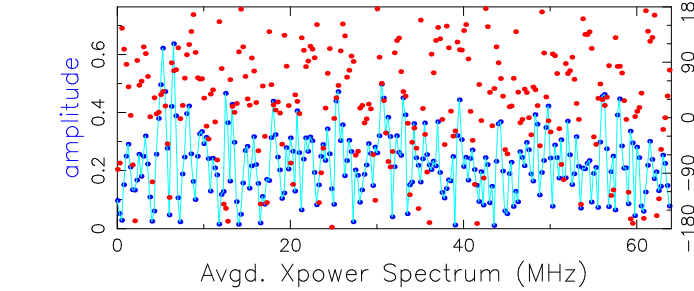
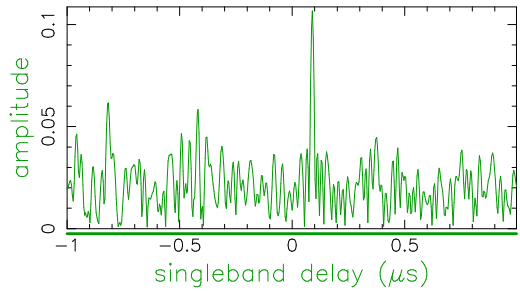
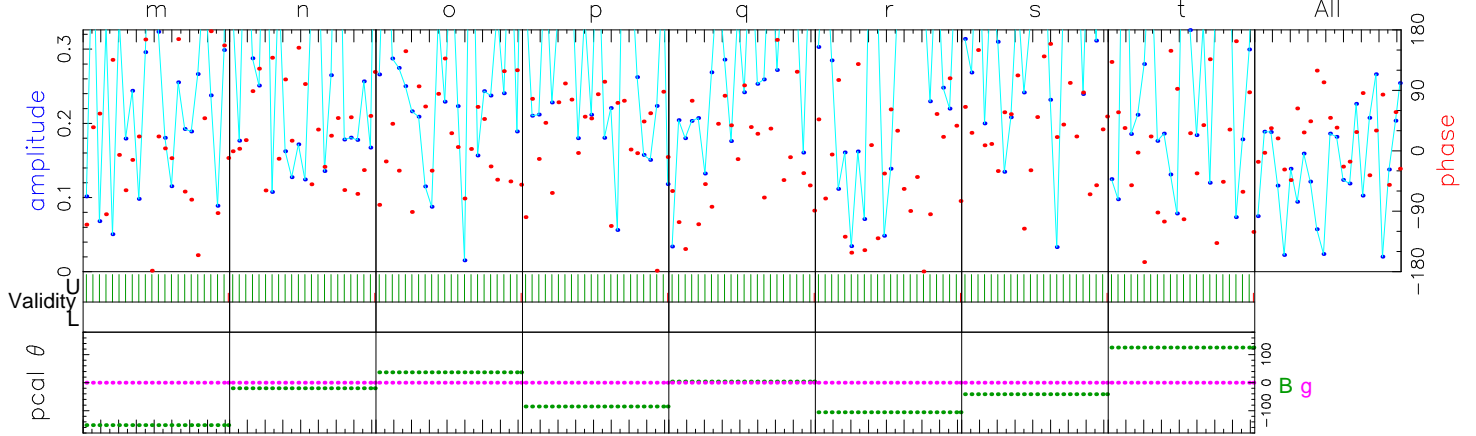


Fringe quality 0
SNR 6.4
Int time 479.944
Amp 0.109
Phase 18.3
PFD 4.0e-02
Delays (us)
SBD 0.089327
MBD -0.001291
Fringe rate (Hz)
-0.194482
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c241b
Exper # 1234
Yr:day 2024:110
Start 200500.00
Stop 201300.26
FRT 200900.00
Corr/FF/build
2024:359:054851
2025:041:165302
2024:113:095956
RA & Dec (J2000)
12h30m49.423382s
+12°23'28.043741"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-20.1	16.6	8.5	55.8	0.1	-21.5	45.5	-6.0	Phase	18.3	
	0.0	0.2	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1	
	429.2	226.9	497.2	280.1	40.0	400.6	49.1	268.0	Sbd box	279.9	
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
g	0	0	0	0	0	0	0	0	PC freqs		
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:g	-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		
g	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.18149853631E+04		Apriori delay (usec)		1.18148929038E+04		Resid mbdelay (usec)		-1.29075E-03	+/- 1.7E-04	
Sband delay (usec)	1.18149822313E+04		Apriori clock (usec)		-3.5704262E+01		Resid sbdelay (usec)		8.93275E-02	+/- 1.3E-03	
Phase delay (usec)	1.18148929044E+04		Apriori clockrate (us/s)		-9.7386097E-07		Resid phdelay (usec)		5.89520E-07	+/- 5.8E-07	
Delay rate (us/s)	1.49383444908E-01		Apriori rate (us/s)		1.49385702656E-01		Resid rate (us/s)		-2.25775E-06	+/- 2.1E-09	
Total phase (deg)			Apriori accel (us/s/s)		-6.78358997076E-05		Resid phase (deg)		18.3	+/- 17.9	
	RMS	Theor.	Amplitude		0.109 +/- 0.017		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	47.8	42.9	Search (2048X32)		0.103		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000		
amp/seg (%)	69.1	74.9	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled		
ph/frq (deg)	32.2	25.3	Inc. seg. avg.		0.108		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011		
amp/frq (%)	44.7	44.1	Inc. frq. avg.		0.110		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		
B: az 134.6 el 43.8 pa -27.5	g: az 70.4 el 8.0 pa -13.0		u, v (fr/asec) -995.101 -2896.280						ion window (TEC) 0.00 0.00		
Control file: cf_1234_gmva		Input file: /Exps/c241b/v2/3mm/1234/No0517//Bg..3MP1B5		Output file: /Exps/c241b/v2/3mm/1234/No0517//Bg.W.21.3MP1B5						simultaneous interpolator	

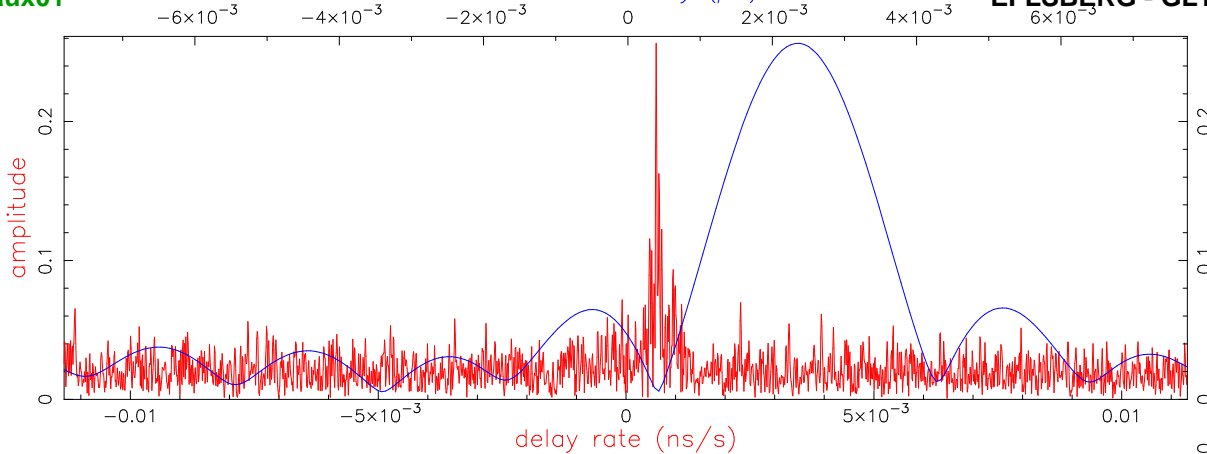
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, Bg

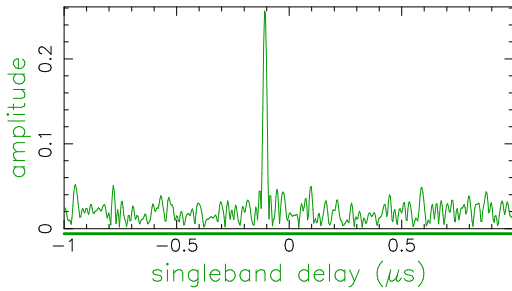
EFLSBERG - GLT, fgroup W, pol LL

multiband delay (μ s)

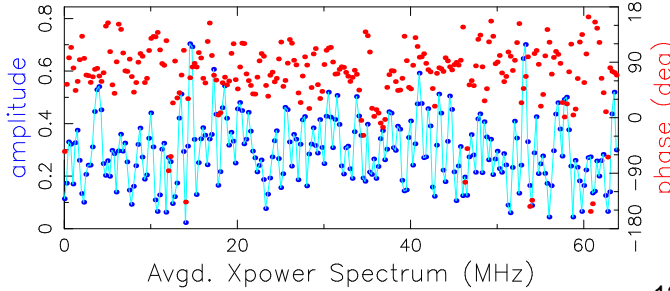


Fringe quality 9

SNR 15.6
 Int time 479.970
 Amp 0.261
 Phase -110.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.107638
 MBD 0.002363
 Fringe rate (Hz)
 0.052414
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

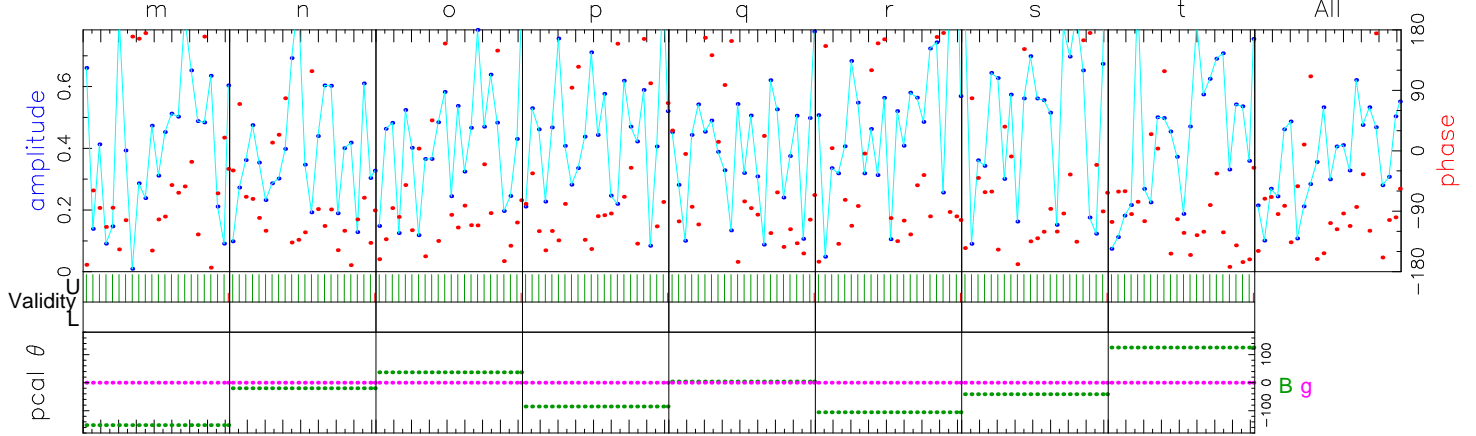


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165253
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-109.6	-106.0	-112.1	-110.7	-112.1	-113.1	-107.9	-110.9	Phase	-110.3
	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	Ampl.	0.3
	228.5	228.4	229.4	230.4	230.6	229.5	230.0	229.1	Sbd box	229.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:g	-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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Tracks	

Group delay (usec) (SBD)	1.18147858917E+04	Apriori delay (usec)	1.18148929038E+04	Resid mbdelay (usec)	2.36289E-03	+/-	6.9E-05
Sband delay (usec)	1.18147852658E+04	Apriori clock (usec)	-3.5704262E+01	Resid sbdelay (usec)	-1.07638E-01	+/-	5.5E-04
Phase delay (usec)	1.18148929003E+04	Apriori clockrate (us/s)	-9.7386097E-07	Resid phdelay (usec)	-3.55782E-06	+/-	2.4E-07
Delay rate (us/s)	1.49386311134E-01	Apriori rate (us/s)	1.49385702656E-01	Resid rate (us/s)	6.08477E-07	+/-	8.5E-10
Total phase (deg)	155.2	Apriori accel (us/s/s)	-6.78358997076E-05	Resid phase (deg)	-110.3	+/-	7.3

ph/seg (deg)	RMS 53.4	Theor. 17.6	Amplitude Search (2048X32)	0.261 +/- 0.017	0.246	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.8	30.7	Interp.	0.000	0.000E+00	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	2.6	10.4	Inc. seg. avg.	0.346	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	Data rate(Mb/s): 2048	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	12.9	18.1	Inc. frq. avg.	0.253			t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 134.6 el 43.8 pa -27.5 g: az 70.4 el 8.0 pa -13.0 u,v (fr/asec) -995.101 -2896.280 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//Bg..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//Bg.W.2.3MP1B5

Mk4/DiFX fourfit 3.25 rev 0

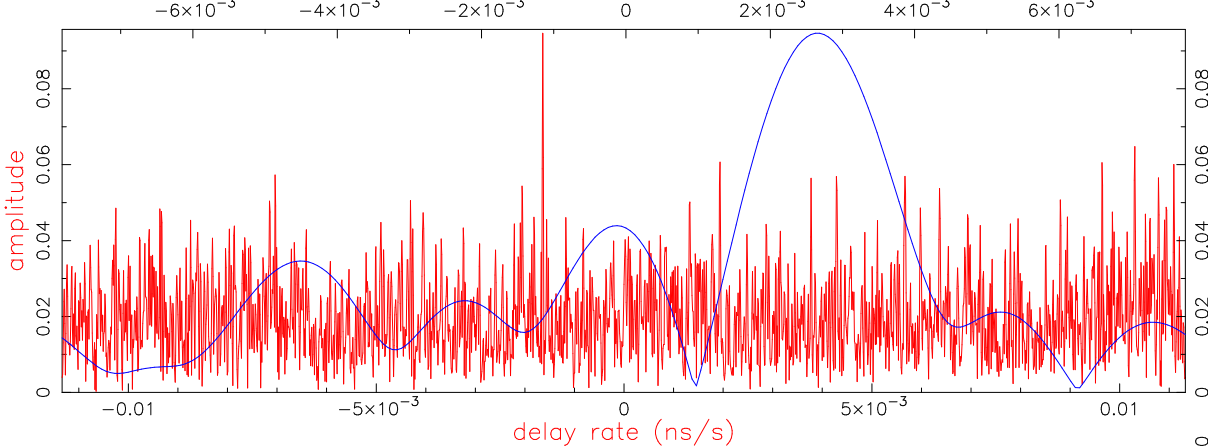
aux01

M87.3MP1B5, No0517, Bg

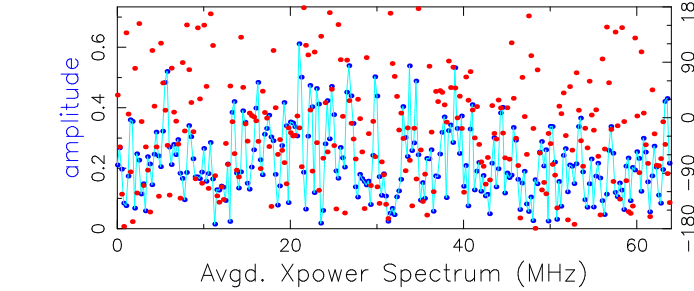
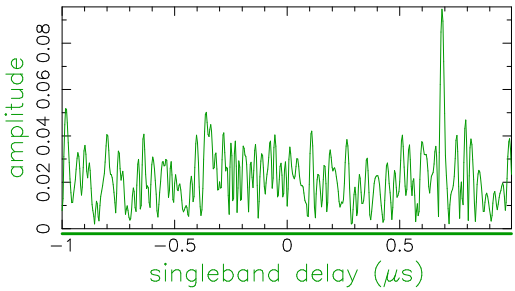
EFLSBERG - GLT, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

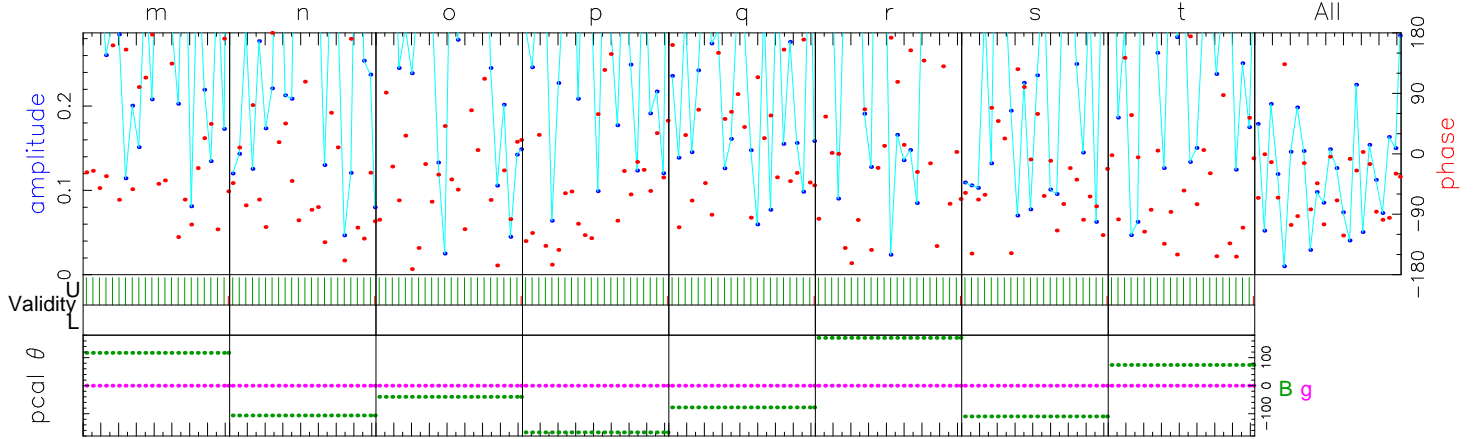


SNR 5.7
 Int time 479.970
 Amp 0.096
 Phase -52.0
 PFD 9.6e-01
 Delays (us)
 SBD 0.688087
 MBD 0.002657
 Fringe rate (Hz)
 -0.141038
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165307
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-52.5	-66.4	-37.8	-78.0	-3.3	-33.9	-38.4	-80.9	Phase	-52.0
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	268.3	496.8	198.4	152.2	169.7	264.5	289.7	189.8	Sbd box	433.2
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Tracks	

Group delay (usec) (SBD)	1.18155830613E+04	Apriori delay (usec)	1.18148929038E+04	Resid mbdelay (usec)	2.65748E-03	+/-	1.9E-04
Sband delay (usec)	1.18155809906E+04	Apriori clock (usec)	-3.5704262E+01	Resid sbdelay (usec)	6.88087E-01	+/-	1.5E-03
Phase delay (usec)	1.18148929022E+04	Apriori clockrate (us/s)	-9.7386097E-07	Resid phdelay (usec)	-1.67780E-06	+/-	6.5E-07
Delay rate (us/s)	1.49384065346E-01	Apriori rate (us/s)	1.49385702656E-01	Resid rate (us/s)	-1.63731E-06	+/-	2.3E-09
Total phase (deg)	213.5	Apriori accel (us/s/s)	-6.78358997076E-05	Resid phase (deg)	-52.0	+/-	20.2

ph/seg (deg)	54.0	Theor.	48.4	Search (2048X32)	0.092	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.0		84.4	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	28.3		28.5	Inc. seg. avg.	0.089	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 (%)	18.3		49.8	Inc. frq. avg.	0.092	Data rate(Mb/s): 2048	ion window (TEC)	0.00	0.00	0.00

B: az 134.6 el 43.8 pa -27.5 g: az 70.4 el 8.0 pa -13.0 u,v (fr/asec) -995.101 -2896.280 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//Bg..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//Bg.W.37.3MP1B5

