

Mk4/DiFX fourfit 3.25 rev 0

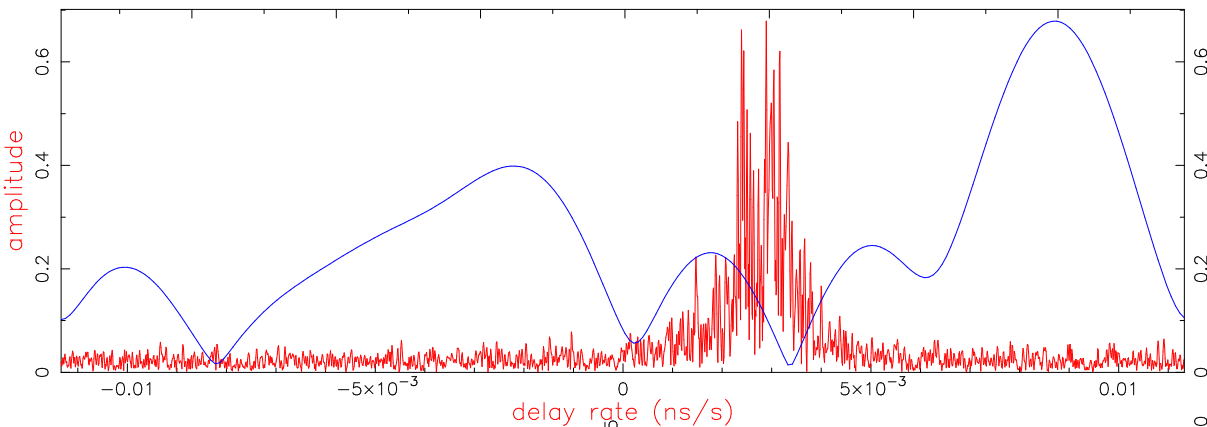
aux01

1156+295.3MP11G, No0446, BY

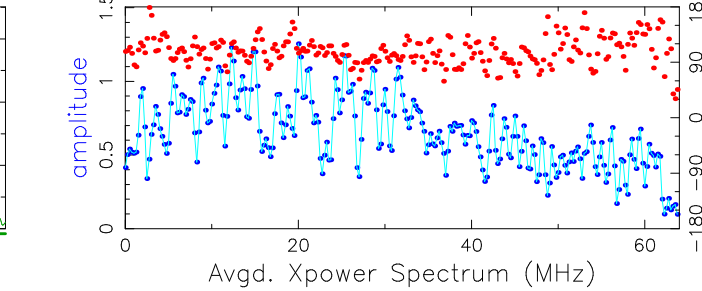
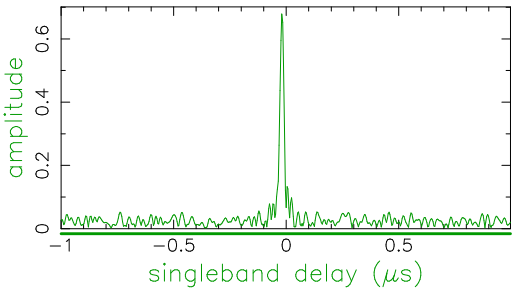
EFLSBERG - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 4

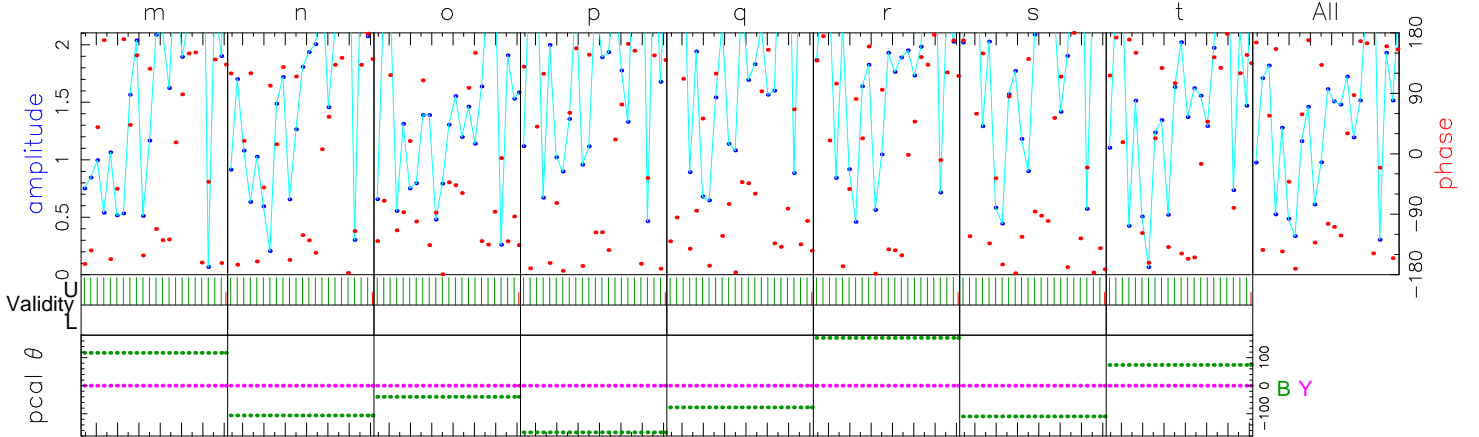


SNR 37.4
 Int time 401.992
 Amp 0.702
 Phase -175.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.018479
 MBD 0.005975
 Fringe rate (Hz)
 0.248871
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163110
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	170.2	158.0	-111.0	170.3	-118.0	148.9	-154.1	146.8	Phase	-175.6
B	0.8	0.8	0.7	1.0	1.0	0.9	1.0	0.8	Ampl.	0.9
Y	251.4	251.3	252.5	252.1	252.2	251.5	252.1	250.4	Sbd box	252.3
B	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.88063144813E+03	Apriori delay (usec)	2.88065672311E+03	Resid mbdelay (usec)	5.97502E-03	+/-	2.9E-05
Sband delay (usec)	2.88063824411E+03	Apriori clock (usec)	7.5368790E+01	Resid sbdelay (usec)	-1.84790E-02	+/-	2.3E-04
Phase delay (usec)	2.88065671744E+03	Apriori clockrate (us/s)	-1.9586251E-06	Resid phdelay (usec)	-5.66320E-06	+/-	9.9E-08
Delay rate (us/s)	-2.06423036489E-01	Apriori rate (us/s)	-2.06425925631E-01	Resid rate (us/s)	2.88914E-06	+/-	4.2E-10
Total phase (deg)	-129.4	Apriori accel (us/s/s)	-8.20908208700E-06	Resid phase (deg)	-175.6	+/-	3.1

ph/seg (deg)	RMS 76.3	Theor. 7.3	Amplitude 0.702 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	141.7	12.8	Search (2048X32) 0.668	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	44.2	4.3	Inc. seg. avg. 1.397	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.3	7.6	Inc. frq. avg. 0.865	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 84.5 el 34.4 pa -46.5 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 1341.711 577.131 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/BY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/BY.W.105.3MP11G

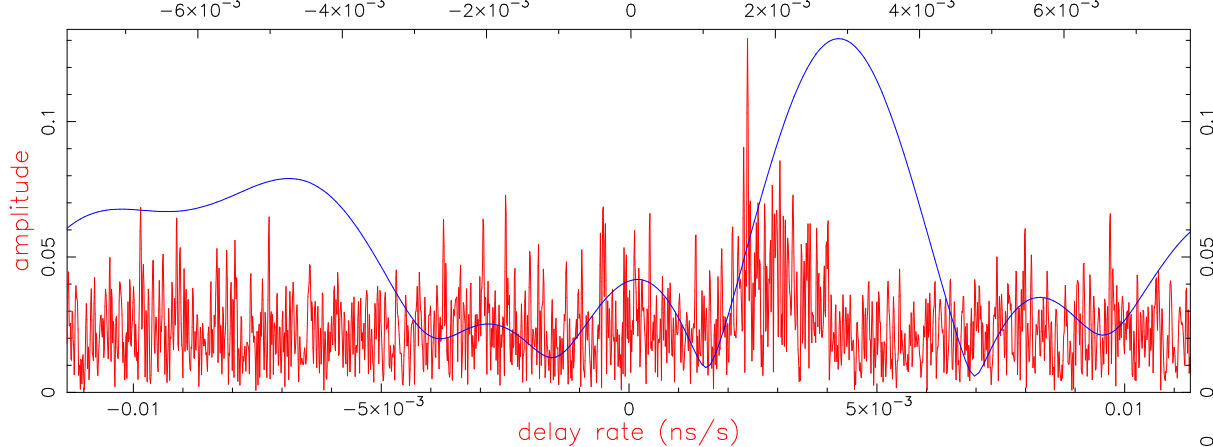
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, BY

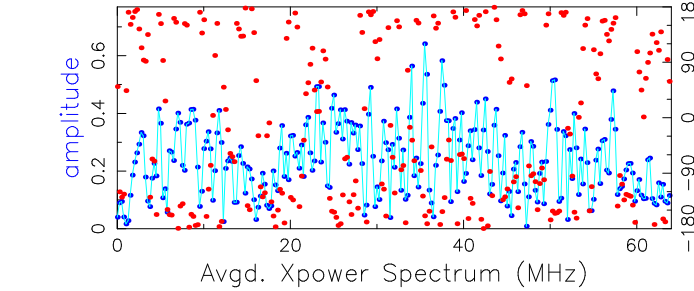
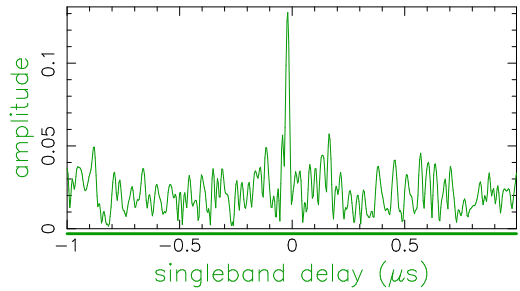
EFLSBERG - YEBES40M, fgroup W, pol LR

multiband delay (μ s)



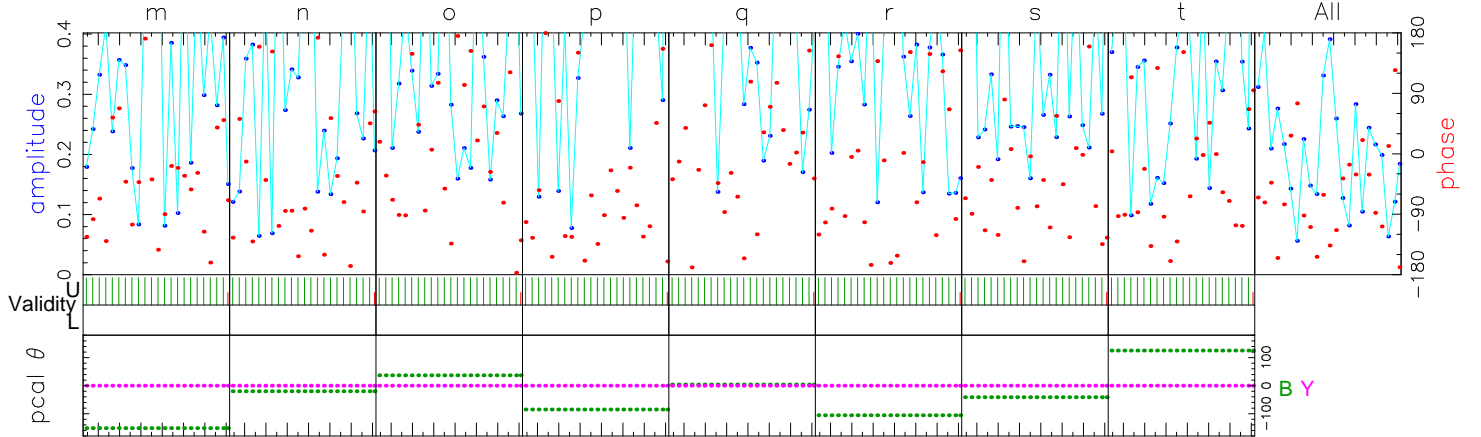
Fringe quality 0

SNR 7.2
 Int time 401.992
 Amp 0.134
 Phase -79.4
 PFD 1.6e-04
 Delays (us)
 SBD -0.020655
 MBD 0.002851
 Fringe rate (Hz)
 0.206088
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163114
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-67.3	-93.3	-27.8	-111.4	-2.9	-126.8	-65.1	-72.9	Phase	-79.4
	0.1	0.2	0.1	0.3	0.1	0.1	0.2	0.1	Ampl.	0.2
	25.0	483.1	21.9	251.6	250.3	404.1	250.2	412.9	Sbd box	251.7
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	-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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.88062832399E+03	Apriori delay (usec)	2.88065672311E+03	Resid mbdelay (usec)	2.85089E-03	+/-	1.5E-04
Sband delay (usec)	2.88063606761E+03	Apriori clock (usec)	7.5368790E+01	Resid sbdelay (usec)	-2.06555E-02	+/-	1.2E-03
Phase delay (usec)	2.88065672055E+03	Apriori clockrate (us/s)	-1.9586251E-06	Resid phdelay (usec)	-2.55995E-06	+/-	5.1E-07
Delay rate (us/s)	-2.06423533148E-01	Apriori rate (us/s)	-2.06425925631E-01	Resid rate (us/s)	2.39248E-06	+/-	2.2E-09
Total phase (deg)	-33.2	Apriori accel (us/s/s)	-8.20908208700E-06	Resid phase (deg)	-79.4	+/-	15.9

ph/seg (deg)	RMS 70.4	Theor. 38.1	Amplitude Search (2048X32)	0.134 +/- 0.019	0.129	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	93.0	66.5	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)	45.4	22.5	Inc. seg. avg.	0.172		Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	48.6	39.2	Inc. frq. avg.	0.153		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 84.5 el 34.4 pa -46.5 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 1341.711 577.131 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/BY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/BY.W.120.3MP11G

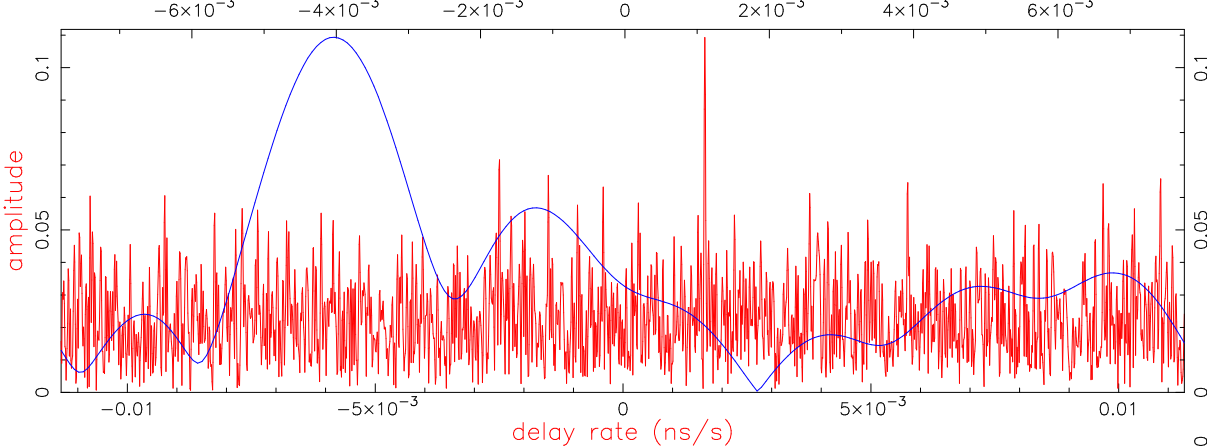
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, BY

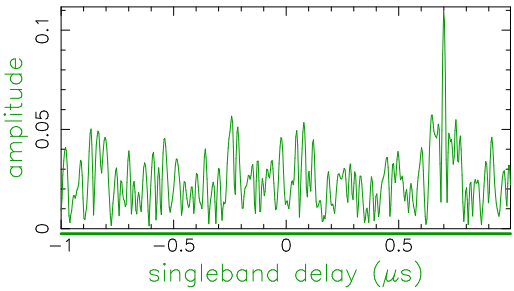
EFLSBERG - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

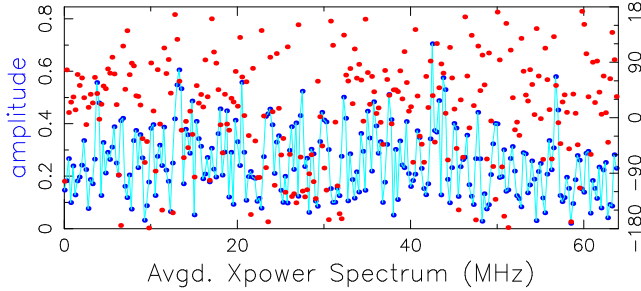


Fringe quality 0

SNR 6.1
 Int time 401.992
 Amp 0.112
 Phase -128.8
 PFD 2.8e-01
 Delays (us)
 SBD 0.700541
 MBD -0.003993
 Fringe rate (Hz)
 0.141945
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

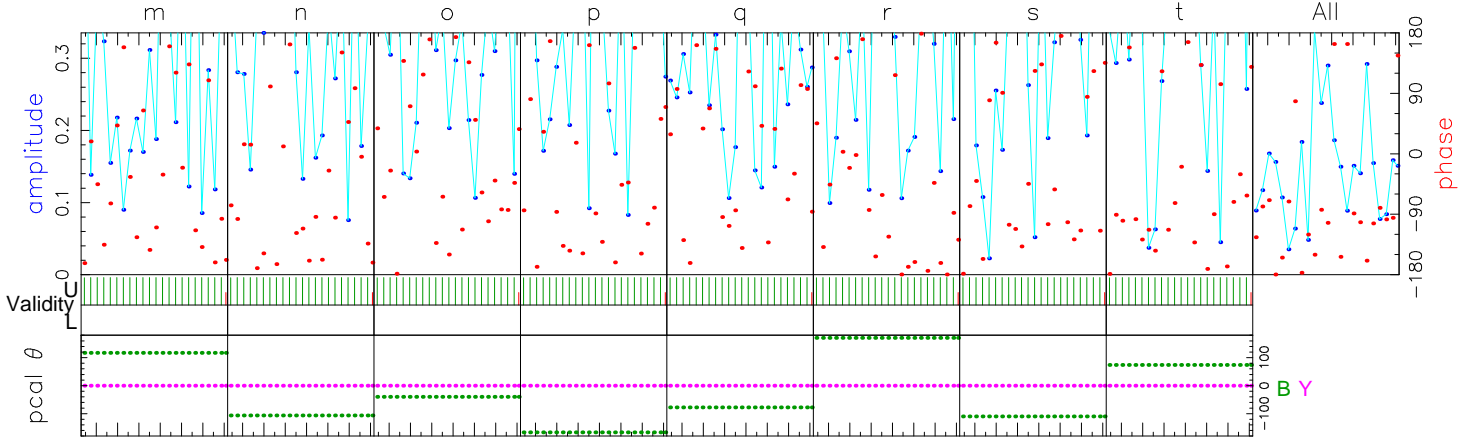


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163118
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-110.9	-151.1	-95.3	-112.2	167.9	-143.3	-138.2	-111.6	Phase	-128.8
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	339.8	232.9	196.0	6.0	23.9	200.4	436.0	349.5	Sbd box	436.3
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.88135585520E+03	Apriori delay (usec)	2.88065672311E+03	Resid mbdelay (usec)	-3.99291E-03	+/-	1.8E-04
Sband delay (usec)	2.88135726411E+03	Apriori clock (usec)	7.5368790E+01	Resid sbdelay (usec)	7.00541E-01	+/-	1.4E-03
Phase delay (usec)	2.88065671895E+03	Apriori clockrate (us/s)	-1.9586251E-06	Resid phdelay (usec)	-4.15219E-06	+/-	6.1E-07
Delay rate (us/s)	-2.06424277793E-01	Apriori rate (us/s)	-2.06425925631E-01	Resid rate (us/s)	1.64784E-06	+/-	2.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-8.20908208700E-06	Resid phase (deg)	-128.8	+/-	18.9

ph/seg (deg)	53.1	Theor.	45.2	Amplitude	0.112 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.3	Search (2048X32)	0.108	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.7	Inc. seg. avg.	0.116	Inc. frq. avg.	0.109	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.7	Inc. frq. avg.	0.109			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 84.5 el 34.4 pa -46.5 Y: az 72.5 el 25.6 pa -56.2 u, v (fr/asec) 1341.711 577.131 simultaneous interpolator

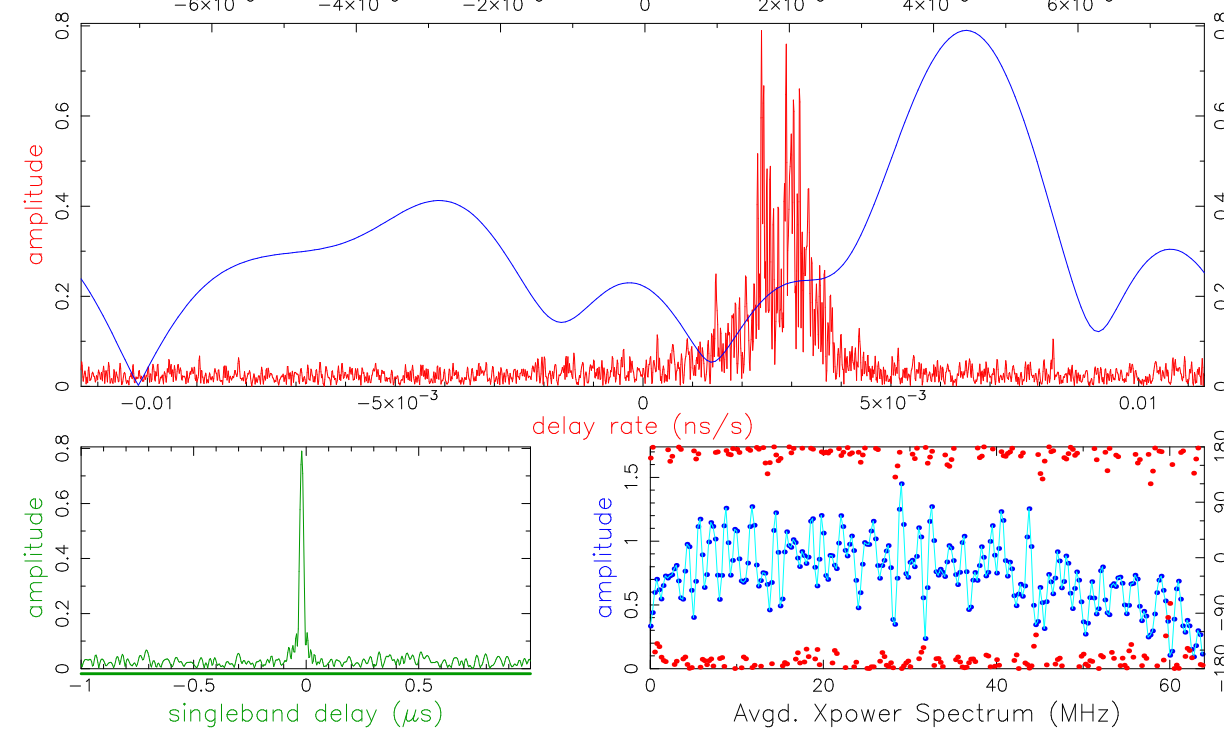
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Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, BY

EFLSBERG - YEBES40M, fgroup W, pol LL

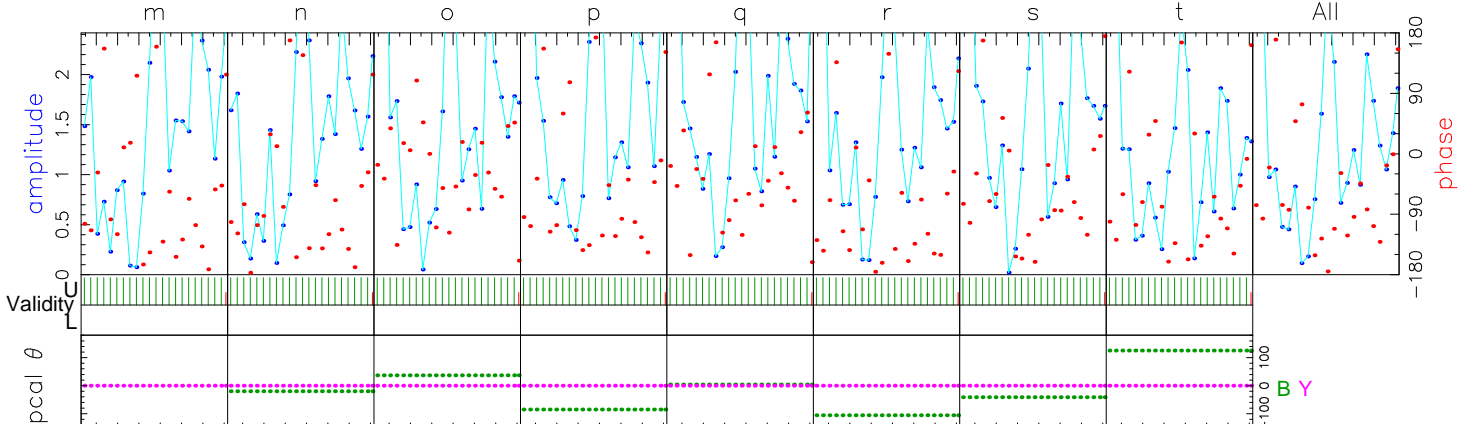


Fringe quality 4

SNR 43.4
 Int time 401.992
 Amp 0.806
 Phase -99.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.020015
 MBD 0.004435
 Fringe rate (Hz)
 0.206272
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163106
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-128.9	-128.7	-38.1	-113.9	-47.1	-137.5	-91.4	-121.9	Phase	-99.9
	0.9	0.8	1.1	1.2	1.1	1.0	1.1	0.7	Ampl.	1.0
	251.7	250.8	251.9	251.9	251.9	251.2	251.3	249.5	Sbd box	251.9
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	-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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	2.88062990843E+03		Apriori delay (usec)		2.88065672311E+03		Resid mbdelay (usec)		4.43532E-03	+/- 2.5E-05
Sband delay (usec)	2.88063670836E+03		Apriori clock (usec)		7.5368790E+01		Resid sbdelay (usec)		-2.00147E-02	+/- 2.0E-04
Phase delay (usec)	2.88065671988E+03		Apriori clockrate (us/s)		-1.9586251E-06		Resid phdelay (usec)		-3.22174E-06	+/- 8.5E-08
Delay rate (us/s)	-2.06423531020E-01		Apriori rate (us/s)		-2.06425925631E-01		Resid rate (us/s)		2.39461E-06	+/- 3.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-8.20908208700E-06		Resid phase (deg)		-99.9	+/- 2.6

ph/seg (deg) 69.7 6.3 Search (2048X32) 0.764 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 118.6 11.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.7 3.7 Inc. seg. avg. 1.318 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.2 6.5 Inc. frq. avg. 0.997 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 84.5 el 34.4 pa -46.5 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 1341.711 577.131 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/BY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/BY.W.94.3MP11G

