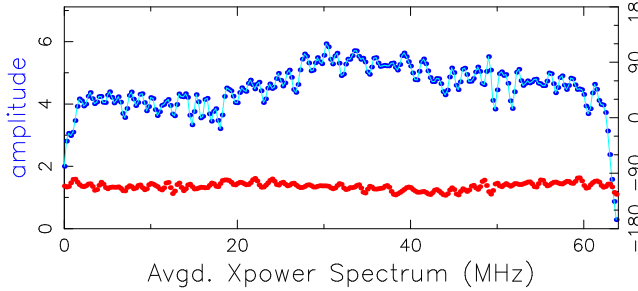


Fringe quality 5

SNR 182.5  
 Int time 178.950  
 Amp 4.994  
 Phase 143.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.016042  
 MBD -0.006086  
 Fringe rate (Hz)  
 0.043961  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

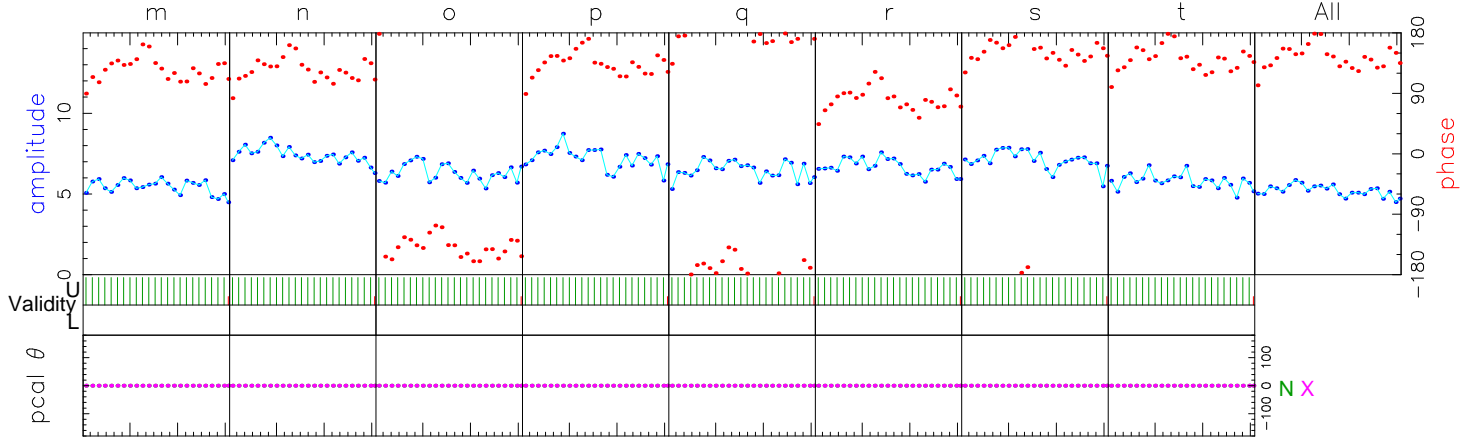


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004001.02  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102651  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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
	124.9	125.0	-140.1	133.9	-176.4	81.5	154.2	140.4	Phase	143.6
	5.2	7.1	6.0	6.9	6.2	6.4	6.8	5.5	Ampl.	6.3
	262.0	261.1	260.5	260.4	260.2	260.6	260.9	261.9	Sbd box	261.1
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	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)	-2.25321006625E+03	Apriori delay (usec)	-2.25321960568E+03	Resid mbdelay (usec)	-6.08557E-03	+/-	5.9E-06
Sband delay (usec)	-2.25320356368E+03	Apriori clock (usec)	-1.2621696E+02	Resid sbdelay (usec)	1.60420E-02	+/-	4.7E-05
Phase delay (usec)	-2.25321960105E+03	Apriori clockrate (us/s)	-1.2023240E-02	Resid phdelay (usec)	4.63093E-06	+/-	2.0E-08
Delay rate (us/s)	2.26958103787E-01	Apriori rate (us/s)	2.26957593445E-01	Resid rate (us/s)	5.10343E-07	+/-	2.0E-10
Total phase (deg)	-156.4	Apriori accel (us/s/s)	1.76051565536E-06	Resid phase (deg)	143.6	+/-	0.6

ph/seg (deg)	RMS 17.2	Theor. 1.5	Amplitude Search (1024X32)	4.994 +/- 0.027	4.860	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	8.0	2.7	Interp.	0.000	5.218	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.1	0.9	Inc. seg. avg.	5.218	6.278	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	1.5	Inc. frq. avg.	6.278		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 67.7 el 32.5 pa -55.9 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) -1633.846 -870.475 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NX.W.45.3MP1EA

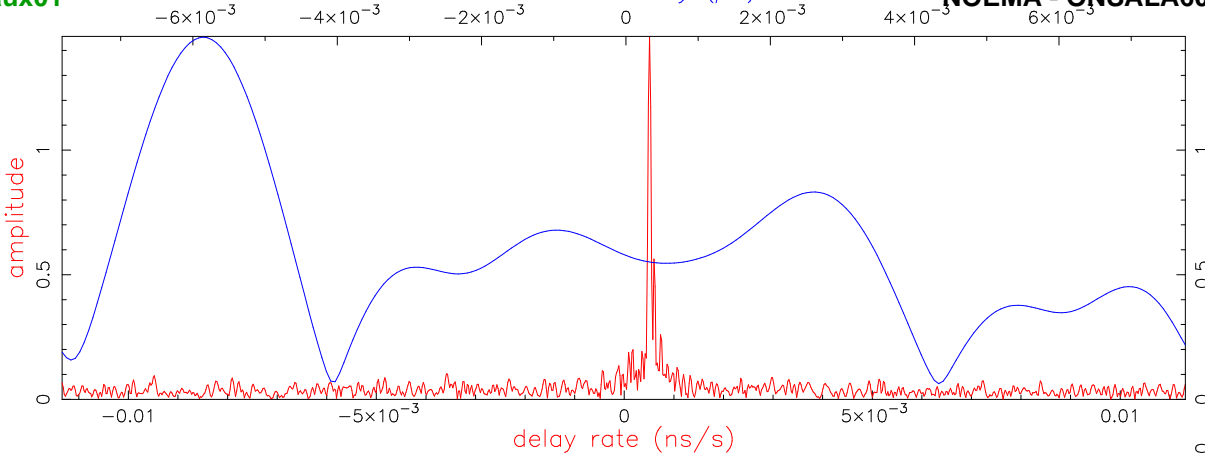
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NX

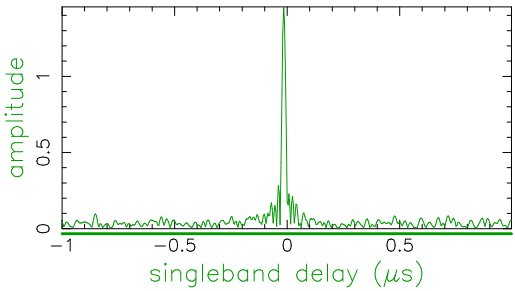
NOEMA - ONSALA60, fgroup W, pol RL

multiband delay ( $\mu$ s)

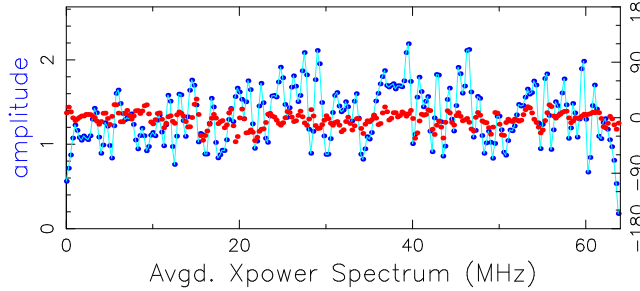


Fringe quality 4

SNR 53.2  
 Int time 178.950  
 Amp 1.456  
 Phase -109.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.015108  
 MBD -0.005843  
 Fringe rate (Hz)  
 0.043943  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

