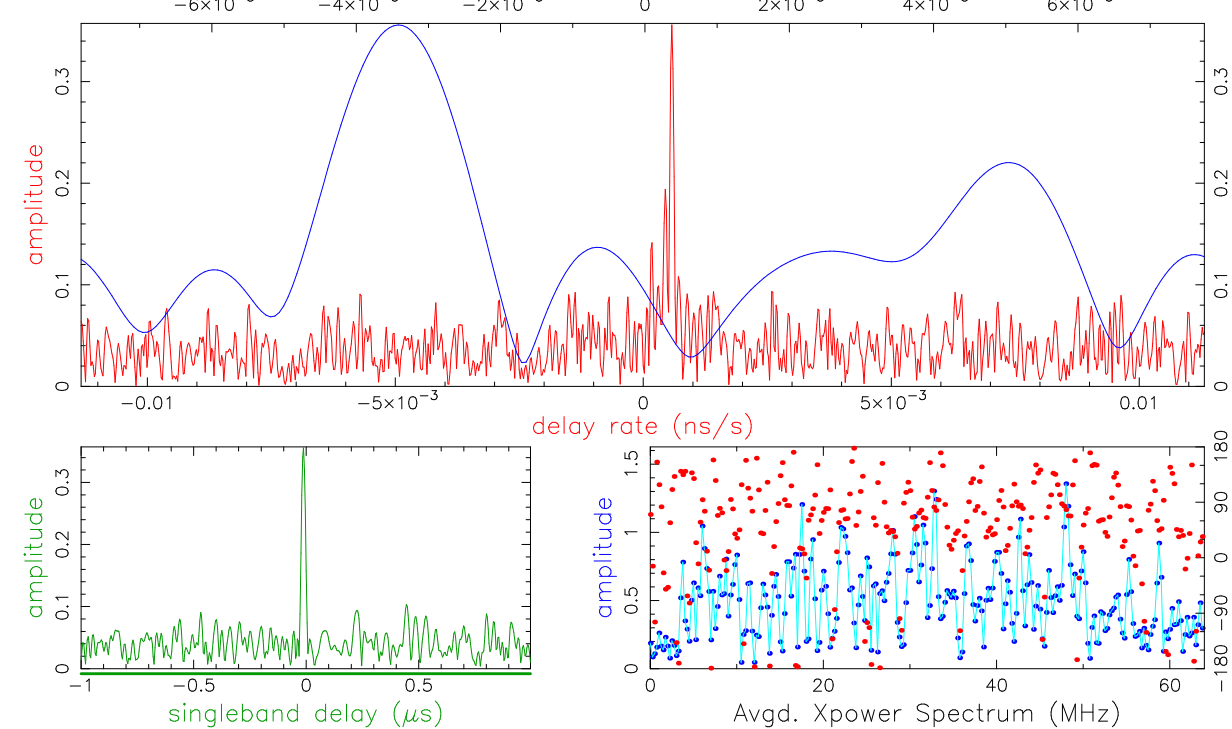


Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, BZ

EFLSBERG - METSAHOV, fgroup W, pol LR

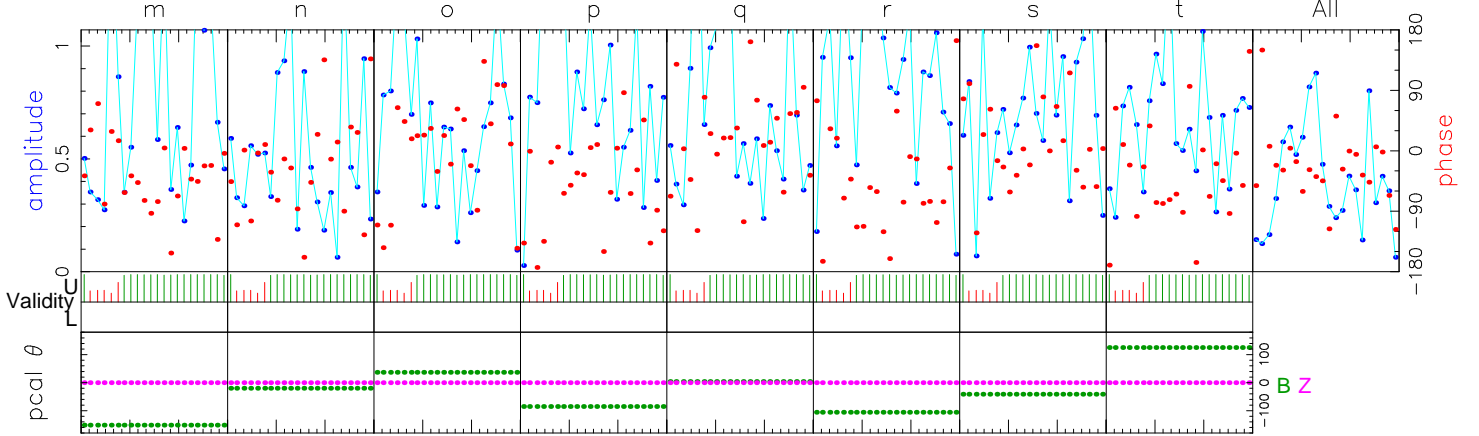


Fringe quality 9

SNR 12.2
 Int time 157.027
 Amp 0.357
 Phase -29.7
 PFD 5.5e-26
 Delays (us)
 SBD -0.012560
 MBD -0.003434
 Fringe rate (Hz) 0.049979
 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
	-42.4	-52.5	39.1	-46.5	20.5	-70.7	-0.9	-51.5	Phase	-29.7
	0.6	0.3	0.3	0.4	0.4	0.5	0.5	0.4	Ampl.	0.4
	253.7	8.2	346.9	253.6	253.3	253.8	253.0	253.0	Sbd box	253.8
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	-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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.14020240095E+03	Apriori delay (usec)	-3.14018334227E+03	Resid mbdelay (usec)	-3.43368E-03	+/-	8.9E-05
Sband delay (usec)	-3.14019590252E+03	Apriori clock (usec)	-3.5602219E+01	Resid sbdelay (usec)	-1.25603E-02	+/-	7.0E-04
Phase delay (usec)	-3.14018334323E+03	Apriori clockrate (us/s)	-7.9939896E-07	Resid phdelay (usec)	-9.57512E-07	+/-	3.0E-07
Delay rate (us/s)	2.36150538354E-01	Apriori rate (us/s)	2.36149958142E-01	Resid rate (us/s)	5.80212E-07	+/-	3.1E-09
Total phase (deg)		Apriori accel (us/s/s)	9.93543543517E-06	Resid phase (deg)	-29.7	+/-	9.4

ph/seg (deg)	RMS 47.3	Theor. 21.2	Amplitude Search (1024X32)	0.351	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	67.2	37.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	43.2	13.2	Inc. seg. avg.	0.388	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	34.9	23.1	Inc. frq. avg.	0.425	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
					Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

B: az 72.0 el 35.1 pa -49.5 Z: az 93.6 el 46.2 pa -38.5 u,v (fr/asec) -1692.757 -74.437 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/BZ..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/BZ.W.12.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

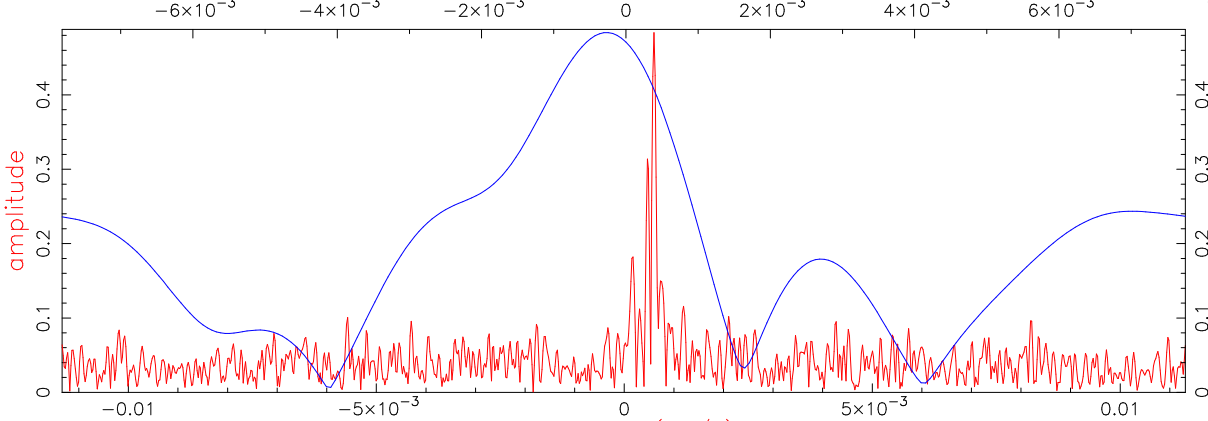
aux01

2013+370.3MP1EA, No0232, BZ

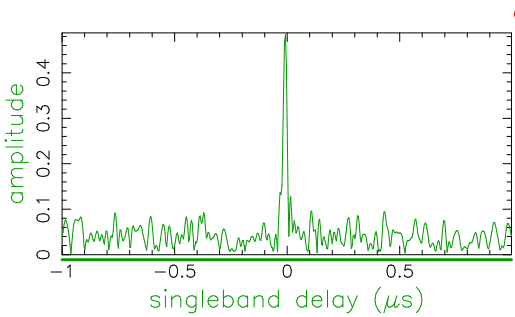
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

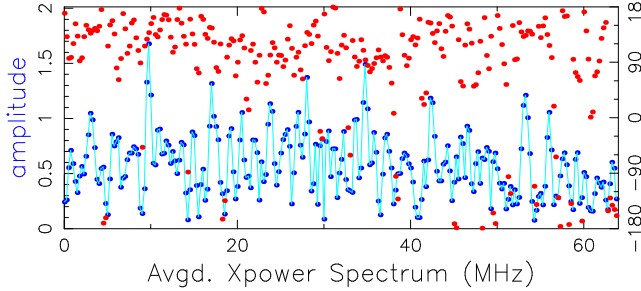
Fringe quality 7



SNR 16.7
Int time 157.027
Amp 0.488
Phase 25.7
PFD 0.0e+00
Delays (us)
SBD -0.008990
MBD -0.000308
Fringe rate (Hz) 0.050714
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

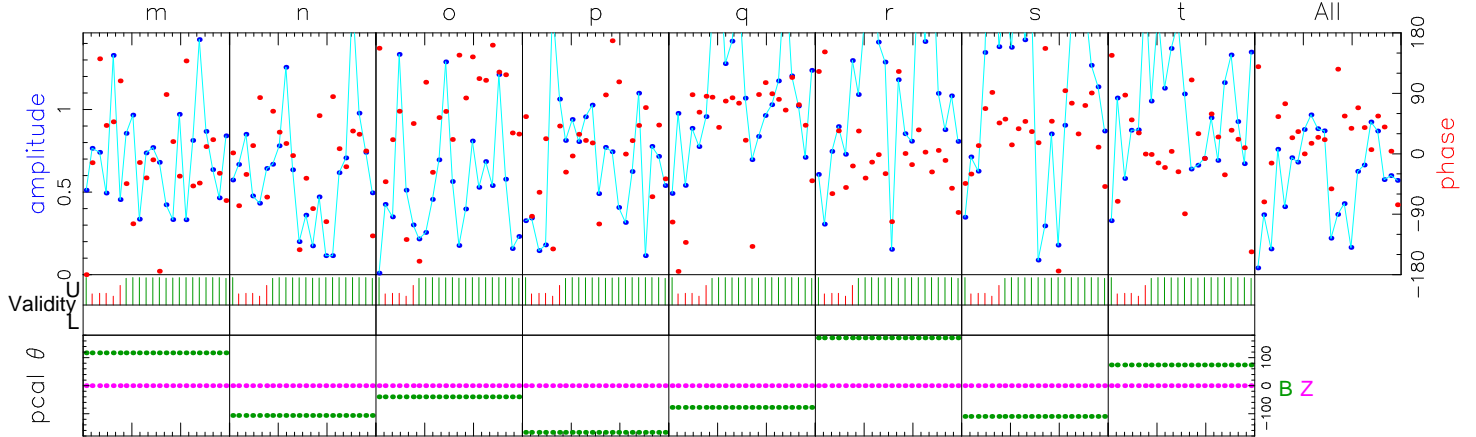


delay rate (ns/s)



Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 004000.00
Stop 004300.22
FRT 004130.00
Corr/FF/build
2024:351:093049
2025:041:102636
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
	-29.5	9.4	90.4	18.0	72.8	-8.1	46.5	-1.0		Phase 25.7
	0.4	0.5	0.3	0.4	0.8	0.8	0.9	0.7		Ampl. 0.6
	256.6	253.9	255.2	253.6	254.3	254.2	254.5	252.9		Sbd box 254.7
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0		APs used
B	0	0	0	0	0	0	0	0		PC freqs
Z	0	0	0	0	0	0	0	0		PC freqs
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
B:Z	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
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	-3.14019927574E+03	Apriori delay (usec)	-3.14018334227E+03	Resid mbdelay (usec)	-3.08472E-04	+/-	6.5E-05
Sband delay (usec)	-3.14019233227E+03	Apriori clock (usec)	-3.5602219E+01	Resid sbdelay (usec)	-8.99000E-03	+/-	5.2E-04
Phase delay (usec)	-3.14018334144E+03	Apriori clockrate (us/s)	-7.9939896E-07	Resid phdelay (usec)	8.27820E-07	+/-	2.2E-07
Delay rate (us/s)	2.36150546884E-01	Apriori rate (us/s)	2.36149958142E-01	Resid rate (us/s)	5.88742E-07	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	9.93543543517E-06	Resid phase (deg)	25.7	+/-	6.9

ph/seg (deg)	50.2	Theor.	15.5	Amplitude	0.488 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	60.2	Search (1024X32)	0.464	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.	0.575	Inc. frq. avg.	0.588	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.7	Inc. frq. avg.	0.588			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 72.0 el 35.1 pa -49.5 Z: az 93.6 el 46.2 pa -38.5 u, v (fr/asec) -1692.757 -74.437 simultaneous interpolator

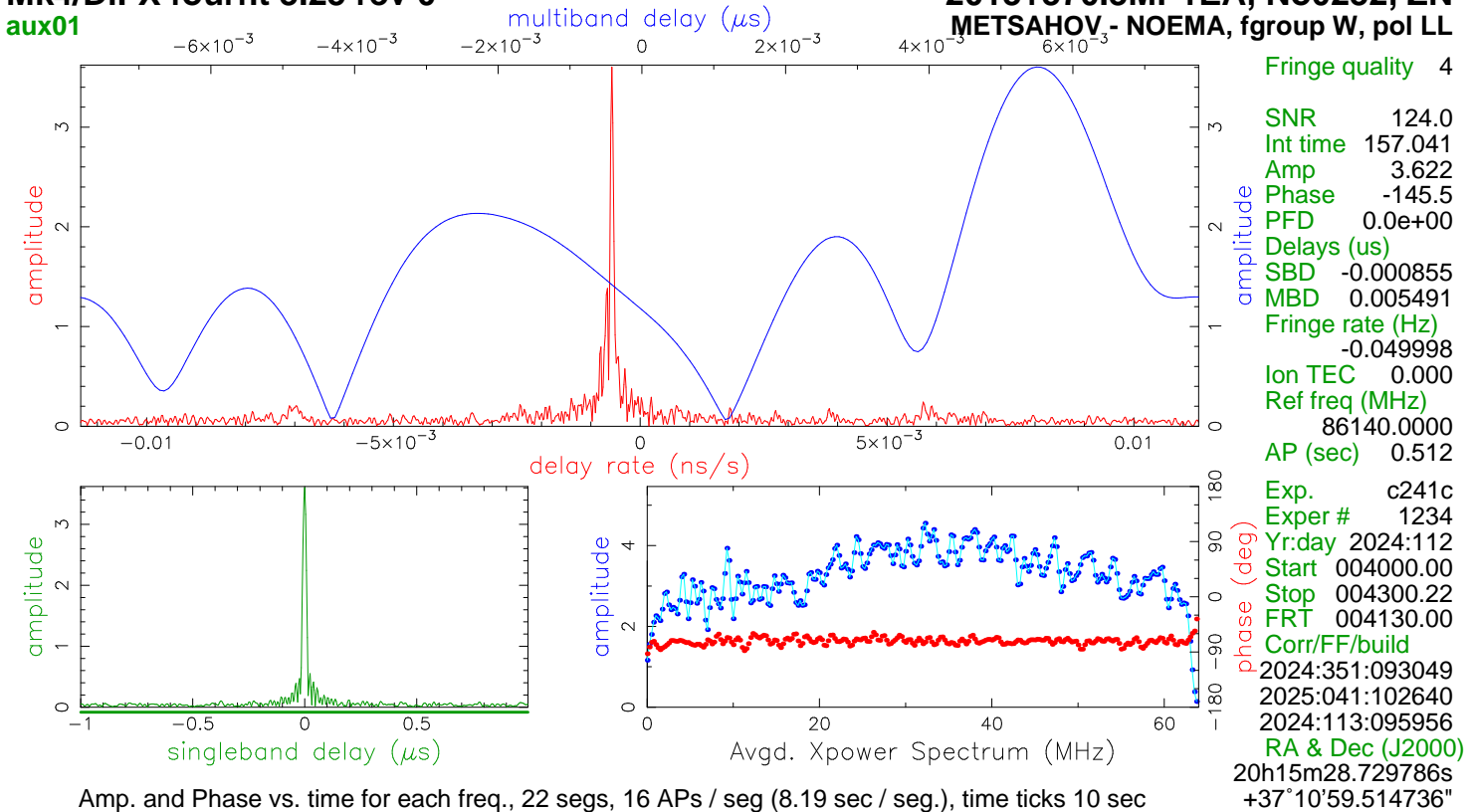
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/BZ..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/BZ.W.7.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

