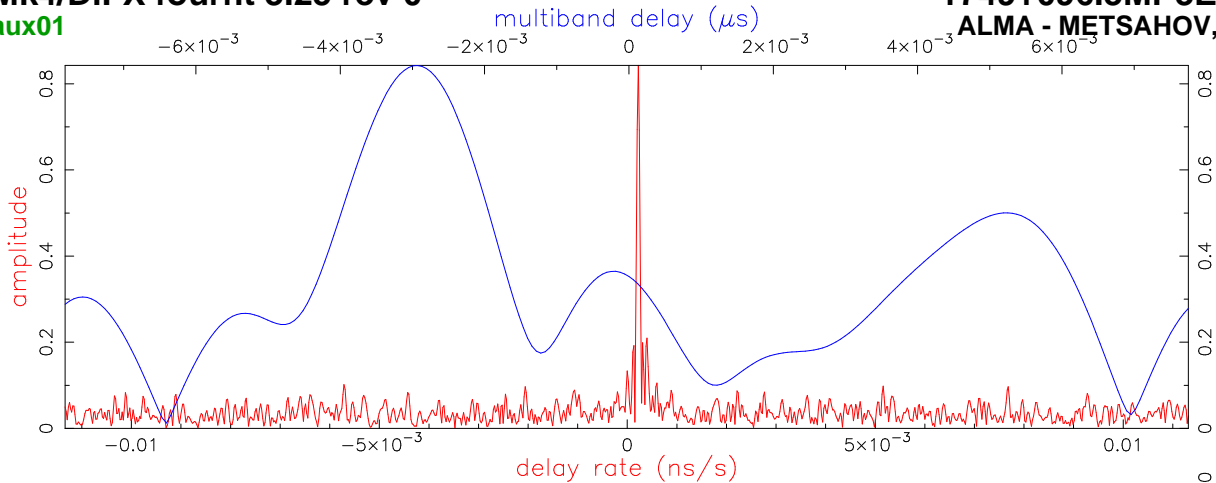


Mk4/DiFX fourfit 3.25 rev 0

aux01

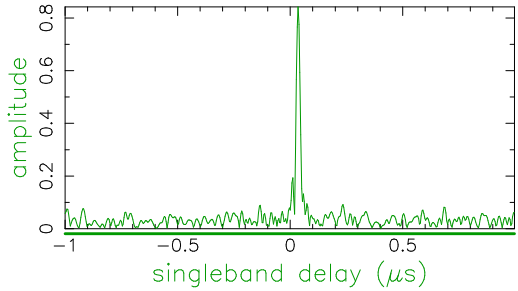
1749+096.3MP3E9, No0816, AZ

ALMA - METSAHOV, fgroup W, pol YR

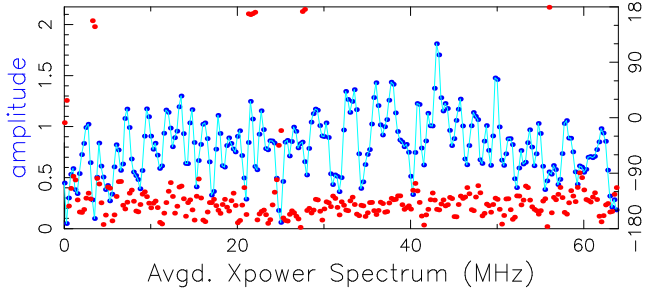


Fringe quality 6

SNR 30.9
 Int time 179.836
 Amp 0.843
 Phase -61.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.035282
 MBD -0.002939
 Fringe rate (Hz)
 0.018929
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

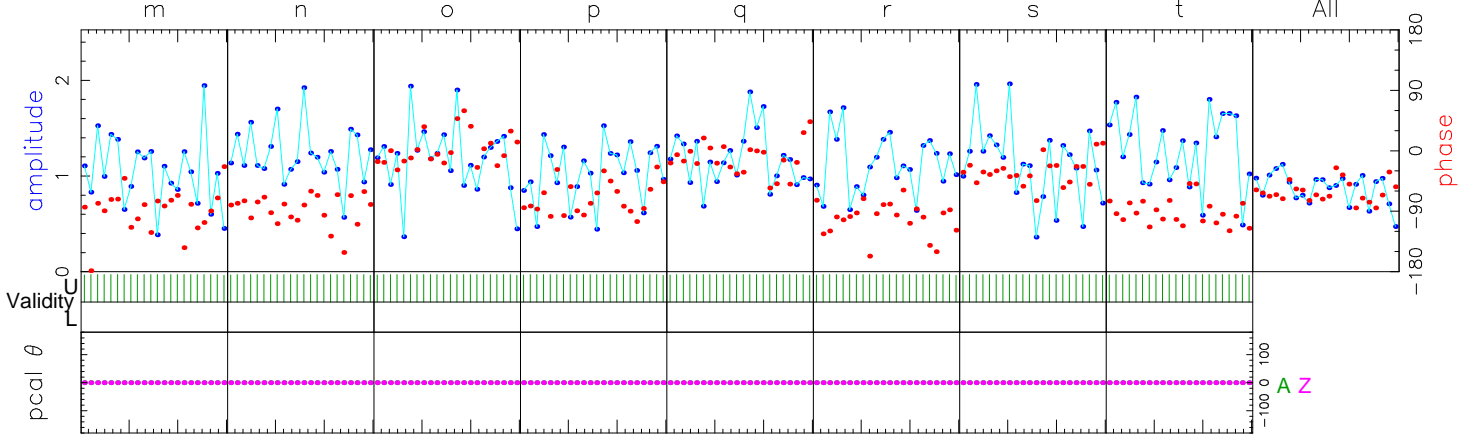


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183107
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-90.5	-86.4	2.2	-69.3	-11.5	-101.7	-32.7	-92.0	Phase	-61.6
	0.9	1.2	1.1	0.9	1.1	1.0	1.1	1.2	Ampl.	1.1
	267.6	266.1	265.5	265.1	265.1	265.6	265.5	266.1	Sbd box	266.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
A	W11UY	W12UY	W13UY	W14UY	W15UY	W16UY	W17UY	W18UY	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.18052474061E+04	Apriori delay (usec)	1.18052190952E+04	Resid mbdelay (usec)	-2.93907E-03	+/-	3.5E-05
Sband delay (usec)	1.18052543767E+04	Apriori clock (usec)	-2.1076611E+03	Resid sbdelay (usec)	3.52815E-02	+/-	2.8E-04
Phase delay (usec)	1.18052190932E+04	Apriori clockrate (us/s)	-6.2069187E-07	Resid phdelay (usec)	-1.98656E-06	+/-	1.2E-07
Delay rate (us/s)	9.22534227001E-01	Apriori rate (us/s)	9.22534007259E-01	Resid rate (us/s)	2.19742E-07	+/-	1.1E-09
Total phase (deg)	247.4	Apriori accel (us/s/s)	-9.77243645221E-05	Resid phase (deg)	-61.6	+/-	3.7

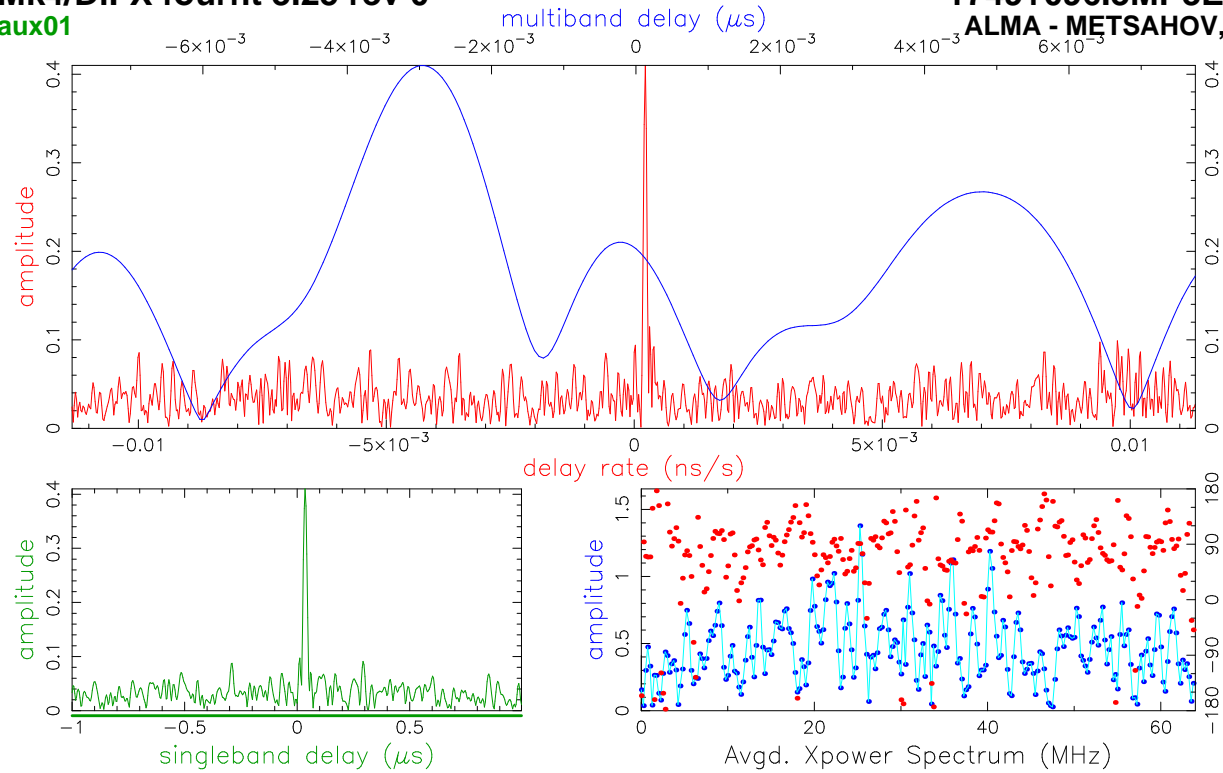
ph/seg (deg)	15.6	RMS	8.7	Theor.	15.6	Amplitude	0.843 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	18.7	Search (1024X32)	0.839	Interp.	0.000	Apriori delay (usec)	1.18052190952E+04	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.7	Inc. seg. avg.	0.864	Inc. frq. avg.	1.059	Apriori clock (usec)	-2.1076611E+03	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.5	Inc. frq. avg.	1.059	Apriori clockrate (us/s)	-6.2069187E-07	Apriori rate (us/s)	9.22534007259E-01	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
A:	az 12.7 el 56.6 pa -168.6	Z:	az 270.6 el 10.8 pa 30.3	u, v (fr/asec)	-5438.865 -12263.308	Apriori accel (us/s/s)	-9.77243645221E-05	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
Control file:	cf_1234_gmva	Input file:	/Exps/c241b/v2/3mm/1234/No0816/AZ...3MP3E9	Output file:	/Exps/c241b/v2/3mm/1234/No0816/AZ.W.12.3MP3E9							simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, AZ

ALMA - METSAHOV, fgroup W, pol XR

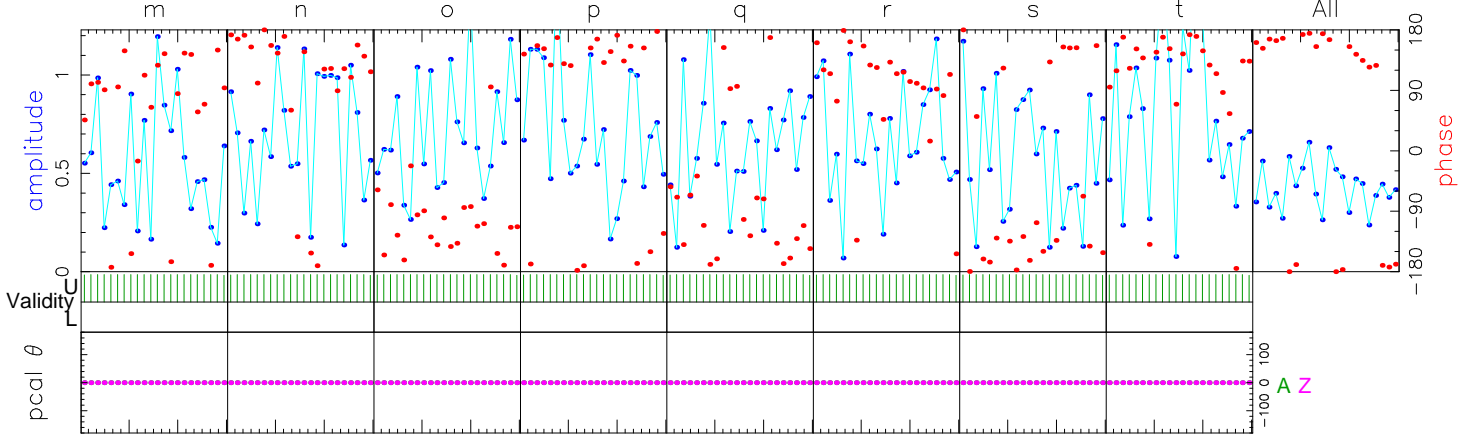


Fringe quality 7

SNR 15.0
 Int time 179.836
 Amp 0.410
 Phase 167.0
 PFD 1.5e-42
 Delays (us)
 SBD 0.035288
 MBD -0.002956
 Fringe rate (Hz)
 0.019140
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183109
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



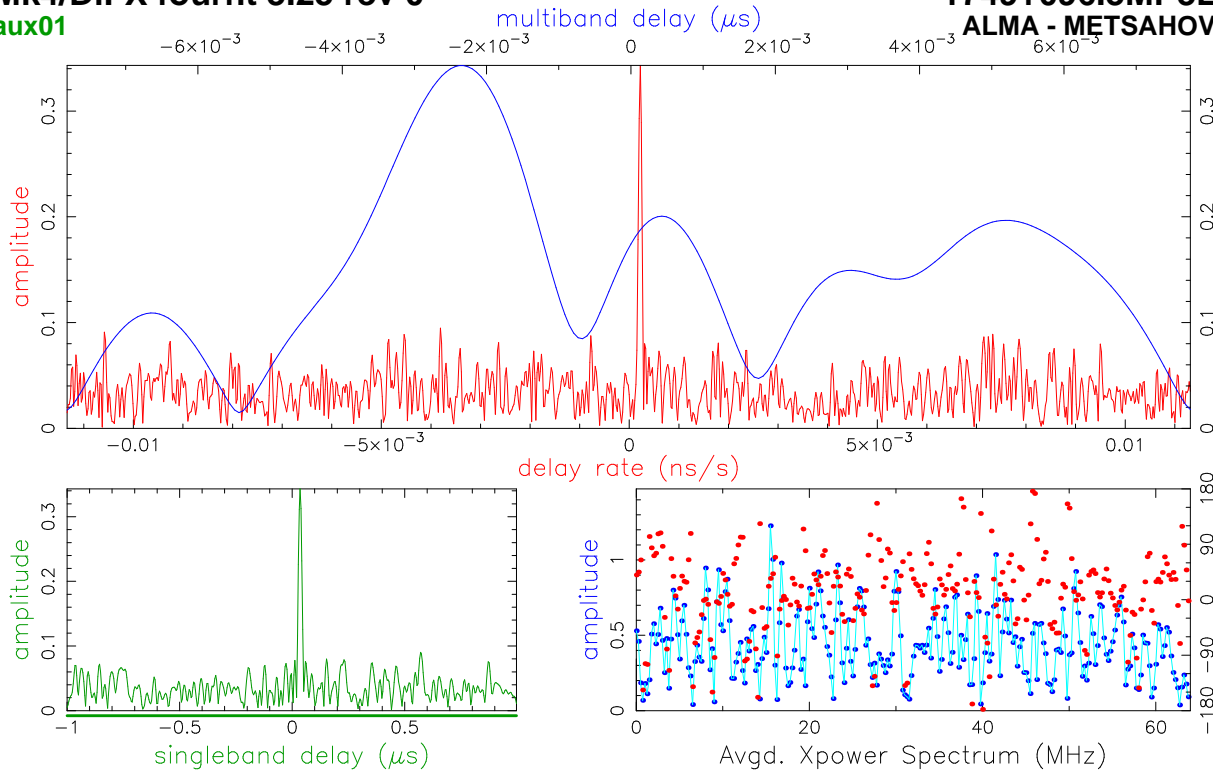
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	119.8	145.8	-116.9	164.1	-138.8	118.7	-159.4	143.4	Phase	167.0	
	0.4	0.6	0.6	0.7	0.4	0.5	0.5	0.7	Ampl.	0.5	
	267.0	265.8	266.0	265.5	265.2	265.4	265.4	266.4	Sbd box	266.0	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
A	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
A	W11UX	W12UX	W13UX	W14UX	W15UX	W16UX	W17UX	W18UX	Chan ids		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	1.18052473891E+04		Apriori delay (usec)		1.18052190952E+04		Resid mbdelay (usec)		-2.95607E-03	+/- 7.2E-05	
Sband delay (usec)	1.18052543829E+04		Apriori clock (usec)		-2.1076611E+03		Resid sbdelay (usec)		3.52877E-02	+/- 5.7E-04	
Phase delay (usec)	1.18052191006E+04		Apriori clockrate (us/s)		-6.2069187E-07		Resid phdelay (usec)		5.38622E-06	+/- 2.5E-07	
Delay rate (us/s)	9.22534229454E-01		Apriori rate (us/s)		9.22534007259E-01		Resid rate (us/s)		2.22195E-07	+/- 2.4E-09	
Total phase (deg)	116.1		Apriori accel (us/s/s)		-9.77243645221E-05		Resid phase (deg)		167.0	+/- 7.6	
	RMS	Theor.	Amplitude	0.410 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	19.6	17.9	Search (1024X32)	0.408		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	28.4	31.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	50.7	10.8	Inc. seg. avg.	0.412		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	42.2	18.8	Inc. frq. avg.	0.538		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
A: az 12.7 el 56.6 pa -168.6		Z: az 270.6 el 10.8 pa 30.3		u, v (fr/asec) -5438.865 -12263.308						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0816//AZ...3MP3E9		Output file: /Exps/c241b/v2/3mm/1234/No0816//AZ.W.20.3MP3E9							

Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, AZ

ALMA - METSAHOV, fgroup W, pol YL

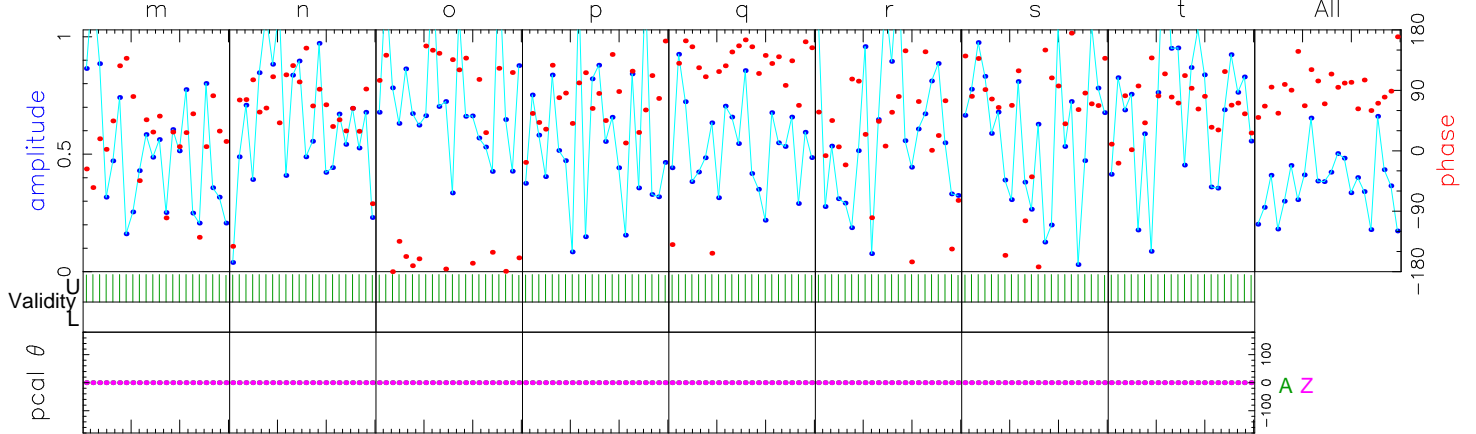


Fringe quality 9

SNR 12.6
 Int time 179.836
 Amp 0.343
 Phase 91.4
 PFD 7.1e-28
 Delays (us)
 SBD 0.035205
 MBD -0.002346
 Fringe rate (Hz)
 0.018552
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183110
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



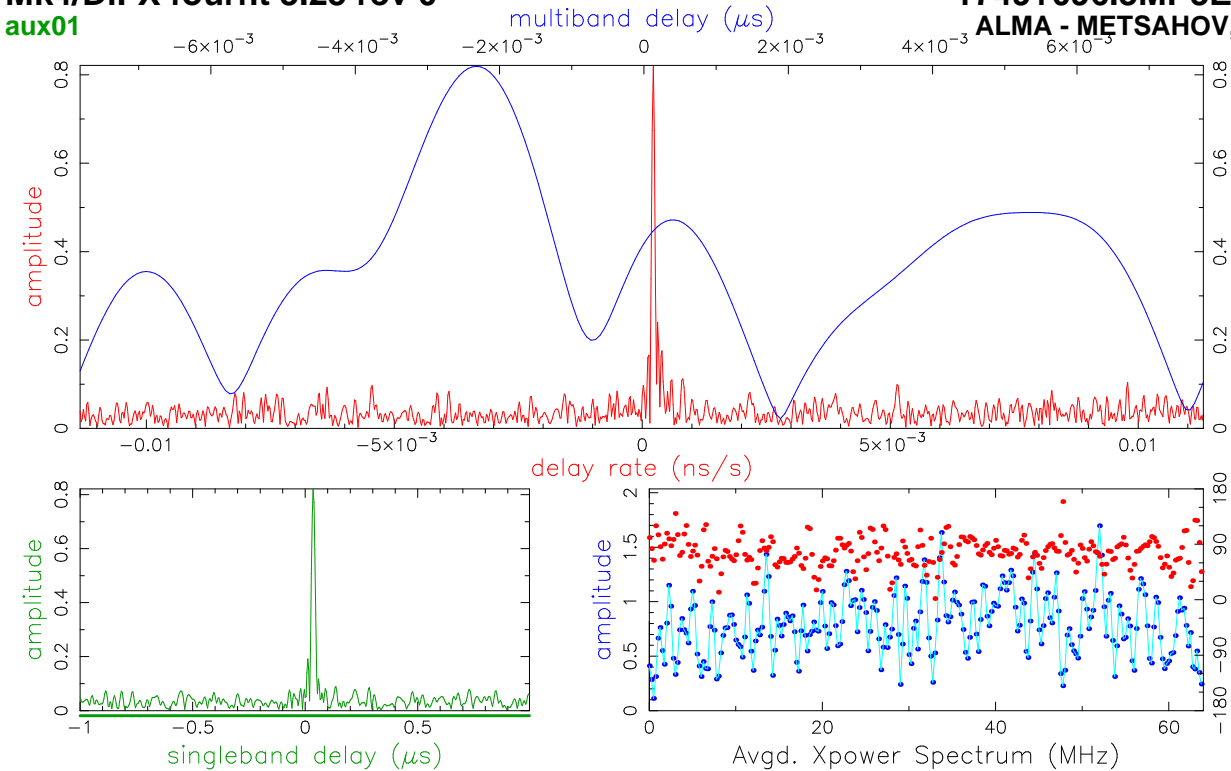
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	16.8	76.0	157.7	81.6	143.7	51.1	104.7	68.5	Phase	91.4
	0.3	0.5	0.6	0.4	0.5	0.4	0.4	0.6	Ampl.	0.4
	267.8	266.0	265.5	265.6	266.0	265.3	266.0	266.3	Sbd box	266.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
A	W11UY	W12UY	W13UY	W14UY	W15UY	W16UY	W17UY	W18UY	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.18052479993E+04					1.18052190952E+04			Resid mbdelay (usec)	-2.34588E-03 +/- 8.6E-05
Sband delay (usec)	1.18052543007E+04					-2.1076611E+03			Resid sbdelay (usec)	3.52055E-02 +/- 6.8E-04
Phase delay (usec)	1.18052190981E+04					-6.2069187E-07			Resid phdelay (usec)	2.94689E-06 +/- 2.9E-07
Delay rate (us/s)	9.22534222624E-01					9.22534007259E-01			Resid rate (us/s)	2.15365E-07 +/- 2.8E-09
Total phase (deg)			40.4			-9.77243645221E-05			Resid phase (deg)	91.4 +/- 9.1
	RMS	Theor.	Amplitude	0.343 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	28.8	21.4	Search (1024X32)	0.337					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	39.1	37.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	50.6	12.9	Inc. seg. avg.	0.352					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	42.5	22.5	Inc. frq. avg.	0.449					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256 t_cohere infinite	
A: az 12.7 el 56.6 pa -168.6		Z: az 270.6 el 10.8 pa 30.3				u, v (fr/asec) -5438.865 -12263.308				simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0816//AZ...3MP3E9				Output file: /Exps/c241b/v2/3mm/1234/No0816//AZ.W.30.3MP3E9				

Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, AZ

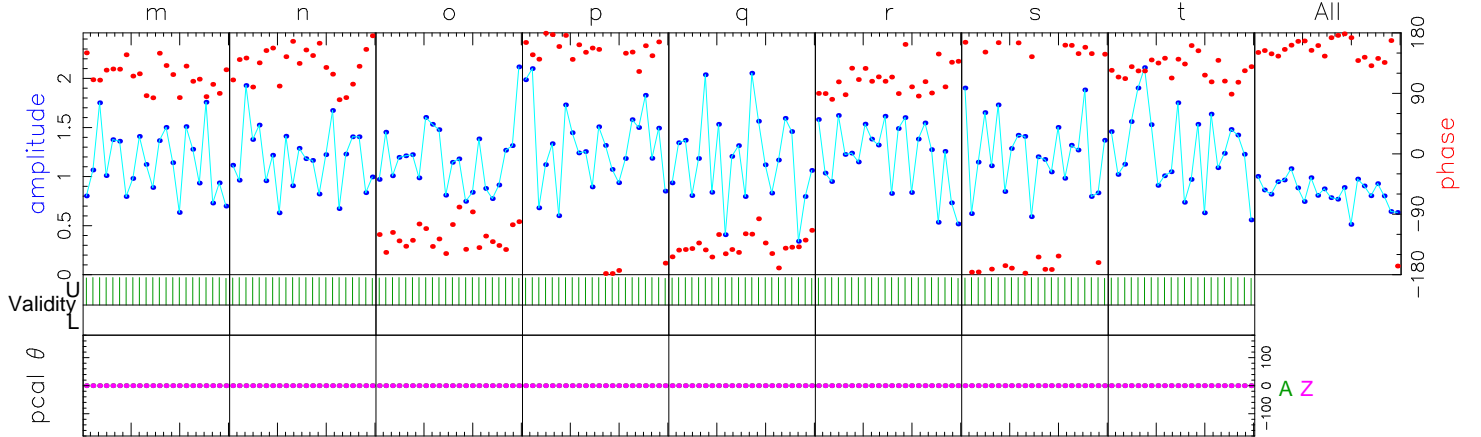
ALMA - METSAHOV, fgroup W, pol XL



Fringe quality 5

SNR 30.1
 Int time 179.836
 Amp 0.821
 Phase 156.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.035818
 MBD -0.002302
 Fringe rate (Hz)
 0.018922
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183105
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	115.5	132.9	-122.4	160.7	-135.6	108.1	173.2	125.1	Phase	156.1	
	1.1	1.1	1.1	1.3	1.1	1.1	1.2	1.2	Ampl.	1.1	
	267.7	266.1	265.7	265.6	265.7	265.6	265.5	266.4	Sbd box	266.2	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
A	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
A	W11UX	W12UX	W13UX	W14UX	W15UX	W16UX	W17UX	W18UX	Chan ids		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.18052480432E+04		Apriori delay (usec)		1.18052190952E+04		Resid mbdelay (usec)		-2.30194E-03	+/- 3.6E-05	
Sband delay (usec)	1.18052549132E+04		Apriori clock (usec)		-2.1076611E+03		Resid sbdelay (usec)		3.58180E-02	+/- 2.9E-04	
Phase delay (usec)	1.18052191002E+04		Apriori clockrate (us/s)		-6.2069187E-07		Resid phdelay (usec)		5.03477E-06	+/- 1.2E-07	
Delay rate (us/s)	9.22534226929E-01		Apriori rate (us/s)		9.22534007259E-01		Resid rate (us/s)		2.19670E-07	+/- 1.2E-09	
Total phase (deg)	105.2		Apriori accel (us/s/s)		-9.77243645221E-05		Resid phase (deg)		156.1	+/- 3.8	
	RMS	Theor.	Amplitude	0.821 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	15.5	8.9	Search (1024X32)	0.812		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	16.2	15.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	53.3	5.4	Inc. seg. avg.	0.837		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	40.2	9.4	Inc. frq. avg.	1.141		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
A: az 12.7 el 56.6 pa -168.6		Z: az 270.6 el 10.8 pa 30.3		u, v (fr/asec) -5438.865 -12263.308						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0816//AZ...3MP3E9		Output file: /Exps/c241b/v2/3mm/1234/No0816//AZ.W.4.3MP3E9							

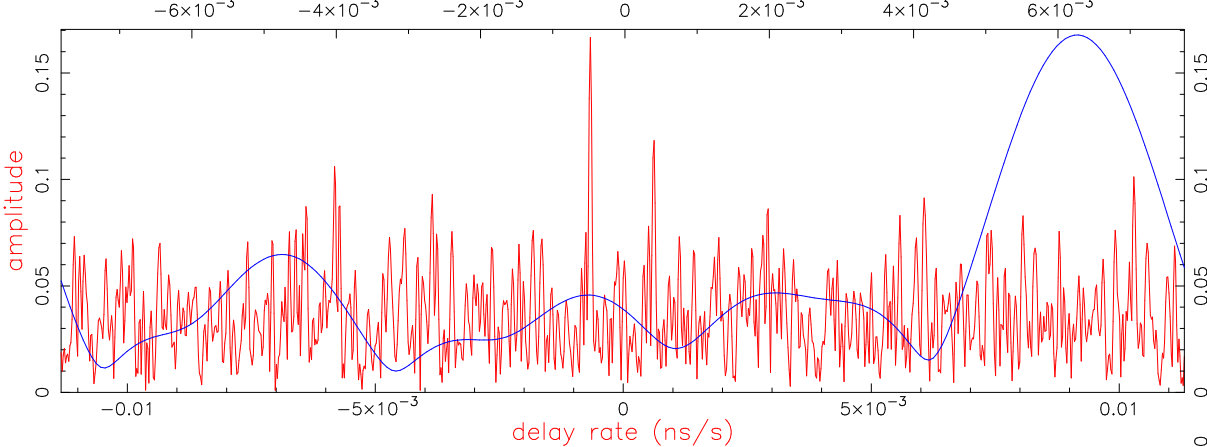
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, BZ

EFLSBERG - METSAHOV, fgroup W, pol LL

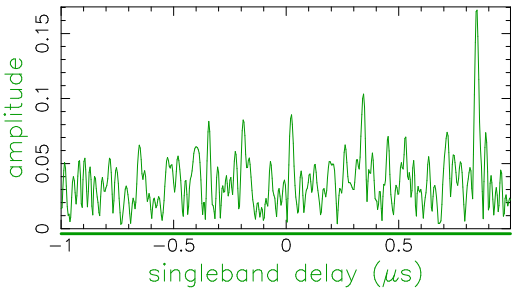
multiband delay (μ s)



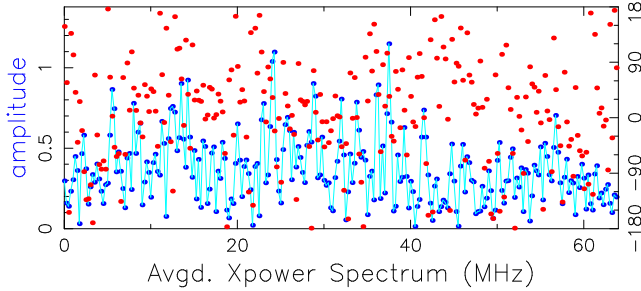
Fringe quality 0

SNR 6.2
Int time 179.836
Amp 0.170
Phase -28.4
PFD 5.6e-02
Delays (us)
SBD 0.845899
MBD 0.006400
Fringe rate (Hz)
-0.057204
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

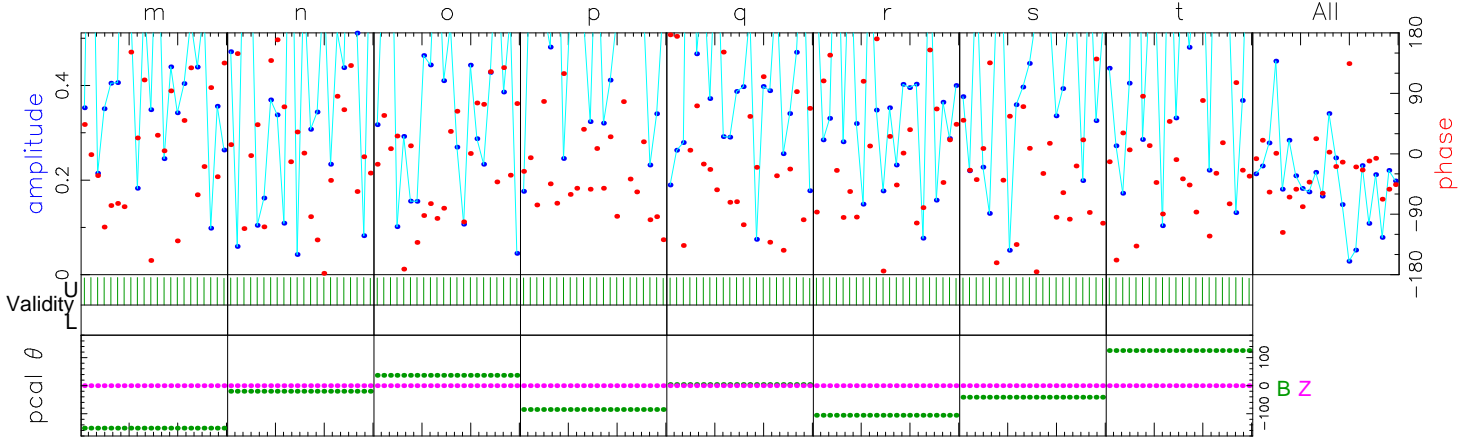
Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183116
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"



delay rate (ns/s)



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-9.8	-11.5	-11.1	-37.4	-32.0	-24.4	-50.9	-26.0	Phase	-28.4
	0.1	0.1	0.1	0.3	0.1	0.1	0.2	0.3	Ampl.	0.2
	6.2	336.7	205.3	473.2	209.2	311.1	293.1	347.8	Sbd box	473.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.81144707750E+03	Apriori delay (usec)	3.81059692789E+03	Resid mbdelay (usec)	6.39960E-03	+/-	1.7E-04
Sband delay (usec)	3.81144282664E+03	Apriori clock (usec)	-3.5644753E+01	Resid sbdelay (usec)	8.45899E-01	+/-	1.4E-03
Phase delay (usec)	3.81059692698E+03	Apriori clockrate (us/s)	-7.9939896E-07	Resid phdelay (usec)	-9.14485E-07	+/-	5.9E-07
Delay rate (us/s)	-1.44056402504E-01	Apriori rate (us/s)	-1.44055738422E-01	Resid rate (us/s)	-6.64081E-07	+/-	5.7E-09
Total phase (deg)	104.3	Apriori accel (us/s/s)	-2.22686258485E-05	Resid phase (deg)	-28.4	+/-	18.4

ph/seg (deg)	48.4	RMS	43.0	Theor.	43.0	Amplitude	0.170 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	56.6	Search (1024X32)	0.167	sb window (us)	-1.000	1.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.1	Inc. seg. avg.	0.158	dr window (ns/s)	-0.011	0.011	Bits/sample:	2x2	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	ion window (TEC)	0.00	0.00
amp/frq (%)	45.4	Inc. frq. avg.	0.155	nlags:	256	t_cohere infinite	Data rate(Mb/s):	2048	simultaneous interpolator				

B: az 258.6 el 21.6 pa 39.2 Z: az 270.6 el 10.8 pa 30.3 u, v (fr/asec) 822.386 -1140.756

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/BZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/BZ.W.42.3MP3E9

