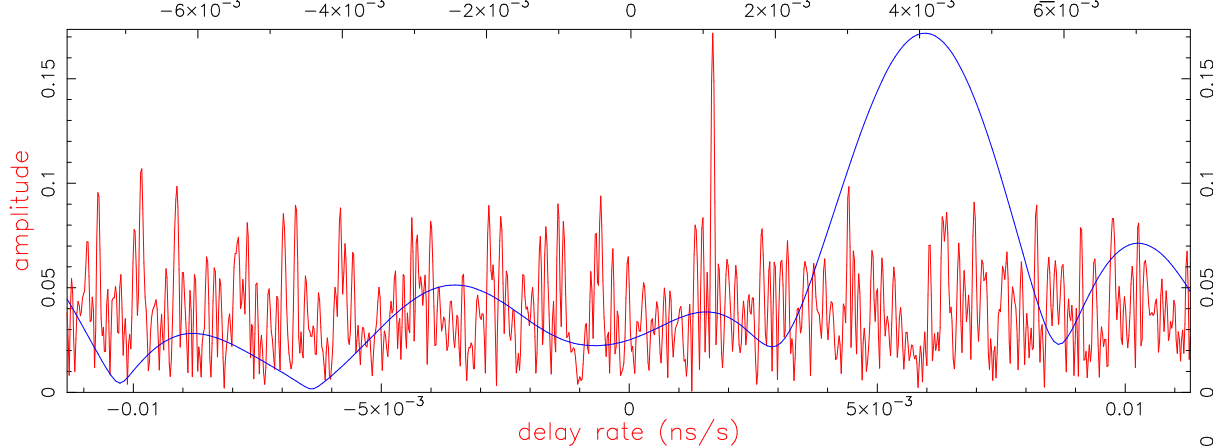


Mk4/DiFX fourfit 3.25 rev 0

aux01

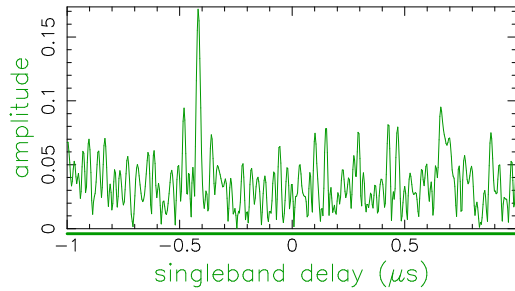
3C371.3MP15Q, No0901, bu
VLBA_BR- KVNUS, fgroup W, pol RR

multiband delay (μ s)

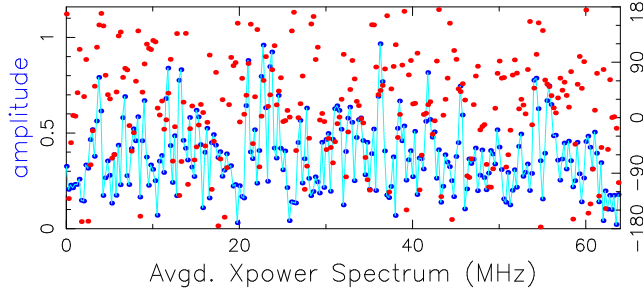


Fringe quality 0

SNR 5.7
Int time 149.133
Amp 0.174
Phase -141.6
PFD 6.8e-01
Delays (us)
SBD -0.417460
MBD 0.004090
Fringe rate (Hz)
0.145253
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

