

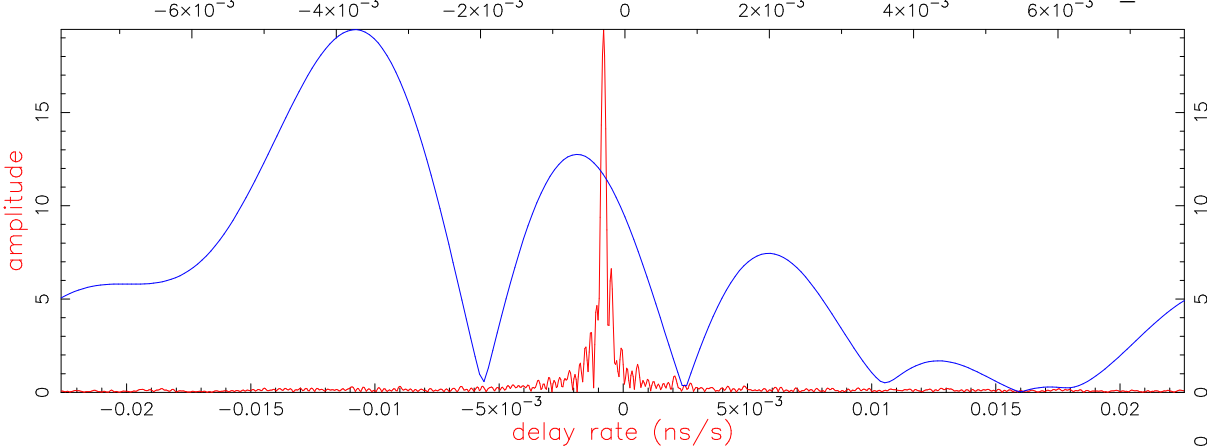
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, AG

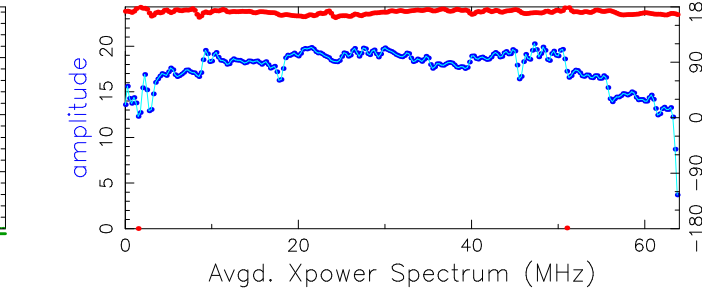
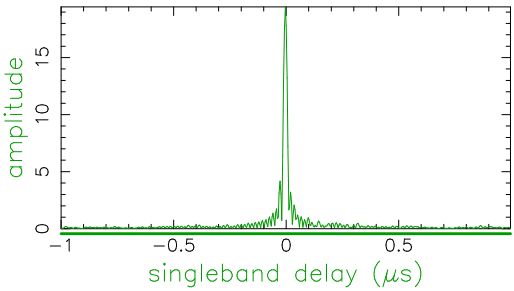
ALMA - GBT\_COLD, fgroup Q, pol XR

multiband delay ( $\mu$ s)



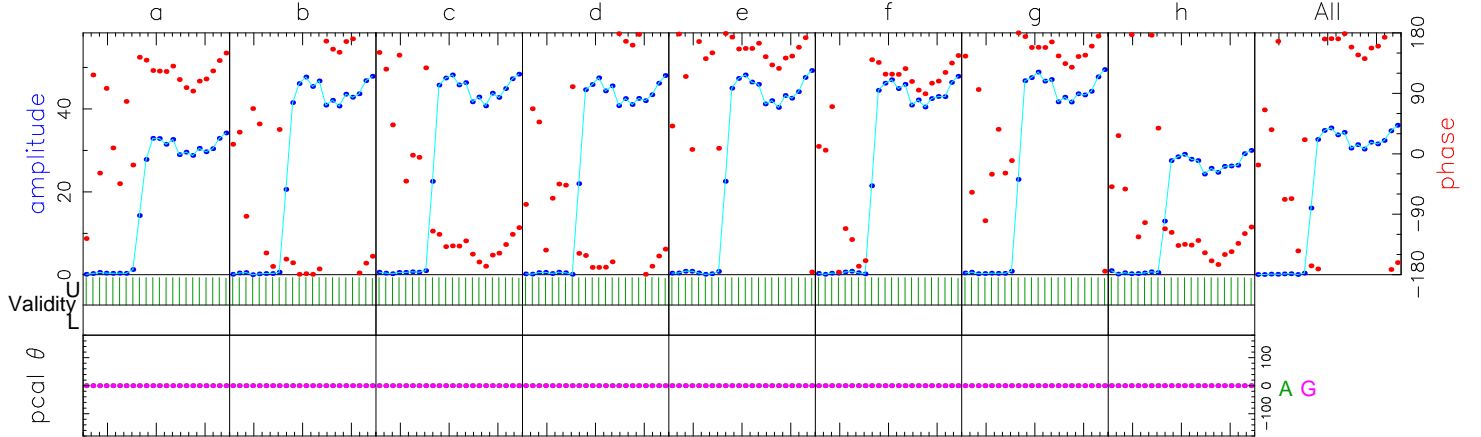
Fringe quality 2

SNR 713.3  
 Int time 179.992  
 Amp 19.453  
 Phase 171.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003742  
 MBD -0.003729  
 Fringe rate (Hz)  
 -0.034924  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165355  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	122.0	-179.4	-137.3	-168.8	156.4	118.8	158.2	-135.1	Phase	171.1
	18.2	26.0	26.5	26.0	26.5	26.1	26.8	16.0	Ampl.	24.0
	257.9	256.0	256.0	255.9	255.8	255.9	256.2	258.0	Sbd box	256.0
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	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	1.89041889092E+03	Apriori delay (usec)	1.89042262034E+03	Resid mbdelay (usec)	-3.72942E-03	+/-	1.5E-06
Sband delay (usec)	1.89041887809E+03	Apriori clock (usec)	-2.0928020E+03	Resid sbdelay (usec)	-3.74225E-03	+/-	1.2E-05
Phase delay (usec)	1.89042263135E+03	Apriori clockrate (us/s)	-8.1214983E-08	Resid phdelay (usec)	1.10150E-05	+/-	1.0E-08
Delay rate (us/s)	6.87746482002E-02	Apriori rate (us/s)	6.87754577464E-02	Resid rate (us/s)	-8.09546E-07	+/-	9.9E-11
Total phase (deg)	114.0	Apriori accel (us/s/s)	-2.49909091952E-05	Resid phase (deg)	171.1	+/-	0.2

ph/seg (deg)	73.0	Theor.	Amplitude	19.453 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	80.9	0.4	Search (1024X32)	18.743	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	43.9	0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	31.3	0.4	Inc. seg. avg.	20.322	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	24.009	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

A: az 74.8 el 27.6 pa -117.5 G: az 100.6 el 16.0 pa -50.4 u,v (fr/asec) -211.394 -4513.130 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//AG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//AG.Q.10.3MPUFD

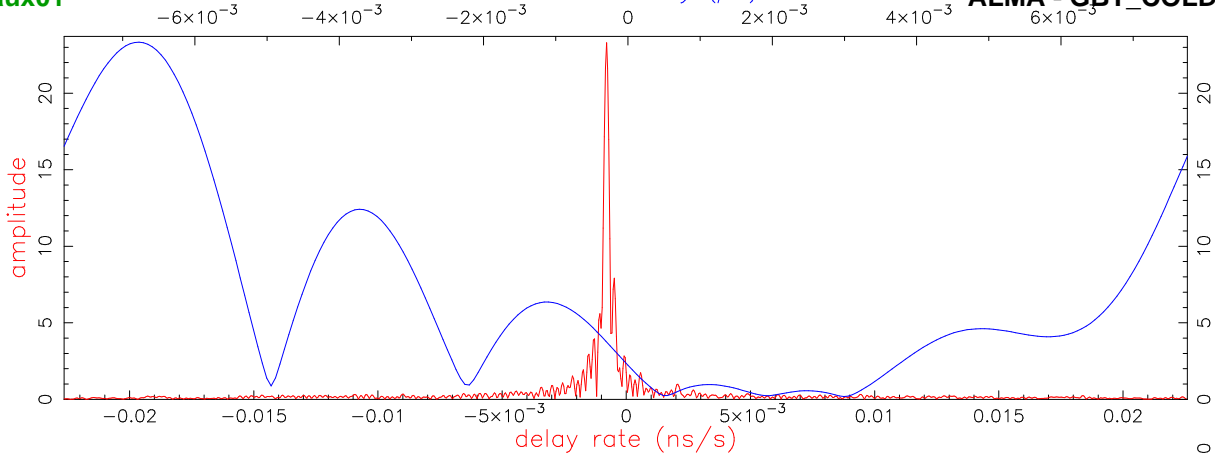
# Mk4/DiFX fourfit 3.25 rev 0

aux01

# 3C273.3MPUFD, No0842, AG

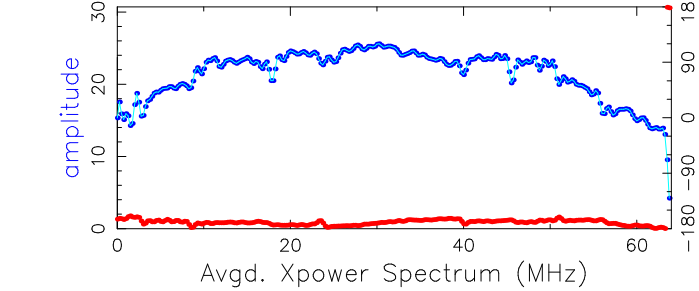
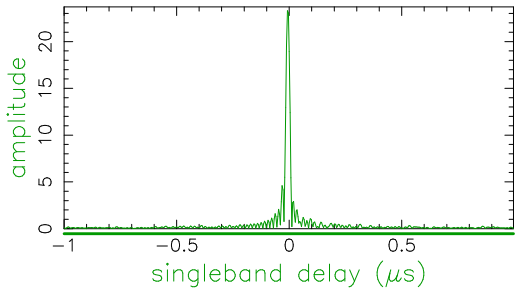
ALMA - GBT\_COLD, fgroup Q, pol YL

multiband delay ( $\mu$ s)

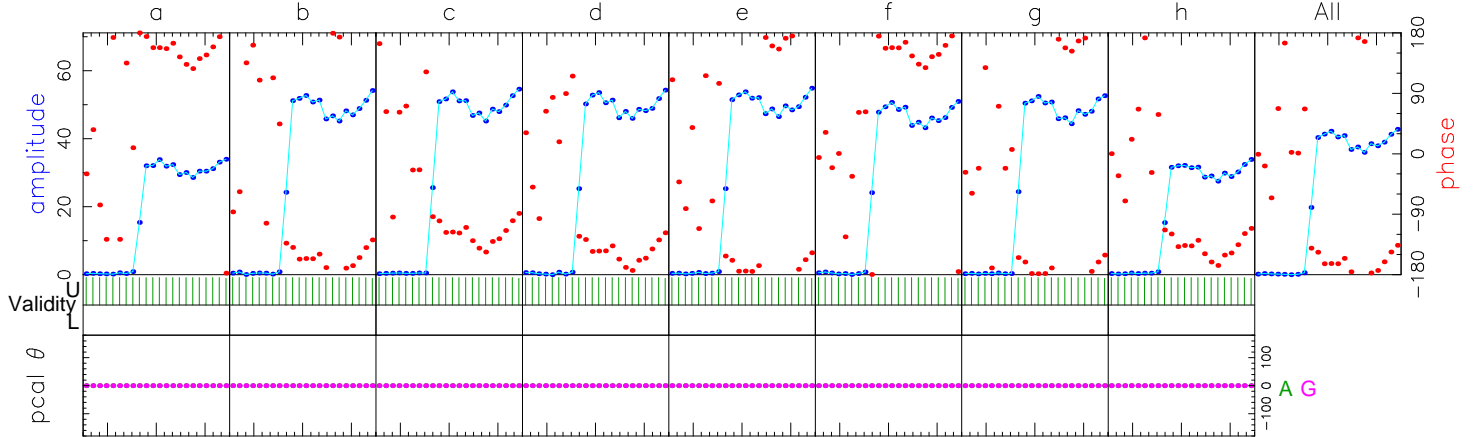


Fringe quality 2

SNR 869.5  
 Int time 179.992  
 Amp 23.711  
 Phase -163.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006105  
 MBD -0.006712  
 Fringe rate (Hz)  
 -0.034948  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165357  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	156.9	-156.2	-116.6	-144.7	-174.7	157.8	-177.8	-136.6	Phase	-163.3
	18.5	29.2	29.5	29.5	29.9	27.8	29.0	18.0	Ampl.	26.4
	257.1	255.2	255.3	255.2	255.2	255.1	255.1	257.0	Sbd box	255.4
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	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	1.89041590829E+03	Apriori delay (usec)	1.89042262034E+03	Resid mbdelay (usec)	-6.71205E-03	+/-	1.2E-06
Sband delay (usec)	1.89041651559E+03	Apriori clock (usec)	-2.0928020E+03	Resid sbdelay (usec)	-6.10475E-03	+/-	9.9E-06
Phase delay (usec)	1.89042260983E+03	Apriori clockrate (us/s)	-8.1214983E-08	Resid phdelay (usec)	-1.05123E-05	+/-	8.5E-09
Delay rate (us/s)	6.87746476286E-02	Apriori rate (us/s)	6.87754577464E-02	Resid rate (us/s)	-8.10118E-07	+/-	8.2E-11
Total phase (deg)	139.6	Apriori accel (us/s/s)	-2.49909091952E-05	Resid phase (deg)	-163.3	+/-	0.1

ph/seg (deg)	82.6	0.3	Search (1024X32)	22.797	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.3	0.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	33.5	0.2	Inc. seg. avg.	24.394	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	23.0	0.3	Inc. frq. avg.	26.430	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 74.8 el 27.6 pa -117.5      G: az 100.6 el 16.0 pa -50.4      u,v (fr/asec) -211.394 -4513.130      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842//AG..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842//AG.Q.16.3MPUFD

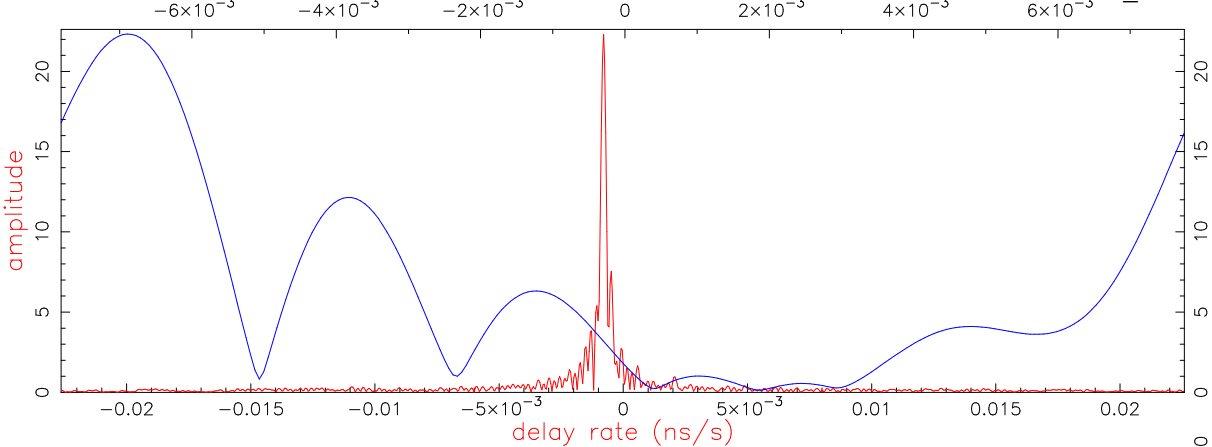
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, AG

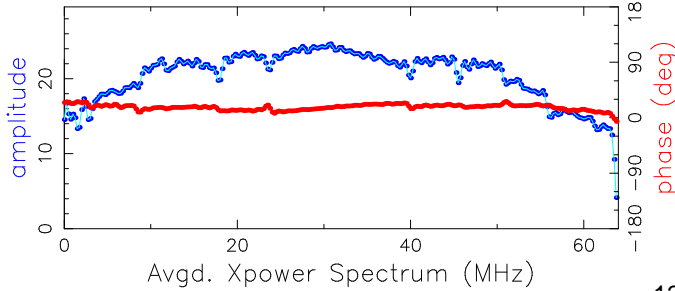
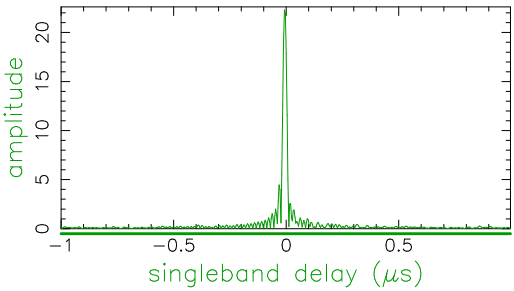
ALMA - GBT\_COLD, fgroup Q, pol XL

multiband delay ( $\mu$ s)



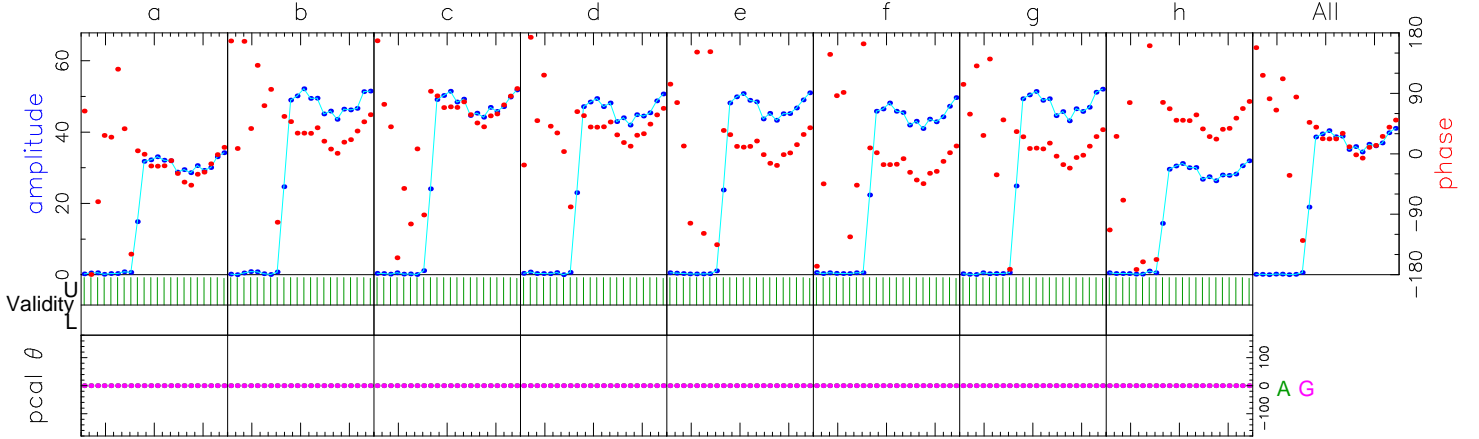
Fringe quality 2

SNR 829.3  
 Int time 179.992  
 Amp 22.617  
 Phase 22.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006274  
 MBD -0.006820  
 Fringe rate (Hz)  
 -0.034950  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165351  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-17.5	31.2	69.7	40.5	11.4	-15.2	8.6	50.3	Phase	22.9
	18.4	28.5	28.3	27.4	27.9	26.5	28.4	17.1	Ampl.	25.3
	257.1	255.2	255.2	255.1	255.2	255.1	255.1	257.0	Sbd box	255.4
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	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	1.89041579989E+03	Apriori delay (usec)	1.89042262034E+03	Resid mbdelay (usec)	-6.82045E-03	+/-	1.3E-06
Sband delay (usec)	1.89041634634E+03	Apriori clock (usec)	-2.0928020E+03	Resid sbdelay (usec)	-6.27400E-03	+/-	1.0E-05
Phase delay (usec)	1.89042262181E+03	Apriori clockrate (us/s)	-8.1214983E-08	Resid phdelay (usec)	1.47534E-06	+/-	8.9E-09
Delay rate (us/s)	6.87746475833E-02	Apriori rate (us/s)	6.87754577464E-02	Resid rate (us/s)	-8.10163E-07	+/-	8.6E-11
Total phase (deg)	325.8	Apriori accel (us/s/s)	-2.49909091952E-05	Resid phase (deg)	22.9	+/-	0.1

ph/seg (deg)	58.0	RMS	22.617 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.6	Theor.	21.914	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.6	Search (1024X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	22.9	Inc. seg. avg.	23.292	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		Inc. frq. avg.	25.299	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 74.8 el 27.6 pa -117.5      G: az 100.6 el 16.0 pa -50.4      u,v (fr/asec) -211.394 -4513.130      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842//AG..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842//AG.Q.3.3MPUFD

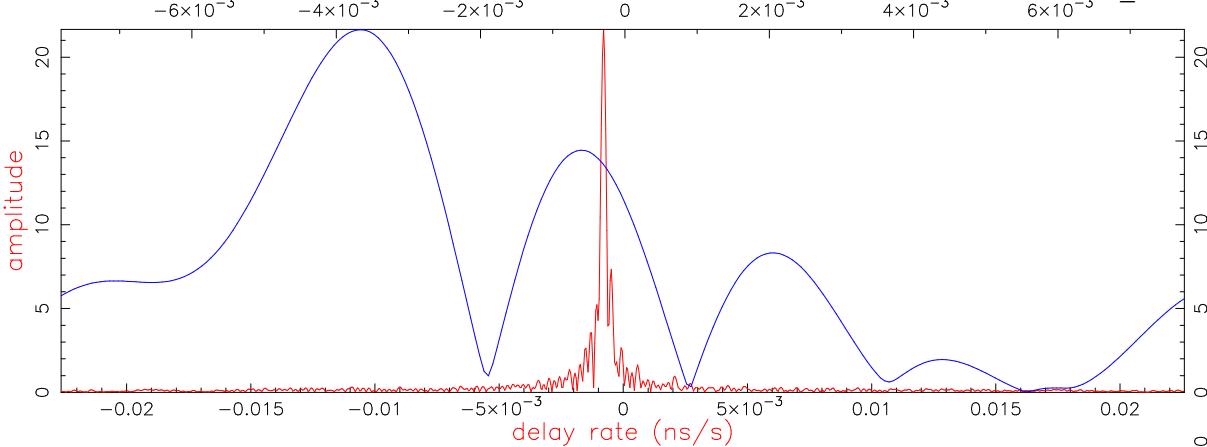
# Mk4/DiFX fourfit 3.25 rev 0

aux01

# 3C273.3MPUFD, No0842, AG

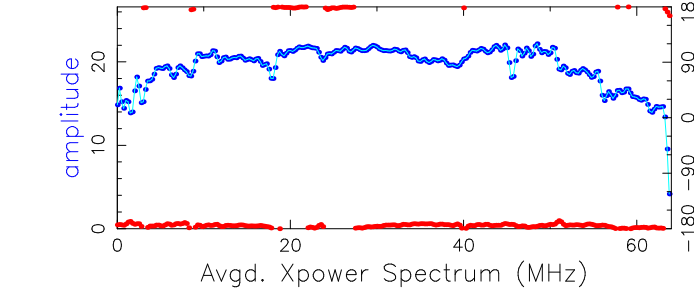
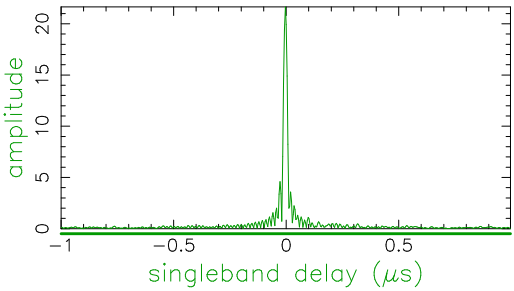
ALMA - GBT\_COLD, fgroup Q, pol YR

multiband delay ( $\mu\text{s}$ )



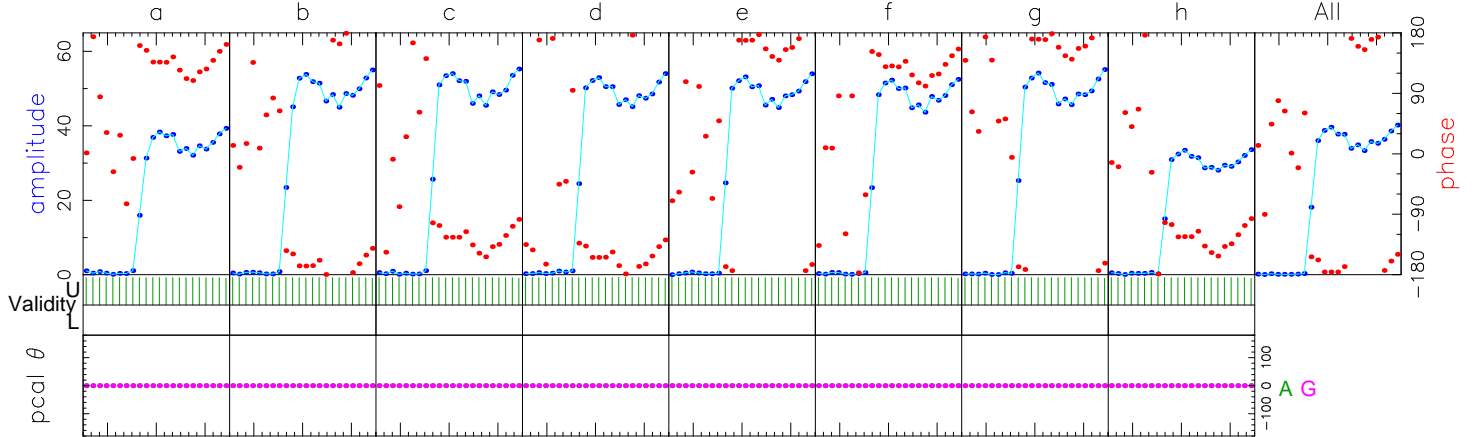
Fringe quality 2

SNR 794.2  
 Int time 179.992  
 Amp 21.658  
 Phase -176.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003651  
 MBD -0.003654  
 Fringe rate (Hz)  
 -0.034899  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165354  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	136.0	-167.0	-124.0	-154.2	168.9	129.8	170.3	-123.2	Phase	-176.0
	20.8	29.3	29.8	29.3	29.2	28.7	29.6	18.1	Ampl.	26.9
	257.8	256.0	256.0	255.9	255.7	255.9	256.2	258.0	Sbd box	256.1
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	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	1.89041896676E+03	Apriori delay (usec)	1.89042262034E+03	Resid mbdelay (usec)	-3.65358E-03	+/-	1.4E-06
Sband delay (usec)	1.89041896934E+03	Apriori clock (usec)	-2.0928020E+03	Resid sbdelay (usec)	-3.65100E-03	+/-	1.1E-05
Phase delay (usec)	1.89042260901E+03	Apriori clockrate (us/s)	-8.1214983E-08	Resid phdelay (usec)	-1.13318E-05	+/-	9.3E-09
Delay rate (us/s)	6.87746487717E-02	Apriori rate (us/s)	6.87754577464E-02	Resid rate (us/s)	-8.08975E-07	+/-	8.9E-11
Total phase (deg)	126.9	Apriori accel (us/s/s)	-2.49909091952E-05	Resid phase (deg)	-176.0	+/-	0.1

ph/seg (deg)	84.3	0.3	Search (1024X32)	21.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	80.8	0.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	44.2	0.2	Inc. seg. avg.	22.621	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	31.3	0.4	Inc. frq. avg.	26.864	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
A: az 74.8 el 27.6 pa -117.5	G: az 100.6 el 16.0 pa -50.4	u,v (fr/asec)	-211.394 -4513.130	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00	