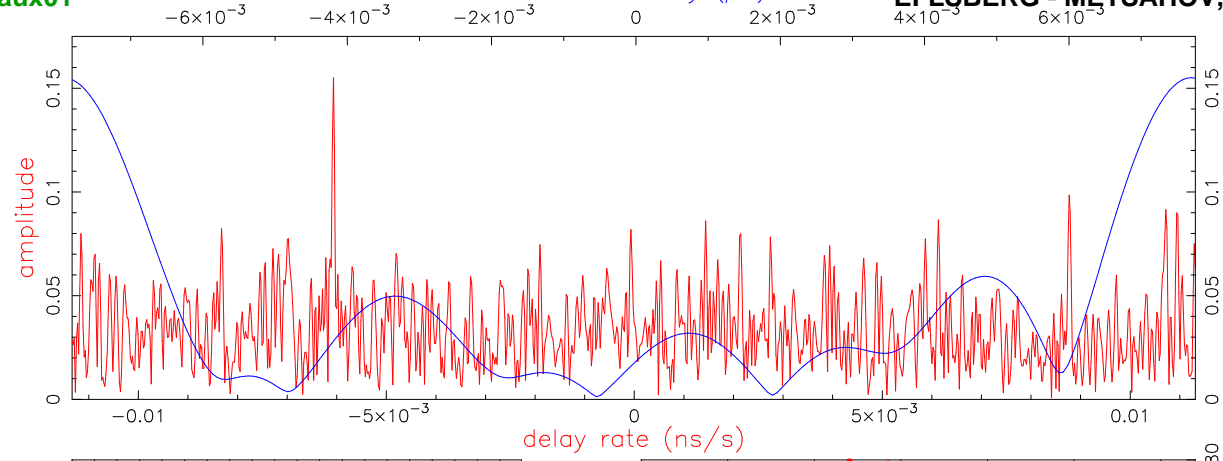
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, BZ

EFLSBERG - METSAHOV, fgroup W, pol RR

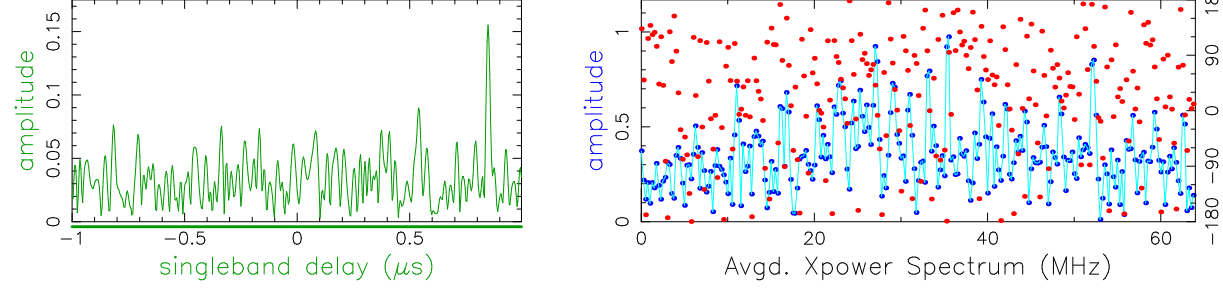
multiband delay (μ s)



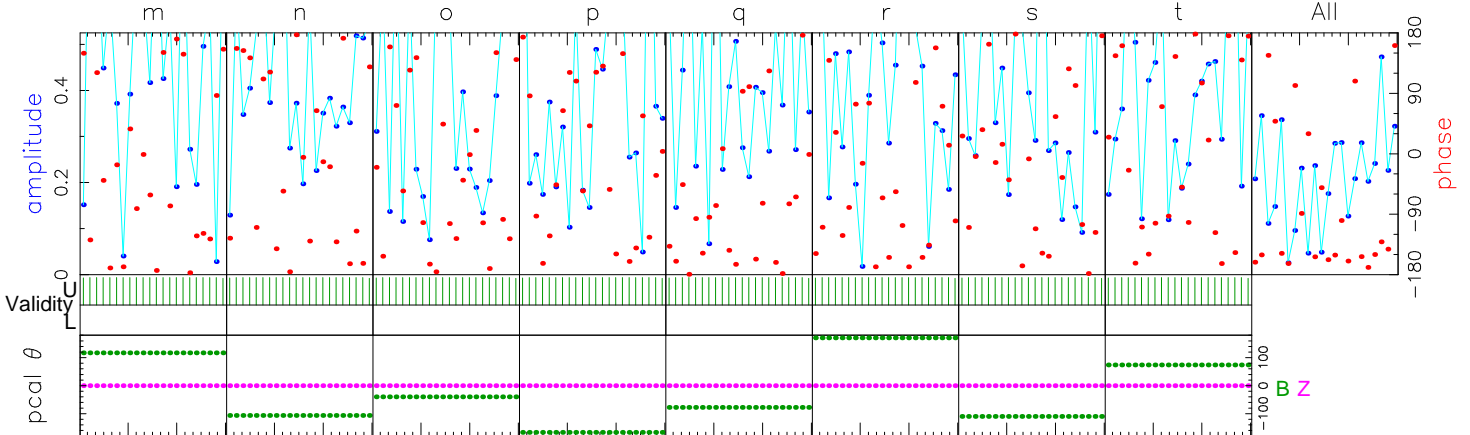
Fringe quality 0

SNR 5.7
 Int time 179.836
 Amp 0.175
 Phase -153.3
 PFD 8.0e-01
 Delays (us)
 SBD 0.847768
 MBD -0.007928
 Fringe rate (Hz)
 -0.522857
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183118
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-148.5	-164.2	-163.1	-168.0	-130.6	-136.2	-167.8	-167.1	Phase	-153.3
	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.2	Ampl.	0.2
	135.6	511.6	169.4	207.0	76.7	310.2	471.2	187.8	Sbd box	474.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 3.81144837536E+03 Apriori delay (usec) 3.81059692789E+03 Resid mbdelay (usec) -7.92753E-03 +/- 1.9E-04
 Sband delay (usec) 3.81144469614E+03 Apriori clock (usec) -3.5644753E+01 Resid sbdelay (usec) 8.47768E-01 +/- 1.5E-03
 Phase delay (usec) 3.81059692295E+03 Apriori clockrate (us/s) -7.9939896E-07 Resid phdelay (usec) -4.94468E-06 +/- 6.5E-07
 Delay rate (us/s) -1.44061808273E-01 Apriori rate (us/s) -1.44055738422E-01 Resid rate (us/s) -6.06985E-06 +/- 6.2E-09
 Total phase (deg) -20.6 Apriori accel (us/s/s) -2.22686258485E-05 Resid phase (deg) -153.3 +/- 20.1

RMS Theor. Amplitude 0.175 +/- 0.031 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.0 47.3 Search (1024X32) 0.153 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 78.8 82.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 16.6 28.5 Inc. seg. avg. 0.179 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 24.1 49.7 Inc. frq. avg. 0.161 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 258.6 el 21.6 pa 39.2 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) 822.386 -1140.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/BZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/BZ.W.52.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

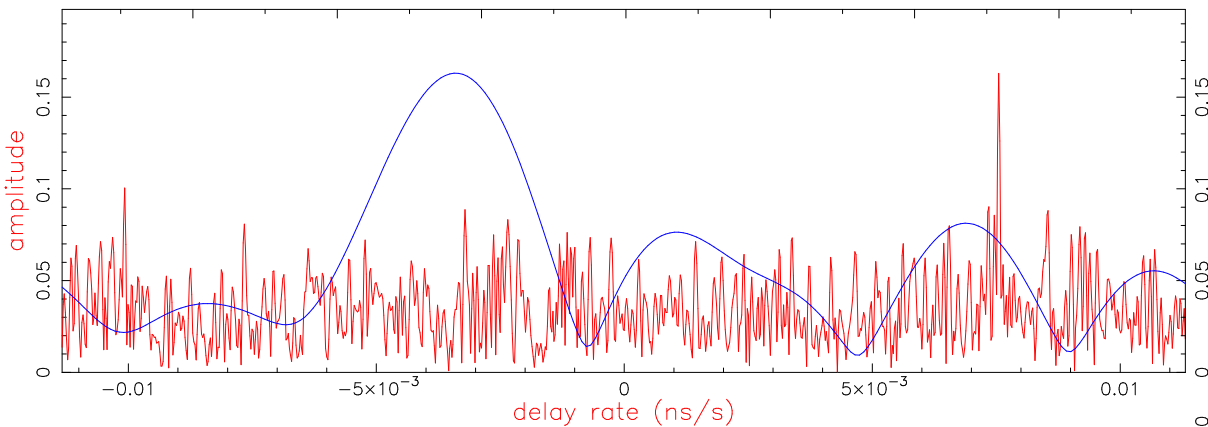
aux01

1749+096.3MP3E9, No0816, BZ

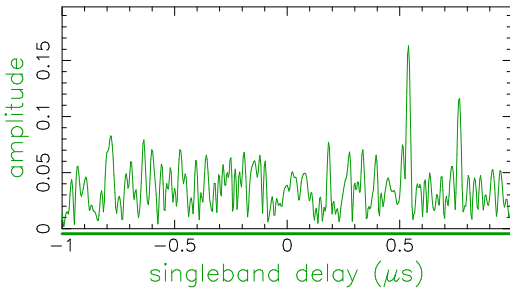
EFLSBERG - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

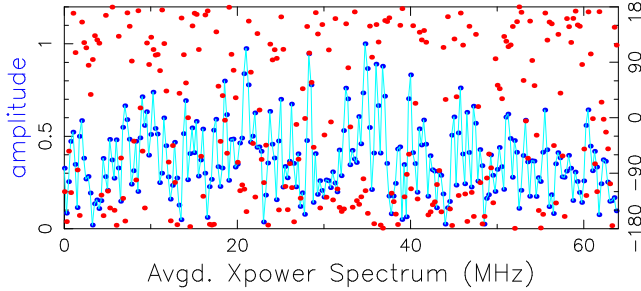
Fringe quality 0



SNR 6.0
 Int time 179.836
 Amp 0.198
 Phase -76.8
 PFD 2.3e-01
 Delays (us)
 SBD 0.538235
 MBD -0.002391
 Fringe rate (Hz)
 0.650753
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

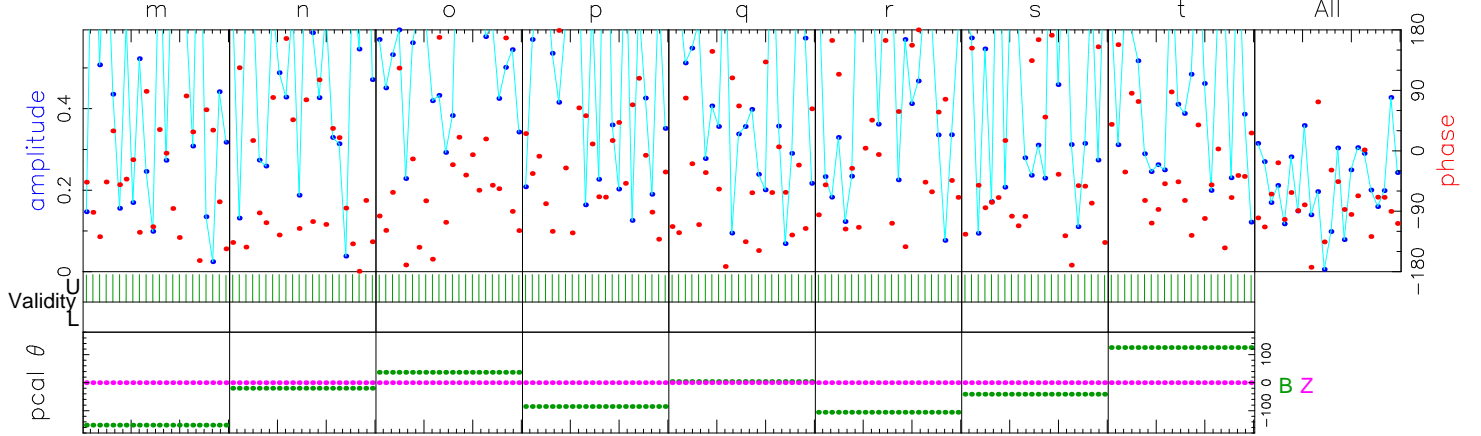


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183120
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.8	-126.6	-61.5	-41.3	-89.7	-83.2	-116.1	-21.8	Phase	-76.8
	0.2	0.1	0.3	0.3	0.2	0.2	0.3	0.2	Ampl.	0.2
	348.9	446.7	396.0	93.0	225.8	501.4	395.0	484.5	Sbd box	394.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.81114141182E+03	Apriori delay (usec)	3.81059692789E+03	Resid mbdelay (usec)	-2.39107E-03	+/-	1.8E-04
Sband delay (usec)	3.81113516314E+03	Apriori clock (usec)	-3.5644753E+01	Resid sbdelay (usec)	5.38235E-01	+/-	1.4E-03
Phase delay (usec)	3.81059692542E+03	Apriori clockrate (us/s)	-7.9939896E-07	Resid phdelay (usec)	-2.47526E-06	+/-	6.2E-07
Delay rate (us/s)	-1.44048183825E-01	Apriori rate (us/s)	-1.44055738422E-01	Resid rate (us/s)	7.55460E-06	+/-	5.9E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.22686258485E-05	Resid phase (deg)	-76.8	+/-	19.1

ph/seg (deg)	50.2	Theor.	44.8	Amplitude	0.198 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.8	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)	38.3	Inc. seg. avg.	0.201	Inc. frq. avg.	0.208	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.1	Inc. frq. avg.	0.208			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 258.6 el 21.6 pa 39.2 Z: az 270.6 el 10.8 pa 30.3 u, v (fr/asec) 822.386 -1140.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/BZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/BZ.W.58.3MP3E9

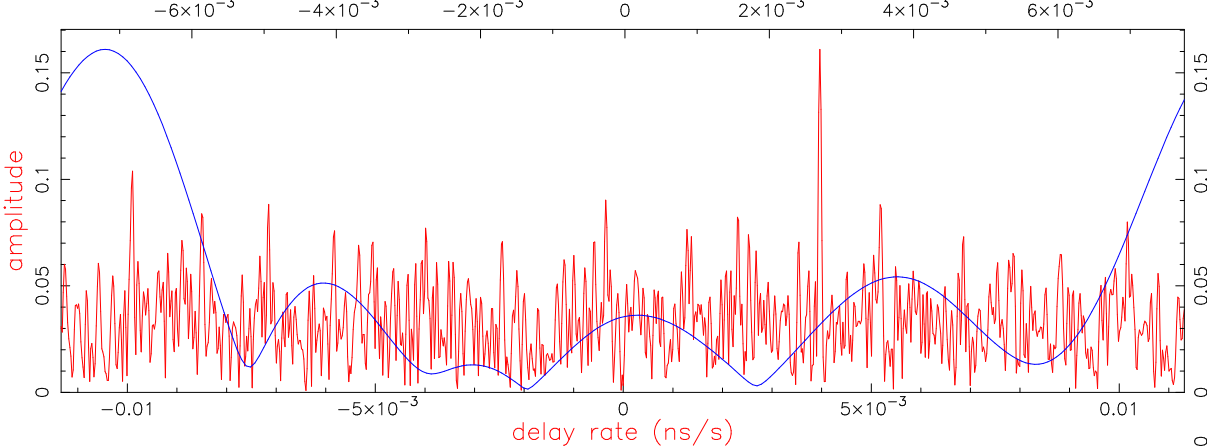
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, BZ

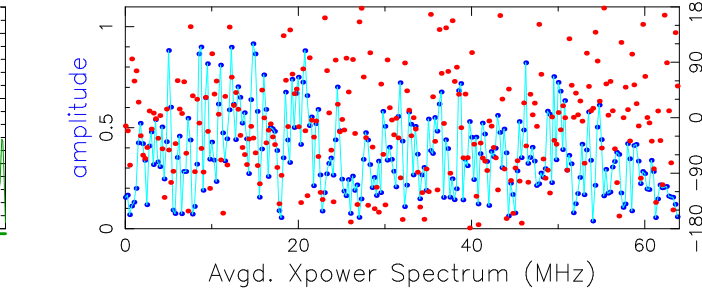
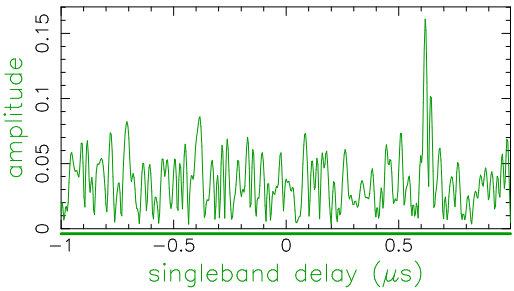
EFLSBERG - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



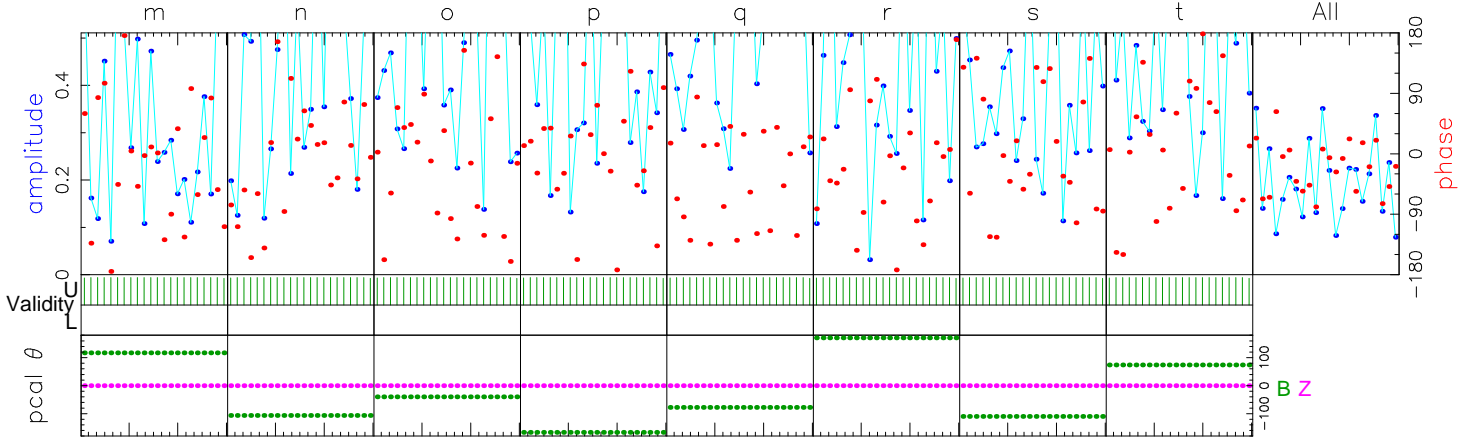
Fringe quality 0

SNR 5.9
 Int time 179.836
 Amp 0.170
 Phase -17.8
 PFD 3.1e-01
 Delays (us)
 SBD 0.618123
 MBD -0.007176
 Fringe rate (Hz)
 0.342221
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183123
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-34.2	-16.5	-10.4	13.6	-32.5	-43.0	-19.9	-6.7	Phase	-17.8
	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2
	490.0	356.8	287.8	416.0	309.6	420.5	140.7	506.4	Sbd box	415.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.81121475231E+03	Apriori delay (usec)	3.81059692789E+03	Resid mbdelay (usec)	-7.17558E-03	+/-	1.8E-04
Sband delay (usec)	3.81121505064E+03	Apriori clock (usec)	-3.5644753E+01	Resid sbdelay (usec)	6.18123E-01	+/-	1.5E-03
Phase delay (usec)	3.81059692732E+03	Apriori clockrate (us/s)	-7.9939896E-07	Resid phdelay (usec)	-5.75101E-07	+/-	6.2E-07
Delay rate (us/s)	-1.44051765577E-01	Apriori rate (us/s)	-1.44055738422E-01	Resid rate (us/s)	3.97285E-06	+/-	6.0E-09
Total phase (deg)	114.9	Apriori accel (us/s/s)	-2.22686258485E-05	Resid phase (deg)	-17.8	+/-	19.3

ph/seg (deg)	37.4	Theor.	45.3	Amplitude	0.170 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	54.8	Search (1024X32)	0.152	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.5	Inc. seg. avg.	0.158	Inc. frq. avg.	0.160	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.4	Inc. frq. avg.	0.160			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 258.6 el 21.6 pa 39.2 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) 822.386 -1140.756 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/BZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/BZ.W.76.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

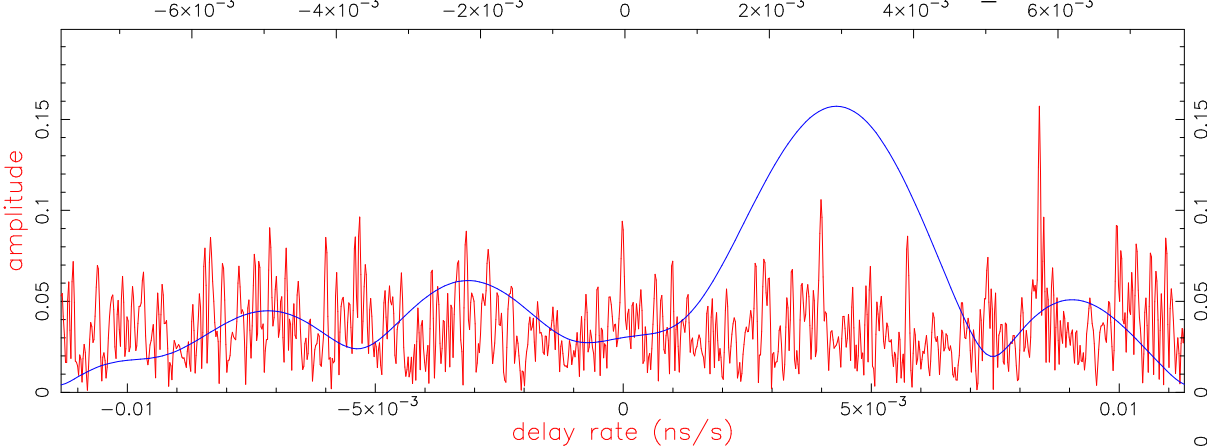
aux01

1749+096.3MP3E9, No0816, fZ

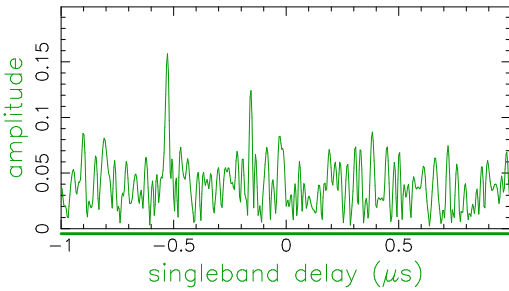
VLBA_FD - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

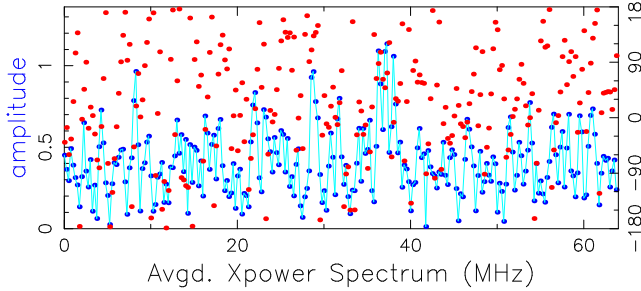
Fringe quality 0



SNR 5.8
 Int time 179.836
 Amp 0.199
 Phase 48.1
 PFD 6.2e-01
 Delays (us)
 SBD -0.527822
 MBD 0.002929
 Fringe rate (Hz) 0.723098
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

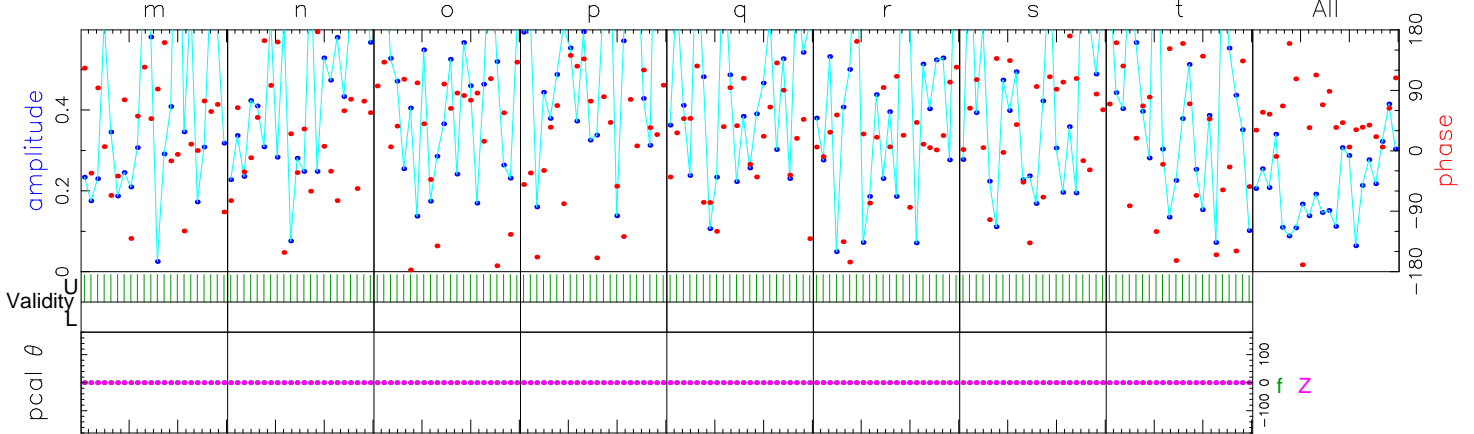


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183128
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	31.1	15.7	92.6	52.0	42.2	33.4	47.7	-15.2		48.1
	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.0		0.2
	250.0	165.1	508.0	217.4	202.8	99.0	41.6	249.7		121.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0		
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD)	1.11533976199E+04	Apriori delay (usec)	1.11539259413E+04	Resid mbdelay (usec)	2.92866E-03	+/-	1.9E-04
Sband delay (usec)	1.11533981188E+04	Apriori clock (usec)	-1.8992233E-01	Resid sbdelay (usec)	-5.27822E-01	+/-	1.5E-03
Phase delay (usec)	1.11539259428E+04	Apriori clockrate (us/s)	-5.5964001E-07	Resid phdelay (usec)	1.55235E-06	+/-	6.4E-07
Delay rate (us/s)	1.65516076708E+00	Apriori rate (us/s)	1.65515237262E+00	Resid rate (us/s)	8.39446E-06	+/-	6.2E-09
Total phase (deg)	257.8	Apriori accel (us/s/s)	-6.60832325428E-05	Resid phase (deg)	48.1	+/-	19.8

ph/seg (deg)	50.2	RMS	46.5	Theor.	0.199 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.0	Search (1024X32)	0.153	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.6	Interp.	0.000	Search (1024X32)		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.8	Inc. seg. avg.	0.201	Inc. seg. avg.		Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.194	Inc. frq. avg.		Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 108.2 el 44.7 pa -55.9 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9658.024 -3980.122 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/fz..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/fz.W.114.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

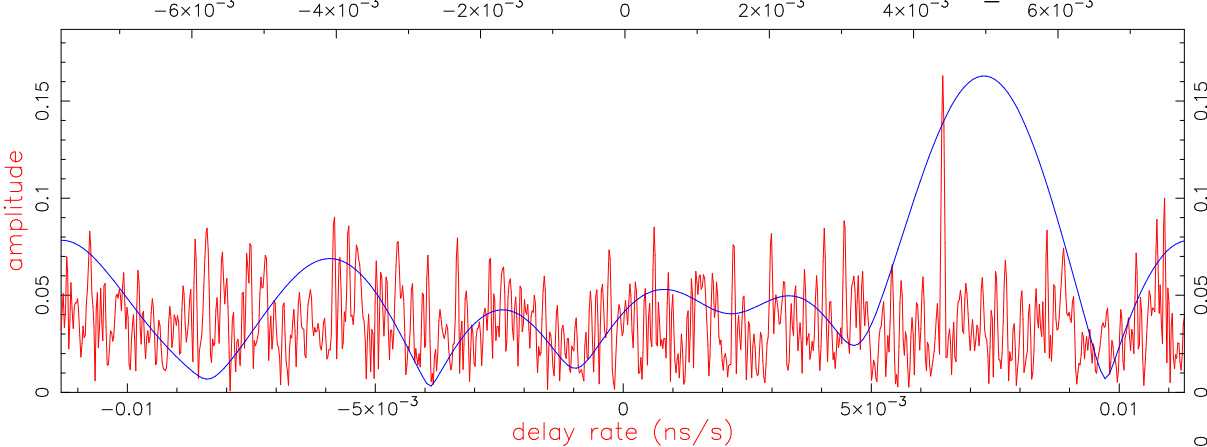
aux01

1749+096.3MP3E9, No0816, fZ

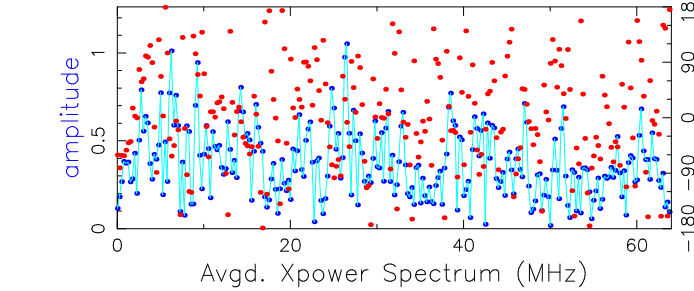
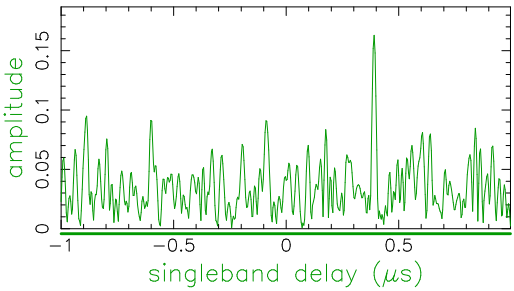
VLBA_FD - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 0

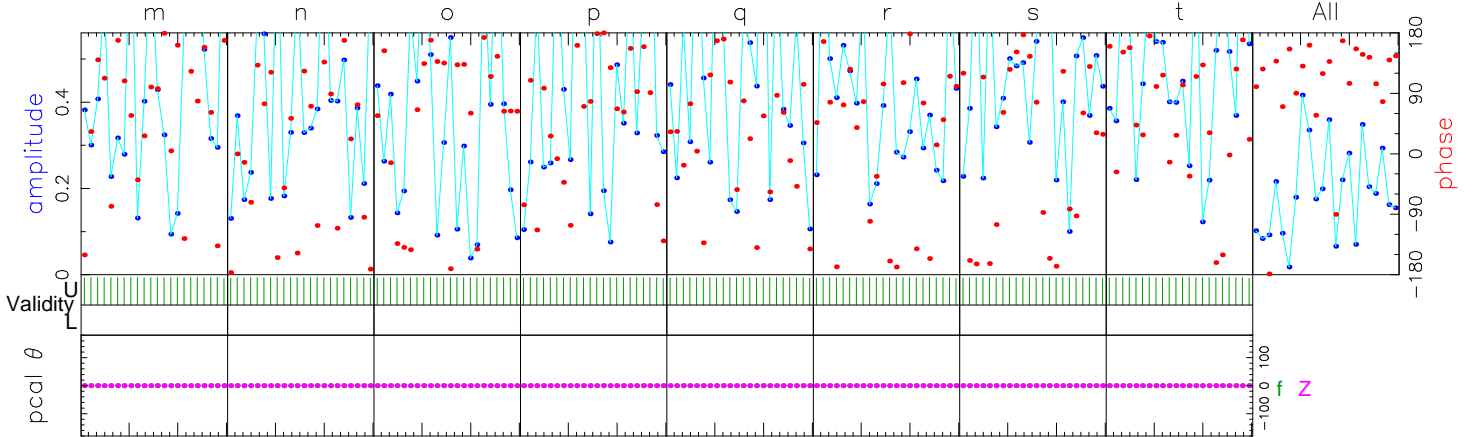


SNR 6.0
 Int time 179.836
 Amp 0.187
 Phase 128.0
 PFD 2.5e-01
 Delays (us)
 SBD 0.390320
 MBD 0.004969
 Fringe rate (Hz)
 0.555081
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183122
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	119.7	154.1	141.5	127.4	56.0	123.7	165.9	125.4	Phase	128.0
	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	110.3	501.2	171.5	492.0	102.9	357.1	477.0	73.3	Sbd box	356.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.11543215356E+04	Apriori delay (usec)	1.11539259413E+04	Resid mbdelay (usec)	4.96932E-03	+/-	1.8E-04
Sband delay (usec)	1.11543162610E+04	Apriori clock (usec)	-1.8992233E-01	Resid sbdelay (usec)	3.90320E-01	+/-	1.4E-03
Phase delay (usec)	1.11539259454E+04	Apriori clockrate (us/s)	-5.5964001E-07	Resid phdelay (usec)	4.12658E-06	+/-	6.2E-07
Delay rate (us/s)	1.65515881656E+00	Apriori rate (us/s)	1.65515237262E+00	Resid rate (us/s)	6.44394E-06	+/-	5.9E-09
Total phase (deg)	337.6	Apriori accel (us/s/s)	-6.60832325428E-05	Resid phase (deg)	128.0	+/-	19.2

ph/seg (deg)	44.2	Theor.	44.9	Amplitude	0.187 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.6		78.4	Search (1024X32)	0.162	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	35.5		27.1	Inc. seg. avg.	0.170	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.2		47.3	Inc. frq. avg.	0.190	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 108.2 el 44.7 pa -55.9 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9658.024 -3980.122 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/fz..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/fz.W.73.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

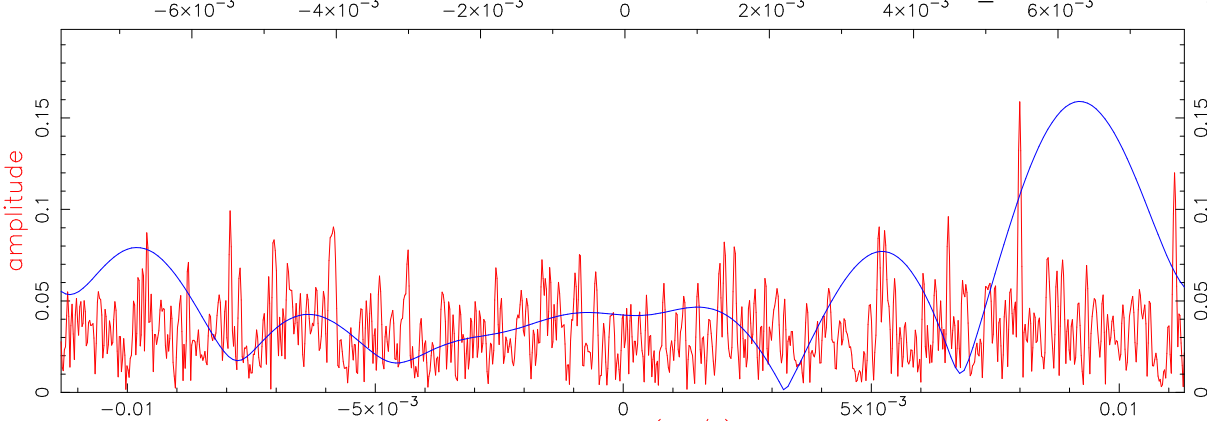
aux01

1749+096.3MP3E9, No0816, fZ

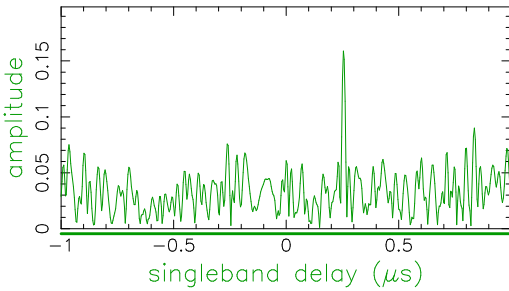
VLBA_FD - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

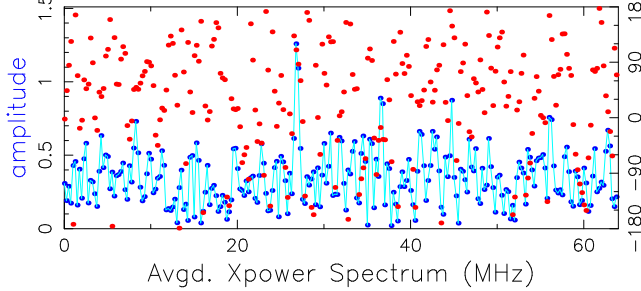
Fringe quality 0



SNR 5.9
 Int time 179.836
 Amp 0.198
 Phase 41.5
 PFD 4.1e-01
 Delays (us)
 SBD 0.255009
 MBD 0.006349
 Fringe rate (Hz)
 0.689016
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