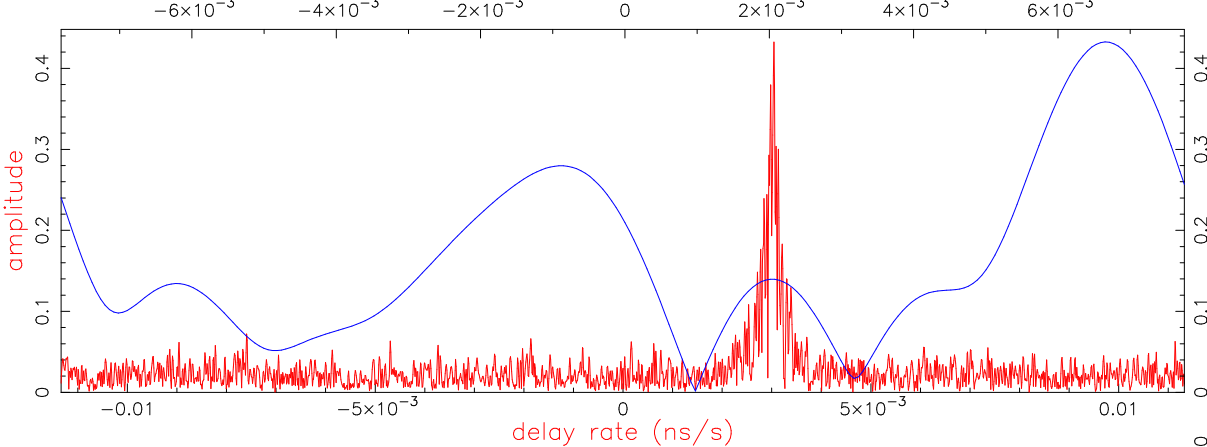
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, CY

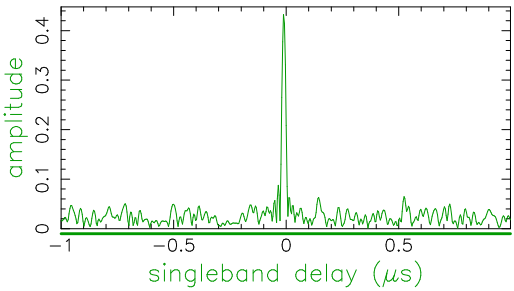
KVNPC - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

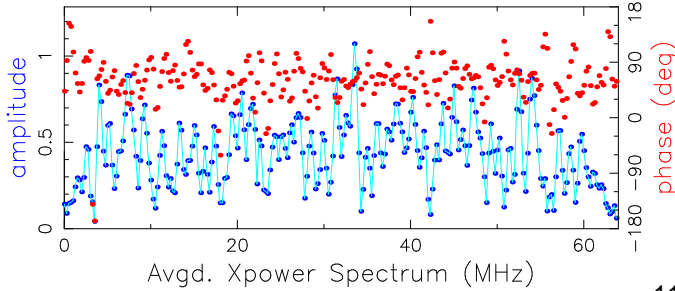


Fringe quality 8

SNR 23.8
 Int time 401.969
 Amp 0.448
 Phase -138.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.010713
 MBD 0.006695
 Fringe rate (Hz)
 0.262713
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

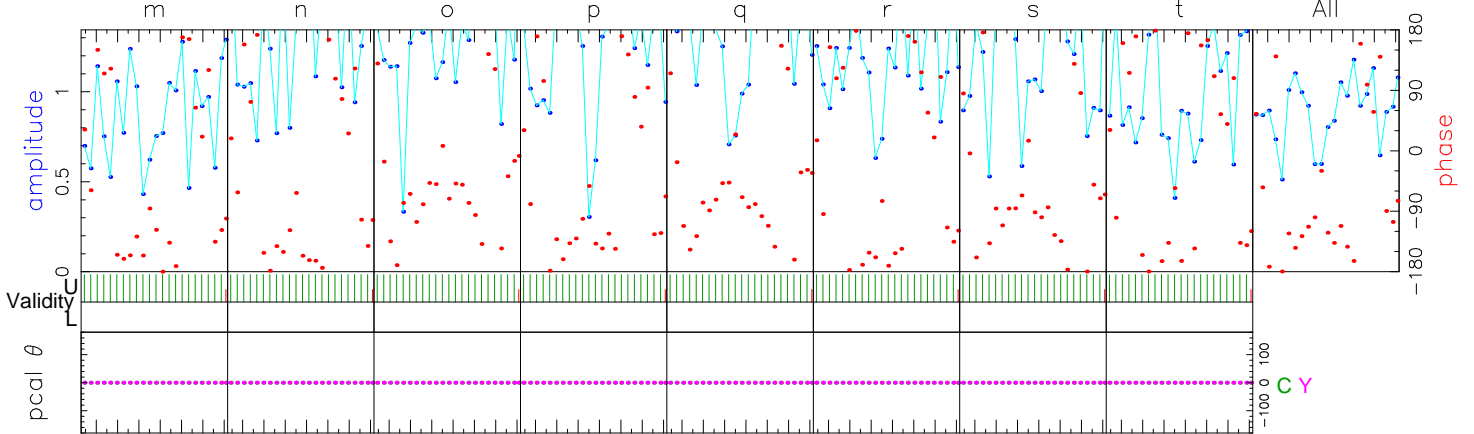


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163108
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-166.1	-166.9	-76.9	-152.8	-92.3	-179.2	-109.7	179.2	Phase	-138.8
	0.4	0.6	0.6	0.6	0.7	0.6	0.6	0.5	Ampl.	0.6
	256.0	254.5	254.0	253.8	253.7	253.4	253.8	253.9	Sbd box	254.3
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.99857201549E+03	Apriori delay (usec)	5.99858094519E+03	Resid mbdelay (usec)	6.69530E-03	+/-	4.6E-05
Sband delay (usec)	5.99857023244E+03	Apriori clock (usec)	8.4660271E+01	Resid sbdelay (usec)	-1.07128E-02	+/-	3.6E-04
Phase delay (usec)	5.99858094071E+03	Apriori clockrate (us/s)	-9.0842429E-06	Resid phdelay (usec)	-4.47644E-06	+/-	1.5E-07
Delay rate (us/s)	-1.86626949315E+00	Apriori rate (us/s)	-1.86627254299E+00	Resid rate (us/s)	3.04984E-06	+/-	6.7E-10
Total phase (deg)	83.8	Apriori accel (us/s/s)	-3.36755683947E-05	Resid phase (deg)	-138.8	+/-	4.8

ph/seg (deg)	RMS 72.4	Theor. 11.5	Amplitude	0.448 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	111.7	20.1	Search (2048X32)	0.412	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.7	6.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.1	11.9	Inc. seg. avg.	0.897	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.569	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

C: az 274.6 el 46.7 pa 64.9 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12186.605 -1877.064 simultaneous interpolator

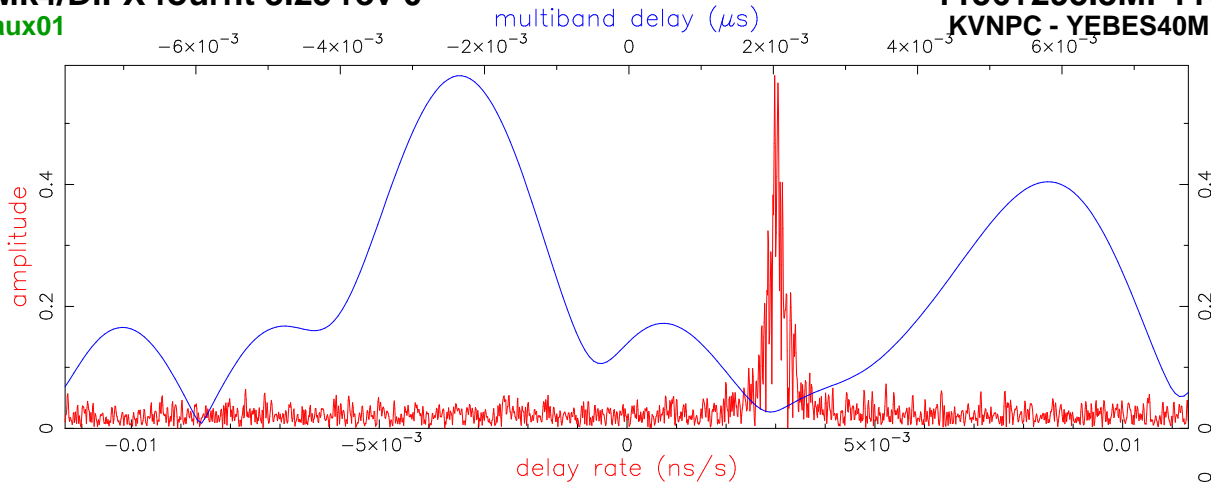
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/CY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/CY.W.100.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

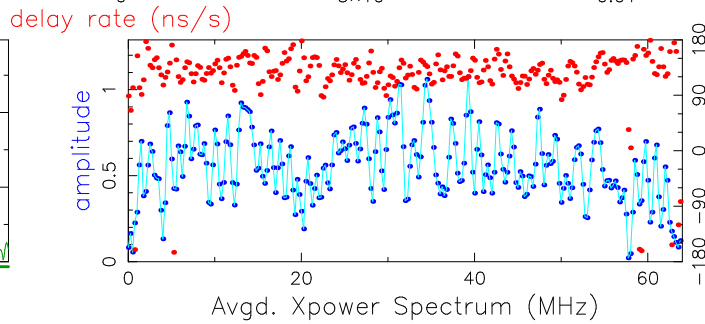
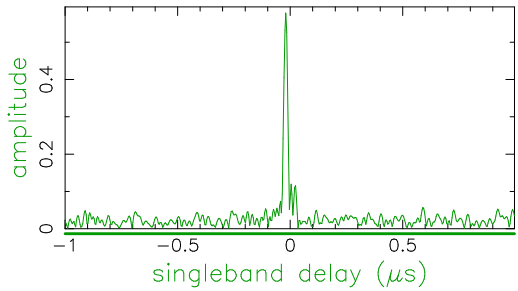
1156+295.3MP11G, No0446, CY

KVNPC - YEBES40M, fgroup W, pol RR



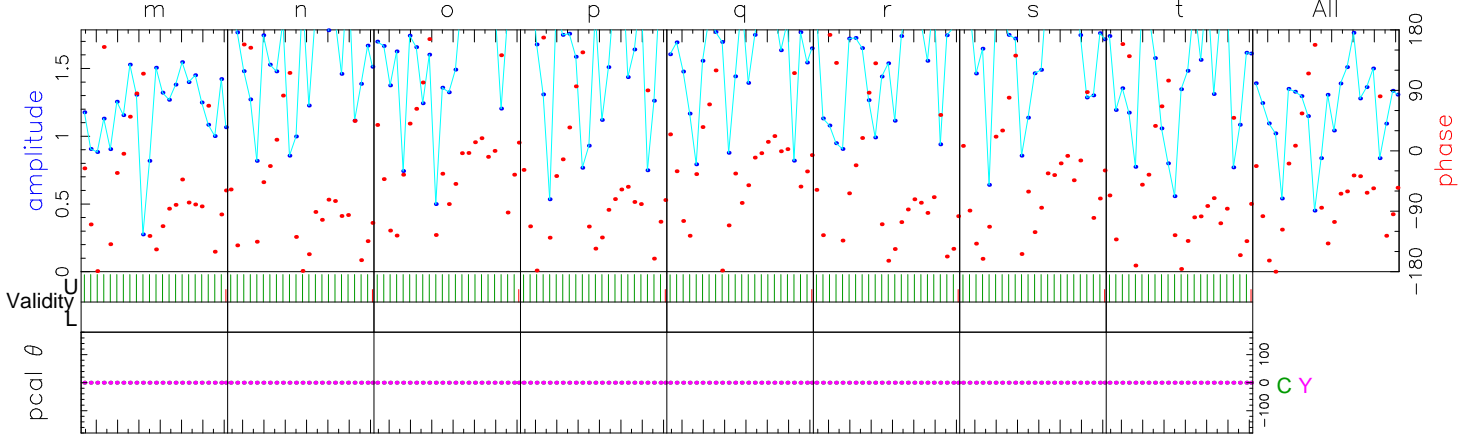
Fringe quality 4

SNR 31.7
 Int time 401.969
 Amp 0.595
 Phase -67.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.019620
 MBD -0.002348
 Fringe rate (Hz)
 0.256834
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163112
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-85.2	-108.5	-12.6	-87.3	-12.3	-99.2	-40.8	-101.3	Phase	-67.3
	0.5	0.7	0.8	0.8	0.9	0.8	0.8	0.7	Ampl.	0.8
	253.7	251.4	252.1	251.5	251.5	251.1	251.5	251.4	Sbd box	252.0
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
C	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.99856297193E+03	Apriori delay (usec)	5.99858094519E+03	Resid mbdelay (usec)	-2.34826E-03	+/-	3.4E-05
Sband delay (usec)	5.99856132569E+03	Apriori clock (usec)	8.4660271E+01	Resid sbdelay (usec)	-1.96195E-02	+/-	2.7E-04
Phase delay (usec)	5.99858094302E+03	Apriori clockrate (us/s)	-9.0842429E-06	Resid phdelay (usec)	-2.16966E-06	+/-	1.2E-07
Delay rate (us/s)	-1.86626956140E+00	Apriori rate (us/s)	-1.86627254299E+00	Resid rate (us/s)	2.98159E-06	+/-	5.0E-10
Total phase (deg)	155.3	Apriori accel (us/s/s)	-3.36755683947E-05	Resid phase (deg)	-67.3	+/-	3.6

ph/seg (deg)	RMS 77.6	Theor. 8.7	Amplitude Search (2048X32)	0.595 +/- 0.019	0.558	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	117.8	15.1	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	43.4	5.1	Inc. seg. avg.	1.210	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	32.6	8.9	Inc. frq. avg.	0.756	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00	

C: az 274.6 el 46.7 pa 64.9 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12186.605 -1877.064 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/CY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/CY.W.116.3MP11G

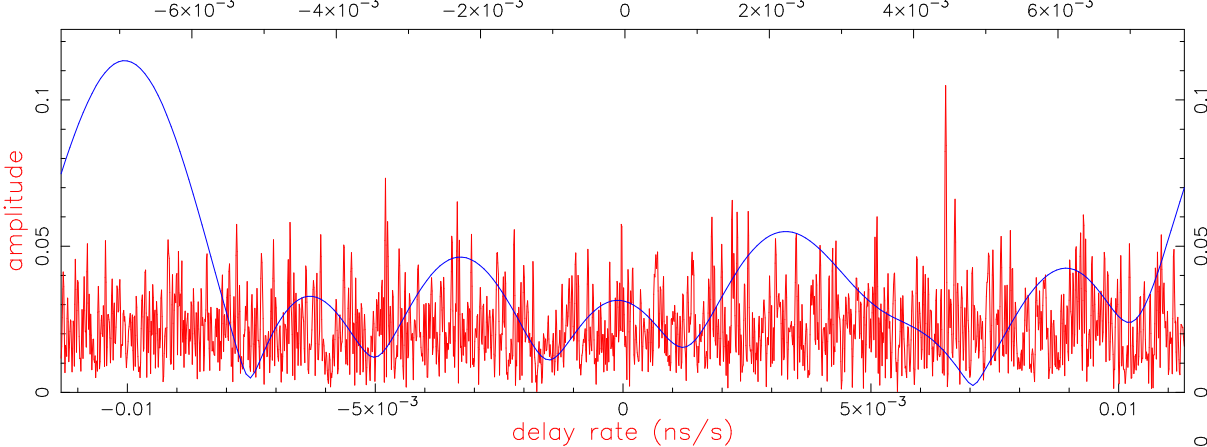
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, CY

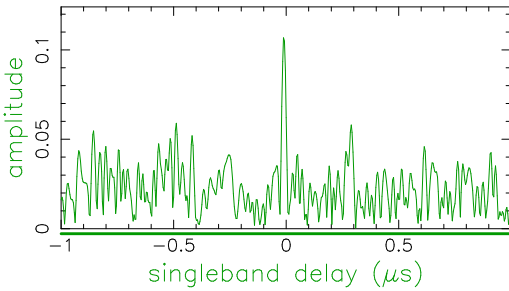
KVNPC - YEBES40M, fgroup W, pol LR

multiband delay (μs)

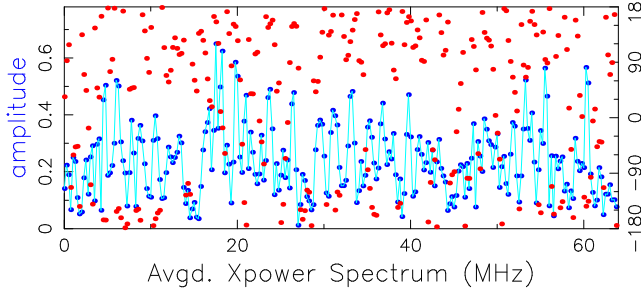


Fringe quality 0

SNR 5.9
 Int time 401.969
 Amp 0.124
 Phase -70.1
 PFD 5.6e-01
 Delays (us)
 SBD -0.010227
 MBD 0.008301
 Fringe rate (Hz)
 0.561202
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

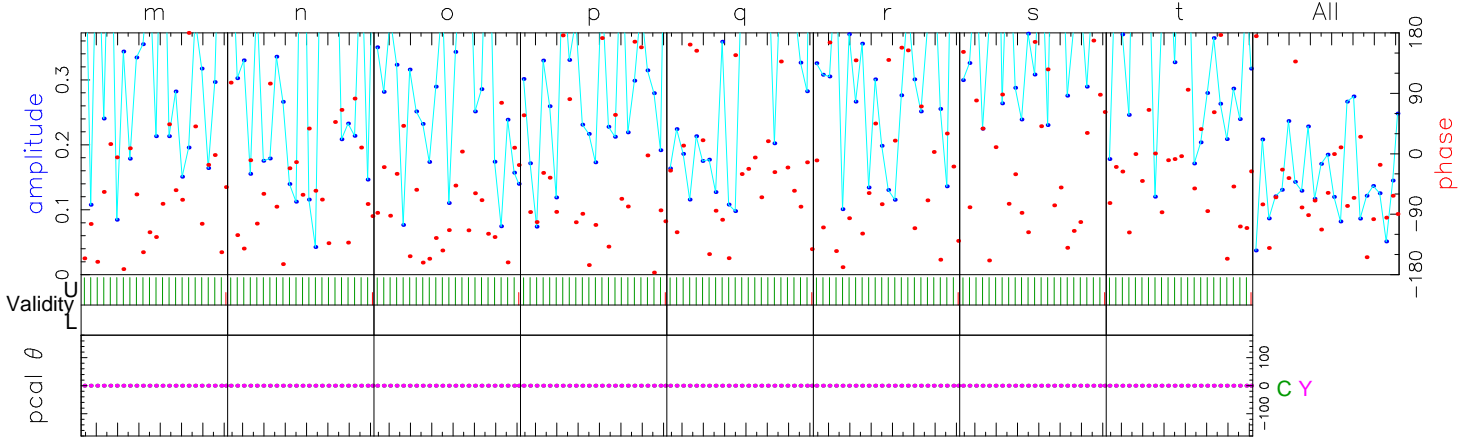


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163116
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.6	-62.5	-91.9	-119.7	-46.1	-96.1	-54.4	-23.4	Phase	-70.1
	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	270.6	302.0	254.2	277.5	341.6	262.9	151.0	254.4	Sbd box	254.4
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
C	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.99857362097E+03	Apriori delay (usec)	5.99858094519E+03	Resid mbdelay (usec)	8.30078E-03	+/-	1.8E-04
Sband delay (usec)	5.99857071869E+03	Apriori clock (usec)	8.4660271E+01	Resid sbdelay (usec)	-1.02265E-02	+/-	1.5E-03
Phase delay (usec)	5.99858094293E+03	Apriori clockrate (us/s)	-9.0842429E-06	Resid phdelay (usec)	-2.25996E-06	+/-	6.2E-07
Delay rate (us/s)	-1.86626602799E+00	Apriori rate (us/s)	-1.86627254299E+00	Resid rate (us/s)	6.51499E-06	+/-	2.7E-09
Total phase (deg)	152.5	Apriori accel (us/s/s)	-3.36755683947E-05	Resid phase (deg)	-70.1	+/-	19.4

ph/seg (deg)	59.3	RMS	46.4	Theor.	46.4	Amplitude	0.124 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	69.9	Search (2048X32)	0.106	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000			
ph/frq (deg)	34.8	Inc. seg. avg.	0.128	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008		
amp/frq (%)	44.5	Inc. frq. avg.	0.127	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		

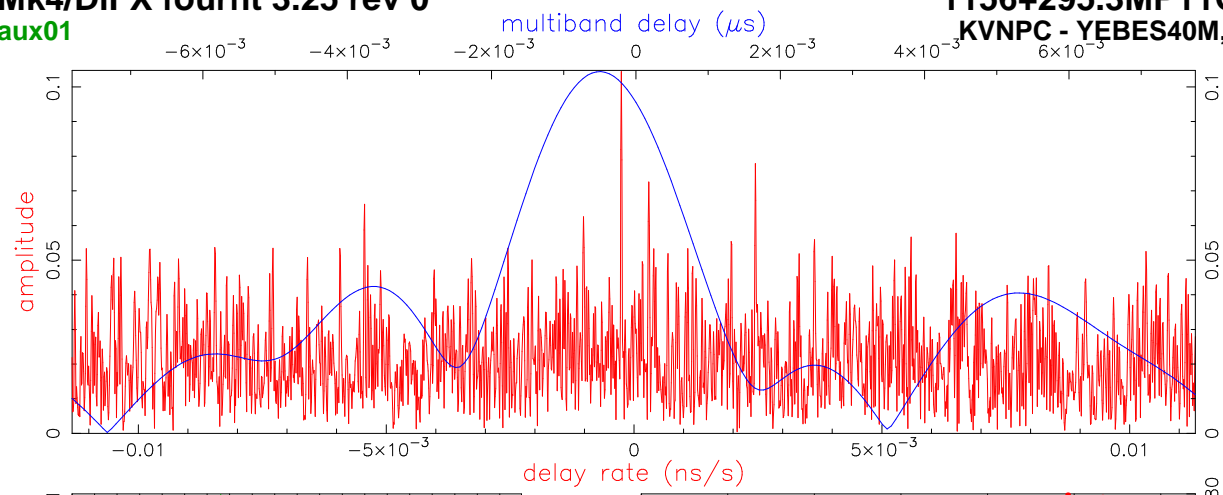
C: az 274.6 el 46.7 pa 64.9 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12186.605 -1877.064 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/CY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/CY.W.130.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, CY

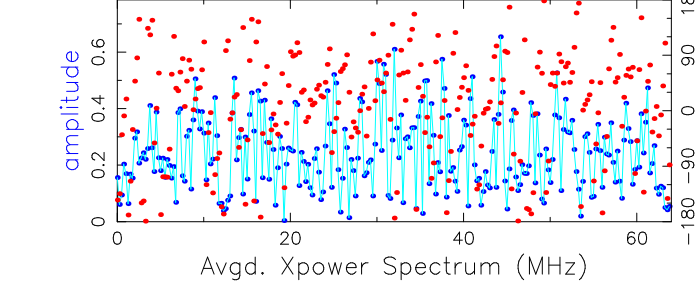
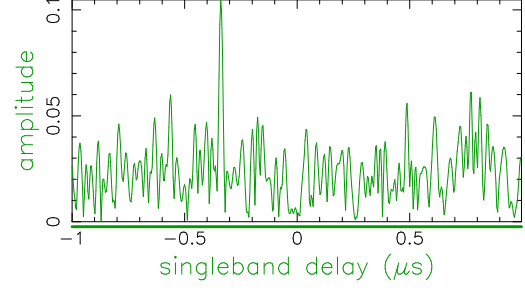
KVNPC - YEBES40M, fgroup W, pol RL



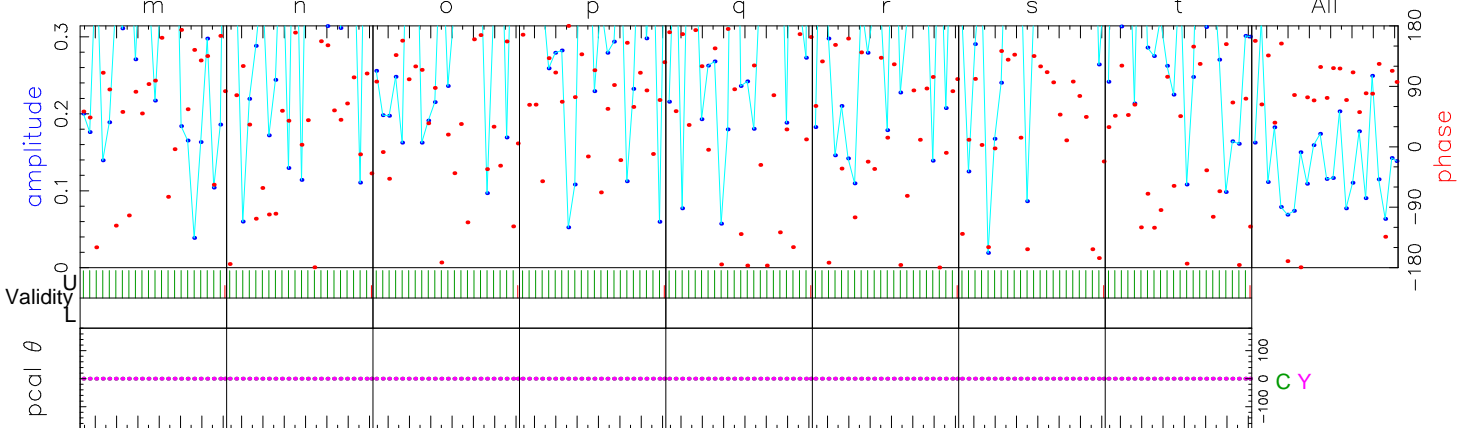
Fringe quality 0

SNR 5.7
 Int time 401.969
 Amp 0.105
 Phase 97.8
 PFD 9.0e-01
 Delays (us)
 SBD -0.339071
 MBD -0.000513
 Fringe rate (Hz)
 -0.022091
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163120
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	93.6	100.8	100.2	71.8	132.9	103.1	98.4	55.0	Phase	97.8
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	Ampl.	0.1
	34.1	421.0	454.9	169.0	161.6	459.4	170.7	465.2	Sbd box	170.2
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
C	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.99823668243E+03	Apriori delay (usec)	5.99858094519E+03	Resid mbdelay (usec)	-5.12757E-04	+/-	1.9E-04
Sband delay (usec)	5.99824187444E+03	Apriori clock (usec)	8.4660271E+01	Resid sbdelay (usec)	-3.39071E-01	+/-	1.5E-03
Phase delay (usec)	5.99858094834E+03	Apriori clockrate (us/s)	-9.0842429E-06	Resid phdelay (usec)	3.15539E-06	+/-	6.4E-07
Delay rate (us/s)	-1.86627279944E+00	Apriori rate (us/s)	-1.86627254299E+00	Resid rate (us/s)	-2.56454E-07	+/-	2.8E-09
Total phase (deg)	320.4	Apriori accel (us/s/s)	-3.36755683947E-05	Resid phase (deg)	97.8	+/-	20.0

ph/seg (deg)	48.7	Theor.	47.8	Amplitude	0.105 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	67.0	Search (2048X32)	0.103	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	25.2	Inc. seg. avg.	0.103	Inc. frq. avg.	0.098	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	50.8	Inc. frq. avg.	0.098	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