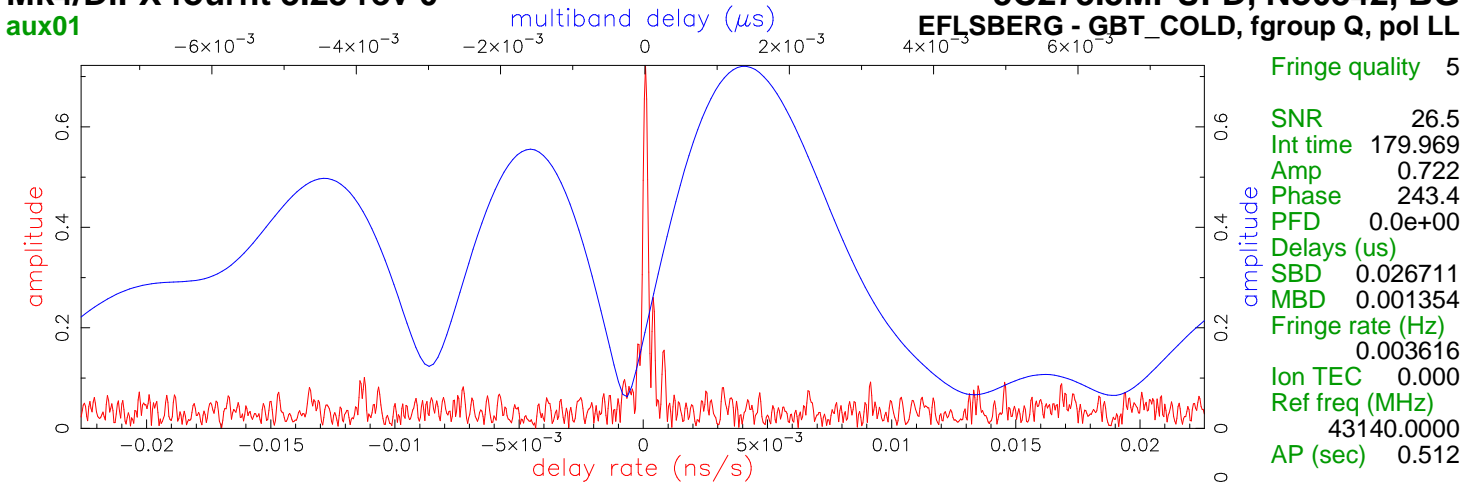
simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//AG\_3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//AG.Q.6.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

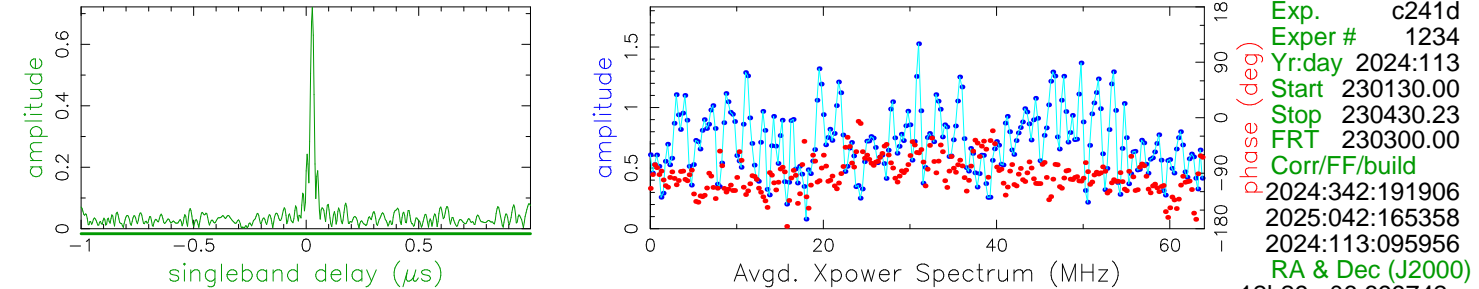
3C273.3MPUFD, No0842, BG

EFLSBERG - GBT\_COLD, fgroup Q, pol LL



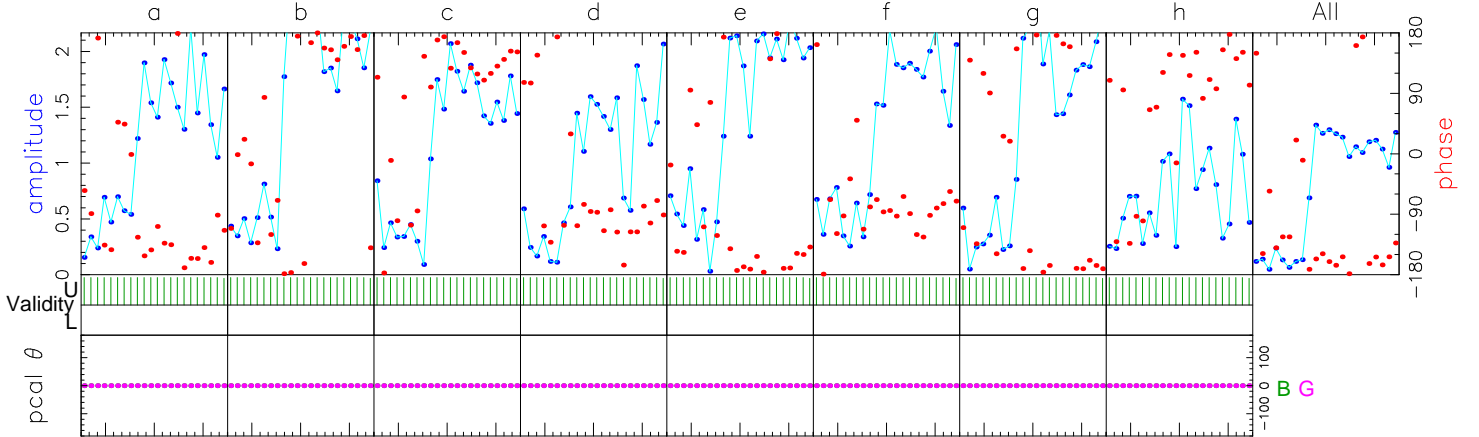
Fringe quality 5

SNR 26.5  
 Int time 179.969  
 Amp 0.722  
 Phase 243.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.026711  
 MBD 0.001354  
 Fringe rate (Hz) 0.003616  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165358  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
G	1000	1000	1000	1000	1000	1000	1000	1000		
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
G	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	7.41956788438E+03	Apriori delay (usec)	7.41953528064E+03	Resid mbdelay (usec)	1.35375E-03	+/-	4.1E-05
Sband delay (usec)	7.41956199139E+03	Apriori clock (usec)	-2.0781258E+01	Resid sbdelay (usec)	2.67108E-02	+/-	3.3E-04
Phase delay (usec)	7.41953527023E+03	Apriori clockrate (us/s)	-2.5992208E-07	Resid phdelay (usec)	-1.04059E-05	+/-	2.8E-07
Delay rate (us/s)	-1.42542937561E+00	Apriori rate (us/s)	-1.42542945944E+00	Resid rate (us/s)	8.38250E-08	+/-	2.7E-09
Total phase (deg)	245.8	Apriori accel (us/s/s)	-3.89946986822E-05	Resid phase (deg)	243.4	+/-	4.3

ph/seg (deg)	58.7	RMS	10.1	Theor.	10.1	Amplitude	0.722 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.4	Search (1024X32)	0.716	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	55.8	Inc. seg. avg.	0.767	Inc. frq. avg.	0.995	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	50.4	Inc. frq. avg.	0.995	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 200.7 el 39.6 pa 13.2      G: az 100.6 el 16.0 pa -50.4      u,v (fr/asec) 4070.535 612.839      simultaneous interpolator

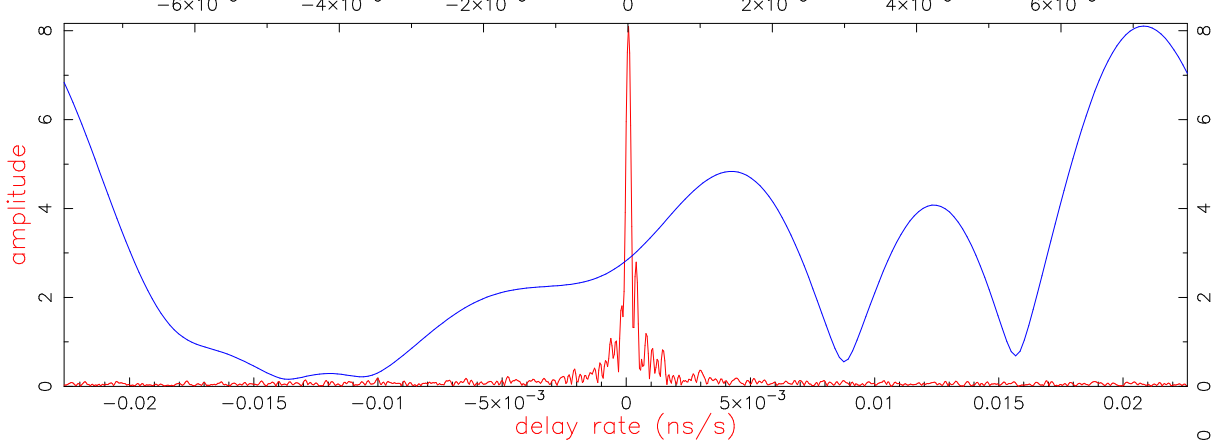
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842/BG..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842/BG.Q.19.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

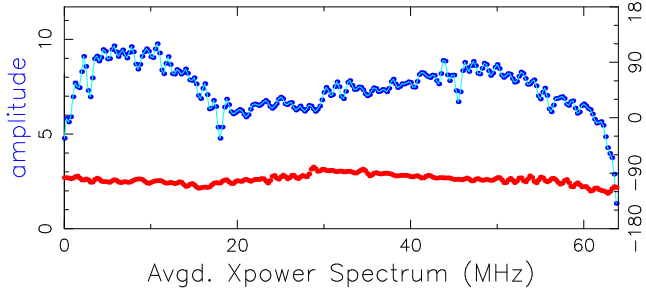
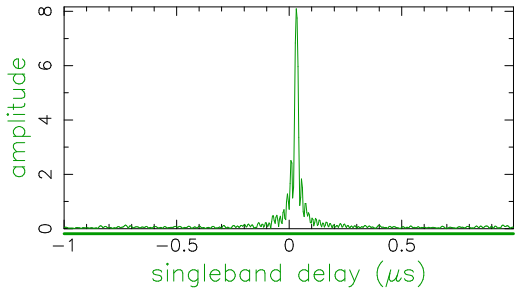
3C273.3MPUFD, No0842, BG

EFLSBERG - GBT\_COLD, fgroup Q, pol RR



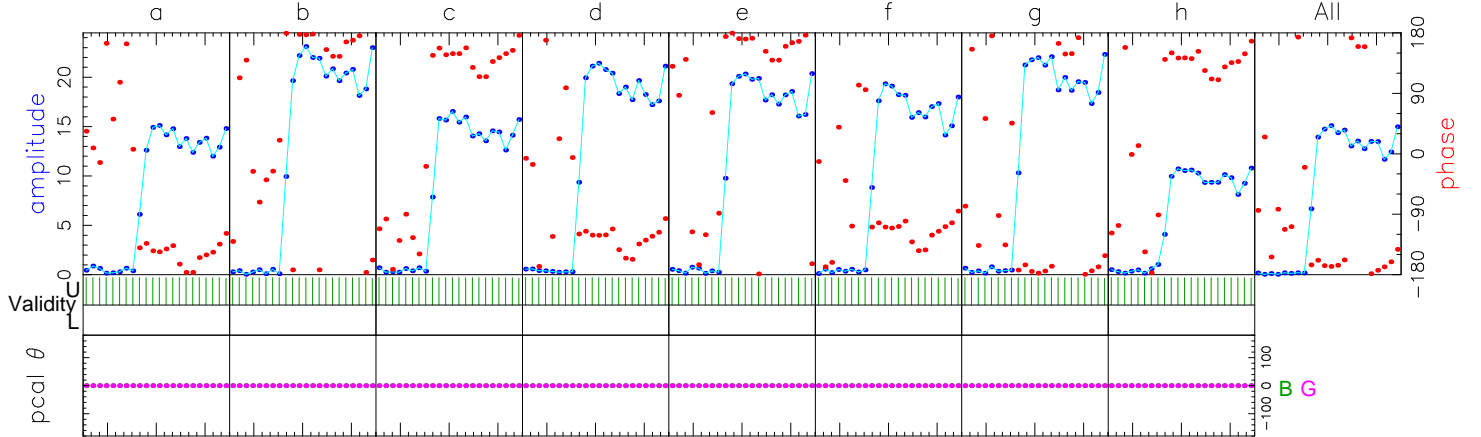
Fringe quality 2

SNR 299.6  
 Int time 179.969  
 Amp 8.166  
 Phase 234.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.032377  
 MBD 0.007199  
 Fringe rate (Hz) 0.003576  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165400  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-147.3	173.7	146.0	-125.4	167.9	-113.3	-178.8	139.3	Phase	-170.4
	8.0	12.2	8.7	11.4	11.1	10.1	11.9	5.8	Ampl.	9.9
	262.4	265.1	266.0	265.8	266.0	265.8	264.8	261.4	Sbd box	265.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	7.41957372929E+03	Apriori delay (usec)	7.41953528064E+03	Resid mbdelay (usec)	7.19865E-03	+/-	3.6E-06
Sband delay (usec)	7.41956765789E+03	Apriori clock (usec)	-2.0781258E+01	Resid sbdelay (usec)	3.23773E-02	+/-	2.9E-05
Phase delay (usec)	7.41953526966E+03	Apriori clockrate (us/s)	-2.5992208E-07	Resid phdelay (usec)	-1.09710E-05	+/-	2.5E-08
Delay rate (us/s)	-1.42542937654E+00	Apriori rate (us/s)	-1.42542945944E+00	Resid rate (us/s)	8.28941E-08	+/-	2.4E-10
Total phase (deg)	237.0	Apriori accel (us/s/s)	-3.89946986822E-05	Resid phase (deg)	234.6	+/-	0.4

ph/seg (deg)	58.8	RMS	79.6	Theor.	0.9	Amplitude	8.166 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	79.6	Search (1024X32)	7.975	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	Bits/sample:	2x2	SampCntNorm:	enabled
ph/frq (deg)	42.9	Inc. seg. avg.	8.452	Inc. frq. avg.	9.906	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	mb window (us)	-1.000	1.000	
amp/frq (%)	33.5	Inc. frq. avg.	9.906	Data rate (Mb/s):	2048	nlags:	256	dr window (ns/s)	-0.023	0.023	
						t_cohere	infinite	ion window (TEC)	0.00	0.00	

B: az 200.7 el 39.6 pa 13.2 G: az 100.6 el 16.0 pa -50.4 u,v (fr/asec) 4070.535 612.839 simultaneous interpolator

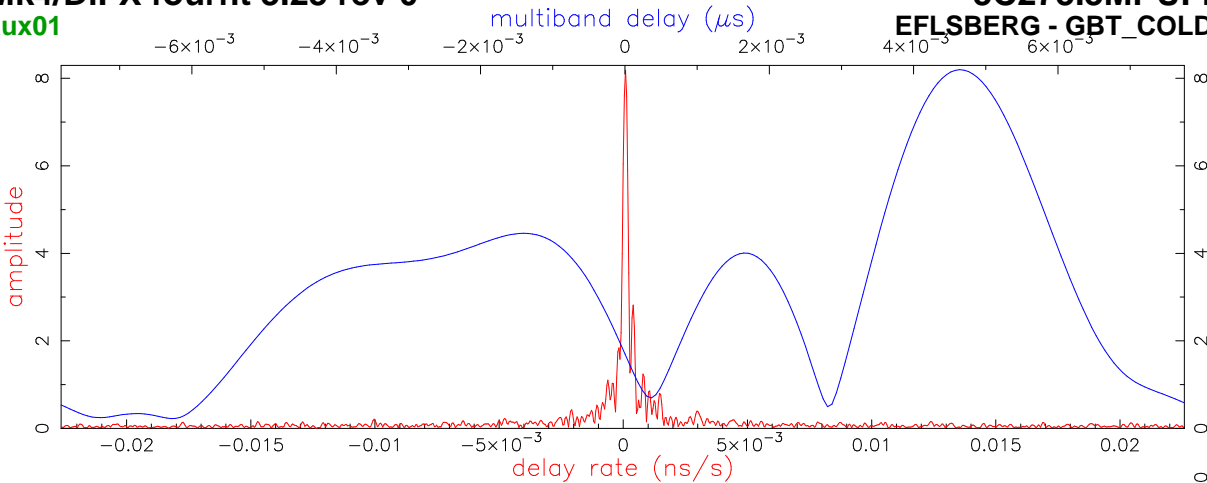
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/BG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/BG.Q.24.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

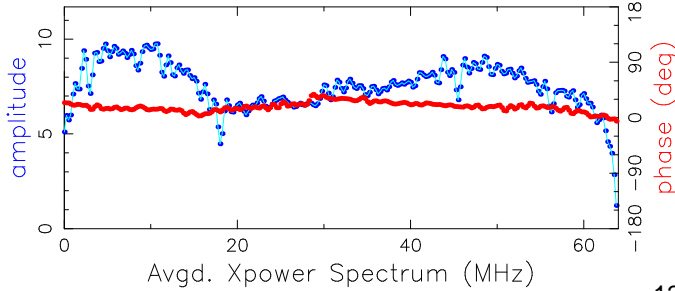
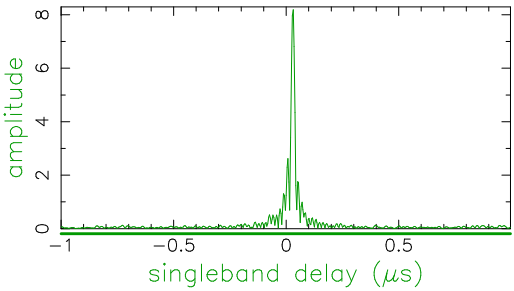
3C273.3MPUFD, No0842, BG

EFLSBERG - GBT\_COLD, fgroup Q, pol LR



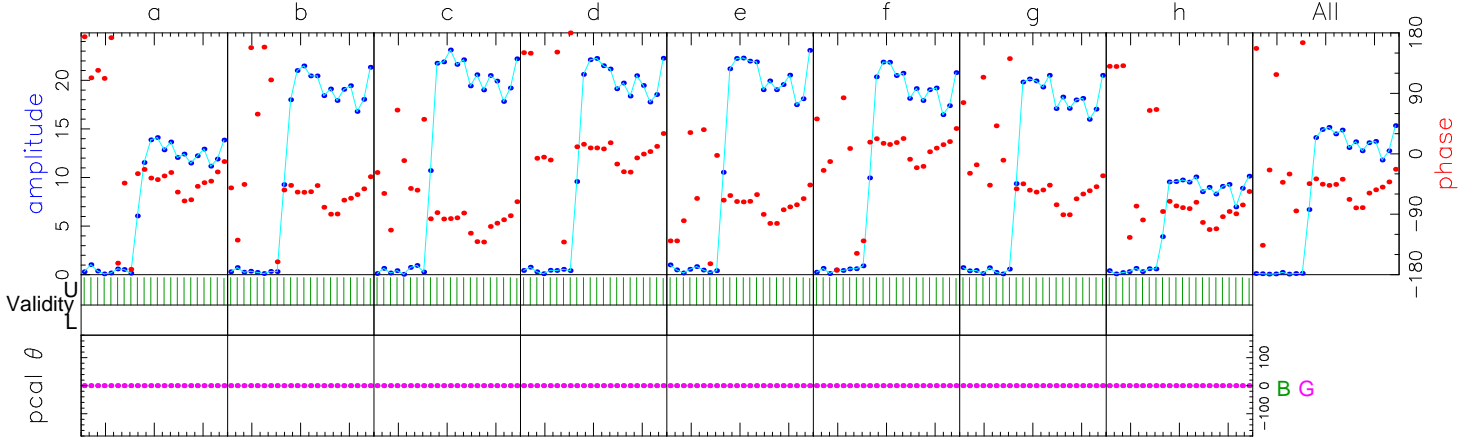
Fringe quality 2

SNR 304.3  
 Int time 179.969  
 Amp 8.296  
 Phase 354.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.029825  
 MBD 0.004579  
 Fringe rate (Hz)  
 0.003635  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165405  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-39.6	-61.4	-100.1	2.9	-74.8	10.3	-58.4	-84.6	Phase	-50.6
	7.3	11.4	12.3	11.9	12.2	11.5	11.0	5.3	Ampl.	10.4
	262.1	264.2	265.3	265.2	265.2	265.1	264.1	260.5	Sbd box	264.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) 7.41957110985E+03 Apriori delay (usec) 7.41953528064E+03 Resid mbdelay (usec) 4.57922E-03 +/- 3.6E-06  
 Sband delay (usec) 7.41956510589E+03 Apriori clock (usec) -2.0781258E+01 Resid sbdelay (usec) 2.98252E-02 +/- 2.8E-05  
 Phase delay (usec) 7.41953527738E+03 Apriori clockrate (us/s) -2.5992208E-07 Resid phdelay (usec) -3.25632E-06 +/- 2.4E-08  
 Delay rate (us/s) -1.42542937519E+00 Apriori rate (us/s) -1.42542945944E+00 Resid rate (us/s) 8.42495E-08 +/- 2.3E-10  
 Total phase (deg) 356.8 Apriori accel (us/s/s) -3.89946986822E-05 Resid phase (deg) 354.4 +/- 0.4

RMS Theor. Amplitude 8.296 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 62.4 0.9 Search (1024X32) 7.996 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 79.4 1.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 42.9 0.5 Inc. seg. avg. 8.539 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 38.3 0.9 Inc. frq. avg. 10.366 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 200.7 el 39.6 pa 13.2 G: az 100.6 el 16.0 pa -50.4 u,v (fr/asec) 4070.535 612.839 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/BG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/BG.Q.28.3MPUFD

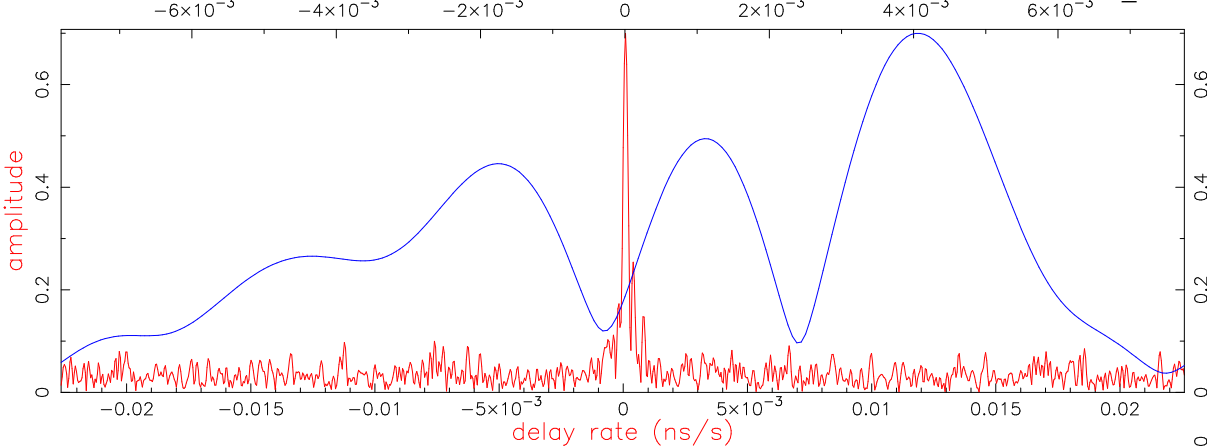
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, BG

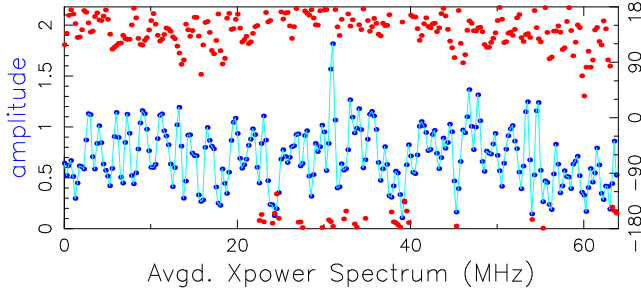
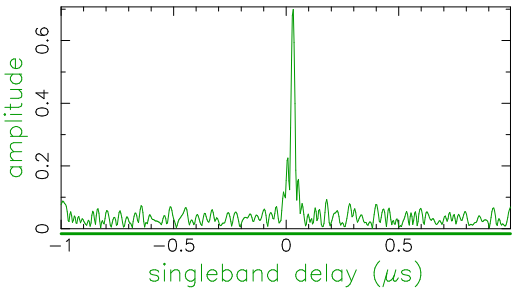
EFLSBERG - GBT\_COLD, fgroup Q, pol RL

multiband delay ( $\mu$ s)