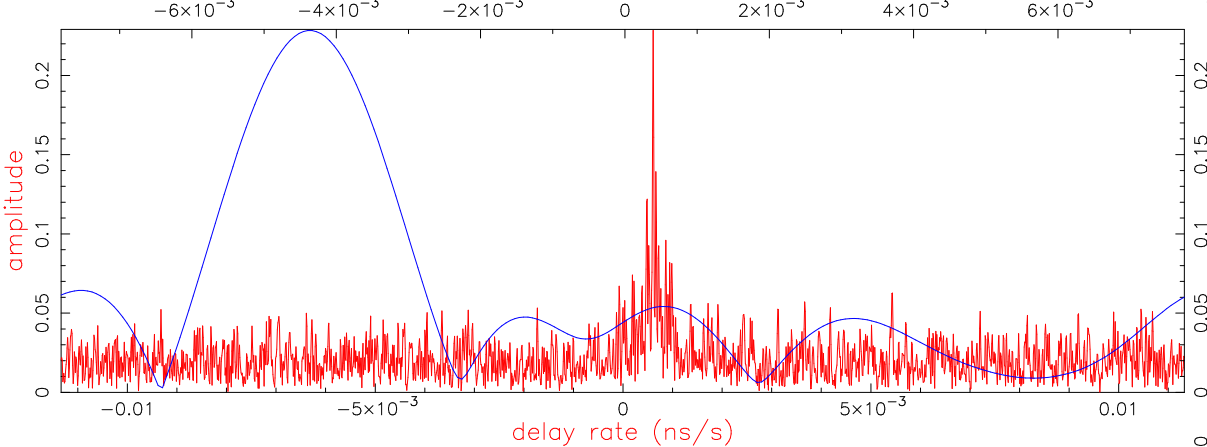
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, Bg

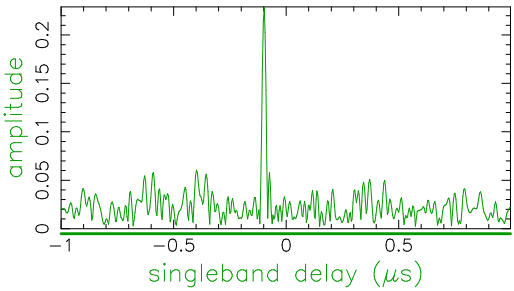
EFLSBERG - GLT, fgroup W, pol RR

multiband delay (μ s)

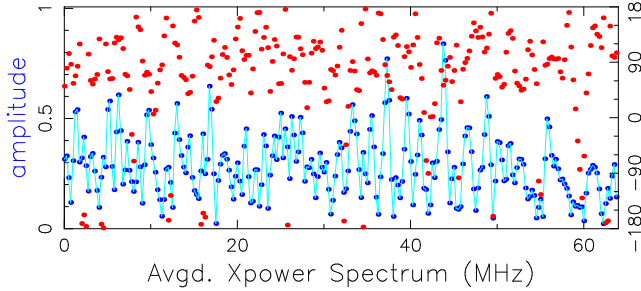


Fringe quality 9

SNR 13.7
 Int time 479.944
 Amp 0.229
 Phase 95.6
 PFD 5.3e-34
 Delays (us)
 SBD -0.098185
 MBD -0.004381
 Fringe rate (Hz)
 0.052497
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

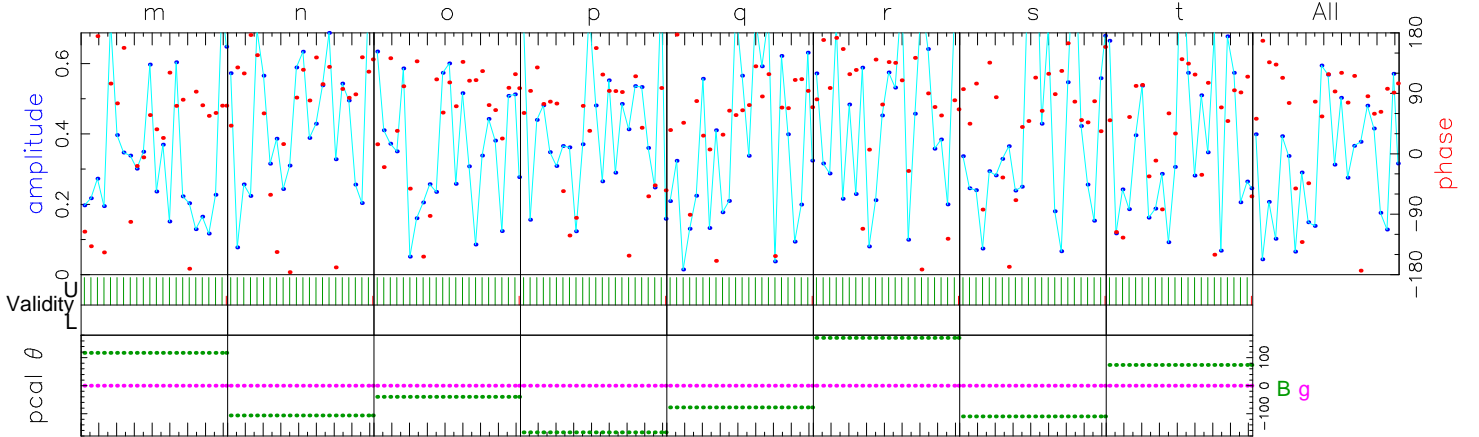


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165258
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	76.9	114.6	88.8	83.7	84.0	121.5	85.4	95.9	Phase	95.6
	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	Ampl.	0.2
	229.8	231.5	233.2	232.2	232.6	232.5	232.2	230.2	Sbd box	231.9
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
B:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.18147947732E+04		Apriori delay (usec)		1.18148929038E+04		Resid mbdelay (usec)		-4.38061E-03	+/- 7.9E-05
Sband delay (usec)	1.18147947193E+04		Apriori clock (usec)		-3.5704262E+01		Resid sbdelay (usec)		-9.81845E-02	+/- 6.3E-04
Phase delay (usec)	1.18148929069E+04		Apriori clockrate (us/s)		-9.7386097E-07		Resid phdelay (usec)		3.08243E-06	+/- 2.7E-07
Delay rate (us/s)	1.49386312095E-01		Apriori rate (us/s)		1.49385702656E-01		Resid rate (us/s)		6.09438E-07	+/- 9.7E-10
Total phase (deg)	1.1		Apriori accel (us/s/s)		-6.78358997076E-05		Resid phase (deg)		95.6	+/- 8.4

ph/seg (deg) 61.5 20.0 Search (2048X32) 0.223 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.0 35.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.4 11.8 Inc. seg. avg. 0.296 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.9 20.6 Inc. frq. avg. 0.233 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 134.6 el 43.8 pa -27.5 g: az 70.4 el 8.0 pa -13.0 u,v (fr/asec) -995.101 -2896.280 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//Bg..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//Bg.W.9.3MP1B5

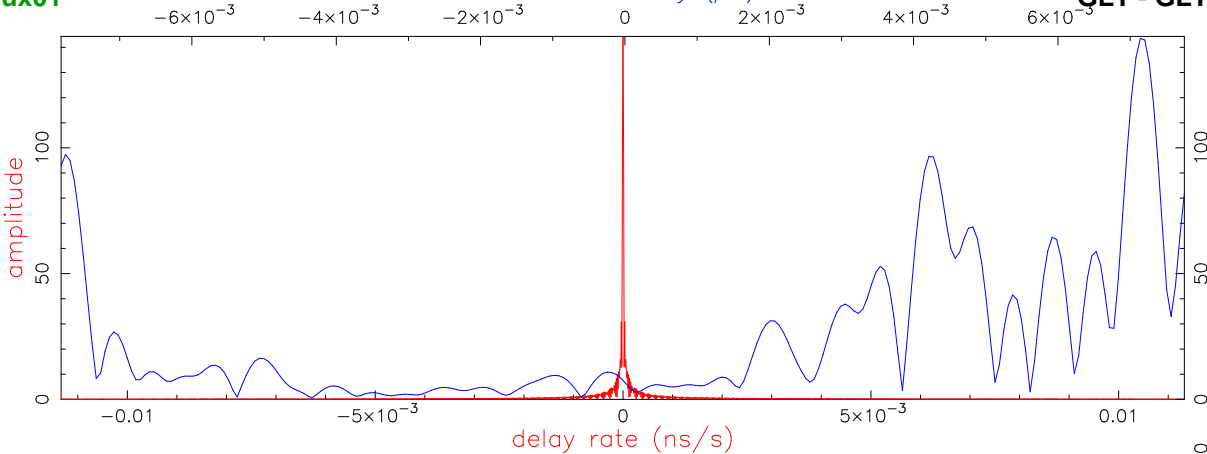
Mk4/DiFX fourfit 3.25 rev 0

aux01

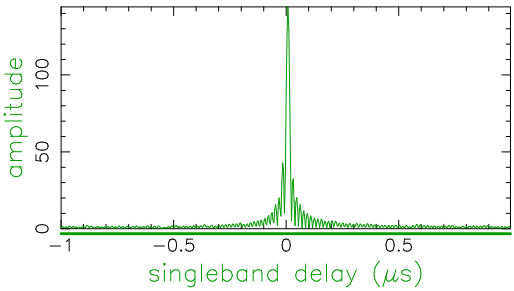
M87.3MP1B5, No0517, gg

GLT - GLT, fgroup W, pol LR

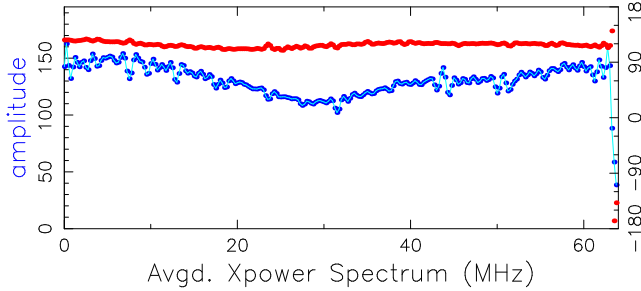
multiband delay (μ s)



Fringe quality 5
 Error code G
 SNR 17294.7
 Int time 479.971
 Amp 144.337
 Phase 125.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.007756
 MBD 0.007167
 Fringe rate (Hz)
 0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

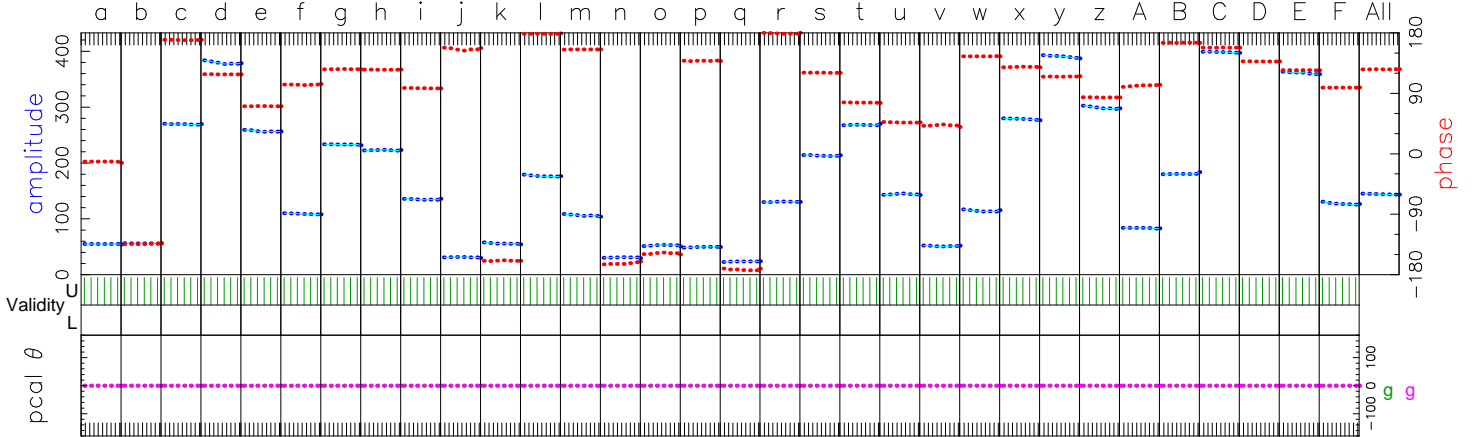


singleband delay (μ s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165340
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 7 segs, 156 APs / seg (79.87 sec / seg.), time ticks 60 sec



85244.0	85308.0	85372.0	85436.0	85500.0	85564.0	85628.0	85692.0	85756.0	85820.0	85884.0	85948.0	86012.0	86076.0	86140.0	86204.0	86268.0	86332.0	86396.0	86460.0	86524.0	86588.0	86652.0	86716.0	86780.0	86844.0	86908.0	86972.0	87036.0	87100.0	87164.0	87228.0	Frq (MHz)	All				
-11.7	-134.1	169.3	118.3	70.8	102.8	125.9	125.1	97.5	155.6	-159.1	178.5	155.2	-163.4	-148.1	138.4	-172.5	179.1	120.6	76.2	46.8	42.4	145.0	129.3	114.8	83.9	101.1	165.2	157.9	137.3	124.4	98.3	Phase	125.7				
55.1	56.2	269.5	379.6	257.2	109.2	233.3	222.9	134.8	31.3	56.2	177.0	106.6	30.9	52.6	49.6	23.6	130.5	213.3	268.0	144.2	51.4	114.5	278.8	390.8	299.3	83.7	180.3	398.5	450.1	361.5	127.5	Ampl	179.3				
258.6	257.1	258.4	258.2	258.9	259.9	258.7	259.0	258.3	250.6	250.3	258.2	258.4	253.9	256.1	258.2	255.8	258.0	258.4	258.2	257.8	260.3	259.3	258.6	258.6	258.7	255.8	259.0	258.6	258.8	258.5	258.3	Std box	259.0				
UL	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC freqs				
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PC phase			
g	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Manl PC			
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
g	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	W08UL	W09UL	W10UL	W11UL	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	W20UL	W21UL	W22UL	W23UL	W24UL	W25UL	W26UL	W27UL	W28UL	W29UL	W30UL	W31UL	Chan ids				
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	W08UR	W09UR	W10UR	W11UR	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	W20UR	W21UR	W22UR	W23UR	W24UR	W25UR	W26UR	W27UR	W28UR	W29UR	W30UR	W31UR	Chan ids				

Group delay (usec) (SBD) 7.16669531250E-03 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 7.16670E-03 +/- 1.6E-08
 Sband delay (usec) 7.75625000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 7.75625E-03 +/- 5.0E-07
 Phase delay (usec) 4.05397787929E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 4.05398E-06 +/- 2.1E-10
 Delay rate (us/s) 1.34625947721E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 1.34626E-11 +/- 7.7E-13
 Total phase (deg) 125.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 125.7 +/- 0.0

RMS Theor. Amplitude 144.337 +/- 0.008 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X128) 142.890 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.4 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 53.7 0.0 Inc. seg. avg. 144.334 Data rate(MSamp/s): 128 MBpts 128 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 88.8 0.0 Inc. frq. avg. 179.314 Data rate(Mb/s): 8192 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 g: az 70.4 el 8.0 pa -13.0 g: az 70.4 el 8.0 pa -13.0 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gg..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gg.W.82.3MP1B5

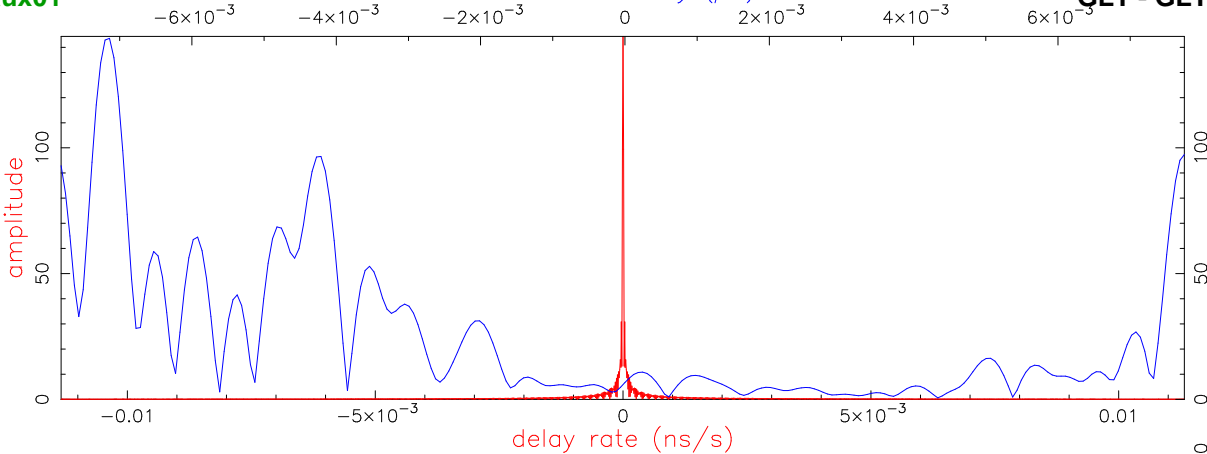
Mk4/DiFX fourfit 3.25 rev 0

aux01

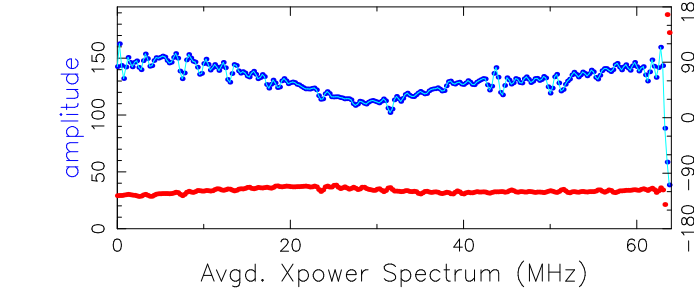
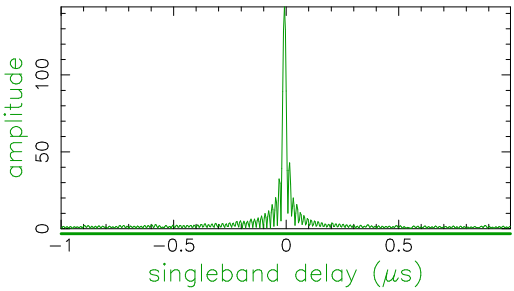
M87.3MP1B5, No0517, gg

GLT - GLT, fgroup W, pol RL

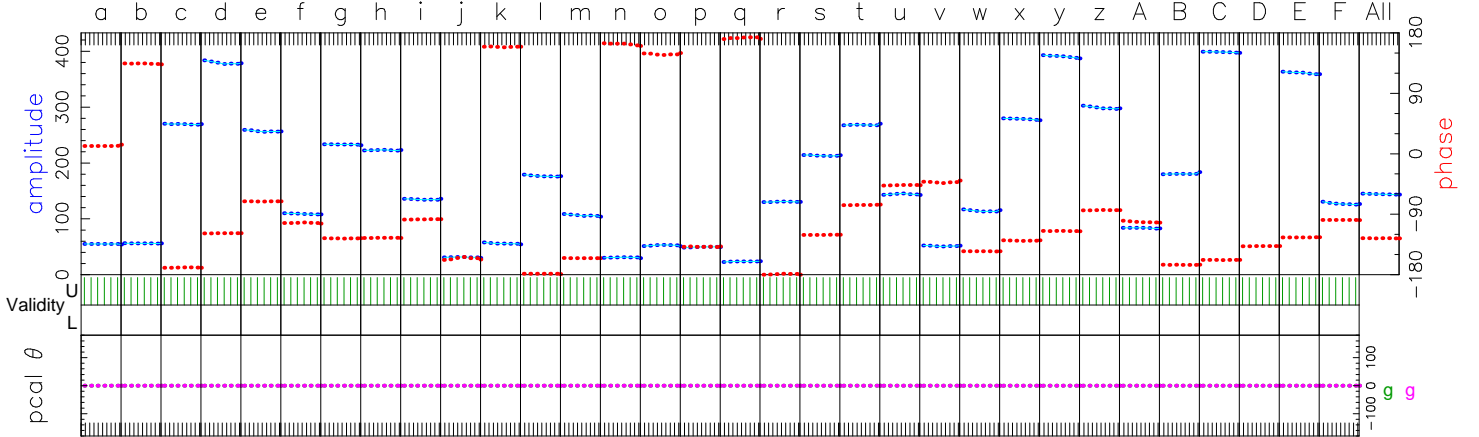
multiband delay (μ s)



Fringe quality 5
 Error code G
 SNR 17294.7
 Int time 479.971
 Amp 144.337
 Phase -125.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.007756
 MBD -0.007167
 Fringe rate (Hz)
 -0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165356
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"



Amp. and Phase vs. time for each freq., 7 segs, 156 APs / seg (79.87 sec / seg.), time ticks 60 sec