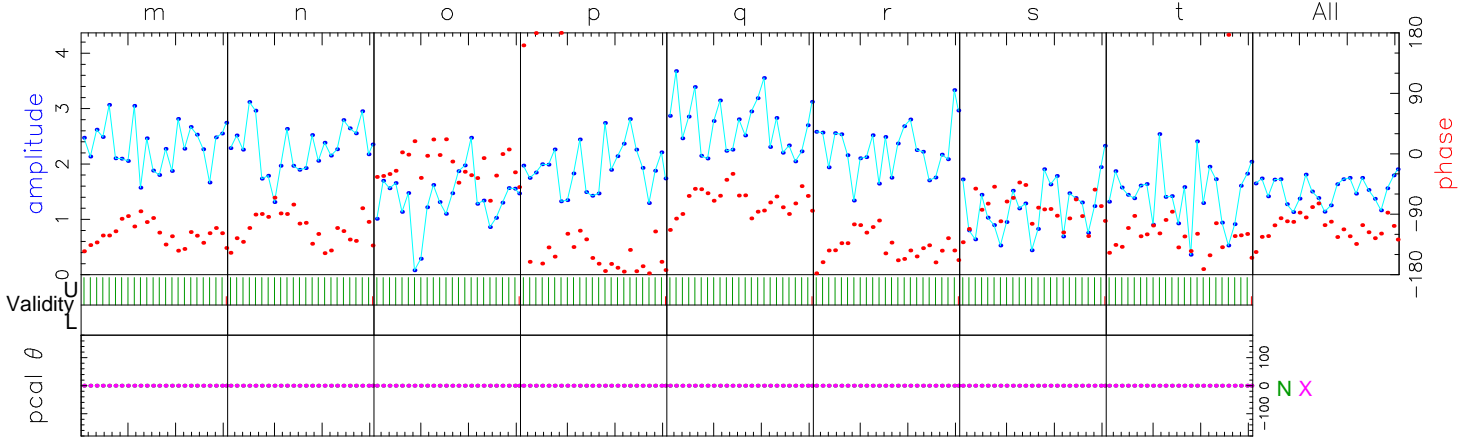


delay rate (ns/s)



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004001.02  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102654  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 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
	-120.0	-111.4	-18.2	-157.8	-71.4	-140.1	-81.9	-124.4	Phase	-109.1
	2.2	2.1	1.3	1.8	2.5	2.1	1.1	1.4	Ampl.	1.8
	254.8	253.1	252.2	252.3	252.7	252.7	252.8	253.3	Sbd box	253.1
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.25324107372E+03	Apriori delay (usec)	-2.25321960568E+03	Resid mbdelay (usec)	-5.84304E-03	+/-	2.0E-05
Sband delay (usec)	-2.25323471418E+03	Apriori clock (usec)	-1.2621696E+02	Resid sbdelay (usec)	-1.51085E-02	+/-	1.6E-04
Phase delay (usec)	-2.25321960920E+03	Apriori clockrate (us/s)	-1.2023240E-02	Resid phdelay (usec)	-3.51841E-06	+/-	6.9E-08
Delay rate (us/s)	2.26958103585E-01	Apriori rate (us/s)	2.26957593445E-01	Resid rate (us/s)	5.10140E-07	+/-	6.7E-10
Total phase (deg)	-49.1	Apriori accel (us/s/s)	1.76051565536E-06	Resid phase (deg)	-109.1	+/-	2.2

ph/seg (deg)	17.3	Theor.	5.3	Amplitude	1.456 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	15.9		9.2	Search (1024X32)	1.442	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	48.5		3.0	Inc. seg. avg.	1.516	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011			
amp/frq (%)	41.9		5.3	Inc. frq. avg.	1.819	Data rate(Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 67.7 el 32.5 pa -55.9 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) -1633.846 -870.475 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NX.W.59.3MP1EA

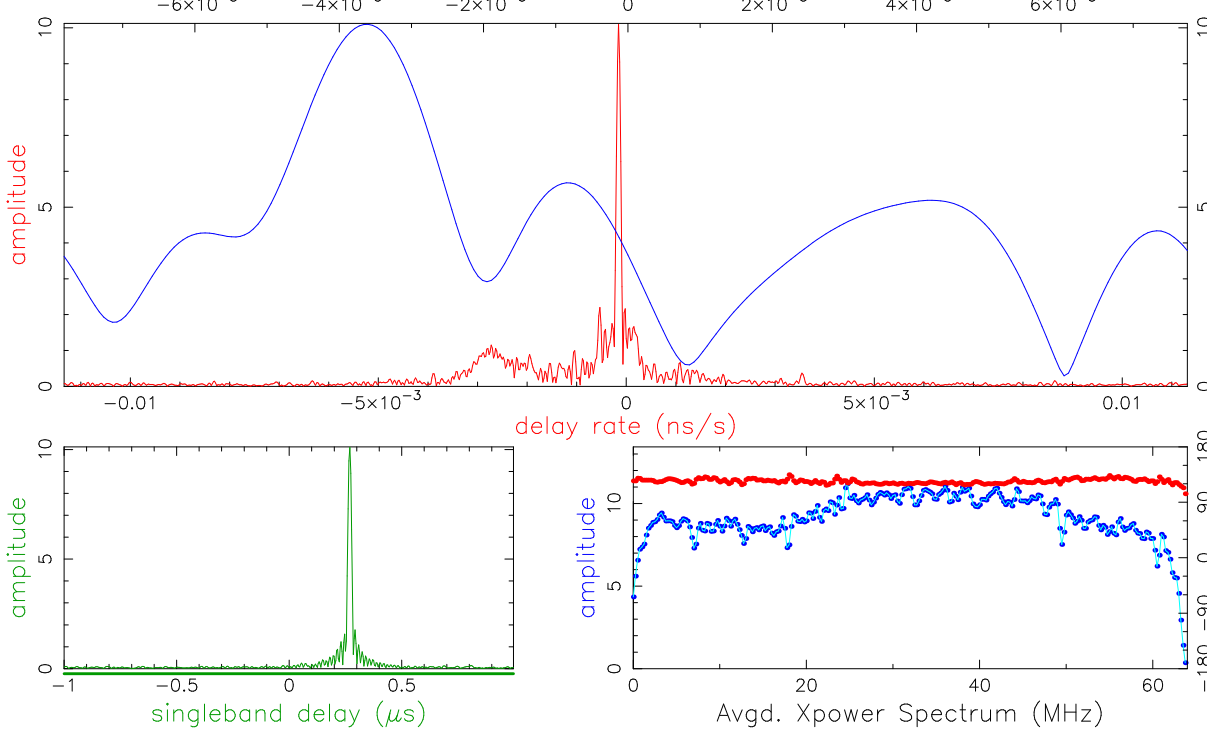


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, NY

NOEMA - YEBES40M, fgroup W, pol LL

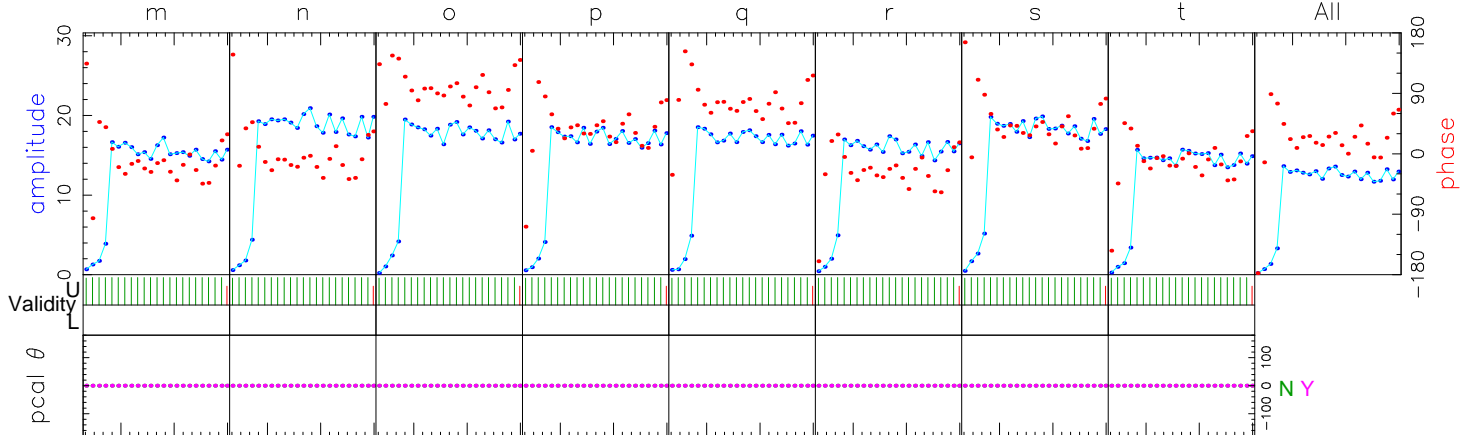


Fringe quality 2

SNR 352.7  
 Int time 162.292  
 Amp 10.126  
 Phase 23.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.268902  
 MBD -0.003642  
 Fringe rate (Hz)  
 -0.013847  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004017.41  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102652  
 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