C: az 274.6 el 46.7 pa 64.9 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12186.605 -1877.064 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/CY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/CY.W.139.3MP11G

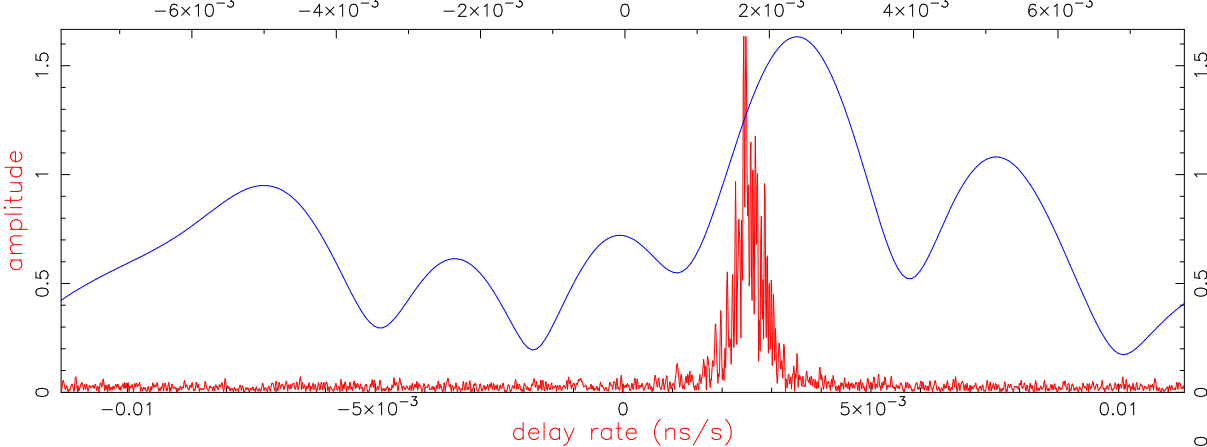
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, PY

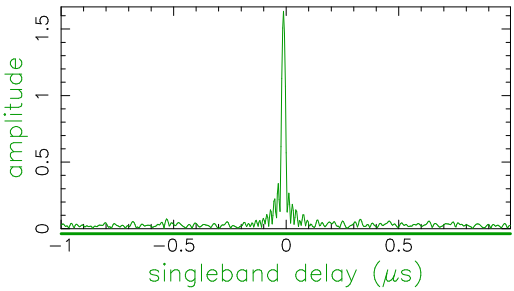
PICOVEL - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

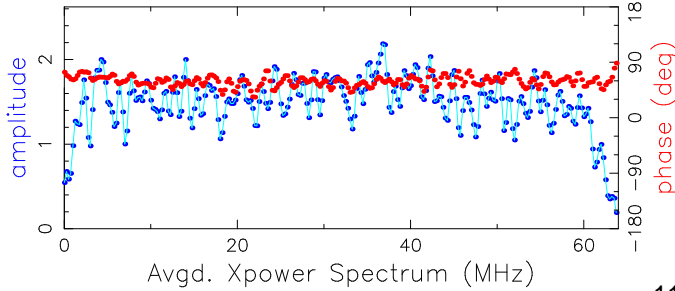


Fringe quality 2

SNR 89.6
 Int time 401.992
 Amp 1.667
 Phase -106.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.011999
 MBD 0.002375
 Fringe rate (Hz)
 0.214260
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

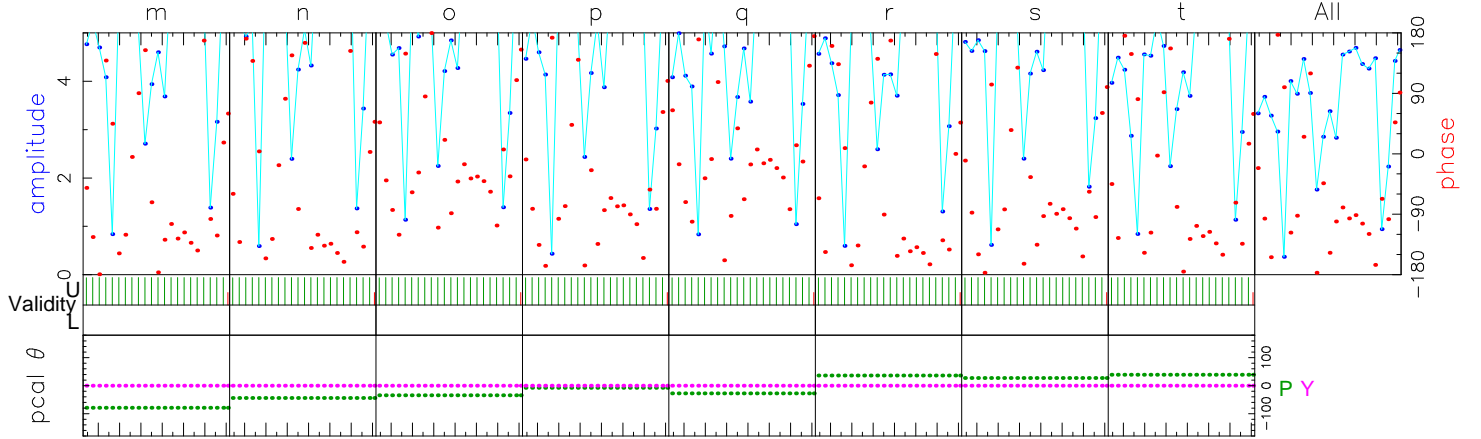


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163111
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-132.2	-145.6	-44.7	-92.0	-23.5	-152.5	-99.1	-133.7	Phase	-106.3
	2.3	2.5	2.3	2.3	2.2	2.2	2.4	2.0	Ampl.	2.3
	255.1	253.6	253.6	253.1	252.7	252.8	252.9	252.6	Sbd box	253.9
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	-79:0	-44:0	-34:0	-8:0	-28:0	36:0	27:0	39:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-3.18642749111E+02	Apriori delay (usec)	-3.18629499131E+02	Resid mbdelay (usec)	2.37502E-03	+/-	1.2E-05
Sband delay (usec)	-3.18641498381E+02	Apriori clock (usec)	1.0984822E+02	Resid sbdelay (usec)	-1.19993E-02	+/-	9.6E-05
Phase delay (usec)	-3.18629502560E+02	Apriori clockrate (us/s)	-1.1708490E-02	Resid phdelay (usec)	-3.42877E-06	+/-	4.1E-08
Delay rate (us/s)	5.16011595760E-02	Apriori rate (us/s)	5.15986722305E-02	Resid rate (us/s)	2.48735E-06	+/-	1.8E-10
Total phase (deg)	-126.2	Apriori accel (us/s/s)	-2.93654642323E-07	Resid phase (deg)	-106.3	+/-	1.3

ph/seg (deg)	RMS 75.3	Theor. 3.1	Amplitude 1.667 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	131.4	5.4	Search (2048X32) 1.592	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	51.7	1.8	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	38.1	3.2	Inc. seg. avg. 3.496	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011	
			Inc. frq. avg. 2.286	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

P: az 70.8 el 24.2 pa -59.8 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) -338.586 -373.139 simultaneous interpolator

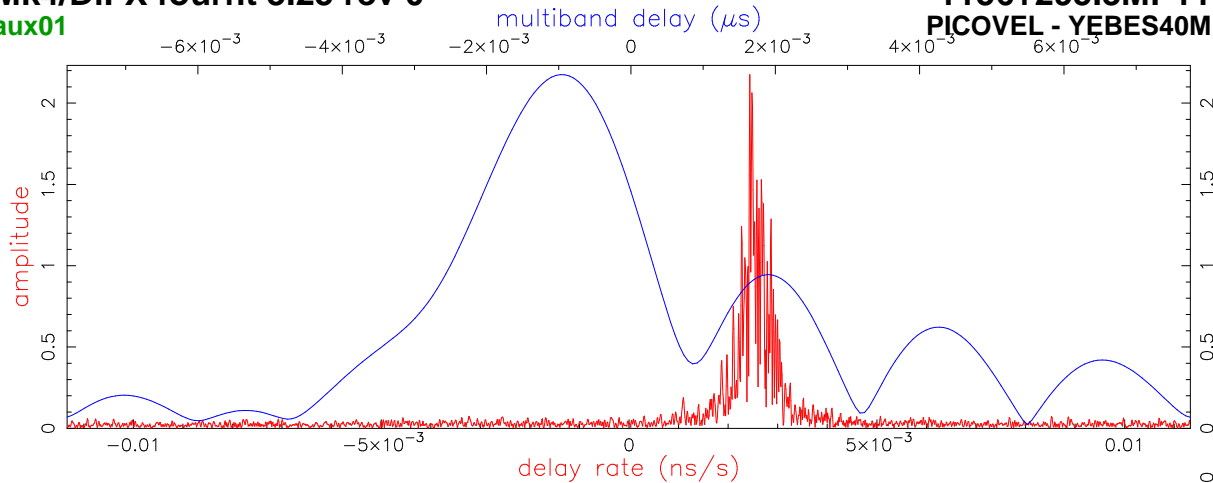
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/PY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/PY.W.111.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

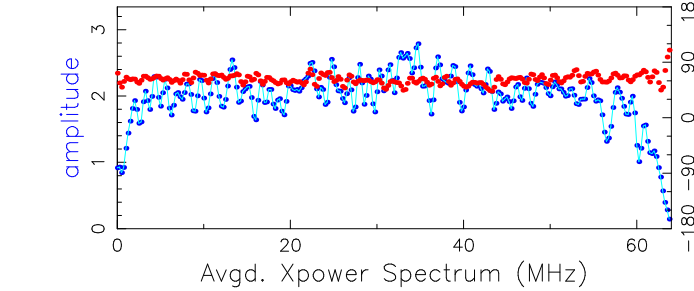
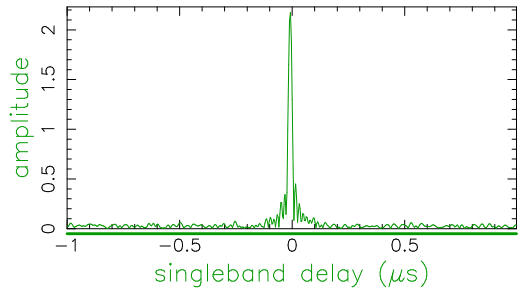
1156+295.3MP11G, No0446, PY

PICOVEL - YEBES40M, fgroup W, pol RR



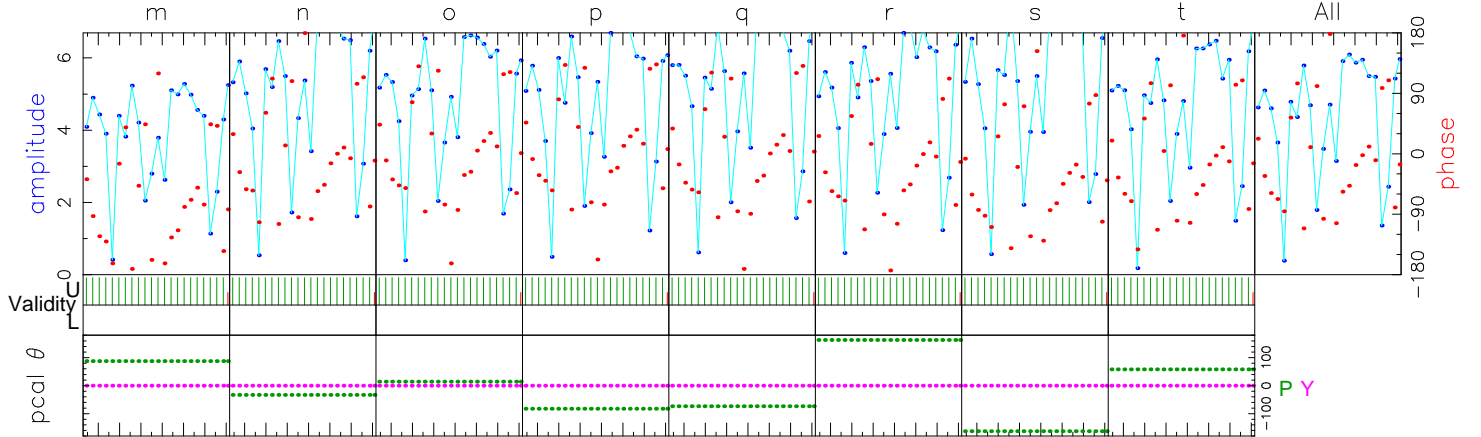
Fringe quality 3

SNR 120.1
 Int time 401.992
 Amp 2.232
 Phase -28.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.008885
 MBD -0.000987
 Fringe rate (Hz)
 0.210142
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163115
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.3	-25.0	-7.6	-0.7	-13.5	-26.0	-55.5	-30.3	Phase	-28.8
	1.9	2.6	2.5	2.5	2.6	2.5	2.8	2.3	Ampl.	2.5
	257.0	254.9	255.5	254.7	254.6	254.8	254.6	254.6	Sbd box	254.7
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	88:0	-33:0	15:0	-82:0	-74:0	163:0	-163:0	58:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.18646110727E+02	Apriori delay (usec)	-3.18629499131E+02	Resid mbdelay (usec)	-9.86596E-04	+/-	9.0E-06
Sband delay (usec)	-3.18638384381E+02	Apriori clock (usec)	1.0984822E+02	Resid sbdelay (usec)	-8.88525E-03	+/-	7.2E-05
Phase delay (usec)	-3.18629500059E+02	Apriori clockrate (us/s)	-1.1708490E-02	Resid phdelay (usec)	-9.27704E-07	+/-	3.1E-08
Delay rate (us/s)	5.16011117717E-02	Apriori rate (us/s)	5.15986722305E-02	Resid rate (us/s)	2.43954E-06	+/-	1.3E-10
Total phase (deg)	-48.6	Apriori accel (us/s/s)	-2.93654642323E-07	Resid phase (deg)	-28.8	+/-	1.0

ph/seg (deg)	77.0	2.3	Search (2048X32)	2.070	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	122.6	4.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.3	1.3	Inc. seg. avg.	4.440	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	14.3	2.4	Inc. frq. avg.	2.458	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

P: az 70.8 el 24.2 pa -59.8 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) -338.586 -373.139 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/PY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/PY.W.124.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

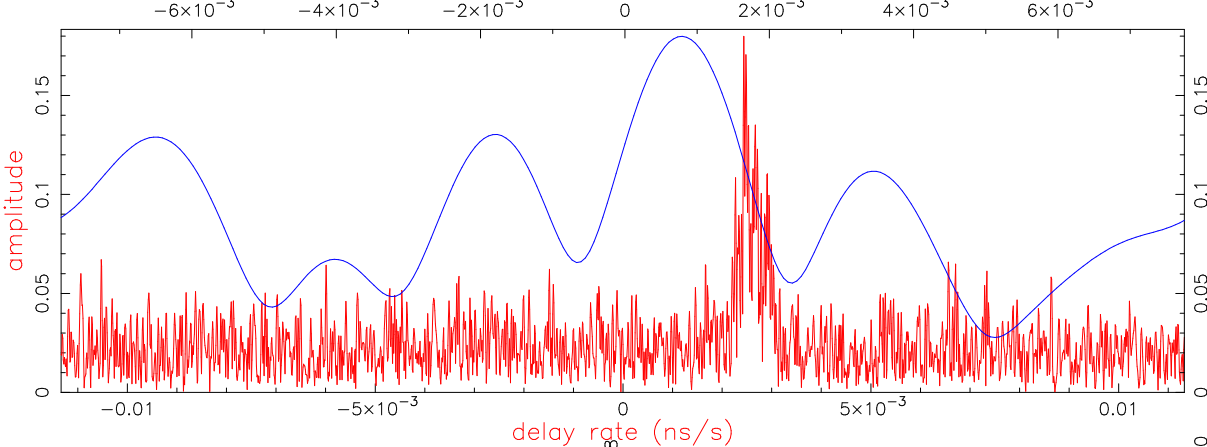
aux01

1156+295.3MP11G, No0446, PY

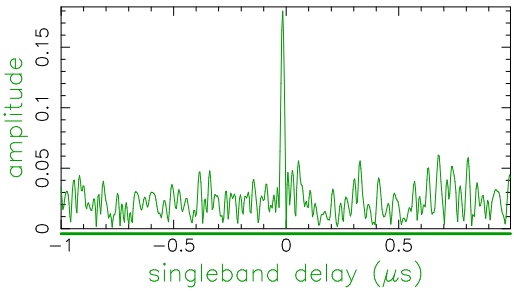
PICOVEL - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

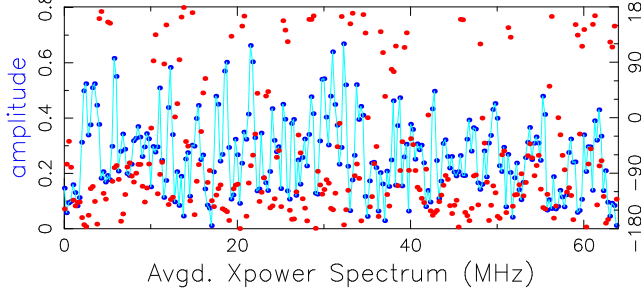
Fringe quality 9



SNR 9.9
 Int time 401.992
 Amp 0.183
 Phase 40.9
 PFD 2.5e-14
 Delays (us)
 SBD -0.015753
 MBD 0.000785
 Fringe rate (Hz) 0.210477
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

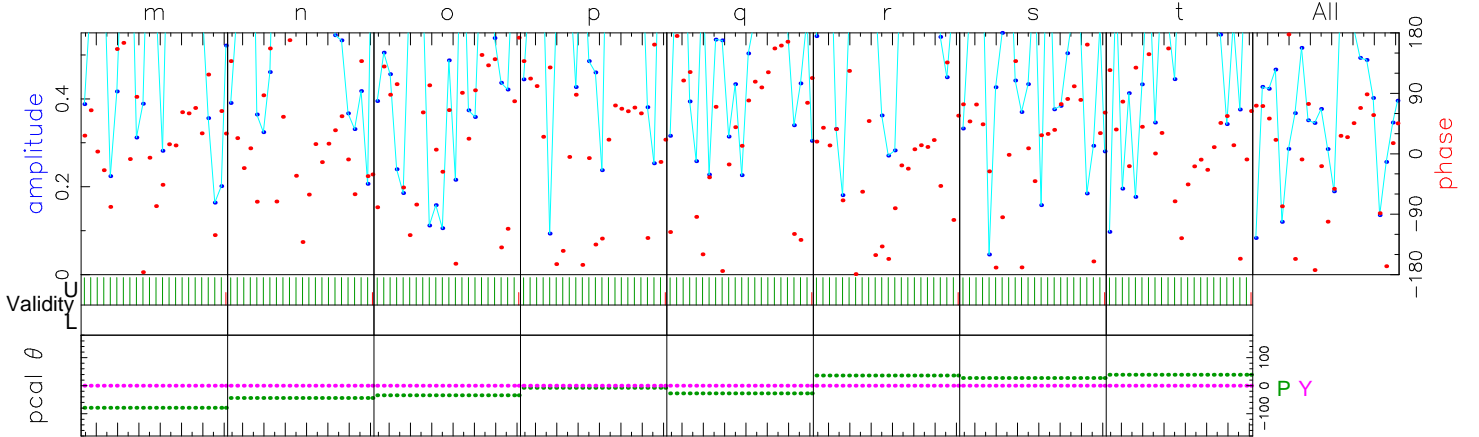


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0		
P	0	0	0	0	0	0	0	0	APs used	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	-79:0	-44:0	-34:0	-8:0	-28:0	36:0	27:0	39:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec) (SBD)	-3.18644339410E+02								7.84721E-04	+/- 1.1E-04
Sband delay (usec)	-3.18645252131E+02								-1.57530E-02	+/- 8.7E-04
Phase delay (usec)	-3.18629497811E+02								1.31947E-06	+/- 3.7E-07
Delay rate (us/s)	5.16011156603E-02								2.44343E-06	+/- 1.6E-09
Total phase (deg)			21.1						40.9	+/- 11.6
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 85.2 27.9 Search (2048X32) 0.171 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 133.2 48.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 58.7 16.4 Inc. seg. avg. 0.338 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.7 28.7 Inc. frq. avg. 0.261 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 P: az 70.8 el 24.2 pa -59.8 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) -338.586 -373.139 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/PY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/PY.W.135.3MP11G

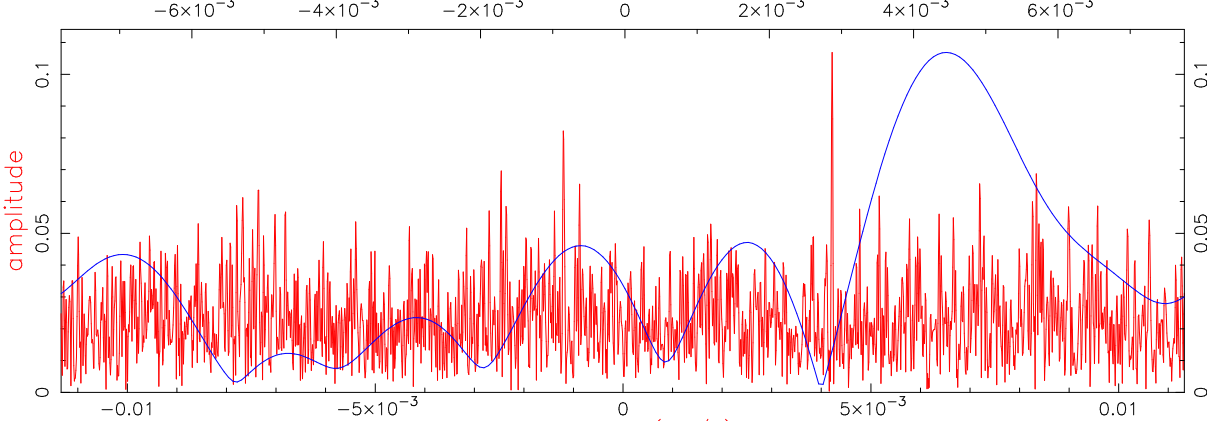
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, PY

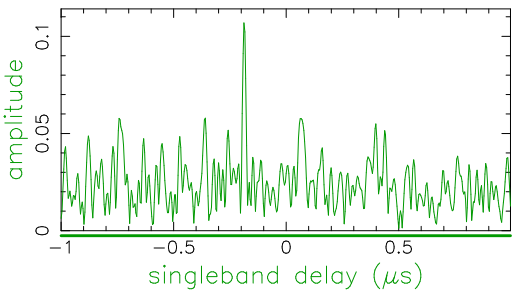
PICOVEL - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

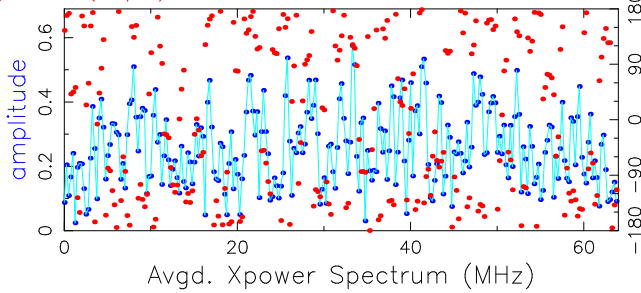


Fringe quality 0

SNR 5.9
Int time 401.992
Amp 0.114
Phase 144.6
PFD 5.9e-01
Delays (us)
SBD -0.186413
MBD 0.004446
Fringe rate (Hz)
0.364136
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

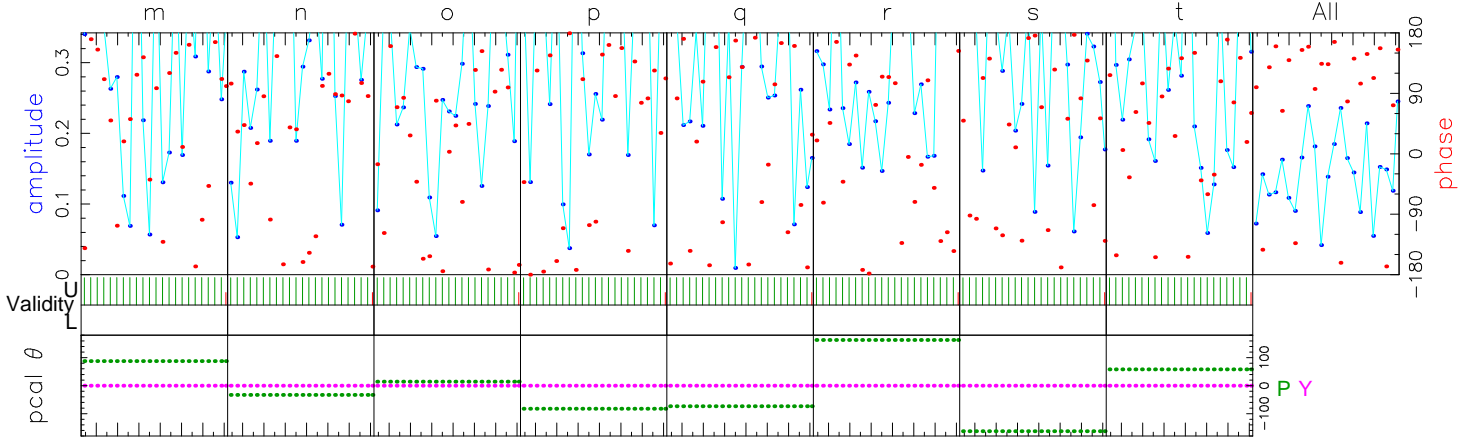


delay rate (ns/s)



Exp. c241b
Exper # 1234
Yr:day 2024:110
Start 170017.41
Stop 170659.84
FRT 170330.00
Corr/FF/build
2024:358:161459
2025:041:163123
2024:113:095956
RA & Dec (J2000)
11h59m31.833914s
+29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0		
P	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:Y	88:0	-33:0	15:0	-82:0	-74:0	163:0	-163:0	58:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -3.18812552703E+02 Apriori delay (usec) -3.18629499131E+02 Resid mbdelay (usec) 4.44643E-03 +/- 1.8E-04
 Sband delay (usec) -3.18815912631E+02 Apriori clock (usec) 1.0984822E+02 Resid sbdelay (usec) -1.86413E-01 +/- 1.5E-03
 Phase delay (usec) -3.18629494469E+02 Apriori clockrate (us/s) -1.1708490E-06 Resid phdelay (usec) 4.66163E-06 +/- 6.3E-07
 Delay rate (us/s) 5.16028994860E-02 Apriori rate (us/s) 5.15986722305E-02 Resid rate (us/s) 4.22726E-06 +/- 2.7E-09
 Total phase (deg) 124.7 Apriori accel (us/s/s) -2.93654642323E-07 Resid phase (deg) 144.6 +/- 19.4

RMS Theor. Amplitude 0.114 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 43.3 46.5 Search (2048X32) 0.103 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 59.2 81.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 36.1 27.4 Inc. seg. avg. 0.113 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.1 47.9 Inc. frq. avg. 0.116 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