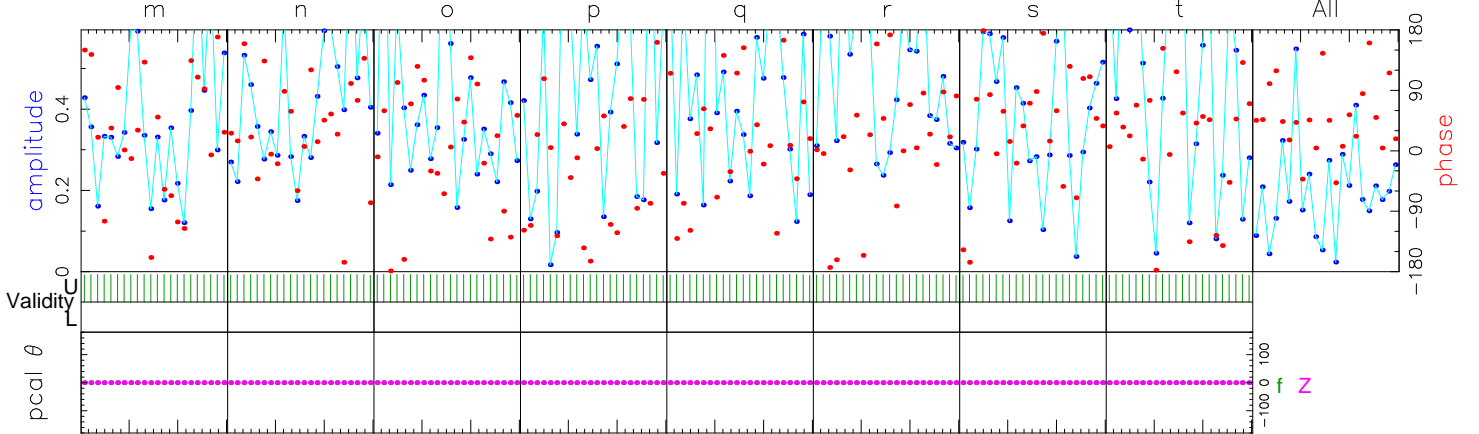


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183124
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	0	0	0	0	0	0	0	0	Ampl.	0.2
Z	0	0	0	0	0	0	0	0	Sbd box	322.3
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Z	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	

Group delay (usec) (SBD)	1.11541822901E+04	Apriori delay (usec)	1.11539259413E+04	Resid mbdelay (usec)	6.34883E-03	+/-	1.8E-04
Sband delay (usec)	1.11541809505E+04	Apriori clock (usec)	-1.8992233E-01	Resid sbdelay (usec)	2.55009E-01	+/-	1.5E-03
Phase delay (usec)	1.11539259426E+04	Apriori clockrate (us/s)	-5.5964001E-07	Resid phdelay (usec)	1.33669E-06	+/-	6.3E-07
Delay rate (us/s)	1.65516037142E+00	Apriori rate (us/s)	1.65515237262E+00	Resid rate (us/s)	7.99880E-06	+/-	6.0E-09
Total phase (deg)	251.1	Apriori accel (us/s/s)	-6.60832325428E-05	Resid phase (deg)	41.5	+/-	19.5

ph/seg (deg)	53.3	Theor.	45.7	Amplitude	0.198 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	78.9	Search (1024X32)	0.153	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.5	Inc. seg. avg.	0.189	Inc. frq. avg.	0.189	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.2	Inc. frq. avg.	0.189			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 108.2 el 44.7 pa -55.9 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9658.024 -3980.122 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/fz_.3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/fz.W.81.3MP3E9

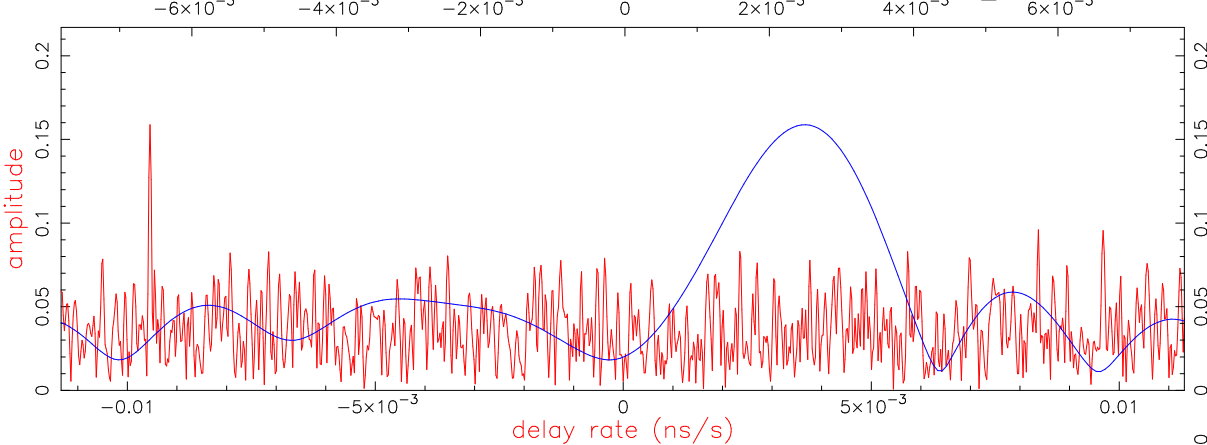
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, fZ

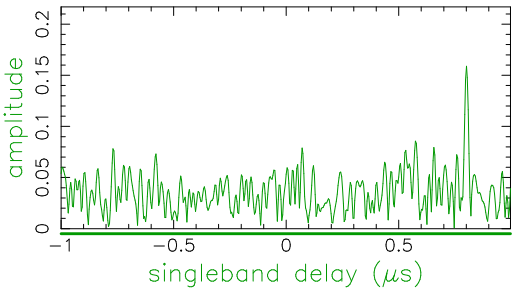
VLBA_FD - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

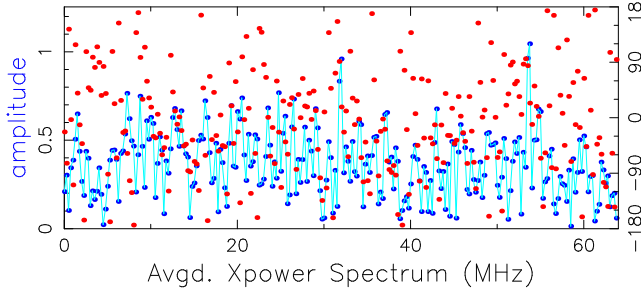


Fringe quality 0

SNR 5.8
 Int time 179.836
 Amp 0.217
 Phase -165.7
 PFD 5.2e-01
 Delays (us)
 SBD 0.800921
 MBD 0.002495
 Fringe rate (Hz) -0.823876
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

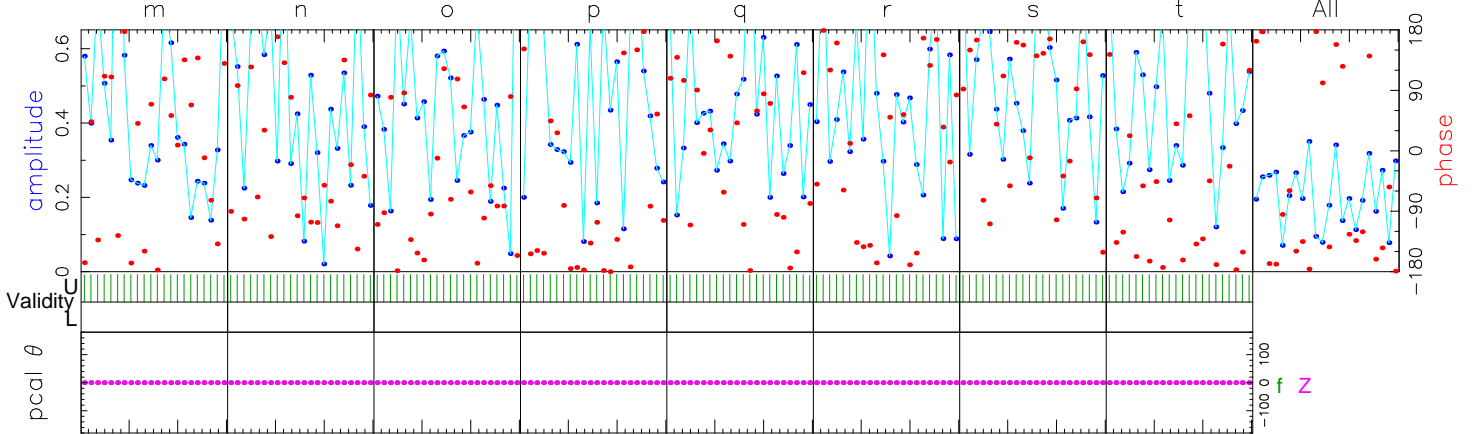


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183126
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



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

Group delay (usec) (SBD)	1.11547253111E+04	Apriori delay (usec)	1.11539259413E+04	Resid mbdelay (usec)	2.49483E-03	+/-	1.9E-04
Sband delay (usec)	1.11547268623E+04	Apriori clock (usec)	-1.8992233E-01	Resid sbdelay (usec)	8.00921E-01	+/-	1.5E-03
Phase delay (usec)	1.11539259359E+04	Apriori clockrate (us/s)	-5.5964001E-07	Resid phdelay (usec)	-5.34304E-06	+/-	6.3E-07
Delay rate (us/s)	1.65514280824E+00	Apriori rate (us/s)	1.65515237262E+00	Resid rate (us/s)	-9.56438E-06	+/-	6.1E-09
Total phase (deg)	44.0	Apriori accel (us/s/s)	-6.60832325428E-05	Resid phase (deg)	-165.7	+/-	19.7

ph/seg (deg)	50.2	Theor.	46.1	Amplitude	0.217 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	60.9		80.5	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	31.4		27.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	40.4		48.6	Inc. seg. avg.	0.212	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.214	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
f: az 108.2 el 44.7 pa -55.9		Z: az 270.6 el 10.8 pa 30.3		u,v (fr/asec)	-9658.024 -3980.122		ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/fz_.3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/fz.W.96.3MP3E9

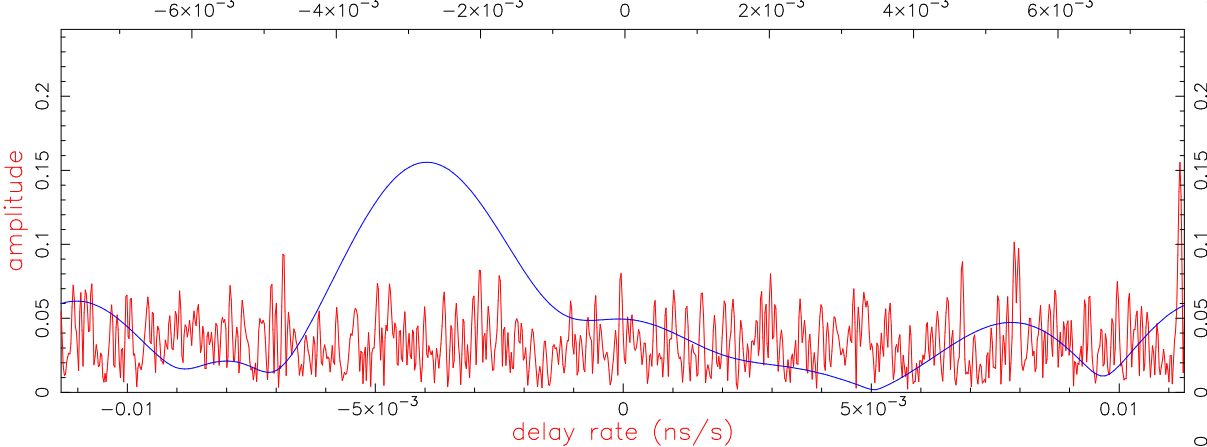
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, gZ

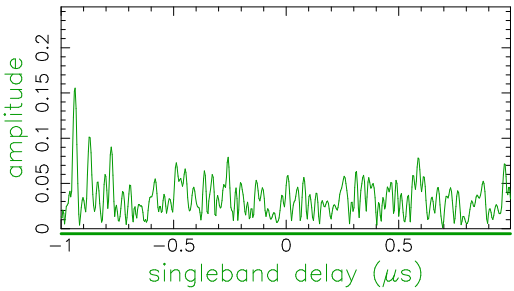
GLT - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

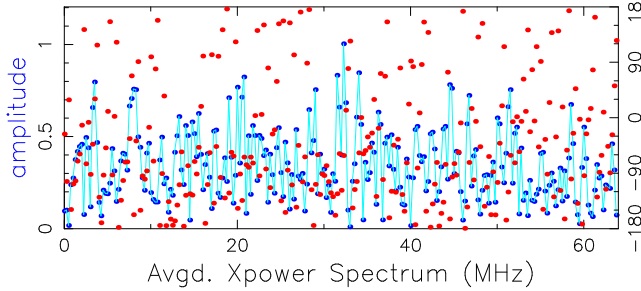


Fringe quality 0

SNR 5.8
 Int time 179.836
 Amp 0.245
 Phase -77.0
 PFD 6.3e-01
 Delays (us)
 SBD -0.938973
 MBD -0.002771
 Fringe rate (Hz) 0.968663
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

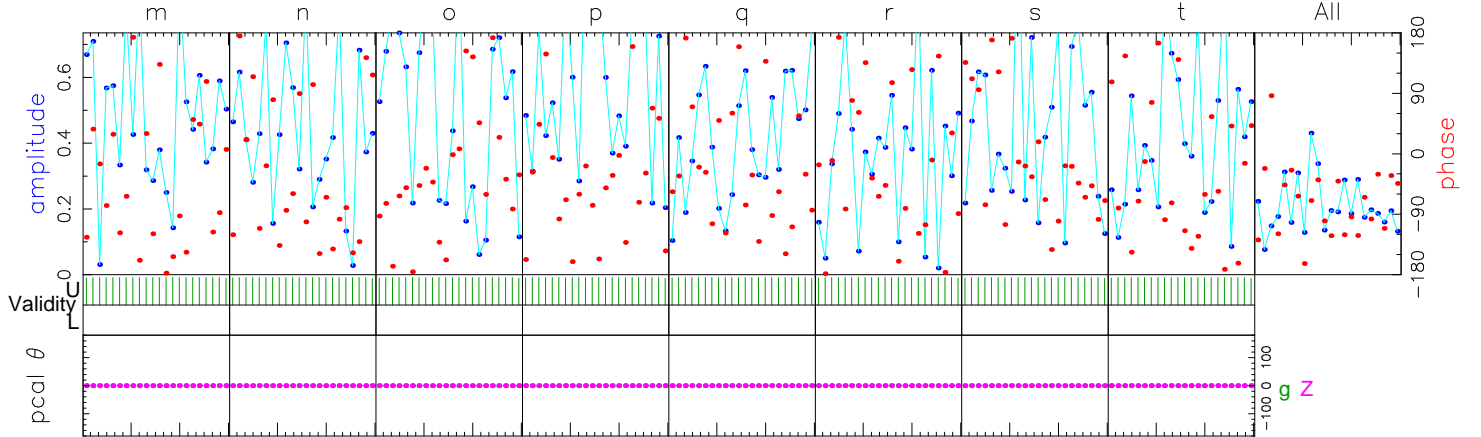


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183127
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-93.9	-112.5	-54.2	-61.2	-69.9	-84.6	-52.9	-120.5	Phase	-77.0
	0.2	0.3	0.4	0.3	0.3	0.1	0.3	0.2	Ampl.	0.2
	420.9	165.6	216.0	271.3	413.3	236.0	181.4	243.4	Sbd box	16.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 4.40926462451E+03 Apriori delay (usec) 4.41020489541E+03 Resid mbdelay (usec) -2.77090E-03 +/- 1.9E-04
 Sband delay (usec) 4.40926592241E+03 Apriori clock (usec) 1.0114288E-01 Resid sbdelay (usec) -9.38973E-01 +/- 1.5E-03
 Phase delay (usec) 4.41020489293E+03 Apriori clockrate (us/s) 1.7446201E-07 Resid phdelay (usec) -2.48170E-06 +/- 6.4E-07
 Delay rate (us/s) 8.06449549158E-01 Apriori rate (us/s) 8.06438303944E-01 Resid rate (us/s) 1.12452E-05 +/- 6.2E-09
 Total phase (deg) 171.7 Apriori accel (us/s/s) -2.14626521590E-05 Resid phase (deg) -77.0 +/- 19.9

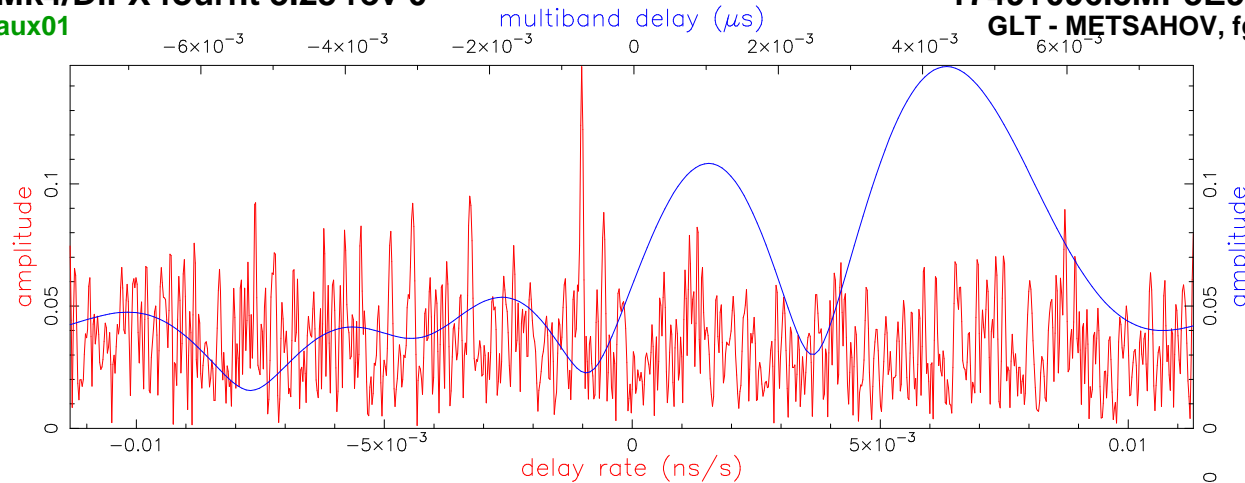
RMS Theor. Amplitude 0.245 +/- 0.042 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 53.1 46.6 Search (1024X32) 0.153 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 62.1 81.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 28.6 28.1 Inc. seg. avg. 0.247 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.5 49.0 Inc. frq. avg. 0.238 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 g: az 171.5 el 23.0 pa -1.9 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -4693.876 647.731 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//gZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//gZ.W.104.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

aux01

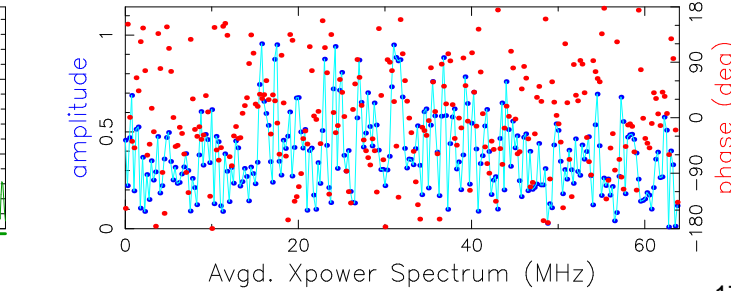
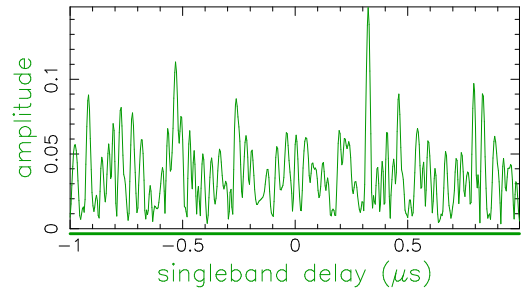
1749+096.3MP3E9, No0816, gZ

GLT - METSAHOV, fgroup W, pol LR



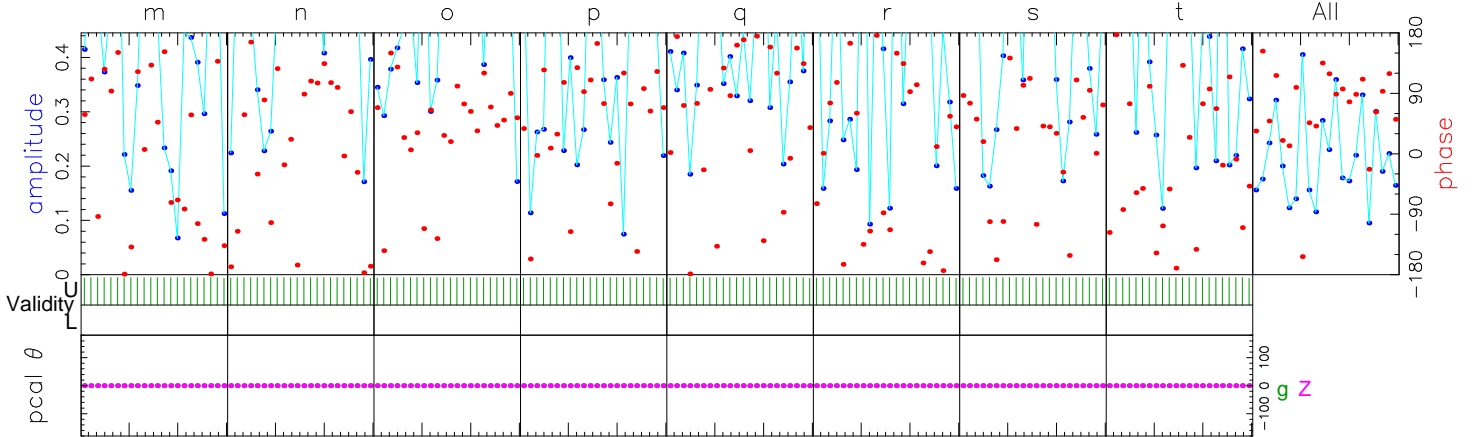
Fringe quality 0

SNR 5.4
 Int time 179.836
 Amp 0.148
 Phase 91.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.324295
 MBD 0.004331
 Fringe rate (Hz)
 -0.087435
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183128
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	135.1	85.0	58.5	78.4	127.1	166.9	74.8	-16.7	Phase	91.4
	0.1	0.2	0.3	0.2	0.1	0.2	0.3	0.0	Ampl.	0.2
	182.5	341.7	340.8	135.9	496.6	58.6	288.9	138.4	Sbd box	340.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	4.41052172660E+03	Apriori delay (usec)	4.41020489541E+03	Resid mbdelay (usec)	4.33119E-03	+/-	2.0E-04
Sband delay (usec)	4.41052919016E+03	Apriori clock (usec)	1.0114288E-01	Resid sbdelay (usec)	3.24295E-01	+/-	1.6E-03
Phase delay (usec)	4.41020489836E+03	Apriori clockrate (us/s)	1.7446201E-07	Resid phdelay (usec)	2.94803E-06	+/-	6.8E-07
Delay rate (us/s)	8.06437288908E-01	Apriori rate (us/s)	8.06438303944E-01	Resid rate (us/s)	-1.01504E-06	+/-	6.5E-09
Total phase (deg)	340.1	Apriori accel (us/s/s)	-2.14626521590E-05	Resid phase (deg)	91.4	+/-	21.1

ph/seg (deg)	51.6	Theor.	49.5	Amplitude	0.148 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	72.8	Search (1024X32)	0.146	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	60.7	Inc. seg. avg.	0.159	Inc. frq. avg.	0.164	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	60.2	Inc. frq. avg.	0.164	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
g: az 171.5 el 23.0 pa -1.9	Z: az 270.6 el 10.8 pa 30.3	u, v (fr/asec)	-4693.876 647.731			ion window (TEC)	0.00 0.00	simultaneous interpolator		

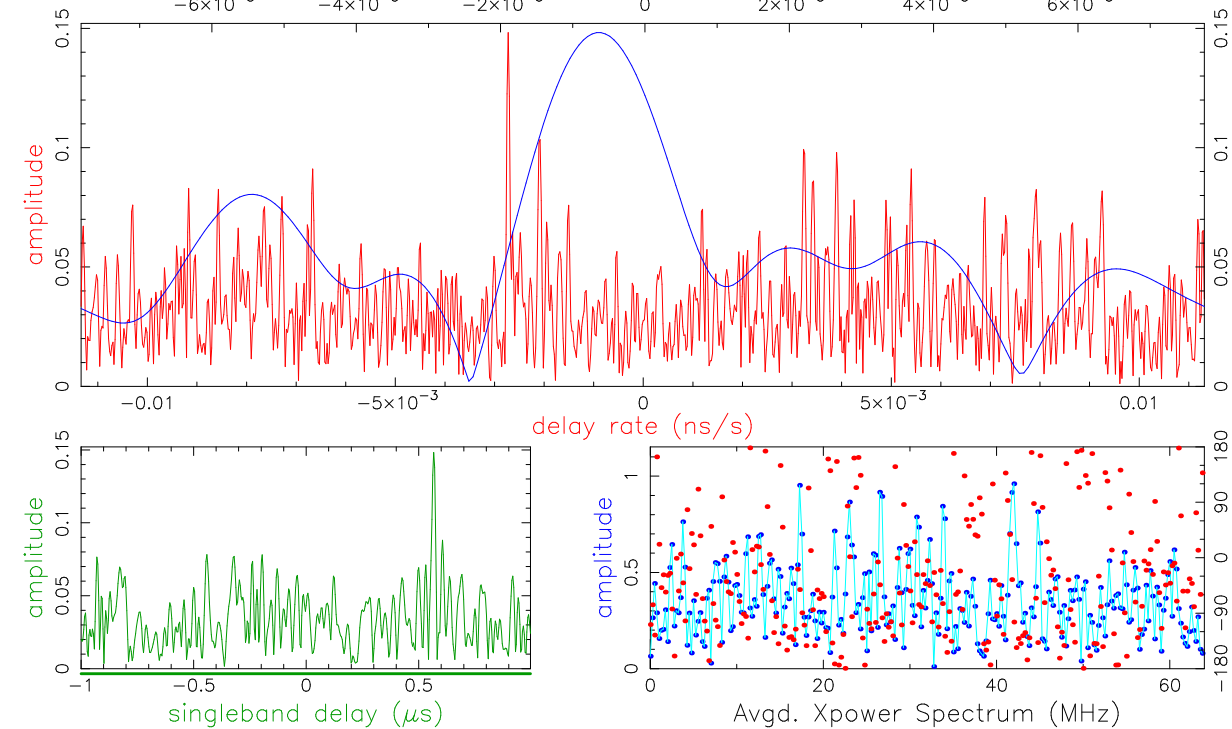
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/gZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/gZ.W.118.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

aux01

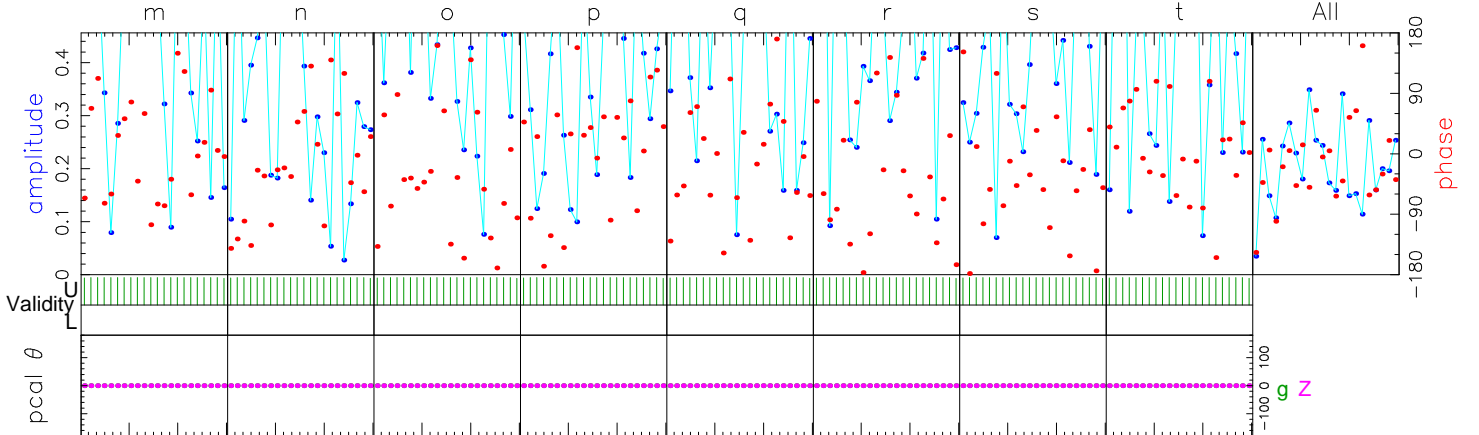
1749+096.3MP3E9, No0816, gZ

GLT - METSAHOV, fgroup W, pol RL



Fringe quality 0
 SNR 5.4
 Int time 179.836
 Amp 0.152
 Phase -20.7
 PFD 1.0e+00
 Delays (us)
 SBD 0.566919
 MBD -0.000646
 Fringe rate (Hz)
 -0.234840
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183131
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



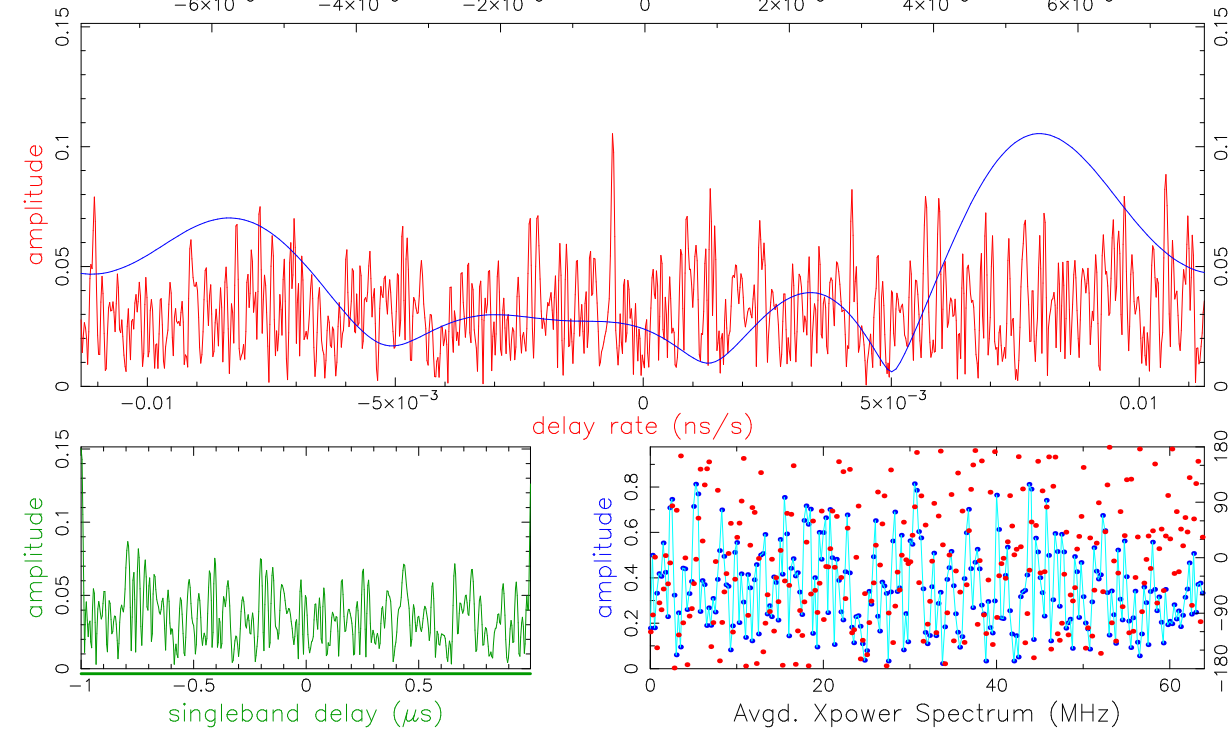
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	14.6	-23.8	-86.2	35.2	-32.0	-51.5	-37.8	8.6	Phase	-20.7	
	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	Ampl.	0.2	
	114.1	145.2	454.0	427.2	358.9	339.5	254.4	358.2	Sbd box	402.1	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
N _{sig}	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
N	1000	1000	1000	1000	1000	1000	1000	1000			
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	4.41076674921E+03		Apriori delay (usec)		4.41020489541E+03		Resid mbdelay (usec)		-6.46201E-04	+/- 2.0E-04	
Sband delay (usec)	4.41077181441E+03		Apriori clock (usec)		1.0114288E-01		Resid sbdelay (usec)		5.66919E-01	+/- 1.6E-03	
Phase delay (usec)	4.41020489475E+03		Apriori clockrate (us/s)		1.7446201E-07		Resid phdelay (usec)		-6.66069E-07	+/- 6.8E-07	
Delay rate (us/s)	8.06435577682E-01		Apriori rate (us/s)		8.06438303944E-01		Resid rate (us/s)		-2.72626E-06	+/- 6.5E-09	
Total phase (deg)	228.0		Apriori accel (us/s/s)		-2.14626521590E-05		Resid phase (deg)		-20.7	+/- 21.0	
RMS	Theor.	Amplitude	0.152 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	62.7	49.3	Search (1024X32)	0.146	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	63.8	86.1	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	42.6	29.8	Inc. seg. avg.	0.154	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	32.0	51.9	Inc. frq. avg.	0.163	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
g: az 171.5 el 23.0 pa -1.9		Z: az 270.6 el 10.8 pa 30.3		u, v (fr/asec) -4693.876 647.731		simultaneous interpolator					
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0816//gZ...3MP3E9		Output file: /Exps/c241b/v2/3mm/1234/No0816//gZ.W.134.3MP3E9							

Mk4/DiFX fourfit 3.25 rev 0

aux01

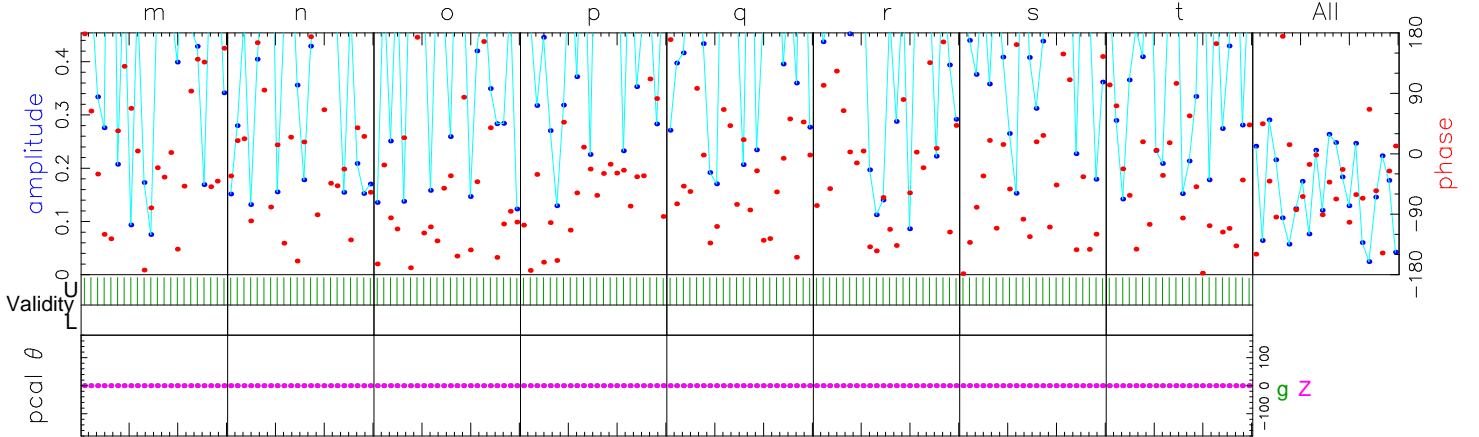
1749+096.3MP3E9, No0816, gZ

GLT - METSAHOV, fgroup W, pol LL



Fringe quality 0
 SNR 5.5
 Int time 179.836
 Amp 0.151
 Phase -62.3
 PFD 9.7e-01
 Delays (us)
 SBD -0.998966
 MBD 0.005505
 Fringe rate (Hz)
 -0.053389
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183125
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-54.1	-39.3	-119.0	-57.4	-24.2	8.0	-95.5	-111.7	Phase	-62.3
	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.0	Ampl.	0.1
	66.0	15.0	25.6	1.4	230.9	176.0	274.0	73.9	Sbd box	1.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
N _{sig}	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.40921040005E+03	Apriori delay (usec)	4.41020489541E+03	Resid mbdelay (usec)	5.50464E-03	+/-	2.0E-04
Sband delay (usec)	4.40920592929E+03	Apriori clock (usec)	1.0114288E-01	Resid sbdelay (usec)	-9.98966E-01	+/-	1.6E-03
Phase delay (usec)	4.41020489340E+03	Apriori clockrate (us/s)	1.7446201E-07	Resid phdelay (usec)	-2.00761E-06	+/-	6.7E-07
Delay rate (us/s)	8.06437684146E-01	Apriori rate (us/s)	8.06438303944E-01	Resid rate (us/s)	-6.19798E-07	+/-	6.4E-09
Total phase (deg)	186.4	Apriori accel (us/s/s)	-2.14626521590E-05	Resid phase (deg)	-62.3	+/-	20.7

