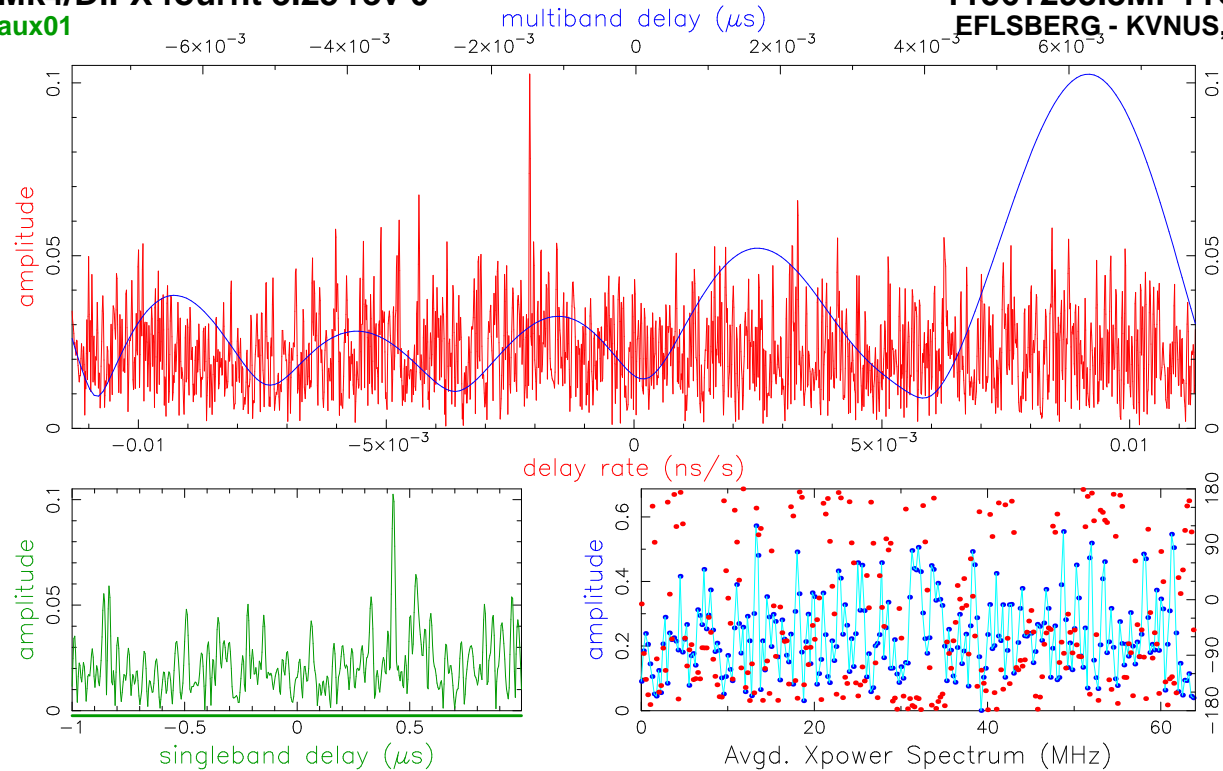


Mk4/DiFX fourfit 3.25 rev 0

aux01

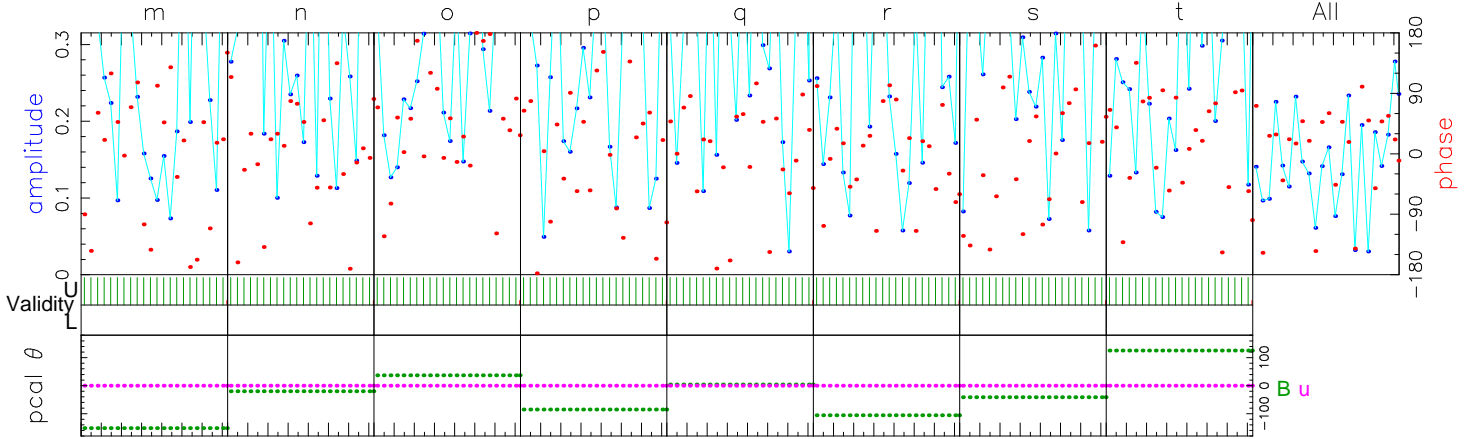
1156+295.3MP11G, No0446, Bu

EFLSBERG - KVNUS, fgroup W, pol LR



Fringe quality 0  
 SNR 5.8  
 Int time 419.803  
 Amp 0.105  
 Phase 29.7  
 PFD 8.0e-01  
 Delays (us)  
 SBD 0.427030  
 MBD 0.006256  
 Fringe rate (Hz)  
 -0.181198  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163040  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



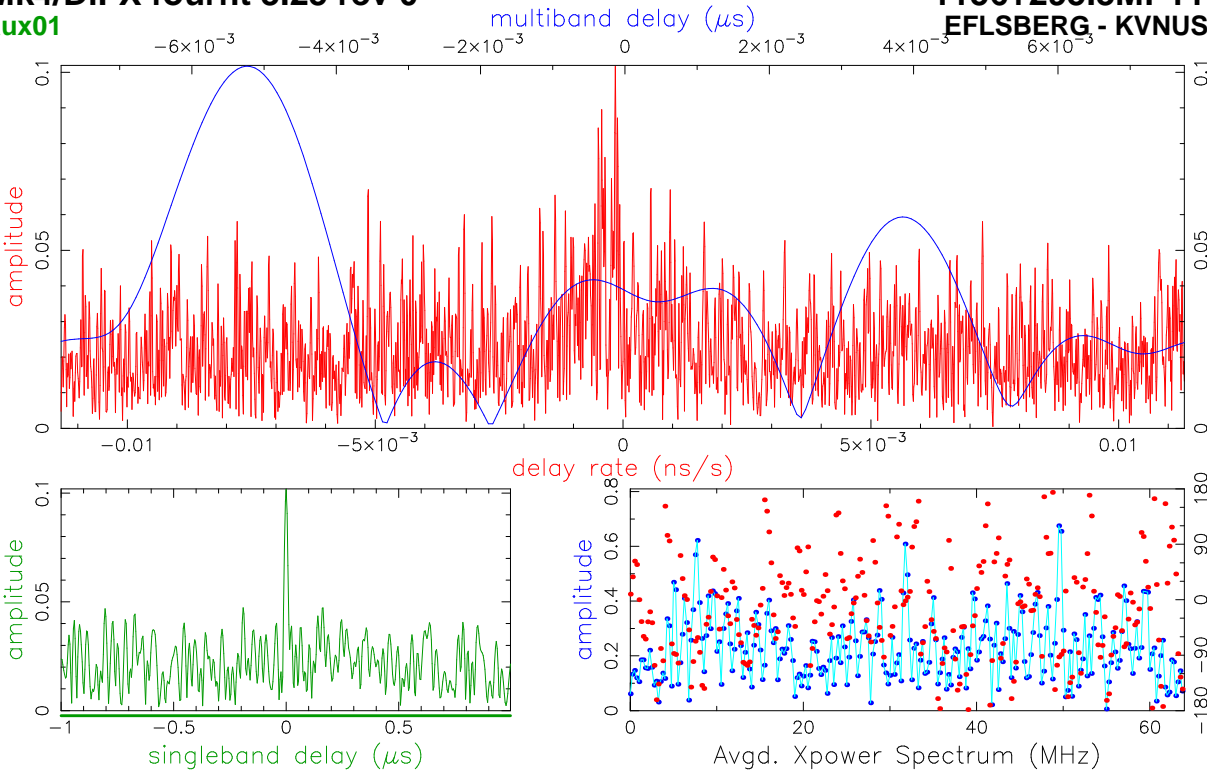
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	32.5	7.0	68.2	59.9	39.5	-7.2	32.4	39.8	Phase	29.7	
	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1	
	478.3	366.1	130.6	99.3	85.0	368.2	289.8	258.3	Sbd box	366.3	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
u	0	0	60000	0	0	0	4000	0	PC freqs		
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:u	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
u	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-2.92119592643E+03		Apriori delay (usec)		-2.92162405723E+03		Resid mbdelay (usec)		6.25580E-03	+/- 1.9E-04	
Sband delay (usec)	-2.92119702748E+03		Apriori clock (usec)		-3.6734467E+01		Resid sbdelay (usec)		4.27030E-01	+/- 1.5E-03	
Phase delay (usec)	-2.92162405627E+03		Apriori clockrate (us/s)		-2.6931994E-07		Resid phdelay (usec)		9.58665E-07	+/- 6.4E-07	
Delay rate (us/s)	1.69123052029E+00		Apriori rate (us/s)		1.69123262382E+00		Resid rate (us/s)		-2.10353E-06	+/- 2.6E-09	
Total phase (deg)			Apriori accel (us/s/s)		2.58080753526E-05		Resid phase (deg)		29.7	+/- 19.7	
	RMS	Theor.	Amplitude	0.105 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	73.2	47.3	Search (2048X32)	0.101		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	73.6	82.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	27.3	27.9	Inc. seg. avg.	0.110		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	46.5	48.7	Inc. frq. avg.	0.102		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 84.5 el 34.4 pa -46.5	u: az 277.0 el 45.8 pa 67.7		u, v (fr/asec) -11050.218 2686.635						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/Bu..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/Bu.W.17.3MP11G								

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, Bu

EFLSBERG - KVNUS, fgroup W, pol RL

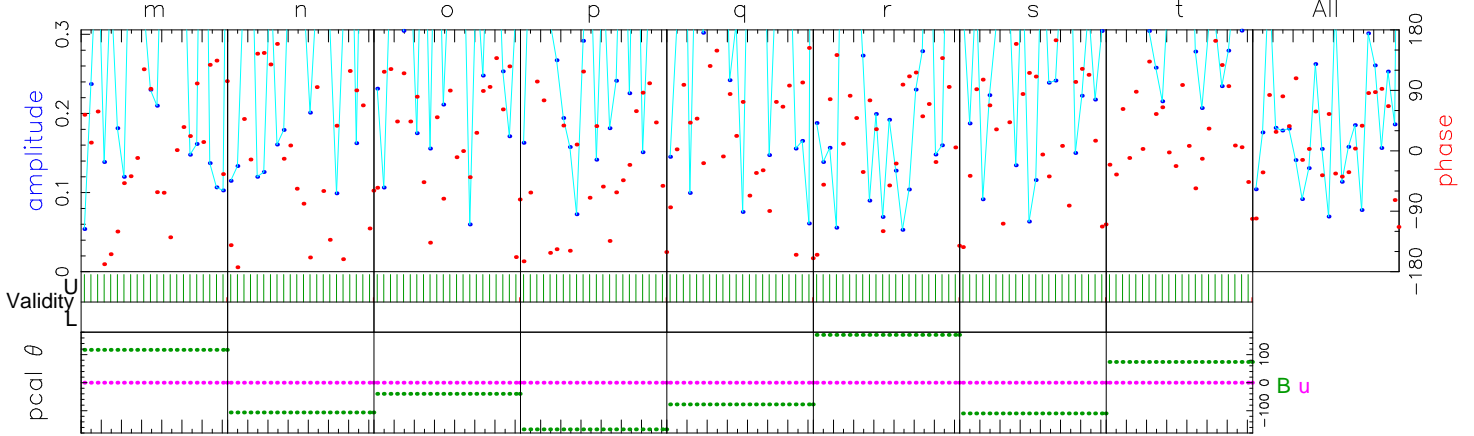


Fringe quality 0

SNR 5.7  
 Int time 419.803  
 Amp 0.102  
 Phase 33.4  
 PFD 9.4e-01  
 Delays (us)  
 SBD -0.000662  
 MBD -0.005256  
 Fringe rate (Hz)  
 -0.013493  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

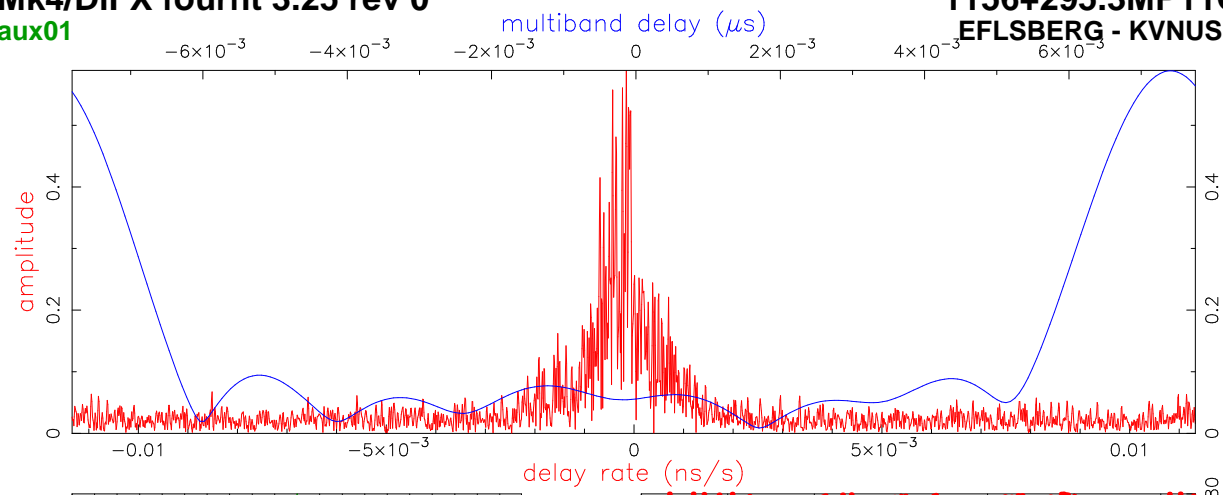
Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163044  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	3.1	59.2	53.7	-13.6	45.8	52.2	36.2	22.1	Phase	33.4
	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.2	Ampl.	0.1
	325.7	396.3	256.4	413.9	117.6	297.4	168.1	255.8	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-2.92162931362E+03					-2.92162405723E+03			Resid mbdelay (usec)	-5.25638E-03 +/- 1.9E-04
Sband delay (usec)	-2.92162471973E+03					-3.6734467E+01			Resid sbdelay (usec)	-6.62500E-04 +/- 1.5E-03
Phase delay (usec)	-2.92162405615E+03					-2.6931994E-07			Resid phdelay (usec)	1.07811E-04 +/- 6.5E-07
Delay rate (us/s)	1.69123246717E+00					1.69123262382E+00			Resid rate (us/s)	-1.56645E-07 +/- 2.7E-09
Total phase (deg)			-70.9			2.58080753526E-05			Resid phase (deg)	33.4 +/- 20.1

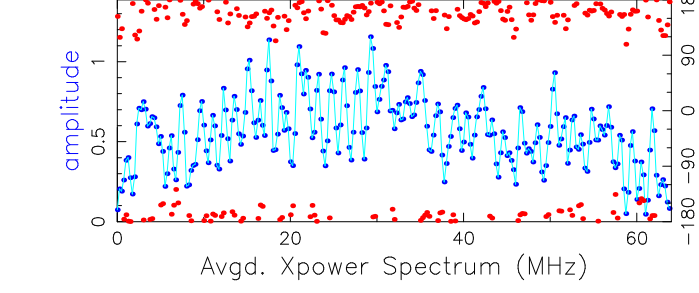
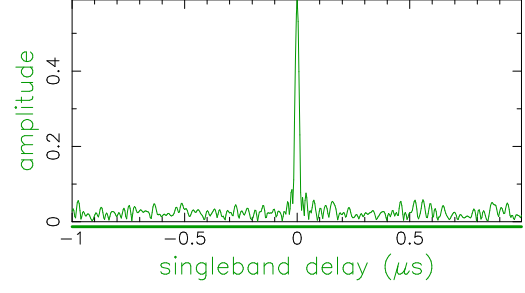
ph/seg (deg) 60.7 48.1 Search (2048X32) 0.099 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 122.9 84.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 28.4 28.4 Inc. seg. avg. 0.140 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 58.7 49.5 Inc. frq. avg. 0.097 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 B: az 84.5 el 34.4 pa -46.5 u: az 277.0 el 45.8 pa 67.7 u,v (fr/asec) -11050.218 2686.635 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/Bu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/Bu.W.25.3MP11G simultaneous interpolator



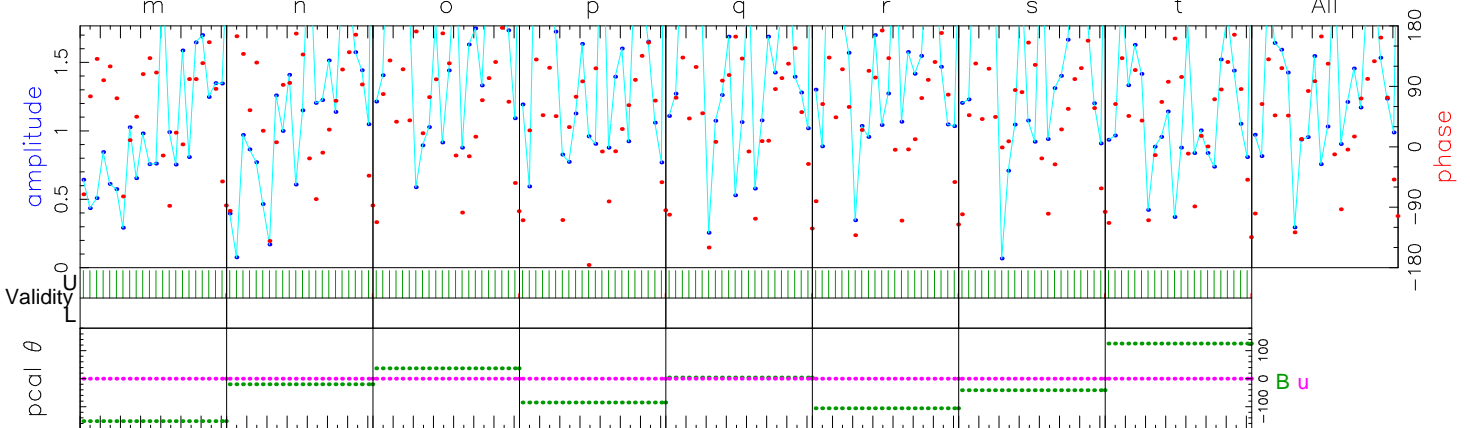
Fringe quality 6

SNR 33.0  
Int time 419.803  
Amp 0.589  
Phase 78.6  
PFD 0.0e+00  
Delays (us)  
SBD -0.000437  
MBD 0.007395  
Fringe rate (Hz)  
-0.013341  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c241b  
Exper # 1234  
Yr:day 2024:110  
Start 170000.00  
Stop 170659.84  
FRT 170330.00  
Corr/FF/build  
2024:358:161459  
2025:041:163031  
2024:113:095956  
RA & Dec (J2000)  
11h59m31.833914s  
+29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
B	0	0	0	0	0	0	0	0		
u	0	0	60000	0	0	0	4000	0		
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:u	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-2.92163228749E+03									
Sband delay (usec)	-2.92162449423E+03									
Phase delay (usec)	-2.92162405470E+03									
Delay rate (us/s)	1.69123246894E+00									
Total phase (deg)			-25.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 83.8 8.3  
amp/seg (%) 154.0 14.5  
ph/frq (deg) 5.2 4.9  
amp/frq (%) 24.2 8.6

RMS Theor. Amplitude 0.589 +/- 0.018  
Search (2048X32) 0.583  
Interp. 0.000  
Inc. seg. avg. 1.320  
Inc. frq. avg. 0.588

B: az 84.5 el 34.4 pa -46.5  
u: az 277.0 el 45.8 pa 67.7  
u,v (fr/asec) -11050.218 2686.635

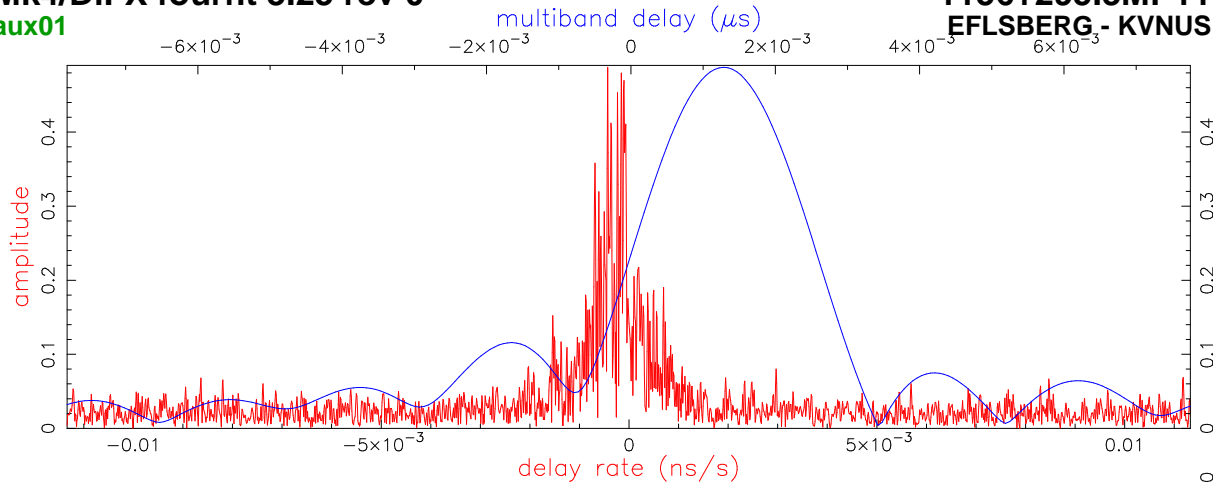
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/Bu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/Bu.W.3.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

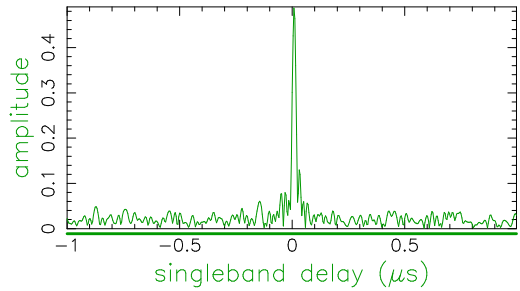
1156+295.3MP11G, No0446, Bu

EFLSBERG<sub>3</sub>-KVNU, fgroup W, pol RR

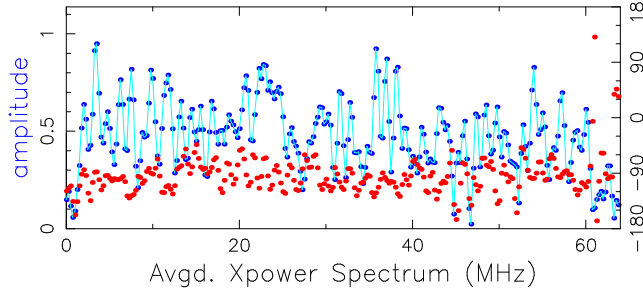


Fringe quality 7

SNR 27.4  
 Int time 419.803  
 Amp 0.490  
 Phase -11.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.008714  
 MBD 0.001305  
 Fringe rate (Hz)  
 -0.037252  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

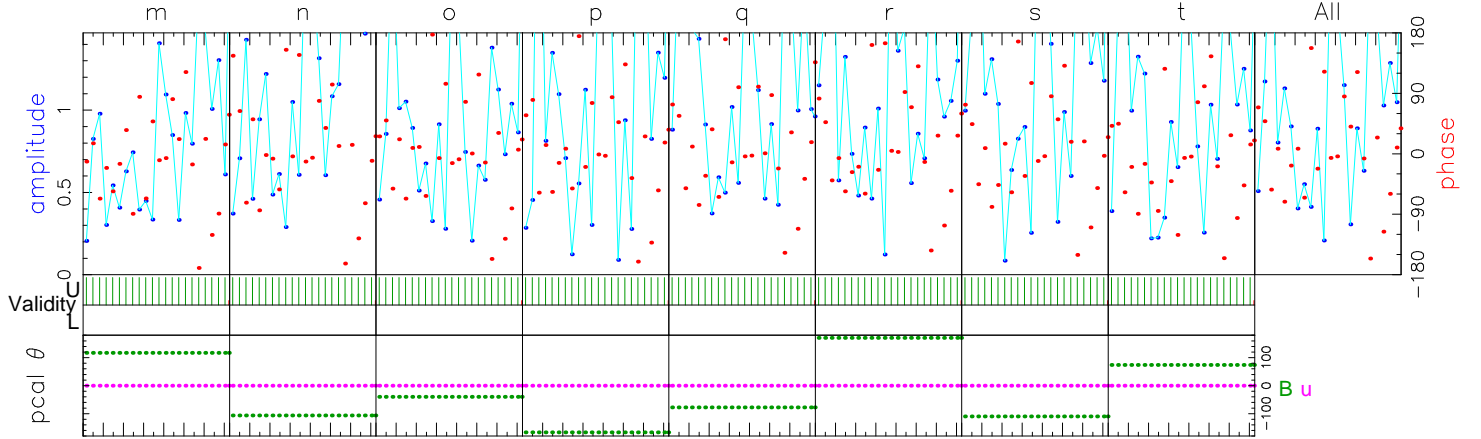


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163036  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.9	-10.7	-13.1	-11.9	-6.7	-4.0	-12.4	-23.4	Phase	-11.9
	0.3	0.5	0.5	0.5	0.6	0.5	0.6	0.5	Ampl.	0.5
	257.2	259.2	259.7	259.8	259.8	259.5	259.4	257.7	Sbd box	259.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-2.92162275179E+03		Apriori delay (usec)		-2.92162405723E+03		Resid mbdelay (usec)		1.30544E-03	+/- 4.0E-05
Sband delay (usec)	-2.92161534273E+03		Apriori clock (usec)		-3.6734467E+01		Resid sbdelay (usec)		8.71450E-03	+/- 3.1E-04
Phase delay (usec)	-2.92162405761E+03		Apriori clockrate (us/s)		-2.6931994E-07		Resid phdelay (usec)		-3.84323E-07	+/- 1.3E-07
Delay rate (us/s)	1.69123219136E+00		Apriori rate (us/s)		1.69123262382E+00		Resid rate (us/s)		-4.32461E-07	+/- 5.6E-10
Total phase (deg)			Apriori accel (us/s/s)		2.58080753526E-05		Resid phase (deg)		-11.9	+/- 4.2

ph/seg (deg) 77.1 10.0 Search (2048X32) 0.481 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 159.2 17.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 6.3 5.9 Inc. seg. avg. 1.024 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 16.3 10.3 Inc. frq. avg. 0.487 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 B: az 84.5 el 34.4 pa -46.5 u: az 277.0 el 45.8 pa 67.7 u,v (fr/asec) -11050.218 2686.635 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/Bu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/Bu.W.7.3MP11G

