

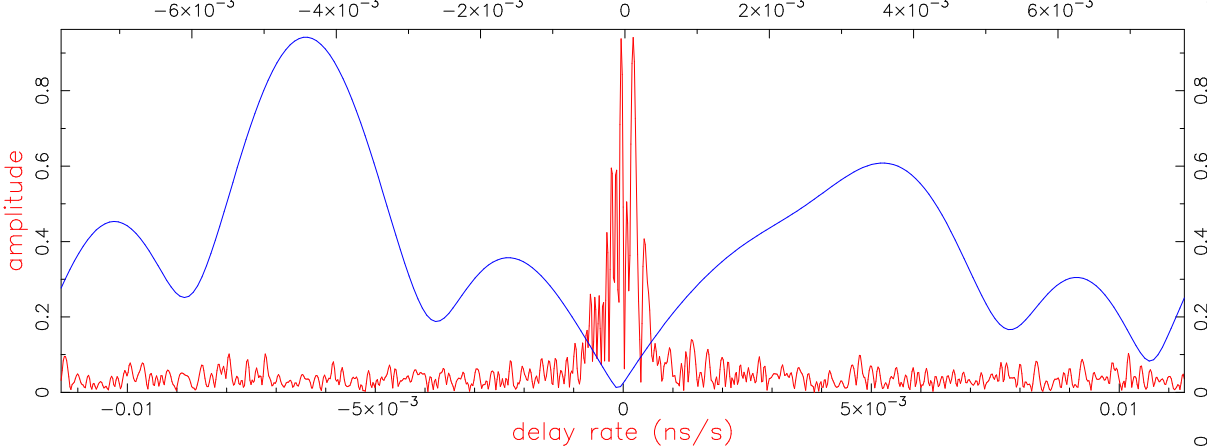
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, BY

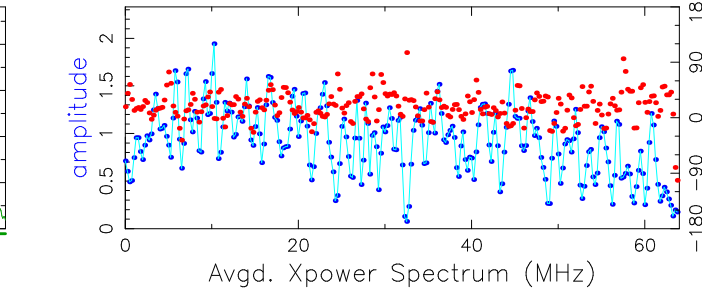
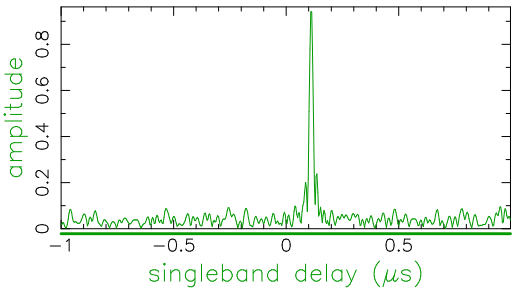
EFLSBERG - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

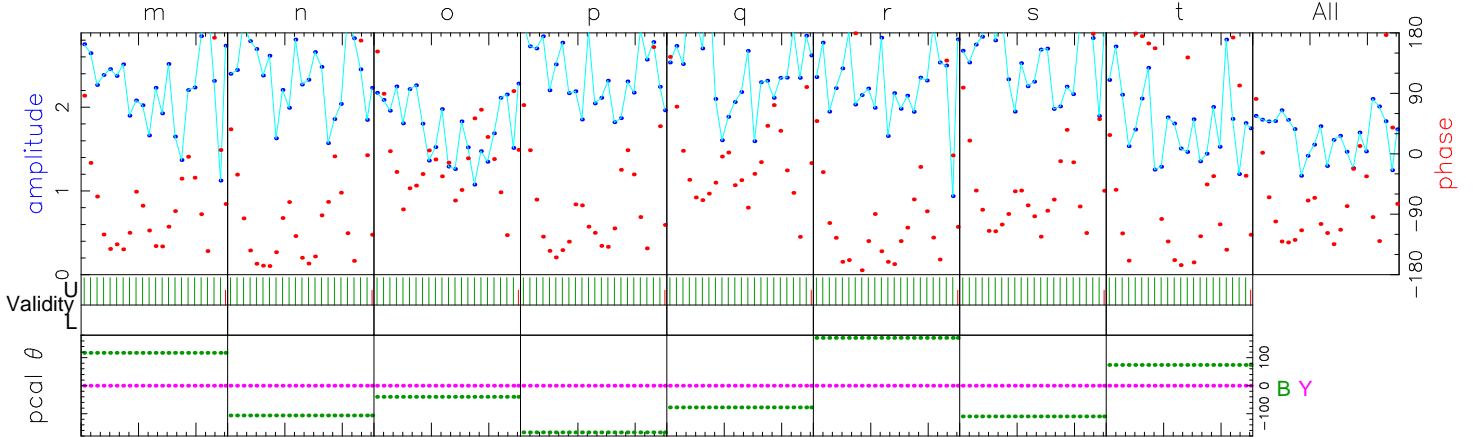


Fringe quality 4

SNR 32.2
 Int time 149.852
 Amp 0.963
 Phase -92.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.111318
 MBD -0.004375
 Fringe rate (Hz) 0.017184
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112619
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-100.1	-122.4	-20.1	-105.3	-24.5	-128.3	-77.4	-140.8	Phase	-92.3
	1.3	1.4	1.0	1.2	1.4	1.3	1.5	0.9	Ampl.	1.2
	284.8	285.0	285.7	285.2	285.4	285.2	285.3	283.4	Sbd box	285.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	Mani 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.12198171036E+01	Apriori delay (usec)	-1.13248166862E+01	Resid mbdelay (usec)	-4.37542E-03	+/-	3.4E-05
Sband delay (usec)	-1.12134986862E+01	Apriori clock (usec)	7.5146591E+01	Resid sbdelay (usec)	1.11318E-01	+/-	2.7E-04
Phase delay (usec)	-1.13248196614E+01	Apriori clockrate (us/s)	1.0241300E-06	Resid phdelay (usec)	-2.97524E-06	+/-	1.1E-07
Delay rate (us/s)	1.04452129894E-01	Apriori rate (us/s)	1.04451930404E-01	Resid rate (us/s)	1.99490E-07	+/-	1.3E-09
Total phase (deg)	-347.6	Apriori accel (us/s/s)	1.07030792811E-05	Resid phase (deg)	-92.3	+/-	3.6

ph/seg (deg)	65.0	RMS	Theor.	Amplitude	0.963 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	77.5	65.0	8.5	Search (1024X32)	0.940	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.7	77.5	14.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.1	49.7	5.0	Inc. seg. avg.	1.646	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		35.1	8.8	Inc. frq. avg.	1.232	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 302.4 el 37.9 pa 53.2 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -889.003 1660.269 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/BY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/BY.W.103.3MP19T

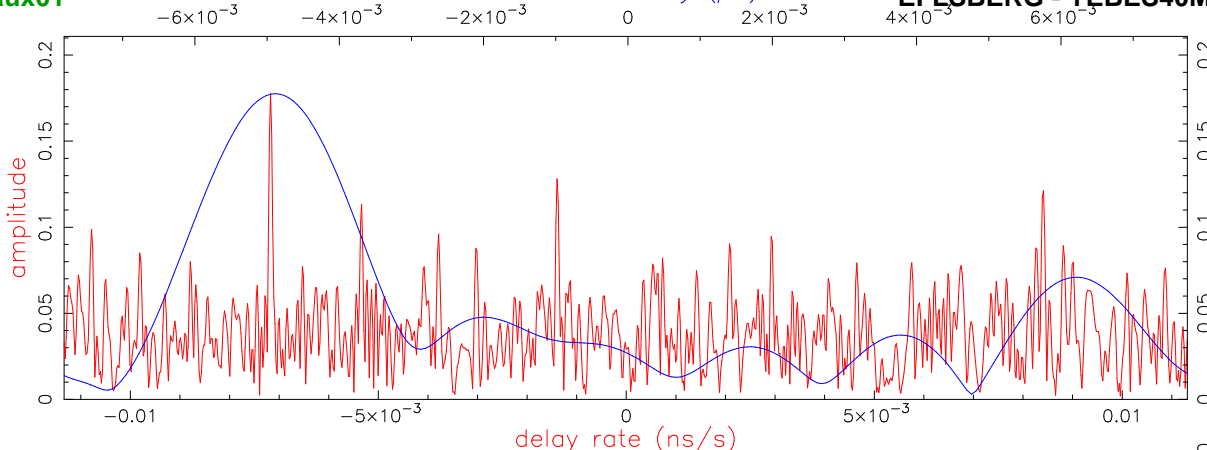
Mk4/DiFX fourfit 3.25 rev 0

aux01

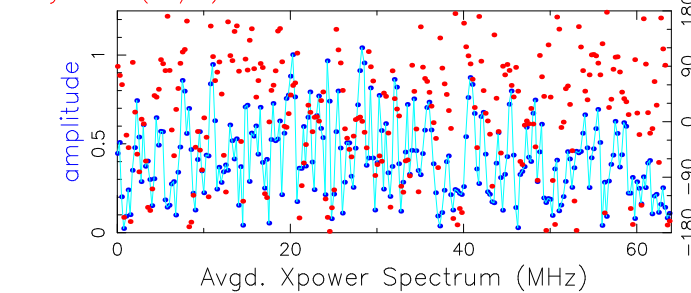
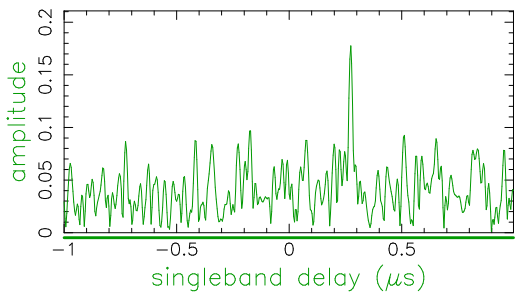
0133+476.3MP19T, No0914, BY

EFLSBERG - YEBES40M, fgroup W, pol LR

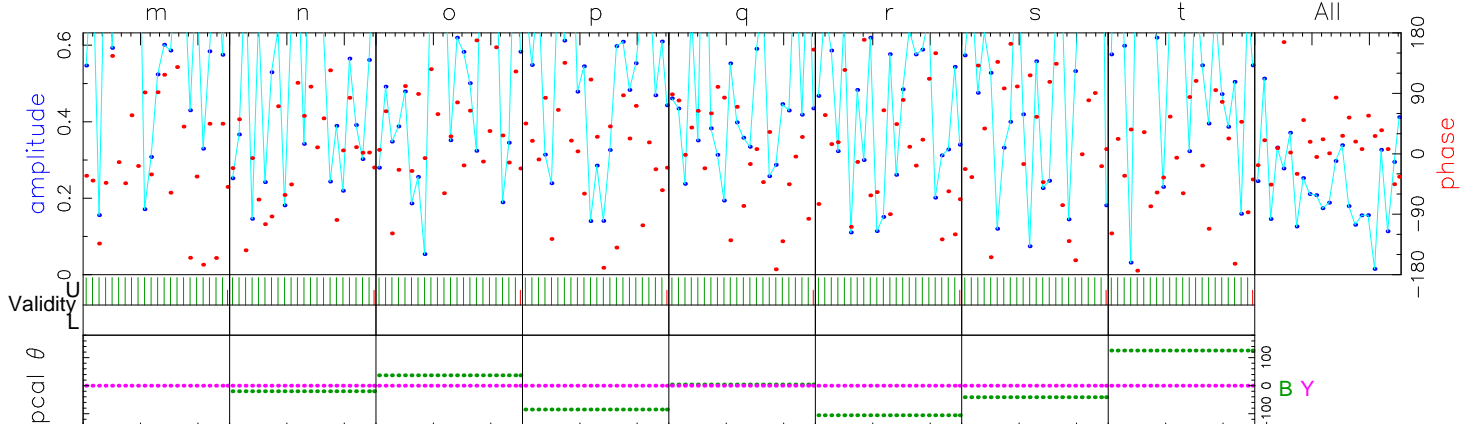
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 149.852
 Amp 0.211
 Phase 14.9
 PFD 3.0e-01
 Delays (us)
 SBD 0.273163
 MBD -0.004887
 Fringe rate (Hz)
 -0.619653
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112621
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-8.3	20.2	47.0	19.5	-1.2	1.7	47.6	-9.2		Phase 14.9		
	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2		Ampl. 0.2		
	414.2	374.6	317.2	326.7	386.9	504.4	319.5	62.8		Sbd box 326.9		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks		
										Tracks		
Group delay (usec) (SBD)	-1.10484540343E+01									Apriori delay (usec) -1.13248166862E+01	Resid mbdelay (usec) -4.88735E-03	+/- 1.8E-04
Sband delay (usec)	-1.10516534362E+01									Apriori clock (usec) 0.177	Resid sbdelay (usec) 2.73163E-01	+/- 1.4E-03
Phase delay (usec)	-1.13248162049E+01									Apriori clockrate (us/s) 1.0241300E-06	Resid phdelay (usec) 4.81284E-07	+/- 6.2E-07
Delay rate (us/s)	1.04444736845E-01									Apriori rate (us/s) 1.04451930404E-01	Resid rate (us/s) -7.19356E-06	+/- 7.2E-09
Total phase (deg)			-240.4							Apriori accel (us/s/s) 1.07030792811E-05	Resid phase (deg) 14.9	+/- 19.3

ph/seg (deg) 44.9 46.2 Search (1024X32) 0.177 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.1 80.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.9 27.3 Inc. seg. avg. 0.210 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 22.4 47.6 Inc. frq. avg. 0.203 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 302.4 el 37.9 pa 53.2 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -889.003 1660.269 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/BY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/BY.W.107.3MP19T

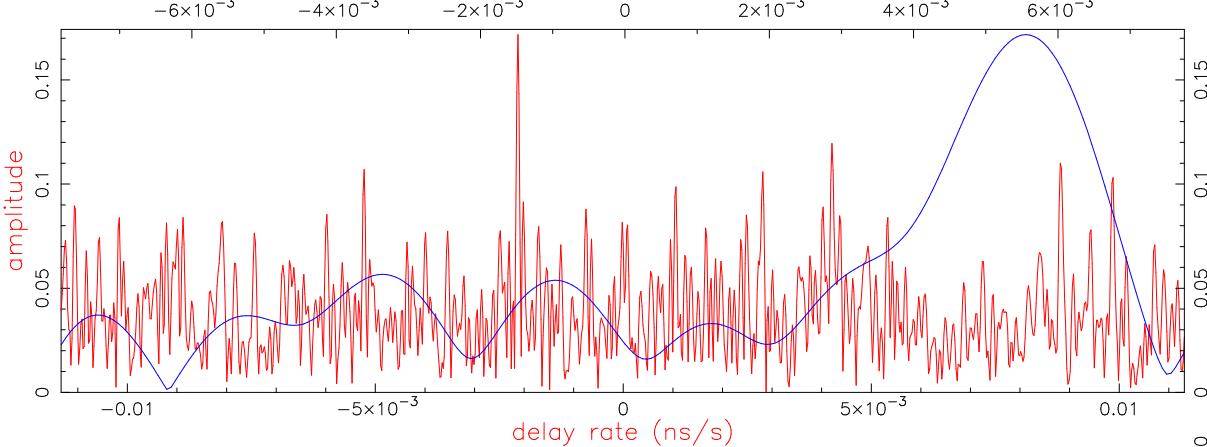
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, BY

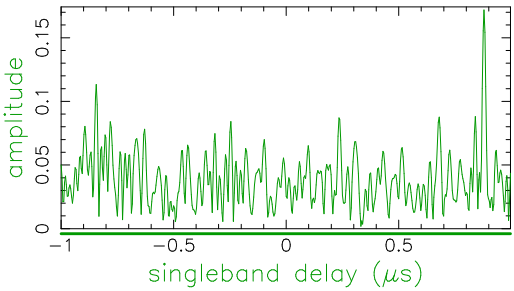
EFLSBERG - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

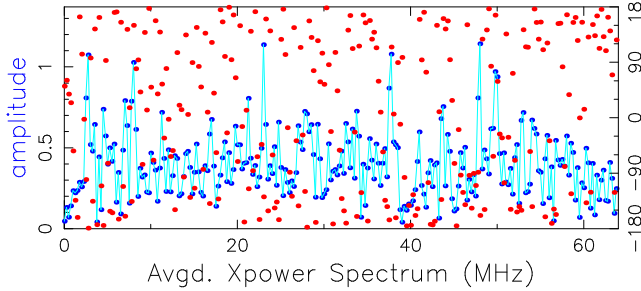


Fringe quality 0

SNR 5.8
 Int time 149.852
 Amp 0.174
 Phase 152.5
 PFD 6.7e-01
 Delays (us)
 SBD 0.878816
 MBD 0.005550
 Fringe rate (Hz)
 -0.182826
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

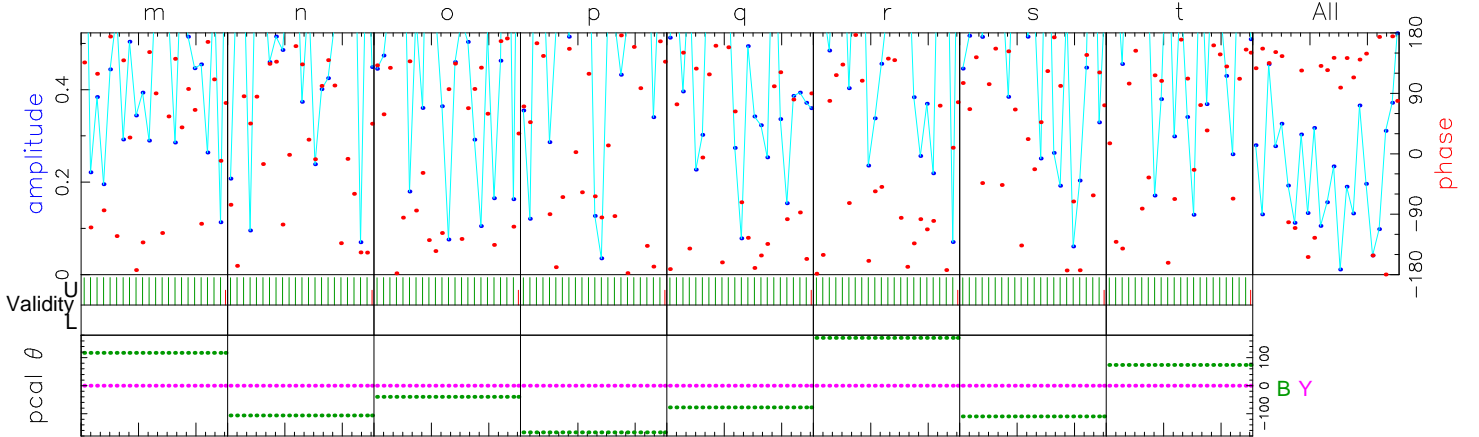


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112623
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	125.6	111.7	-176.4	175.3	158.9	161.1	117.4	145.8	Phase	152.5
	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.2	Ampl.	0.2
	196.7	250.7	105.0	299.1	189.4	383.6	430.9	23.5	Sbd box	482.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	Mani 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)	-1.04442668487E+01	Apriori delay (usec)	-1.13248166862E+01	Resid mbdelay (usec)	5.54984E-03	+/-	1.9E-04
Sband delay (usec)	-1.04460001862E+01	Apriori clock (usec)	7.5146591E+01	Resid sbdelay (usec)	8.78816E-01	+/-	1.5E-03
Phase delay (usec)	-1.13248117679E+01	Apriori clockrate (us/s)	1.0241300E-06	Resid phdelay (usec)	4.91826E-06	+/-	6.4E-07
Delay rate (us/s)	1.04449807977E-01	Apriori rate (us/s)	1.04451930404E-01	Resid rate (us/s)	-2.12243E-06	+/-	7.4E-09
Total phase (deg)	-102.8	Apriori accel (us/s/s)	1.07030792811E-05	Resid phase (deg)	152.5	+/-	19.9

ph/seg (deg)	RMS 45.1	Theor. 47.8	Amplitude Search (1024X32)	0.174 +/- 0.030	0.169	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.0	83.4	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	sb window (us) -1.000 1.000
ph/frq (deg)	29.6	28.2	Inc. seg. avg.	0.168	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	mb window (us) -0.008 0.008
amp/frq (%)	36.9	49.2	Inc. frq. avg.	0.167	Data rate(Mb/s): 2048		dr window (ns/s) -0.011 0.011

B: az 302.4 el 37.9 pa 53.2 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -889.003 1660.269 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/BY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/BY.W.113.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

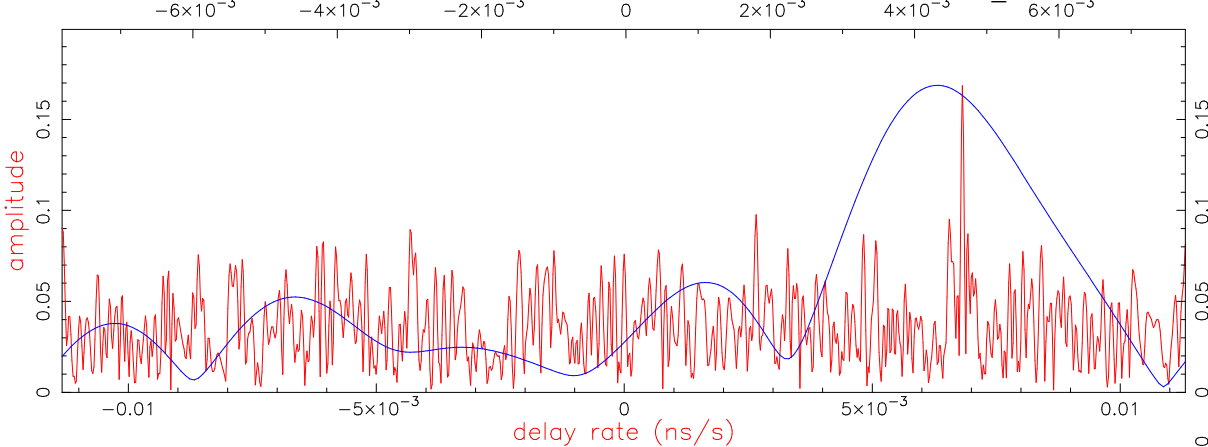
aux01

0133+476.3MP19T, No0914, bY

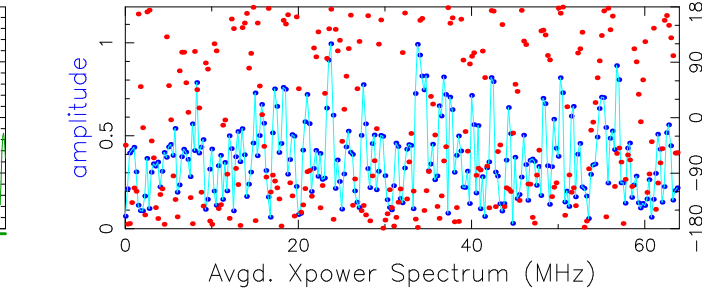
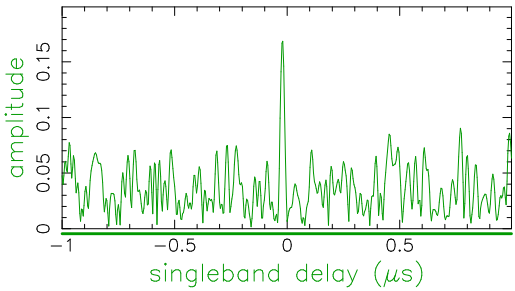
VLBA_BR - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

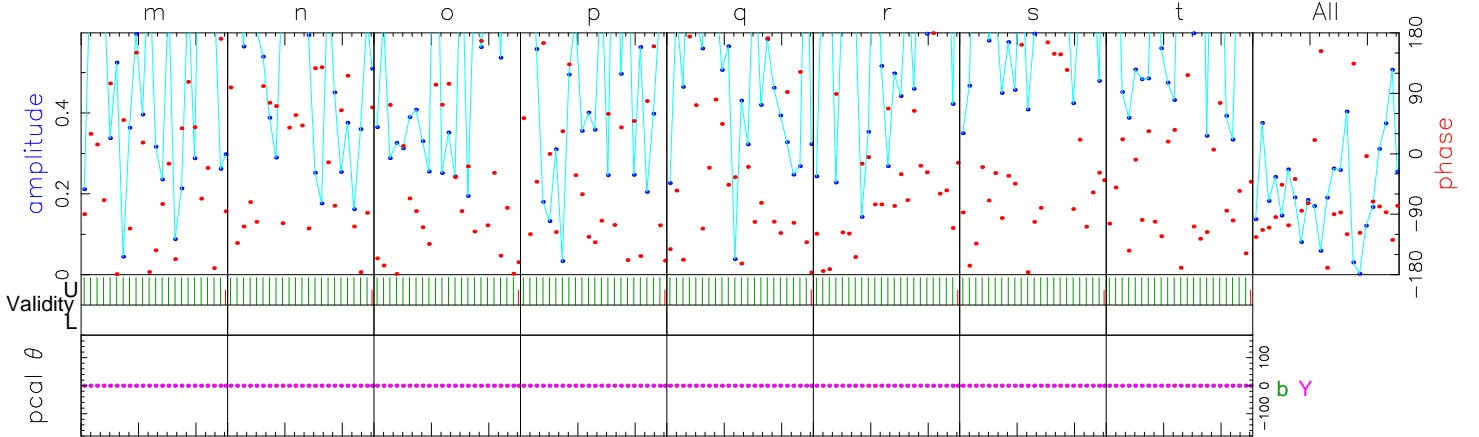


SNR 5.7
 Int time 149.852
 Amp 0.199
 Phase -95.7
 PFD 7.3e-01
 Delays (us)
 SBD -0.021214
 MBD 0.004252
 Fringe rate (Hz)
 0.589053
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112555
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-48.3	-36.9	-127.2	-114.7	-108.1	-82.9	-96.5	-86.5	Phase	-95.7
	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.3	Ampl.	0.2
	175.8	190.5	212.0	441.8	510.9	509.7	489.5	250.3	Sbd box	251.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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	

Group delay (usec) (SBD)	5.90352253207E+03	Apriori delay (usec)	5.90354953001E+03	Resid mbdelay (usec)	4.25206E-03	+/-	1.9E-04
Sband delay (usec)	5.90352831576E+03	Apriori clock (usec)	1.1518546E+02	Resid sbdelay (usec)	-2.12143E-02	+/-	1.5E-03
Phase delay (usec)	5.90354952692E+03	Apriori clockrate (us/s)	1.7901099E-06	Resid phdelay (usec)	-3.08678E-06	+/-	6.5E-07
Delay rate (us/s)	1.22515861813E+00	Apriori rate (us/s)	1.22515177980E+00	Resid rate (us/s)	6.83832E-06	+/-	7.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.28238688622E-05	Resid phase (deg)	-95.7	+/-	20.0

ph/seg (deg)	55.0	Theor.	48.0	Amplitude	0.199 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	75.7		83.8	Search (1024X32)	0.167	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	35.3		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	48.1		49.4	Inc. seg. avg.	0.184	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.189	Data rate(Mb/s): 2048				

b: az 74.4 el 62.3 pa -73.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10494.520 -1397.490 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/b/Y..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/b/Y.W.49.3MP19T

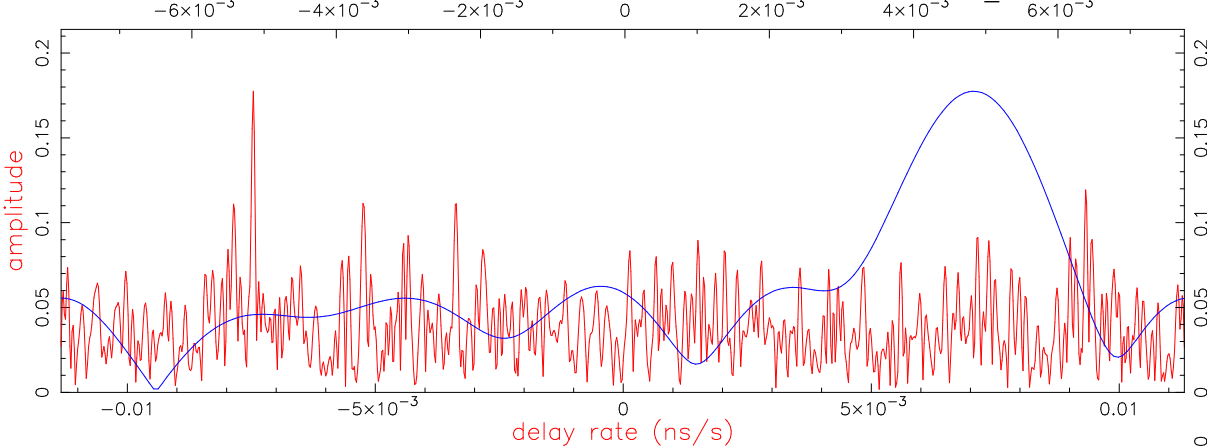
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, bY

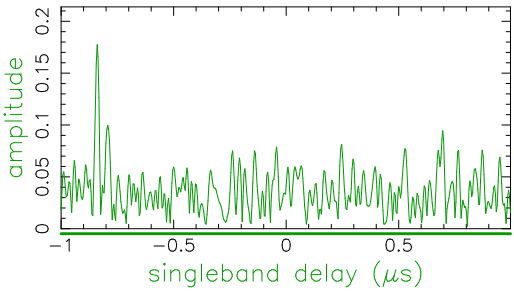
VLBA_BR - YEYES40M, fgroup W, pol RR

multiband delay (μ s)

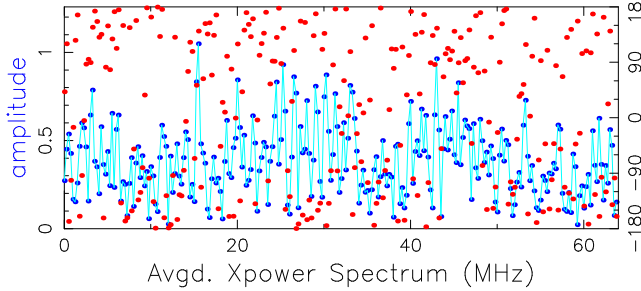


Fringe quality 0

SNR 5.9
 Int time 149.852
 Amp 0.214
 Phase 149.1
 PFD 2.9e-01
 Delays (us)
 SBD -0.839319
 MBD 0.004822
 Fringe rate (Hz)
 -0.643448
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

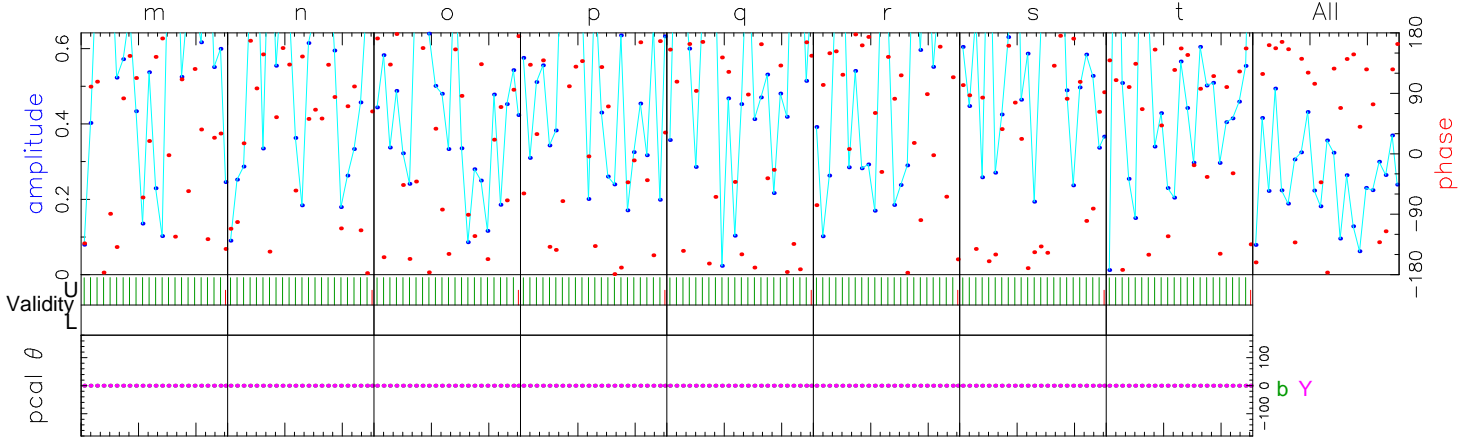


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112557
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	133.9	117.8	177.2	171.9	174.6	126.1	156.0	127.6	Phase	149.1
	0.1	0.3	0.2	0.2	0.4	0.2	0.3	0.3	Ampl.	0.2
	263.2	331.0	284.0	195.8	253.2	459.2	243.9	246.9	Sbd box	42.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
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)	5.90271060208E+03	Apriori delay (usec)	5.90354953001E+03	Resid mbdelay (usec)	4.82207E-03	+/-	1.8E-04
Sband delay (usec)	5.90271021076E+03	Apriori clock (usec)	1.1518546E+02	Resid sbdelay (usec)	-8.39319E-01	+/-	1.4E-03
Phase delay (usec)	5.90354953482E+03	Apriori clockrate (us/s)	1.7901099E-02	Resid phdelay (usec)	4.80751E-06	+/-	6.2E-07
Delay rate (us/s)	1.22514431001E+00	Apriori rate (us/s)	1.22515177980E+00	Resid rate (us/s)	-7.46980E-06	+/-	7.2E-09
Total phase (deg)	334.6	Apriori accel (us/s/s)	-2.28238688622E-05	Resid phase (deg)	149.1	+/-	19.3

ph/seg (deg)	61.0	Theor.	46.2	Amplitude	0.214 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	77.2	Search (1024X32)	0.174	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)	26.5	Inc. seg. avg.	0.235	Inc. frq. avg.	0.209	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.2	Inc. frq. avg.	0.209			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.4 el 62.3 pa -73.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10494.520 -1397.490 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/bY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/bY.W.53.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

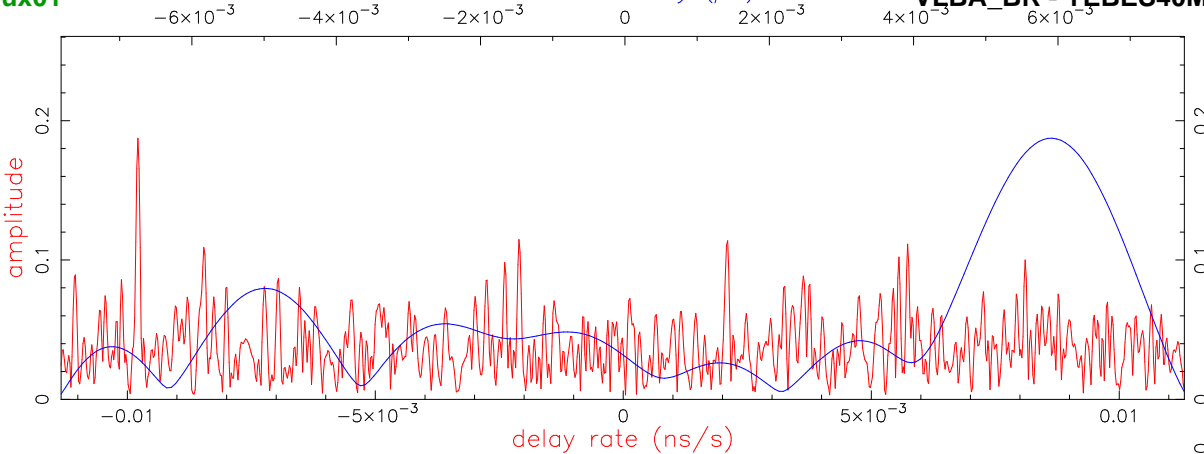
aux01

0133+476.3MP19T, No0914, bY

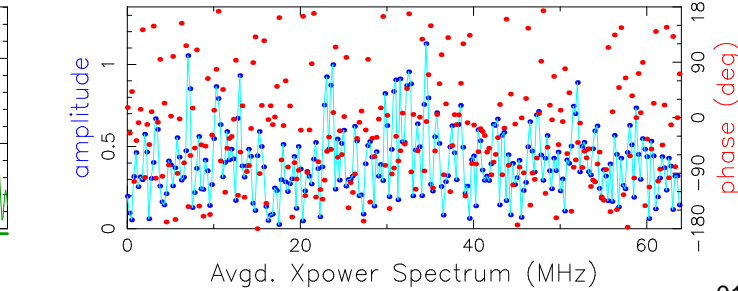
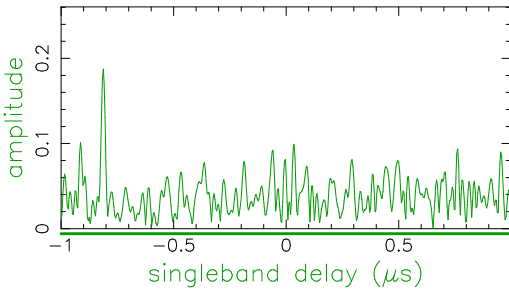
VLBA_BR - YESES40M, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

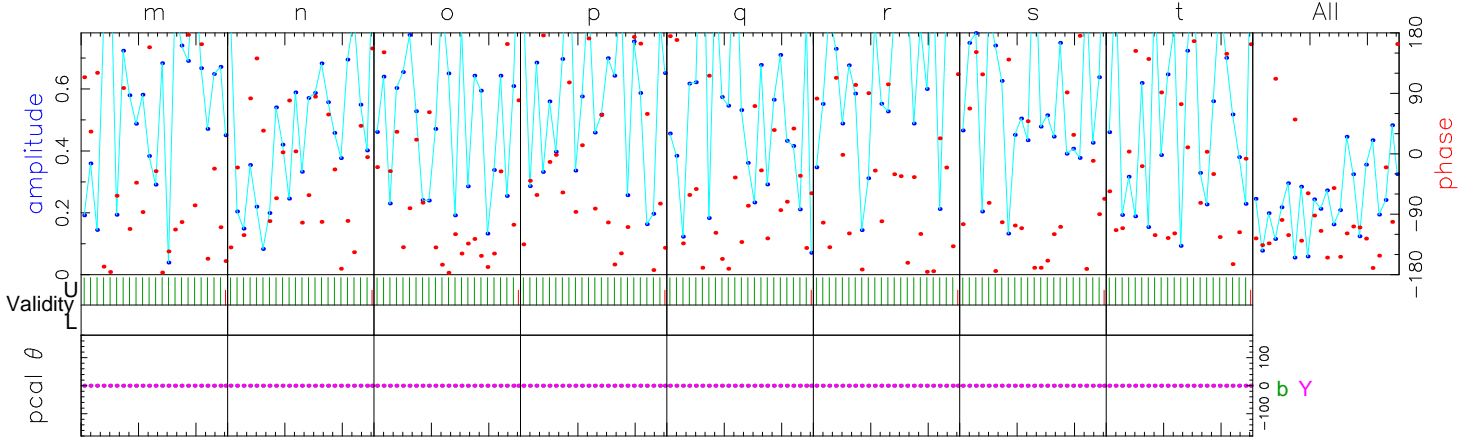


SNR 6.3
 Int time 149.852
 Amp 0.261
 Phase -123.0
 PFD 4.5e-02
 Delays (us)
 SBD -0.812825
 MBD 0.005904
 Fringe rate (Hz)
 -0.844104
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112559
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-135.5	-70.6	-133.1	-126.6	-105.3	-116.7	-138.9	-120.4	Phase	-123.0
	0.4	0.1	0.3	0.3	0.3	0.2	0.3	0.3	Ampl.	0.2
	501.3	451.2	116.9	162.8	164.3	451.4	49.3	341.6	Sbd box	48.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	5.90274293397E+03	Apriori delay (usec)	5.90354953001E+03	Resid mbdelay (usec)	5.90395E-03	+/-	1.7E-04
Sband delay (usec)	5.90273670476E+03	Apriori clock (usec)	1.1518546E+02	Resid sbdelay (usec)	-8.12825E-01	+/-	1.4E-03
Phase delay (usec)	5.90354952604E+03	Apriori clockrate (us/s)	1.7901099E-06	Resid phdelay (usec)	-3.96717E-06	+/-	5.9E-07
Delay rate (us/s)	1.22514198059E+00	Apriori rate (us/s)	1.22515177980E+00	Resid rate (us/s)	-9.79921E-06	+/-	6.8E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.28238688622E-05	Resid phase (deg)	-123.0	+/-	18.3

ph/seg (deg)	RMS 58.3	Theor. 43.8	Amplitude Search (1024X32)	0.261 +/- 0.041	0.178	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	68.1	76.4	Interp.	0.000	0.178	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.6	25.8	Inc. seg. avg.	0.259	0.178	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	29.4	45.1	Inc. frq. avg.	0.247	0.178	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 74.4 el 62.3 pa -73.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10494.520 -1397.490 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/bY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/bY.W.56.3MP19T

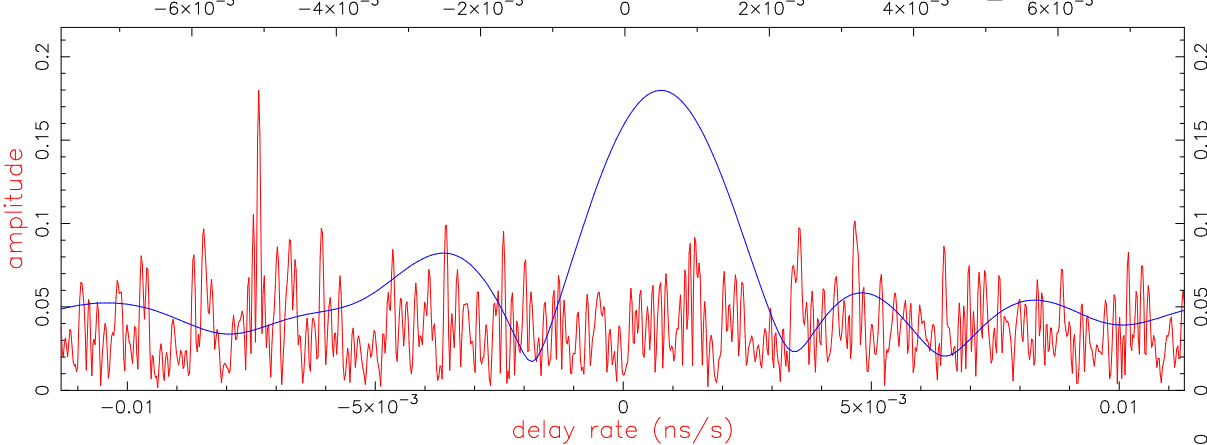
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, bY

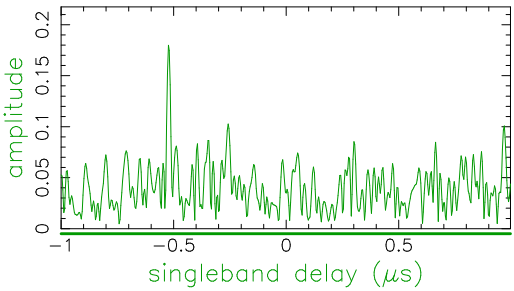
VLBA_BR - YEBES40M, fgroup W, pol RL

multiband delay (μs)

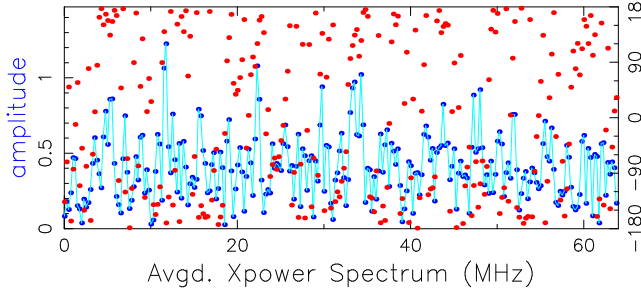


Fringe quality 0

SNR 6.1
 Int time 149.852
 Amp 0.218
 Phase -85.1
 PFD 1.4e-01
 Delays (us)
 SBD -0.522109
 MBD 0.000507
 Fringe rate (Hz)
 -0.634146
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

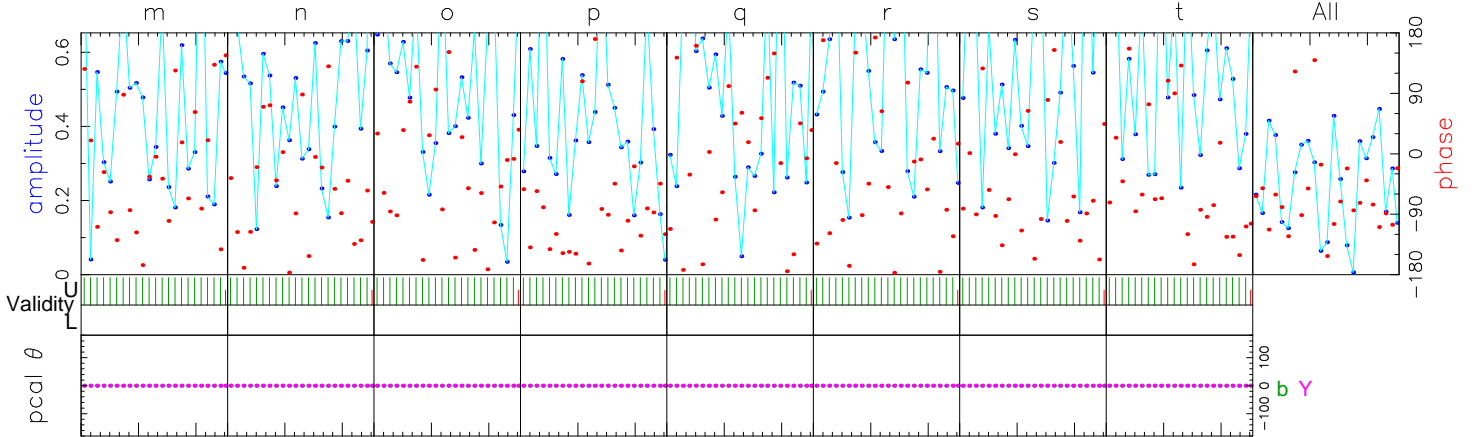


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112601
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-87.5	-77.5	-68.8	-106.0	11.4	-77.3	-84.8	-88.6	Phase	-85.1
	0.1	0.3	0.1	0.4	0.0	0.2	0.4	0.3	Ampl.	0.2
	505.6	320.2	138.0	125.0	355.1	287.5	122.0	191.9	Sbd box	123.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	5.90303441220E+03	Apriori delay (usec)	5.90354953001E+03	Resid mbdelay (usec)	5.07192E-04	+/-	1.8E-04
Sband delay (usec)	5.90302742126E+03	Apriori clock (usec)	1.1518546E+02	Resid sbdelay (usec)	-5.22109E-01	+/-	1.4E-03
Phase delay (usec)	5.90354952727E+03	Apriori clockrate (us/s)	1.7901099E-06	Resid phdelay (usec)	-2.74295E-06	+/-	6.1E-07
Delay rate (us/s)	1.22514441800E+00	Apriori rate (us/s)	1.22515177980E+00	Resid rate (us/s)	-7.36181E-06	+/-	7.0E-09
Total phase (deg)	100.4	Apriori accel (us/s/s)	-2.28238688622E-05	Resid phase (deg)	-85.1	+/-	18.8

ph/seg (deg)	54.3	RMS	45.2	Theor.	45.2	Amplitude	0.218 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	80.5	54.3	45.2	Search (1024X32)	0.173	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)	41.1	80.5	78.8	Inc. seg. avg.	0.230	Inc. frq. avg.	0.204	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	49.6	41.1	26.6	Inc. frq. avg.	0.204	u, v (fr/asec)	-10494.520 -1397.490	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.4 el 62.3 pa -73.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10494.520 -1397.490 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/bY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/bY.W.59.3MP19T