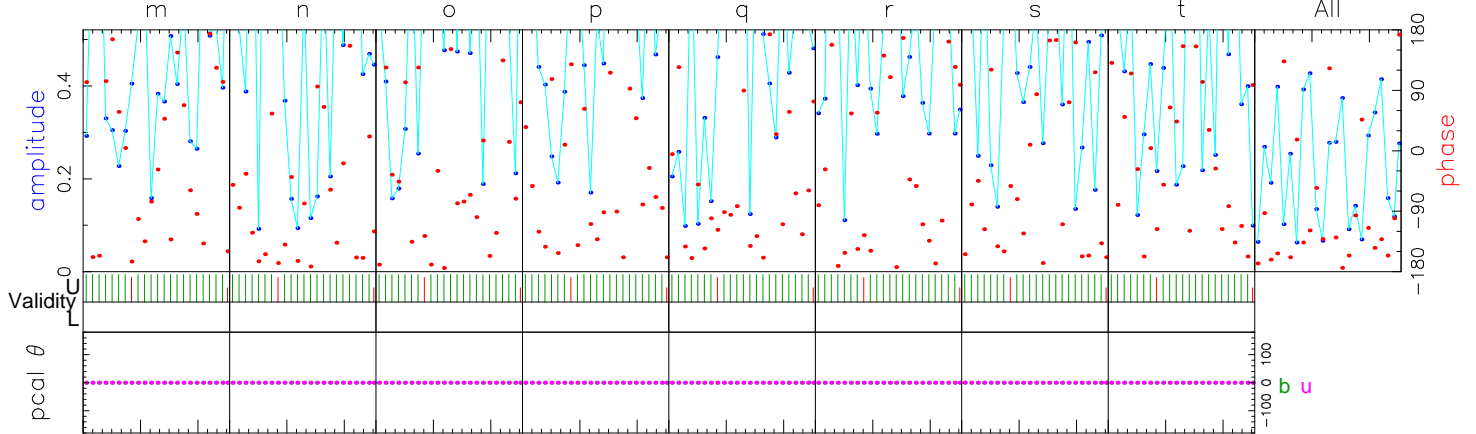


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105500
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.7	-130.6	-133.8	-115.9	-115.8	-170.3	-145.4	-142.7	Phase	-141.6
	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.2
	505.9	74.0	333.0	483.0	9.5	240.0	243.2	135.2	Sbd box	150.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	1.37536358032E+03		Apriori delay (usec)	1.37578136566E+03	Resid mbdelay (usec)	4.08966E-03	+/-	1.9E-04		
Sband delay (usec)	1.37536390541E+03		Apriori clock (usec)	0.170	Resid sbdelay (usec)	-4.17460E-01	+/-	1.5E-03		
Phase delay (usec)	1.37578136110E+03		Apriori clockrate (us/s)	4.1367994E-07	Resid phdelay (usec)	-4.56553E-06	+/-	6.4E-07		
Delay rate (us/s)	-6.41436066353E-01		Apriori rate (us/s)	-6.41437752597E-01	Resid rate (us/s)	1.68624E-06	+/-	7.4E-09		
Total phase (deg)		160.2	Apriori accel (us/s/s)	1.00071075124E-05	Resid phase (deg)	-141.6	+/-	20.0		