85244.0	0.05308	0.05372	0.05436	0.05500	0.05564	0.05628	0.05692	0.05756	0.05820	0.05884	0.05948	0.06012	0.06076	0.06140	0.06204	0.06268	0.06332	0.06396	0.06460	0.06524	0.06588	0.06652	0.06716	0.06780	0.06844	0.06908	0.06972	0.07036	0.07100	0.07164	0.07228	0.07292	0.07356	0.07420	0.07484	0.07548	0.07612	0.07676	0.07740	0.07804	0.07868	0.07932	0.07996	0.08060	0.08124	0.08188	0.08252	0.08316	0.08380	0.08444	0.08508	0.08572	0.08636	0.08700	0.08764	0.08828	0.08892	0.08956	0.09020	0.09084	0.09148	0.09212	0.09276	0.09340	0.09404	0.09468	0.09532	0.09596	0.09660	0.09724	0.09788	0.09852	0.09916	0.09980	0.10044	0.10108	0.10172	0.10236	0.10300	0.10364	0.10428	0.10492	0.10556	0.10620	0.10684	0.10748	0.10812	0.10876	0.10940	0.11004	0.11068	0.11132	0.11196	0.11260	0.11324	0.11388	0.11452	0.11516	0.11580	0.11644	0.11708	0.11772	0.11836	0.11900	0.11964	0.12028	0.12092	0.12156	0.12220	0.12284	0.12348	0.12412	0.12476	0.12540	0.12604	0.12668	0.12732	0.12796	0.12860	0.12924	0.12988	0.13052	0.13116	0.13180	0.13244	0.13308	0.13372	0.13436	0.13500	0.13564	0.13628	0.13692	0.13756	0.13820	0.13884	0.13948	0.14012	0.14076	0.14140	0.14204	0.14268	0.14332	0.14396	0.14460	0.14524	0.14588	0.14652	0.14716	0.14780	0.14844	0.14908	0.14972	0.15036	0.15100	0.15164	0.15228	0.15292	0.15356	0.15420	0.15484	0.15548	0.15612	0.15676	0.15740	0.15804	0.15868	0.15932	0.15996	0.16060	0.16124	0.16188	0.16252	0.16316	0.16380	0.16444	0.16508	0.16572	0.16636	0.16700	0.16764	0.16828	0.16892	0.16956	0.17020	0.17084	0.17148	0.17212	0.17276	0.17340	0.17404	0.17468	0.17532	0.17596	0.17660	0.17724	0.17788	0.17852	0.17916	0.17980	0.18044	0.18108	0.18172	0.18236	0.18300	0.18364	0.18428	0.18492	0.18556	0.18620	0.18684	0.18748	0.18812	0.18876	0.18940	0.19004	0.19068	0.19132	0.19196	0.19260	0.19324	0.19388	0.19452	0.19516	0.19580	0.19644	0.19708	0.19772	0.19836	0.19900	0.19964	0.20028	0.20092	0.20156	0.20220	0.20284	0.20348	0.20412	0.20476	0.20540	0.20604	0.20668	0.20732	0.20796	0.20860	0.20924	0.20988	0.21052	0.21116	0.21180	0.21244	0.21308	0.21372	0.21436	0.21500	0.21564	0.21628	0.21692	0.21756	0.21820	0.21884	0.21948	0.22012	0.22076	0.22140	0.22204	0.22268	0.22332	0.22396	0.22460	0.22524	0.22588	0.22652	0.22716	0.22780	0.22844	0.22908	0.22972	0.23036	0.23100	0.23164	0.23228	0.23292	0.23356	0.23420	0.23484	0.23548	0.23612	0.23676	0.23740	0.23804	0.23868	0.23932	0.23996	0.24060	0.24124	0.24188	0.24252	0.24316	0.24380	0.24444	0.24508	0.24572	0.24636	0.24700	0.24764	0.24828	0.24892	0.24956	0.25020	0.25084	0.25148	0.25212	0.25276	0.25340	0.25404	0.25468	0.25532	0.25596	0.25660	0.25724	0.25788	0.25852	0.25916	0.25980	0.26044	0.26108	0.26172	0.26236	0.26300	0.26364	0.26428	0.26492	0.26556	0.26620	0.26684	0.26748	0.26812	0.26876	0.26940	0.27004	0.27068	0.27132	0.27196	0.27260	0.27324	0.27388	0.27452	0.27516	0.27580	0.27644	0.27708	0.27772	0.27836	0.27900	0.27964	0.28028	0.28092	0.28156	0.28220	0.28284	0.28348	0.28412	0.28476	0.28540	0.28604	0.28668	0.28732	0.28796	0.28860	0.28924	0.28988	0.29052	0.29116	0.29180	0.29244	0.29308	0.29372	0.29436	0.29500	0.29564	0.29628	0.29692	0.29756	0.29820	0.29884	0.29948	0.30012	0.30076	0.30140	0.30204	0.30268	0.30332	0.30396	0.30460	0.30524	0.30588	0.30652	0.30716	0.30780	0.30844	0.30908	0.30972	0.31036	0.31100	0.31164	0.31228	0.31292	0.31356	0.31420	0.31484	0.31548	0.31612	0.31676	0.31740	0.31804	0.31868	0.31932	0.31996	0.32060	0.32124	0.32188	0.32252	0.32316	0.32380	0.32444	0.32508	0.32572	0.32636	0.32700	0.32764	0.32828	0.32892	0.32956	0.33020	0.33084	0.33148	0.33212	0.33276	0.33340	0.33404	0.33468	0.33532	0.33596	0.33660	0.33724	0.33788	0.33852	0.33916	0.33980	0.34044	0.34108	0.34172	0.34236	0.34300	0.34364	0.34428	0.34492	0.34556	0.34620	0.34684	0.34748	0.34812	0.34876	0.34940	0.35004	0.35068	0.35132	0.35196	0.35260	0.35324	0.35388	0.35452	0.35516	0.35580	0.35644	0.35708	0.35772	0.35836	0.35900	0.35964	0.36028	0.36092	0.36156	0.36220	0.36284	0.36348	0.36412	0.36476	0.36540	0.36604	0.36668	0.36732	0.36796	0.36860	0.36924	0.36988	0.37052	0.37116	0.37180	0.37244	0.37308	0.37372	0.37436	0.37500	0.37564	0.37628	0.37692	0.37756	0.37820	0.37884	0.37948	0.38012	0.38076	0.38140	0.38204	0.38268	0.38332	0.38396	0.38460	0.38524	0.38588	0.38652	0.38716	0.38780	0.38844	0.38908	0.38972	0.39036	0.39100	0.39164	0.39228	0.39292	0.39356	0.39420	0.39484	0.39548	0.39612	0.39676	0.39740	0.39804	0.39868	0.39932	0.39996	0.40060	0.40124	0.40188	0.40252	0.40316	0.40380	0.40444	0.40508	0.40572	0.40636	0.40700	0.40764	0.40828	0.40892	0.40956	0.41020	0.41084	0.41148	0.41212	0.41276	0.41340	0.41404	0.41468	0.41532	0.41596	0.41660	0.41724	0.41788	0.41852	0.41916	0.41980	0.42044	0.42108	0.42172	0.42236	0.42300	0.42364	0.42428	0.42492	0.42556	0.42620	0.42684	0.42748	0.42812	0.42876	0.42940	0.43004	0.43068	0.43132	0.43196	0.43260	0.43324	0.43388	0.43452	0.43516	0.43580	0.43644	0.43708	0.43772	0.43836	0.43900	0.43964	0.44028	0.44092	0.44156	0.44220	0.44284	0.44348	0.44412	0.44476	0.44540	0.44604	0.44668	0.44732	0.44796	0.44860	0.44924	0.44988	0.45052	0.45116	0.45180	0.45244	0.45308	0.45372	0.45436	0.45500	0.45564	0.45628	0.45692	0.45756	0.45820	0.45884	0.45948	0.46012	0.46076	0.46140	0.46204	0.46268	0.46332	0.46396	0.46460	0.46524	0.46588	0.46652	0.46716	0.46780	0.46844	0.46908	0.46972	0.47036	0.47100	0.47164	0.47228	0.47292	0.47356	0.47420	0.47484	0.47548	0.47612	0.47676	0.47740	0.47804	0.47868	0.47932	0.47996	0.48060	0.48124	0.48188	0.48252	0.48316	0.48380	0.48444	0.48508	0.48572	0.48636	0.48700	0.48764	0.48828	0.48892	0.48956	0.49020	0.49084	0.49148	0.49212	0.49276	0.49340	0.49404	0.49468	0.49532	0.49596	0.49660	0.49724	0.49788	0.49852	0.49916	0.49980	0.50044	0.50108	0.50172	0.50236	0.50300	0.50364	0.50428	0.50492	0.50556	0.50620	0.50684	0.50748	0.50812	0.50876	0.50940	0.51004	0.51068	0.51132	0.51196	0.51260	0.51324	0.51388	0.51452	0.51516	0.51580	0.51644	0.51708	0.51772	0.51836	0.51900	0.51964	0.52028	0.52092	0.52156	0.52220	0.52284	0.52348	0.52412	0.52476	0.52540	0.52604	0.52668	0.52732	0.52796	0.52860	0.52924	0.52988	0.53052	0.53116	0.53180	0.53244	0.53308	0.53372	0.53436	0.53500	0.53564	0.53628	0.53692	0.53756	0.53820	0.53884	0.53948	0.54012	0.54076	0.54140	0.54204	0.54268	0.54332	0.54396	0.54460	0.54524	0.54588	0.54652	0.54716	0.54780	0.54844	0.54908	0.54972	0.55036	0.55100	0.55164	0.55228	0.55292	0.55356	0.55420	0.55484	0.55548	0.55612	0.55676	0.55740	0.55804	0.55868	0.55932	0.55996	0.56060	0.56124	0.56188	0.56252	0.56316	0.56380	0.56444	0.56508	0.56572	0.56636	0.56700	0.56764	0.56828	0.56892	0.56956	0.57020	0.57084	0.57148	0.57212	0.57276	0.57340	0.57404	0.57468	0.57532	0.57596	0.57660	0.57724	0.57788	0.57852	0.57916	0.57980	0.58044	0.58108	0.58172	0.58236	0.58300	0.58364	0.58428	0.58492	0.58556	0.58620	0.58684	0.58748	0.58812	0.58876	0.58940	0.59004	0.59068	0.59132	0.59196	0.59260	0.59324	0.59388	0.59452	0.59516	0.59580	0.59644	0.59708	0.59772	0.59836	0.59900	0.59964	0.60028	0.60092	0.60156	0.60220	0.60284	0.60348	0.60412	0.60476	0.60540	0.60604	0.60668	0.60732	0.60796	0.60860	0.60924	0.60988	0.61052	0.61116	0.61180	0.61244	0.61308	0.61372	0.61436	0.61500	0.61564	0.61628	0.61692	0.61756	0.61820	0.61884	0.61948	0.62012	0.62076	0.62140	0.62204	0.62268	0.62332	0.62396	0.62460	0.62524	0.62588	0.62652	0.62716	0.62780	0.62844	0.62908	0.62972	0.63036	0.63100	0.63164	0.63228	0.63292	0.63356	0.63420	0.63484	0.63548	0.63612	0.63676	0.63740	0.63804	0.63868	0.63932	0.63996	0.64060	0.64124	0.64188	0.64252	0.64316	0.64380	0.64444	0.64508	0.64572	0.64636	0.64700	0.64764	0.64828	0.64892	0.64956	0.65020	0.65084	0.65148
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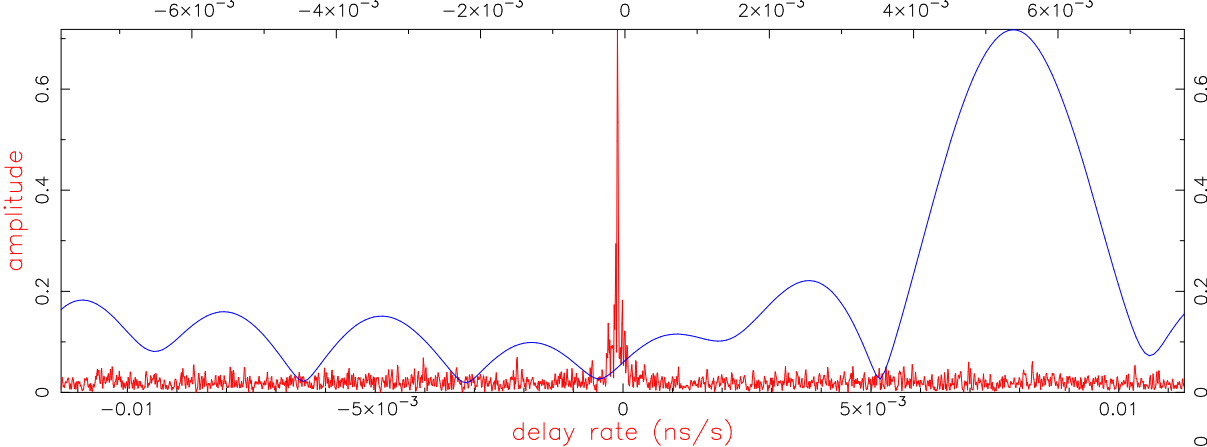
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gP

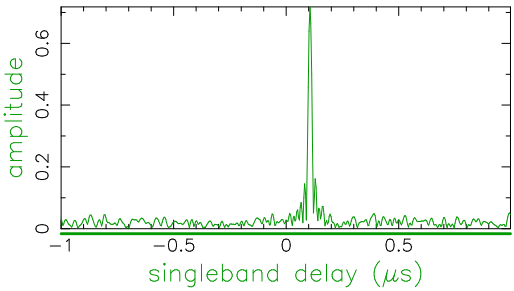
GLT - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

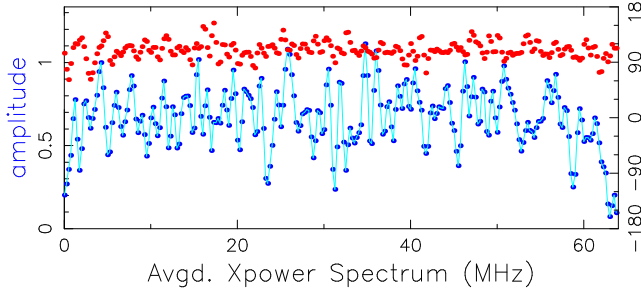


Fringe quality 7

SNR 43.0
 Int time 479.984
 Amp 0.718
 Phase -172.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.105868
 MBD 0.005387
 Fringe rate (Hz)
 -0.009797
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

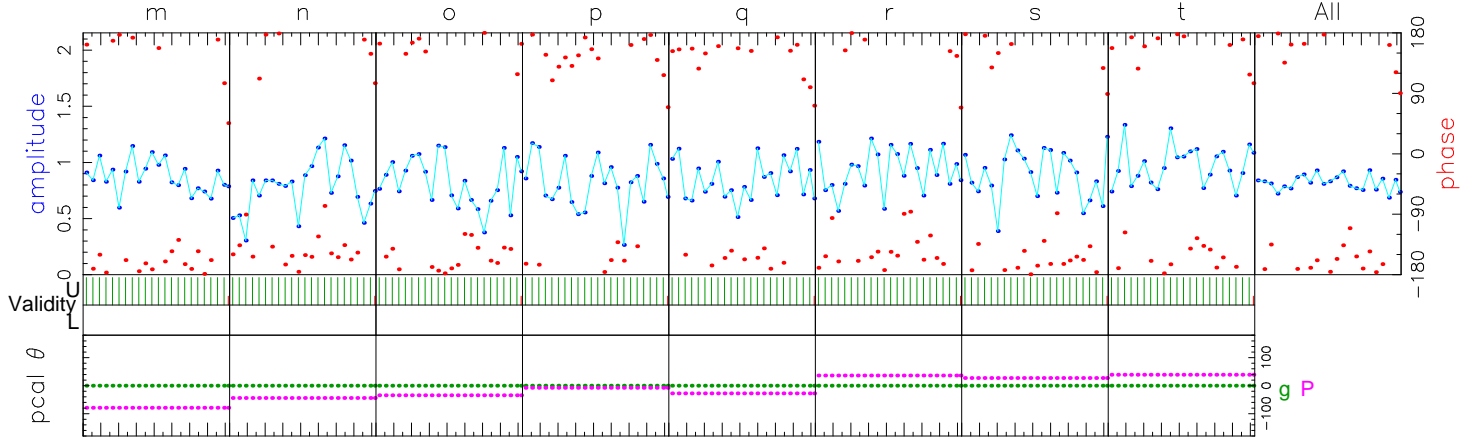


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165259
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-173.6	-153.2	-171.6	165.1	170.0	-154.8	-168.9	-173.7	Phase	-172.6
	0.8	0.6	0.7	0.7	0.7	0.8	0.8	0.8	Ampl.	0.7
	284.0	284.1	283.7	283.9	284.4	284.3	284.5	284.5	Sbd box	284.1
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
τ_{sig}	0	0	0	0	0	0	0	0	PC freqs	
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.22617106944E+04	Apriori delay (usec)	-1.22618098309E+04	Resid mbdelay (usec)	5.38652E-03	+/-	2.5E-05
Sband delay (usec)	-1.22617039629E+04	Apriori clock (usec)	1.2160645E+00	Resid sbdelay (usec)	1.05868E-01	+/-	2.0E-04
Phase delay (usec)	-1.22618098364E+04	Apriori clockrate (us/s)	1.8608487E-07	Resid phdelay (usec)	-5.56524E-06	+/-	8.6E-08
Delay rate (us/s)	-4.50554307200E-01	Apriori rate (us/s)	-4.50554193461E-01	Resid rate (us/s)	-1.13738E-07	+/-	3.1E-10
Total phase (deg)	-112.1	Apriori accel (us/s/s)	7.40780965524E-05	Resid phase (deg)	-172.6	+/-	2.7

ph/seg (deg) 30.3 6.4 Search (2048X32) 0.698 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 16.9 11.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.9 3.8 Inc. seg. avg. 0.817 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.6 6.6 Inc. frq. avg. 0.736 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 P: az 112.3 el 45.0 pa -49.0 u,v (fr/asec) 2771.129 4458.099 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gP..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gP.W.12.3MP1B5

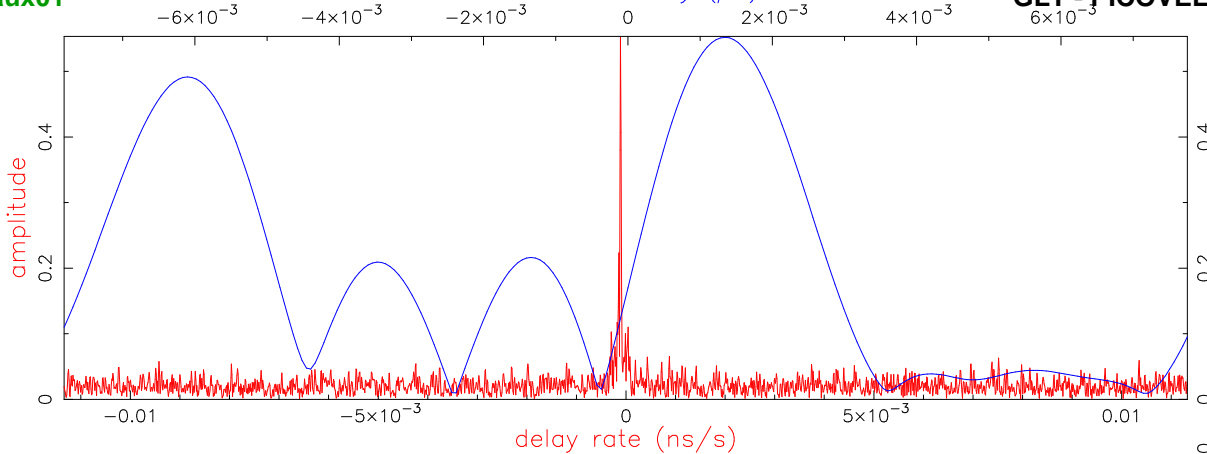
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gP

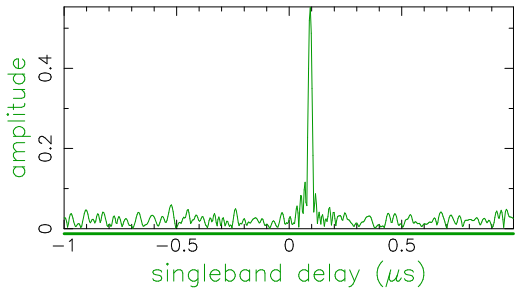
GLT - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