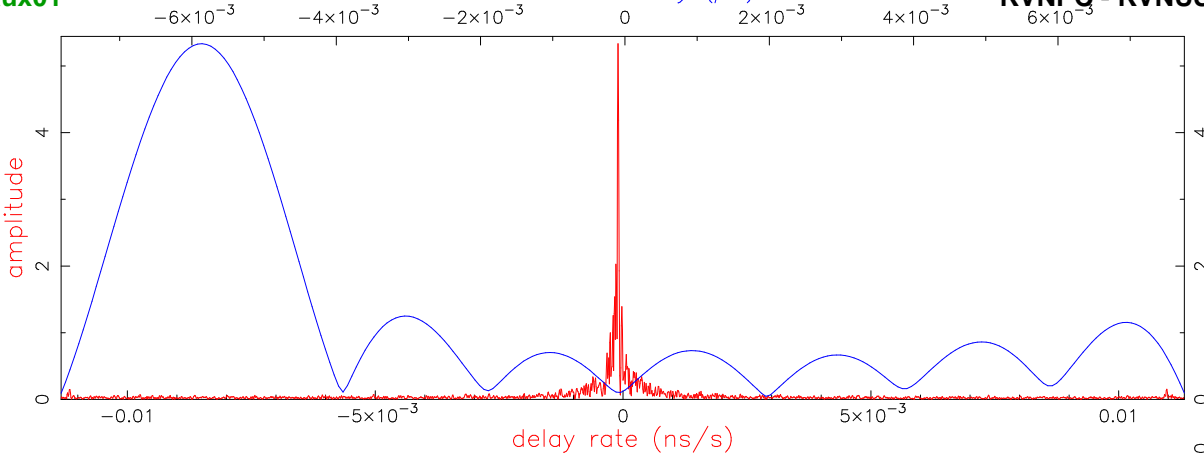
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, Cu

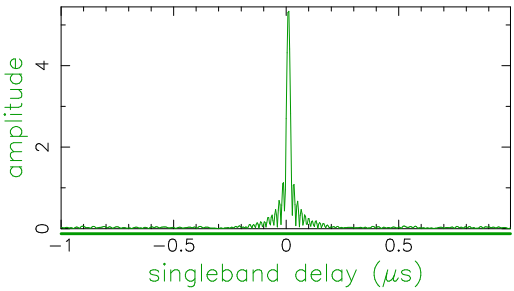
KVNPC - KVNUS, fgroup W, pol LL

multiband delay ( $\mu$ s)

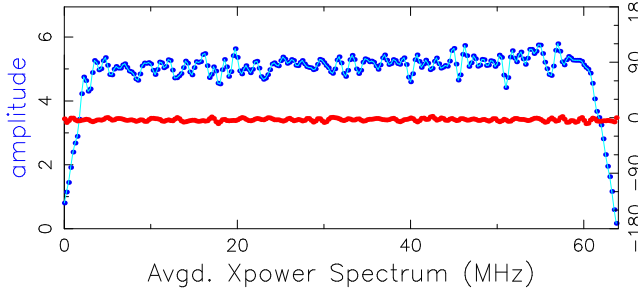


Fringe quality 7

SNR 305.0  
 Int time 419.816  
 Amp 5.444  
 Phase 178.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009895  
 MBD -0.005872  
 Fringe rate (Hz)  
 -0.008787  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

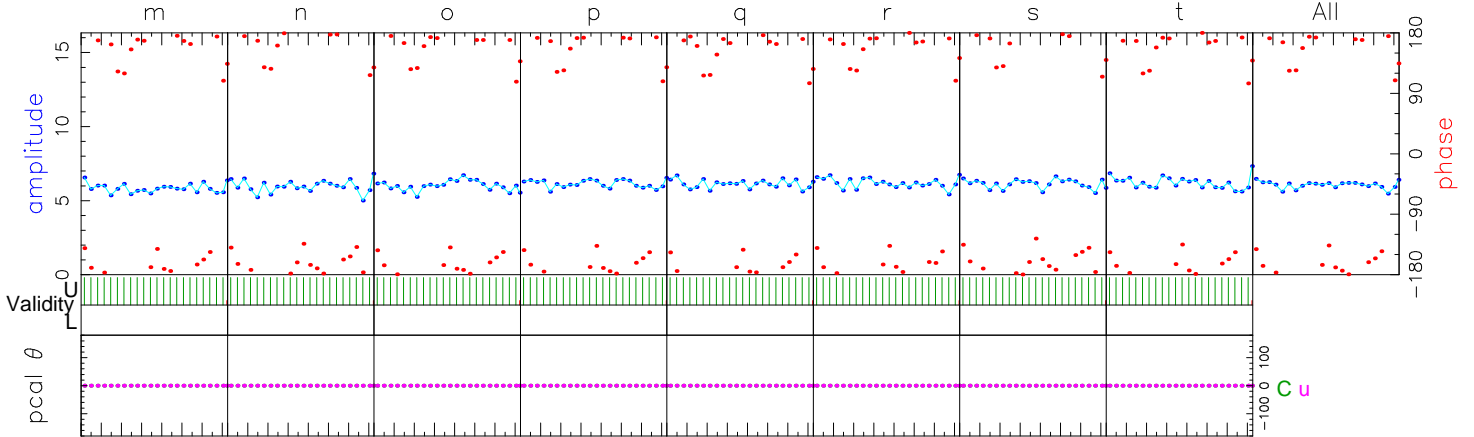


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163039  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	175.7	-177.2	178.4	178.1	172.8	176.8	-174.7	176.6	Phase	178.3
	5.1	5.3	5.4	5.4	5.4	5.4	5.4	5.4	Ampl.	5.3
	259.6	259.5	259.5	259.5	259.4	259.8	259.4	259.5	Sbd box	259.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
C	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.96309917481E+02	Apriori delay (usec)	1.96300164849E+02	Resid mbdelay (usec)	-5.87237E-03	+/-	3.6E-06
Sband delay (usec)	1.96310060349E+02	Apriori clock (usec)	-2.7442989E+01	Resid sbdelay (usec)	9.89550E-03	+/-	2.8E-05
Phase delay (usec)	1.96300170598E+02	Apriori clockrate (us/s)	-7.3949380E-06	Resid phdelay (usec)	5.74942E-06	+/-	1.2E-08
Delay rate (us/s)	3.13859044561E-02	Apriori rate (us/s)	3.13860064629E-02	Resid rate (us/s)	-1.02007E-07	+/-	5.0E-11
Total phase (deg)	250.3	Apriori accel (us/s/s)	3.41589044885E-07	Resid phase (deg)	178.3	+/-	0.4

ph/seg (deg)	RMS 29.0	Theor. 0.9	Amplitude 5.444 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	12.0	1.6	Search (2048X32) 5.256	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	4.3	0.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	2.6	0.9	Inc. seg. avg. 6.056	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 5.345	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

C: az 274.6 el 46.7 pa 64.9      u: az 277.0 el 45.8 pa 67.7      u,v (fr/asec) -205.324 232.439      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/Cu..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/Cu.W.13.3MP11G

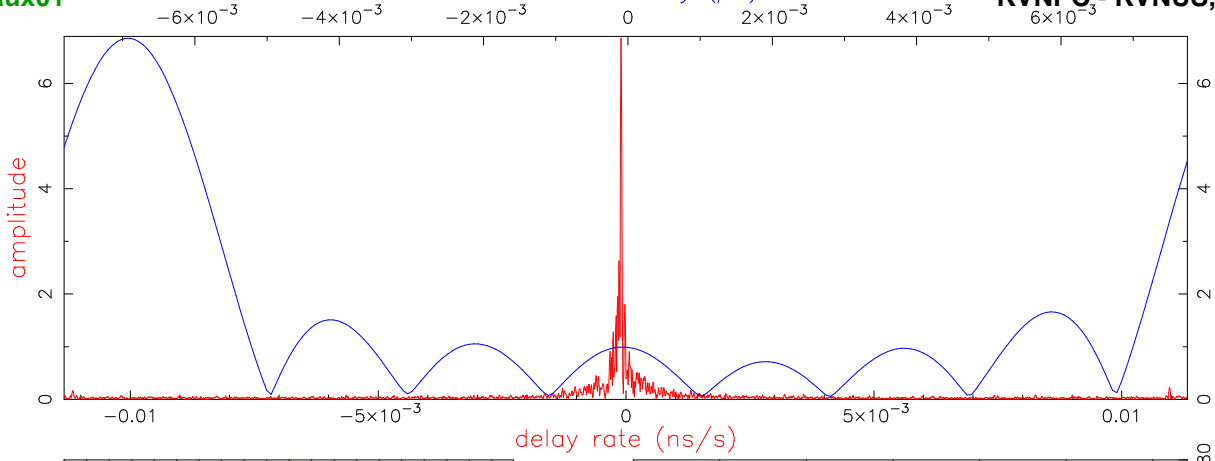
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, Cu

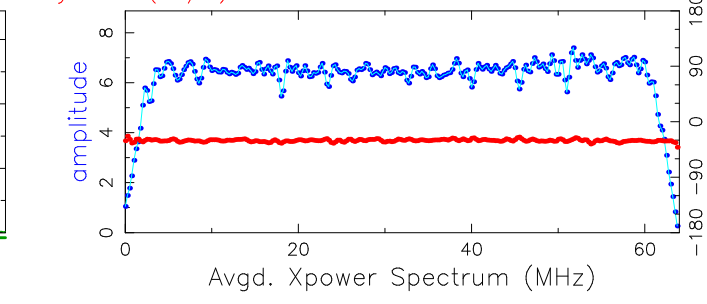
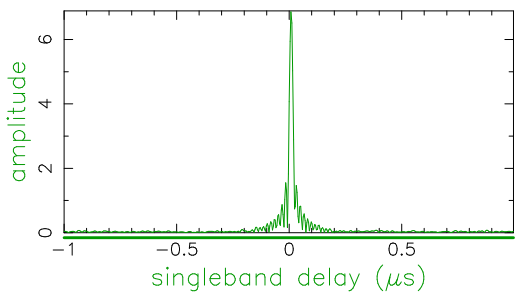
KVNPC- KVNUS, fgroup W, pol RR

multiband delay ( $\mu$ s)



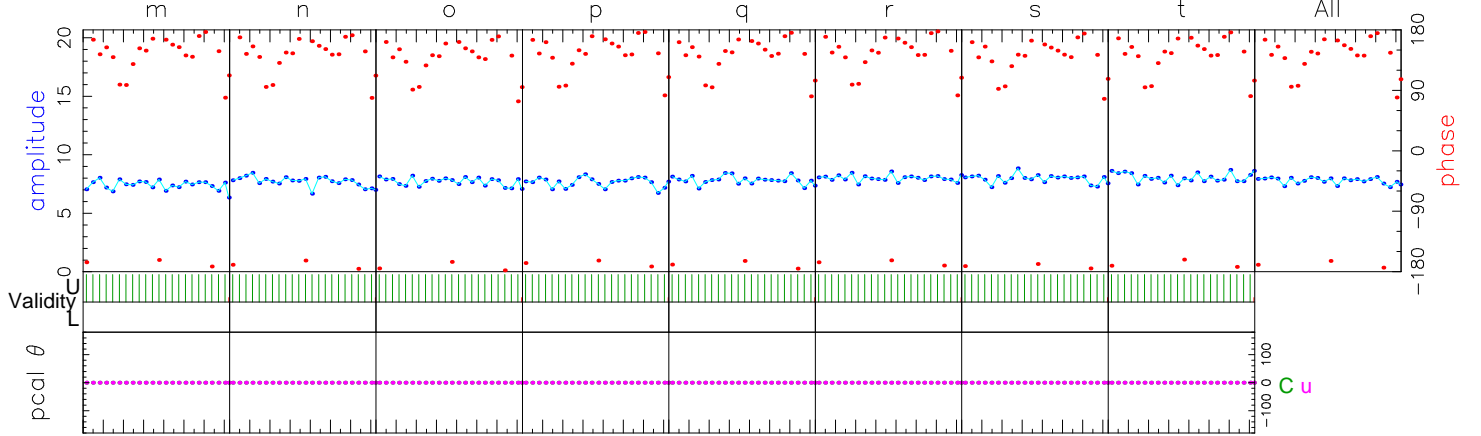
Fringe quality 7

SNR 386.2  
 Int time 419.816  
 Amp 6.893  
 Phase 149.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.008714  
 MBD -0.006927  
 Fringe rate (Hz)  
 -0.008783  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163046  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	150.9	150.3	145.6	151.9	150.0	152.4	147.1	150.4	Phase	149.8
C	6.5	6.8	6.8	6.7	6.9	7.0	7.0	7.1	Ampl.	6.9
u	259.2	259.2	259.3	259.3	259.3	259.1	259.3	259.2	Sbd box	259.2
C	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
C:u	0:0	0:0	60000	0:0	0:0	0:0	4000	0	PC freqs	
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
C	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.96308863169E+02	Apriori delay (usec)	1.96300164849E+02	Resid mbdelay (usec)	-6.92668E-03	+/-	2.8E-06
Sband delay (usec)	1.96308879349E+02	Apriori clock (usec)	-2.7442989E+01	Resid sbdelay (usec)	8.71450E-03	+/-	2.2E-05
Phase delay (usec)	1.96300169680E+02	Apriori clockrate (us/s)	-7.3949380E-06	Resid phdelay (usec)	4.83138E-06	+/-	9.6E-09
Delay rate (us/s)	3.13859045043E-02	Apriori rate (us/s)	3.13860064629E-02	Resid rate (us/s)	-1.01959E-07	+/-	3.9E-11
Total phase (deg)	221.9	Apriori accel (us/s/s)	3.41589044885E-07	Resid phase (deg)	149.8	+/-	0.3

ph/seg (deg)	29.1	RMS	29.1	Theor.	0.7	Amplitude	6.893 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	13.6	Search (2048X32)	6.748	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm:	enabled	mb window (us)	-0.008 0.008		
ph/frq (deg)	2.5	Inc. seg. avg.	7.797	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	Data rate(Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	2.5	Inc. frq. avg.	6.864	u,v (fr/asec)	-205.324 232.439	simultaneous interpolator									

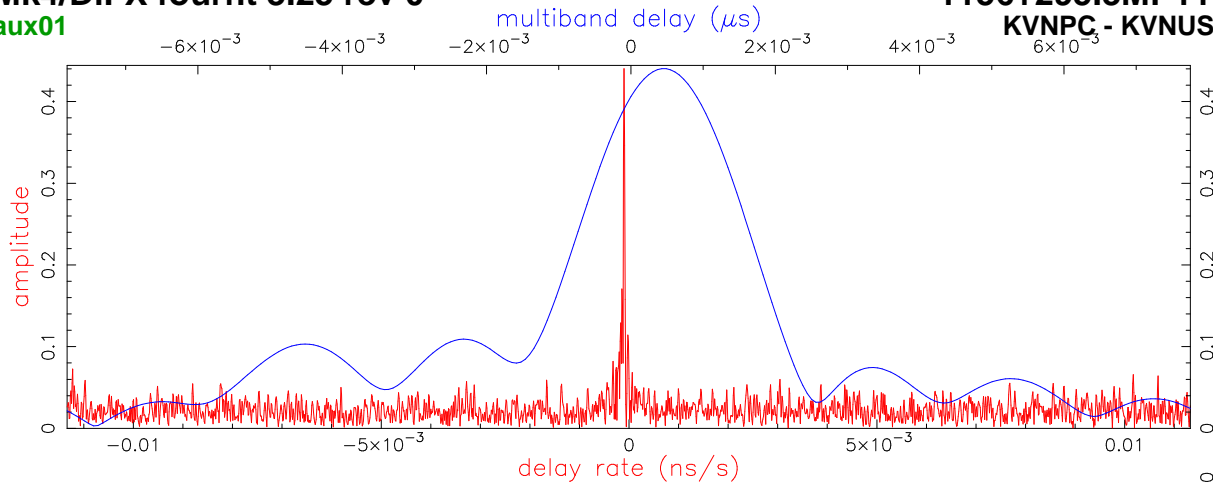
C: az 274.6 el 46.7 pa 64.9      u: az 277.0 el 45.8 pa 67.7      u,v (fr/asec) -205.324 232.439      simultaneous interpolator  
 Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/Cu..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/Cu.W.32.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

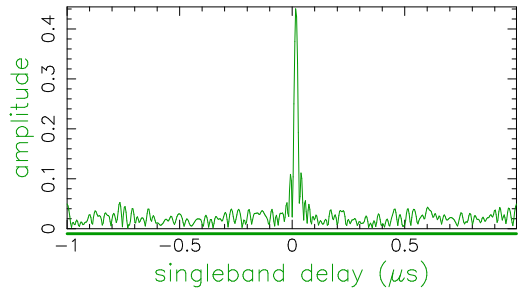
1156+295.3MP11G, No0446, Cu

KVNPC - KVNUS, fgroup W, pol LR

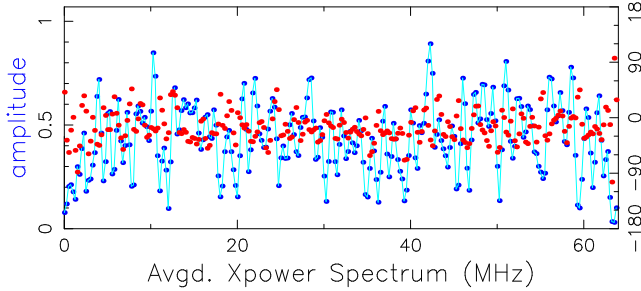


Fringe quality 8

SNR 24.9  
 Int time 419.816  
 Amp 0.444  
 Phase 172.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.016825  
 MBD 0.000470  
 Fringe rate (Hz)  
 -0.008762  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

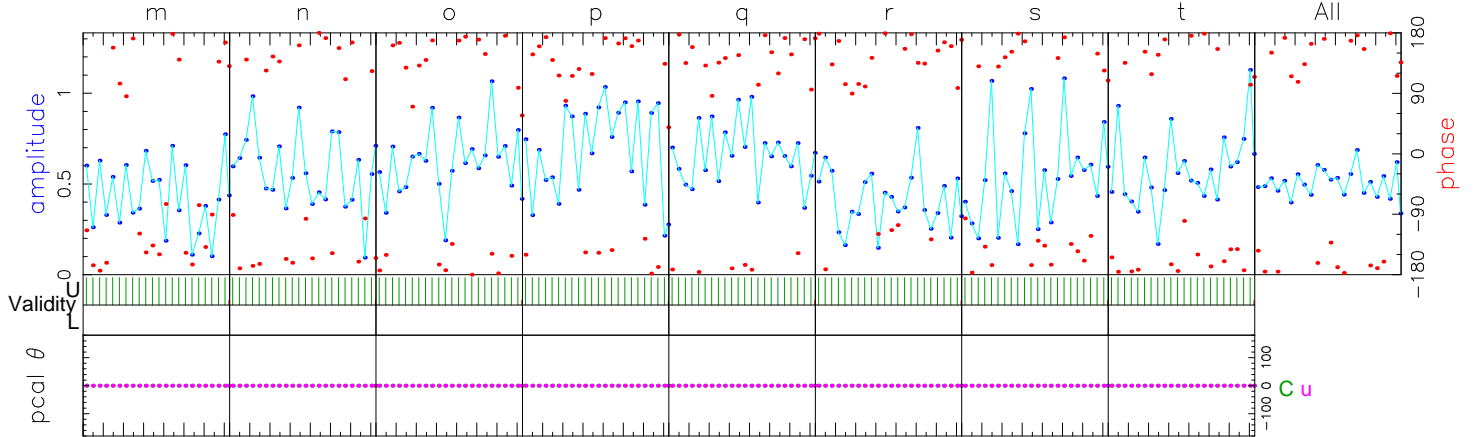


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163050  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-169.1	178.3	167.7	167.9	157.7	155.0	-174.5	-179.4	Phase	172.3
	0.3	0.4	0.5	0.6	0.6	0.3	0.4	0.5	Ampl.	0.4
	261.6	261.0	261.3	261.1	260.9	261.8	261.4	261.4	Sbd box	261.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
C	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
C	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.96316259700E+02	Apriori delay (usec)	1.96300164849E+02	Resid mbdelay (usec)	4.69851E-04	+/-	4.4E-05
Sband delay (usec)	1.96316989599E+02	Apriori clock (usec)	-2.7442989E+01	Resid sbdelay (usec)	1.68248E-02	+/-	3.5E-04
Phase delay (usec)	1.96300170405E+02	Apriori clockrate (us/s)	-7.3949380E-06	Resid phdelay (usec)	5.55583E-06	+/-	1.5E-07
Delay rate (us/s)	3.13859047403E-02	Apriori rate (us/s)	3.13860064629E-02	Resid rate (us/s)	-1.01723E-07	+/-	6.1E-10
Total phase (deg)	244.3	Apriori accel (us/s/s)	3.41589044885E-07	Resid phase (deg)	172.3	+/-	4.6

ph/seg (deg)	RMS 31.0	Theor. 11.0	Amplitude 0.444 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	21.9	19.3	Search (2048X32) 0.435	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	14.0	6.5	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	20.5	11.4	Inc. seg. avg. 0.502	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.446	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
C: az 274.6 el 46.7 pa 64.9	u: az 277.0 el 45.8 pa 67.7	u, v (fr/asec) -205.324 232.439			ion window (TEC) 0.00 0.00

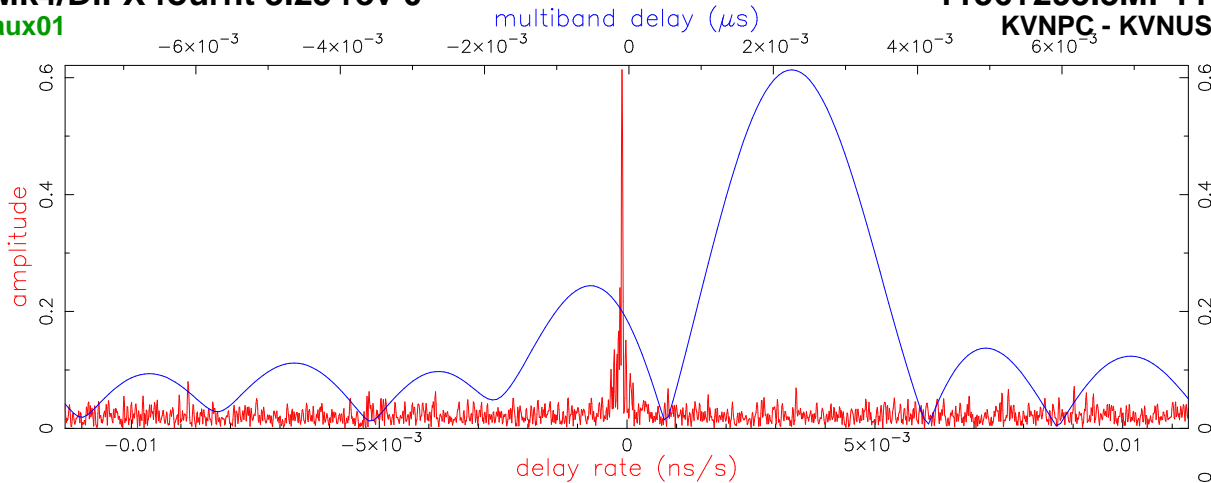
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/Cu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/Cu.W.44.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

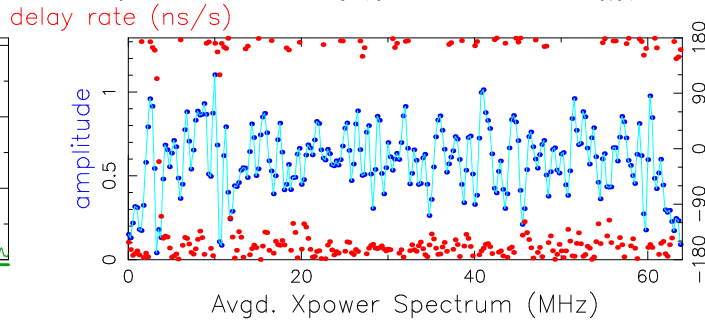
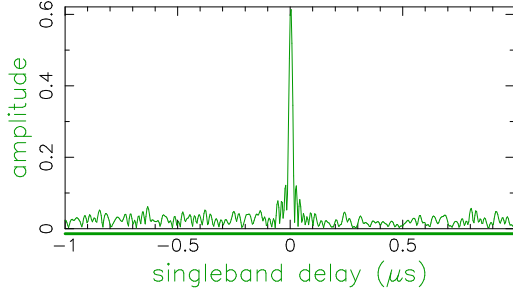
1156+295.3MP11G, No0446, Cu

KVNPC - KVNU, fgroup W, pol RL



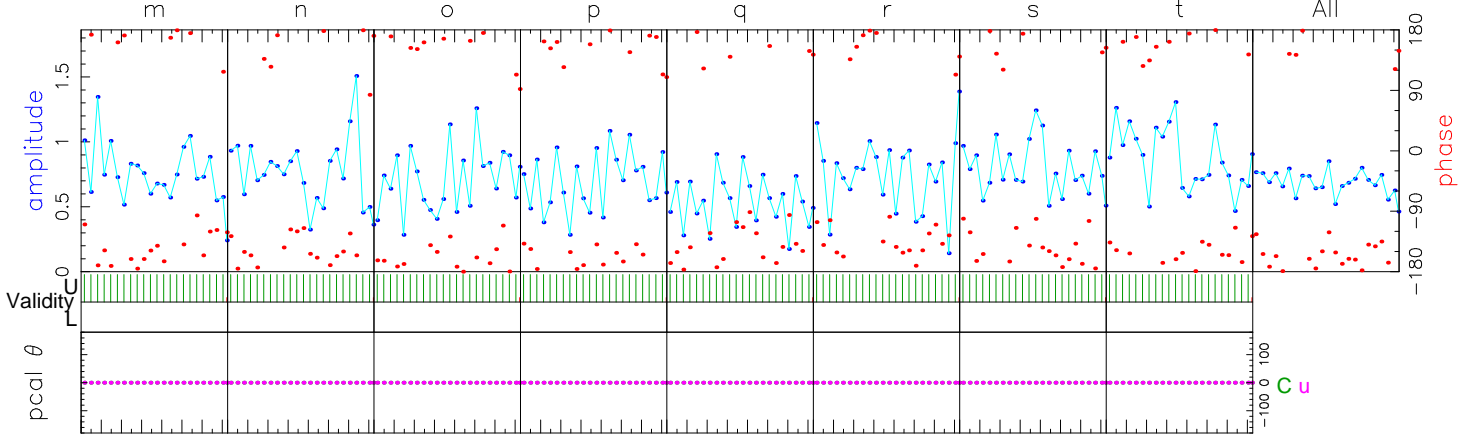
Fringe quality 8

SNR 34.8  
 Int time 419.816  
 Amp 0.621  
 Phase -164.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.002488  
 MBD 0.002260  
 Fringe rate (Hz)  
 -0.008750  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Yr:day 1234  
 Start 2024:110  
 Stop 2024:110  
 FRT 170330.00  
 Corr/FF/build  
 2025:041:163053  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
C	0	0	60000	0	0	0	4000	0		
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
C:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
C	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
C	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 1.96302425200E+02 Apriori delay (usec) 1.96300164849E+02 Resid mbdelay (usec) 2.26035E-03 +/- 3.1E-05  
 Sband delay (usec) 1.96302652849E+02 Apriori clock (usec) -2.7442989E+01 Resid sbdelay (usec) 2.48800E-03 +/- 2.5E-04  
 Phase delay (usec) 1.96300159557E+02 Apriori clockrate (us/s) -7.3949380E-06 Resid phdelay (usec) -5.29152E-06 +/- 1.1E-07  
 Delay rate (us/s) 3.13859048891E-02 Apriori rate (us/s) 3.13860064629E-02 Resid rate (us/s) -1.01574E-07 +/- 4.4E-10  
 Total phase (deg) -92.1 Apriori accel (us/s/s) 3.41589044885E-07 Resid phase (deg) -164.1 +/- 3.3

ph/seg (deg) 28.7 7.9 Search (2048X32) 0.599 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 17.8 13.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.2 4.7 Inc. seg. avg. 0.687 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 14.2 8.1 Inc. frq. avg. 0.619 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