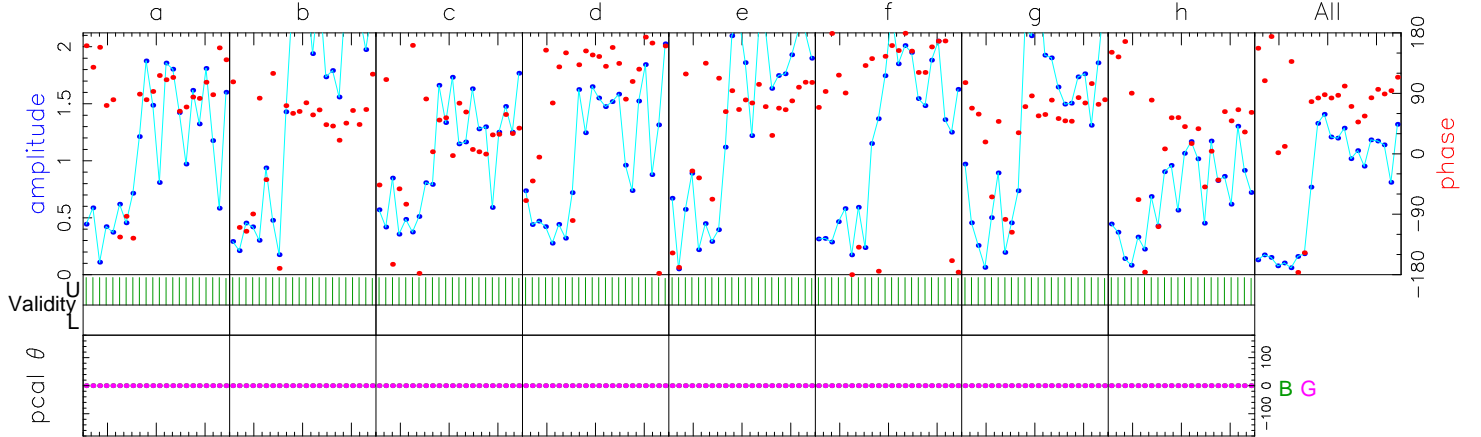


Fringe quality 5

SNR 26.0  
 Int time 179.969  
 Amp 0.708  
 Phase 131.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.029894  
 MBD 0.004017  
 Fringe rate (Hz) 0.003135  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build 2024:342:191906  
 2025:042:165407  
 2024:113:095956  
 RA & Dec (J2000) 12h29m06.699742s +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	102.1	59.9	32.5	147.6	81.3	157.8	68.8	37.3	Phase	86.5
	0.8	1.3	0.7	0.8	1.1	1.1	1.2	0.5	Ampl.	0.9
	261.7	264.1	265.2	265.3	265.3	264.6	263.8	261.1	Sbd box	264.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	1000	1000	1000	1000	1000	1000	1000	1000		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	7.41957054723E+03	Apriori delay (usec)	7.41953528064E+03	Resid mbdelay (usec)	4.01659E-03	+/-	4.2E-05
Sband delay (usec)	7.41956517464E+03	Apriori clock (usec)	-2.0781258E+01	Resid sbdelay (usec)	2.98940E-02	+/-	3.3E-04
Phase delay (usec)	7.41953528621E+03	Apriori clockrate (us/s)	-2.5992208E-07	Resid phdelay (usec)	5.57280E-06	+/-	2.8E-07
Delay rate (us/s)	-1.42542938676E+00	Apriori rate (us/s)	-1.42542945944E+00	Resid rate (us/s)	7.26706E-08	+/-	2.7E-09
Total phase (deg)	133.9	Apriori accel (us/s/s)	-3.89946986822E-05	Resid phase (deg)	131.5	+/-	4.4

ph/seg (deg)	51.3	Theor.	10.4	Amplitude	0.708 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.9		18.1	Search (1024X32)	0.683	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	50.7		6.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	47.1		10.9	Inc. seg. avg.	0.757	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	0.923	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 200.7 el 39.6 pa 13.2 G: az 100.6 el 16.0 pa -50.4 u,v (fr/asec) 4070.535 612.839 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/BG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/BG.Q.39.3MPUFD



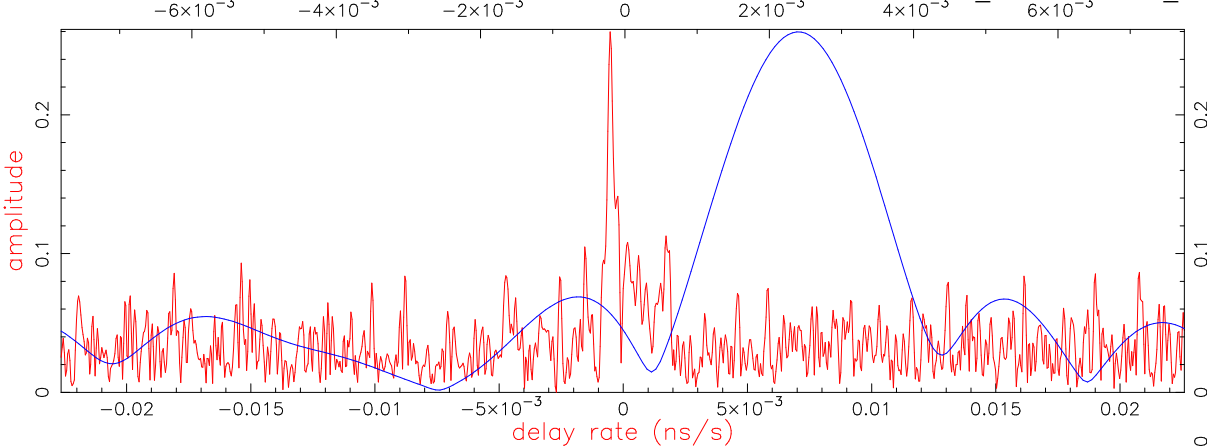
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, Gc

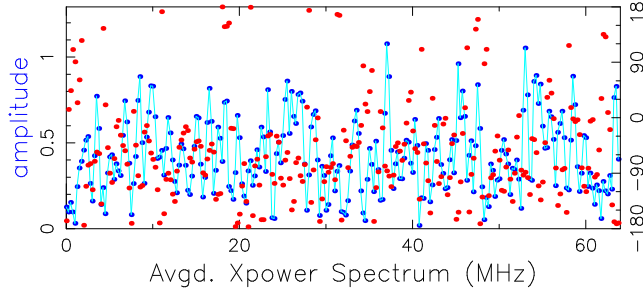
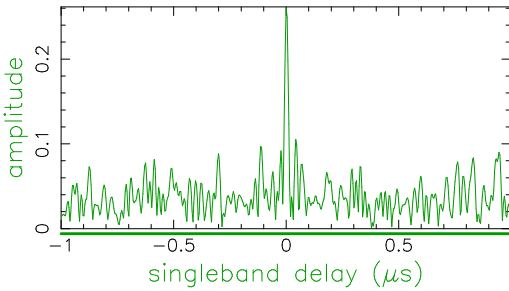
GBT\_COLD - VLBA\_SC, fgroup Q, pol LL

multiband delay ( $\mu$ s)



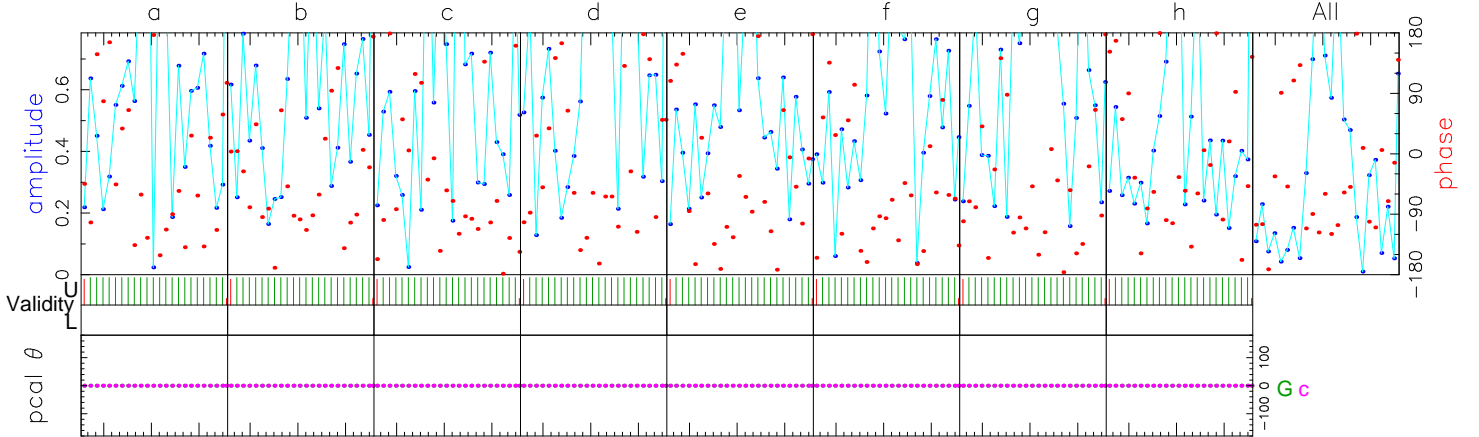
Fringe quality 9

SNR 9.5  
 Int time 177.988  
 Amp 0.262  
 Phase -96.3  
 PFD 2.9e-13  
 Delays (us)  
 SBD 0.001060  
 MBD 0.002422  
 Fringe rate (Hz)  
 -0.022283  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230131.54  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165407  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-102.0	-64.8	-113.1	-102.2	-108.1	-91.4	-98.4	-87.7	Phase	-96.3
	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	Ampl.	0.3
	162.3	257.1	257.6	499.9	257.7	411.0	257.5	362.3	Sbd box	257.3
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.77893473031E+03	Apriori delay (usec)	-5.77893715232E+03	Resid mbdelay (usec)	2.42201E-03	+/-	1.1E-04
Sband delay (usec)	-5.77893609207E+03	Apriori clock (usec)	-1.8330866E+01	Resid sbdelay (usec)	1.06025E-03	+/-	9.0E-04
Phase delay (usec)	-5.77893715852E+03	Apriori clockrate (us/s)	4.6365310E-07	Resid phdelay (usec)	-6.19756E-06	+/-	7.7E-07
Delay rate (us/s)	-6.46837883065E-02	Apriori rate (us/s)	-6.46832717799E-02	Resid rate (us/s)	-5.16527E-07	+/-	7.5E-09
Total phase (deg)	-6.7	Apriori accel (us/s/s)	3.18234050326E-05	Resid phase (deg)	-96.3	+/-	12.0

ph/seg (deg)	74.8	Theor.	29.4	Amplitude	0.262 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	125.4		51.3	Search (1024X32)	0.255	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	16.2		17.0	Inc. seg. avg.	0.297	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	17.2		29.6	Inc. frq. avg.	0.257	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

G: az 100.6 el 16.0 pa -50.4      c: az 99.6 el 33.1 pa -70.0      u,v (fr/asec) 202.376 1444.044      simultaneous interpolator

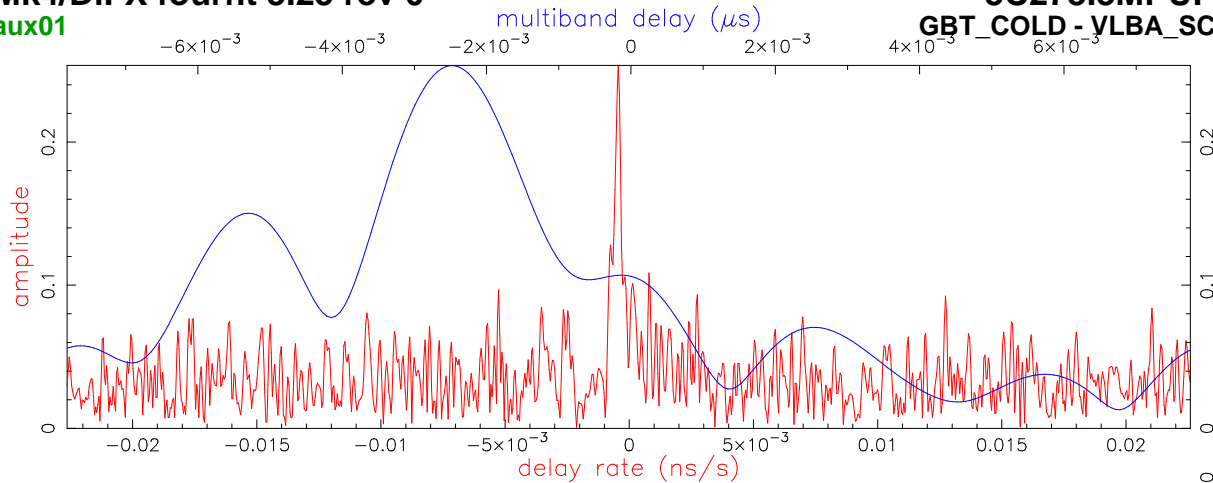
Control file: cf\_1234\_gmva    Input file: /Exps/c241d/v1/7mm/1234/No0842//Gc..3MPUFD    Output file: /Exps/c241d/v1/7mm/1234/No0842//Gc.Q.37.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

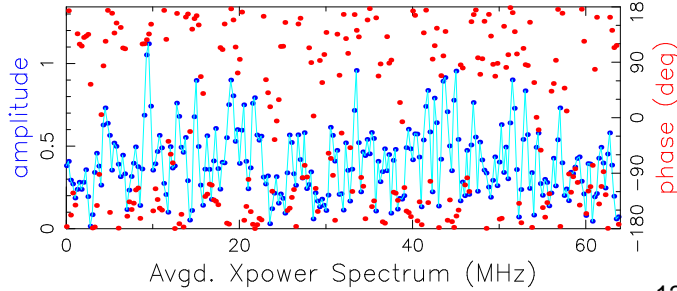
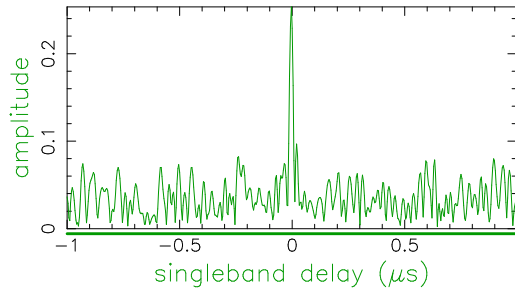
3C273.3MPUFD, No0842, Gc

GBT\_COLD - VLBA\_SC, fgroup Q, pol RR



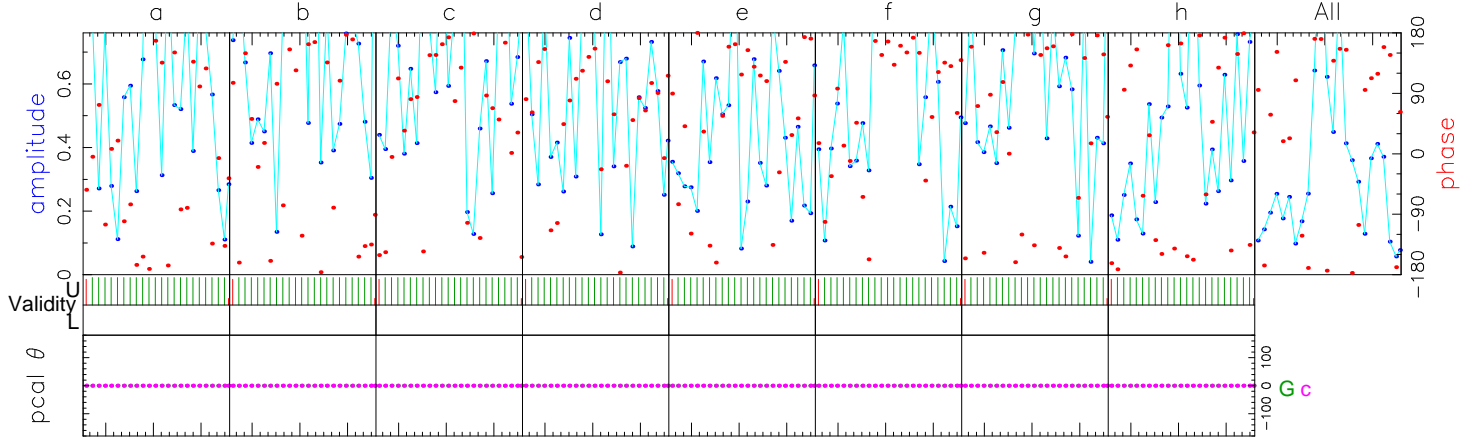
Fringe quality 9

SNR 9.2  
 Int time 177.988  
 Amp 0.254  
 Phase 158.0  
 PFD 4.5e-12  
 Delays (us)  
 SBD -0.003973  
 MBD -0.002483  
 Fringe rate (Hz)  
 -0.019755  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230131.54  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165409  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-146.6	179.3	127.0	107.7	142.9	136.6	171.5	-172.3	Phase	158.0
	0.2	0.4	0.3	0.3	0.2	0.3	0.4	0.3	Ampl.	0.3
	245.4	255.4	261.9	256.0	18.1	257.2	256.2	257.3	Sbd box	256.0
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.77893963567E+03	Apriori delay (usec)	-5.77893715232E+03	Resid mbdelay (usec)	-2.48334E-03	+/-	1.2E-04
Sband delay (usec)	-5.77894112557E+03	Apriori clock (usec)	-1.8330866E+01	Resid sbdelay (usec)	-3.97325E-03	+/-	9.3E-04
Phase delay (usec)	-5.77893714215E+03	Apriori clockrate (us/s)	4.6365310E-07	Resid phdelay (usec)	1.01732E-05	+/-	8.0E-07
Delay rate (us/s)	-6.46837297076E-02	Apriori rate (us/s)	-6.46832717799E-02	Resid rate (us/s)	-4.57928E-07	+/-	7.7E-09
Total phase (deg)	-112.4	Apriori accel (us/s/s)	3.18234050326E-05	Resid phase (deg)	158.0	+/-	12.4

ph/seg (deg)	60.5	Theor.	30.4	Amplitude	0.254 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	110.0	Search (1024X32)	0.250	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	38.2	Inc. seg. avg.	0.300	Inc. frq. avg.	0.286	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.5	Inc. frq. avg.	0.286			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4      c: az 99.6 el 33.1 pa -70.0      u,v (fr/asec) 202.376 1444.044      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842//Gc..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842//Gc.Q.55.3MPUFD

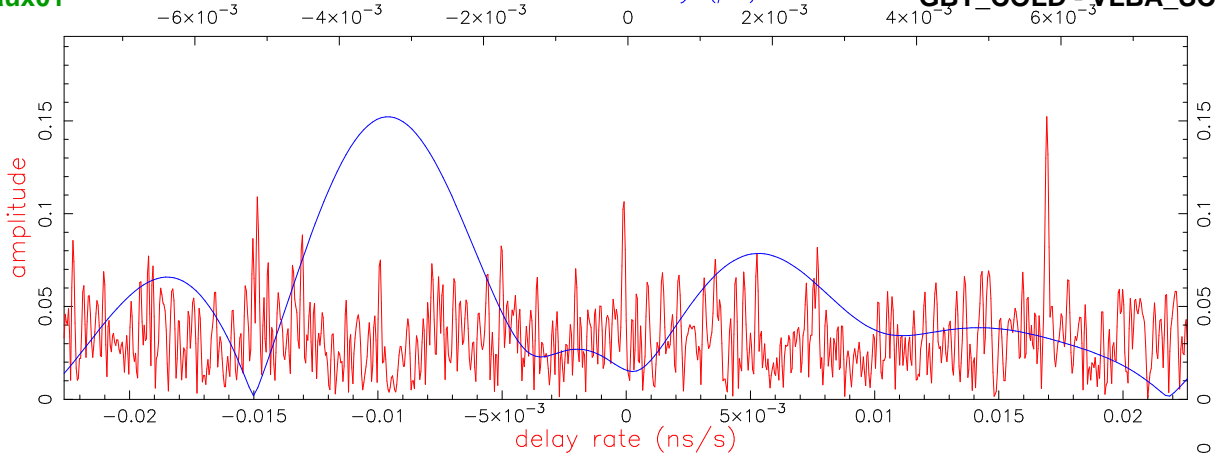
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, Gc

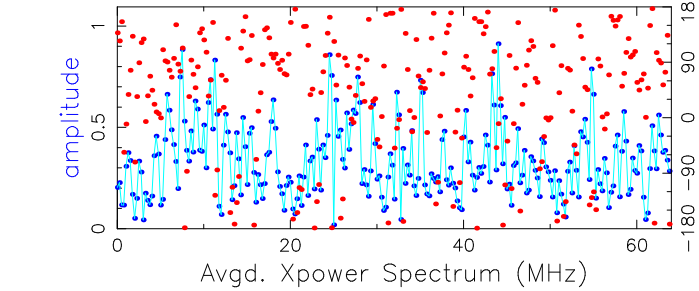
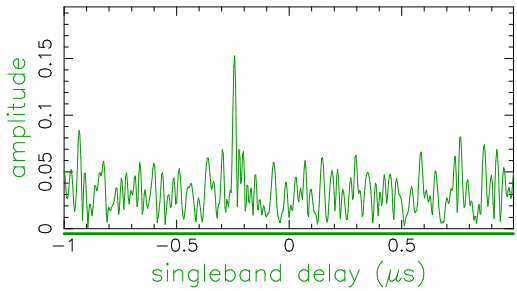
GBT\_COLD - VLBA\_SC, fgroup Q, pol LR

multiband delay ( $\mu$ s)



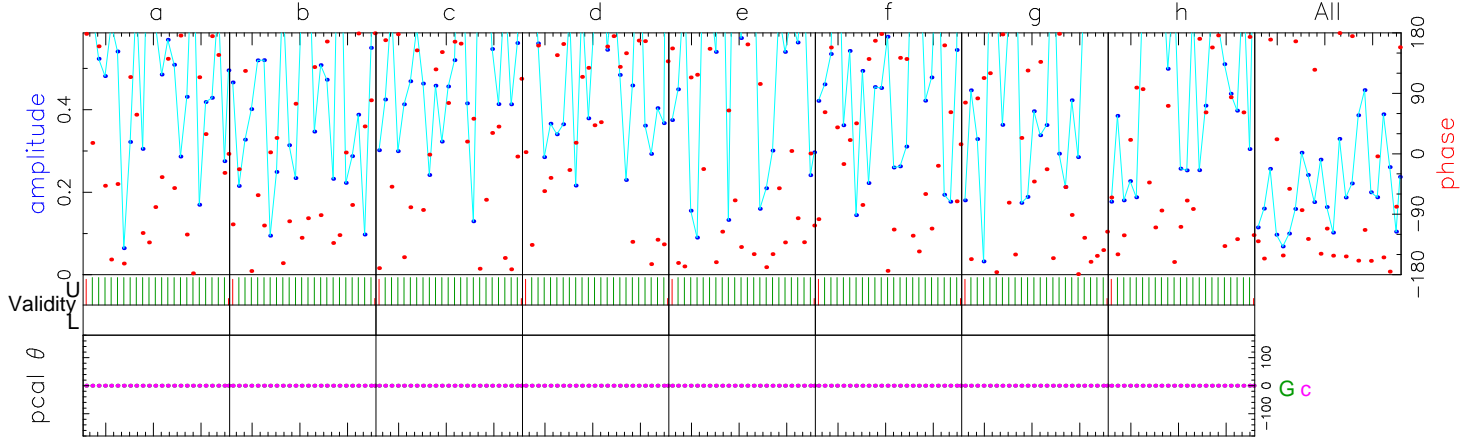
Fringe quality 0

SNR 5.6  
 Int time 177.988  
 Amp 0.196  
 Phase -306.7  
 PFD 9.4e-01  
 Delays (us)  
 SBD -0.243084  
 MBD -0.003342  
 Fringe rate (Hz)  
 0.733651  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230131.54  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165411  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-148.3	-126.4	-176.8	157.7	-132.2	-108.4	-153.3	-146.1	Phase	-149.2
	0.1	0.3	0.2	0.2	0.3	0.1	0.4	0.1	Ampl.	0.2
	33.2	359.1	450.7	439.6	193.6	44.0	172.1	162.4	Sbd box	194.8
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.77917486950E+03	Apriori delay (usec)	-5.77893715232E+03	Resid mbdelay (usec)	-3.34218E-03	+/-	1.9E-04
Sband delay (usec)	-5.77918023607E+03	Apriori clock (usec)	-1.8330866E+01	Resid sbdelay (usec)	-2.43084E-01	+/-	1.5E-03
Phase delay (usec)	-5.77893716193E+03	Apriori clockrate (us/s)	4.6365310E-07	Resid phdelay (usec)	-9.60693E-06	+/-	1.3E-06
Delay rate (us/s)	-6.46662654903E-02	Apriori rate (us/s)	-6.46832717799E-02	Resid rate (us/s)	1.70063E-05	+/-	1.3E-08
Total phase (deg)	-217.1	Apriori accel (us/s/s)	3.18234050326E-05	Resid phase (deg)	-306.7	+/-	20.5

ph/seg (deg)	61.3	Theor.	50.2	Amplitude	0.196 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	77.3	Search (1024X32)	0.149	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.8	Inc. seg. avg.	0.198	Inc. frq. avg.	0.190	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.3	Inc. frq. avg.	0.190			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 c: az 99.6 el 33.1 pa -70.0 u,v (fr/asec) 202.376 1444.044 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//Gc..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//Gc.Q.68.3MPUFD