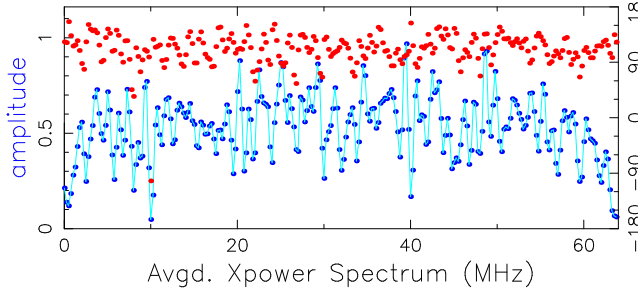


Fringe quality 5

SNR 33.2
 Int time 479.959
 Amp 0.553
 Phase 89.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.093082
 MBD 0.001335
 Fringe rate (Hz)
 -0.009819
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

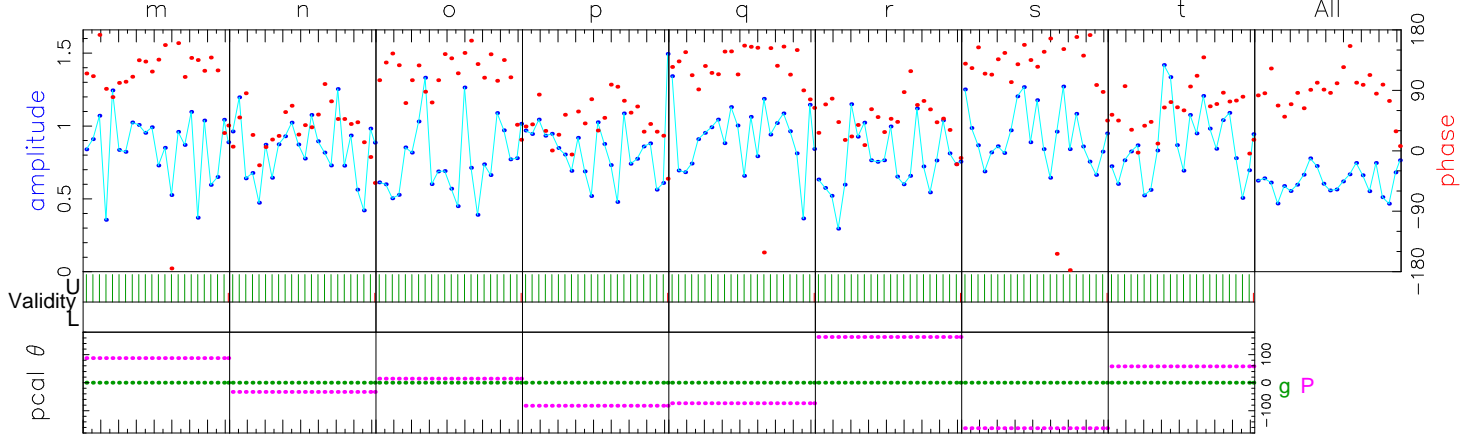


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165303
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
									g P	

Group delay (usec) (SBD)	-1.22617147456E+04	Apriori delay (usec)	-1.22618098309E+04	Resid mbdelay (usec)	1.33527E-03	+/-	3.3E-05
Sband delay (usec)	-1.22617167486E+04	Apriori clock (usec)	1.2160645E+00	Resid sbdelay (usec)	9.30822E-02	+/-	2.6E-04
Phase delay (usec)	-1.22618098280E+04	Apriori clockrate (us/s)	1.8608487E-07	Resid phdelay (usec)	2.87043E-06	+/-	1.1E-07
Delay rate (us/s)	-4.50554307449E-01	Apriori rate (us/s)	-4.50554193461E-01	Resid rate (us/s)	-1.13988E-07	+/-	4.0E-10
Total phase (deg)	-210.5	Apriori accel (us/s/s)	7.40780965524E-05	Resid phase (deg)	89.0	+/-	3.5

ph/seg (deg) 27.7 8.3 Search (2048X32) 0.532 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 19.8 14.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.1 4.9 Inc. seg. avg. 0.616 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.6 8.5 Inc. frq. avg. 0.728 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 P: az 112.3 el 45.0 pa -49.0 u,v (fr/asec) 2771.129 4458.099 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gP..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gP.W.24.3MP1B5

Mk4/DiFX fourfit 3.25 rev 0

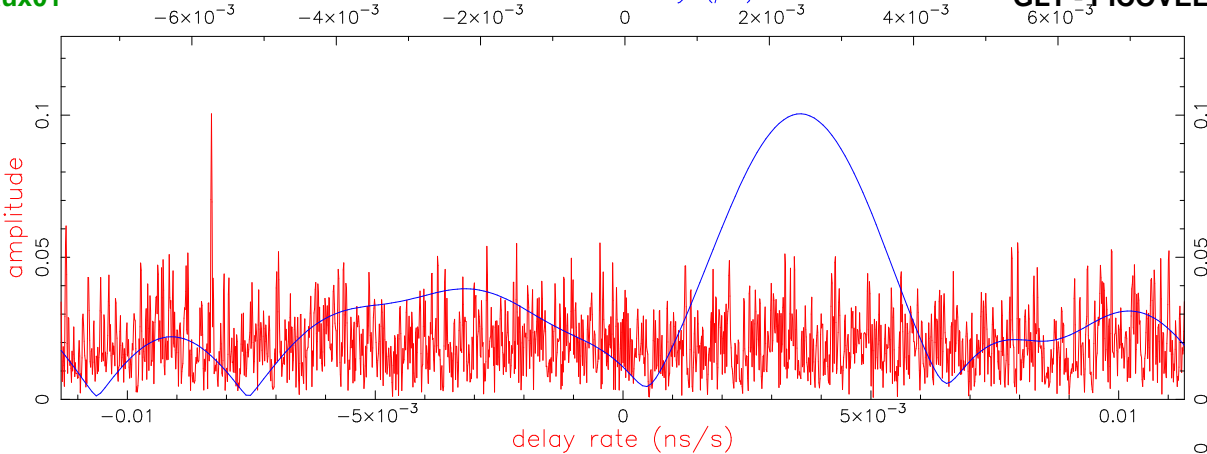
aux01

M87.3MP1B5, No0517, gP

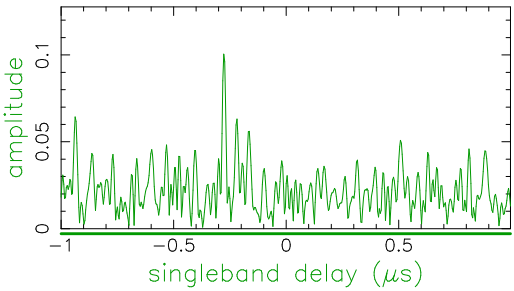
GLT - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

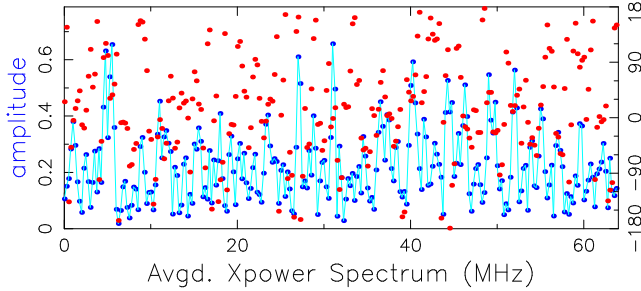
Fringe quality 0



SNR 6.1
 Int time 479.984
 Amp 0.128
 Phase 53.6
 PFD 2.9e-01
 Delays (us)
 SBD -0.276251
 MBD 0.002438
 Fringe rate (Hz)
 -0.716426
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

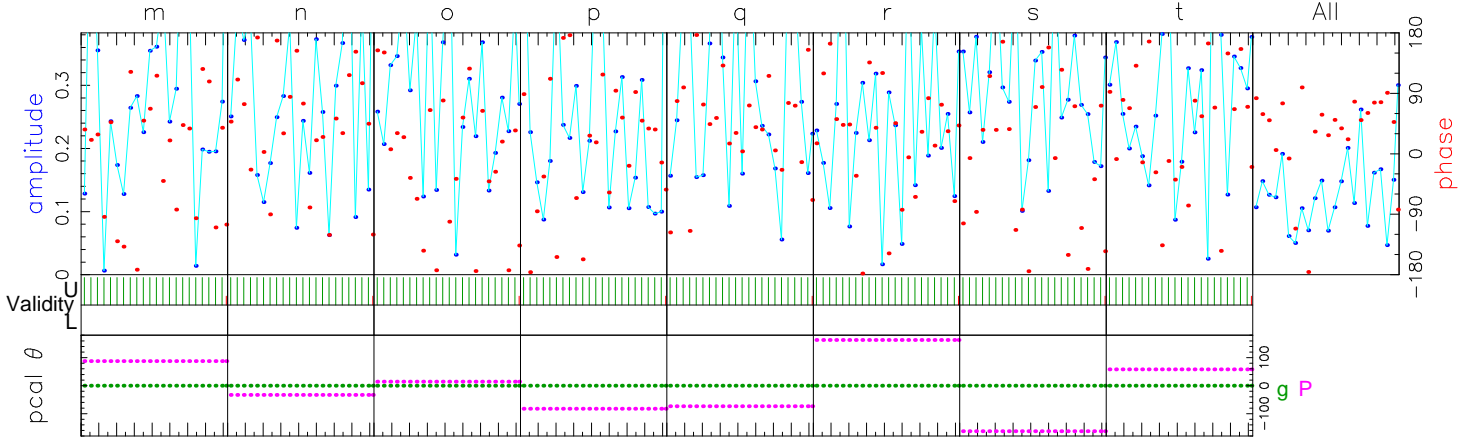


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165307
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	41.0	69.4	35.0	75.4	62.2	36.2	67.8	53.2	Phase	53.6
	0.1	0.2	0.1	0.1	0.2	0.2	0.0	0.1	Ampl.	0.1
	271.8	111.1	154.2	484.8	186.5	501.8	506.6	202.6	Sbd box	186.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
P/g	0	0	0	0	0	0	0	0	PC freqs	
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.22620886433E+04	Apriori delay (usec)	-1.22618098309E+04	Resid mbdelay (usec)	2.43762E-03	+/-	1.8E-04
Sband delay (usec)	-1.22620860824E+04	Apriori clock (usec)	1.2160645E+00	Resid sbdelay (usec)	-2.76251E-01	+/-	1.4E-03
Phase delay (usec)	-1.22618098292E+04	Apriori clockrate (us/s)	1.8608487E-07	Resid phdelay (usec)	1.72771E-06	+/-	6.1E-07
Delay rate (us/s)	-4.50562510461E-01	Apriori rate (us/s)	-4.50554193461E-01	Resid rate (us/s)	-8.31700E-06	+/-	2.2E-09
Total phase (deg)	-245.9	Apriori accel (us/s/s)	7.40780965524E-05	Resid phase (deg)	53.6	+/-	18.9

ph/seg (deg) 54.0 45.3 Search (2048X32) 0.097 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.9 79.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.4 26.7 Inc. seg. avg. 0.123 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.8 46.6 Inc. frq. avg. 0.118 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 P: az 112.3 el 45.0 pa -49.0 u,v (fr/asec) 2771.129 4458.099 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gP..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gP.W.40.3MP1B5

Mk4/DiFX fourfit 3.25 rev 0

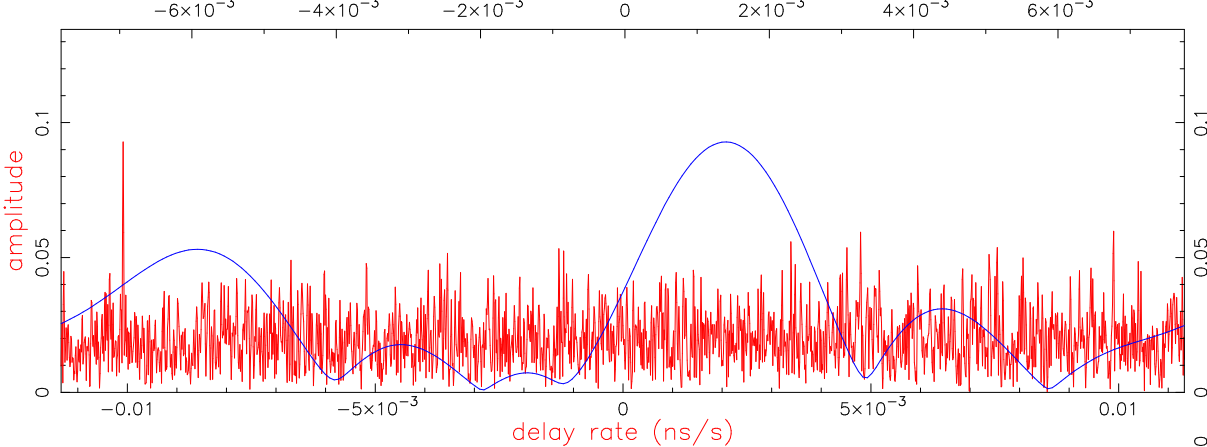
aux01

M87.3MP1B5, No0517, gP

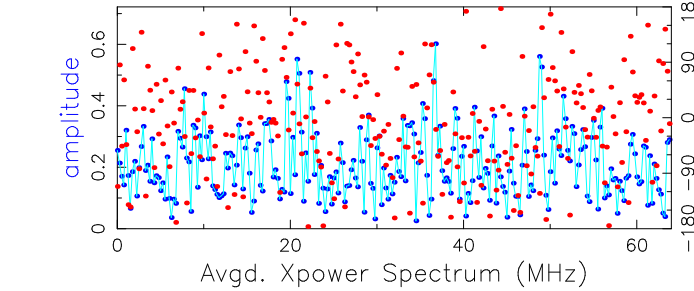
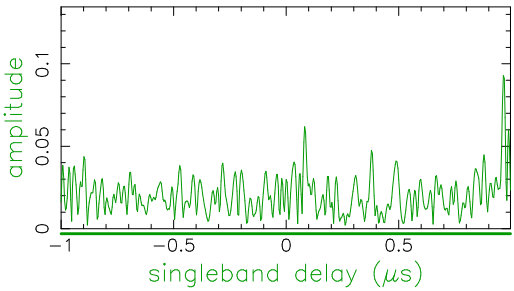
GLT - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

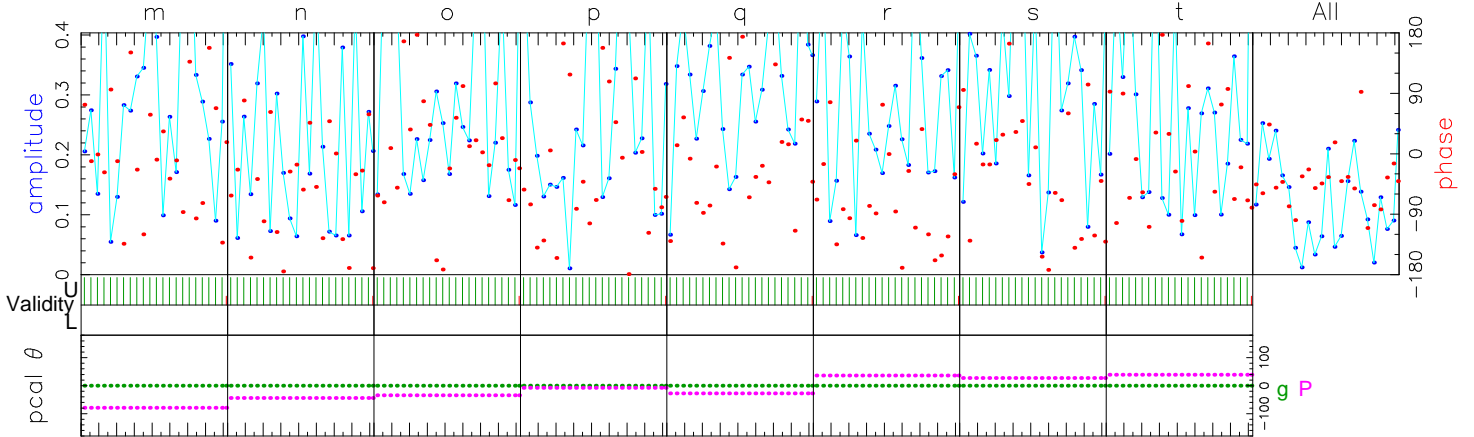


SNR 5.7
 Int time 479.959
 Amp 0.135
 Phase -42.1
 PFD 9.6e-01
 Delays (us)
 SBD 0.966515
 MBD 0.001412
 Fringe rate (Hz)
 -0.869775
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165311
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-36.2	-61.5	3.0	-76.3	-14.2	-85.6	-13.9	-39.1	Phase	-42.1
	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	2.3	45.7	313.9	146.5	413.9	135.2	34.9	79.2	Sbd box	504.4
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
P _g	0	0	0	0	0	0	0	0	PC freqs	
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.22608396686E+04	Apriori delay (usec)	-1.22618098309E+04	Resid mbdelay (usec)	1.41226E-03	+/-	1.9E-04
Sband delay (usec)	-1.22608433154E+04	Apriori clock (usec)	1.2160645E+00	Resid sbdelay (usec)	9.66515E-01	+/-	1.5E-03
Phase delay (usec)	-1.22618098322E+04	Apriori clockrate (us/s)	1.8608487E-07	Resid phdelay (usec)	-1.35725E-06	+/-	6.5E-07
Delay rate (us/s)	-4.50564290692E-01	Apriori rate (us/s)	-4.50554193461E-01	Resid rate (us/s)	-1.00972E-05	+/-	2.3E-09
Total phase (deg)	-341.6	Apriori accel (us/s/s)	7.40780965524E-05	Resid phase (deg)	-42.1	+/-	20.2

ph/seg (deg) 43.7 48.4 Search (2048X32) 0.091 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.8 84.5 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 28.5 Inc. seg. avg. 0.126 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.3 49.8 Inc. frq. avg. 0.138 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 P: az 112.3 el 45.0 pa -49.0 u,v (fr/asec) 2771.129 4458.099 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gP..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gP.W.56.3MP1B5

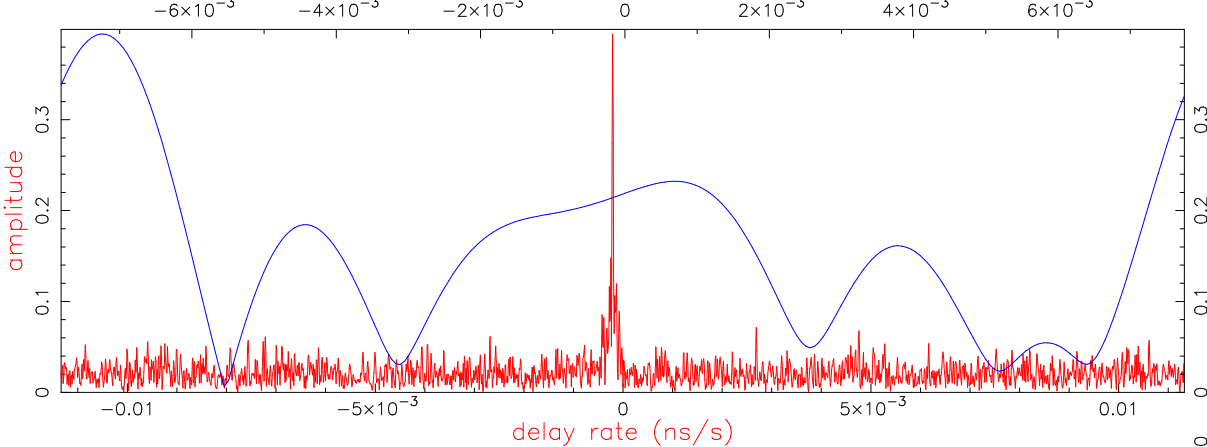
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gX

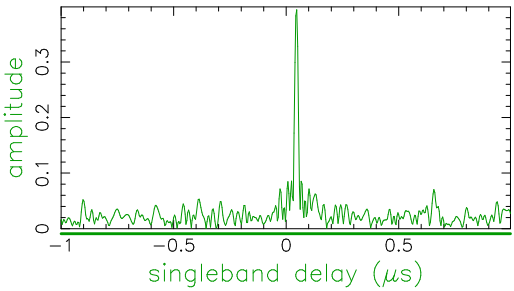
GLT - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