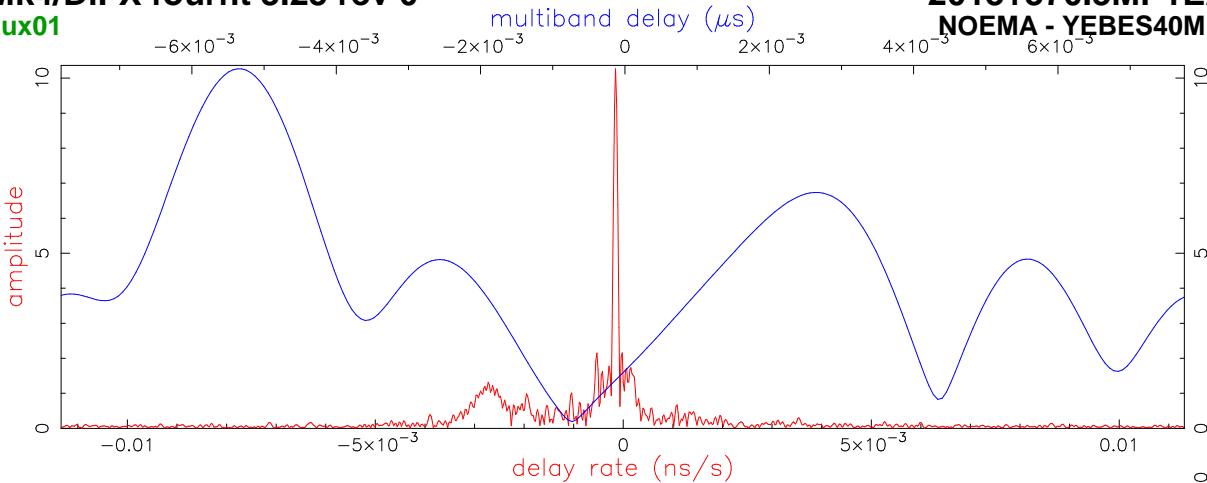
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-16.0	-9.1	96.5	39.4	74.8	-25.0	38.7	-9.0	Phase	23.7
	12.3	15.1	14.4	13.7	13.7	12.8	14.7	11.7	Ampl.	13.6
	327.5	325.9	325.6	325.3	325.0	324.9	325.7	325.3	Sbd box	325.8
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	2.61717883807E+03					2.61691685494E+03			Resid mbdelay (usec)	-3.64187E-03 +/- 3.1E-06
Sband delay (usec)	2.61718575669E+03					9.7251900E+01			Resid sbdelay (usec)	2.68902E-01 +/- 2.4E-05
Phase delay (usec)	2.61691685571E+03					1.4700680E-06			Resid phdelay (usec)	7.64359E-07 +/- 1.0E-08
Delay rate (us/s)	-7.70004209011E-02					-7.70002601548E-02			Resid rate (us/s)	-1.60746E-07 +/- 1.1E-10
Total phase (deg)			342.2			-9.77666233625E-06			Resid phase (deg)	23.7 +/- 0.3
	RMS	Theor.	Amplitude	10.126 +/- 0.029					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.5	0.8	Search (1024X32)	9.848					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	43.4	1.4	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	49.1	0.5	Inc. seg. avg.	10.716					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.7	0.8	Inc. frq. avg.	13.564					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
N: az 67.7 el 32.5 pa -55.9			Y: az 61.1 el 24.8 pa -56.9			u, v (fr/asec) 547.170 -213.510				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241c/v2/3mm/1234/No0232/NY..3MP1EA			Output file: /Exps/c241c/v2/3mm/1234/No0232/NY.W.51.3MP1EA				

Mk4/DiFX fourfit 3.25 rev 0

aux01

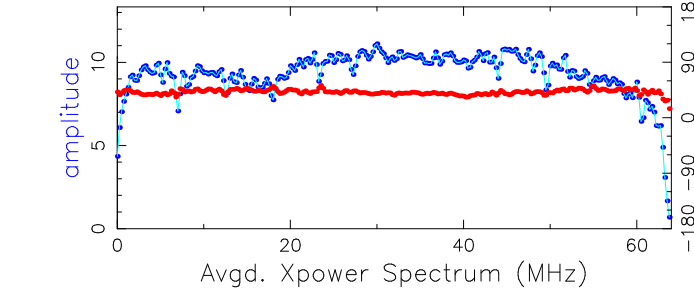
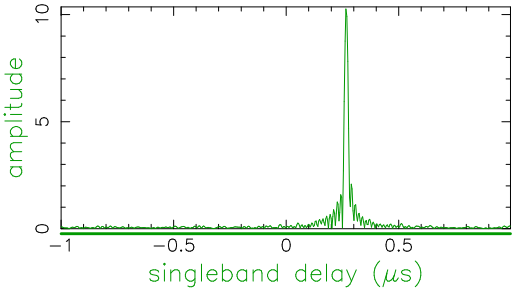
2013+370.3MP1EA, No0232, NY

NOEMA - YEBES40M, fgroup W, pol RR



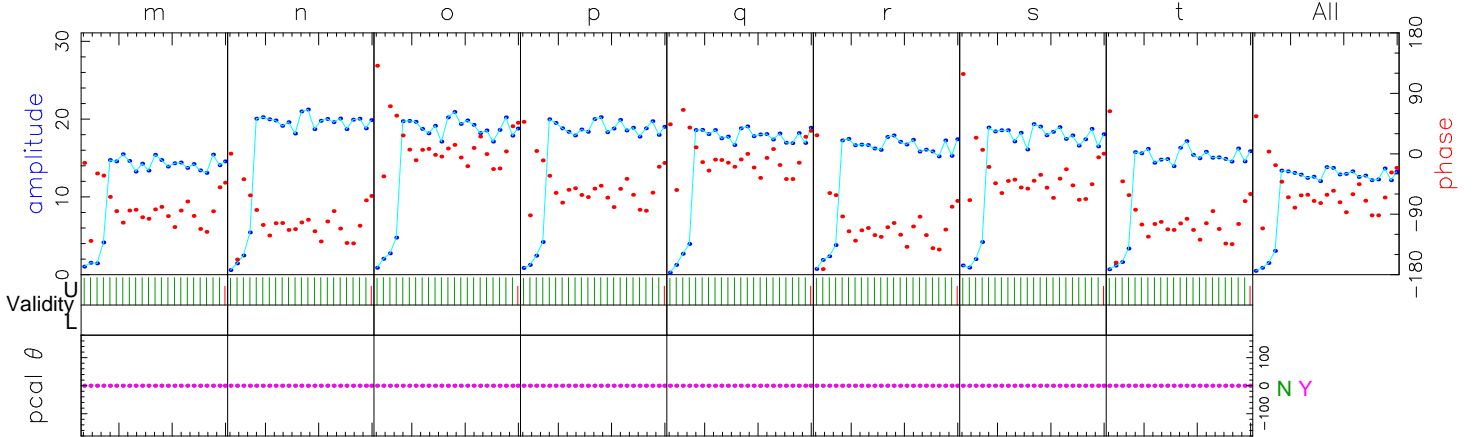
Fringe quality 2

SNR 361.0  
 Int time 162.292  
 Amp 10.365  
 Phase -63.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.266863  
 MBD -0.005313  
 Fringe rate (Hz)  
 -0.013864  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004017.41  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102654  
 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
	-85.4	-104.7	5.9	-55.0	-9.7	-112.9	-41.2	-104.8	Phase	-63.0
	11.4	15.7	15.2	15.1	14.3	13.3	14.3	12.2	Ampl.	13.9
	326.9	325.0	325.3	325.0	324.6	324.5	325.1	325.2	Sbd box	325.3
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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.61717716651E+03	Apriori delay (usec)	2.61691685494E+03	Resid mbdelay (usec)	-5.31343E-03	+/-	3.0E-06
Sband delay (usec)	2.61718371744E+03	Apriori clock (usec)	9.7251900E+01	Resid sbdelay (usec)	2.66863E-01	+/-	2.4E-05
Phase delay (usec)	2.61691685291E+03	Apriori clockrate (us/s)	1.4700680E-06	Resid phdelay (usec)	-2.03225E-06	+/-	1.0E-08
Delay rate (us/s)	-7.70004211009E-02	Apriori rate (us/s)	-7.70002601548E-02	Resid rate (us/s)	-1.60946E-07	+/-	1.1E-10
Total phase (deg)	255.5	Apriori accel (us/s/s)	-9.77666233625E-06	Resid phase (deg)	-63.0	+/-	0.3

ph/seg (deg)	35.6	0.8	Search (1024X32)	10.167	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	42.6	1.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	49.3	0.4	Inc. seg. avg.	10.898	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	37.0	0.8	Inc. frq. avg.	13.927	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

N: az 67.7 el 32.5 pa -55.9 Y: az 61.1 el 24.8 pa -56.9 u,v (fr/asec) 547.170 -213.510 simultaneous interpolator