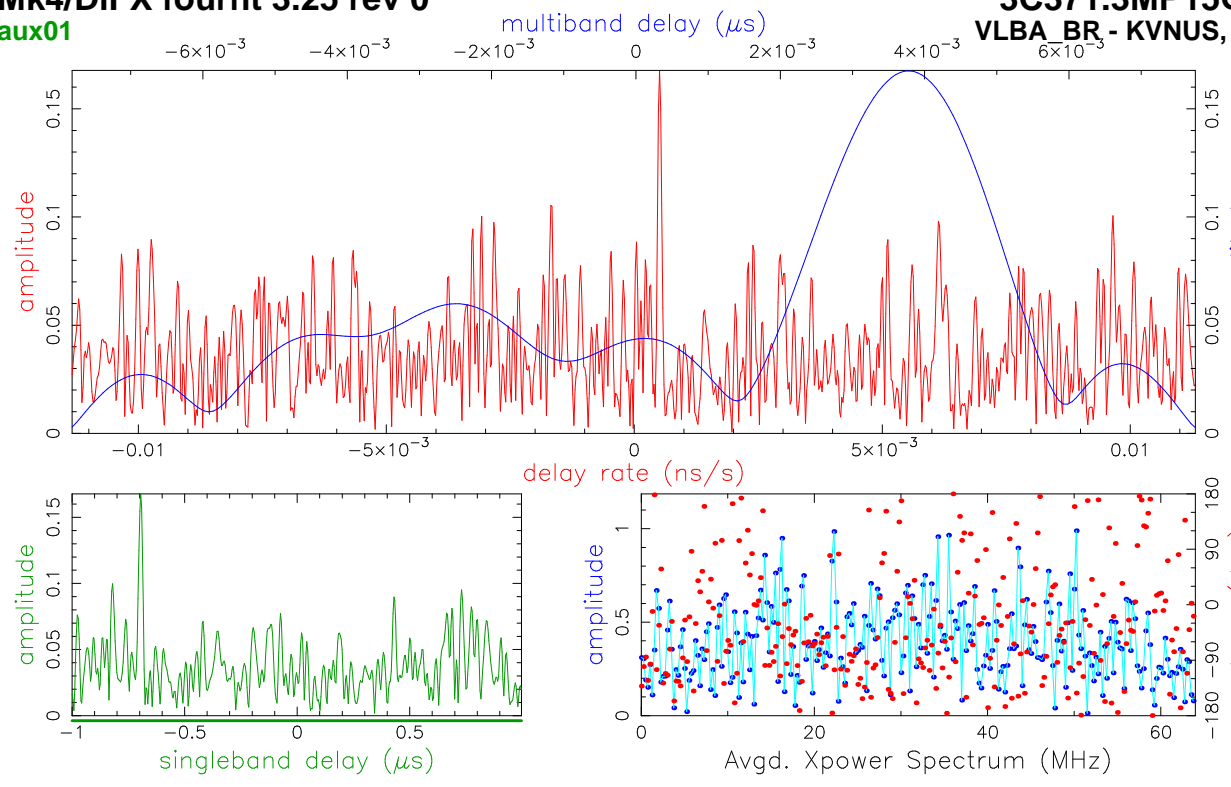
ph/seg (deg) 63.5 47.8 Search (1024X32) 0.170 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 78.6 83.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 22.5 28.2 Inc. seg. avg. 0.168 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 29.4 49.2 Inc. frq. avg. 0.164 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 328.9 el 53.3 pa 92.4 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 10678.276 2511.806 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bu.W.15.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