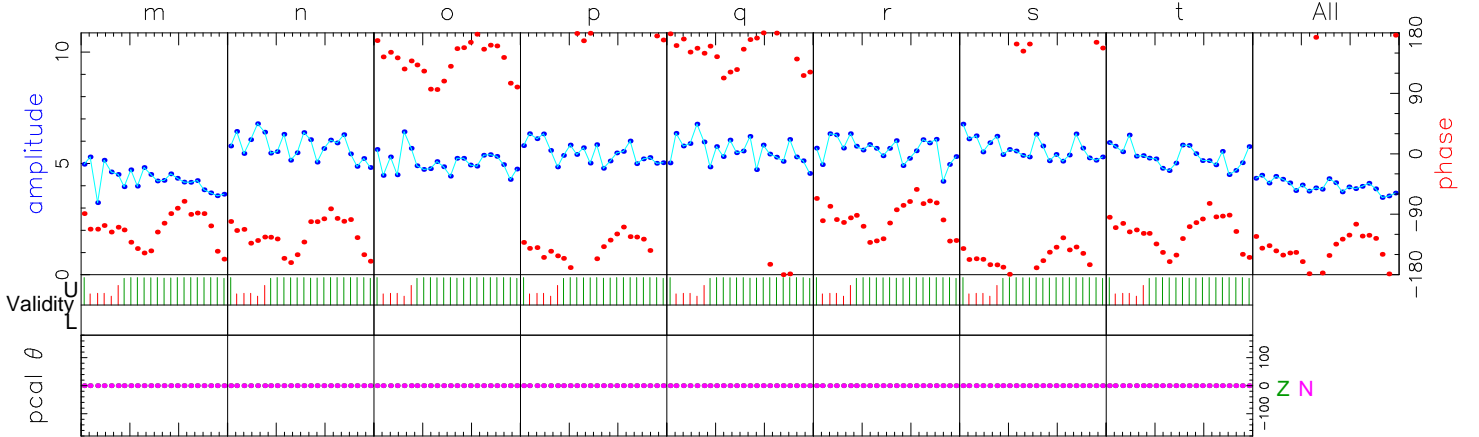
aux01

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	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)	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

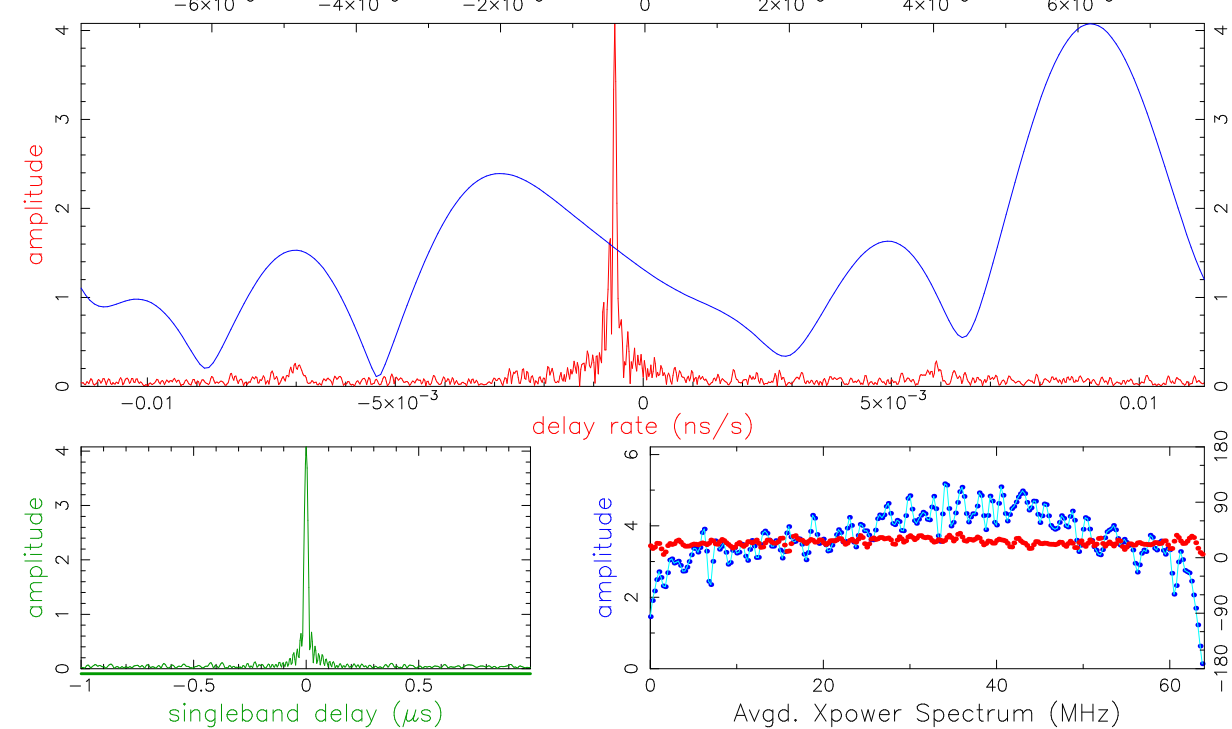
ph/seg (deg) 24.4 2.1 Amplitude 3.622 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 11.4 3.7 Search (1024X32) 3.492 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.5 1.3 Inc. seg. avg. 3.943 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.0 2.3 Inc. frq. avg. 4.820 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 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.20.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

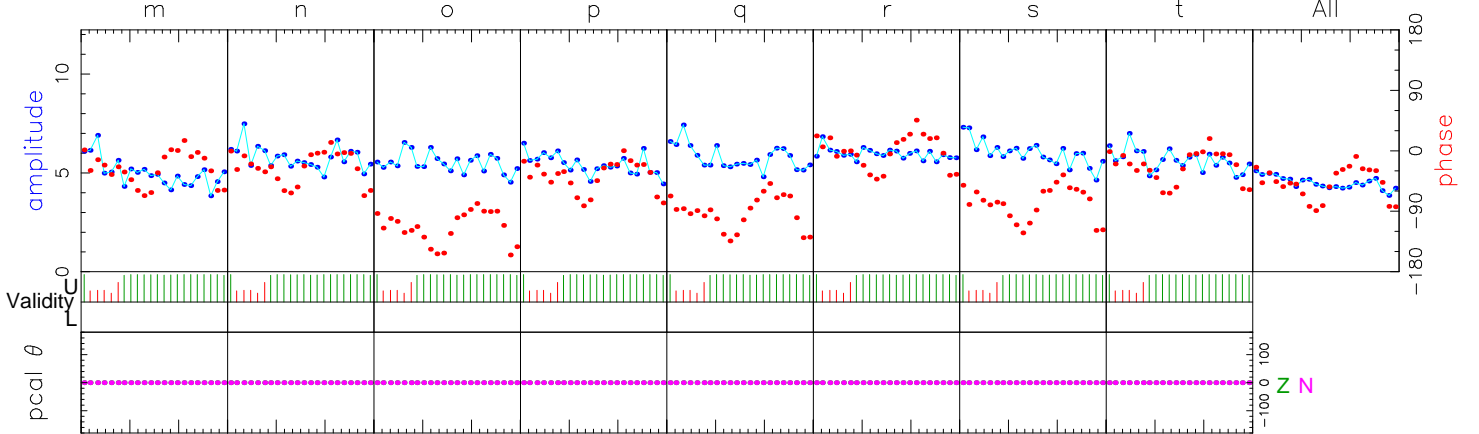
2013+370.3MP1EA, No0232, ZN

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

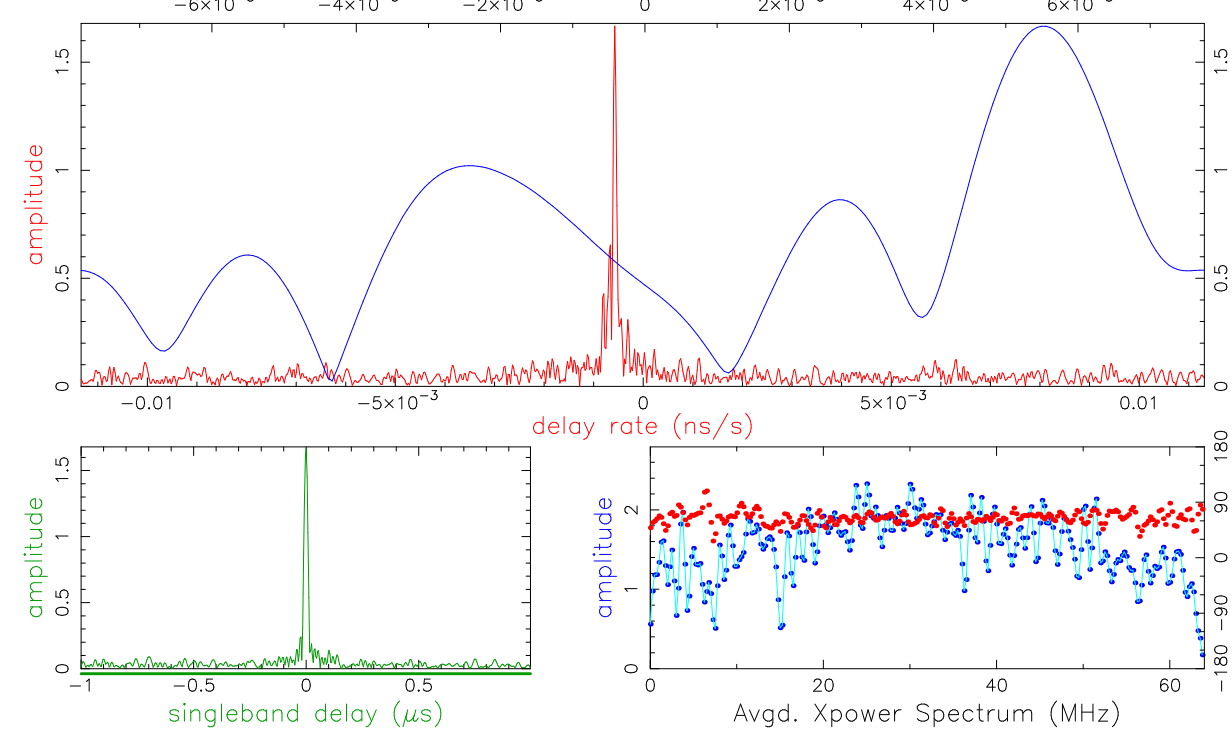
Z: az 93.6 el 46.2 pa -38.5 N: az 67.7 el 32.5 pa -55.9 u, v (fr/asec) 2375.947 584.272 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZN..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZN.W.47.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

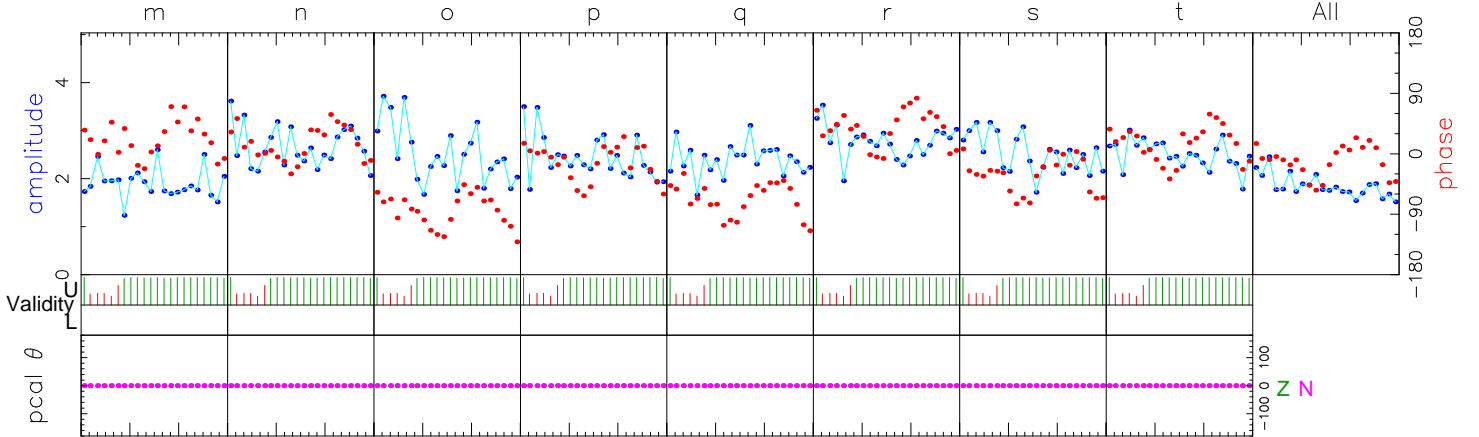
2013+370.3MP1EA, No0232, ZN

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

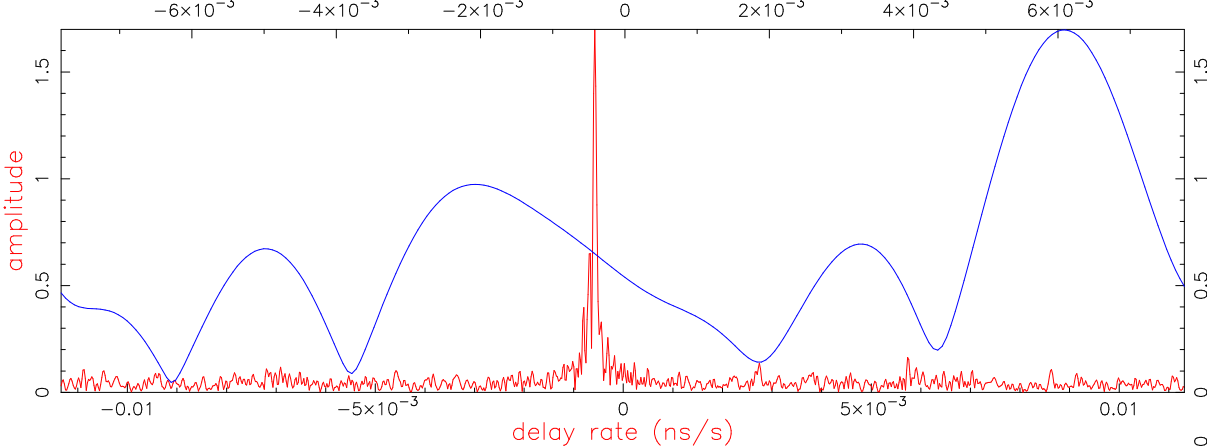
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZN

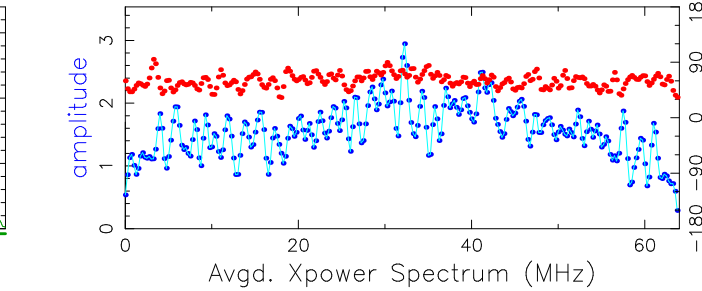
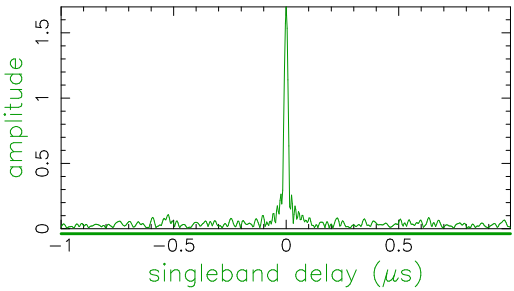
METSAHOV - NOEMA, fgroup W, pol RL

multiband delay (μ s)