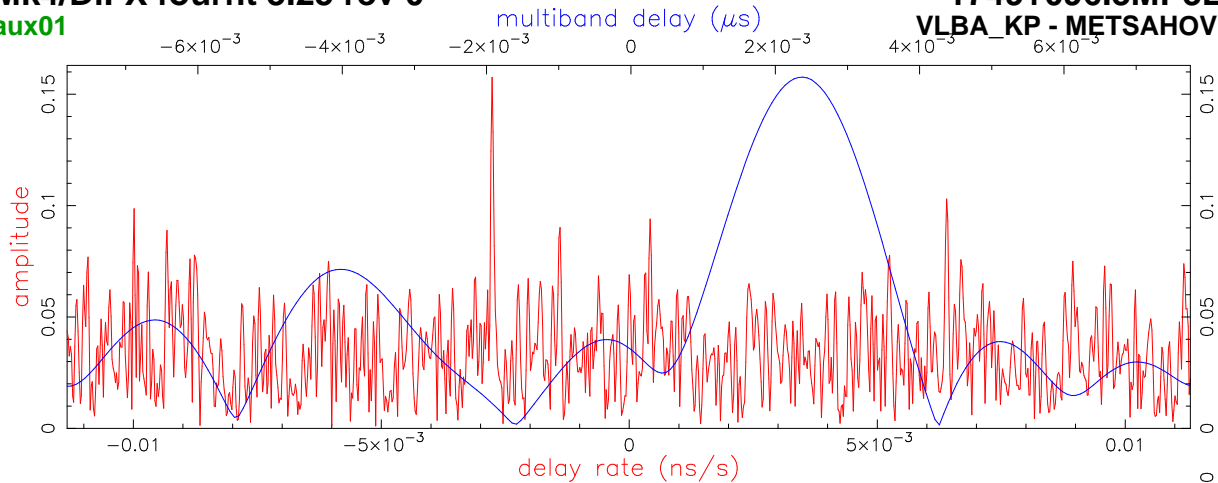
ph/seg (deg) 61.2 48.5 Amplitude 0.151 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 52.6 84.6 Search (1024X32) 0.148 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.9 29.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.5 51.0 Inc. seg. avg. 0.116 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 171.5 el 23.0 pa -1.9 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -4693.876 647.731 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/gZ...3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/gZ.W.89.3MP3E9 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

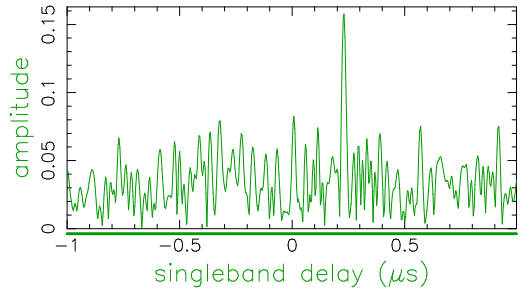
1749+096.3MP3E9, No0816, kZ

VLBA_KP - METSAHOV, fgroup W, pol LL

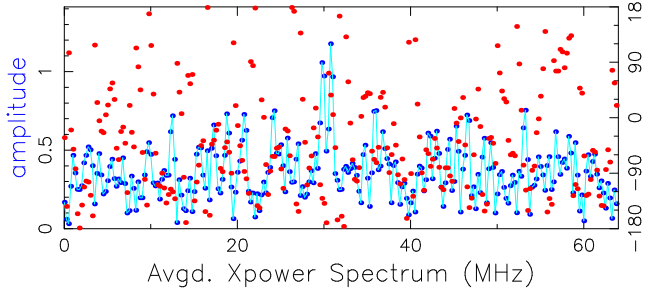


Fringe quality 0

SNR 5.8
 Int time 179.825
 Amp 0.163
 Phase 27.9
 PFD 5.0e-01
 Delays (us)
 SBD 0.229098
 MBD 0.002337
 Fringe rate (Hz)
 -0.239147
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

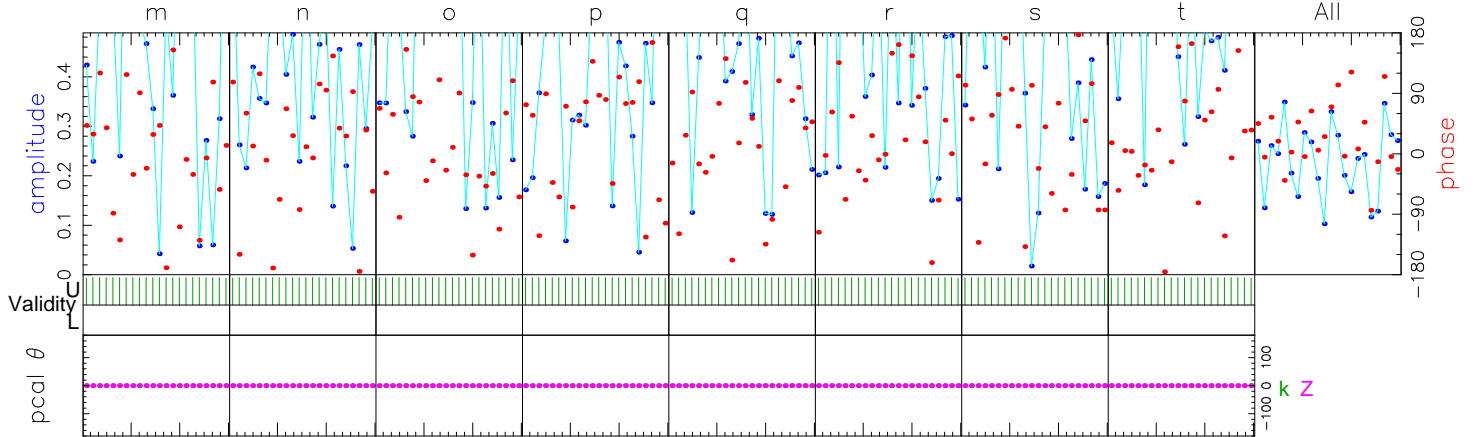


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183135
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
k	0	0	0	0	0	0	0	0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.30800209496E+03	Apriori delay (usec)		9.30776538291E+03	Resid mbdelay (usec)		2.33704E-03	+/-	1.9E-04	
Sband delay (usec)	9.30799448091E+03	Apriori clock (usec)		-9.5777512E-02	Resid sbdelay (usec)		2.29098E-01	+/-	1.5E-03	
Phase delay (usec)	9.30776538381E+03	Apriori clockrate (us/s)		-4.5765388E-07	Resid phdelay (usec)		9.00943E-07	+/-	6.3E-07	
Delay rate (us/s)	1.76199730613E+00	Apriori rate (us/s)		1.76200008238E+00	Resid rate (us/s)		-2.77626E-06	+/-	6.1E-09	
Total phase (deg)	58.3		Apriori accel (us/s/s)		-5.58934801621E-05	Resid phase (deg)		27.9	+/-	19.7

ph/seg (deg)	49.5	Theor.	46.1	Amplitude	0.163 +/- 0.028	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	63.8		80.5	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	21.8		27.8	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.2		48.5	Inc. seg. avg.	0.179	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 103.7 el 38.0 pa -56.7 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -10272.567 -3669.853 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/kZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/kZ.W.152.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

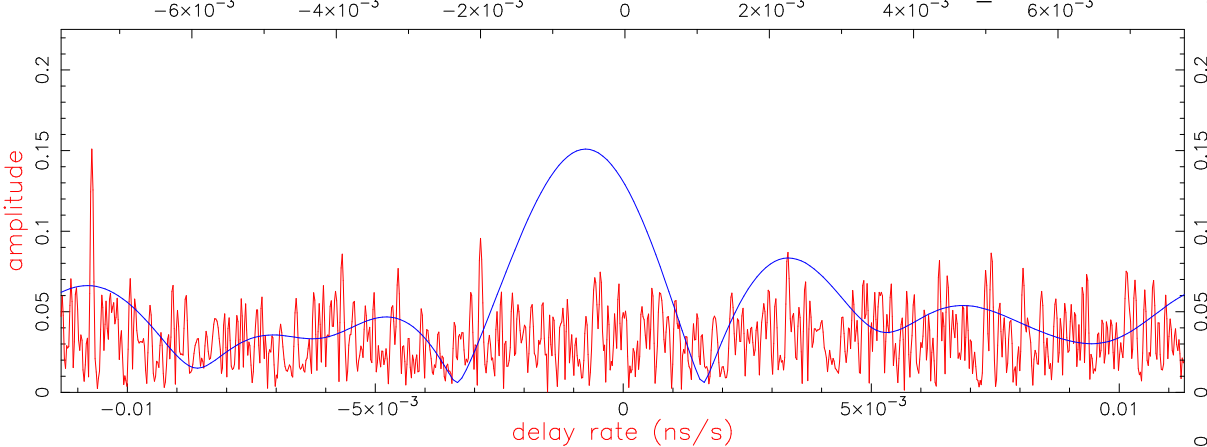
aux01

1749+096.3MP3E9, No0816, kZ

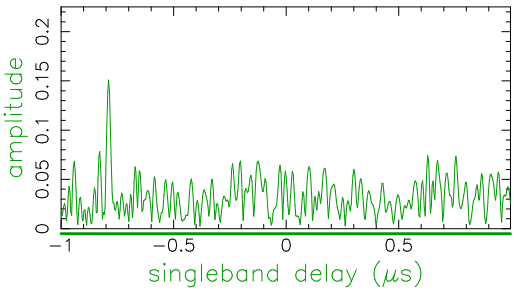
VLBA_KP - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

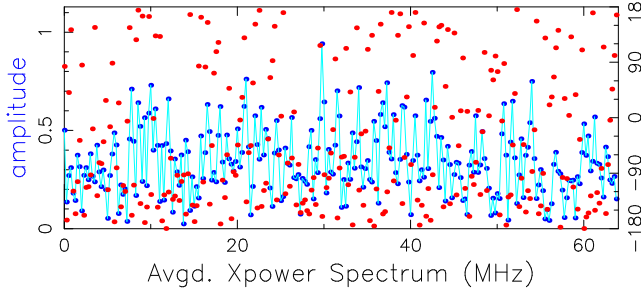
Fringe quality 0



SNR 5.5
 Int time 179.825
 Amp 0.225
 Phase 137.1
 PFD 9.8e-01
 Delays (us)
 SBD -0.789132
 MBD -0.000545
 Fringe rate (Hz)
 -0.924273
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

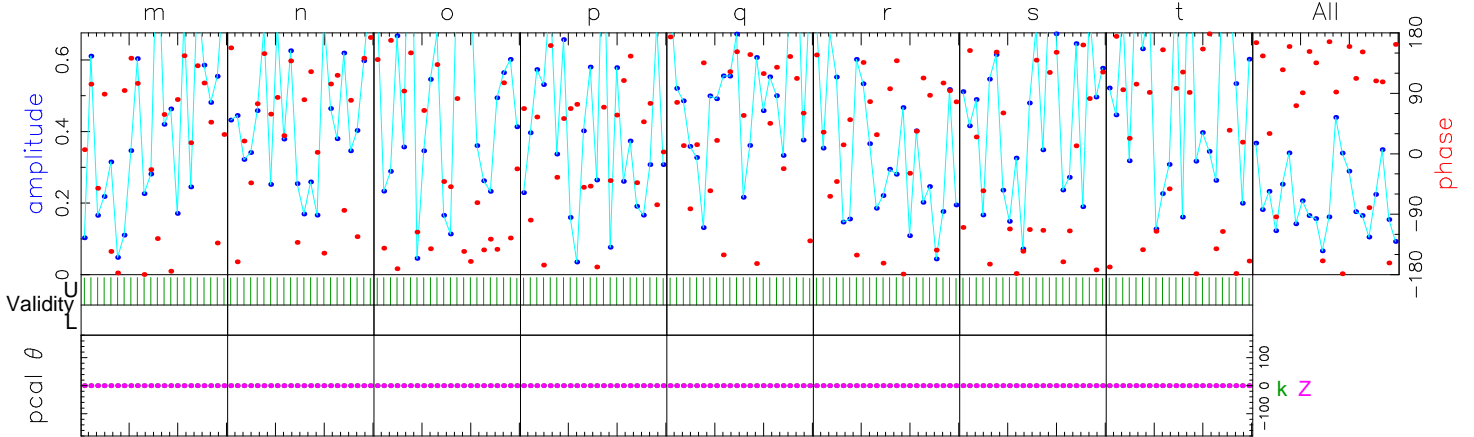


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183137
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	121.5	138.7	175.1	49.4	127.7	106.4	156.4	136.3	Phase	137.1
	0.2	0.3	0.4	0.1	0.3	0.2	0.3	0.3	Ampl.	0.2
	390.3	24.1	56.0	351.8	480.8	424.0	430.7	264.6	Sbd box	55.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.30698358787E+03	Apriori delay (usec)	9.30776538291E+03	Resid mbdelay (usec)	-5.45049E-04	+/-	2.0E-04
Sband delay (usec)	9.30697625066E+03	Apriori clock (usec)	-9.5777512E-02	Resid sbdelay (usec)	-7.89132E-01	+/-	1.6E-03
Phase delay (usec)	9.30776538734E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	4.42177E-06	+/-	6.7E-07
Delay rate (us/s)	1.76198935249E+00	Apriori rate (us/s)	1.76200008238E+00	Resid rate (us/s)	-1.07299E-05	+/-	6.4E-09
Total phase (deg)	167.4	Apriori accel (us/s/s)	-5.58934801621E-05	Resid phase (deg)	137.1	+/-	20.7

ph/seg (deg)	57.6	Theor.	48.6	Amplitude	0.225 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	77.5	Search (1024X32)	0.145	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	42.4	Inc. seg. avg.	0.236	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.9	Inc. frq. avg.	0.229	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

k: az 103.7 el 38.0 pa -56.7 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -10272.567 -3669.853 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/kZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/kZ.W.170.3MP3E9

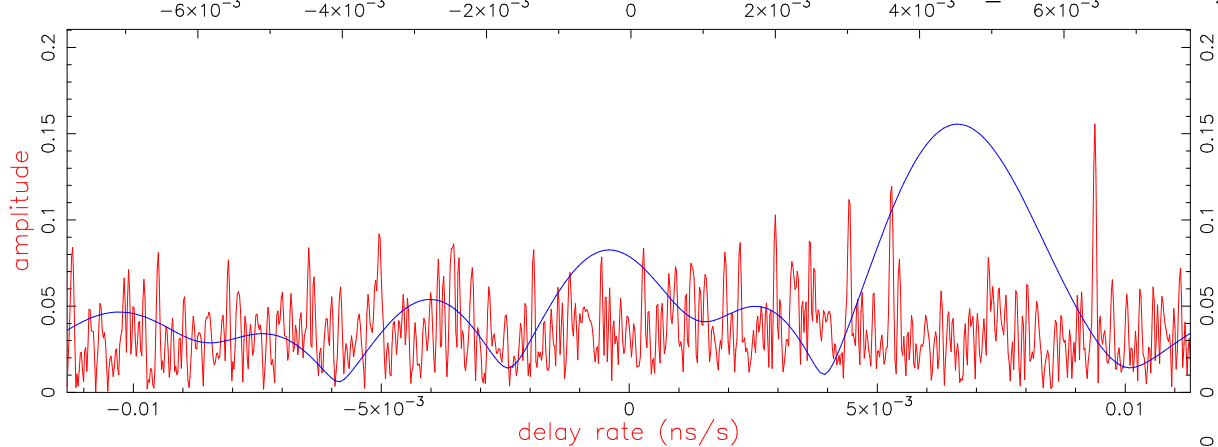
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, kZ

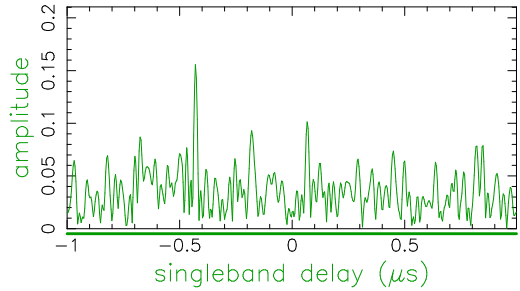
VLBA_KP - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

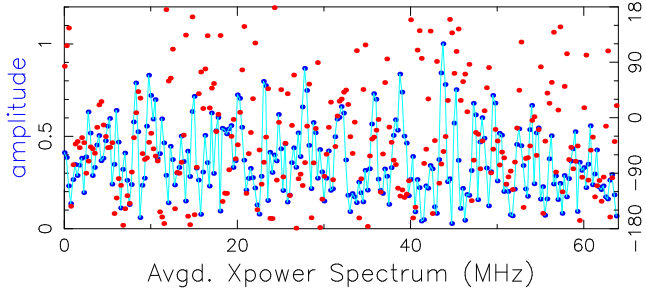


Fringe quality 0

SNR 5.7
 Int time 179.825
 Amp 0.210
 Phase -9.9
 PFD 7.5e-01
 Delays (us)
 SBD -0.429253
 MBD 0.004542
 Fringe rate (Hz) 0.810525
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

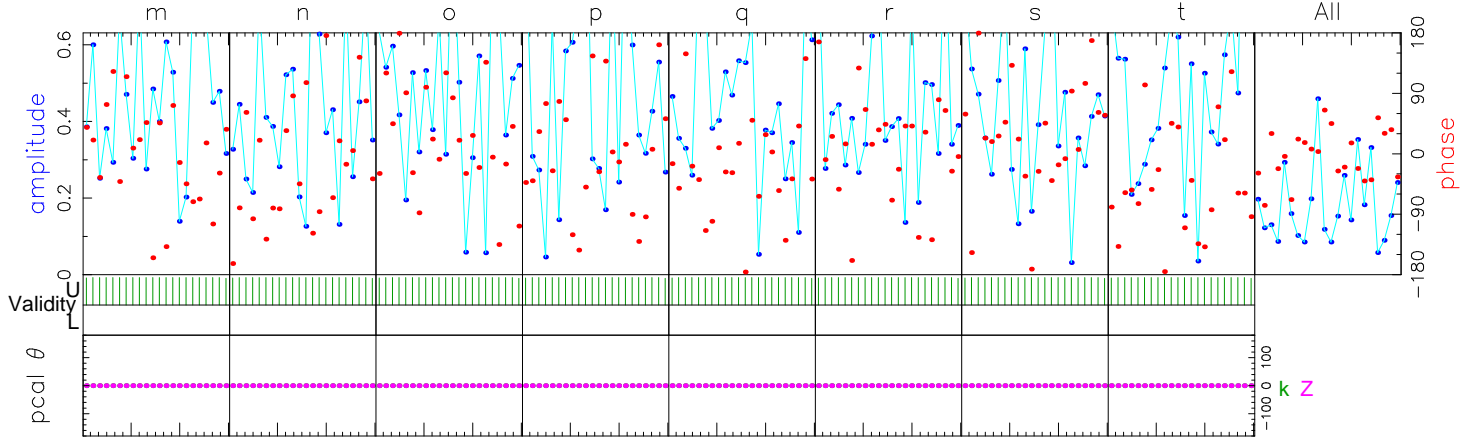


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183140
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-4.5	-46.2	18.1	-33.6	-29.5	27.7	26.6	-57.4	Phase	-9.9
	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.3	Ampl.	0.2
	96.0	373.9	438.0	83.8	357.8	358.7	213.7	458.0	Sbd box	147.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.30733242470E+03	Apriori delay (usec)	9.30776538291E+03	Resid mbdelay (usec)	4.54179E-03	+/-	1.9E-04
Sband delay (usec)	9.30733612966E+03	Apriori clock (usec)	-9.5777512E-02	Resid sbdelay (usec)	-4.29253E-01	+/-	1.5E-03
Phase delay (usec)	9.30776538259E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-3.20169E-07	+/-	6.5E-07
Delay rate (us/s)	1.76200949177E+00	Apriori rate (us/s)	1.76200008238E+00	Resid rate (us/s)	9.40939E-06	+/-	6.2E-09
Total phase (deg)	20.4	Apriori accel (us/s/s)	-5.58934801621E-05	Resid phase (deg)	-9.9	+/-	20.1

ph/seg (deg)	RMS 38.2	Theor. 47.1	Amplitude Search (1024X32)	0.210 +/- 0.037	0.151	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.8	82.1	Interp.	0.000	0.184	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	36.7	28.4	Inc. seg. avg.	0.184	0.219	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	26.0	49.5	Inc. frq. avg.	0.219		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 103.7 el 38.0 pa -56.7 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -10272.567 -3669.853 simultaneous interpolator

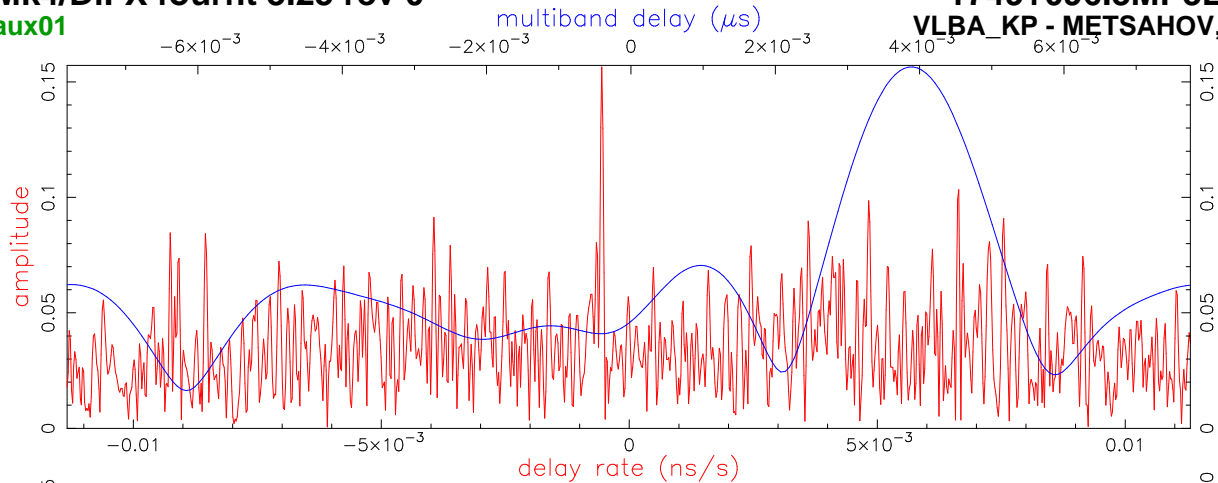
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/kZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/kZ.W.187.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

aux01

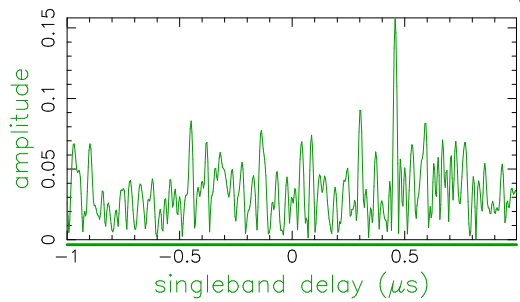
1749+096.3MP3E9, No0816, kZ

VLBA_KP - METSAHOV, fgroup W, pol RL

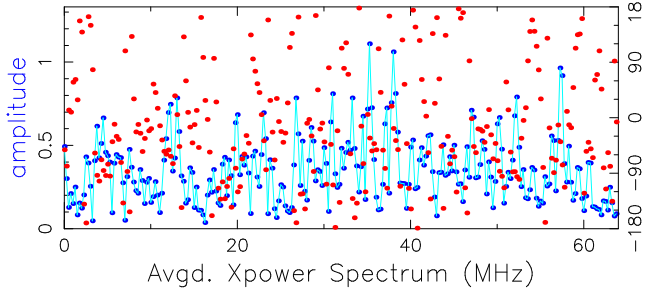


Fringe quality 0

SNR 5.8
Int time 179.825
Amp 0.157
Phase 130.0
PFD 6.6e-01
Delays (us)
SBD 0.457760
MBD 0.003908
Fringe rate (Hz)
-0.047991
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

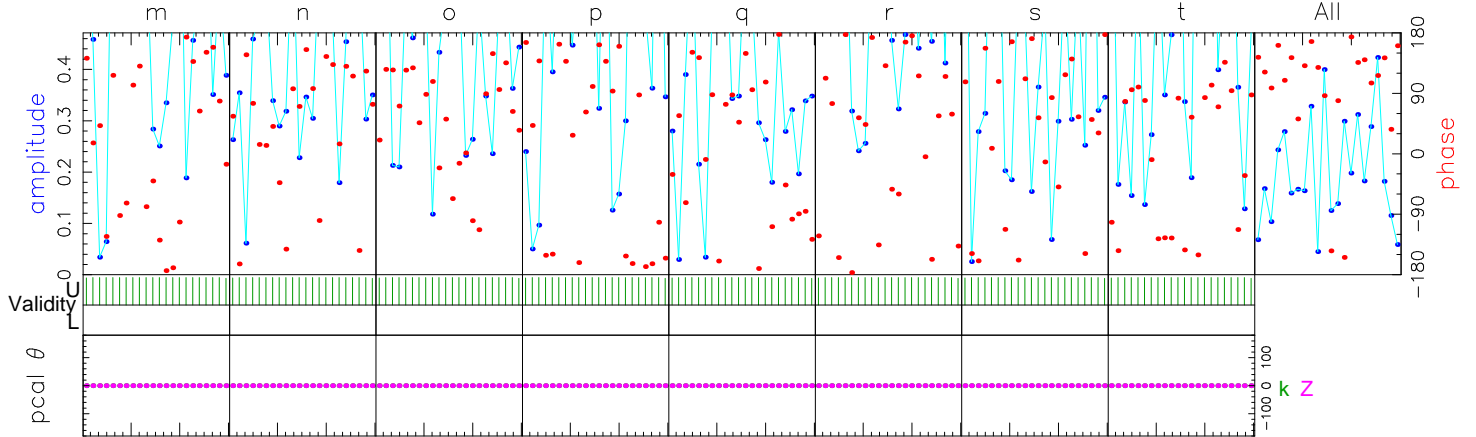


delay rate (ns/s)



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183142
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	154.9	111.5	69.5	167.8	156.3	149.9	92.3	129.7	Phase	130.0
	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	40.1	50.7	427.8	374.5	101.7	102.3	357.1	226.0	Sbd box	374.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.30822241545E+03	Apriori delay (usec)	9.30776538291E+03	Resid mbdelay (usec)	3.90754E-03	+/-	1.9E-04
Sband delay (usec)	9.30822314266E+03	Apriori clock (usec)	-9.5777512E-02	Resid sbdelay (usec)	4.57760E-01	+/-	1.5E-03
Phase delay (usec)	9.30776538711E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	4.19297E-06	+/-	6.4E-07
Delay rate (us/s)	1.76199952526E+00	Apriori rate (us/s)	1.76200008238E+00	Resid rate (us/s)	-5.57126E-07	+/-	6.2E-09
Total phase (deg)	160.3	Apriori accel (us/s/s)	-5.58934801621E-05	Resid phase (deg)	130.0	+/-	19.9

ph/seg (deg)	43.0	Theor.	46.7	Amplitude	0.157 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	72.2		81.5	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008	
ph/frq (deg)	37.8		28.2	Inc. seg. avg.	0.152	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	36.3		49.1	Inc. frq. avg.	0.167	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 103.7 el 38.0 pa -56.7 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -10272.567 -3669.853 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/kZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/kZ.W.203.3MP3E9

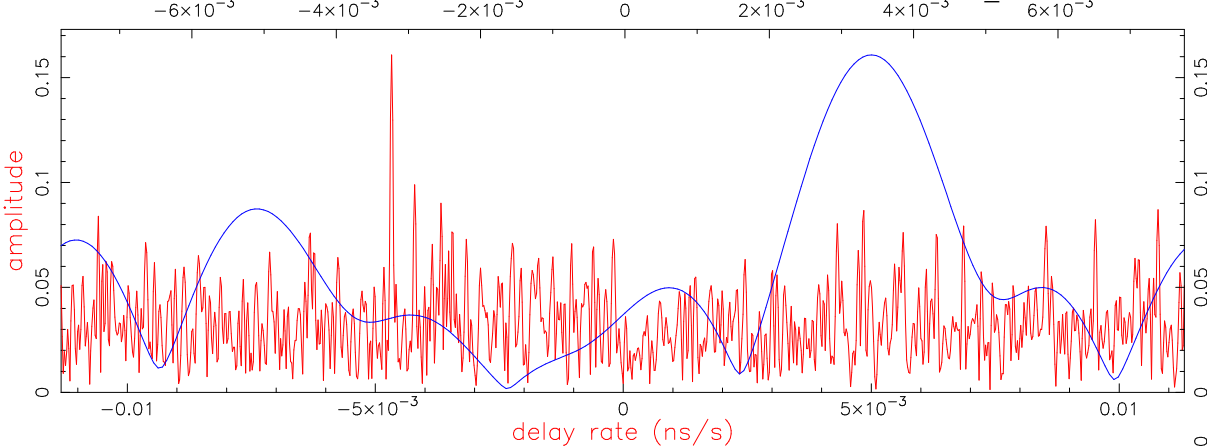
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, IZ

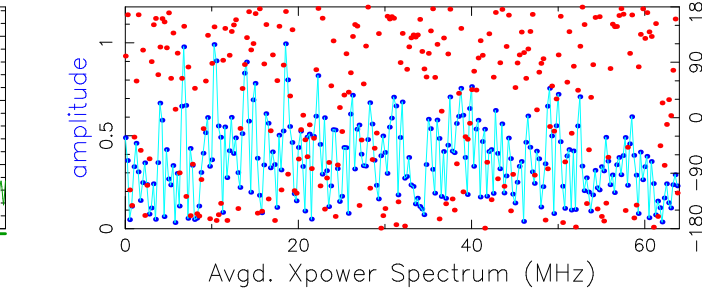
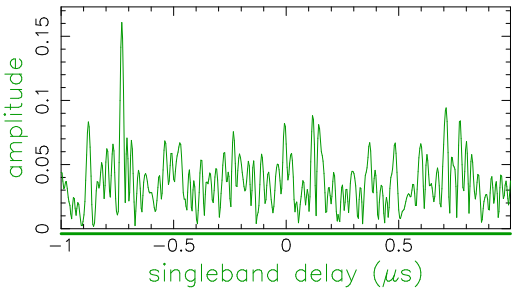
VLBA_LA - METSAHOV, fgroup W, pol LL

multiband delay (μ s)



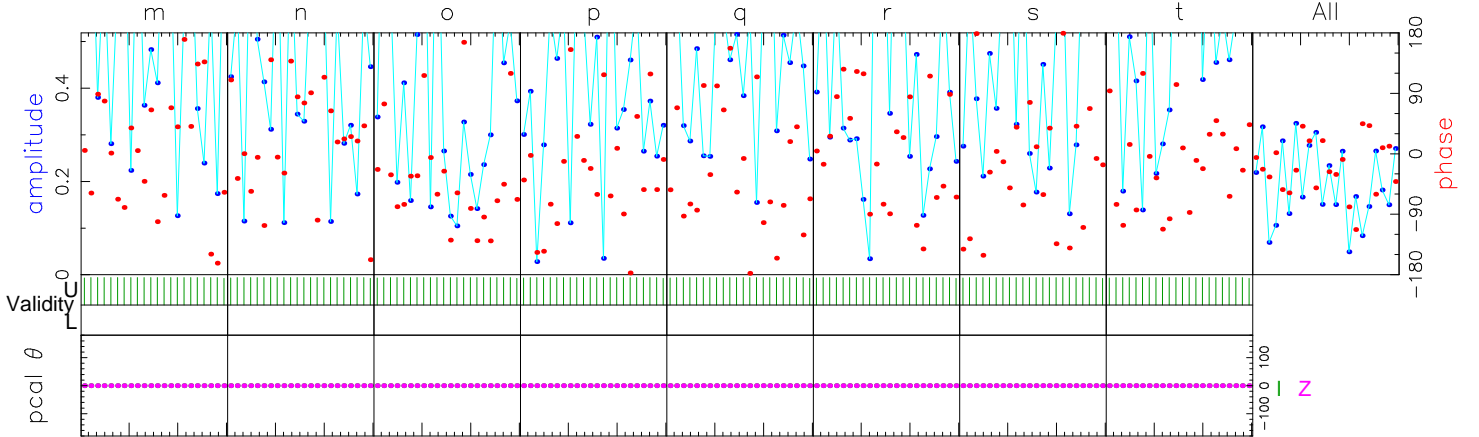
Fringe quality 0

SNR 5.9
 Int time 179.836
 Amp 0.173
 Phase -20.8
 PFD 3.6e-01
 Delays (us)
 SBD -0.729961
 MBD 0.003410
 Fringe rate (Hz)
 -0.402989
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183136
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-17.9	32.3	-49.1	-34.7	-56.5	2.4	-56.8	-2.3	Phase	-20.8
	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	460.9	300.8	262.6	461.4	191.7	270.7	495.9	348.4	Sbd box	70.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.01840481828E+04	Apriori delay (usec)	1.01847791475E+04	Resid mbdelay (usec)	3.41034E-03	+/-	1.8E-04
Sband delay (usec)	1.01840491870E+04	Apriori clock (usec)	-8.5514584E+00	Resid sbdelay (usec)	-7.29961E-01	+/-	1.5E-03
Phase delay (usec)	1.01847791468E+04	Apriori clockrate (us/s)	-8.4386101E-07	Resid phdelay (usec)	-6.71732E-07	+/-	6.3E-07
Delay rate (us/s)	1.64019218376E+00	Apriori rate (us/s)	1.64019686207E+00	Resid rate (us/s)	-4.67831E-06	+/-	6.0E-09
Total phase (deg)	253.9	Apriori accel (us/s/s)	-5.95569640184E-05	Resid phase (deg)	-20.8	+/-	19.4

ph/seg (deg)	40.3	Theor.	45.5	Amplitude	0.173 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	55.5	Search (1024X32)	0.156	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.8	Inc. seg. avg.	0.160	Inc. frq. avg.	0.175	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.5	Inc. frq. avg.	0.175			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 110.9 el 41.2 pa -50.2 Z: az 270.6 el 10.8 pa 30.3 u, v (fr/asec) -9565.973 -3238.096 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/IZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/IZ.W.159.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

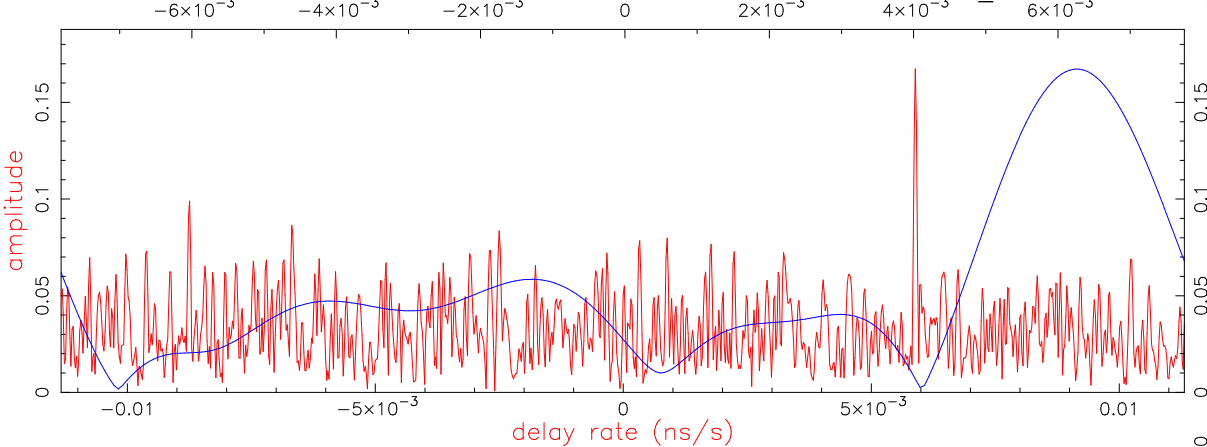
aux01

1749+096.3MP3E9, No0816, IZ

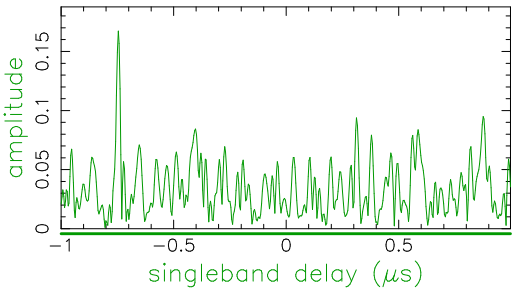
VLBA_LA - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