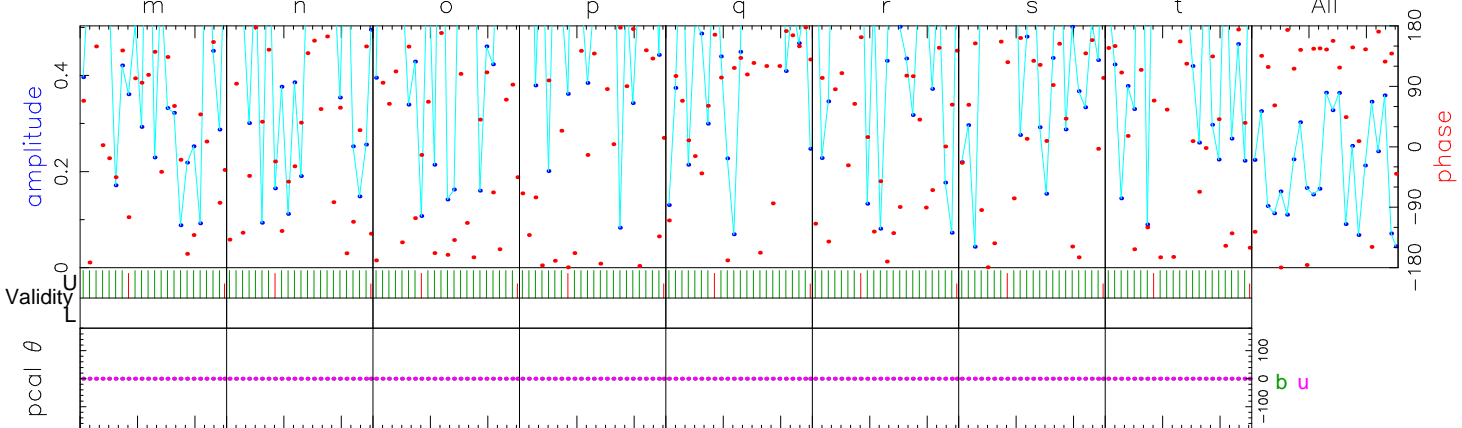
3C371.3MP15Q, No0901, bu

VLBA_BR - KVNUS, fgroup W, pol LR



Fringe quality 0
 SNR 5.6
 Int time 149.133
 Amp 0.168
 Phase 148.5
 PFD 9.3e-01
 Delays (us)
 SBD -0.694986
 MBD 0.003777
 Fringe rate (Hz)
 0.044505
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105503
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	87.4	179.1	139.5	172.2	130.5	164.8	155.8	140.0	Phase	148.5
	0.1	0.2	0.2	0.2	0.3	0.1	0.2	0.2	Ampl.	0.2
	46.3	64.9	80.6	300.3	76.9	367.8	169.4	395.8	Sbd box	79.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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	

Group delay (usec) (SBD)	1.37508201779E+03	Apriori delay (usec)	1.37578136566E+03	Resid mbdelay (usec)	3.77713E-03	+/-	1.9E-04
Sband delay (usec)	1.37508638016E+03	Apriori clock (usec)	3.2991638E+00	Resid sbdelay (usec)	-6.94986E-01	+/-	1.5E-03
Phase delay (usec)	1.37578137045E+03	Apriori clockrate (us/s)	4.1367994E-07	Resid phdelay (usec)	4.78881E-06	+/-	6.6E-07
Delay rate (us/s)	-6.41437235937E-01	Apriori rate (us/s)	-6.41437752597E-01	Resid rate (us/s)	5.16660E-07	+/-	7.6E-09
Total phase (deg)	90.3	Apriori accel (us/s/s)	1.00071075124E-05	Resid phase (deg)	148.5	+/-	20.5

ph/seg (deg)	RMS 56.5	Theor. 49.1	Amplitude Search (1024X32)	0.168 +/- 0.030	0.164	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.0	85.7	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.7	28.9	Inc. seg. avg.	0.156	0.156	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.0	50.5	Inc. frq. avg.	0.161	0.161	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 328.9 el 53.3 pa 92.4 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 10678.276 2511.806 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bu.W.28.3MP15Q

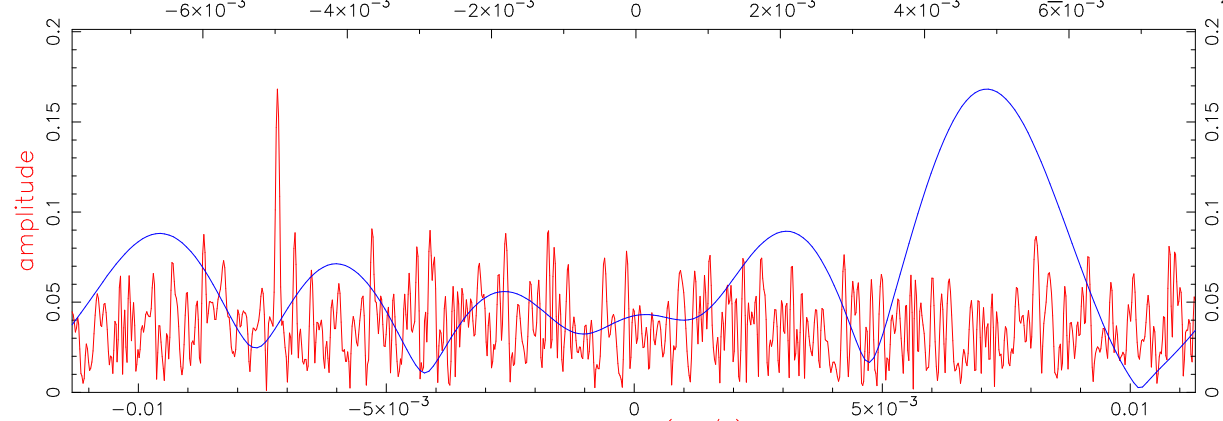
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bu