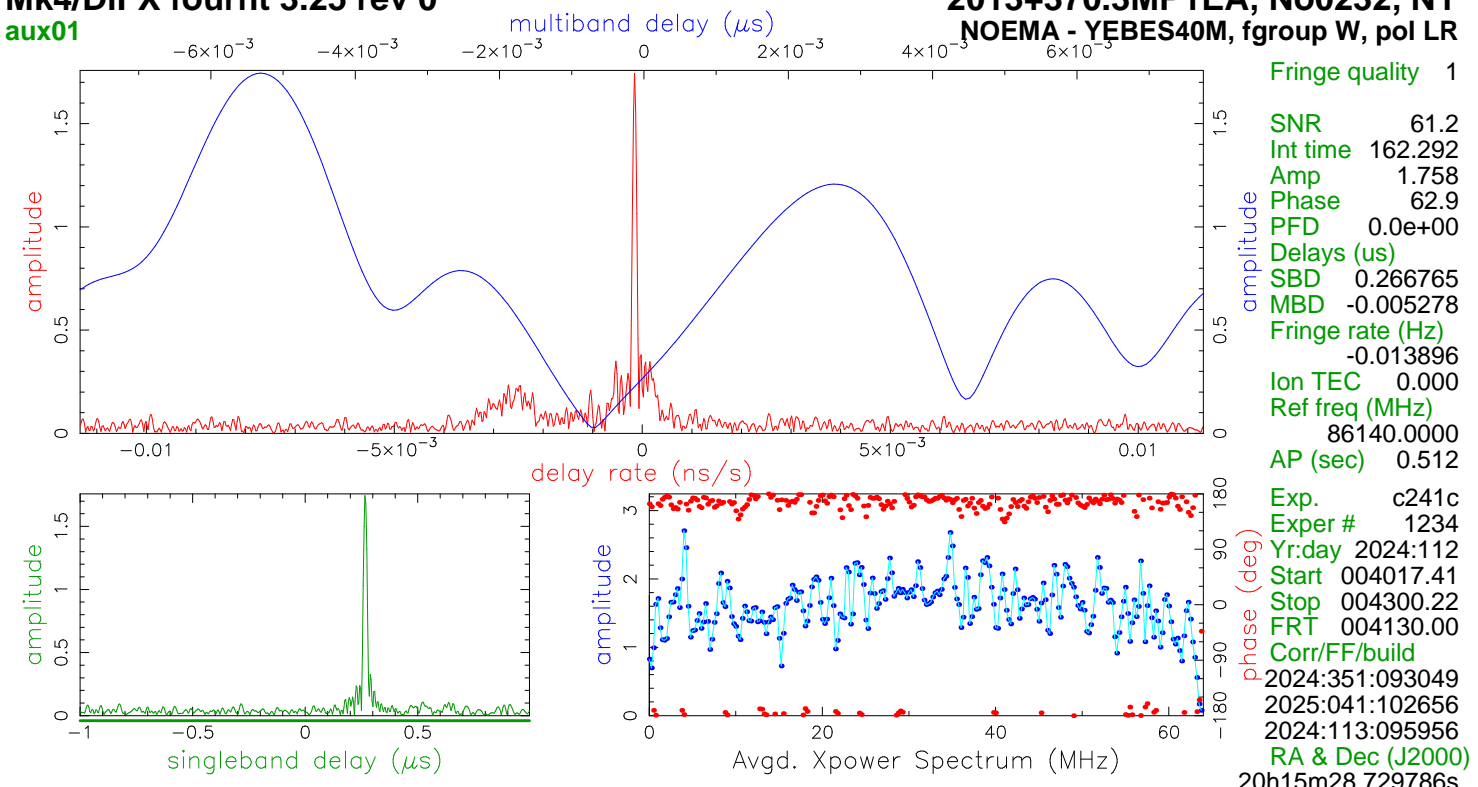
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NY..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NY.W.62.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

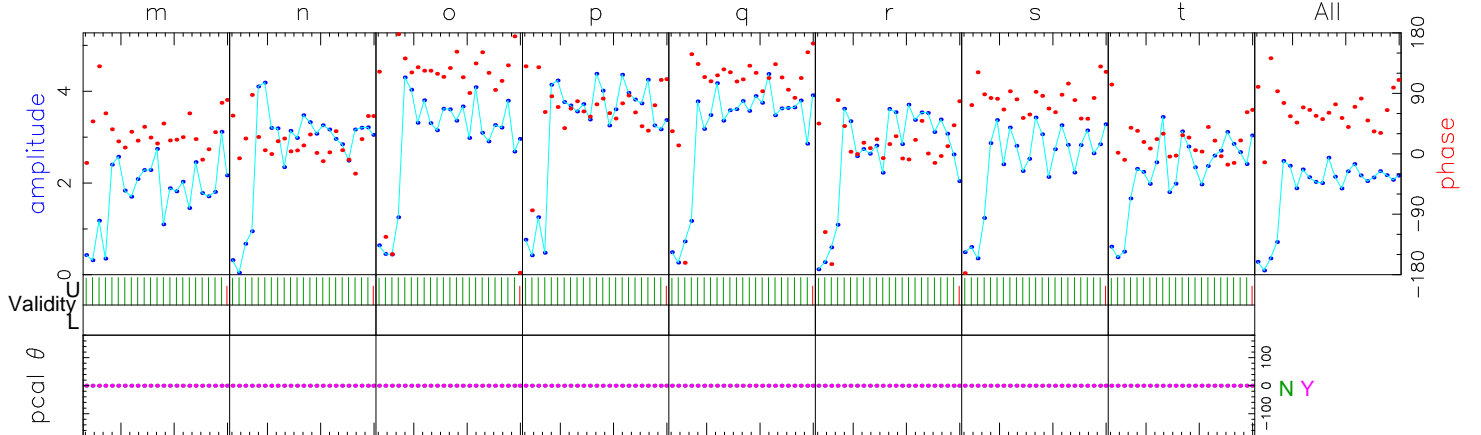
aux01

2013+370.3MP1EA, No0232, NY

NOEMA - YEBES40M, fgroup W, pol LR



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



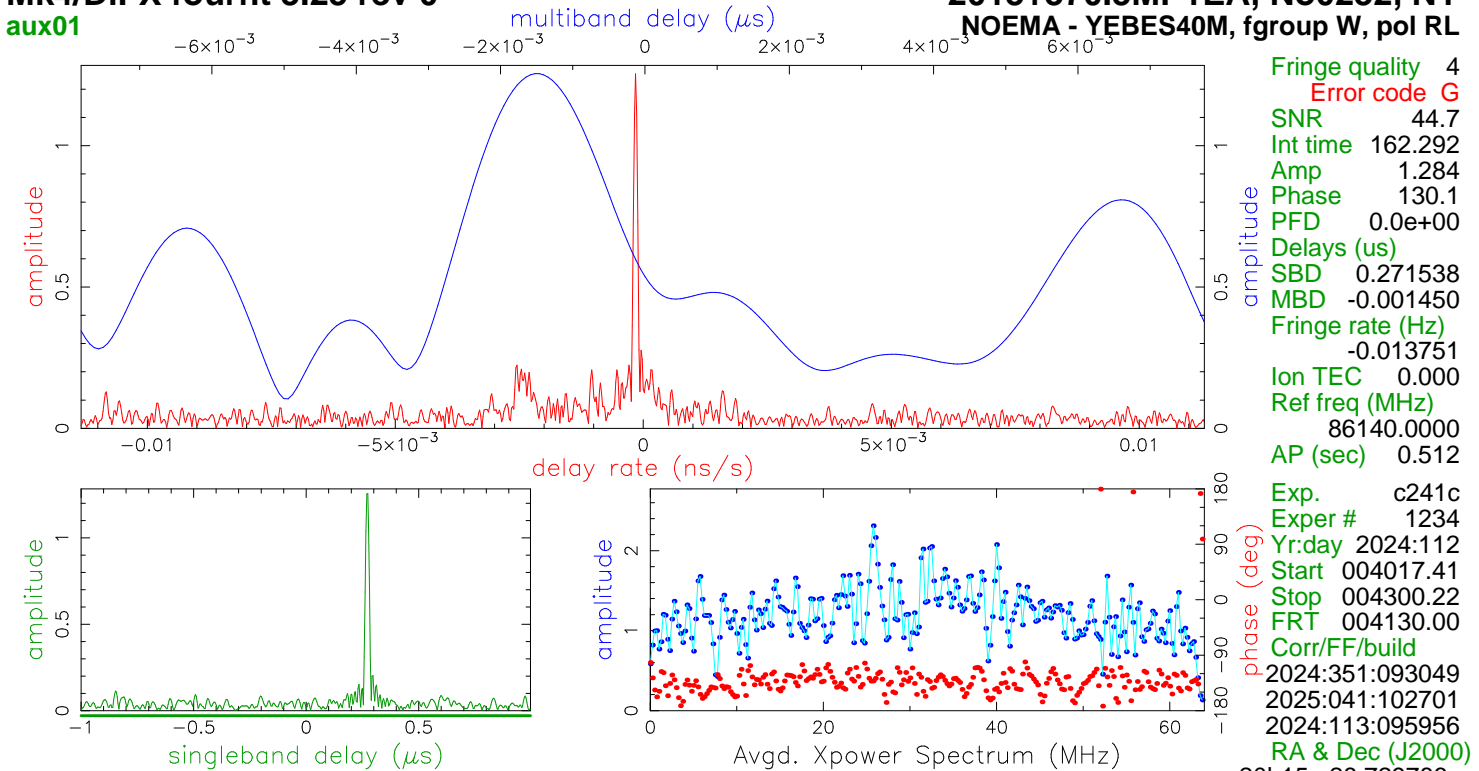
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	31.5	13.6	129.2	69.5	117.5	14.5	81.9	18.5	Phase	62.9		
	1.6	2.5	2.7	3.0	2.9	2.4	2.3	2.0	Ampl.	2.4		
	327.0	324.9	325.4	324.9	324.6	324.5	324.9	325.0	Sbd box	325.3		
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	2.61717720176E+03		Apriori delay (usec)		2.61691685494E+03		Resid mbdelay (usec)		-5.27818E-03	+/- 1.8E-05		
Sband delay (usec)	2.61718361994E+03		Apriori clock (usec)		9.7251900E+01		Resid sbdelay (usec)		2.66765E-01	+/- 1.4E-04		
Phase delay (usec)	2.61691685697E+03		Apriori clockrate (us/s)		1.4700680E-02		Resid phdelay (usec)		2.02758E-06	+/- 6.0E-08		
Delay rate (us/s)	-7.70004214750E-02		Apriori rate (us/s)		-7.70002601548E-02		Resid rate (us/s)		-1.61320E-07	+/- 6.4E-10		
Total phase (deg)	21.4		Apriori accel (us/s/s)		-9.77666233625E-06		Resid phase (deg)		62.9	+/- 1.9		
	RMS	Theor.	Amplitude	1.758 +/- 0.029		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	30.4	4.5	Search (1024X32)	1.722		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	41.2	7.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	50.8	2.6	Inc. seg. avg.	1.855		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	45.4	4.6	Inc. frq. avg.	2.428		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
N: az 67.7 el 32.5 pa -55.9		Y: az 61.1 el 24.8 pa -56.9		u,v (fr/asec) 547.170 -213.510				simultaneous interpolator				
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/3mm/1234/No0232/NY..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232/NY.W.75.3MP1EA								