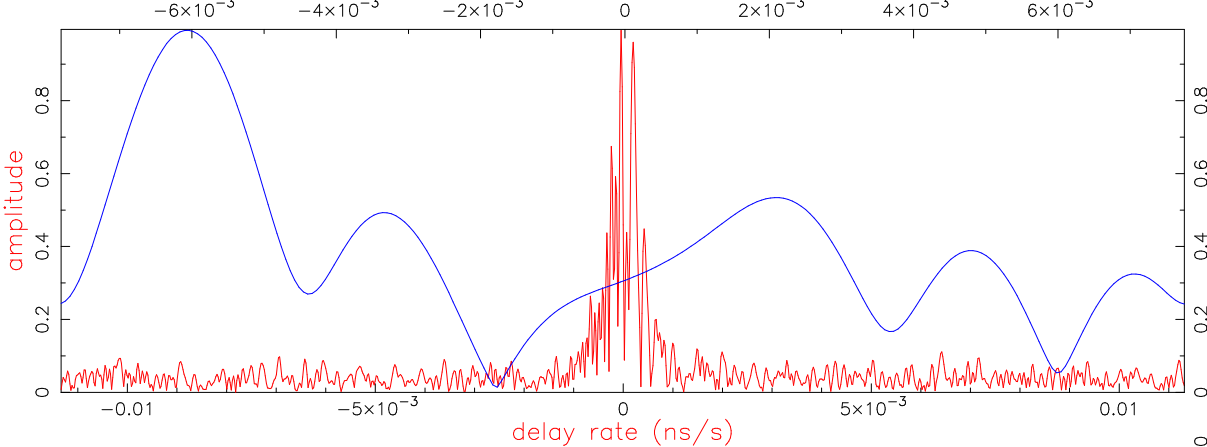
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, BY

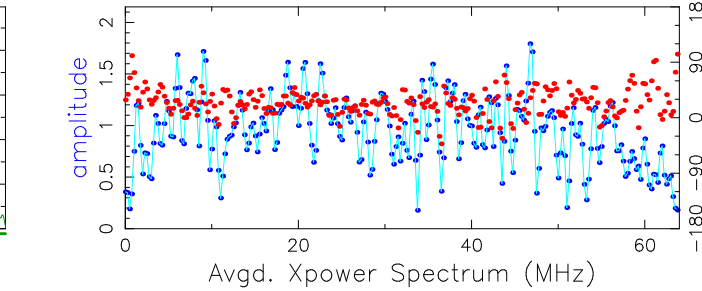
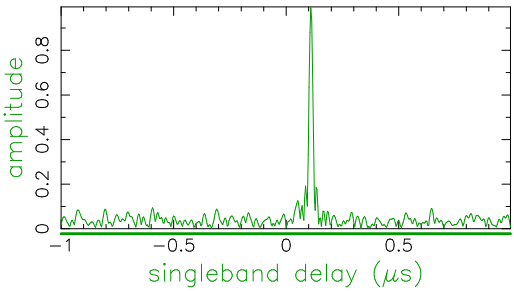
EFLSBERG - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



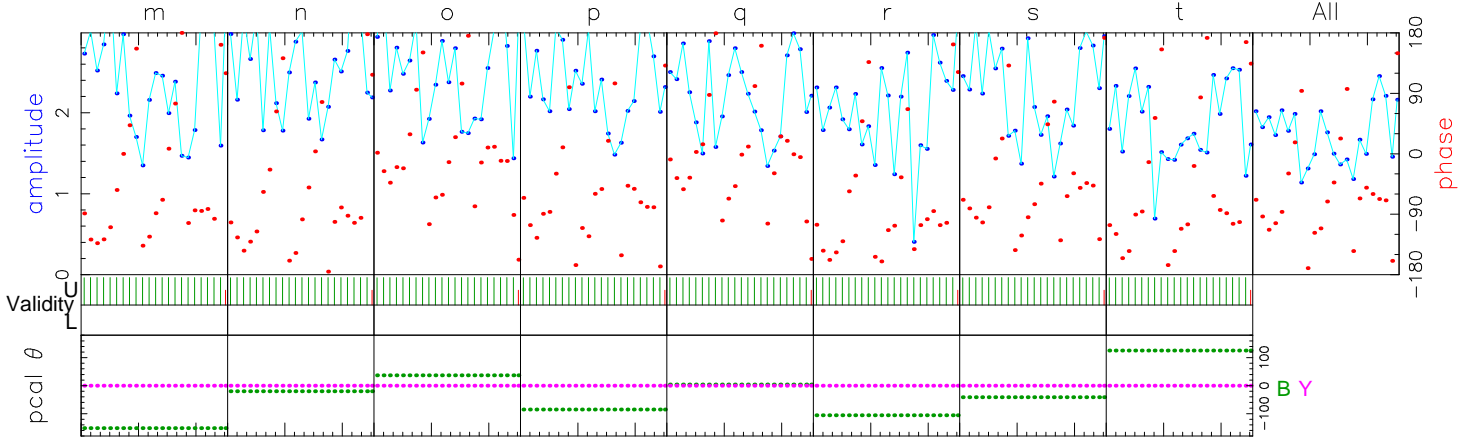
Fringe quality 4

SNR 33.3
 Int time 149.852
 Amp 0.995
 Phase -79.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.110034
 MBD -0.006048
 Fringe rate (Hz)
 -0.003614
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112617
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-99.1	-111.0	-15.3	-82.7	-19.2	-120.8	-69.7	-109.3	Phase	-79.3
	1.3	1.4	1.4	1.3	1.1	1.0	1.3	1.1	Ampl.	1.2
	285.2	284.6	285.1	284.8	285.0	284.9	284.6	283.9	Sbd box	285.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	

Group delay (usec) (SBD)	-1.12214896525E+01	Apriori delay (usec)	-1.13248166862E+01	Resid mbdelay (usec)	-6.04797E-03	+/-	3.3E-05
Sband delay (usec)	-1.12147826862E+01	Apriori clock (usec)	7.5146591E+01	Resid sbdelay (usec)	1.10034E-01	+/-	2.6E-04
Phase delay (usec)	-1.13248192435E+01	Apriori clockrate (us/s)	1.0241300E-06	Resid phdelay (usec)	-2.55728E-06	+/-	1.1E-07
Delay rate (us/s)	1.04451888454E-01	Apriori rate (us/s)	1.04451930404E-01	Resid rate (us/s)	-4.19494E-08	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	1.07030792811E-05	Resid phase (deg)	-79.3	+/-	3.4

ph/seg (deg)	RMS 72.6	Theor. 8.2	Amplitude Search (1024X32)	0.995 +/- 0.030	0.972	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	82.0	14.4	Interp.	0.000	0.000E+00	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	44.4	4.9	Inc. seg. avg.	1.716	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	Data rate(Mb/s): 2048	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	29.6	8.5	Inc. frq. avg.	1.247	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.4 el 37.9 pa 53.2 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -889.003 1660.269 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/BY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/BY.W.97.3MP19T

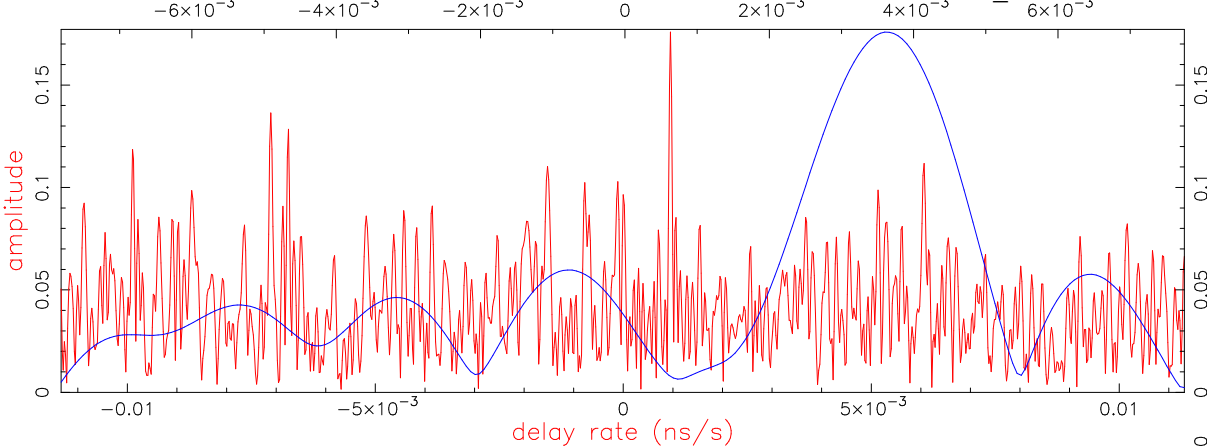
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, fY

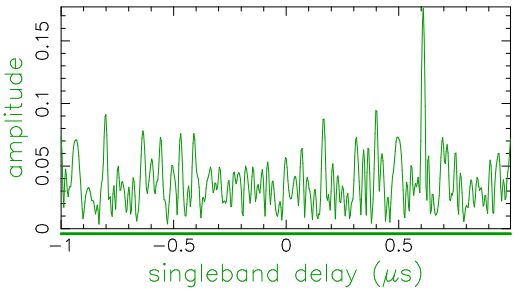
VLBA_FD - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

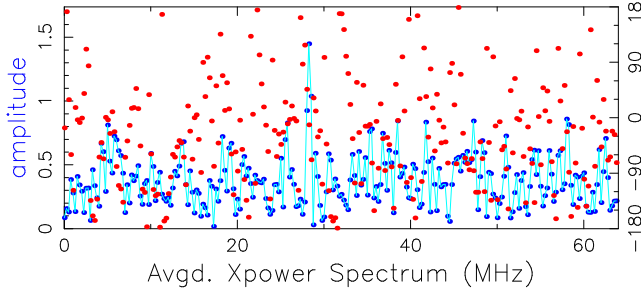


Fringe quality 0

SNR 5.9
 Int time 149.852
 Amp 0.177
 Phase 89.0
 PFD 3.5e-01
 Delays (us)
 SBD 0.608561
 MBD 0.003611
 Fringe rate (Hz) 0.081993
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

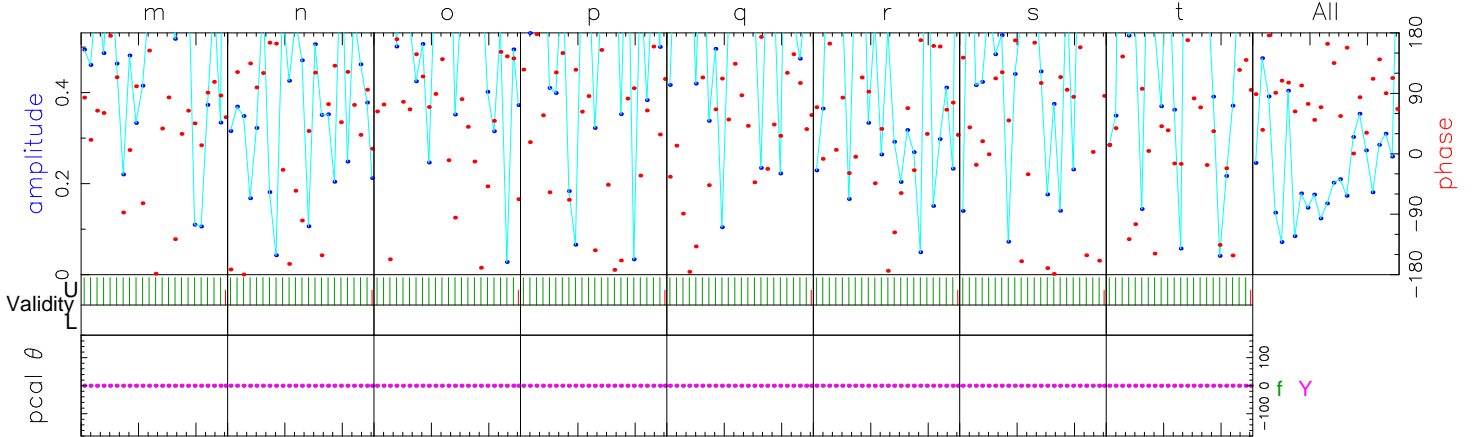


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112638
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
f	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.11401341363E+03	Apriori delay (usec)		6.11340042725E+03	Resid mbdelay (usec)		3.61138E-03	+/- 1.8E-04	
Sband delay (usec)	6.11400898850E+03	Apriori clock (usec)		1.1060483E+02	Resid sbdelay (usec)		6.08561E-01	+/- 1.5E-03	
Phase delay (usec)	6.11340043012E+03	Apriori clockrate (us/s)		1.2638890E-02	Resid phdelay (usec)		2.87135E-06	+/- 6.2E-07	
Delay rate (us/s)	1.15467998241E+00	Apriori rate (us/s)		1.15467903056E+00	Resid rate (us/s)		9.51854E-07	+/- 7.2E-09	
Total phase (deg)	18.1		Apriori accel (us/s/s)		-4.36619976130E-05	Resid phase (deg)		89.0	+/- 19.4

ph/seg (deg)	43.6	Theor. 46.5	Amplitude	0.177 +/- 0.030	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	81.9	81.1	Search (1024X32)	0.173	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	22.0	27.4	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.6	47.8	Inc. seg. avg.	0.185	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.167	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 41.6 el 63.5 pa -121.7 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -9900.640 -4609.438 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/fY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/fY.W.147.3MP19T

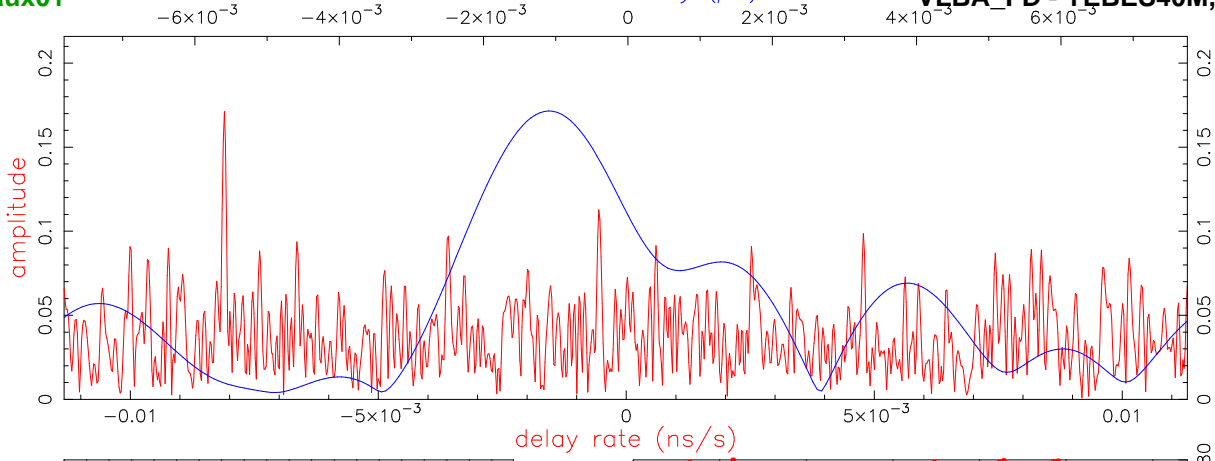
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, fY

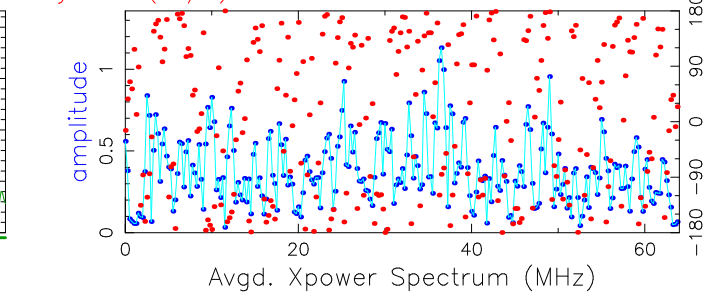
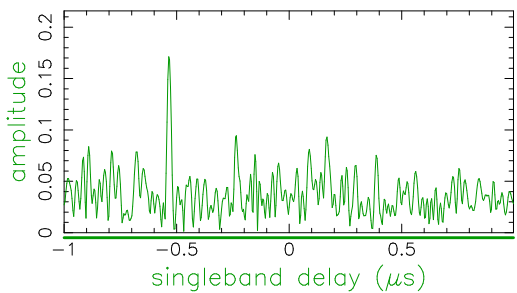
VLBA_FD - YEBES40M, fgroup W, pol RR

multiband delay (μ s)



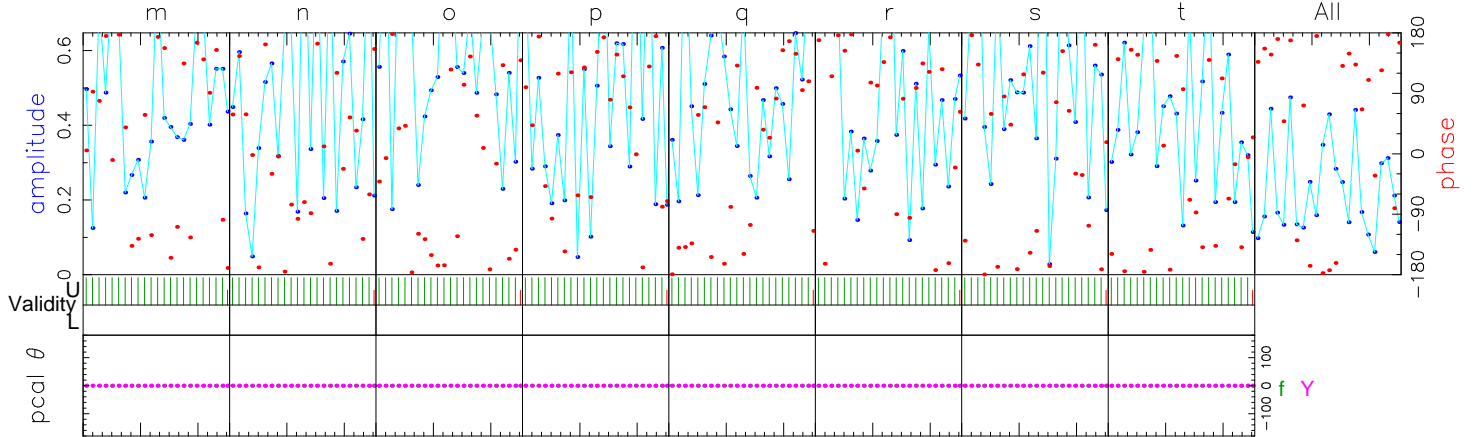
Fringe quality 0

SNR 5.8
 Int time 149.852
 Amp 0.216
 Phase 160.6
 PFD 5.7e-01
 Delays (us)
 SBD -0.533677
 MBD -0.001029
 Fringe rate (Hz)
 -0.699746
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112640
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
f	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.11286814873E+03	Apriori delay (usec)	6.11340042725E+03	Resid mbdelay (usec)	-1.02851E-03	+/-	1.9E-04
Sband delay (usec)	6.11286675050E+03	Apriori clock (usec)	1.1060483E+02	Resid sbdelay (usec)	-5.33677E-01	+/-	1.5E-03
Phase delay (usec)	6.11340043243E+03	Apriori clockrate (us/s)	1.2638890E-02	Resid phdelay (usec)	5.17905E-06	+/-	6.4E-07
Delay rate (us/s)	1.15467090720E+00	Apriori rate (us/s)	1.15467903056E+00	Resid rate (us/s)	-8.12336E-06	+/-	7.4E-09
Total phase (deg)	89.7	Apriori accel (us/s/s)	-4.36619976130E-05	Resid phase (deg)	160.6	+/-	19.8

ph/seg (deg)	62.1	Theor.	47.4	Amplitude	0.216 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	79.1	Search (1024X32)	0.171	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	41.3	Inc. seg. avg.	0.217	Inc. frq. avg.	0.214	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	35.2	Inc. frq. avg.	0.214			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

f: az 41.6 el 63.5 pa -121.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -9900.640 -4609.438 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/fY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/fY.W.152.3MP19T

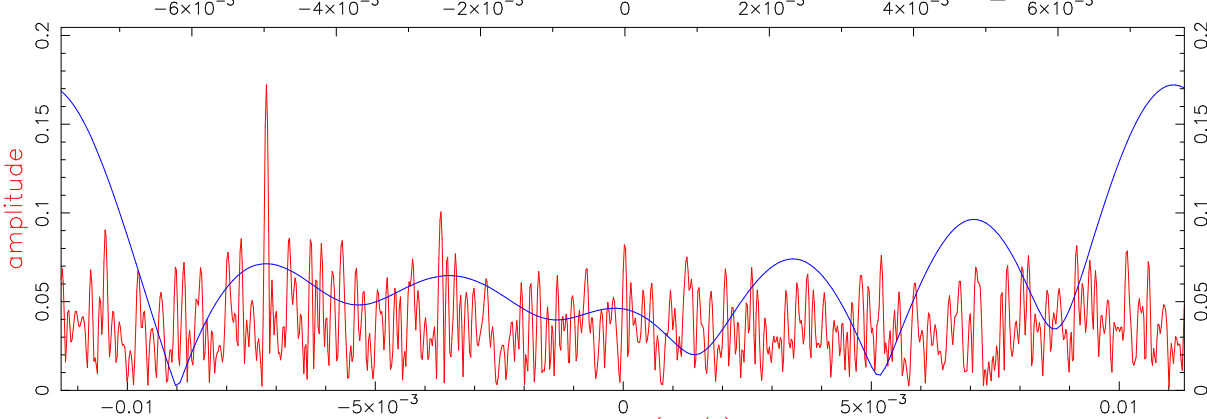
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, fY

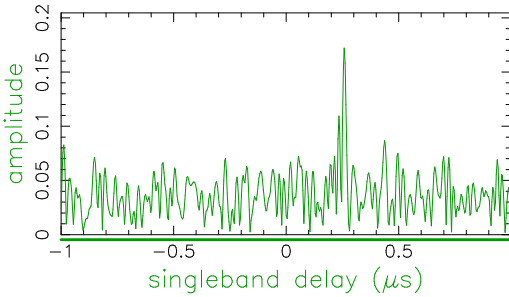
VLBA_FD - YEBES40M, fgroup W, pol LR

multiband delay (μs)

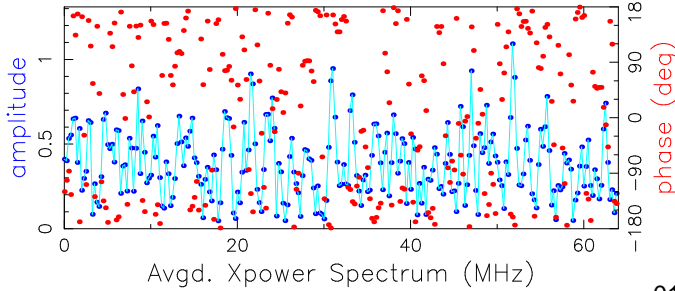


Fringe quality 0

SNR 5.8
 Int time 149.852
 Amp 0.205
 Phase -4.2
 PFD 6.4e-01
 Delays (us)
 SBD 0.258029
 MBD -0.008024
 Fringe rate (Hz)
 -0.620610
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

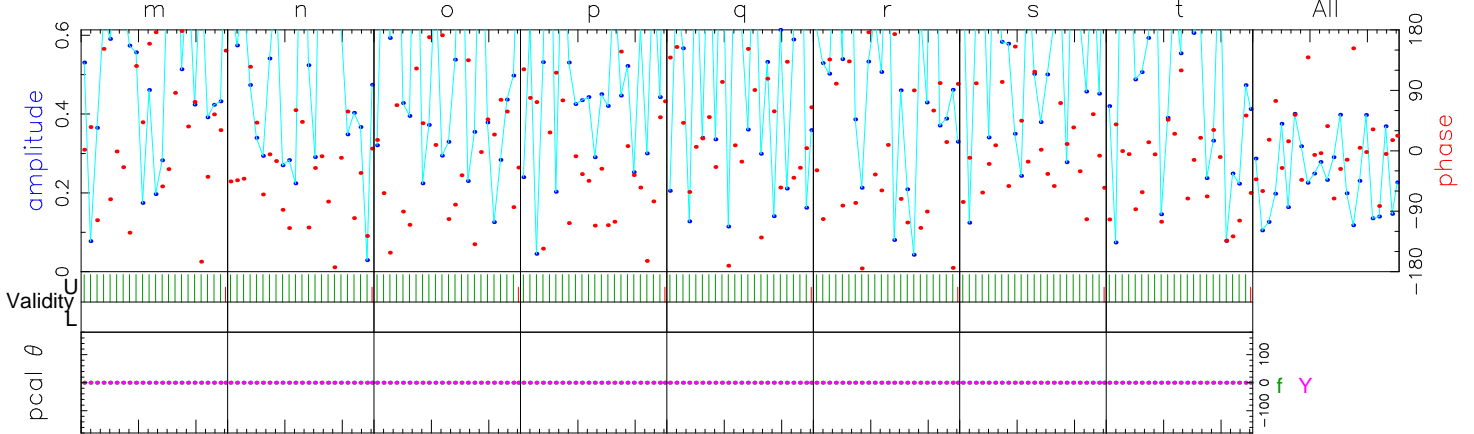


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112642
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.5	-25.8	-11.8	-17.9	32.7	-1.7	-2.5	-13.6	Phase	-4.2
	0.1	0.3	0.2	0.1	0.3	0.0	0.4	0.4	Ampl.	0.2
	166.5	323.7	367.6	200.5	426.4	2.1	70.4	322.5	Sbd box	323.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.11365802812E+03	Apriori delay (usec)	6.11340042725E+03	Resid mbdelay (usec)	-8.02413E-03	+/-	1.9E-04
Sband delay (usec)	6.11365845625E+03	Apriori clock (usec)	1.1060483E+02	Resid sbdelay (usec)	2.58029E-01	+/-	1.5E-03
Phase delay (usec)	6.11340042711E+03	Apriori clockrate (us/s)	1.2638890E-02	Resid phdelay (usec)	-1.36022E-07	+/-	6.4E-07
Delay rate (us/s)	1.15467182589E+00	Apriori rate (us/s)	1.15467903056E+00	Resid rate (us/s)	-7.20467E-06	+/-	7.4E-09
Total phase (deg)	284.9	Apriori accel (us/s/s)	-4.36619976130E-05	Resid phase (deg)	-4.2	+/-	19.9

ph/seg (deg)	58.4	Theor.	47.7	Amplitude	0.205 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.7		83.2	Search (1024X32)	0.167	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	25.8		28.1	Inc. seg. avg.	0.216	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	62.5		49.1	Inc. frq. avg.	0.195	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
f: az 41.6 el 63.5 pa -121.7		Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec)	-9900.640 -4609.438	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

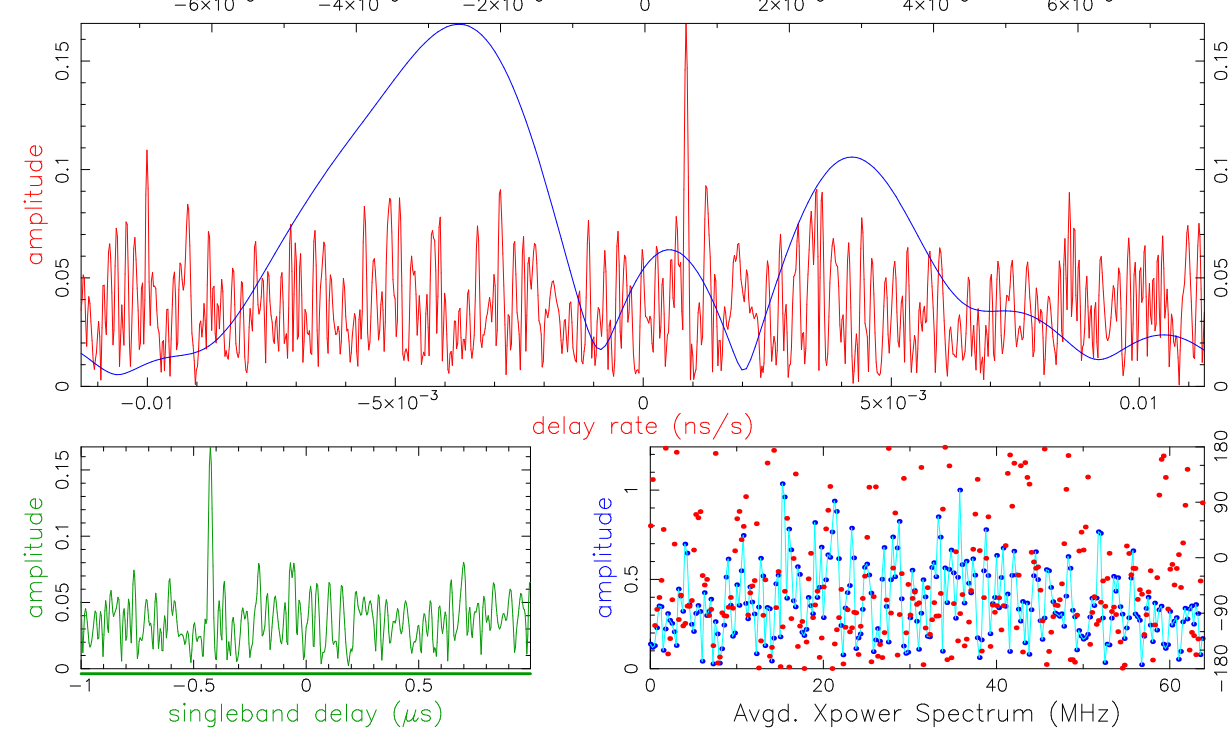
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/fY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/fY.W.156.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

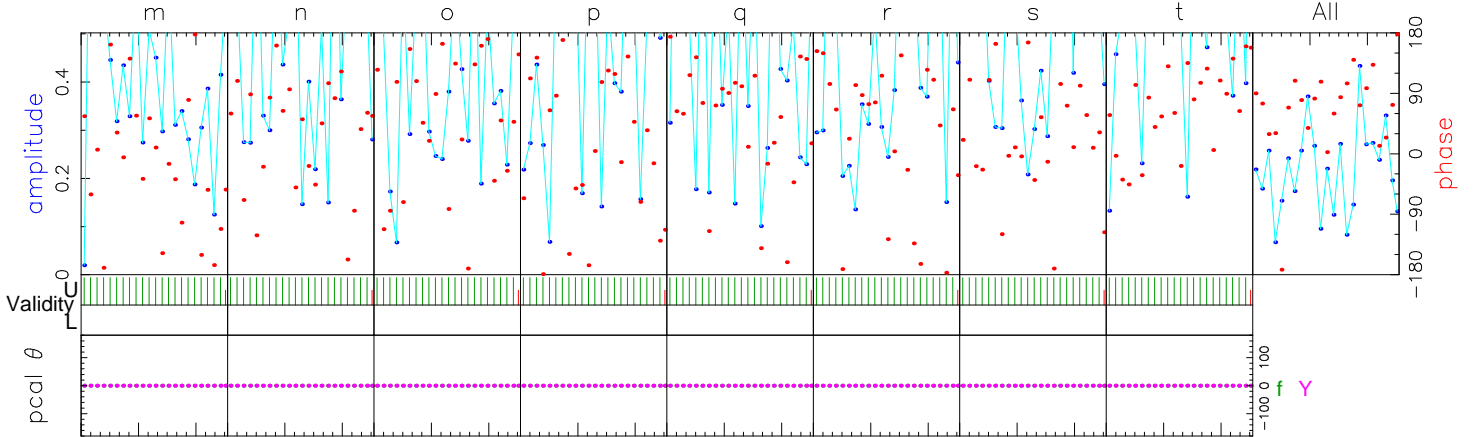
0133+476.3MP19T, No0914, fY

VLBA_FD - YEBES40M, fgroup W, pol RL



Fringe quality 0
 SNR 5.6
 Int time 149.852
 Amp 0.167
 Phase 72.0
 PFD 9.4e-01
 Delays (us)
 SBD -0.425710
 MBD -0.002577
 Fringe rate (Hz)
 0.073809
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112645
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-30.5	65.4	117.9	125.7	75.3	98.6	41.8	70.8	Phase	72.0	
	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.3	Ampl.	0.2	
	503.6	135.3	35.4	42.9	147.5	440.9	149.0	147.4	Sbd box	148.0	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
f	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
f	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)	6.11297597567E+03		Apriori delay (usec)		6.11340042725E+03		Resid mbdelay (usec)		-2.57658E-03	+/- 1.9E-04	
Sband delay (usec)	6.11297471700E+03		Apriori clock (usec)		1.1060483E+02		Resid sbdelay (usec)		-4.25710E-01	+/- 1.5E-03	
Phase delay (usec)	6.11340042957E+03		Apriori clockrate (us/s)		1.2638890E-02		Resid phdelay (usec)		2.32081E-06	+/- 6.6E-07	
Delay rate (us/s)	1.15467988741E+00		Apriori rate (us/s)		1.15467903056E+00		Resid rate (us/s)		8.56849E-07	+/- 7.6E-09	
Total phase (deg)	1.0		Apriori accel (us/s/s)		-4.36619976130E-05		Resid phase (deg)		72.0	+/- 20.5	
	RMS	Theor.	Amplitude	0.167 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	46.2	49.2	Search (1024X32)	0.162		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	61.9	85.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	53.5	29.0	Inc. seg. avg.	0.161		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	57.6	50.6	Inc. frq. avg.	0.178		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
f: az 41.6 el 63.5 pa -121.7	Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec) -9900.640 -4609.438						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0914/fY..3MP19T		Output file: /Exps/c241a/v2/3mm/1234/No0914/fY.W.158.3MP19T								

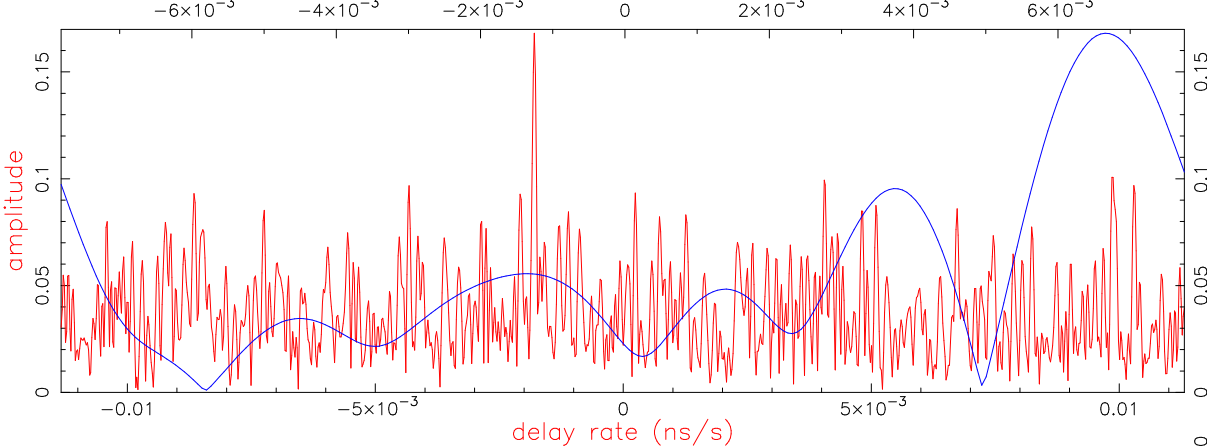
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, gY

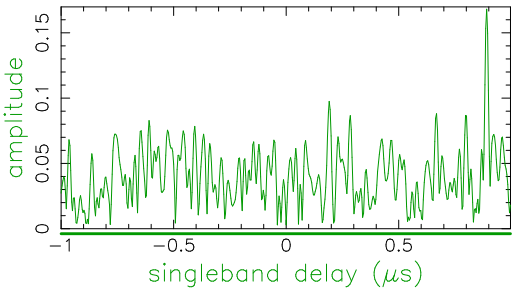
GLT - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

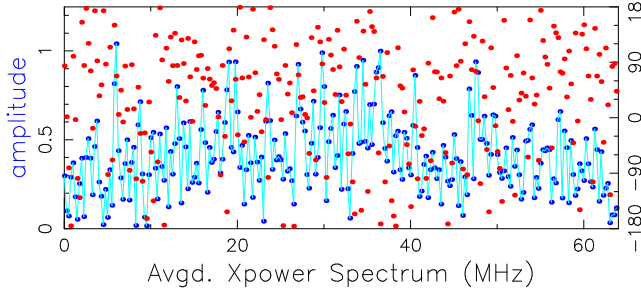


Fringe quality 0

SNR 5.6
 Int time 149.852
 Amp 0.170
 Phase 179.4
 PFD 8.9e-01
 Delays (us)
 SBD 0.890400
 MBD 0.006658
 Fringe rate (Hz)
 -0.155435
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

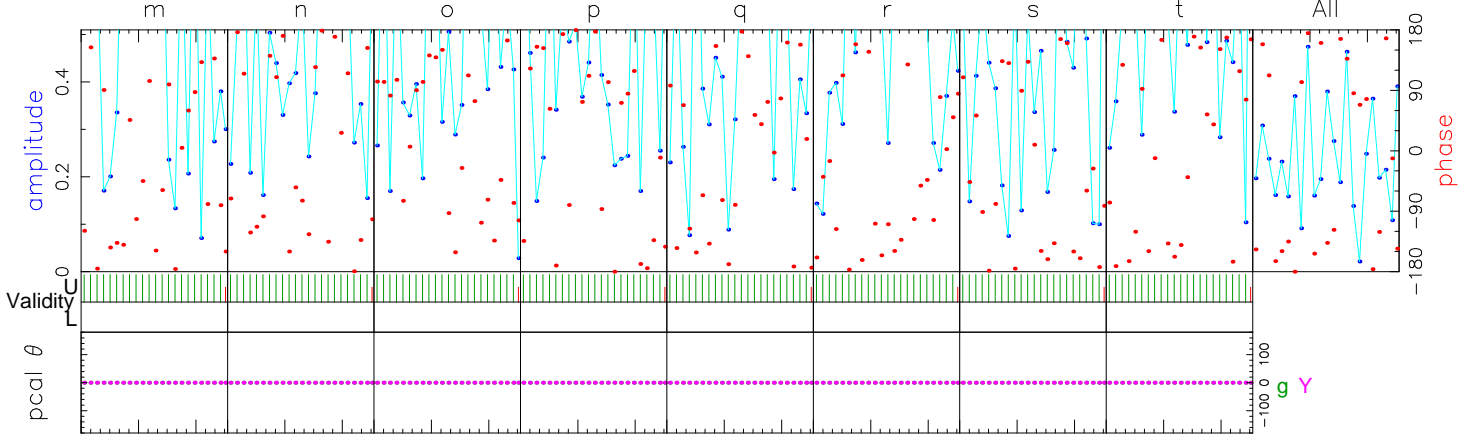


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112701
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-137.3	-174.4	139.4	164.9	141.2	-145.0	-163.5	171.1	Phase	179.4
	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	281.4	330.8	10.3	267.8	203.3	483.4	111.3	341.4	Sbd box	484.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.67357124779E+03	Apriori delay (usec)	5.67267396506E+03	Resid mbdelay (usec)	6.65773E-03	+/-	1.9E-04
Sband delay (usec)	5.67356436456E+03	Apriori clock (usec)	1.1101138E+02	Resid sbdelay (usec)	8.90400E-01	+/-	1.5E-03
Phase delay (usec)	5.67267397085E+03	Apriori clockrate (us/s)	1.2936299E-02	Resid phdelay (usec)	5.78376E-06	+/-	6.6E-07
Delay rate (us/s)	7.24112484367E-01	Apriori rate (us/s)	7.24114288814E-01	Resid rate (us/s)	-1.80445E-06	+/-	7.6E-09
Total phase (deg)	305.5	Apriori accel (us/s/s)	-2.45660666742E-06	Resid phase (deg)	179.4	+/-	20.4

ph/seg (deg)	62.9	Theor.	48.8	Amplitude	0.170 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.7	Search (1024X32)	0.163	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.	0.178	Inc. frq. avg.	0.168	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.8	Inc. frq. avg.	0.168			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
g: az 192.6 el 61.2 pa 4.4		Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec)	-6198.982 1721.913	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/c241a/v2/3mm/1234/No0914/gY..3MP19T		Output file: /Exps/c241a/v2/3mm/1234/No0914/gY.W.192.3MP19T					simultaneous interpolator	

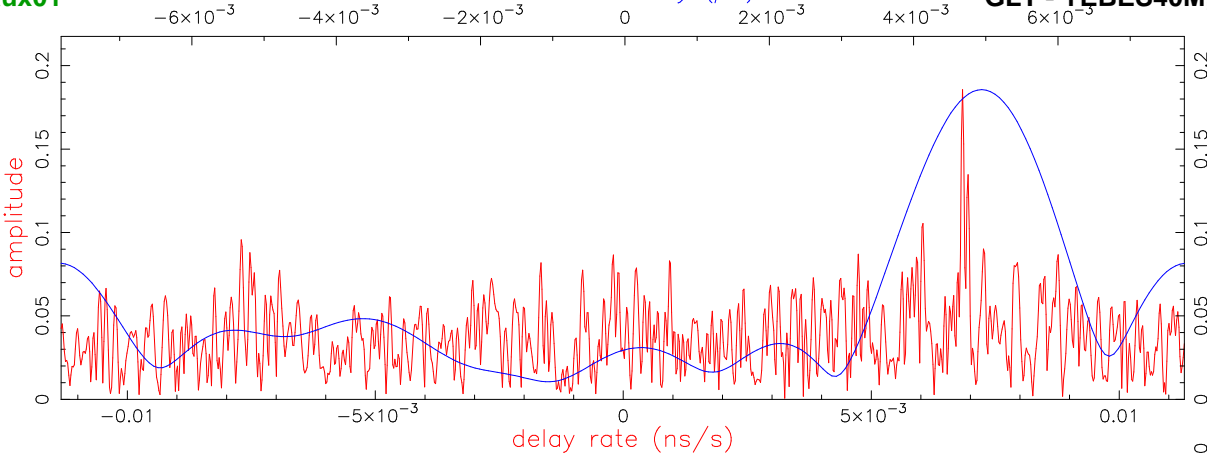
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, gY

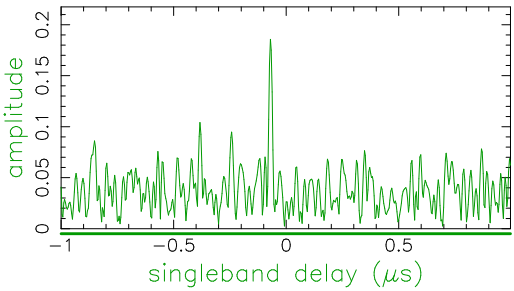
GLT - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

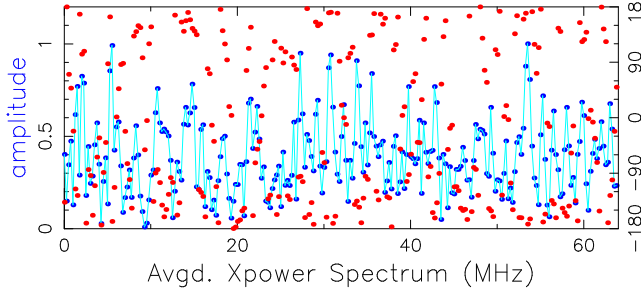


Fringe quality 0

SNR 6.2
 Int time 149.852
 Amp 0.218
 Phase 55.5
 PFD 5.8e-02
 Delays (us)
 SBD -0.069526
 MBD 0.004959
 Fringe rate (Hz) 0.589666
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

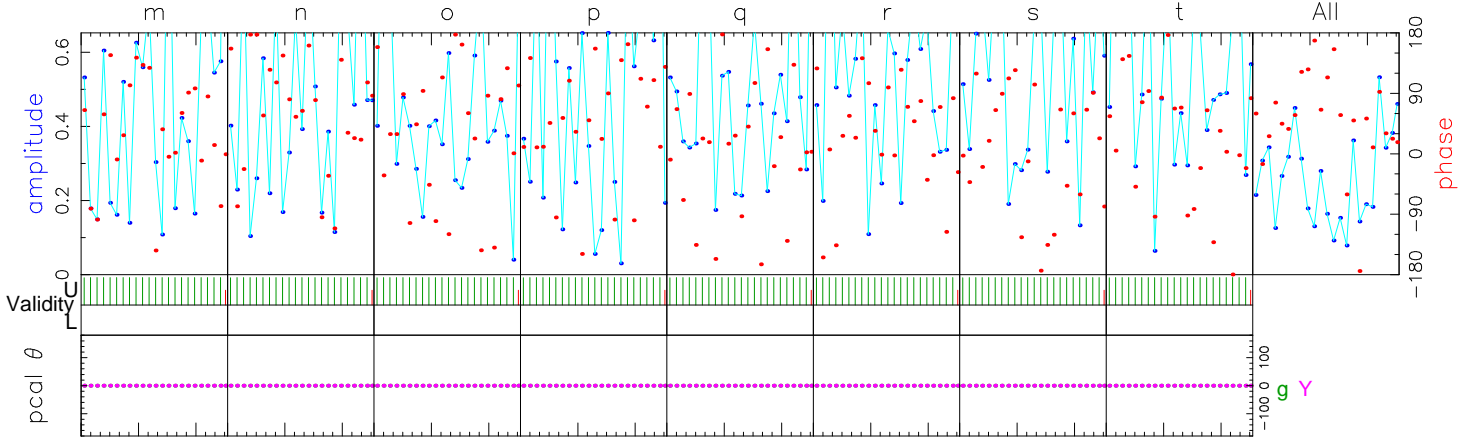


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112703
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
g	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.67260079915E+03	Apriori delay (usec)	5.67267396506E+03	Resid mbdelay (usec)	4.95909E-03	+/-	1.7E-04
Sband delay (usec)	5.67260443931E+03	Apriori clock (usec)	1.1101138E+02	Resid sbdelay (usec)	-6.95257E-02	+/-	1.4E-03
Phase delay (usec)	5.67267396685E+03	Apriori clockrate (us/s)	1.2936299E-06	Resid phdelay (usec)	1.79028E-06	+/-	5.9E-07
Delay rate (us/s)	7.24121134253E-01	Apriori rate (us/s)	7.24114288814E-01	Resid rate (us/s)	6.84544E-06	+/-	6.8E-09
Total phase (deg)	181.7	Apriori accel (us/s/s)	-2.45660666742E-06	Resid phase (deg)	55.5	+/-	18.4

ph/seg (deg)	59.1	Theor.	44.0	Amplitude	0.218 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.2	Search (1024X32)	0.184	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	14.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	33.7	Inc. seg. avg.	0.232	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.201	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

g: az 192.6 el 61.2 pa 4.4 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -6198.982 1721.913 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/gY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/gY.W.196.3MP19T