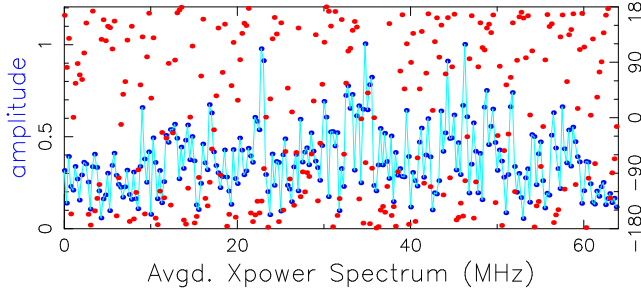
Fringe quality 0



SNR 6.1
 Int time 179.836
 Amp 0.188
 Phase 155.4
 PFD 1.0e-01
 Delays (us)
 SBD -0.745513
 MBD 0.006269
 Fringe rate (Hz) 0.507717
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

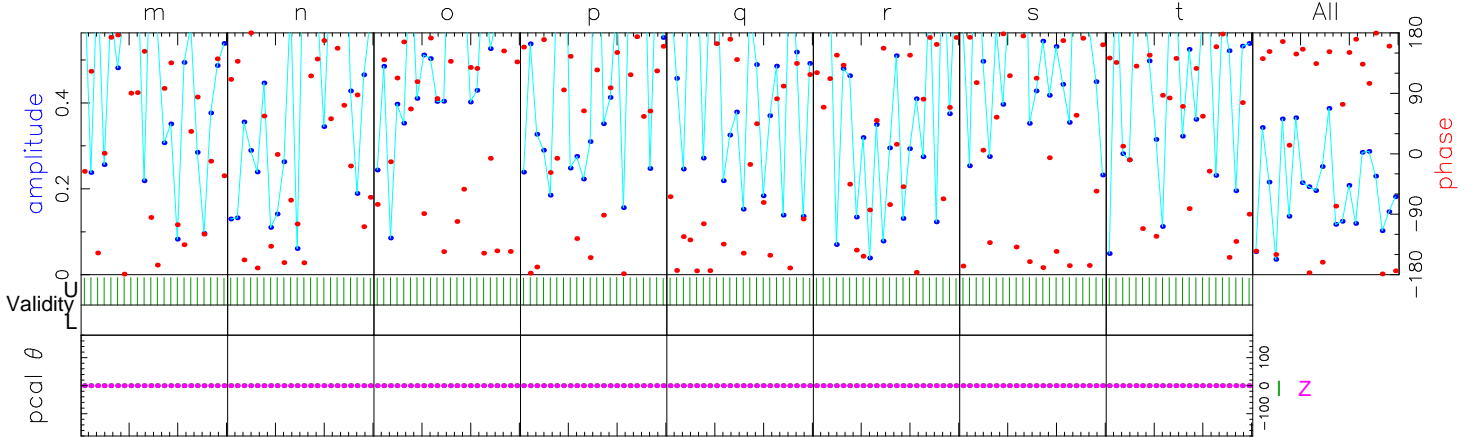


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build 2024:362:113133
 2025:041:183139
 2024:113:095956
 RA & Dec (J2000) 17h51m32.818573s +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
I	0	0	0	0	0	0	0	0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.01840354169E+04	Apriori delay (usec)	1.01847791475E+04	Resid mbdelay (usec)	6.26943E-03	+/-	1.8E-04
Sband delay (usec)	1.01840336347E+04	Apriori clock (usec)	-8.5514584E+00	Resid sbdelay (usec)	-7.45513E-01	+/-	1.4E-03
Phase delay (usec)	1.01847791525E+04	Apriori clockrate (us/s)	-8.4386101E-07	Resid phdelay (usec)	5.01091E-06	+/-	6.0E-07
Delay rate (us/s)	1.64020275616E+00	Apriori rate (us/s)	1.64019686207E+00	Resid rate (us/s)	5.89410E-06	+/-	5.8E-09
Total phase (deg)	70.1	Apriori accel (us/s/s)	-5.95569640184E-05	Resid phase (deg)	155.4	+/-	18.6

ph/seg (deg)	51.6	Theor.	43.7	Amplitude	0.188 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.2		76.3	Search (1024X32)	0.164	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.9		26.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.9		46.0	Inc. seg. avg.	0.180	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.181	Data rate(Mb/s): 2048	t_cohere infinite			

I: az 110.9 el 41.2 pa -50.2 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9565.973 -3238.096 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/IZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/IZ.W.184.3MP3E9

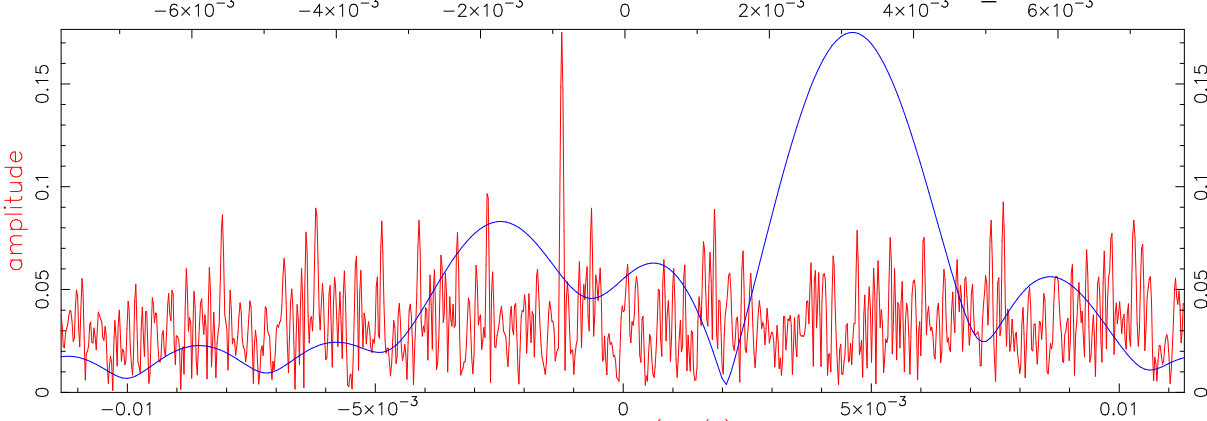
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, IZ

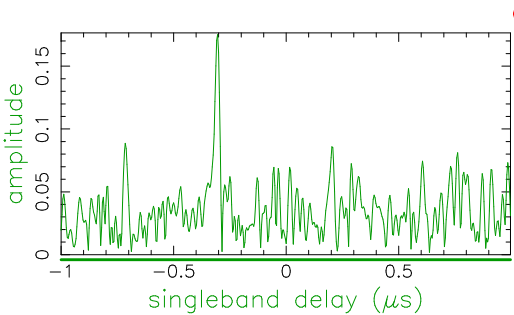
VLBA_LA - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

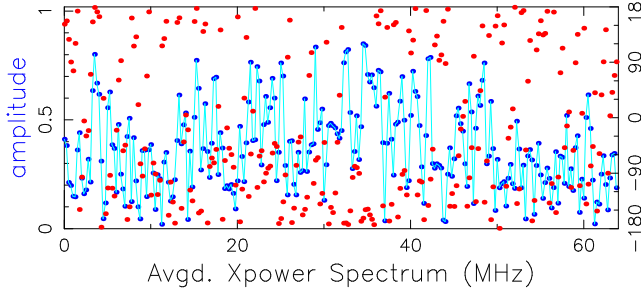


Fringe quality 0

SNR 6.4
 Int time 179.836
 Amp 0.177
 Phase -101.9
 PFD 1.6e-02
 Delays (us)
 SBD -0.305665
 MBD 0.003132
 Fringe rate (Hz)
 -0.106812
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

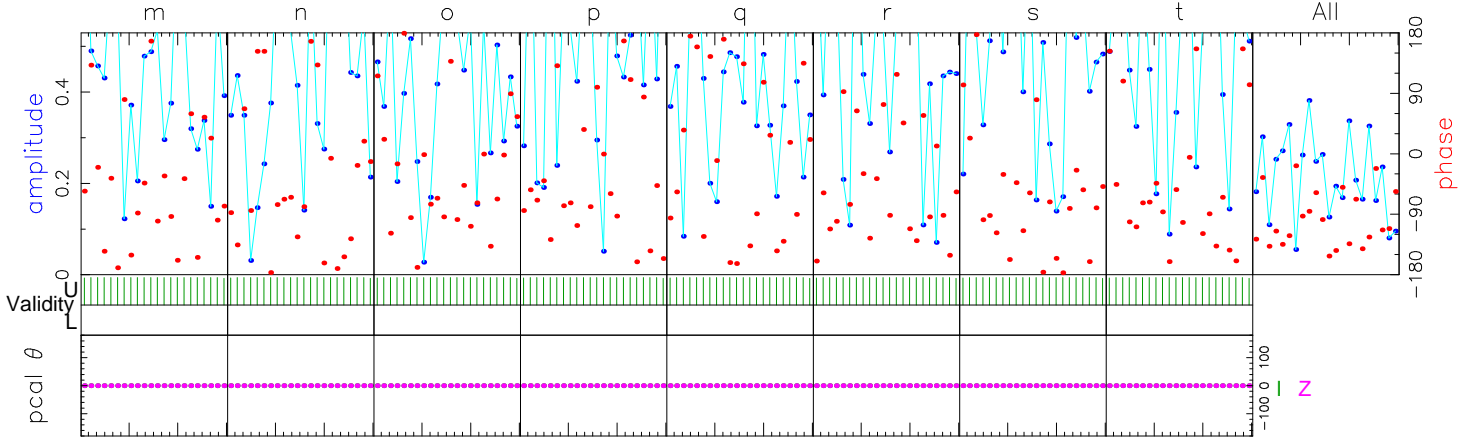


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183142
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.1	-116.2	-84.9	-103.4	-156.1	-90.7	-84.6	-104.6	Phase	-101.9
	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.2	Ampl.	0.2
	261.6	306.9	459.7	248.3	412.3	69.3	179.3	40.3	Sbd box	178.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
I:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.01844697799E+04	Apriori delay (usec)	1.01847791475E+04	Resid mbdelay (usec)	3.13247E-03	+/-	1.7E-04
Sband delay (usec)	1.01844734827E+04	Apriori clock (usec)	-8.5514584E+00	Resid sbdelay (usec)	-3.05665E-01	+/-	1.3E-03
Phase delay (usec)	1.01847791442E+04	Apriori clockrate (us/s)	-8.4386101E-07	Resid phdelay (usec)	-3.28517E-06	+/-	5.7E-07
Delay rate (us/s)	1.64019562208E+00	Apriori rate (us/s)	1.64019686207E+00	Resid rate (us/s)	-1.23998E-06	+/-	5.5E-09
Total phase (deg)	172.9	Apriori accel (us/s/s)	-5.95569640184E-05	Resid phase (deg)	-101.9	+/-	17.8

ph/seg (deg)	41.2	Theor.	41.7	Amplitude	0.177 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	55.4		72.8	Search (1024X32)	0.172	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	25.8		25.2	Inc. seg. avg.	0.172	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.9		43.9	Inc. frq. avg.	0.171	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 110.9 el 41.2 pa -50.2 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9565.973 -3238.096 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/IZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/IZ.W.206.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

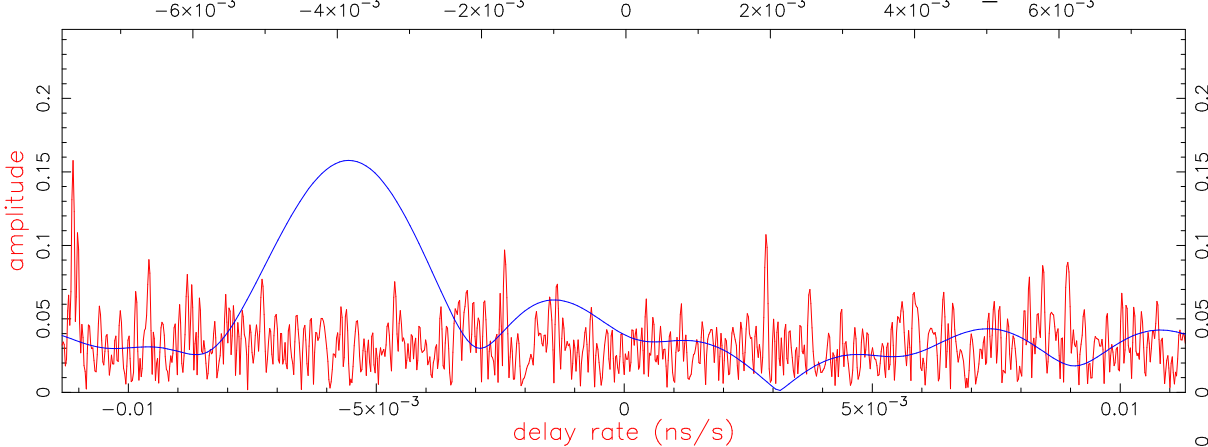
aux01

1749+096.3MP3E9, No0816, IZ

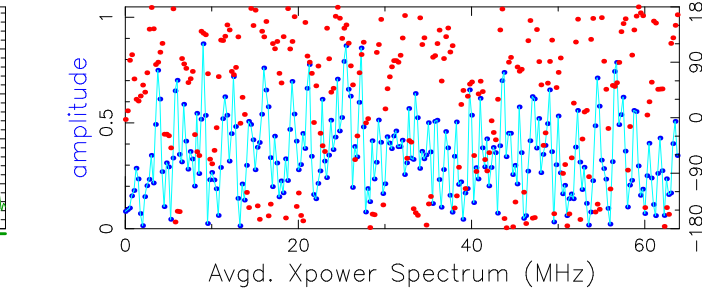
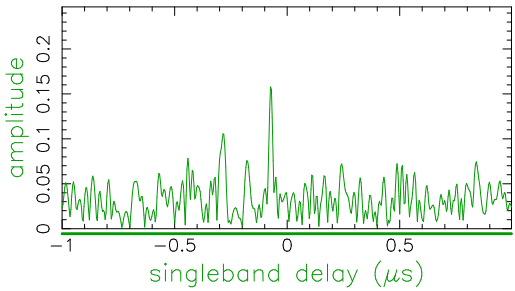
VLBA_LA - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

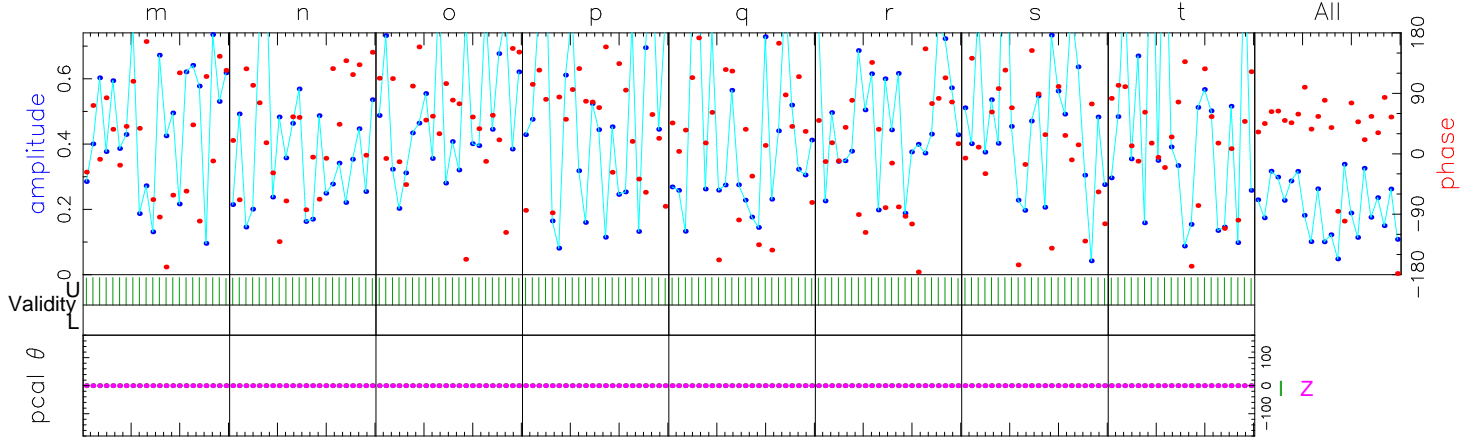


SNR 5.9
Int time 179.836
Amp 0.247
Phase 51.5
PFD 4.2e-01
Delays (us)
SBD -0.072659
MBD -0.003800
Fringe rate (Hz)
-0.958547
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183144
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



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

Group delay (usec) (SBD)	1.01847128475E+04	Apriori delay (usec)	1.01847791475E+04	Resid mbdelay (usec)	-3.79994E-03	+/-	1.8E-04
Sband delay (usec)	1.01847064885E+04	Apriori clock (usec)	-8.5514584E+00	Resid sbdelay (usec)	-7.26590E-02	+/-	1.5E-03
Phase delay (usec)	1.01847791491E+04	Apriori clockrate (us/s)	-8.4386101E-07	Resid phdelay (usec)	1.66162E-06	+/-	6.3E-07
Delay rate (us/s)	1.64018573428E+00	Apriori rate (us/s)	1.64019686207E+00	Resid rate (us/s)	-1.11278E-05	+/-	6.0E-09
Total phase (deg)	326.3	Apriori accel (us/s/s)	-5.95569640184E-05	Resid phase (deg)	51.5	+/-	19.5

ph/seg (deg)	54.6	Theor.	45.8	Amplitude	0.247 +/- 0.042	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.8		79.9	Search (1024X32)	0.151	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.1		27.6	Inc. seg. avg.	0.243	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	36.1		48.2	Inc. frq. avg.	0.229	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

I: az 110.9 el 41.2 pa -50.2 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) -9565.973 -3238.096 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/IZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/IZ.W.221.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

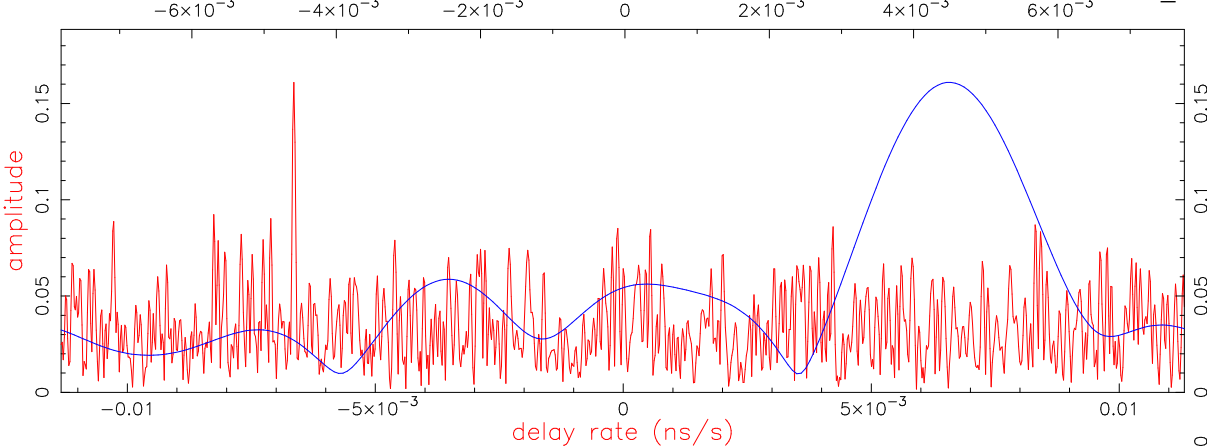
aux01

1749+096.3MP3E9, No0816, Zn

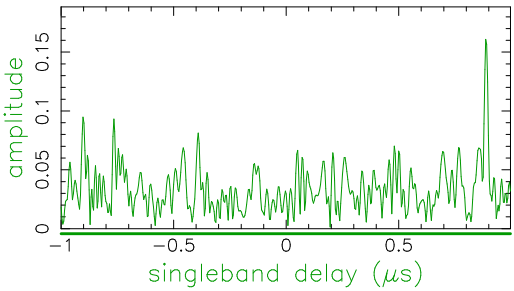
MEṬSAHOV - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

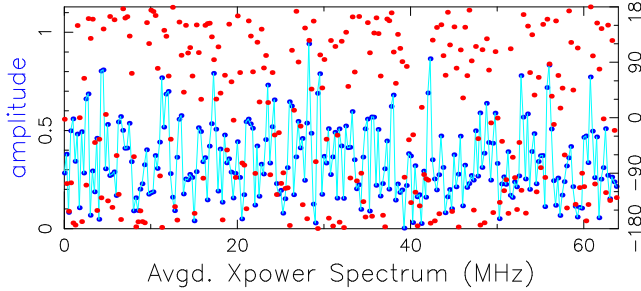
Fringe quality 0



SNR 5.9
 Int time 178.237
 Amp 0.188
 Phase -106.1
 PFD 3.0e-01
 Delays (us)
 SBD 0.888101
 MBD 0.004531
 Fringe rate (Hz)
 -0.573179
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

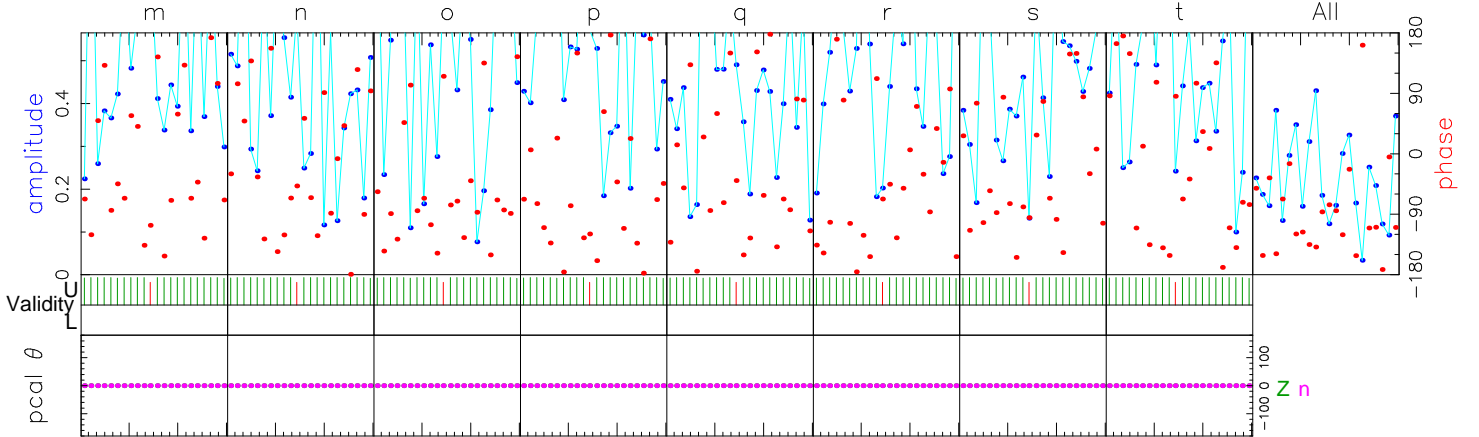


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183136
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.3	-116.4	-95.2	-115.2	-76.1	-110.8	-84.5	-135.9	Phase	-106.1
	0.2	0.1	0.4	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	497.0	105.7	485.5	140.5	61.1	352.3	235.1	74.4	Sbd box	484.4
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.19637076061E+04	Apriori delay (usec)	-1.19646027619E+04	Resid mbdelay (usec)	4.53077E-03	+/-	1.8E-04
Sband delay (usec)	-1.19637146611E+04	Apriori clock (usec)	5.3079414E-01	Resid sbdelay (usec)	8.88101E-01	+/-	1.4E-03
Phase delay (usec)	-1.19646027653E+04	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	-3.42073E-06	+/-	6.2E-07
Delay rate (us/s)	-1.33862804602E+00	Apriori rate (us/s)	-1.33862139198E+00	Resid rate (us/s)	-6.65404E-06	+/-	6.0E-09
Total phase (deg)	-72.4	Apriori accel (us/s/s)	6.74406787386E-05	Resid phase (deg)	-106.1	+/-	19.3

ph/seg (deg)	51.5	Theor.	45.1	Amplitude	0.188 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.0		78.7	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	21.0		27.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.5		47.6	Inc. seg. avg.	0.198	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.	0.174	Data rate(Mb/s): 2048				

Z: az 270.6 el 10.8 pa 30.3 n: az 131.0 el 48.0 pa -34.6 u,v (fr/asec) 7816.981 2638.419 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/Zn..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/Zn.W.161.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

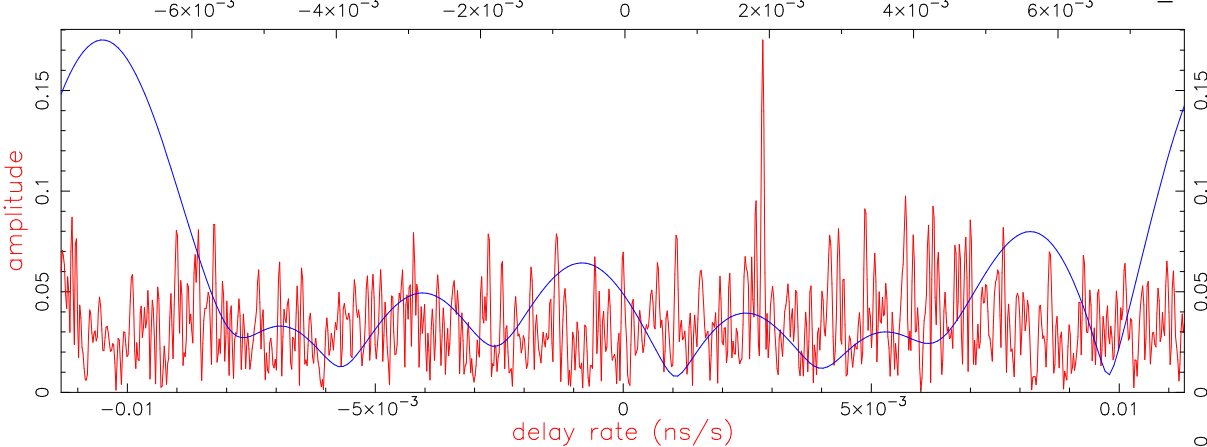
aux01

1749+096.3MP3E9, No0816, Zn

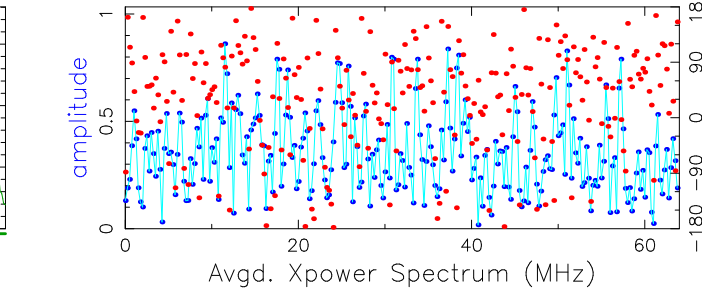
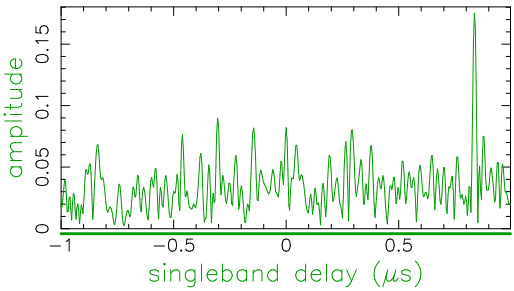
MEṬSAHOV - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

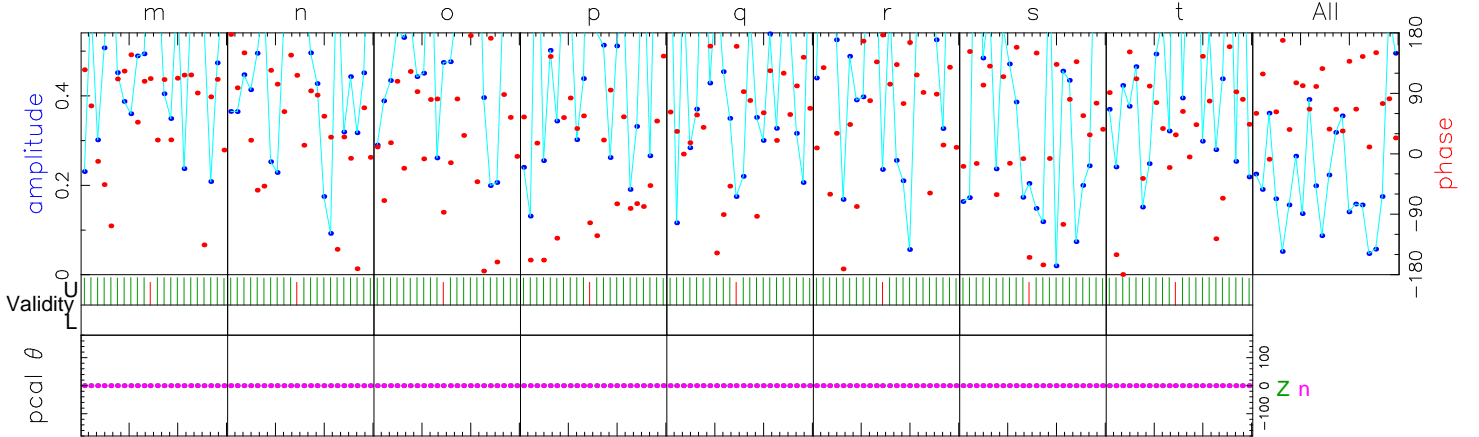


SNR 6.4
Int time 178.237
Amp 0.180
Phase 66.6
PFD 1.9e-02
Delays (us)
SBD 0.836716
MBD -0.007218
Fringe rate (Hz)
0.242456
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183141
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	89.9	66.0	41.8	22.2	68.5	87.8	52.4	70.0	Phase	66.6
	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	Ampl.	0.2
	189.2	219.8	255.8	3.7	86.8	339.1	62.9	468.5	Sbd box	471.2
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.19637662301E+04	Apriori delay (usec)	-1.19646027619E+04	Resid mbdelay (usec)	-7.21819E-03	+/-	1.7E-04
Sband delay (usec)	-1.19637660456E+04	Apriori clock (usec)	5.3079414E-01	Resid sbdelay (usec)	8.36716E-01	+/-	1.3E-03
Phase delay (usec)	-1.19646027597E+04	Apriori clockrate (us/s)	3.1259999E-07	Resid phdelay (usec)	2.14821E-06	+/-	5.8E-07
Delay rate (us/s)	-1.33861857730E+00	Apriori rate (us/s)	-1.33862139198E+00	Resid rate (us/s)	2.81468E-06	+/-	5.6E-09
Total phase (deg)	-259.7	Apriori accel (us/s/s)	6.74406787386E-05	Resid phase (deg)	66.6	+/-	17.9

ph/seg (deg)	48.9	Theor.	41.8	Amplitude	0.180 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	84.0	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)	25.1	Inc. seg. avg.	0.183	Inc. frq. avg.	0.174	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	27.3	Inc. frq. avg.	0.174			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

Z: az 270.6 el 10.8 pa 30.3 n: az 131.0 el 48.0 pa -34.6 u,v (fr/asec) 7816.981 2638.419 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//Zn..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//Zn.W.196.3MP3E9

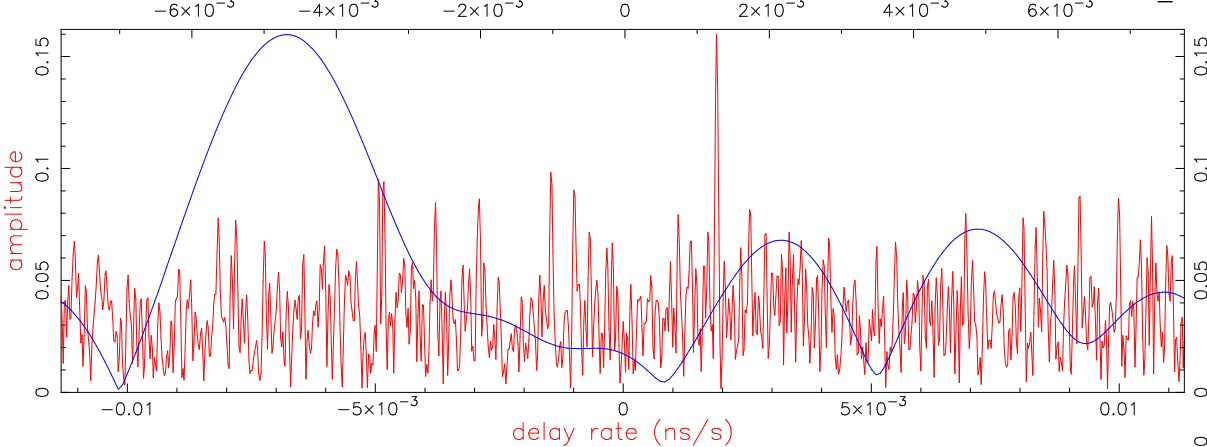
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, Zn

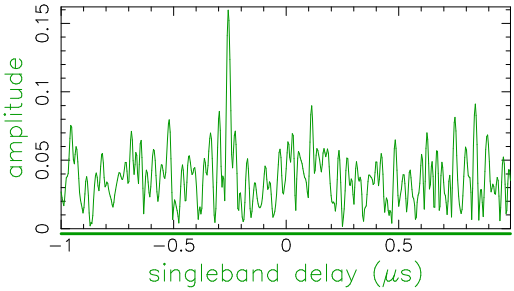
MEṬSAHOV - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

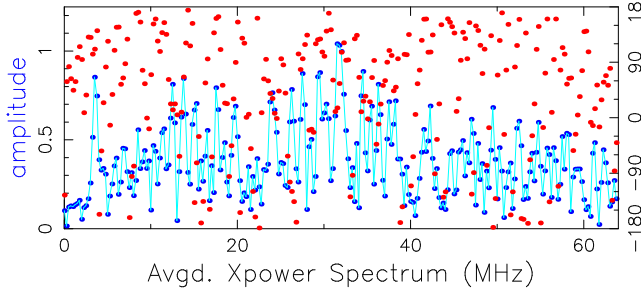


Fringe quality 0

SNR 5.9
 Int time 178.237
 Amp 0.162
 Phase 66.7
 PFD 4.6e-01
 Delays (us)
 SBD -0.257034
 MBD -0.004663
 Fringe rate (Hz)
 0.161812
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

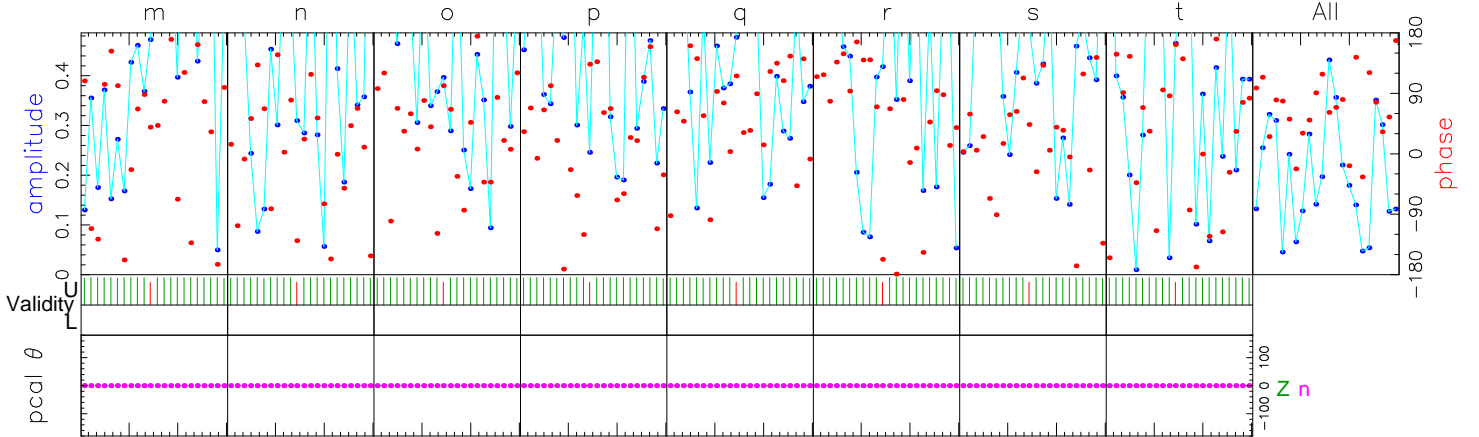


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183143
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	350/0	350/0	350/0	350/0	350/0	350/0	350/0	350/0		
Z	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -1.19648574251E+04 Apriori delay (usec) -1.19646027619E+04 Resid mbdelay (usec) -4.66325E-03 +/- 1.9E-04
 Sband delay (usec) -1.19648597956E+04 Apriori clock (usec) 5.3079414E-01 Resid sbdelay (usec) -2.57034E-01 +/- 1.5E-03
 Phase delay (usec) -1.19646027597E+04 Apriori clockrate (us/s) 3.1259999E-07 Resid phdelay (usec) 2.15144E-06 +/- 6.3E-07
 Delay rate (us/s) -1.33861951351E+00 Apriori rate (us/s) -1.33862139198E+00 Resid rate (us/s) 1.87848E-06 +/- 6.1E-09
 Total phase (deg) -259.6 Apriori accel (us/s/s) 6.74406787386E-05 Resid phase (deg) 66.7 +/- 19.6