C: az 274.6 el 46.7 pa 64.9 u: az 277.0 el 45.8 pa 67.7 u,v (fr/asec) -205.324 232.439 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/Cu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/Cu.W.58.3MP11G

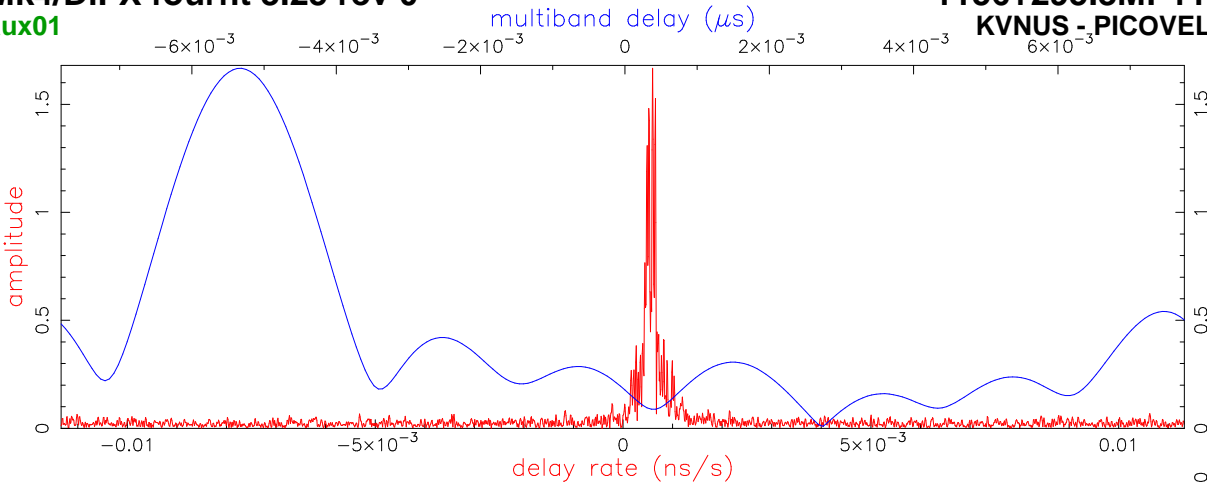


Mk4/DiFX fourfit 3.25 rev 0

aux01

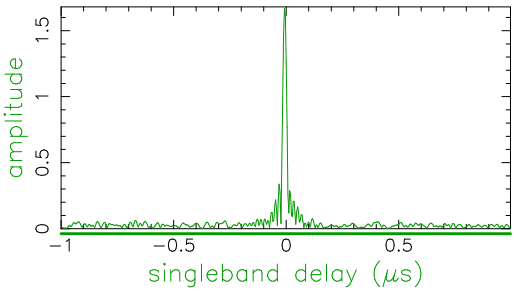
1156+295.3MP11G, No0446, uP

KVNUS - PICOVEL, fgroup W, pol LL

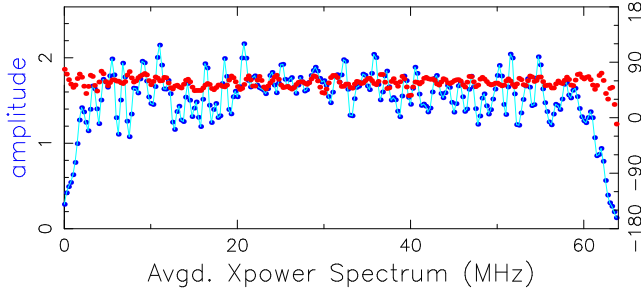


Fringe quality 4

SNR 94.1  
 Int time 419.823  
 Amp 1.680  
 Phase 40.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006749  
 MBD -0.005325  
 Fringe rate (Hz)  
 0.051683  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

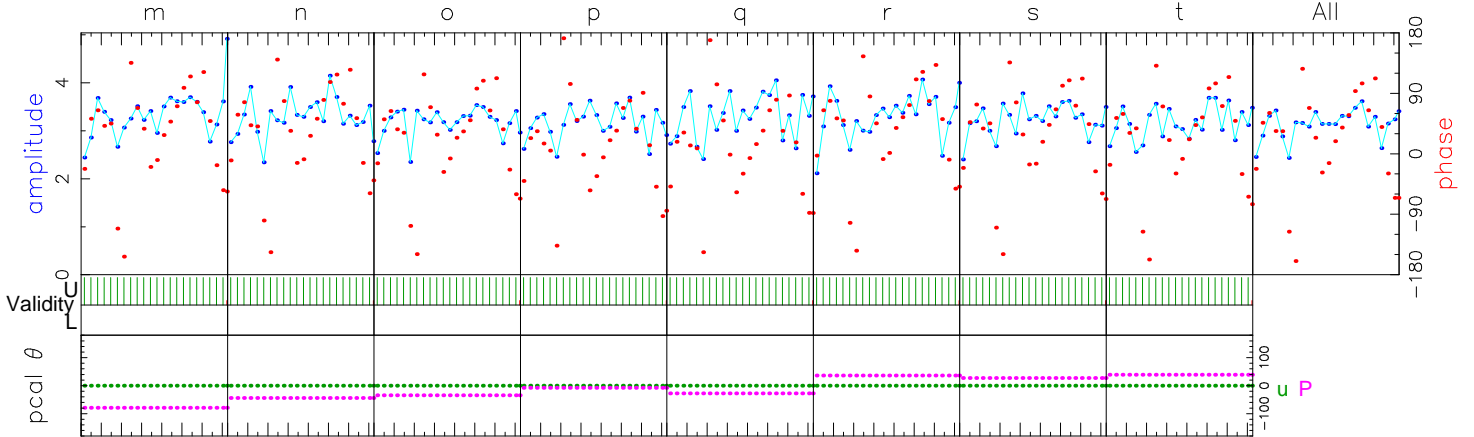


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163052  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	49.5	52.1	40.7	17.3	16.3	59.1	46.2	44.6	Phase	40.9
	1.8	1.8	1.8	1.7	1.8	1.8	1.7	1.6	Ampl.	1.7
	255.3	255.4	254.9	255.3	255.5	255.2	255.7	255.5	Sbd box	255.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
P	0	0	60000	0	0	0	4000	0	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
u:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.12090495477E+03	Apriori delay (usec)	6.12091027947E+03	Resid mbdelay (usec)	-5.32470E-03	+/-	1.2E-05
Sband delay (usec)	6.12090353047E+03	Apriori clock (usec)	2.2550335E+00	Resid sbdelay (usec)	-6.74900E-03	+/-	9.2E-05
Phase delay (usec)	6.12091028079E+03	Apriori clockrate (us/s)	-5.1845615E-07	Resid phdelay (usec)	1.31841E-06	+/-	3.9E-08
Delay rate (us/s)	-1.94925662169E+00	Apriori rate (us/s)	-1.94925722168E+00	Resid rate (us/s)	5.99990E-07	+/-	1.6E-10
Total phase (deg)	211.3	Apriori accel (us/s/s)	-3.37235027973E-05	Resid phase (deg)	40.9	+/-	1.2

ph/seg (deg) 67.8 2.9 Search (2048X32) 1.630 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 88.1 5.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 17.0 1.7 Inc. seg. avg. 3.127 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 4.3 3.0 Inc. frq. avg. 1.725 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 u: az 277.0 el 45.8 pa 67.7 P: az 70.8 el 24.2 pa -59.8 u,v (fr/asec) 12730.515 -1736.365 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uP..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uP.W.51.3MP11G simultaneous interpolator

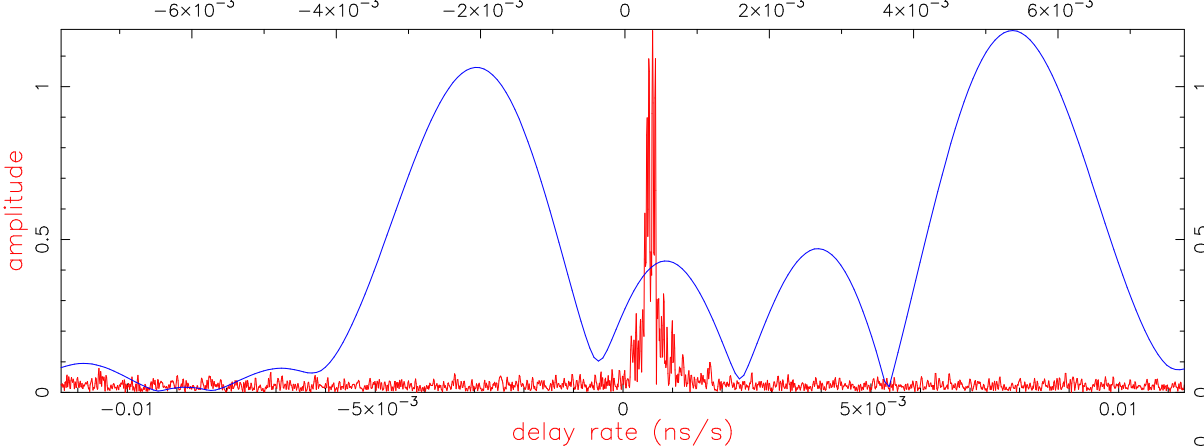
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uP

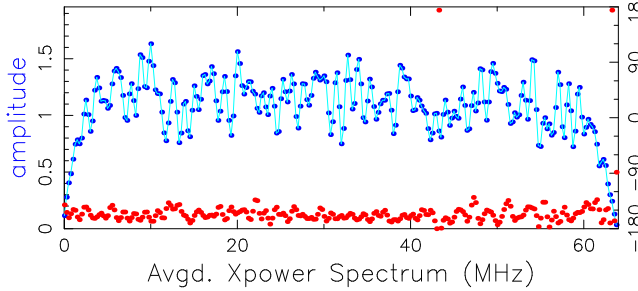
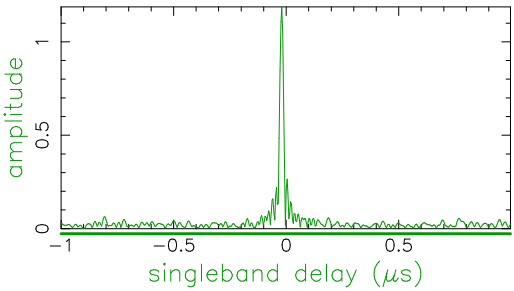
KVNUS - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)



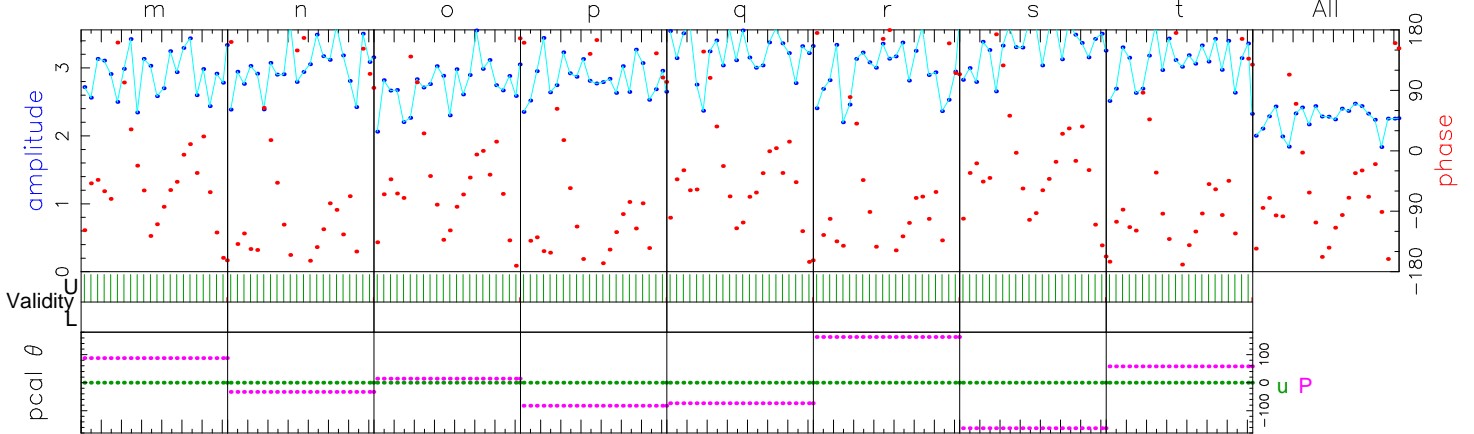
Fringe quality 2

SNR 66.4  
 Int time 419.823  
 Amp 1.187  
 Phase -90.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020097  
 MBD 0.005363  
 Fringe rate (Hz)  
 0.051688  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163056  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-56.9	-142.0	-61.1	-143.5	-52.0	-126.7	-38.0	-113.7		-90.4
	1.5	1.6	1.4	1.5	1.8	1.5	1.7	1.6		1.6
	251.4	251.3	251.1	251.3	251.6	251.1	251.7	251.7		251.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	0	0	60000	0	0	0	0	0		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
u	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	6.12088439236E+03		Apriori delay (usec)		6.12091027947E+03		Resid mbdelay (usec)		5.36289E-03	+/- 1.6E-05
Sband delay (usec)	6.12089018247E+03		Apriori clock (usec)		2.2550335E+00		Resid sbdelay (usec)		-2.00970E-02	+/- 1.3E-04
Phase delay (usec)	6.12091027655E+03		Apriori clockrate (us/s)		-5.1845615E-07		Resid phdelay (usec)		-2.91555E-06	+/- 5.6E-08
Delay rate (us/s)	-1.94925662163E+00		Apriori rate (us/s)		-1.94925722168E+00		Resid rate (us/s)		6.00051E-07	+/- 2.3E-10
Total phase (deg)	80.0		Apriori accel (us/s/s)		-3.37235027973E-05		Resid phase (deg)		-90.4	+/- 1.7

RMS Theor. Amplitude 1.187 +/- 0.018  
 ph/seg (deg) 68.0 4.1 Search (2048X32) 1.151  
 amp/seg (%) 90.7 7.2 Interp. 0.000  
 ph/frq (deg) 47.5 2.4 Inc. seg. avg. 2.243  
 amp/frq (%) 33.8 4.3 Inc. frq. avg. 1.571

Group delay (usec) (SBD) 6.12088439236E+03 Apriori delay (usec) 6.12091027947E+03 Resid mbdelay (usec) 5.36289E-03 +/- 1.6E-05  
 Sband delay (usec) 6.12089018247E+03 Apriori clock (usec) 2.2550335E+00 Resid sbdelay (usec) -2.00970E-02 +/- 1.3E-04  
 Phase delay (usec) 6.12091027655E+03 Apriori clockrate (us/s) -5.1845615E-07 Resid phdelay (usec) -2.91555E-06 +/- 5.6E-08  
 Delay rate (us/s) -1.94925662163E+00 Apriori rate (us/s) -1.94925722168E+00 Resid rate (us/s) 6.00051E-07 +/- 2.3E-10  
 Total phase (deg) 80.0 Apriori accel (us/s/s) -3.37235027973E-05 Resid phase (deg) -90.4 +/- 1.7

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

u: az 277.0 el 45.8 pa 67.7 P: az 70.8 el 24.2 pa -59.8 u,v (fr/asec) 12730.515 -1736.365 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uP..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uP.W.65.3MP11G

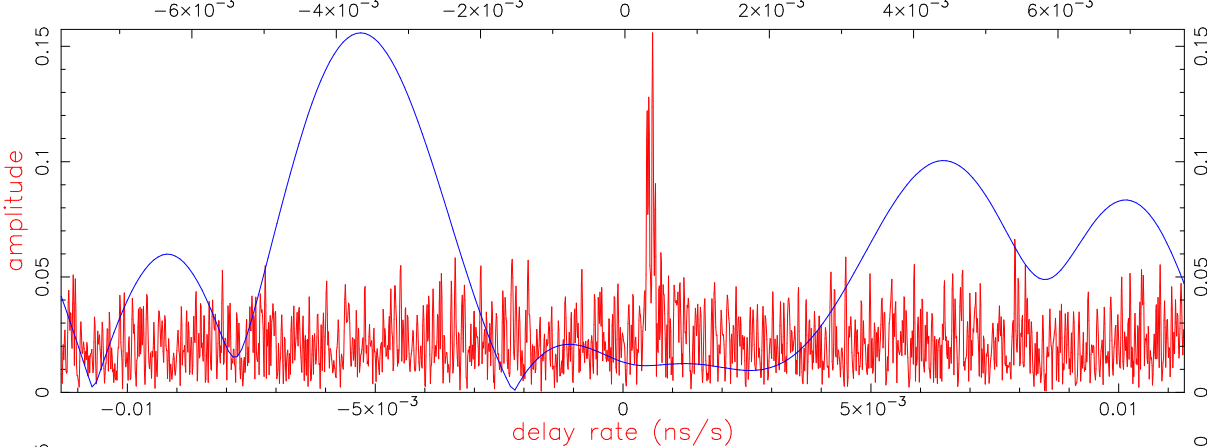
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uP

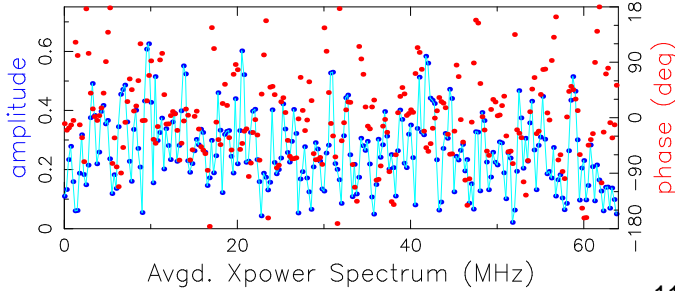
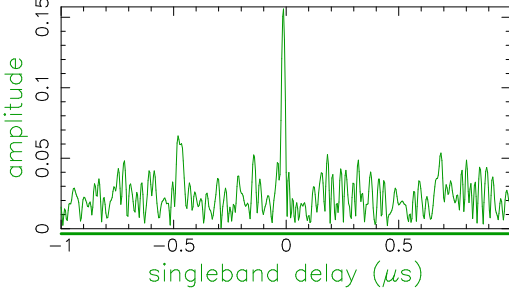
KVNUS - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)



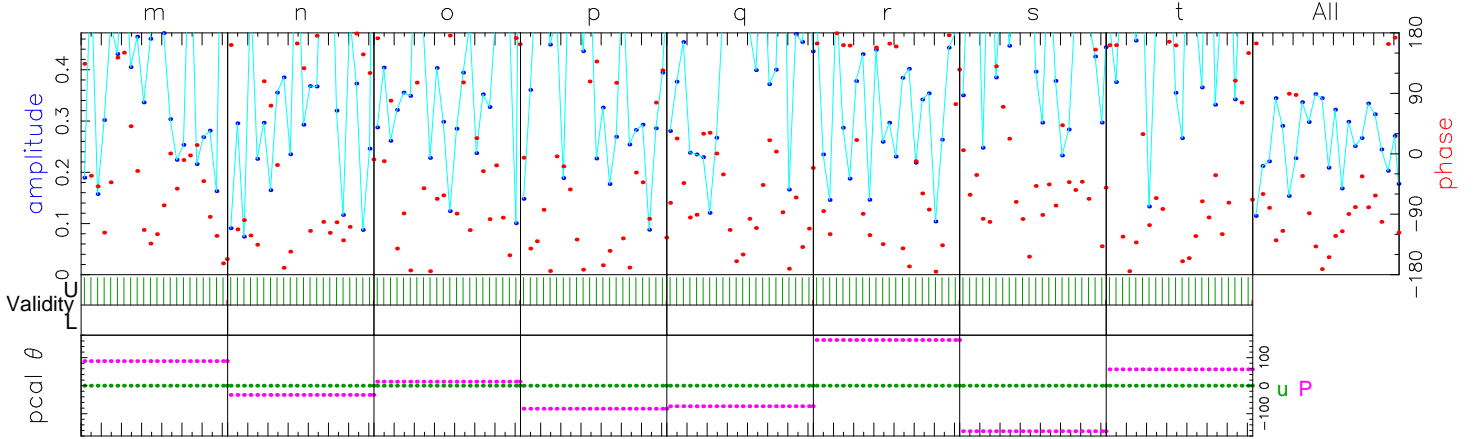
Fringe quality 9

SNR 8.8  
 Int time 419.823  
 Amp 0.157  
 Phase -108.3  
 PFD 4.9e-10  
 Delays (us)  
 SBD -0.012917  
 MBD -0.003675  
 Fringe rate (Hz) 0.051650  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build 2024:358:161459  
 2025:041:163100  
 2024:113:095956  
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.8	-141.7	-100.7	-129.6	-78.5	-164.3	-64.3	-132.8	Phase	-108.3
	0.1	0.2	0.1	0.1	0.3	0.2	0.3	0.2	Ampl.	0.2
	482.4	252.5	51.9	465.7	253.9	454.4	254.2	252.8	Sbd box	253.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
P u	0	0	60000	0	0	0	4000	0	PC freqs	
P u:	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	6.12089097924E+03		Apriori delay (usec)		6.12091027947E+03		Resid mbdelay (usec)		-3.67523E-03	+/- 1.2E-04
Sband delay (usec)	6.12089736197E+03		Apriori clock (usec)		2.2550335E+00		Resid sbdelay (usec)		-1.29175E-02	+/- 9.8E-04
Phase delay (usec)	6.12091027598E+03		Apriori clockrate (us/s)		-5.1845615E-07		Resid phdelay (usec)		-3.49162E-06	+/- 4.2E-07
Delay rate (us/s)	-1.94925662208E+00		Apriori rate (us/s)		-1.94925722168E+00		Resid rate (us/s)		5.99601E-07	+/- 1.7E-09
Total phase (deg)	62.1		Apriori accel (us/s/s)		-3.37235027973E-05		Resid phase (deg)		-108.3	+/- 13.0
	RMS	Theor.	Amplitude	0.157 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	67.7	31.2	Search (2048X32)	0.153		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	78.9	54.5	Interp.	0.000		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	38.6	18.4	Inc. seg. avg.	0.228		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.4	32.1	Inc. frq. avg.	0.179		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC) 0.00
u: az 277.0 el 45.8 pa 67.7	P: az 70.8 el 24.2 pa -59.8		u, v (fr/asec) 12730.515 -1736.365						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uP..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uP.W.74.3MP11G							

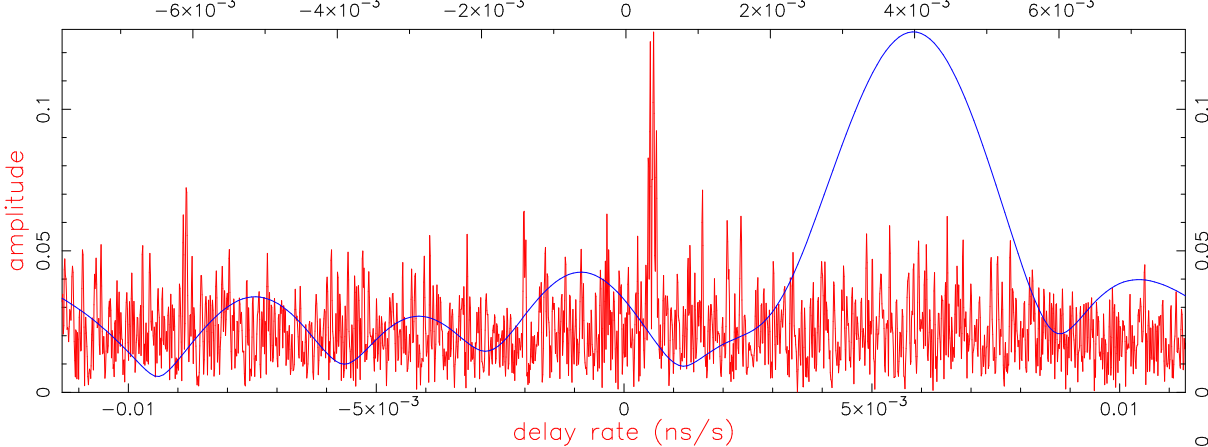
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uP

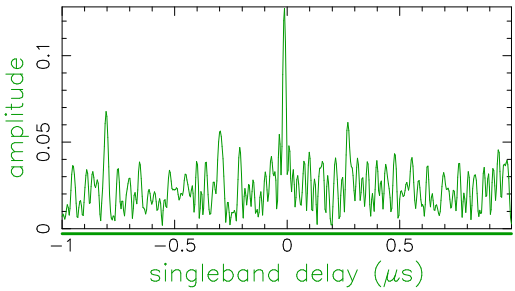
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

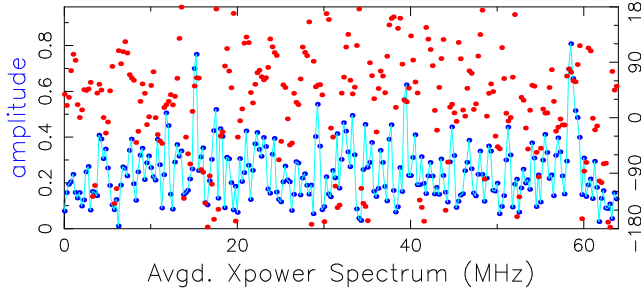


Fringe quality 0

SNR 7.2  
 Int time 419.823  
 Amp 0.128  
 Phase -139.0  
 PFD 2.2e-04  
 Delays (us)  
 SBD -0.012655  
 MBD 0.003953  
 Fringe rate (Hz)  
 0.051281  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