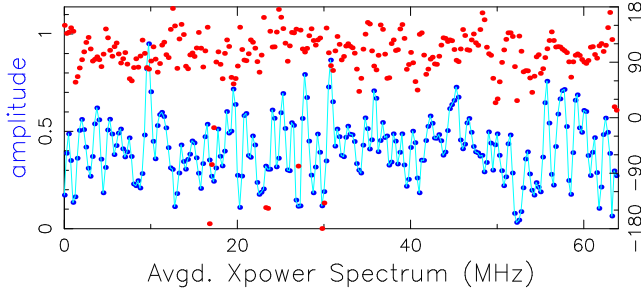


Fringe quality 8

SNR 23.9
 Int time 479.895
 Amp 0.399
 Phase -4.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.045465
 MBD -0.007280
 Fringe rate (Hz)
 -0.018560
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

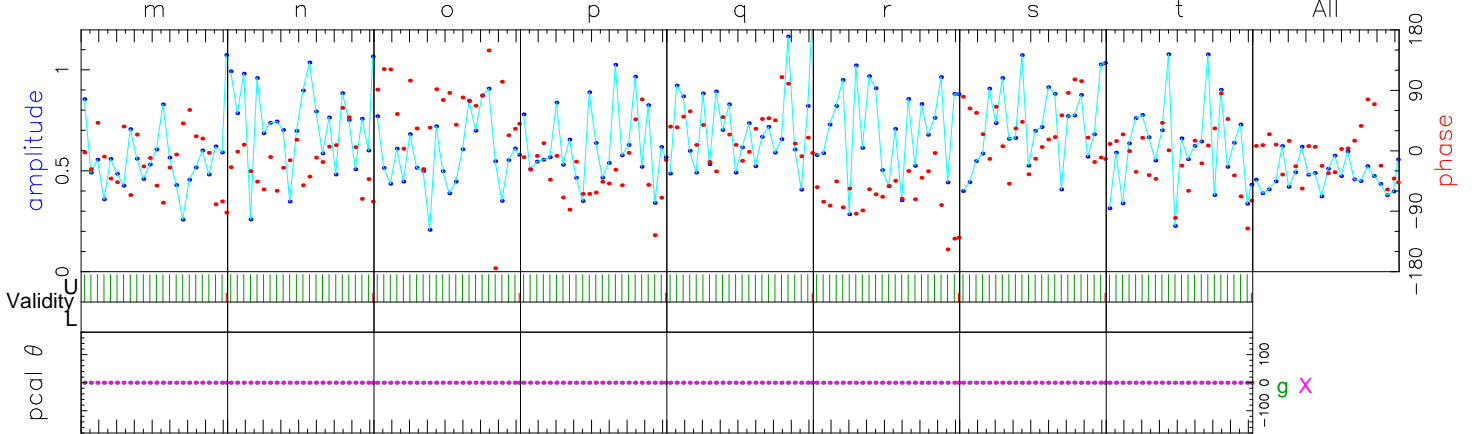


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165258
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.9	-18.0	76.8	-32.6	30.8	-67.0	25.9	-5.2	Phase	-4.5
	0.4	0.6	0.4	0.5	0.6	0.6	0.5	0.5	Ampl.	0.5
	269.9	268.6	268.0	267.8	268.2	268.4	268.4	268.4	Sbd box	268.6
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.10072417049E+04	Apriori delay (usec)	-1.10072812998E+04	Resid mbdelay (usec)	-7.28009E-03	+/-	4.5E-05
Sband delay (usec)	-1.10072358353E+04	Apriori clock (usec)	-1.1242175E+02	Resid sbdelay (usec)	4.54645E-02	+/-	3.6E-04
Phase delay (usec)	-1.10072812999E+04	Apriori clockrate (us/s)	-4.3230111E-07	Resid phdelay (usec)	-1.45976E-07	+/-	1.5E-07
Delay rate (us/s)	-1.12235494682E-02	Apriori rate (us/s)	-1.12233340044E-02	Resid rate (us/s)	-2.15464E-07	+/-	5.6E-10
Total phase (deg)	-63.5	Apriori accel (us/s/s)	6.10617129692E-05	Resid phase (deg)	-4.5	+/-	4.8

ph/seg (deg)	RMS 34.9	Theor. 11.5	Amplitude Search (2048X32)	0.399 +/- 0.017	0.365	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	26.6	20.0	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.2	6.8	Inc. seg. avg.	0.468	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.9	11.8	Inc. frq. avg.	0.510	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
g: az 70.4 el 8.0 pa -13.0	X: az 144.8 el 40.5 pa -18.4	u, v (fr/asec)	173.469 2172.906	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0517//gX...3MP1B5	Output file: /Exps/c241b/v2/3mm/1234/No0517//gX.W.10.3MP1B5						

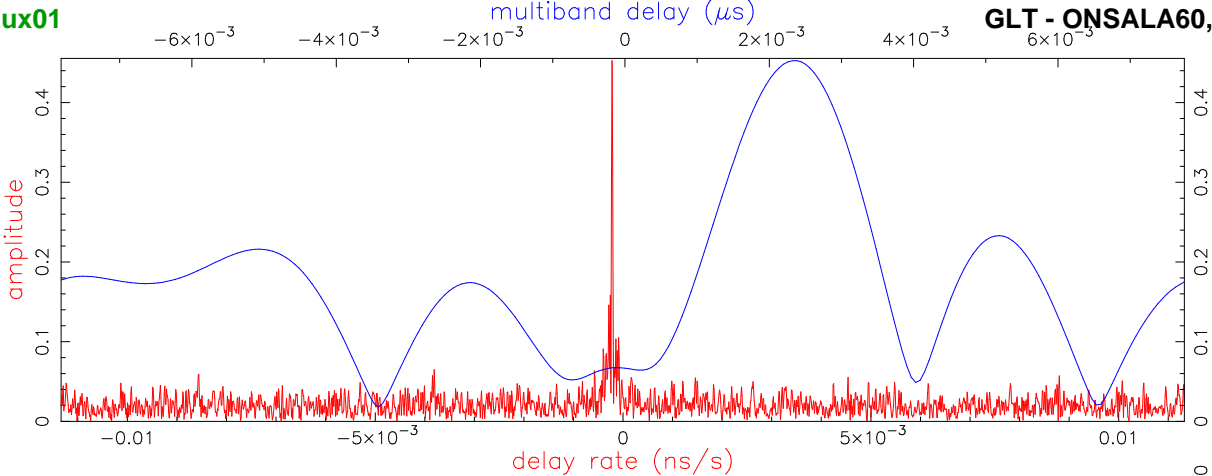
Mk4/DiFX fourfit 3.25 rev 0

aux01

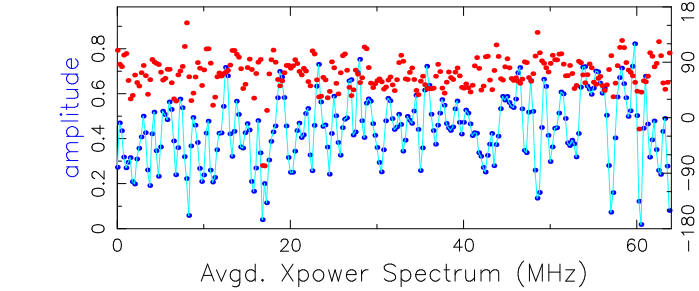
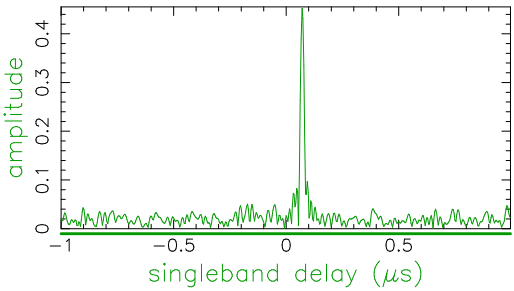
M87.3MP1B5, No0517, gX

GLT - ONSALA60, fgroup W, pol RR

Fringe quality 7

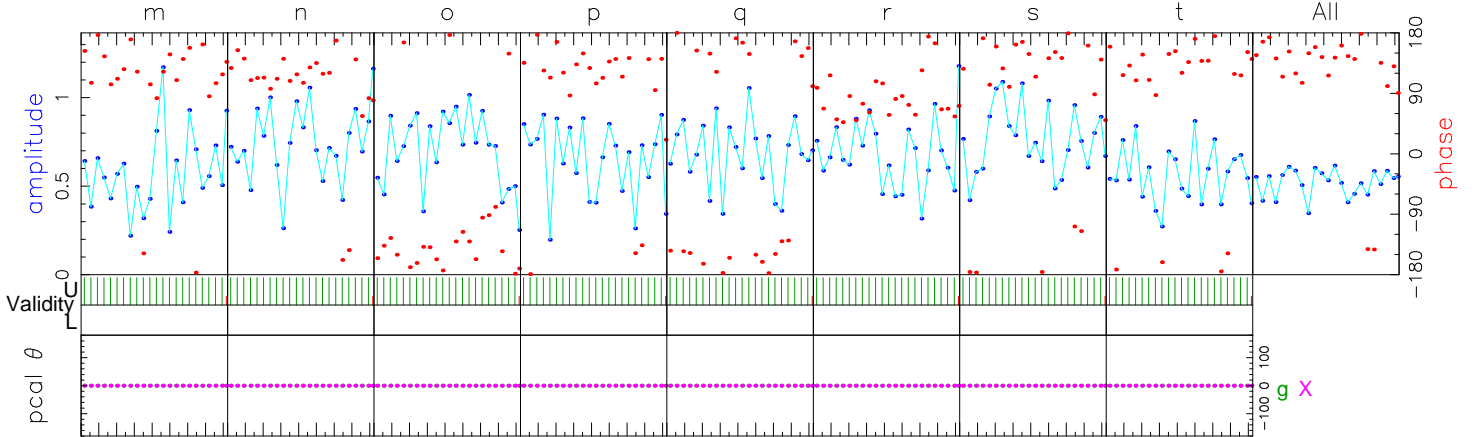


SNR 27.3
 Int time 479.869
 Amp 0.455
 Phase 145.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.071299
 MBD 0.002381
 Fringe rate (Hz)
 -0.018633
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165303
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	130.8	122.6	-145.0	138.5	-178.9	81.0	150.8	144.2	Phase	145.7
	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	Ampl.	0.6
	276.4	275.2	274.6	274.6	274.4	274.6	274.9	275.8	Sbd box	275.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -1.10072164188E+04 Apriori delay (usec) -1.10072812998E+04 Resid mbdelay (usec) 2.38095E-03 +/- 4.0E-05
 Sband delay (usec) -1.10072100013E+04 Apriori clock (usec) -1.1242175E+02 Resid sbdelay (usec) 7.12985E-02 +/- 3.2E-04
 Phase delay (usec) -1.10072812951E+04 Apriori clockrate (us/s) -4.3230111E-07 Resid phdelay (usec) 4.69935E-06 +/- 1.4E-07
 Delay rate (us/s) -1.12235503178E-02 Apriori rate (us/s) -1.12233340044E-02 Resid rate (us/s) -2.16313E-07 +/- 4.9E-10
 Total phase (deg) 86.8 Apriori accel (us/s/s) 6.10617129692E-05 Resid phase (deg) 145.7 +/- 4.2

RMS Theor. Amplitude 0.455 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 30.4 10.1 Search (2048X32) 0.415 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 21.7 17.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 43.0 5.9 Inc. seg. avg. 0.514 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 25.9 10.4 Inc. frq. avg. 0.562 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 g: az 70.4 el 8.0 pa -13.0 X: az 144.8 el 40.5 pa -18.4 u,v (fr/asec) 173.469 2172.906 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gX...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gX.W.22.3MP1B5

Mk4/DiFX fourfit 3.25 rev 0

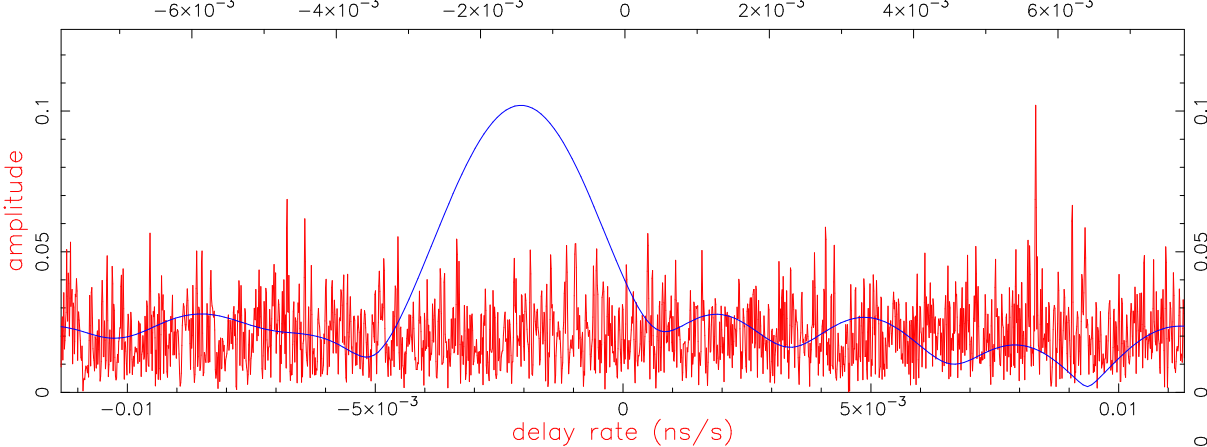
aux01

M87.3MP1B5, No0517, gX

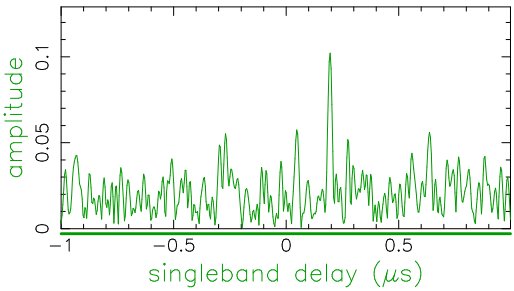
GLT - ONSALA60, fgroup W, pol LR

multiband delay (μs)

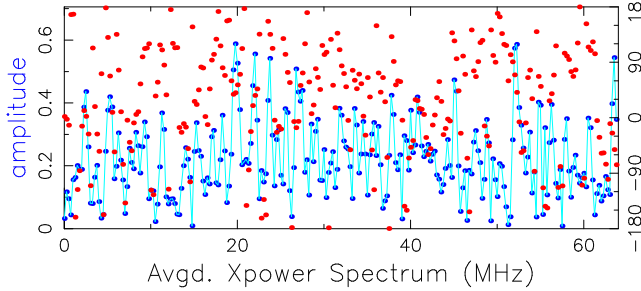
Fringe quality 0



SNR 6.1
 Int time 479.895
 Amp 0.129
 Phase 150.4
 PFD 2.1e-01
 Delays (us)
 SBD 0.194736
 MBD -0.001451
 Fringe rate (Hz)
 0.718029
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

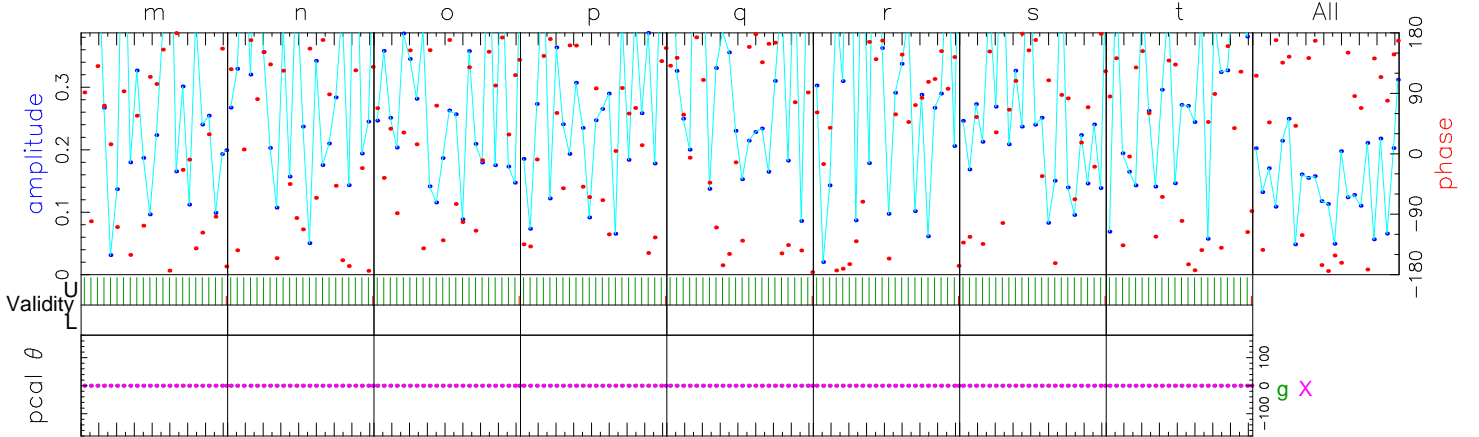


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165307
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	150.7	159.8	144.8	134.4	155.1	143.1	137.5	165.0	Phase	150.4
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	193.1	268.6	368.5	189.5	307.7	307.6	162.6	398.8	Sbd box	306.9
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.10070796263E+04	Apriori delay (usec)	-1.10072812998E+04	Resid mbdelay (usec)	-1.45147E-03	+/-	1.8E-04
Sband delay (usec)	-1.10070865638E+04	Apriori clock (usec)	-1.1242175E+02	Resid sbdelay (usec)	1.94736E-01	+/-	1.4E-03
Phase delay (usec)	-1.10072812949E+04	Apriori clockrate (us/s)	-4.3230111E-07	Resid phdelay (usec)	4.84955E-06	+/-	6.0E-07
Delay rate (us/s)	-1.12149983958E-02	Apriori rate (us/s)	-1.12233340044E-02	Resid rate (us/s)	8.33561E-06	+/-	2.2E-09
Total phase (deg)		Apriori accel (us/s/s)	6.10617129692E-05	Resid phase (deg)	150.4	+/-	18.7

ph/seg (deg)	RMS 53.9	Theor. 44.9	Amplitude 44.9	0.129 +/- 0.021	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	74.2	78.3	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	11.8	26.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
amp/frq (%)	42.2	46.2	Inc. seg. avg.	0.143	SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
			Inc. frq. avg.	0.118	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC) 0.00 0.00
					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite

g: az 70.4 el 8.0 pa -13.0 X: az 144.8 el 40.5 pa -18.4 u,v (fr/asec) 173.469 2172.906 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gX..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gX.W.38.3MP1B5

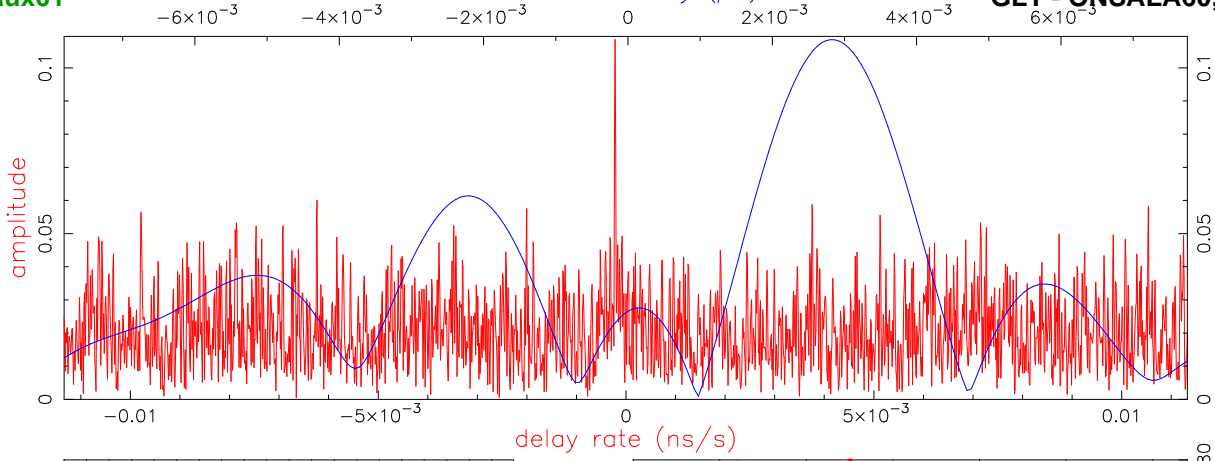
Mk4/DiFX fourfit 3.25 rev 0

aux01

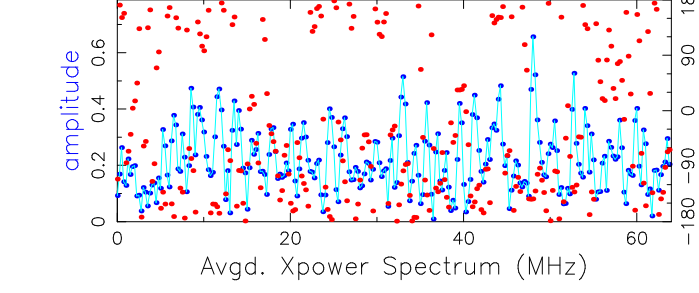
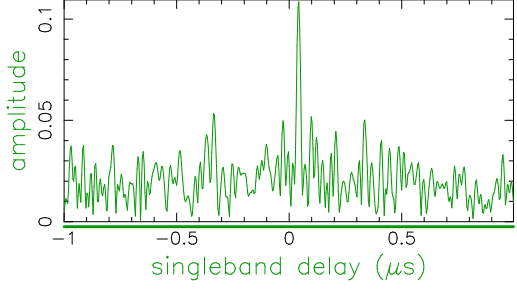
M87.3MP1B5, No0517, gX