RMS Theor. Amplitude 0.162 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.5 45.8 Search (1024X32) 0.158 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 73.7 79.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 40.9 27.7 Inc. seg. avg. 0.156 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 46.4 48.3 Inc. frq. avg. 0.163 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 270.6 el 10.8 pa 30.3 n: az 131.0 el 48.0 pa -34.6 u,v (fr/asec) 7816.981 2638.419 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/Zn..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/Zn.W.212.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

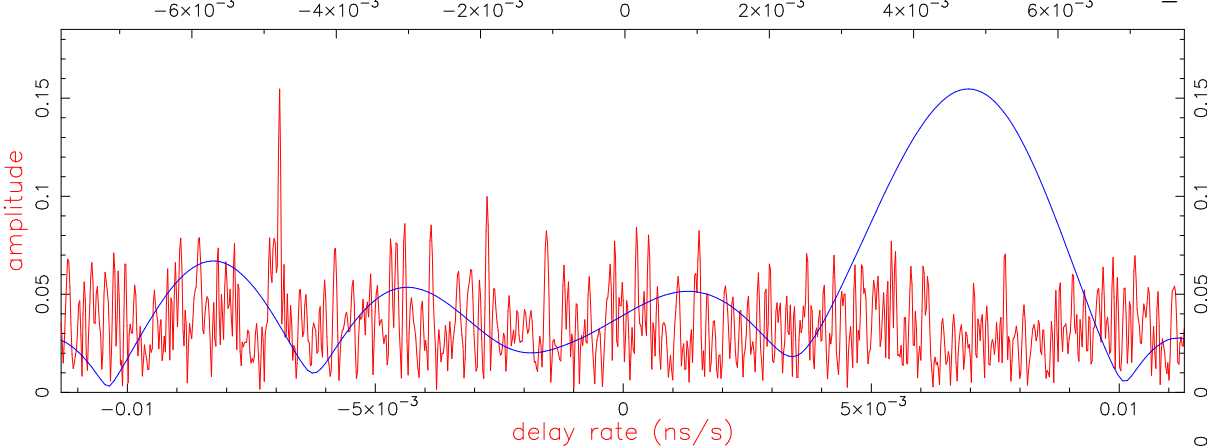
aux01

1749+096.3MP3E9, No0816, Zp

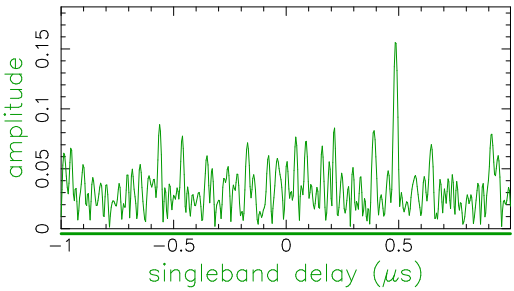
METSAHOV - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

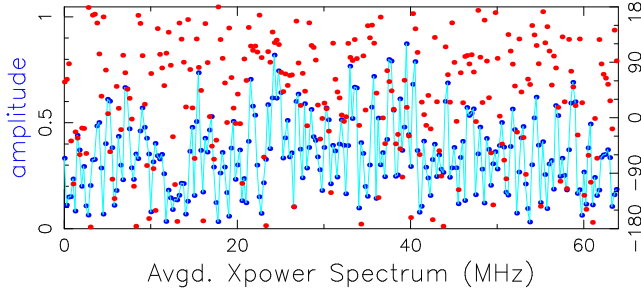
Fringe quality 0



SNR 5.8
 Int time 179.835
 Amp 0.185
 Phase -137.7
 PFD 5.9e-01
 Delays (us)
 SBD 0.486228
 MBD 0.004806
 Fringe rate (Hz)
 -0.598462
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

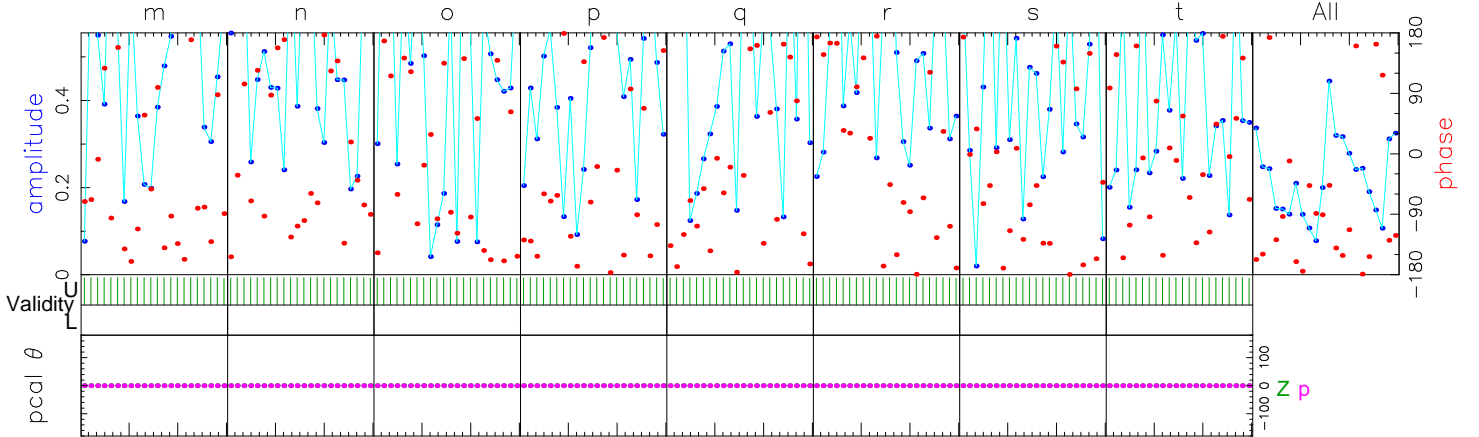


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183137
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-124.6	-119.1	-175.2	-123.7	-133.5	-179.2	-143.1	-42.9	Phase	-137.7
	0.3	0.2	0.3	0.2	0.3	0.1	0.2	0.1	Ampl.	0.2
	278.2	297.4	273.9	387.8	58.1	268.8	91.5	164.6	Sbd box	381.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-9.93355129364E+03	Apriori delay (usec)	-9.93404047511E+03	Resid mbdelay (usec)	4.80647E-03	+/-	1.9E-04
Sband delay (usec)	-9.93355424711E+03	Apriori clock (usec)	-5.4583378E+00	Resid sbdelay (usec)	4.86228E-01	+/-	1.5E-03
Phase delay (usec)	-9.93404047956E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-4.44070E-06	+/-	6.4E-07
Delay rate (us/s)	-1.68492594019E+00	Apriori rate (us/s)	-1.68491899264E+00	Resid rate (us/s)	-6.94755E-06	+/-	6.1E-09
Total phase (deg)	-327.2	Apriori accel (us/s/s)	5.85463365327E-05	Resid phase (deg)	-137.7	+/-	19.8

ph/seg (deg)	RMS 54.6	Theor. 46.4	Amplitude Search (1024X32)	0.152	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.4	81.0	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)	46.3	28.0	Inc. seg. avg.	0.198	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.4	48.9	Inc. frq. avg.	0.183	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

Z: az 270.6 el 10.8 pa 30.3 p: az 108.1 el 40.2 pa -52.7 u,v (fr/asec) 9825.609 3407.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/Zp..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/Zp.W.165.3MP3E9

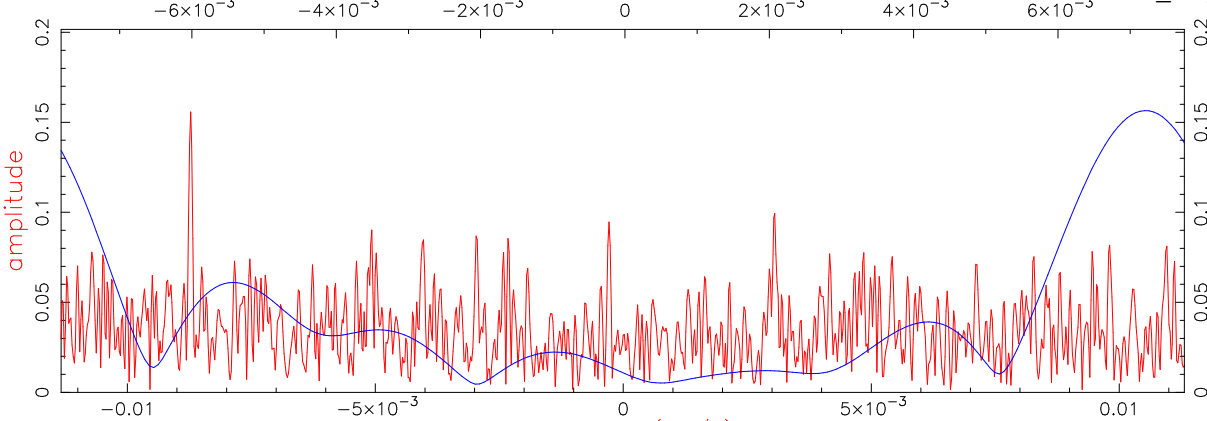
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, Zp

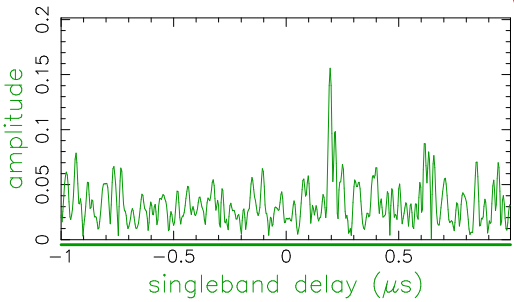
ME TSAHOV - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

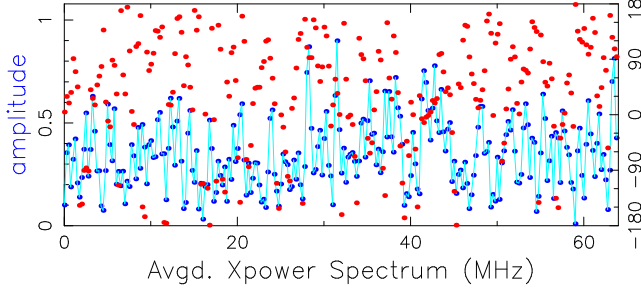


Fringe quality 0

SNR 5.7
 Int time 179.835
 Amp 0.202
 Phase -105.6
 PFD 7.5e-01
 Delays (us)
 SBD 0.195376
 MBD -0.008301
 Fringe rate (Hz)
 -0.753416
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

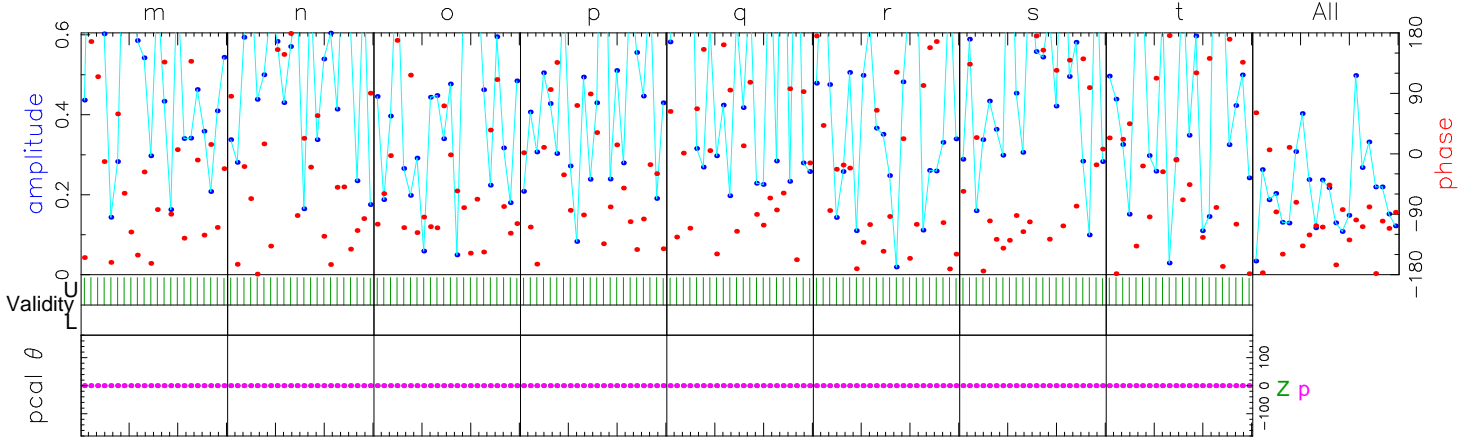


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183139
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-102.0	-104.8	-107.8	-78.6	-91.0	-123.8	-129.3	-94.4	Phase	-105.6
	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1	Ampl.	0.2
	164.1	411.6	78.4	144.9	18.1	160.8	166.8	475.0	Sbd box	307.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-9.93384565090E+03	Apriori delay (usec)	-9.93404047511E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	1.9E-04
Sband delay (usec)	-9.93384509911E+03	Apriori clock (usec)	-5.4583378E+00	Resid sbdelay (usec)	1.95376E-01	+/-	1.5E-03
Phase delay (usec)	-9.93404047852E+03	Apriori clockrate (us/s)	2.3116296E-07	Resid phdelay (usec)	-3.40609E-06	+/-	6.5E-07
Delay rate (us/s)	-1.68492773905E+00	Apriori rate (us/s)	-1.68491899264E+00	Resid rate (us/s)	-8.74641E-06	+/-	6.2E-09
Total phase (deg)	-295.1	Apriori accel (us/s/s)	5.85463365327E-05	Resid phase (deg)	-105.6	+/-	20.1

ph/seg (deg)	59.3	Theor.	47.0	Amplitude	0.202 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.9	Search (1024X32)	0.153	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	18.2	Inc. seg. avg.	0.206	Inc. frq. avg.	0.187	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.9	Inc. frq. avg.	0.187			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
Z: az 270.6 el 10.8 pa 30.3		p: az 108.1 el 40.2 pa -52.7		u, v (fr/asec)	9825.609 3407.326	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/Zp..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/Zp.W.179.3MP3E9 simultaneous interpolator

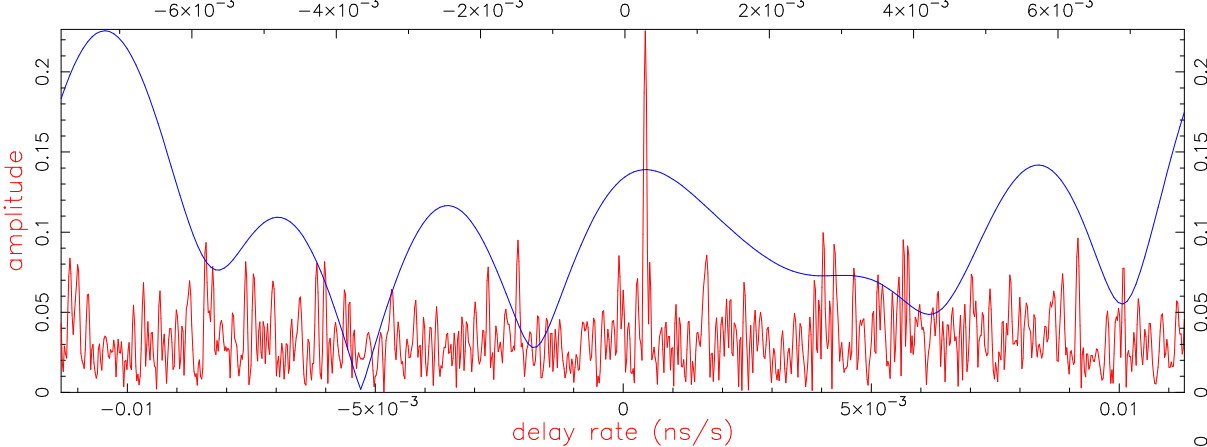
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, ZP

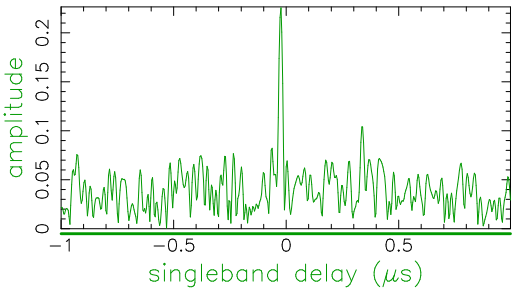
MEṬSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

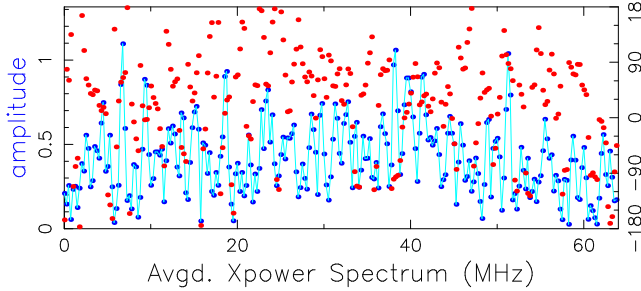


Fringe quality 9

SNR 8.3
 Int time 179.836
 Amp 0.227
 Phase -150.7
 PFD 1.8e-08
 Delays (us)
 SBD -0.024285
 MBD -0.007236
 Fringe rate (Hz)
 0.038189
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

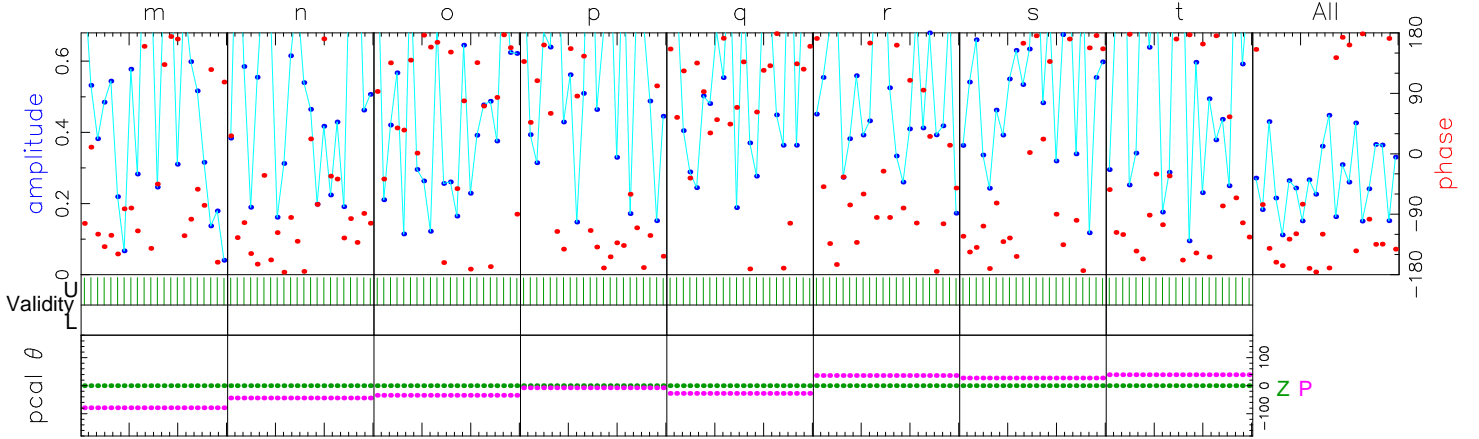


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183140
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-134.9	-113.4	135.4	-157.9	124.6	-96.0	-158.7	-124.7	Phase	-150.7
	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.4	Ampl.	0.3
	248.2	250.8	327.6	251.3	252.5	252.8	252.1	251.5	Sbd box	250.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-7.19162264733E+03	Apriori delay (usec)	-7.19159978591E+03	Resid mbdelay (usec)	-7.23641E-03	+/-	1.3E-04
Sband delay (usec)	-7.19162407091E+03	Apriori clock (usec)	1.1228771E+00	Resid sbdelay (usec)	-2.42850E-02	+/-	1.0E-03
Phase delay (usec)	-7.19159979077E+03	Apriori clockrate (us/s)	1.1622864E-08	Resid phdelay (usec)	-4.85946E-06	+/-	4.5E-07
Delay rate (us/s)	2.74164365164E-01	Apriori rate (us/s)	2.74163921832E-01	Resid rate (us/s)	4.43332E-07	+/-	4.3E-09
Total phase (deg)	-351.8	Apriori accel (us/s/s)	4.32574999193E-05	Resid phase (deg)	-150.7	+/-	13.8

ph/seg (deg)	38.4	Theor.	32.4	Amplitude	0.227 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	46.9	Search (1024X32)	0.224	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.9	Inc. seg. avg.	0.233	Inc. frq. avg.	0.291	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.8	Inc. frq. avg.	0.291			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 270.6 el 10.8 pa 30.3 P: az 257.3 el 31.7 pa 52.2 u,v (fr/asec) -1562.947 2900.232 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZP..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZP.W.188.3MP3E9

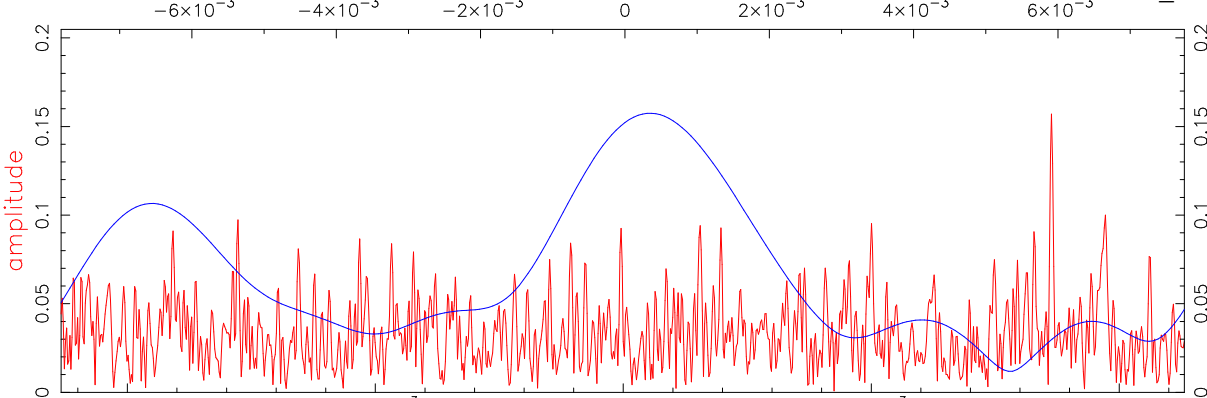
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, Zp

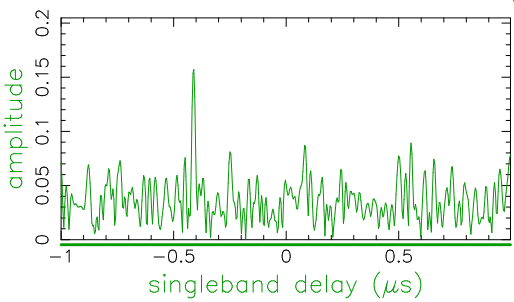
MEṬSAHOV - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

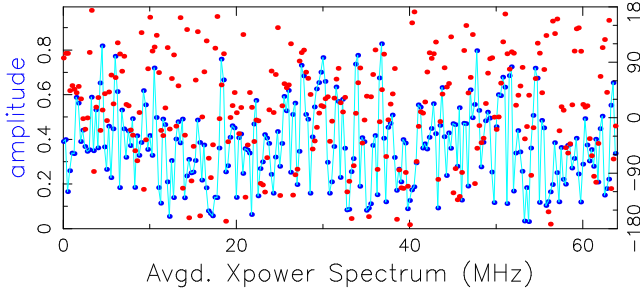


Fringe quality 0

SNR 5.8
Int time 179.835
Amp 0.205
Phase -24.8
PFD 4.8e-01
Delays (us)
SBD -0.411674
MBD 0.000241
Fringe rate (Hz)
0.744429
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

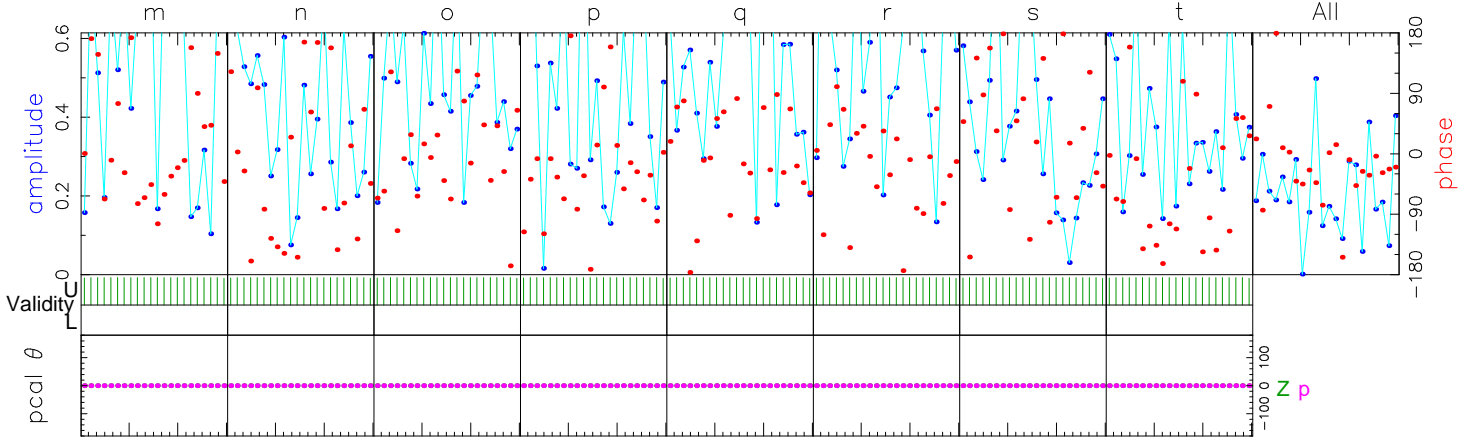


delay rate (ns/s)



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183145
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-41.4	-120.5	11.1	-40.4	11.6	-28.3	58.9	-78.5	Phase	-24.8
	0.3	0.1	0.3	0.4	0.3	0.4	0.1	0.1	Ampl.	0.2
	54.1	81.6	279.5	152.1	508.9	151.9	387.1	377.9	Sbd box	151.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-9.93444648444E+03		Apriori delay (usec)		-9.93404047511E+03		Resid mbdelay (usec)		2.40676E-04	+/- 1.9E-04
Sband delay (usec)	-9.93445214936E+03		Apriori clock (usec)		-5.4583378E+00		Resid sbdelay (usec)		-4.11674E-01	+/- 1.5E-03
Phase delay (usec)	-9.93404047591E+03		Apriori clockrate (us/s)		2.3116296E-07		Resid phdelay (usec)		-7.99206E-07	+/- 6.3E-07
Delay rate (us/s)	-1.68491035056E+00		Apriori rate (us/s)		-1.68491899264E+00		Resid rate (us/s)		8.64208E-06	+/- 6.1E-09
Total phase (deg)			Apriori accel (us/s/s)		5.85463365327E-05		Resid phase (deg)		-24.8	+/- 19.6

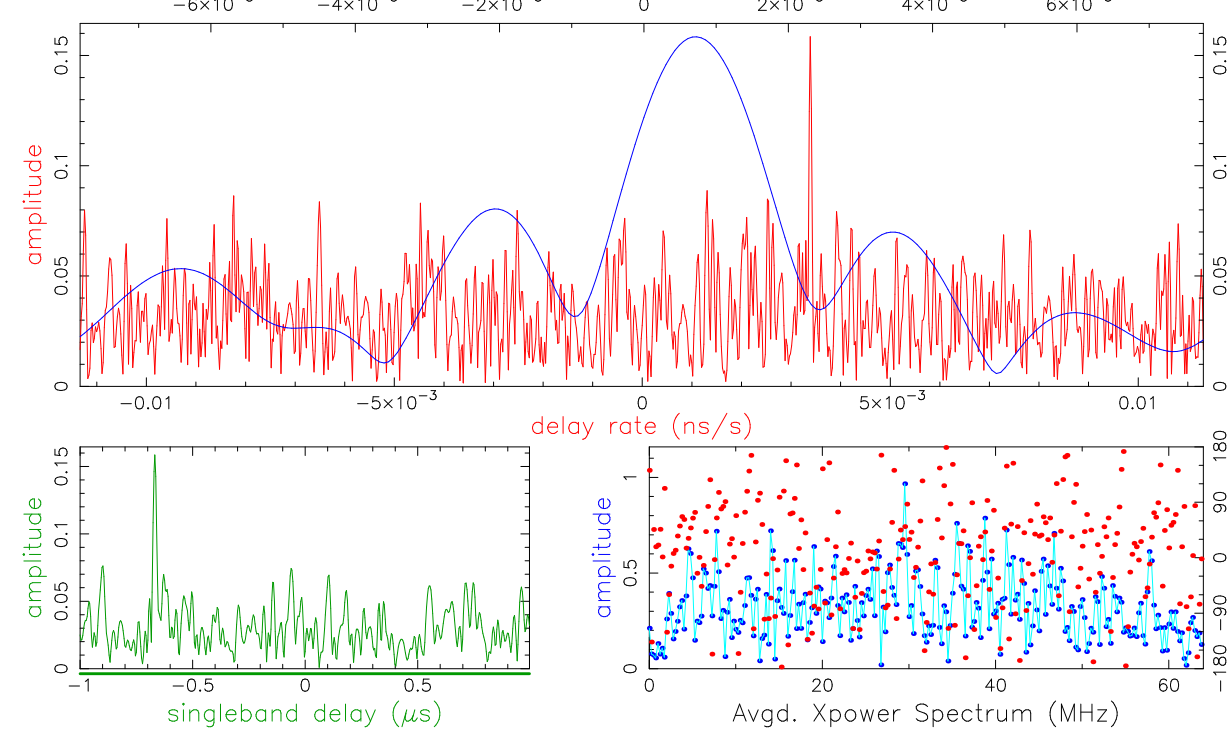
ph/seg (deg) 54.3 46.0 Search (1024X32) 0.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.2 80.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 60.8 27.8 Inc. seg. avg. 0.206 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 64.7 48.4 Inc. frq. avg. 0.222 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 270.6 el 10.8 pa 30.3 p: az 108.1 el 40.2 pa -52.7 u, v (fr/asec) 9825.609 3407.326 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//Zp..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//Zp.W.227.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

aux01

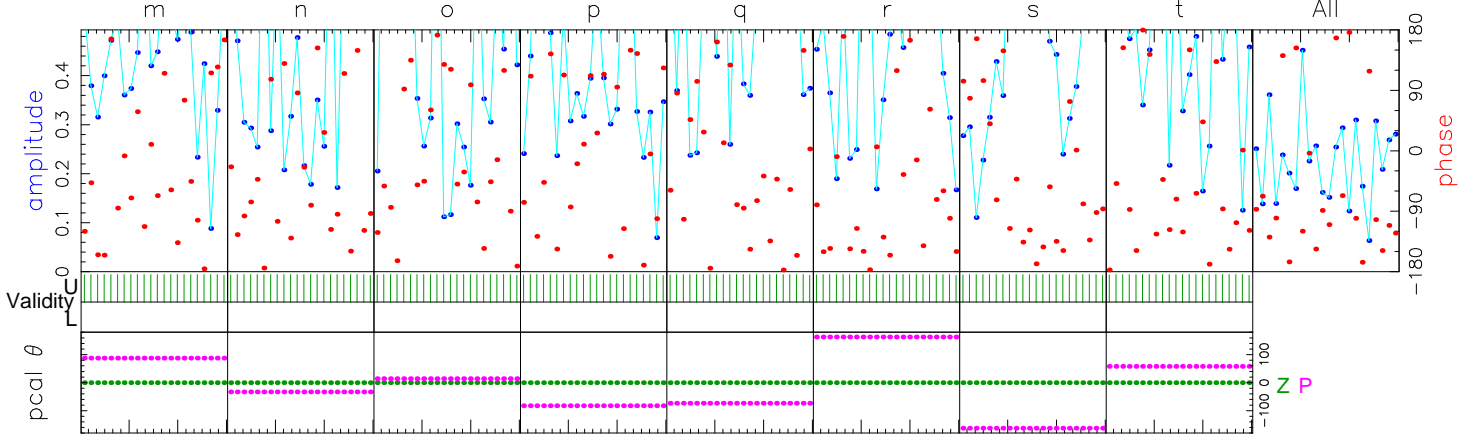
1749+096.3MP3E9, No0816, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol LR



Fringe quality 0
 SNR 5.8
 Int time 179.836
 Amp 0.165
 Phase -124.6
 PFD 5.3e-01
 Delays (us)
 SBD -0.668255
 MBD 0.000707
 Fringe rate (Hz)
 0.291839
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183145
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-118.4	-130.2	-108.5	155.4	-90.6	-138.2	-115.3	-127.2	Phase	-124.6	
	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	Ampl.	0.2	
	418.1	50.0	498.2	30.5	114.6	509.8	191.8	84.5	Sbd box	85.9	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-7.19227095394E+03		Apriori delay (usec)		-7.19159978591E+03		Resid mbdelay (usec)		7.06971E-04 +/- 1.9E-04		
Sband delay (usec)	-7.19226804091E+03		Apriori clock (usec)		1.1228771E+00		Resid sbdelay (usec)		-6.68255E-01 +/- 1.5E-03		
Phase delay (usec)	-7.19159978993E+03		Apriori clockrate (us/s)		1.1622864E-08		Resid phdelay (usec)		-4.01650E-06 +/- 6.4E-07		
Delay rate (us/s)	2.74167309798E-01		Apriori rate (us/s)		2.74163921832E-01		Resid rate (us/s)		3.38797E-06 +/- 6.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		4.32574999193E-05		Resid phase (deg)		-124.6 +/- 19.7		
	RMS	Theor.	Amplitude	0.165 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	55.6	46.2	Search (1024X32)	0.157		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	70.1	80.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	36.9	27.9	Inc. seg. avg.	0.179		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	39.0	48.6	Inc. frq. avg.	0.160		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
Z: az 270.6 el 10.8 pa 30.3	P: az 257.3 el 31.7 pa 52.2		u, v (fr/asec)		-1562.947 2900.232				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0816//ZP..3MP3E9		Output file: /Exps/c241b/v2/3mm/1234/No0816//ZP.W.229.3MP3E9								