Mk4/DiFX fourfit 3.25 rev 0

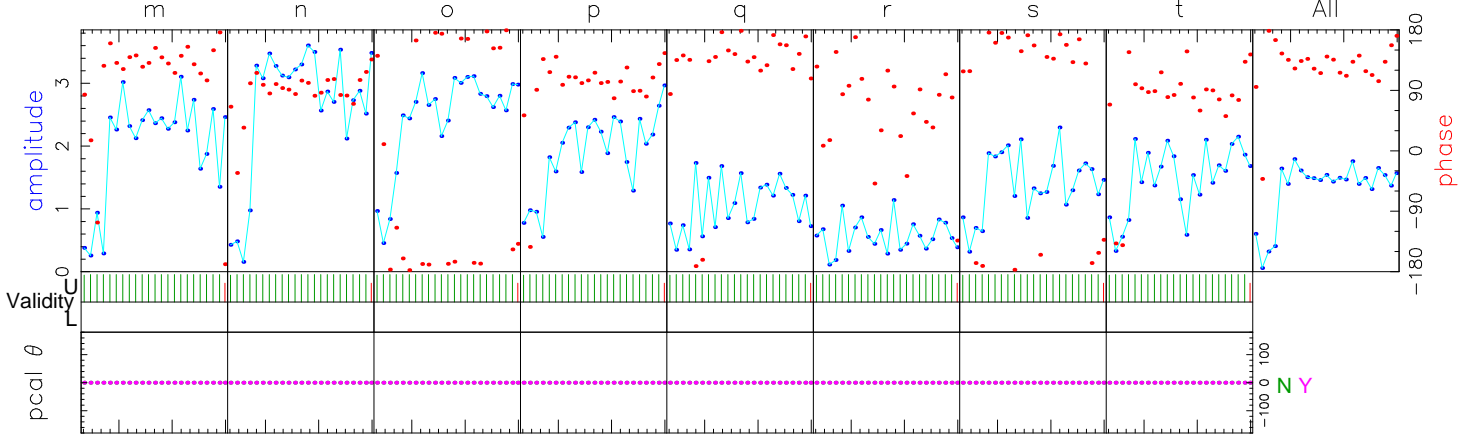
aux01

2013+370.3MP1EA, No0232, NY

NOEMA - YEBES40M, fgroup W, pol RL



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
Validity										
pcal θ										
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: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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Chan ids										
Tracks										
Chan ids										
Tracks										

Group delay (usec) (SBD)	2.61718103011E+03	Apriori delay (usec)	2.61691685494E+03	Resid mbdelay (usec)	-1.44984E-03	+/-	2.4E-05
Sband delay (usec)	2.61718839344E+03	Apriori clock (usec)	9.7251900E+01	Resid sbdelay (usec)	2.71538E-01	+/-	1.9E-04
Phase delay (usec)	2.61691685914E+03	Apriori clockrate (us/s)	1.4700680E-02	Resid phdelay (usec)	4.19563E-06	+/-	8.3E-08
Delay rate (us/s)	-7.70004197886E-02	Apriori rate (us/s)	-7.70002601548E-02	Resid rate (us/s)	-1.59634E-07	+/-	8.8E-10
Total phase (deg)		Apriori accel (us/s/s)	-9.77666233625E-06	Resid phase (deg)	130.1	+/-	2.6

ph/seg (deg)	41.3	Theor.	6.1	Amplitude	1.284 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	36.6		10.7	Search (1024X32)	1.247	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	41.5		3.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	54.0		6.3	Inc. seg. avg.	1.309	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	1.527	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

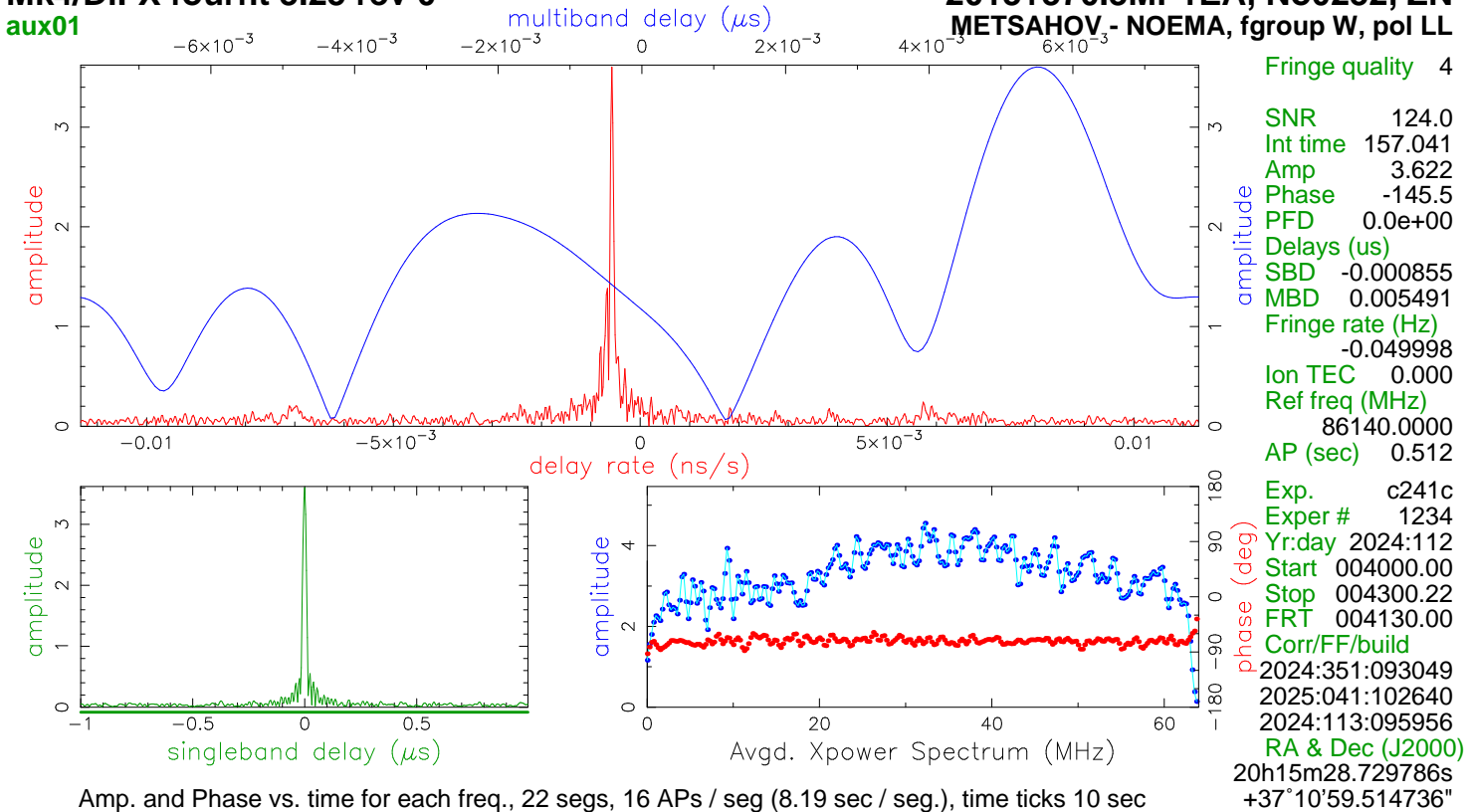
N: az 67.7 el 32.5 pa -55.9 Y: az 61.1 el 24.8 pa -56.9 u,v (fr/asec) 547.170 -213.510 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/NY..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/NY.W.79.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