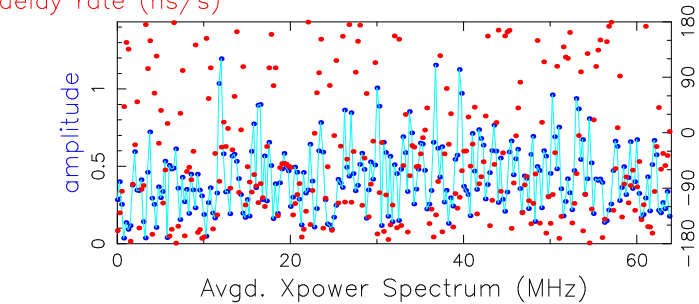
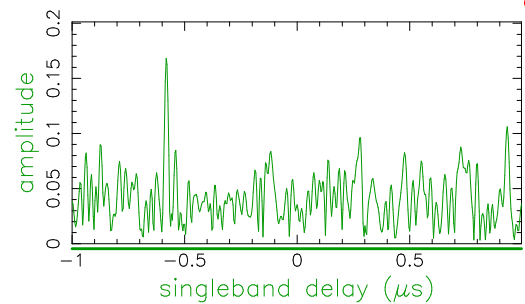
VLBA_BR - KVNUS, fgroup W, pol RL

multiband delay (μ s)



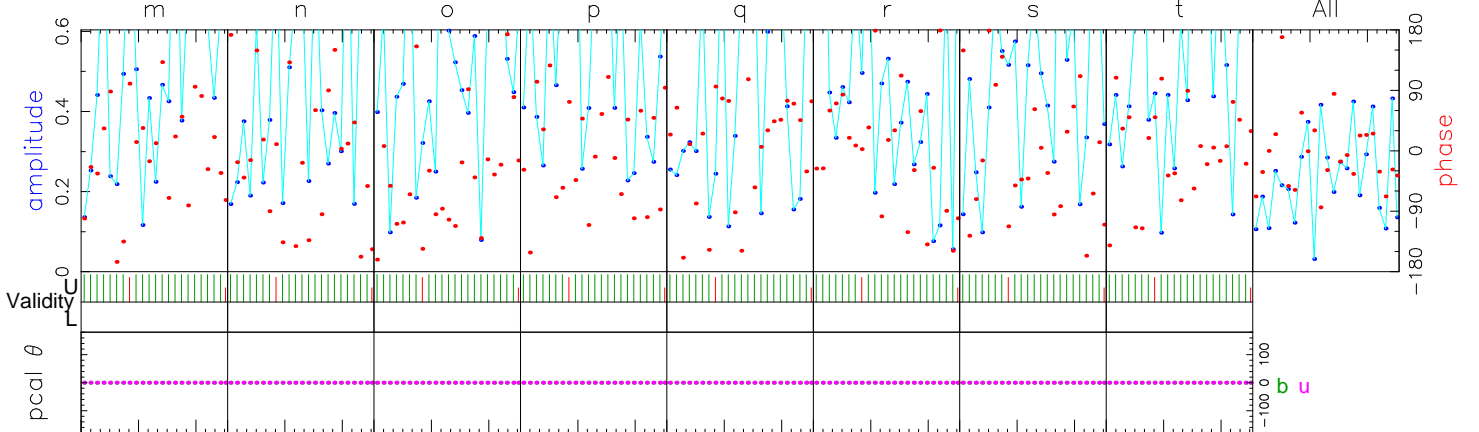
Fringe quality 0

SNR 5.7
 Int time 149.133
 Amp 0.201
 Phase -13.0
 PFD 8.4e-01
 Delays (us)
 SBD -0.580832
 MBD 0.004895
 Fringe rate (Hz)
 -0.620889
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105505
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