Mk4/DiFX fourfit 3.25 rev 0

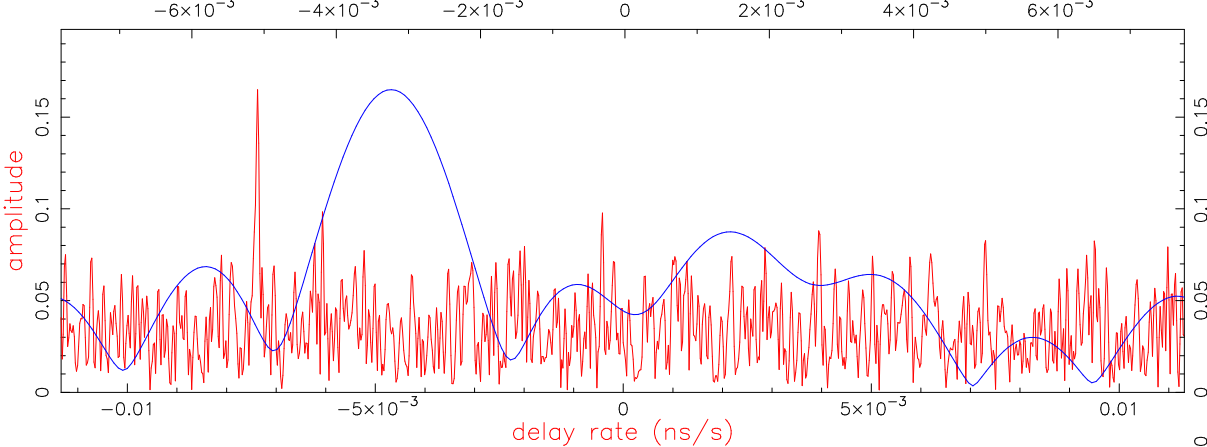
aux01

1749+096.3MP3E9, No0816, ZP

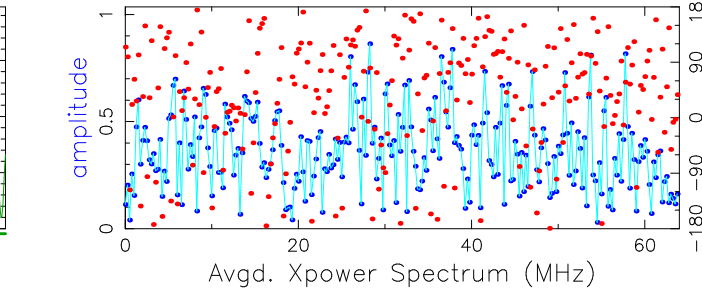
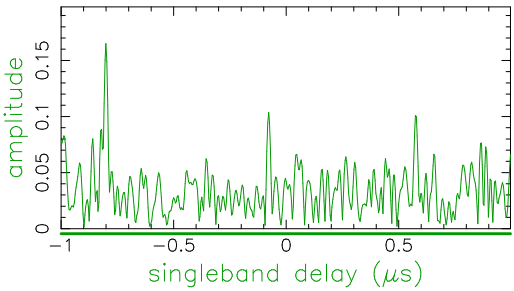
ME TSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

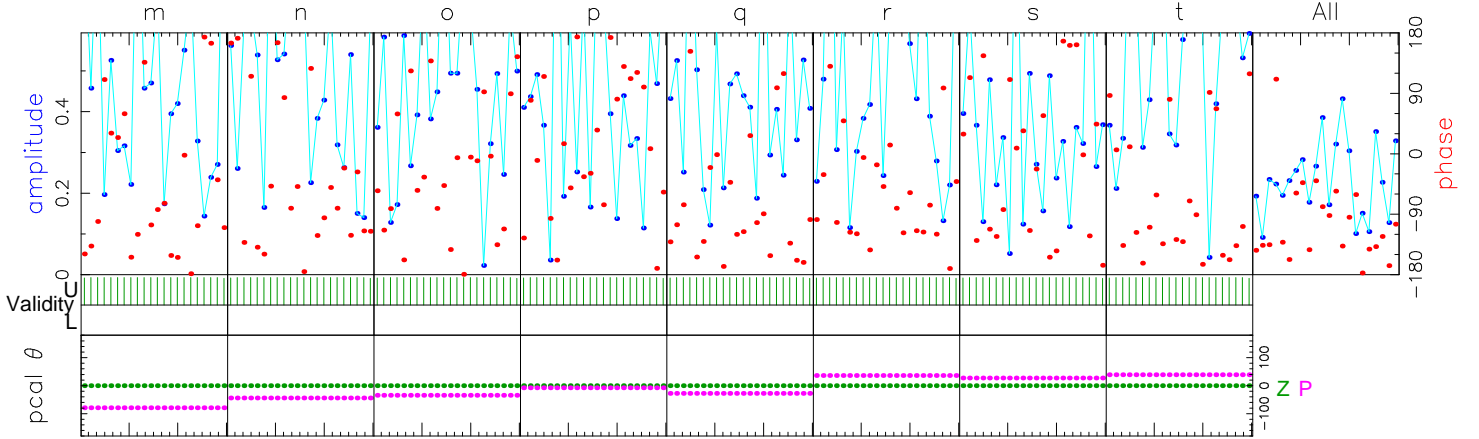


SNR 6.1
 Int time 179.836
 Amp 0.198
 Phase -110.5
 PFD 1.7e-01
 Delays (us)
 SBD -0.800853
 MBD -0.003242
 Fringe rate (Hz)
 -0.636839
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183147
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-122.7	-117.5	-76.0	-50.3	-125.5	-76.2	-126.2	-123.9	Phase	-110.5
	0.3	0.3	0.1	0.0	0.3	0.3	0.1	0.3	Ampl.	0.2
	235.2	337.1	425.0	34.1	424.9	330.3	480.0	23.2	Sbd box	52.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-7.19239990268E+03	Apriori delay (usec)	-7.19159978591E+03	Resid mbdelay (usec)	-3.24177E-03	+/-	1.8E-04
Sband delay (usec)	-7.19240063941E+03	Apriori clock (usec)	1.1228771E+00	Resid sbdelay (usec)	-8.00853E-01	+/-	1.4E-03
Phase delay (usec)	-7.19159978948E+03	Apriori clockrate (us/s)	1.1622864E-08	Resid phdelay (usec)	-3.56240E-06	+/-	6.1E-07
Delay rate (us/s)	2.74156528759E-01	Apriori rate (us/s)	2.74163921832E-01	Resid rate (us/s)	-7.39307E-06	+/-	5.9E-09
Total phase (deg)	-311.6	Apriori accel (us/s/s)	4.32574999193E-05	Resid phase (deg)	-110.5	+/-	18.9

ph/seg (deg)	49.9	Theor.	44.4	Amplitude	0.198 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	69.5		77.5	Search (1024X32)	0.163	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.7		26.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.1		46.7	Inc. seg. avg.	0.216	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.192	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 270.6 el 10.8 pa 30.3 P: az 257.3 el 31.7 pa 52.2 u, v (fr/asec) -1562.947 2900.232 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZP..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZP.W.238.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

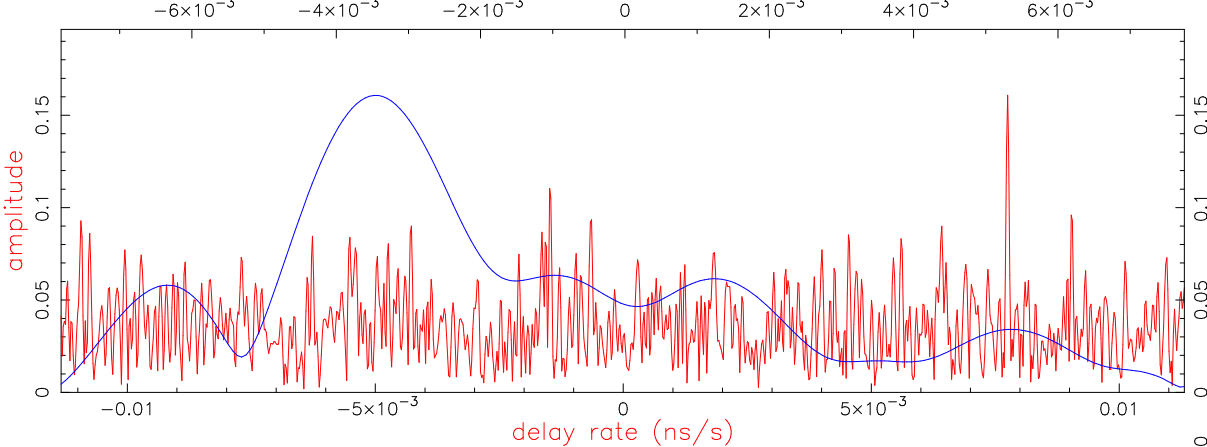
aux01

1749+096.3MP3E9, No0816, ZX

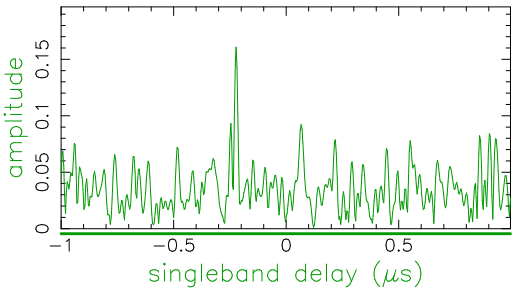
METSAHOV - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

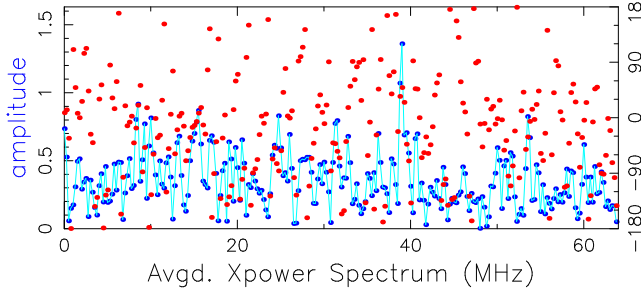
Fringe quality 0



SNR 5.9
 Int time 179.836
 Amp 0.196
 Phase -22.1
 PFD 3.8e-01
 Delays (us)
 SBD -0.222838
 MBD -0.003458
 Fringe rate (Hz)
 0.667733
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

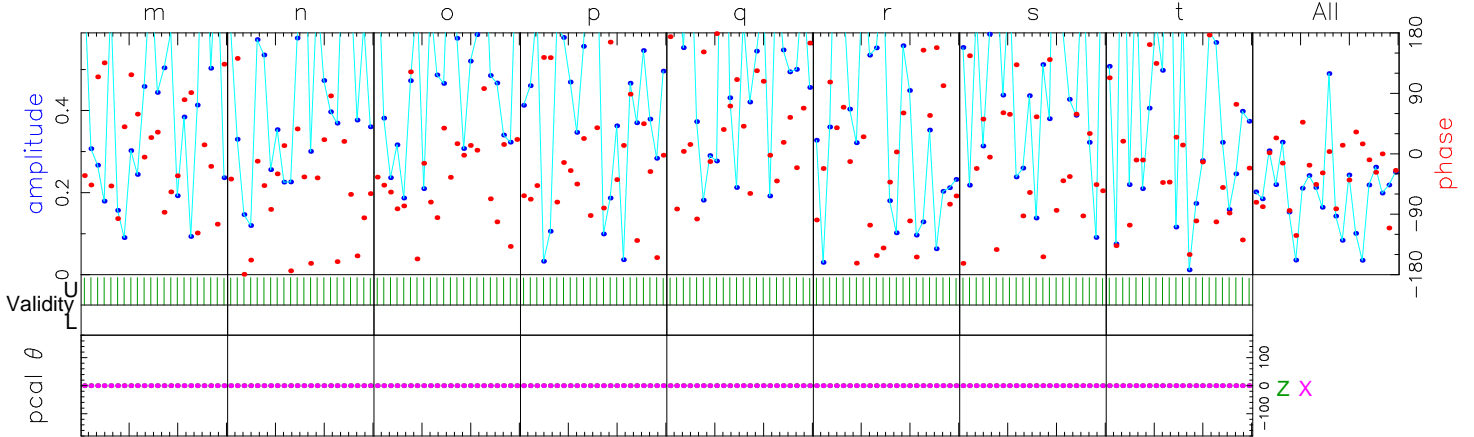


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183138
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-18.6	-35.9	-26.8	-31.8	31.6	15.2	-55.1	-25.7	Phase	-22.1
	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.2	Ampl.	0.2
	478.6	488.8	40.7	293.8	97.6	399.6	294.4	134.0	Sbd box	200.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.50833721811E+03	Apriori delay (usec)	-2.50811501033E+03	Resid mbdelay (usec)	-3.45778E-03	+/-	1.8E-04
Sband delay (usec)	-2.50833784858E+03	Apriori clock (usec)	-1.1254137E+02	Resid sbdelay (usec)	-2.22838E-01	+/-	1.5E-03
Phase delay (usec)	-2.50811501104E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	-7.12058E-07	+/-	6.3E-07
Delay rate (us/s)	3.08594298743E-02	Apriori rate (us/s)	3.08516781505E-02	Resid rate (us/s)	7.75172E-06	+/-	6.0E-09
Total phase (deg)	-18.4	Apriori accel (us/s/s)	1.32200889721E-05	Resid phase (deg)	-22.1	+/-	19.4

ph/seg (deg)	45.8	Theor.	45.6	Amplitude	0.196 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.9		79.5	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.8		27.5	Inc. seg. avg.	0.190	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	37.1		48.0	Inc. frq. avg.	0.194	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 270.6 el 10.8 pa 30.3		X: az 260.5 el 17.4 pa 32.6		u, v (fr/asec)	-171.345 400.604	Data rate(Mb/s): 2048				

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/ZX..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/ZX.W.176.3MP3E9

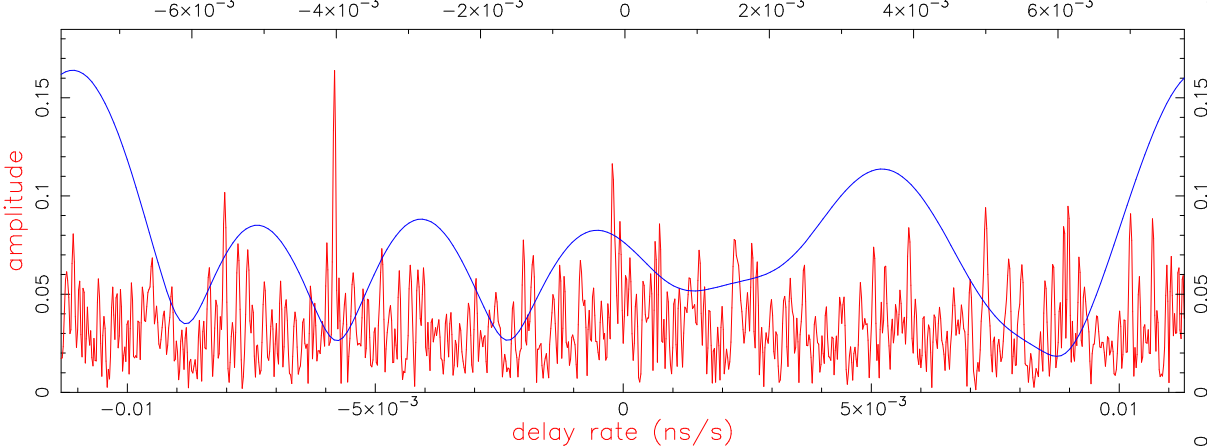
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, ZX

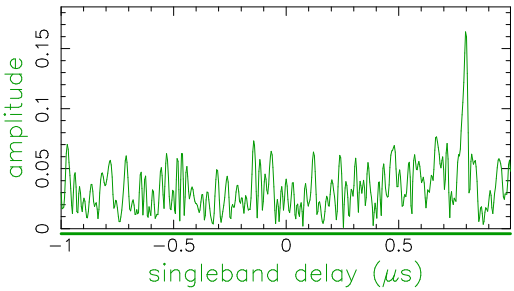
METSAHOV - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

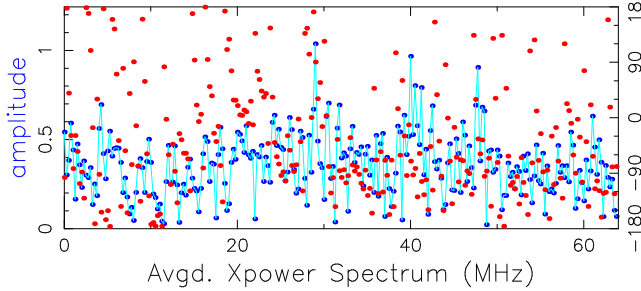


Fringe quality 0

SNR 6.1
 Int time 179.836
 Amp 0.185
 Phase -147.3
 PFD 1.6e-01
 Delays (us)
 SBD 0.798232
 MBD -0.007616
 Fringe rate (Hz)
 -0.502072
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

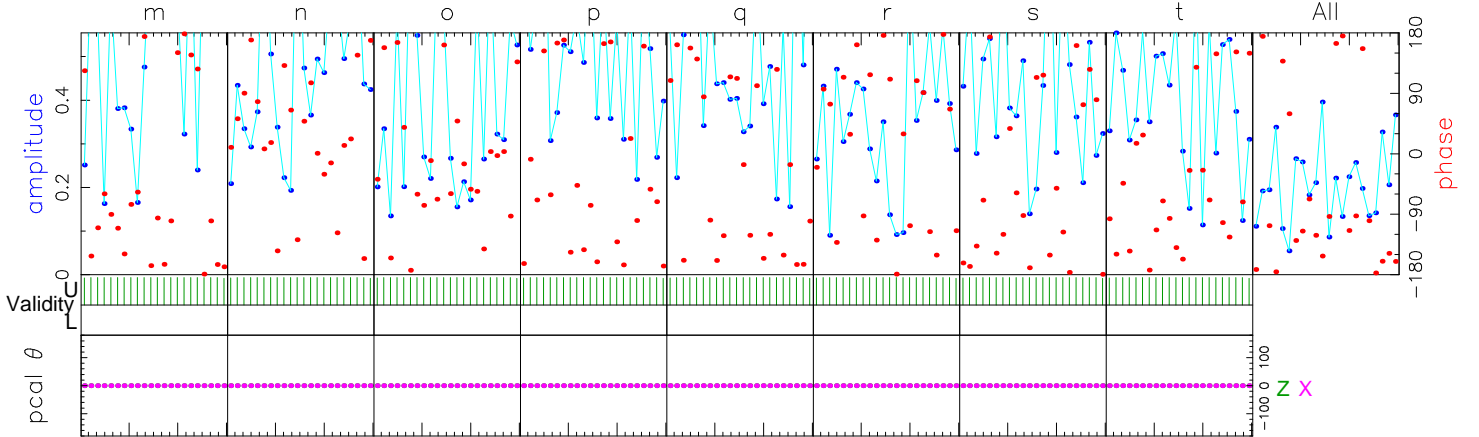


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183141
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-146.1	33.8	-80.1	-142.5	-172.1	-179.7	-155.3	-119.9	Phase	-147.3
	0.5	0.1	0.1	0.3	0.3	0.1	0.3	0.2	Ampl.	0.2
	460.6	60.3	159.6	466.7	461.4	412.0	281.2	257.3	Sbd box	461.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.50731012639E+03	Apriori delay (usec)	-2.50811501033E+03	Resid mbdelay (usec)	-7.61606E-03	+/-	1.8E-04
Sband delay (usec)	-2.50731677858E+03	Apriori clock (usec)	-1.1254137E+02	Resid sbdelay (usec)	7.98232E-01	+/-	1.4E-03
Phase delay (usec)	-2.50811501508E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	-4.74977E-06	+/-	6.1E-07
Delay rate (us/s)	3.08458495981E-02	Apriori rate (us/s)	3.08516781505E-02	Resid rate (us/s)	-5.82855E-06	+/-	5.9E-09
Total phase (deg)		Apriori accel (us/s/s)	1.32200889721E-05	Resid phase (deg)	-147.3	+/-	18.9

ph/seg (deg)	52.0	Theor.	44.3	Amplitude	0.185 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	60.0	Search (1024X32)	0.156	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	80.7	Inc. seg. avg.	0.180	Inc. frq. avg.	0.207	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	65.9	Inc. frq. avg.	0.207			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 270.6 el 10.8 pa 30.3 X: az 260.5 el 17.4 pa 32.6 u,v (fr/asec) -171.345 400.604 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/ZX..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/ZX.W.198.3MP3E9

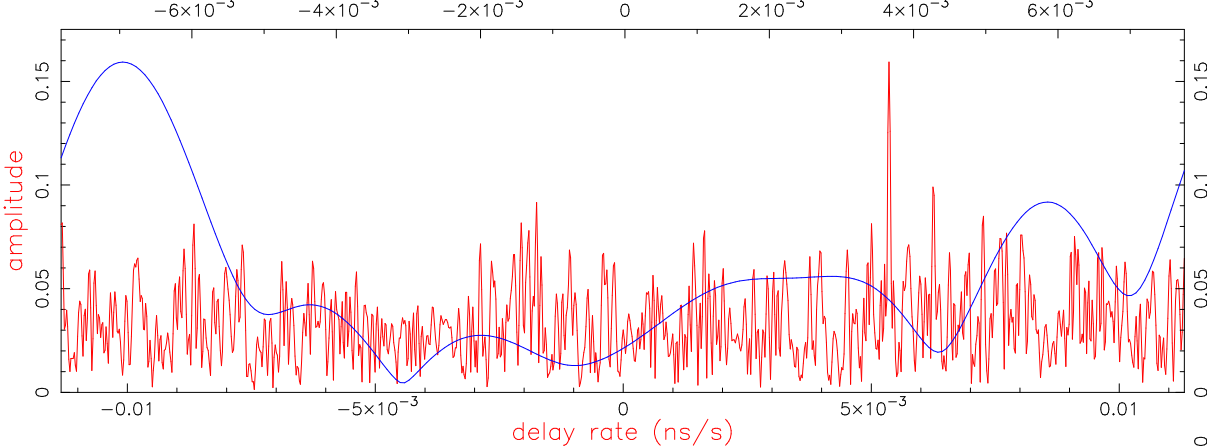
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, ZX

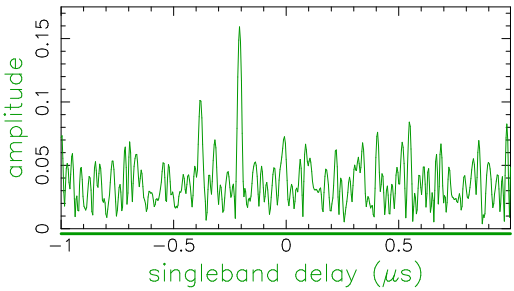
METSAHOV - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

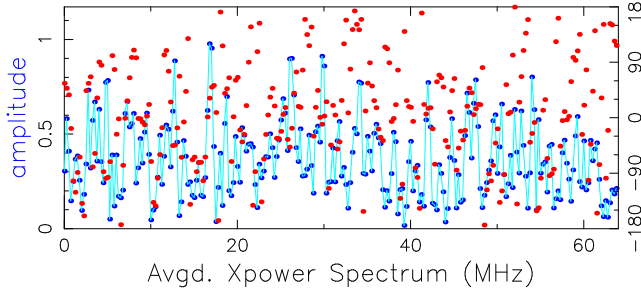


Fringe quality 0

SNR 5.8
 Int time 179.836
 Amp 0.175
 Phase -135.4
 PFD 4.8e-01
 Delays (us)
 SBD -0.207120
 MBD -0.006961
 Fringe rate (Hz)
 0.463203
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

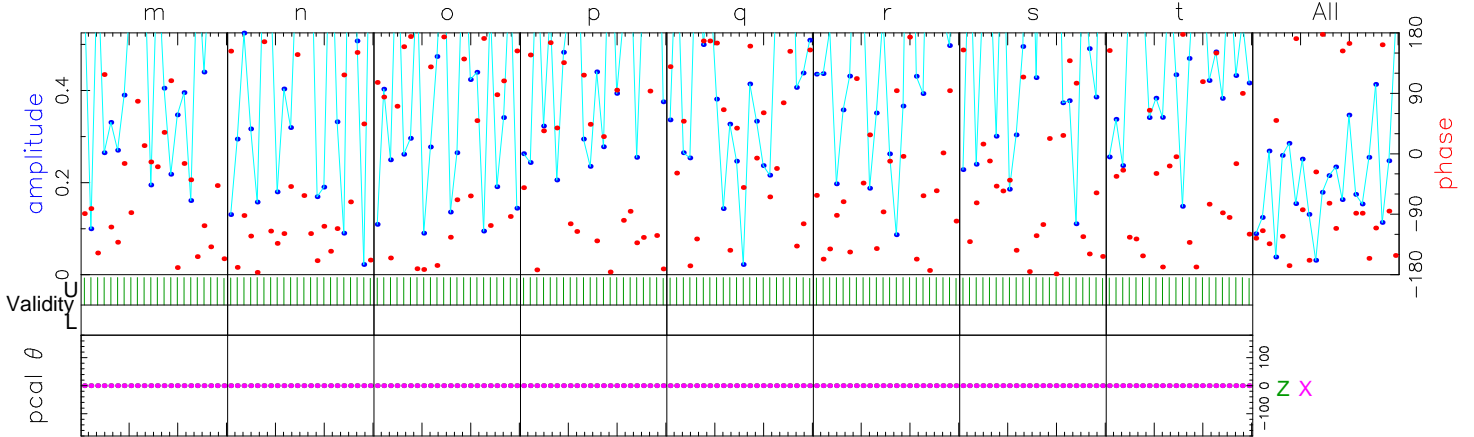


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183143
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.0	-132.4	167.2	-150.5	174.6	-120.2	-124.7	-116.2	Phase	-135.4
	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.2
	509.0	203.4	39.4	138.1	132.6	31.6	13.2	17.2	Sbd box	204.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.50832509648E+03	Apriori delay (usec)	-2.50811501033E+03	Resid mbdelay (usec)	-6.96115E-03	+/-	1.9E-04
Sband delay (usec)	-2.50832213083E+03	Apriori clock (usec)	-1.1254137E+02	Resid sbdelay (usec)	-2.07120E-01	+/-	1.5E-03
Phase delay (usec)	-2.50811501470E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	-4.36699E-06	+/-	6.3E-07
Delay rate (us/s)	3.08570554822E-02	Apriori rate (us/s)	3.08516781505E-02	Resid rate (us/s)	5.37733E-06	+/-	6.1E-09
Total phase (deg)	-131.7	Apriori accel (us/s/s)	1.32200889721E-05	Resid phase (deg)	-135.4	+/-	19.6

ph/seg (deg)	59.4	RMS	46.0	Theor.	Amplitude	0.175 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	79.2	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Interp.	0.000	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.1	Inc. seg. avg.	0.176	Bits/sample: 2x2	Inc. frq. avg.	0.181	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.1	Inc. frq. avg.	0.181	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us			dr window (ns/s)	-0.011 0.011	
Z: az 270.6 el 10.8 pa 30.3		X: az 260.5 el 17.4 pa 32.6		Data rate(Mb/s): 2048			ion window (TEC)	0.00 0.00	
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0816//ZX..3MP3E9		nlags: 256 t_cohere infinite			simultaneous interpolator		
		Output file: /Exps/c241b/v2/3mm/1234/No0816//ZX.W.216.3MP3E9							

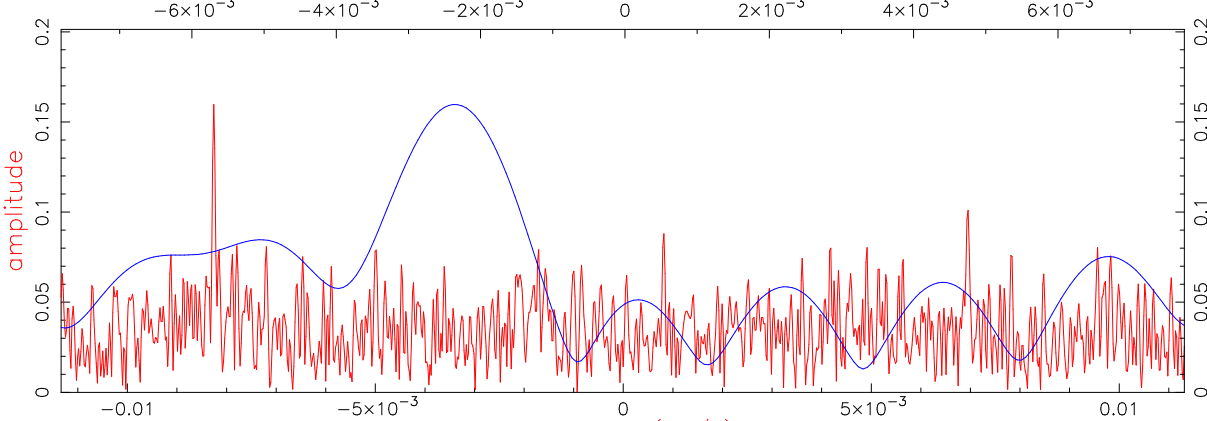
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, ZX

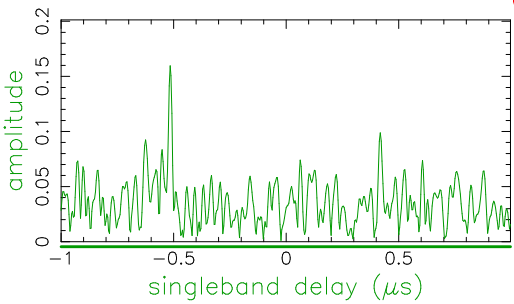
METSAHOV - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

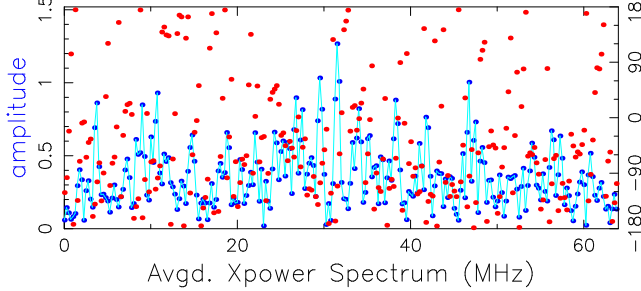


Fringe quality 0

SNR 5.9
Int time 179.836
Amp 0.201
Phase 127.7
PFD 4.2e-01
Delays (us)
SBD -0.514921
MBD -0.002329
Fringe rate (Hz)
-0.711977
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

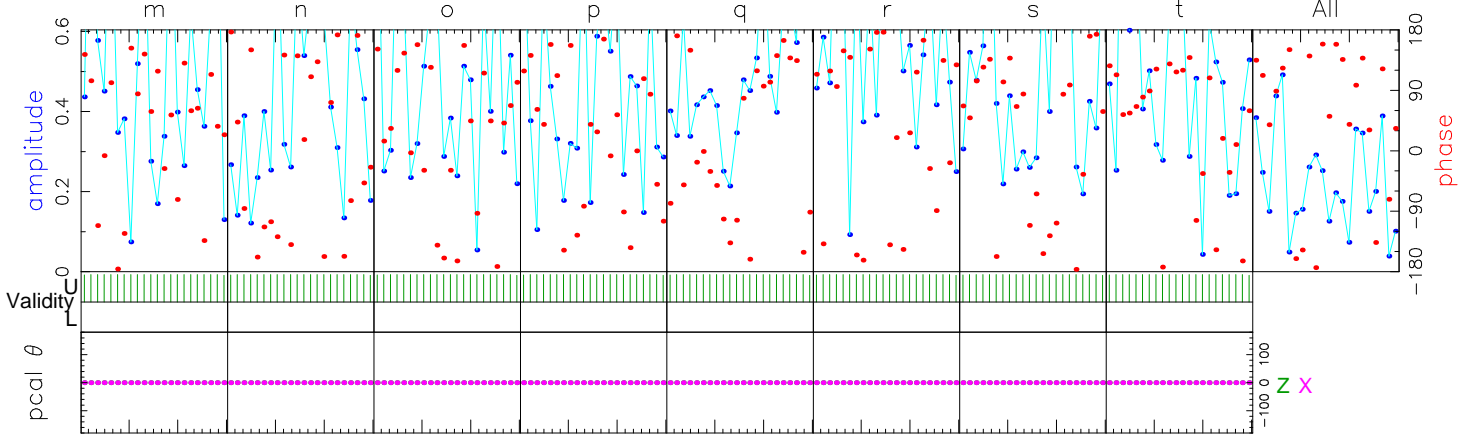


delay rate (ns/s)



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080001.00
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183146
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	90.6	-171.9	126.5	88.8	-178.0	156.3	129.2	95.7	Phase	127.7
	0.3	0.2	0.3	0.1	0.2	0.3	0.3	0.4	Ampl.	0.2
	189.8	231.0	485.7	321.5	286.3	450.2	98.2	125.4	Sbd box	125.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.50863296444E+03	Apriori delay (usec)	-2.50811501033E+03	Resid mbdelay (usec)	-2.32911E-03	+/-	1.8E-04
Sband delay (usec)	-2.50862993158E+03	Apriori clock (usec)	-1.1254137E+02	Resid sbdelay (usec)	-5.14921E-01	+/-	1.5E-03
Phase delay (usec)	-2.50811500621E+03	Apriori clockrate (us/s)	-6.0676312E-07	Resid phdelay (usec)	4.11844E-06	+/-	6.3E-07
Delay rate (us/s)	3.08434128061E-02	Apriori rate (us/s)	3.08516781505E-02	Resid rate (us/s)	-8.26534E-06	+/-	6.0E-09
Total phase (deg)	-228.6	Apriori accel (us/s/s)	1.32200889721E-05	Resid phase (deg)	127.7	+/-	19.5

ph/seg (deg)	66.1	Theor.	45.8	Amplitude	0.201 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	89.3		79.9	Search (1024X32)	0.156	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.5		27.6	Inc. seg. avg.	0.218	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.7		48.2	Inc. frq. avg.	0.218	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 270.6 el 10.8 pa 30.3 X: az 260.5 el 17.4 pa 32.6 u,v (fr/asec) -171.345 400.604 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZX..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZX.W.233.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

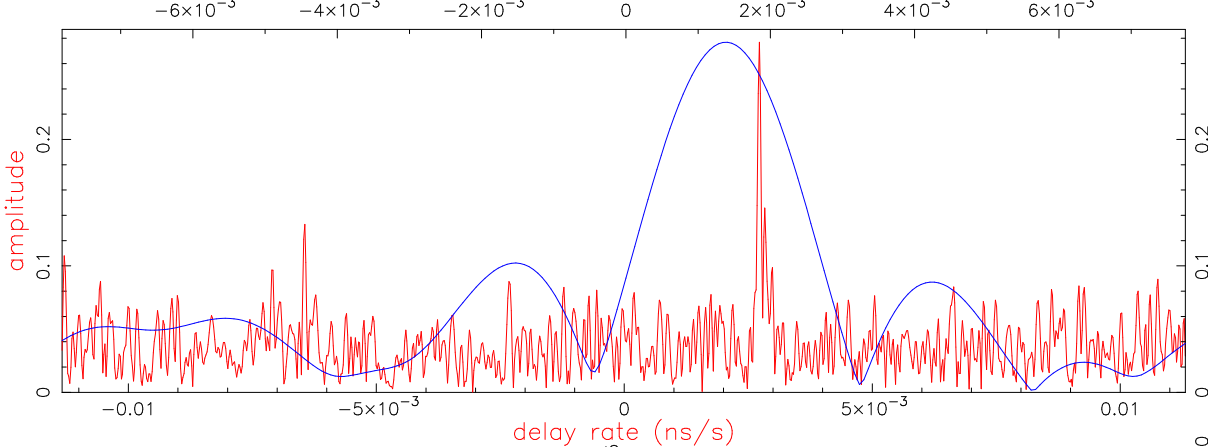
aux01

1749+096.3MP3E9, No0816, ZY

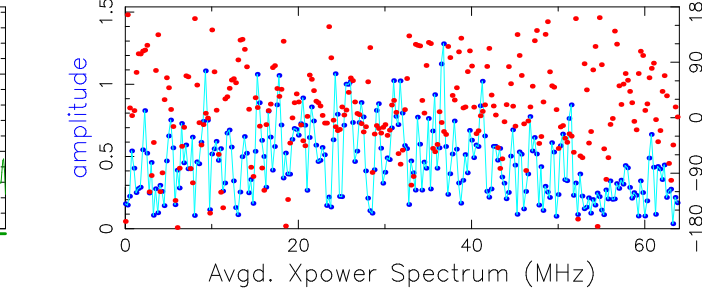
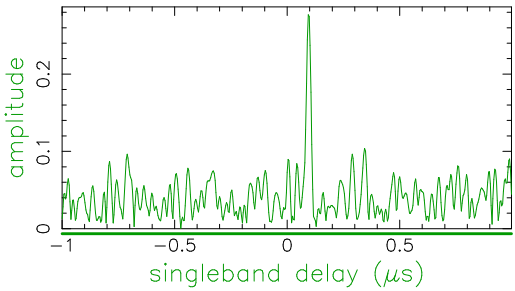
METSAHOV - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