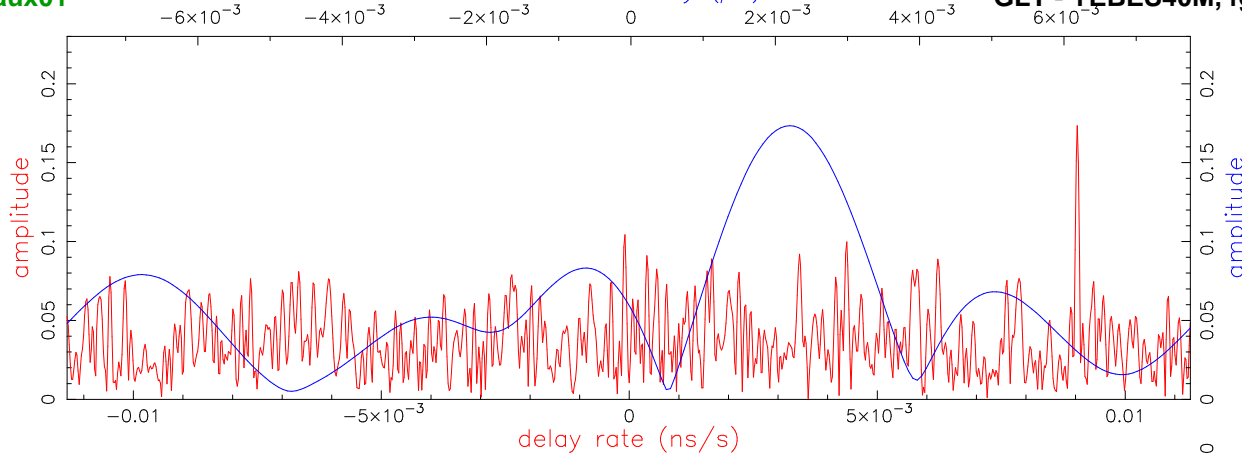
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, gY

GLT - YEBES40M, fgroup W, pol LR

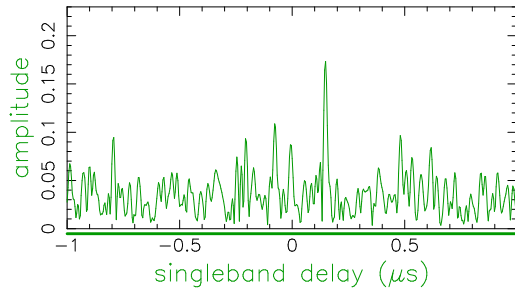
multiband delay (μ s)



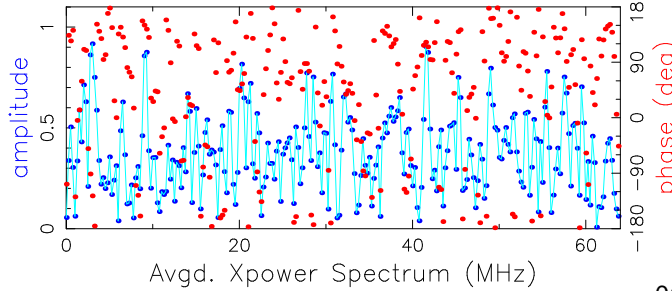
Fringe quality 0

SNR 5.8
Int time 149.852
Amp 0.230
Phase -14.5
PFD 4.8e-01
Delays (us)
SBD 0.147497
MBD 0.002203
Fringe rate (Hz) 0.778500
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

delay rate (ns/s)

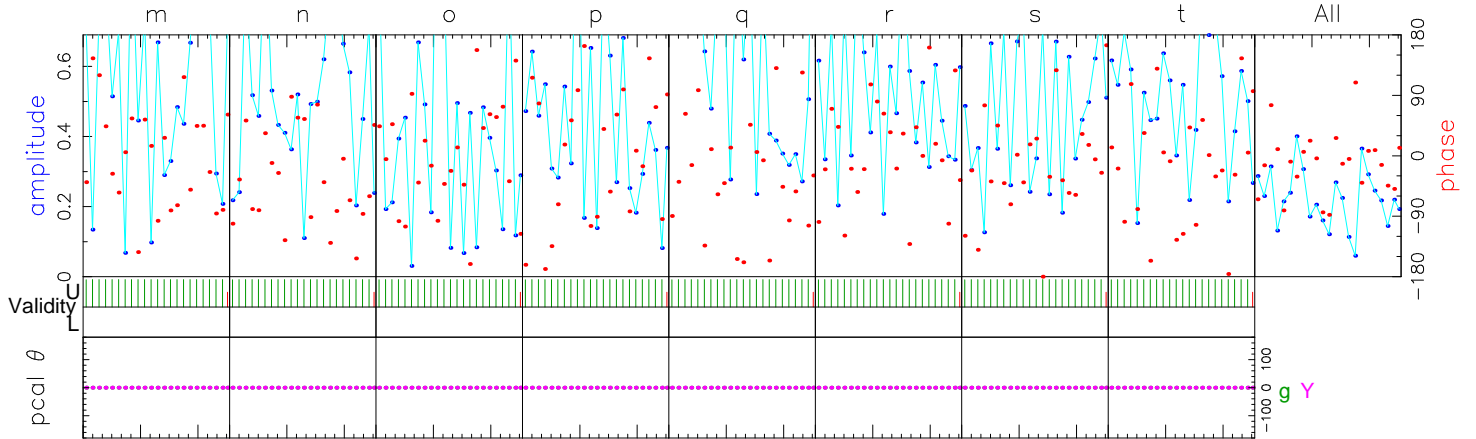


singleband delay (μ s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170000.00
Stop 170230.02
FRT 170115.00
Corr/FF/build
2025:007:180402
2025:041:112705
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	5.8	-39.2	-26.4	85.2	-40.4	1.4	-25.2	-6.9		-14.5
	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2		0.2
	178.9	236.8	500.3	332.0	238.6	53.7	385.3	26.1		294.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
g	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.67281679350E+03	Apriori delay (usec)	5.67267396506E+03	Resid mbdelay (usec)	2.20343E-03	+/-	1.9E-04
Sband delay (usec)	5.67282146156E+03	Apriori clock (usec)	1.1101138E+02	Resid sbdelay (usec)	1.47497E-01	+/-	1.5E-03
Phase delay (usec)	5.67267396459E+03	Apriori clockrate (us/s)	1.2936299E-06	Resid phdelay (usec)	-4.67710E-07	+/-	6.3E-07
Delay rate (us/s)	7.24123326423E-01	Apriori rate (us/s)	7.24114288814E-01	Resid rate (us/s)	9.03761E-06	+/-	7.3E-09
Total phase (deg)	111.7	Apriori accel (us/s/s)	-2.45660666742E-06	Resid phase (deg)	-14.5	+/-	19.6

ph/seg (deg)	46.8	RMS	47.1	Theor.	47.1	Amplitude	0.230 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	54.6	Search (1024X32)	0.172	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	45.1	Inc. seg. avg.	0.221	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
amp/frq (%)	25.2	Inc. frq. avg.	0.236	u, v (fr/asec)	-6198.982 1721.913	simultaneous interpolator						
g: az 192.6 el 61.2 pa 4.4		Y: az 304.8 el 38.2 pa 68.6		Control file:	cf_1234_gmva	Input file:	/Exps/c241a/v2/3mm/1234/No0914/gY..3MP19T	Output file:	/Exps/c241a/v2/3mm/1234/No0914/gY.W.199.3MP19T			

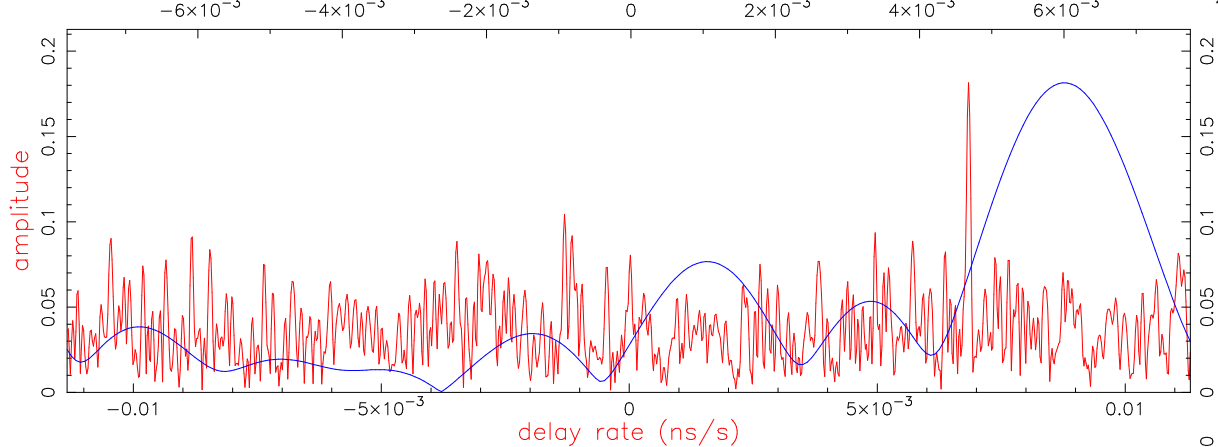
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, gY

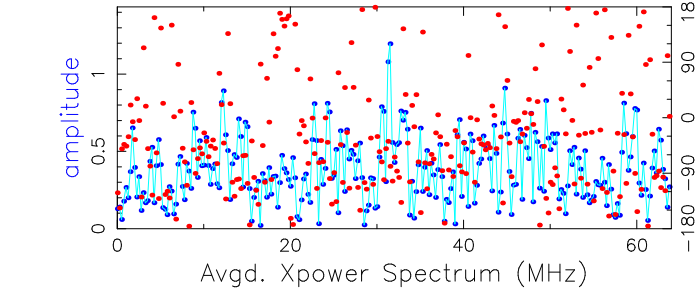
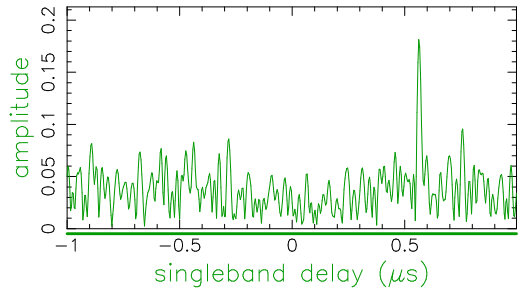
GLT - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



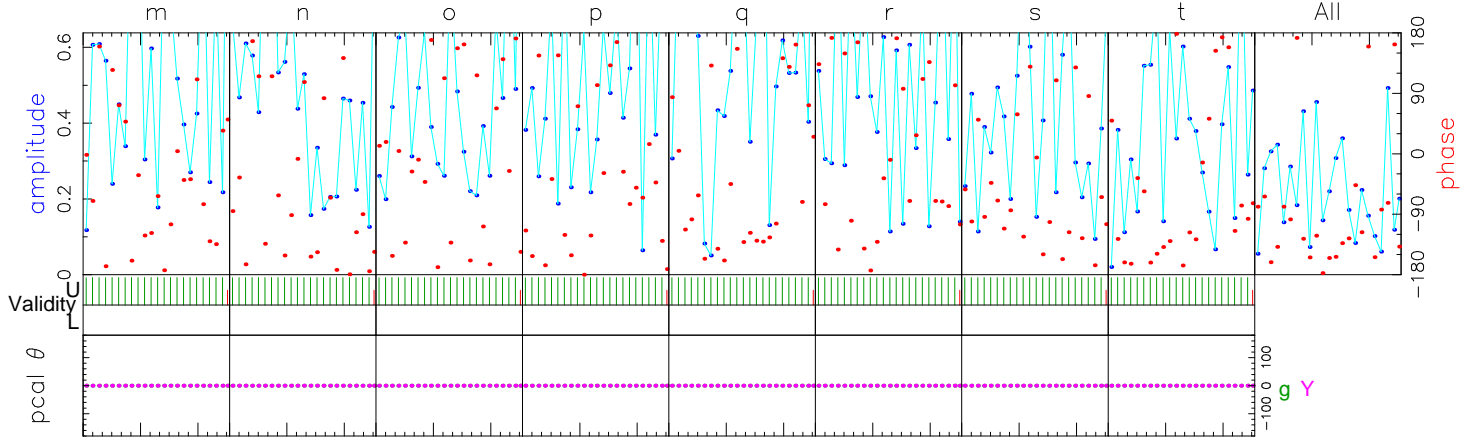
Fringe quality 0

SNR 6.1
 Int time 149.852
 Amp 0.213
 Phase -127.2
 PFD 1.3e-01
 Delays (us)
 SBD 0.563383
 MBD 0.005990
 Fringe rate (Hz) 0.589945
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112706
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-107.1	-151.5	-134.8	-112.0	-124.9	-140.4	-113.6	-131.0	Phase	-127.2
	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.3	Ampl.	0.2
	300.5	430.7	174.3	468.4	434.6	201.0	37.0	351.7	Sbd box	401.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.67324245499E+03	Apriori delay (usec)	5.67267396506E+03	Resid mbdelay (usec)	5.98993E-03	+/-	1.8E-04
Sband delay (usec)	5.67323734831E+03	Apriori clock (usec)	1.1101138E+02	Resid sbdelay (usec)	5.63383E-01	+/-	1.4E-03
Phase delay (usec)	5.67267396096E+03	Apriori clockrate (us/s)	1.2936299E-02	Resid phdelay (usec)	-4.10217E-06	+/-	6.1E-07
Delay rate (us/s)	7.24121137490E-01	Apriori rate (us/s)	7.24114288814E-01	Resid rate (us/s)	6.84868E-06	+/-	7.0E-09
Total phase (deg)	-1.0	Apriori accel (us/s/s)	-2.45660666742E-06	Resid phase (deg)	-127.2	+/-	18.8

ph/seg (deg) 43.1 45.0 Search (1024X32) 0.178 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.7 78.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.6 26.6 Inc. seg. avg. 0.203 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.0 46.4 Inc. frq. avg. 0.197 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 192.6 el 61.2 pa 4.4 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -6198.982 1721.913 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/gY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/gY.W.203.3MP19T

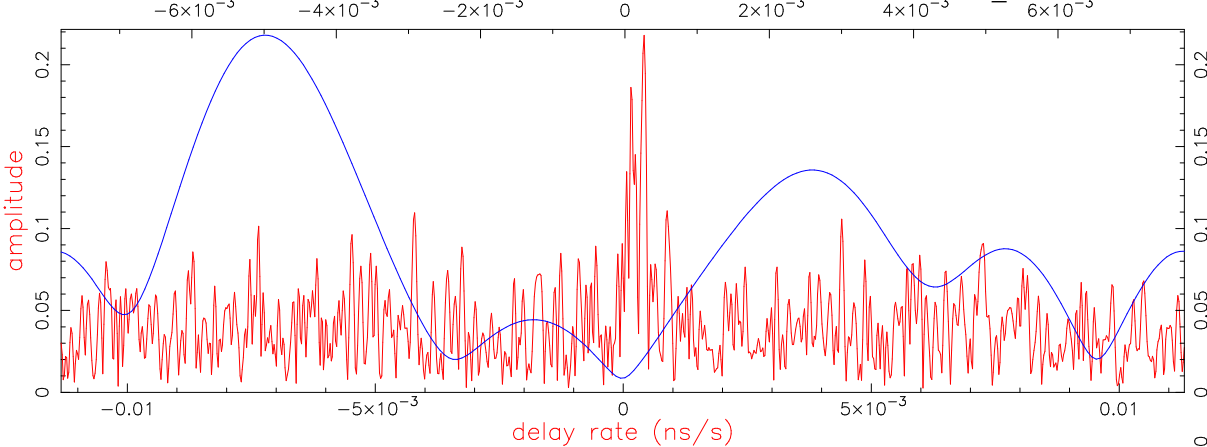
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, kY

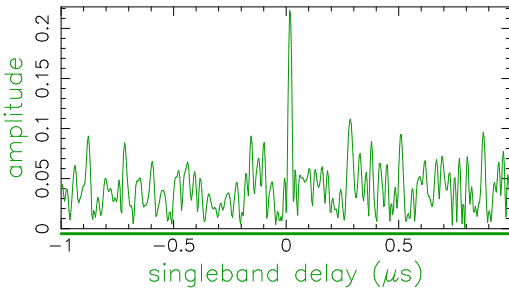
VLBA_KP - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

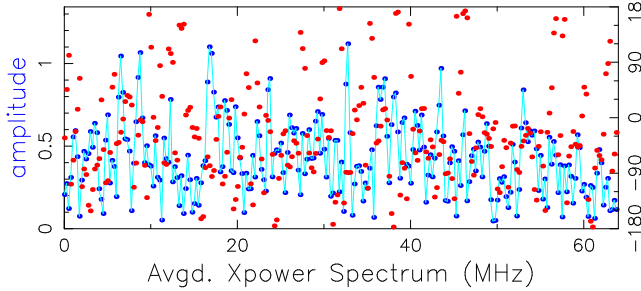


Fringe quality 9

SNR 7.4
 Int time 149.852
 Amp 0.222
 Phase -157.1
 PFD 2.0e-05
 Delays (us)
 SBD 0.017226
 MBD -0.004941
 Fringe rate (Hz)
 0.036179
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

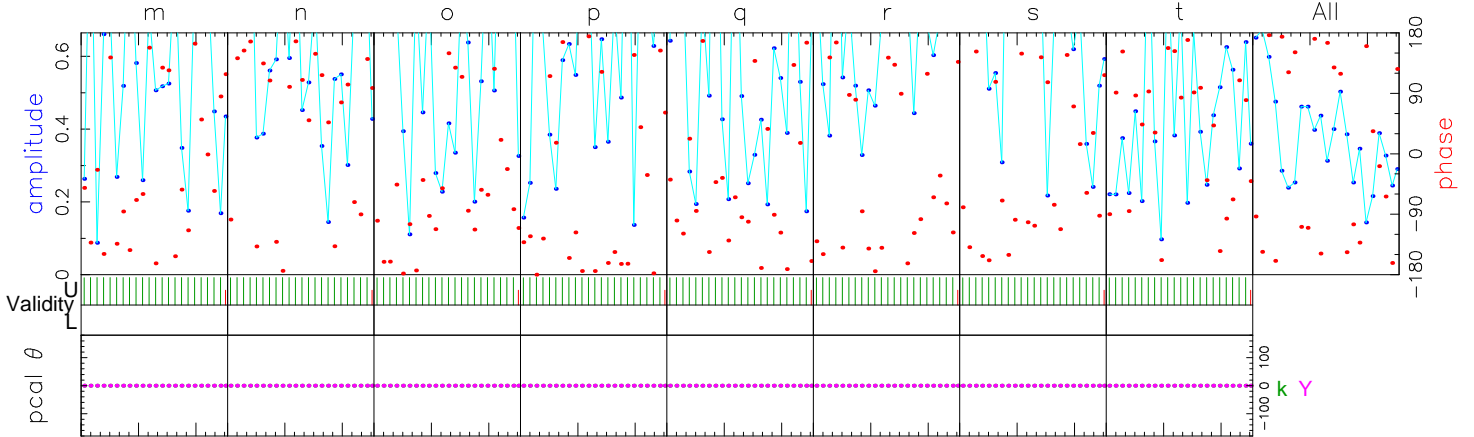


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112723
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-152.8	168.5	-102.8	-175.8	-101.4	-166.4	-142.2	104.6	Phase	-157.1
	0.2	0.4	0.3	0.4	0.3	0.3	0.3	0.2	Ampl.	0.3
	72.9	260.6	231.0	260.5	426.6	96.9	261.4	17.1	Sbd box	261.4
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.46853037772E+03	Apriori delay (usec)	5.46851969374E+03	Resid mbdelay (usec)	-4.94102E-03	+/-	1.5E-04
Sband delay (usec)	5.46853691924E+03	Apriori clock (usec)	1.1070042E+02	Resid sbdelay (usec)	1.72255E-02	+/-	1.2E-03
Phase delay (usec)	5.46851968868E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	-5.06493E-06	+/-	5.0E-07
Delay rate (us/s)	1.25167872090E+00	Apriori rate (us/s)	1.25167830090E+00	Resid rate (us/s)	4.19998E-07	+/-	5.8E-09
Total phase (deg)	-6.2	Apriori accel (us/s/s)	-3.85803759370E-05	Resid phase (deg)	-157.1	+/-	15.5

ph/seg (deg)	66.6	RMS	37.1	Theor.	Amplitude	0.222 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	95.4	66.6	37.1	Search (1024X32)	0.216	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	54.1	95.4	64.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	41.3	54.1	21.9	Inc. seg. avg.	0.316	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
		41.3	38.2	Inc. frq. avg.	0.262	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 48.0 el 59.8 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10728.033 -4047.285 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/kY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/kY.W.234.3MP19T

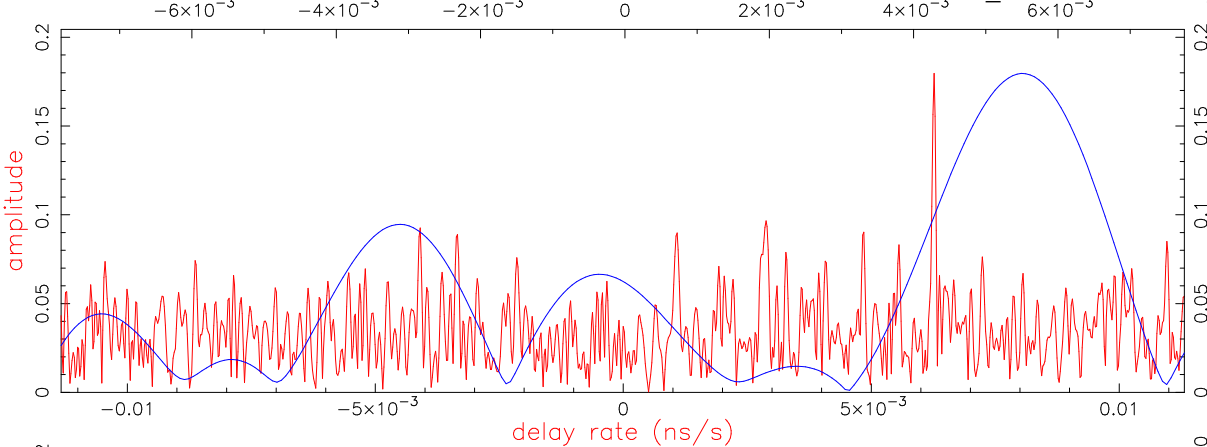
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, kY

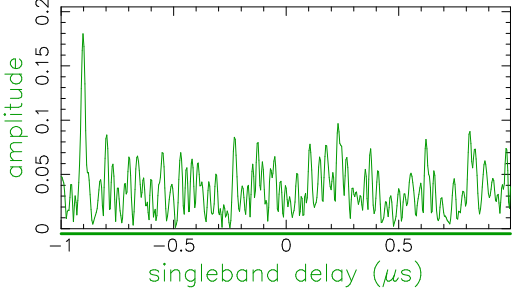
VLBA_KP - YEYES40M, fgroup W, pol RR

multiband delay (μ s)

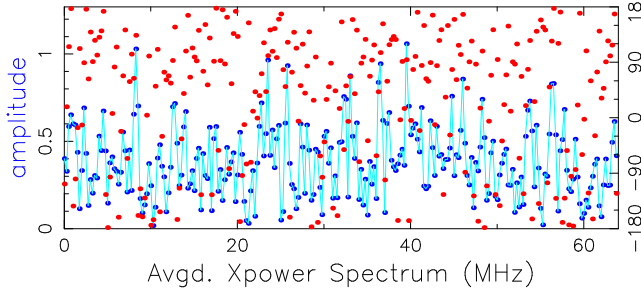


Fringe quality 0

SNR 6.0
 Int time 149.852
 Amp 0.204
 Phase 95.8
 PFD 2.1e-01
 Delays (us)
 SBD -0.902079
 MBD 0.005507
 Fringe rate (Hz)
 0.539918
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

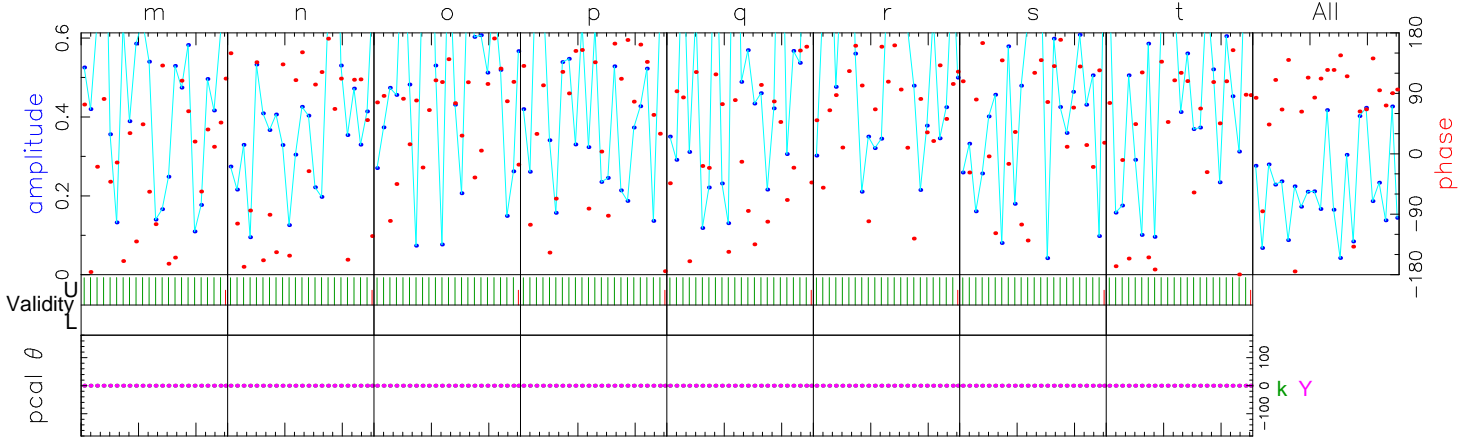


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112725
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
k	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.46761895045E+03	Apriori delay (usec)	5.46851969374E+03	Resid mbdelay (usec)	5.50671E-03	+/-	1.8E-04
Sband delay (usec)	5.46761761524E+03	Apriori clock (usec)	1.1070042E+02	Resid sbdelay (usec)	-9.02079E-01	+/-	1.4E-03
Phase delay (usec)	5.46851969683E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	3.08869E-06	+/-	6.1E-07
Delay rate (us/s)	1.25168456881E+00	Apriori rate (us/s)	1.25167830090E+00	Resid rate (us/s)	6.26791E-06	+/-	7.1E-09
Total phase (deg)	246.6	Apriori accel (us/s/s)	-3.85803759370E-05	Resid phase (deg)	95.8	+/-	19.1

ph/seg (deg)	56.8	RMS	56.8	Theor.	45.7	Amplitude	0.204 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.9		66.9		79.7	Search (1024X32)	0.177	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	29.7		29.7		26.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled		dr window (ns/s)	-0.011	0.011
amp/frq (%)	36.7		36.7		47.0	Inc. seg. avg.	0.194	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us			ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.202	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite			

k: az 48.0 el 59.8 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10728.033 -4047.285 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/kY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/kY.W.241.3MP19T

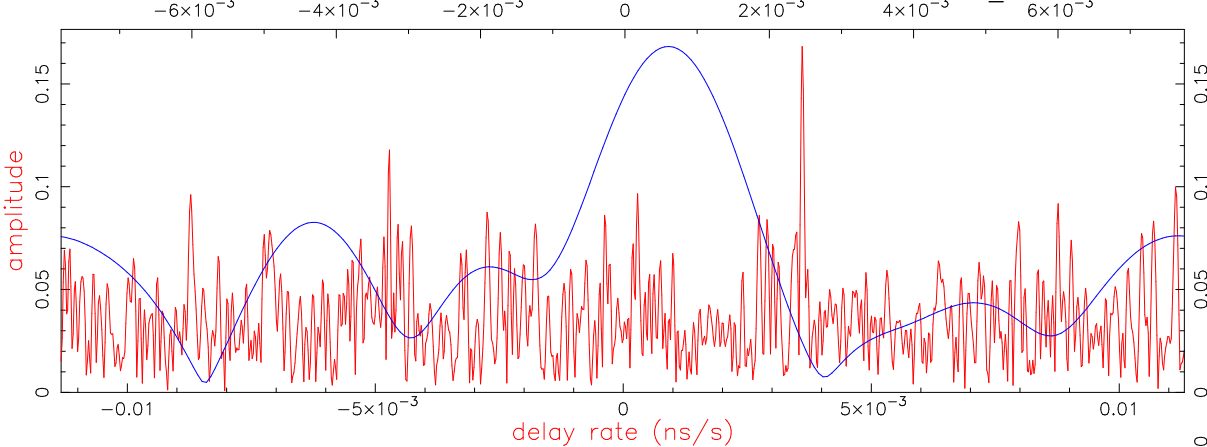
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, kY

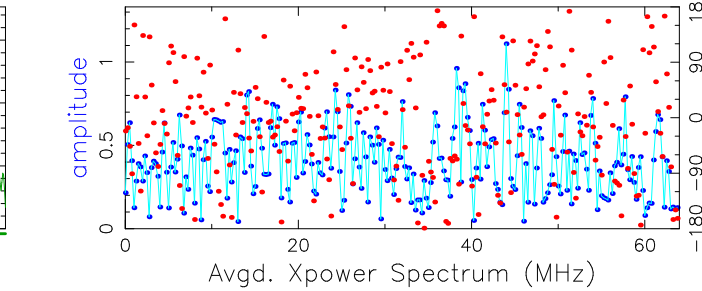
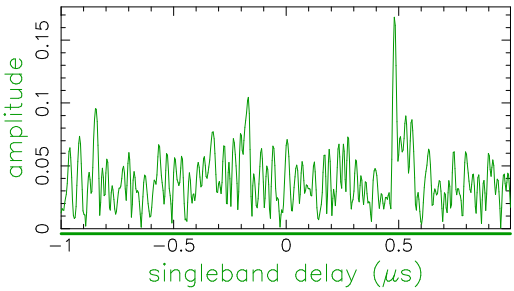
VLBA_KP - YEBES40M, fgroup W, pol LR

multiband delay (μ s)



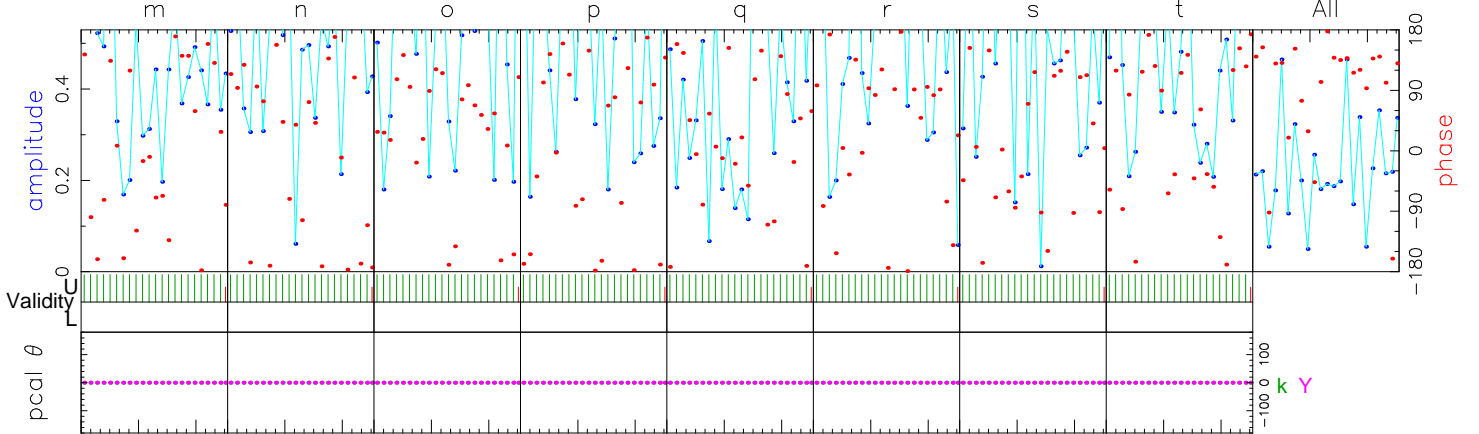
Fringe quality 0

SNR 5.7
 Int time 149.852
 Amp 0.177
 Phase 132.6
 PFD 8.3e-01
 Delays (us)
 SBD 0.481546
 MBD 0.000639
 Fringe rate (Hz)
 0.310698
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112727
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-179.5	145.7	88.8	154.1	110.4	113.9	141.6	150.6	Phase	132.6
	0.1	0.3	0.3	0.2	0.1	0.2	0.0	0.3	Ampl.	0.2
	41.0	113.1	379.9	400.0	435.4	197.2	116.8	382.4	Sbd box	380.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.46900470760E+03	Apriori delay (usec)	5.46851969374E+03	Resid mbdelay (usec)	6.38861E-04	+/-	1.9E-04
Sband delay (usec)	5.46900123949E+03	Apriori clock (usec)	1.1070042E+02	Resid sbdelay (usec)	4.81546E-01	+/-	1.5E-03
Phase delay (usec)	5.46851969802E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	4.27738E-06	+/-	6.5E-07
Delay rate (us/s)	1.25168190780E+00	Apriori rate (us/s)	1.25167830090E+00	Resid rate (us/s)	3.60689E-06	+/-	7.5E-09
Total phase (deg)	283.5	Apriori accel (us/s/s)	-3.85803759370E-05	Resid phase (deg)	132.6	+/-	20.2

ph/seg (deg)	62.8	RMS	48.5	Theor.	0.177 +/- 0.031	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.7	Search (1024X32)	0.165	Amplitude	0.177 +/- 0.031	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.9	Interp.	0.000	Search	0.165	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.6	Inc. seg. avg.	0.172	Inc. frq. avg.	0.177	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.177			Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 48.0 el 59.8 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10728.033 -4047.285 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/kY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/kY.W.248.3MP19T

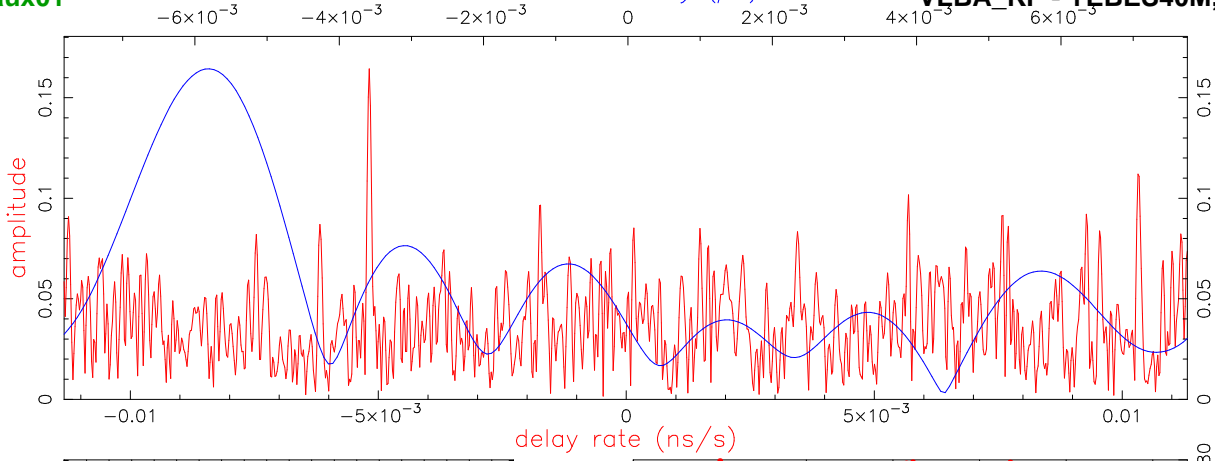
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, kY

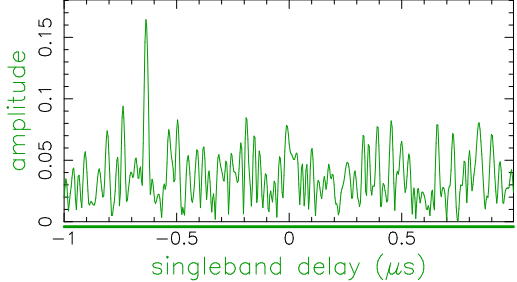
VLBA_KP - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

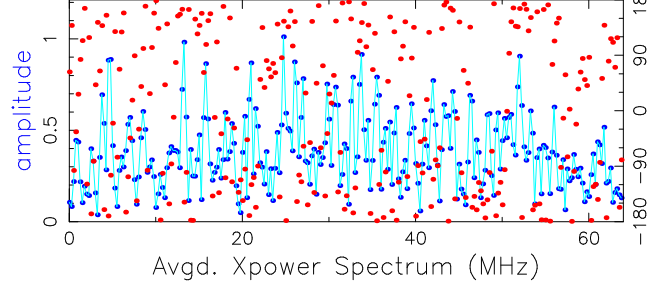


Fringe quality 0

SNR 5.5
 Int time 149.852
 Amp 0.181
 Phase 121.7
 PFD 9.8e-01
 Delays (us)
 SBD -0.635610
 MBD -0.005803
 Fringe rate (Hz)
 -0.446982
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

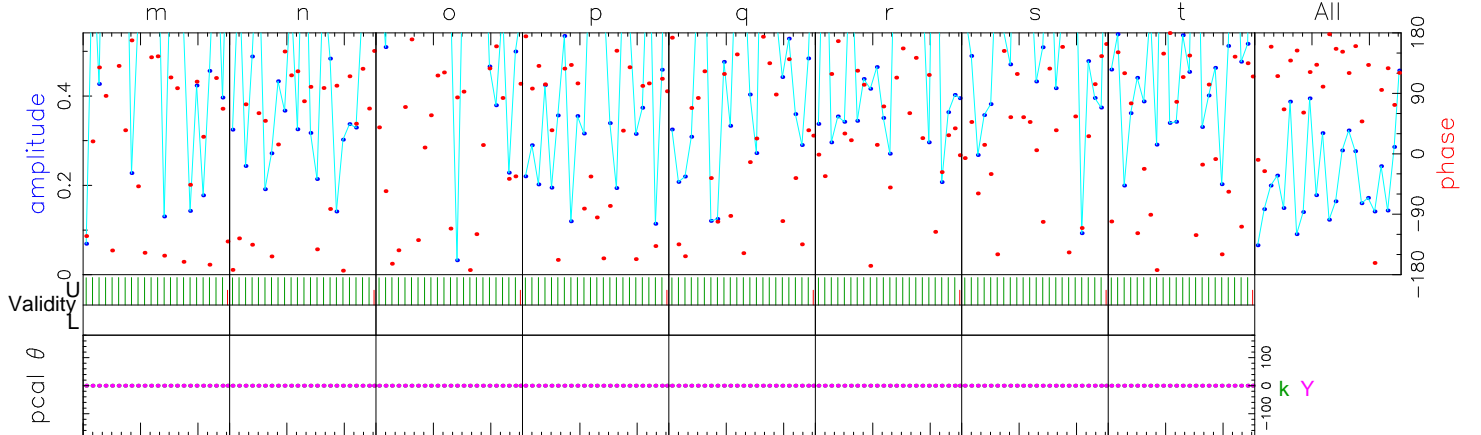


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112729
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
k	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	5.46788889106E+03	Apriori delay (usec)		5.46851969374E+03	Resid mbdelay (usec)		-5.80268E-03	+/-	2.0E-04	
Sband delay (usec)	5.46788408424E+03	Apriori clock (usec)		0.160	Resid sbdelay (usec)		-6.35610E-01	+/-	1.6E-03	
Phase delay (usec)	5.46851969767E+03	Apriori clockrate (us/s)		1.3658751E-06	Resid phdelay (usec)		3.92295E-06	+/-	6.7E-07	
Delay rate (us/s)	1.25167311188E+00	Apriori rate (us/s)		1.25167830090E+00	Resid rate (us/s)		-5.18902E-06	+/-	7.7E-09	
Total phase (deg)		272.5	Apriori accel (us/s/s)		-3.85803759370E-05	Resid phase (deg)		121.7	+/-	20.7

ph/seg (deg)	55.7	Theor. 49.6	Amplitude 0.181 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		sb window (us)	-1.000	1.000
amp/seg (%)	65.6	86.6	Search (1024X32) 0.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	33.9	29.3	Interp. 0.000	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.5	51.1	Inc. seg. avg. 0.171	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
k: az 48.0 el 59.8 pa -109.8		Y: az 304.8 el 38.2 pa 68.6		u,v (fr/asec) -10728.033 -4047.285		simultaneous interpolator			

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/kY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/kY.W.255.3MP19T

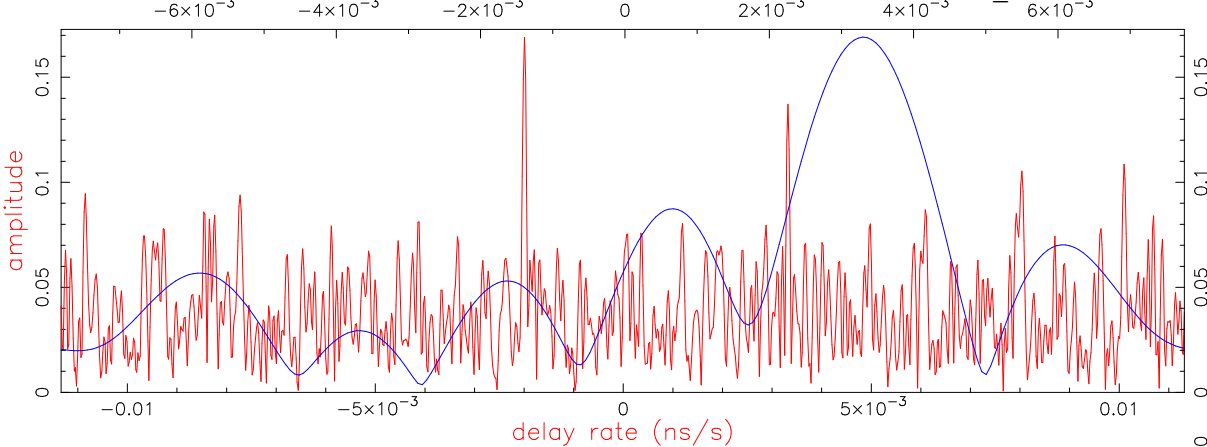
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, IY

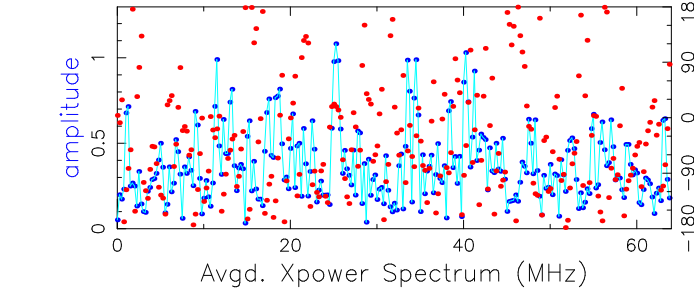
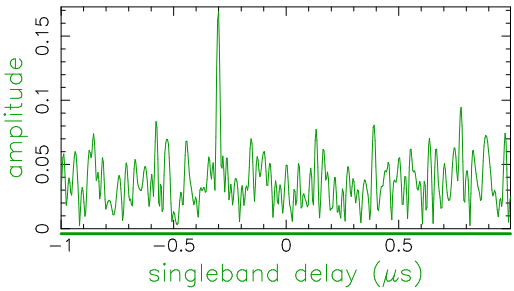
VLBA_LA - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



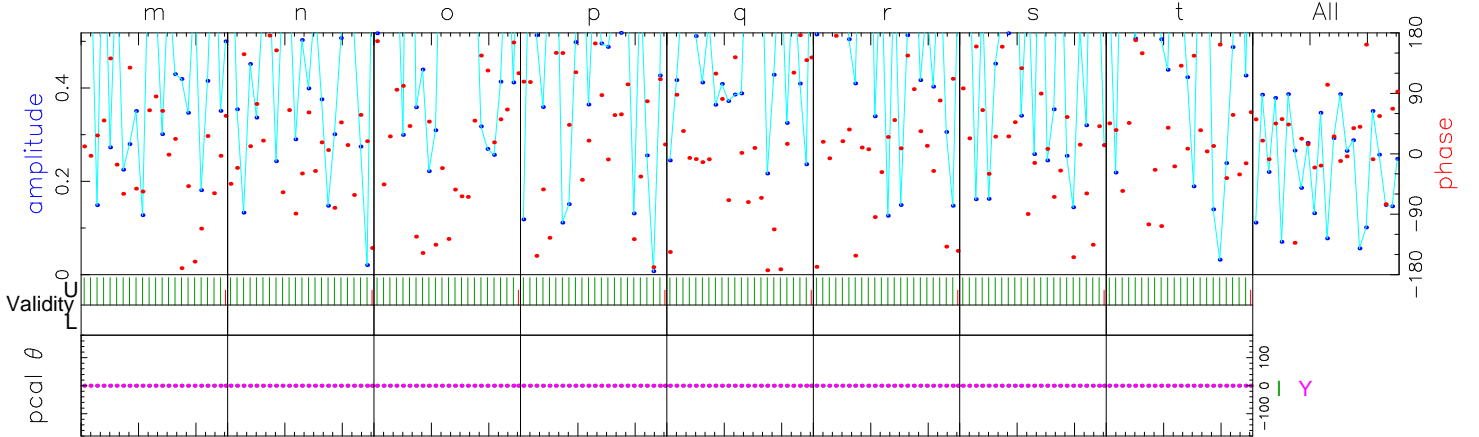
Fringe quality 0

SNR 5.7
 Int time 149.852
 Amp 0.173
 Phase 18.6
 PFD 7.5e-01
 Delays (us)
 SBD -0.301974
 MBD 0.003263
 Fringe rate (Hz)
 -0.171944
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112735
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
I	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.44935771115E+03	Apriori delay (usec)	6.44966694853E+03	Resid mbdelay (usec)	3.26261E-03	+/-	1.9E-04
Sband delay (usec)	6.44936497428E+03	Apriori clock (usec)	1.0223926E+02	Resid sbdelay (usec)	-3.01974E-01	+/-	1.5E-03
Phase delay (usec)	6.44966694913E+03	Apriori clockrate (us/s)	9.7966795E-07	Resid phdelay (usec)	6.00159E-07	+/-	6.5E-07
Delay rate (us/s)	1.16262929023E+00	Apriori rate (us/s)	1.16263128632E+00	Resid rate (us/s)	-1.99610E-06	+/-	7.5E-09
Total phase (deg)	359.4	Apriori accel (us/s/s)	-3.92069363185E-05	Resid phase (deg)	18.6	+/-	20.1

ph/seg (deg)	58.1	Theor.	48.1	Amplitude	0.173 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.3		84.0	Search (1024X32)	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.8		28.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.8		49.5	Inc. seg. avg.	0.175	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.165	Data rate(Mb/s): 2048	t_cohere infinite			