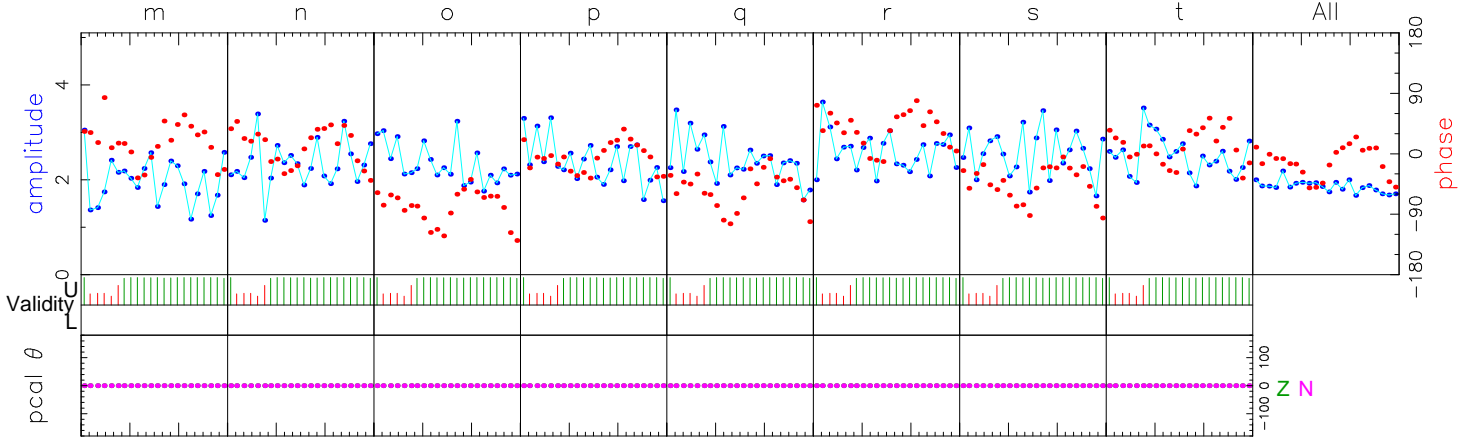
Fringe quality 4

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

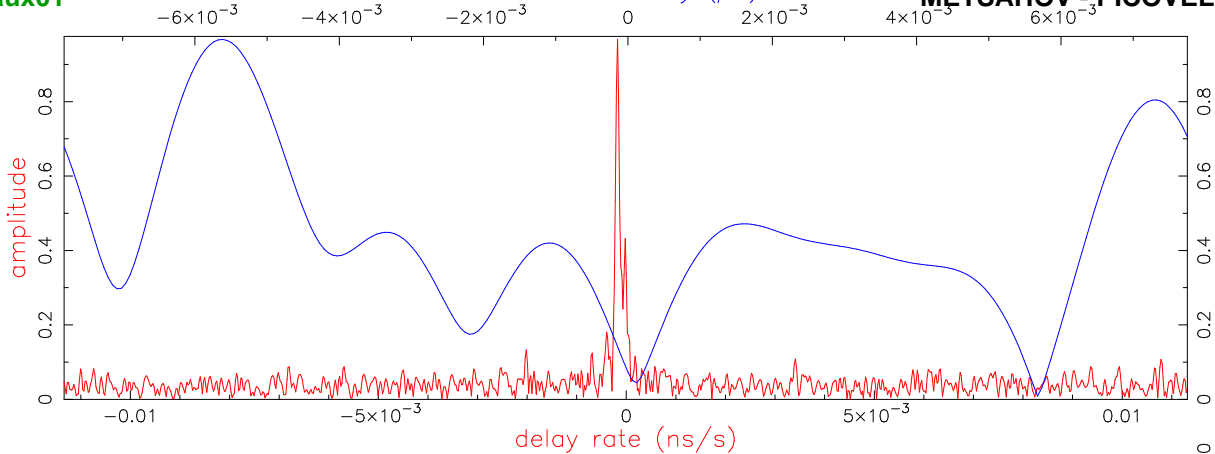
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZP

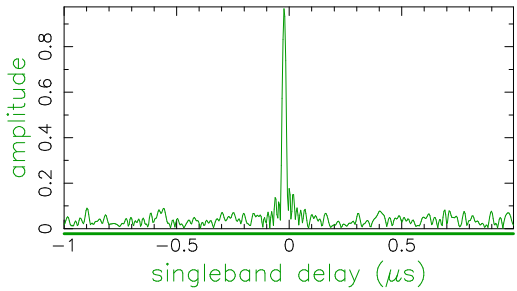
MEṬSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

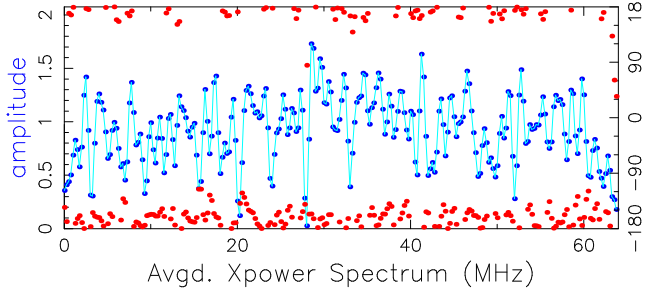


Fringe quality 4

SNR 33.4
 Int time 157.041
 Amp 0.975
 Phase -1.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.022234
 MBD -0.005596
 Fringe rate (Hz)
 -0.015264
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

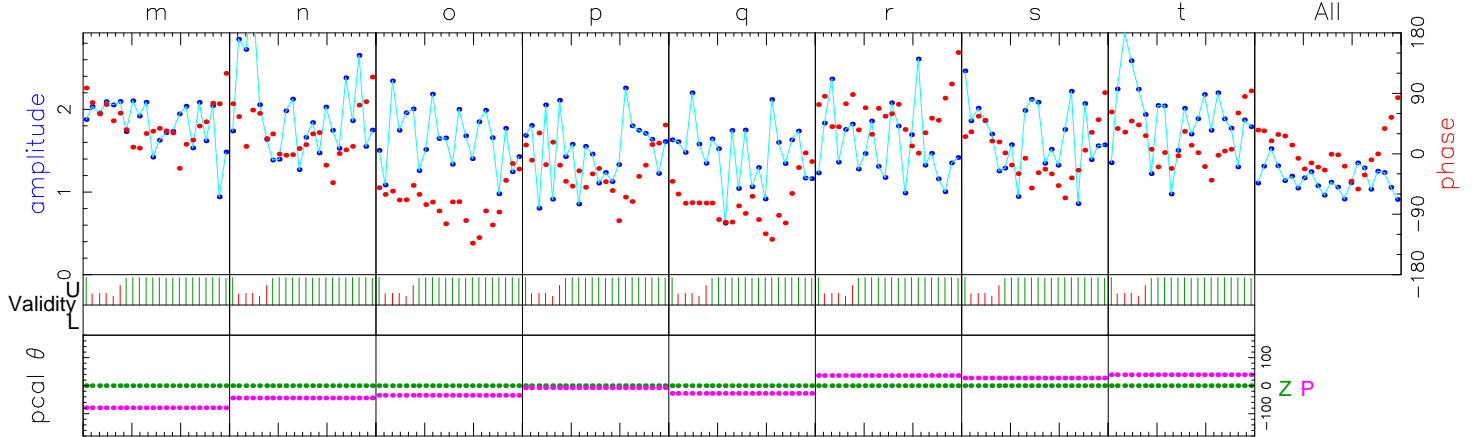


delay rate (ns/s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 004000.00
 Stop 004300.22
 FRT 004130.00
 Corr/FF/build
 2024:351:093049
 2025:041:102644
 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	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0		
Z	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	7.07375175555E+03	Apriori delay (usec)		7.07377297679E+03	Resid mbdelay (usec)		-5.59624E-03	+/-	3.2E-05	
Sband delay (usec)	7.07375074304E+03	Apriori clock (usec)		1.1226921E+00	Resid sbdelay (usec)		-2.22338E-02	+/-	2.6E-04	
Phase delay (usec)	7.07377297675E+03	Apriori clockrate (us/s)		1.1622864E-08	Resid phdelay (usec)		-3.16263E-08	+/-	1.1E-07	
Delay rate (us/s)	-4.54959012808E-01	Apriori rate (us/s)		-4.54958835611E-01	Resid rate (us/s)		-1.77198E-07	+/-	1.1E-09	
Total phase (deg)	78.3		Apriori accel (us/s/s)		-1.94889397974E-05	Resid phase (deg)		-1.0	+/-	3.4

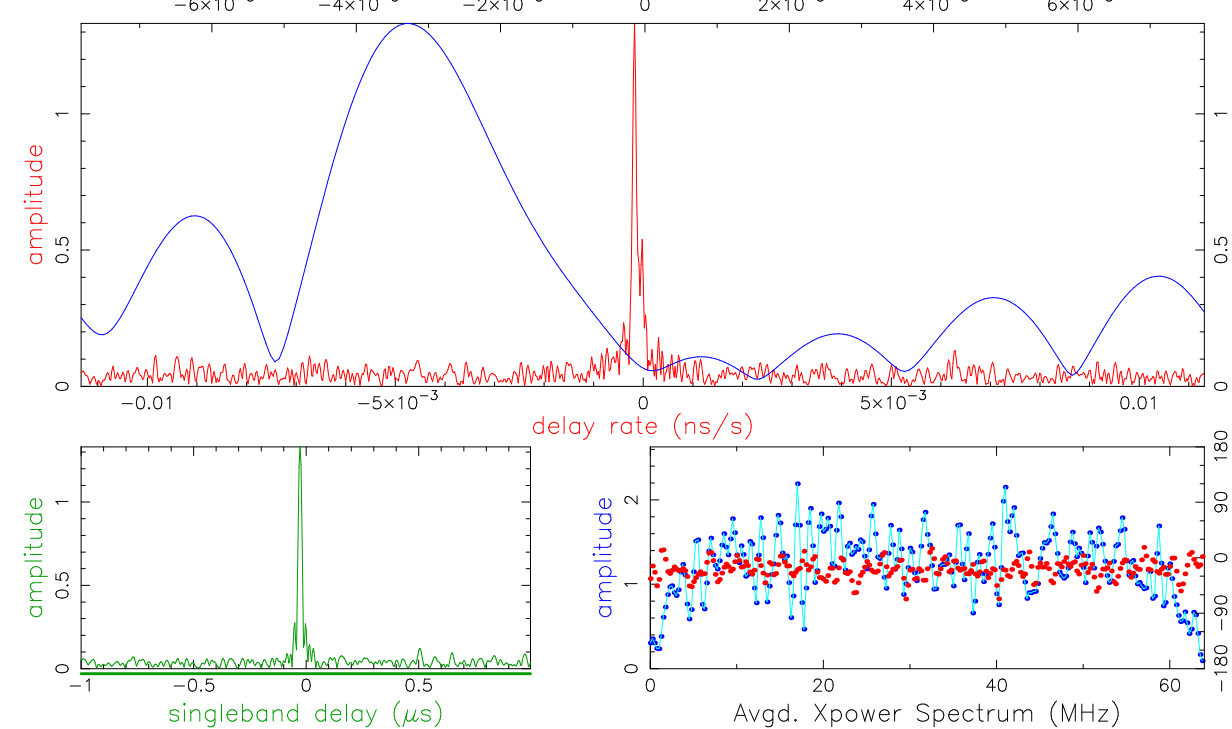
ph/seg (deg)	33.3	Theor. 7.8	Amplitude	0.975 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	21.8	13.5	Search (1024X32)	0.936	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.5	4.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	42.7	8.5	Inc. seg. avg.	1.126	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	P: az 59.7 el 22.8 pa -60.1		u,v (fr/asec) 3262.320 686.046		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//ZP..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232//ZP.W.27.3MP1EA		simultaneous interpolator				

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol RR

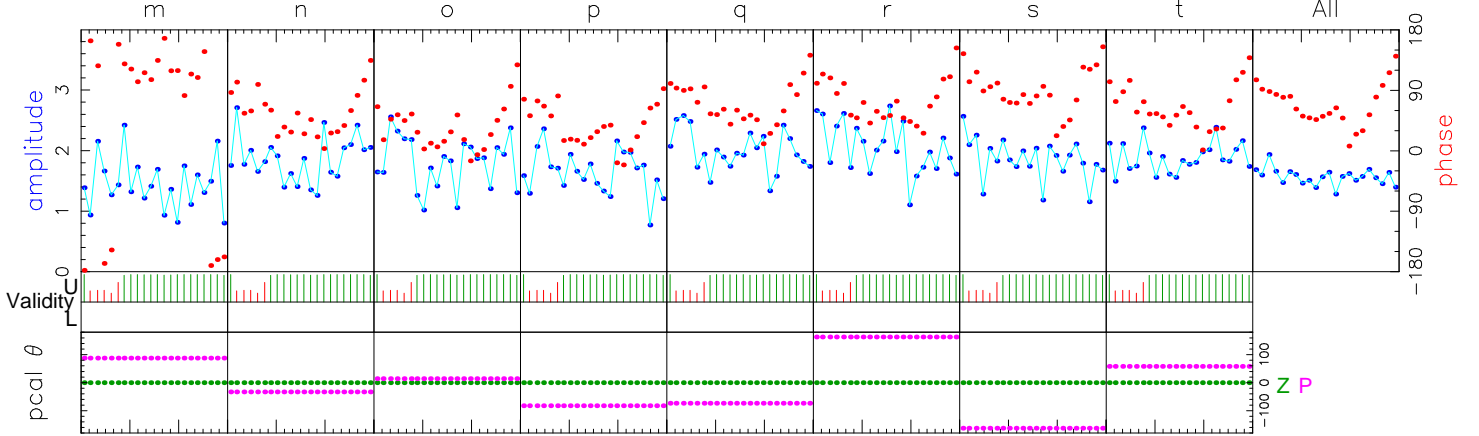


Fringe quality 5

SNR 45.6
 Int time 157.041
 Amp 1.332
 Phase 65.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.027188
 MBD -0.003283
 Fringe rate (Hz)
 -0.015154
 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
	138.7	53.8	33.0	30.9	67.3	70.6	88.7	62.8	Phase	65.4
	1.2	1.5	1.5	1.4	1.7	1.8	1.5	1.6	Ampl.	1.5
	248.2	249.3	249.8	250.2	250.4	249.7	250.3	249.4	Sbd box	250.0
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	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 7.07373844376E+03 Apriori delay (usec) 7.07377297679E+03 Resid mbdelay (usec) -3.28302E-03 +/- 2.4E-05
 Sband delay (usec) 7.07374578879E+03 Apriori clock (usec) 1.1226921E+00 Resid sbdelay (usec) -2.71880E-02 +/- 1.9E-04
 Phase delay (usec) 7.07377297890E+03 Apriori clockrate (us/s) 1.1622864E-08 Resid phdelay (usec) 2.11039E-06 +/- 8.1E-08
 Delay rate (us/s) -4.54959011532E-01 Apriori rate (us/s) -4.54958835611E-01 Resid rate (us/s) -1.75921E-07 +/- 8.4E-10
 Total phase (deg) 144.8 Apriori accel (us/s/s) -1.94889397974E-05 Resid phase (deg) 65.4 +/- 2.5

RMS Theor. Amplitude 1.332 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 32.1 5.7 Search (1024X32) 1.317 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 19.1 9.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 37.3 3.6 Inc. seg. avg. 1.548 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 18.8 6.2 Inc. frq. avg. 1.513 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

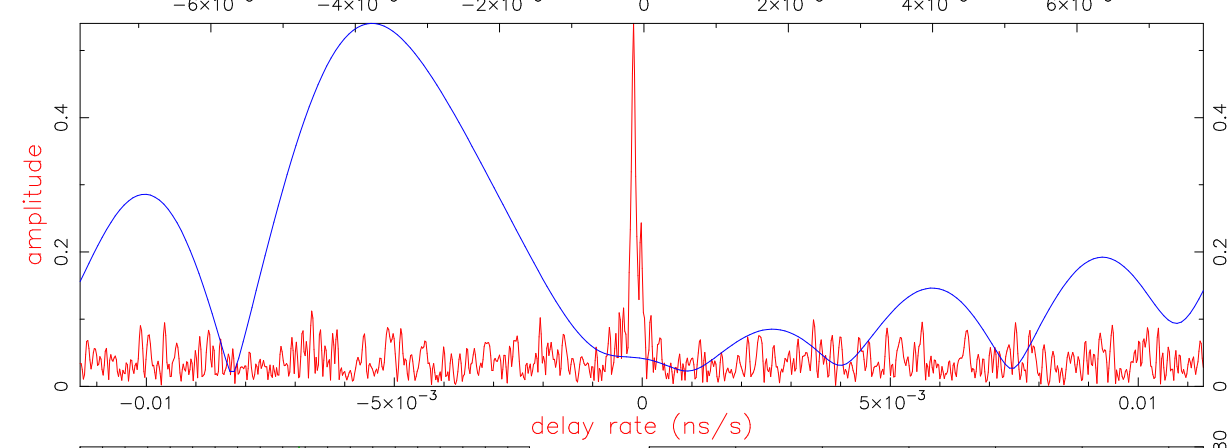
Z: az 93.6 el 46.2 pa -38.5 P: az 59.7 el 22.8 pa -60.1 u,v (fr/asec) 3262.320 686.046 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZP..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZP.W.52.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZP

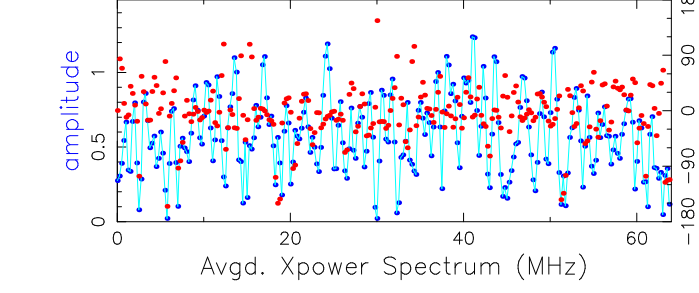
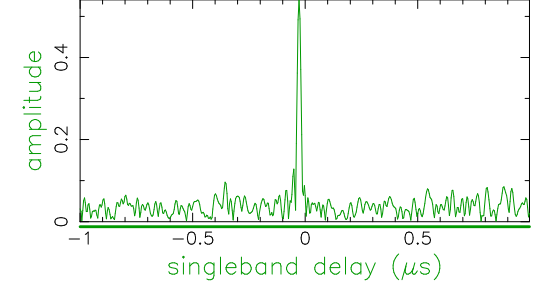
MEṬSAHOV - PICOVEL, fgroup W, pol LR