GLT - ONSALA60, fgroup W, pol RL

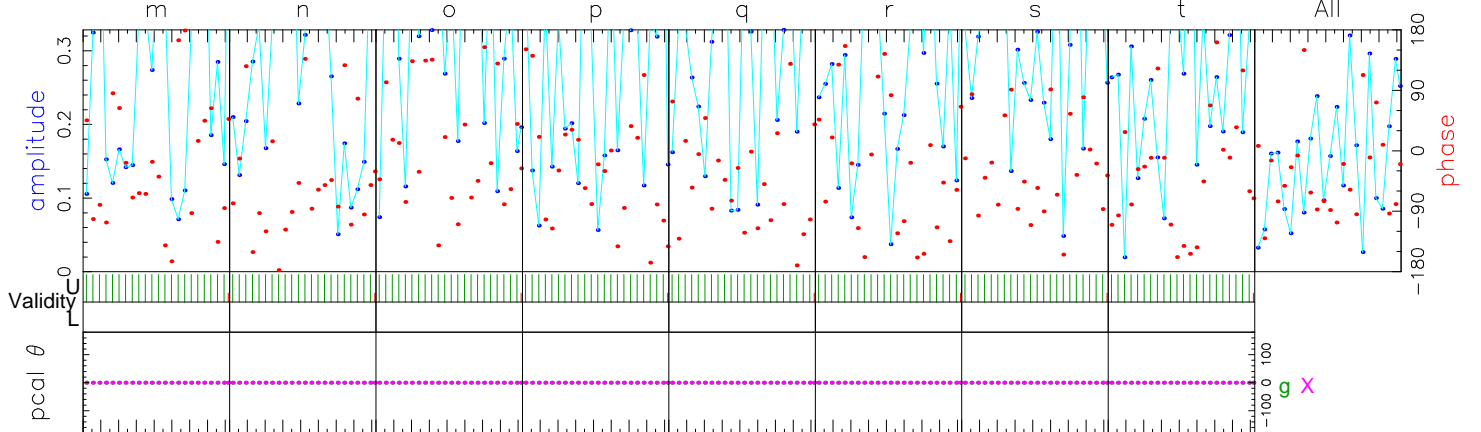
multiband delay (μ s)



Fringe quality 0
 SNR 6.6
 Int time 479.869
 Amp 0.109
 Phase -59.1
 PFD 1.5e-02
 Delays (us)
 SBD 0.041673
 MBD 0.002808
 Fringe rate (Hz) -0.018923
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165311
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"



Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-52.1	-82.9	-14.9	-59.3	-66.4	-113.3	-35.0	-79.7	Phase	-59.1
	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.1	Ampl.	0.1
	199.4	172.8	342.3	149.5	251.2	373.1	266.9	250.2	Sbd box	267.7
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.10072472422E+04	Apriori delay (usec)	-1.10072812998E+04	Resid mbdelay (usec)	2.80757E-03	+/-	1.7E-04
Sband delay (usec)	-1.10072396265E+04	Apriori clock (usec)	-1.1242175E+02	Resid sbdelay (usec)	4.16733E-02	+/-	1.3E-03
Phase delay (usec)	-1.10072813017E+04	Apriori clockrate (us/s)	-4.3230111E-07	Resid phdelay (usec)	-1.90692E-06	+/-	5.6E-07
Delay rate (us/s)	-1.12235536820E-02	Apriori rate (us/s)	-1.12233340044E-02	Resid rate (us/s)	-2.19678E-07	+/-	2.0E-09
Total phase (deg)	-118.1	Apriori accel (us/s/s)	6.10617129692E-05	Resid phase (deg)	-59.1	+/-	17.5

ph/seg (deg) 67.3 41.9 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.0 73.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.1 24.7 Inc. seg. avg. 0.120 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.7 43.1 Inc. frq. avg. 0.109 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 X: az 144.8 el 40.5 pa -18.4 u,v (fr/asec) 173.469 2172.906 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gX..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gX.W.54.3MP1B5

Mk4/DiFX fourfit 3.25 rev 0

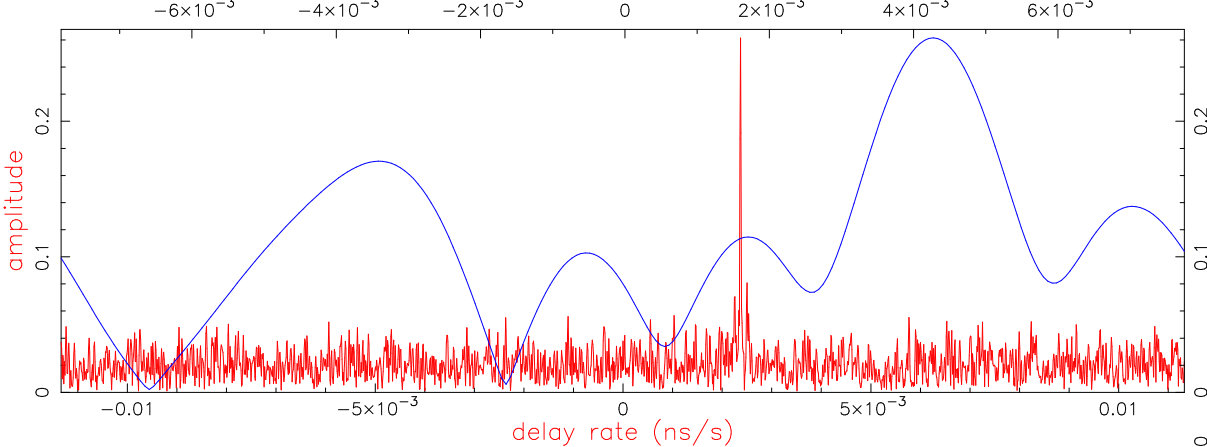
aux01

M87.3MP1B5, No0517, gY

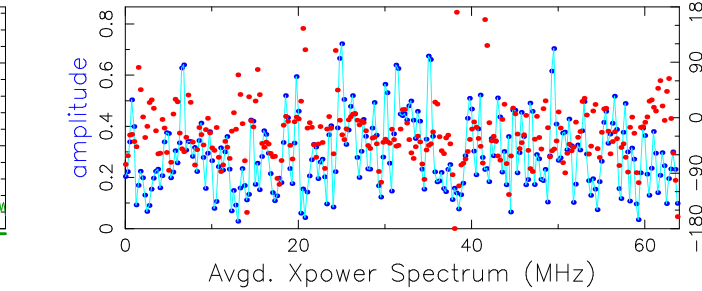
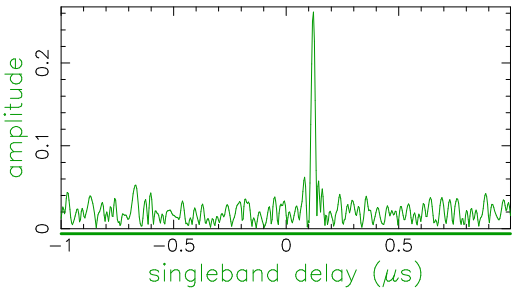
GLT - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 8

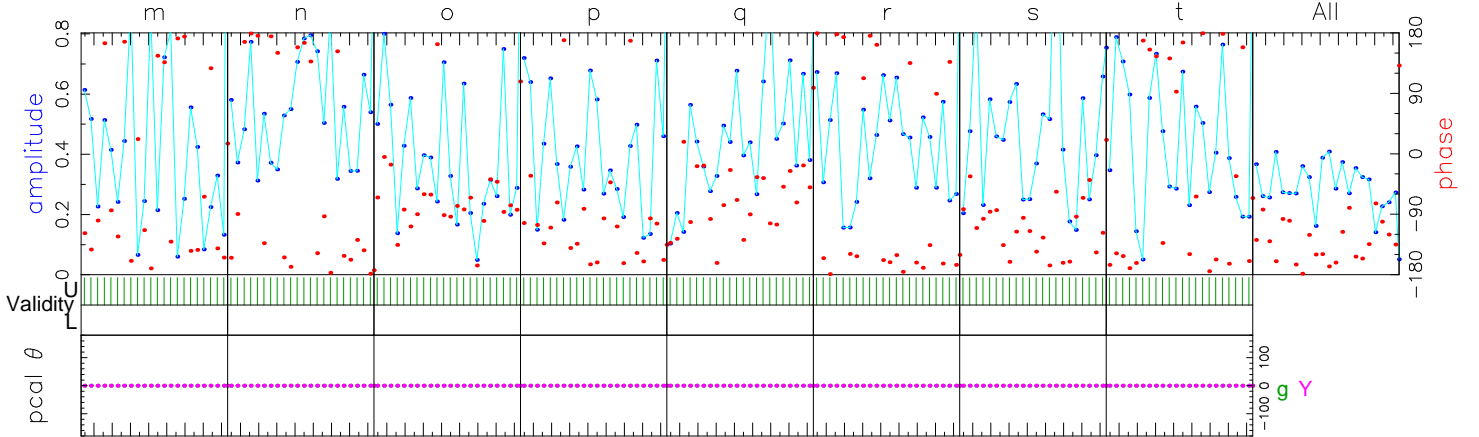


SNR 15.5
 Int time 462.091
 Amp 0.268
 Phase -134.4
 PFD 4.2e-45
 Delays (us)
 SBD 0.120066
 MBD 0.004238
 Fringe rate (Hz)
 0.204381
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200517.41
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165310
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 41 APs / seg (20.99 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-155.8	-169.5	-71.9	-122.5	-65.5	-177.6	-105.7	-171.4	Phase	-134.4
	0.3	0.5	0.3	0.3	0.3	0.4	0.4	0.3	Ampl.	0.4
	289.2	288.0	287.6	286.8	287.0	287.1	287.6	287.4	Sbd box	287.7
U/L	904/0	904/0	904/0	904/0	904/0	904/0	904/0	904/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.18200240435E+04	Apriori delay (usec)	-1.18201376567E+04	Resid mbdelay (usec)	4.23830E-03	+/-	7.0E-05
Sband delay (usec)	-1.18200175907E+04	Apriori clock (usec)	1.1105125E+02	Resid sbdelay (usec)	1.20066E-01	+/-	5.6E-04
Phase delay (usec)	-1.18201376611E+04	Apriori clockrate (us/s)	-9.8476414E-07	Resid phdelay (usec)	-4.33280E-06	+/-	2.4E-07
Delay rate (us/s)	-4.08316178674E-01	Apriori rate (us/s)	-4.08318551333E-01	Resid rate (us/s)	2.37266E-06	+/-	8.9E-10
Total phase (deg)	-45.2	Apriori accel (us/s/s)	7.11912654508E-05	Resid phase (deg)	-134.4	+/-	7.4

ph/seg (deg) 30.6 17.8 Search (2048X32) 0.246 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 30.2 31.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.2 10.5 Inc. seg. avg. 0.289 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.1 18.3 Inc. frq. avg. 0.351 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 Y: az 115.7 el 43.8 pa -44.5 u, v (fr/asec) 2518.462 4004.292 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/No0517//gY...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gY.W.52.3MP1B5 simultaneous interpolator

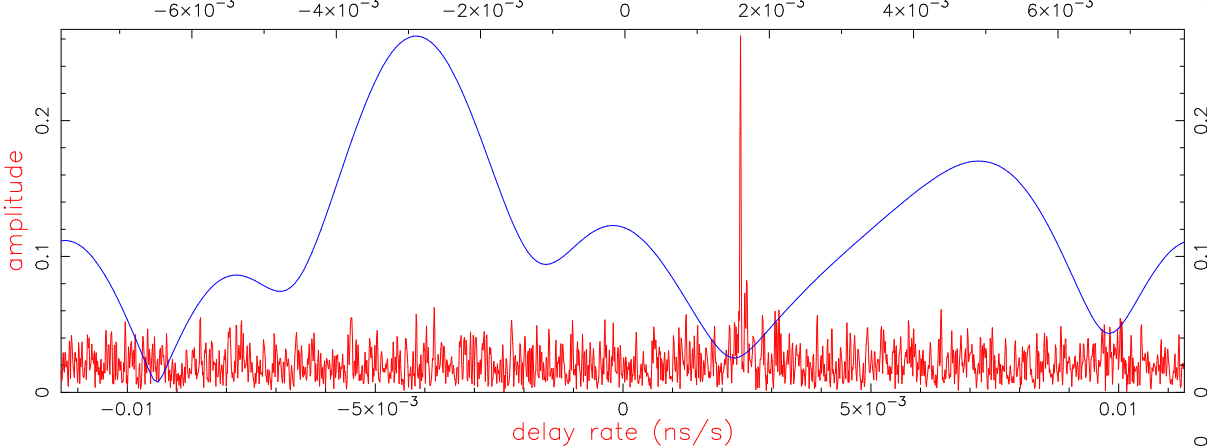
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gY

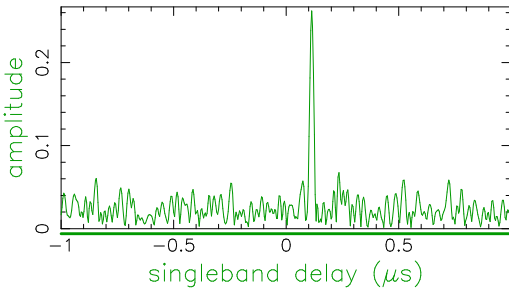
GLT - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

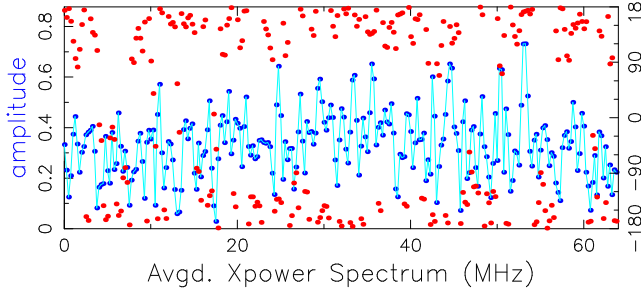


Fringe quality 7

SNR 15.4
 Int time 462.066
 Amp 0.267
 Phase 74.2
 PFD 8.4e-45
 Delays (us)
 SBD 0.113547
 MBD -0.002887
 Fringe rate (Hz)
 0.204444
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

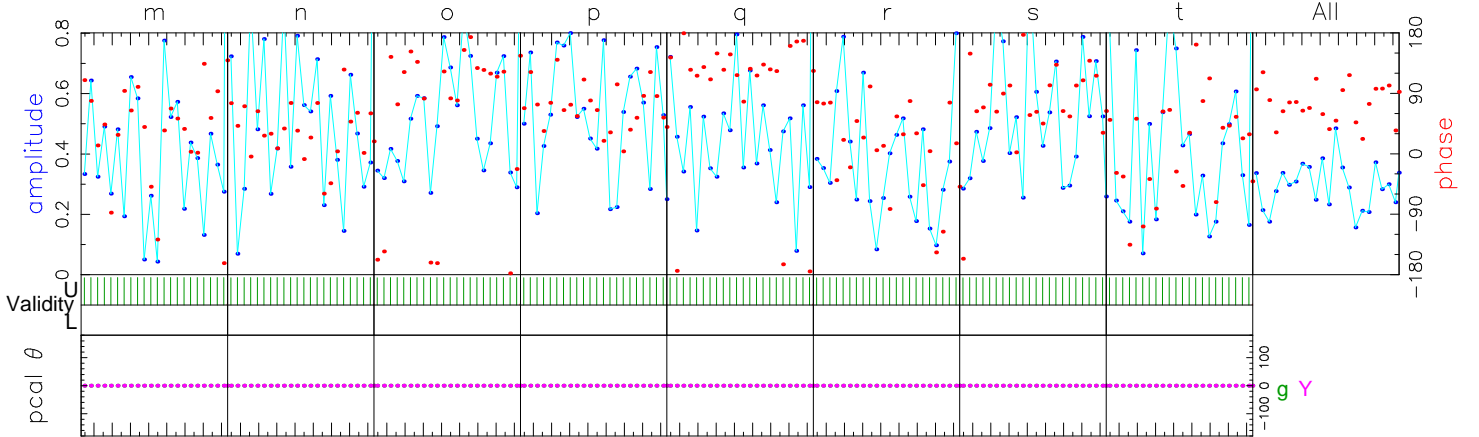


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200517.41
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165314
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 41 APs / seg (20.99 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	54.1	33.0	133.3	70.6	139.8	21.1	86.4	29.2	Phase	74.2
	0.3	0.4	0.4	0.5	0.4	0.3	0.4	0.3	Ampl.	0.4
	287.6	286.0	285.9	285.6	285.3	285.0	285.8	285.9	Sbd box	286.1
U/L	904/0	904/0	904/0	904/0	904/0	904/0	904/0	904/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.18200311689E+04	Apriori delay (usec)	-1.18201376567E+04	Resid mbdelay (usec)	-2.88711E-03	+/-	7.0E-05
Sband delay (usec)	-1.18200241092E+04	Apriori clock (usec)	1.1105125E+02	Resid sbdelay (usec)	1.13547E-01	+/-	5.6E-04
Phase delay (usec)	-1.18201376544E+04	Apriori clockrate (us/s)	-9.8476414E-07	Resid phdelay (usec)	2.39236E-06	+/-	2.4E-07
Delay rate (us/s)	-4.08316177941E-01	Apriori rate (us/s)	-4.08318551333E-01	Resid rate (us/s)	2.37339E-06	+/-	9.0E-10
Total phase (deg)	-196.7	Apriori accel (us/s/s)	7.11912654508E-05	Resid phase (deg)	74.2	+/-	7.4

ph/seg (deg)	28.2	Theor.	17.8	Amplitude	0.267 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	31.6	Search (2048X32)	0.248	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.8	Inc. seg. avg.	0.284	Inc. frq. avg.	0.353	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.3	Inc. frq. avg.	0.353	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 70.4 el 8.0 pa -13.0		Y: az 115.7 el 43.8 pa -44.5		u, v (fr/asec)	2518.462 4004.292	ion window (TEC)	0.00	0.00		0.00

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gY...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gY.W.65.3MP1B5

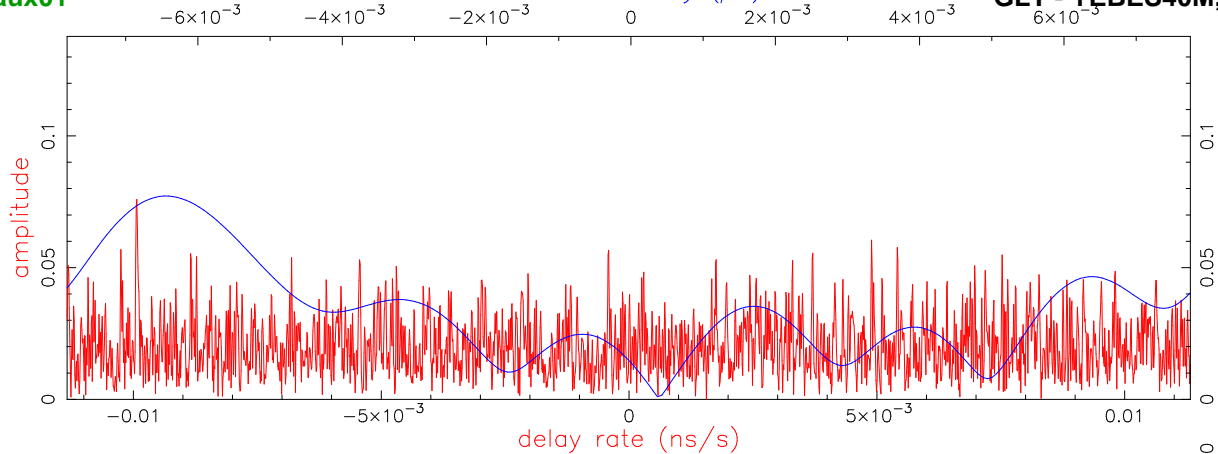
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gY