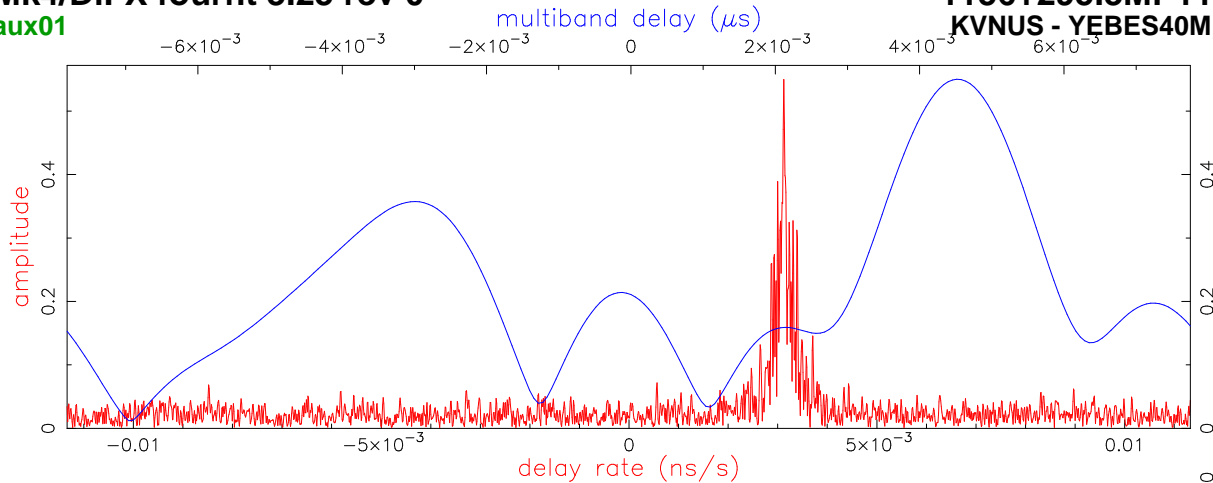
P: az 70.8 el 24.2 pa -59.8 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) -338.586 -373.139 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/PY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/PY.W.141.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

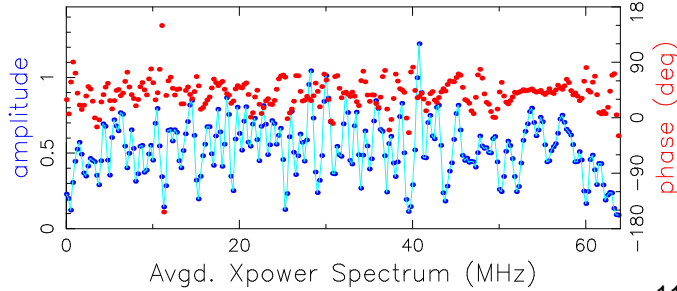
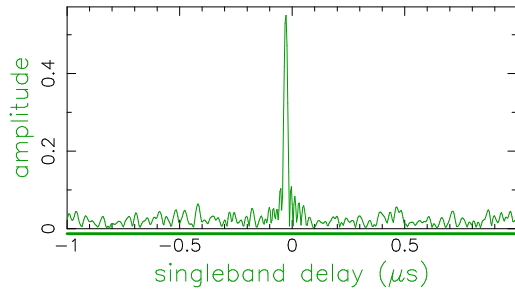
1156+295.3MP11G, No0446, uY

KVNUS - YEBES40M, fgroup W, pol RR



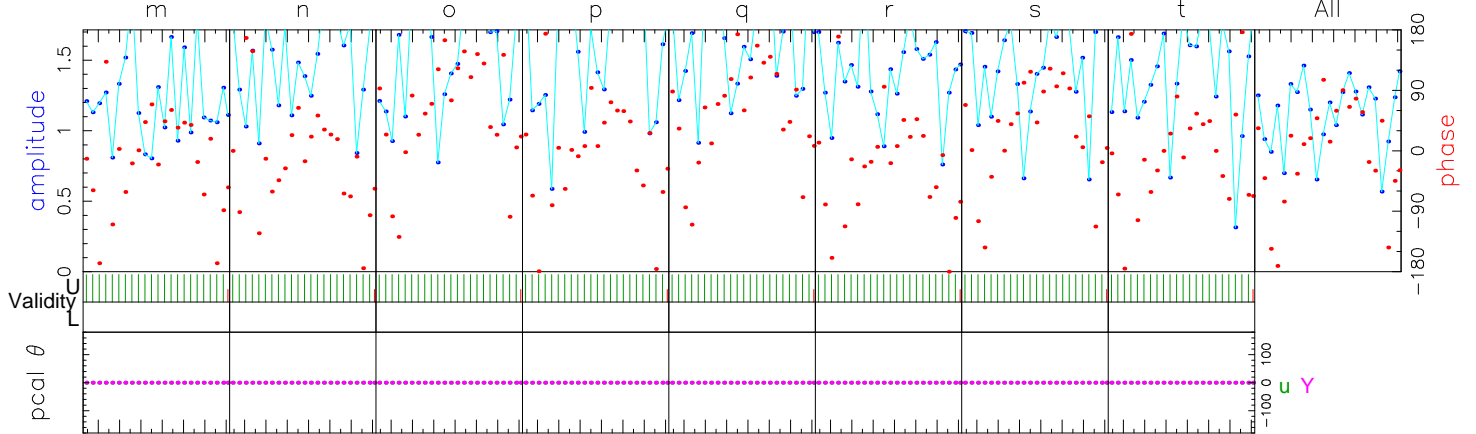
Fringe quality 4

SNR 30.4
 Int time 401.984
 Amp 0.572
 Phase 19.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.028479
 MBD 0.004494
 Fringe rate (Hz)
 0.268994
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

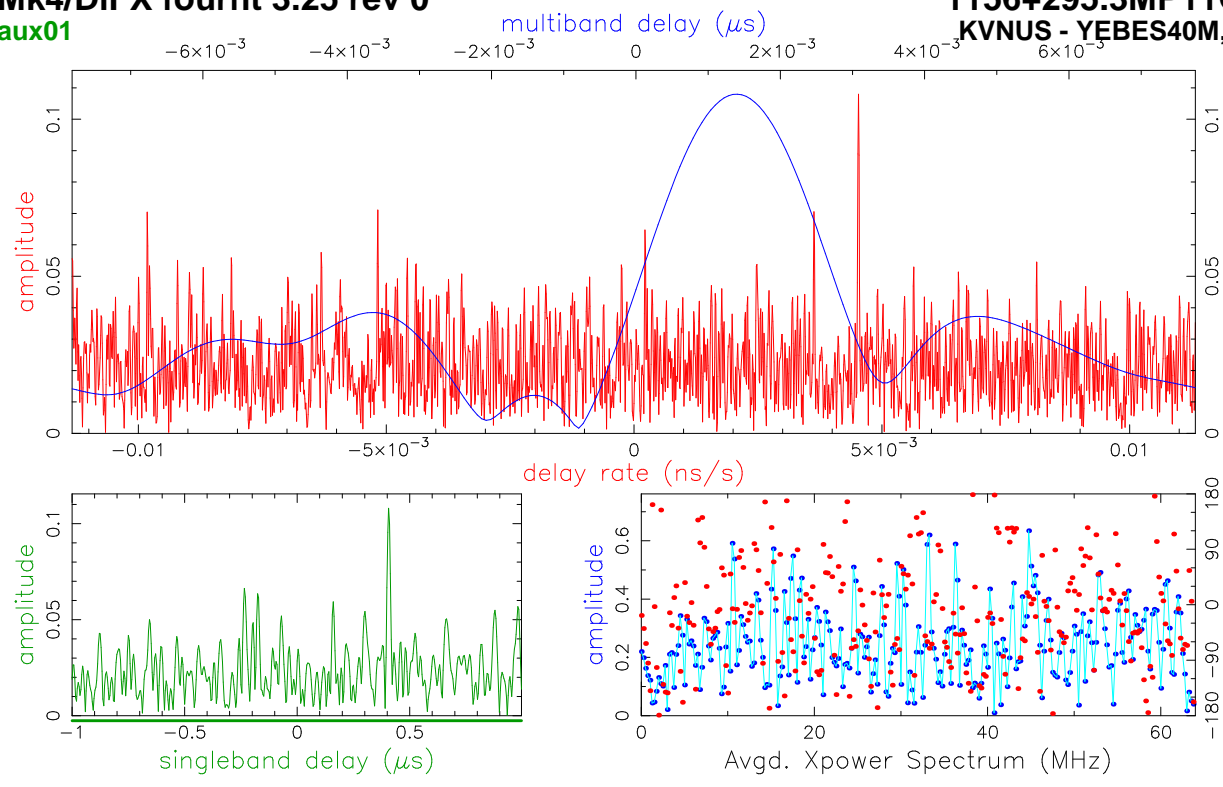


Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163111
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec

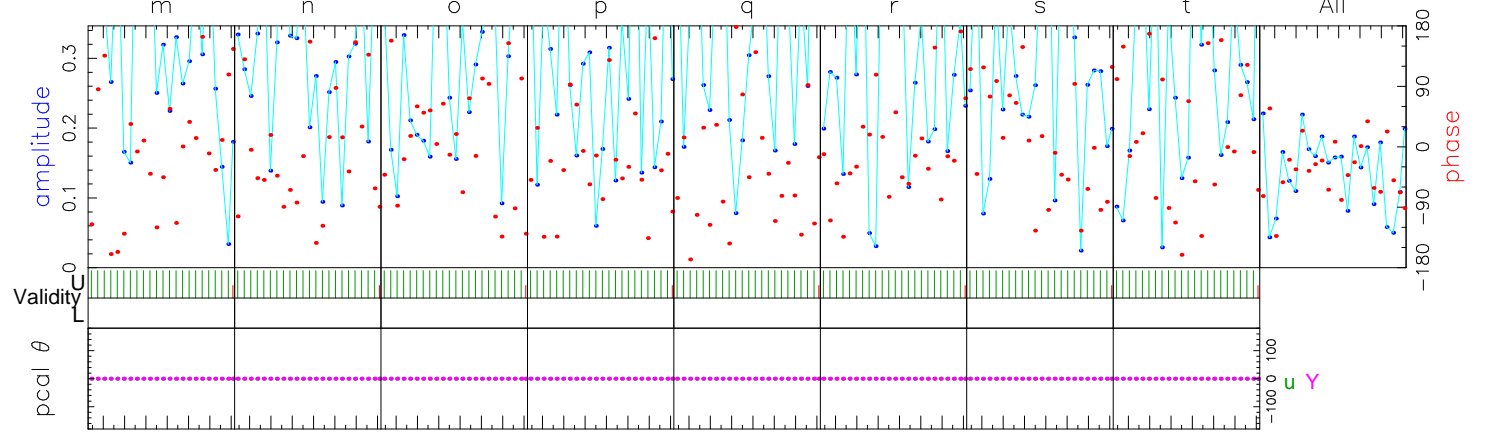


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-4.7	-17.7	81.8	10.8	74.3	-22.9	48.3	-12.7		19.8		
	0.6	0.7	0.7	0.9	0.8	0.7	0.7	0.7	Ampl.	0.7		
	251.6	249.1	249.4	249.4	249.2	248.8	249.1	249.3	Sbd box	249.7		
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used			
u	0	0	60000	0	0	0	4000	0	PC freqs			
Y	0	0	0	0	0	0	0	0	PC freqs			
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	5.80225402454E+03		Apriori delay (usec)		5.80228078034E+03		Resid mbdelay (usec)		4.49421E-03	+/- 3.6E-05		
Sband delay (usec)	5.80225230109E+03		Apriori clock (usec)		1.1210326E+02		Resid sbdelay (usec)		-2.84793E-02	+/- 2.8E-04		
Phase delay (usec)	5.80228078098E+03		Apriori clockrate (us/s)		-1.6893052E-06		Resid phdelay (usec)		6.38996E-07	+/- 1.2E-07		
Delay rate (us/s)	-1.89765542670E+00		Apriori rate (us/s)		-1.89765854945E+00		Resid rate (us/s)		3.12275E-06	+/- 5.2E-10		
Total phase (deg)	170.4		Apriori accel (us/s/s)		-3.40171574396E-05		Resid phase (deg)		19.8	+/- 3.8		
	RMS	Theor.	Amplitude	0.572 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	76.1	9.0	Search (2048X32)	0.544		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	109.8	15.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.8	5.3	Inc. seg. avg.	1.134		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	31.0	9.3	Inc. frq. avg.	0.731		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
u: az 277.0 el 45.8 pa 67.7	Y: az 72.5 el 25.6 pa -56.2		u, v (fr/asec) 12391.929 -2109.504						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.110.3MP11G									



Fringe quality 0
SNR 5.9
Int time 401.984
Amp 0.116
Phase -33.8
PFD 5.5e-01
Delays (us)
SBD 0.406660
MBD 0.001403
Fringe rate (Hz) 0.390720
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c241b
Exper # 1234
Yr:day 2024:110
Start 170017.41
Stop 170659.84
FRT 170330.00
Corr/FF/build 2024:358:161459
2025:041:163115
2024:113:095956
RA & Dec (J2000) 11h59m31.833914s
+29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-20.5	-53.9	17.6	-31.4	-72.4	-26.6	-9.4	-42.3	Phase	-33.8		
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1		
	197.5	414.7	298.9	359.4	410.5	361.3	413.6	152.7	Sbd box	361.1		
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used			
u	0	0	60000	0	0	0	4000	0	PC freqs			
Y	0	0	0	0	0	0	0	0	PC freqs			
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
u	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)	5.80268843364E+03		Apriori delay (usec)		5.80228078034E+03		Resid mbdelay (usec)		1.40330E-03	+/- 1.8E-04		
Sband delay (usec)	5.80268744059E+03		Apriori clock (usec)		1.1210326E+02		Resid sbdelay (usec)		4.06660E-01	+/- 1.5E-03		
Phase delay (usec)	5.80228077925E+03		Apriori clockrate (us/s)		-1.6893052E-06		Resid phdelay (usec)		-1.09082E-06	+/- 6.2E-07		
Delay rate (us/s)	-1.89765401358E+00		Apriori rate (us/s)		-1.89765854945E+00		Resid rate (us/s)		4.53587E-06	+/- 2.7E-09		
Total phase (deg)	116.7		Apriori accel (us/s/s)		-3.40171574396E-05		Resid phase (deg)		-33.8	+/- 19.3		
	RMS	Theor.	Amplitude	0.116 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	43.7	46.4	Search (2048X32)	0.105		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	55.8	80.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	30.1	27.3	Inc. seg. avg.	0.111		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	33.6	47.7	Inc. frq. avg.	0.114		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
u: az 277.0 el 45.8 pa 67.7	Y: az 72.5 el 25.6 pa -56.2		u,v (fr/asec) 12391.929 -2109.504						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.123.3MP11G									

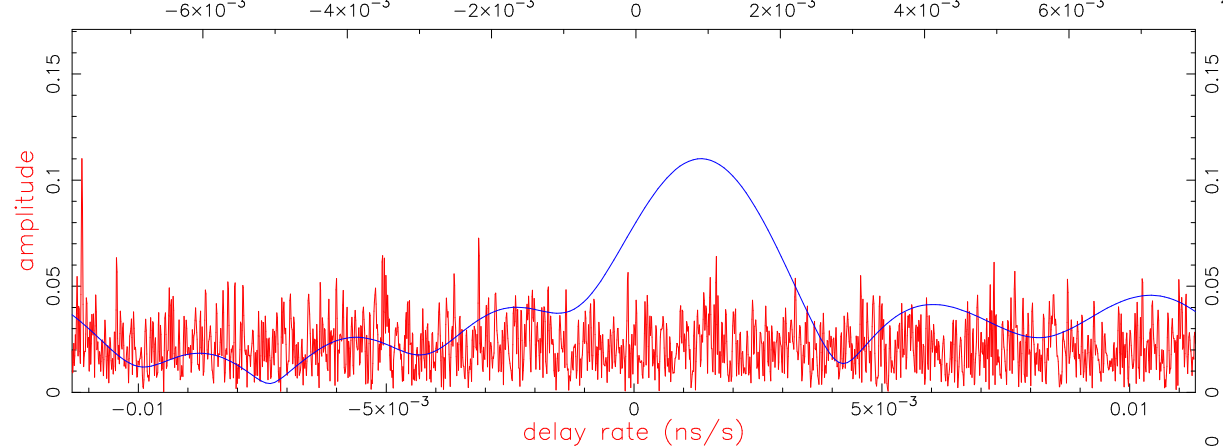
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uY

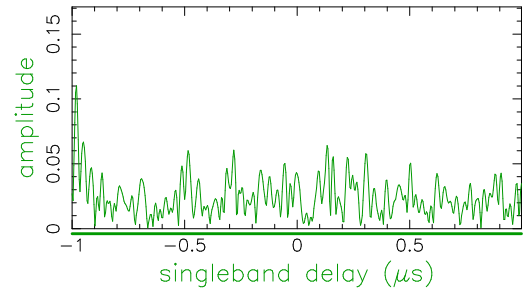
KVNUS - YEBES40M, fgroup W, pol RL

multiband delay (μs)

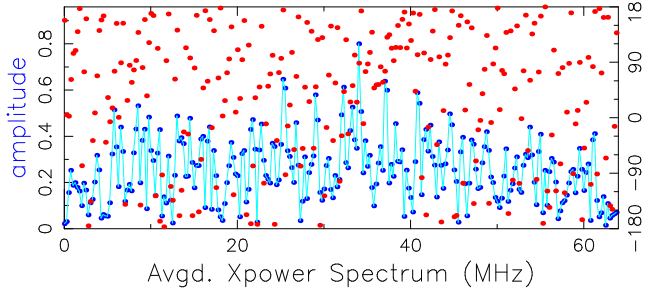


Fringe quality 0

SNR 6.1
 Int time 401.984
 Amp 0.171
 Phase -42.2
 PFD 2.9e-01
 Delays (us)
 SBD -0.981366
 MBD 0.000891
 Fringe rate (Hz)
 -0.961085
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

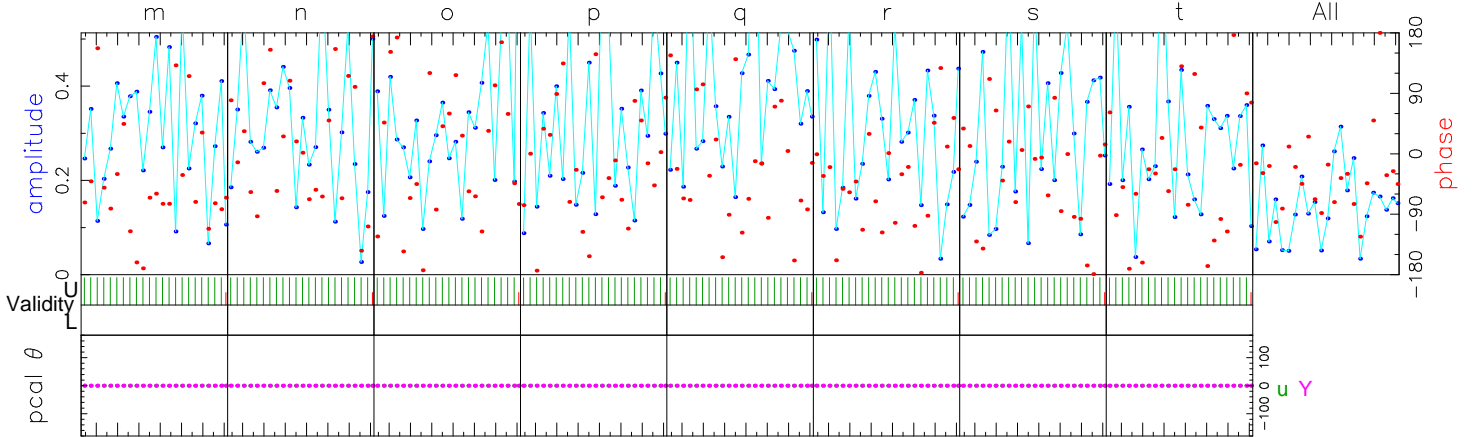


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-64.9	8.4	-66.0	-29.4	-41.6	-45.4	-29.1	-80.9	Phase	-42.2
	0.3	0.1	0.0	0.2	0.2	0.3	0.2	0.1	Ampl.	0.2
	7.7	323.5	34.3	10.8	34.8	5.9	106.7	241.2	Sbd box	5.8
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.80129729675E+03	Apriori delay (usec)	5.80228078034E+03	Resid mbdelay (usec)	8.91416E-04	+/-	1.8E-04
Sband delay (usec)	5.80129941434E+03	Apriori clock (usec)	1.1210326E+02	Resid sbdelay (usec)	-9.81366E-01	+/-	1.4E-03
Phase delay (usec)	5.80228077898E+03	Apriori clockrate (us/s)	-1.6893052E-06	Resid phdelay (usec)	-1.36095E-06	+/-	6.1E-07
Delay rate (us/s)	-1.89766970669E+00	Apriori rate (us/s)	-1.89765854945E+00	Resid rate (us/s)	-1.11572E-05	+/-	2.6E-09
Total phase (deg)	108.4	Apriori accel (us/s/s)	-3.40171574396E-05	Resid phase (deg)	-42.2	+/-	18.9

ph/seg (deg)	49.3	RMS	45.3	Theor.	45.3	Amplitude	0.171 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	76.7	Search (2048X32)	0.109	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000			
ph/frq (deg)	30.2	Inc. seg. avg.	0.174	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008		
amp/frq (%)	52.5	Inc. frq. avg.	0.165	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011			
u: az 277.0 el 45.8 pa 67.7	Y: az 72.5 el 25.6 pa -56.2	u,v (fr/asec)	12391.929 -2109.504	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00		

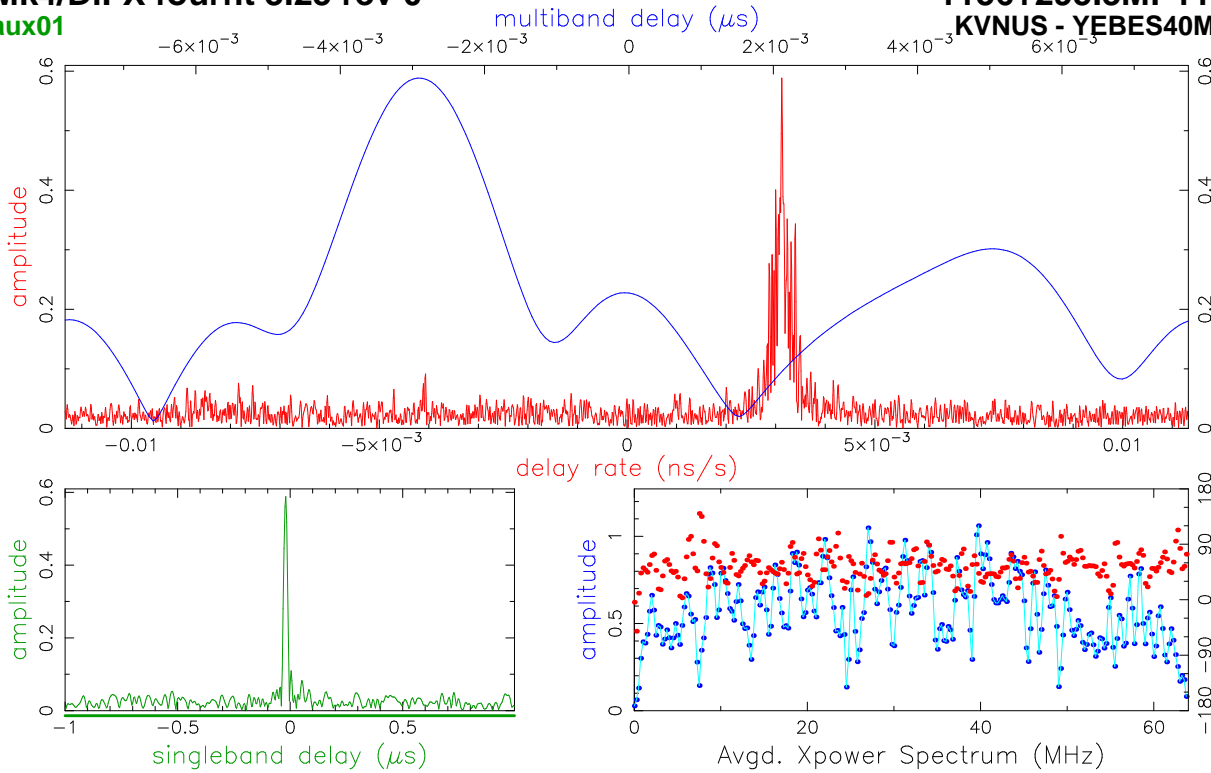
simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.134.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uY

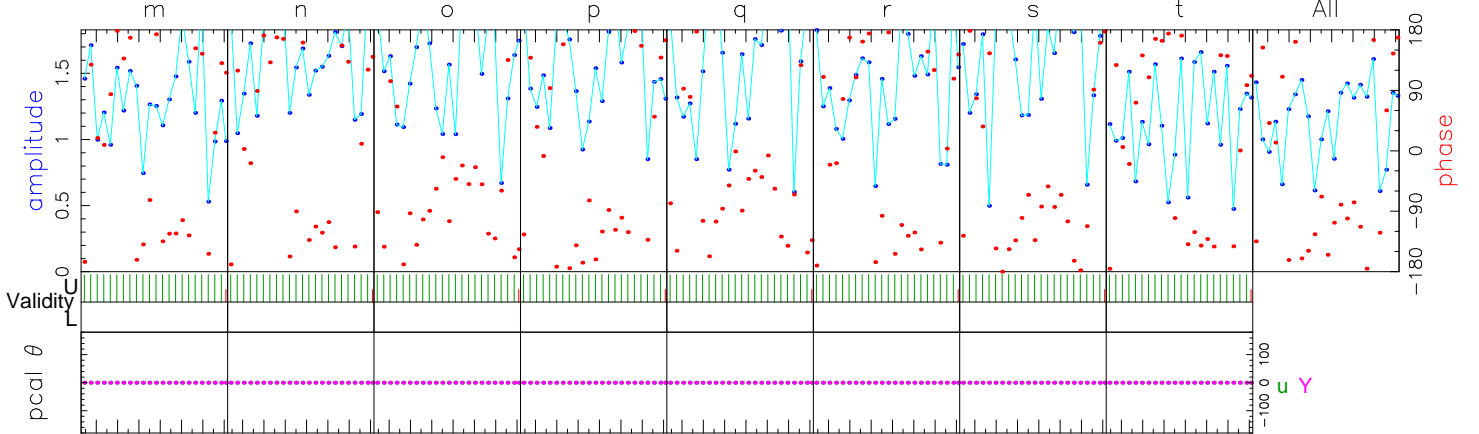
KVNUS - YEBES40M, fgroup W, pol LL



Fringe quality 4

SNR 32.4
 Int time 401.984
 Amp 0.610
 Phase -148.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.020392
 MBD -0.002930
 Fringe rate (Hz)
 0.268916
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163107
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-174.7	179.7	-92.6	-156.9	-96.1	178.2	-135.4	173.4	Phase	-148.5
	0.6	0.8	0.8	0.8	0.8	0.7	0.9	0.5	Ampl.	0.7
	253.6	251.6	251.6	251.2	251.1	251.0	251.4	251.0	Sbd box	251.8
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 5.80226222539E+03 Apriori delay (usec) 5.80228078034E+03 Resid mbdelay (usec) -2.92995E-03 +/- 3.3E-05
 Sband delay (usec) 5.80226038809E+03 Apriori clock (usec) 1.1210326E+02 Resid sbdelay (usec) -2.03923E-02 +/- 2.7E-04
 Phase delay (usec) 5.80228077555E+03 Apriori clockrate (us/s) -1.6893052E-06 Resid phdelay (usec) -4.78943E-06 +/- 1.1E-07
 Delay rate (us/s) -1.89765542760E+00 Apriori rate (us/s) -1.89765854945E+00 Resid rate (us/s) 3.12185E-06 +/- 4.9E-10
 Total phase (deg) 2.0 Apriori accel (us/s/s) -3.40171574396E-05 Resid phase (deg) -148.5 +/- 3.5

ph/seg (deg) RMS Theor. Amplitude 0.610 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.7 8.5 Search (2048X32) 0.580 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 106.3 14.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.6 5.0 Inc. seg. avg. 1.173 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 29.4 8.7 Inc. frq. avg. 0.744 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