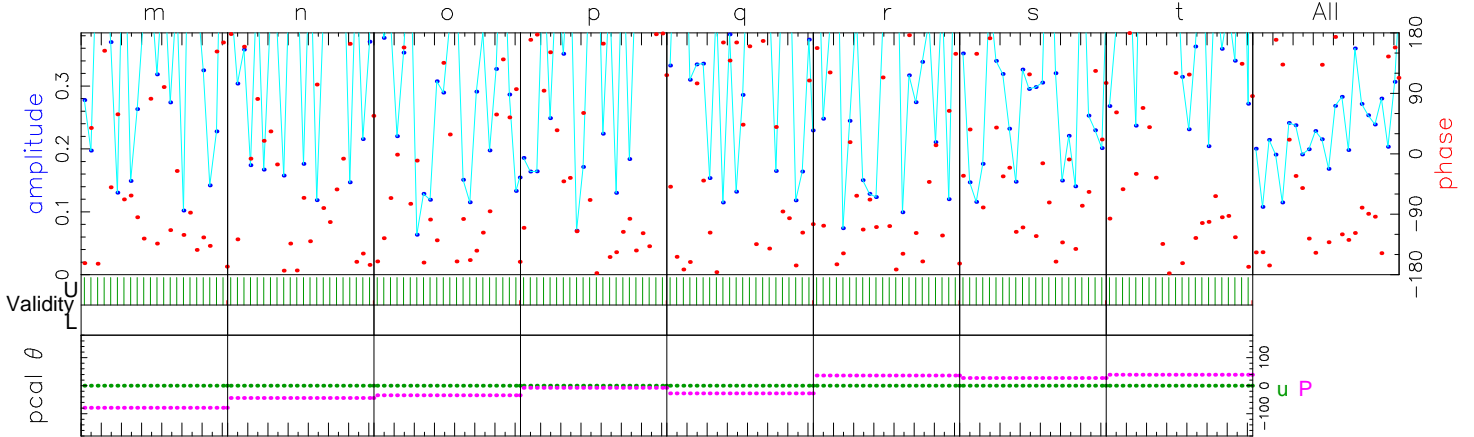


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163104  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-137.4	-121.9	-142.9	-144.7	-159.2	-155.2	-72.1	-137.3	Phase	-139.0
	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	Ampl.	0.1
	450.4	391.1	367.9	273.8	254.6	47.1	2.3	358.4	Sbd box	253.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.12089860721E+03 Apriori delay (usec) 6.12091027947E+03 Resid mbdelay (usec) 3.95274E-03 +/- 1.5E-04  
 Sband delay (usec) 6.12089762447E+03 Apriori clock (usec) 2.2550335E+00 Resid sbdelay (usec) -1.26550E-02 +/- 1.2E-03  
 Phase delay (usec) 6.12091027499E+03 Apriori clockrate (us/s) -5.1845615E-07 Resid phdelay (usec) -4.48249E-06 +/- 5.2E-07  
 Delay rate (us/s) -1.94925662636E+00 Apriori rate (us/s) -1.94925722168E+00 Resid rate (us/s) 5.95317E-07 +/- 2.1E-09  
 Total phase (deg) 31.4 Apriori accel (us/s/s) -3.37235027973E-05 Resid phase (deg) -139.0 +/- 16.0

RMS Theor. Amplitude 0.128 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 62.6 38.3 Search (2048X32) 0.123 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 90.1 66.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 30.3 22.6 Inc. seg. avg. 0.186 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 28.0 39.4 Inc. frq. avg. 0.128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 u: az 277.0 el 45.8 pa 67.7 P: az 70.8 el 24.2 pa -59.8 u,v (fr/asec) 12730.515 -1736.365 simultaneous interpolator

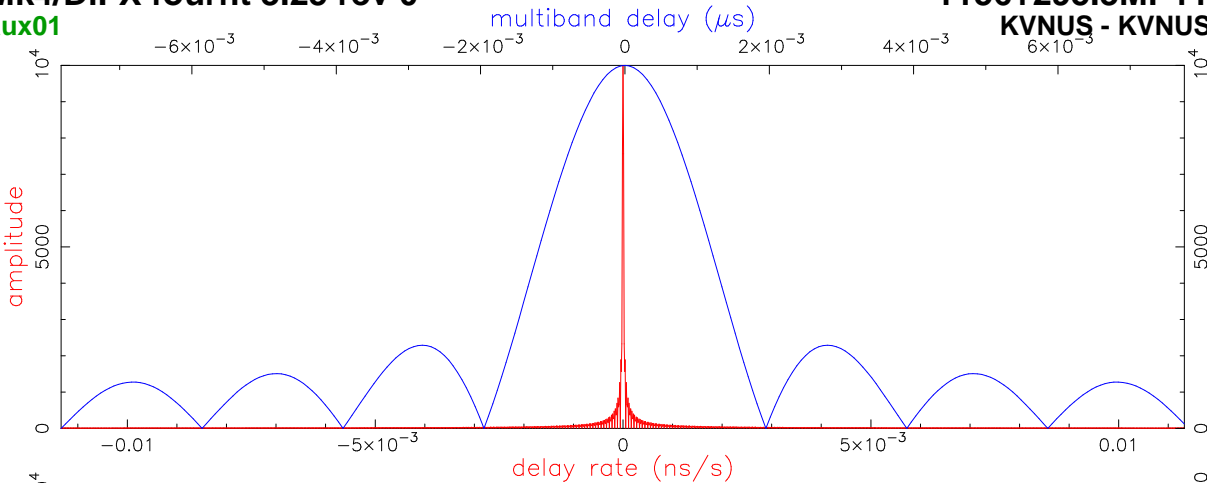
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uP..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uP.W.89.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

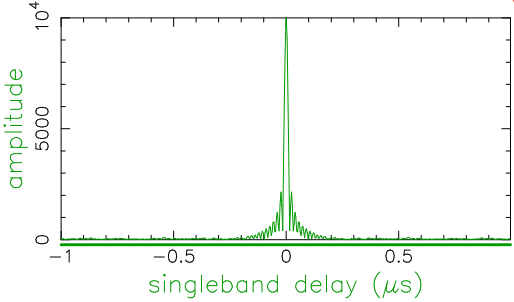
1156+295.3MP11G, No0446, uu

KVNU\$ - KVNU\$, fgroup W, pol LL

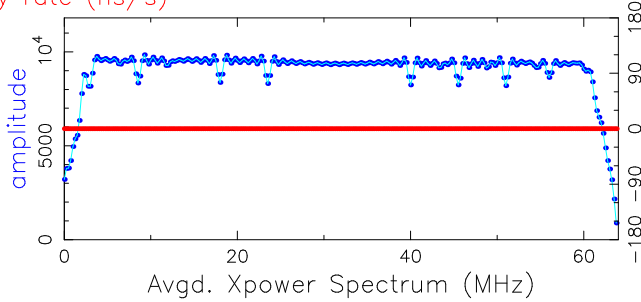


Fringe quality 9

SNR 560319.0  
 Int time 419.832  
 Amp 10000.001  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

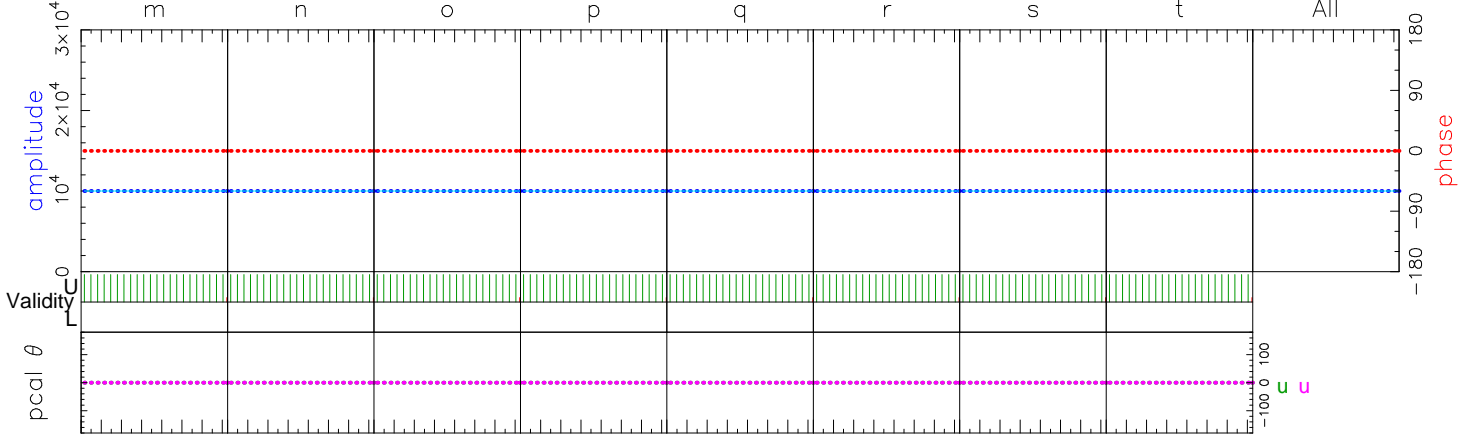


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163048  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	10000.001 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	10000.001	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

u: az 277.0 el 45.8 pa 67.7      u: az 277.0 el 45.8 pa 67.7      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

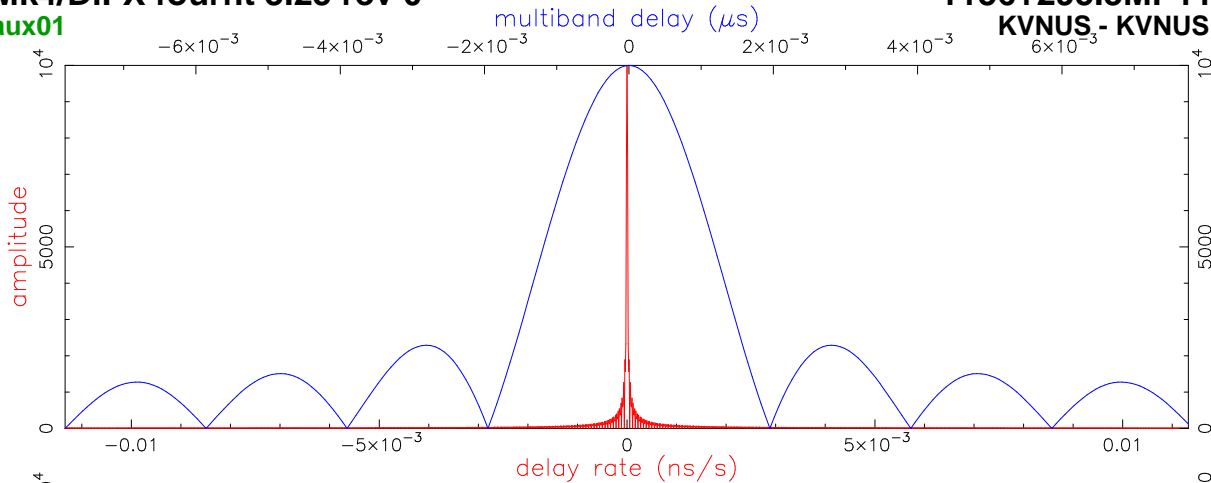
Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uu..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uu.W.38.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

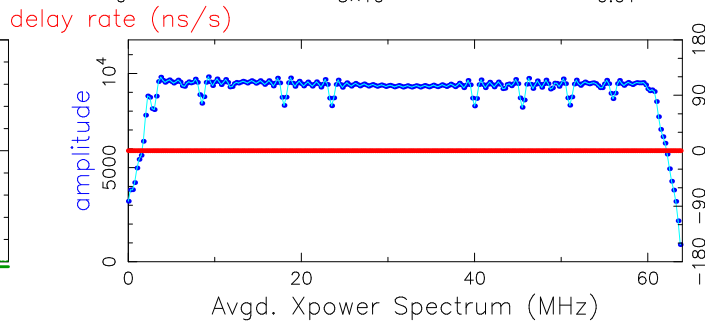
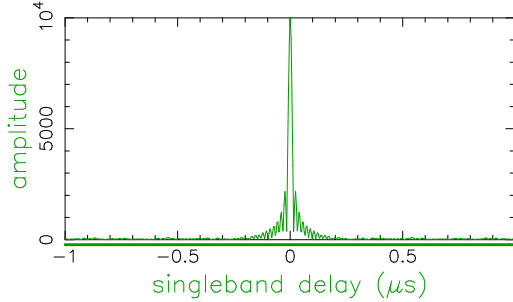
1156+295.3MP11G, No0446, uu

KVNUS- KVNUS, fgroup W, pol RR



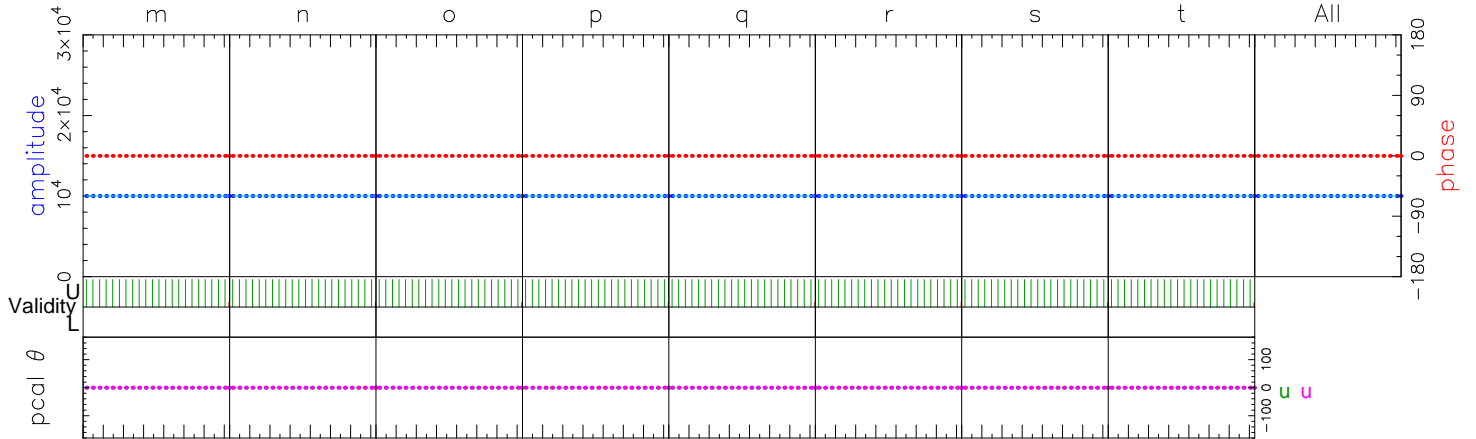
Fringe quality 9

SNR 560319.0  
 Int time 419.832  
 Amp 10000.001  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz)  
 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163053  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

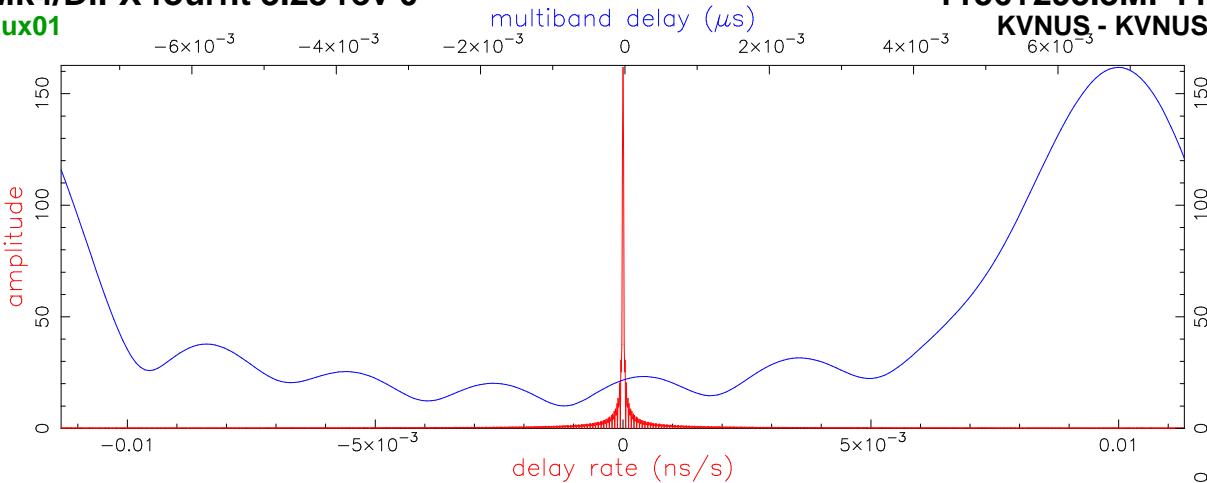
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 u: az 277.0 el 45.8 pa 67.7 u: az 277.0 el 45.8 pa 67.7 u, v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uu...3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uu.W.53.3MP11G simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

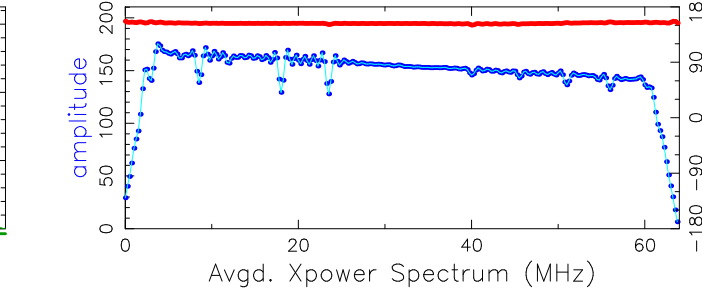
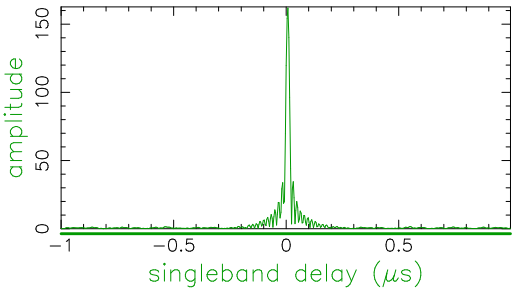
aux01

1156+295.3MP11G, No0446, uu

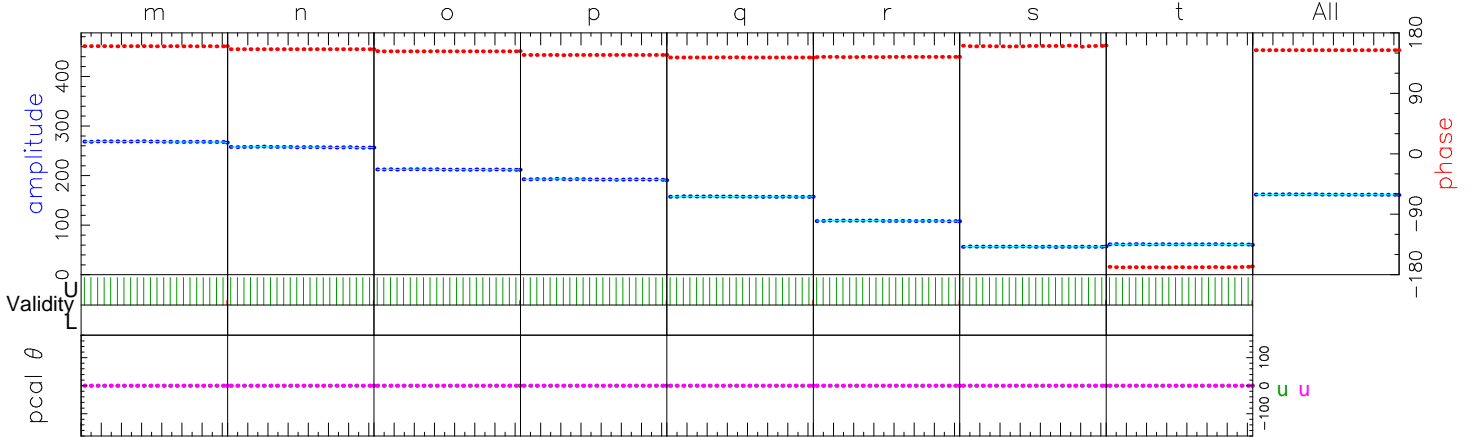
KVNUS - KVNUS, fgroup W, pol LR



Fringe quality 6  
 Error code G  
 SNR 9115.8  
 Int time 419.832  
 Amp 162.689  
 Phase 154.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006870  
 MBD 0.006835  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163057  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	0	0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.835000000000E-03	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	6.83500E-03	+/-	1.2E-07
Sband delay (usec)	6.869750000000E-03	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	6.86975E-03	+/-	9.5E-07
Phase delay (usec)	4.96872644761E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	4.96873E-06	+/-	4.1E-10
Delay rate (us/s)	2.12567285875E-12	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	2.12567E-12	+/-	1.7E-12
Total phase (deg)	154.1	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	154.1	+/-	0.0

ph/seg (deg)	0.0	RMS	0.0	Theor.	0.0	Amplitude	162.689 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	0.6		0.1		0.0	Search (2048X32)	161.806	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	17.0		0.0		0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	47.6		0.0		0.0	Inc. seg. avg.	161.806	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	164.348	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 277.0 el 45.8 pa 67.7      u: az 277.0 el 45.8 pa 67.7      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

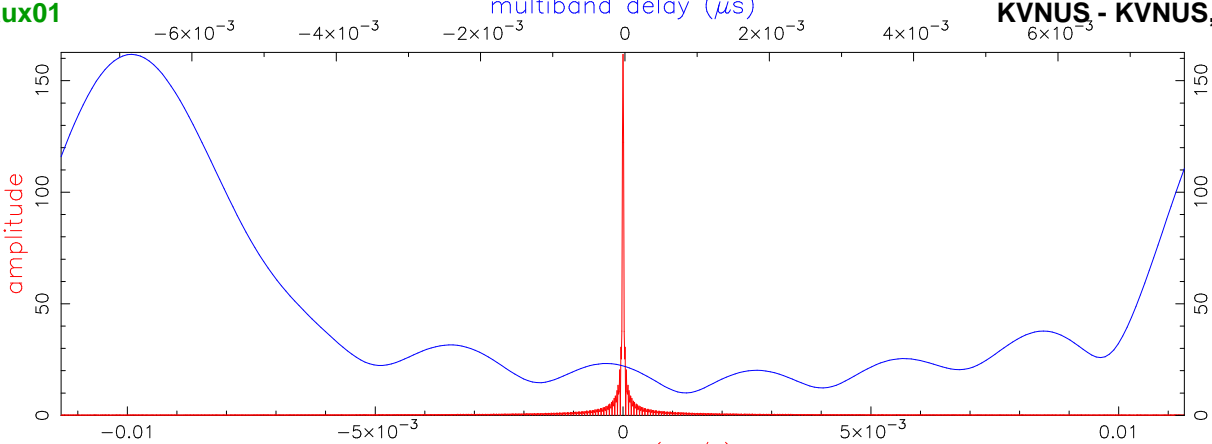
Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uu..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uu.W.69.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

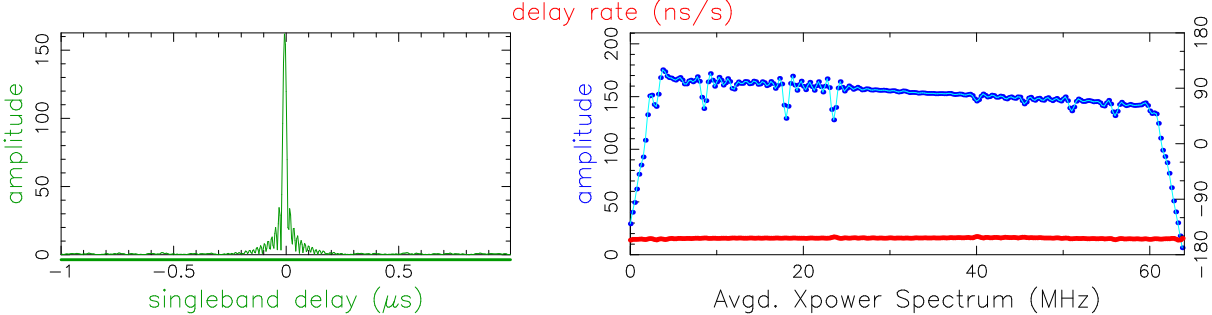
aux01

1156+295.3MP11G, No0446, uu

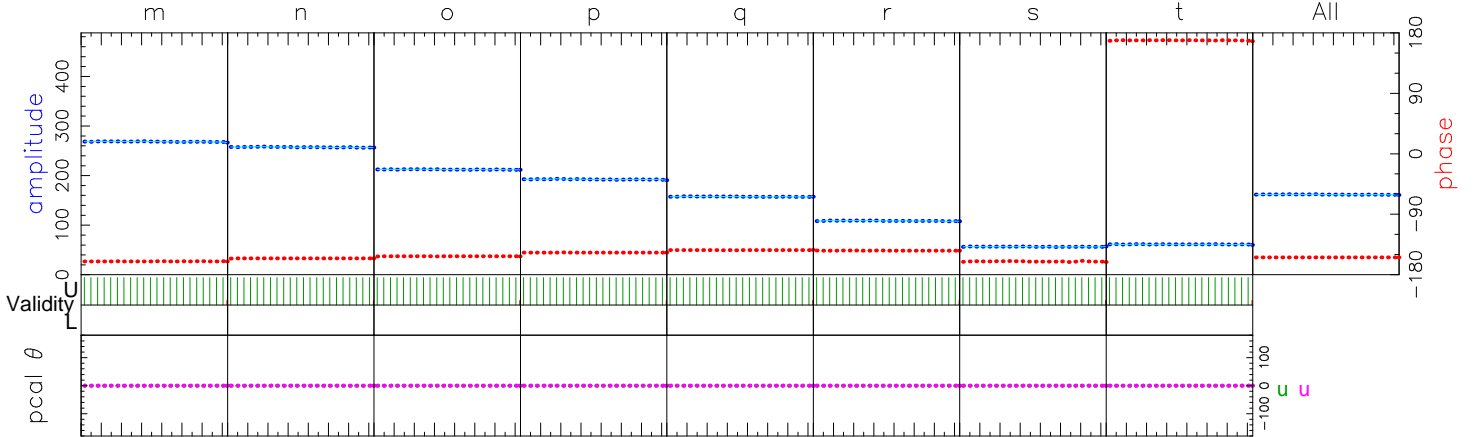
KVNUS - KVNUS, fgroup W, pol RL



Fringe quality 6  
 Error code G  
 SNR 9115.8  
 Int time 419.832  
 Amp 162.689  
 Phase -154.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006870  
 MBD -0.006835  
 Fringe rate (Hz)  
 -0.000000  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163101  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	0	0	Ampl.	164.3
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	255.2
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	

Group delay (usec) (SBD) -6.83500000000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -6.83500E-03 +/- 1.2E-07  
 Sband delay (usec) -6.86975000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -6.86975E-03 +/- 9.5E-07  
 Phase delay (usec) -4.96872644751E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -4.96873E-06 +/- 4.1E-10  
 Delay rate (us/s) -2.12567285875E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -2.12567E-12 +/- 1.7E-12  
 Total phase (deg) -154.1 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -154.1 +/- 0.0

RMS Theor. Amplitude 162.689 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 0.0 0.0 Search (2048X32) 161.806 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 0.6 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 17.0 0.0 Inc. seg. avg. 161.806 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 47.6 0.0 Inc. frq. avg. 164.348 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 u: az 277.0 el 45.8 pa 67.7 u: az 277.0 el 45.8 pa 67.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uu..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uu.W.78.3MP11G