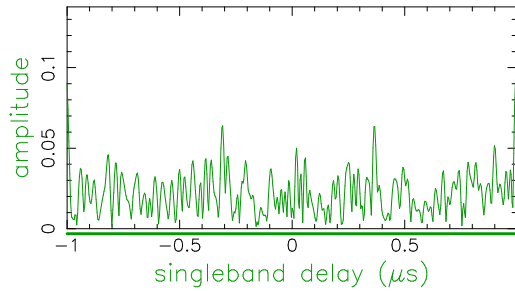
GLT - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

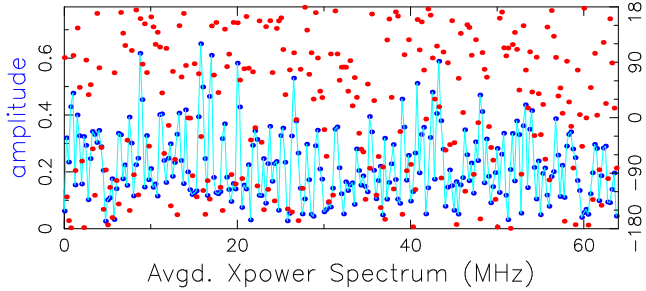


Fringe quality 0

SNR 5.8
 Int time 462.091
 Amp 0.138
 Phase 141.1
 PFD 8.6e-01
 Delays (us)
 SBD 0.995331
 MBD -0.006193
 Fringe rate (Hz)
 -0.856778
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

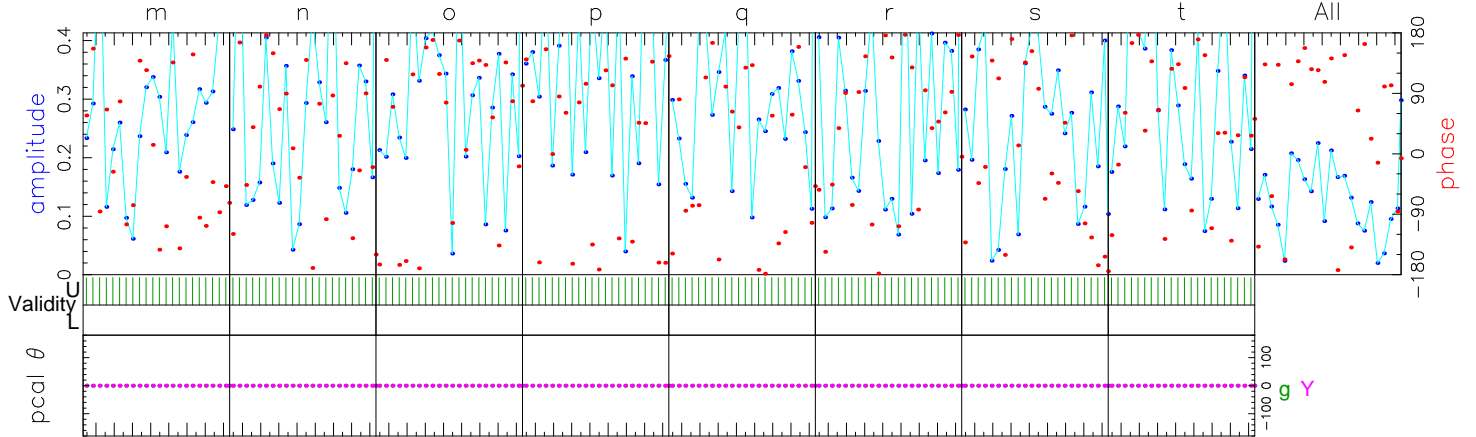


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200517.41
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165319
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 41 APs / seg (20.99 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.4	126.3	140.1	132.7	144.7	117.4	-141.9	114.9	Phase	141.1
	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	506.2	445.3	510.7	511.4	354.6	280.8	413.8	81.3	Sbd box	511.8
U/L	904/0	904/0	904/0	904/0	904/0	904/0	904/0	904/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.18191438495E+04	Apriori delay (usec)	-1.18201376567E+04	Resid mbdelay (usec)	-6.19270E-03	+/-	1.9E-04
Sband delay (usec)	-1.18191423262E+04	Apriori clock (usec)	1.1105125E+02	Resid sbdelay (usec)	9.95331E-01	+/-	1.5E-03
Phase delay (usec)	-1.18201376522E+04	Apriori clockrate (us/s)	-9.8476414E-07	Resid phdelay (usec)	4.55123E-06	+/-	6.4E-07
Delay rate (us/s)	-4.08328497677E-01	Apriori rate (us/s)	-4.08318551333E-01	Resid rate (us/s)	-9.94634E-06	+/-	2.4E-09
Total phase (deg)	-129.7	Apriori accel (us/s/s)	7.11912654508E-05	Resid phase (deg)	141.1	+/-	19.9

ph/seg (deg) 71.5 47.6 Search (2048X32) 0.093 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.2 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 62.9 28.1 Inc. seg. avg. 0.132 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.4 49.0 Inc. frq. avg. 0.124 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 Y: az 115.7 el 43.8 pa -44.5 u,v (fr/asec) 2518.462 4004.292 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/No0517//gY..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gY.W.74.3MP1B5 simultaneous interpolator

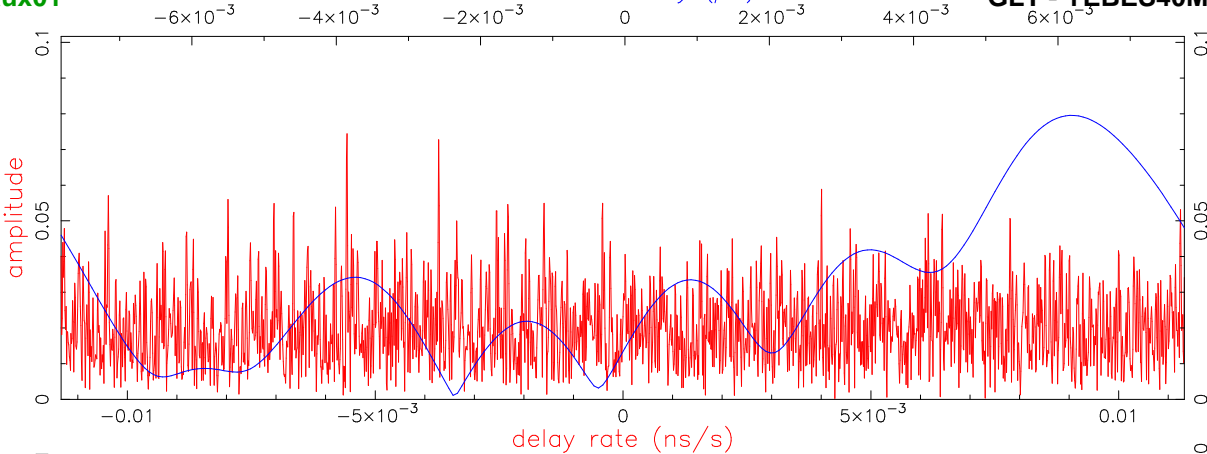
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gY

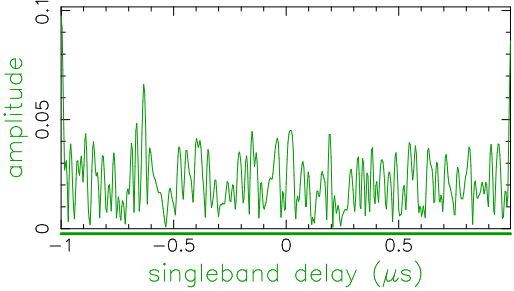
GLT - YEBES40M, fgroup W, pol RL

multiband delay (μs)

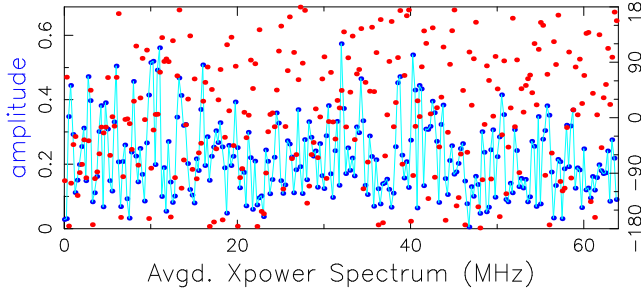


Fringe quality 0

SNR 5.7
 Int time 462.066
 Amp 0.102
 Phase -16.4
 PFD 9.3e-01
 Delays (us)
 SBD -0.999243
 MBD 0.005603
 Fringe rate (Hz)
 -0.321321
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

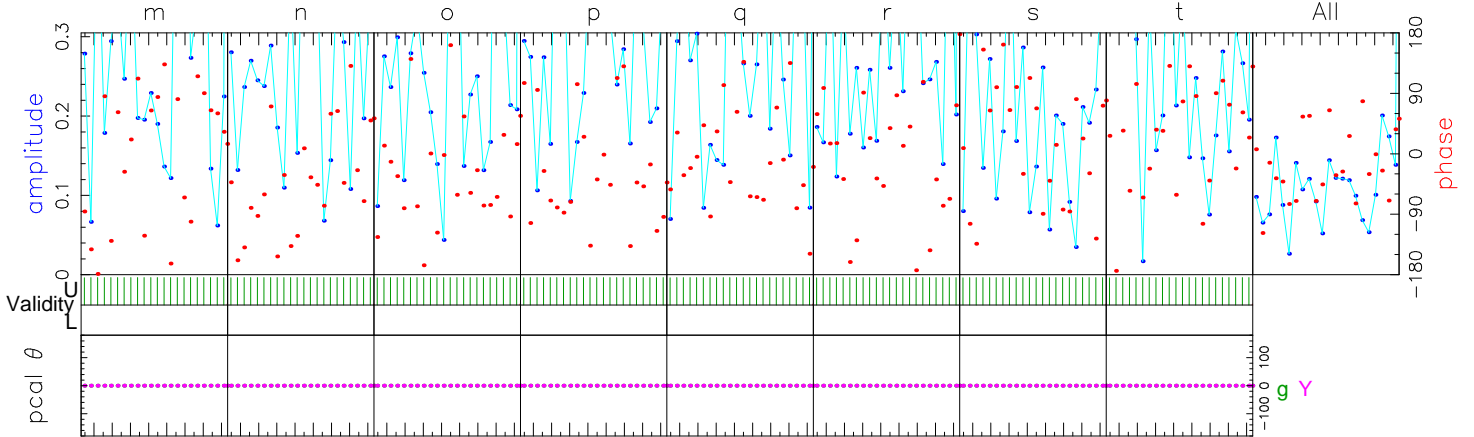


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200517.41
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165323
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 41 APs / seg (20.99 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	904/0	904/0	904/0	904/0	904/0	904/0	904/0	904/0		
g	0	0	0	0	0	0	0	0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.18211320541E+04	Apriori delay (usec)	-1.18201376567E+04	Resid mbdelay (usec)	5.60265E-03	+/-	1.9E-04
Sband delay (usec)	-1.18211369002E+04	Apriori clock (usec)	1.1105125E+02	Resid sbdelay (usec)	-9.99243E-01	+/-	1.5E-03
Phase delay (usec)	-1.18201376573E+04	Apriori clockrate (us/s)	-9.8476414E-07	Resid phdelay (usec)	-5.27943E-07	+/-	6.5E-07
Delay rate (us/s)	-4.08322281546E-01	Apriori rate (us/s)	-4.08318551333E-01	Resid rate (us/s)	-3.73021E-06	+/-	2.4E-09
Total phase (deg)	-287.2	Apriori accel (us/s/s)	7.11912654508E-05	Resid phase (deg)	-16.4	+/-	20.1

ph/seg (deg)	52.0	Theor.	48.1	Amplitude	0.102 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	53.5	Search (2048X32)	0.097	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.6	Inc. seg. avg.	0.085	Inc. frq. avg.	0.094	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.8	Inc. frq. avg.	0.094			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

g: az 70.4 el 8.0 pa -13.0 Y: az 115.7 el 43.8 pa -44.5 u, v (fr/asec) 2518.462 4004.292 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gY..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gY.W.80.3MP1B5

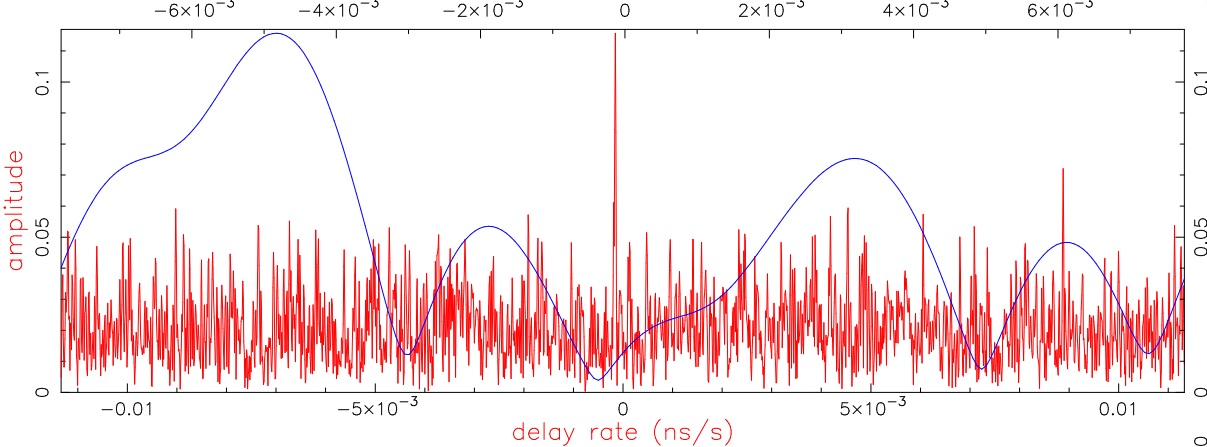
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gZ

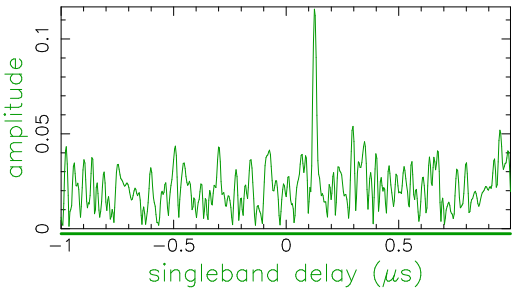
GLT - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

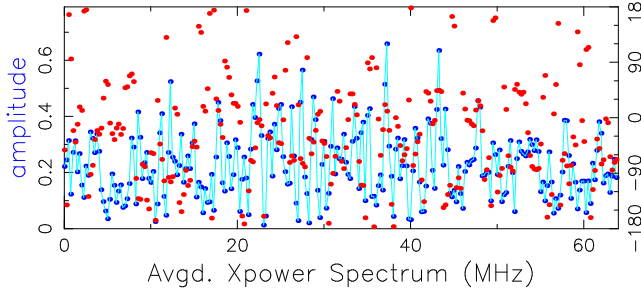


Fringe quality 0

SNR 7.0
 Int time 479.822
 Amp 0.117
 Phase 34.0
 PFD 7.5e-04
 Delays (us)
 SBD 0.126318
 MBD -0.004806
 Fringe rate (Hz)
 -0.013246
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

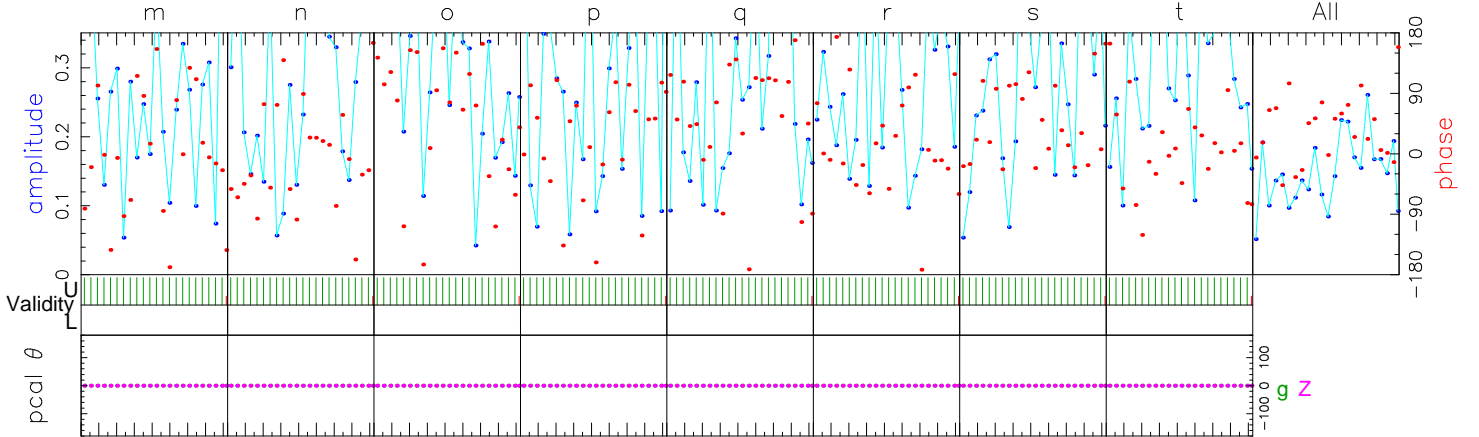


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165259
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-7.1	-23.3	116.2	43.7	89.7	4.5	41.6	6.2	Phase	34.0
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.1
	352.7	191.9	412.3	289.2	288.2	288.2	290.2	289.7	Sbd box	289.3
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	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	Manl PC	
g	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)	-1.09575440534E+04	Apriori delay (usec)	-1.09576642473E+04	Resid mbdelay (usec)	-4.80610E-03	+/-	1.5E-04
Sband delay (usec)	-1.09575379293E+04	Apriori clock (usec)	9.3683243E-02	Resid sbdelay (usec)	1.26318E-01	+/-	1.2E-03
Phase delay (usec)	-1.09576642462E+04	Apriori clockrate (us/s)	1.7446201E-07	Resid phdelay (usec)	1.09587E-06	+/-	5.3E-07
Delay rate (us/s)	1.71045207693E-01	Apriori rate (us/s)	1.71045361463E-01	Resid rate (us/s)	-1.53770E-07	+/-	1.9E-09
Total phase (deg)	-59.5	Apriori accel (us/s/s)	6.07831832869E-05	Resid phase (deg)	34.0	+/-	16.4

ph/seg (deg)	44.3	RMS	44.3	Theor.	39.2	Amplitude	0.117 +/- 0.017	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	50.6	Search (2048X32)	0.114	sb window (us)	-1.000	1.000		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	mb window (us)	-0.008 0.008	
ph/frq (deg)	52.6	Interp.	0.000	dr window (ns/s)	-0.011	0.011		Bits/sample:	2x2	SampCntNorm: enabled	ion window (TEC)	0.00 0.00
amp/frq (%)	47.9	Inc. seg. avg.	0.122	Data rate(MSamp/s):	128 MBpts	32 Amb	0.016 us	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	
		Inc. frq. avg.	0.148	u,v (fr/asec)	-895.061	1951.764						

g: az 70.4 el 8.0 pa -13.0 Z: az 161.5 el 40.9 pa -9.1 u,v (fr/asec) -895.061 1951.764 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gZ..3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gZ.W.15.3MP1B5