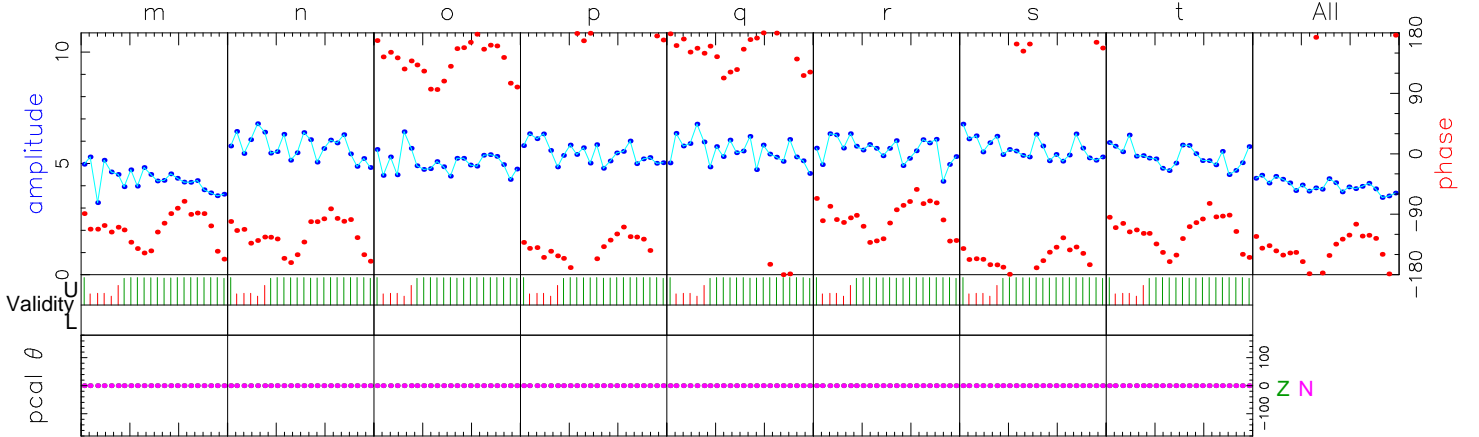
aux01

2013+370.3MP1EA, No0232, ZN

METSAHOV - NOEMA, fgroup W, pol LL



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-111.2	-120.5	139.2	-149.3	155.8	-94.2	-164.5	-117.1	Phase	-145.5
	3.9	5.2	4.5	4.9	5.0	5.1	5.2	4.8	Ampl.	4.8
	255.0	256.7	257.0	257.4	257.8	257.4	257.3	256.6	Sbd box	256.8
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	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	Manl 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)	3.92373840853E+03	Apriori delay (usec)	3.92373291798E+03	Resid mbdelay (usec)	5.49055E-03	+/-	8.8E-06
Sband delay (usec)	3.92373206273E+03	Apriori clock (usec)	1.3563112E+01	Resid sbdelay (usec)	-8.55250E-04	+/-	6.9E-05
Phase delay (usec)	3.92373291329E+03	Apriori clockrate (us/s)	5.9556093E-07	Resid phdelay (usec)	-4.69233E-06	+/-	3.0E-08
Delay rate (us/s)	-3.30897849048E-01	Apriori rate (us/s)	-3.30897268624E-01	Resid rate (us/s)	-5.80423E-07	+/-	3.1E-10
Total phase (deg)	54.2	Apriori accel (us/s/s)	-9.49443810627E-06	Resid phase (deg)	-145.5	+/-	0.9

ph/seg (deg) 24.4 2.1 Amplitude 3.622 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 11.4 3.7 Search (1024X32) 3.492 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 49.5 1.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 35.0 2.3 Inc. seg. avg. 3.943 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011

Z: az 93.6 el 46.2 pa -38.5 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 2375.947 584.272 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

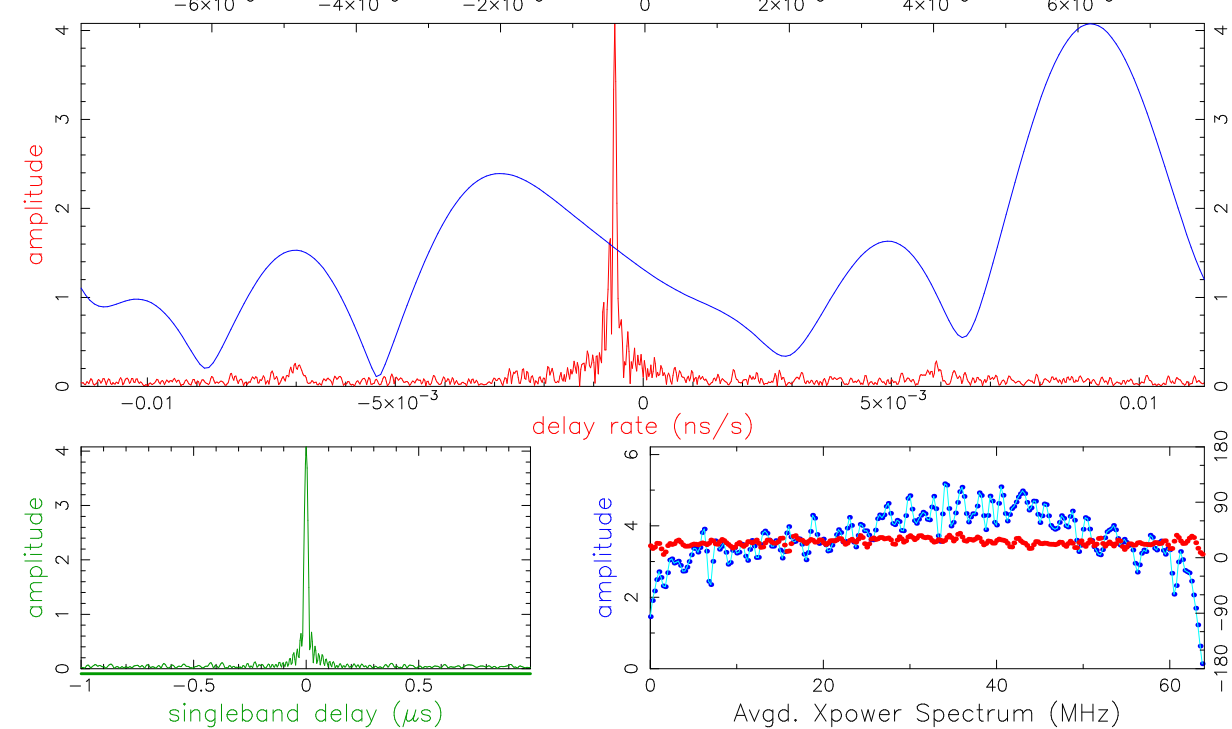
Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZN.W.20.3MP1EA simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