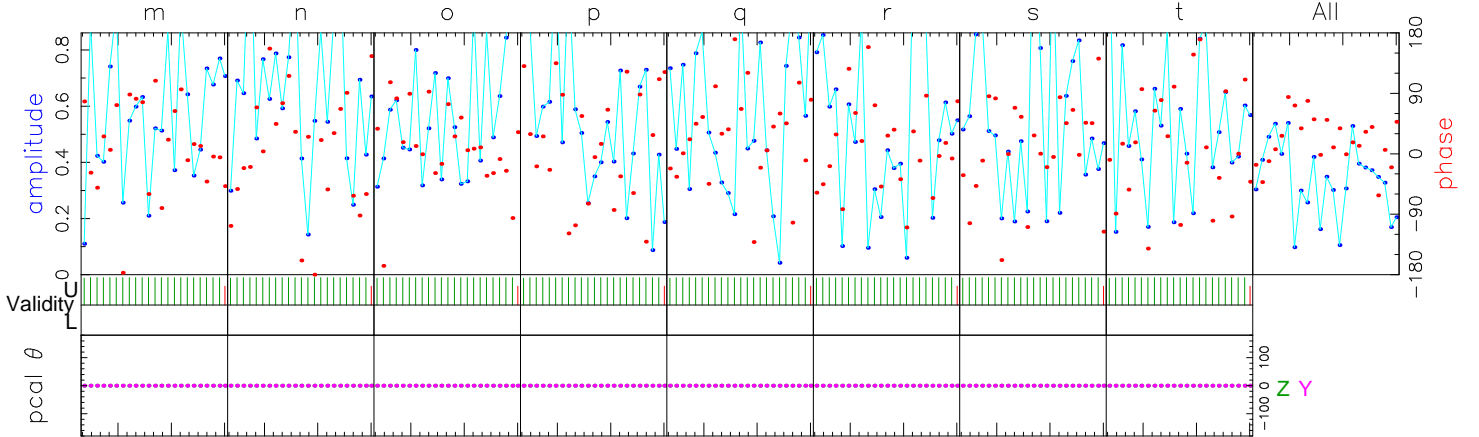


SNR 9.8
Int time 162.328
Amp 0.287
Phase 18.8
PFD 3.3e-14
Delays (us)
SBD 0.095449
MBD 0.001419
Fringe rate (Hz)
0.234492
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c241b
Exper # 1234
Yr:day 2024:111
Start 080018.41
Stop 080301.22
FRT 080131.00
Corr/FF/build
2024:362:113133
2025:041:183148
2024:113:095956
RA & Dec (J2000)
17h51m32.818573s
+09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	21.2	23.7	11.5	32.9	29.0	13.9	14.9	15.4	Phase	18.8
	0.3	0.3	0.4	0.1	0.3	0.4	0.4	0.2	Ampl.	0.3
	281.1	315.5	281.8	174.8	281.4	281.9	282.0	499.1	Sbd box	281.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	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)	-6.75078518649E+03	Apriori delay (usec)	-6.75088035581E+03	Resid mbdelay (usec)	1.41932E-03	+/-	1.1E-04
Sband delay (usec)	-6.75078490681E+03	Apriori clock (usec)	1.1090801E+02	Resid sbdelay (usec)	9.54490E-02	+/-	8.8E-04
Phase delay (usec)	-6.75088035521E+03	Apriori clockrate (us/s)	-1.1592261E-02	Resid phdelay (usec)	6.06706E-07	+/-	3.8E-07
Delay rate (us/s)	2.28392678765E-01	Apriori rate (us/s)	2.28389956550E-01	Resid rate (us/s)	2.72221E-06	+/-	4.0E-09
Total phase (deg)	-287.1	Apriori accel (us/s/s)	4.06124308261E-05	Resid phase (deg)	18.8	+/-	11.7

ph/seg (deg)	RMS 36.3	Theor. 28.1	Amplitude Search (1024X32)	0.270	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	49.6	49.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	8.5	16.6	Inc. seg. avg.	0.309	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	29.7	29.0	Inc. frq. avg.	0.274	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

Z: az 270.6 el 10.8 pa 30.3 Y: az 255.5 el 30.7 pa 48.3 u,v (fr/asec) -1299.519 2454.689 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/ZY..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/ZY.W.244.3MP3E9

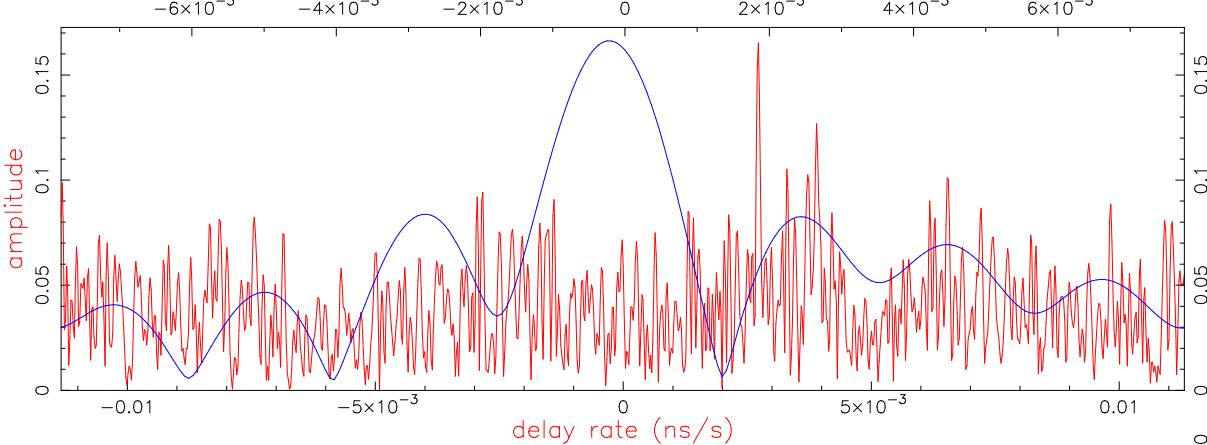
Mk4/DiFX fourfit 3.25 rev 0

aux01

1749+096.3MP3E9, No0816, ZY

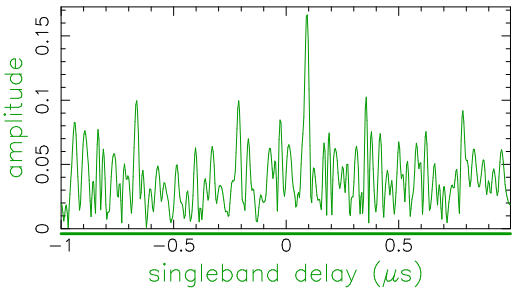
METSAHOV - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

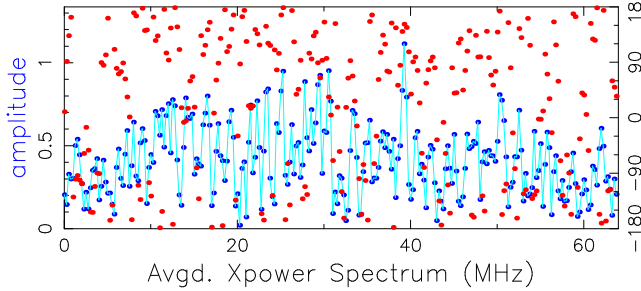


Fringe quality 0

SNR 5.9
 Int time 162.328
 Amp 0.173
 Phase 112.3
 PFD 4.2e-01
 Delays (us)
 SBD 0.091993
 MBD -0.000110
 Fringe rate (Hz) 0.235056
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

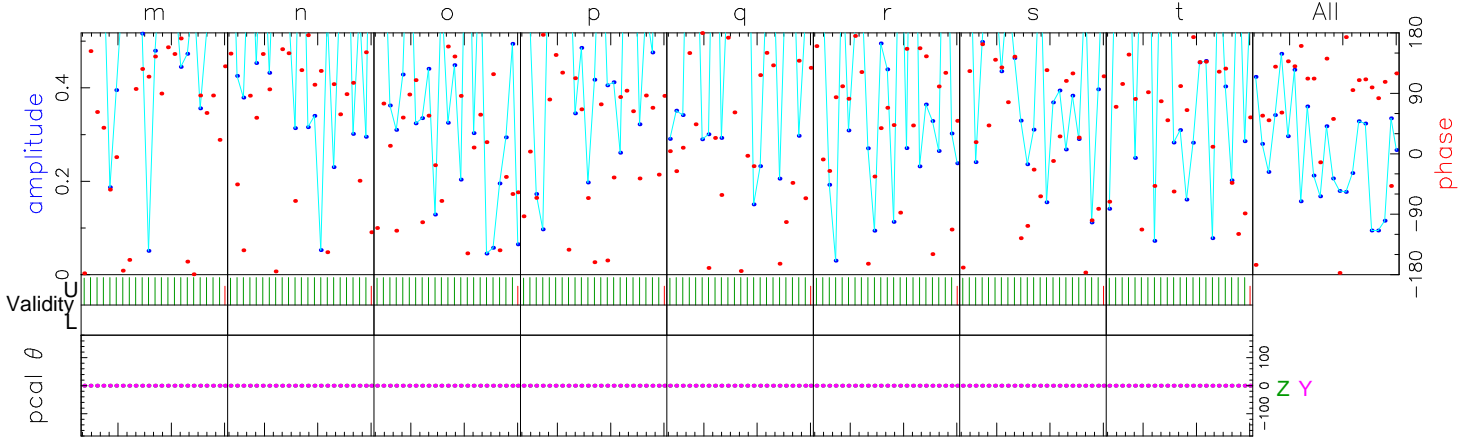


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080018.41
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183154
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	122.1	137.2	65.6	79.0	83.2	106.2	130.7	105.9	Phase	112.3
	0.3	0.3	0.0	0.2	0.1	0.2	0.1	0.2	Ampl.	0.2
	280.8	6.8	174.8	460.1	174.5	200.7	150.9	385.2	Sbd box	280.6
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-6.75078671590E+03	Apriori delay (usec)	-6.75088035581E+03	Resid mbdelay (usec)	-1.10085E-04	+/-	1.8E-04
Sband delay (usec)	-6.75078836306E+03	Apriori clock (usec)	1.1090801E+02	Resid sbdelay (usec)	9.19928E-02	+/-	1.5E-03
Phase delay (usec)	-6.75088035219E+03	Apriori clockrate (us/s)	-1.1592261E-02	Resid phdelay (usec)	3.62068E-06	+/-	6.3E-07
Delay rate (us/s)	2.28392685314E-01	Apriori rate (us/s)	2.28389956550E-01	Resid rate (us/s)	2.72876E-06	+/-	6.7E-09
Total phase (deg)	-193.7	Apriori accel (us/s/s)	4.06124308261E-05	Resid phase (deg)	112.3	+/-	19.5

ph/seg (deg)	57.8	Theor.	46.8	Amplitude	0.173 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	83.9	Search (1024X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	29.6	Inc. seg. avg.	0.201	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	50.8	Inc. frq. avg.	0.162	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
Z: az 270.6 el 10.8 pa 30.3		Y: az 255.5 el 30.7 pa 48.3		Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00	

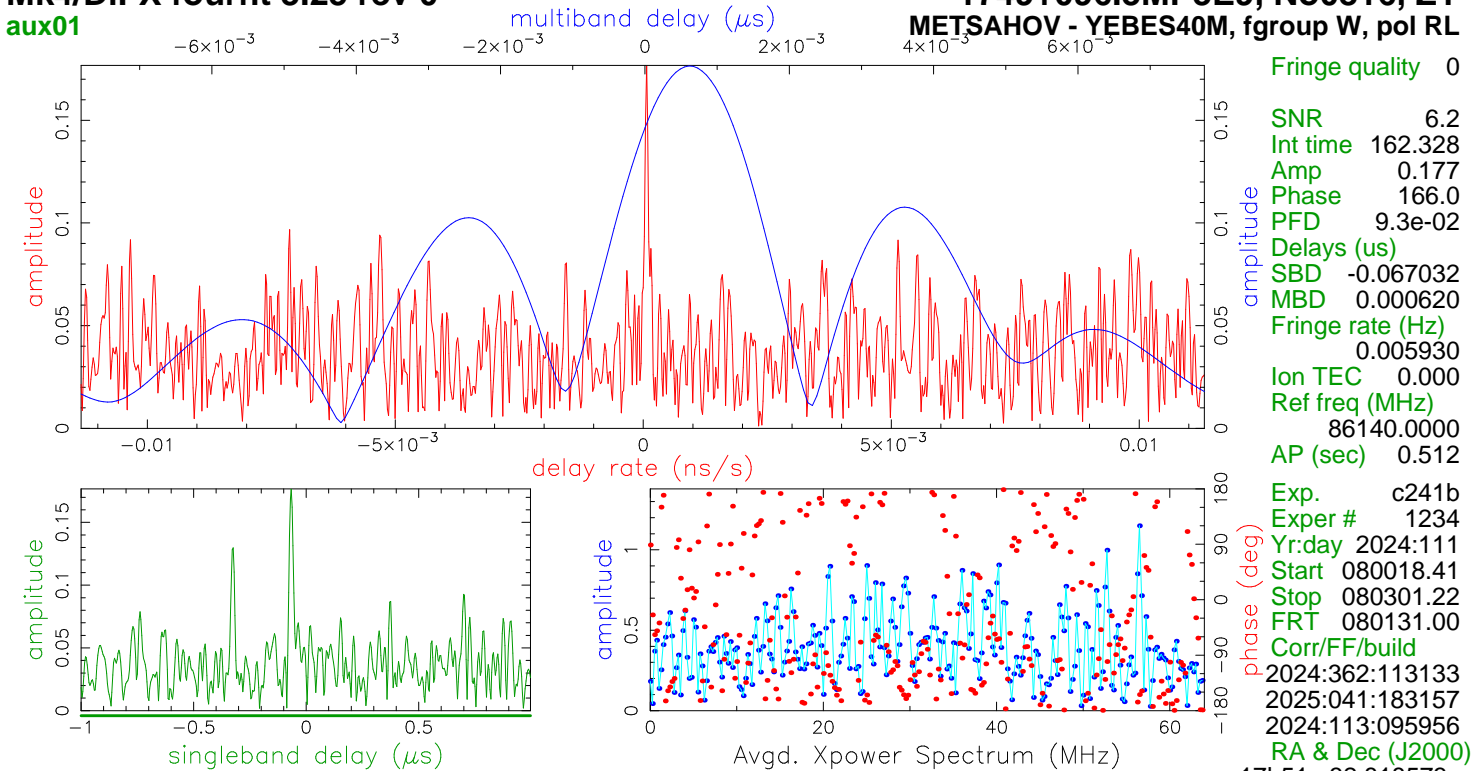
Z: az 270.6 el 10.8 pa 30.3 Y: az 255.5 el 30.7 pa 48.3 u,v (fr/asec) -1299.519 2454.689 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZY..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZY.W.265.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

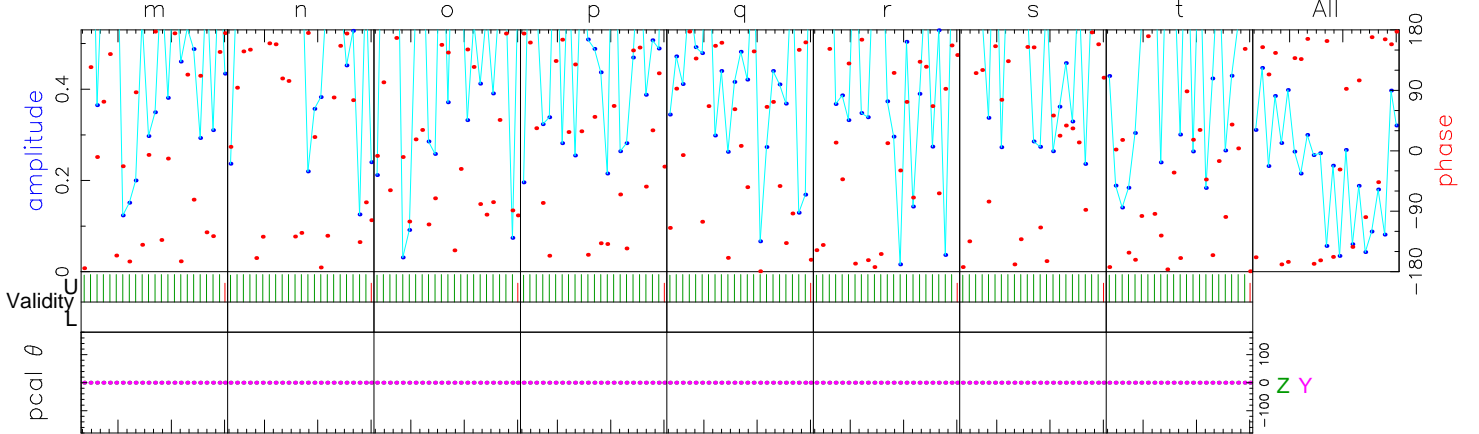
aux01

1749+096.3MP3E9, No0816, ZY

METSAHOV - YEBES40M, fgroup W, pol RL



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



86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
174.0	165.0	-153.5	106.3	160.2	172.7	158.8	-152.8	Phase	166.0
0.2	0.4	0.1	0.1	0.1	0.3	0.3	0.1	Ampl.	0.2
240.0	239.4	339.4	481.1	342.8	310.9	239.6	172.4	Sbd box	239.8
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
Z	0	0	0	0	0	0	0	PC freqs	
Y	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	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W07UL	Tracks	

Group delay (usec) (SBD)	-6.75094223601E+03	Apriori delay (usec)	-6.75088035581E+03	Resid mbdelay (usec)	6.19805E-04	+/-	1.8E-04
Sband delay (usec)	-6.75094738781E+03	Apriori clock (usec)	1.1090801E+02	Resid sbdelay (usec)	-6.70320E-02	+/-	1.4E-03
Phase delay (usec)	-6.75088035046E+03	Apriori clockrate (us/s)	-1.1592261E-02	Resid phdelay (usec)	5.35198E-06	+/-	6.0E-07
Delay rate (us/s)	2.28390025396E-01	Apriori rate (us/s)	2.28389956550E-01	Resid rate (us/s)	6.88463E-08	+/-	6.4E-09
Total phase (deg)	-140.0	Apriori accel (us/s/s)	4.06124308261E-05	Resid phase (deg)	166.0	+/-	18.6

ph/seg (deg)	59.8	Theor.	44.6	Amplitude	0.177 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.4	Search (1024X32)	0.175	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.4	Inc. seg. avg.	0.176	Inc. frq. avg.	0.171	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	63.3	Inc. frq. avg.	0.171			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 270.6 el 10.8 pa 30.3 Y: az 255.5 el 30.7 pa 48.3 u,v (fr/asec) -1299.519 2454.689 simultaneous interpolator

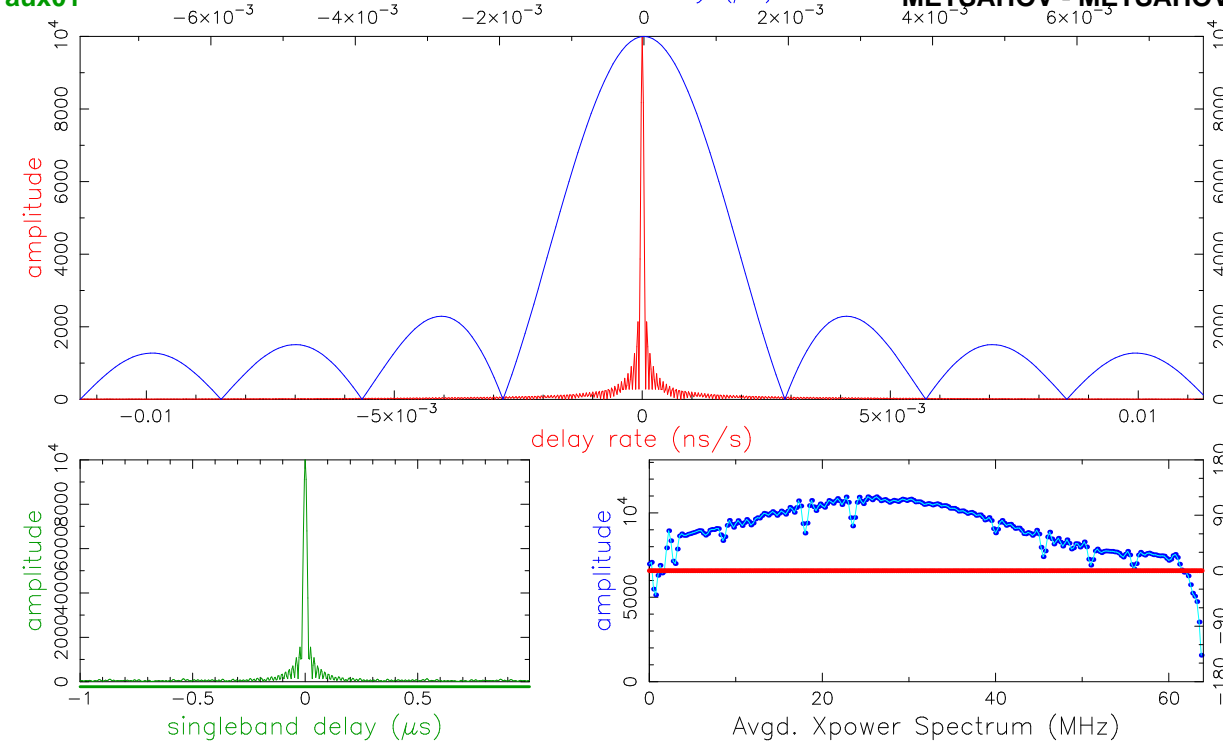
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816/ZY..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816/ZY.W.283.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

aux01

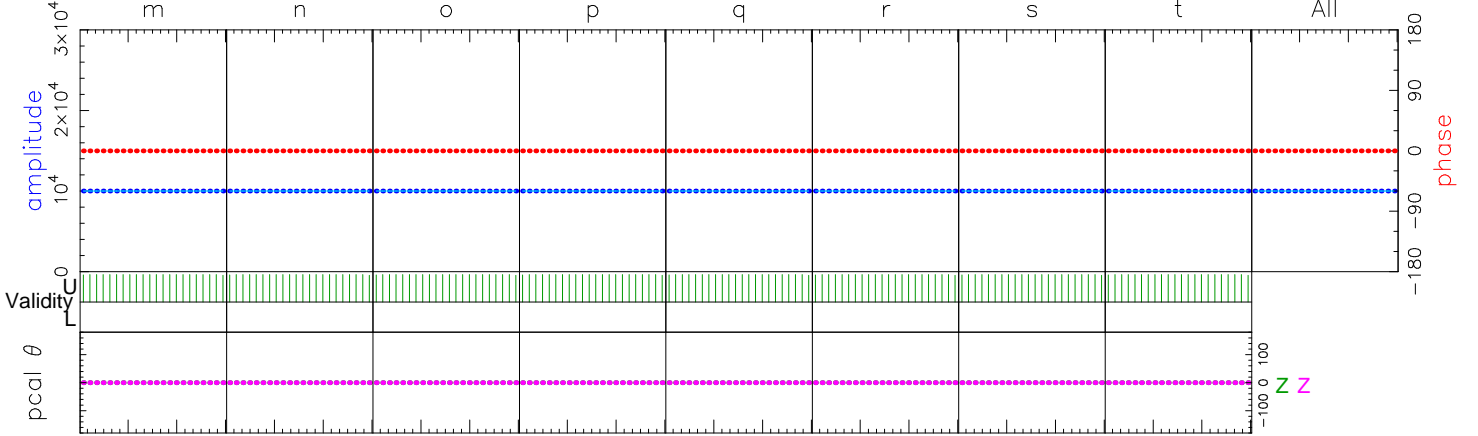
1749+096.3MP3E9, No0816, ZZ

METSAHOV - METSAHOV, fgroup W, pol LL



Fringe quality 9
 SNR 366721.1
 Int time 179.836
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183137
 2024:113:095956
 RA & Dec (J2000) 17h51m32.818573s +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	257.0	257.0
Z	0	0	0	0	0	0	0	0	0.0	0.0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0.0	0.0
Z:Z	0:0	0:0	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	10000.0	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Sbd box	257.0
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	APs used	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC freqs	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

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

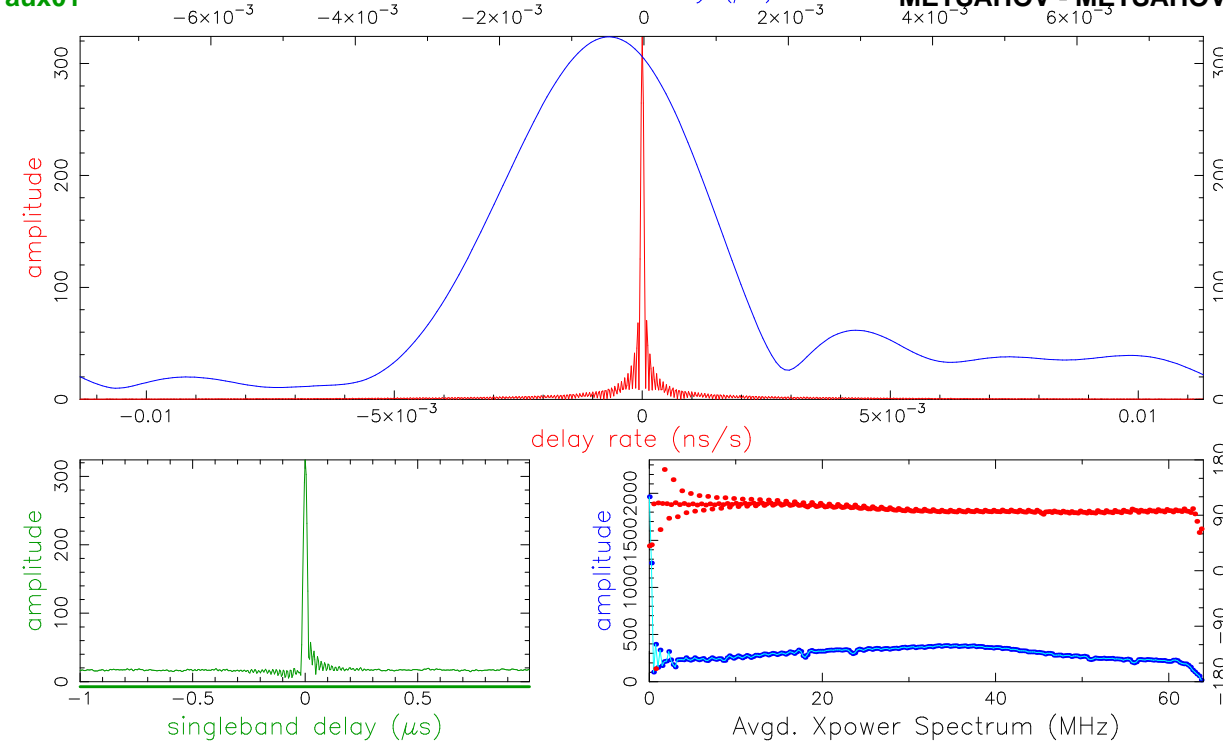
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 270.6 el 10.8 pa 30.3 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZZ.W.162.3MP3E9 simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

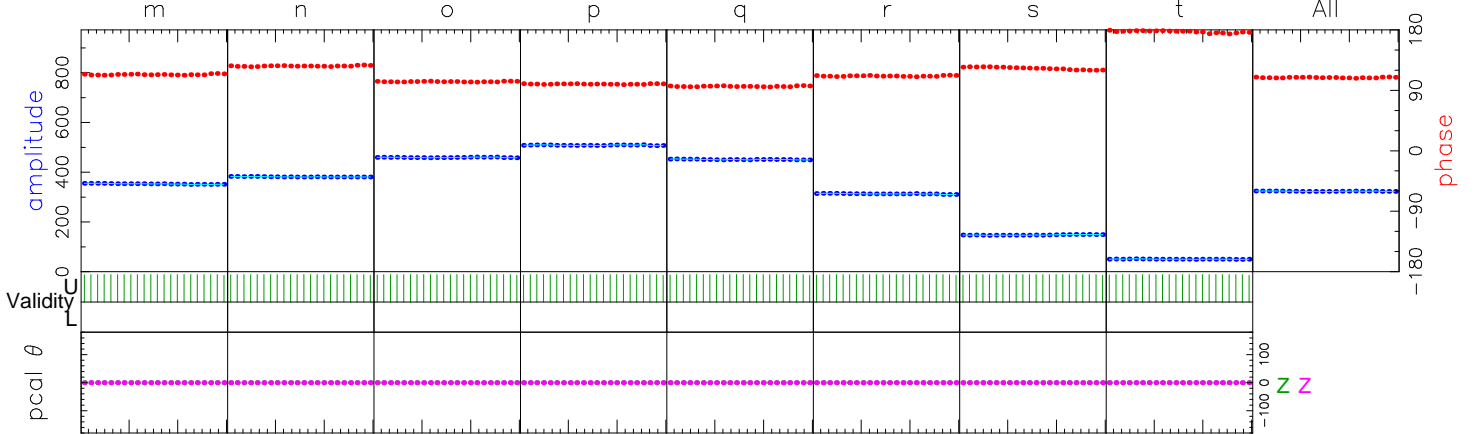
1749+096.3MP3E9, No0816, ZZ

METSAHOV - METSAHOV, fgroup W, pol LR



Fringe quality 5
 Error code G
 SNR 11888.5
 Int time 179.836
 Amp 324.183
 Phase 108.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.000476
 MBD -0.000472
 Fringe rate (Hz)
 0.000028
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183141
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	113.4	126.2	102.9	99.2	95.9	111.3	122.7	177.2	Ampl.	108.9
Z	353.3	381.6	459.7	508.6	451.2	313.3	147.9	50.6	Sbd box	333.3
Z:Z	257.1	256.9	256.8	256.9	257.0	257.4	258.5	261.5	APs used	257.1
Z	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.71593750000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-4.71594E-04	+/-	9.1E-08
Sband delay (usec)	4.75750000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	4.75750E-04	+/-	7.2E-07
Phase delay (usec)	3.51248163650E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	3.51248E-06	+/-	3.1E-10
Delay rate (us/s)	3.24519389770E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.24519E-10	+/-	3.0E-12
Total phase (deg)	108.9	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	108.9	+/-	0.0

ph/seg (deg)	0.5	0.0	Theor.	Amplitude	324.183 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.2	0.0	Search (1024X32)	323.766	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	30.2	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	46.1	0.0	Inc. seg. avg.	323.778	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
Z: az 270.6 el 10.8 pa 30.3	Z: az 270.6 el 10.8 pa 30.3	u, v (fr/asec)	0.000	0.000	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

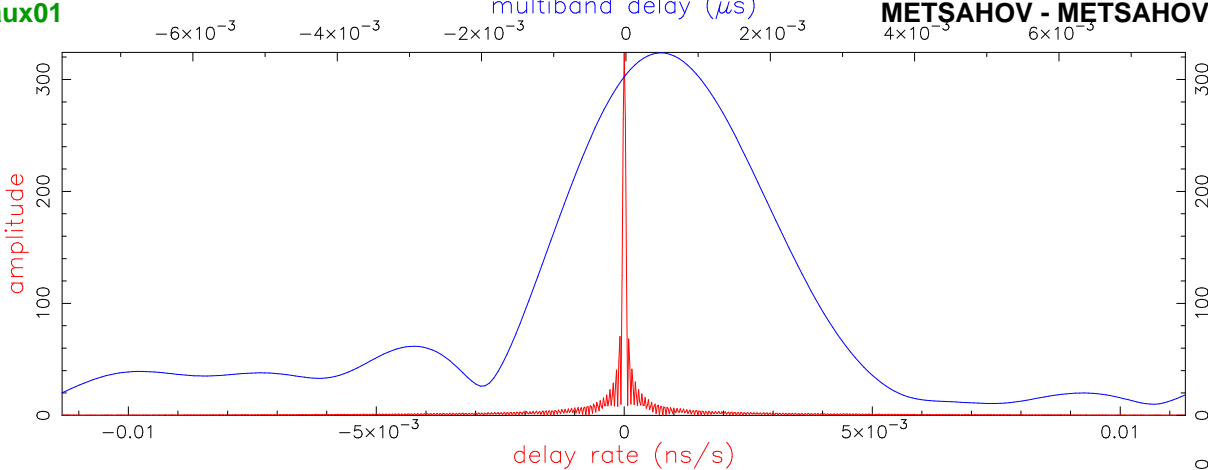
Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZZ...3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZZ.W.195.3MP3E9

Mk4/DiFX fourfit 3.25 rev 0

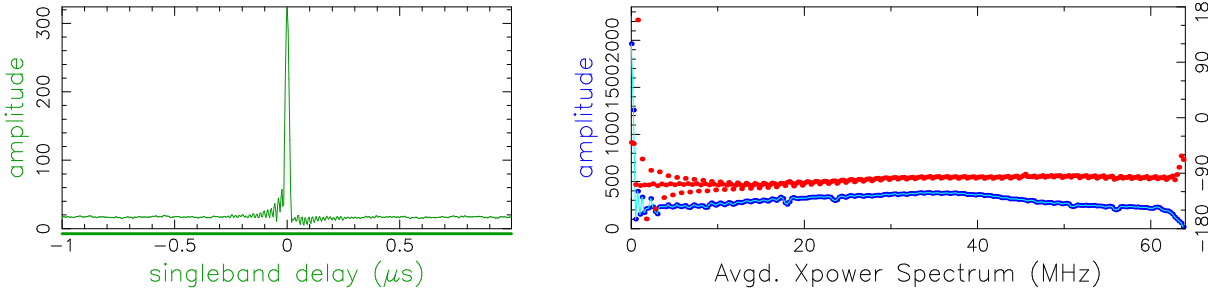
aux01

1749+096.3MP3E9, No0816, ZZ

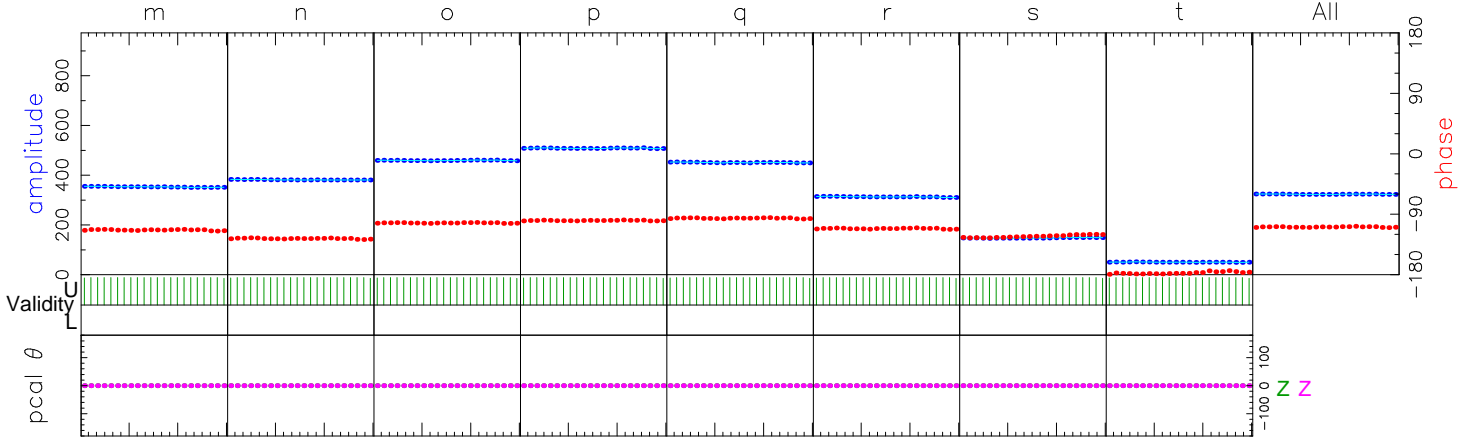
METSAHOV - METSAHOV, fgroup W, pol RL



Fringe quality 5
 Error code G
 SNR 11888.5
 Int time 179.836
 Amp 324.183
 Phase -108.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000476
 MBD 0.000472
 Fringe rate (Hz)
 -0.000028
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:111
 Start 080001.00
 Stop 080301.22
 FRT 080131.00
 Corr/FF/build
 2024:362:113133
 2025:041:183143
 2024:113:095956
 RA & Dec (J2000)
 17h51m32.818573s
 +09°39'00.728407"



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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.4	-126.2	-102.9	-99.2	-95.9	-111.3	-122.7	-177.2	Phase	-108.9
	353.3	381.6	459.7	508.6	451.2	313.3	147.9	50.6	Ampl.	333.3
	256.9	257.1	257.2	257.1	257.0	256.6	255.5	252.5	Sbd box	256.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Z									Tracks	

Group delay (usec) (SBD) 4.71593750000E-04 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 4.71594E-04 +/- 9.1E-08
 Sband delay (usec) -4.75750000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -4.75750E-04 +/- 7.2E-07
 Phase delay (usec) -3.51248163656E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -3.51248E-06 +/- 3.1E-10
 Delay rate (us/s) -3.24519389770E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -3.24519E-10 +/- 3.0E-12
 Total phase (deg) -108.9 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -108.9 +/- 0.0

RMS Theor. Amplitude 324.183 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.5 0.0 Search (1024X32) 323.766 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 30.2 0.0 Inc. seg. avg. 323.778 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 46.1 0.0 Inc. frq. avg. 333.266 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 270.6 el 10.8 pa 30.3 Z: az 270.6 el 10.8 pa 30.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0816//ZZ..3MP3E9 Output file: /Exps/c241b/v2/3mm/1234/No0816//ZZ.W.211.3MP3E9