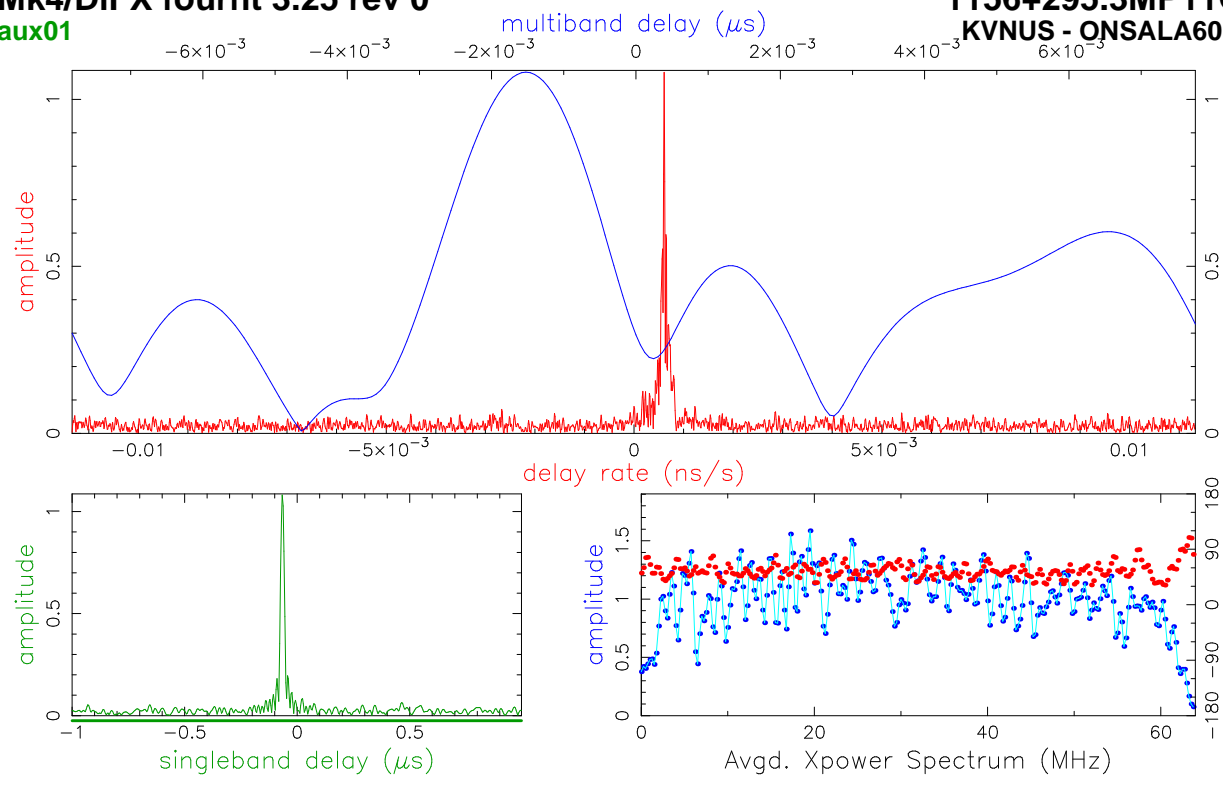


Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uX

KVNUS - ONSALA60, fgroup W, pol LL

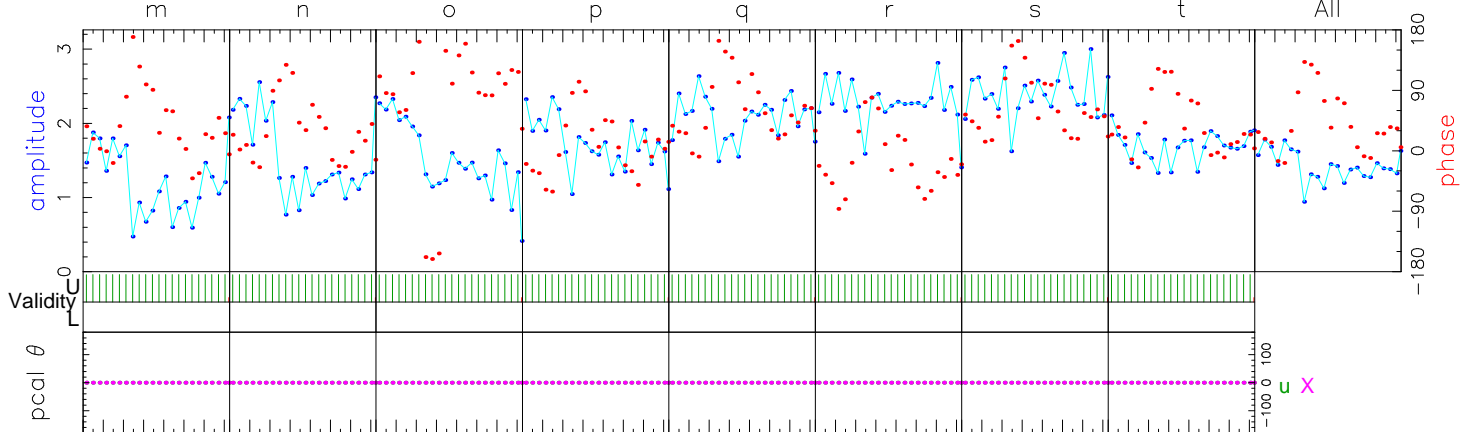


Fringe quality 3

SNR 60.8  
 Int time 419.680  
 Amp 1.087  
 Phase 35.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.065579  
 MBD -0.001504  
 Fringe rate (Hz)  
 0.052650  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163049  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



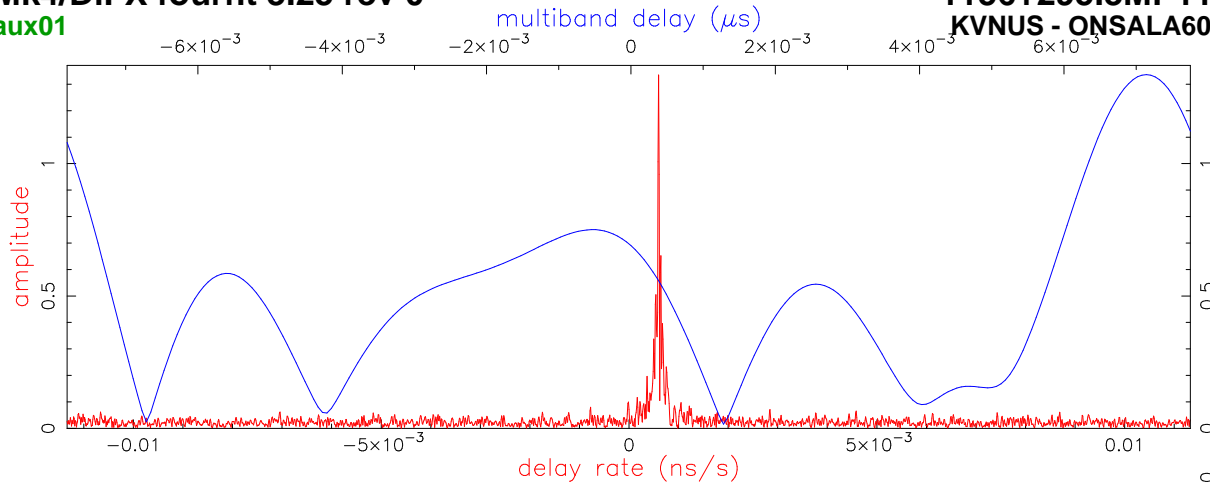
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	28.6	23.1	112.7	0.3	55.1	-20.7	60.7	34.1	Phase	35.0	
	0.9	1.1	1.2	1.3	1.5	1.7	1.8	1.3	Ampl.	1.4	
	241.8	240.1	239.6	239.4	239.8	239.6	240.0	240.3	Sbd box	240.2	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
u	0	0	60000	0	0	0	4000	0	PC freqs		
X	0	0	0	0	0	0	0	0	PC freqs		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
X	1000	1000	1000	1000	1000	1000	1000	1000			
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.87450882900E+03		Apriori delay (usec)		1.87457283285E+03		Resid mbdelay (usec)		-1.50385E-03	+/- 1.8E-05	
Sband delay (usec)	1.87450725385E+03		Apriori clock (usec)		-1.1137590E+02		Resid sbdelay (usec)		-6.55790E-02	+/- 1.4E-04	
Phase delay (usec)	1.87457283398E+03		Apriori clockrate (us/s)		-1.1368421E-06		Resid phdelay (usec)		1.12867E-06	+/- 6.1E-08	
Delay rate (us/s)	-1.54289564592E+00		Apriori rate (us/s)		-1.54289625714E+00		Resid rate (us/s)		6.11215E-07	+/- 2.5E-10	
Total phase (deg)	330.7		Apriori accel (us/s/s)		-2.49059078053E-05		Resid phase (deg)		35.0	+/- 1.9	
RMS	Theor.	Amplitude	1.087 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	44.3	4.5	Search (2048X32)	1.039	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	35.8	7.9	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	44.0	2.7	Inc. seg. avg.	1.415	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	36.1	4.7	Inc. frq. avg.	1.358	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
u: az 277.0 el 45.8 pa 67.7	X: az 93.5 el 37.5 pa -38.0		u, v (fr/asec) 10079.208 -3186.990						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uX..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uX.W.41.3MP11G								

Mk4/DiFX fourfit 3.25 rev 0

aux01

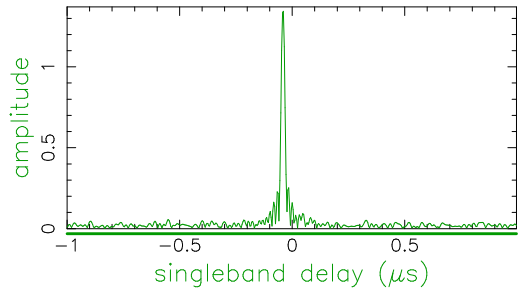
1156+295.3MP11G, No0446, uX

KVNUS - ONSALA60, fgroup W, pol RR

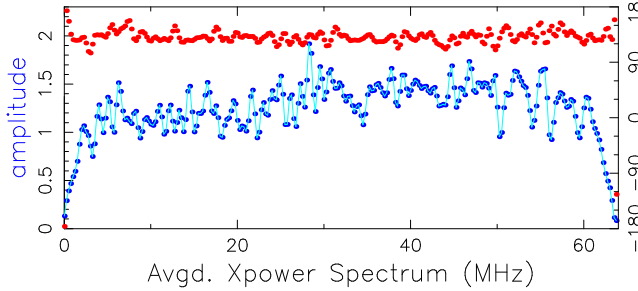


Fringe quality 4

SNR 76.7  
 Int time 419.680  
 Amp 1.371  
 Phase -61.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.040877  
 MBD 0.007190  
 Fringe rate (Hz)  
 0.051969  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

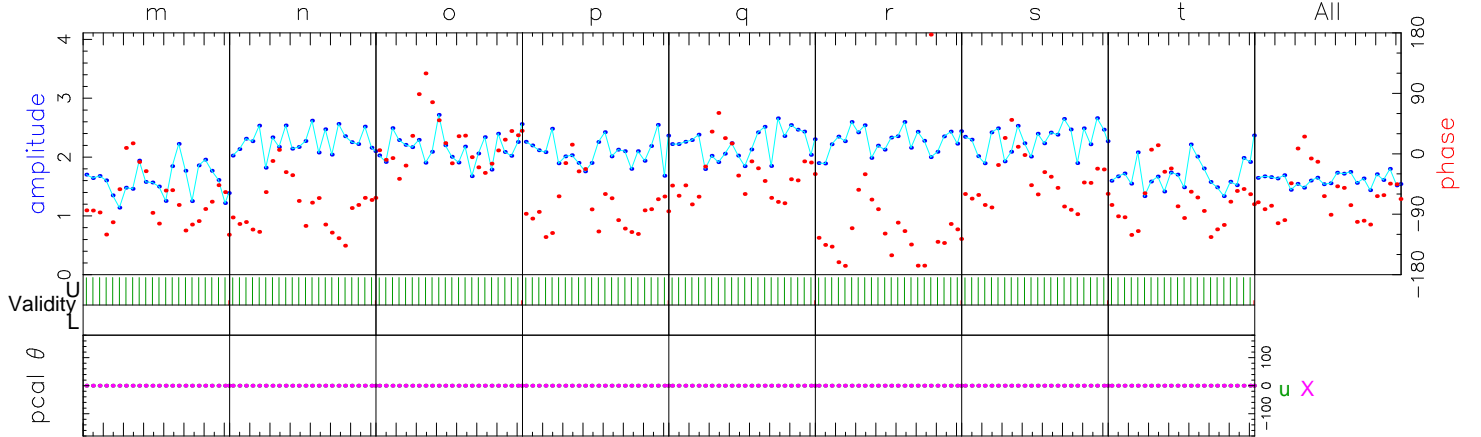


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163053  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.2	-81.3	14.3	-80.4	-33.4	-123.5	-42.1	-71.8		-61.9
	1.3	1.8	1.7	1.7	1.8	1.8	1.9	1.4		1.7
	247.5	246.4	246.1	245.7	245.6	246.1	246.2	247.2		246.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0		
X	0	0	0	0	0	0	0	0		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC freqs
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
u	1000	1000	1000	1000	1000	1000	1000	1000		ManI PC
X	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	1.87453314799E+03	Apriori delay (usec)	1.87457283285E+03	Resid mbdelay (usec)	7.19014E-03	+/-	1.4E-05
Sband delay (usec)	1.87453195560E+03	Apriori clock (usec)	-1.1137590E+02	Resid sbdelay (usec)	-4.08772E-02	+/-	1.1E-04
Phase delay (usec)	1.87457283085E+03	Apriori clockrate (us/s)	-1.1368421E-06	Resid phdelay (usec)	-1.99668E-06	+/-	4.8E-08
Delay rate (us/s)	-1.54289565382E+00	Apriori rate (us/s)	-1.54289625714E+00	Resid rate (us/s)	6.03313E-07	+/-	2.0E-10
Total phase (deg)	233.8	Apriori accel (us/s/s)	-2.49059078053E-05	Resid phase (deg)	-61.9	+/-	1.5

ph/seg (deg)	RMS 36.1	Theor. 3.6	Amplitude Search (2048X32)	1.371 +/- 0.018	1.214	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	19.5	6.3	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	44.2	2.1	Inc. seg. avg.	1.617	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	27.9	3.7	Inc. frq. avg.	1.690	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00	

u: az 277.0 el 45.8 pa 67.7 X: az 93.5 el 37.5 pa -38.0 u,v (fr/asec) 10079.208 -3186.990 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uX...3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uX.W.57.3MP11G

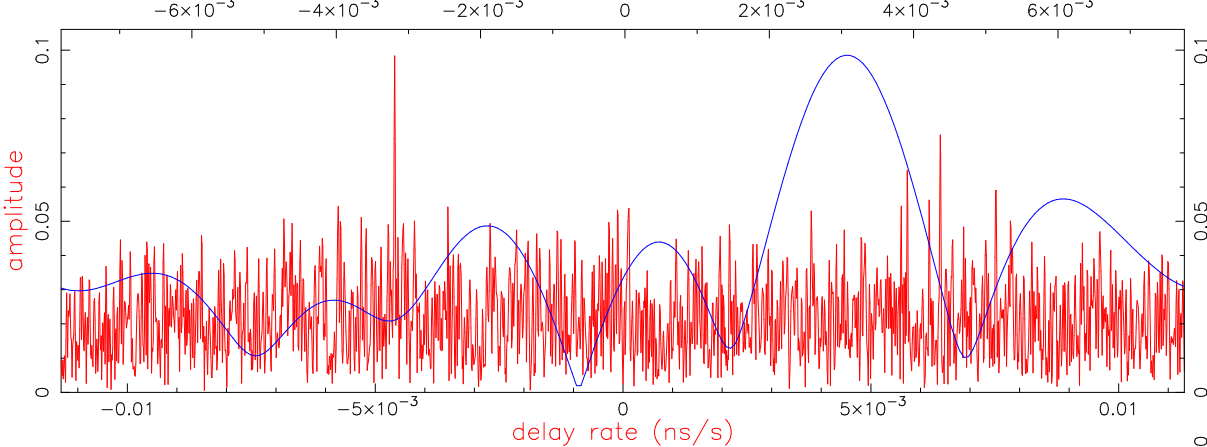
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uX

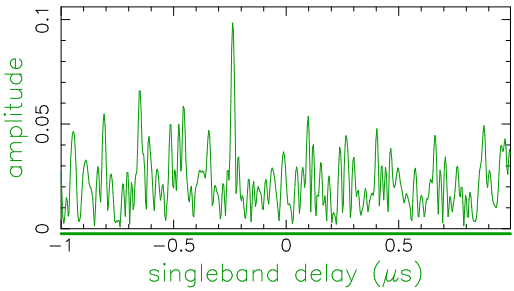
KVNUS - ONSALA60, fgroup W, pol LR

multiband delay ( $\mu$ s)

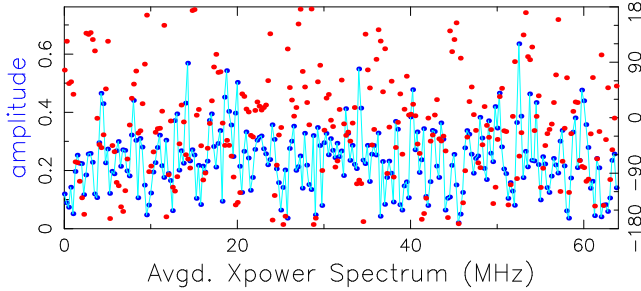


Fringe quality 0

SNR 5.5  
Int time 419.680  
Amp 0.106  
Phase 88.3  
PFD 1.0e+00  
Delays (us)  
SBD -0.237187  
MBD 0.003145  
Fringe rate (Hz)  
-0.397725  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

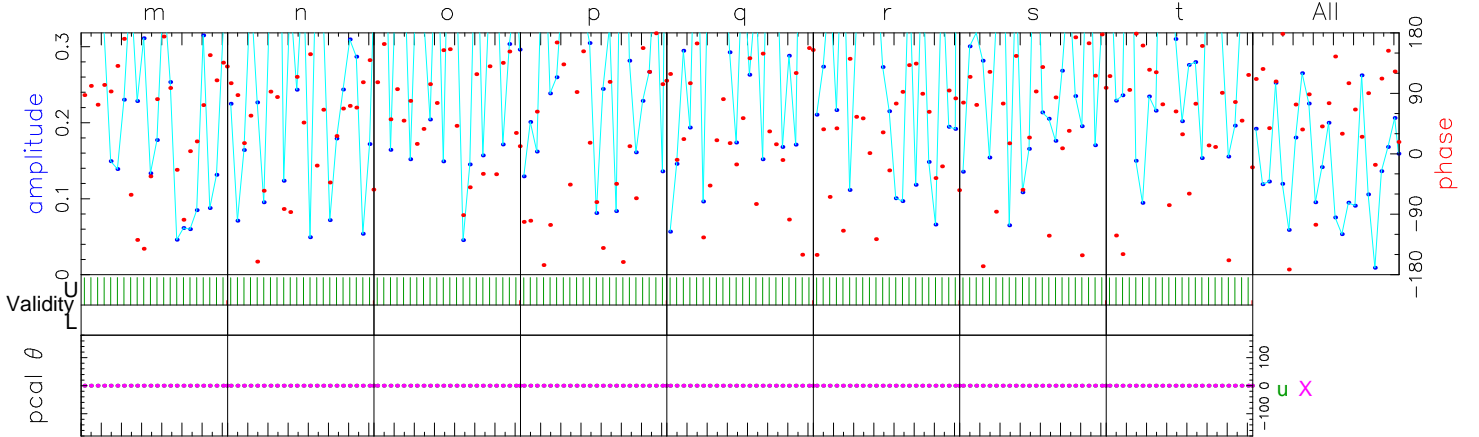


delay rate (ns/s)



Exp. c241b  
Exper # 1234  
Yr:day 2024:110  
Start 170000.00  
Stop 170659.84  
FRT 170330.00  
Corr/FF/build  
2024:358:161459  
2025:041:163057  
2024:113:095956  
RA & Dec (J2000)  
11h59m31.833914s  
+29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	113.3	64.9	87.2	166.4	43.6	38.1	116.8	76.7	Phase	88.3
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	436.0	197.8	463.0	170.2	501.3	200.7	291.2	375.4	Sbd box	196.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.87434160283E+03 Apriori delay (usec) 1.87457283285E+03 Resid mbdelay (usec) 3.14499E-03 +/- 2.0E-04  
 Sband delay (usec) 1.87433564560E+03 Apriori clock (usec) -1.1137590E+02 Resid sbdelay (usec) -2.37187E-01 +/- 1.6E-03  
 Phase delay (usec) 1.87457283569E+03 Apriori clockrate (us/s) -1.1368421E-06 Resid phdelay (usec) 2.84779E-06 +/- 6.7E-07  
 Delay rate (us/s) -1.54290087433E+00 Apriori rate (us/s) -1.54289625714E+00 Resid rate (us/s) -4.61720E-06 +/- 2.7E-09  
 Total phase (deg) 24.0 Apriori accel (us/s/s) -2.49059078053E-05 Resid phase (deg) 88.3 +/- 20.7

RMS Theor. Amplitude 0.106 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 61.9 49.5 Search (2048X32) 0.097 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 84.0 86.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 46.1 29.2 Inc. seg. avg. 0.113 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 39.5 51.0 Inc. frq. avg. 0.113 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 u: az 277.0 el 45.8 pa 67.7 X: az 93.5 el 37.5 pa -38.0 u,v (fr/asec) 10079.208 -3186.990 simultaneous interpolator

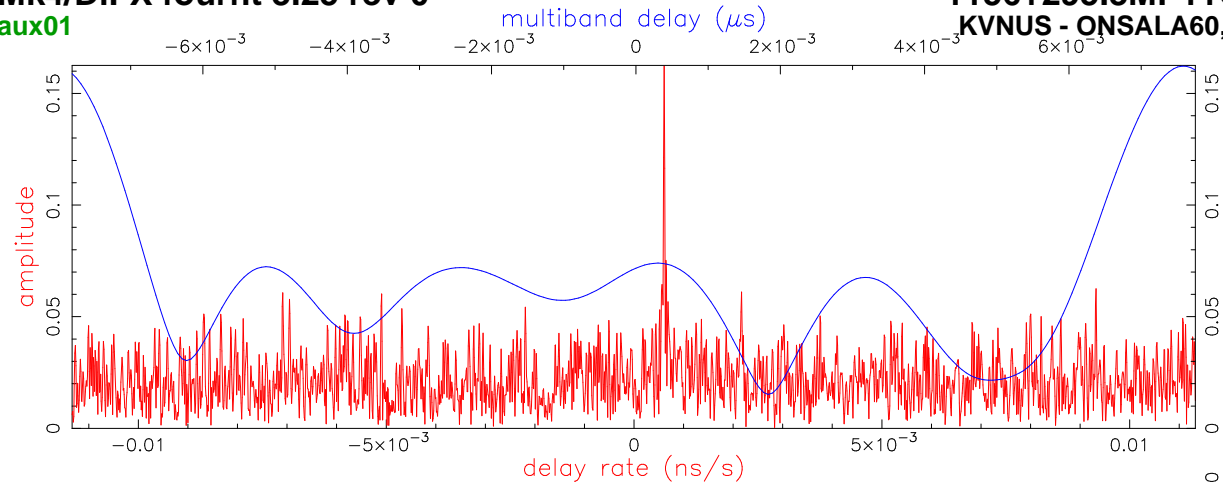
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uX..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uX.W.70.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uX

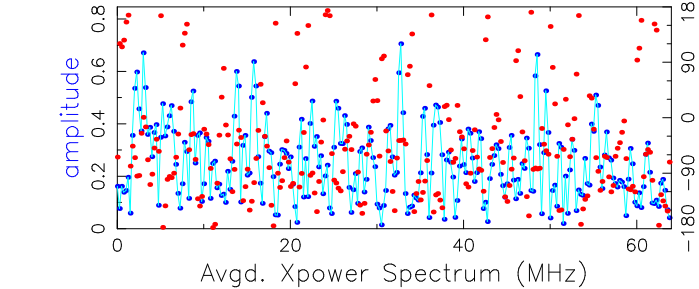
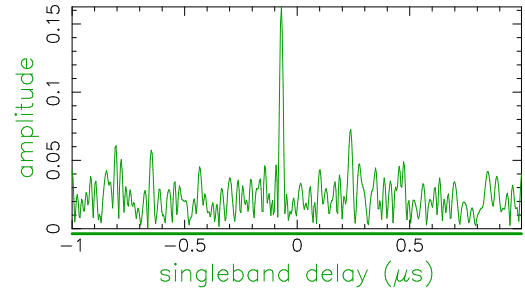
KVNUS - ONSALA60, fgroup W, pol RL



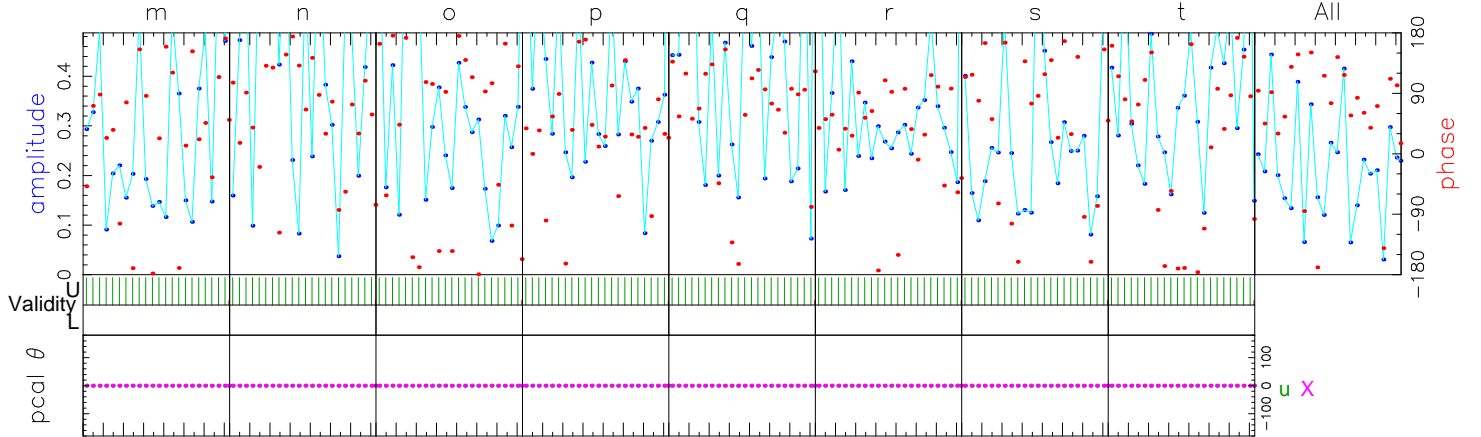
Fringe quality 9

SNR 9.1  
 Int time 419.680  
 Amp 0.163  
 Phase 99.8  
 PFD 3.7e-11  
 Delays (us)  
 SBD -0.070671  
 MBD 0.007585  
 Fringe rate (Hz) 0.052656  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build 2024:358:161459  
 2025:041:163101  
 2024:113:095956  
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0		
X	0	0	0	0	0	0	0	0		
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	1.87450229334E+03					1.87457283285E+03			7.58550E-03	+/- 1.2E-04
Sband delay (usec)	1.87450216160E+03					-1.1137590E+02			-7.06713E-02	+/- 9.5E-04
Phase delay (usec)	1.87457283607E+03					-1.1368421E+02			3.21896E-06	+/- 4.1E-07
Delay rate (us/s)	-1.54289564586E+00					-1.54289625714E+00			6.11281E-07	+/- 1.7E-09
Total phase (deg)			35.5			-2.49059078053E-05			99.8	+/- 12.6
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011							
Data rate (Mb/s):	2048		nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00							
u: az 277.0 el 45.8 pa 67.7	X: az 93.5 el 37.5 pa -38.0		u, v (fr/asec) 10079.208 -3186.990						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uX...3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uX.W.81.3MP11G							