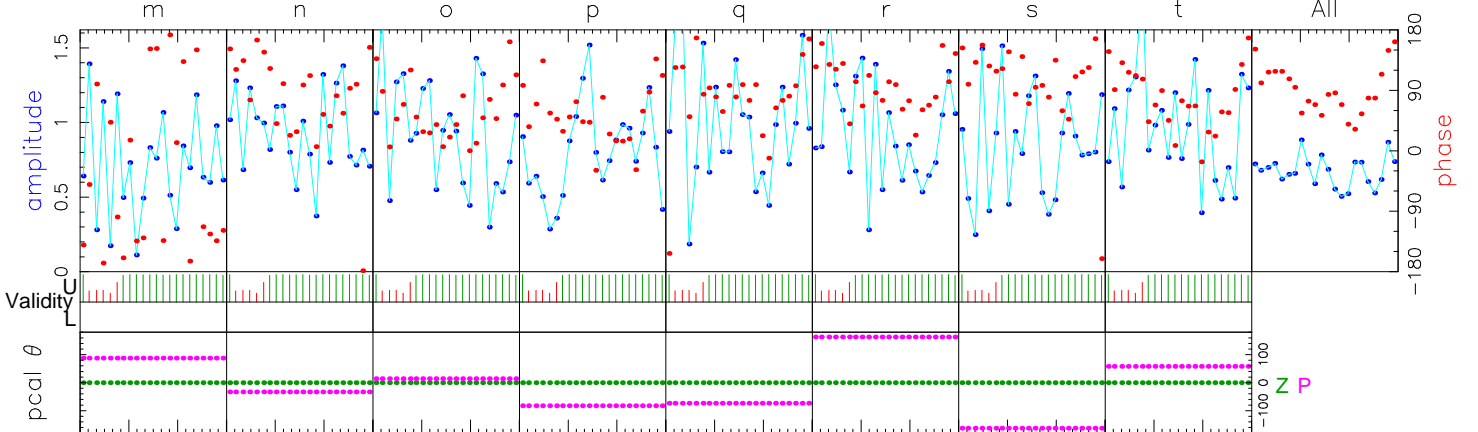
Fringe quality 8

SNR 18.5
Int time 157.041
Amp 0.540
Phase 87.7
PFD 0.0e+00
Delays (us)
SBD -0.027311
MBD -0.003769
Fringe rate (Hz) -0.014904
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



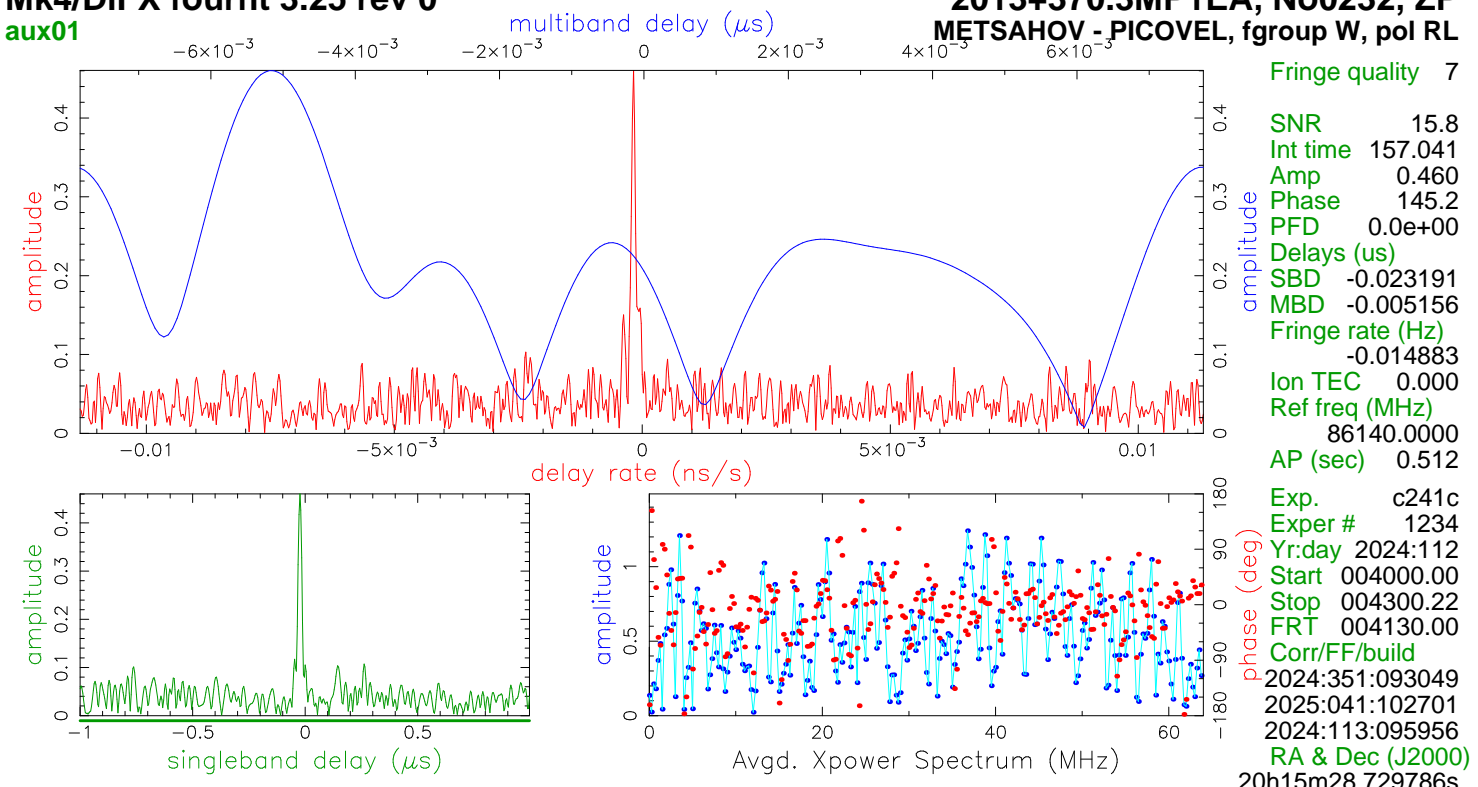
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-155.1	90.2	53.6	48.9	95.4	96.6	114.2	77.2	Phase	87.7	
	0.4	0.7	0.7	0.7	0.8	0.8	0.7	0.7	Ampl.	0.7	
	247.7	249.3	249.7	250.1	250.4	249.7	250.0	249.5	Sbd box	250.0	
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:P	0:88	0:33	0:15	0:-82	0:-74	0:163	0:-163	0:58	Manl PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	7.07373795733E+03		Apriori delay (usec)		7.07377297679E+03		Resid mbdelay (usec)		-3.76946E-03	+/- 5.9E-05	
Sband delay (usec)	7.07374566604E+03		Apriori clock (usec)		1.1226921E+00		Resid sbdelay (usec)		-2.73107E-02	+/- 4.7E-04	
Phase delay (usec)	7.07377297961E+03		Apriori clockrate (us/s)		1.1622864E-08		Resid phdelay (usec)		2.82867E-06	+/- 2.0E-07	
Delay rate (us/s)	-4.54959008627E-01		Apriori rate (us/s)		-4.54958835611E-01		Resid rate (us/s)		-1.73016E-07	+/- 2.1E-09	
Total phase (deg)	167.0		Apriori accel (us/s/s)		-1.94889397974E-05		Resid phase (deg)		87.7	+/- 6.2	
	RMS	Theor.	Amplitude	0.540 +/- 0.029	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	36.2	14.0	Search (1024X32)	0.533	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	31.5	24.5	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	53.8	8.8	Inc. seg. avg.	0.653	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	29.3	15.3	Inc. frq. avg.	0.651	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	P: az 59.7 el 22.8 pa -60.1		u, v (fr/asec) 3262.320 686.046						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0232//ZP..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232//ZP.W.69.3MP1EA								

Mk4/DiFX fourfit 3.25 rev 0

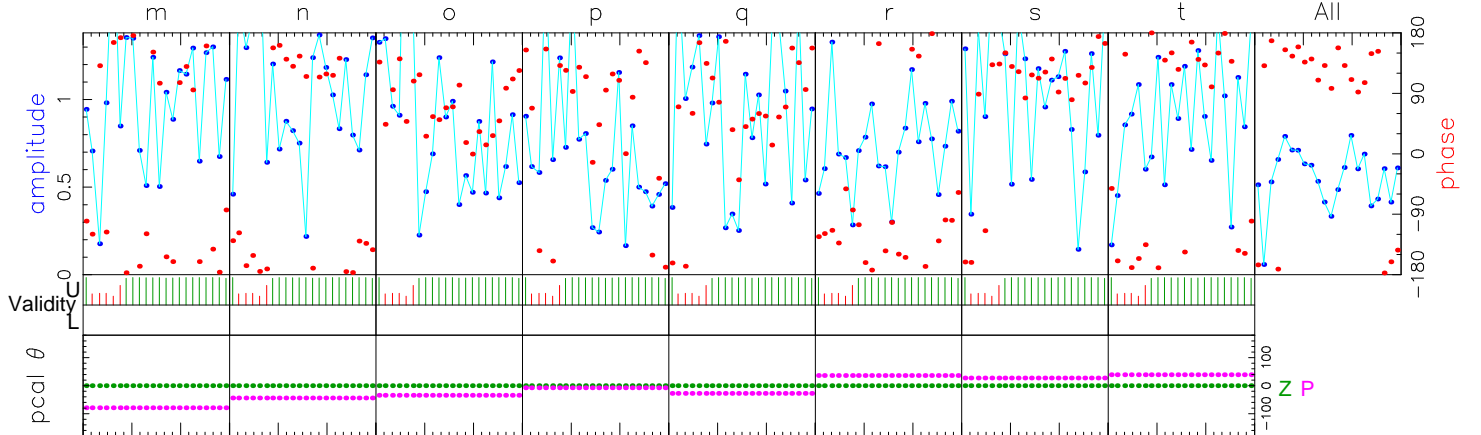
aux01

2013+370.3MP1EA, No0232, ZP

METSAHOV - PICOVEL, fgroup W, pol RL



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



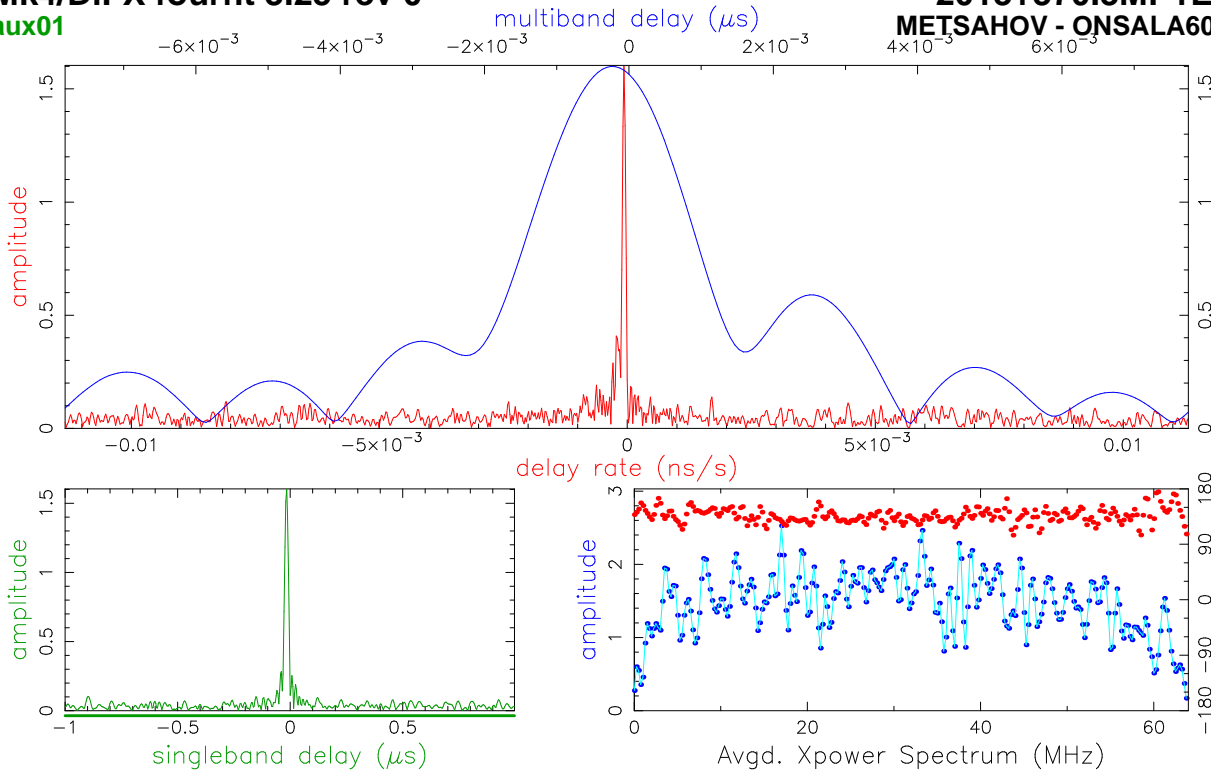
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	179.7	171.2	69.0	121.5	82.9	-145.4	128.7	175.8	Phase	145.2
	0.7	0.7	0.6	0.5	0.6	0.5	0.9	0.7	Ampl.	0.6
	249.6	251.0	252.3	252.3	252.8	252.4	252.5	251.4	Sbd box	251.1
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	7.07375219598E+03		Apriori delay (usec)		7.07377297679E+03		Resid mbdelay (usec)		-5.15580E-03	+/- 6.9E-05
Sband delay (usec)	7.07374978629E+03		Apriori clock (usec)		1.1226921E+00		Resid sbdelay (usec)		-2.31905E-02	+/- 5.5E-04
Phase delay (usec)	7.07377298147E+03		Apriori clockrate (us/s)		1.1622864E-08		Resid phdelay (usec)		4.68262E-06	+/- 2.3E-07
Delay rate (us/s)	-4.54959008387E-01		Apriori rate (us/s)		-4.54958835611E-01		Resid rate (us/s)		-1.72776E-07	+/- 2.4E-09
Total phase (deg)	224.5		Apriori accel (us/s/s)		-1.94889397974E-05		Resid phase (deg)		145.2	+/- 7.3
ph/seg (deg)	RMS 34.6	Theor. 16.4	Amplitude 0.460 +/- 0.029	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000 1.000
amp/seg (%)	37.4	28.7	Search (1024X32) 0.444	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.008 0.008
ph/frq (deg)	55.0	10.3	Interp. 0.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)		-0.011 0.011
amp/frq (%)	47.0	17.9	Inc. seg. avg. 0.531	Data rate(Mb/s): 2048		ion window (TEC)		ion window (TEC)		0.00 0.00
Z: az 93.6 el 46.2 pa -38.5	P: az 59.7 el 22.8 pa -60.1		u, v (fr/asec) 3262.320 686.046		simultaneous interpolator					
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0232//ZP..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232//ZP.W.77.3MP1EA							

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZX

METSAHOV - ONSALA60, fgroup W, pol LL

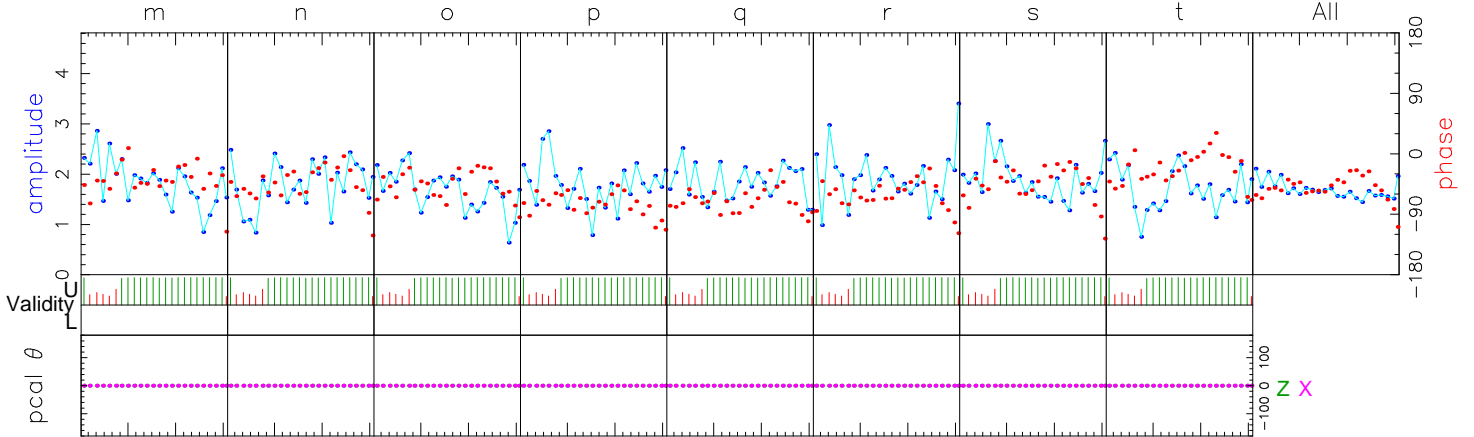


Fringe quality 7

SNR 54.8
 Int time 156.008
 Amp 1.604
 Phase -49.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.016315
 MBD -0.000240
 Fringe rate (Hz)
 -0.005973
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 004001.02
 Stop 004300.22
 FRT 004130.00
 Corr/FF/build
 2024:351:093049
 2025:041:102645
 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
	-34.3	-40.7	-46.3	-75.0	-69.9	-63.0	-43.4	-19.0	Phase	-49.4
	1.7	1.7	1.5	1.7	1.7	1.8	1.7	1.6	Ampl.	1.7
	252.7	252.5	252.9	252.8	253.1	253.1	253.1	252.8	Sbd box	252.8
U/L	326/0	326/0	326/0	326/0	326/0	326/0	326/0	326/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	1.67049744697E+03					1.67051331230E+03			Resid mbdelay (usec)	-2.40331E-04 +/- 2.0E-05
Sband delay (usec)	1.67049699755E+03					-1.1265385E+02			Resid sbdelay (usec)	-1.63148E-02 +/- 1.6E-04
Phase delay (usec)	1.67051331071E+03					-6.0676312E-07			Resid phdelay (usec)	-1.59267E-06 +/- 6.7E-08
Delay rate (us/s)	-1.03939744515E-01					-1.03939675180E-01			Resid rate (us/s)	-6.93352E-08 +/- 7.0E-10
Total phase (deg)			210.4			-7.73392245091E-06			Resid phase (deg)	-49.4 +/- 2.1