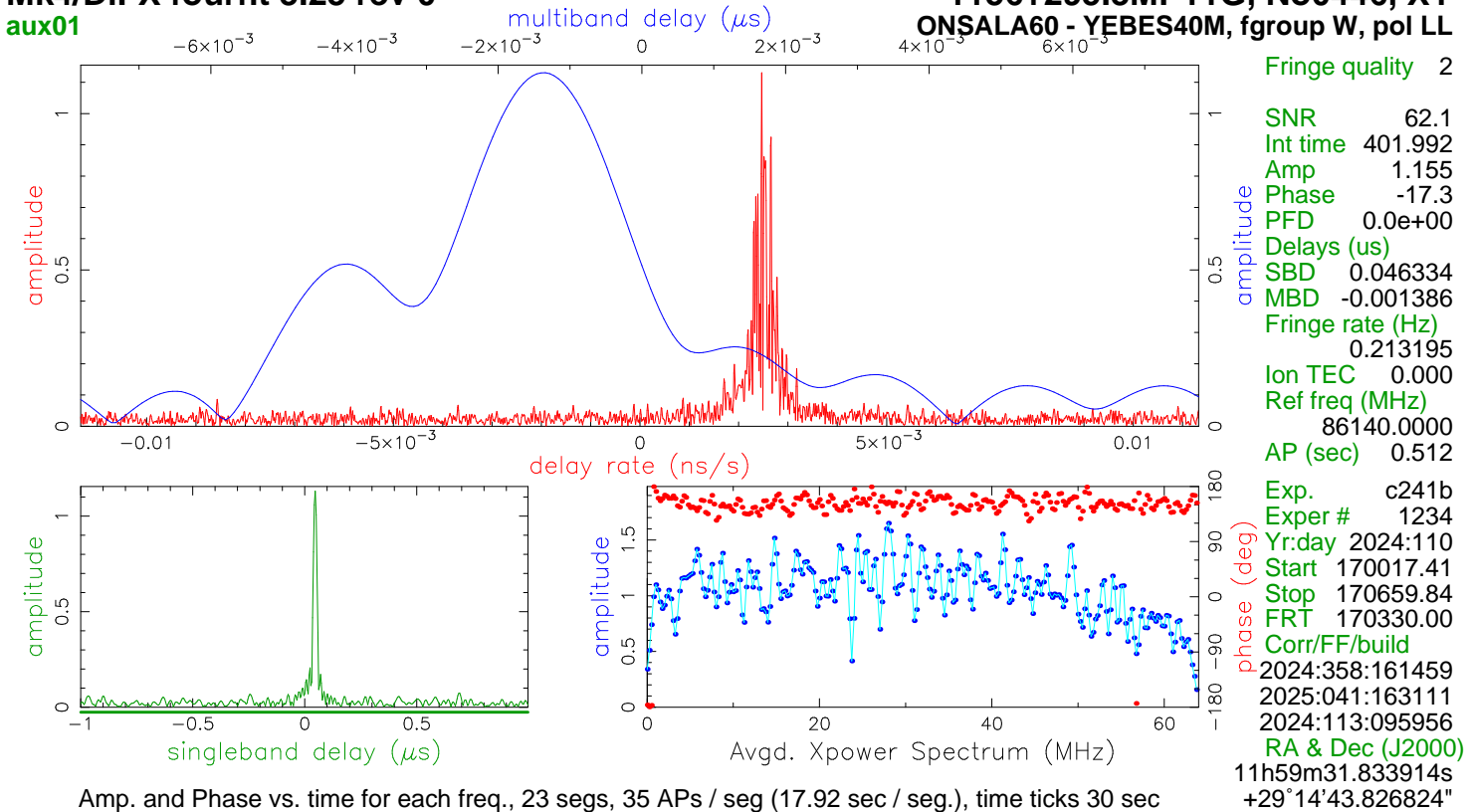
u: az 277.0 el 45.8 pa 67.7 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12391.929 -2109.504 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uY...3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.96.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

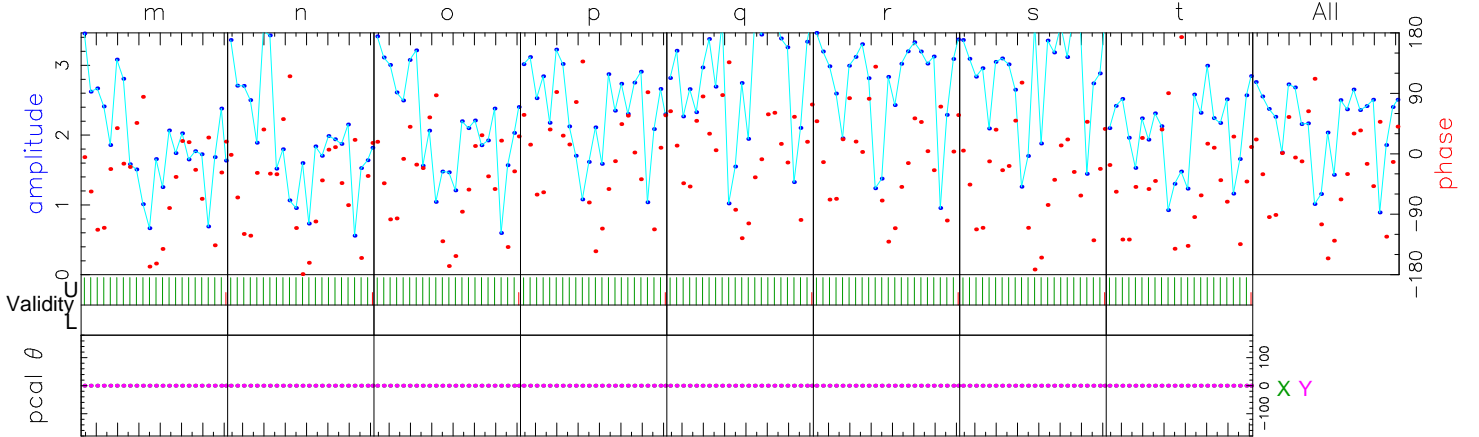
aux01

1156+295.3MP11G, No0446, XY

ONŞALA60 - YEBES40M, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-33.3	-39.9	-29.3	6.5	17.6	1.0	-32.6	-47.7	Phase	-17.3
	1.0	1.0	1.2	1.2	1.6	1.5	1.5	1.1	Ampl.	1.3
	269.0	269.1	268.6	269.3	268.6	268.4	268.6	267.9	Sbd box	268.9
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	3.92775343616E+03		Apriori delay (usec)		3.92770794749E+03	Resid mbdelay (usec)	-1.38633E-03	+/-	1.7E-05	
Sband delay (usec)	3.92775428124E+03		Apriori clock (usec)		2.2347916E+02	Resid sbdelay (usec)	4.63337E-02	+/-	1.4E-04	
Phase delay (usec)	3.92770794693E+03		Apriori clockrate (us/s)		-5.5246302E-07	Resid phdelay (usec)	-5.56840E-07	+/-	6.0E-08	
Delay rate (us/s)	-3.54759817331E-01		Apriori rate (us/s)		-3.54762292313E-01	Resid rate (us/s)	2.47498E-06	+/-	2.6E-10	
Total phase (deg)		197.6	Apriori accel (us/s/s)		-9.11124963434E-06	Resid phase (deg)	-17.3	+/-	1.8	
RMS	68.9	4.4	Amplitude	1.155 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	68.9	4.4	Search (2048X32)	1.049	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	101.5	7.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.4	2.6	Inc. seg. avg.	2.181	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	20.1	4.6	Inc. frq. avg.	1.253	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
X: az 93.5 el 37.5 pa -38.0			Y: az 72.5 el 25.6 pa -56.2		u,v (fr/asec) 2312.722 1077.486					simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241b/v2/3mm/1234/No0446/XY..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/XY.W.109.3MP11G					

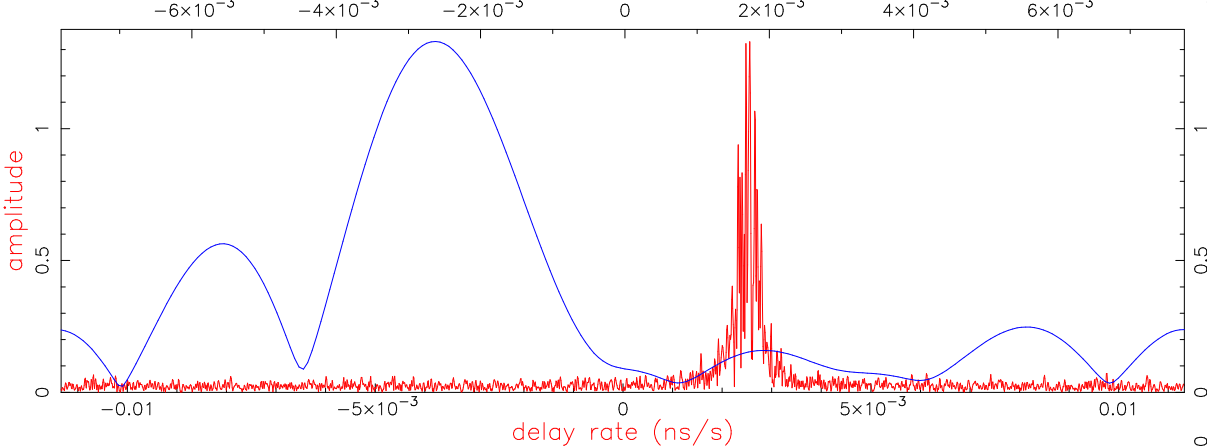
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, XY

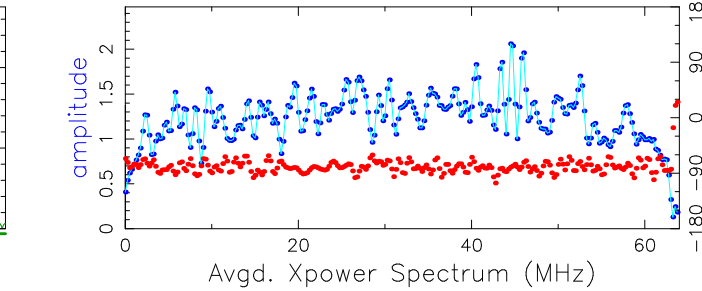
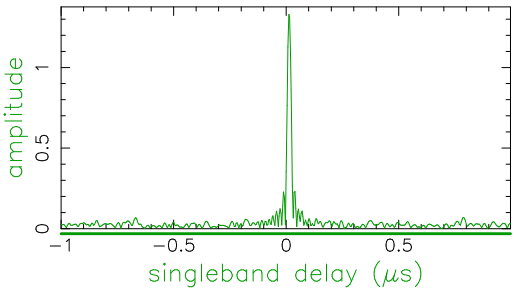
ONŞALA60 - YEŞES40M, fgroup W, pol RR

multiband delay (μ s)



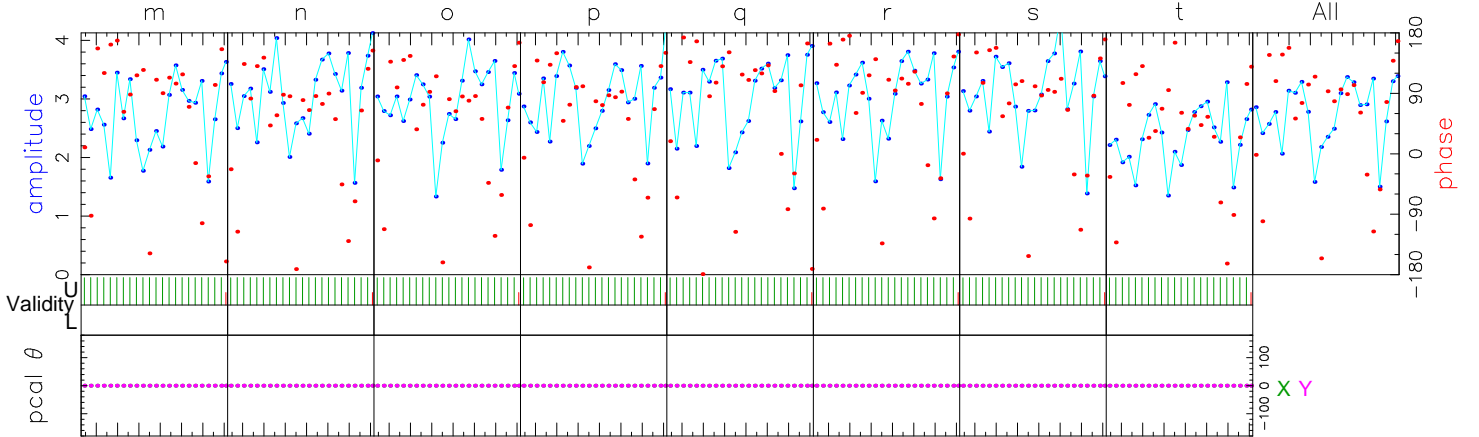
Fringe quality 4

SNR 73.9
 Int time 401.992
 Amp 1.376
 Phase 102.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.013250
 MBD -0.002586
 Fringe rate (Hz)
 0.220339
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163115
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	118.2	88.7	90.8	94.1	130.1	116.7	106.7	64.1	Phase	102.4
	1.3	1.5	1.4	1.5	1.5	1.4	1.6	1.1	Ampl.	1.4
	260.6	259.8	260.8	260.6	260.4	260.0	260.0	259.0	Sbd box	260.4
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	3.92772098604E+03		Apriori delay (usec)		3.92770794749E+03		Resid mbdelay (usec)		-2.58645E-03	+/- 1.5E-05
Sband delay (usec)	3.92772119774E+03		Apriori clock (usec)		2.2347916E+02		Resid sbdelay (usec)		1.32503E-02	+/- 1.2E-04
Phase delay (usec)	3.92770795079E+03		Apriori clockrate (us/s)		-5.5246302E-07		Resid phdelay (usec)		3.30327E-06	+/- 5.0E-08
Delay rate (us/s)	-3.54759734391E-01		Apriori rate (us/s)		-3.54762292313E-01		Resid rate (us/s)		2.55792E-06	+/- 2.2E-10
Total phase (deg)	317.3		Apriori accel (us/s/s)		-9.11124963434E-06		Resid phase (deg)		102.4	+/- 1.6

ph/seg (deg) RMS Theor. Amplitude 1.376 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.6 3.7 Search (2048X32) 1.299 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 110.5 6.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 22.7 2.2 Inc. seg. avg. 2.791 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 X: az 93.5 el 37.5 pa -38.0 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 2312.722 1077.486 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446//XY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446//XY.W.125.3MP11G

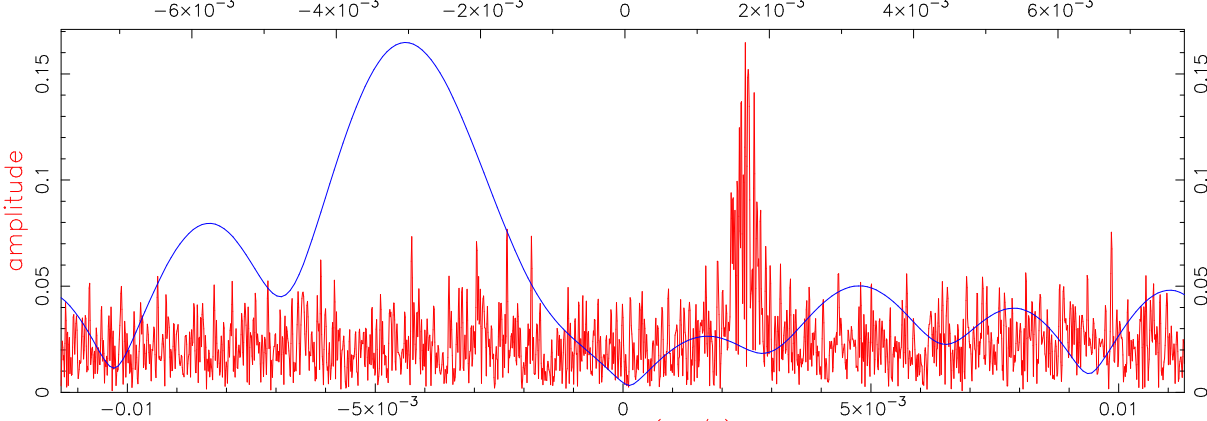
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, XY

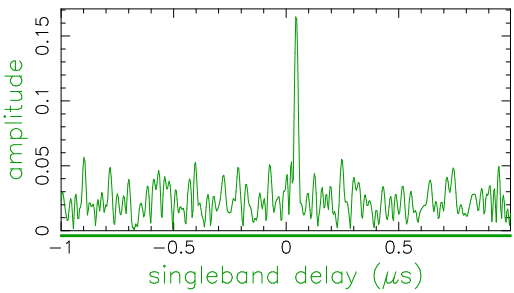
ONŞALA60 - YEŞES40M, fgroup W, pol LR

multiband delay (μ s)

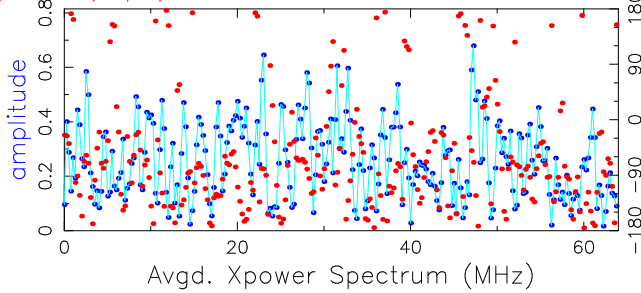


Fringe quality 9

SNR 9.2
 Int time 401.992
 Amp 0.171
 Phase 88.8
 PFD 1.5e-11
 Delays (us)
 SBD 0.044660
 MBD -0.003011
 Fringe rate (Hz)
 0.213432
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

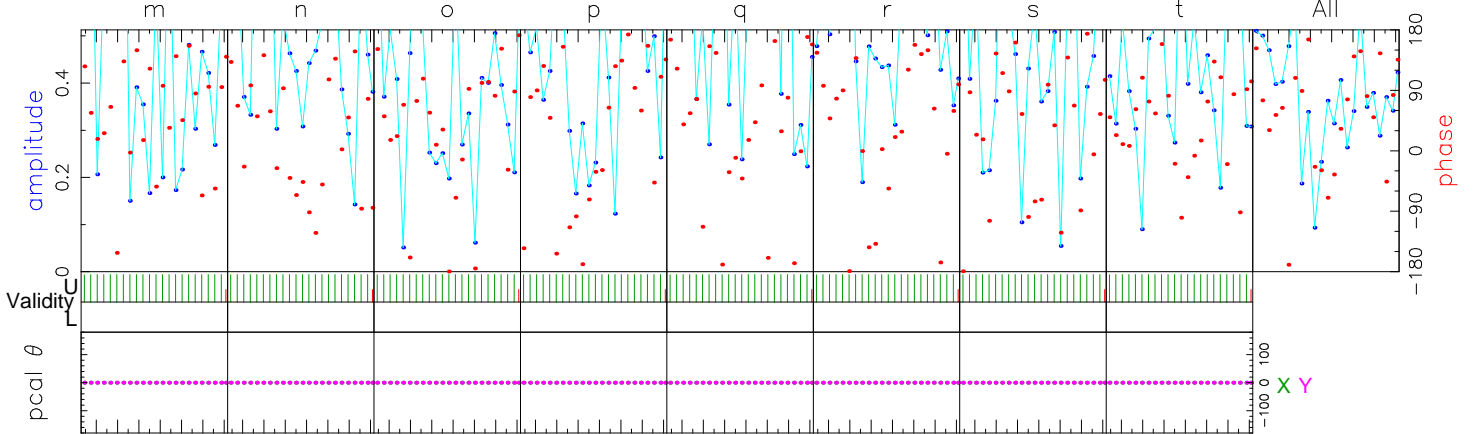


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0		
X	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	3.92775181104E+03	Apriori delay (usec)	3.92770794749E+03	Resid mbdelay (usec)	-3.01145E-03	+/-	1.2E-04
Sband delay (usec)	3.92775260724E+03	Apriori clock (usec)	2.2347916E+02	Resid sbdelay (usec)	4.46597E-02	+/-	9.4E-04
Phase delay (usec)	3.92770795036E+03	Apriori clockrate (us/s)	-5.5246302E-07	Resid phdelay (usec)	2.86466E-06	+/-	4.0E-07
Delay rate (us/s)	-3.54759814574E-01	Apriori rate (us/s)	-3.54762292313E-01	Resid rate (us/s)	2.47774E-06	+/-	1.7E-09
Total phase (deg)	303.7	Apriori accel (us/s/s)	-9.11124963434E-06	Resid phase (deg)	88.8	+/-	12.5

ph/seg (deg)	75.1	Theor.	29.9	Amplitude	0.171 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	139.9	Search (2048X32)	0.160	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.0	Inc. seg. avg.	0.334	Inc. frq. avg.	0.180	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	22.9	Inc. frq. avg.	0.180			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

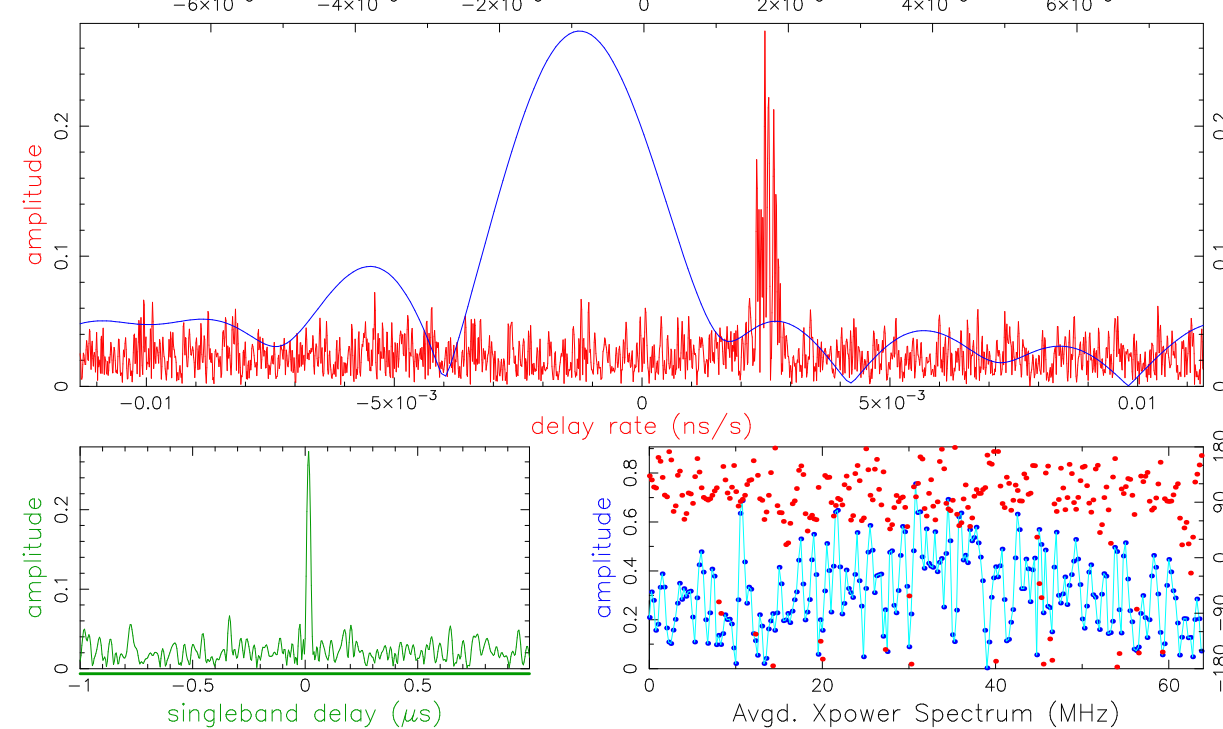
X: az 93.5 el 37.5 pa -38.0 Y: az 72.5 el 25.6 pa -56.2 u, v (fr/asec) 2312.722 1077.486 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/XY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/XY.W.137.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, XY

ONŞALA60 - YEŞES40M, fgroup W, pol RL

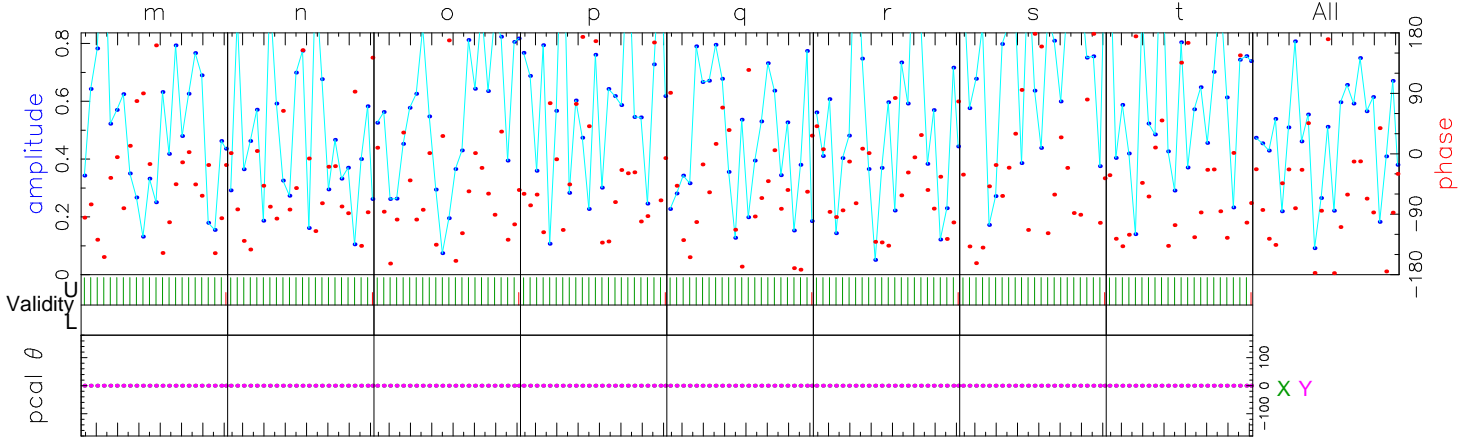


Fringe quality 9

SNR 15.0
 Int time 401.992
 Amp 0.279
 Phase -68.8
 PFD 4.9e-42
 Delays (us)
 SBD 0.015095
 MBD -0.000909
 Fringe rate (Hz) 0.213907
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build 2024:358:161459
 2025:041:163123
 2024:113:095956
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