I: az 51.0 el 65.7 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -9966.933 -3775.986 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/IY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/IY.W.271.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

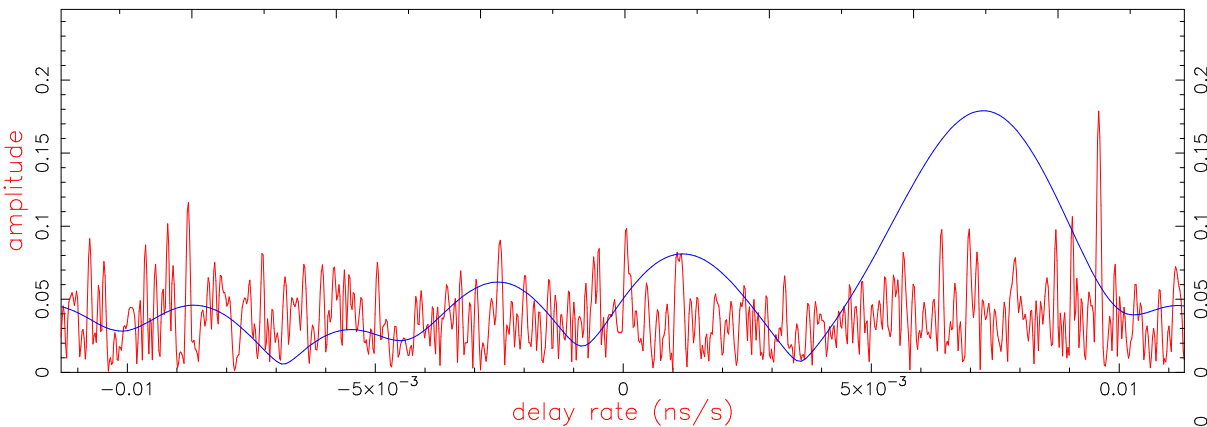
aux01

0133+476.3MP19T, No0914, IY

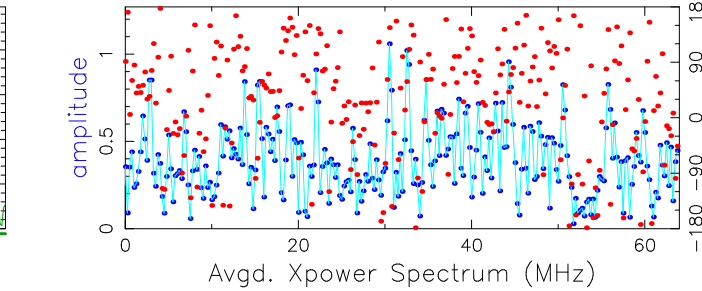
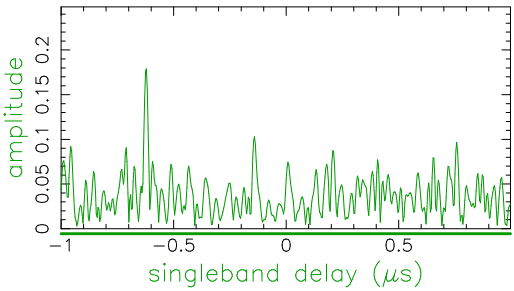
VLBA_LA - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

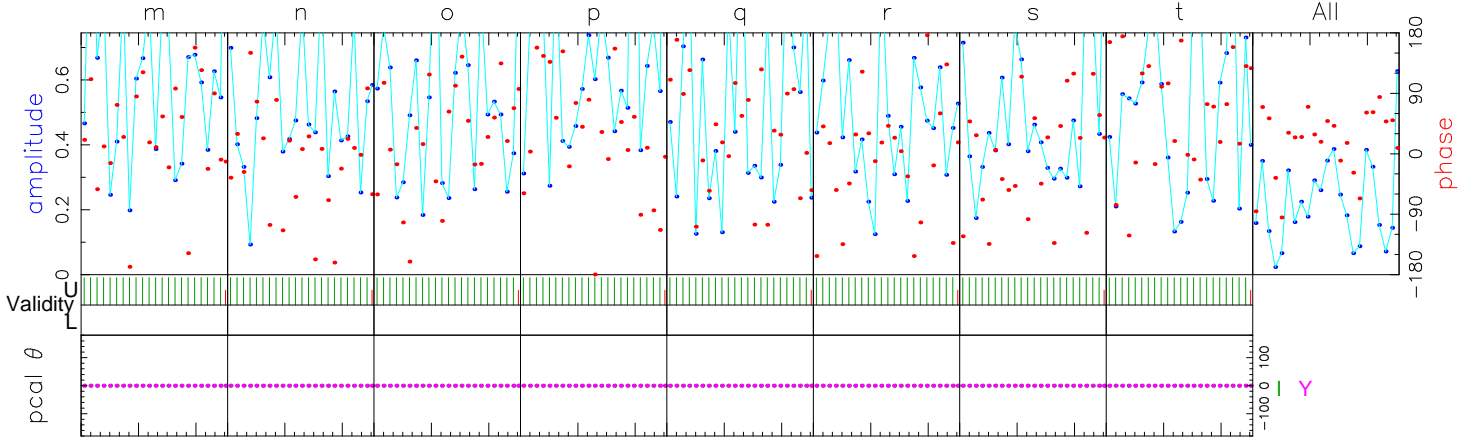


SNR 6.1
 Int time 149.852
 Amp 0.248
 Phase 35.3
 PFD 1.6e-01
 Delays (us)
 SBD -0.622723
 MBD 0.004895
 Fringe rate (Hz)
 0.827948
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112738
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	44.8	2.4	42.7	46.5	55.5	-5.6	-11.3	80.6	Phase	35.3
	0.4	0.3	0.3	0.4	0.3	0.2	0.1	0.2	Ampl.	0.2
	97.6	79.1	11.7	345.7	398.0	11.5	219.5	71.6	Sbd box	97.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.44904684387E+03	Apriori delay (usec)	6.44966694853E+03	Resid mbdelay (usec)	4.89534E-03	+/-	1.8E-04
Sband delay (usec)	6.44904422528E+03	Apriori clock (usec)	1.0223926E+02	Resid sbdelay (usec)	-6.22723E-01	+/-	1.4E-03
Phase delay (usec)	6.44966694967E+03	Apriori clockrate (us/s)	9.7966795E-07	Resid phdelay (usec)	1.13958E-06	+/-	6.1E-07
Delay rate (us/s)	1.16264089798E+00	Apriori rate (us/s)	1.16263128632E+00	Resid rate (us/s)	9.61165E-06	+/-	7.0E-09
Total phase (deg)	16.2	Apriori accel (us/s/s)	-3.92069363185E-05	Resid phase (deg)	35.3	+/-	18.9

ph/seg (deg)	52.2	Theor.	45.3	Amplitude	0.248 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.8	Search (1024X32)	0.177	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.7	Inc. seg. avg.	0.228	Inc. frq. avg.	0.247	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.5	Inc. frq. avg.	0.247			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
I: az 51.0 el 65.7 pa -109.8		Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec)	-9966.933 -3775.986	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/c241a/v2/3mm/1234/No0914/IY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/IY.W.282.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

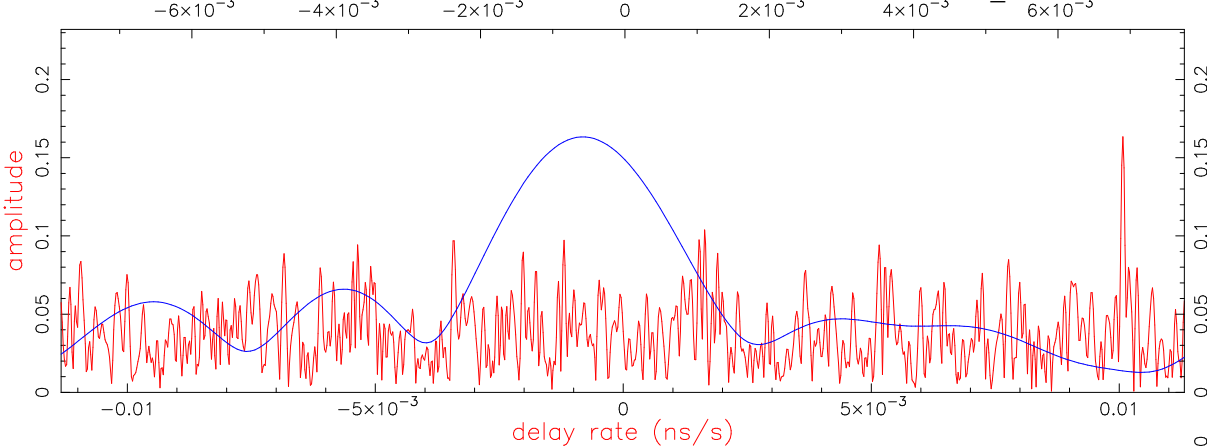
aux01

0133+476.3MP19T, No0914, IY

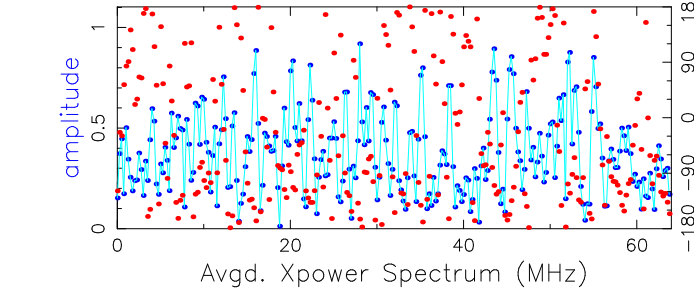
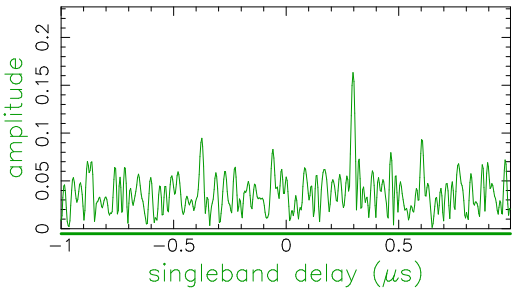
VLBA_LA - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

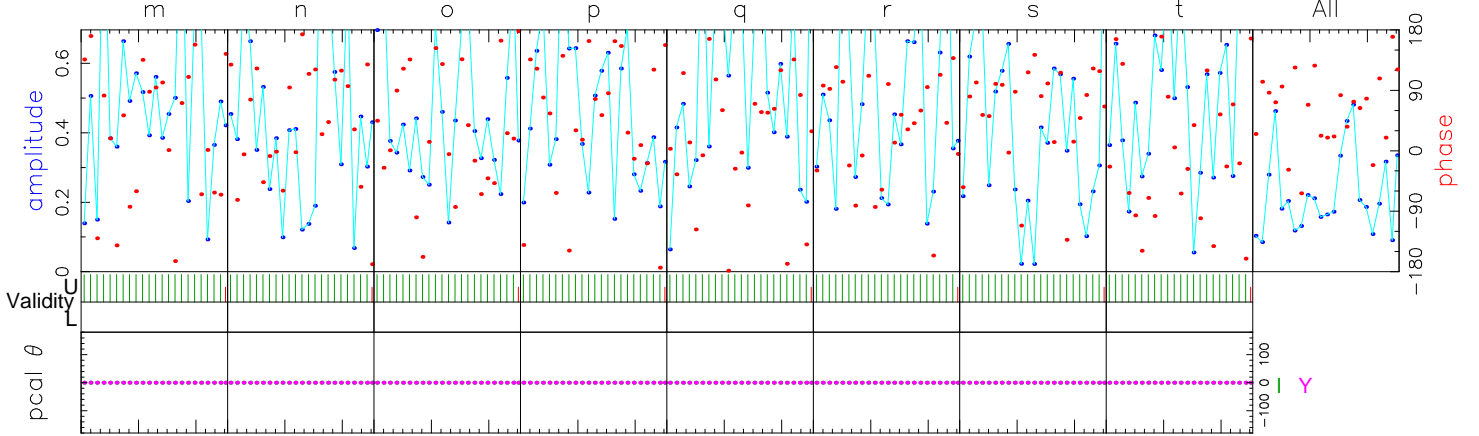


SNR 5.5
 Int time 149.852
 Amp 0.232
 Phase 63.7
 PFD 9.9e-01
 Delays (us)
 SBD 0.297299
 MBD -0.000584
 Fringe rate (Hz)
 0.869308
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112746
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
I	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.44996323928E+03	Apriori delay (usec)		6.44966694853E+03	Resid mbdelay (usec)	-5.84251E-04	+/-	2.0E-04
Sband delay (usec)	6.44996424728E+03	Apriori clock (usec)		1.0223926E+02	Resid sbdelay (usec)	2.97299E-01	+/-	1.6E-03
Phase delay (usec)	6.44966695059E+03	Apriori clockrate (us/s)		9.7966795E-07	Resid phdelay (usec)	2.05527E-06	+/-	6.8E-07
Delay rate (us/s)	1.16264137812E+00	Apriori rate (us/s)		1.16263128632E+00	Resid rate (us/s)	1.00918E-05	+/-	7.8E-09
Total phase (deg)	44.6	Apriori accel (us/s/s)		-3.92069363185E-05	Resid phase (deg)	63.7	+/-	20.9

ph/seg (deg)	54.8	Theor.	50.2	Amplitude	0.232 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.1	Search (1024X32)	0.161	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	70.3	Inc. seg. avg.	0.229	Inc. frq. avg.	0.233	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	47.8	Inc. frq. avg.	0.233			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

I: az 51.0 el 65.7 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -9966.933 -3775.986 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/IY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/IY.W.287.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

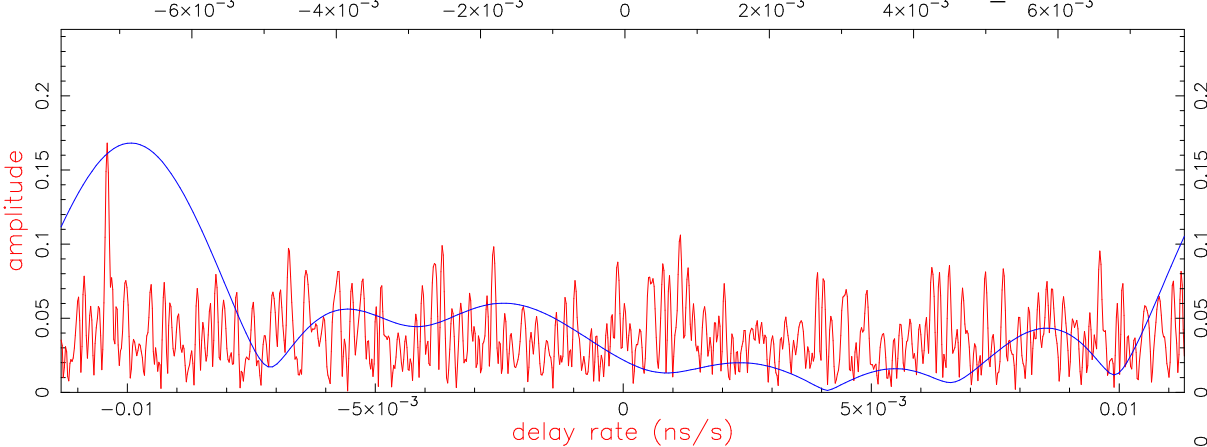
aux01

0133+476.3MP19T, No0914, IY

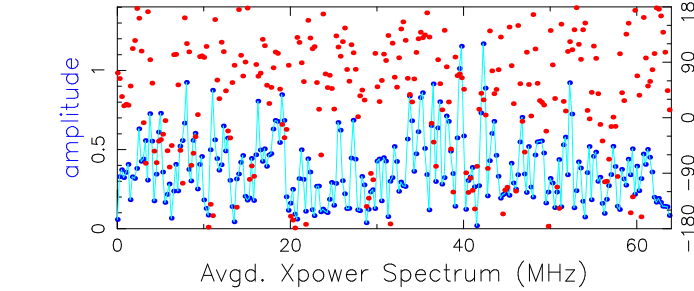
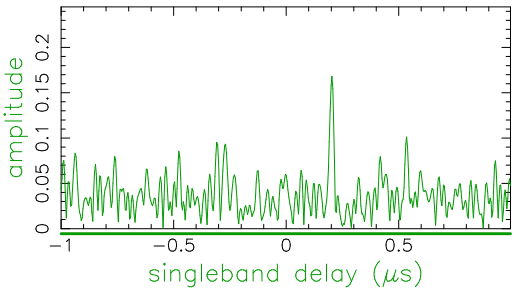
VLBA_LA - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

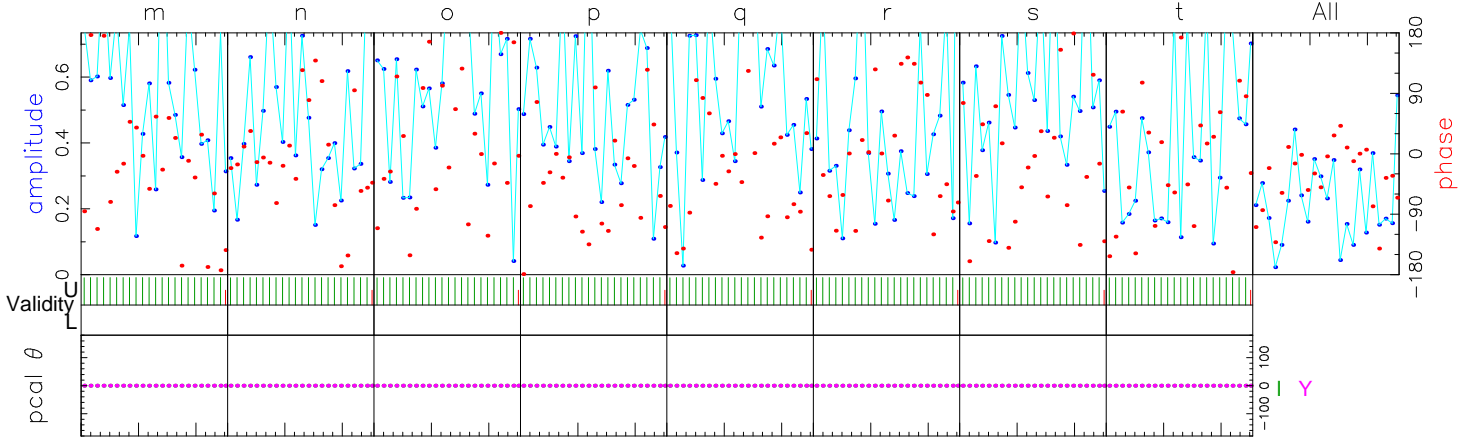


SNR 5.6
 Int time 149.852
 Amp 0.245
 Phase -30.9
 PFD 8.9e-01
 Delays (us)
 SBD 0.202906
 MBD -0.006846
 Fringe rate (Hz)
 -0.897585
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112749
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-37.9	-12.0	-16.8	-69.3	-26.4	-30.7	-22.0	-31.4	Phase	-30.9
	0.3	0.3	0.1	0.3	0.3	0.2	0.3	0.1	Ampl.	0.2
	363.3	337.4	324.9	255.6	176.3	68.1	101.2	14.1	Sbd box	308.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.44986322743E+03	Apriori delay (usec)	6.44966694853E+03	Resid mbdelay (usec)	-6.84611E-03	+/-	1.9E-04
Sband delay (usec)	6.44986985403E+03	Apriori clock (usec)	1.0223926E+02	Resid sbdelay (usec)	2.02906E-01	+/-	1.5E-03
Phase delay (usec)	6.44966694754E+03	Apriori clockrate (us/s)	9.7966795E-07	Resid phdelay (usec)	-9.97851E-07	+/-	6.6E-07
Delay rate (us/s)	1.16262086625E+00	Apriori rate (us/s)	1.16263128632E+00	Resid rate (us/s)	-1.04201E-05	+/-	7.6E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.92069363185E-05	Resid phase (deg)	-30.9	+/-	20.3

ph/seg (deg)	48.2	Theor.	48.8	Amplitude	0.245 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.6	Search (1024X32)	0.162	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.1	Inc. seg. avg.	0.235	Inc. frq. avg.	0.228	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.8	Inc. frq. avg.	0.228			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

I: az 51.0 el 65.7 pa -109.8 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -9966.933 -3775.986 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/IY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/IY.W.291.3MP19T

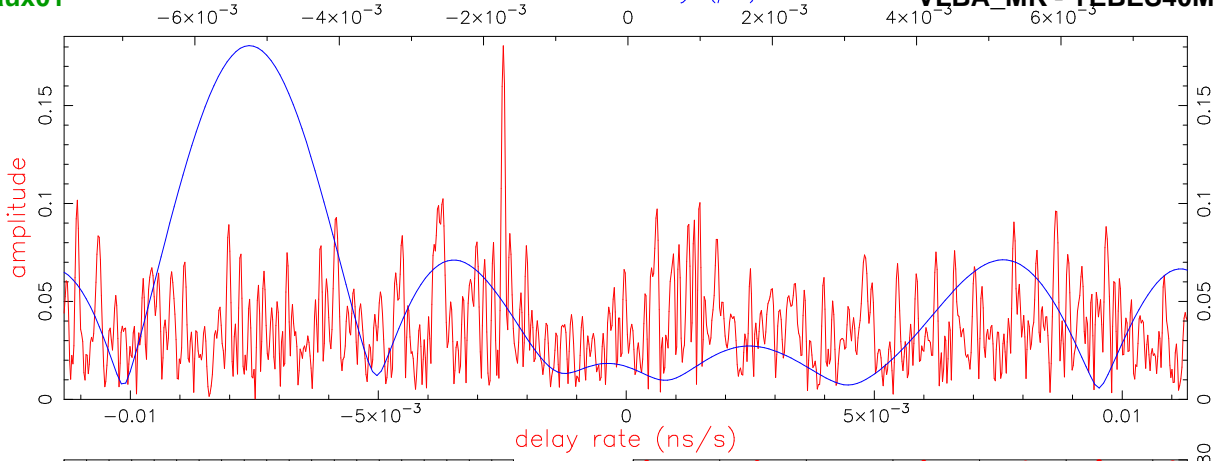
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, mY

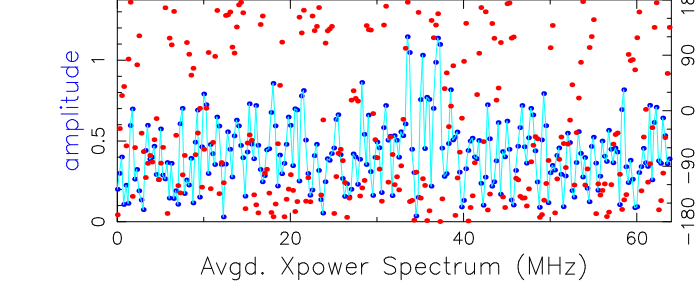
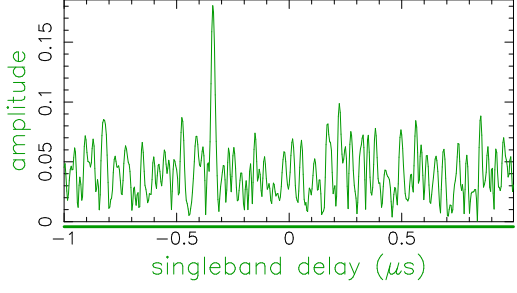
VLBA_MK - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



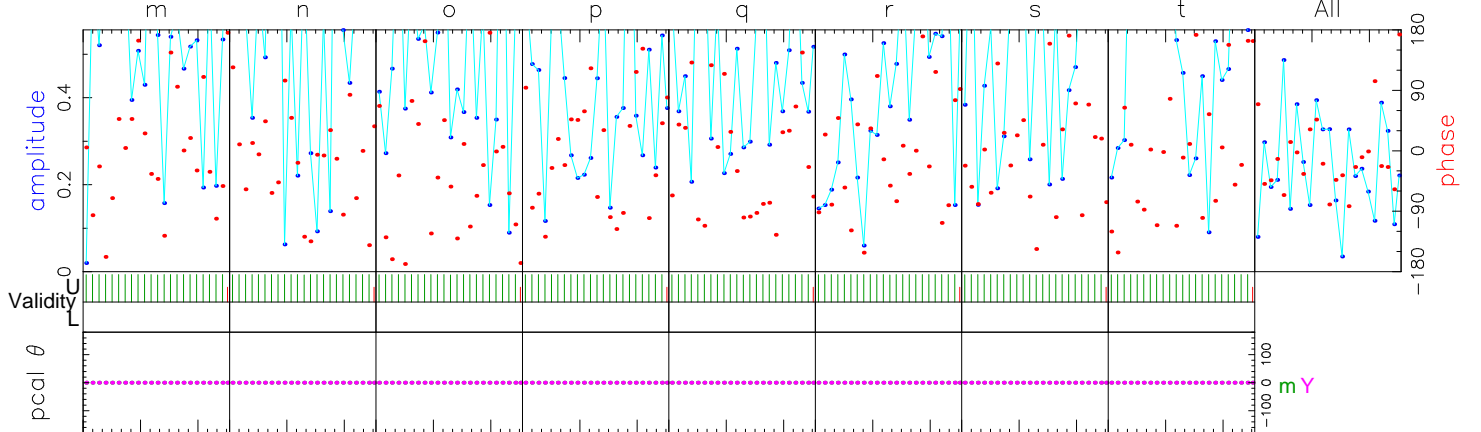
Fringe quality 0

SNR 6.1
 Int time 149.733
 Amp 0.185
 Phase -26.2
 PFD 1.4e-01
 Delays (us)
 SBD -0.338686
 MBD -0.005204
 Fringe rate (Hz)
 -0.213556
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112805
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-24.9	-23.9	-39.3	6.3	-50.1	-32.6	-13.2	-40.3	Phase	-26.2
	0.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	258.5	170.8	489.0	318.1	24.0	89.5	30.0	344.3	Sbd box	170.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -4.68885427178E+03 Apriori delay (usec) -4.68852094317E+03 Resid mbdelay (usec) -5.20361E-03 +/- 1.8E-04
 Sband delay (usec) -4.68885962917E+03 Apriori clock (usec) 1.1108916E+02 Resid sbdelay (usec) -3.38686E-01 +/- 1.4E-03
 Phase delay (usec) -4.68852094402E+03 Apriori clockrate (us/s) 1.1991690E-02 Resid phdelay (usec) -8.45566E-07 +/- 6.1E-07
 Delay rate (us/s) 1.71807535150E+00 Apriori rate (us/s) 1.71807783067E+00 Resid rate (us/s) -2.47917E-06 +/- 7.0E-09
 Total phase (deg) -42.3 Apriori accel (us/s/s) -5.00376257161E-07 Resid phase (deg) -26.2 +/- 18.8

RMS Theor. Amplitude 0.185 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 52.3 45.2 Search (1024X32) 0.177 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 71.0 78.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 19.2 26.6 Inc. seg. avg. 0.189 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 30.4 46.5 Inc. frq. avg. 0.172 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

m: az 45.1 el 22.7 pa -85.3 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -14697.083 -1844.185 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/mY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/mY.W.312.3MP19T

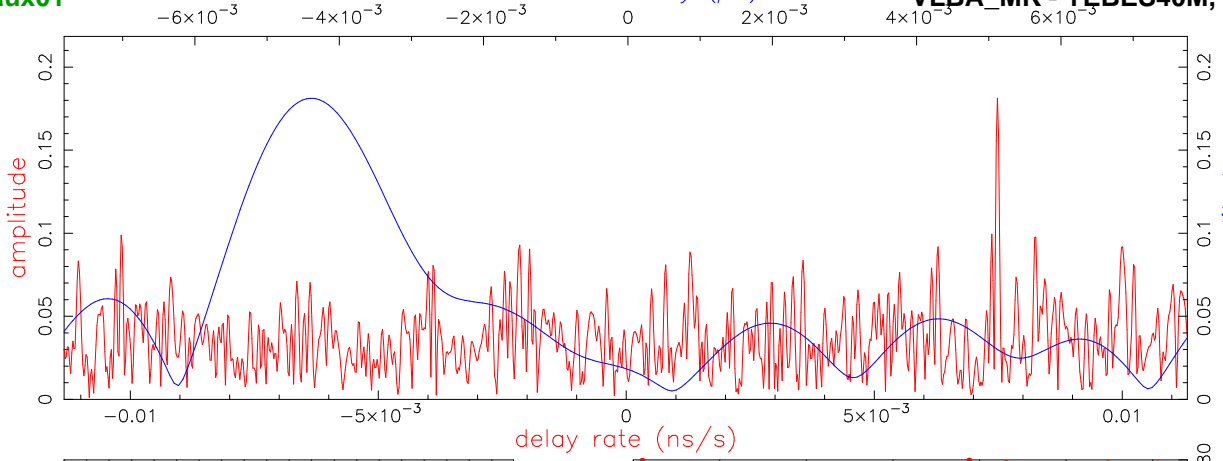
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, mY

VLBA_MK - YEYES40M, fgroup W, pol RR

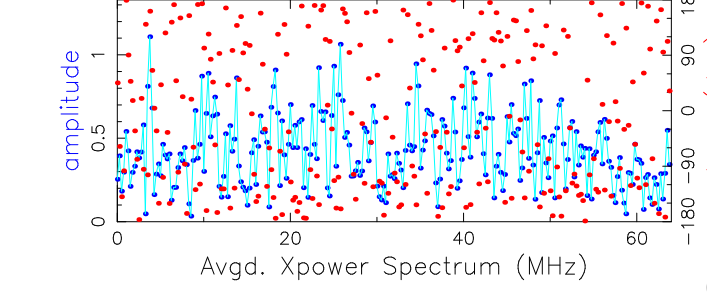
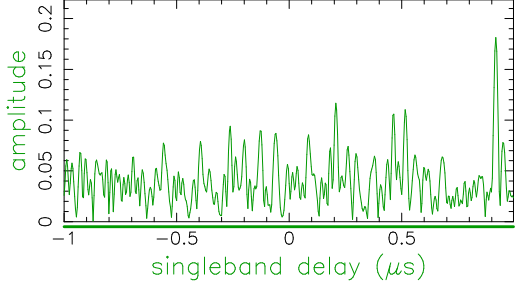
multiband delay (μ s)



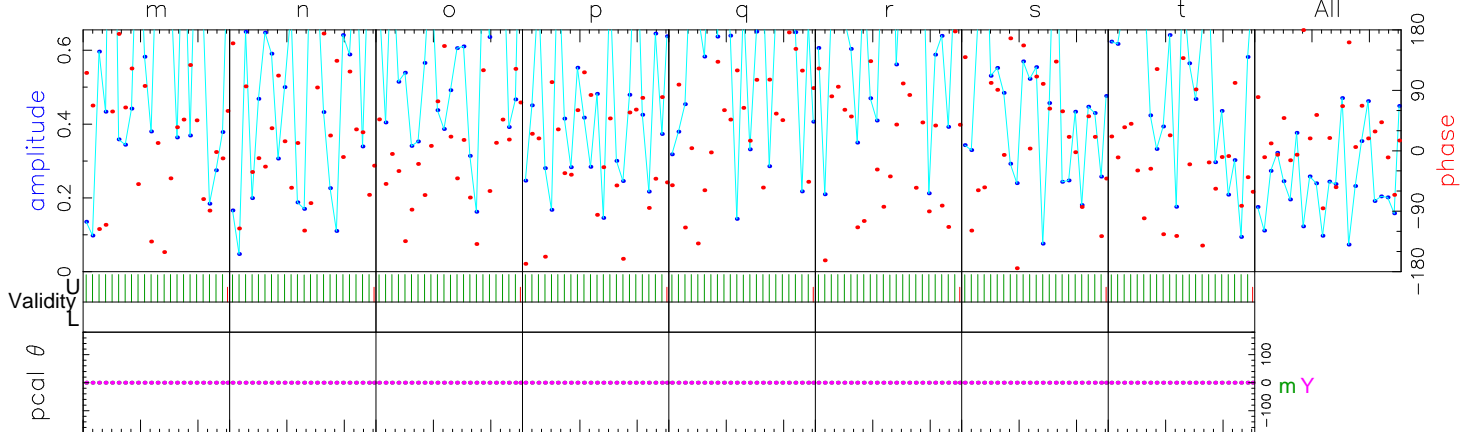
Fringe quality 0

SNR 6.1
 Int time 149.733
 Amp 0.218
 Phase 20.0
 PFD 1.6e-01
 Delays (us)
 SBD 0.917952
 MBD -0.004387
 Fringe rate (Hz)
 0.645403
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112808
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
m	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-4.68760345534E+03								-4.38717E-03	+/- 1.8E-04
Sband delay (usec)	-4.68760299142E+03								9.17952E-01	+/- 1.4E-03
Phase delay (usec)	-4.68852094252E+03								6.44898E-07	+/- 6.1E-07
Delay rate (us/s)	1.71808532316E+00								7.49249E-06	+/- 7.0E-09
Total phase (deg)			3.9						20.0	+/- 18.9
ph/seg (deg)	61.2	45.3								
amp/seg (%)	68.7	79.0								
ph/frq (deg)	23.8	26.7								
amp/frq (%)	32.0	46.6								
m: az 45.1 el 22.7 pa -85.3	Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec) -14697.083 -1844.185		PCal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0914/mY...3MP19T		Output file: /Exps/c241a/v2/3mm/1234/No0914/mY.W.325.3MP19T		PCal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		ion window (TEC) 0.00 0.00	

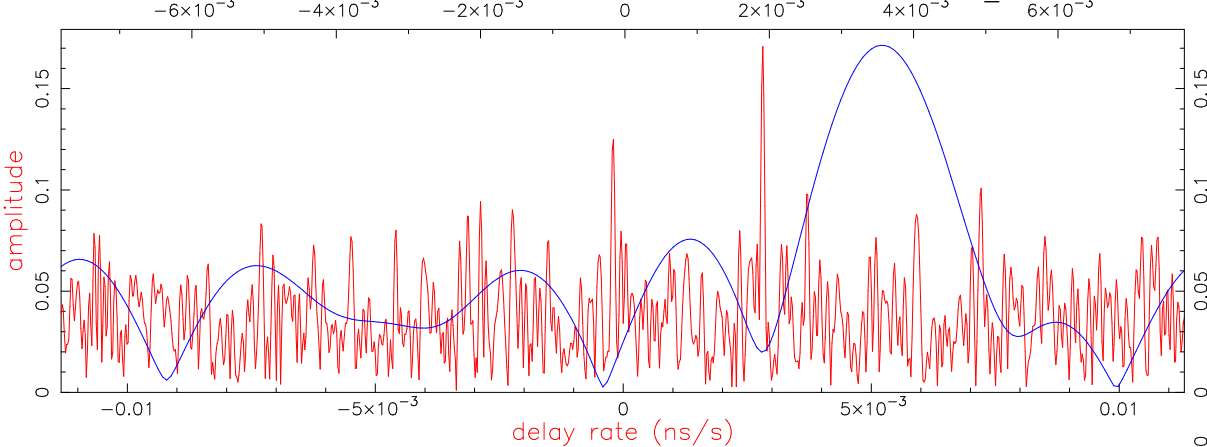
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, mY

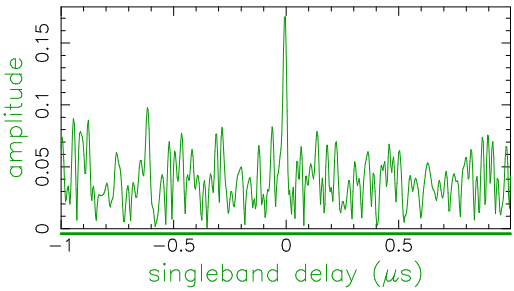
VLBA_MK - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

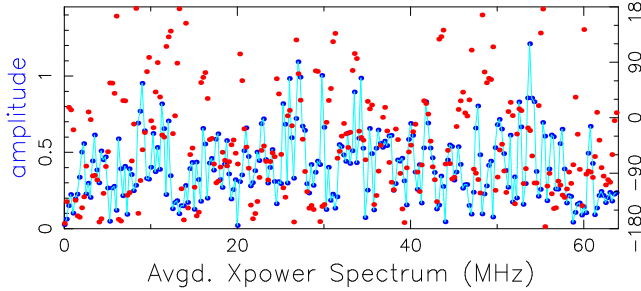


Fringe quality 0

SNR 5.8
 Int time 149.733
 Amp 0.179
 Phase -166.5
 PFD 4.7e-01
 Delays (us)
 SBD -0.005779
 MBD 0.003650
 Fringe rate (Hz)
 0.242383
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

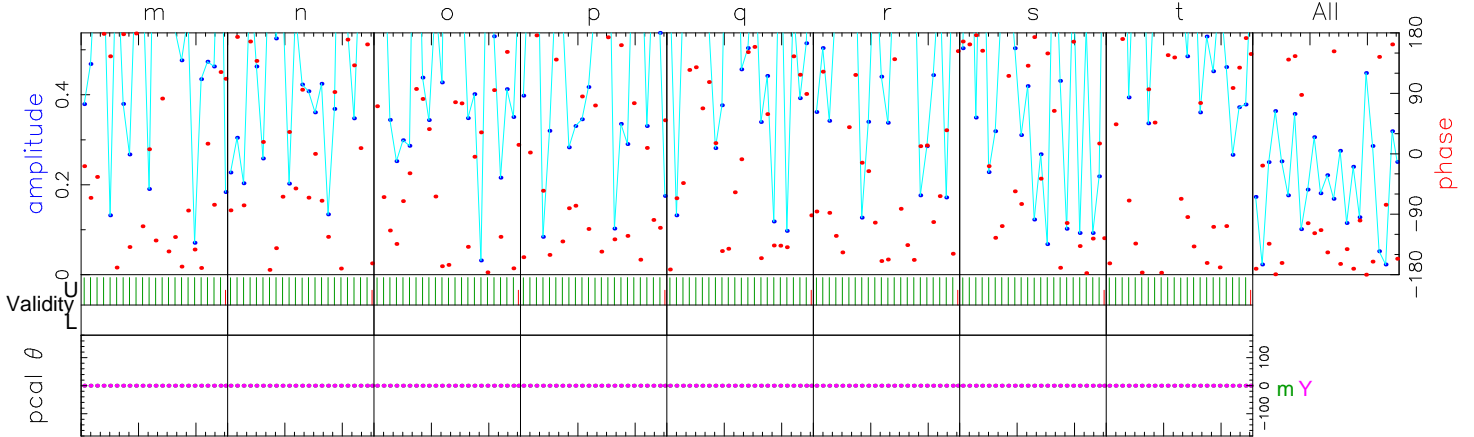


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112812
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-144.8	-162.6	128.7	-158.2	173.1	-131.2	175.6	-172.8	Phase	-166.5
	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	Ampl.	0.2
	185.3	123.8	116.2	416.7	99.6	169.2	116.6	256.4	Sbd box	255.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	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)	-4.68853291839E+03		Apriori delay (usec)		-4.68852094317E+03		Resid mbdelay (usec)		3.64978E-03	+/- 1.9E-04
Sband delay (usec)	-4.68852672192E+03		Apriori clock (usec)		1.1108916E+02		Resid sbdelay (usec)		-5.77875E-03	+/- 1.5E-03
Phase delay (usec)	-4.68852094854E+03		Apriori clockrate (us/s)		1.1991690E-06		Resid phdelay (usec)		-5.36879E-06	+/- 6.3E-07
Delay rate (us/s)	1.71808064450E+00		Apriori rate (us/s)		1.71807783067E+00		Resid rate (us/s)		2.81383E-06	+/- 7.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.00376257161E-07		Resid phase (deg)		-166.5	+/- 19.6

ph/seg (deg) 55.0 47.0 Search (1024X32) 0.170 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.9 82.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.6 27.7 Inc. seg. avg. 0.163 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.4 48.4 Inc. frq. avg. 0.172 Data rate(Mb/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 m: az 45.1 el 22.7 pa -85.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -14697.083 -1844.185 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/mY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/mY.W.335.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

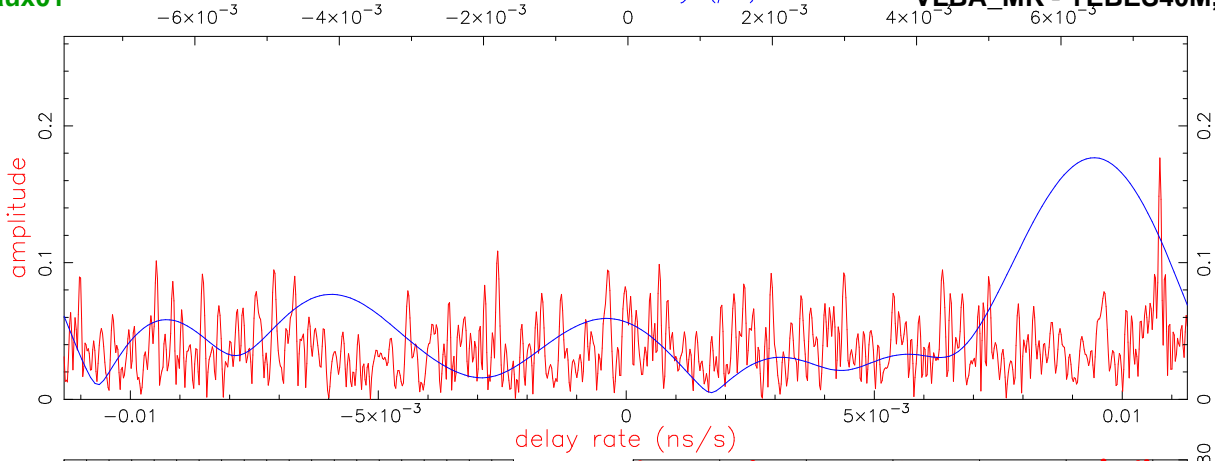
aux01

0133+476.3MP19T, No0914, mY

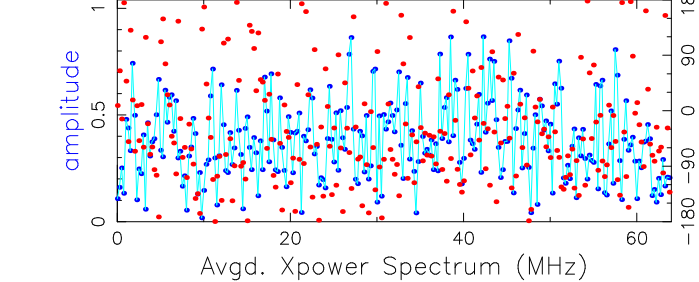
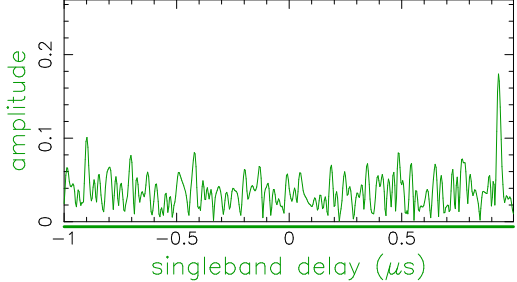
VLBA_MK - YEYES40M, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

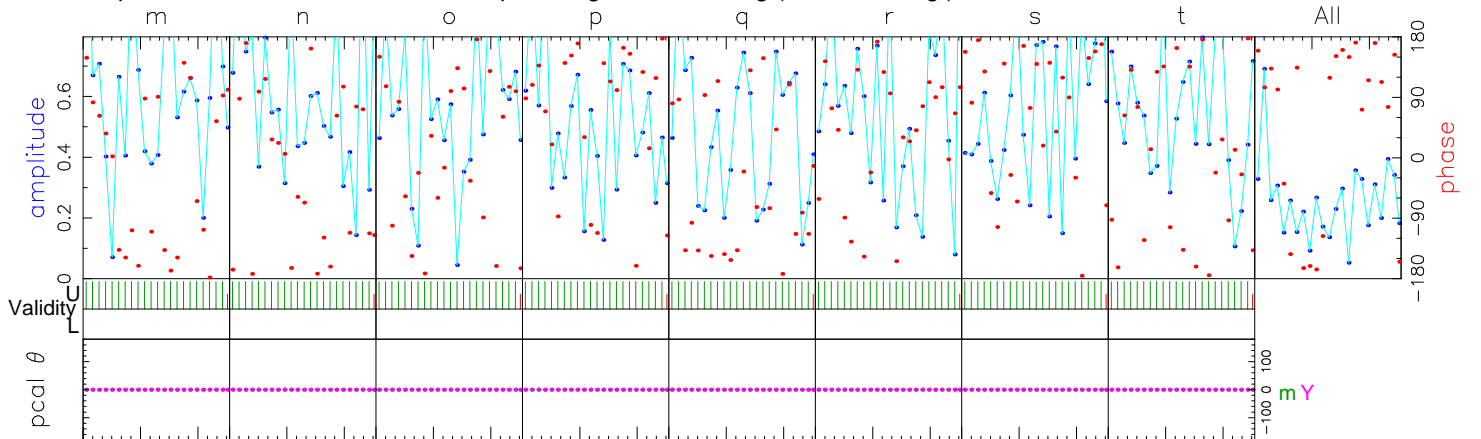


SNR 5.9
Int time 149.733
Amp 0.265
Phase 142.3
PFD 3.2e-01
Delays (us)
SBD 0.930471
MBD 0.006503
Fringe rate (Hz) 0.928689
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170000.00
Stop 170230.02
FRT 170115.00
Corr/FF/build
2025:007:180402
2025:041:112814
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
m	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
m:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-4.68759256483E+03	Apriori delay (usec)	-4.68852094317E+03	Resid mbdelay (usec)	6.50334E-03	+/-	1.8E-04
Sband delay (usec)	-4.68759047167E+03	Apriori clock (usec)	1.1108916E+02	Resid sbdelay (usec)	9.30471E-01	+/-	1.5E-03
Phase delay (usec)	-4.68852093858E+03	Apriori clockrate (us/s)	1.1991690E-06	Resid phdelay (usec)	4.58798E-06	+/-	6.2E-07
Delay rate (us/s)	1.71808861183E+00	Apriori rate (us/s)	1.71807783067E+00	Resid rate (us/s)	1.07812E-05	+/-	7.2E-09
Total phase (deg)	126.2	Apriori accel (us/s/s)	-5.00376257161E-07	Resid phase (deg)	142.3	+/-	19.3

ph/seg (deg)	58.1	Theor.	46.3	Amplitude	0.265 +/- 0.045	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.5		80.9	Search (1024X32)	0.172	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	28.6		27.3	Inc. seg. avg.	0.292	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.2		47.7	Inc. frq. avg.	0.259	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
m: az 45.1 el 22.7 pa -85.3		Y: az 304.8 el 38.2 pa 68.6		u,v (fr/asec)	-14697.083 -1844.185	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/c241a/v2/3mm/1234/No0914/mY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/mY.W.345.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