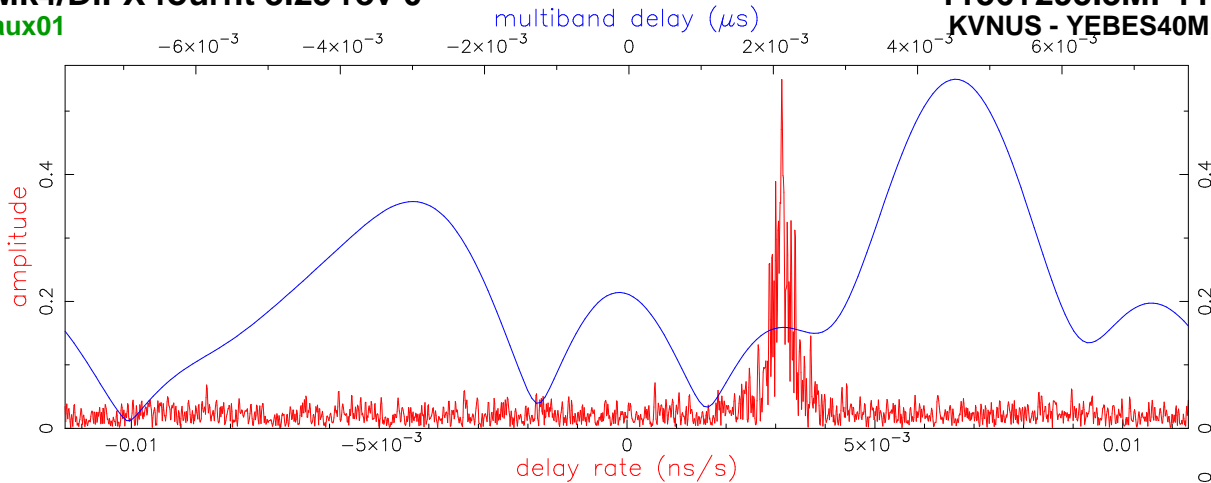
ph/seg (deg) 60.7 30.2 Search (2048X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 74.9 52.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 42.6 17.8 Inc. seg. avg. 0.192 Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 43.0 31.1 Inc. frq. avg. 0.193 Data rate (Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

Mk4/DiFX fourfit 3.25 rev 0

aux01

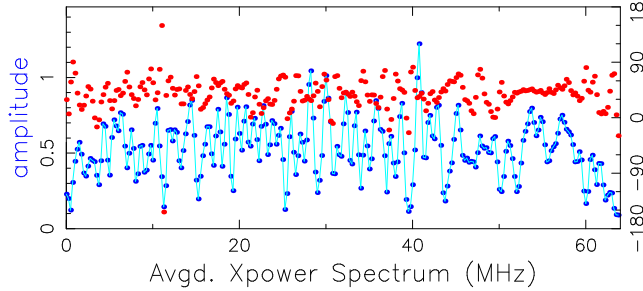
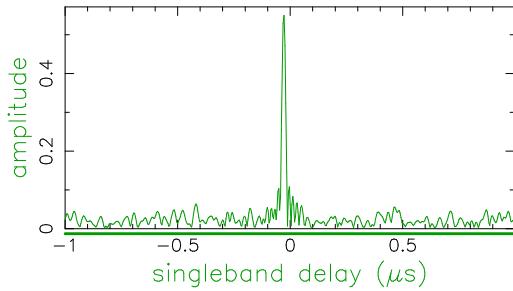
1156+295.3MP11G, No0446, uY

KVNUS - YEBES40M, fgroup W, pol RR



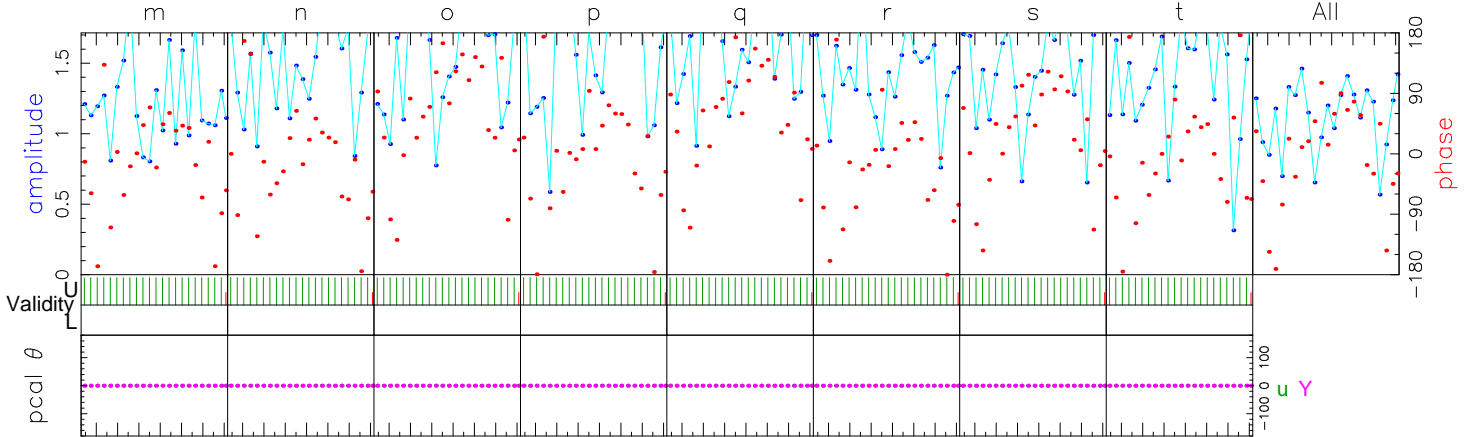
Fringe quality 4

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



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-4.7	-17.7	81.8	10.8	74.3	-22.9	48.3	-12.7		19.8
	0.6	0.7	0.7	0.9	0.8	0.7	0.7	0.7		0.7
	251.6	249.1	249.4	249.4	249.2	248.8	249.1	249.3		249.7
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0		
u	0	0	60000	0	0	0	4000	0		
Y	0	0	0	0	0	0	0	0		
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 5.80225402454E+03 Apriori delay (usec) 5.80228078034E+03 Resid mbdelay (usec) 4.49421E-03 +/- 3.6E-05  
 Sband delay (usec) 5.80225230109E+03 Apriori clock (usec) 1.1210326E+02 Resid sbdelay (usec) -2.84793E-02 +/- 2.8E-04  
 Phase delay (usec) 5.80228078098E+03 Apriori clockrate (us/s) -1.6893052E-06 Resid phdelay (usec) 6.38996E-07 +/- 1.2E-07  
 Delay rate (us/s) -1.89765542670E+00 Apriori rate (us/s) -1.89765854945E+00 Resid rate (us/s) 3.12275E-06 +/- 5.2E-10  
 Total phase (deg) 170.4 Apriori accel (us/s/s) -3.40171574396E-05 Resid phase (deg) 19.8 +/- 3.8

RMS Theor. Amplitude 0.572 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 76.1 9.0 Search (2048X32) 0.544 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 109.8 15.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 45.8 5.3 Inc. seg. avg. 1.134 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 31.0 9.3 Inc. frq. avg. 0.731 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

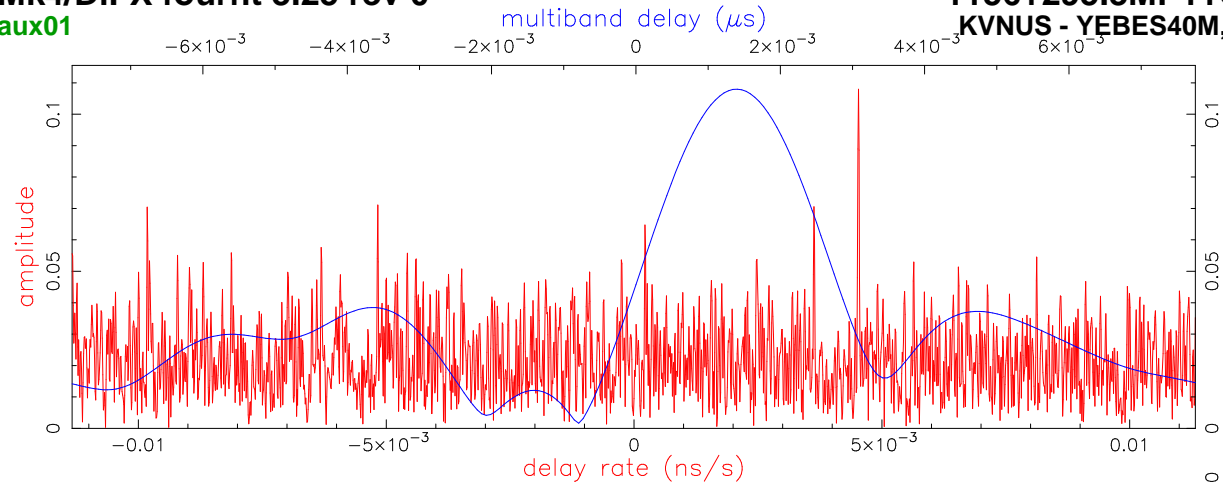
u: az 277.0 el 45.8 pa 67.7 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12391.929 -2109.504 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.110.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

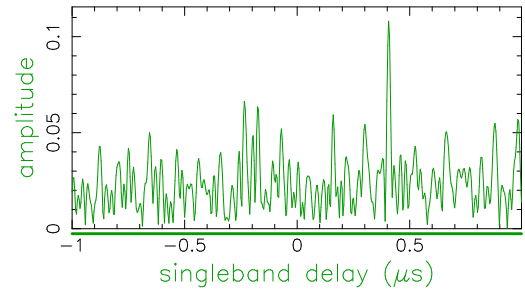
1156+295.3MP11G, No0446, uY

KVNUS - YEBES40M, fgroup W, pol LR

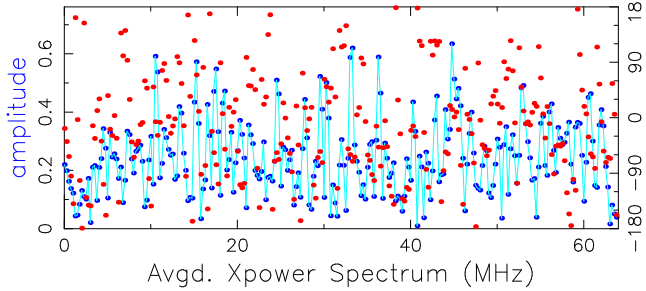


Fringe quality 0

SNR 5.9  
 Int time 401.984  
 Amp 0.116  
 Phase -33.8  
 PFD 5.5e-01  
 Delays (us)  
 SBD 0.406660  
 MBD 0.001403  
 Fringe rate (Hz) 0.390720  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

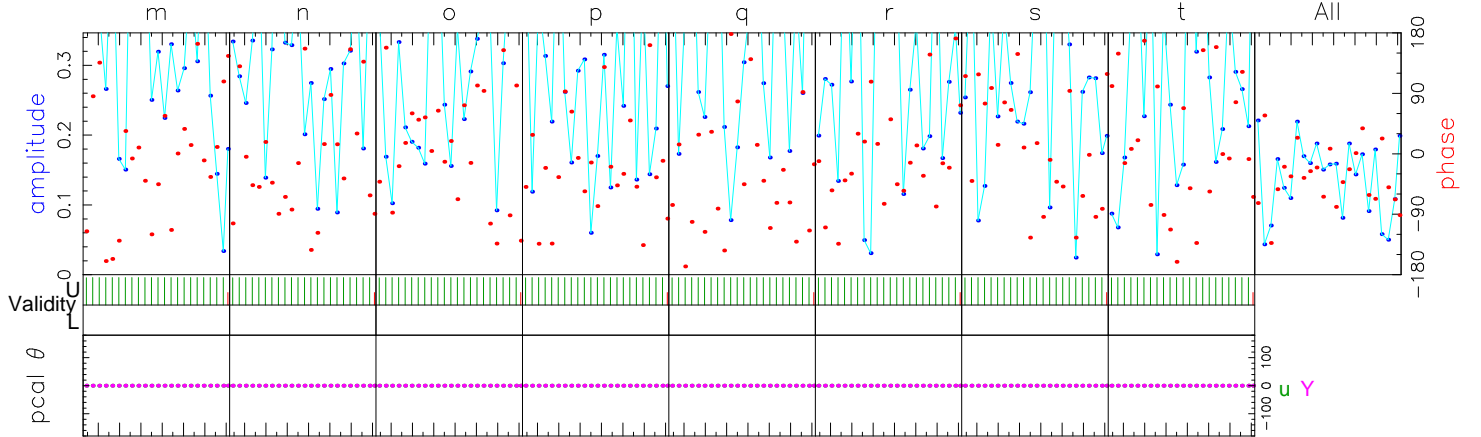


delay rate (ns/s)



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

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.5	-53.9	17.6	-31.4	-72.4	-26.6	-9.4	-42.3	Phase	-33.8
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Ampl.	0.1
	197.5	414.7	298.9	359.4	410.5	361.3	413.6	152.7	Sbd box	361.1
U/L	786/0	786/0	786/0	786/0	786/0	786/0	786/0	786/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.80268843364E+03	Apriori delay (usec)	5.80228078034E+03	Resid mbdelay (usec)	1.40330E-03	+/-	1.8E-04
Sband delay (usec)	5.80268744059E+03	Apriori clock (usec)	1.1210326E+02	Resid sbdelay (usec)	4.06660E-01	+/-	1.5E-03
Phase delay (usec)	5.80228077925E+03	Apriori clockrate (us/s)	-1.6893052E-06	Resid phdelay (usec)	-1.09082E-06	+/-	6.2E-07
Delay rate (us/s)	-1.89765401358E+00	Apriori rate (us/s)	-1.89765854945E+00	Resid rate (us/s)	4.53587E-06	+/-	2.7E-09
Total phase (deg)	116.7	Apriori accel (us/s/s)	-3.40171574396E-05	Resid phase (deg)	-33.8	+/-	19.3

ph/seg (deg)	43.7	Theor.	46.4	Search (2048X32)	0.105	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	55.8		80.9	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.1		27.3	Inc. seg. avg.	0.111	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.6		47.7	Inc. frq. avg.	0.114	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 277.0 el 45.8 pa 67.7      Y: az 72.5 el 25.6 pa -56.2      u,v (fr/asec) 12391.929 -2109.504      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.123.3MP11G

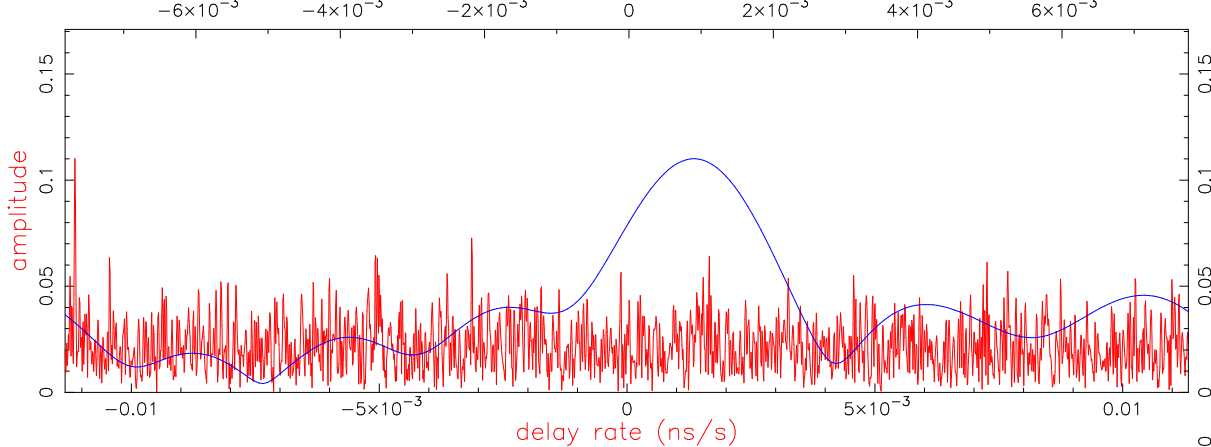
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uY

KVNUS - YEBES40M, fgroup W, pol RL

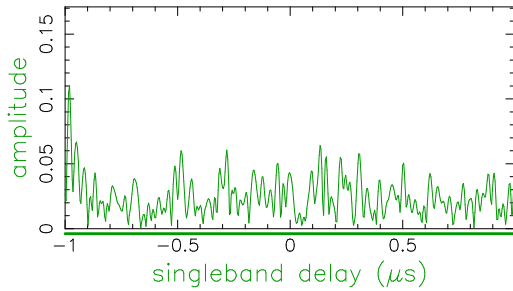
multiband delay ( $\mu$ s)



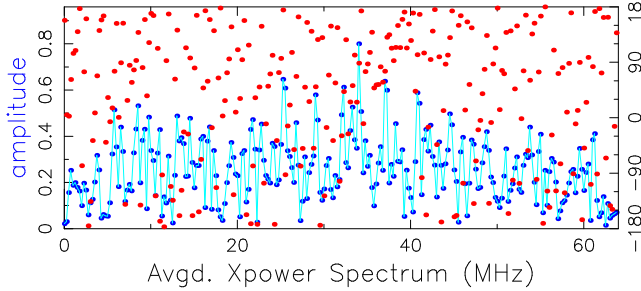
Fringe quality 0

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

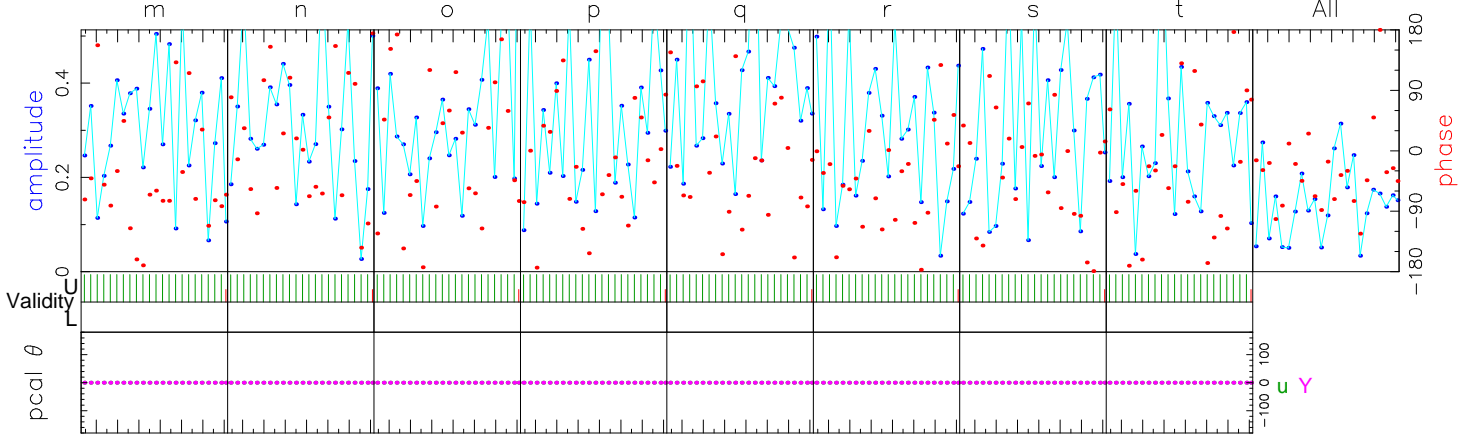
Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170017.41  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163119  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"



delay rate (ns/s)



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



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

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

ph/seg (deg)	49.3	RMS	45.3	Theor.	45.3	Amplitude	0.171 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.7	49.3	79.1	Search (2048X32)	0.109	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	30.2	76.7	26.7	Inc. seg. avg.	0.174	Inc. frq. avg.	0.165	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.5	76.7	46.7	Inc. frq. avg.	0.165	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011

u: az 277.0 el 45.8 pa 67.7 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12391.929 -2109.504 simultaneous interpolator

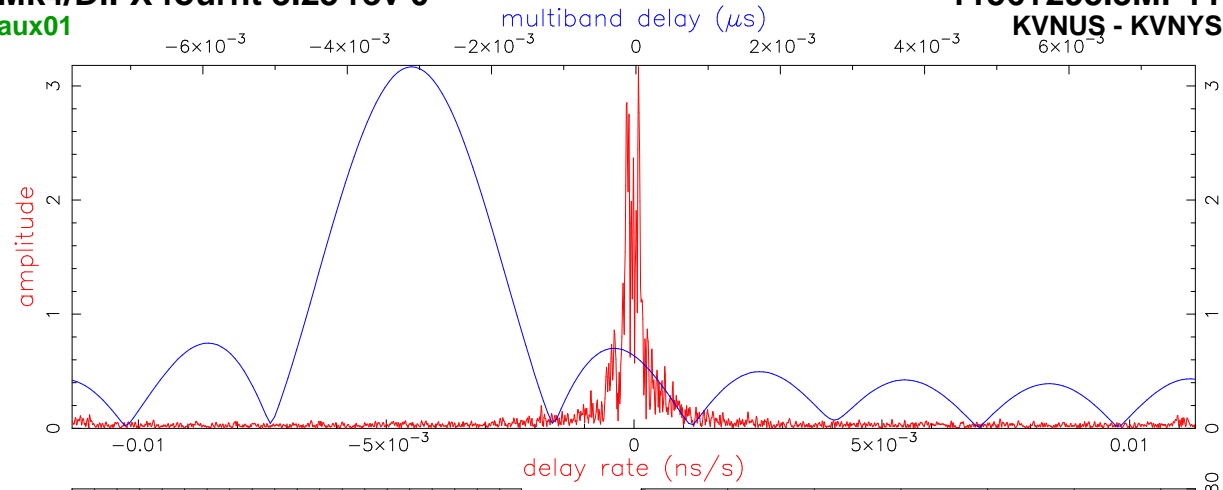
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uY..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.134.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uy

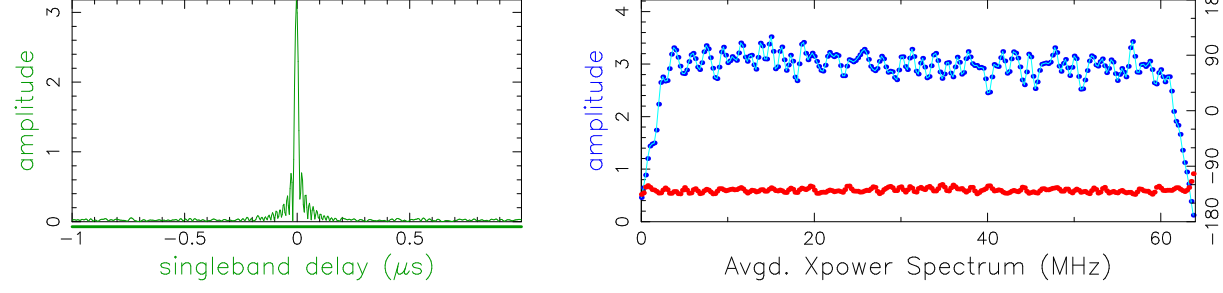
KVNU\$ - KVNY\$, fgroup W, pol LL



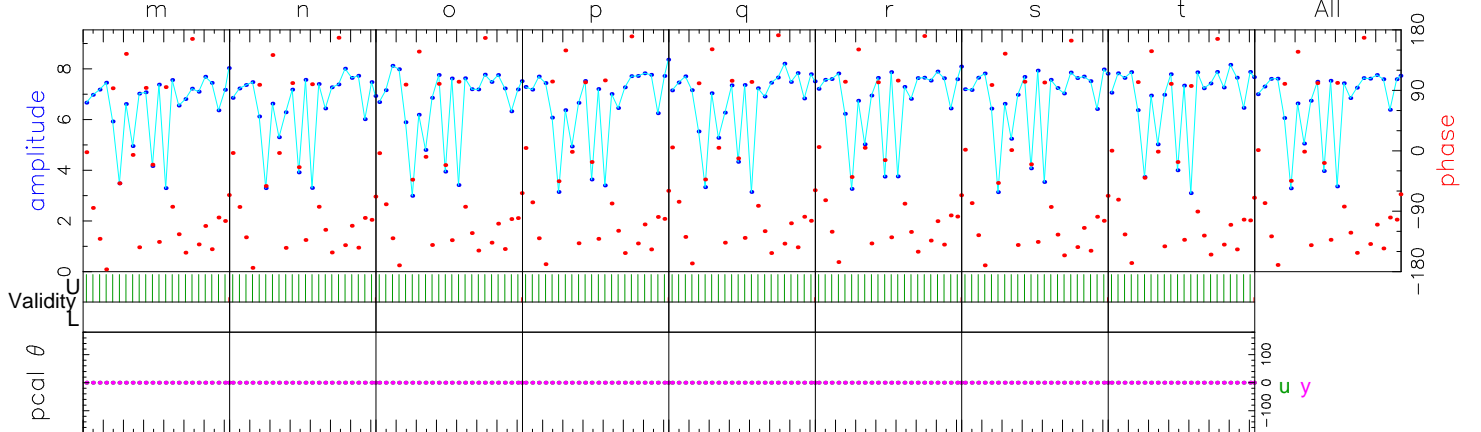
Fringe quality 5

SNR 178.2  
 Int time 419.832  
 Amp 3.180  
 Phase -129.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.003125  
 MBD -0.003108  
 Fringe rate (Hz) 0.007641  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163048  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-130.2	-130.1	-129.4	-129.4	-127.7	-126.1	-132.4	-130.2	Phase	-129.4
	3.1	3.2	3.3	3.1	3.2	3.2	3.2	3.2	Ampl.	3.2
	256.2	256.2	256.1	256.3	256.3	256.2	256.1	256.2	Sbd box	256.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
y	0	0	60000	0	0	0	4000	0	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-5.32919869384E+02		Apriori delay (usec)		-5.32916761649E+02		Resid mbdelay (usec)		-3.10774E-03	+/- 6.1E-06
Sband delay (usec)	-5.32919886899E+02		Apriori clock (usec)		-5.0481014E+00		Resid sbdelay (usec)		-3.12525E-03	+/- 4.8E-05
Phase delay (usec)	-5.32916765822E+02		Apriori clockrate (us/s)		2.0599841E-08		Resid phdelay (usec)		-4.17361E-06	+/- 2.1E-08
Delay rate (us/s)	-4.93735829946E-02		Apriori rate (us/s)		-4.93736716968E-02		Resid rate (us/s)		8.87022E-08	+/- 8.6E-11
Total phase (deg)			Apriori accel (us/s/s)		1.25373356945E-06		Resid phase (deg)		-129.4	+/- 0.6

ph/seg (deg) RMS Theor. Amplitude 3.180 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 75.1 1.5 Search (2048X32) 3.100 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 117.0 2.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 2.0 0.9 Inc. seg. avg. 6.631 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 1.9 1.6 Inc. frq. avg. 3.169 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

u: az 277.0 el 45.8 pa 67.7 y: az 273.7 el 47.9 pa 65.0 u,v (fr/asec) 325.360 -166.622 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uy..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uy.W.36.3MP11G