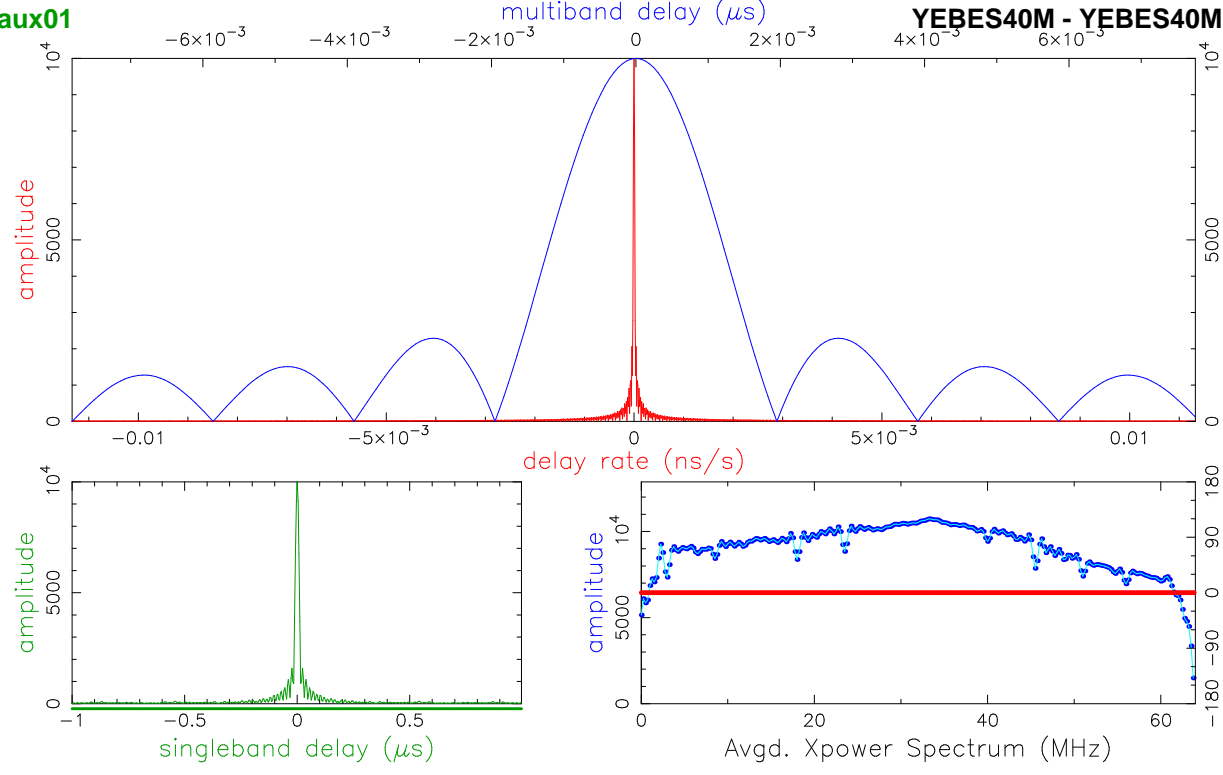
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.9	-82.2	-61.3	-79.8	-52.1	-42.4	-80.2	-81.0	Phase	-68.8
	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	Ampl.	0.3
	260.9	260.6	260.7	261.3	260.5	260.8	260.6	257.2	Sbd box	260.9
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	3.92772266391E+03					3.92770794749E+03			Resid mbdelay (usec)	-9.08579E-04 +/- 7.2E-05
Sband delay (usec)	3.92772304249E+03					2.2347916E+02			Resid sbdelay (usec)	1.50950E-02 +/- 5.7E-04
Phase delay (usec)	3.92770794527E+03					-5.5246302E-07			Resid phdelay (usec)	-2.21798E-06 +/- 2.5E-07
Delay rate (us/s)	-3.54759809062E-01					-3.54762292313E-01			Resid rate (us/s)	2.48325E-06 +/- 1.1E-09
Total phase (deg)		146.1				-9.11124963434E-06			Resid phase (deg)	-68.8 +/- 7.6
	RMS	Theor.	Amplitude	0.279 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	66.3	18.3	Search (2048X32)	0.262					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	100.3	32.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	16.4	10.8	Inc. seg. avg.	0.465					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	13.7	18.9	Inc. frq. avg.	0.282					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
X: az 93.5 el 37.5 pa -38.0		Y: az 72.5 el 25.6 pa -56.2		u, v (fr/asec) 2312.722 1077.486						simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0446/XY..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/XY.W.143.3MP11G						

Mk4/DiFX fourfit 3.25 rev 0

aux01

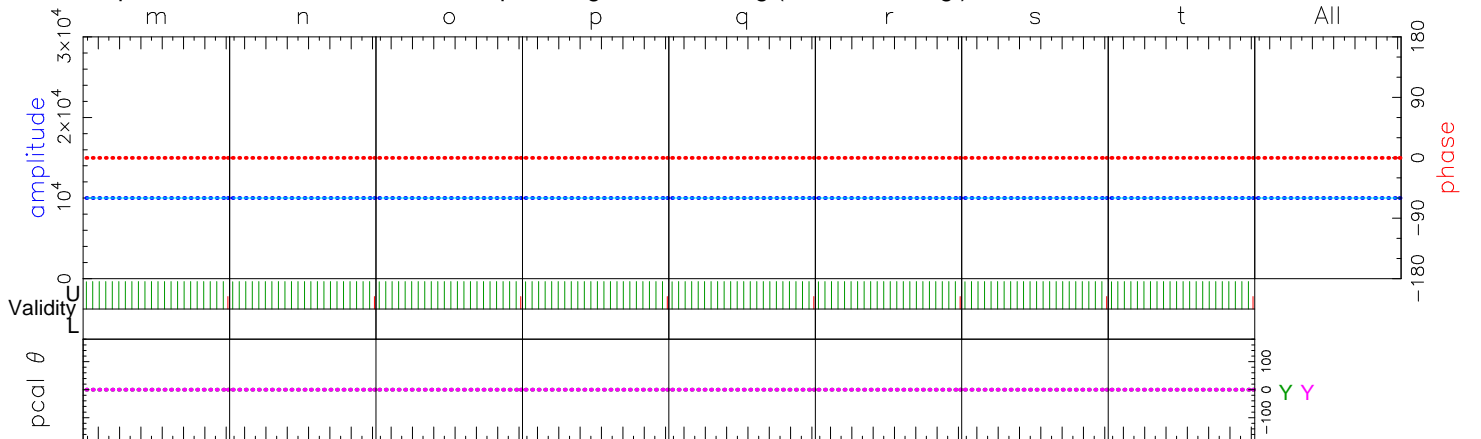
1156+295.3MP11G, No0446, YY

YEBES40M - YEBES40M, fgroup W, pol LL



Fringe quality 9
 SNR 548285.3
 Int time 401.992
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163110
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	Ampl.	10000.0
Y	0	0	0	0	0	0	0	0	Sbd box	257.0
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Y	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.7E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

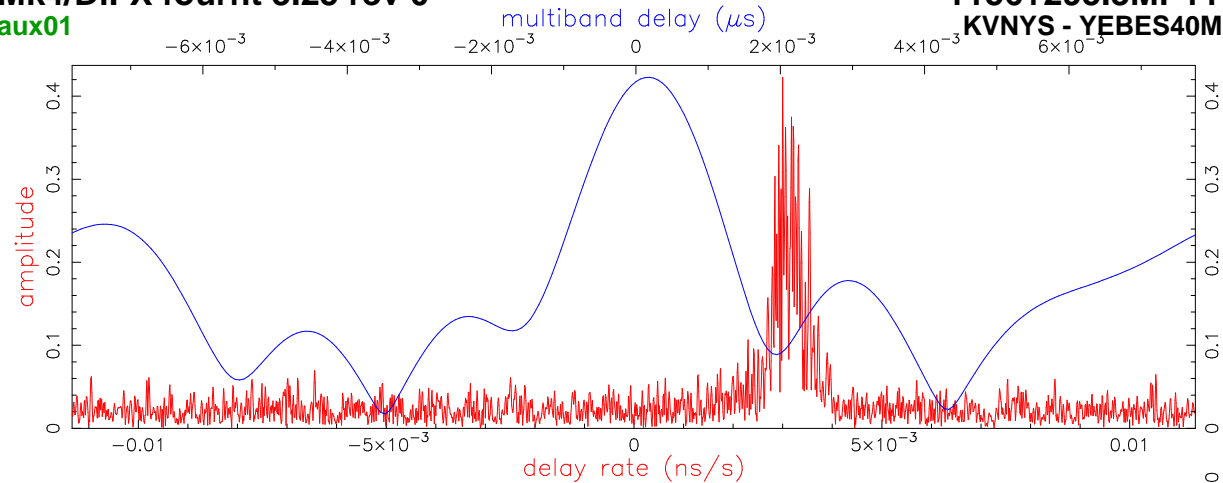
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb 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
 Y: az 72.5 el 25.6 pa -56.2 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/YY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/YY.W.106.3MP11G simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

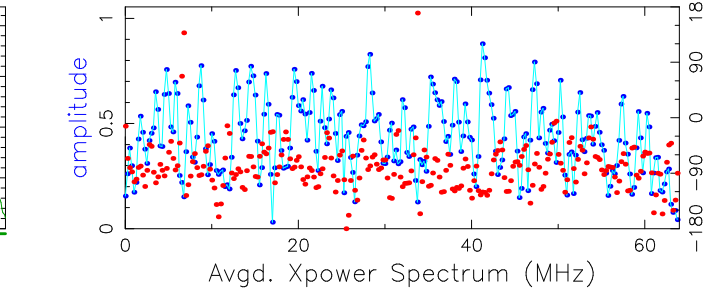
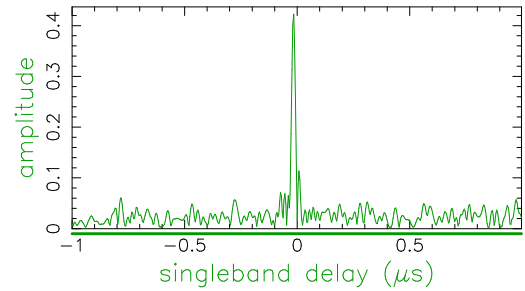
1156+295.3MP11G, No0446, yY

KVNYS - YEBES40M, fgroup W, pol LL



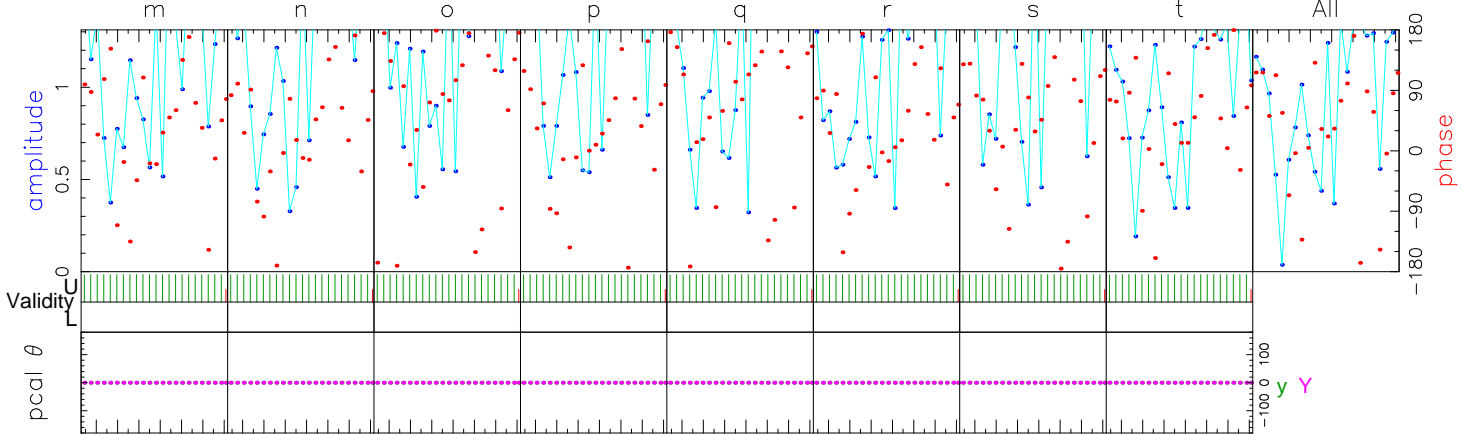
Fringe quality 8

SNR 23.3
 Int time 401.992
 Amp 0.437
 Phase 85.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.016497
 MBD 0.000145
 Fringe rate (Hz)
 0.258496
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163112
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	57.7	55.5	149.5	63.8	140.3	46.1	95.4	59.6	Phase	85.1
	0.5	0.6	0.6	0.6	0.7	0.5	0.6	0.4	Ampl.	0.6
	254.7	252.3	252.2	251.6	252.1	251.7	252.6	252.2	Sbd box	252.8
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
y	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.33518206230E+03	Apriori delay (usec)	6.33519754199E+03	Resid mbdelay (usec)	1.45315E-04	+/-	4.7E-05
Sband delay (usec)	6.33518104524E+03	Apriori clock (usec)	1.1715136E+02	Resid sbdelay (usec)	-1.64967E-02	+/-	3.7E-04
Phase delay (usec)	6.33519754473E+03	Apriori clockrate (us/s)	-1.7099050E-02	Resid phdelay (usec)	2.74504E-06	+/-	1.6E-07
Delay rate (us/s)	-1.84828187687E+00	Apriori rate (us/s)	-1.84828487775E+00	Resid rate (us/s)	3.00089E-06	+/-	6.8E-10
Total phase (deg)	181.1	Apriori accel (us/s/s)	-3.52708910091E-05	Resid phase (deg)	85.1	+/-	4.9

ph/seg (deg)	72.8	Theor.	11.8	Amplitude	0.437 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	150.9	Search (2048X32)	0.416	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	43.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	32.0	Inc. seg. avg.	0.943	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.553	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 273.7 el 47.9 pa 65.0 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12066.570 -1942.882 simultaneous interpolator

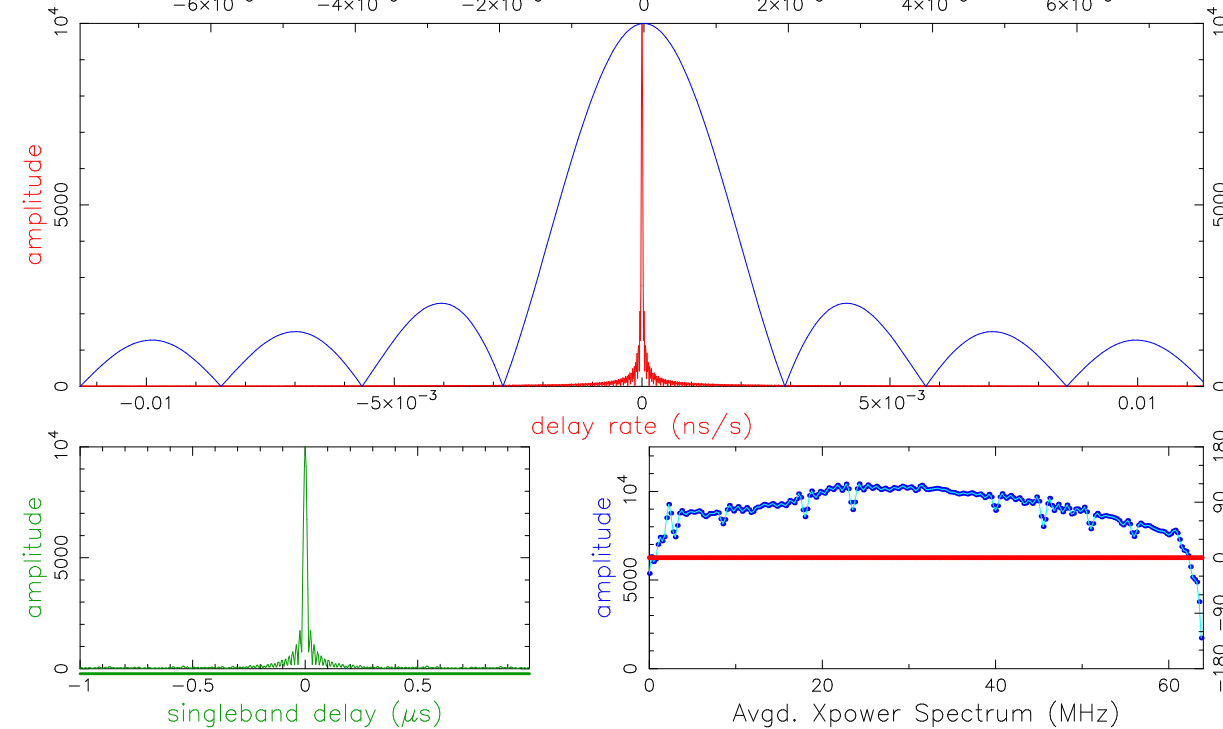
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/yY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/yY.W.114.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

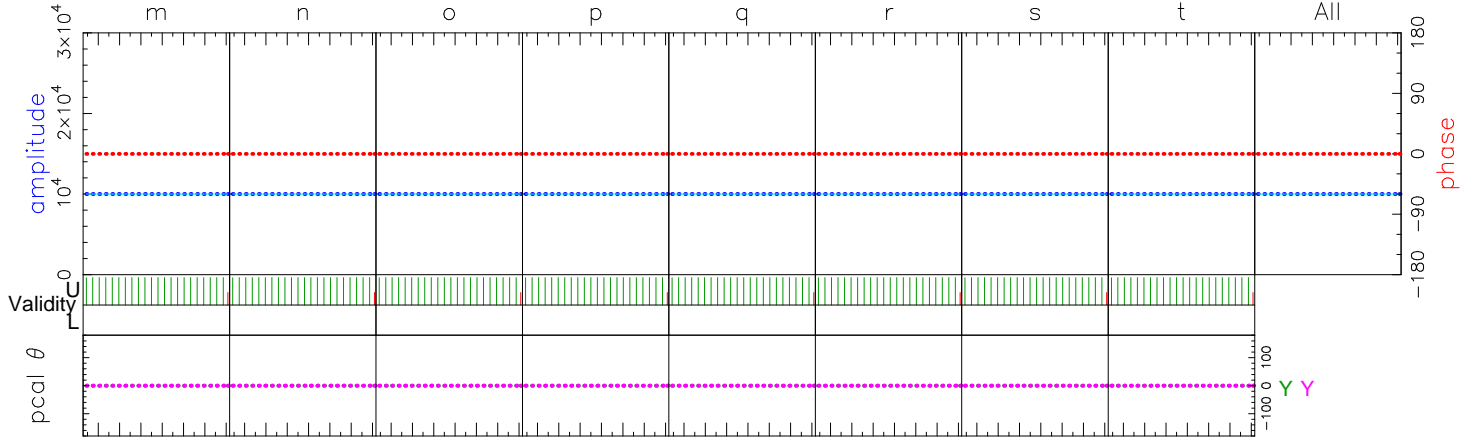
1156+295.3MP11G, No0446, YY

YEBES40M - YEBES40M, fgroup W, pol RR



Fringe quality 9
 SNR 548285.3
 Int time 401.992
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163114
 2024:113:095956
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	Ampl.	10000.0
Y	0	0	0	0	0	0	0	0	Sbd box	257.0
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Y	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 2.0E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 1.6E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 6.7E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 2.9E-14
Total phase (deg)		0.0							Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	10000.001 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (2048X32)	10000.001					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000					Bits/sample: 2x2	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.	10000.001					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
Y: az 72.5 el 25.6 pa -56.2			Y: az 72.5 el 25.6 pa -56.2						nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c241b/v2/3mm/1234/No0446/YY..3MP11G						u,v (fr/asec) 0.000 0.000	simultaneous interpolator
									Output file: /Exps/c241b/v2/3mm/1234/No0446/YY.W.121.3MP11G	

Mk4/DiFX fourfit 3.25 rev 0

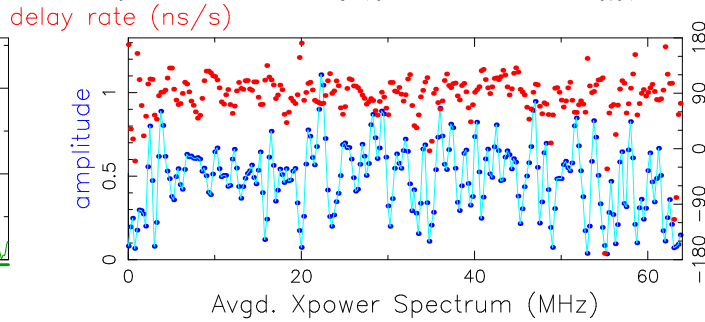
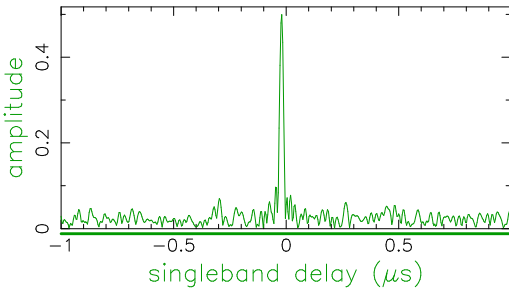
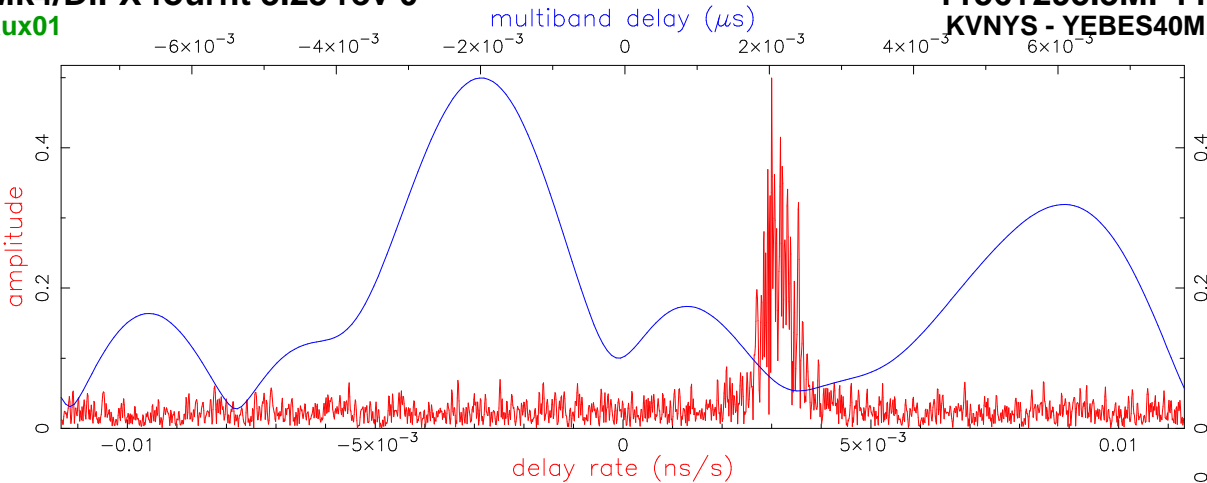
aux01

1156+295.3MP11G, No0446, yY

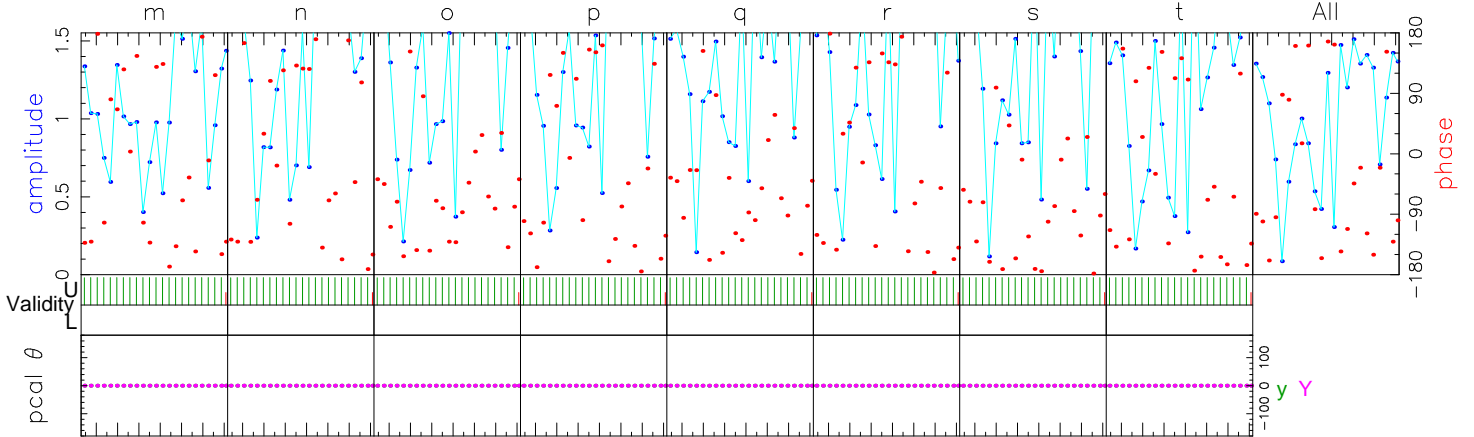
KVNYS - YEBES40M, fgroup W, pol RR

Fringe quality 6

SNR 27.6
 Int time 401.992
 Amp 0.517
 Phase -123.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.020592
 MBD -0.002016
 Fringe rate (Hz)
 0.258483
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163115
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-156.0	-159.0	-68.5	-141.0	-73.9	-156.3	-95.1	-156.4	Phase	-123.5
	0.4	0.6	0.8	0.7	0.7	0.6	0.7	0.6	Ampl.	0.6
	253.7	251.4	251.7	251.4	251.5	251.2	251.5	251.4	Sbd box	251.7
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
y	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	6.33517990068E+03		Apriori delay (usec)		6.33519754199E+03		Resid mbdelay (usec)		-2.01631E-03	+/- 3.9E-05
Sband delay (usec)	6.33517695024E+03		Apriori clock (usec)		1.1715136E+02		Resid sbdelay (usec)		-2.05918E-02	+/- 3.1E-04
Phase delay (usec)	6.33519753800E+03		Apriori clockrate (us/s)		-1.7099050E-02		Resid phdelay (usec)		-3.98143E-06	+/- 1.3E-07
Delay rate (us/s)	-1.84828187702E+00		Apriori rate (us/s)		-1.84828487775E+00		Resid rate (us/s)		3.00073E-06	+/- 5.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.52708910091E-05		Resid phase (deg)		-123.5	+/- 4.2