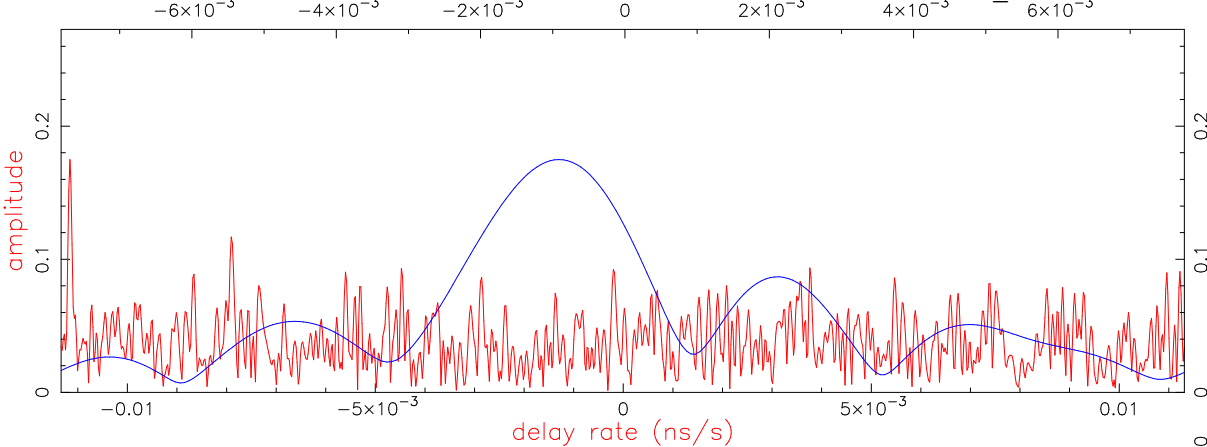
aux01

0133+476.3MP19T, No0914, nY

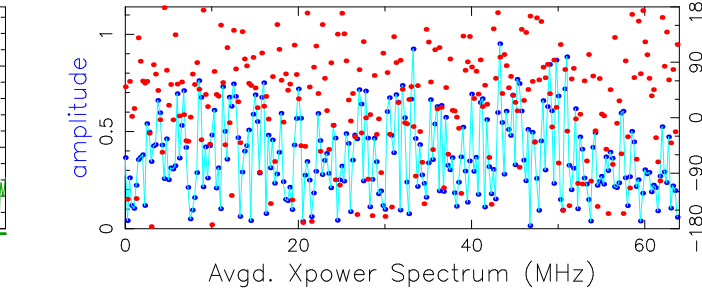
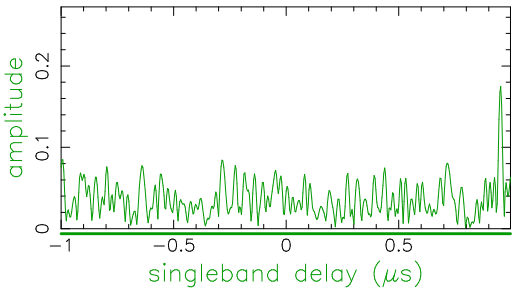
VLBA_NL - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

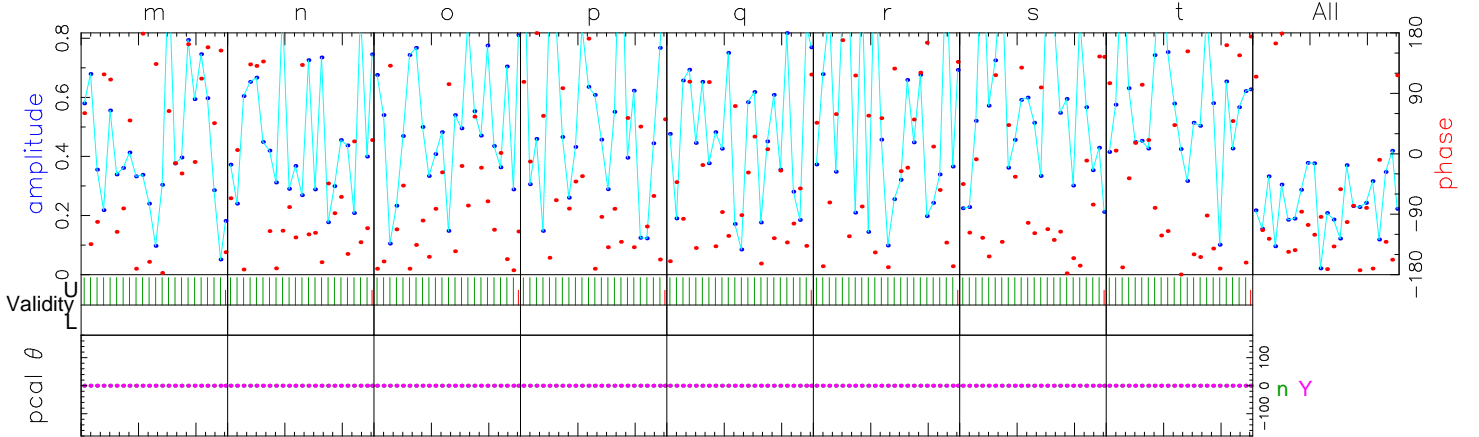


SNR 5.9
Int time 149.852
Amp 0.273
Phase -132.8
PFD 3.9e-01
Delays (us)
SBD 0.952097
MBD -0.000945
Fringe rate (Hz)
-0.963496
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170000.00
Stop 170230.02
FRT 170115.00
Corr/FF/build
2025:007:180402
2025:041:112812
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	127.9	-136.8	-109.6	-129.6	-106.7	-138.5	-133.6	-146.8	Phase	-132.8
	0.2	0.4	0.4	0.3	0.3	0.2	0.4	0.3	Ampl.	0.3
	101.1	306.1	41.6	511.6	406.0	221.9	502.0	499.1	Sbd box	500.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	7.88834565980E+03	Apriori delay (usec)	7.88739347936E+03	Resid mbdelay (usec)	-9.44563E-04	+/-	1.8E-04
Sband delay (usec)	7.88834557611E+03	Apriori clock (usec)	1.1026747E+02	Resid sbdelay (usec)	9.52097E-01	+/-	1.5E-03
Phase delay (usec)	7.88739347508E+03	Apriori clockrate (us/s)	1.5109290E-02	Resid phdelay (usec)	-4.28141E-06	+/-	6.3E-07
Delay rate (us/s)	9.45360083853E-01	Apriori rate (us/s)	9.45371269085E-01	Resid rate (us/s)	-1.11852E-05	+/-	7.2E-09
Total phase (deg)	-20.4	Apriori accel (us/s/s)	-3.99871829058E-05	Resid phase (deg)	-132.8	+/-	19.5

ph/seg (deg)	53.5	Theor.	46.7	Amplitude	0.273 +/- 0.046	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.1	Search (1024X32)	0.174	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.5	Inc. seg. avg.	0.282	Inc. frq. avg.	0.271	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.1	Inc. frq. avg.	0.271			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 53.0 el 78.4 pa -117.3 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -8109.163 -3366.405 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/nY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/nY.W.341.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

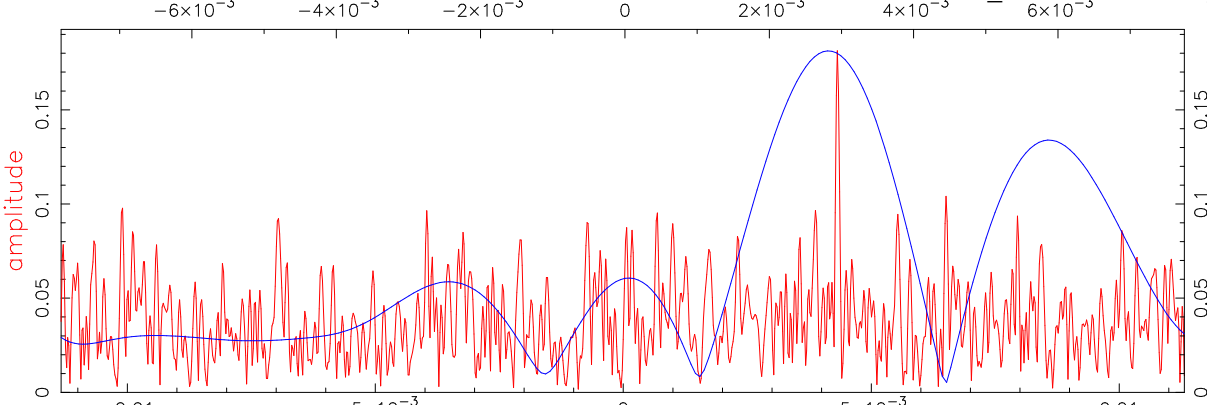
aux01

0133+476.3MP19T, No0914, nY

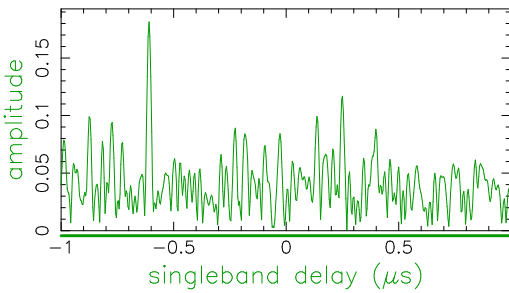
VLBA_NL - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

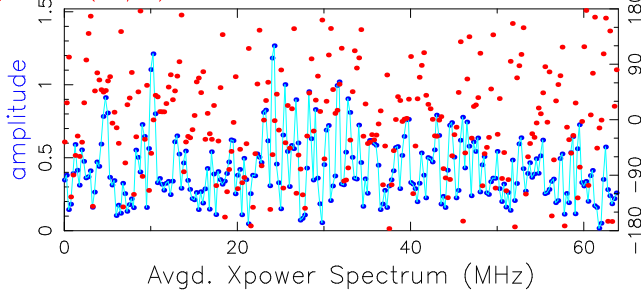
Fringe quality 0



SNR 6.1
 Int time 149.852
 Amp 0.193
 Phase 150.6
 PFD 1.5e-01
 Delays (us)
 SBD -0.609324
 MBD 0.002820
 Fringe rate (Hz)
 0.373208
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

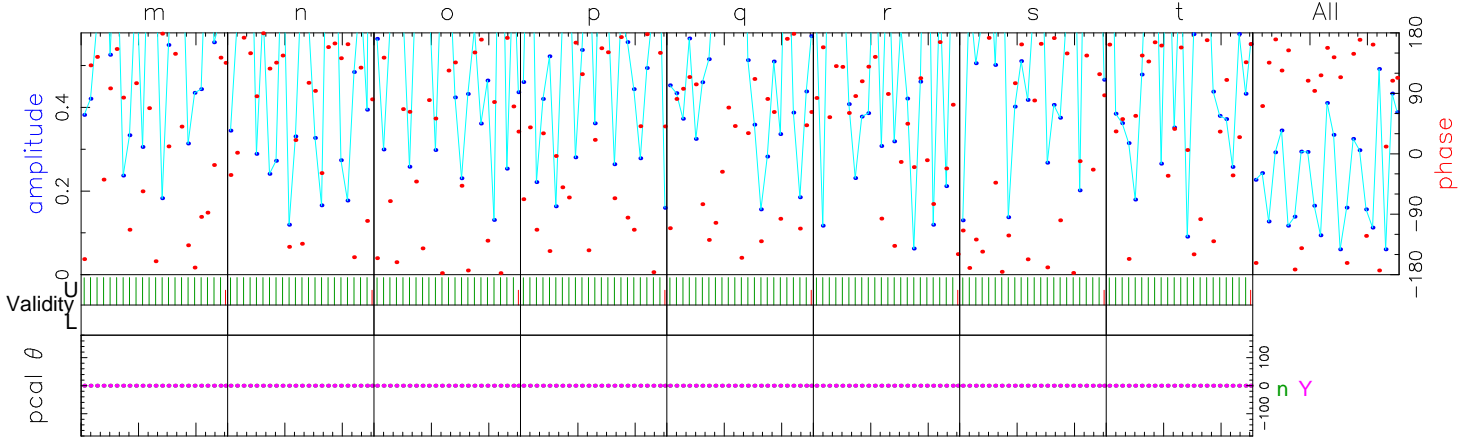


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112814
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	143.3	148.0	162.5	-162.6	115.7	95.2	170.9	153.9	Phase	150.6
	0.1	0.3	0.2	0.1	0.1	0.3	0.4	0.2	Ampl.	0.2
	194.7	100.2	383.5	77.9	35.4	282.0	101.0	320.7	Sbd box	101.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	7.88678692456E+03	Apriori delay (usec)	7.88739347936E+03	Resid mbdelay (usec)	2.82020E-03	+/-	1.8E-04
Sband delay (usec)	7.88678415511E+03	Apriori clock (usec)	1.1026747E+02	Resid sbdelay (usec)	-6.09324E-01	+/-	1.4E-03
Phase delay (usec)	7.88739348422E+03	Apriori clockrate (us/s)	1.5109290E-06	Resid phdelay (usec)	4.85746E-06	+/-	6.1E-07
Delay rate (us/s)	9.45375601654E-01	Apriori rate (us/s)	9.45371269085E-01	Resid rate (us/s)	4.33257E-06	+/-	7.0E-09
Total phase (deg)	263.0	Apriori accel (us/s/s)	-3.99871829058E-05	Resid phase (deg)	150.6	+/-	18.9

ph/seg (deg)	RMS 50.4	Theor. 45.3	Amplitude Search (1024X32)	0.177	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.8	79.0	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)	34.4	26.7	Inc. seg. avg.	0.194	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.2	46.6	Inc. frq. avg.	0.196	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 53.0 el 78.4 pa -117.3 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -8109.163 -3366.405 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/nY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/nY.W.350.3MP19T

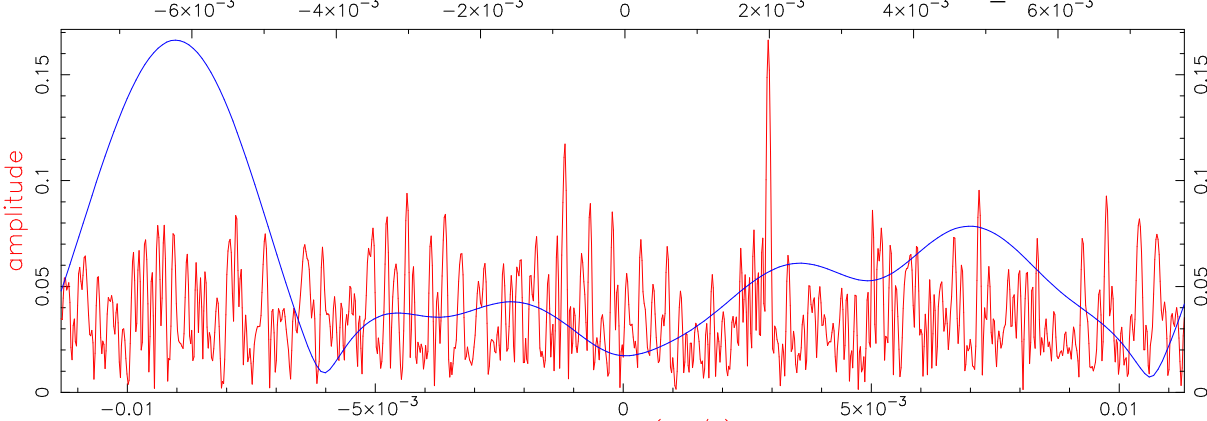
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, nY

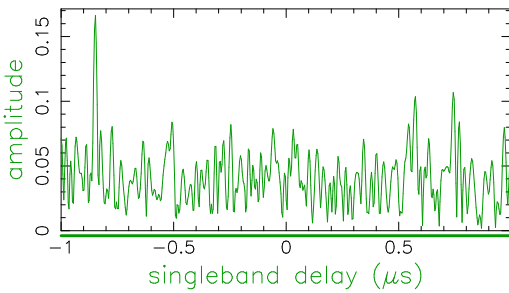
VLBA_NL - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

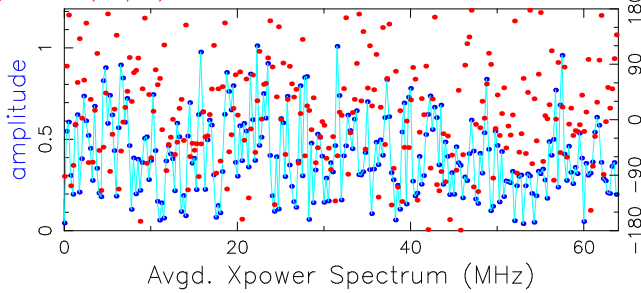


Fringe quality 0

SNR 5.6
 Int time 149.852
 Amp 0.171
 Phase 22.4
 PFD 9.4e-01
 Delays (us)
 SBD -0.848280
 MBD -0.006244
 Fringe rate (Hz)
 0.252042
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

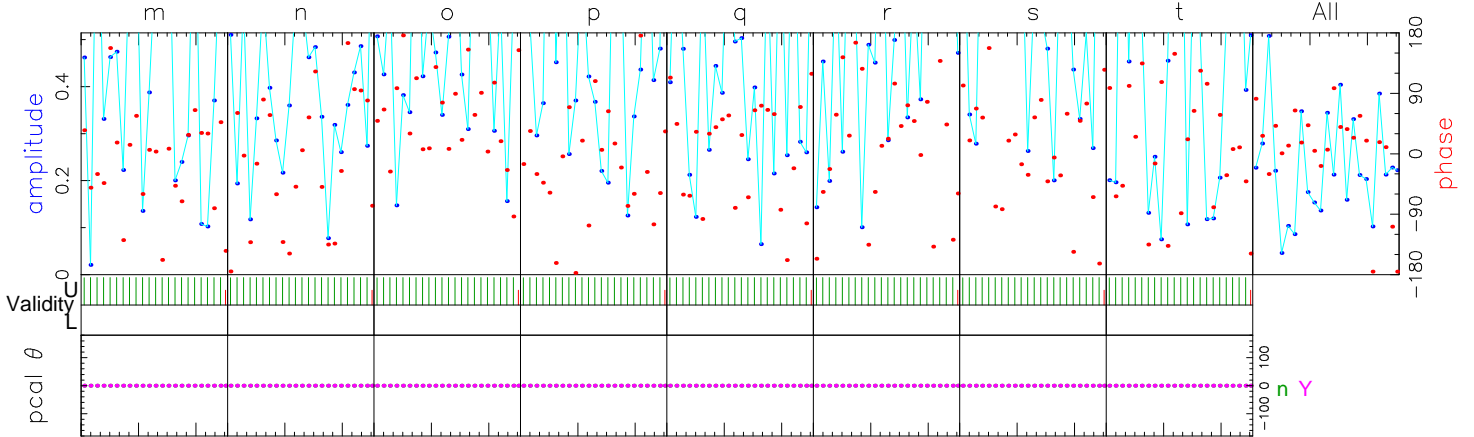


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112817
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	8.4	32.7	59.3	-20.3	15.9	47.6	32.8	8.1	Phase	22.4
	0.2	0.1	0.3	0.3	0.2	0.2	0.2	0.1	Ampl.	0.2
	463.1	339.0	38.9	58.1	81.0	234.7	396.2	455.2	Sbd box	39.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	7.88654348489E+03	Apriori delay (usec)	7.88739347936E+03	Resid mbdelay (usec)	-6.24448E-03	+/-	1.9E-04
Sband delay (usec)	7.88654519961E+03	Apriori clock (usec)	1.1026747E+02	Resid sbdelay (usec)	-8.48280E-01	+/-	1.5E-03
Phase delay (usec)	7.88739348008E+03	Apriori clockrate (us/s)	1.5109290E-06	Resid phdelay (usec)	7.21432E-07	+/-	6.6E-07
Delay rate (us/s)	9.45374195048E-01	Apriori rate (us/s)	9.45371269085E-01	Resid rate (us/s)	2.92596E-06	+/-	7.6E-09
Total phase (deg)	134.8	Apriori accel (us/s/s)	-3.99871829058E-05	Resid phase (deg)	22.4	+/-	20.5

ph/seg (deg)	58.4	Theor.	49.2	Amplitude	0.171 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.2	Search (1024X32)	0.165	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	27.3	Inc. seg. avg.	0.173	Inc. frq. avg.	0.170	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	41.7	Inc. frq. avg.	0.170	u, v (fr/asec)	-8109.163 -3366.405	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
n: az 53.0 el 78.4 pa -117.3	Y: az 304.8 el 38.2 pa 68.6					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0914/nY..3MP19T						ion window (TEC) 0.00 0.00

simultaneous interpolator

Output file: /Exps/c241a/v2/3mm/1234/No0914/nY.W.363.3MP19T

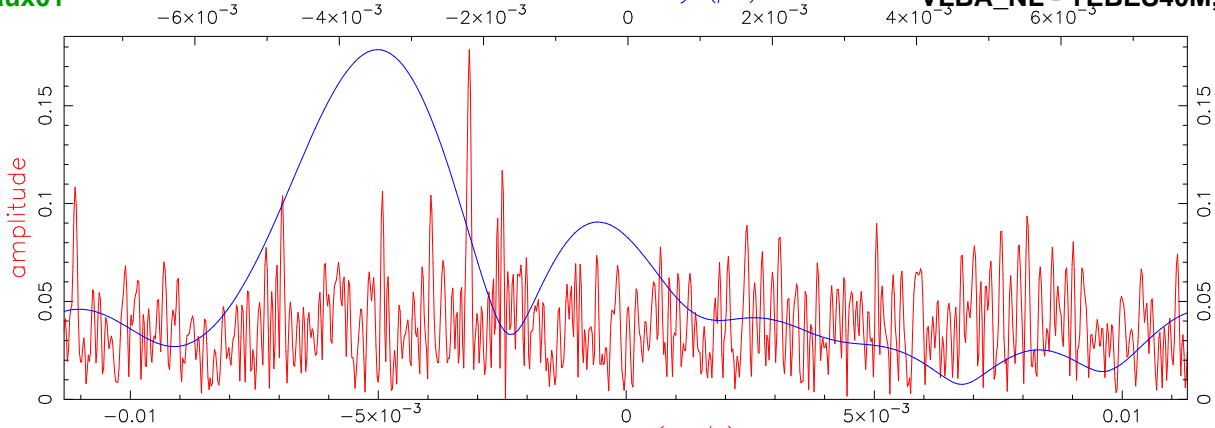
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, nY

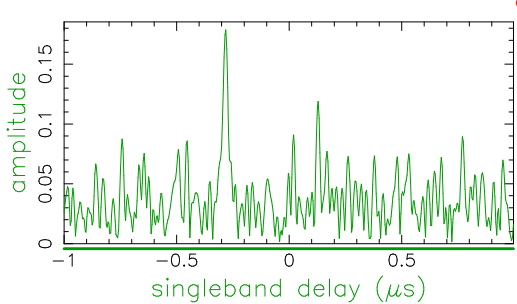
VLBA_NL - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

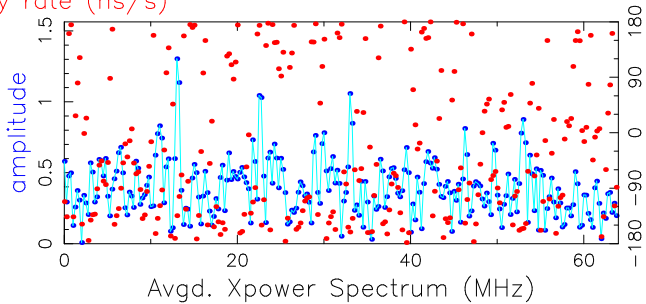


Fringe quality 0

SNR 6.0
 Int time 149.852
 Amp 0.185
 Phase -112.1
 PFD 2.1e-01
 Delays (us)
 SBD -0.282425
 MBD -0.003490
 Fringe rate (Hz)
 -0.272840
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

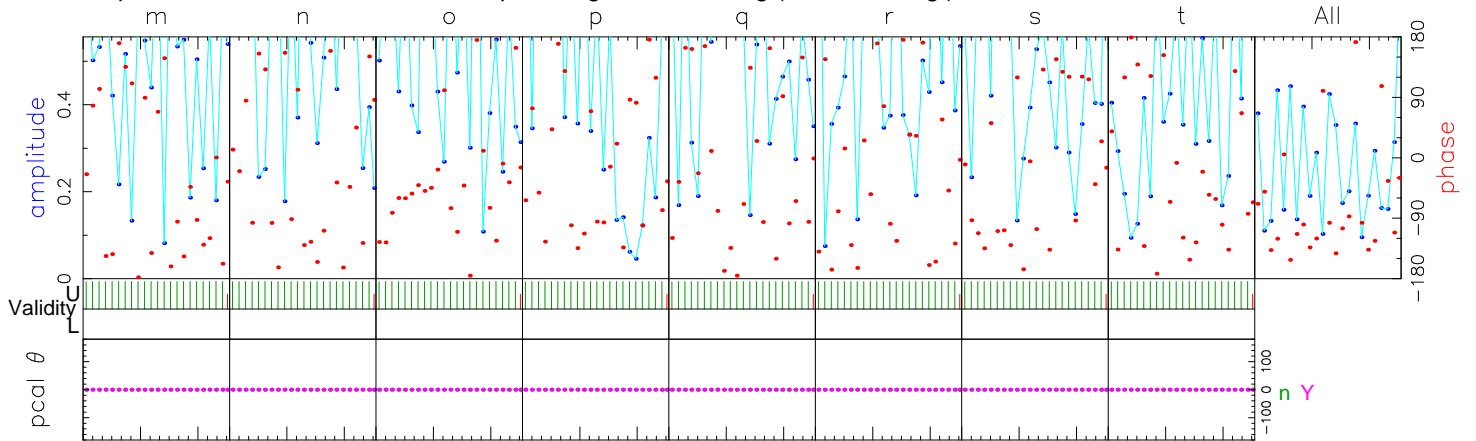


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112819
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-160.9	-123.5	-76.9	-84.1	-135.5	-123.7	-123.2	-105.0	Phase	-112.1
	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	249.0	439.6	186.3	290.7	182.7	138.1	163.1	91.2	Sbd box	184.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	7.88710873979E+03					7.88739347936E+03			Resid mbdelay (usec)	-3.48957E-03 +/- 1.8E-04
Sband delay (usec)	7.88711105461E+03					1.1026747E+02			Resid sbdelay (usec)	-2.82425E-01 +/- 1.4E-03
Phase delay (usec)	7.88739347574E+03					1.5109290E-02			Resid phdelay (usec)	-3.61627E-06 +/- 6.1E-07
Delay rate (us/s)	9.45368101681E-01					9.45371269085E-01			Resid rate (us/s)	-3.16740E-06 +/- 7.1E-09
Total phase (deg)			0.2			-3.99871829058E-05			Resid phase (deg)	-112.1 +/- 19.1
	RMS	Theor.	Amplitude	0.185 +/- 0.031					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	60.5	45.7	Search (1024X32)	0.176					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	84.8	79.8	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	30.0	27.0	Inc. seg. avg.	0.203					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	35.5	47.1	Inc. frq. avg.	0.186					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
n: az 53.0 el 78.4 pa -117.3			Y: az 304.8 el 38.2 pa 68.6			u, v (fr/asec) -8109.163 -3366.405				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0914/nY..3MP19T			Output file: /Exps/c241a/v2/3mm/1234/No0914/nY.W.374.3MP19T				

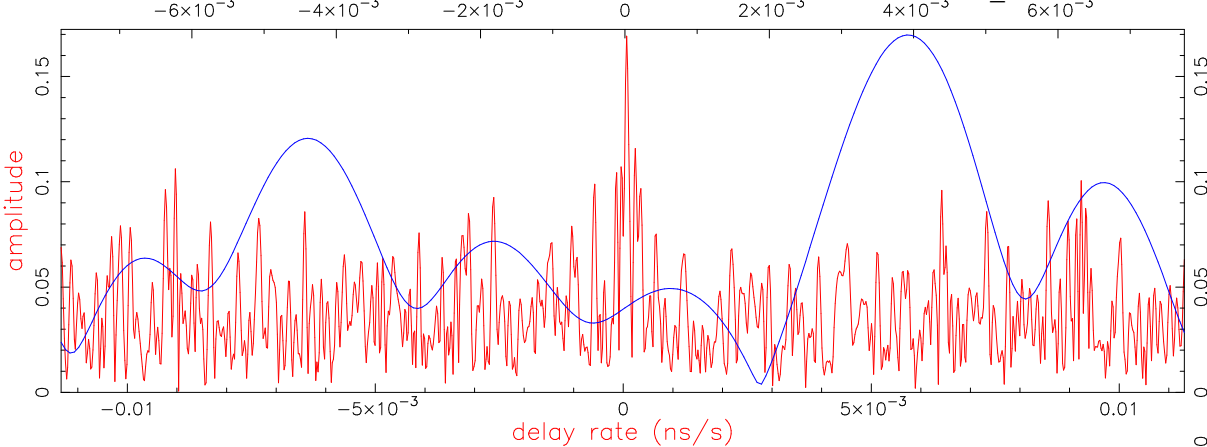
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, oY

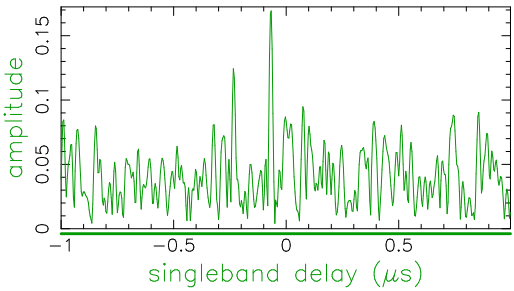
VLBA_OV - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

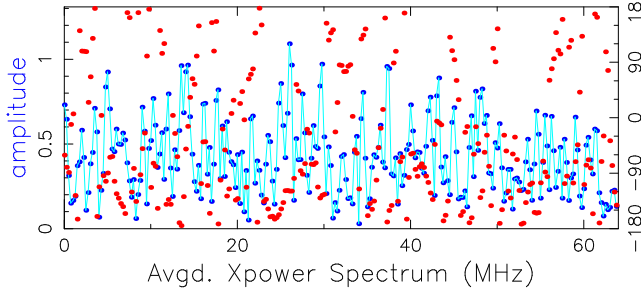


Fringe quality 0

SNR 5.7
 Int time 146.205
 Amp 0.172
 Phase 133.9
 PFD 7.7e-01
 Delays (us)
 SBD -0.068108
 MBD 0.003833
 Fringe rate (Hz)
 0.006506
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

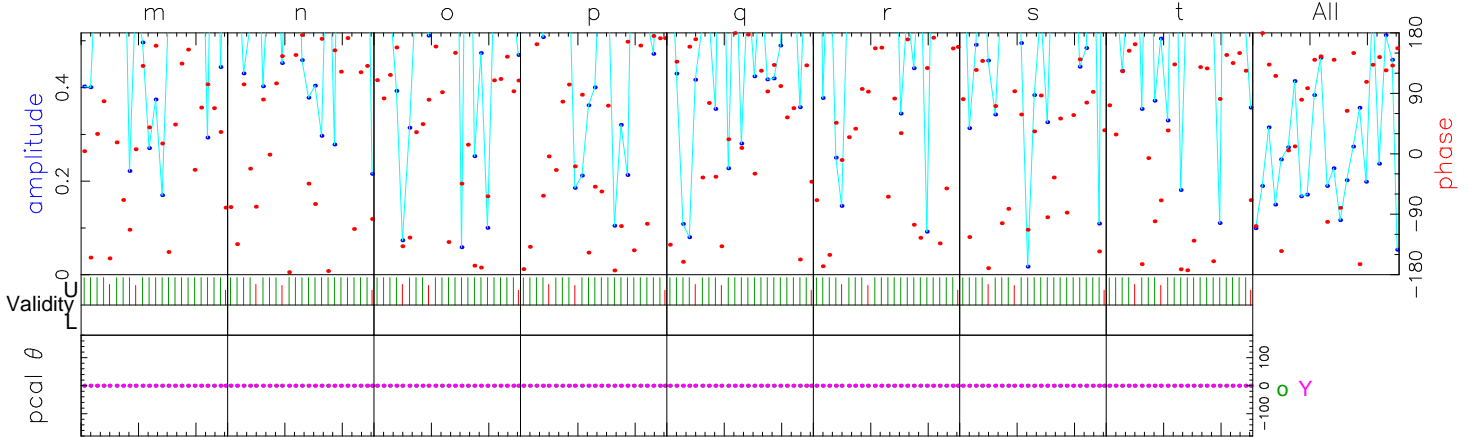


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112822
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	59.2	164.8	116.4	-167.5	131.4	177.4	73.8	144.3	Phase	133.9
	0.2	0.3	0.4	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	6.3	496.3	240.7	19.9	384.1	294.9	260.9	238.3	Sbd box	239.6
U/L	289/0	289/0	289/0	289/0	289/0	289/0	289/0	289/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.27383721424E+03	Apriori delay (usec)	5.27391150596E+03	Resid mbdelay (usec)	3.83328E-03	+/-	1.9E-04
Sband delay (usec)	5.27384339821E+03	Apriori clock (usec)	1.3561331E+02	Resid sbdelay (usec)	-6.81077E-02	+/-	1.5E-03
Phase delay (usec)	5.27391151028E+03	Apriori clockrate (us/s)	1.6949411E-02	Resid phdelay (usec)	4.31851E-06	+/-	6.5E-07
Delay rate (us/s)	1.29862762149E+00	Apriori rate (us/s)	1.29862754596E+00	Resid rate (us/s)	7.55294E-08	+/-	7.6E-09
Total phase (deg)	178.4	Apriori accel (us/s/s)	-3.10710554130E-05	Resid phase (deg)	133.9	+/-	20.1

ph/seg (deg)	68.8	RMS	68.8	Theor.	47.9	Amplitude	0.172 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	100.6		100.6		83.6	Search (1024X32)	0.165	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	51.5		51.5		28.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.5		50.5		49.6	Inc. seg. avg.	0.207	Data rate(Mb/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.195	Data rate(Mb/s):	2048	t_cohere	infinite			

o: az 56.9 el 58.7 pa -95.0 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -11126.378 -2942.825 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/oY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/oY.W.388.3MP19T

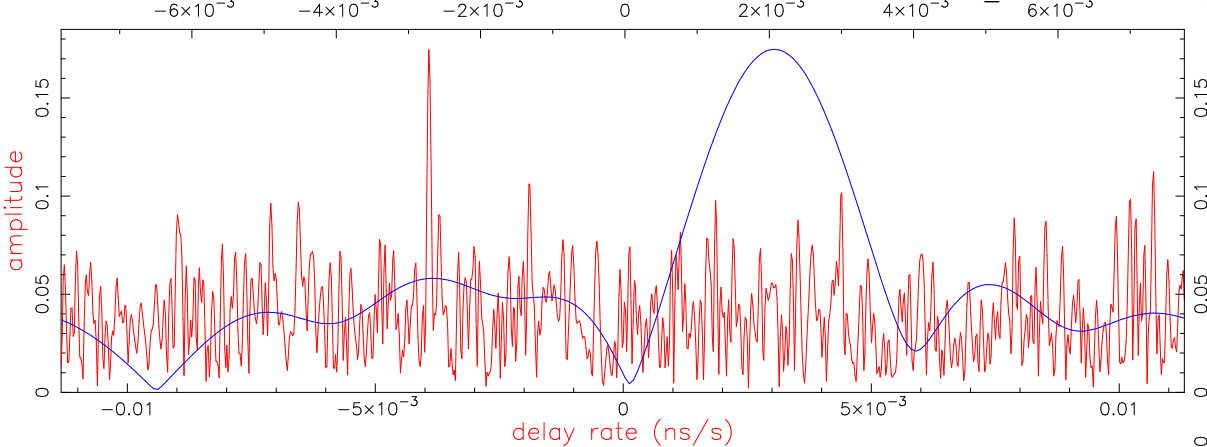
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, oY

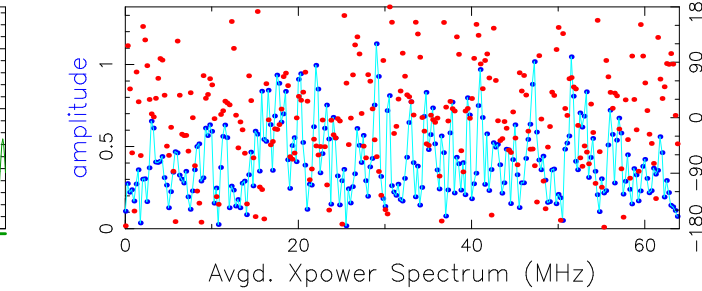
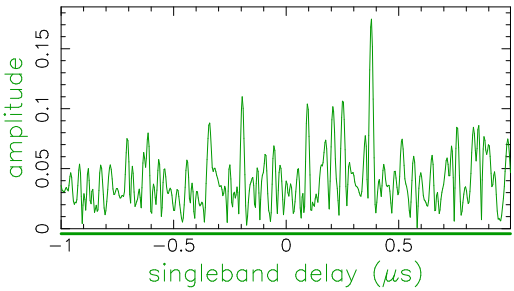
VLBA_OV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)



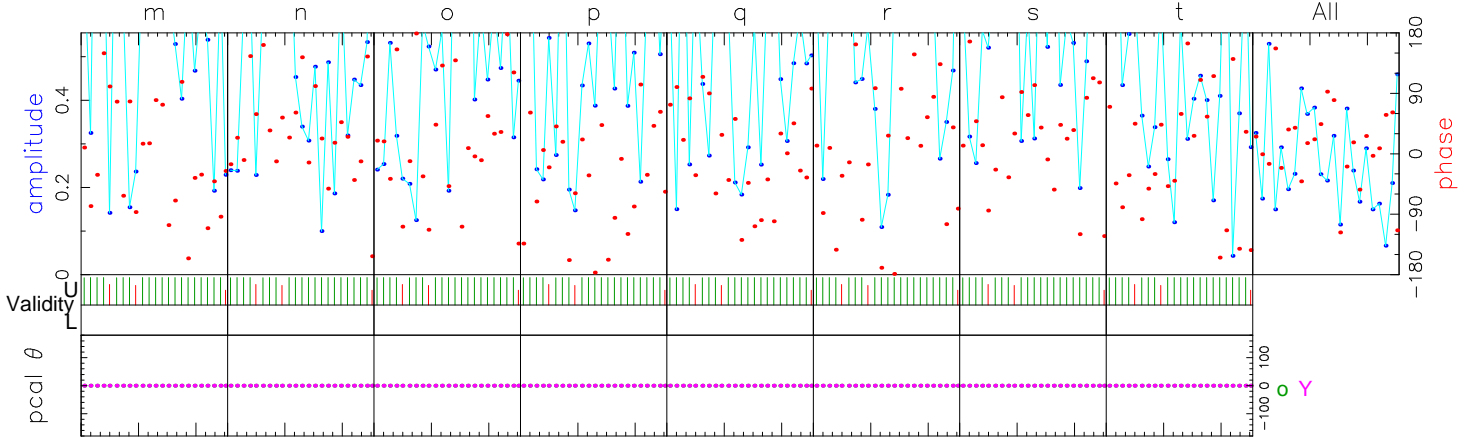
Fringe quality 0

SNR 5.8
 Int time 146.205
 Amp 0.185
 Phase 11.0
 PFD 5.3e-01
 Delays (us)
 SBD 0.377777
 MBD 0.002021
 Fringe rate (Hz)
 -0.338694
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112824
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	289/0	289/0	289/0	289/0	289/0	289/0	289/0	289/0		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.27428852731E+03	Apriori delay (usec)	5.27391150596E+03	Resid mbdelay (usec)	2.02134E-03	+/-	1.9E-04
Sband delay (usec)	5.27428928296E+03	Apriori clock (usec)	1.3561331E+02	Resid sbdelay (usec)	3.77777E-01	+/-	1.5E-03
Phase delay (usec)	5.27391150632E+03	Apriori clockrate (us/s)	1.6949411E-06	Resid phdelay (usec)	3.54018E-07	+/-	6.4E-07
Delay rate (us/s)	1.29862361406E+00	Apriori rate (us/s)	1.29862754596E+00	Resid rate (us/s)	-3.93190E-06	+/-	7.4E-09
Total phase (deg)	55.4	Apriori accel (us/s/s)	-3.10710554130E-05	Resid phase (deg)	11.0	+/-	19.7

ph/seg (deg) 58.3 46.9 Search (1024X32) 0.169 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.4 81.9 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 27.9 Inc. seg. avg. 0.203 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.3 48.6 Inc. frq. avg. 0.174 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 o: az 56.9 el 58.7 pa -95.0 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -11126.378 -2942.825 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914//oY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914//oY.W.396.3MP19T simultaneous interpolator

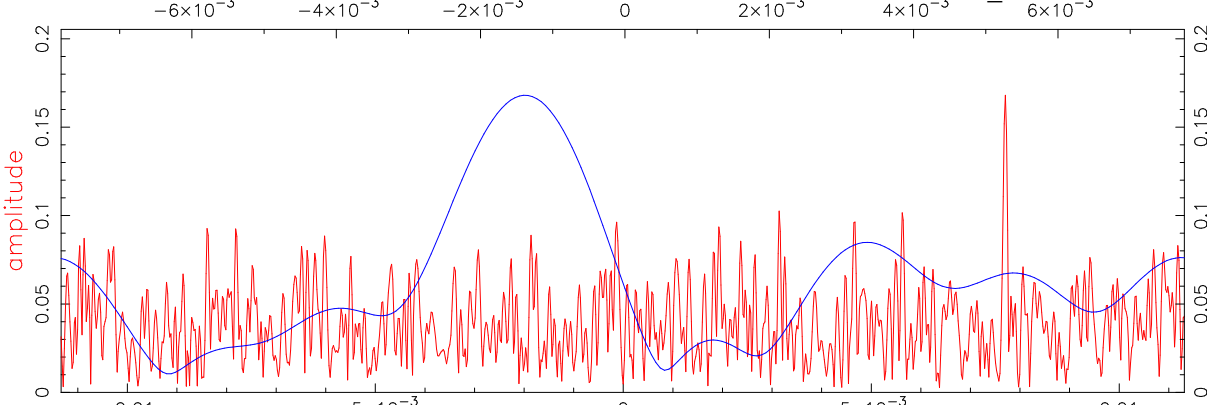
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, oY

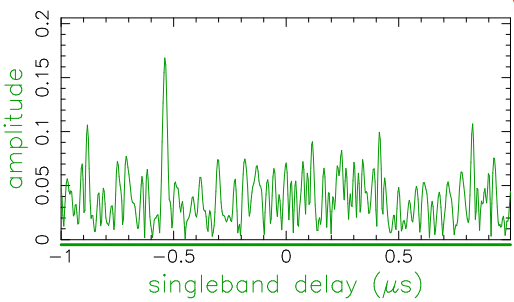
VLBA_OV - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

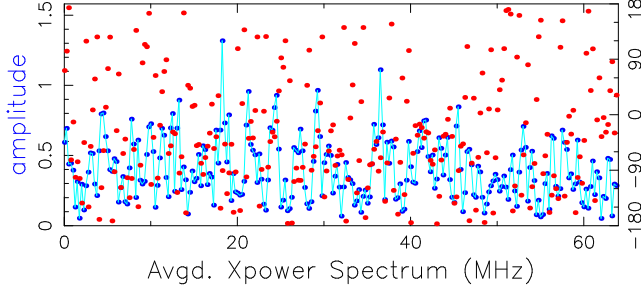


Fringe quality 0

SNR 5.6
 Int time 146.205
 Amp 0.205
 Phase -130.8
 PFD 9.5e-01
 Delays (us)
 SBD -0.538287
 MBD -0.001364
 Fringe rate (Hz)
 0.663841
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

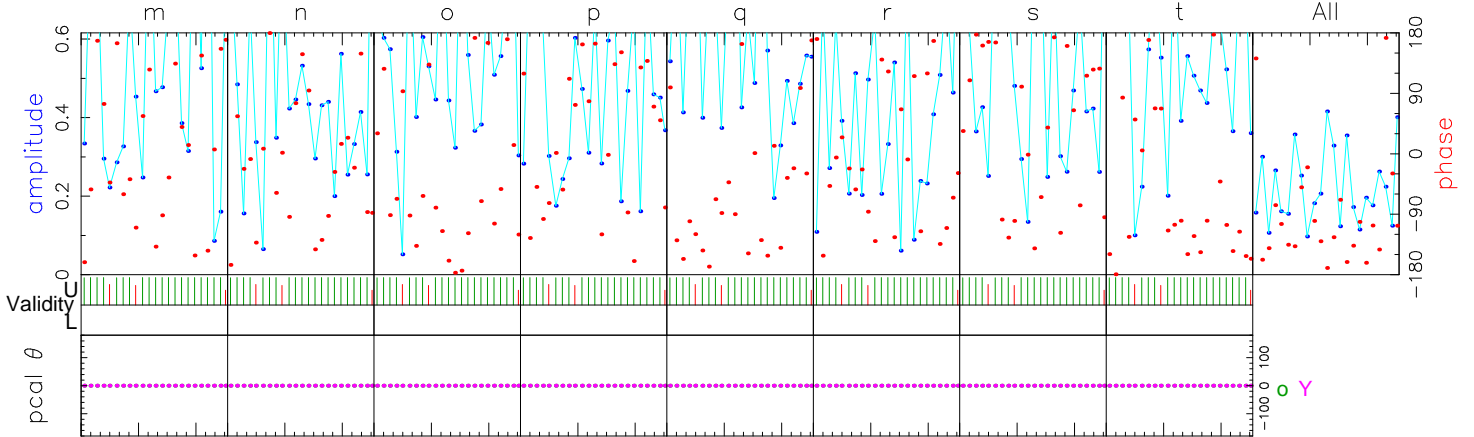


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112826
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-154.2	-88.2	-124.6	176.3	-111.7	-86.5	-163.1	-141.8	Phase	-130.8
	0.2	0.1	0.3	0.1	0.4	0.2	0.2	0.4	Ampl.	0.2
	266.4	280.7	217.3	265.4	118.1	422.7	255.2	32.7	Sbd box	119.2
U/L	289/0	289/0	289/0	289/0	289/0	289/0	289/0	289/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.27337889219E+03	Apriori delay (usec)	5.27391150596E+03	Resid mbdelay (usec)	-1.36377E-03	+/-	1.9E-04
Sband delay (usec)	5.27337321946E+03	Apriori clock (usec)	1.3561331E+02	Resid sbdelay (usec)	-5.38287E-01	+/-	1.5E-03
Phase delay (usec)	5.27391150174E+03	Apriori clockrate (us/s)	1.6949411E-02	Resid phdelay (usec)	-4.21786E-06	+/-	6.6E-07
Delay rate (us/s)	1.29863525250E+00	Apriori rate (us/s)	1.29862754596E+00	Resid rate (us/s)	7.70654E-06	+/-	7.8E-09
Total phase (deg)	-86.3	Apriori accel (us/s/s)	-3.10710554130E-05	Resid phase (deg)	-130.8	+/-	20.6

ph/seg (deg)	48.2	Theor.	49.0	Amplitude	0.205 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	63.2		85.5	Search (1024X32)	0.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008	
ph/frq (deg)	38.0		29.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	52.6		50.8	Inc. seg. avg.	0.197	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
o: az 56.9 el 58.7 pa -95.0		Y: az 304.8 el 38.2 pa 68.6		Inc. frq. avg.	0.203	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite			
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0914/oY..3MP19T		u,v (fr/asec)	-11126.378 -2942.825						simultaneous interpolator
						Output file: /Exps/c241a/v2/3mm/1234/No0914/oY.W.405.3MP19T					