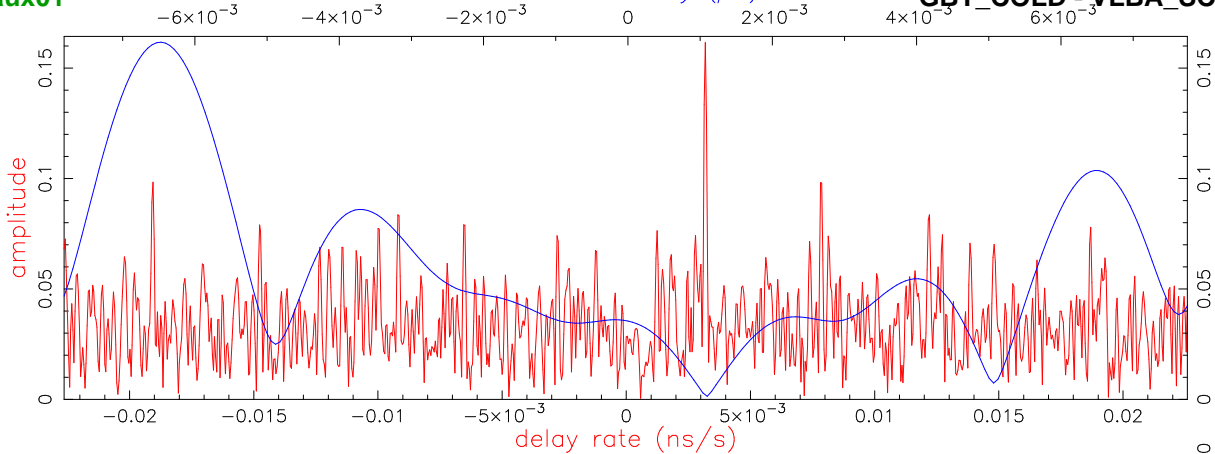
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, Gc

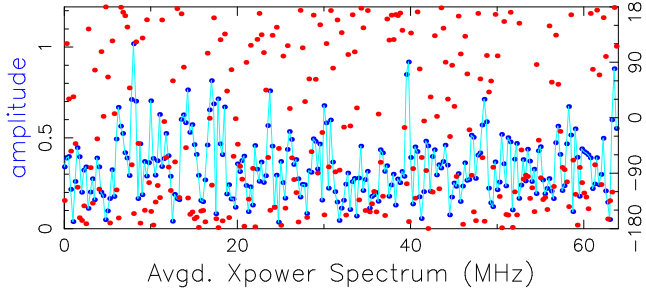
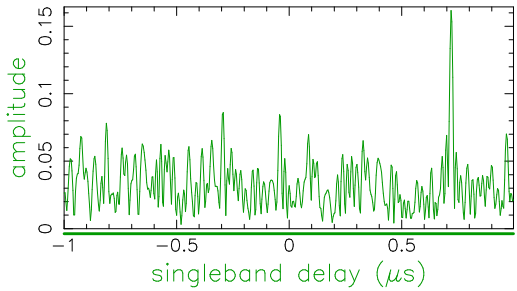
GBT\_COLD - VLBA\_SC, fgroup Q, pol RL

multiband delay ( $\mu$ s)



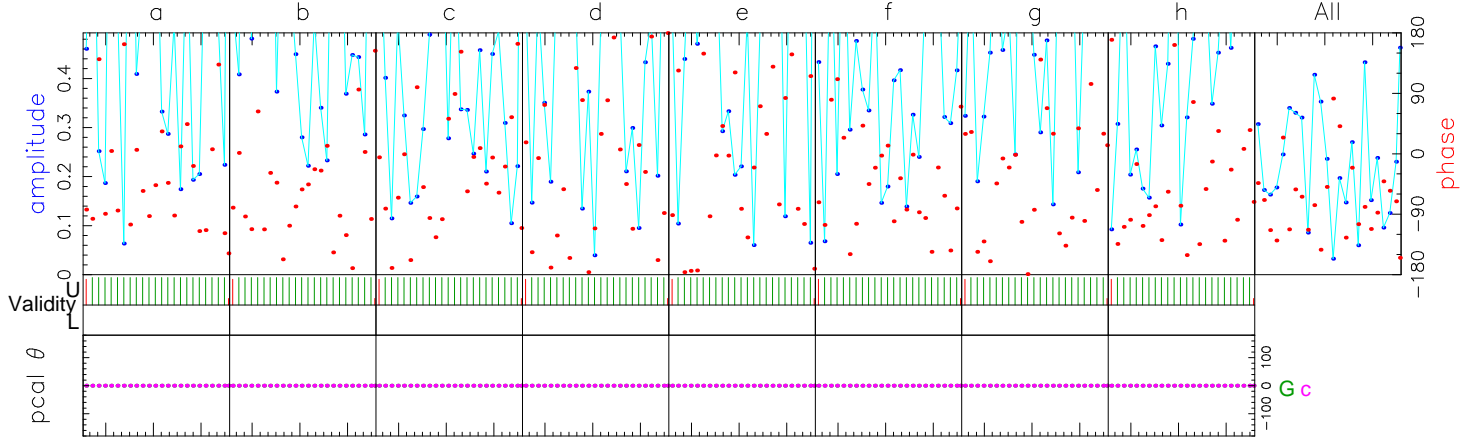
Fringe quality 0

SNR 5.9  
Int time 177.988  
Amp 0.164  
Phase 239.3  
PFD 2.9e-01  
Delays (us)  
SBD 0.719828  
MBD -0.006436  
Fringe rate (Hz) 0.137970  
Ion TEC 0.000  
Ref freq (MHz) 43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 230131.54  
Stop 230430.23  
FRT 230300.00  
Corr/FF/build 2024:342:191906  
2025:042:165412  
2024:113:095956  
RA & Dec (J2000) 12h29m06.699742s +02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-63.2	-86.5	-49.3	-135.1	-139.7	-46.1	-70.4	-86.6	Phase	-75.7
	0.3	0.3	0.2	0.0	0.1	0.2	0.2	0.2	Ampl.	0.2
	245.8	441.3	240.6	47.0	71.2	361.8	89.0	395.7	Sbd box	441.3
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:c	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	
c	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.77822483828E+03	Apriori delay (usec)	-5.77893715232E+03	Resid mbdelay (usec)	-6.43595E-03	+/-	1.8E-04
Sband delay (usec)	-5.77821732457E+03	Apriori clock (usec)	-1.8330866E+01	Resid sbdelay (usec)	7.19828E-01	+/-	1.4E-03
Phase delay (usec)	-5.77893715720E+03	Apriori clockrate (us/s)	4.6365310E-07	Resid phdelay (usec)	-4.87546E-06	+/-	1.2E-06
Delay rate (us/s)	-6.46800735888E-02	Apriori rate (us/s)	-6.46832717799E-02	Resid rate (us/s)	3.19819E-06	+/-	1.2E-08
Total phase (deg)	328.9	Apriori accel (us/s/s)	3.18234050326E-05	Resid phase (deg)	239.3	+/-	19.3

ph/seg (deg)	56.3	Theor.	47.2	Amplitude	0.164 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.4	Search (1024X32)	0.157	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.0	Inc. seg. avg.	0.169	Inc. seg. avg.	0.169	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	54.0	Inc. frq. avg.	0.162	Inc. frq. avg.	0.162	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
G: az 100.6 el 16.0 pa -50.4	c: az 99.6 el 33.1 pa -70.0	u, v (fr/asec)	202.376 1444.044	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

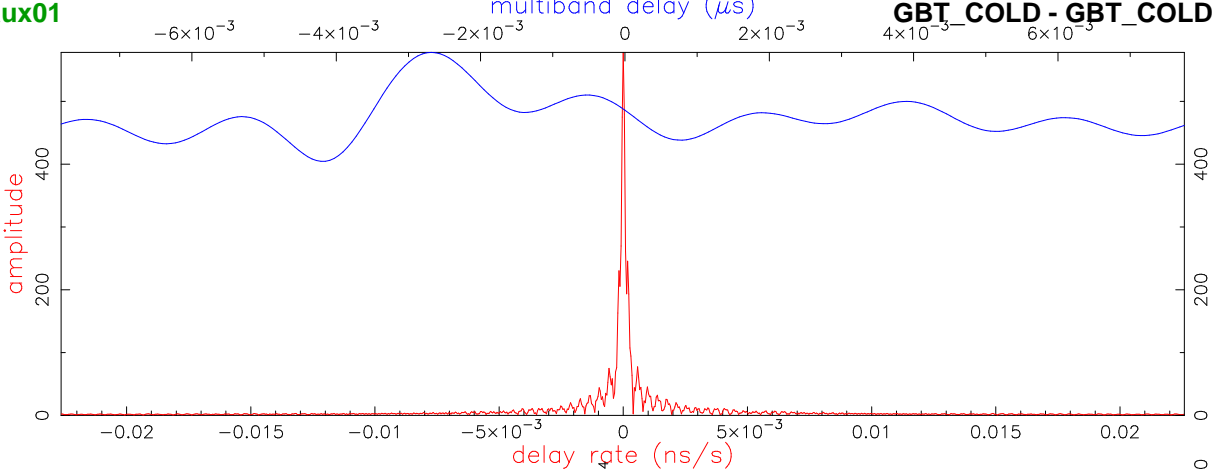
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//Gc..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//Gc.Q.82.3MPUFD simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

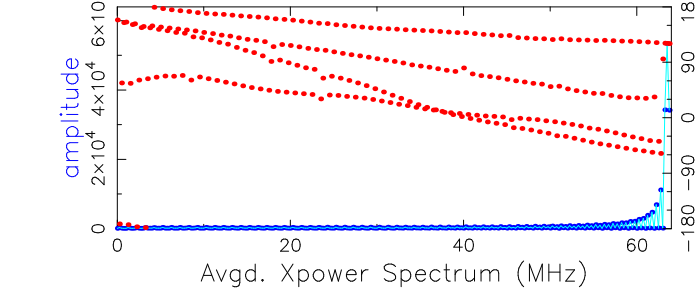
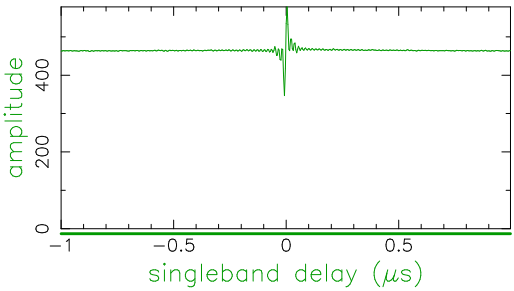
aux01

3C273.3MPUFD, No0842, GG

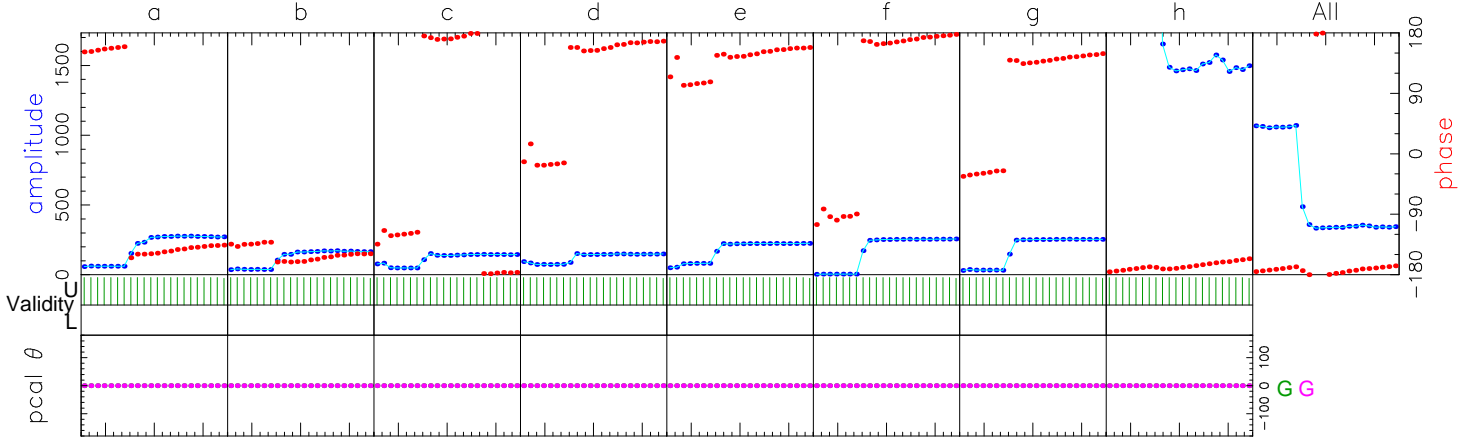
GBT\_COLD - GBT\_COLD, fgroup Q, pol RL



Fringe quality 3  
 Error code G  
 SNR 21209.1  
 Int time 179.994  
 Amp 578.089  
 Phase -172.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003691  
 MBD -0.002666  
 Fringe rate (Hz)  
 -0.000427  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165416  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-148.1	-152.5	-173.7	158.2	146.0	170.7	140.8	-169.9	Phase	-172.8
	186.1	120.6	106.1	73.1	166.8	168.4	156.6	3781.1	Ampl.	594.9
	256.3	256.2	256.5	255.9	256.7	256.2	255.9	253.3	Sbd box	257.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-2.66584375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.66584E-03	+/-	5.1E-08
Sband delay (usec)	3.69050000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.69050E-03	+/-	4.1E-07
Phase delay (usec)	-1.11263026764E-05	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.11263E-05	+/-	3.5E-10
Delay rate (us/s)	-9.89522166288E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-9.89522E-09	+/-	3.3E-12
Total phase (deg)	-172.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-172.8	+/-	0.0

ph/seg (deg)	4.4	0.0	Search (1024X32)	569.930	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	57.3	0.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	31.6	0.0	Inc. seg. avg.	579.180	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	208.4	0.0	Inc. frq. avg.	594.855	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
G: az 100.6 el 16.0 pa -50.4		G: az 100.6 el 16.0 pa -50.4		u,v (fr/asec) 0.000	0.000	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	simultaneous interpolator

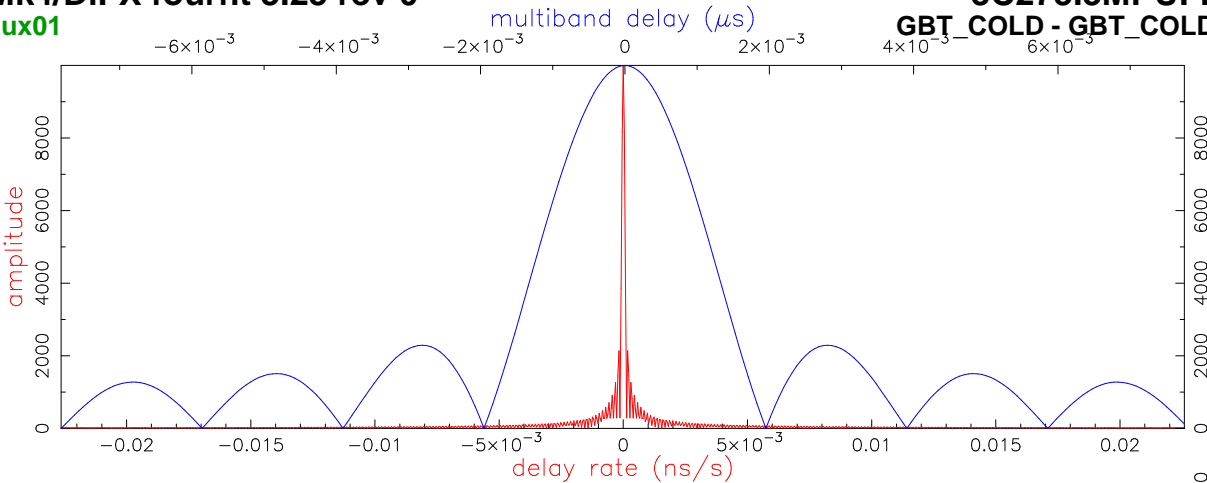
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GG.Q.114.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

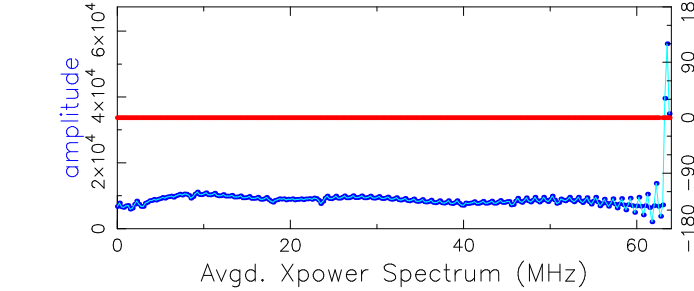
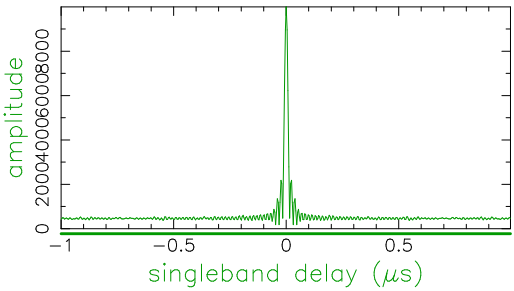
3C273.3MPUFD, No0842, GG

GBT\_COLD - GBT\_COLD, fgroup Q, pol LL



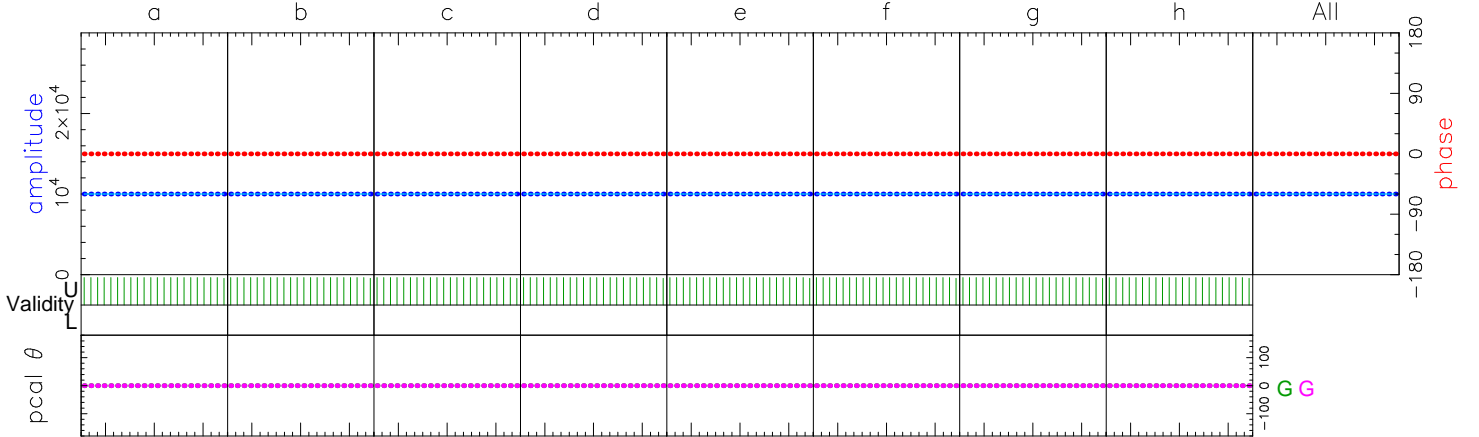
Fringe quality 9

SNR 366882.2  
 Int time 179.994  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165406  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
G	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
G	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
G	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	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	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
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  
 amp/seg (%) 0.0 0.0  
 ph/frq (deg) 0.0 0.0  
 amp/frq (%) 0.0 0.0  
 RMS Theor. Amplitude 9999.999 +/- 0.027  
 Search (1024X32) 9999.999  
 Interp. 0.000  
 Inc. seg. avg. 10000.000  
 Inc. frq. avg. 9999.999  
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled sb window (us) -1.000 1.000  
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 simultaneous interpolator

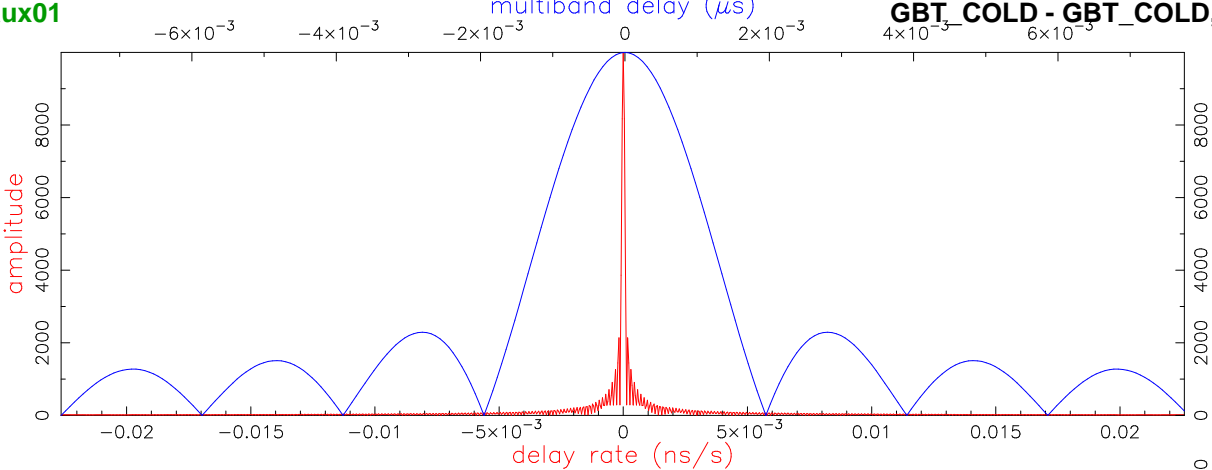
G: az 100.6 el 16.0 pa -50.4 u,v (fr/asec) 0.000 0.000  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GG.Q.31.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

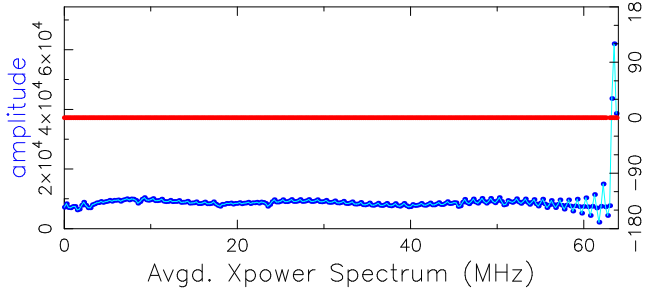
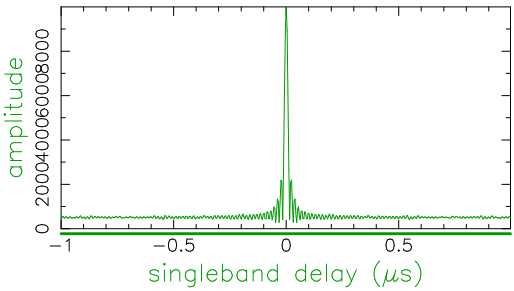
3C273.3MPUFD, No0842, GG

GBT\_COLD - GBT\_COLD, fgroup Q, pol RR



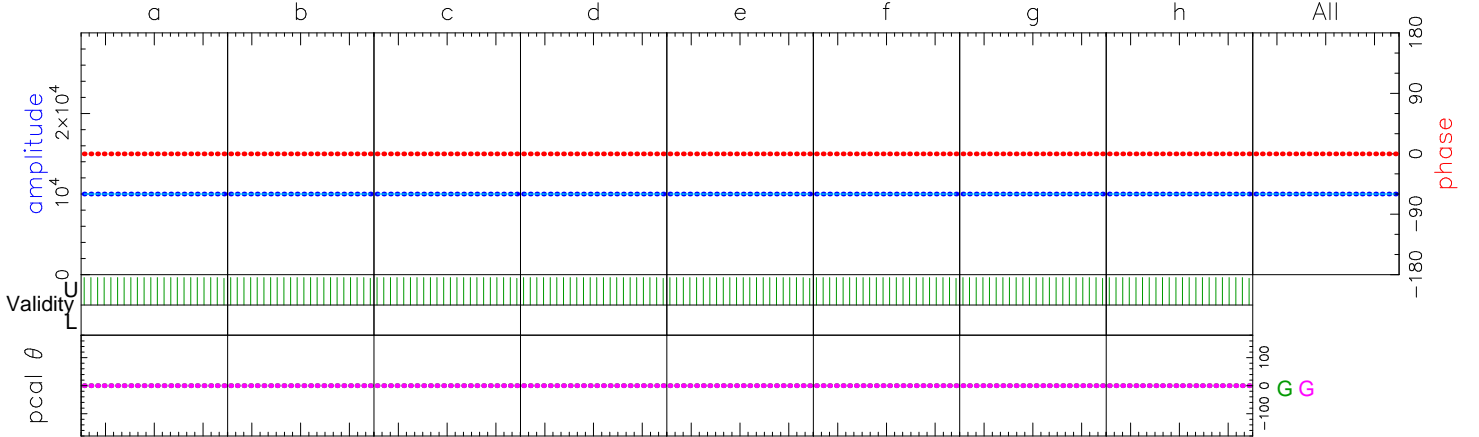
Fringe quality 9

SNR 366882.2  
 Int time 179.994  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165410  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Phase	0.0
G	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
G	257.0	257.0	257.0	257.0	257.0	257.0	257.0	257.0	Sbd box	257.0
G	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:G	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	
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	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	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
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	RMS	Theor.	Amplitude	9999.999 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	0.0	0.0	0.0	Search (1024X32)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	9999.999	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

G: az 100.6 el 16.0 pa -50.4      G: az 100.6 el 16.0 pa -50.4      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