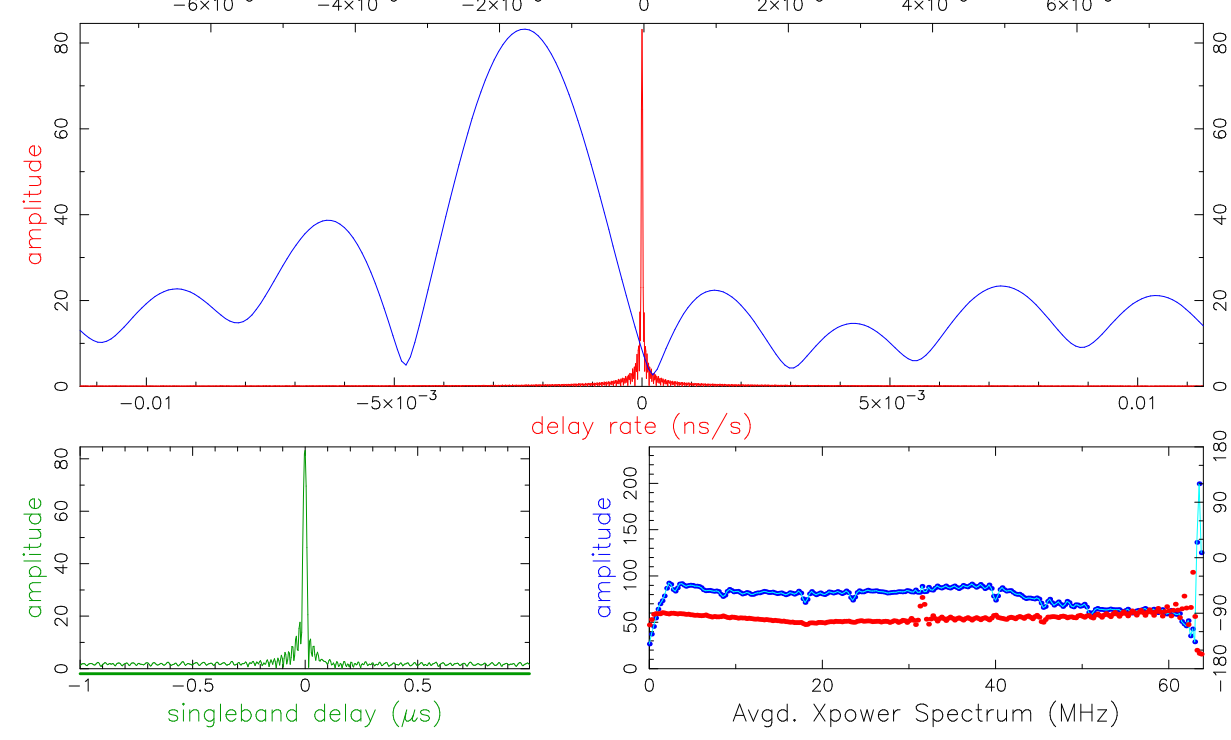
ph/seg (deg) 76.2 10.0 Search (2048X32) 0.490 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 128.5 17.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.0 5.9 Inc. seg. avg. 1.019 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.0 10.3 Inc. frq. avg. 0.646 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 y: az 273.7 el 47.9 pa 65.0 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12066.570 -1942.882 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/yY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/yY.W.127.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

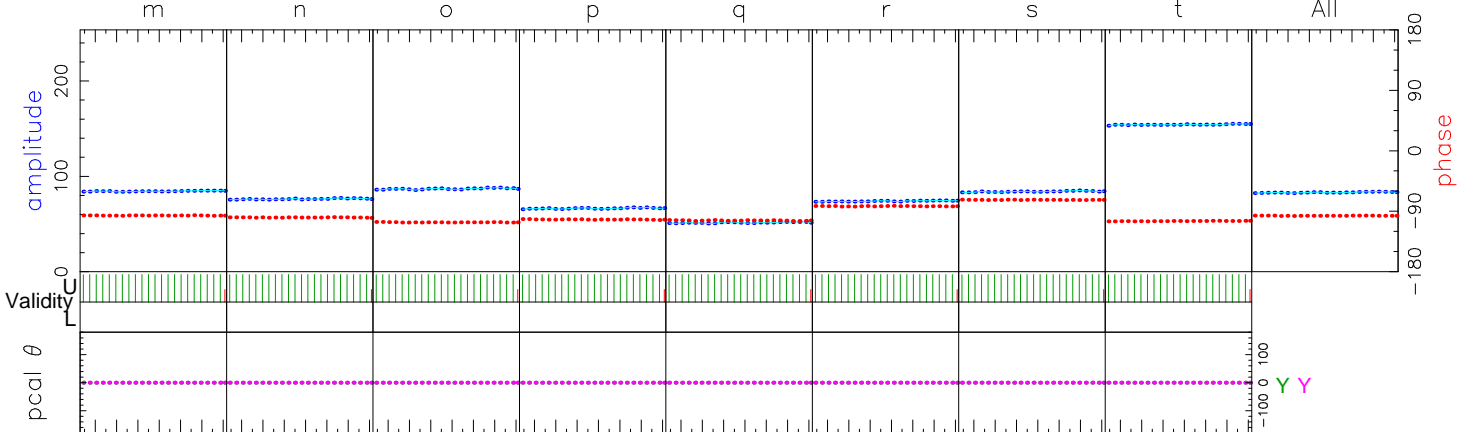
1156+295.3MP11G, No0446, YY

YEBES40M - YEBES40M, fgroup W, pol LR



Fringe quality 7
 SNR 4636.3
 Int time 401.992
 Amp 84.561
 Phase -96.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.001641
 MBD -0.001699
 Fringe rate (Hz)
 -0.000006
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-96.3	-99.2	-106.4	-102.3	-103.7	-82.5	-73.0	-104.6	Phase	-96.6	
	84.5	76.3	87.0	66.5	51.5	74.0	84.1	154.3	Ampl.	84.8	
	256.8	255.9	256.8	256.9	256.0	257.4	255.9	256.1	Sbd box	256.6	
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used		
Y	0	0	0	0	0	0	0	0	PC freqs		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
Y	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)	-1.69881250000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.69881E-03	+/- 2.3E-07	
Sband delay (usec)	-1.64050000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.64050E-03	+/- 1.9E-06	
Phase delay (usec)	-3.11666505609E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-3.11667E-06	+/- 8.0E-10	
Delay rate (us/s)	-6.80215314801E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-6.80215E-11	+/- 3.4E-12	
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-96.6	+/- 0.0	
	RMS	Theor.	Amplitude	84.561 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	0.2	0.1	Search (2048X32)	81.659	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	1.7	0.1	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	12.9	0.0	Inc. seg. avg.	83.177	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	33.6	0.1	Inc. frq. avg.	84.781	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
Y: az 72.5 el 25.6 pa -56.2	Y: az 72.5 el 25.6 pa -56.2		u,v (fr/asec) 0.000		0.000		simultaneous interpolator				
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/YY..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/YY.W.136.3MP11G								

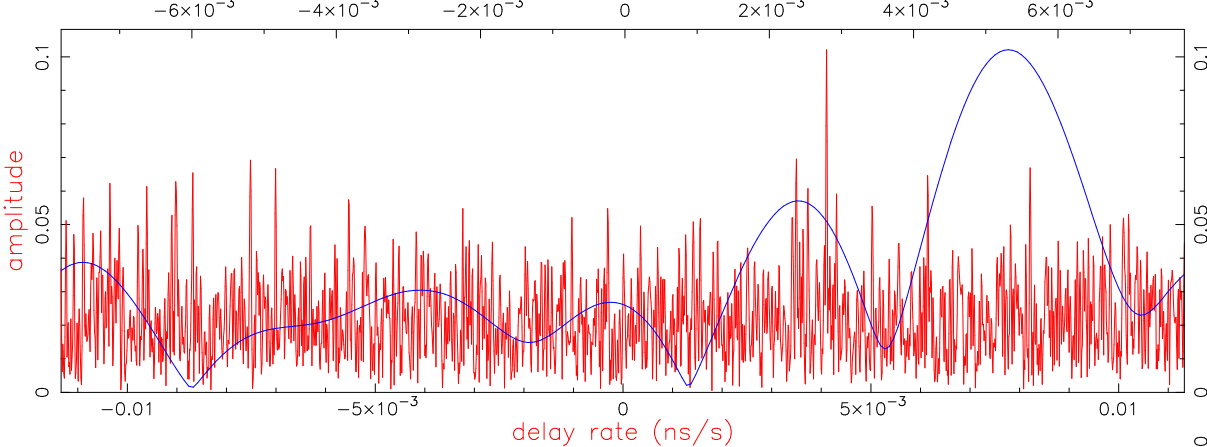
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, yY

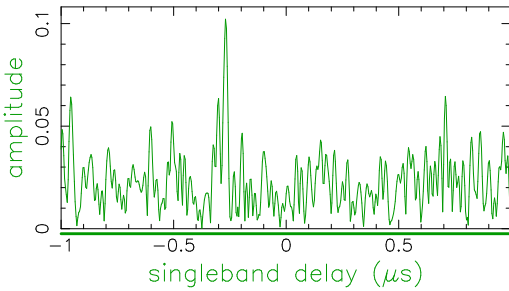
KVNYS - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

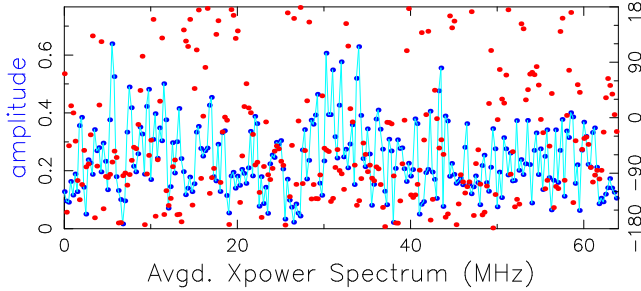


Fringe quality 0

SNR 5.6
 Int time 401.992
 Amp 0.108
 Phase -17.2
 PFD 9.9e-01
 Delays (us)
 SBD -0.268751
 MBD 0.005319
 Fringe rate (Hz)
 0.354589
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

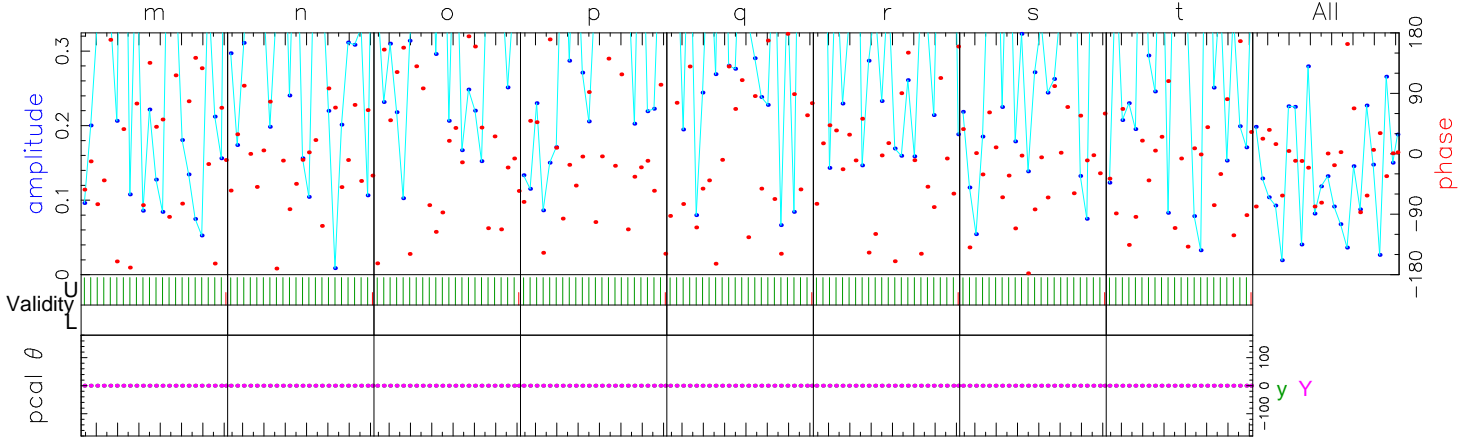


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	3.9	-13.2	-69.8	-30.6	-17.3	-15.2	-7.4	-25.1	Phase	-17.2
	0.1	0.2	0.0	0.1	0.0	0.1	0.2	0.1	Ampl.	0.1
	13.9	188.1	78.5	80.3	448.3	482.7	188.9	53.5	Sbd box	188.2
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
y	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.33492161074E+03	Apriori delay (usec)	6.33519754199E+03	Resid mbdelay (usec)	5.31876E-03	+/-	1.9E-04
Sband delay (usec)	6.33492879124E+03	Apriori clock (usec)	1.1715136E+02	Resid sbdelay (usec)	-2.68751E-01	+/-	1.5E-03
Phase delay (usec)	6.33519754143E+03	Apriori clockrate (us/s)	-1.7099050E-06	Resid phdelay (usec)	-5.54925E-07	+/-	6.6E-07
Delay rate (us/s)	-1.84828076133E+00	Apriori rate (us/s)	-1.84828487775E+00	Resid rate (us/s)	4.11642E-06	+/-	2.8E-09
Total phase (deg)	78.8	Apriori accel (us/s/s)	-3.52708910091E-05	Resid phase (deg)	-17.2	+/-	20.4

ph/seg (deg)	55.5	RMS	48.9	Theor.	55.5	Amplitude	0.108 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.1	Search (2048X32)	0.099	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	24.4	Inc. seg. avg.	0.103	Inc. frq. avg.	0.099	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	55.3	Inc. frq. avg.	0.099	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 273.7 el 47.9 pa 65.0 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12066.570 -1942.882 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/yY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/yY.W.138.3MP11G

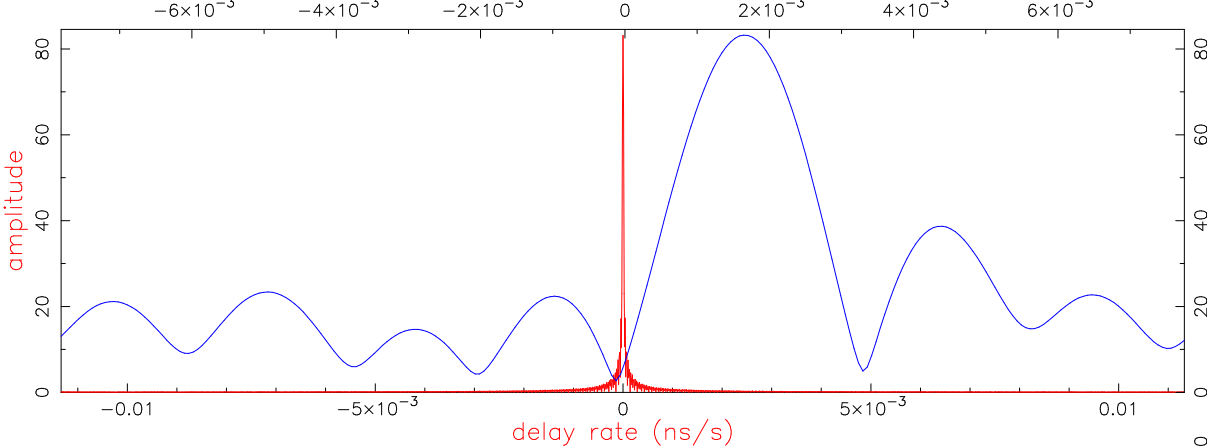
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, YY

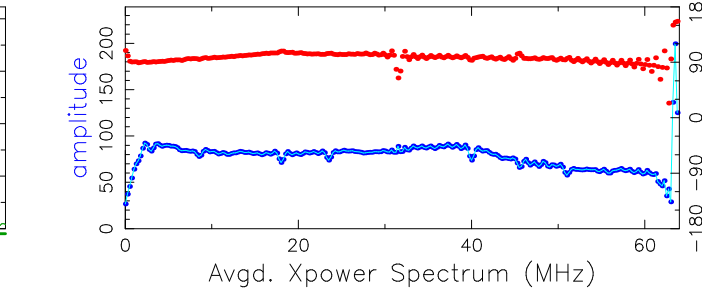
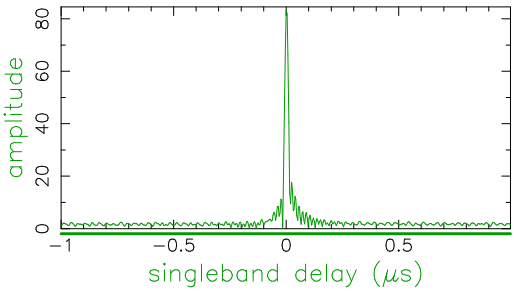
YEBES40M - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



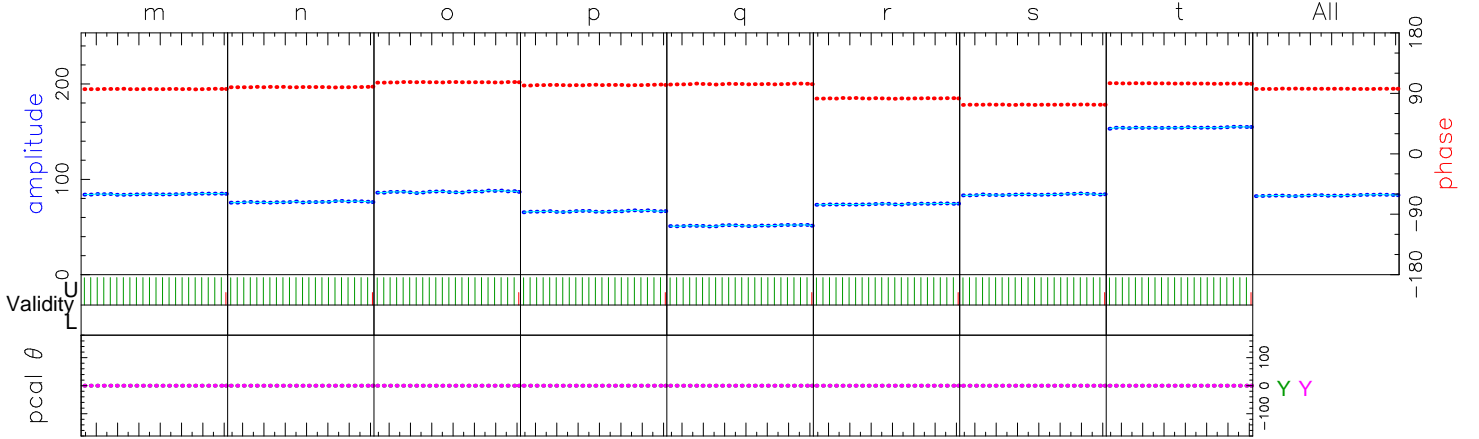
Fringe quality 7

SNR 4636.3
 Int time 401.992
 Amp 84.561
 Phase 96.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001641
 MBD 0.001699
 Fringe rate (Hz) 0.000006
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163123
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	96.3	99.2	106.4	102.3	103.7	82.5	73.0	104.6	Phase	96.6
	84.5	76.3	87.0	66.5	51.5	74.0	84.1	154.3	Ampl.	84.8
	257.2	258.1	257.2	257.1	258.0	256.6	258.1	257.9	Sbd box	257.4
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.69881250000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.69881E-03	+/-	2.3E-07
Sband delay (usec)	1.64050000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	1.64050E-03	+/-	1.9E-06
Phase delay (usec)	3.11666505621E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.11667E-06	+/-	8.0E-10
Delay rate (us/s)	6.80215314801E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	6.80215E-11	+/-	3.4E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	96.6	+/-	0.0

ph/seg (deg) 0.2 0.1 Search (2048X32) 81.659 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.7 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) 12.9 0.0 Inc. seg. avg. 83.177 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.6 0.1 Inc. frq. avg. 84.781 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 72.5 el 25.6 pa -56.2 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/YY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/YY.W.142.3MP11G simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

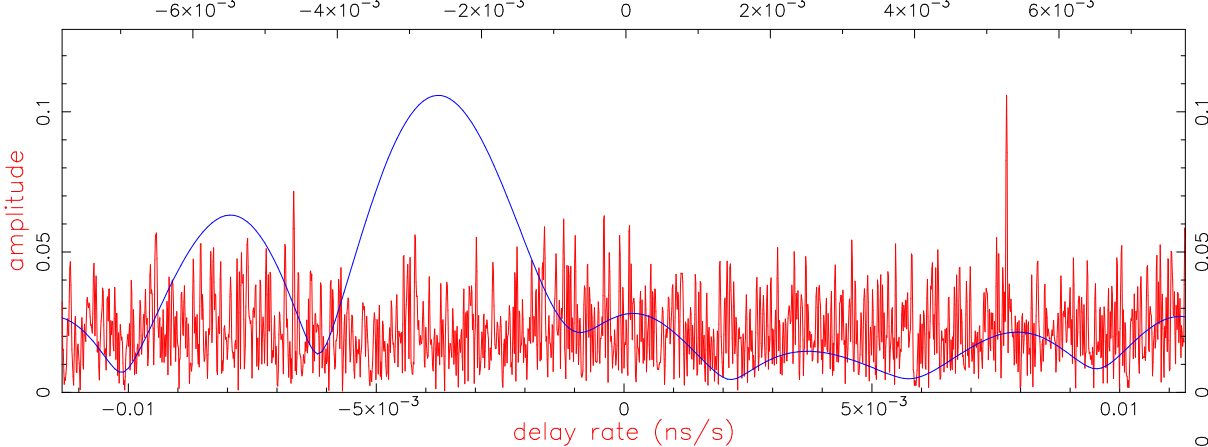
aux01

1156+295.3MP11G, No0446, yY

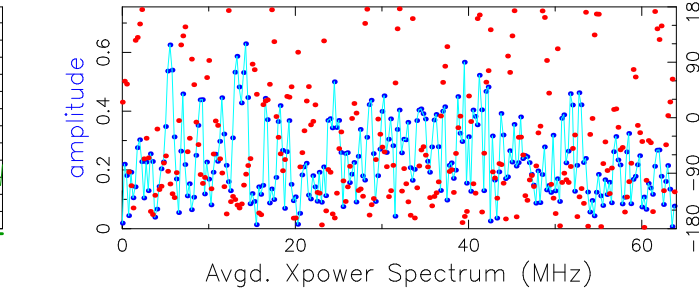
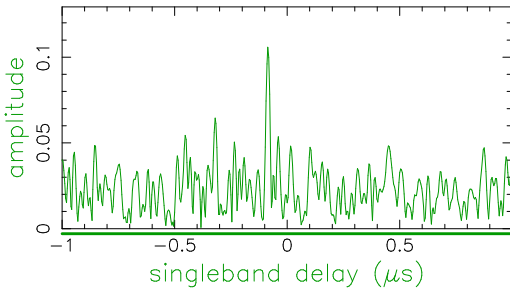
KVNYS - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

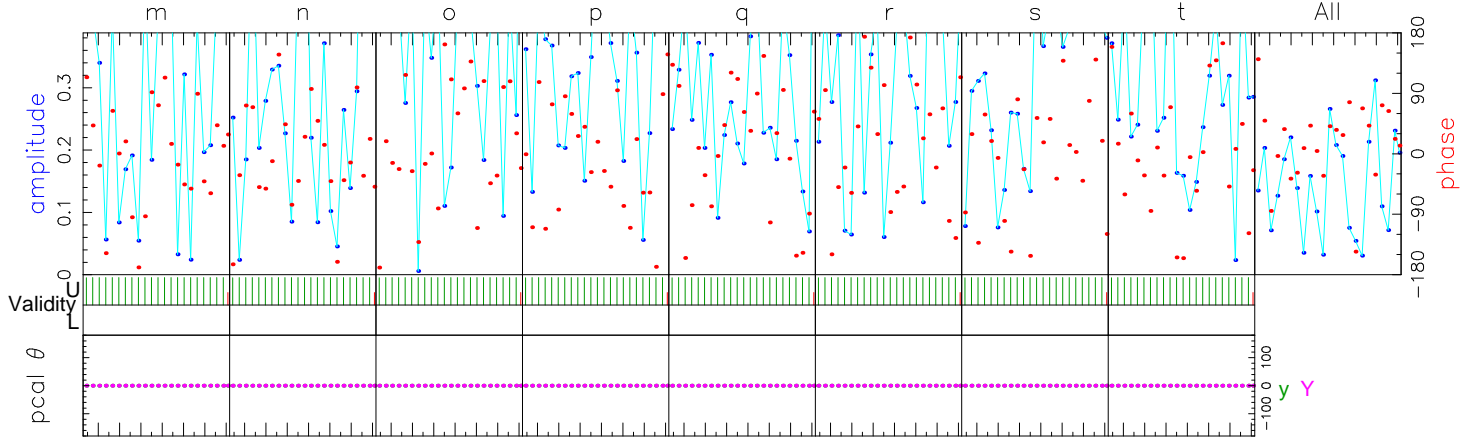


SNR 5.8
 Int time 401.992
 Amp 0.129
 Phase 21.8
 PFD 7.9e-01
 Delays (us)
 SBD -0.085415
 MBD -0.002598
 Fringe rate (Hz)
 0.665856
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163124
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	36.4	5.9	9.5	15.9	69.3	33.3	26.8	-7.9	Phase	21.8		
	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1		
	233.5	235.8	114.2	38.1	336.7	242.1	371.8	261.7	Sbd box	235.1		
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used			
y	0	0	60000	0	0	0	4000	0	PC freqs			
Y	0	0	0	0	0	0	0	0	PC freqs			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	6.33511681877E+03		Apriori delay (usec)		6.33519754199E+03		Resid mbdelay (usec)		-2.59822E-03	+/- 1.9E-04		
Sband delay (usec)	6.33511212724E+03		Apriori clock (usec)		1.1715136E+02		Resid sbdelay (usec)		-8.54148E-02	+/- 1.5E-03		
Phase delay (usec)	6.33519754269E+03		Apriori clockrate (us/s)		-1.7099050E-06		Resid phdelay (usec)		7.04501E-07	+/- 6.4E-07		
Delay rate (us/s)	-1.84827714782E+00		Apriori rate (us/s)		-1.84828487775E+00		Resid rate (us/s)		7.72993E-06	+/- 2.7E-09		
Total phase (deg)	117.8		Apriori accel (us/s/s)		-3.52708910091E-05		Resid phase (deg)		21.8	+/- 19.7		
RMS	59.0	47.3	Amplitude		0.129 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	82.7	82.5	Search (2048X32)		0.102		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	25.6	27.9	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	38.6	48.7	Inc. seg. avg.		0.132		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011		
amp/frq (%)			Inc. frq. avg.		0.122		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
y: az 273.7 el 47.9 pa 65.0	Y: az 72.5 el 25.6 pa -56.2		u, v (fr/asec)		12066.570 -1942.882				simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/yY...3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/yY.W.144.3MP11G									