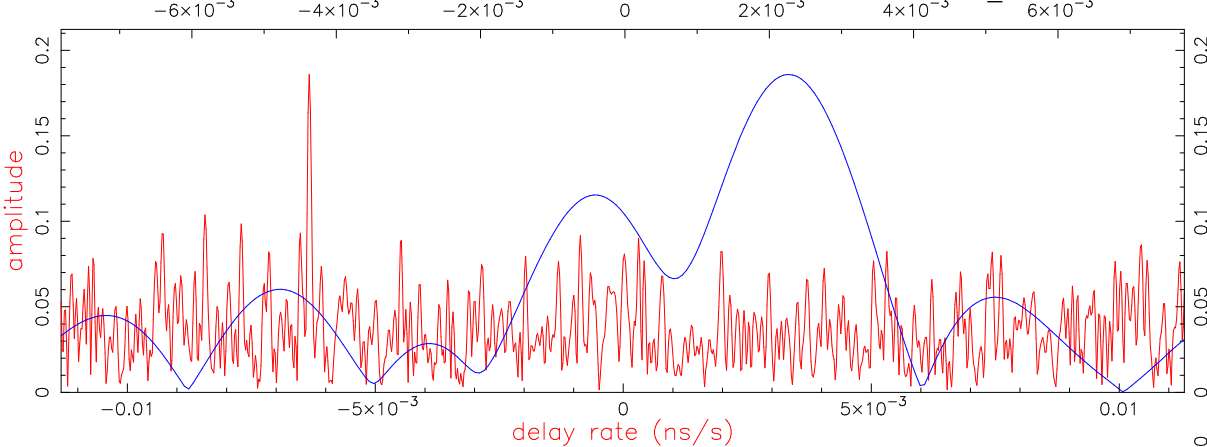
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, oY

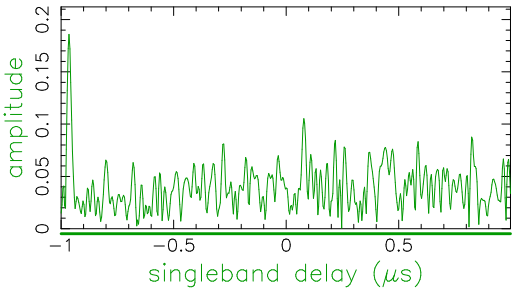
VLBA_OV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

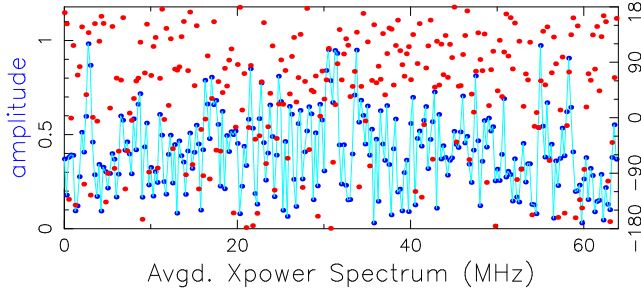


Fringe quality 0

SNR 6.1
 Int time 146.205
 Amp 0.212
 Phase 105.7
 PFD 1.0e-01
 Delays (us)
 SBD -0.964992
 MBD 0.002259
 Fringe rate (Hz)
 -0.546880
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

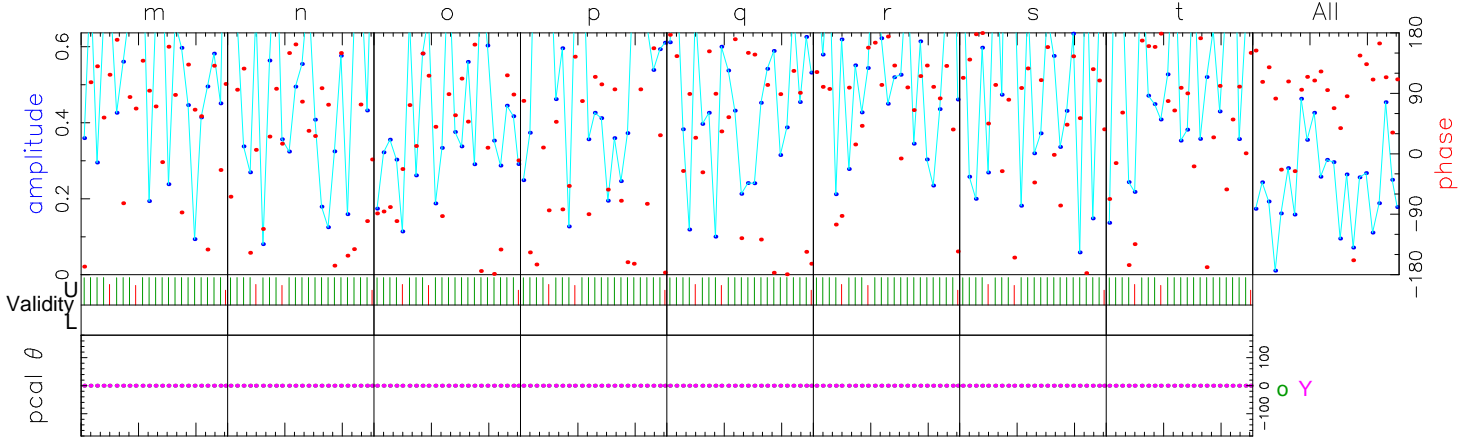


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112828
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	97.7	79.8	103.1	153.0	141.3	103.8	115.8	70.8	Phase	105.7
	0.3	0.2	0.1	0.1	0.2	0.4	0.3	0.2	Ampl.	0.2
	131.1	141.0	351.5	331.6	397.3	9.8	9.3	124.8	Sbd box	10.0
U/L	289/0	289/0	289/0	289/0	289/0	289/0	289/0	289/0	APs used	
o	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.27294501503E+03	Apriori delay (usec)	5.27391150596E+03	Resid mbdelay (usec)	2.25907E-03	+/-	1.8E-04
Sband delay (usec)	5.27294651446E+03	Apriori clock (usec)	1.3561331E+02	Resid sbdelay (usec)	-9.64992E-01	+/-	1.4E-03
Phase delay (usec)	5.27391150937E+03	Apriori clockrate (us/s)	1.6949411E-02	Resid phdelay (usec)	3.40848E-06	+/-	6.0E-07
Delay rate (us/s)	1.29862119723E+00	Apriori rate (us/s)	1.29862754596E+00	Resid rate (us/s)	-6.34873E-06	+/-	7.0E-09
Total phase (deg)	150.2	Apriori accel (us/s/s)	-3.10710554130E-05	Resid phase (deg)	105.7	+/-	18.6

ph/seg (deg)	RMS 52.5	Theor. 44.4	Amplitude Search (1024X32)	0.212 +/- 0.035	0.180	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.0	77.5	Interp.	0.000	0.180	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	30.5	26.4	Inc. seg. avg.	0.208	0.208	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.0	46.0	Inc. frq. avg.	0.207	0.207	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

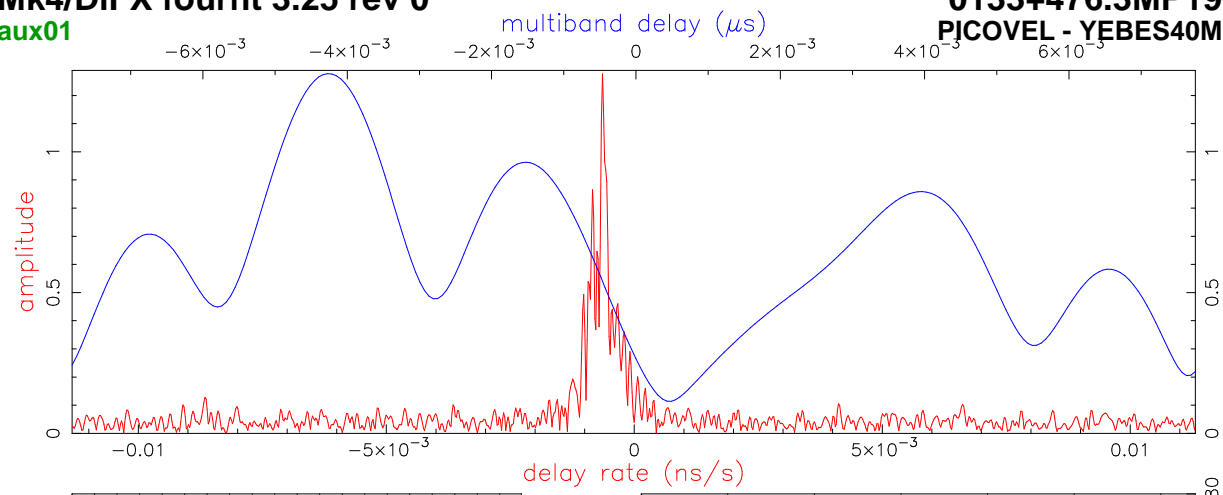
o: az 56.9 el 58.7 pa -95.0 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -11126.378 -2942.825 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/oY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/oY.W.411.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

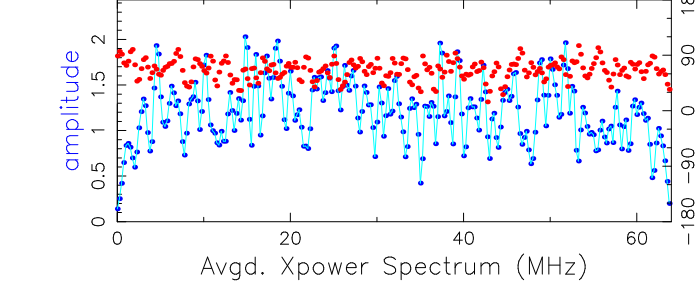
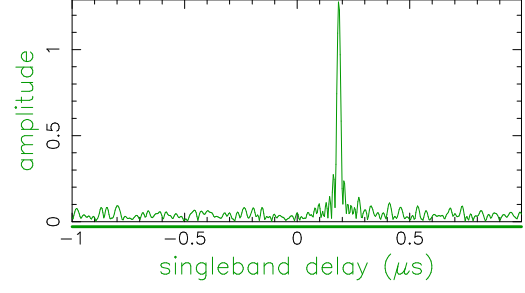
0133+476.3MP19T, No0914, PY

PICOVEL - YEBES40M, fgroup W, pol LL



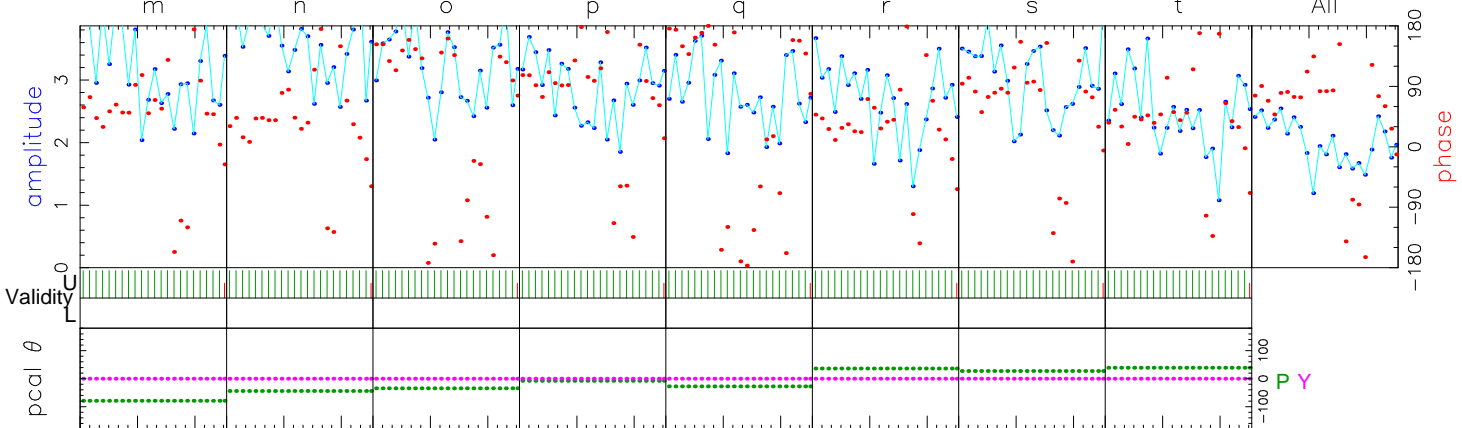
Fringe quality 3

SNR 43.1
 Int time 149.852
 Amp 1.289
 Phase 82.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.184747
 MBD -0.004225
 Fringe rate (Hz)
 -0.054669
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112823
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	62.7	40.3	151.2	106.1	176.0	36.3	90.8	44.3	Phase	82.7
	2.0	2.3	2.0	1.7	1.8	1.9	1.9	1.6	Ampl.	1.9
	305.4	303.8	303.9	303.4	303.1	303.1	303.1	303.0	Sbd box	304.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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) -4.29689944078E+02 Apriori delay (usec) -4.29873219551E+02 Resid mbdelay (usec) -4.22453E-03 +/- 2.5E-05
 Sband delay (usec) -4.29688472301E+02 Apriori clock (usec) 1.0953967E+02 Resid sbdelay (usec) 1.84747E-01 +/- 2.0E-04
 Phase delay (usec) -4.29873216883E+02 Apriori clockrate (us/s) 1.8119061E-02 Resid phdelay (usec) 2.66844E-06 +/- 8.6E-08
 Delay rate (us/s) -3.68960562933E-02 Apriori rate (us/s) -3.68954216453E-02 Resid rate (us/s) -6.34648E-07 +/- 9.9E-10
 Total phase (deg) 35.2 Apriori accel (us/s/s) -1.05944860055E-06 Resid phase (deg) 82.7 +/- 2.7

RMS Theor. Amplitude 1.289 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.6 6.4 Search (1024X32) 1.232 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 62.5 11.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 57.5 3.8 Inc. seg. avg. 1.997 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 49.5 6.6 Inc. frq. avg. 1.893 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 P: az 306.9 el 36.3 pa 72.3 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) 315.486 -371.162 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/PY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/PY.W.391.3MP19T

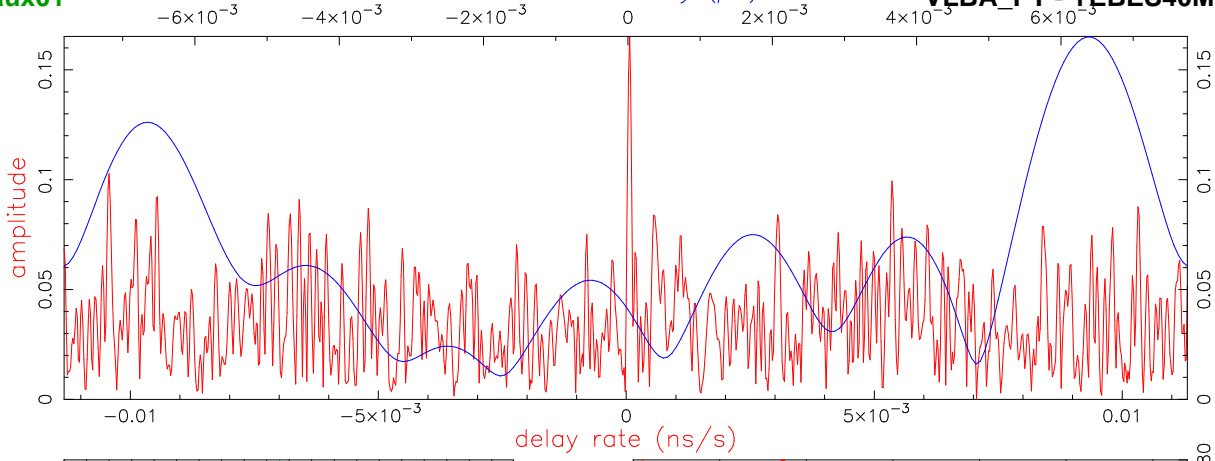
Mk4/DiFX fourfit 3.25 rev 0

aux01

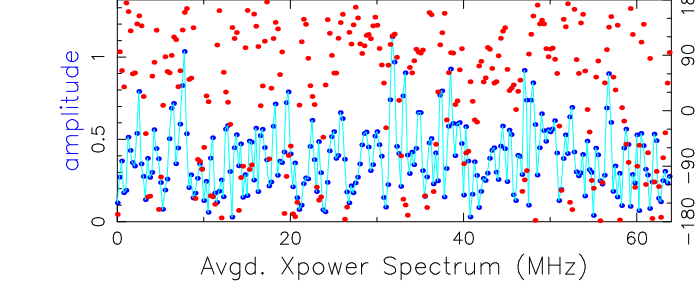
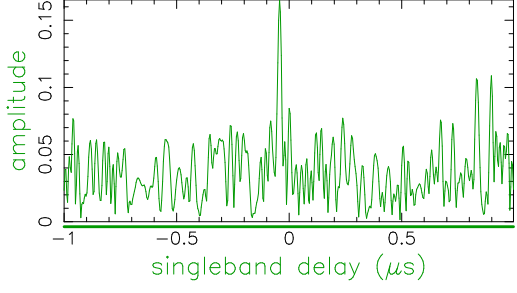
0133+476.3MP19T, No0914, pY

VLBA_PT - YEBES40M, fgroup W, pol LL

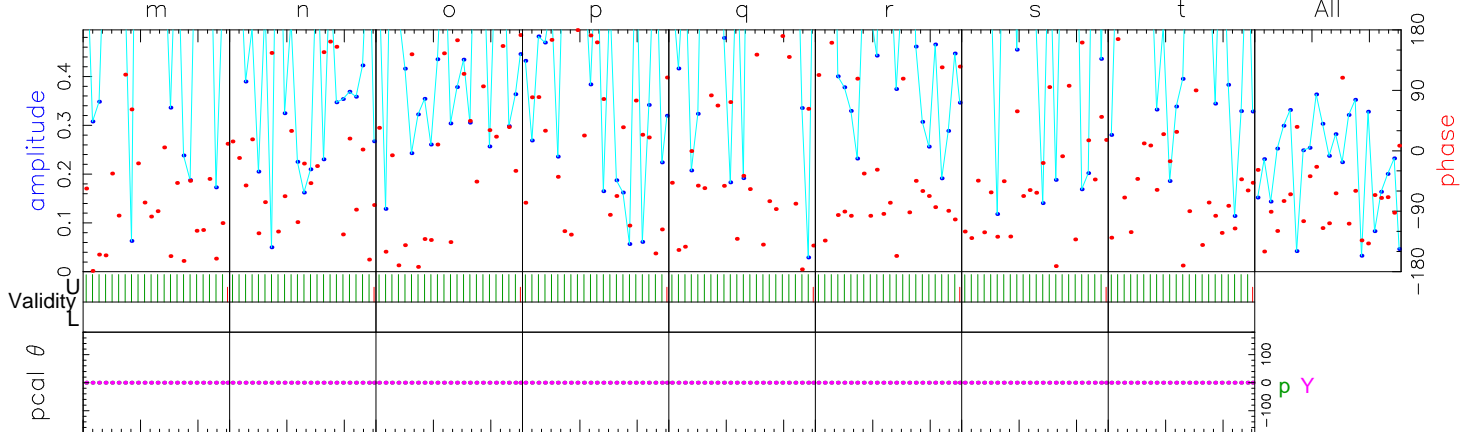
multiband delay (μ s)



Fringe quality 0
 SNR 5.5
 Int time 149.832
 Amp 0.165
 Phase -84.2
 PFD 9.8e-01
 Delays (us)
 SBD -0.042385
 MBD 0.006405
 Fringe rate (Hz) 0.005974
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112824
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-78.3	-60.5	98.2	-174.5	-96.4	-106.3	-63.7	-77.8	Phase	-84.2
	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	246.4	39.6	39.6	83.0	248.3	286.9	243.5	444.3	Sbd box	246.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani 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)	6.12989730841E+03	Apriori delay (usec)	6.12993777886E+03	Resid mbdelay (usec)	6.40456E-03	+/-	2.0E-04
Sband delay (usec)	6.12989539436E+03	Apriori clock (usec)	1.1625776E+02	Resid sbdelay (usec)	-4.23845E-02	+/-	1.6E-03
Phase delay (usec)	6.12993777614E+03	Apriori clockrate (us/s)	1.5923660E-06	Resid phdelay (usec)	-2.71521E-06	+/-	6.7E-07
Delay rate (us/s)	1.19442111567E+00	Apriori rate (us/s)	1.19442104632E+00	Resid rate (us/s)	6.93550E-08	+/-	7.7E-09
Total phase (deg)	13.2	Apriori accel (us/s/s)	-3.91941780765E-05	Resid phase (deg)	-84.2	+/-	20.7

ph/seg (deg) 56.3 49.7 Search (1024X32) 0.165 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.9 86.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 83.0 29.3 Inc. seg. avg. 0.165 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.0 51.1 Inc. frq. avg. 0.172 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 p: az 49.6 el 63.6 pa -110.2 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10238.742 -3898.798 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/pY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/pY.W.392.3MP19T

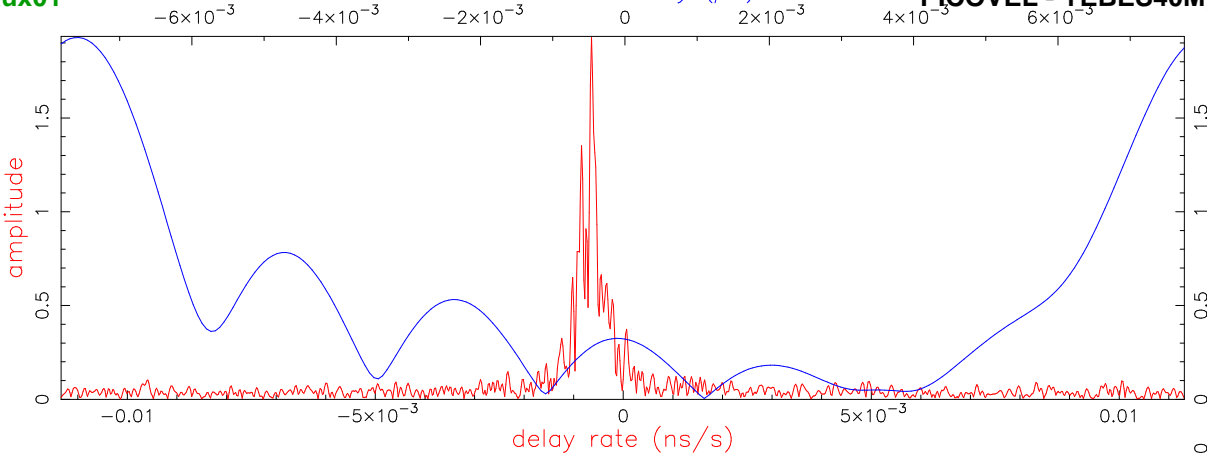
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, PY

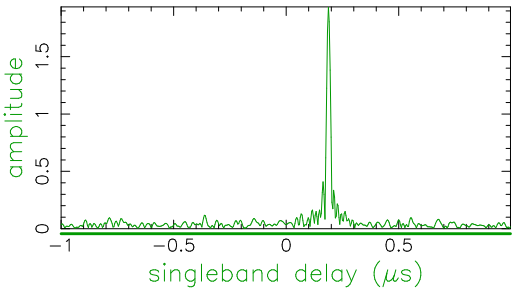
PICOVEL - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

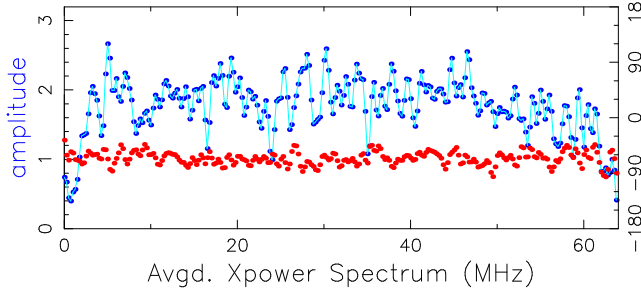


Fringe quality 3

SNR 64.7
 Int time 149.852
 Amp 1.935
 Phase 27.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.188031
 MBD -0.007576
 Fringe rate (Hz)
 -0.054540
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

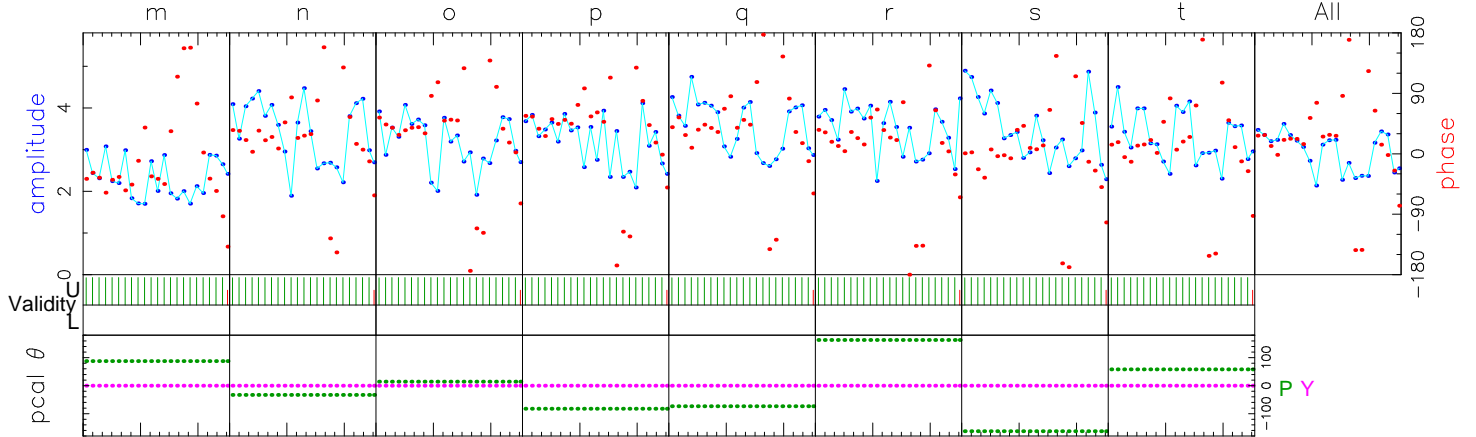


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112825
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-35.3	28.0	49.5	54.5	45.2	28.4	3.2	17.3	Phase	27.3
	1.4	2.4	2.0	2.1	2.4	2.2	2.1	2.1	Ampl.	2.1
	307.3	305.2	305.9	305.2	304.8	305.3	304.9	305.1	Sbd box	305.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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)	-4.29677670265E+02	Apriori delay (usec)	-4.29873219551E+02	Resid mbdelay (usec)	-7.57571E-03	+/-	1.7E-05
Sband delay (usec)	-4.29685188301E+02	Apriori clock (usec)	1.0953967E+02	Resid sbdelay (usec)	1.88031E-01	+/-	1.3E-04
Phase delay (usec)	-4.29873218672E+02	Apriori clockrate (us/s)	1.8119061E-02	Resid phdelay (usec)	8.78773E-07	+/-	5.7E-08
Delay rate (us/s)	-3.68960548039E-02	Apriori rate (us/s)	-3.68954216453E-02	Resid rate (us/s)	-6.33159E-07	+/-	6.6E-10
Total phase (deg)	-20.3	Apriori accel (us/s/s)	-1.05944860055E-06	Resid phase (deg)	27.3	+/-	1.8

ph/seg (deg) 68.7 4.2 Search (1024X32) 1.848 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.2 7.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.0 2.5 Inc. seg. avg. 2.960 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.6 4.4 Inc. frq. avg. 2.117 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 P: az 306.9 el 36.3 pa 72.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) 315.486 -371.162 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/PY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/PY.W.400.3MP19T

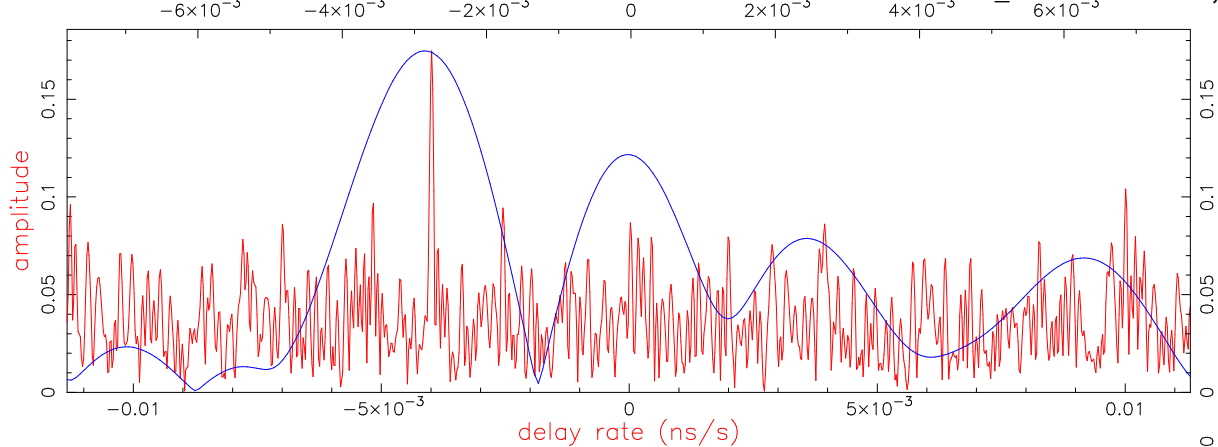
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, pY

VLBA_PT - YEBES40M, fgroup W, pol RR

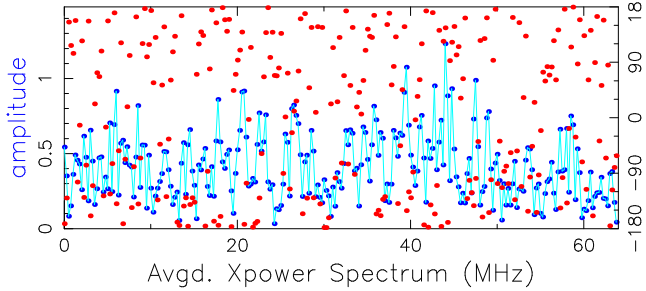
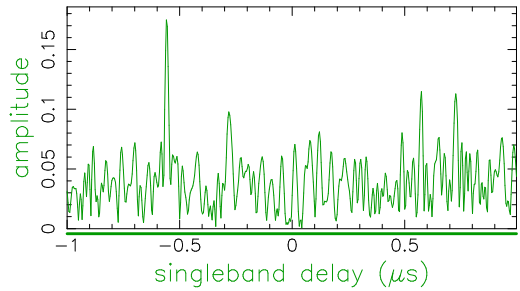
multiband delay (μ s)



Fringe quality 0

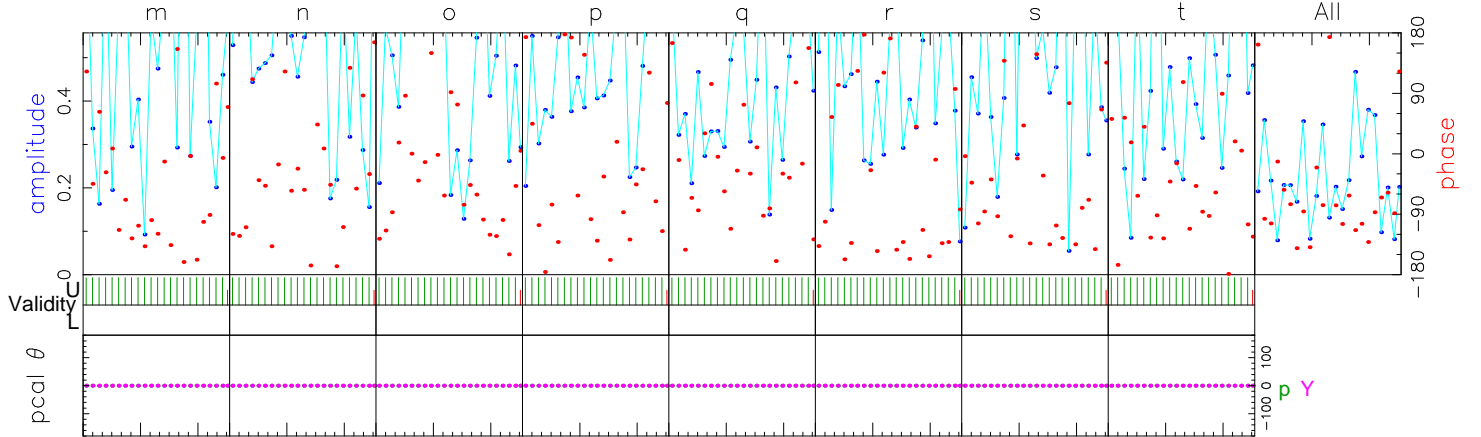
SNR 5.9
 Int time 149.832
 Amp 0.186
 Phase -95.1
 PFD 3.6e-01
 Delays (us)
 SBD -0.557329
 MBD -0.002833
 Fringe rate (Hz)
 -0.344227
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112826
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-106.6	-82.4	-59.6	-111.3	-53.5	-153.6	-104.4	-59.1	Phase	-95.1
	0.3	0.2	0.2	0.2	0.1	0.3	0.3	0.2	Ampl.	0.2
	91.7	430.3	240.2	272.6	64.9	264.1	424.1	225.6	Sbd box	114.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani 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)	6.12938807073E+03	Apriori delay (usec)	6.12993777886E+03	Resid mbdelay (usec)	-2.83312E-03	+/-	1.8E-04
Sband delay (usec)	6.12938045011E+03	Apriori clock (usec)	1.1625776E+02	Resid sbdelay (usec)	-5.57329E-01	+/-	1.5E-03
Phase delay (usec)	6.1299377579E+03	Apriori clockrate (us/s)	1.5923660E-06	Resid phdelay (usec)	-3.06682E-06	+/-	6.3E-07
Delay rate (us/s)	1.19441705018E+00	Apriori rate (us/s)	1.19442104632E+00	Resid rate (us/s)	-3.99613E-06	+/-	7.2E-09
Total phase (deg)	2.3	Apriori accel (us/s/s)	-3.91941780765E-05	Resid phase (deg)	-95.1	+/-	19.4

ph/seg (deg)	49.2	Theor.	46.5	Amplitude	0.186 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	66.3	Search (1024X32)	0.168	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	37.3	Inc. seg. avg.	0.178	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	34.3	Inc. frq. avg.	0.195	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

p: az 49.6 el 63.6 pa -110.2 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -10238.742 -3898.798 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/pY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/pY.W.402.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

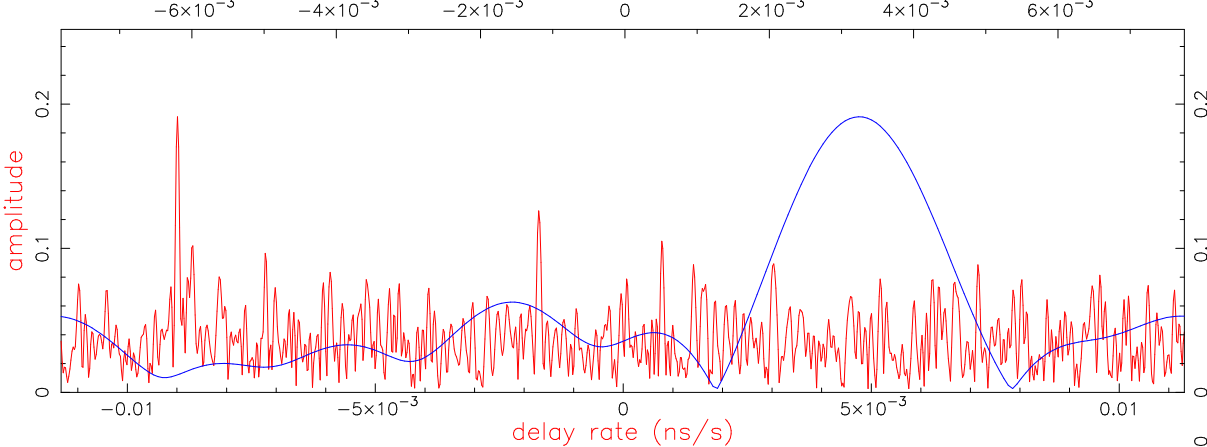
aux01

0133+476.3MP19T, No0914, PY

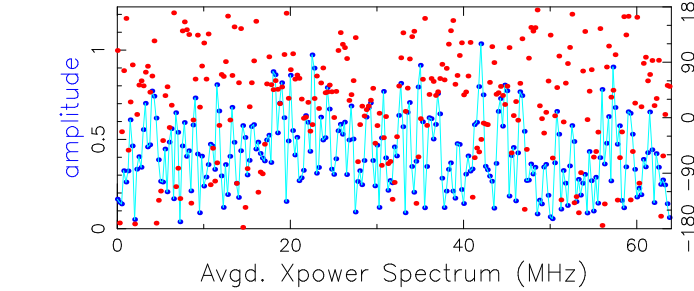
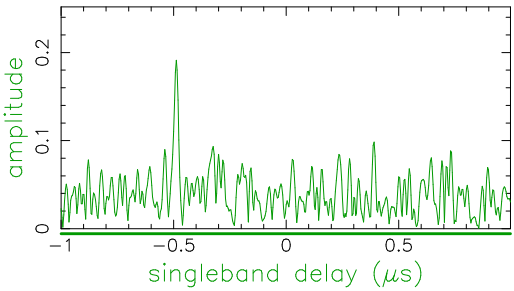
PICOVEL - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

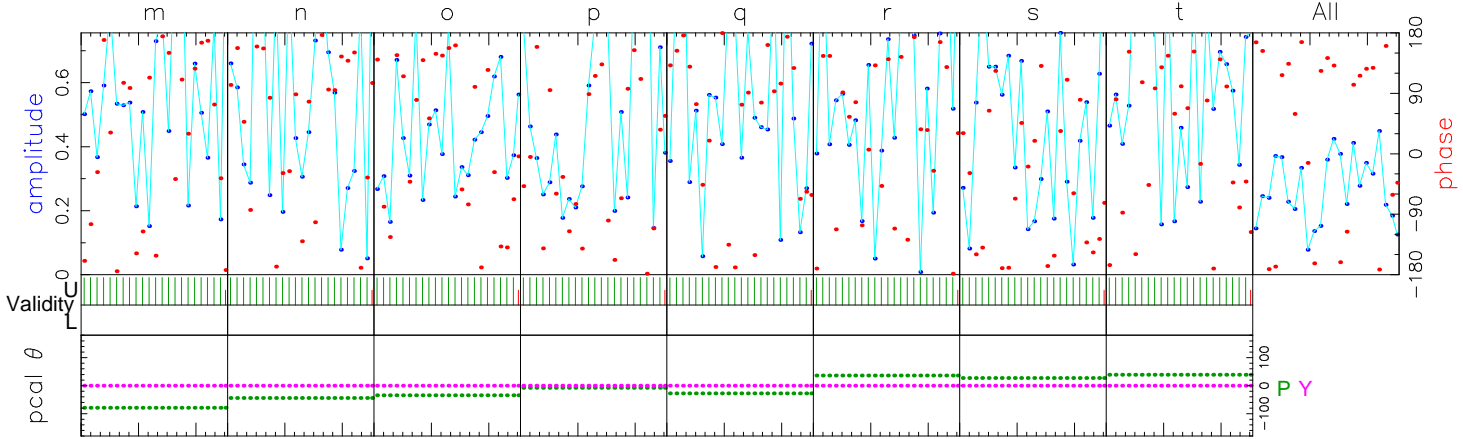


SNR 6.4
Int time 149.852
Amp 0.252
Phase 151.5
PFD 2.0e-02
Delays (us)
SBD -0.488011
MBD 0.003247
Fringe rate (Hz)
-0.776198
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170000.00
Stop 170230.02
FRT 170115.00
Corr/FF/build
2025:007:180402
2025:041:112828
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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	-79:0	-44:0	-34:0	-8:0	-28:0	36:0	27:0	39:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-4.30354347673E+02	Apriori delay (usec)	-4.29873219551E+02	Resid mbdelay (usec)	3.24688E-03	+/-	1.7E-04
Sband delay (usec)	-4.30361230551E+02	Apriori clock (usec)	1.0953967E+02	Resid sbdelay (usec)	-4.88011E-01	+/-	1.3E-03
Phase delay (usec)	-4.29873214665E+02	Apriori clockrate (us/s)	1.8119061E-02	Resid phdelay (usec)	4.88598E-06	+/-	5.8E-07
Delay rate (us/s)	-3.69044325313E-02	Apriori rate (us/s)	-3.68954216453E-02	Resid rate (us/s)	-9.01089E-06	+/-	6.7E-09
Total phase (deg)	103.9	Apriori accel (us/s/s)	-1.05944860055E-06	Resid phase (deg)	151.5	+/-	17.9

ph/seg (deg)	65.8	RMS	42.9	Theor.	0.252 +/- 0.039	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.1	Search (1024X32)	0.190	Interp.	0.000	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.0	Inc. seg. avg.	0.281	Inc. frq. avg.	0.233	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.1	Inc. frq. avg.	0.233	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
P:	az 306.9 el 36.3 pa 72.3	Y:	az 304.8 el 38.2 pa 68.6	u, v (fr/asec)	315.486 -371.162	ion window (TEC)	0.00 0.00	simultaneous interpolator		

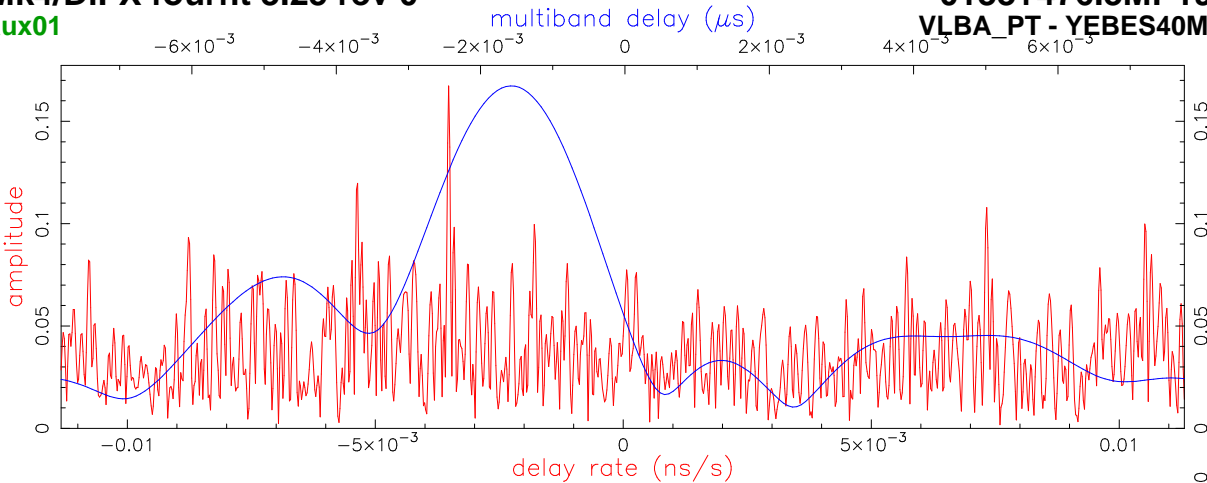
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/PY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/PY.W.408.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

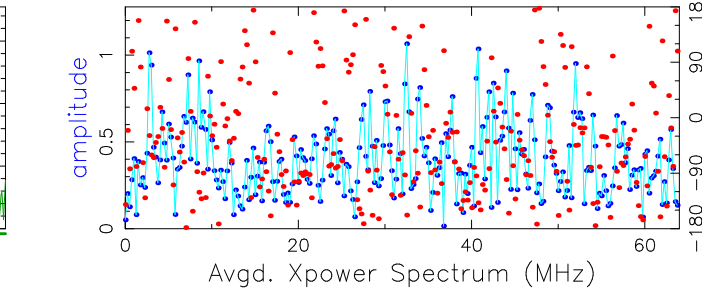
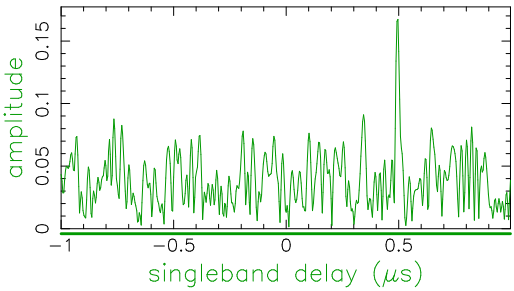
0133+476.3MP19T, No0914, pY