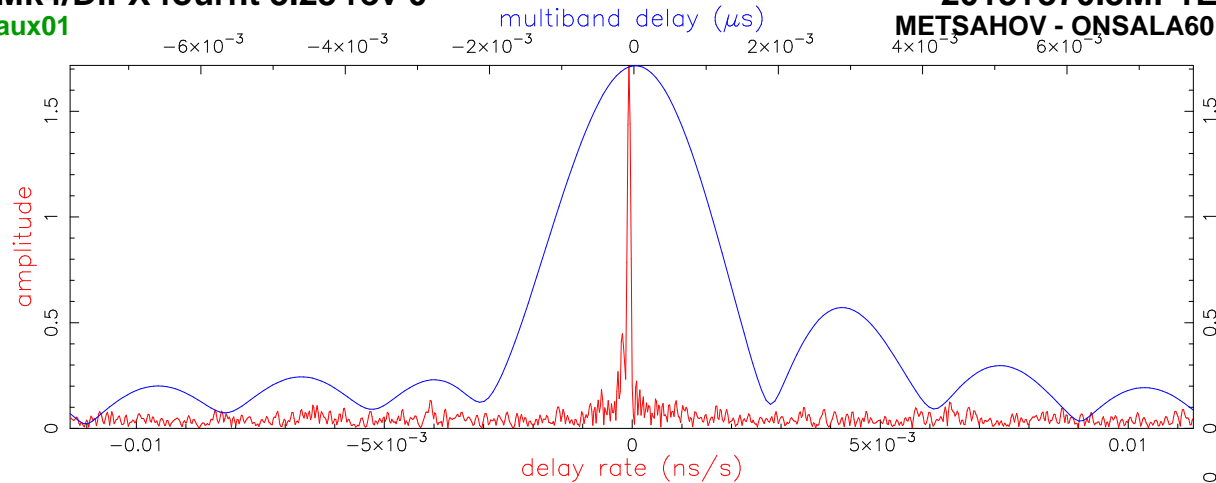
ph/seg (deg) 16.2 4.9 Search (1024X32) 1.560 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.3 8.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.5 3.0 Inc. seg. avg. 1.657 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.0 5.2 Inc. frq. avg. 1.676 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 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) 742.101 -286.203 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/ZX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/ZX.W.30.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

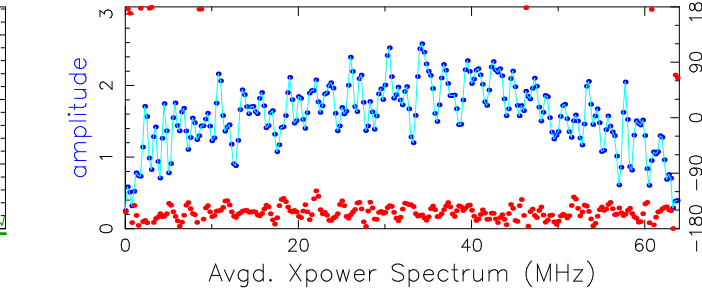
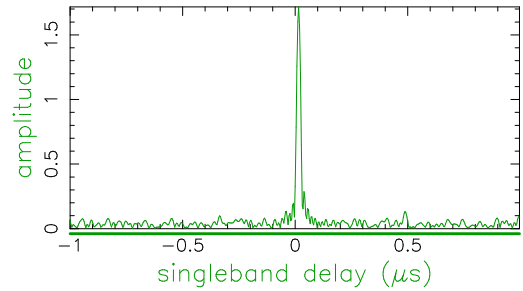
2013+370.3MP1EA, No0232, ZX

METSÁHOV - ONSALA60, fgroup W, pol RR



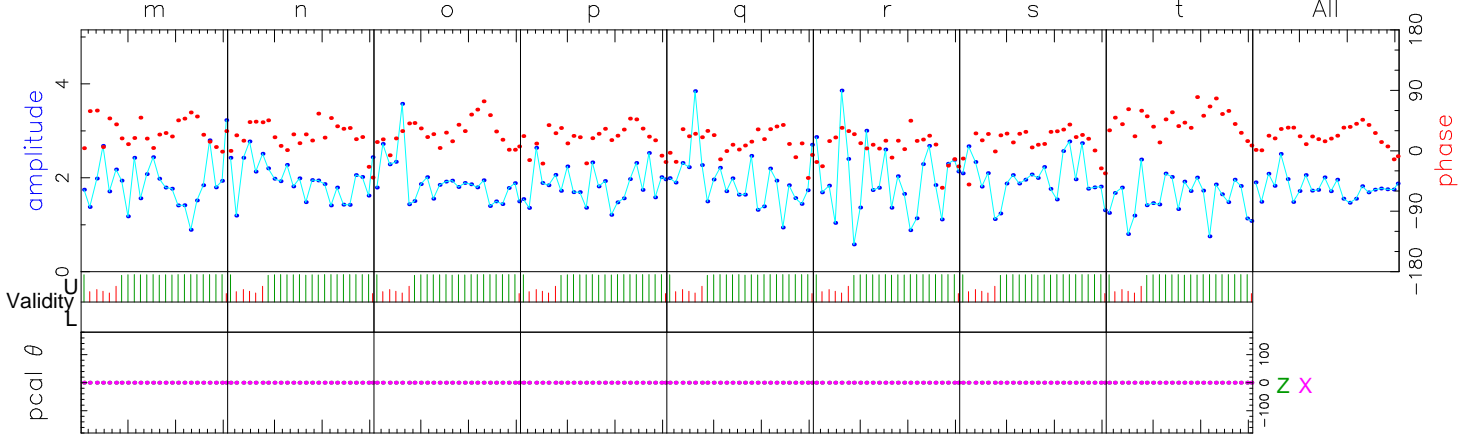
Fringe quality 7

SNR 58.7
 Int time 156.008
 Amp 1.717
 Phase 20.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.015239
 MBD 0.000012
 Fringe rate (Hz)
 -0.005917
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



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
	23.8	21.6	27.7	20.8	11.1	4.9	15.2	46.3	Phase	20.8
	1.8	1.8	1.7	1.8	1.7	1.8	1.9	1.5	Ampl.	1.7
	260.5	260.6	260.7	261.0	260.8	261.2	261.2	261.4	Sbd box	260.9
U/L	326/0	326/0	326/0	326/0	326/0	326/0	326/0	326/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.67052894897E+03 Apriori delay (usec) 1.67051331230E+03 Resid mbdelay (usec) 1.16691E-05 +/- 1.9E-05
 Sband delay (usec) 1.67052855130E+03 Apriori clock (usec) -1.1265385E+02 Resid sbdelay (usec) 1.52390E-02 +/- 1.5E-04
 Phase delay (usec) 1.67051331297E+03 Apriori clockrate (us/s) -6.0676312E-07 Resid phdelay (usec) 6.72012E-07 +/- 6.3E-08
 Delay rate (us/s) -1.03939743865E-01 Apriori rate (us/s) -1.03939675180E-01 Resid rate (us/s) -6.86847E-08 +/- 6.5E-10
 Total phase (deg) 280.6 Apriori accel (us/s/s) -7.73392245091E-06 Resid phase (deg) 20.8 +/- 2.0

RMS Theor. Amplitude 1.717 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 14.8 4.6 Search (1024X32) 1.711 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 11.7 8.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 13.5 2.8 Inc. seg. avg. 1.767 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 5.9 4.8 Inc. frq. avg. 1.747 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

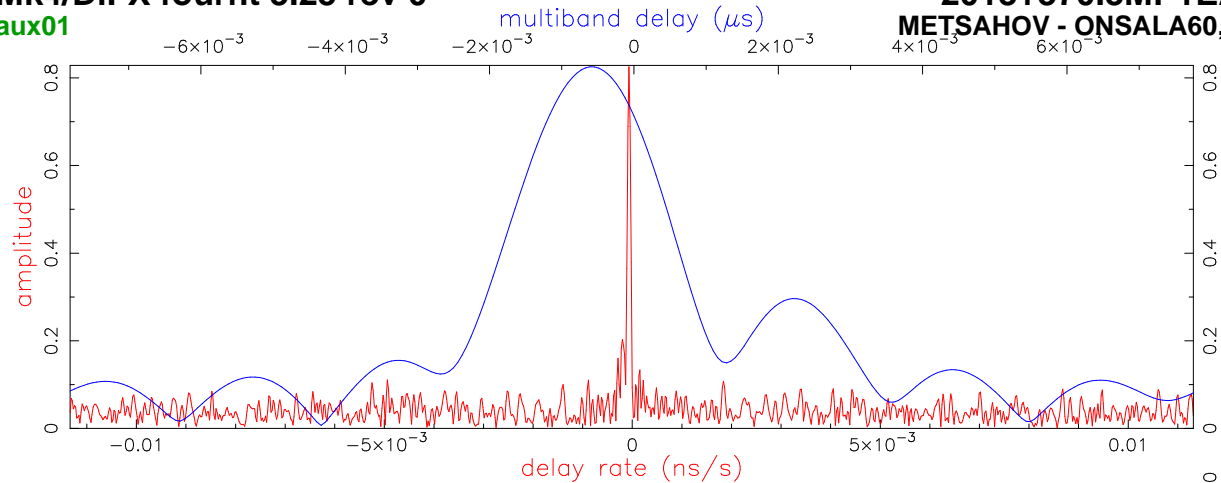
Z: az 93.6 el 46.2 pa -38.5 X: az 80.6 el 39.7 pa -41.9 u,v (fr/asec) 742.101 -286.203 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZX.W.39.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

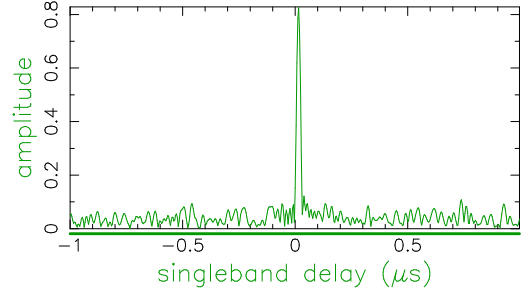
2013+370.3MP1EA, No0232, ZX

METSAHOV - ONSALA60, fgroup W, pol LR

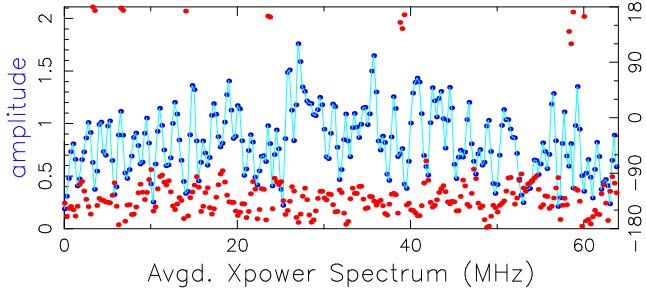


Fringe quality 8

SNR 28.3
 Int time 156.008
 Amp 0.829
 Phase 41.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.014803
 MBD -0.000605
 Fringe rate (Hz)
 -0.005854
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

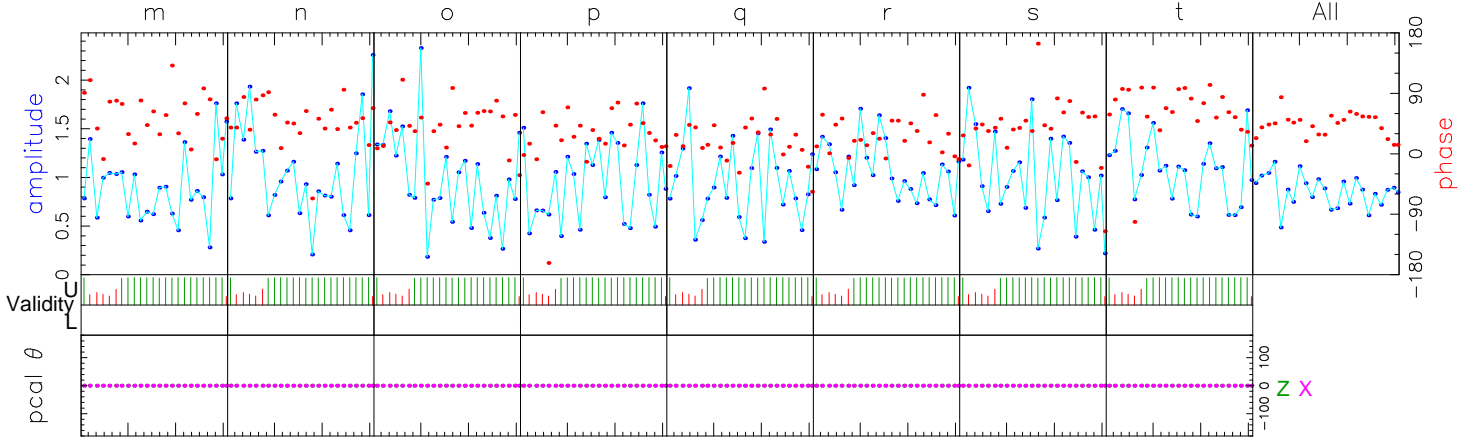


delay rate (ns/s)



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
	50.8	50.3	42.0	34.3	18.8	24.6	40.6	70.4	Phase	41.4
	0.7	0.9	0.8	0.9	0.8	1.0	0.9	1.0	Ampl.	0.9
	260.2	261.0	260.1	260.7	260.9	261.0	261.1	261.3	Sbd box	260.8
U/L	326/0	326/0	326/0	326/0	326/0	326/0	326/0	326/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.67052833259E+03	Apriori delay (usec)	1.67051331230E+03	Resid mbdelay (usec)	-6.04706E-04	+/-	3.8E-05
Sband delay (usec)	1.67052811580E+03	Apriori clock (usec)	-1.1265385E+02	Resid sbdelay (usec)	1.48035E-02	+/-	3.0E-04
Phase delay (usec)	1.67051331364E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	1.33602E-06	+/-	1.3E-07
Delay rate (us/s)	-1.03939743136E-01	Apriori rate (us/s)	-1.03939675180E-01	Resid rate (us/s)	-6.79563E-08	+/-	1.4E-09
Total phase (deg)	301.2	Apriori accel (us/s/s)	-7.73392245091E-06	Resid phase (deg)	41.4	+/-	4.0

ph/seg (deg)	15.7	Theor.	9.6	Amplitude	0.829 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	17.5	Search (1024X32)	0.821	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	17.6	Inc. seg. avg.	0.843	Inc. frq. avg.	0.852	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	10.2	Inc. frq. avg.	0.852			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 93.6 el 46.2 pa -38.5 X: az 80.6 el 39.7 pa -41.9 u, v (fr/asec) 742.101 -286.203 simultaneous interpolator

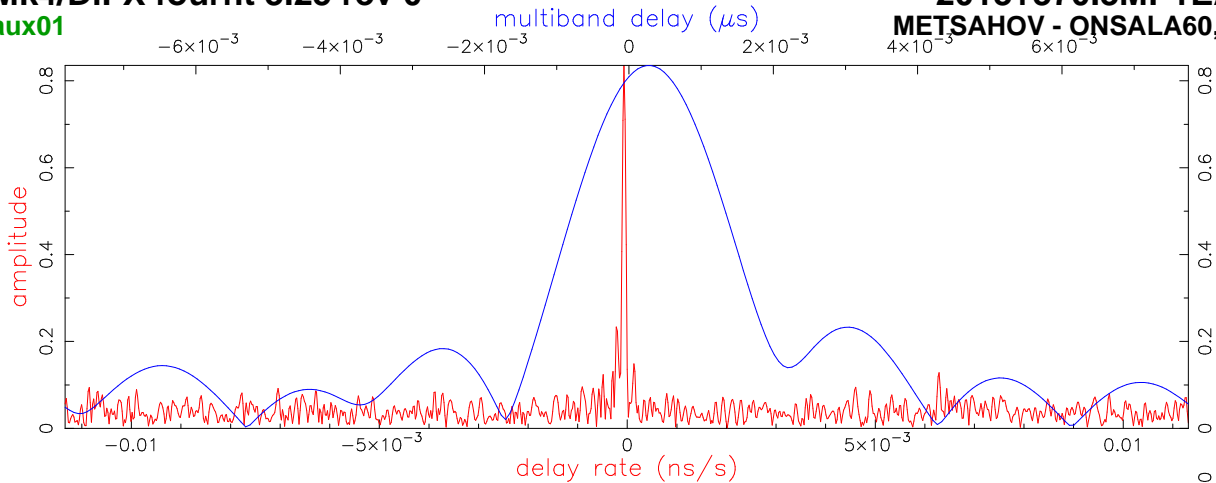
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/ZX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/ZX.W.45.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