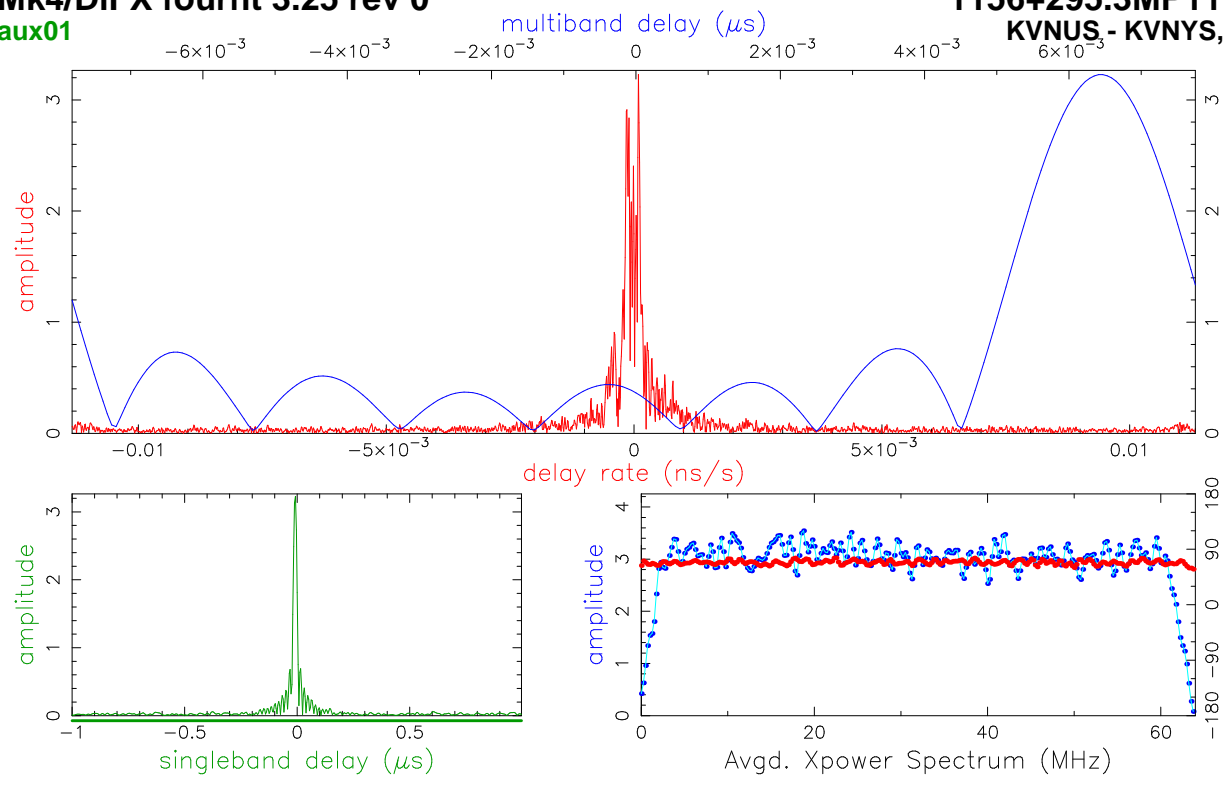


Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uy

KVNU<sub>3</sub> - KVNY<sub>5</sub>, fgroup W, pol RR

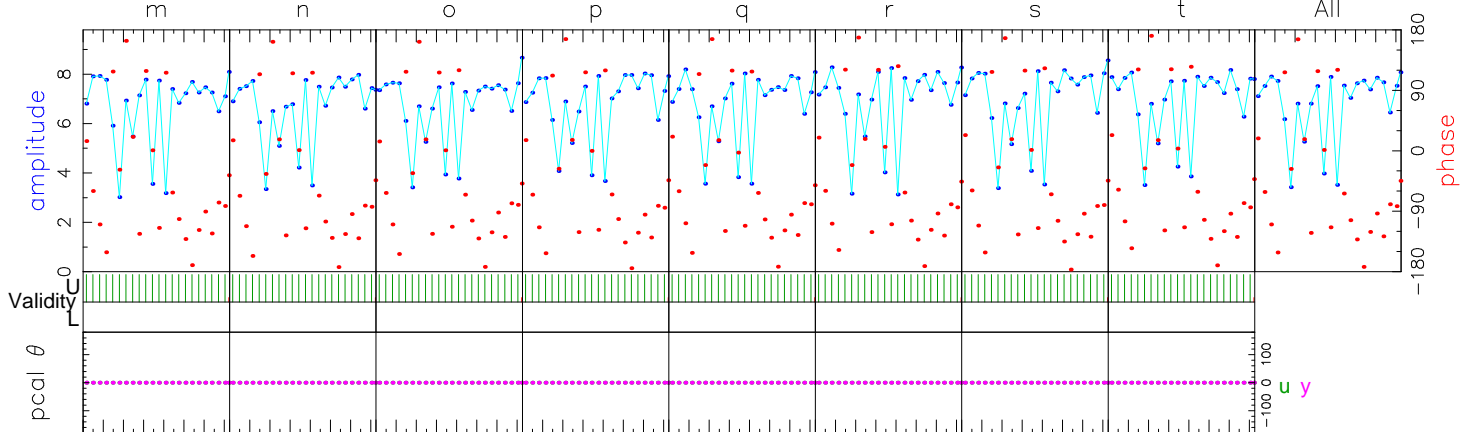


Fringe quality 5

SNR 183.0  
 Int time 419.832  
 Amp 3.266  
 Phase -110.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.009171  
 MBD 0.006438  
 Fringe rate (Hz) 0.007634  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163052  
 2024:113:095956  
 RA & Dec (J2000) 11h59m31.833914s +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



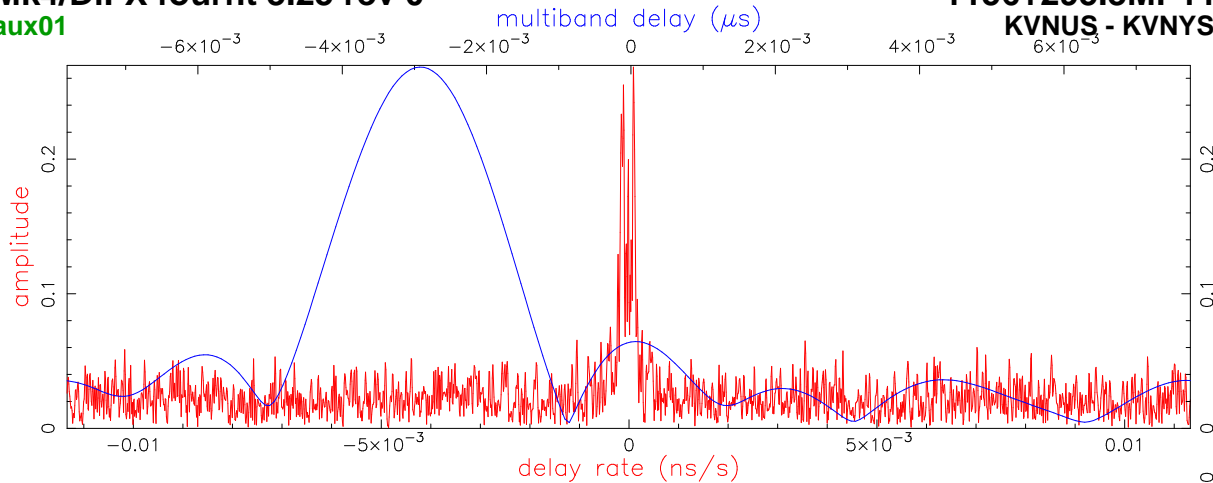
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-109.6	-112.6	-110.0	-113.5	-108.7	-110.2	-112.6	-109.2	Phase	-110.8	
	3.2	3.2	3.1	3.2	3.2	3.3	3.3	3.3	Ampl.	3.2	
	254.6	254.7	254.6	254.7	254.6	254.7	254.6	254.7	Sbd box	254.7	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
u	0	0	60000	0	0	0	4000	0	PC freqs		
y	0	0	60000	0	0	0	4000	0	PC freqs		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
y	1000	1000	1000	1000	1000	1000	1000	1000			
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-5.32925948165E+02		Apriori delay (usec)		-5.32916761649E+02		Resid mbdelay (usec)		6.43848E-03	+/- 5.9E-06	
Sband delay (usec)	-5.32925932399E+02		Apriori clock (usec)		-5.0481014E+00		Resid sbdelay (usec)		-9.17075E-03	+/- 4.7E-05	
Phase delay (usec)	-5.32916765221E+02		Apriori clockrate (us/s)		2.0599841E-08		Resid phdelay (usec)		-3.57287E-06	+/- 2.0E-08	
Delay rate (us/s)	-4.93735830775E-02		Apriori rate (us/s)		-4.93736716968E-02		Resid rate (us/s)		8.86193E-08	+/- 8.3E-11	
Total phase (deg)			Apriori accel (us/s/s)		1.25373356945E-06		Resid phase (deg)		-110.8	+/- 0.6	
	RMS	Theor.	Amplitude	3.266 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	75.0	1.5	Search (2048X32)	3.204		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	115.1	2.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	2.0	0.9	Inc. seg. avg.	6.757		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	2.1	1.5	Inc. frq. avg.	3.230		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
u: az 277.0 el 45.8 pa 67.7	y: az 273.7 el 47.9 pa 65.0		u,v (fr/asec) 325.360 -166.622						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241b/v2/3mm/1234/No0446/uy..3MP11G		Output file: /Exps/c241b/v2/3mm/1234/No0446/uy.W.49.3MP11G								

Mk4/DiFX fourfit 3.25 rev 0

aux01

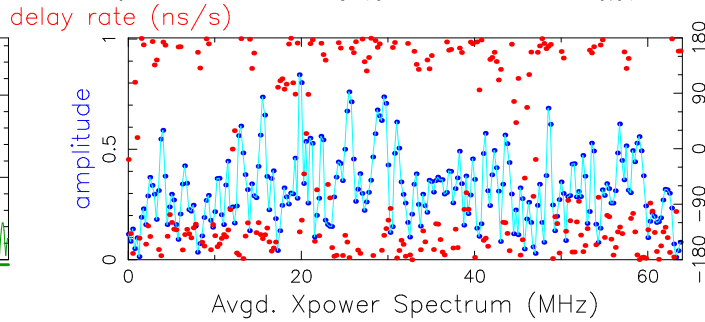
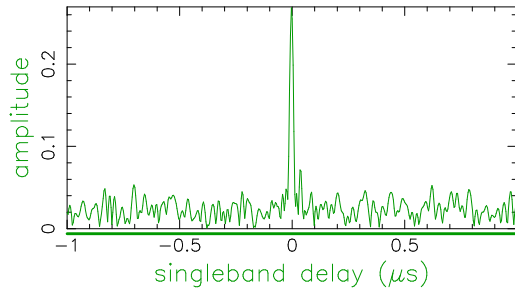
1156+295.3MP11G, No0446, uy

KVNU<sub>S</sub> - KVNY<sub>S</sub>, fgroup W, pol LR



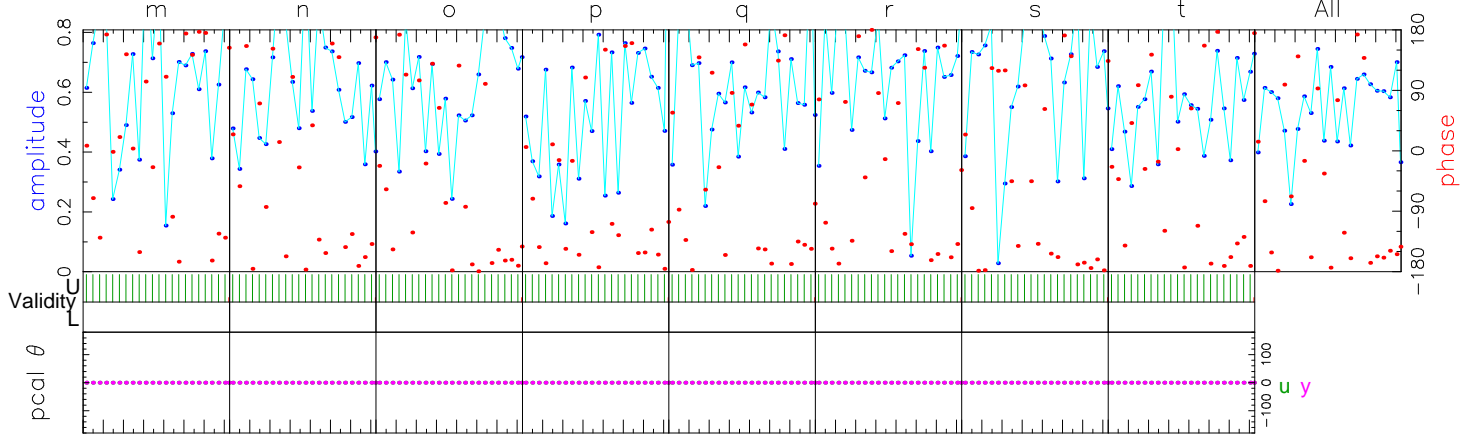
Fringe quality 9

SNR 15.1  
 Int time 419.832  
 Amp 0.270  
 Phase -169.0  
 PFD 9.6e-43  
 Delays (us)  
 SBD -0.003048  
 MBD -0.002909  
 Fringe rate (Hz) 0.007950  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163056  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0		
y	0	0	60000	0	0	0	4000	0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-5.32919670165E+02	Apriori delay (usec)	-5.32916761649E+02	Resid mbdelay (usec)	-2.90852E-03	+/-	7.2E-05
Sband delay (usec)	-5.32919809899E+02	Apriori clock (usec)	-5.0481014E+00	Resid sbdelay (usec)	-3.04825E-03	+/-	5.7E-04
Phase delay (usec)	-5.32916767099E+02	Apriori clockrate (us/s)	2.0599841E-08	Resid phdelay (usec)	-5.45002E-06	+/-	2.4E-07
Delay rate (us/s)	-4.93735794001E-02	Apriori rate (us/s)	-4.93736716968E-02	Resid rate (us/s)	9.22967E-08	+/-	1.0E-09
Total phase (deg)	-114.4	Apriori accel (us/s/s)	1.25373356945E-06	Resid phase (deg)	-169.0	+/-	7.6

ph/seg (deg)	77.7	RMS	18.2	Theor.	0.270 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	114.8	Search (2048X32)	0.262	Amplitude	0.270 +/- 0.018	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.6	Interp.	0.000	Search	0.262	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	17.2	Inc. seg. avg.	0.529	Inc. seg. avg.	0.529	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.267	Inc. frq. avg.	0.267	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 277.0 el 45.8 pa 67.7      y: az 273.7 el 47.9 pa 65.0      u,v (fr/asec) 325.360 -166.622      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uy..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uy.W.64.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

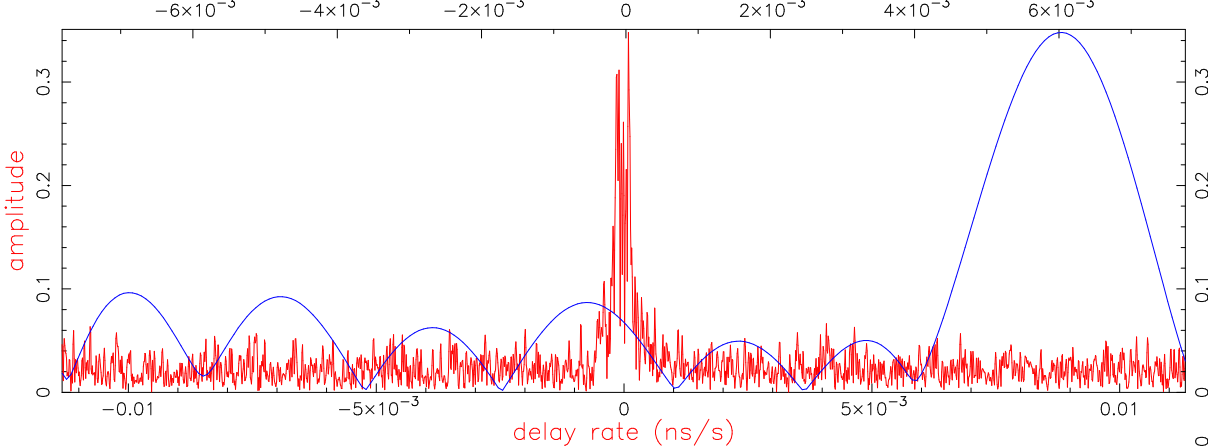
aux01

1156+295.3MP11G, No0446, uy

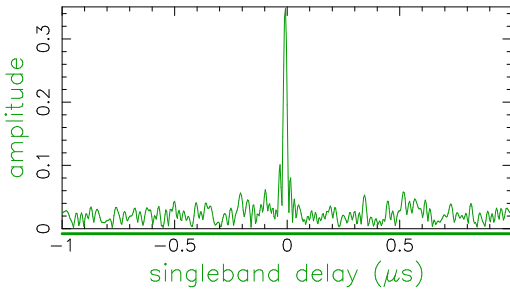
KVNU\$ - KVNY\$, fgroup W, pol RL

multiband delay ( $\mu$ s)

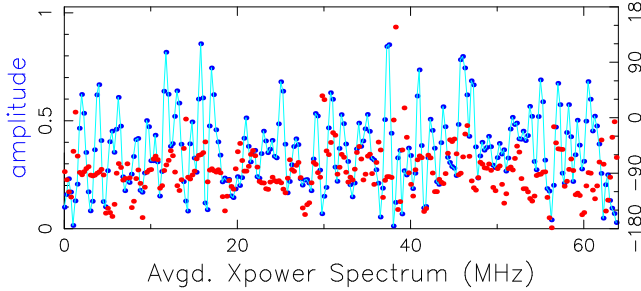
Fringe quality 9



SNR 19.7  
Int time 419.832  
Amp 0.351  
Phase 99.3  
PFD 0.0e+00  
Delays (us)  
SBD -0.008957  
MBD 0.006025  
Fringe rate (Hz) 0.007532  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

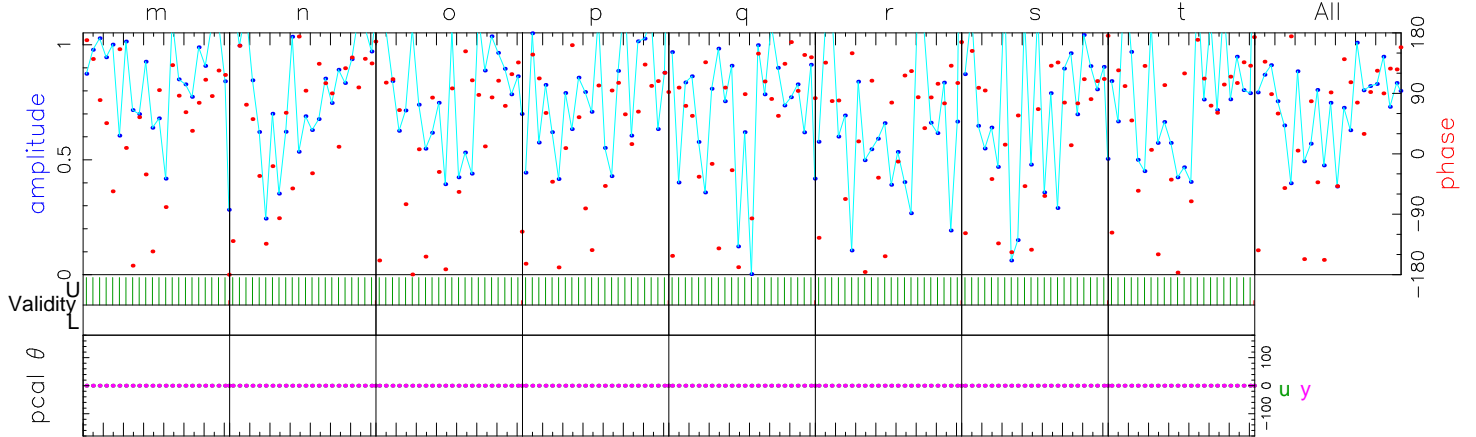


delay rate (ns/s)



Exp. c241b  
Exper # 1234  
Yr:day 2024:110  
Start 170000.00  
Stop 170659.84  
FRT 170330.00  
Corr/FF/build  
2024:358:161459  
2025:041:163102  
2024:113:095956  
RA & Dec (J2000)  
11h59m31.833914s  
+29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	0	0	60000	0	0	0	4000	0	APs used	
y	0	0	60000	0	0	0	4000	0	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec) (SBD)	-5.32926361790E+02				-5.32916761649E+02				6.02486E-03	+/- 5.5E-05
Sband delay (usec)	-5.32925719149E+02				-5.0481014E+00				-8.95750E-03	+/- 4.4E-04
Phase delay (usec)	-5.32916758446E+02				2.0599841E-08				3.20281E-06	+/- 1.9E-07
Delay rate (us/s)	-4.93735842601E-02				-4.93736716968E-02				8.74367E-08	+/- 7.8E-10
Total phase (deg)			-206.1		1.25373356945E-06				99.3	+/- 5.8
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
u: az 277.0 el 45.8 pa 67.7										
y: az 273.7 el 47.9 pa 65.0										
u,v (fr/asec) 325.360 -166.622										
Control file: cf_1234_gmva										
Input file: /Exps/c241b/v2/3mm/1234/No0446/uy..3MP11G										
Output file: /Exps/c241b/v2/3mm/1234/No0446/uy.W.82.3MP11G										

simultaneous interpolator

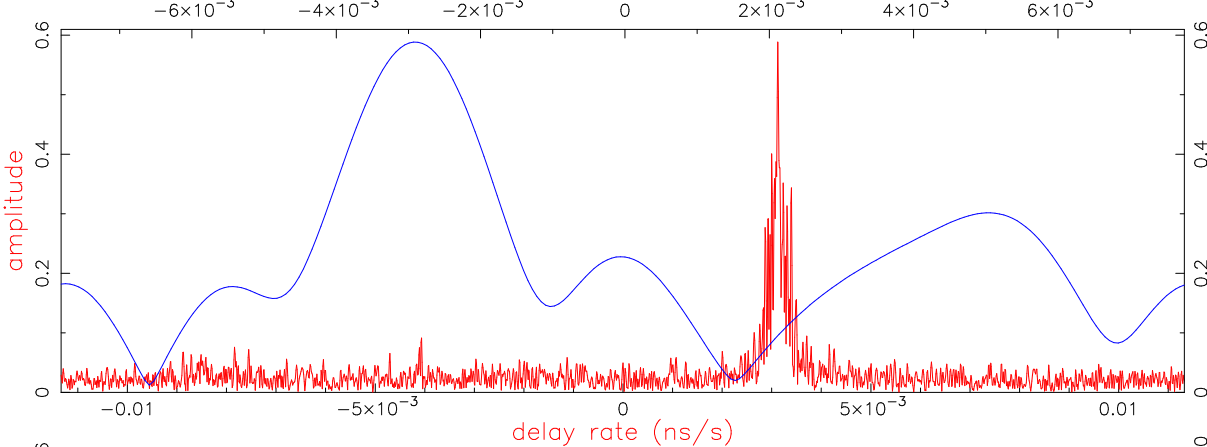
Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uY

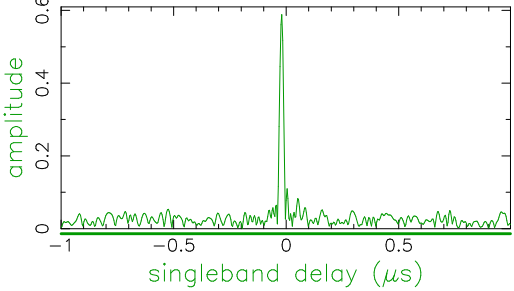
KVNUS - YEBES40M, fgroup W, pol LL

multiband delay ( $\mu$ s)

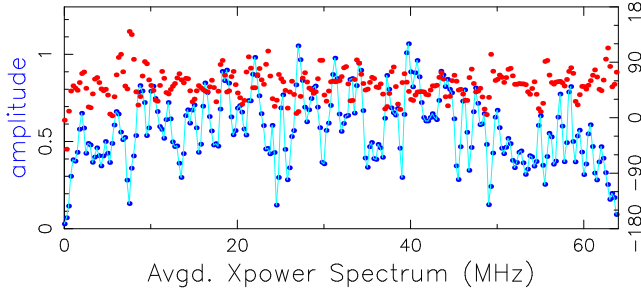


Fringe quality 4

SNR 32.4  
 Int time 401.984  
 Amp 0.610  
 Phase -148.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020392  
 MBD -0.002930  
 Fringe rate (Hz)  
 0.268916  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

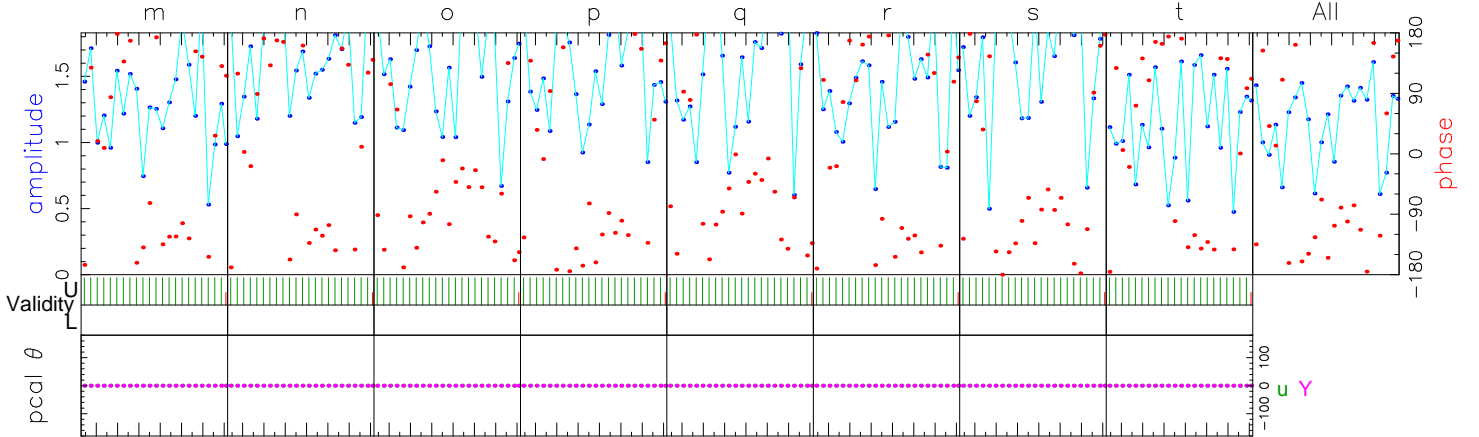


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170017.41  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163107  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

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



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

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

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

u: az 277.0 el 45.8 pa 67.7 Y: az 72.5 el 25.6 pa -56.2 u,v (fr/asec) 12391.929 -2109.504 simultaneous interpolator

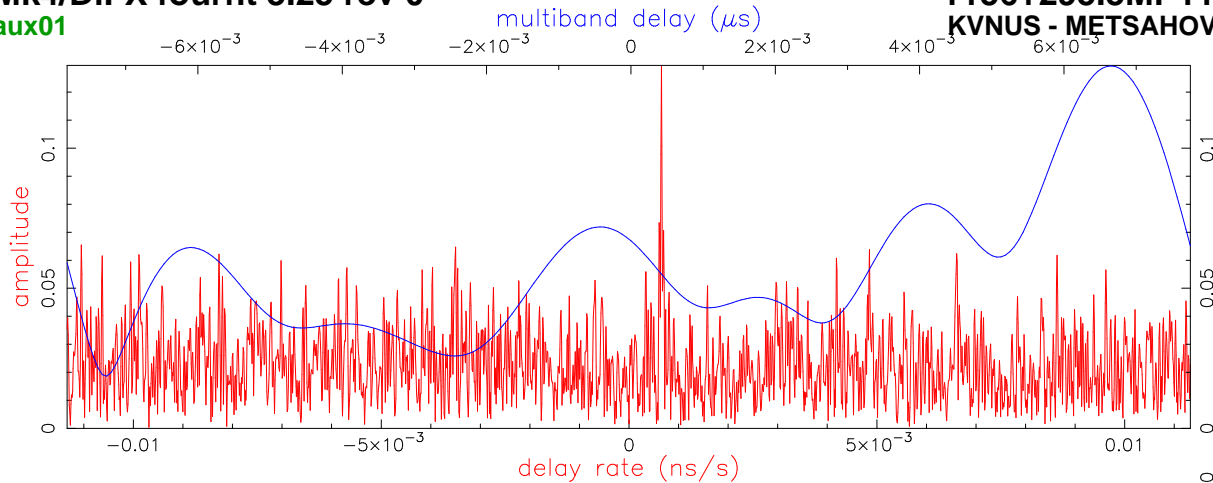
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uY...3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uY.W.96.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