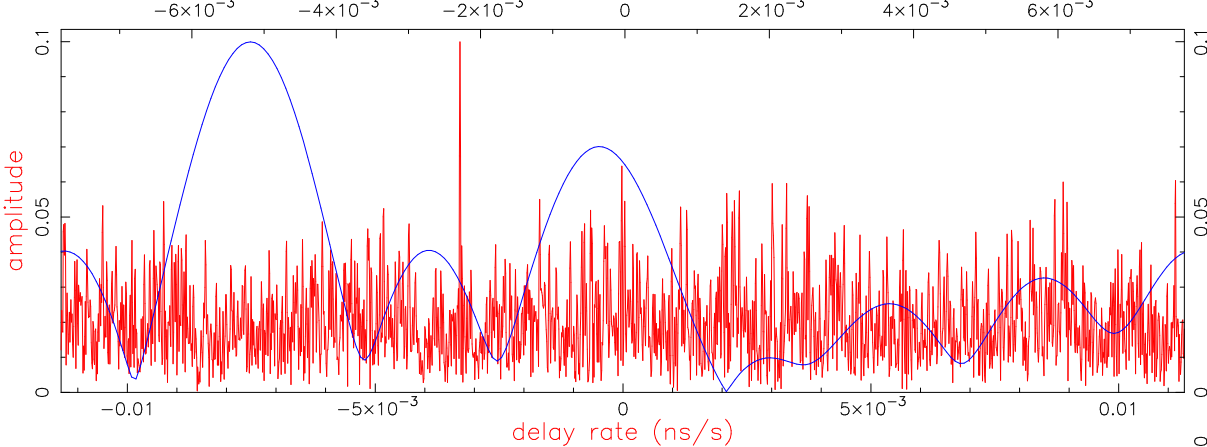
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gZ

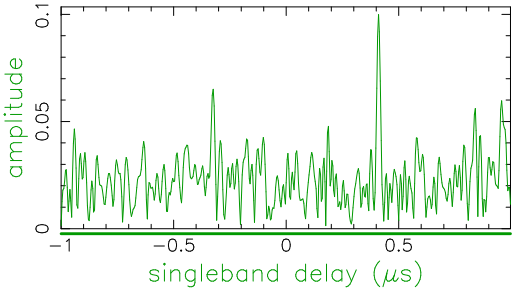
GLT - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

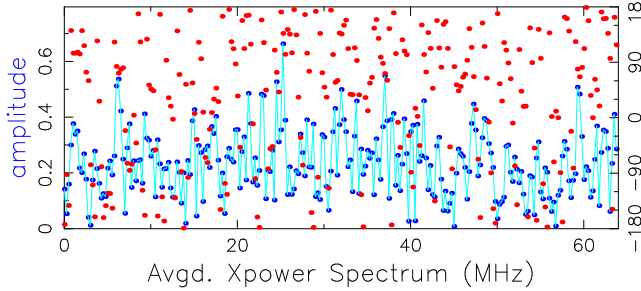


Fringe quality 0

SNR 6.0
 Int time 479.847
 Amp 0.103
 Phase -139.9
 PFD 4.2e-01
 Delays (us)
 SBD 0.410392
 MBD -0.005187
 Fringe rate (Hz)
 -0.283189
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

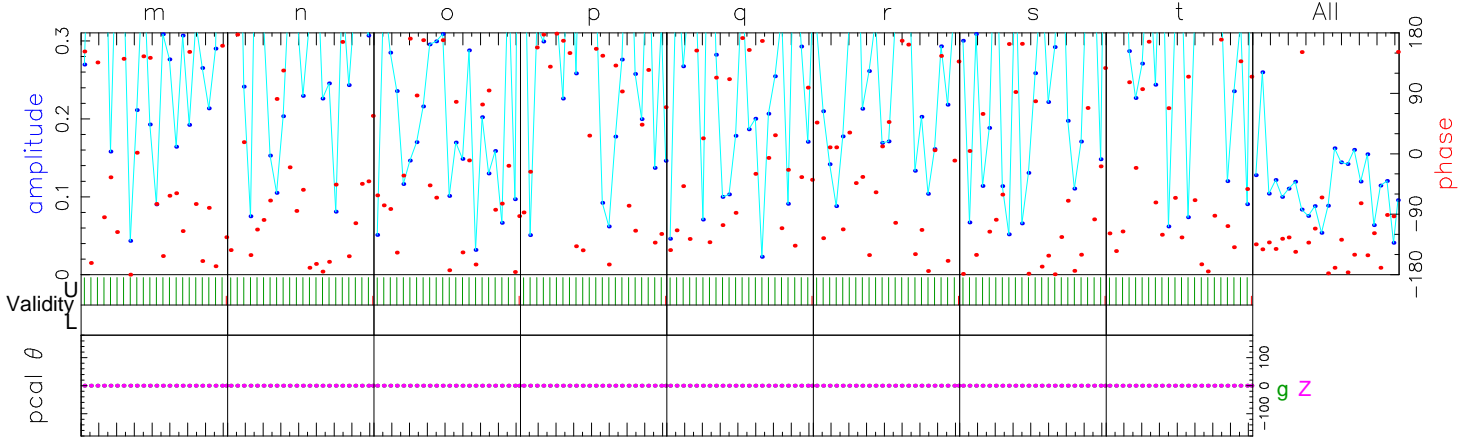


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165304
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-152.5	-125.9	-83.9	-176.9	-123.1	-76.1	-154.2	-142.2	Phase	-139.9
	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	Ampl.	0.1
	362.0	90.4	126.6	363.4	464.7	305.1	96.6	458.6	Sbd box	362.1
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0	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)	-1.09572475592E+04	Apriori delay (usec)	-1.09576642473E+04	Resid mbdelay (usec)	-5.18691E-03	+/-	1.8E-04
Sband delay (usec)	-1.09572538558E+04	Apriori clock (usec)	9.3683243E-02	Resid sbdelay (usec)	4.10392E-01	+/-	1.4E-03
Phase delay (usec)	-1.09576642518E+04	Apriori clockrate (us/s)	1.7446201E-07	Resid phdelay (usec)	-4.51098E-06	+/-	6.2E-07
Delay rate (us/s)	1.71042073922E-01	Apriori rate (us/s)	1.71045361463E-01	Resid rate (us/s)	-3.28754E-06	+/-	2.2E-09
Total phase (deg)	-233.4	Apriori accel (us/s/s)	6.07831832869E-05	Resid phase (deg)	-139.9	+/-	19.1

ph/seg (deg) RMS Theor. Amplitude 0.103 +/- 0.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.2 45.9 Search (2048X32) 0.098 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.6 80.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.6 27.1 Inc. seg. avg. 0.091 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 Z: az 161.5 el 40.9 pa -9.1 u,v (fr/asec) -895.061 1951.764 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gZ...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gZ.W.27.3MP1B5

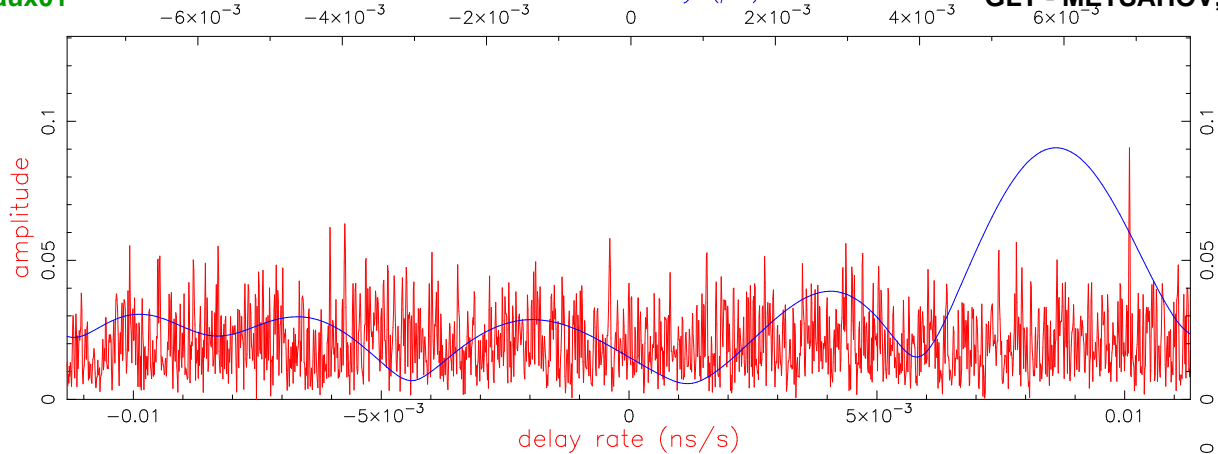
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gZ

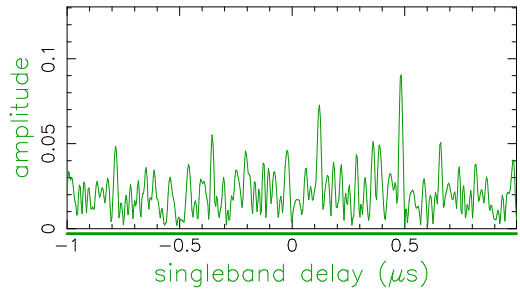
GLT - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

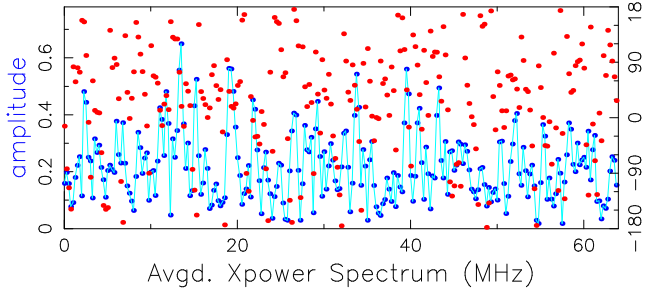


Fringe quality 0

SNR 5.5
 Int time 479.822
 Amp 0.131
 Phase 146.3
 PFD 1.0e+00
 Delays (us)
 SBD 0.482787
 MBD 0.005889
 Fringe rate (Hz)
 0.870734
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

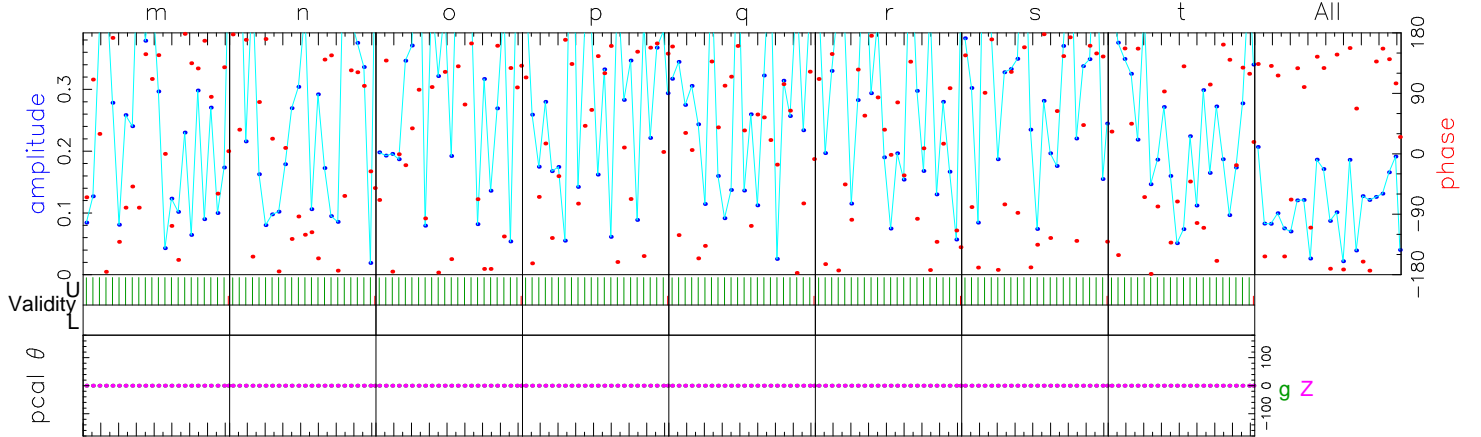


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165309
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UR	W13UR	W14UR	W15UR	W16UR	W17UR	W18UR	W19UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -1.09571739836E+04 Apriori delay (usec) -1.09576642473E+04 Resid mbdelay (usec) 5.88871E-03 +/- 2.0E-04
 Sband delay (usec) -1.09571814598E+04 Apriori clock (usec) 9.3683243E-02 Resid sbdelay (usec) 4.82787E-01 +/- 1.6E-03
 Phase delay (usec) -1.09576642426E+04 Apriori clockrate (us/s) 1.7446201E-07 Resid phdelay (usec) 4.71654E-06 +/- 6.7E-07
 Delay rate (us/s) 1.71055469826E-01 Apriori rate (us/s) 1.71045361463E-01 Resid rate (us/s) 1.01084E-05 +/- 2.4E-09
 Total phase (deg) 52.8 Apriori accel (us/s/s) 6.07831832869E-05 Resid phase (deg) 146.3 +/- 20.8

ph/seg (deg) 53.8 49.9 Search (2048X32) 0.089 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.3 87.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.1 29.5 Inc. seg. avg. 0.118 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 50.2 51.4 Inc. frq. avg. 0.122 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 Z: az 161.5 el 40.9 pa -9.1 u,v (fr/asec) -895.061 1951.764 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241b/v2/3mm/1234/No0517//gZ...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gZ.W.49.3MP1B5

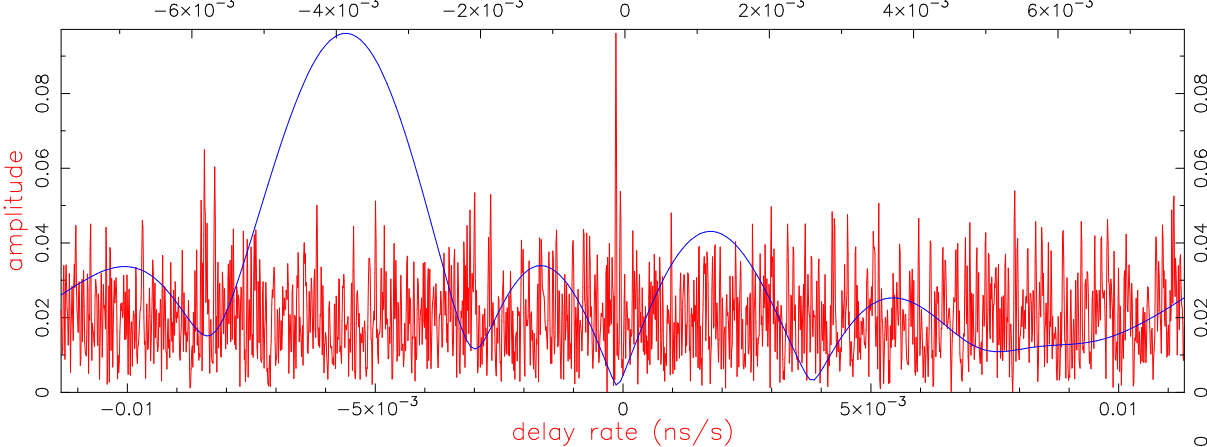
Mk4/DiFX fourfit 3.25 rev 0

aux01

M87.3MP1B5, No0517, gZ

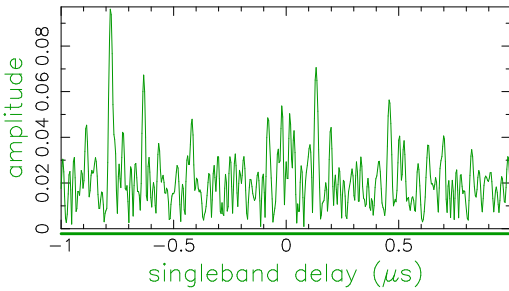
GLT - METSAHOV, fgroup W, pol LL

multiband delay (μs)

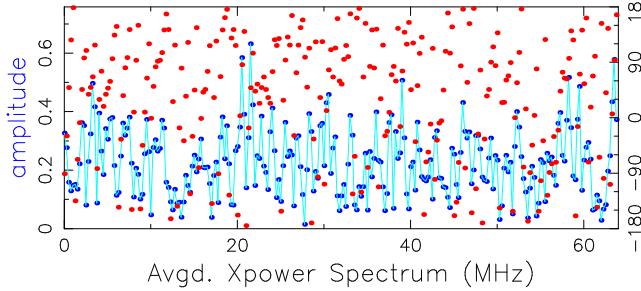


Fringe quality 0

SNR 5.8
 Int time 479.847
 Amp 0.097
 Phase 140.2
 PFD 7.7e-01
 Delays (us)
 SBD -0.779867
 MBD -0.003843
 Fringe rate (Hz)
 -0.012603
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

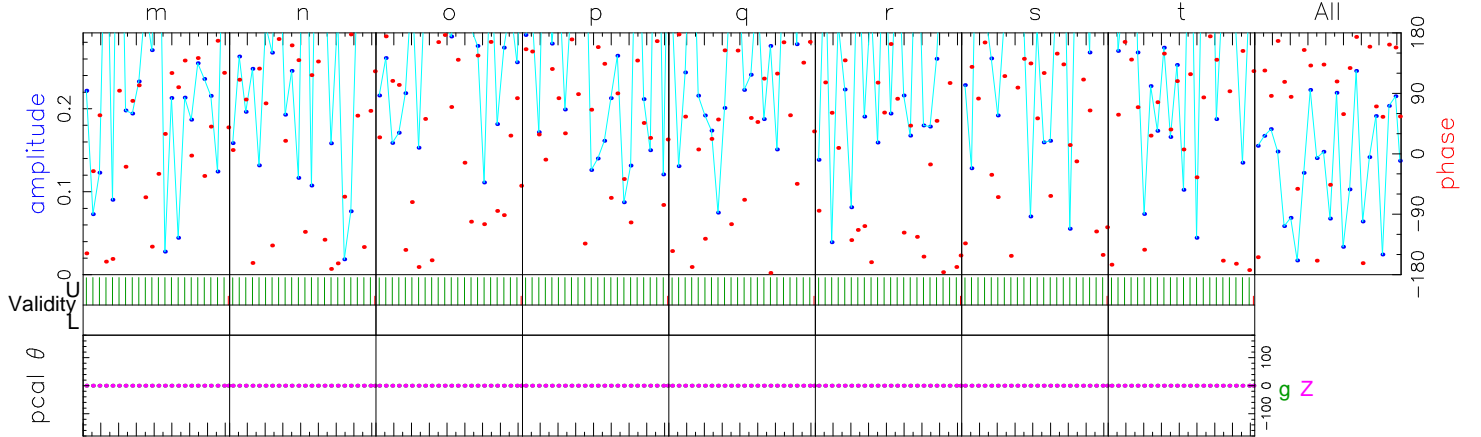


delay rate (ns/s)



Exp. c241b
 Exper # 1234
 Yr:day 2024:110
 Start 200500.00
 Stop 201300.26
 FRT 200900.00
 Corr/FF/build
 2024:359:054851
 2025:041:165255
 2024:113:095956
 RA & Dec (J2000)
 12h30m49.423382s
 +12°23'28.043741"

Amp. and Phase vs. time for each freq., 23 segs, 42 APs / seg (21.50 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	938/0	938/0	938/0	938/0	938/0	938/0	938/0	938/0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
g	W12UL	W13UL	W14UL	W15UL	W16UL	W17UL	W18UL	W19UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.09584493400E+04	Apriori delay (usec)	-1.09576642473E+04	Resid mbdelay (usec)	-3.84269E-03	+/-	1.9E-04
Sband delay (usec)	-1.09584441140E+04	Apriori clock (usec)	9.3683243E-02	Resid sbdelay (usec)	-7.79867E-01	+/-	1.5E-03
Phase delay (usec)	-1.09576642427E+04	Apriori clockrate (us/s)	1.7446201E-07	Resid phdelay (usec)	4.52258E-06	+/-	6.3E-07
Delay rate (us/s)	1.71045215155E-01	Apriori rate (us/s)	1.71045361463E-01	Resid rate (us/s)	-1.46308E-07	+/-	2.3E-09
Total phase (deg)	46.7	Apriori accel (us/s/s)	6.07831832869E-05	Resid phase (deg)	140.2	+/-	19.7

ph/seg (deg) 67.8 47.2 Search (2048X32) 0.094 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.0 82.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.3 27.8 Inc. seg. avg. 0.100 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.3 48.6 Inc. frq. avg. 0.090 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 70.4 el 8.0 pa -13.0 Z: az 161.5 el 40.9 pa -9.1 u,v (fr/asec) -895.061 1951.764 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/No0517//gZ...3MP1B5 Output file: /Exps/c241b/v2/3mm/1234/No0517//gZ.W.6.3MP1B5 simultaneous interpolator