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

Group delay (usec) (SBD)	1.37520813522E+03	Apriori delay (usec)	1.37578136566E+03	Resid mbdelay (usec)	4.89456E-03	+/-	1.9E-04
Sband delay (usec)	1.37520053391E+03	Apriori clock (usec)	3.2991638E+00	Resid sbdelay (usec)	-5.80832E-01	+/-	1.5E-03
Phase delay (usec)	1.37578136524E+03	Apriori clockrate (us/s)	4.1367994E-07	Resid phdelay (usec)	-4.19209E-07	+/-	6.5E-07
Delay rate (us/s)	-6.41444960500E-01	Apriori rate (us/s)	-6.41437752597E-01	Resid rate (us/s)	-7.20790E-06	+/-	7.5E-09
Total phase (deg)	288.8	Apriori accel (us/s/s)	1.00071075124E-05	Resid phase (deg)	-13.0	+/-	20.2

ph/seg (deg)	55.8	RMS	55.8	Theor.	48.5	Amplitude	0.201 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5				
amp/seg (%)	79.0	Search (1024X32)	0.165	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)	33.6	Inc. seg. avg.	0.210	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 (%)	43.3	Inc. frq. avg.	0.205	u, v (fr/asec)	10678.276 2511.806	simultaneous interpolator									

b: az 328.9 el 53.3 pa 92.4 u: az 22.1 el 47.3 pa -118.3 v: (fr/asec) 10678.276 2511.806 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bu.W.38.3MP15Q

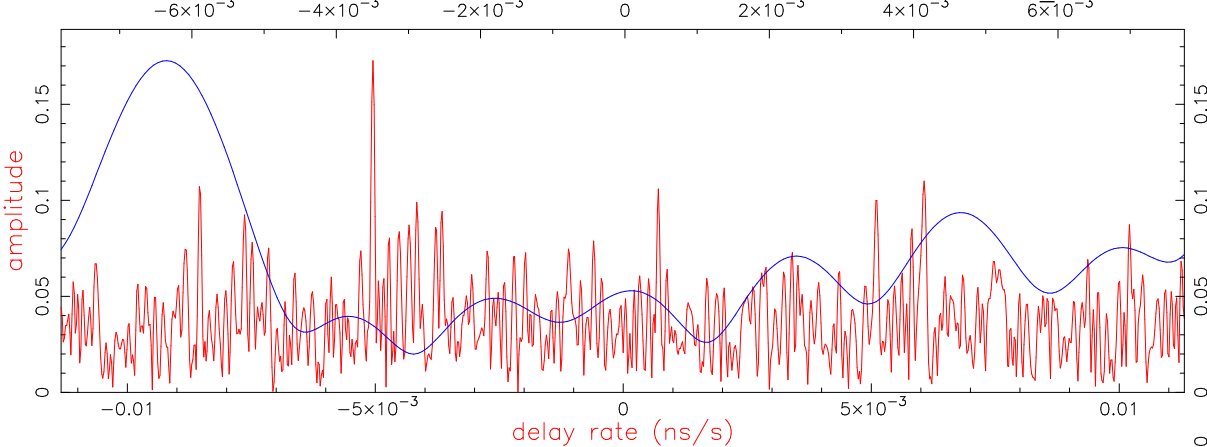
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bu

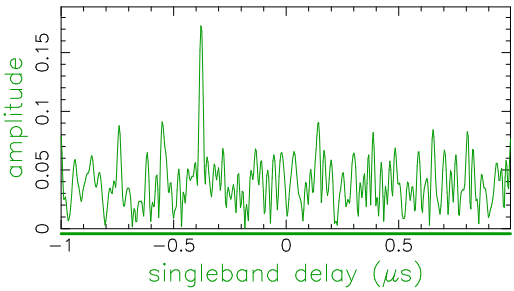
VLBA_BR - KVNUS, fgroup W, pol LL

multiband delay (μ s)