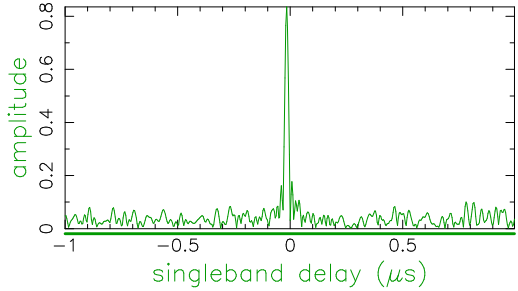
2013+370.3MP1EA, No0232, ZX

METSAHOV - ONSALA60, fgroup W, pol RL

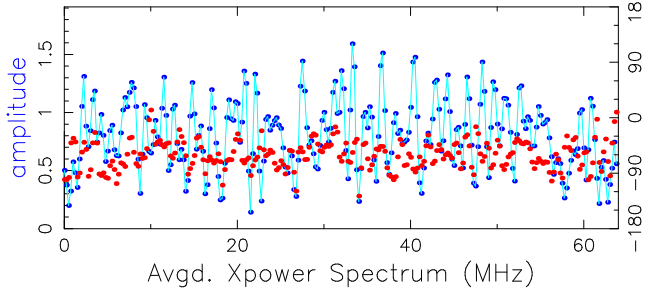


Fringe quality 9

SNR 28.5
 Int time 156.008
 Amp 0.836
 Phase 115.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.015757
 MBD 0.000272
 Fringe rate (Hz)
 -0.006019
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

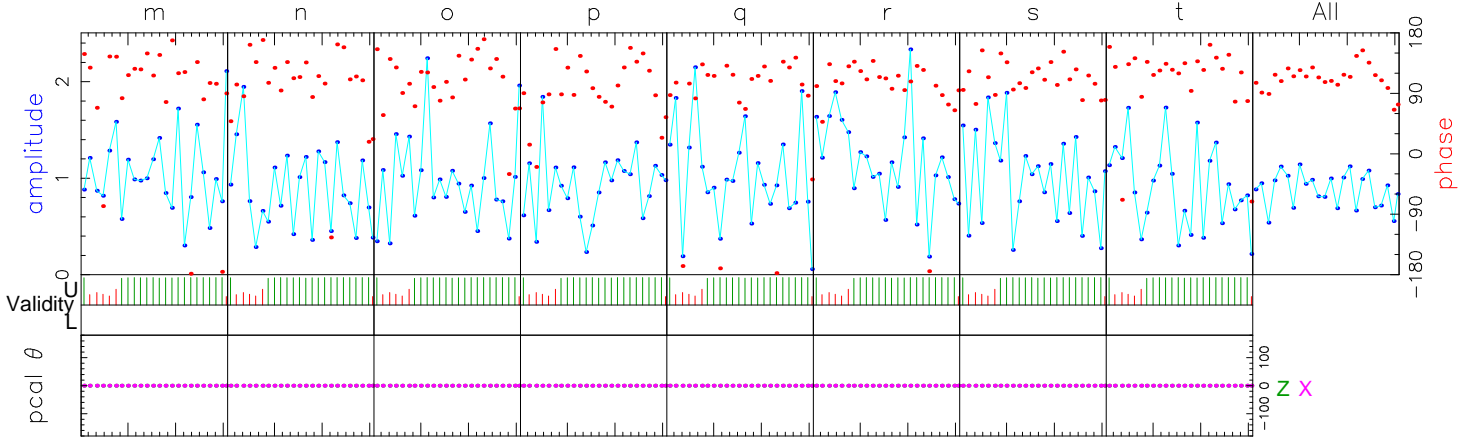


delay rate (ns/s)



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



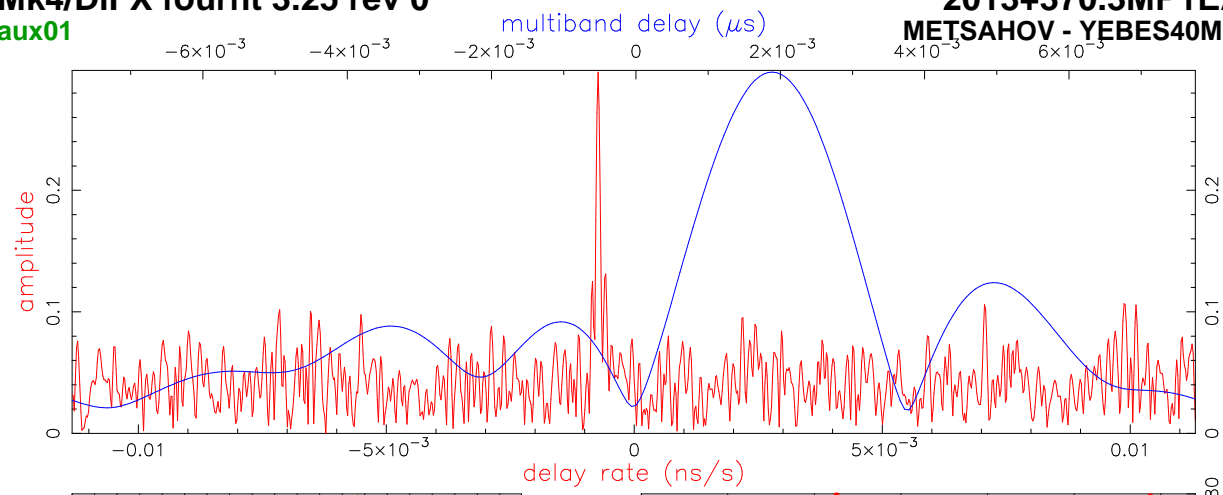
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	126.7	117.1	113.2	101.4	112.0	108.3	116.3	130.9	Phase	115.6
	0.9	0.7	0.8	0.7	0.9	1.1	0.9	0.8	Ampl.	0.8
	252.6	252.5	253.0	252.6	253.0	253.0	253.1	253.5	Sbd box	253.0
U/L	326/0	326/0	326/0	326/0	326/0	326/0	326/0	326/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.67049795888E+03	Apriori delay (usec)	1.67051331230E+03	Resid mbdelay (usec)	2.71575E-04	+/-	3.8E-05
Sband delay (usec)	1.67049755480E+03	Apriori clock (usec)	-1.1265385E+02	Resid sbdelay (usec)	-1.57575E-02	+/-	3.0E-04
Phase delay (usec)	1.67051331603E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	3.72840E-06	+/-	1.3E-07
Delay rate (us/s)	-1.03939745059E-01	Apriori rate (us/s)	-1.03939675180E-01	Resid rate (us/s)	-6.98794E-08	+/-	1.3E-09
Total phase (deg)	15.4	Apriori accel (us/s/s)	-7.73392245091E-06	Resid phase (deg)	115.6	+/-	4.0

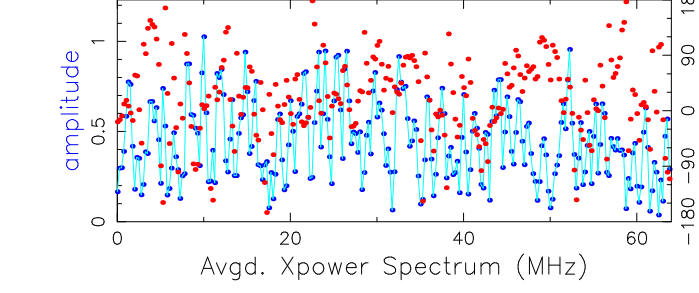
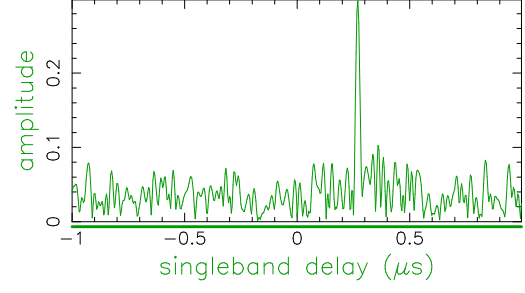
ph/seg (deg)	19.2	Theor.	9.5	Amplitude	0.836 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	21.3		16.6	Search (1024X32)	0.817	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	10.3		5.7	Inc. seg. avg.	0.864	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	13.0		9.9	Inc. frq. avg.	0.841	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 X: az 80.6 el 39.7 pa -41.9 u, v (fr/asec) 742.101 -286.203 simultaneous interpolator

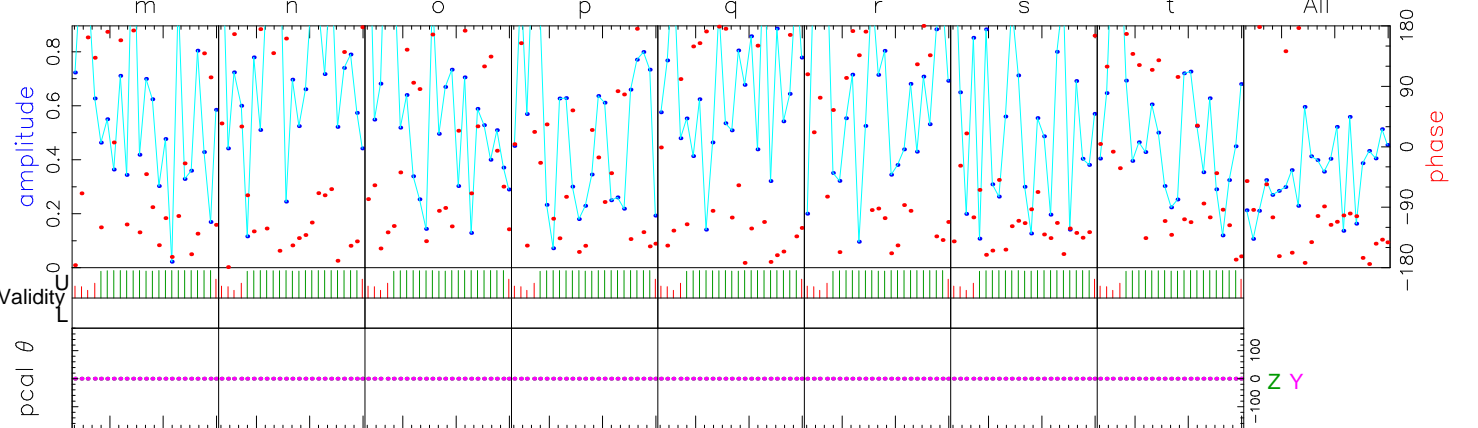
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/ZX..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/ZX.W.67.3MP1EA



Fringe quality 9
SNR 9.8
Int time 144.977
Amp 0.299
Phase -135.8
PFD 2.0e-14
Delays (us)
SBD 0.268773
MBD 0.001874
Fringe rate (Hz) -0.063623
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
2025:041:102651
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
	-138.8	-138.9	-128.7	-97.2	-147.6	-139.4	-127.4	-142.8	Phase	-135.8
	0.3	0.4	0.2	0.1	0.5	0.3	0.4	0.1	Ampl.	0.3
	326.4	326.2	356.2	75.9	325.9	324.8	326.6	234.9	Sbd box	325.8
U/L	300/0	300/0	300/0	300/0	300/0	300/0	300/0	300/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.54091727144E+03	Apriori delay (usec)	6.54064977292E+03	Resid mbdelay (usec)	1.87352E-03	+/-	1.1E-04
Sband delay (usec)	6.54091854617E+03	Apriori clock (usec)	1.1081501E+02	Resid sbdelay (usec)	2.68773E-01	+/-	8.8E-04
Phase delay (usec)	6.54064976854E+03	Apriori clockrate (us/s)	2.0656289E-06	Resid phdelay (usec)	-4.37936E-06	+/-	3.8E-07
Delay rate (us/s)	-4.07898267384E-01	Apriori rate (us/s)	-4.07897528779E-01	Resid rate (us/s)	-7.38605E-07	+/-	4.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.92711004425E-05	Resid phase (deg)	-135.8	+/-	11.7

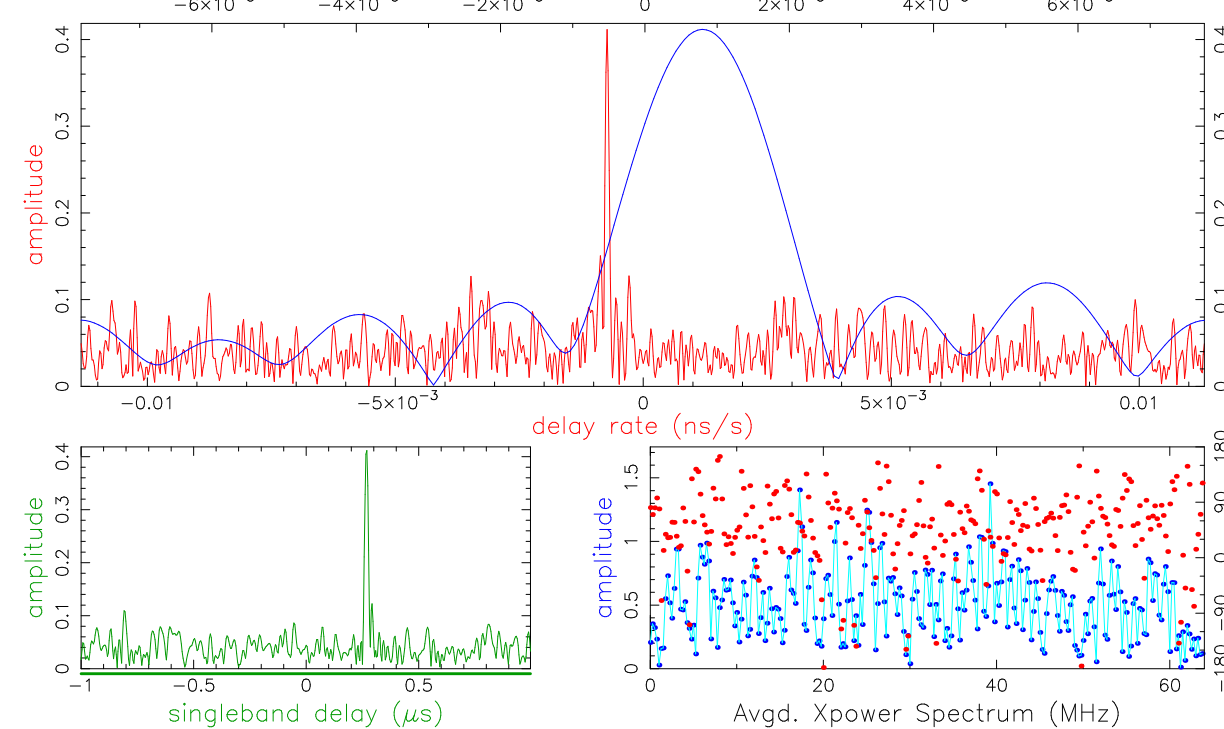
ph/seg (deg) 38.8 27.2 Search (1024X32) 0.291 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 48.2 47.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 17.5 16.5 Inc. seg. avg. 0.326 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 42.6 28.8 Inc. frq. avg. 0.292 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 93.6 el 46.2 pa -38.5 Y: az 61.1 el 24.8 pa -56.9 u, v (fr/asec) 2923.117 370.762 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZY..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZY.W.44.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZY