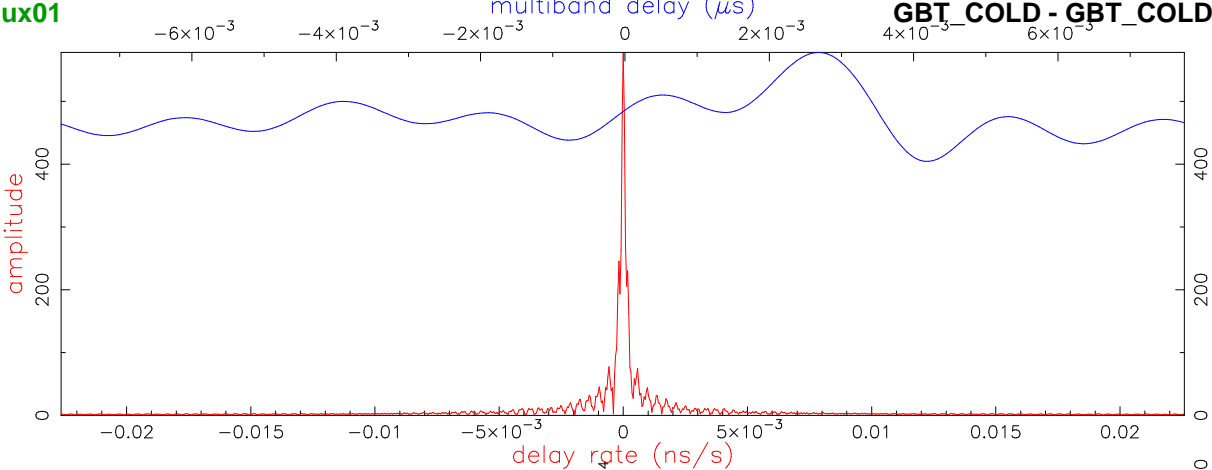
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842/GG..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842/GG.Q.63.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

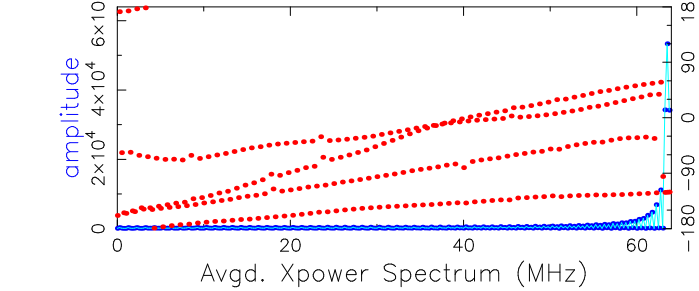
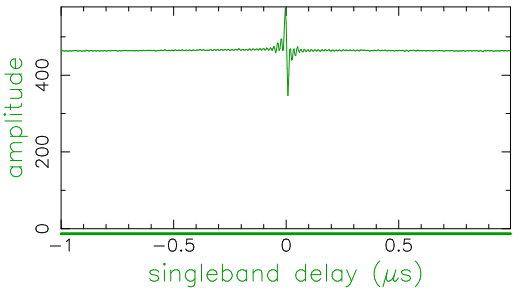
aux01

3C273.3MPUFD, No0842, GG

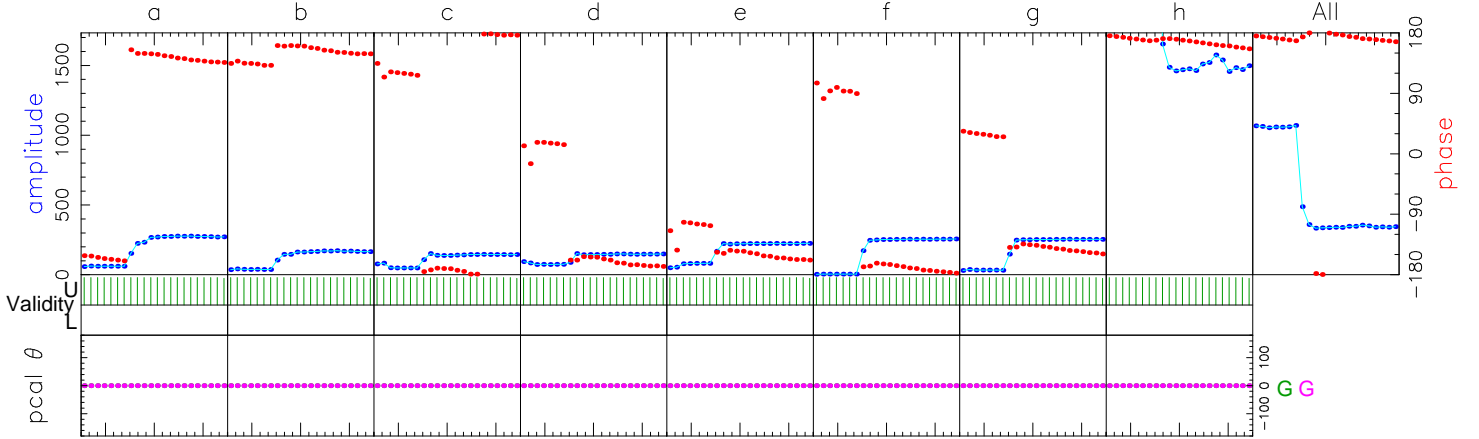
GBT\_COLD - GBT\_COLD, fgroup Q, pol LR



Fringe quality 3  
 Error code G  
 SNR 21209.1  
 Int time 179.994  
 Amp 578.089  
 Phase 172.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003691  
 MBD 0.002666  
 Fringe rate (Hz)  
 0.000427  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165413  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
G:G	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:G	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		
G	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	2.66584375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.66584E-03	+/-	5.1E-08
Sband delay (usec)	-3.69050000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.69050E-03	+/-	4.1E-07
Phase delay (usec)	1.11263026762E-05	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.11263E-05	+/-	3.5E-10
Delay rate (us/s)	9.89522166288E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	9.89522E-09	+/-	3.3E-12
Total phase (deg)	172.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	172.8	+/-	0.0

ph/seg (deg)	4.4	RMS	4.4	Theor.	0.0	Amplitude	578.089 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	57.3	Search (1024X32)	569.930	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	31.6	Inc. seg. avg.	579.180	Inc. frq. avg.	594.855	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	208.4	Inc. frq. avg.	594.855	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)	-0.023	0.023
G: az 100.6 el 16.0 pa -50.4		G: az 100.6 el 16.0 pa -50.4		u, v (fr/asec)	0.000	0.000		ion window (TEC)	0.00	0.00	

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GG..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GG.Q.87.3MPUFD







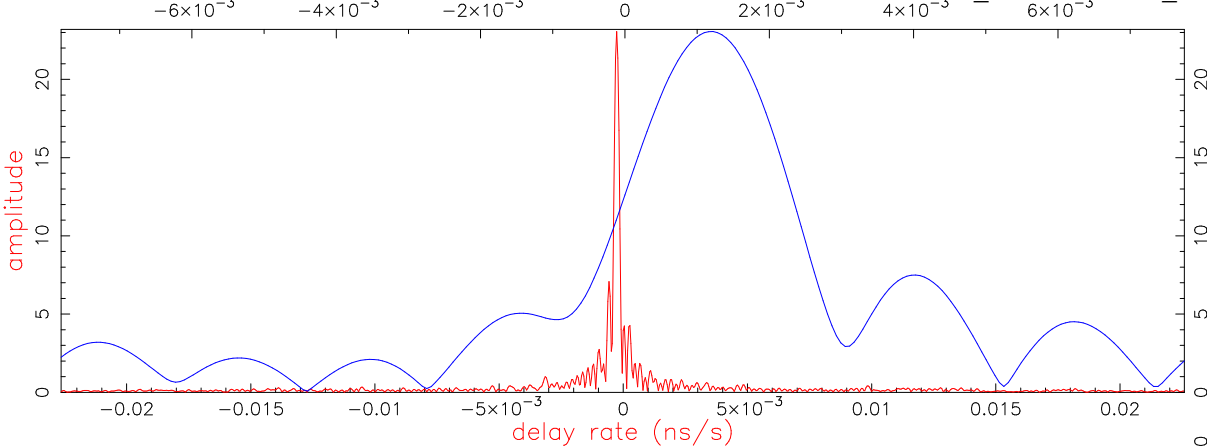
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, Gh

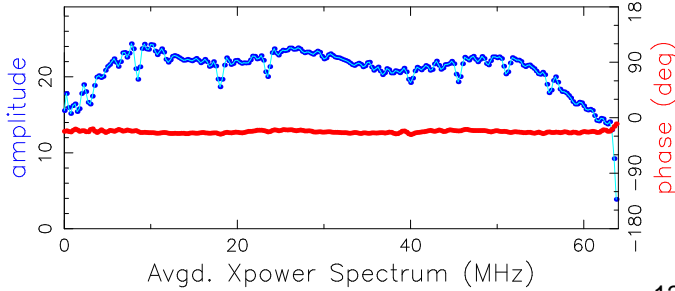
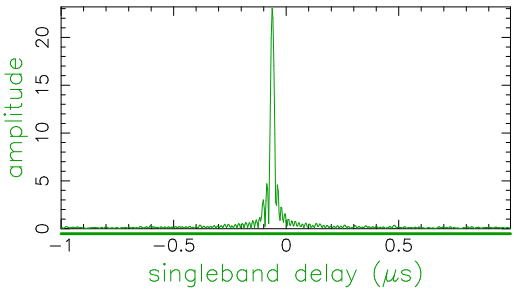
GBT\_COLD - VLBA\_HN, fgroup Q, pol LL

multiband delay ( $\mu$ s)



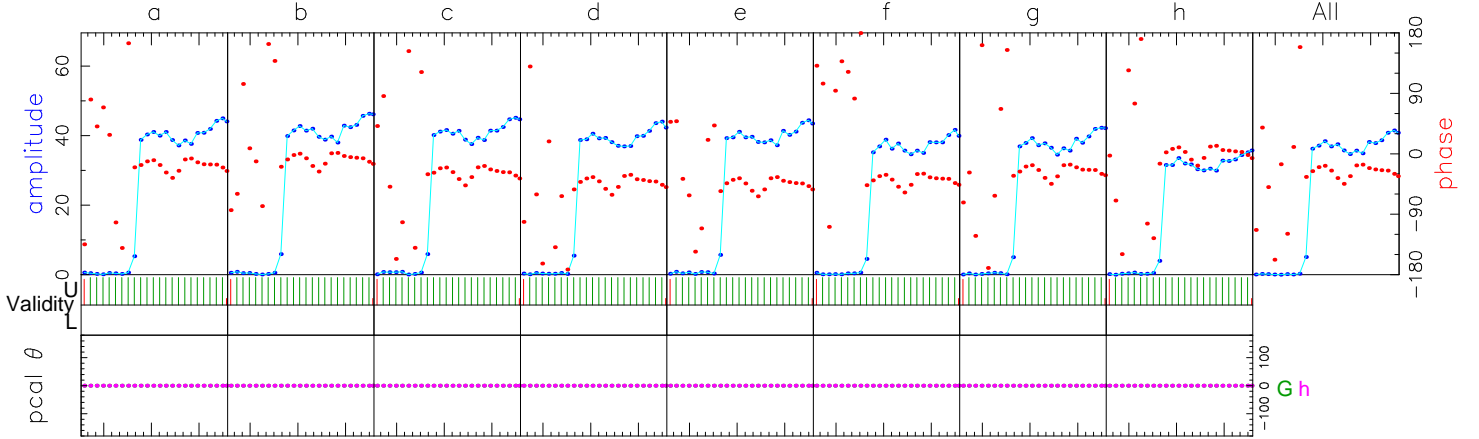
Fringe quality 4

SNR 846.1  
 Int time 177.992  
 Amp 23.194  
 Phase -115.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.061528  
 MBD 0.001211  
 Fringe rate (Hz)  
 -0.011096  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230131.54  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165405  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-17.3	-7.9	-28.1	-42.3	-44.7	-39.0	-25.6	1.7	Phase	-25.9
	24.9	25.7	25.3	24.4	24.8	22.9	23.5	19.7	Ampl.	23.9
	241.1	241.2	241.1	241.4	241.2	241.5	241.4	241.7	Sbd box	241.2
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
h	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
G:h	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	
h	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -1.65582693415E+03 Apriori delay (usec) -1.65576564538E+03 Resid mbdelay (usec) 1.21123E-03 +/- 1.3E-06  
 Sband delay (usec) -1.65582717313E+03 Apriori clock (usec) -2.7047449E+01 Resid sbdelay (usec) -6.15278E-02 +/- 1.0E-05  
 Phase delay (usec) -1.65576564704E+03 Apriori clockrate (us/s) -8.5539215E-09 Resid phdelay (usec) -1.66908E-06 +/- 8.7E-09  
 Delay rate (us/s) 1.37275511829E-01 Apriori rate (us/s) 1.37275769031E-01 Resid rate (us/s) -2.57202E-07 +/- 8.5E-11  
 Total phase (deg) -94.9 Apriori accel (us/s/s) 8.43508813188E-06 Resid phase (deg) -115.9 +/- 0.1

RMS Theor. Amplitude 23.194 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 55.4 0.3 Search (1024X32) 22.382 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 77.6 0.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 18.1 0.2 Inc. seg. avg. 23.315 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 8.4 0.3 Inc. frq. avg. 23.897 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

G: az 100.6 el 16.0 pa -50.4 h: az 107.7 el 20.7 pa -44.2 u,v (fr/asec) -389.650 -252.581 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//Gh..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//Gh.Q.28.3MPUFD

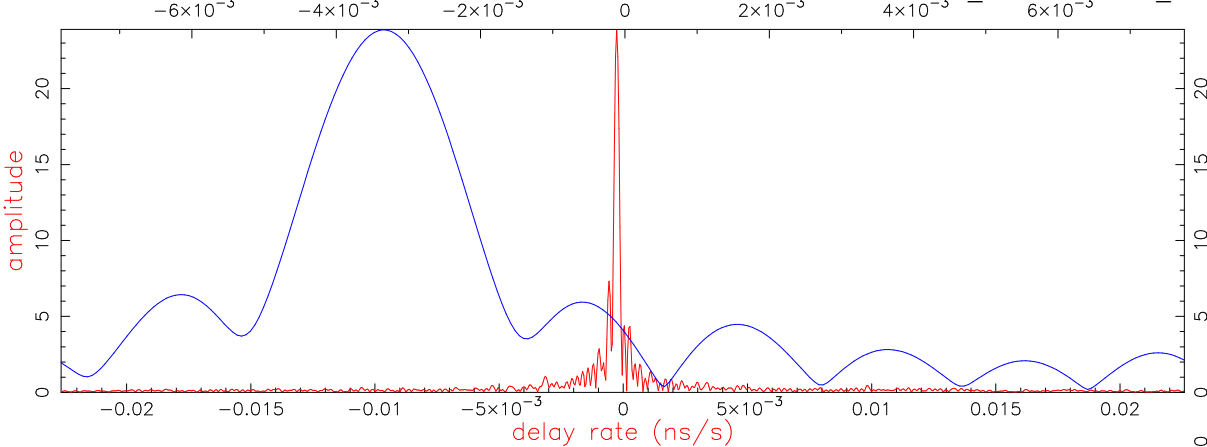
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, Gh

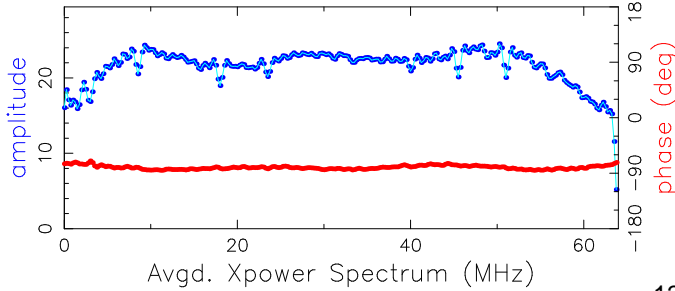
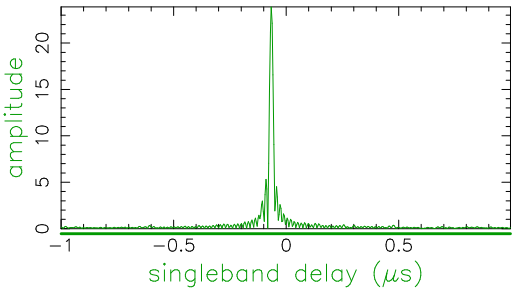
GBT\_COLD - VLBA\_HN, fgroup Q, pol RR

multiband delay ( $\mu$ s)



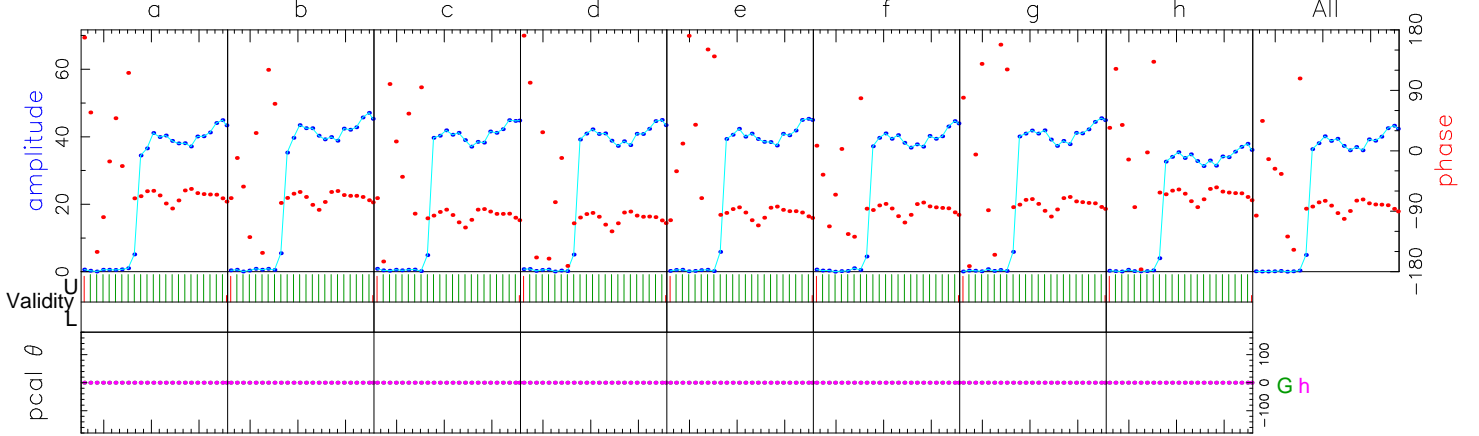
Fringe quality 4

SNR 871.9  
Int time 177.992  
Amp 23.901  
Phase -172.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.065972  
MBD -0.003331  
Fringe rate (Hz)  
-0.011089  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 230131.54  
Stop 230430.23  
FRT 230300.00  
Corr/FF/build  
2024:342:191906  
2025:042:165407  
2024:113:095956  
RA & Dec (J2000)  
12h29m06.699742s  
+02°03'08.598116"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-67.0	-69.6	-95.7	-100.1	-92.5	-87.1	-79.5	-64.7		-82.4
	24.4	25.6	25.1	25.0	25.1	24.4	25.2	21.0		24.5
	239.9	240.0	240.0	240.4	240.2	240.2	240.2	240.2		240.1
U/L	349/0	349/0	349/0	349/0	349/0	349/0	349/0	349/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
h	1000	1000	1000	1000	1000	1000	1000	1000		
G:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:h	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		
h	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.65583147612E+03	Apriori delay (usec)	-1.65576564538E+03	Resid mbdelay (usec)	-3.33074E-03	+/-	1.2E-06
Sband delay (usec)	-1.65583161713E+03	Apriori clock (usec)	-2.7047449E+01	Resid sbdelay (usec)	-6.59717E-02	+/-	9.9E-06
Phase delay (usec)	-1.65576565068E+03	Apriori clockrate (us/s)	-8.5539215E-09	Resid phdelay (usec)	-5.30578E-06	+/-	8.5E-09
Delay rate (us/s)	1.37275511982E-01	Apriori rate (us/s)	1.37275769031E-01	Resid rate (us/s)	-2.57049E-07	+/-	8.2E-11
Total phase (deg)	-151.3	Apriori accel (us/s/s)	8.43508813188E-06	Resid phase (deg)	-172.4	+/-	0.1

ph/seg (deg)	52.0	0.3	Amplitude	23.901 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	78.1	0.6	Search (1024X32)	23.605	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	14.9	0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	6.3	0.3	Inc. seg. avg.	24.130	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	24.482	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 h: az 107.7 el 20.7 pa -44.2 u,v (fr/asec) -389.650 -252.581 simultaneous interpolator

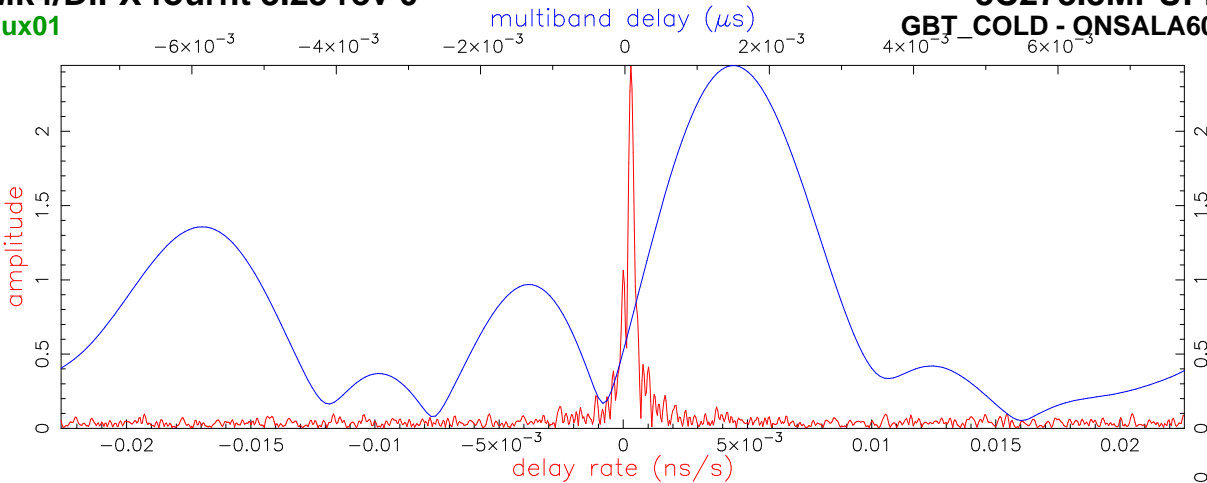
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//Gh..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//Gh.Q.44.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

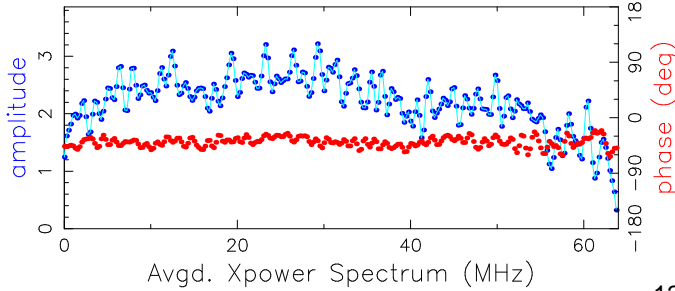
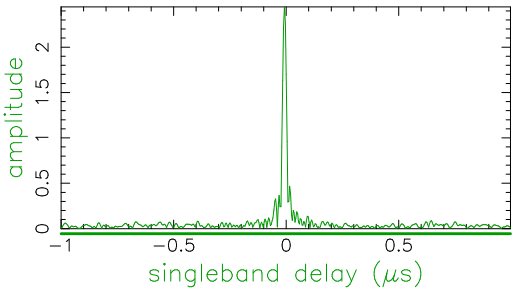
3C273.3MPUFD, No0842, GX

GBT COLD - QNSALA60, fgroup Q, pol LL



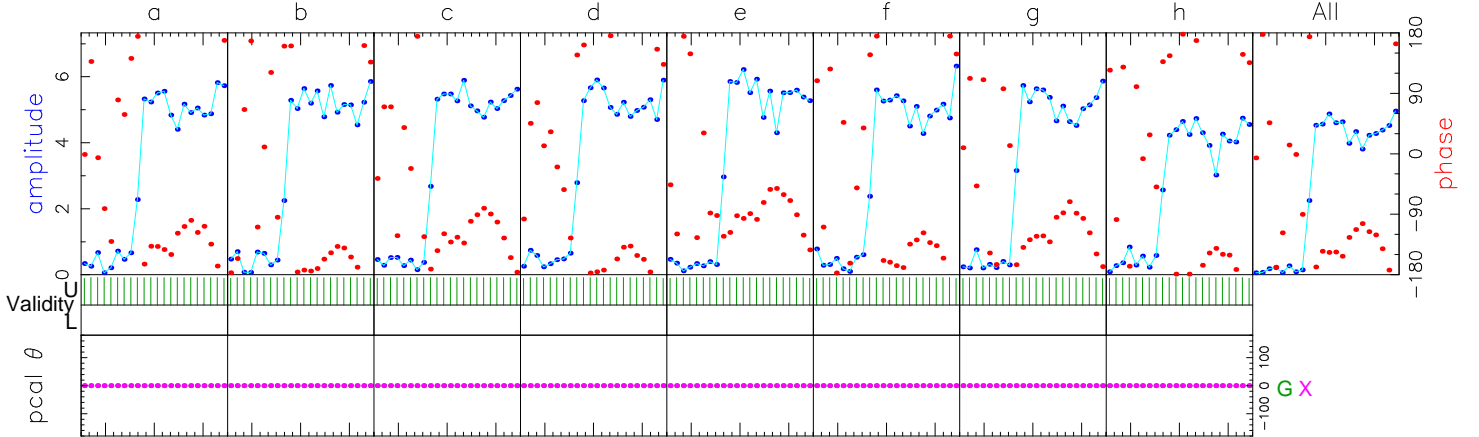
Fringe quality 3

SNR 89.6  
 Int time 179.744  
 Amp 2.444  
 Phase -347.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.007605  
 MBD 0.001507  
 Fringe rate (Hz) 0.014214  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165406  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-139.6	-171.1	-122.7	-175.4	-90.7	-161.1	-120.0	179.2	Phase	-144.5
	2.8	3.0	2.9	2.9	3.1	2.8	2.9	2.3	Ampl.	2.8
	255.0	254.7	254.9	254.6	254.7	254.6	254.9	253.9	Sbd box	255.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -5.31223858846E+03 Apriori delay (usec) -5.31222447005E+03 Resid mbdelay (usec) 1.50659E-03 +/- 1.2E-05  
 Sband delay (usec) -5.31223207505E+03 Apriori clock (usec) -1.2760017E+02 Resid sbdelay (usec) -7.60500E-03 +/- 9.6E-05  
 Phase delay (usec) -5.31222447935E+03 Apriori clockrate (us/s) -1.1462400E-06 Resid phdelay (usec) -9.30159E-06 +/- 8.2E-08  
 Delay rate (us/s) 1.45230941778E+00 Apriori rate (us/s) 1.45230908829E+00 Resid rate (us/s) 3.29496E-07 +/- 7.9E-10  
 Total phase (deg) -216.6 Apriori accel (us/s/s) 2.67334999931E-05 Resid phase (deg) -347.0 +/- 1.3