VLBA_PT - YEBES40M, fgroup W, pol LR



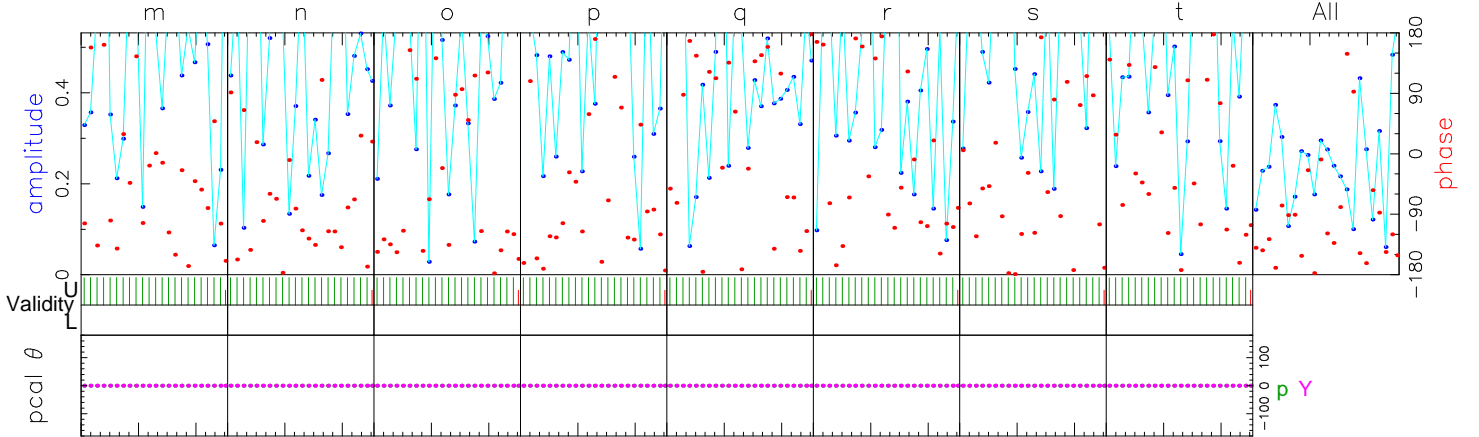
Fringe quality 0

SNR 5.7
 Int time 149.832
 Amp 0.177
 Phase -124.7
 PFD 7.7e-01
 Delays (us)
 SBD 0.494327
 MBD -0.001586
 Fringe rate (Hz)
 -0.302898
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112828
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-104.0	-107.4	-156.0	-134.9	-155.9	-116.4	-127.2	-83.8	Phase	-124.7
	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.1	Ampl.	0.2
	345.0	484.6	385.6	79.2	145.2	382.5	260.3	54.6	Sbd box	383.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani 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)	6.13043619283E+03	Apriori delay (usec)	6.12993777886E+03	Resid mbdelay (usec)	-1.58602E-03	+/-	1.9E-04
Sband delay (usec)	6.13043210561E+03	Apriori clock (usec)	1.1625776E+02	Resid sbdelay (usec)	4.94327E-01	+/-	1.5E-03
Phase delay (usec)	6.12993777484E+03	Apriori clockrate (us/s)	1.5923660E-02	Resid phdelay (usec)	-4.01995E-06	+/-	6.5E-07
Delay rate (us/s)	1.19441752997E+00	Apriori rate (us/s)	1.19442104632E+00	Resid rate (us/s)	-3.51634E-06	+/-	7.5E-09
Total phase (deg)	-27.2	Apriori accel (us/s/s)	-3.91941780765E-05	Resid phase (deg)	-124.7	+/-	20.1

ph/seg (deg)	57.1	Theor.	48.2	Amplitude	0.177 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.6		84.1	Search (1024X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	27.5		28.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.5		49.6	Inc. seg. avg.	0.190	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.166	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

p: az 49.6 el 63.6 pa -110.2 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -10238.742 -3898.798 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/pY...3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/pY.W.409.3MP19T

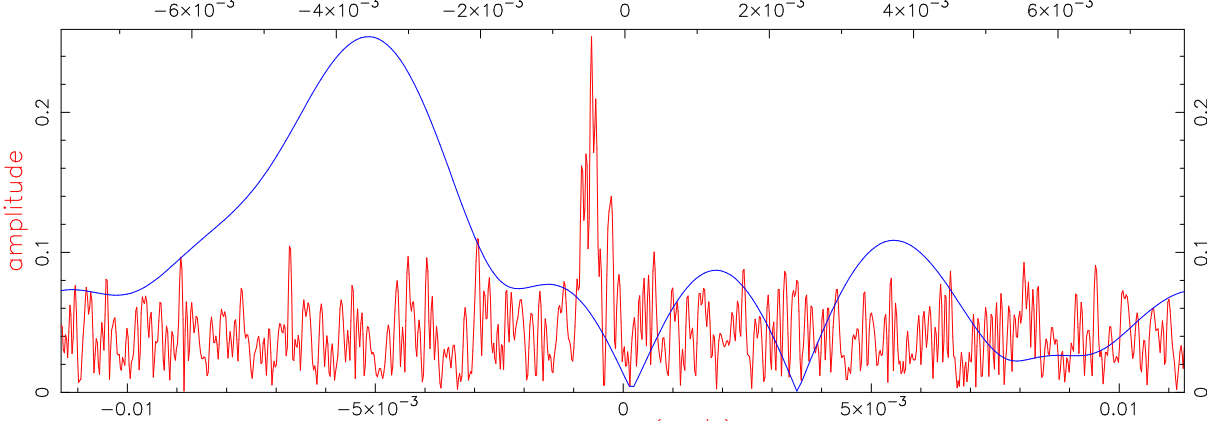
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, PY

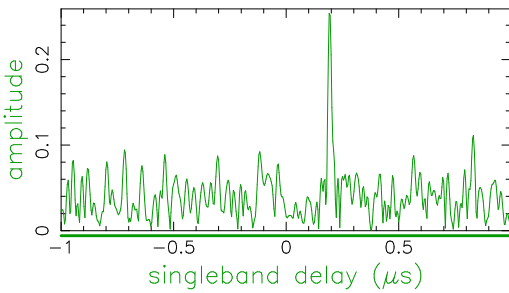
PICOVEL - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

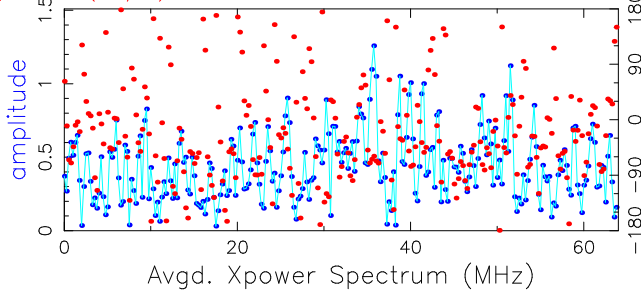


Fringe quality 9

SNR 8.7
 Int time 149.852
 Amp 0.259
 Phase 69.1
 PFD 8.3e-10
 Delays (us)
 SBD 0.193121
 MBD -0.003534
 Fringe rate (Hz)
 -0.054920
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

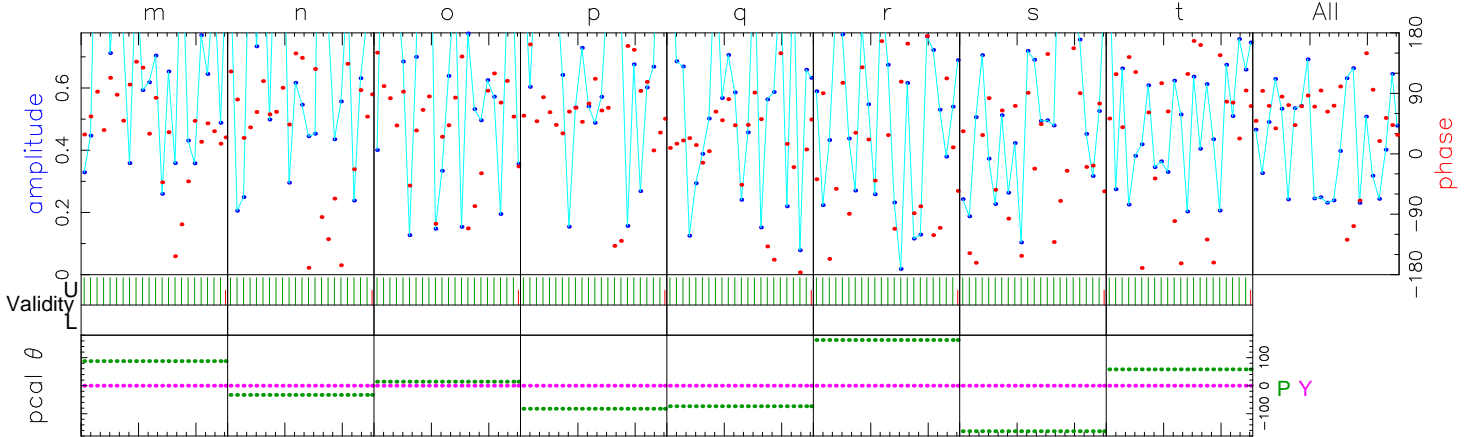


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112829
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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)	-4.29673628359E+02	Apriori delay (usec)	-4.29873219551E+02	Resid mbdelay (usec)	-3.53381E-03	+/-	1.3E-04
Sband delay (usec)	-4.29680098301E+02	Apriori clock (usec)	1.0953967E+02	Resid sbdelay (usec)	1.93121E-01	+/-	9.9E-04
Phase delay (usec)	-4.29873217322E+02	Apriori clockrate (us/s)	1.8119061E-02	Resid phdelay (usec)	2.22878E-06	+/-	4.3E-07
Delay rate (us/s)	-3.68960592154E-02	Apriori rate (us/s)	-3.68954216453E-02	Resid rate (us/s)	-6.37570E-07	+/-	4.9E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.05944860055E-06	Resid phase (deg)	69.1	+/-	13.2

ph/seg (deg)	64.4	Theor.	31.7	Amplitude	0.259 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	90.8	Search (1024X32)	0.252	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	65.4	Inc. seg. avg.	0.375	Inc. frq. avg.	0.271	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	55.3	Inc. frq. avg.	0.271	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
P:	az 306.9 el 36.3 pa 72.3	Y:	az 304.8 el 38.2 pa 68.6	u, v (fr/asec)	315.486 -371.162	ion window (TEC)	0.00 0.00	simultaneous interpolator		

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/PY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/PY.W.414.3MP19T

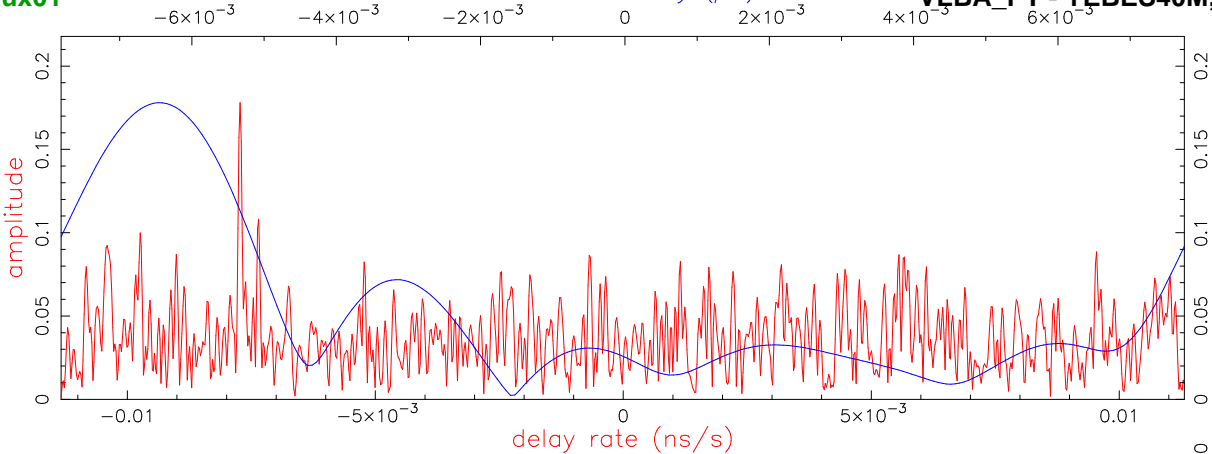
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, pY

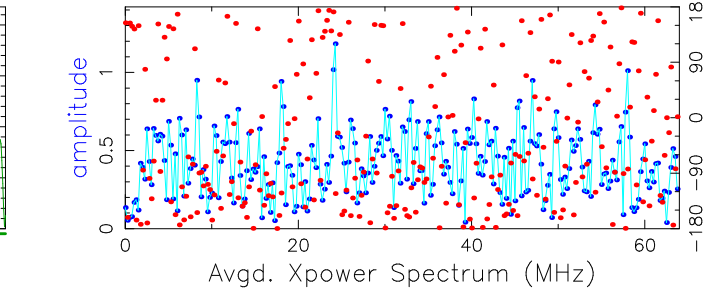
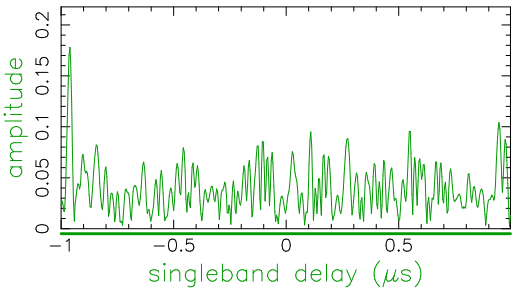
VLBA_PT - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



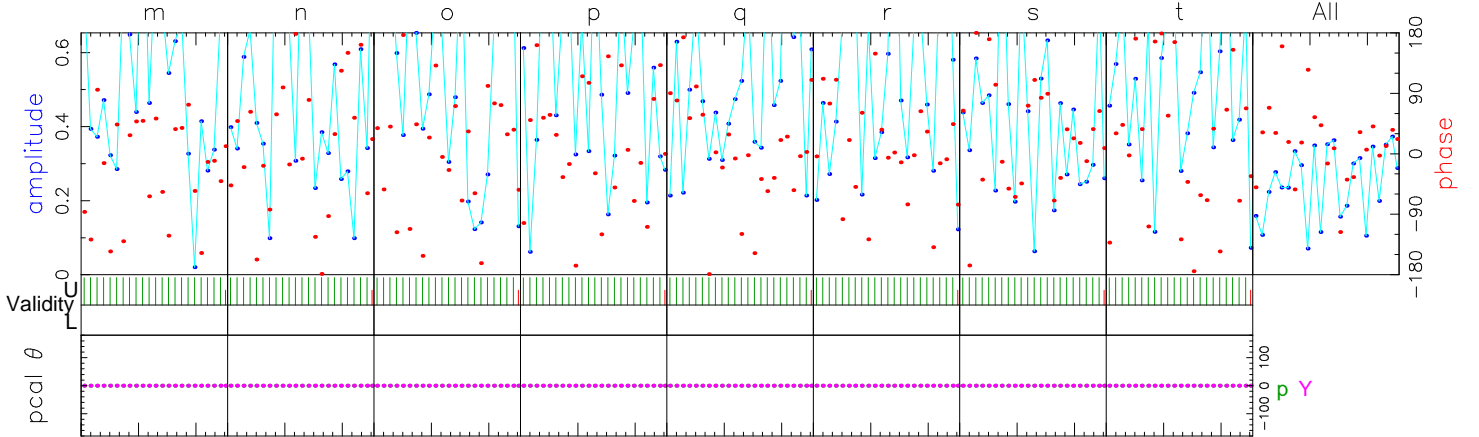
Fringe quality 0

SNR 6.0
 Int time 149.832
 Amp 0.218
 Phase 13.8
 PFD 2.6e-01
 Delays (us)
 SBD -0.961564
 MBD -0.006442
 Fringe rate (Hz)
 -0.666871
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112830
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	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)	6.12897821201E+03	Apriori delay (usec)	6.12993777886E+03	Resid mbdelay (usec)	-6.44185E-03	+/-	1.8E-04
Sband delay (usec)	6.12897621461E+03	Apriori clock (usec)	1.1625776E+02	Resid sbdelay (usec)	-9.61564E-01	+/-	1.4E-03
Phase delay (usec)	6.12993777930E+03	Apriori clockrate (us/s)	1.5923660E-02	Resid phdelay (usec)	4.45499E-07	+/-	6.2E-07
Delay rate (us/s)	1.19441330460E+00	Apriori rate (us/s)	1.19442104632E+00	Resid rate (us/s)	-7.74171E-06	+/-	7.1E-09
Total phase (deg)	111.2	Apriori accel (us/s/s)	-3.91941780765E-05	Resid phase (deg)	13.8	+/-	19.2

ph/seg (deg)	56.9	Theor.	46.0	Amplitude	0.218 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.1	Search (1024X32)	0.175	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)	24.7	Inc. seg. avg.	0.230	Inc. frq. avg.	0.201	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.6	Inc. frq. avg.	0.201			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

p: az 49.6 el 63.6 pa -110.2 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -10238.742 -3898.798 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/pY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/pY.W.416.3MP19T

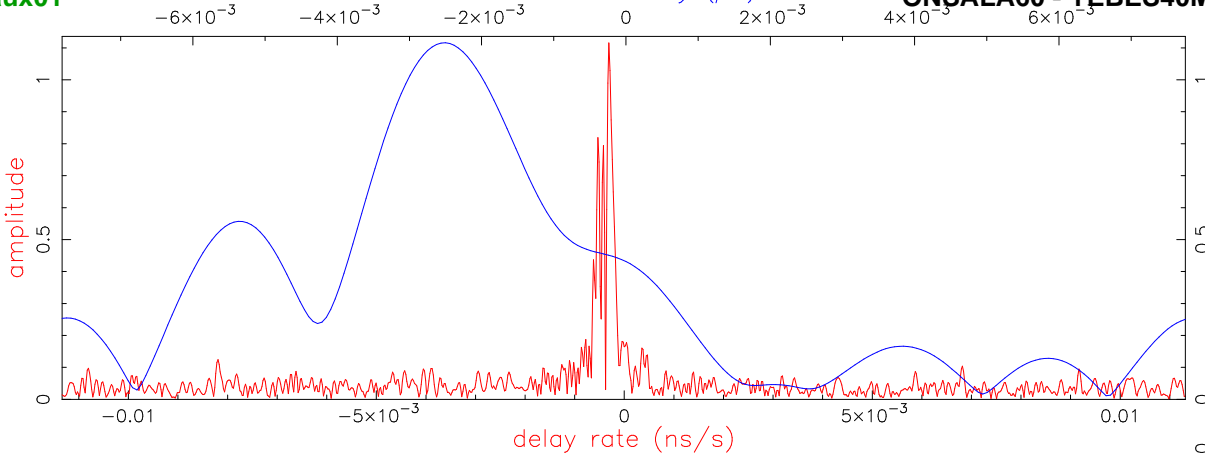
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, XY

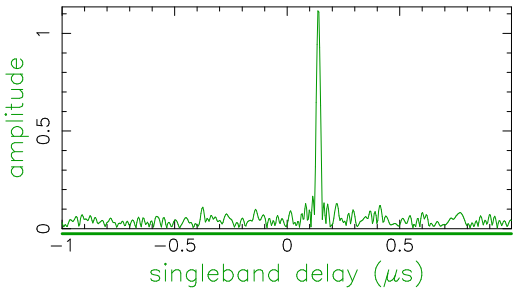
ONŞALA60 - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

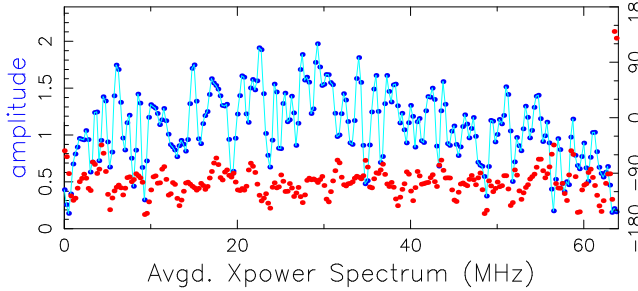


Fringe quality 5

SNR 38.0
 Int time 149.704
 Amp 1.136
 Phase 78.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.138529
 MBD -0.002477
 Fringe rate (Hz)
 -0.026030
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

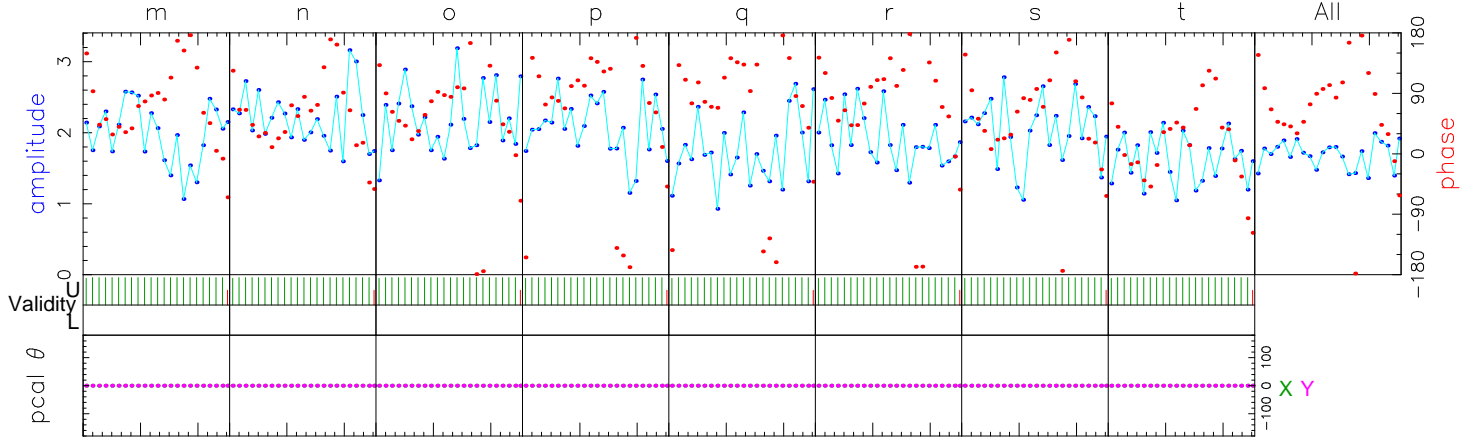


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112816
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	66.5	56.1	77.4	114.7	117.7	99.0	67.8	18.9	Phase	78.0
	1.3	1.5	1.4	1.3	1.1	1.3	1.2	1.0	Ampl.	1.3
	292.2	292.4	292.7	292.8	292.1	291.9	292.3	291.2	Sbd box	292.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.51501588987E+02	Apriori delay (usec)	4.51363440876E+02	Resid mbdelay (usec)	-2.47689E-03	+/-	2.9E-05
Sband delay (usec)	4.51501969626E+02	Apriori clock (usec)	2.2321271E+02	Resid sbdelay (usec)	1.38529E-01	+/-	2.3E-04
Phase delay (usec)	4.51363443392E+02	Apriori clockrate (us/s)	2.4302921E-06	Resid phdelay (usec)	2.51596E-06	+/-	9.7E-08
Delay rate (us/s)	2.02492249915E-01	Apriori rate (us/s)	2.02492552101E-01	Resid rate (us/s)	-3.02186E-07	+/-	1.1E-09
Total phase (deg)	5.0	Apriori accel (us/s/s)	1.49519428929E-05	Resid phase (deg)	78.0	+/-	3.0

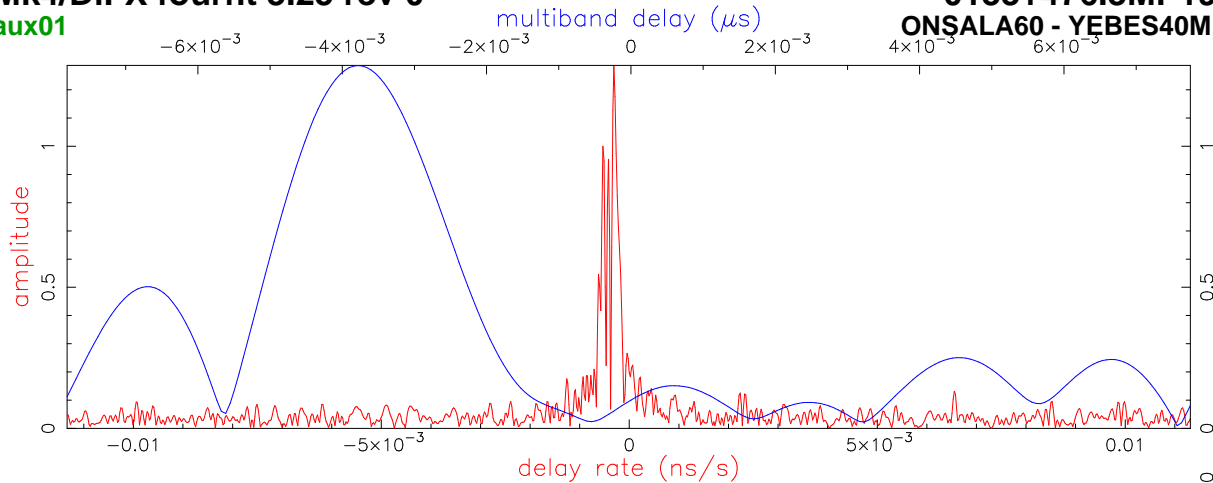
ph/seg (deg) 54.0 7.2 Search (1024X32) 1.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 51.4 12.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.5 4.3 Inc. seg. avg. 1.677 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 17.9 7.4 Inc. frq. avg. 1.270 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 X: az 300.6 el 38.9 pa 43.7 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -1726.117 2451.997 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/XY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/XY.W.357.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

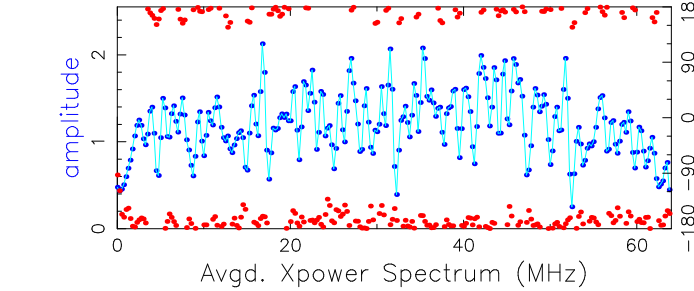
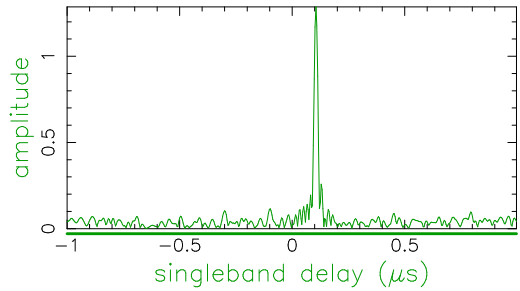
0133+476.3MP19T, No0914, XY

ONŞALA60 - YEŞES40M, fgroup W, pol RR



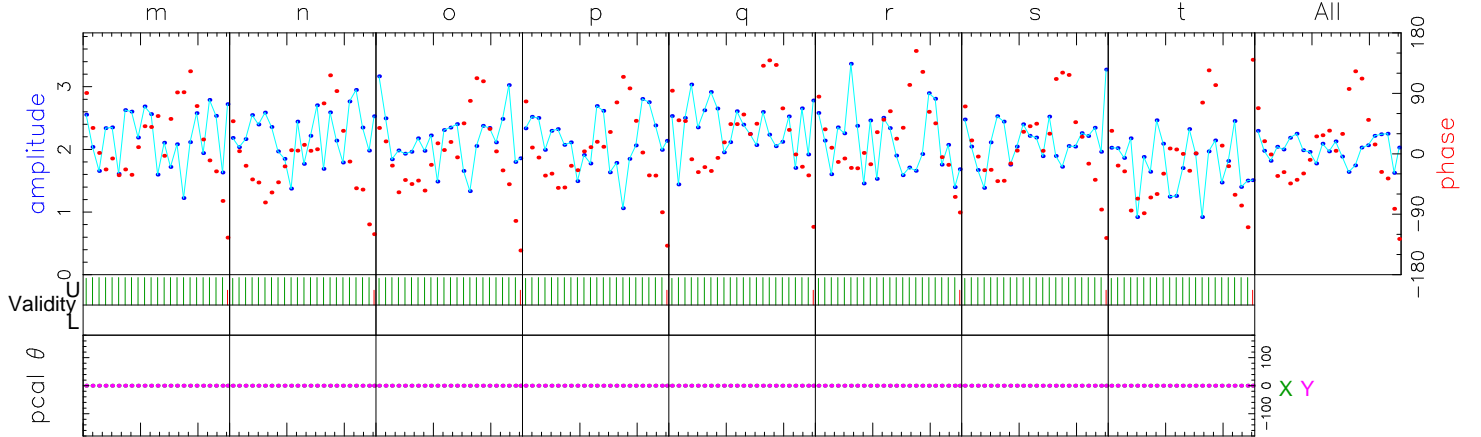
Fringe quality 6

SNR 43.0
 Int time 149.704
 Amp 1.287
 Phase 5.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.105576
 MBD -0.003777
 Fringe rate (Hz)
 -0.026236
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Yr:day 1234
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112818
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	17.7	-14.9	-3.7	-2.1	27.6	23.8	11.4	-27.9		5.3
	1.4	1.4	1.4	1.5	1.4	1.4	1.3	1.0		1.3
	284.0	283.5	284.4	284.1	284.2	283.9	283.5	282.4		284.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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: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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	4.51469039050E+02	Apriori delay (usec)	4.51363440876E+02	Resid mbdelay (usec)	-3.77683E-03	+/-	2.5E-05
Sband delay (usec)	4.51469017126E+02	Apriori clock (usec)	2.2321271E+02	Resid sbdelay (usec)	1.05576E-01	+/-	2.0E-04
Phase delay (usec)	4.51363441046E+02	Apriori clockrate (us/s)	2.4302921E-06	Resid phdelay (usec)	1.69894E-07	+/-	8.6E-08
Delay rate (us/s)	2.02492247527E-01	Apriori rate (us/s)	2.02492552101E-01	Resid rate (us/s)	-3.04573E-07	+/-	9.9E-10
Total phase (deg)	292.2	Apriori accel (us/s/s)	1.49519428929E-05	Resid phase (deg)	5.3	+/-	2.7

ph/seg (deg) 55.8 6.4 Search (1024X32) 1.265 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 58.0 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) 21.1 3.8 Inc. seg. avg. 1.996 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 11.7 6.6 Inc. frq. avg. 1.346 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 X: az 300.6 el 38.9 pa 43.7 Y: az 304.8 el 38.2 pa 68.6 u, v (fr/asec) -1726.117 2451.997 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914//XY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914//XY.W.370.3MP19T

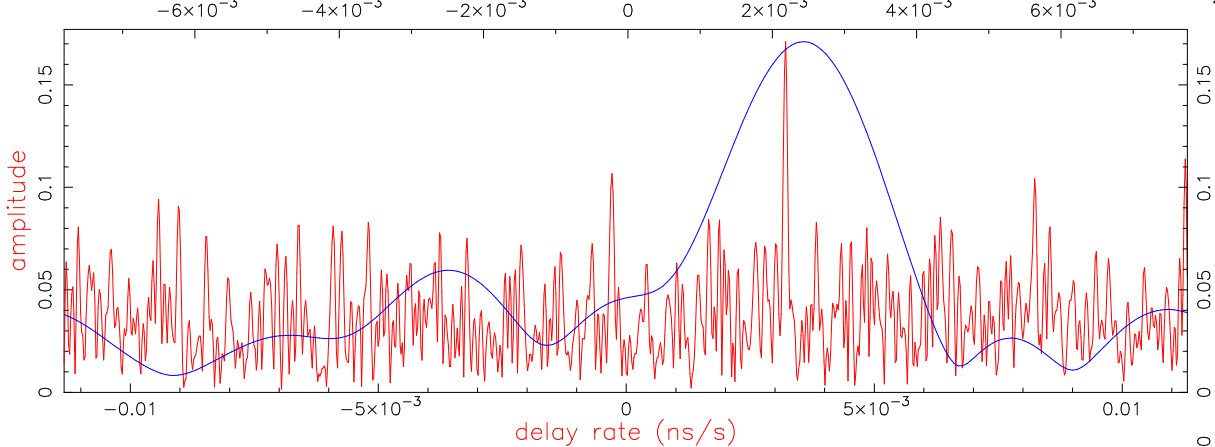
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, XY

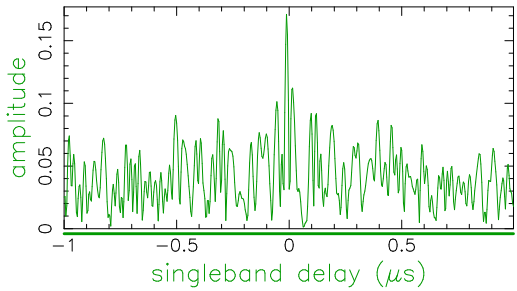
ONŞALA60 - YEŞES40M, fgroup W, pol LR

multiband delay (μ s)

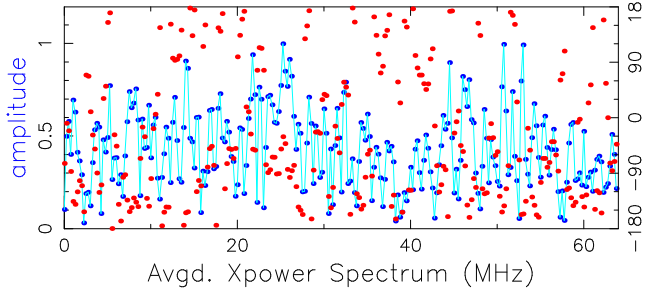


Fringe quality 0

SNR 5.7
 Int time 149.704
 Amp 0.177
 Phase 89.6
 PFD 7.1e-01
 Delays (us)
 SBD -0.011328
 MBD 0.002429
 Fringe rate (Hz)
 0.276790
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

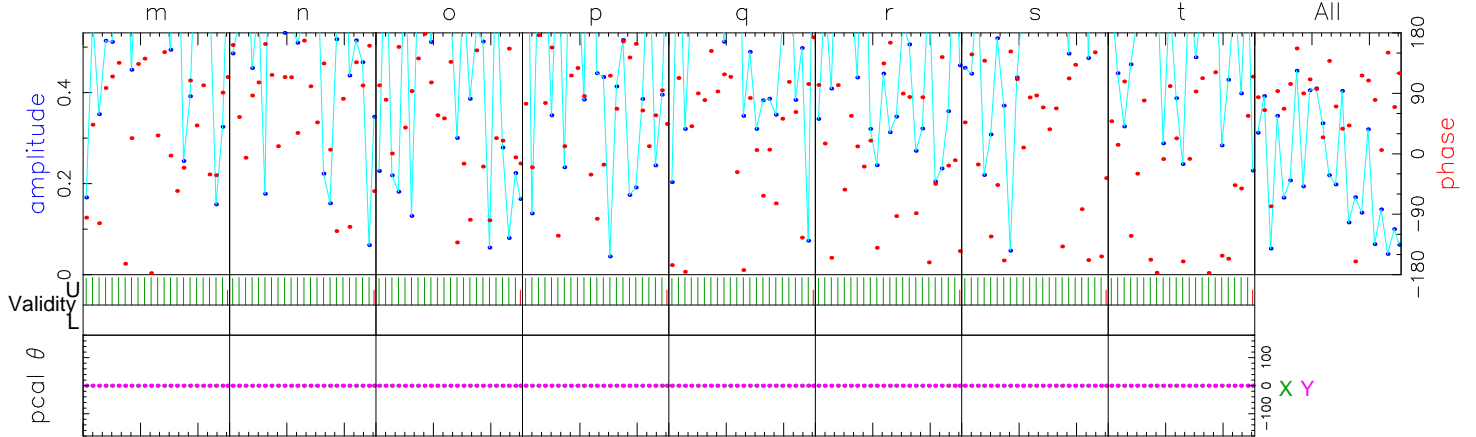


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112820
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	101.0	94.4	70.5	81.2	96.9	40.3	117.8	99.2	Phase	89.6
	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.1	Ampl.	0.2
	470.4	254.3	34.2	195.5	35.6	363.8	373.3	143.4	Sbd box	254.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	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)	4.51350244759E+02		Apriori delay (usec)		4.51363440876E+02		Resid mbdelay (usec)		2.42888E-03	+/- 1.9E-04
Sband delay (usec)	4.51352112626E+02		Apriori clock (usec)		2.2321271E+02		Resid sbdelay (usec)		-1.13283E-02	+/- 1.5E-03
Phase delay (usec)	4.51363443765E+02		Apriori clockrate (us/s)		2.4302921E-06		Resid phdelay (usec)		2.88953E-06	+/- 6.4E-07
Delay rate (us/s)	2.02495765361E-01		Apriori rate (us/s)		2.02492552101E-01		Resid rate (us/s)		3.21326E-06	+/- 7.4E-09
Total phase (deg)			Apriori accel (us/s/s)		1.49519428929E-05		Resid phase (deg)		89.6	+/- 20.0

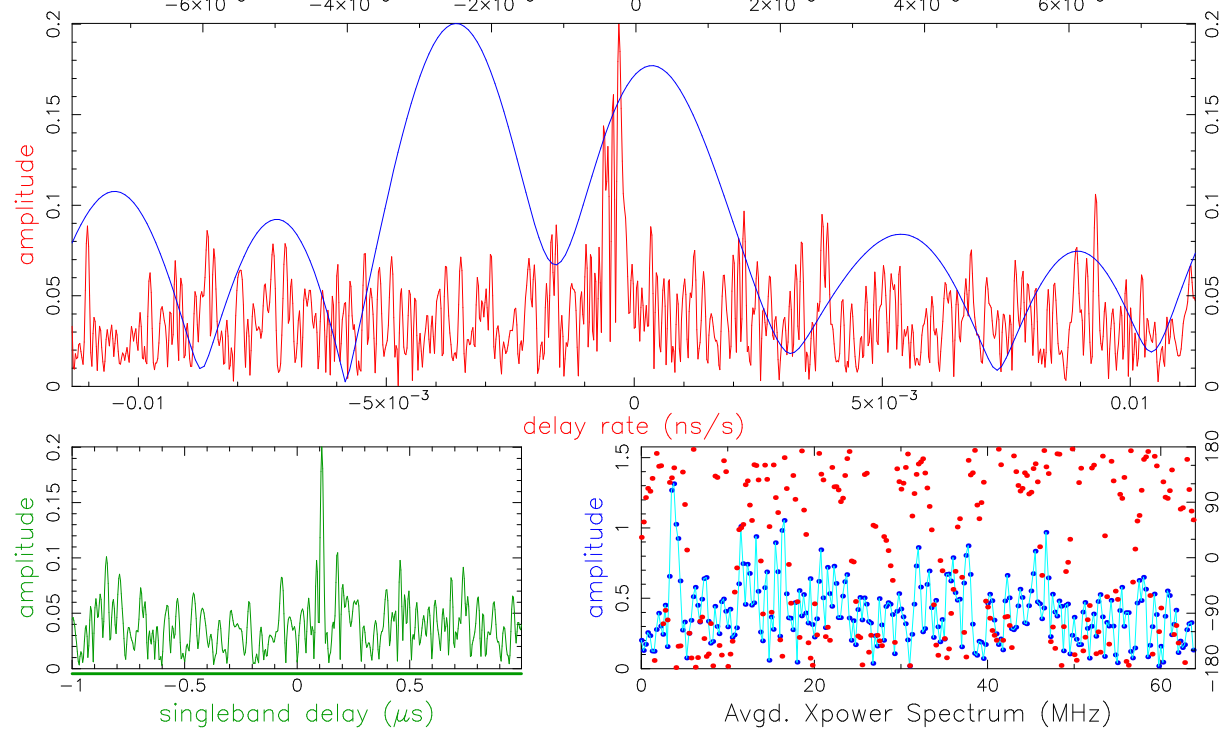
ph/seg (deg) RMS Theor. Amplitude 0.177 +/- 0.031 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.3 48.0 Search (1024X32) 0.167 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 82.5 83.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.7 28.3 Inc. seg. avg. 0.178 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 36.6 49.4 Inc. frq. avg. 0.166 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 X: az 300.6 el 38.9 pa 43.7 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -1726.117 2451.997 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/XY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/XY.W.381.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

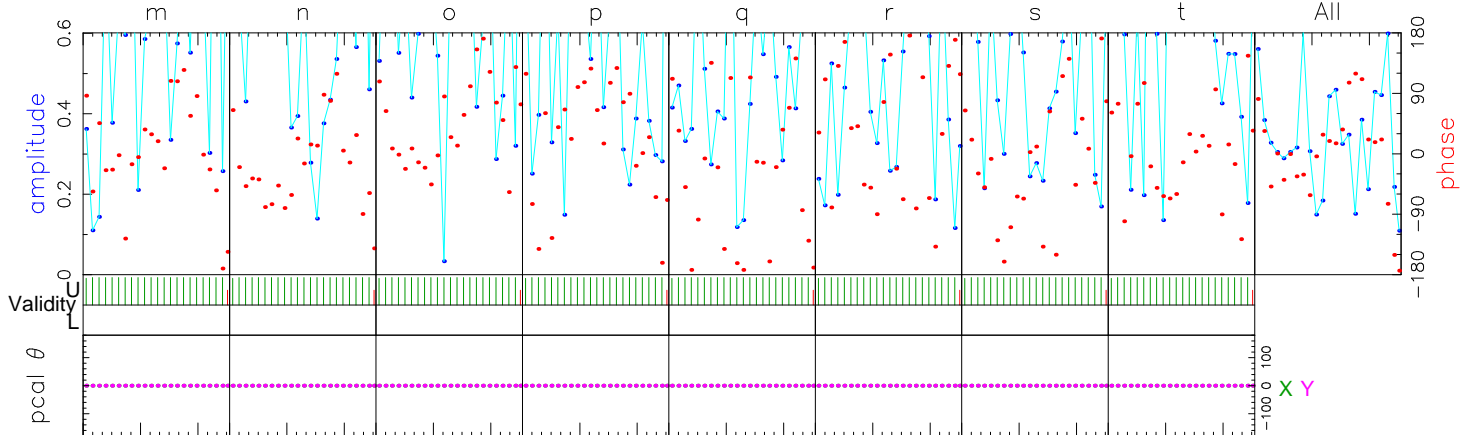
0133+476.3MP19T, No0914, XY

ONŞALA60 - YEŞES40M, fgroup W, pol RL



Fringe quality 0
 SNR 6.7
 Int time 149.704
 Amp 0.200
 Phase 7.8
 PFD 2.9e-03
 Delays (us)
 SBD 0.109449
 MBD -0.002489
 Fringe rate (Hz)
 -0.026300
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112822
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



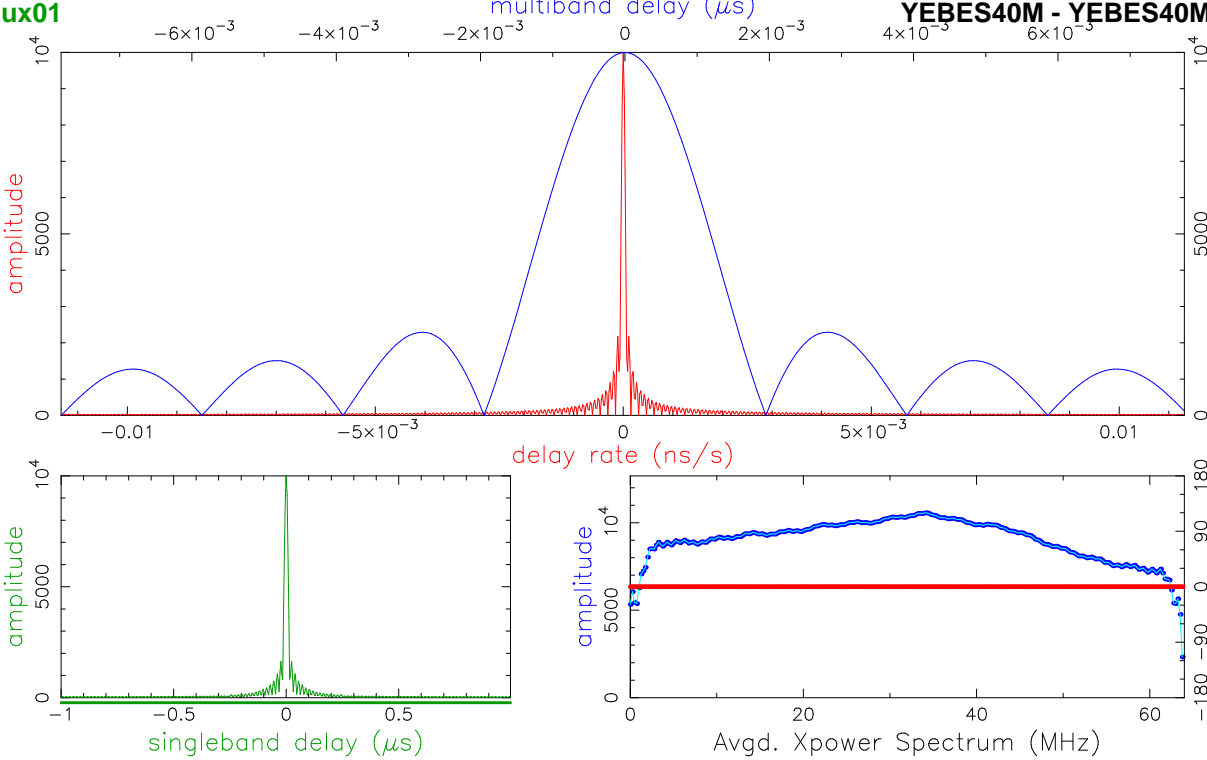
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	8.5	-32.4	33.6	68.4	-117.0	-13.9	-3.1	0.5	Phase	7.8		
	0.3	0.4	0.4	0.3	0.0	0.1	0.1	0.4	Ampl.	0.2		
	286.3	284.7	284.9	148.8	142.8	377.8	322.4	285.0	Sbd box	285.0		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	4.51470327362E+02		Apriori delay (usec)		4.51363440876E+02		Resid mbdelay (usec)		-2.48851E-03	+/- 1.6E-04		
Sband delay (usec)	4.51472890126E+02		Apriori clock (usec)		2.2321271E+02		Resid sbdelay (usec)		1.09449E-01	+/- 1.3E-03		
Phase delay (usec)	4.51363441129E+02		Apriori clockrate (us/s)		2.4302921E-06		Resid phdelay (usec)		2.53015E-07	+/- 5.5E-07		
Delay rate (us/s)	2.02492246785E-01		Apriori rate (us/s)		2.02492552101E-01		Resid rate (us/s)		-3.05316E-07	+/- 6.4E-09		
Total phase (deg)	294.8		Apriori accel (us/s/s)		1.49519428929E-05		Resid phase (deg)		7.8	+/- 17.1		
	RMS	Theor.	Amplitude	0.200 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	67.7	41.0	Search (1024X32)	0.199		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	99.0	71.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	60.8	24.2	Inc. seg. avg.	0.277		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	72.6	42.2	Inc. frq. avg.	0.220		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
X: az 300.6 el 38.9 pa 43.7	Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec) -1726.117 2451.997						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0914/XY..3MP19T		Output file: /Exps/c241a/v2/3mm/1234/No0914/XY.W.389.3MP19T									