METSAHOV - YEBES40M, fgroup W, pol RR

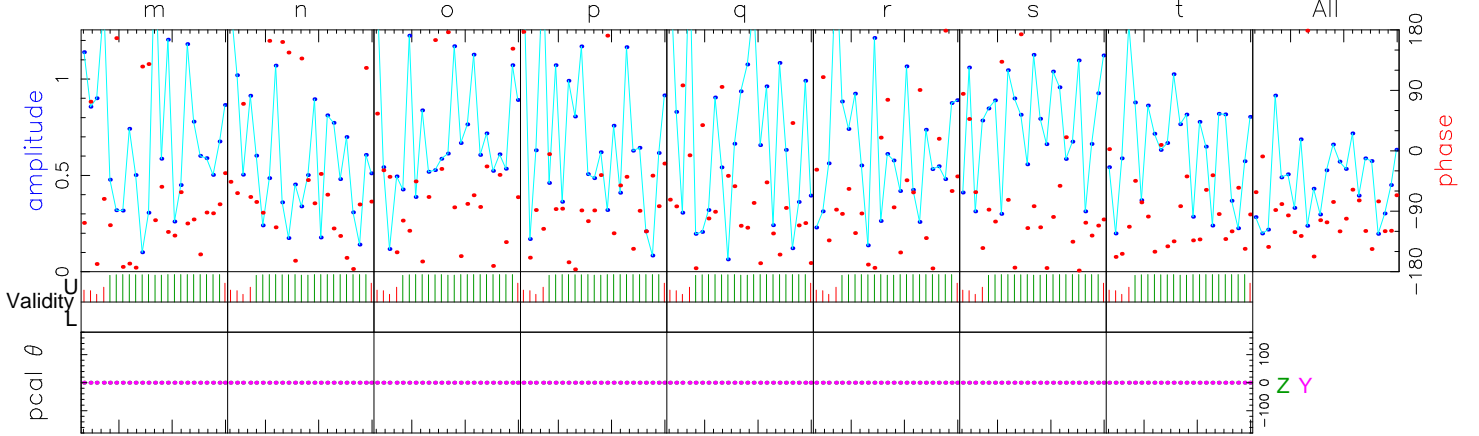


Fringe quality 9

SNR 13.8
 Int time 144.977
 Amp 0.419
 Phase -103.4
 PFD 1.3e-34
 Delays (us)
 SBD 0.267942
 MBD 0.000774
 Fringe rate (Hz)
 -0.063884
 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
 2025:041:102653
 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
	-110.5	-107.8	-102.2	-99.1	-94.4	-94.9	-115.7	-99.4	Phase	-103.4
	0.5	0.3	0.4	0.4	0.4	0.3	0.5	0.5	Ampl.	0.4
	325.6	325.2	326.1	324.6	325.9	325.3	325.8	325.7	Sbd box	325.6
U/L	300/0	300/0	300/0	300/0	300/0	300/0	300/0	300/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.54091617241E+03	Apriori delay (usec)	6.54064977292E+03	Resid mbdelay (usec)	7.74488E-04	+/-	7.9E-05
Sband delay (usec)	6.54091771442E+03	Apriori clock (usec)	1.1081501E+02	Resid sbdelay (usec)	2.67942E-01	+/-	6.3E-04
Phase delay (usec)	6.54064976959E+03	Apriori clockrate (us/s)	2.0656289E-06	Resid phdelay (usec)	-3.33490E-06	+/-	2.7E-07
Delay rate (us/s)	-4.07898270407E-01	Apriori rate (us/s)	-4.07897528779E-01	Resid rate (us/s)	-7.41627E-07	+/-	3.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.92711004425E-05	Resid phase (deg)	-103.4	+/-	8.3

ph/seg (deg)	34.2	Theor.	19.4	Amplitude	0.419 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	43.1	Search (1024X32)	0.394	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.3	Inc. seg. avg.	0.450	Inc. frq. avg.	0.407	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.3	Inc. frq. avg.	0.407			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 93.6 el 46.2 pa -38.5 Y: az 61.1 el 24.8 pa -56.9 u, v (fr/asec) 2923.117 370.762 simultaneous interpolator

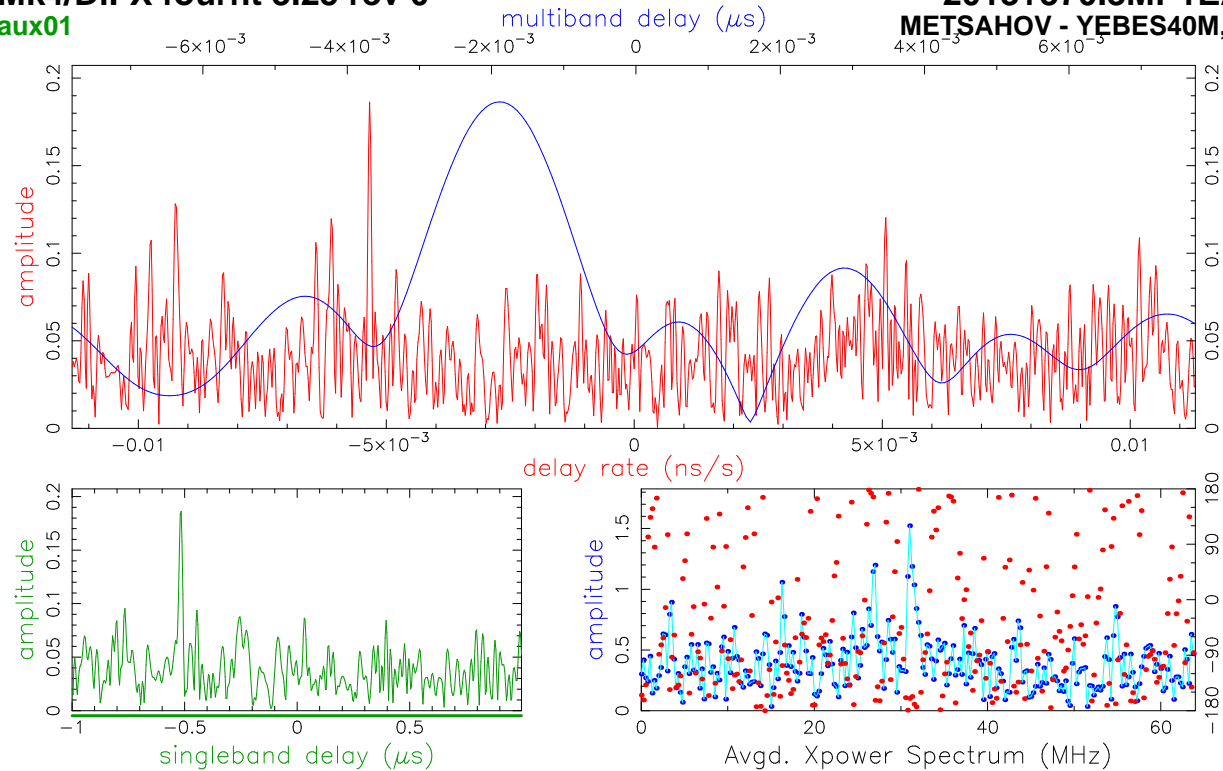
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZY..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZY.W.58.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZY

METSAHOV - YEBES40M, fgroup W, pol LR

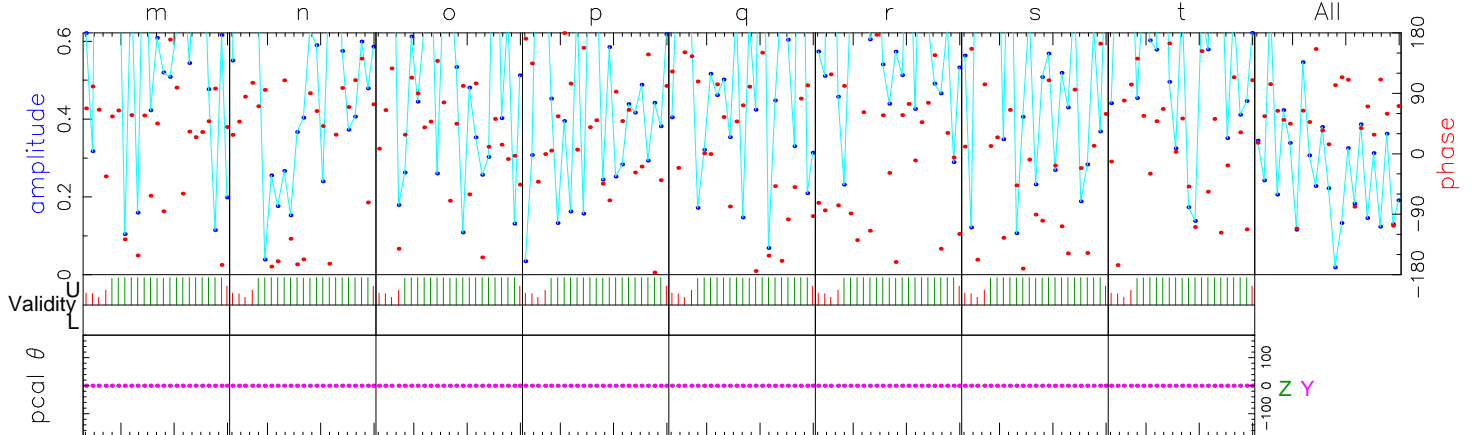


Fringe quality 0

SNR 6.2
 Int time 144.977
 Amp 0.207
 Phase 56.9
 PFD 6.6e-02
 Delays (us)
 SBD -0.517170
 MBD -0.001932
 Fringe rate (Hz)
 -0.460706
 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
 2025:041:102655
 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		
	43.8	92.9	42.8	24.8	100.0	73.6	37.1	67.4	Phase	56.9		
	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2		
	126.5	125.7	293.0	63.0	142.8	345.1	146.7	233.0	Sbd box	124.6		
U/L	300/0	300/0	300/0	300/0	300/0	300/0	300/0	300/0	APs used			
Z	0	0	0	0	0	0	0	0	PC freqs			
Y	0	0	0	0	0	0	0	0	PC freqs			
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
Z:Y	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			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
Z	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)	6.54013221641E+03		Apriori delay (usec)		6.54064977292E+03		Resid mbdelay (usec)		-1.93152E-03	+/- 1.7E-04		
Sband delay (usec)	6.54013260292E+03		Apriori clock (usec)		1.1081501E+02		Resid sbdelay (usec)		-5.17170E-01	+/- 1.4E-03		
Phase delay (usec)	6.54064977476E+03		Apriori clockrate (us/s)		2.0656289E-06		Resid phdelay (usec)		1.83411E-06	+/- 5.9E-07		
Delay rate (us/s)	-4.07902877115E-01		Apriori rate (us/s)		-4.07897528779E-01		Resid rate (us/s)		-5.34834E-06	+/- 6.7E-09		
Total phase (deg)	215.1		Apriori accel (us/s/s)		-1.92711004425E-05		Resid phase (deg)		56.9	+/- 18.4		
	RMS	Theor.	Amplitude	0.207 +/- 0.033		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	70.1	42.9	Search (1024X32)	0.180		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	82.6	74.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	29.8	26.1	Inc. seg. avg.	0.223		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	43.1	45.5	Inc. frq. avg.	0.204		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	Y: az 61.1 el 24.8 pa -56.9		u, v (fr/asec) 2923.117 370.762						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/3mm/1234/No0232/ZY..3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232/ZY.W.71.3MP1EA									

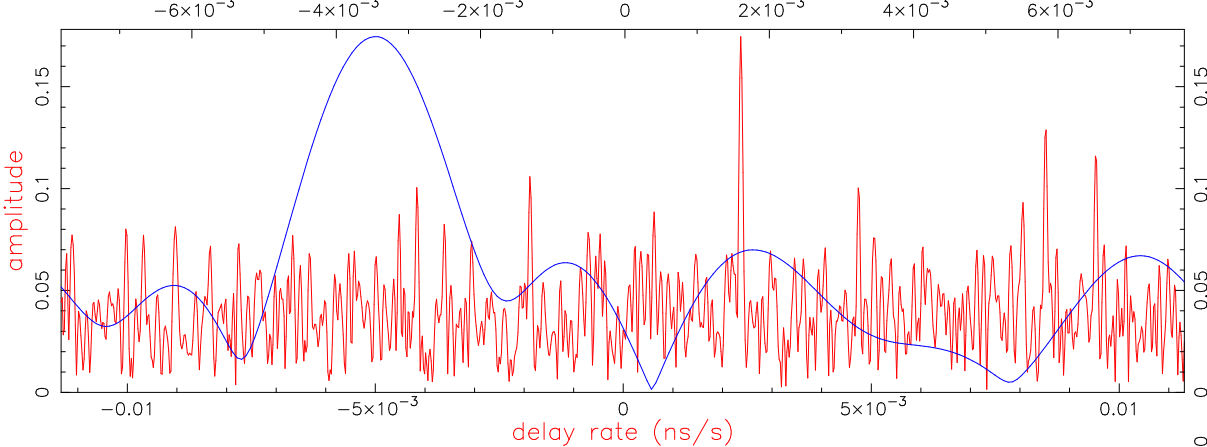
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZY

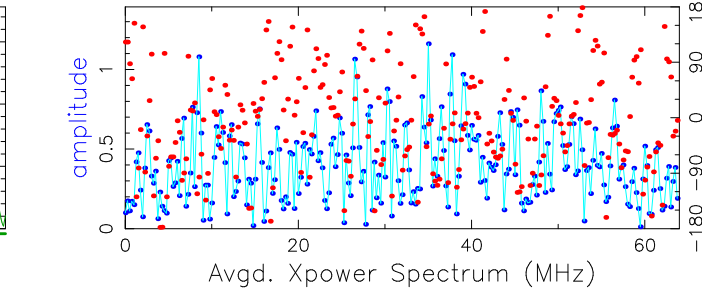
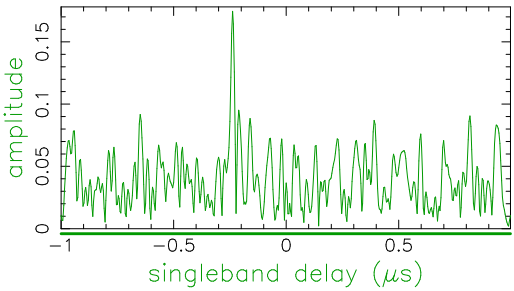
METSAHOV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



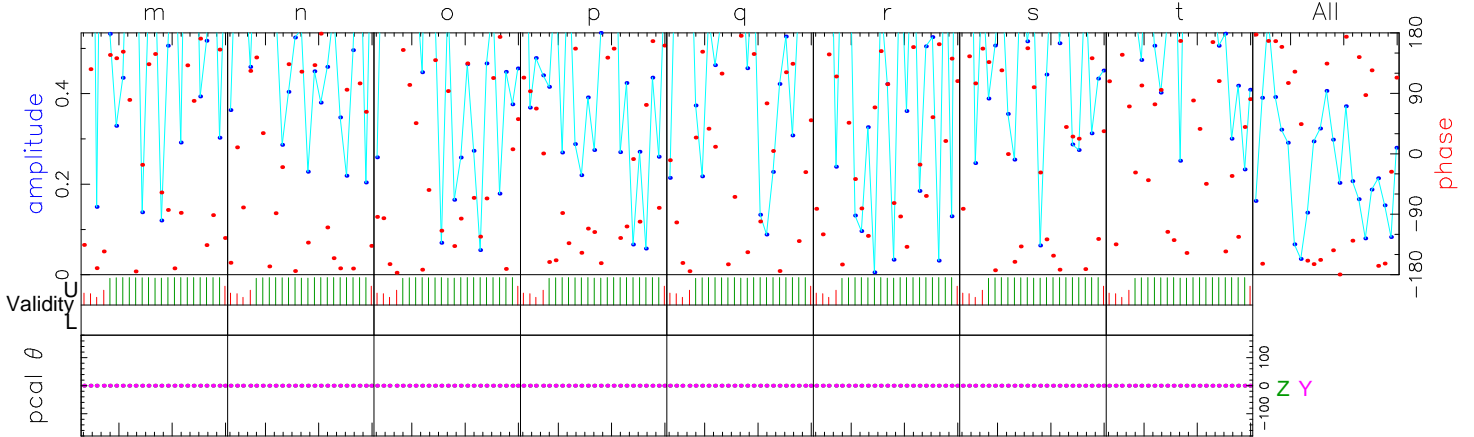
Fringe quality 0

SNR 5.8
 Int time 144.977
 Amp 0.178
 Phase 169.8
 PFD 6.5e-01
 Delays (us)
 SBD -0.237646
 MBD -0.003435
 Fringe rate (Hz)
 0.203506
 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
 2025:041:102702
 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
	166.5	170.6	150.5	-167.4	175.1	143.9	164.7	163.3	Phase	169.8
	0.3	0.2	0.1	0.3	0.1	0.1	0.2	0.1	Ampl.	0.2
	195.8	194.4	84.9	196.2	1.5	500.3	32.0	201.5	Sbd box	196.2
U/L	300/0	300/0	300/0	300/0	300/0	300/0	300/0	300/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.54041196271E+03	Apriori delay (usec)	6.54064977292E+03	Resid mbdelay (usec)	-3.43521E-03	+/-	1.9E-04
Sband delay (usec)	6.54041212667E+03	Apriori clock (usec)	1.1081501E+02	Resid sbdelay (usec)	-2.37646E-01	+/-	1.5E-03
Phase delay (usec)	6.54064977840E+03	Apriori clockrate (us/s)	2.0656289E-06	Resid phdelay (usec)	5.47592E-06	+/-	6.4E-07
Delay rate (us/s)	-4.07895166275E-01	Apriori rate (us/s)	-4.07897528779E-01	Resid rate (us/s)	2.36250E-06	+/-	7.2E-09
Total phase (deg)	328.0	Apriori accel (us/s/s)	-1.92711004425E-05	Resid phase (deg)	169.8	+/-	19.9