RMS Theor. Amplitude 2.444 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 70.3 3.0 Search (1024X32) 2.394 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 85.3 5.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 34.8 1.8 Inc. seg. avg. 2.774 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 17.6 3.2 Inc. frq. avg. 2.822 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

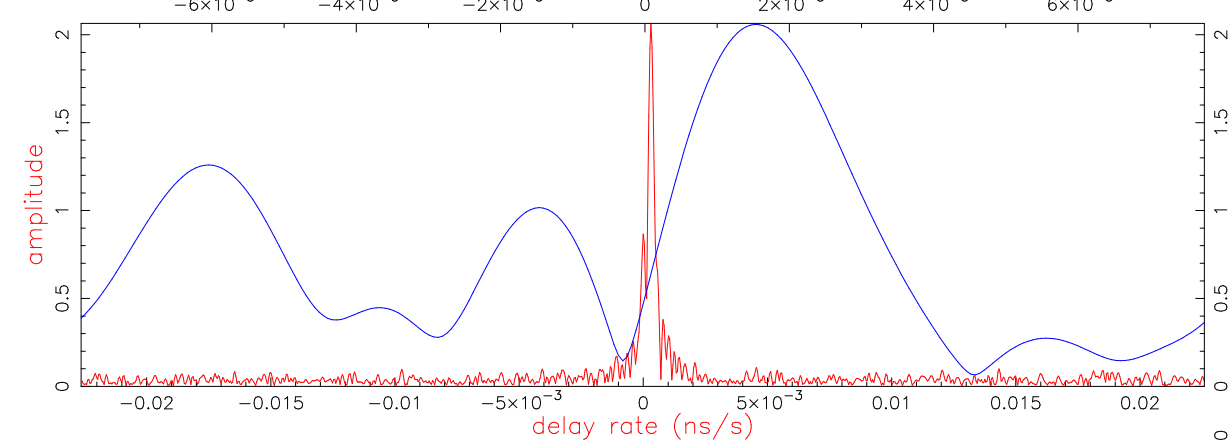
G: az 100.6 el 16.0 pa -50.4 X: az 204.8 el 32.1 pa 13.2 u,v (fr/asec) -4154.067 -942.305 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/GX..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/GX.Q.34.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

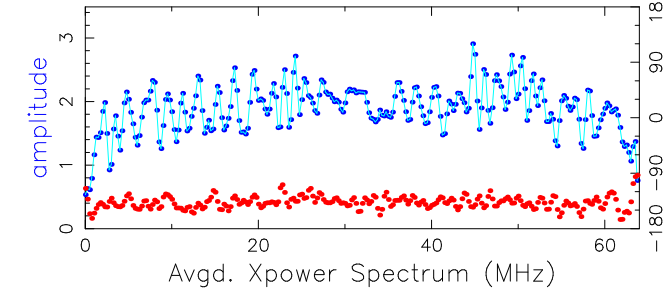
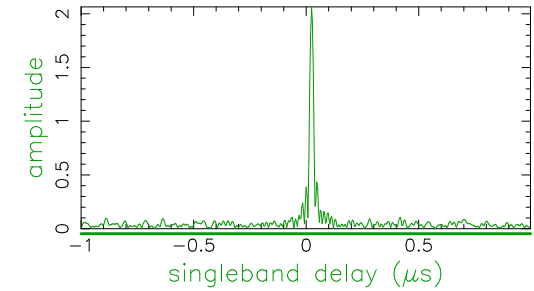
3C273.3MPUFD, No0842, GX

GBT\_COLD - ONSALA60, fgroup Q, pol RR



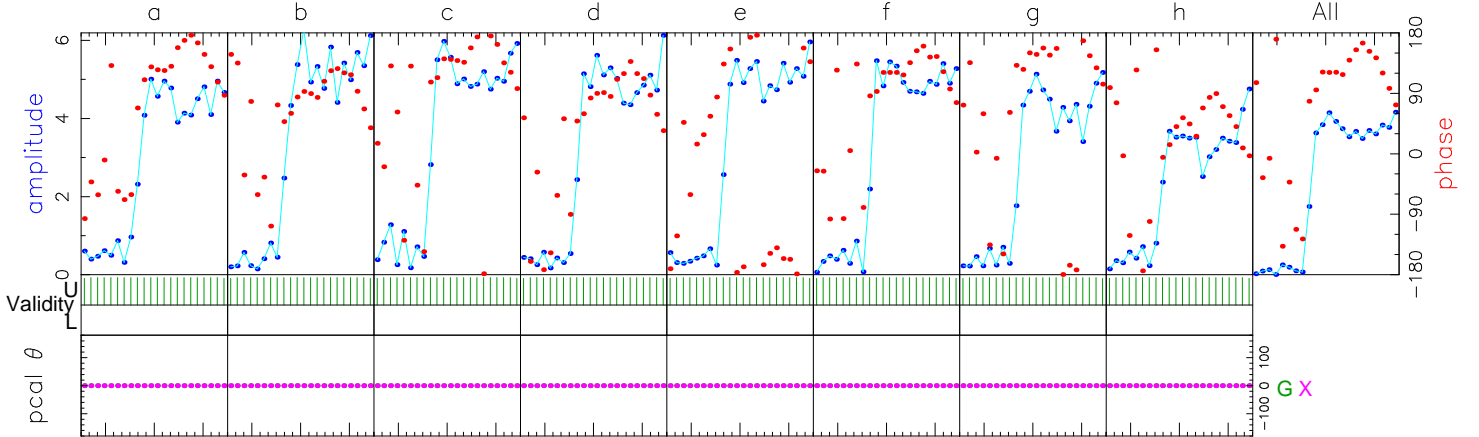
Fringe quality 2

SNR 75.7  
 Int time 179.744  
 Amp 2.065  
 Phase 325.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.024121  
 MBD 0.001559  
 Fringe rate (Hz) 0.014173  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165408  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	132.7	90.7	142.1	88.7	-179.1	122.1	151.3	42.0	Phase	122.9
	2.3	2.9	2.9	2.7	2.8	2.8	2.5	1.9	Ampl.	2.6
	262.6	262.9	262.8	262.9	262.7	262.9	262.2	261.3	Sbd box	263.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -5.31220728609E+03 Apriori delay (usec) -5.31222447005E+03 Resid mbdelay (usec) 1.55896E-03 +/- 1.4E-05  
 Sband delay (usec) -5.31220034905E+03 Apriori clock (usec) -1.2760017E+02 Resid sbdelay (usec) 2.41210E-02 +/- 1.1E-04  
 Phase delay (usec) -5.31222446214E+03 Apriori clockrate (us/s) -1.1462400E-06 Resid phdelay (usec) 7.91318E-06 +/- 9.7E-08  
 Delay rate (us/s) 1.45230941683E+00 Apriori rate (us/s) 1.45230908829E+00 Resid rate (us/s) 3.28537E-07 +/- 9.4E-10  
 Total phase (deg) 95.7 Apriori accel (us/s/s) 2.67334999931E-05 Resid phase (deg) 325.4 +/- 1.5

RMS Theor. Amplitude 2.065 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 73.8 3.6 Search (1024X32) 2.022 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 85.8 6.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 47.2 2.1 Inc. seg. avg. 2.345 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 30.6 3.7 Inc. frq. avg. 2.594 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

G: az 100.6 el 16.0 pa -50.4 X: az 204.8 el 32.1 pa 13.2 u,v (fr/asec) -4154.067 -942.305 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GX..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GX.Q.49.3MPUFD

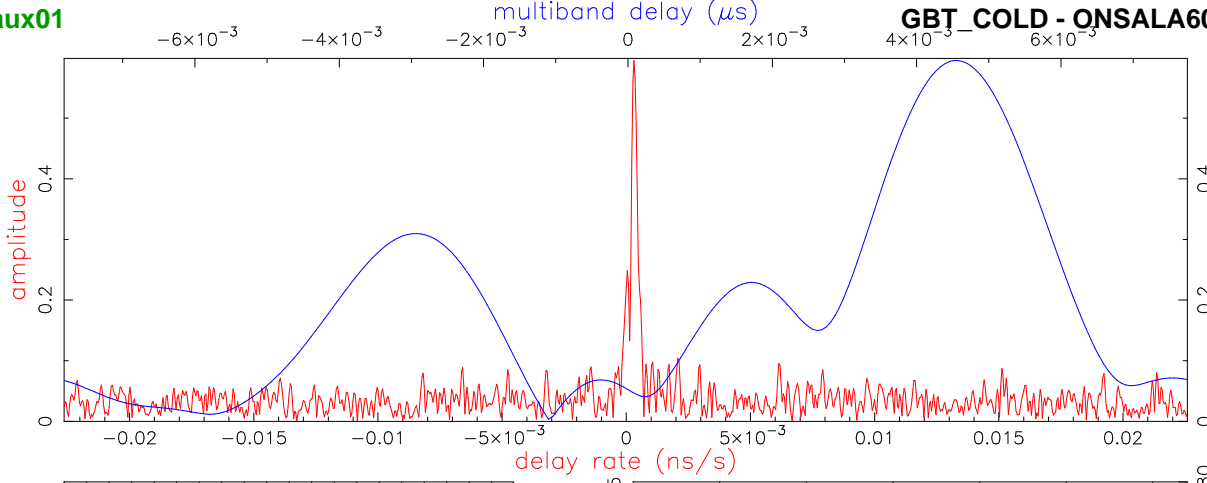
Mk4/DiFX fourfit 3.25 rev 0

aux01

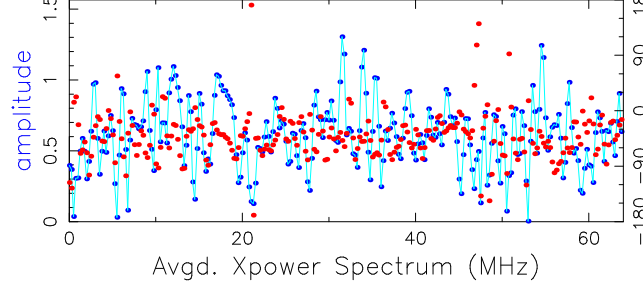
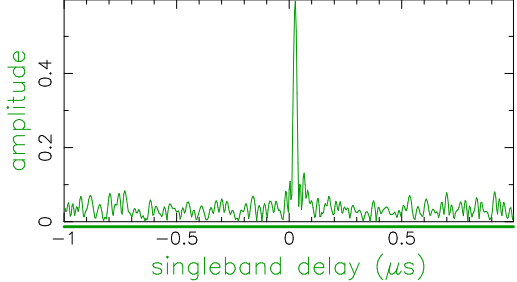
3C273.3MPUFD, No0842, GX

GBT\_COLD - ONSALA60, fgroup Q, pol LR

Fringe quality 8

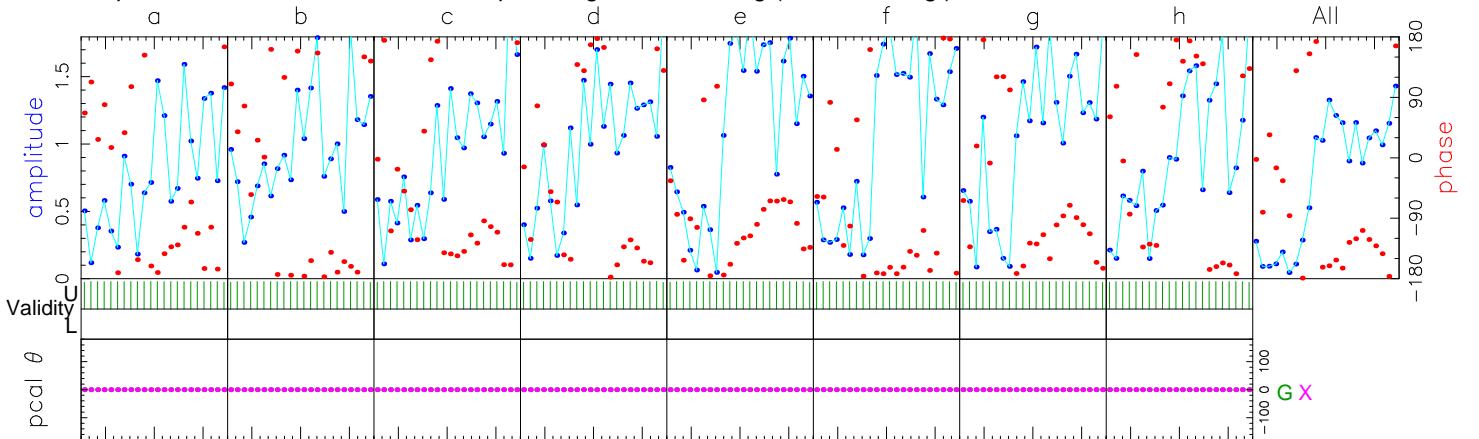


SNR 21.9  
Int time 179.744  
Amp 0.599  
Phase 50.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.026385  
MBD 0.004517  
Fringe rate (Hz)  
0.013555  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 230130.00  
Stop 230430.23  
FRT 230300.00  
Corr/FF/build  
2024:342:191906  
2025:042:165412  
2024:113:095956  
RA & Dec (J2000)  
12h29m06.699742s  
+02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-151.0	169.7	-135.8	-175.0	-105.1	-161.5	-127.1	167.8	Phase	-152.5
	0.4	0.6	0.7	0.6	0.9	0.9	0.8	0.7	Ampl.	0.7
	263.6	263.7	263.6	263.2	263.2	263.9	263.4	262.6	Sbd box	263.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.31220432849E+03	Apriori delay (usec)	-5.31222447005E+03	Resid mbdelay (usec)	4.51656E-03	+/-	4.9E-05
Sband delay (usec)	-5.31219808530E+03	Apriori clock (usec)	-1.2760017E+02	Resid sbdelay (usec)	2.63848E-02	+/-	3.9E-04
Phase delay (usec)	-5.31222447987E+03	Apriori clockrate (us/s)	-1.1462400E-06	Resid phdelay (usec)	-9.82076E-06	+/-	3.4E-07
Delay rate (us/s)	1.45230940250E+00	Apriori rate (us/s)	1.45230908829E+00	Resid rate (us/s)	3.14216E-07	+/-	3.2E-09
Total phase (deg)	180.3	Apriori accel (us/s/s)	2.67334999931E-05	Resid phase (deg)	50.0	+/-	5.2

ph/seg (deg)	71.7	Theor.	12.2	Amplitude	0.599 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	82.1	Search (1024X32)	0.589	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	33.6	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	28.4	Inc. seg. avg.	0.716	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023
		Inc. frq. avg.	0.680	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 X: az 204.8 el 32.1 pa 13.2 u,v (fr/asec) -4154.067 -942.305 simultaneous interpolator

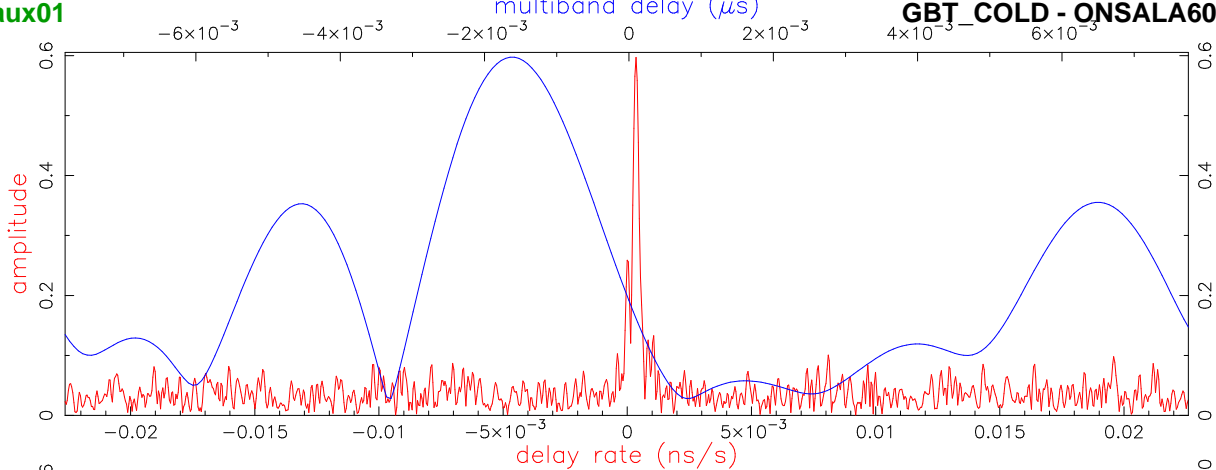
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/GX...3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/GX.Q.77.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, GX

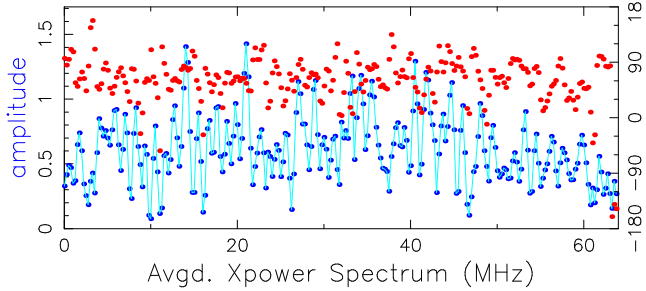
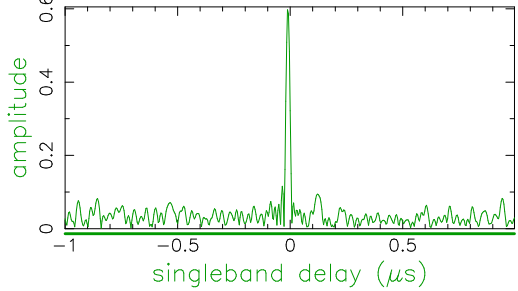
GBT\_COLD - ONSALA60, fgroup Q, pol RL



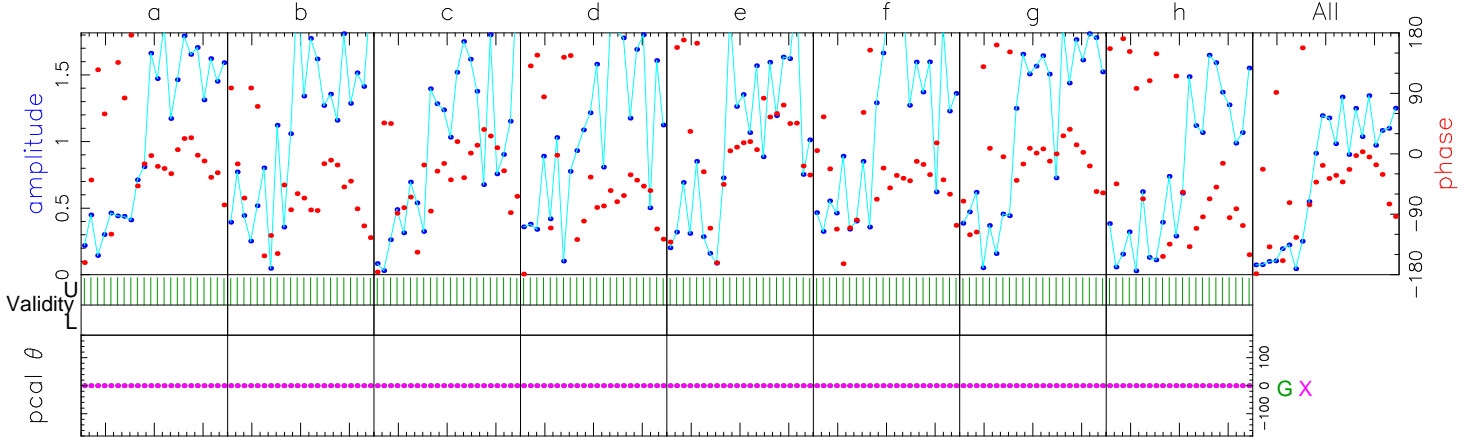
Fringe quality 8

SNR 22.2  
 Int time 179.744  
 Amp 0.606  
 Phase -237.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010160  
 MBD -0.001582  
 Fringe rate (Hz)  
 0.014644  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512

Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165414  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-13.5	-68.7	-25.7	-70.1	31.6	-39.6	-9.6	-97.4	Phase	-34.5
	0.8	0.8	0.7	0.7	0.7	0.8	0.9	0.5	Ampl.	0.7
	254.9	253.5	254.0	254.0	254.0	254.0	253.9	252.7	Sbd box	254.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	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	Mani PC	
G	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.31224167668E+03	Apriori delay (usec)	-5.31222447005E+03	Resid mbdelay (usec)	-1.58163E-03	+/-	4.9E-05
Sband delay (usec)	-5.31223462980E+03	Apriori clock (usec)	-1.2760017E+02	Resid sbdelay (usec)	-1.01597E-02	+/-	3.9E-04
Phase delay (usec)	-5.31222447227E+03	Apriori clockrate (us/s)	-1.1462400E-06	Resid phdelay (usec)	-2.21920E-06	+/-	3.3E-07
Delay rate (us/s)	1.45230942773E+00	Apriori rate (us/s)	1.45230908829E+00	Resid rate (us/s)	3.39445E-07	+/-	3.2E-09
Total phase (deg)	-106.6	Apriori accel (us/s/s)	2.67334999931E-05	Resid phase (deg)	-237.0	+/-	5.2

ph/seg (deg)	71.1	Theor.	12.1	Amplitude	0.606 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	82.7		21.1	Search (1024X32)	0.581	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	44.6		7.3	Inc. seg. avg.	0.719	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	27.5		12.7	Inc. frq. avg.	0.727	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

G: az 100.6 el 16.0 pa -50.4 X: az 204.8 el 32.1 pa 13.2 u,v (fr/asec) -4154.067 -942.305 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842/GX..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842/GX.Q.95.3MPUFD

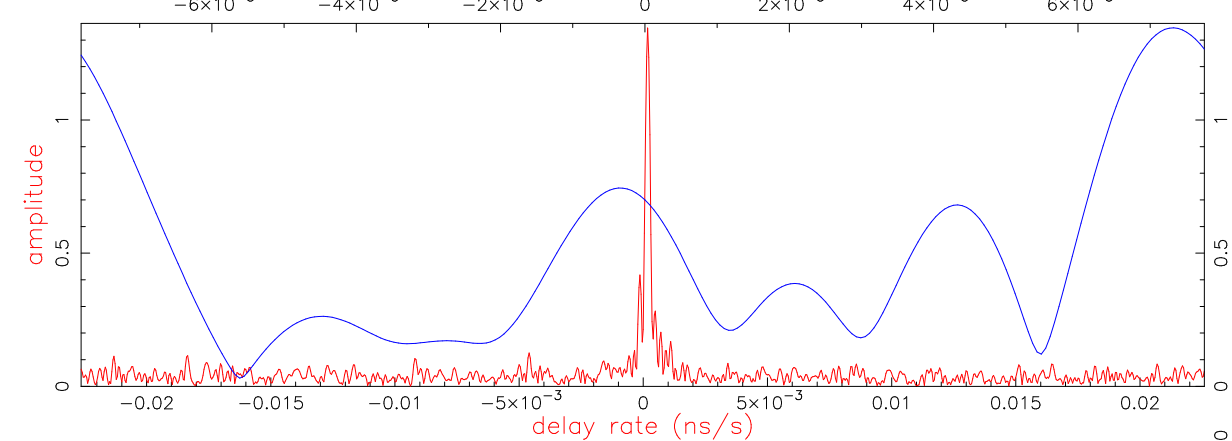


Mk4/DiFX fourfit 3.25 rev 0

aux01

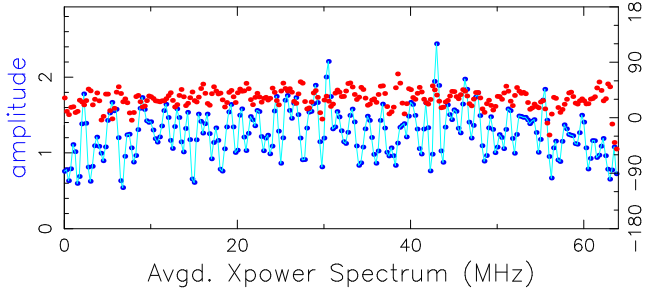
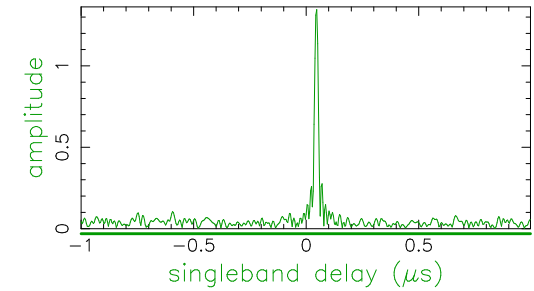
3C273.3MPUFD, No0842, GY