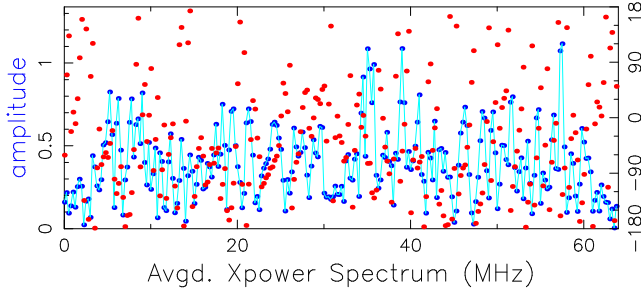


Fringe quality 0

SNR 5.8
 Int time 149.133
 Amp 0.189
 Phase -28.0
 PFD 5.4e-01
 Delays (us)
 SBD -0.377699
 MBD -0.006335
 Fringe rate (Hz)
 -0.434703
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

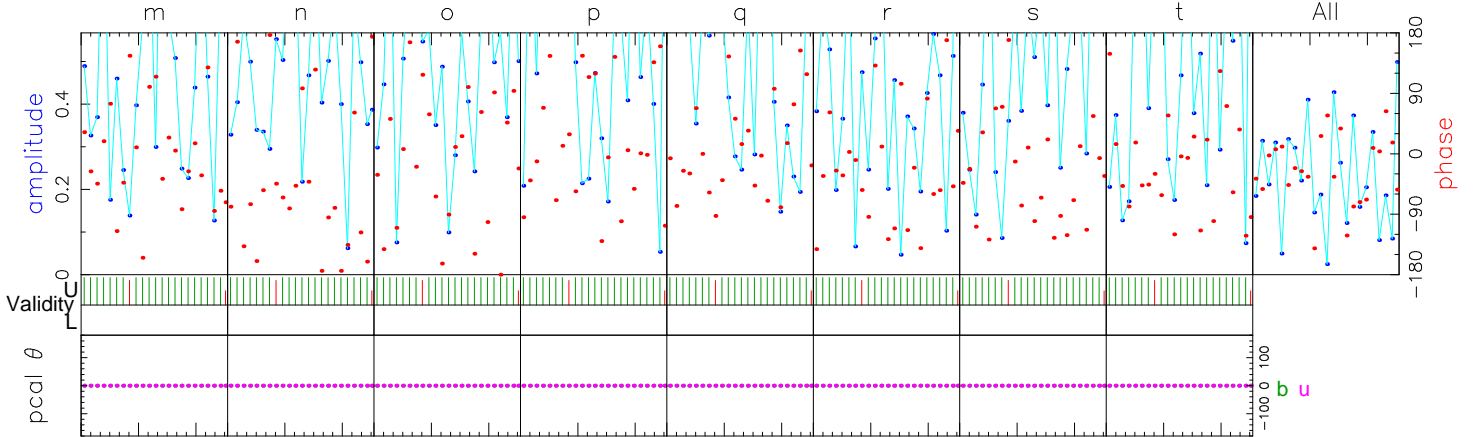


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105458
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-12.8	-105.5	64.6	-14.7	-19.4	-28.7	-46.0	-26.6	Phase	-28.0
	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.3	Ampl.	0.2
	28.8	286.9	202.9	150.5	159.2	238.9	375.4	262.9	Sbd box	160.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.37540003026E+03	Apriori delay (usec)	1.37578136566E+03	Resid mbdelay (usec)	-6.33541E-03	+/-	1.9E-04
Sband delay (usec)	1.37540366666E+03	Apriori clock (usec)	3.2991638E+00	Resid sbdelay (usec)	-3.77699E-01	+/-	1.5E-03
Phase delay (usec)	1.37578136476E+03	Apriori clockrate (us/s)	4.1367994E-07	Resid phdelay (usec)	-9.02801E-07	+/-	6.4E-07
Delay rate (us/s)	-6.41442799069E-01	Apriori rate (us/s)	-6.41437752597E-01	Resid rate (us/s)	-5.04647E-06	+/-	7.3E-09
Total phase (deg)	273.8	Apriori accel (us/s/s)	1.00071075124E-05	Resid phase (deg)	-28.0	+/-	19.7