Mk4/DiFX fourfit 3.25 rev 0

aux01

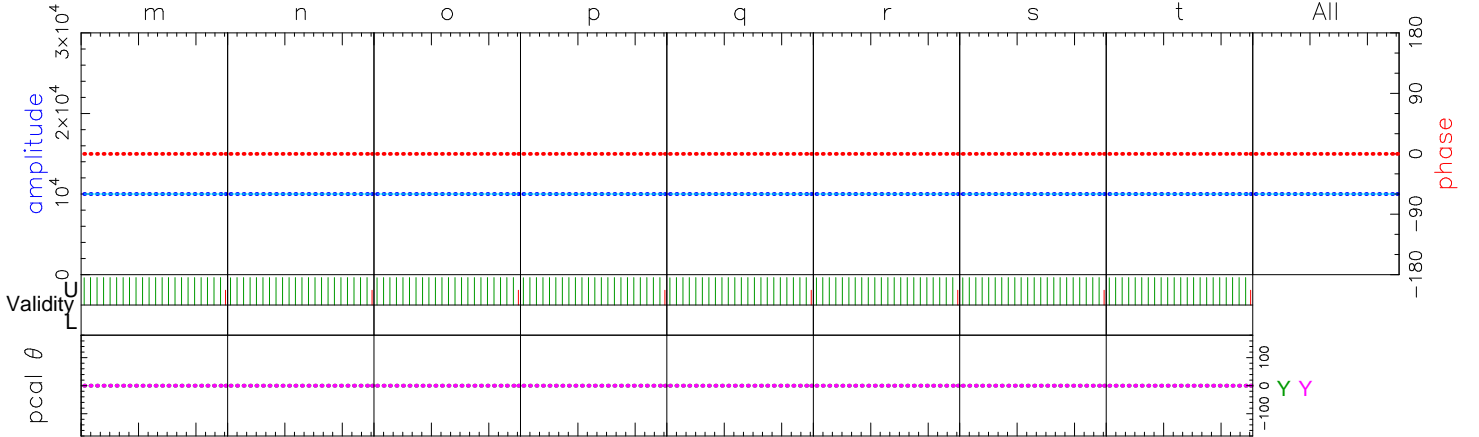
0133+476.3MP19T, No0914, YY

YEBES40M - YEBES40M, fgroup W, pol LL



Fringe quality 9
 SNR 334756.9
 Int time 149.852
 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. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112825
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
Y	0	0	0	0	0	0	0	0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.2E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	2.6E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.1E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

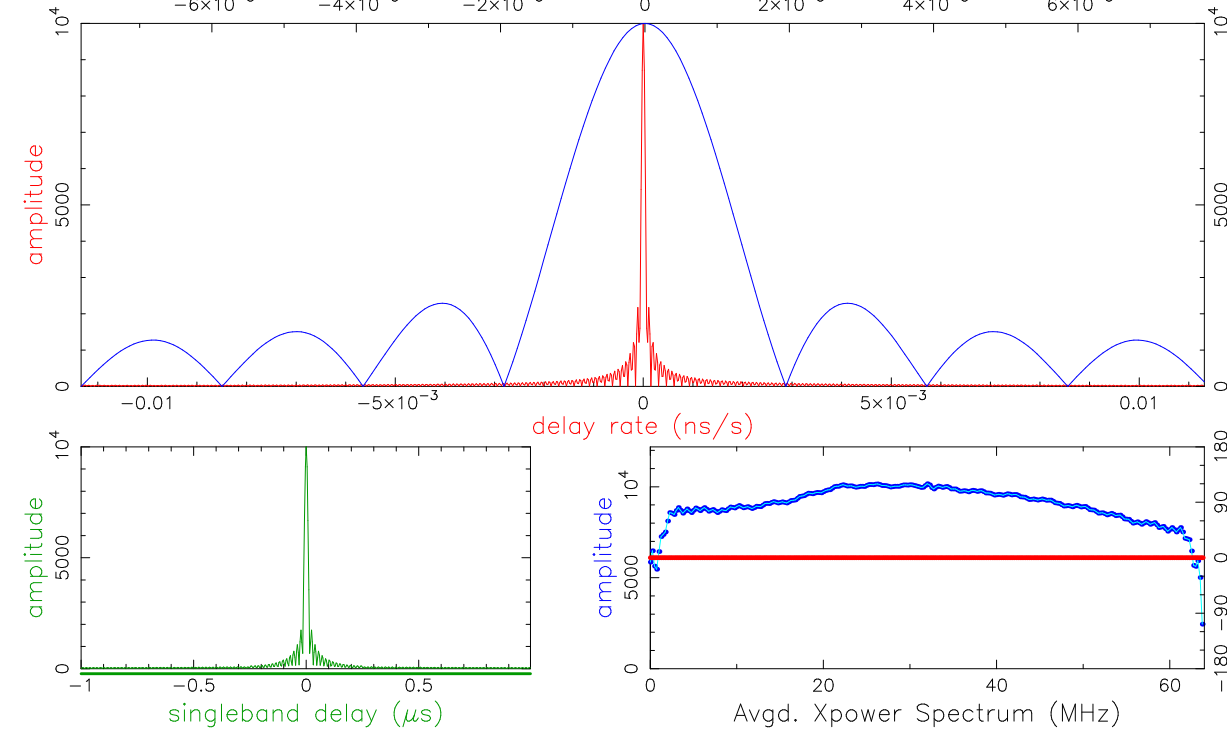
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 304.8 el 38.2 pa 68.6 Y: az 304.8 el 38.2 pa 68.6 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/c241a/v2/3mm/1234/No0914/YY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/YY.W.399.3MP19T simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

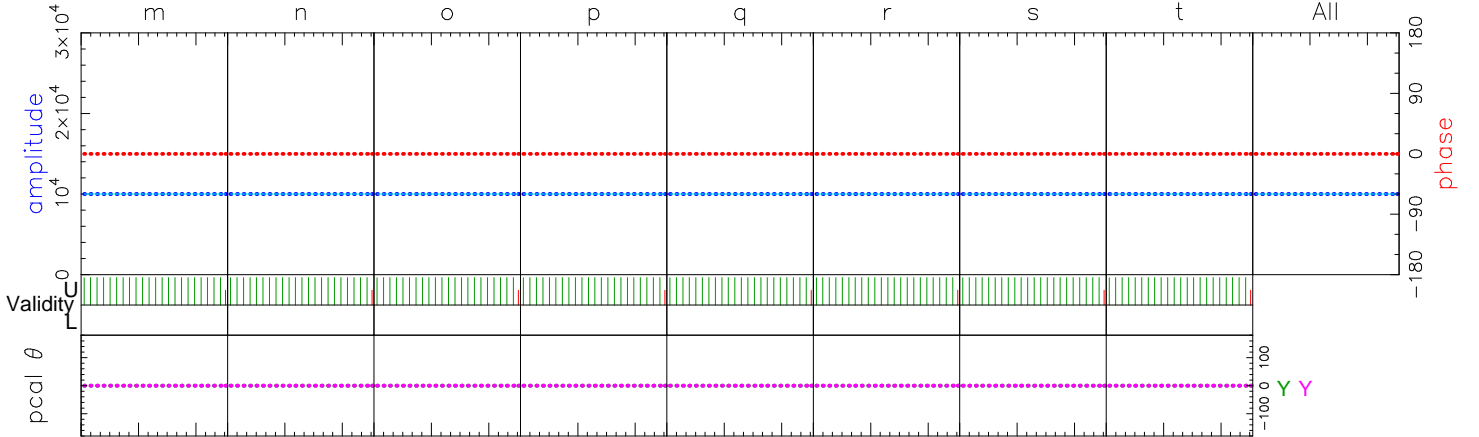
0133+476.3MP19T, No0914, YY

YEBES40M - YEBES40M, fgroup W, pol RR



Fringe quality 9
 SNR 334756.9
 Int time 149.852
 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. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112827
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



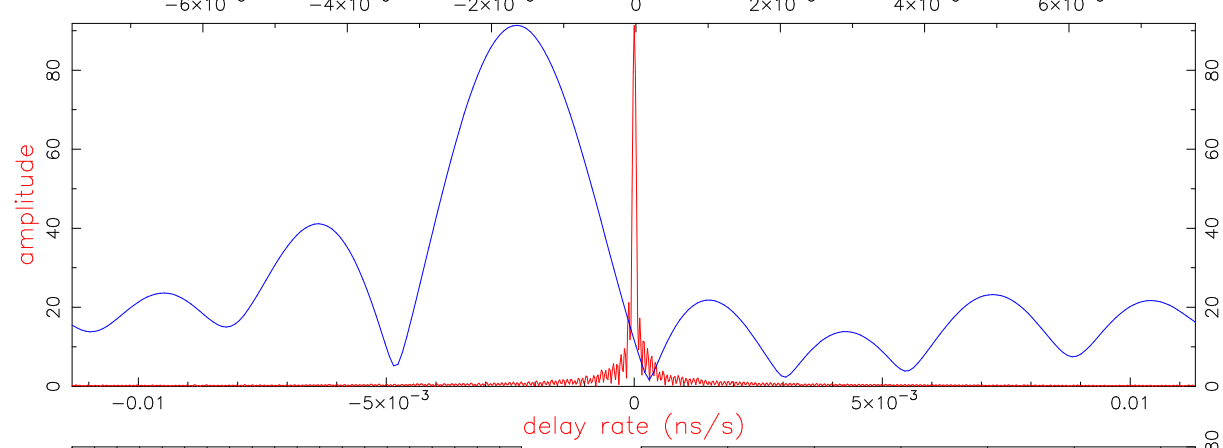
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0			
Y	0	0	0	0	0	0	0	0			
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
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		+/- 3.2E-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		+/- 2.6E-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		+/- 1.1E-11	
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		+/- 1.3E-13	
Total phase (deg)			0.0								+/- 0.0
ph/seg (deg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
amp/seg (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
ph/frq (deg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
amp/frq (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Y: az 304.8 el 38.2 pa 68.6	Y: az 304.8 el 38.2 pa 68.6		u, v (fr/asec) 0.000 0.000		simultaneous interpolator						
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0914/YY..3MP19T		Output file: /Exps/c241a/v2/3mm/1234/No0914/YY.W.407.3MP19T								

Mk4/DiFX fourfit 3.25 rev 0

aux01

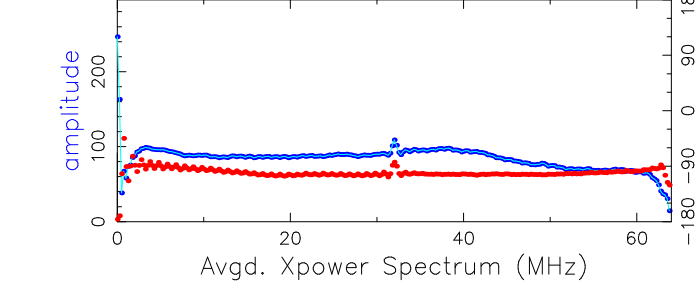
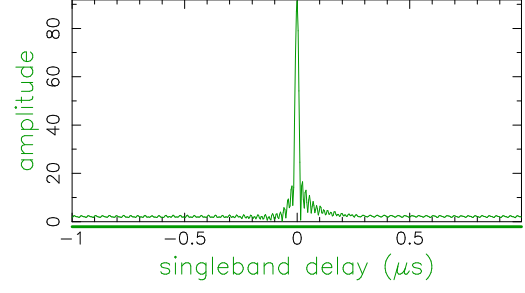
0133+476.3MP19T, No0914, YY

YEBES40M - YEBES40M, fgroup W, pol LR



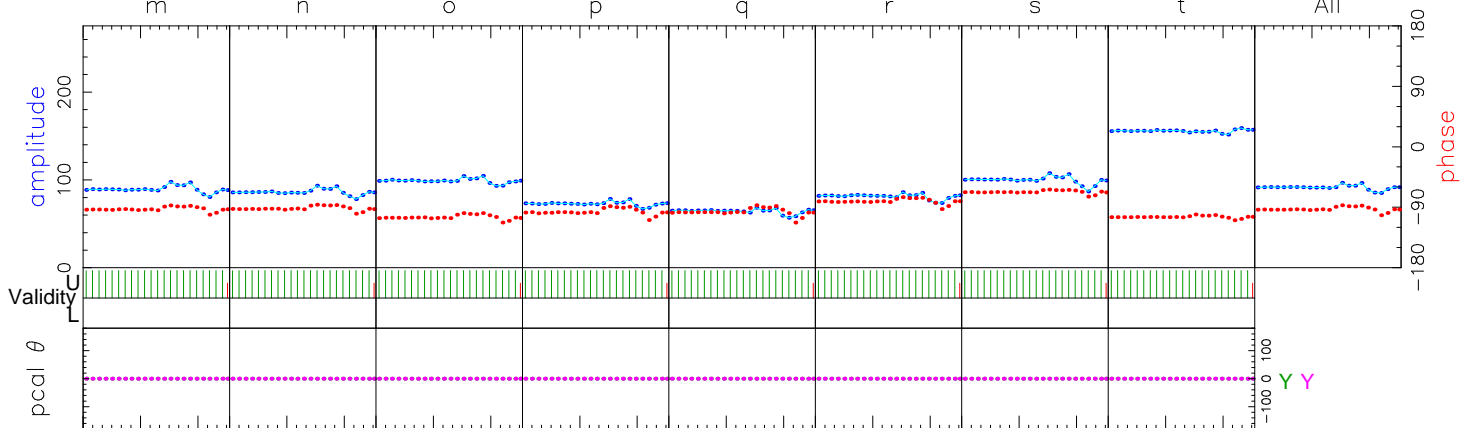
Fringe quality 7

SNR 3074.5
 Int time 149.852
 Amp 91.842
 Phase -92.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000976
 MBD -0.001681
 Fringe rate (Hz)
 -0.000023
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112829
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-92.5	-91.5	-104.6	-96.6	-96.6	-81.0	-67.1	-104.4	Phase	-92.7
	89.4	86.1	98.9	72.7	64.0	81.1	99.7	155.7	Ampl.	93.5
	256.5	255.8	256.7	256.8	256.6	257.4	256.4	256.4	Sbd box	256.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	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) -1.68109375000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -1.68109E-03 +/- 3.5E-07
 Sband delay (usec) -9.76250000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -9.76250E-04 +/- 2.8E-06
 Phase delay (usec) -2.98829354106E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -2.98829E-06 +/- 1.2E-09
 Delay rate (us/s) -2.72086125920E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -2.72086E-10 +/- 1.4E-11
 Total phase (deg) -92.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -92.7 +/- 0.0

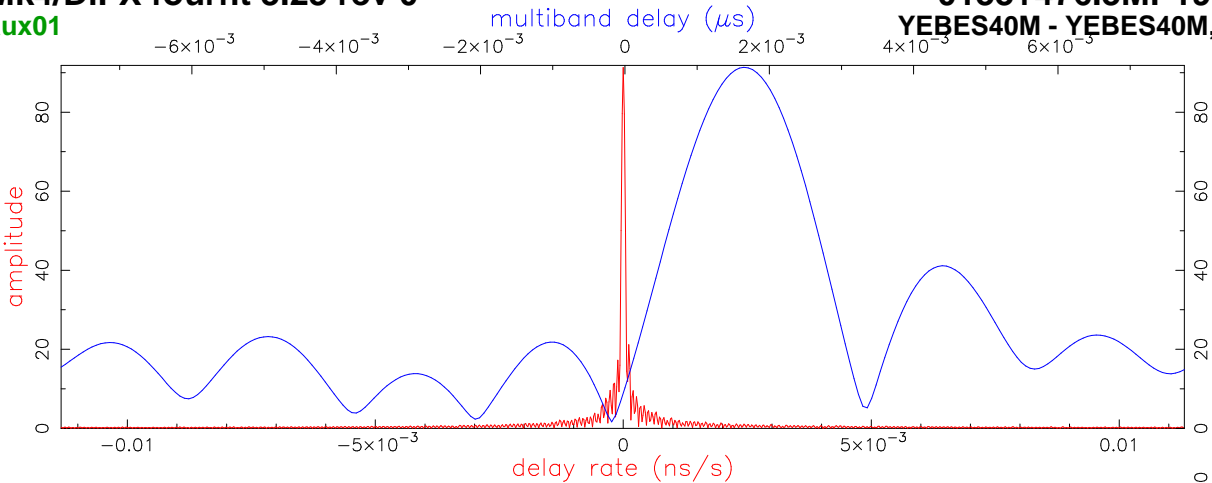
ph/seg (deg) 3.3 0.1 Search (1024X32) 89.740 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.8 0.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.5 0.1 Inc. seg. avg. 91.458 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.5 0.1 Inc. frq. avg. 93.453 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 304.8 el 38.2 pa 68.6 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/YY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/YY.W.413.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

aux01

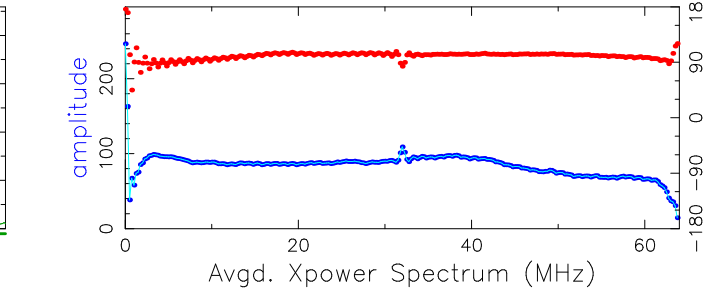
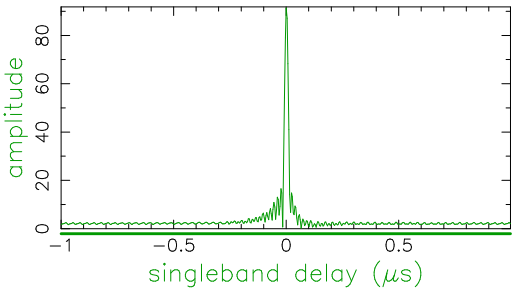
0133+476.3MP19T, No0914, YY

YEBES40M - YEBES40M, fgroup W, pol RL



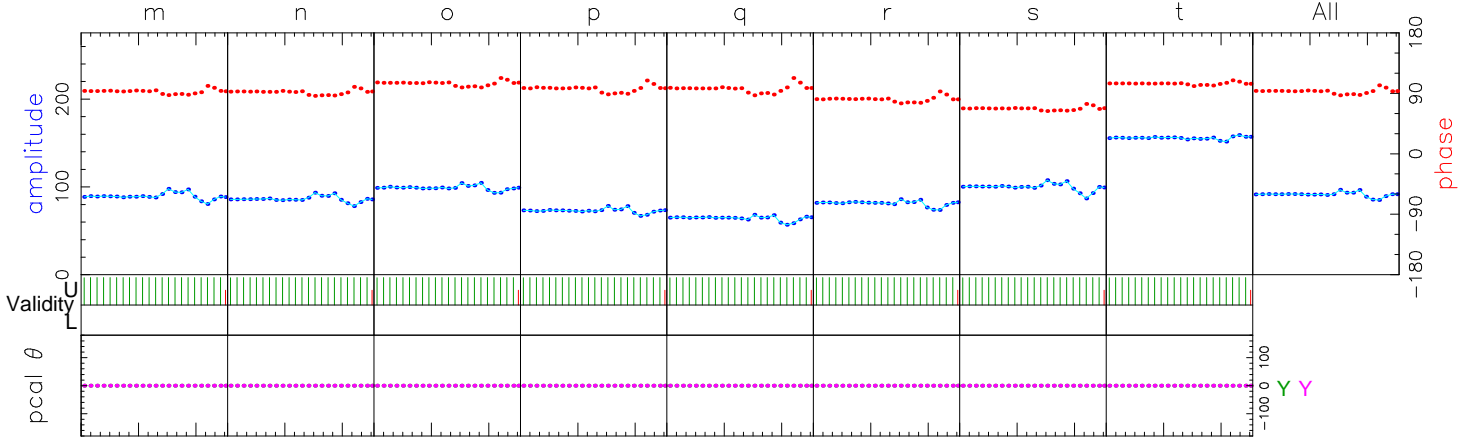
Fringe quality 7

SNR 3074.5
 Int time 149.852
 Amp 91.842
 Phase 92.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000976
 MBD 0.001681
 Fringe rate (Hz)
 0.000023
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112831
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
Y	0	0	0	0	0	0	0	0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.68109375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.68109E-03	+/-	3.5E-07
Sband delay (usec)	9.76250000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	9.76250E-04	+/-	2.8E-06
Phase delay (usec)	2.98829354106E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.98829E-06	+/-	1.2E-09
Delay rate (us/s)	2.72086125920E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	2.72086E-10	+/-	1.4E-11
Total phase (deg)	92.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	92.7	+/-	0.0

ph/seg (deg) 3.3 0.1 Search (1024X32) 89.740 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 2.8 0.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.5 0.1 Inc. seg. avg. 91.458 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.5 0.1 Inc. frq. avg. 93.453 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 304.8 el 38.2 pa 68.6 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/YY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/YY.W.418.3MP19T

Mk4/DiFX fourfit 3.25 rev 0

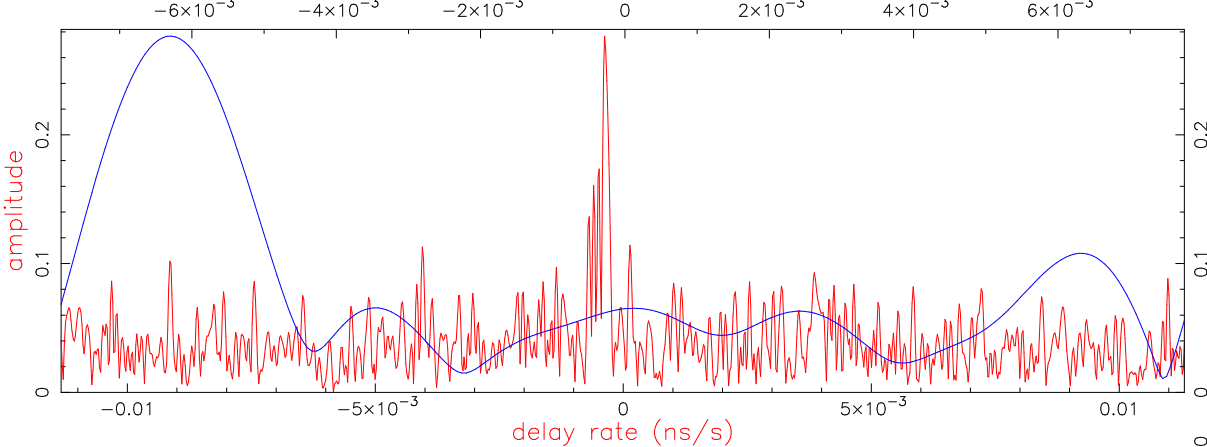
aux01

0133+476.3MP19T, No0914, ZY

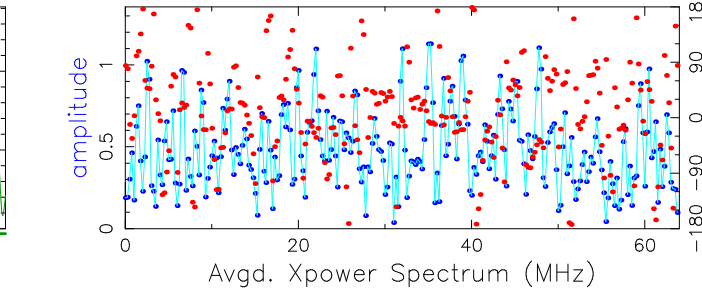
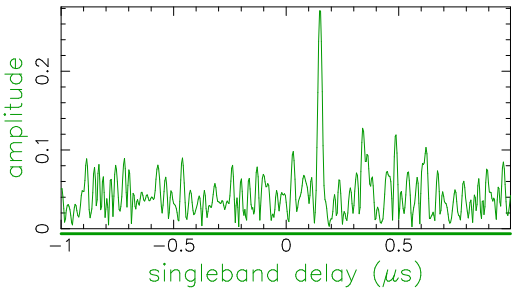
METSAHOV - YEBES40M, fgroup W, pol LL

multiband delay (μs)

Fringe quality 9

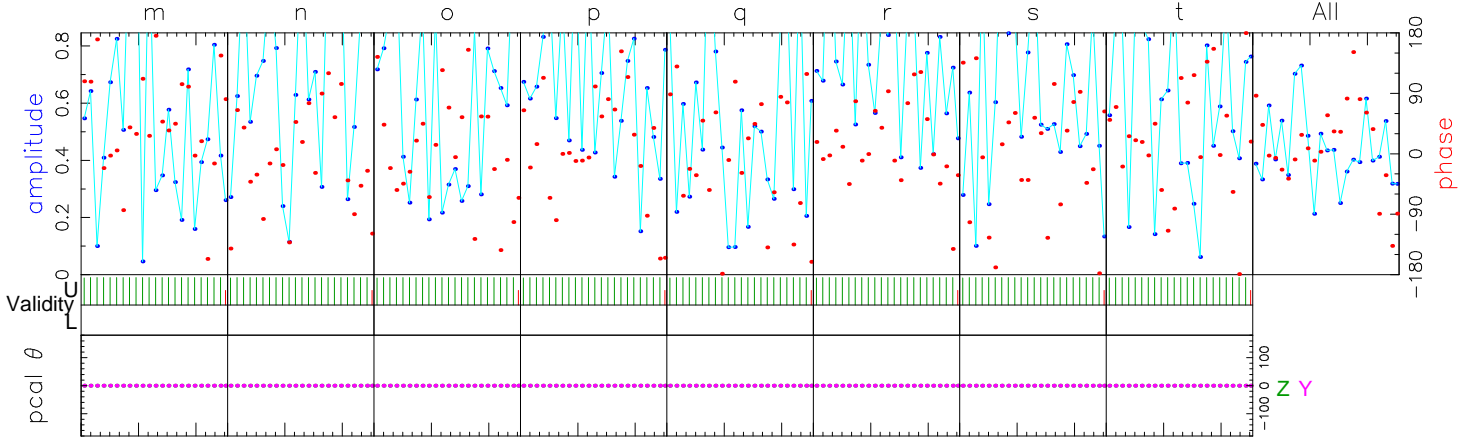


SNR 9.4
 Int time 149.802
 Amp 0.282
 Phase 16.7
 PFD 8.2e-13
 Delays (us)
 SBD 0.150375
 MBD -0.006291
 Fringe rate (Hz)
 -0.032293
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112737
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	37.6	10.9	-14.8	21.4	17.2	15.3	19.0	23.9	Phase	16.7
	0.3	0.3	0.2	0.3	0.1	0.5	0.3	0.2	Ampl.	0.3
	296.1	296.5	346.0	295.0	147.7	294.4	295.7	380.7	Sbd box	295.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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) -7.89391413153E+02 Apriori delay (usec) -7.89541372174E+02 Resid mbdelay (usec) -6.29098E-03 +/- 1.2E-04
 Sband delay (usec) -7.89390997674E+02 Apriori clock (usec) 1.1066270E+02 Resid sbdelay (usec) 1.50375E-01 +/- 9.1E-04
 Phase delay (usec) -7.89541371634E+02 Apriori clockrate (us/s) 1.8235290E-06 Resid phdelay (usec) 5.39725E-07 +/- 3.9E-07
 Delay rate (us/s) 2.58332304116E-01 Apriori rate (us/s) 2.58332679011E-01 Resid rate (us/s) -3.74895E-07 +/- 4.5E-09
 Total phase (deg) -270.9 Apriori accel (us/s/s) 2.30973338141E-05 Resid phase (deg) 16.7 +/- 12.2

RMS Theor. Amplitude 0.282 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 62.1 29.1 Search (1024X32) 0.275 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 73.1 50.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 16.0 17.2 Inc. seg. avg. 0.392 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.4 30.0 Inc. frq. avg. 0.272 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 306.9 el 35.1 pa 36.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -2199.824 3315.147 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/ZY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/ZY.W.279.3MP19T

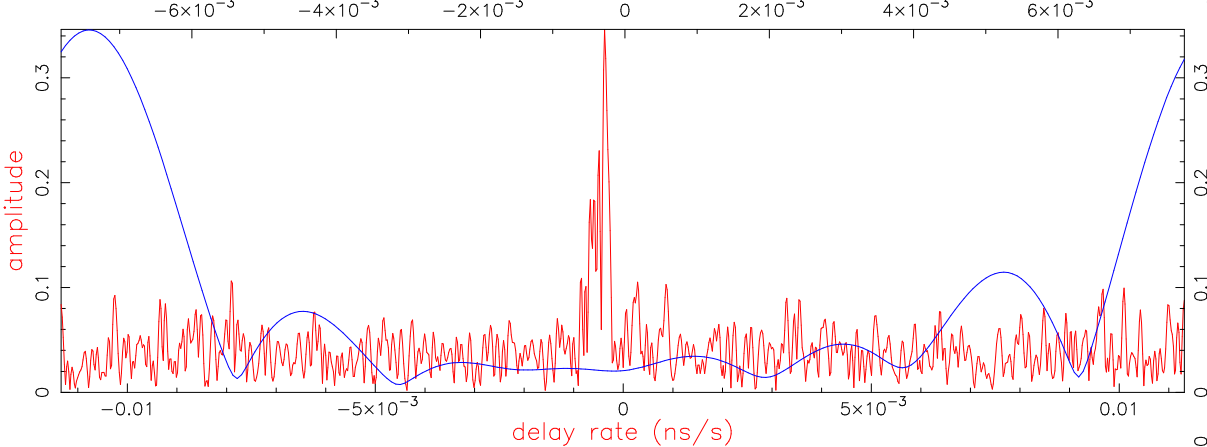
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, ZY

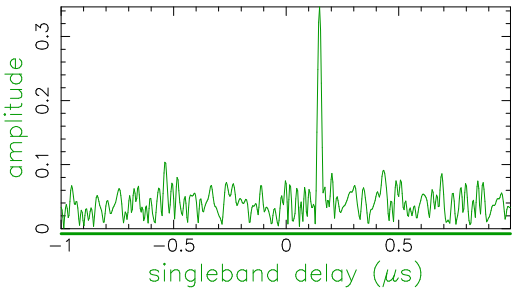
METSAHOV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

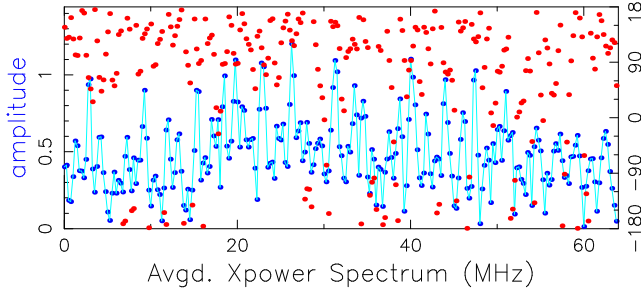


Fringe quality 9

SNR 11.6
 Int time 149.802
 Amp 0.346
 Phase 113.7
 PFD 1.2e-22
 Delays (us)
 SBD 0.148048
 MBD -0.007428
 Fringe rate (Hz)
 -0.033243
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

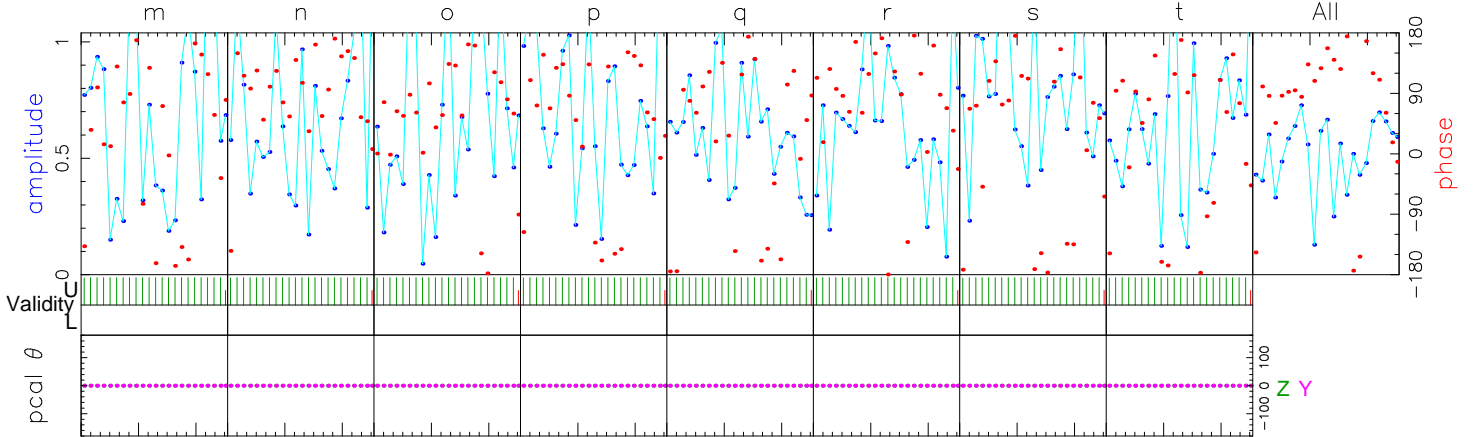


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112742
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	121.3	111.7	103.1	112.1	127.2	108.3	122.2	106.7	Phase	113.7
	0.3	0.5	0.4	0.3	0.3	0.4	0.4	0.3	Ampl.	0.3
	303.3	294.8	295.3	294.9	294.8	294.6	294.9	294.6	Sbd box	294.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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)	-7.89392550465E+02	Apriori delay (usec)	-7.89541372174E+02	Resid mbdelay (usec)	-7.42829E-03	+/-	9.4E-05
Sband delay (usec)	-7.89393323924E+02	Apriori clock (usec)	1.1066270E+02	Resid sbdelay (usec)	1.48048E-01	+/-	7.4E-04
Phase delay (usec)	-7.89541368508E+02	Apriori clockrate (us/s)	1.8235290E-06	Resid phdelay (usec)	3.66554E-06	+/-	3.2E-07
Delay rate (us/s)	2.58332293094E-01	Apriori rate (us/s)	2.58332679011E-01	Resid rate (us/s)	-3.85917E-07	+/-	3.7E-09
Total phase (deg)	-174.0	Apriori accel (us/s/s)	2.30973338141E-05	Resid phase (deg)	113.7	+/-	9.9

ph/seg (deg)	RMS 52.6	Theor. 23.7	Amplitude Search (1024X32)	0.339	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.2	41.4	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)	9.2	14.0	Inc. seg. avg.	0.479	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	18.1	24.4	Inc. frq. avg.	0.339	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 306.9 el 35.1 pa 36.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -2199.824 3315.147 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/ZY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/ZY.W.285.3MP19T

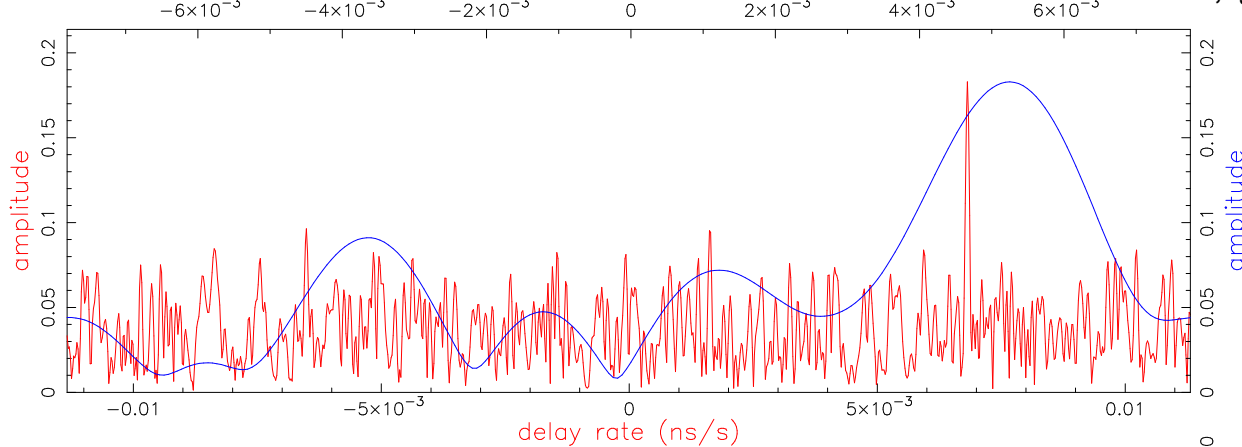
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, ZY

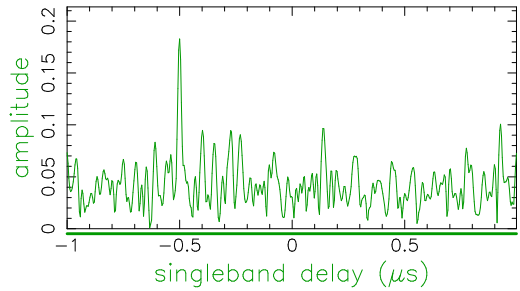
METSAHOV - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

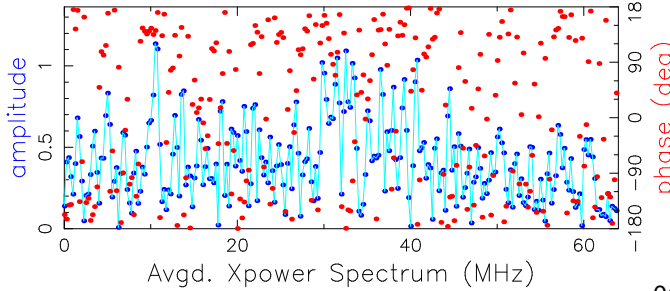


Fringe quality 0

SNR 6.1
 Int time 149.802
 Amp 0.214
 Phase 92.1
 PFD 1.1e-01
 Delays (us)
 SBD -0.500615
 MBD 0.005230
 Fringe rate (Hz)
 0.588431
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

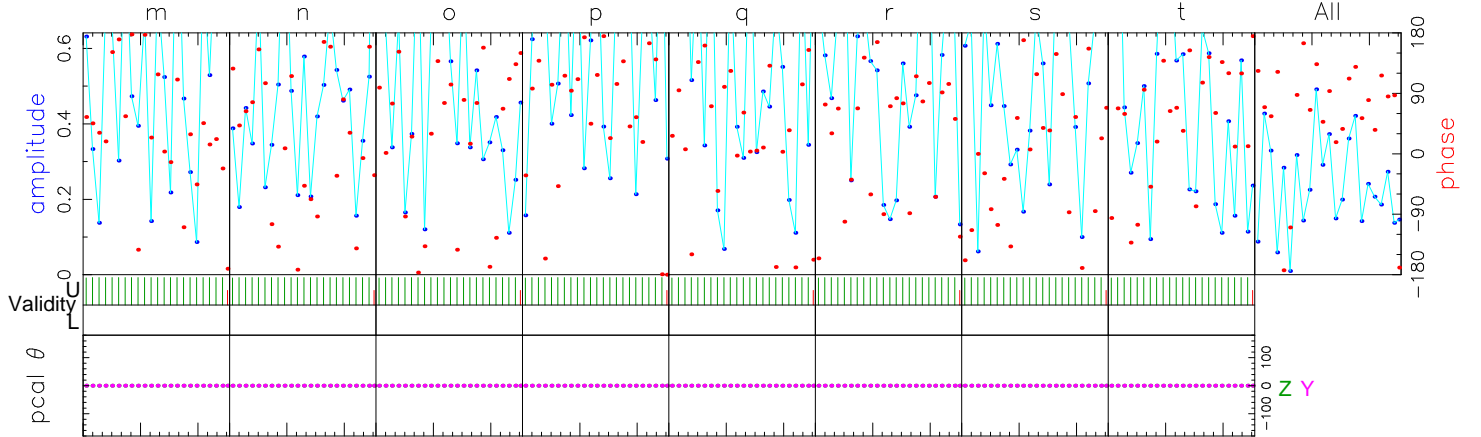


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112804
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	63.2	73.4	106.2	119.0	76.7	91.9	-9.4	88.8	Phase	92.1
	0.2	0.1	0.3	0.4	0.3	0.3	0.0	0.3	Ampl.	0.2
	281.3	239.6	143.1	156.2	423.0	127.2	435.7	231.6	Sbd box	128.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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)	-7.90036142304E+02	Apriori delay (usec)	-7.89541372174E+02	Resid mbdelay (usec)	5.22987E-03	+/-	1.8E-04
Sband delay (usec)	-7.90041987674E+02	Apriori clock (usec)	1.1066270E+02	Resid sbdelay (usec)	-5.00615E-01	+/-	1.4E-03
Phase delay (usec)	-7.89541369203E+02	Apriori clockrate (us/s)	1.8235290E-06	Resid phdelay (usec)	2.97080E-06	+/-	6.0E-07
Delay rate (us/s)	2.58339510106E-01	Apriori rate (us/s)	2.58332679011E-01	Resid rate (us/s)	6.83110E-06	+/-	7.0E-09
Total phase (deg)	-195.5	Apriori accel (us/s/s)	2.30973338141E-05	Resid phase (deg)	92.1	+/-	18.7

ph/seg (deg)	55.2	Theor.	44.8	Amplitude	0.214 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	74.1	Search (1024X32)	0.178	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	46.0	Inc. seg. avg.	0.216	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	56.2	Inc. frq. avg.	0.209	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
				Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 306.9 el 35.1 pa 36.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -2199.824 3315.147 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/ZY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/ZY.W.304.3MP19T

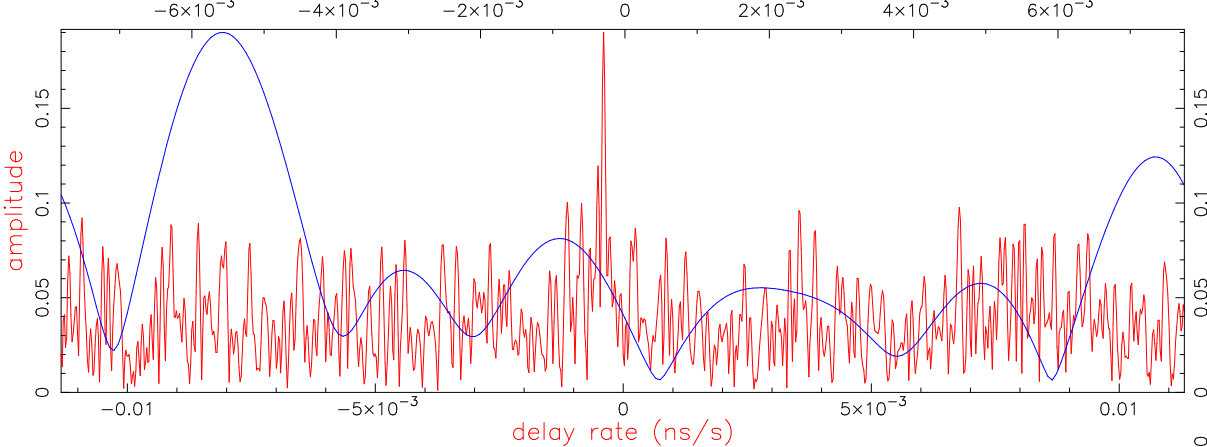
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP19T, No0914, ZY

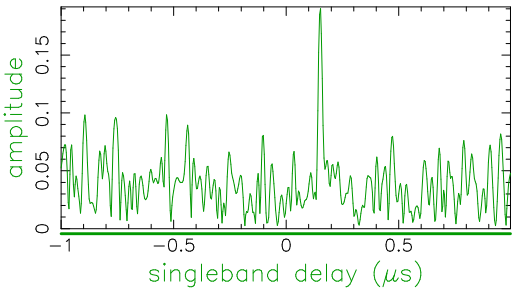
METSAHOV - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

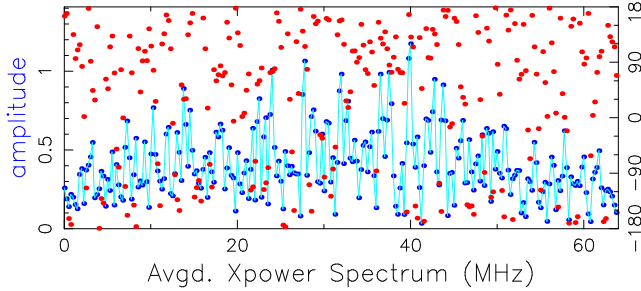


Fringe quality 0

SNR 6.4
 Int time 149.802
 Amp 0.192
 Phase 131.9
 PFD 2.0e-02
 Delays (us)
 SBD 0.151086
 MBD -0.005593
 Fringe rate (Hz)
 -0.033517
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

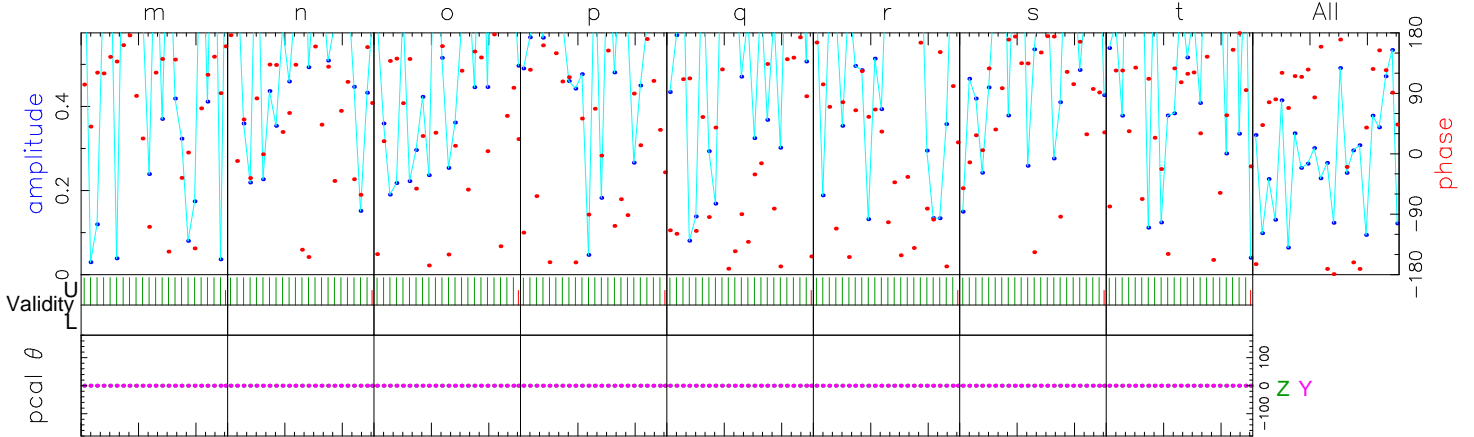


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170000.00
 Stop 170230.02
 FRT 170115.00
 Corr/FF/build
 2025:007:180402
 2025:041:112806
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
Z	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-7.89390715276E+02	Apriori delay (usec)	-7.89541372174E+02	Resid mbdelay (usec)	-5.59310E-03	+/-	1.7E-04
Sband delay (usec)	-7.89390285924E+02	Apriori clock (usec)	1.1066270E+02	Resid sbdelay (usec)	1.51086E-01	+/-	1.3E-03
Phase delay (usec)	-7.89541367920E+02	Apriori clockrate (us/s)	1.8235290E-06	Resid phdelay (usec)	4.25350E-06	+/-	5.8E-07
Delay rate (us/s)	2.58332289917E-01	Apriori rate (us/s)	2.58332679011E-01	Resid rate (us/s)	-3.89095E-07	+/-	6.7E-09
Total phase (deg)	-155.7	Apriori accel (us/s/s)	2.30973338141E-05	Resid phase (deg)	131.9	+/-	17.9

ph/seg (deg)	58.9	RMS	42.9	Theor.	58.9	Amplitude	0.192 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	80.6		74.8		80.6	Search (1024X32)	0.183	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008	
ph/frq (deg)	32.5		25.3		32.5	Inc. seg. avg.	0.218	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	45.1		44.1		45.1	Inc. frq. avg.	0.191	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 306.9 el 35.1 pa 36.3 Y: az 304.8 el 38.2 pa 68.6 u,v (fr/asec) -2199.824 3315.147 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0914/ZY..3MP19T Output file: /Exps/c241a/v2/3mm/1234/No0914/ZY.W.316.3MP19T