GBT\_COLD - YEBES40M, fgroup Q, pol RR



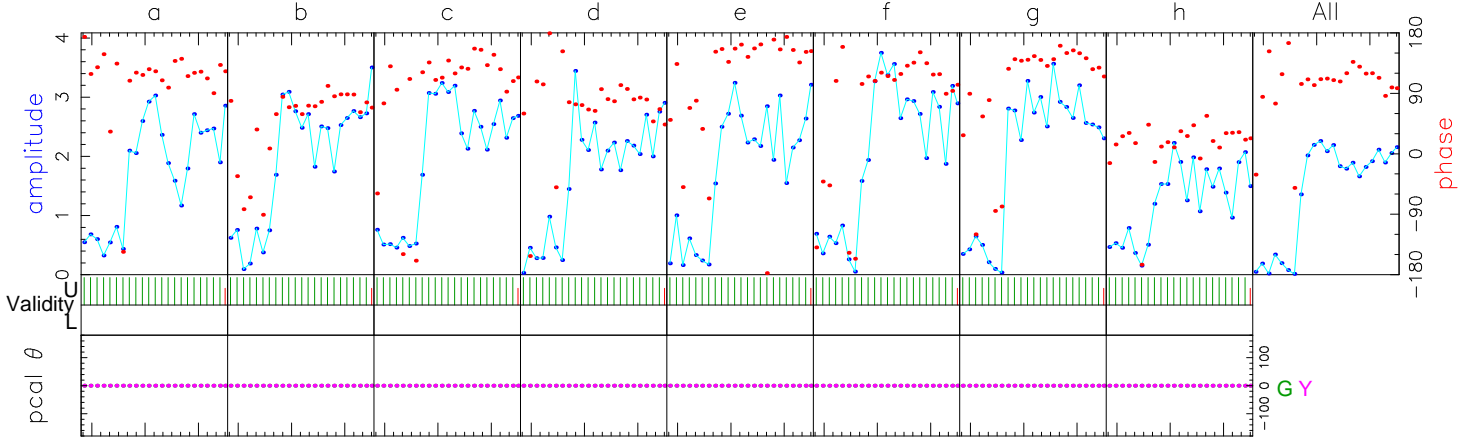
Fringe quality 4

SNR 47.4  
 Int time 161.951  
 Amp 1.363  
 Phase 155.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.045444  
 MBD 0.007286  
 Fringe rate (Hz)  
 0.006943  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230147.92  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165416  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	119.1	73.6	127.5	77.8	153.9	118.8	139.5	22.5	Phase	110.7
G	1.6	1.8	1.8	1.5	1.7	1.9	1.9	1.2	Ampl.	1.7
Y	268.3	268.2	268.5	268.1	268.2	268.1	267.9	267.0	Sbd box	268.6
G	317/0	317/0	317/0	317/0	317/0	317/0	317/0	317/0	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
G:Y	0:0	0:0	0:0	0:0	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	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
G	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -1.03533273580E+04 Apriori delay (usec) -1.03533658943E+04 Resid mbdelay (usec) 7.28636E-03 +/- 2.3E-05  
 Sband delay (usec) -1.03533204508E+04 Apriori clock (usec) 9.6414497E+01 Resid sbdelay (usec) 4.54435E-02 +/- 1.8E-04  
 Phase delay (usec) -1.03533658872E+04 Apriori clockrate (us/s) 1.0790741E-06 Resid phdelay (usec) 7.13035E-06 +/- 1.6E-07  
 Delay rate (us/s) 1.27924471269E+00 Apriori rate (us/s) 1.27924455176E+00 Resid rate (us/s) 1.60935E-07 +/- 1.7E-09  
 Total phase (deg) 270.6 Apriori accel (us/s/s) 5.54585444600E-05 Resid phase (deg) 155.7 +/- 2.4

RMS Theor. Amplitude 1.363 +/- 0.029 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 49.4 5.8 Search (1024X32) 1.328 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 63.5 10.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 47.2 3.4 Inc. seg. avg. 1.377 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 27.2 6.0 Inc. frq. avg. 1.660 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Y: az 189.3 el 51.0 pa 7.3 u,v (fr/asec) -3642.418 -49.401 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GY..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GY.Q.111.3MPUFD

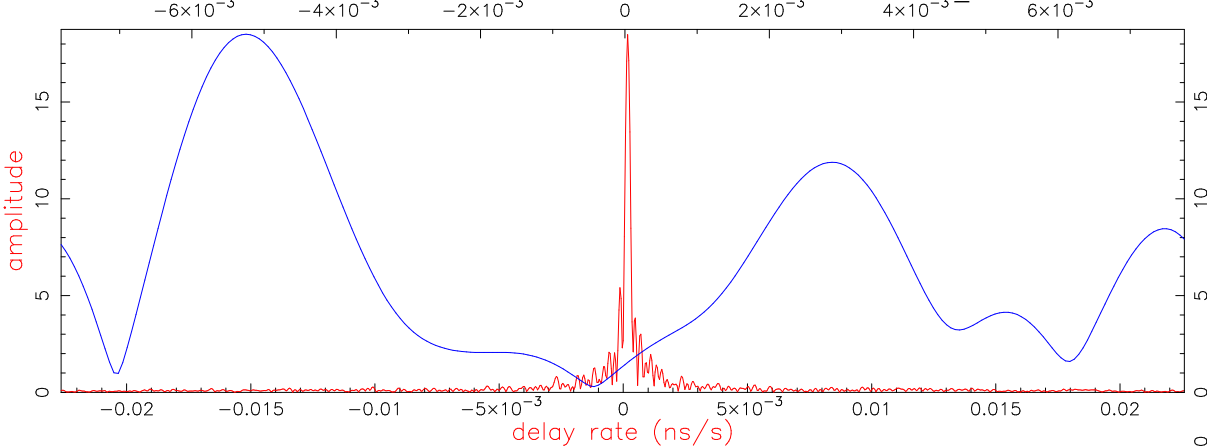
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, GY

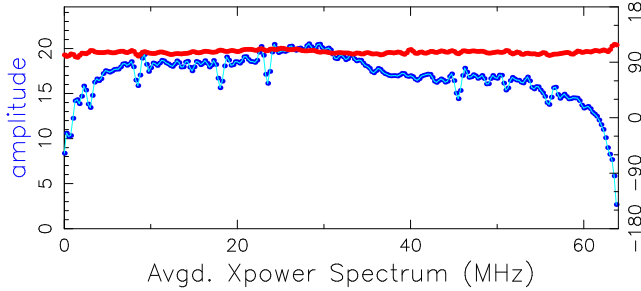
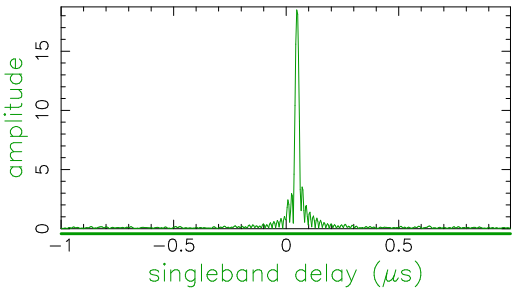
GBT\_COLD - YEBES40M, fgroup Q, pol LR

multiband delay ( $\mu$ s)



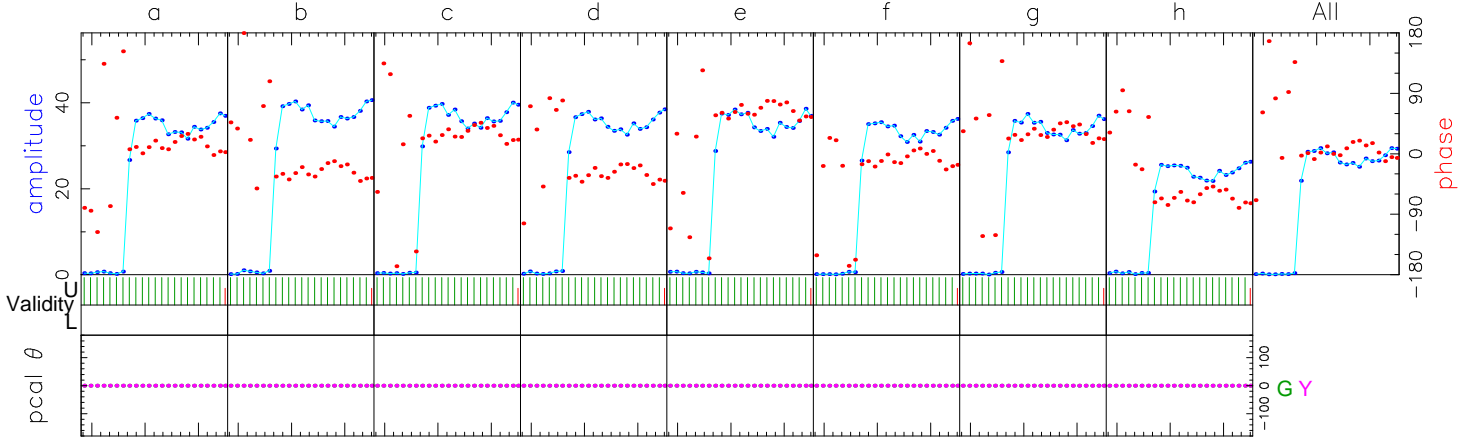
Fringe quality 2

SNR 652.6  
 Int time 161.951  
 Amp 18.754  
 Phase 251.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.048413  
 MBD -0.005205  
 Fringe rate (Hz)  
 0.007130  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230147.92  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165429  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	317/0	317/0	317/0	317/0	317/0	317/0	317/0	317/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
G:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.03533242246E+04	Apriori delay (usec)	-1.03533658943E+04	Resid mbdelay (usec)	-5.20533E-03	+/-	1.7E-06
Sband delay (usec)	-1.03533174816E+04	Apriori clock (usec)	9.6414497E+01	Resid sbdelay (usec)	4.84128E-02	+/-	1.3E-05
Phase delay (usec)	-1.03533658941E+04	Apriori clockrate (us/s)	1.0790741E-06	Resid phdelay (usec)	2.26124E-07	+/-	1.1E-08
Delay rate (us/s)	1.27924471704E+00	Apriori rate (us/s)	1.27924455176E+00	Resid rate (us/s)	1.65282E-07	+/-	1.2E-10
Total phase (deg)	5.9	Apriori accel (us/s/s)	5.54585444600E-05	Resid phase (deg)	251.0	+/-	0.2

ph/seg (deg)	55.1	RMS	0.4	Theor.	18.754 +/- 0.029	Amplitude	18.276	Search (1024X32)	0.000	PCal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	66.9		0.7	Interp.	18.787		0.000	Inc. seg. avg.	22.963	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	44.7		0.2	Inc. frq. avg.	18.787		0.000	Inc. frq. avg.	22.963	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.6		0.4							Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023		
										Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Y: az 189.3 el 51.0 pa 7.3 u,v (fr/asec) -3642.418 -49.401 simultaneous interpolator

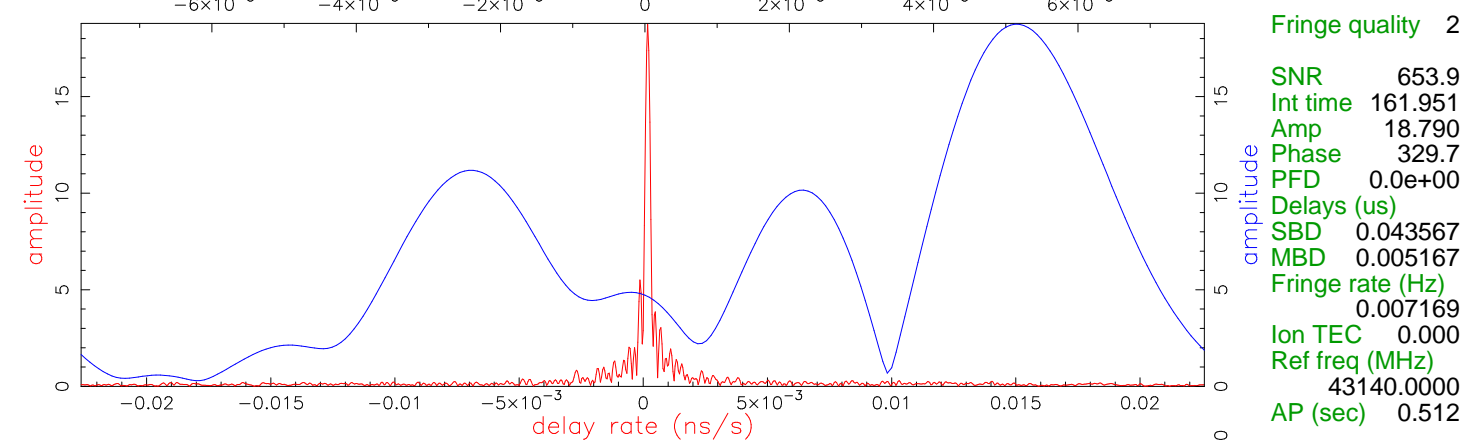
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Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, GY

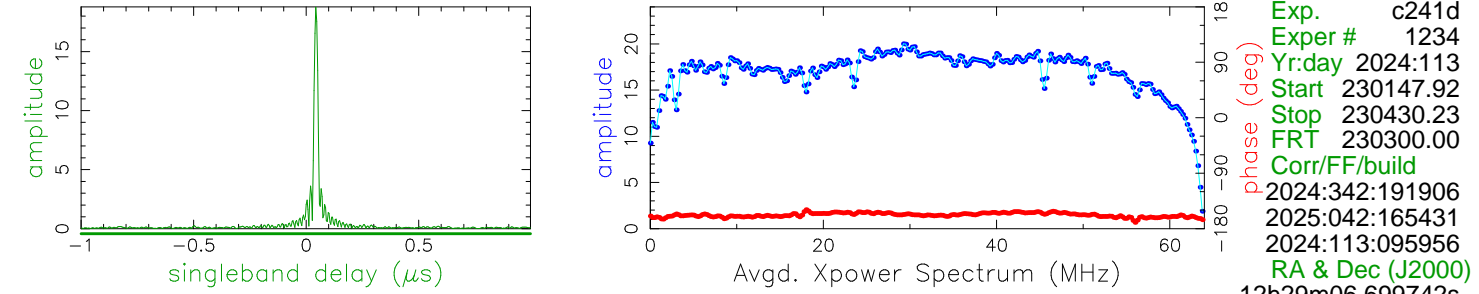
GBT\_COLD - YEBES40M, fgroup Q, pol RL



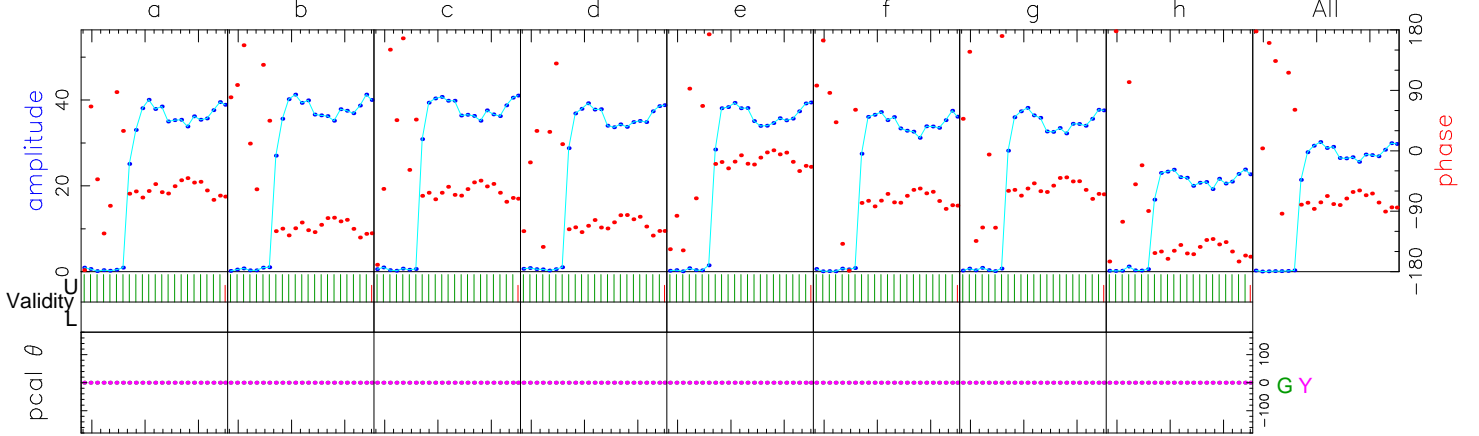
Fringe quality 2

SNR 653.9  
 Int time 161.951  
 Amp 18.790  
 Phase 329.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.043567  
 MBD 0.005167  
 Fringe rate (Hz) 0.007169  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512

Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230147.92  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165431  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-57.7	-114.6	-61.3	-110.5	-14.8	-72.3	-55.9	-148.1	Phase	-75.3
	24.4	25.4	25.8	24.4	24.6	23.3	23.7	14.6	Ampl.	23.3
	267.8	267.9	267.8	267.7	267.8	267.5	267.4	265.7	Sbd box	268.2
U/L	317/0	317/0	317/0	317/0	317/0	317/0	317/0	317/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.03533294776E+04	Apriori delay (usec)	-1.03533658943E+04	Resid mbdelay (usec)	5.16673E-03	+/-	1.7E-06
Sband delay (usec)	-1.03533223276E+04	Apriori clock (usec)	9.6414497E+01	Resid sbdelay (usec)	4.35667E-02	+/-	1.3E-05
Phase delay (usec)	-1.03533658992E+04	Apriori clockrate (us/s)	1.0790741E-06	Resid phdelay (usec)	-4.84908E-06	+/-	1.1E-08
Delay rate (us/s)	1.27924471793E+00	Apriori rate (us/s)	1.27924455176E+00	Resid rate (us/s)	1.66179E-07	+/-	1.2E-10
Total phase (deg)	84.5	Apriori accel (us/s/s)	5.54585444600E-05	Resid phase (deg)	329.7	+/-	0.2

ph/seg (deg)	68.0	Theor.	Amplitude	18.790 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.0	0.4	Search (1024X32)	18.261	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	45.9	0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	29.9	0.4	Inc. seg. avg.	19.075	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	23.287	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Y: az 189.3 el 51.0 pa 7.3 u,v (fr/asec) -3642.418 -49.401 simultaneous interpolator

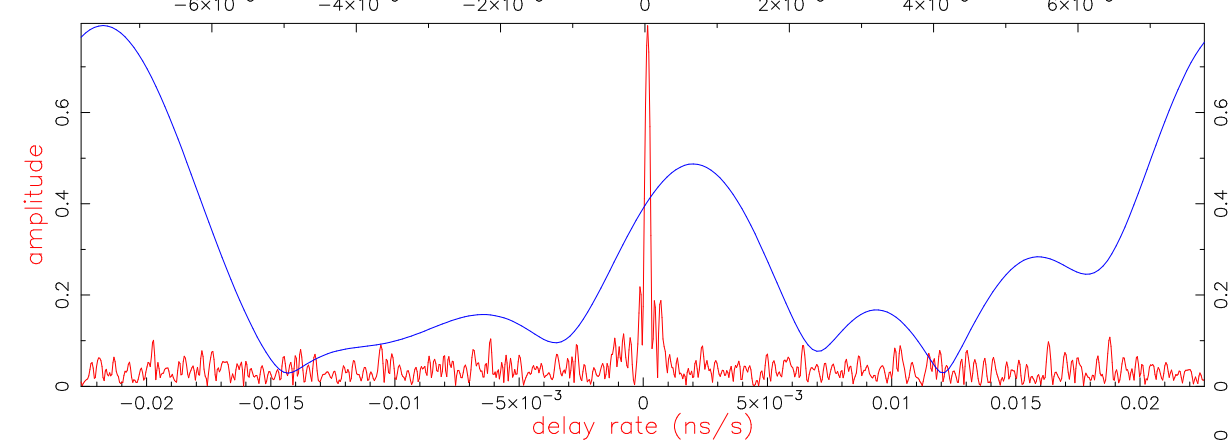
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Mk4/DiFX fourfit 3.25 rev 0

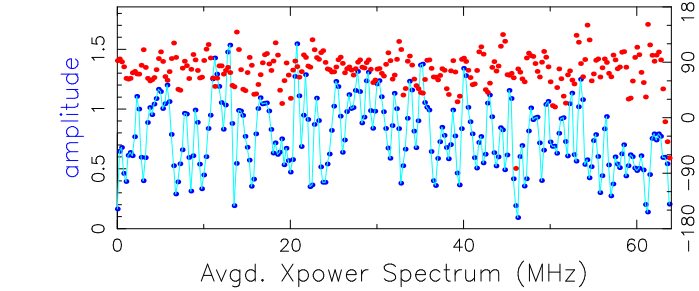
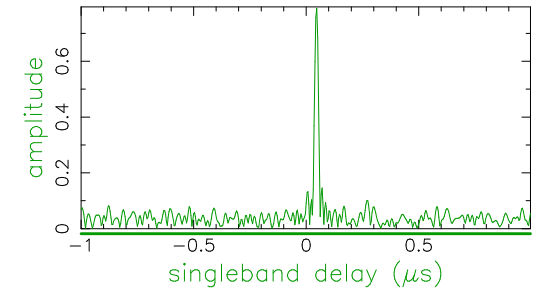
aux01

3C273.3MPUFD, No0842, GY

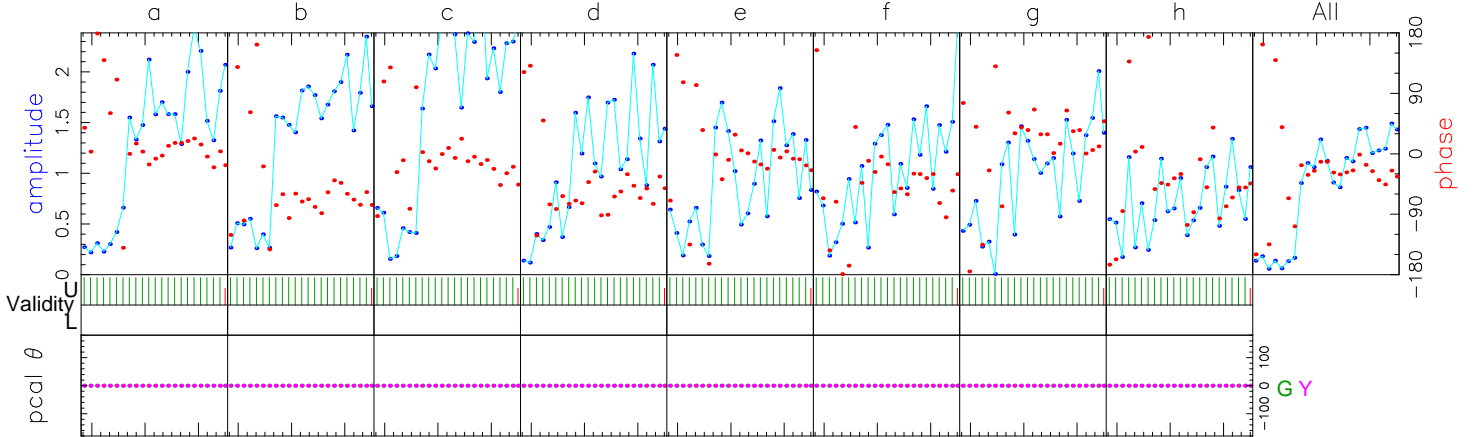
GBT COLD - YEBES40M, fgroup Q, pol LL



Fringe quality 5  
 Error code G  
 SNR 27.7  
 Int time 161.951  
 Amp 0.795  
 Phase 222.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.045834  
 MBD -0.007540  
 Fringe rate (Hz) 0.007278  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230147.92  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165414  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	317/0	317/0	317/0	317/0	317/0	317/0	317/0	317/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Y	0	0	0	0	0	0	0	0		
G:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
G	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.03533265591E+04	Apriori delay (usec)	-1.03533658943E+04	Resid mbdelay (usec)	-7.53980E-03	+/-	3.9E-05
Sband delay (usec)	-1.03533200606E+04	Apriori clock (usec)	9.6414497E+01	Resid sbdelay (usec)	4.58338E-02	+/-	3.1E-04
Phase delay (usec)	-1.03533658959E+04	Apriori clockrate (us/s)	1.0790741E-06	Resid phdelay (usec)	-1.62469E-06	+/-	2.7E-07
Delay rate (us/s)	1.27924472046E+00	Apriori rate (us/s)	1.27924455176E+00	Resid rate (us/s)	1.68708E-07	+/-	2.8E-09
Total phase (deg)	337.1	Apriori accel (us/s/s)	5.54585444600E-05	Resid phase (deg)	222.3	+/-	4.1

ph/seg (deg)	66.1	Theor.	9.9	Amplitude	0.795 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.2	Search (1024X32)	0.775	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	37.3	Interp.	0.844	Inc. seg. avg.	0.844	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	42.4	Inc. frq. avg.	0.924	Inc. frq. avg.	0.924	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Y: az 189.3 el 51.0 pa 7.3 u, v (fr/asec) -3642.418 -49.401 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GY..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GY.Q.93.3MPUFD

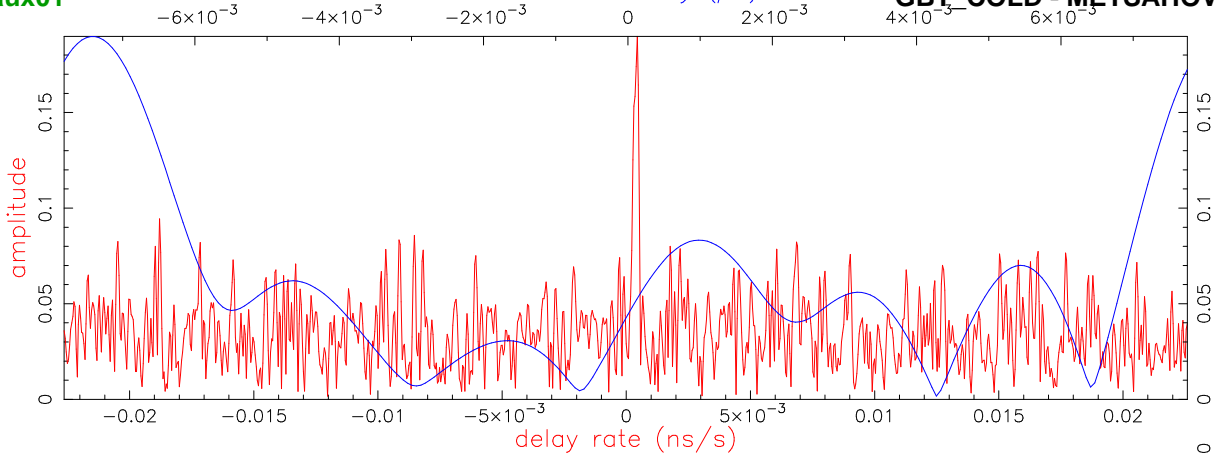
Mk4/DiFX fourfit 3.25 rev 0

aux01

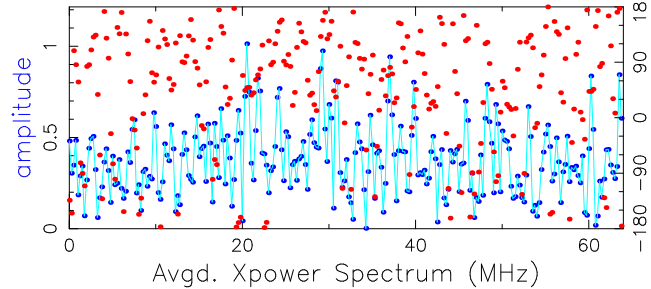
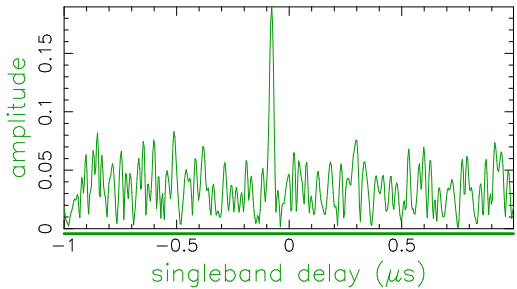
3C273.3MPUFD, No0842, GZ