Mk4/DiFX fourfit 3.25 rev 0

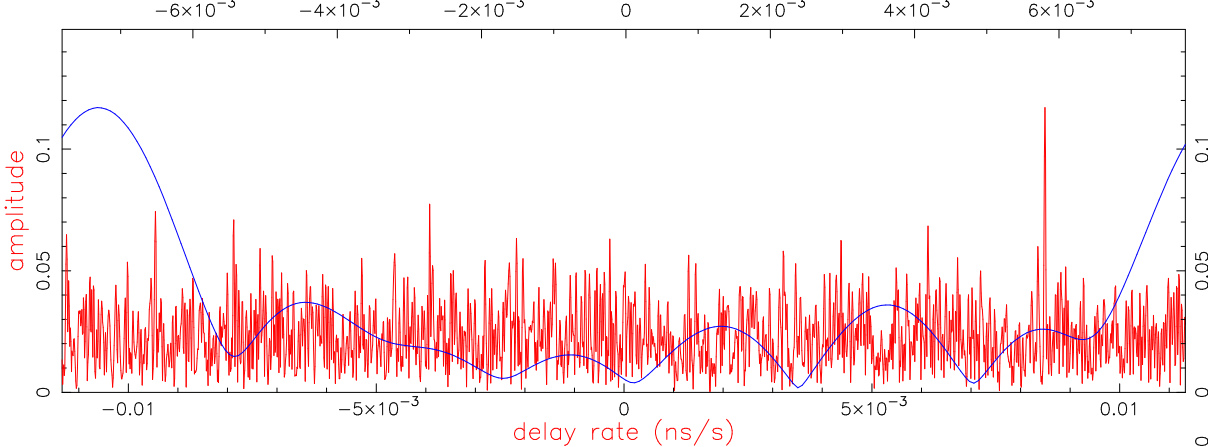
aux01

1156+295.3MP11G, No0446, ZY

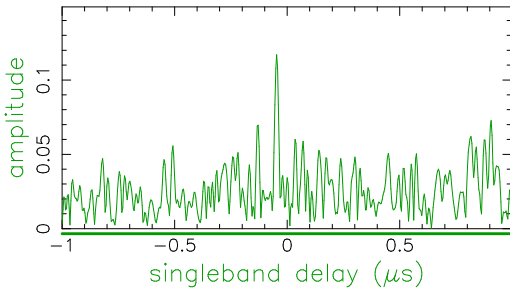
METSAHOV - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

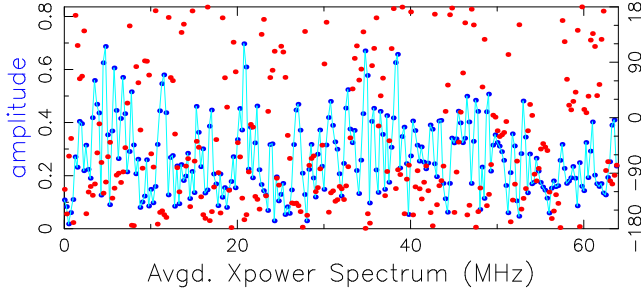
Fringe quality 0



SNR 6.2
 Int time 374.899
 Amp 0.149
 Phase -44.1
 PFD 1.4e-01
 Delays (us)
 SBD -0.046817
 MBD 0.008301
 Fringe rate (Hz) 0.732188
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

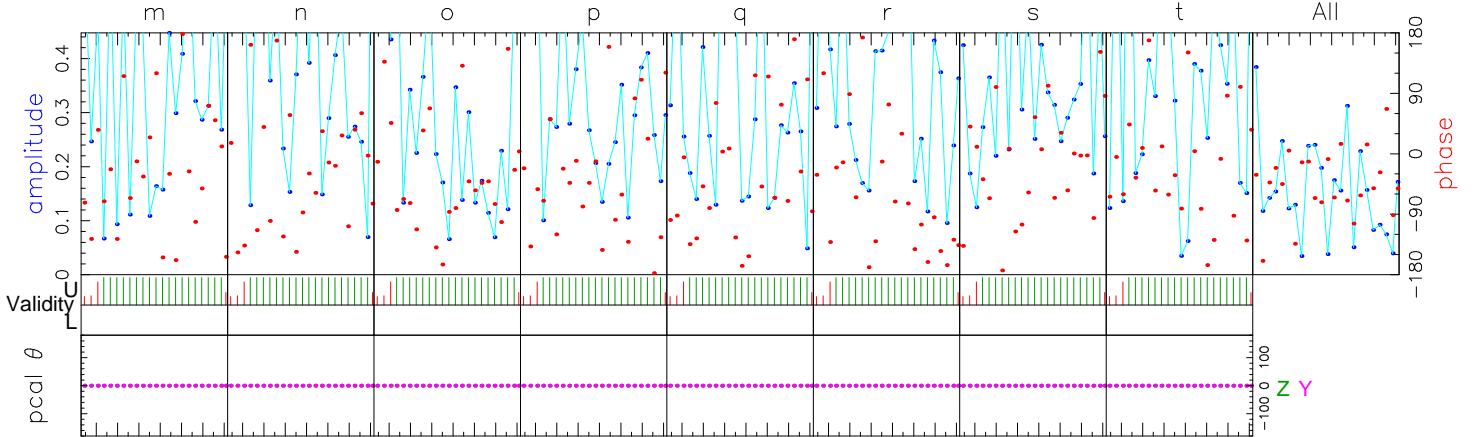


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163111
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-16.6	-59.5	-42.0	-45.9	-54.8	-76.4	-38.8	-19.0	Phase	-44.1
	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2	Ampl.	0.1
	472.1	129.5	509.8	383.8	60.4	198.0	426.9	233.0	Sbd box	245.0
U/L	756/0	756/0	756/0	756/0	756/0	756/0	756/0	756/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.43953550806E+03	Apriori delay (usec)	5.43958970728E+03	Resid mbdelay (usec)	8.30078E-03	+/-	1.8E-04
Sband delay (usec)	5.43954289028E+03	Apriori clock (usec)	1.1097047E+02	Resid sbdelay (usec)	-4.68170E-02	+/-	1.4E-03
Phase delay (usec)	5.43958970586E+03	Apriori clockrate (us/s)	-1.1592261E-02	Resid phdelay (usec)	-1.42063E-06	+/-	6.0E-07
Delay rate (us/s)	-4.84095700758E-01	Apriori rate (us/s)	-4.84104200736E-01	Resid rate (us/s)	8.49998E-06	+/-	2.7E-09
Total phase (deg)	94.6	Apriori accel (us/s/s)	-1.63440113732E-05	Resid phase (deg)	-44.1	+/-	18.5

ph/seg (deg)	47.2	RMS	43.5	Theor.	43.5	Amplitude	0.149 +/- 0.024	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.4	Search (2048X32)	0.114	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000			
ph/frq (deg)	21.7	Inc. seg. avg.	0.147	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008		
amp/frq (%)	11.7	Inc. frq. avg.	0.143	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011			
Z: az 107.6 el 43.3 pa -32.8	Y: az 72.5 el 25.6 pa -56.2	u, v (fr/asec)	3150.594 953.090	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/c241b/v2/3mm/1234/No0446/ZY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/ZY.W.108.3MP11G

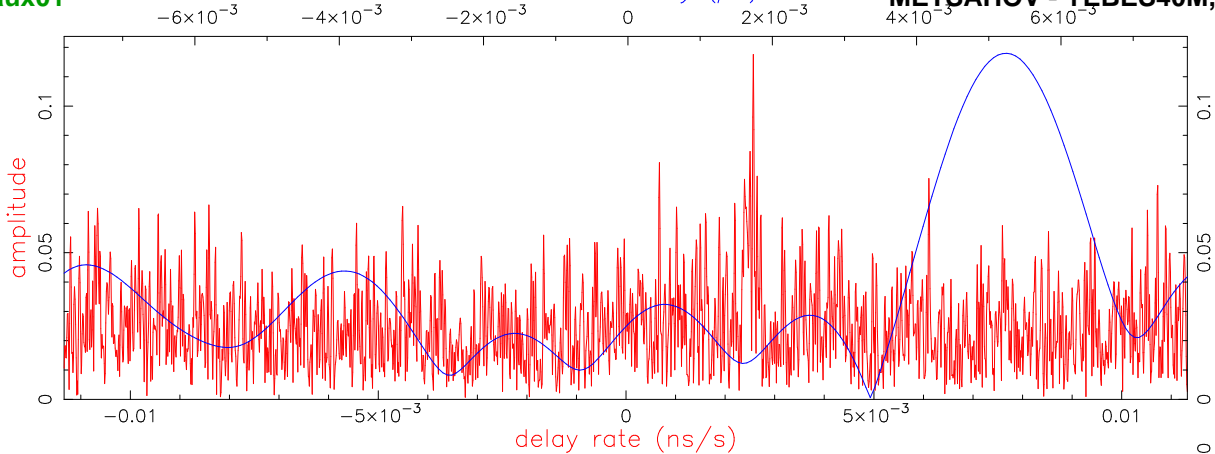
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, ZY

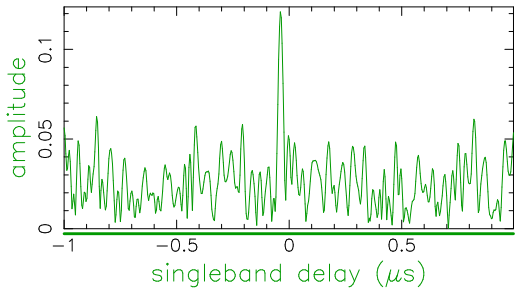
METSÁHOV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

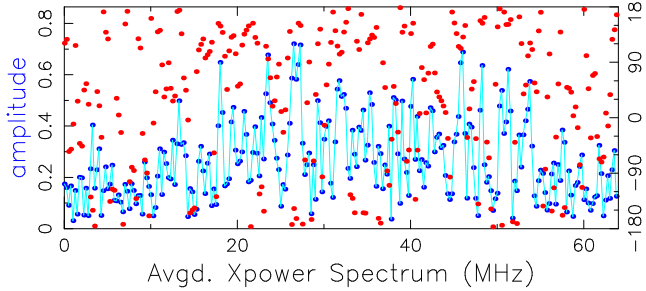


Fringe quality 0

SNR 6.4
 Int time 374.899
 Amp 0.124
 Phase -11.7
 PFD 3.8e-02
 Delays (us)
 SBD -0.038231
 MBD 0.005150
 Fringe rate (Hz) 0.221552
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

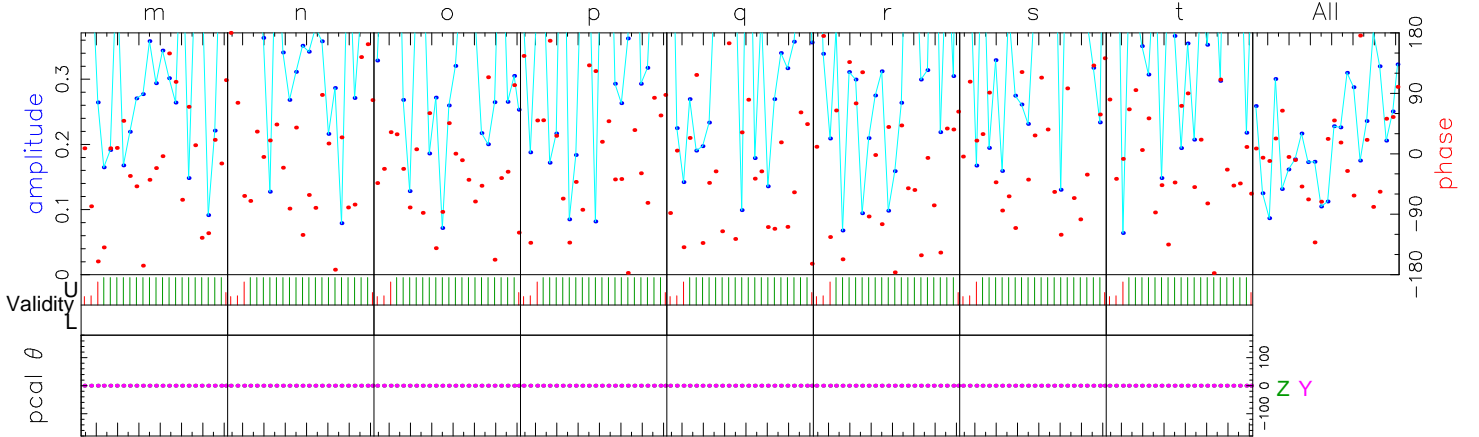


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build 2024:358:161459
 2025:041:163115
 2024:113:095956
 RA & Dec (J2000) 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-21.3	-35.5	-19.4	26.4	-32.5	-17.1	6.9	-15.8	Phase	-11.7
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	9.1	492.9	247.7	187.9	450.5	183.0	232.5	56.7	Sbd box	247.2
U/L	756/0	756/0	756/0	756/0	756/0	756/0	756/0	756/0	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)	5.43954798267E+03	Apriori delay (usec)	5.43958970728E+03	Resid mbdelay (usec)	5.15039E-03	+/-	1.7E-04
Sband delay (usec)	5.43955147653E+03	Apriori clock (usec)	1.1097047E+02	Resid sbdelay (usec)	-3.82308E-02	+/-	1.3E-03
Phase delay (usec)	5.43958970690E+03	Apriori clockrate (us/s)	-1.1592261E-06	Resid phdelay (usec)	-3.76238E-07	+/-	5.8E-07
Delay rate (us/s)	-4.84101628738E-01	Apriori rate (us/s)	-4.84104200736E-01	Resid rate (us/s)	2.57200E-06	+/-	2.6E-09
Total phase (deg)	127.0	Apriori accel (us/s/s)	-1.63440113732E-05	Resid phase (deg)	-11.7	+/-	17.9

ph/seg (deg)	65.4	Theor.	42.0	Amplitude	0.124 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	99.9	Search (2048X32)	0.115	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	22.3	Inc. seg. avg.	0.172	Inc. frq. avg.	0.116	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.9	Inc. frq. avg.	0.116			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
Z: az 107.6 el 43.3 pa -32.8		Y: az 72.5 el 25.6 pa -56.2		u, v (fr/asec)	3150.594 953.090	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

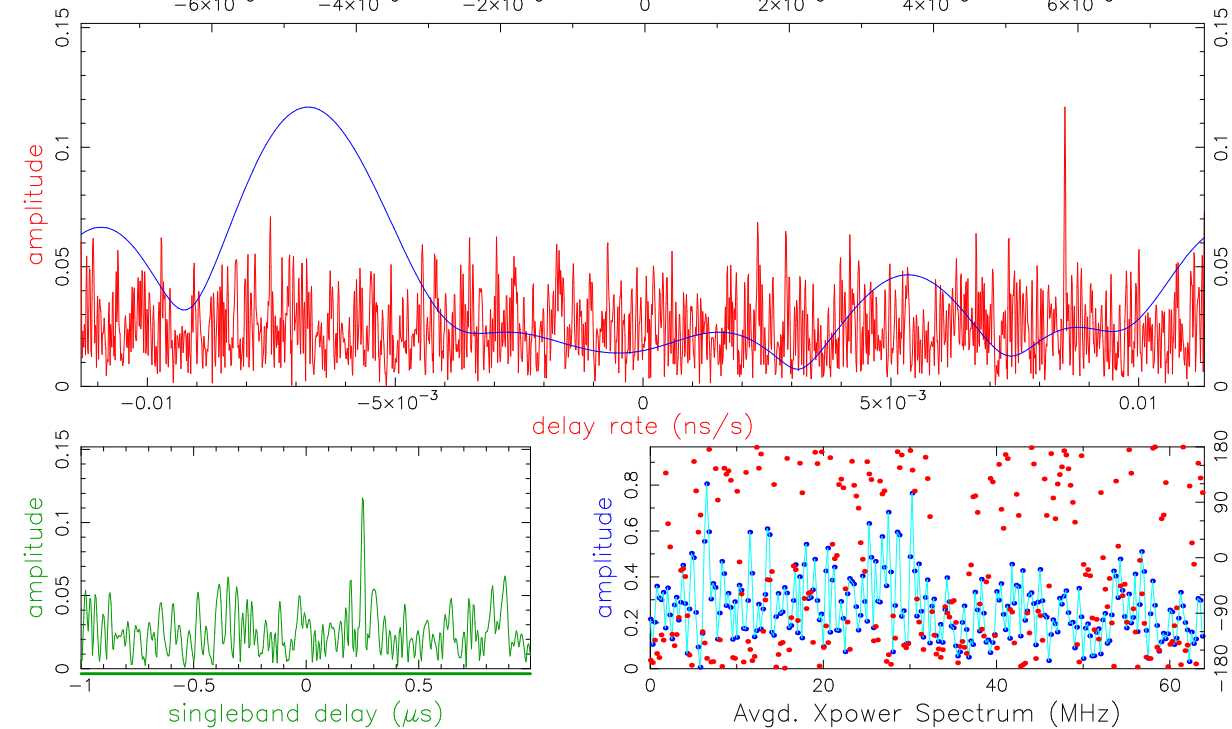
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/ZY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/ZY.W.122.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

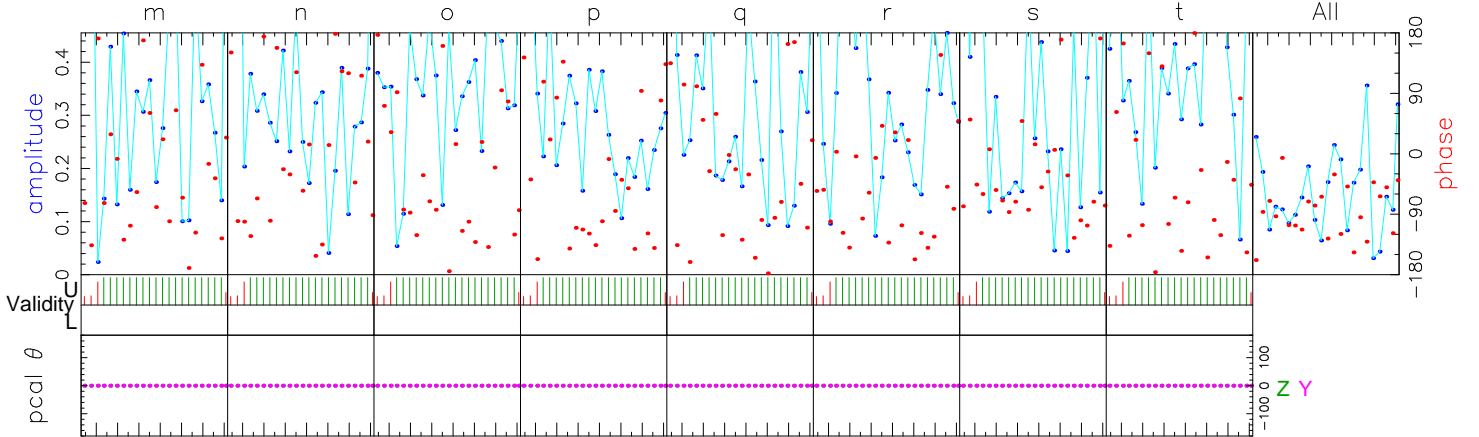
1156+295.3MP11G, No0446, ZY

METSAHOV - YEBES40M, fgroup W, pol LR



Fringe quality 0
 SNR 6.3
 Int time 374.899
 Amp 0.152
 Phase -91.7
 PFD 8.0e-02
 Delays (us)
 SBD 0.251645
 MBD -0.004630
 Fringe rate (Hz) 0.734134
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build 2024:358:161459
 2025:041:163119
 2024:113:095956
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-59.2	-121.1	-92.8	-126.5	-71.2	-90.0	-66.9	-120.9	Phase	-91.7
	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.2	Ampl.	0.1
	472.4	142.5	166.3	47.1	214.7	320.9	321.2	319.1	Sbd box	321.4
U/L	756/0	756/0	756/0	756/0	756/0	756/0	756/0	756/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 5.43983507707E+03 Apriori delay (usec) 5.43958970728E+03 Resid mbdelay (usec) -4.63021E-03 +/- 1.7E-04
 Sband delay (usec) 5.43984135203E+03 Apriori clock (usec) 1.1097047E+02 Resid sbdelay (usec) 2.51645E-01 +/- 1.4E-03
 Phase delay (usec) 5.43958970432E+03 Apriori clockrate (us/s) -1.1592261E-06 Resid phdelay (usec) -2.95661E-06 +/- 5.9E-07
 Delay rate (us/s) -4.84095678162E-01 Apriori rate (us/s) -4.84104200736E-01 Resid rate (us/s) 8.52257E-06 +/- 2.6E-09
 Total phase (deg) 47.0 Apriori accel (us/s/s) -1.63440113732E-05 Resid phase (deg) -91.7 +/- 18.2

RMS Theor. Amplitude 0.152 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 38.1 42.8 Search (2048X32) 0.115 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 70.8 74.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 28.9 25.7 Inc. seg. avg. 0.148 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 48.8 44.9 Inc. frq. avg. 0.148 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 107.6 el 43.3 pa -32.8 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 3150.594 953.090 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/ZY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/ZY.W.133.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

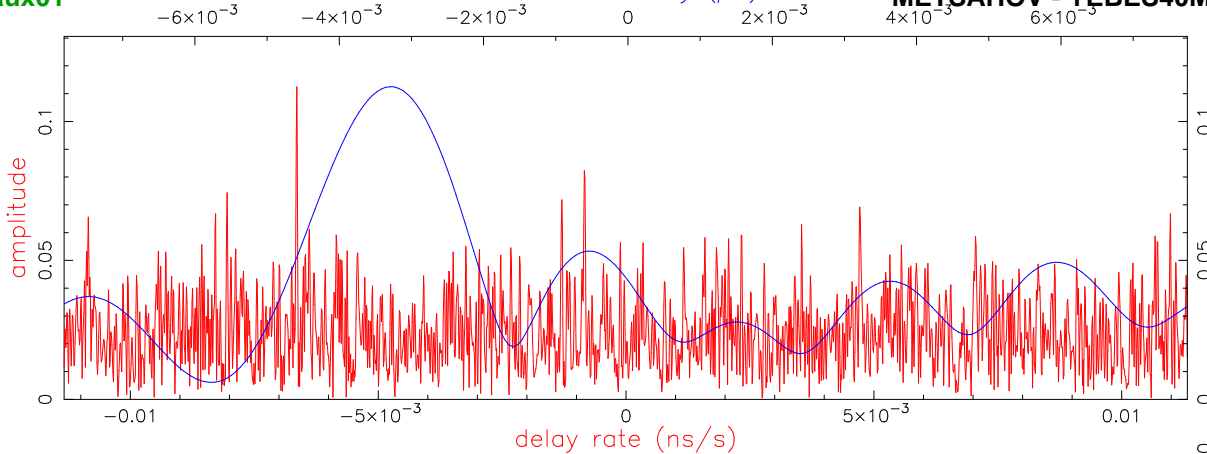
aux01

1156+295.3MP11G, No0446, ZY

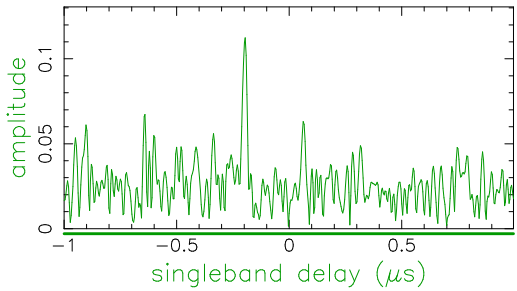
METSAHOV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

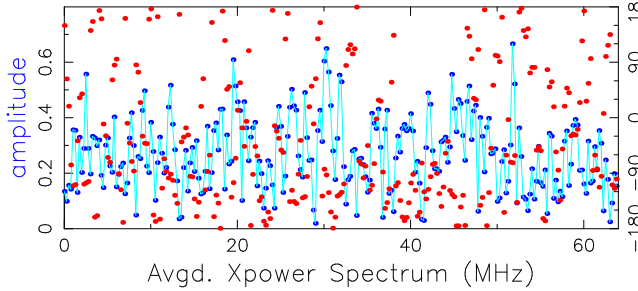
Fringe quality 0



SNR 6.0
 Int time 374.899
 Amp 0.131
 Phase -174.3
 PFD 4.4e-01
 Delays (us)
 SBD -0.196352
 MBD -0.003336
 Fringe rate (Hz)
 -0.573121
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

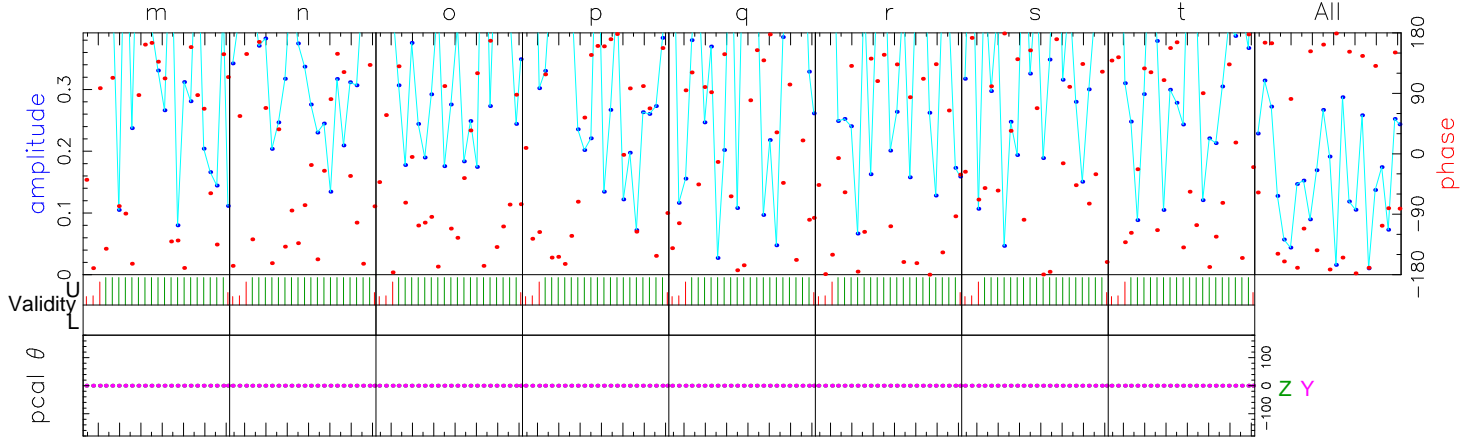


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 170017.41
 Stop 170659.84
 FRT 170330.00
 Corr/FF/build
 2024:358:161459
 2025:041:163122
 2024:113:095956
 RA & Dec (J2000)
 11h59m31.833914s
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	154.8	-153.1	-128.5	-175.4	154.4	173.6	177.0	-163.5	Phase	-174.3
	0.2	0.1	0.2	0.2	0.1	0.2	0.0	0.1	Ampl.	0.1
	207.9	301.3	91.0	206.1	147.9	9.4	412.1	389.2	Sbd box	206.7
U/L	756/0	756/0	756/0	756/0	756/0	756/0	756/0	756/0	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)	5.43939887145E+03	Apriori delay (usec)	5.43958970728E+03	Resid mbdelay (usec)	-3.33583E-03	+/-	1.8E-04
Sband delay (usec)	5.43939335528E+03	Apriori clock (usec)	1.1097047E+02	Resid sbdelay (usec)	-1.96352E-01	+/-	1.4E-03
Phase delay (usec)	5.43958970166E+03	Apriori clockrate (us/s)	-1.1592261E-02	Resid phdelay (usec)	-5.61911E-06	+/-	6.2E-07
Delay rate (us/s)	-4.84110854107E-01	Apriori rate (us/s)	-4.84104200736E-01	Resid rate (us/s)	-6.65337E-06	+/-	2.8E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.63440113732E-05	Resid phase (deg)	-174.3	+/-	19.2

ph/seg (deg)	47.7	Theor.	45.1	Amplitude	0.131 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	84.0		78.7	Search (2048X32)	0.111	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	28.4		27.1	Inc. seg. avg.	0.133	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.1		47.3	Inc. frq. avg.	0.129	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 107.6 el 43.3 pa -32.8		Y: az 72.5 el 25.6 pa -56.2		u, v (fr/asec)	3150.594 953.090	Data rate(Mb/s): 2048				

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/ZY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/ZY.W.140.3MP11G