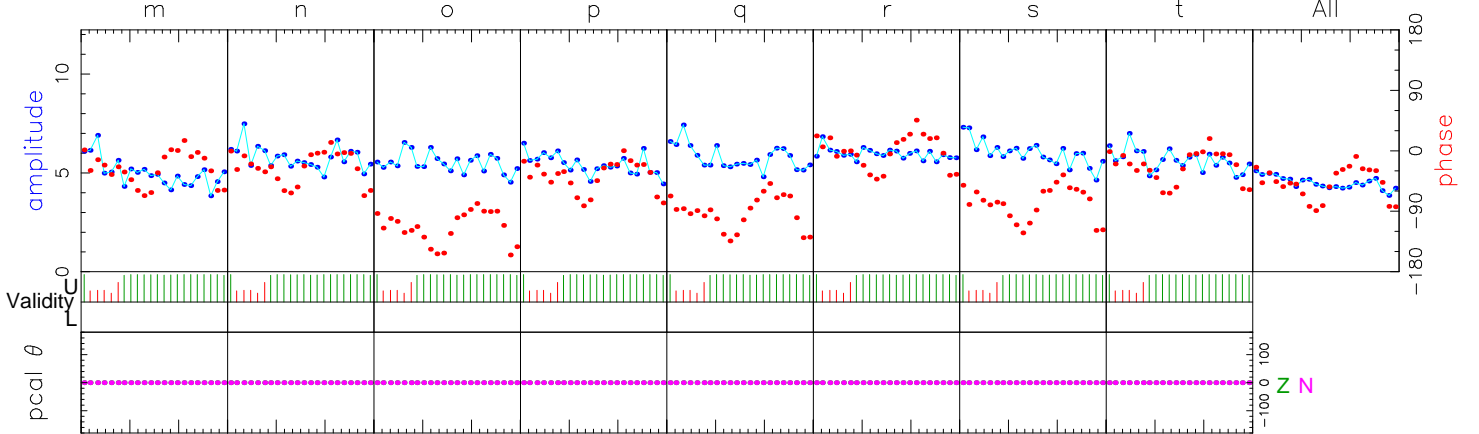
2013+370.3MP1EA, No0232, ZN

METSAHOV - NOEMA, fgroup W, pol RR



Fringe quality 4  
 SNR 139.6  
 Int time 157.041  
 Amp 4.079  
 Phase -48.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000209  
 MBD 0.006171  
 Fringe rate (Hz)  
 -0.049927  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102652  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-26.5	-24.0	-113.8	-37.0	-91.0	-1.6	-77.3	-23.3	Phase	-48.0
	4.5	5.2	5.0	4.9	5.2	5.4	5.4	5.1	Ampl.	5.1
	255.6	256.8	257.3	257.7	257.7	257.5	257.4	256.7	Sbd box	256.9
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	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	Manl 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) 3.92373908913E+03 Apriori delay (usec) 3.92373291798E+03 Resid mbdelay (usec) 6.17115E-03 +/- 7.8E-06  
 Sband delay (usec) 3.92373270873E+03 Apriori clock (usec) 1.3563112E+01 Resid sbdelay (usec) -2.09250E-04 +/- 6.2E-05  
 Phase delay (usec) 3.92373291643E+03 Apriori clockrate (us/s) 5.9556093E-07 Resid phdelay (usec) -1.54649E-06 +/- 2.6E-08  
 Delay rate (us/s) -3.30897848229E-01 Apriori rate (us/s) -3.30897268624E-01 Resid rate (us/s) -5.79604E-07 +/- 2.7E-10  
 Total phase (deg) 151.8 Apriori accel (us/s/s) -9.49443810627E-06 Resid phase (deg) -48.0 +/- 0.8

RMS Theor. Amplitude 4.079 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 24.3 1.9 Search (1024X32) 3.996 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 11.9 3.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 42.7 1.2 Inc. seg. avg. 4.463 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 25.4 2.0 Inc. frq. avg. 5.079 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

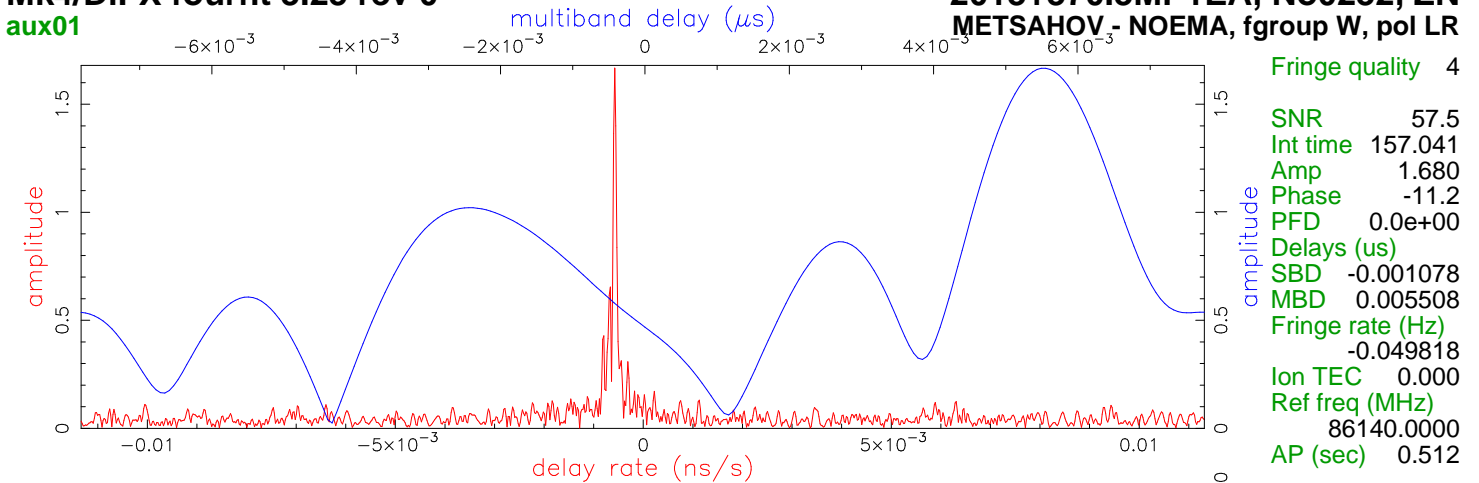
Z: az 93.6 el 46.2 pa -38.5 N: az 67.7 el 32.5 pa -55.9 u, v (fr/asec) 2375.947 584.272 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZN.W.47.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZN

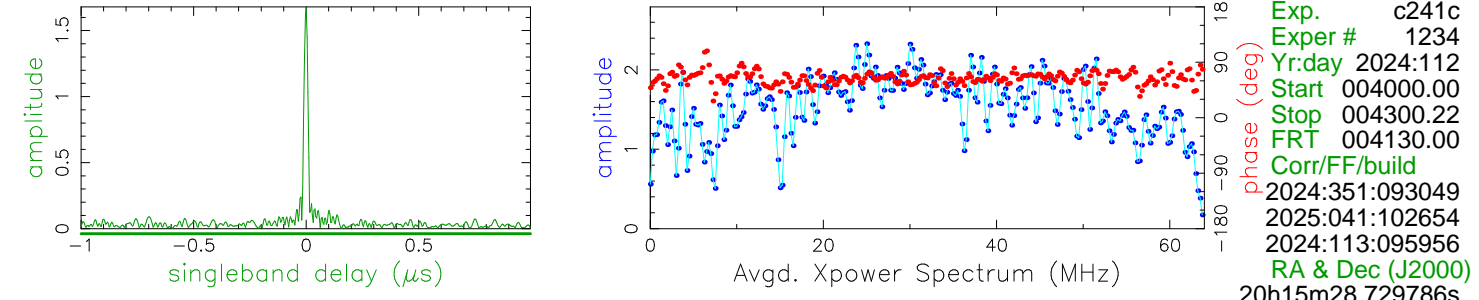
METSAHOV - NOEMA, fgroup W, pol LR



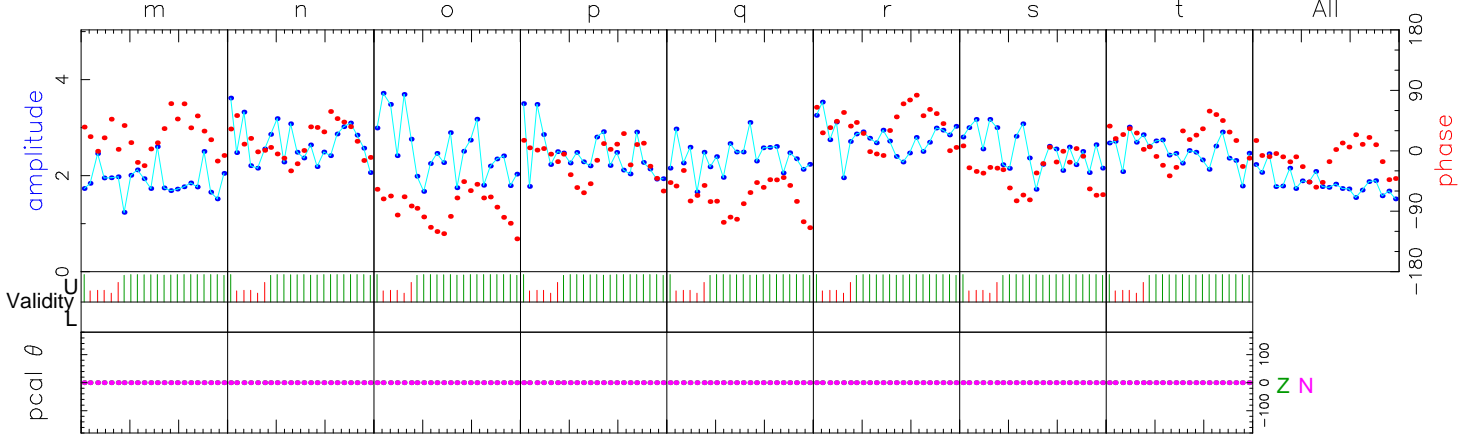
Fringe quality 4

SNR 57.5  
 Int time 157.041  
 Amp 1.680  
 Phase -11.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.001078  
 MBD 0.005508  
 Fringe rate (Hz)  
 -0.049818  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102654  
 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
	20.5	15.1	-83.7	-12.4	-68.7	37.4	-32.4	14.1	Phase	-11.2
	1.7	2.4	2.2	2.2	2.2	2.5	2.2	2.2	Ampl.	2.2
	255.0	256.7	257.0	257.3	257.6	257.5	257.5	256.4	Sbd box	256.7
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	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	Manl 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 3.92373842572E+03 Apriori delay (usec) 3.92373291798E+03 Resid mbdelay (usec) 5.50774E-03 +/- 1.9E-05  
 Sband delay (usec) 3.92373183998E+03 Apriori clock (usec) 1.3563112E+01 Resid sbdelay (usec) -1.07800E-03 +/- 1.5E-04  
 Phase delay (usec) 3.92373291762E+03 Apriori clockrate (us/s) 5.9556093E-07 Resid phdelay (usec) -3.62108E-07 +/- 6.4E-08  
 Delay rate (us/s) -3.30897846956E-01 Apriori rate (us/s) -3.30897268624E-01 Resid rate (us/s) -5.78332E-07 +/- 6.6E-10  
 Total phase (deg) 188.5 Apriori accel (us/s/s) -9.49443810627E-06 Resid phase (deg) -11.2 +/- 2.0