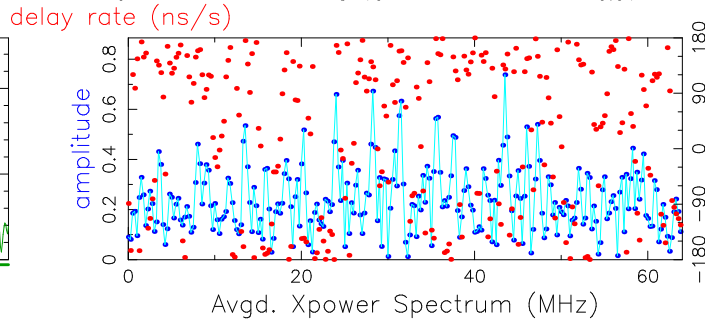
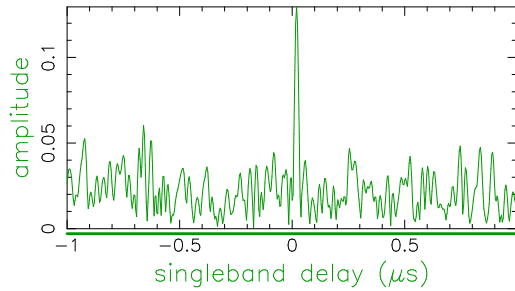
1156+295.3MP11G, No0446, uZ

KVNUS - METSAHOV, fgroup W, pol LL



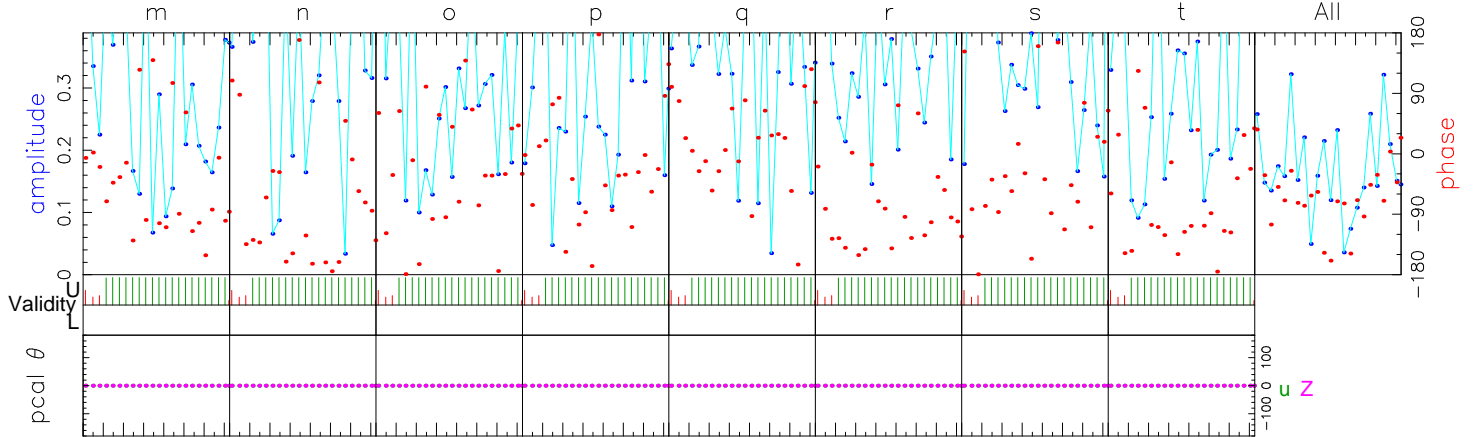
Fringe quality 0

SNR 6.9  
 Int time 384.653  
 Amp 0.130  
 Phase -60.0  
 PFD 1.2e-03  
 Delays (us)  
 SBD 0.019438  
 MBD 0.006650  
 Fringe rate (Hz)  
 0.056689  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163048  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-69.9	-127.1	11.0	-36.7	13.7	-90.4	-68.7	-76.5	Phase	-60.0
	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	424.6	262.2	57.2	263.0	262.9	261.7	261.7	89.4	Sbd box	262.0
U/L	782/0	782/0	782/0	782/0	782/0	782/0	782/0	782/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 3.62713348406E+02 Apriori delay (usec) 3.62691073057E+02 Resid mbdelay (usec) 6.65035E-03 +/- 1.6E-04  
 Sband delay (usec) 3.62710510807E+02 Apriori clock (usec) 1.1327820E+00 Resid sbdelay (usec) 1.94378E-02 +/- 1.2E-03  
 Phase delay (usec) 3.62691071121E+02 Apriori clockrate (us/s) -5.3007902E-07 Resid phdelay (usec) -1.93533E-06 +/- 5.3E-07  
 Delay rate (us/s) -1.41355369061E+00 Apriori rate (us/s) -1.41355434871E+00 Resid rate (us/s) 6.58103E-07 +/- 2.3E-09  
 Total phase (deg) -48.1 Apriori accel (us/s/s) -1.76731460664E-05 Resid phase (deg) -60.0 +/- 16.5

RMS Theor. Amplitude 0.130 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 44.9 38.7 Search (2048X32) 0.120 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 67.8 67.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 53.1 23.4 Inc. seg. avg. 0.139 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 43.2 40.8 Inc. frq. avg. 0.163 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

u: az 277.0 el 45.8 pa 67.7 Z: az 107.6 el 43.3 pa -32.8 u,v (fr/asec) 9241.335 -3062.593 simultaneous interpolator

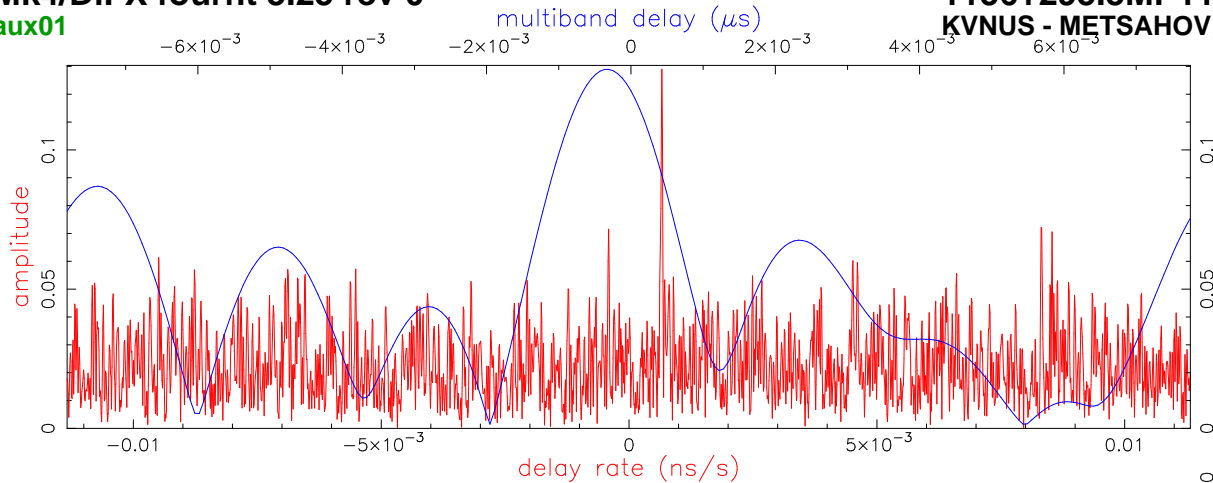
Control file: cf\_1234\_gmva Input file: /Exps/c241b/v2/3mm/1234/No0446/uZ..3MP11G Output file: /Exps/c241b/v2/3mm/1234/No0446/uZ.W.37.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

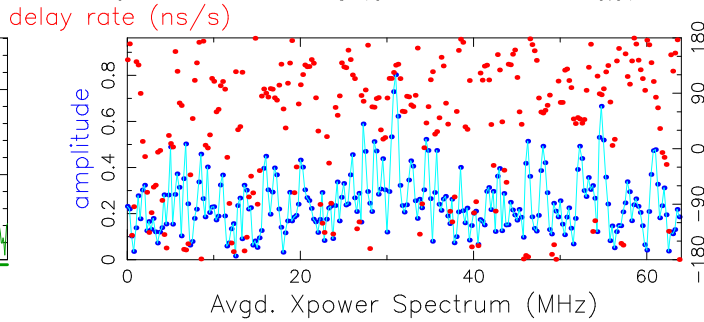
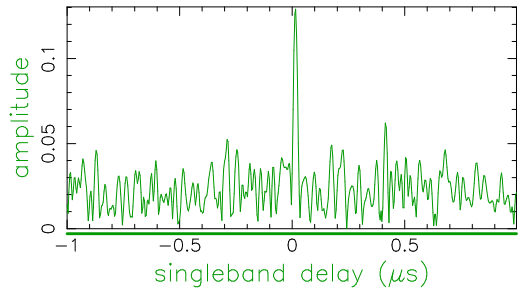
1156+295.3MP11G, No0446, uZ

KVNUS - METSAHOV, fgroup W, pol RR



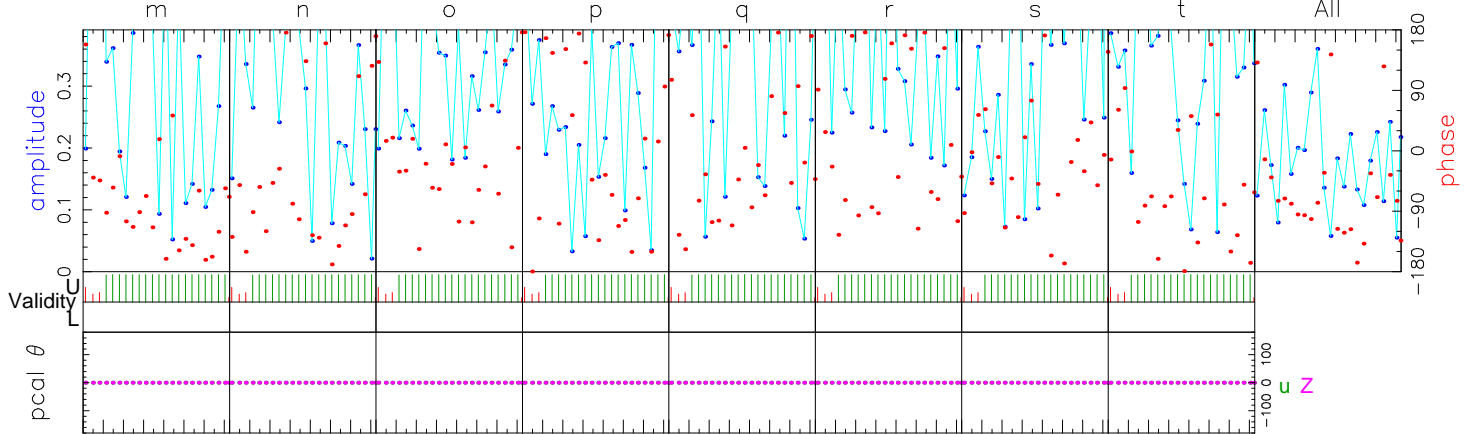
Fringe quality 0

SNR 7.0  
 Int time 384.653  
 Amp 0.130  
 Phase -86.4  
 PFD 8.8e-04  
 Delays (us)  
 SBD 0.014246  
 MBD -0.000316  
 Fringe rate (Hz)  
 0.056877  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163053  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-91.0	-109.4	-31.0	-115.4	-69.9	-129.1	-36.1	-103.4	Phase	-86.4
	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	261.3	321.8	261.2	455.9	279.6	96.2	18.5	261.8	Sbd box	260.6
U/L	782/0	782/0	782/0	782/0	782/0	782/0	782/0	782/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.62706381696E+02	Apriori delay (usec)	3.62691073057E+02	Resid mbdelay (usec)	-3.16360E-04	+/-	1.6E-04
Sband delay (usec)	3.62705318807E+02	Apriori clock (usec)	1.1327820E+00	Resid sbdelay (usec)	1.42458E-02	+/-	1.2E-03
Phase delay (usec)	3.62691070271E+02	Apriori clockrate (us/s)	-5.3007902E-07	Resid phdelay (usec)	-2.78565E-06	+/-	5.3E-07
Delay rate (us/s)	-1.41355368843E+00	Apriori rate (us/s)	-1.41355434871E+00	Resid rate (us/s)	6.60283E-07	+/-	2.3E-09
Total phase (deg)	-74.5	Apriori accel (us/s/s)	-1.76731460664E-05	Resid phase (deg)	-86.4	+/-	16.4

ph/seg (deg)	RMS 60.3	Theor. 38.4	Amplitude Search (2048X32)	0.130 +/- 0.019	0.125	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.3	67.1	Interp.	0.000	0.125	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	39.5	23.2	Inc. seg. avg.	0.144	0.125	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	44.0	40.5	Inc. frq. avg.	0.141	0.125	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

u: az 277.0 el 45.8 pa 67.7      Z: az 107.6 el 43.3 pa -32.8      u,v (fr/asec) 9241.335 -3062.593      simultaneous interpolator

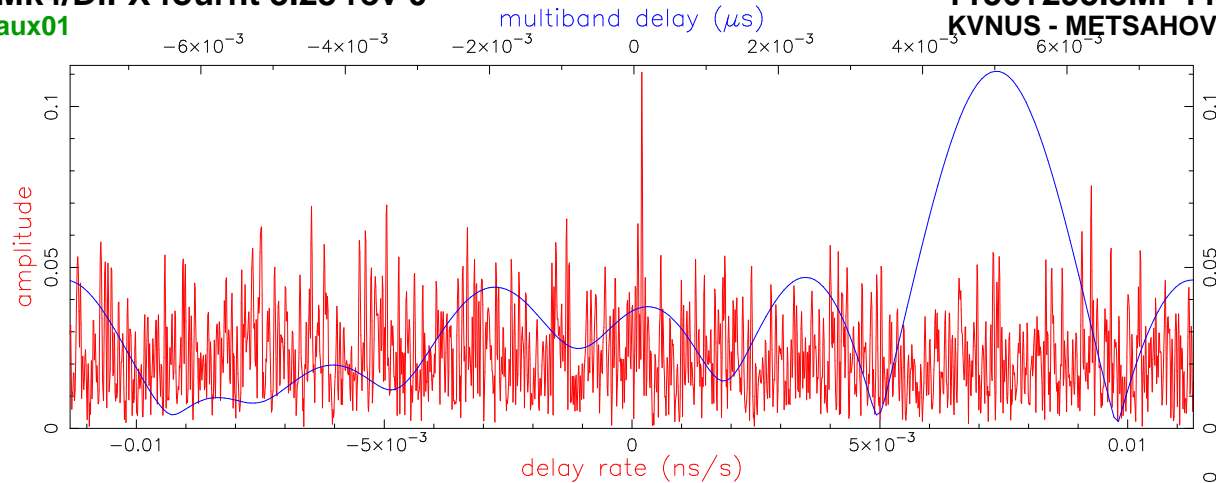
Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uZ...3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uZ.W.55.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

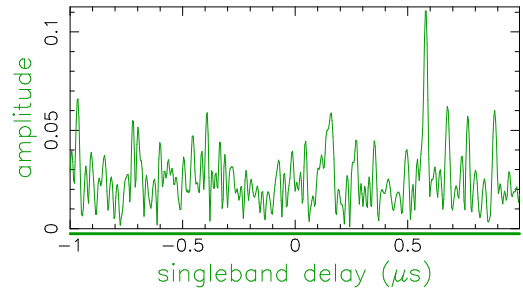
1156+295.3MP11G, No0446, uZ

KVNUS - METSAHOV, fgroup W, pol LR

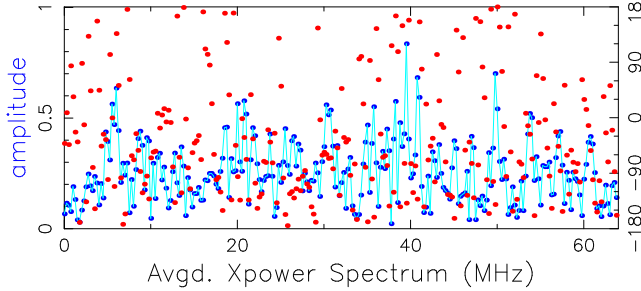


Fringe quality 0

SNR 6.0  
 Int time 384.653  
 Amp 0.113  
 Phase 51.7  
 PFD 3.2e-01  
 Delays (us)  
 SBD 0.580081  
 MBD 0.005100  
 Fringe rate (Hz)  
 0.017095  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

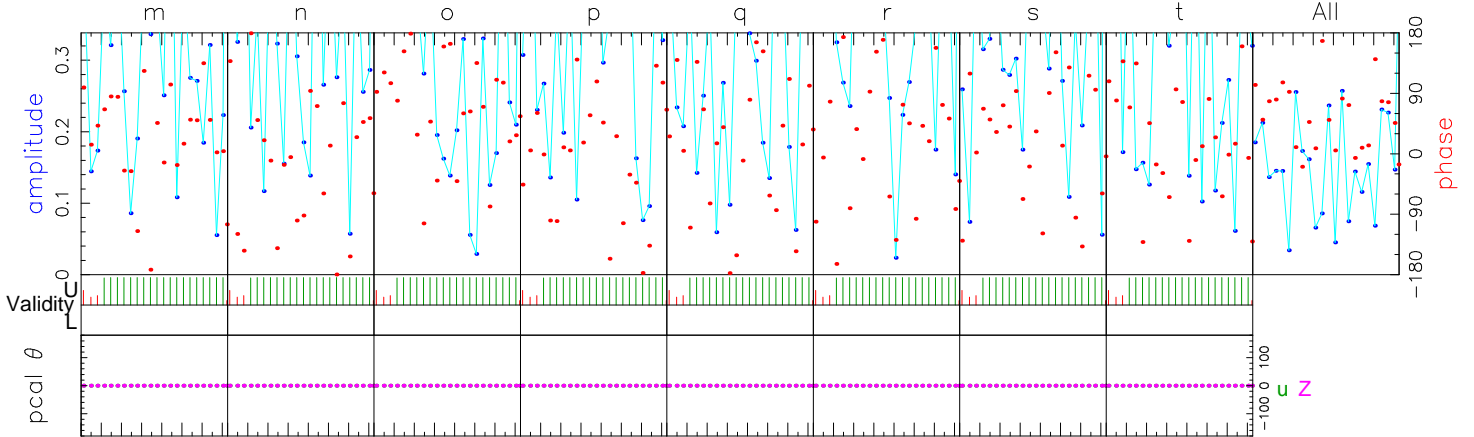


delay rate (ns/s)



Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build  
 2024:358:161459  
 2025:041:163056  
 2024:113:095956  
 RA & Dec (J2000)  
 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	64.3	27.8	85.3	22.2	29.0	55.8	56.5	40.0	Phase	51.7
	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	Ampl.	0.1
	406.0	485.1	239.4	65.2	384.5	136.4	156.6	224.0	Sbd box	405.5
U/L	782/0	782/0	782/0	782/0	782/0	782/0	782/0	782/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.63274298542E+02	Apriori delay (usec)	3.62691073057E+02	Resid mbdelay (usec)	5.10049E-03	+/-	1.8E-04
Sband delay (usec)	3.63271153557E+02	Apriori clock (usec)	1.1327820E+00	Resid sbdelay (usec)	5.80081E-01	+/-	1.4E-03
Phase delay (usec)	3.62691074725E+02	Apriori clockrate (us/s)	-5.3007902E-07	Resid phdelay (usec)	1.66873E-06	+/-	6.1E-07
Delay rate (us/s)	-1.41355415025E+00	Apriori rate (us/s)	-1.41355434871E+00	Resid rate (us/s)	1.98461E-07	+/-	2.6E-09
Total phase (deg)	63.7	Apriori accel (us/s/s)	-1.76731460664E-05	Resid phase (deg)	51.7	+/-	19.0

ph/seg (deg)	49.4	Theor.	44.4	Amplitude	0.113 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.0		77.5	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	23.9		26.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.7		46.8	Inc. seg. avg.	0.114	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.106	Data rate(Mb/s): 2048	t_cohere infinite			

u: az 277.0 el 45.8 pa 67.7      Z: az 107.6 el 43.3 pa -32.8      u,v (fr/asec) 9241.335 -3062.593      simultaneous interpolator

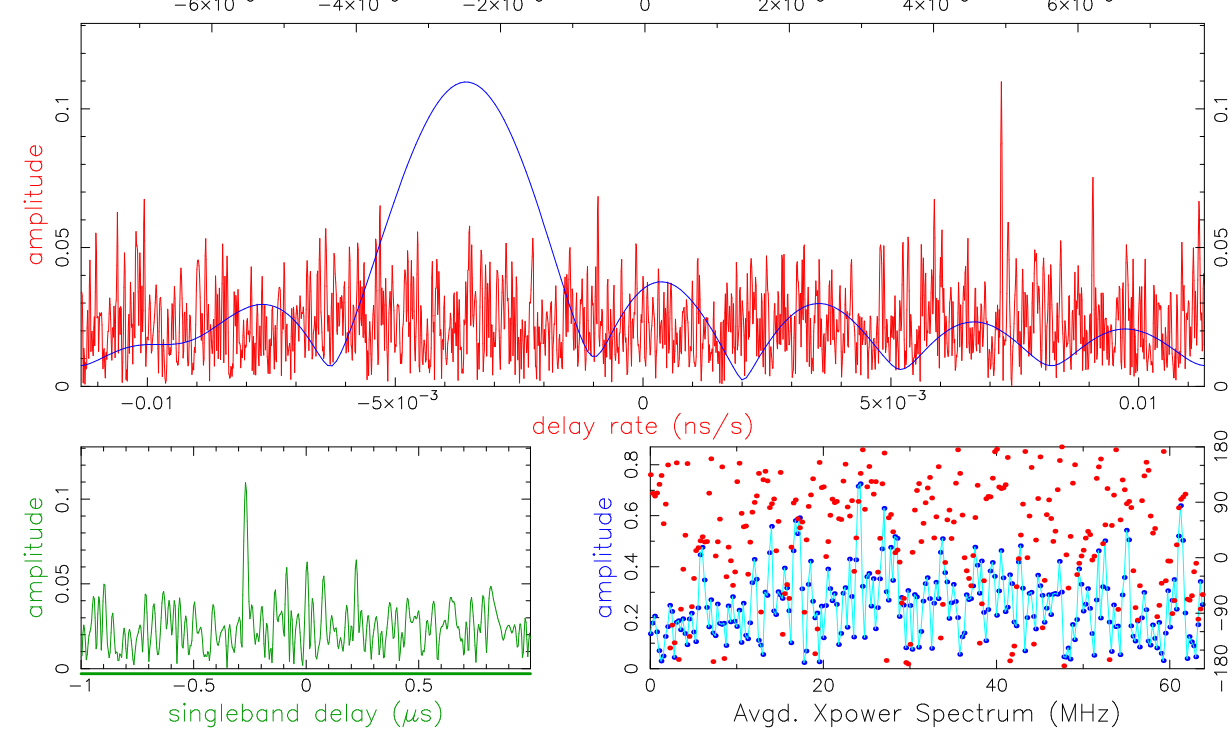
Control file: cf\_1234\_gmva      Input file: /Exps/c241b/v2/3mm/1234/No0446/uZ..3MP11G      Output file: /Exps/c241b/v2/3mm/1234/No0446/uZ.W.67.3MP11G

Mk4/DiFX fourfit 3.25 rev 0

aux01

1156+295.3MP11G, No0446, uZ

KVNUS - METSAHOV, fgroup W, pol RL

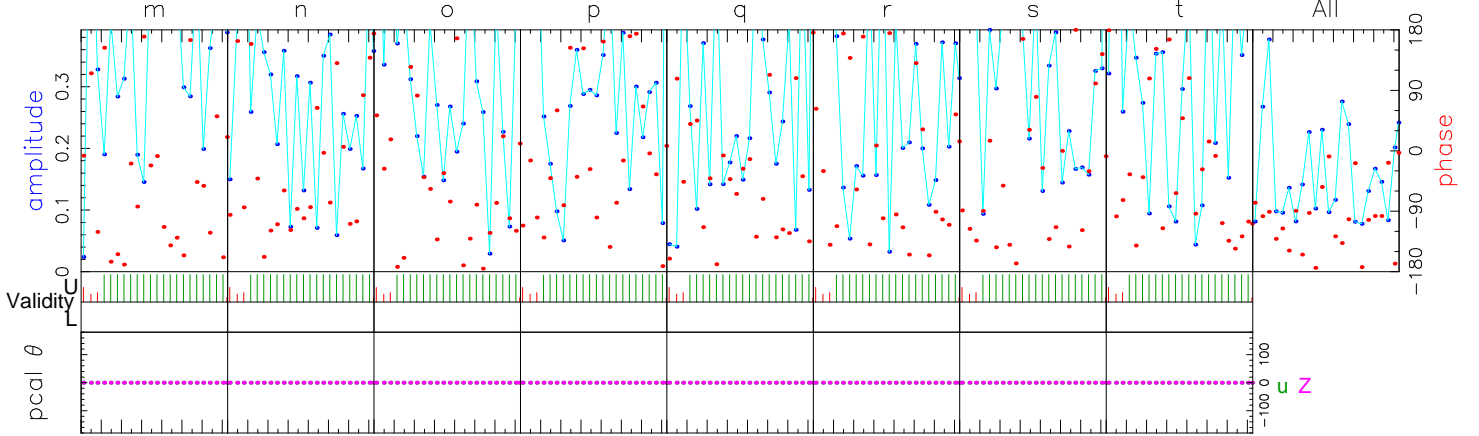


Fringe quality 0

SNR 5.9  
 Int time 384.653  
 Amp 0.131  
 Phase -108.3  
 PFD 6.1e-01  
 Delays (us)  
 SBD -0.268883  
 MBD -0.002471  
 Fringe rate (Hz) 0.623715  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c241b  
 Exper # 1234  
 Yr:day 2024:110  
 Start 170000.00  
 Stop 170659.84  
 FRT 170330.00  
 Corr/FF/build 2024:358:161459  
 2025:041:163100  
 2024:113:095956  
 RA & Dec (J2000) 11h59m31.833914s  
 +29°14'43.826824"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-120.5	-96.1	-114.4	-89.6	-90.7	-117.8	-127.3	-104.4	Phase	-108.3
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	49.1	27.8	490.5	123.4	94.7	195.1	159.1	101.0	Sbd box	188.2
U/L	782/0	782/0	782/0	782/0	782/0	782/0	782/0	782/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	3.62422977473E+02					3.62691073057E+02			Resid mbdelay (usec)	-2.47058E-03 +/- 1.8E-04
Sband delay (usec)	3.62422189557E+02					1.1327820E+00			Resid sbdelay (usec)	-2.68883E-01 +/- 1.5E-03
Phase delay (usec)	3.62691069565E+02					-5.3007902E-07			Resid phdelay (usec)	-3.49187E-06 +/- 6.3E-07
Delay rate (us/s)	-1.41354710800E+00					-1.41355434871E+00			Resid rate (us/s)	7.24072E-06 +/- 2.7E-09
Total phase (deg)		-96.4				-1.76731460664E-05			Resid phase (deg)	-108.3 +/- 19.4
	RMS	Theor.	Amplitude	0.131 +/- 0.022					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	49.7	45.5	Search (2048X32)	0.109					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.7	79.4	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	15.6	27.5	Inc. seg. avg.	0.133					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	16.7	48.0	Inc. frq. avg.	0.120					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
u: az 277.0 el 45.8 pa 67.7			Z: az 107.6 el 43.3 pa -32.8			u, v (fr/asec) 9241.335 -3062.593			nlags: 256 t_cohere infinite	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241b/v2/3mm/1234/No0446/uZ..3MP11G			Output file: /Exps/c241b/v2/3mm/1234/No0446/uZ.W.76.3MP11G				