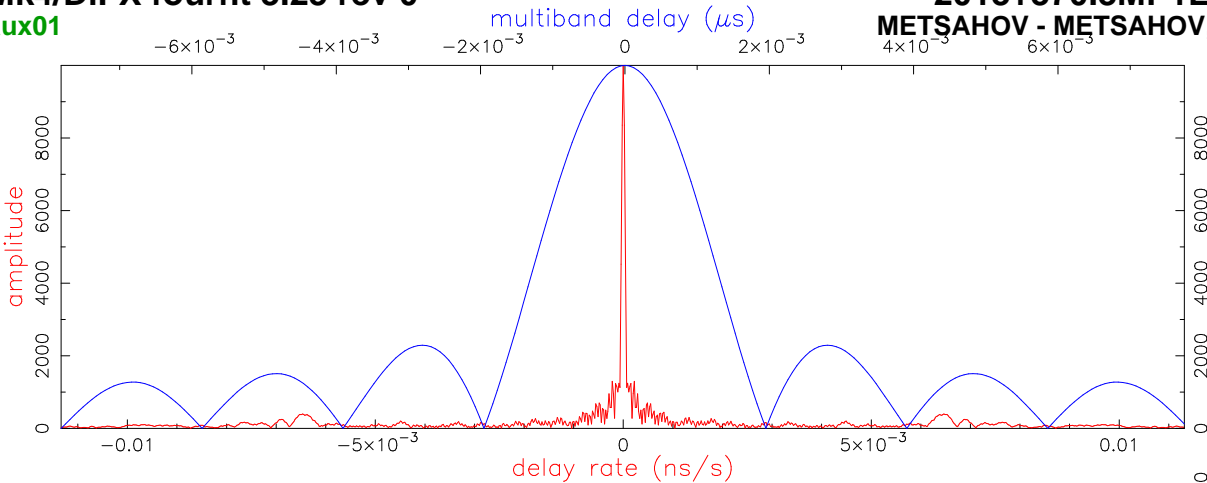
ph/seg (deg)	59.7	RMS	46.3	Theor.	59.7	Amplitude	0.178 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	72.4	Search (1024X32)	0.169	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	16.7	Inc. seg. avg.	0.172	Inc. frq. avg.	0.163	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	51.3	Inc. frq. avg.	0.163			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		Y: az 61.1 el 24.8 pa -56.9		u, v (fr/asec)	2923.117 370.762	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//ZY...3MP1EA		Output file: /Exps/c241c/v2/3mm/1234/No0232//ZY.W.81.3MP1EA							simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

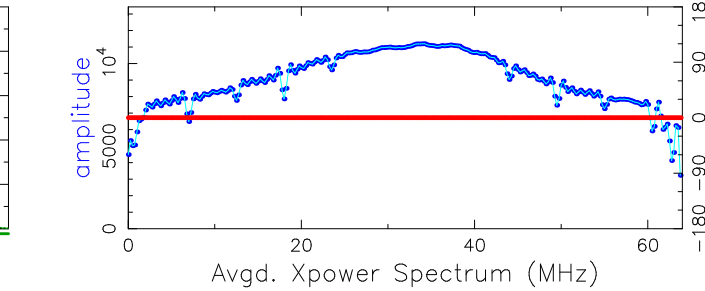
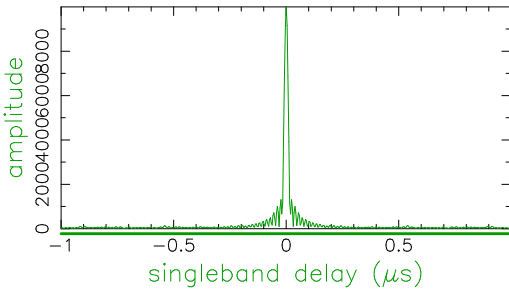
2013+370.3MP1EA, No0232, ZZ

METŜAHOV - MET̂SAHOV, fgroup W, pol RR



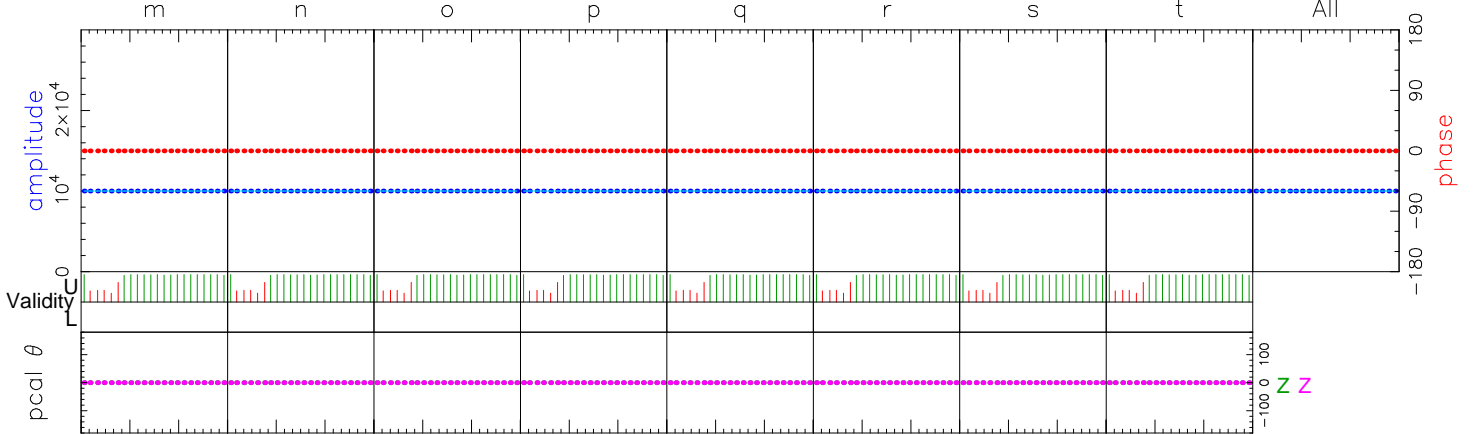
Fringe quality 9

SNR 342692.1
 Int time 157.041
 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 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
U/L	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0	10000.0	10000.0
Z	0	0	0	0	0	0	0	0	Ampl.	257.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.2E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.1E-13
 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 +/- 0.029 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 Pcal rate: 0.000E+00, 0.000E+00 (us/s) 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
 Z: az 93.6 el 46.2 pa -38.5 Z: az 93.6 el 46.2 pa -38.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

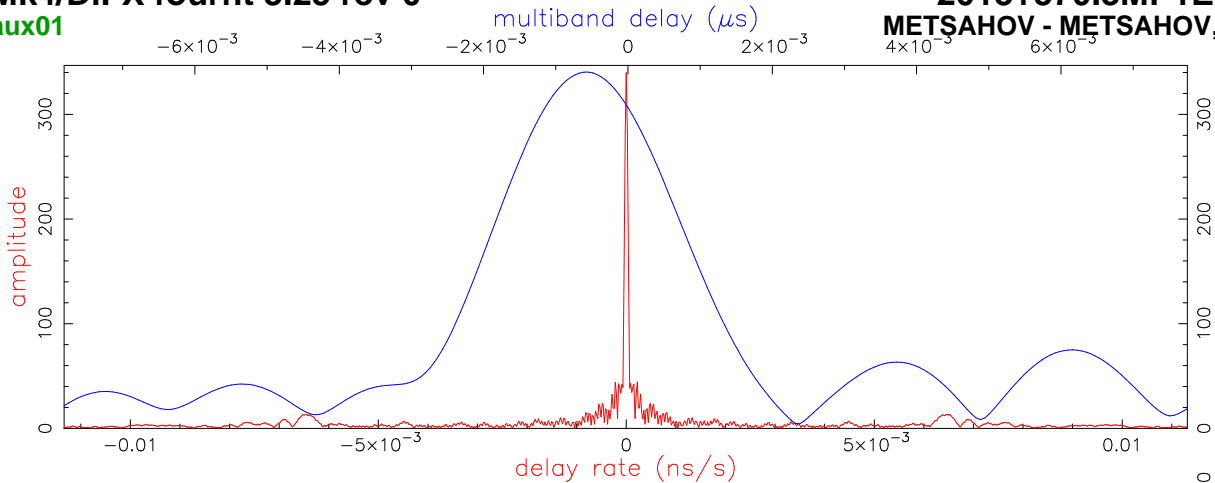
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232/ZZ..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/ZZ.W.14.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

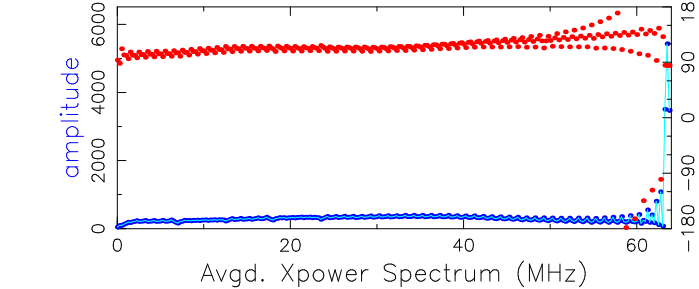
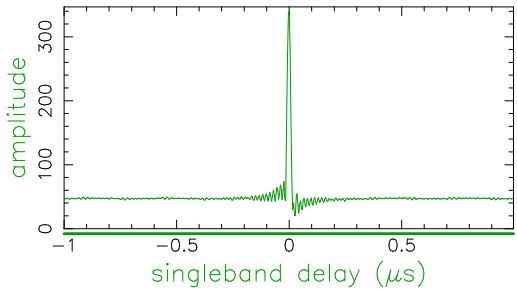
aux01

2013+370.3MP1EA, No0232, ZZ

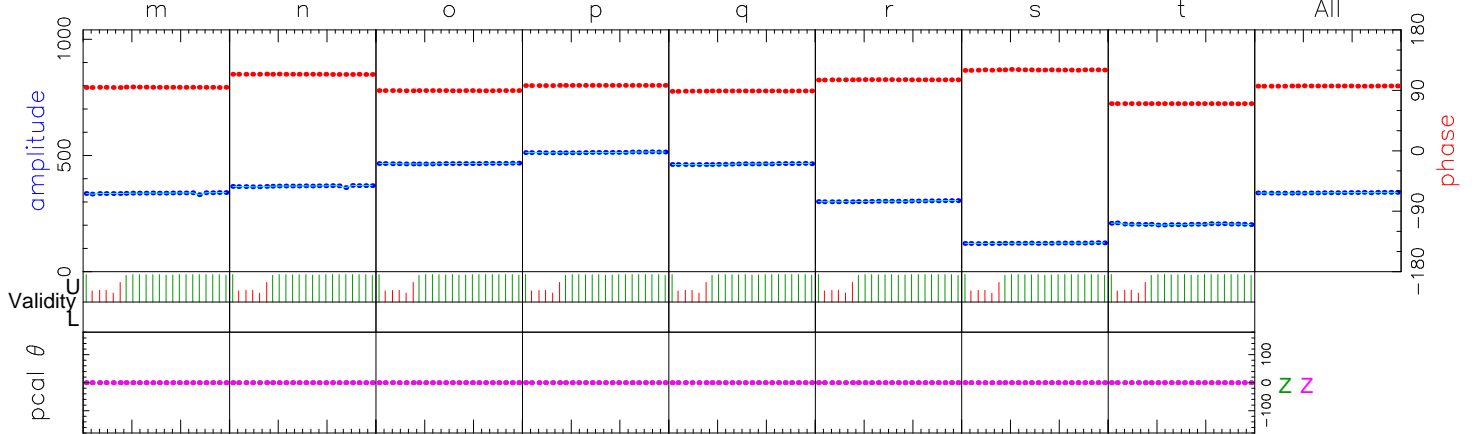
METSAHOV - METSAHOV, fgroup W, pol LR



Fringe quality 7
 Error code G
 SNR 11886.1
 Int time 157.041
 Amp 346.844
 Phase 96.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001730
 MBD -0.000506
 Fringe rate (Hz)
 0.000001
 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
 2025:041:102641
 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	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0		
Z	0	0	0	0	0	0	0	0		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -5.05937500000E-04 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -5.05937E-04 +/- 9.1E-08
 Sband delay (usec) -1.72950000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -1.72950E-03 +/- 7.2E-07
 Phase delay (usec) 3.10728999632E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.10729E-06 +/- 3.1E-10
 Delay rate (us/s) 7.08557619584E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 7.08558E-12 +/- 3.2E-12
 Total phase (deg) 96.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 96.4 +/- 0.0

RMS Theor. Amplitude 346.844 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (1024X32) 339.622 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 2.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 17.1 0.0 Inc. seg. avg. 339.927 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 36.5 0.0 Inc. frq. avg. 347.446 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

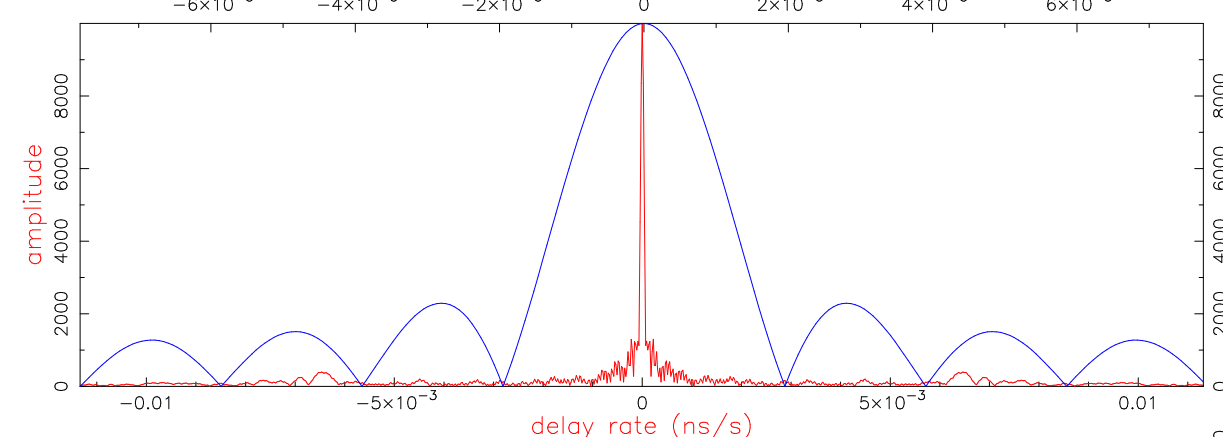
Z: az 93.6 el 46.2 pa -38.5 Z: az 93.6 el 46.2 pa -38.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/3mm/1234/No0232//ZZ..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232//ZZ.W.22.3MP1EA

Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP1EA, No0232, ZZ

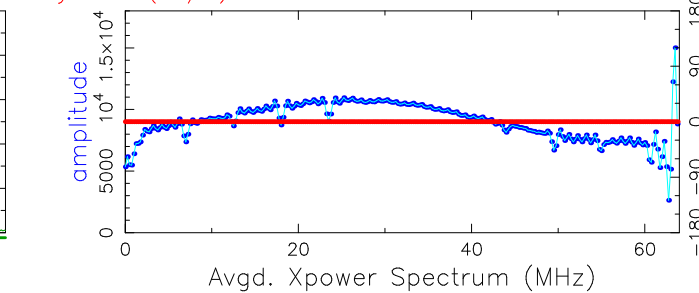
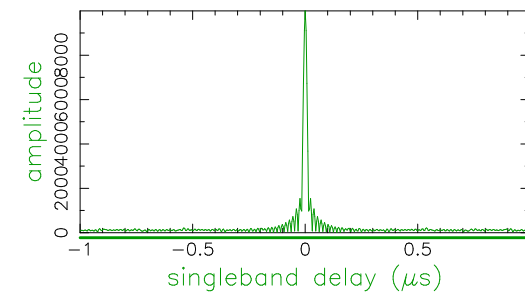
METSAHOV - METSAHOV, fgroup W, pol LL



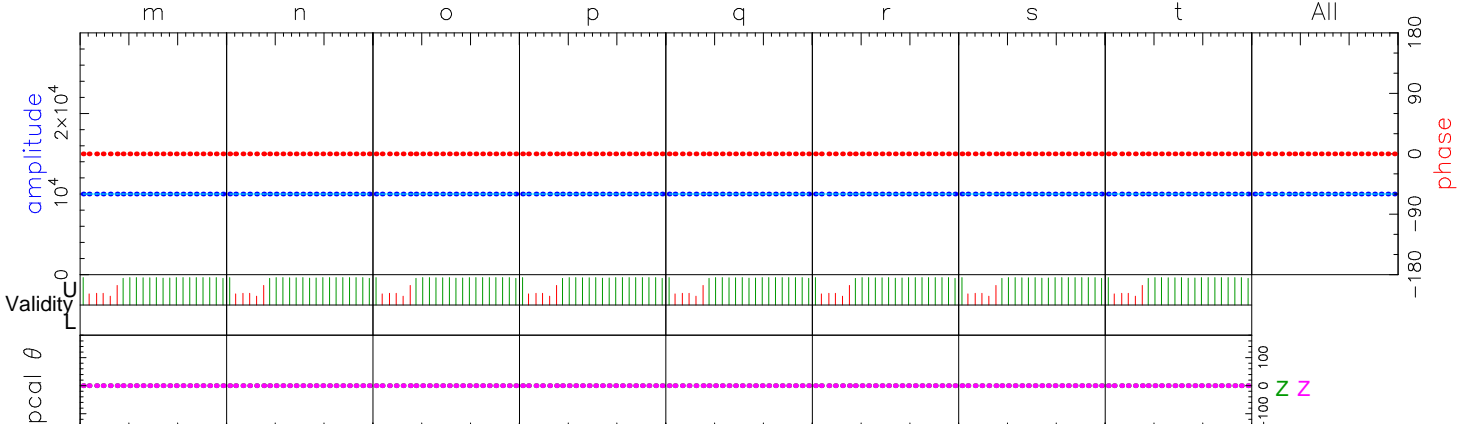
Fringe quality 9

SNR 342692.1
 Int time 157.041
 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 004000.00
 Stop 004300.22
 FRT 004130.00
 Corr/FF/build
 2024:351:093049
 2025:041:102636
 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	328/0	328/0	328/0	328/0	328/0	328/0	328/0	328/0		
Z	0	0	0	0	0	0	0	0		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	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 +/- 3.2E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.1E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.029 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
 Z: az 93.6 el 46.2 pa -38.5 Z: az 93.6 el 46.2 pa -38.5 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/ZZ..3MP1EA Output file: /Exps/c241c/v2/3mm/1234/No0232/ZZ.W.8.3MP1EA simultaneous interpolator