RMS Theor. Amplitude 1.680 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 24.2 4.5 Search (1024X32) 1.619 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 15.2 7.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 47.8 2.8 Inc. seg. avg. 1.821 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 33.7 4.9 Inc. frq. avg. 2.199 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Z: az 93.6 el 46.2 pa -38.5 N: az 67.7 el 32.5 pa -55.9 u, v (fr/asec) 2375.947 584.272 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZN.W.61.3MP1EA

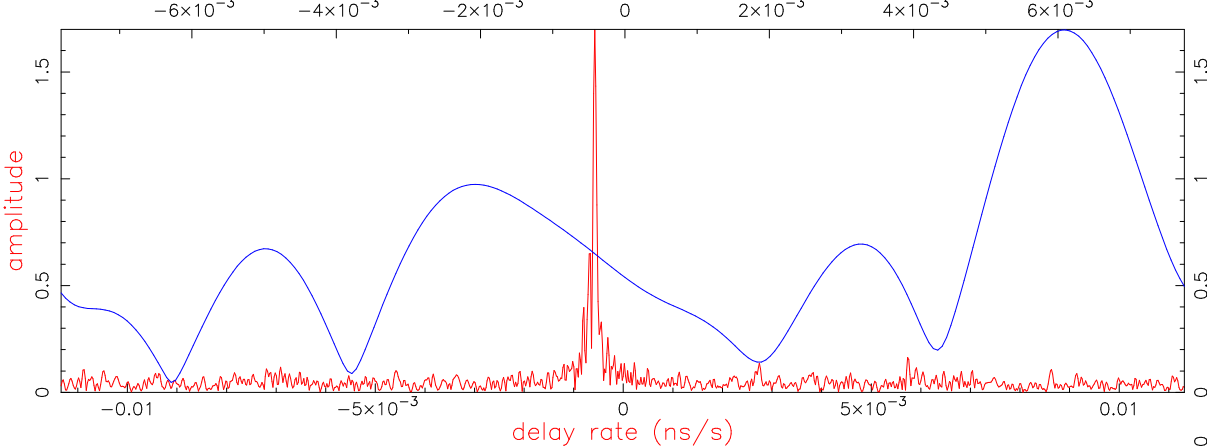
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZN

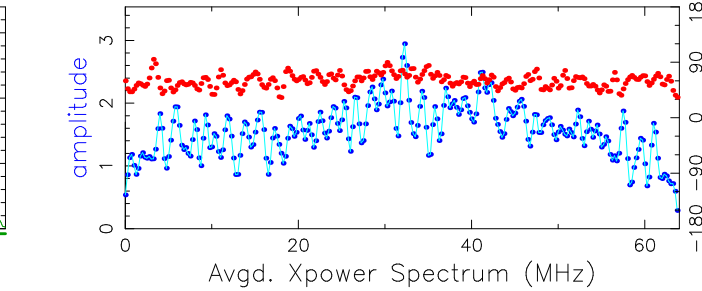
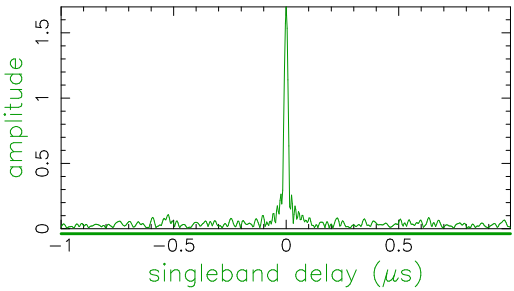
METSAHOV - NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)



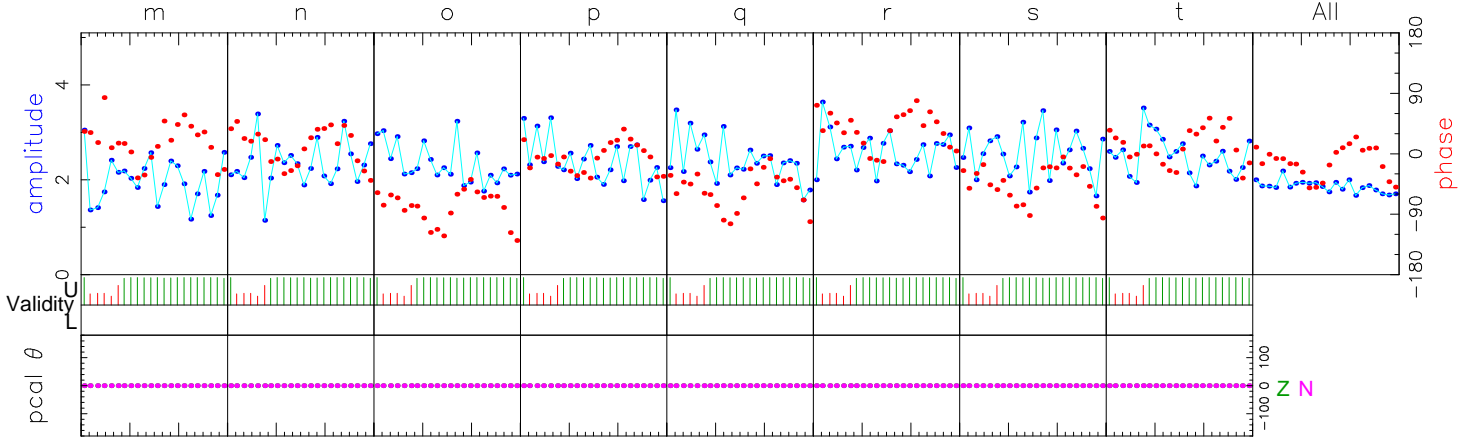
Fringe quality 4

SNR 58.2  
 Int time 157.041  
 Amp 1.699  
 Phase -12.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000271  
 MBD 0.006083  
 Fringe rate (Hz)  
 -0.049840  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241c  
 Exper # 1234  
 Yr:day 2024:112  
 Start 004000.00  
 Stop 004300.22  
 FRT 004130.00  
 Corr/FF/build  
 2024:351:093049  
 2025:041:102655  
 2024:113:095956  
 RA & Dec (J2000)  
 20h15m28.729786s  
 +37°10'59.514736"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	14.4	8.7	-80.2	-3.9	-54.0	34.7	-43.6	11.2	Phase	-12.7
	1.8	2.1	2.1	2.2	2.1	2.3	2.3	2.3	Ampl.	2.1
	255.4	257.0	257.2	257.7	257.8	257.6	257.3	256.4	Sbd box	256.9
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	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	Manl 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 3.92373900066E+03 Apriori delay (usec) 3.92373291798E+03 Resid mbdelay (usec) 6.08268E-03 +/- 1.9E-05  
 Sband delay (usec) 3.92373264723E+03 Apriori clock (usec) 1.3563112E+01 Resid sbdelay (usec) -2.70750E-04 +/- 1.5E-04  
 Phase delay (usec) 3.92373291757E+03 Apriori clockrate (us/s) 5.9556093E-07 Resid phdelay (usec) -4.09933E-07 +/- 6.4E-08  
 Delay rate (us/s) -3.30897847214E-01 Apriori rate (us/s) -3.30897268624E-01 Resid rate (us/s) -5.78590E-07 +/- 6.6E-10  
 Total phase (deg) 187.0 Apriori accel (us/s/s) -9.49443810627E-06 Resid phase (deg) -12.7 +/- 2.0

RMS Theor. Amplitude 1.699 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 23.8 4.5 Search (1024X32) 1.648 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 11.2 7.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 43.4 2.8 Inc. seg. avg. 1.848 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 27.0 4.9 Inc. frq. avg. 2.124 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Z: az 93.6 el 46.2 pa -38.5 N: az 67.7 el 32.5 pa -55.9 u,v (fr/asec) 2375.947 584.272 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZN.W.72.3MP1EA