GBT\_COLD - METSAHOV, fgroup Q, pol LL

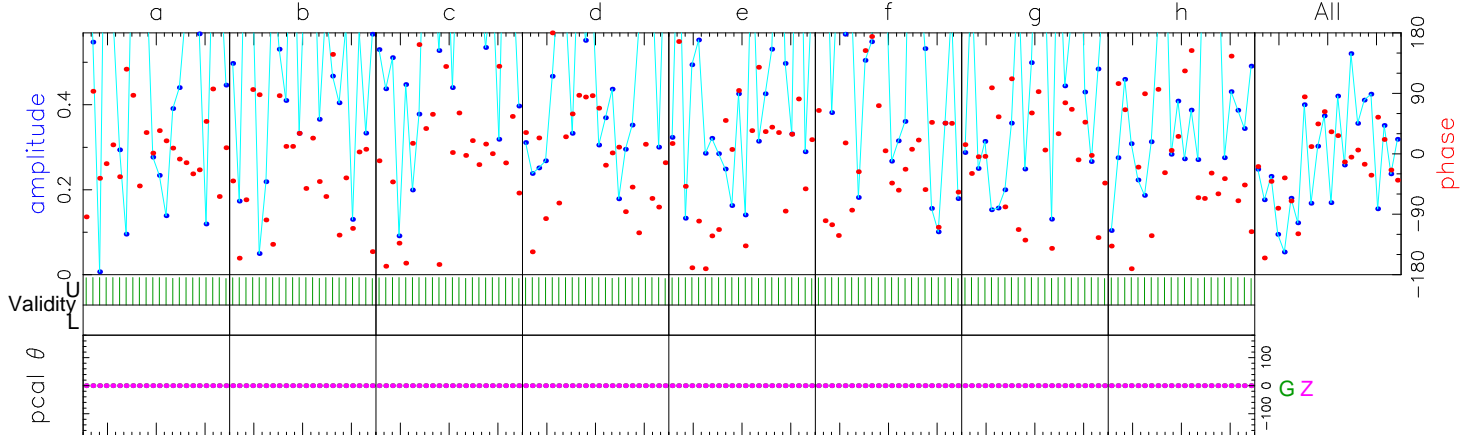
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 7.0  
 Int time 179.528  
 Amp 0.190  
 Phase -291.0  
 PFD 5.3e-04  
 Delays (us)  
 SBD -0.078063  
 MBD -0.007415  
 Fringe rate (Hz) 0.019686  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build 2024:342:191906  
 2025:042:165406  
 2024:113:095956  
 RA & Dec (J2000) 12h29m06.699742s +02°03'08.598116"



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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: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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-3.31142225896E+03	Apriori delay (usec)	-3.31133671917E+03	Resid mbdelay (usec)	-7.41479E-03	+/-	1.6E-04
Sband delay (usec)	-3.31141478217E+03	Apriori clock (usec)	-1.4749252E+01	Resid sbdelay (usec)	-7.80630E-02	+/-	1.2E-03
Phase delay (usec)	-3.31133671907E+03	Apriori clockrate (us/s)	-5.3947688E-07	Resid phdelay (usec)	9.95074E-08	+/-	1.1E-06
Delay rate (us/s)	1.57658497478E+00	Apriori rate (us/s)	1.57658451845E+00	Resid rate (us/s)	4.56335E-07	+/-	1.0E-08
Total phase (deg)	-314.4	Apriori accel (us/s/s)	1.65973788371E-05	Resid phase (deg)	-291.0	+/-	16.5

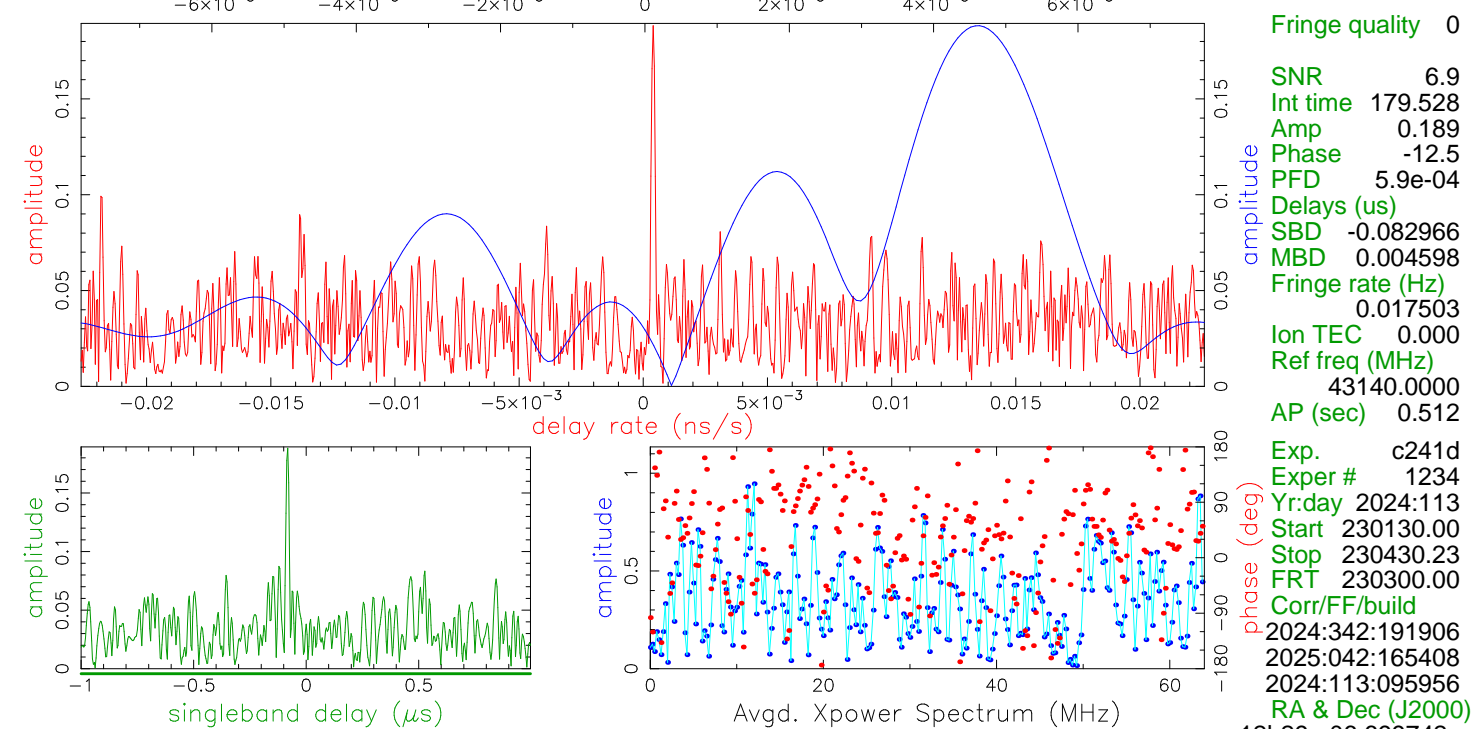
ph/seg (deg) 58.9 38.7 Amplitude 0.190 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 77.4 67.5 Search (1024X32) 0.186 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 30.8 23.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 33.2 40.7 Inc. seg. avg. 0.221 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 G: az 100.6 el 16.0 pa -50.4 Z: az 217.7 el 26.4 pa 17.8 u,v (fr/asec) -4515.938 -1068.940 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GZ..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GZ.Q.32.3MPUFD

Mk4/DiFX fourfit 3.25 rev 0

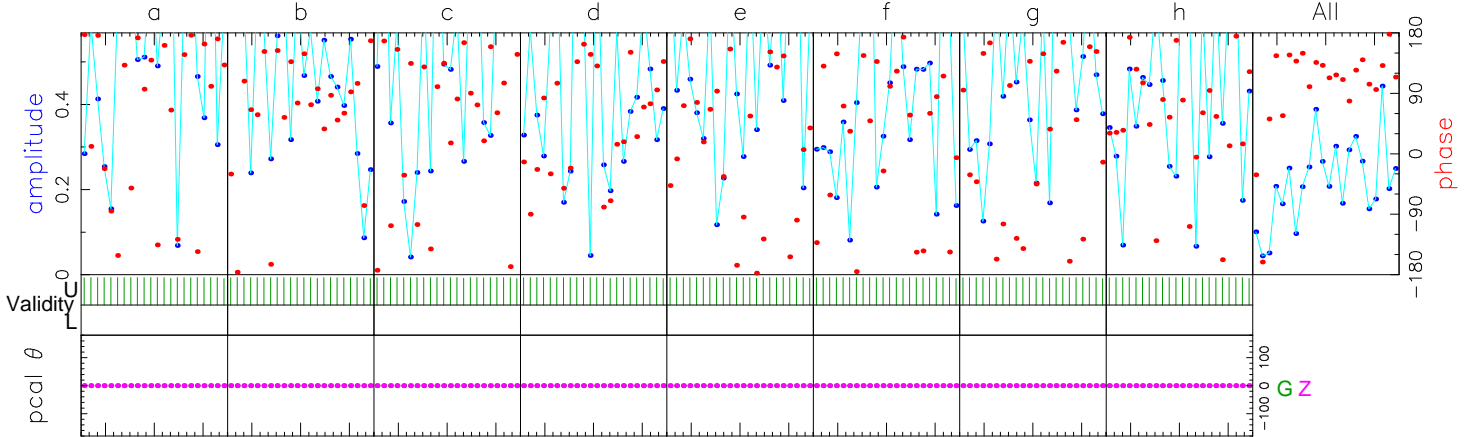
aux01

3C273.3MPUFD, No0842, GZ

GBT\_COLD - METSAHOV, fgroup Q, pol RR



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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
G	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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: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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-3.31142587165E+03	Apriori delay (usec)	-3.31133671917E+03	Resid mbdelay (usec)	4.59752E-03	+/-	1.6E-04
Sband delay (usec)	-3.31141968467E+03	Apriori clock (usec)	-1.4749252E+01	Resid sbdelay (usec)	-8.29655E-02	+/-	1.2E-03
Phase delay (usec)	-3.31133671128E+03	Apriori clockrate (us/s)	-5.3947688E-07	Resid phdelay (usec)	7.88568E-06	+/-	1.1E-06
Delay rate (us/s)	1.57658492416E+00	Apriori rate (us/s)	1.57658451845E+00	Resid rate (us/s)	4.05715E-07	+/-	1.0E-08
Total phase (deg)	-35.9	Apriori accel (us/s/s)	1.65973788371E-05	Resid phase (deg)	-12.5	+/-	16.5

ph/seg (deg)	47.0	Theor.	38.7	Amplitude	0.189 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	54.0		67.6	Search (1024X32)	0.184	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	32.2		23.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	41.0		40.8	Inc. seg. avg.	0.179	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	0.195	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4      Z: az 217.7 el 26.4 pa 17.8      u,v (fr/asec) -4515.938 -1068.940      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0842//GZ..3MPUFD      Output file: /Exps/c241d/v1/7mm/1234/No0842//GZ.Q.50.3MPUFD

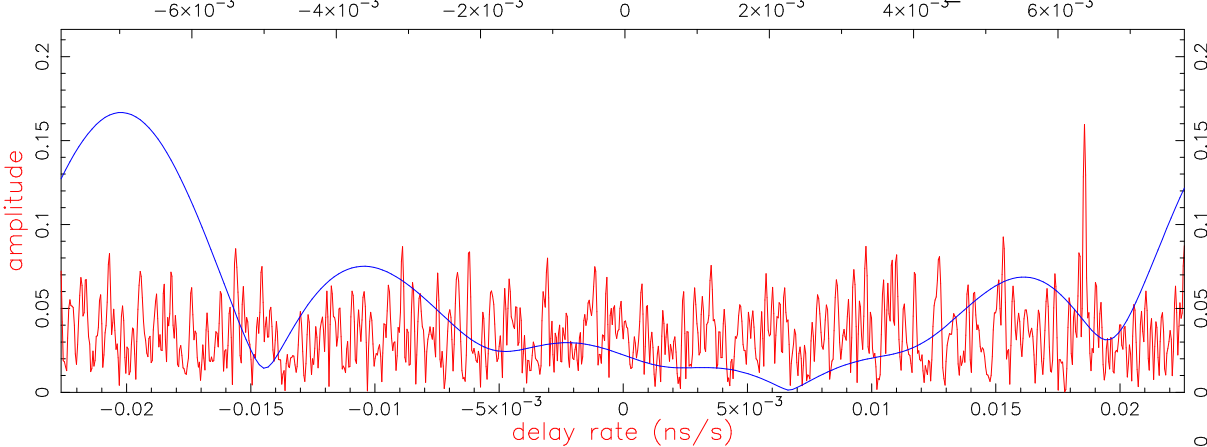
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, GZ

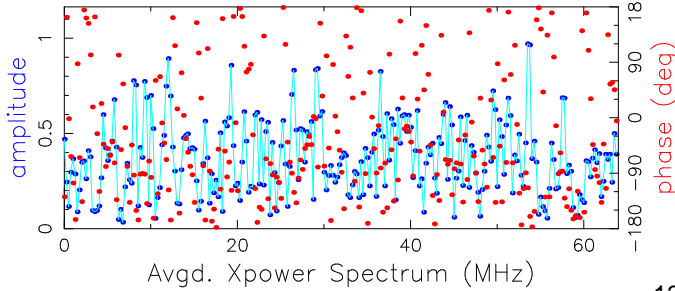
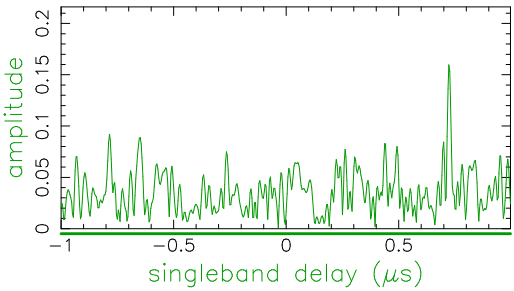
GBT\_COLD - METSAHOV, fgroup Q, pol LR

multiband delay ( $\mu$ s)



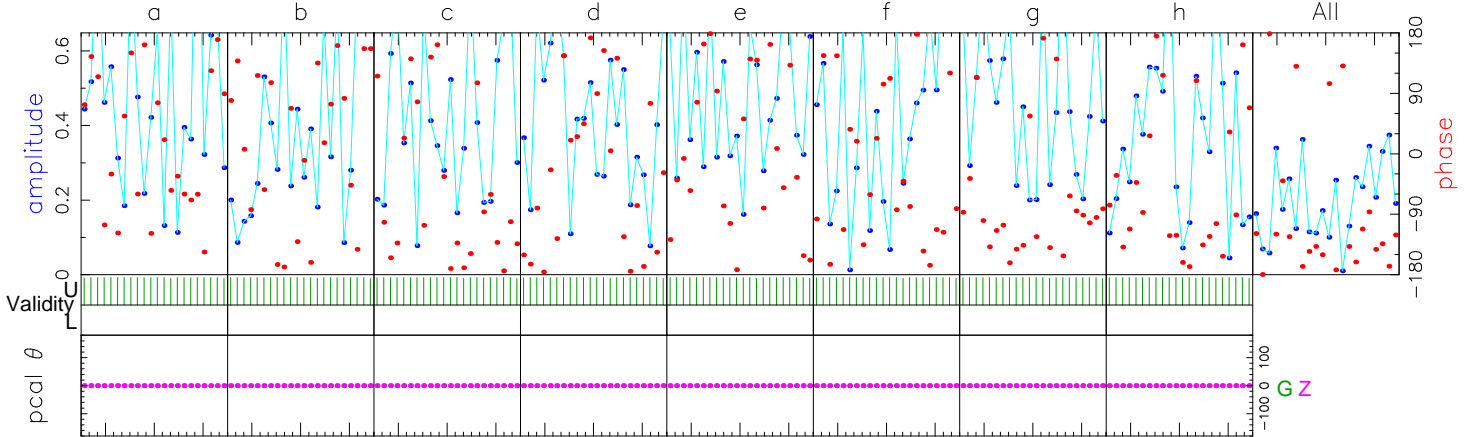
Fringe quality 0

SNR 5.9  
 Int time 179.528  
 Amp 0.216  
 Phase 174.8  
 PFD 3.9e-01  
 Delays (us)  
 SBD 0.723689  
 MBD 0.008301  
 Fringe rate (Hz)  
 0.805002  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165411  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-144.9	167.0	-149.4	-131.7	-152.8	-127.7	-125.3	-125.0	Phase	-140.2
	0.1	0.2	0.4	0.1	0.1	0.3	0.4	0.2	Ampl.	0.2
	320.0	269.3	437.0	329.9	335.0	189.9	442.4	55.5	Sbd box	442.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Chan ids	
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-3.31060966839E+03	Apriori delay (usec)	-3.31133671917E+03	Resid mbdelay (usec)	8.30078E-03	+/-	1.8E-04
Sband delay (usec)	-3.31061302967E+03	Apriori clock (usec)	-1.4749252E+01	Resid sbdelay (usec)	7.23689E-01	+/-	1.5E-03
Phase delay (usec)	-3.31133672819E+03	Apriori clockrate (us/s)	-5.3947688E-07	Resid phdelay (usec)	-9.02478E-06	+/-	1.3E-06
Delay rate (us/s)	1.57660317867E+00	Apriori rate (us/s)	1.57658451845E+00	Resid rate (us/s)	1.86602E-05	+/-	1.2E-08
Total phase (deg)	151.4	Apriori accel (us/s/s)	1.65973788371E-05	Resid phase (deg)	174.8	+/-	19.5

ph/seg (deg)	48.1	Theor.	45.7	Amplitude	0.216 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	69.0	Search (1024X32)	0.164	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.9	Inc. seg. avg.	0.204	Inc. frq. avg.	0.206	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	55.3	Inc. frq. avg.	0.206	u,v (fr/asec)	-4515.938 -1068.940	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Z: az 217.7 el 26.4 pa 17.8 u,v (fr/asec) -4515.938 -1068.940 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GZ..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GZ.Q.75.3MPUFD

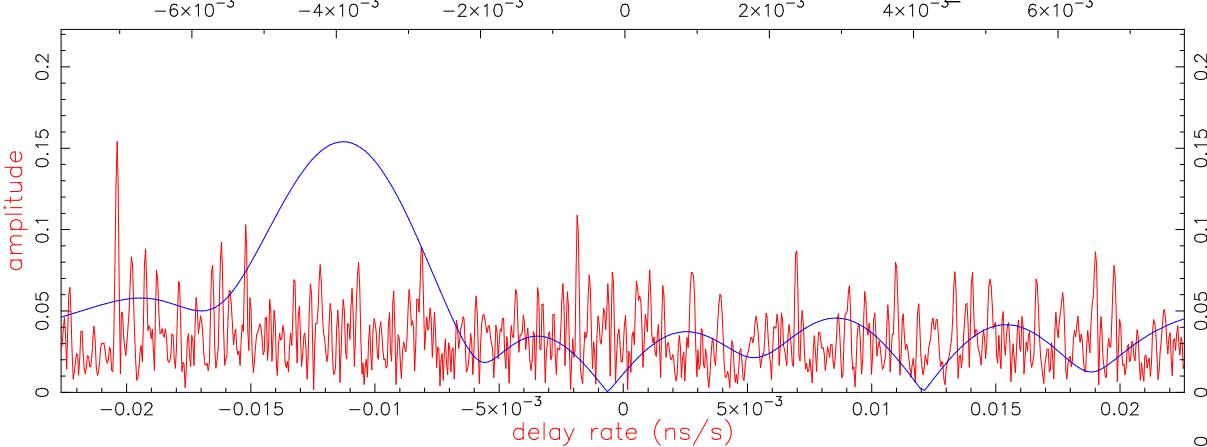
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C273.3MPUFD, No0842, GZ

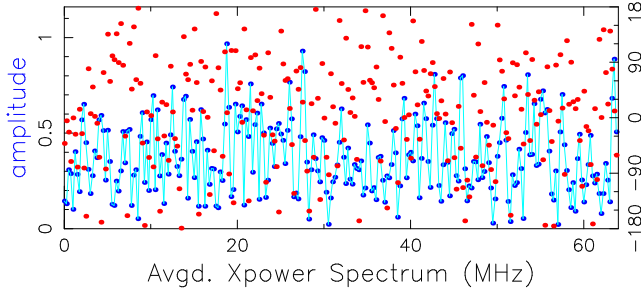
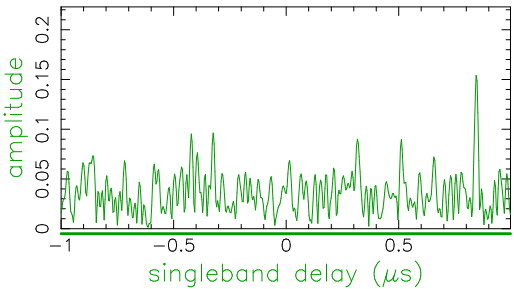
GBT\_COLD - METSAHOV, fgroup Q, pol RL

multiband delay ( $\mu$ s)



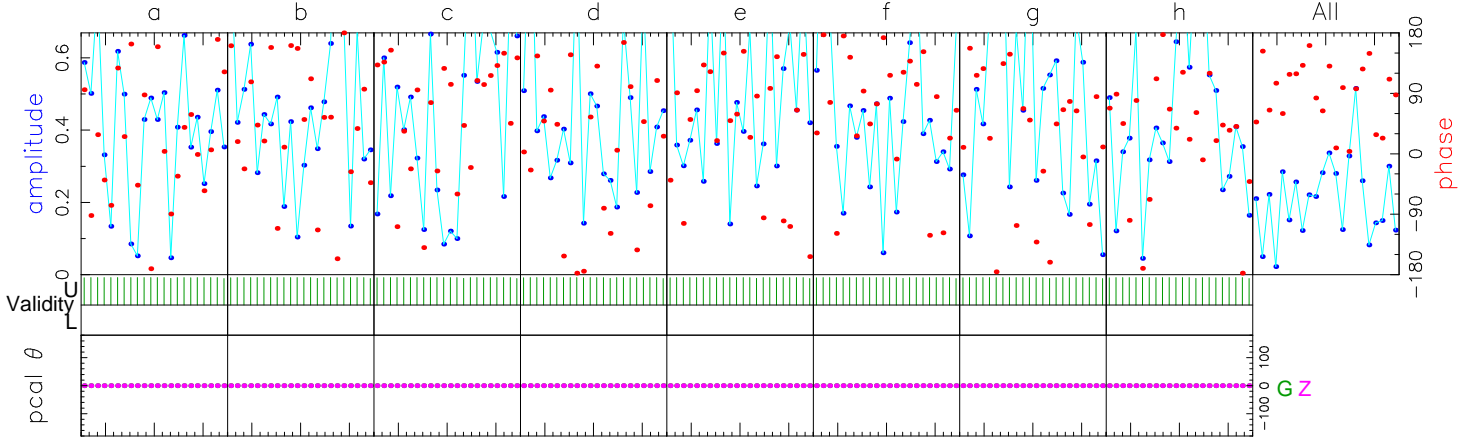
Fringe quality 0

SNR 5.7  
 Int time 179.528  
 Amp 0.223  
 Phase 221.0  
 PFD 8.0e-01  
 Delays (us)  
 SBD 0.844948  
 MBD -0.003869  
 Fringe rate (Hz)  
 -0.883181  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 230130.00  
 Stop 230430.23  
 FRT 230300.00  
 Corr/FF/build  
 2024:342:191906  
 2025:042:165413  
 2024:113:095956  
 RA & Dec (J2000)  
 12h29m06.699742s  
 +02°03'08.598116"

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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	46.3	108.3	86.1	90.4	110.8	110.0	79.6	58.7	Phase	86.0
	0.2	0.2	0.3	0.1	0.2	0.3	0.2	0.4	Ampl.	0.2
	424.8	196.2	173.2	11.9	65.1	471.2	386.5	69.9	Sbd box	473.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
G	1000	1000	1000	1000	1000	1000	1000	1000	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	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-3.31049683778E+03	Apriori delay (usec)	-3.31133671917E+03	Resid mbdelay (usec)	-3.86862E-03	+/-	1.9E-04
Sband delay (usec)	-3.31049177142E+03	Apriori clock (usec)	-1.4749252E+01	Resid sbdelay (usec)	8.44948E-01	+/-	1.5E-03
Phase delay (usec)	-3.31133671364E+03	Apriori clockrate (us/s)	-5.3947688E-07	Resid phdelay (usec)	5.53455E-06	+/-	1.3E-06
Delay rate (us/s)	1.57656404601E+00	Apriori rate (us/s)	1.57658451845E+00	Resid rate (us/s)	-2.04724E-05	+/-	1.2E-08
Total phase (deg)	197.6	Apriori accel (us/s/s)	1.65973788371E-05	Resid phase (deg)	221.0	+/-	20.1

ph/seg (deg)	45.9	Theor.	47.2	Amplitude	0.223 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	79.8	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	26.1	Inc. seg. avg.	0.229	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.7	Inc. frq. avg.	0.213	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.023 0.023	
				Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

G: az 100.6 el 16.0 pa -50.4 Z: az 217.7 el 26.4 pa 17.8 u,v (fr/asec) -4515.938 -1068.940 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0842//GZ..3MPUFD Output file: /Exps/c241d/v1/7mm/1234/No0842//GZ.Q.89.3MPUFD