ph/seg (deg)	51.6	Theor.	47.3	Amplitude	0.189 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.3		82.5	Search (1024X32)	0.171	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	50.6		27.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.1		48.7	Inc. seg. avg.	0.186	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.206	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 328.9 el 53.3 pa 92.4 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 10678.276 2511.806 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bu.W.6.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

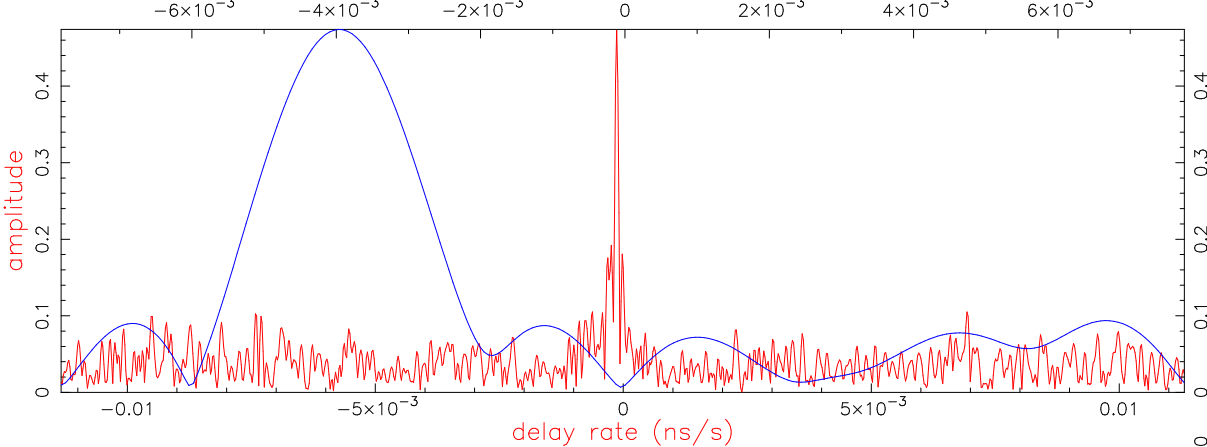
aux01

3C371.3MP15Q, No0901, Bu

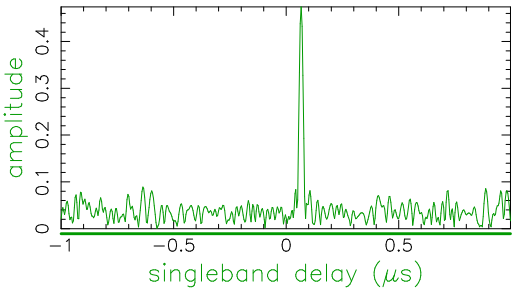
EFLSBERG - KVNUS, fgroup W, pol LL

multiband delay (μ s)

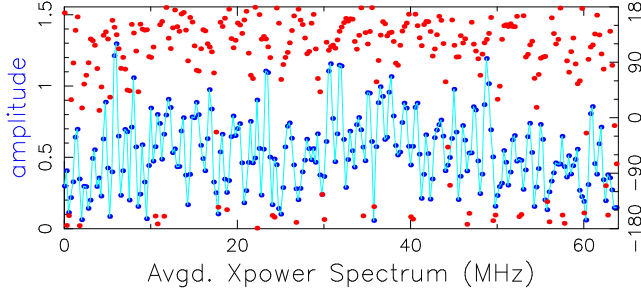
Fringe quality 9



SNR 15.9
 Int time 149.836
 Amp 0.474
 Phase -137.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.066266
 MBD -0.003962
 Fringe rate (Hz)
 -0.012145
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

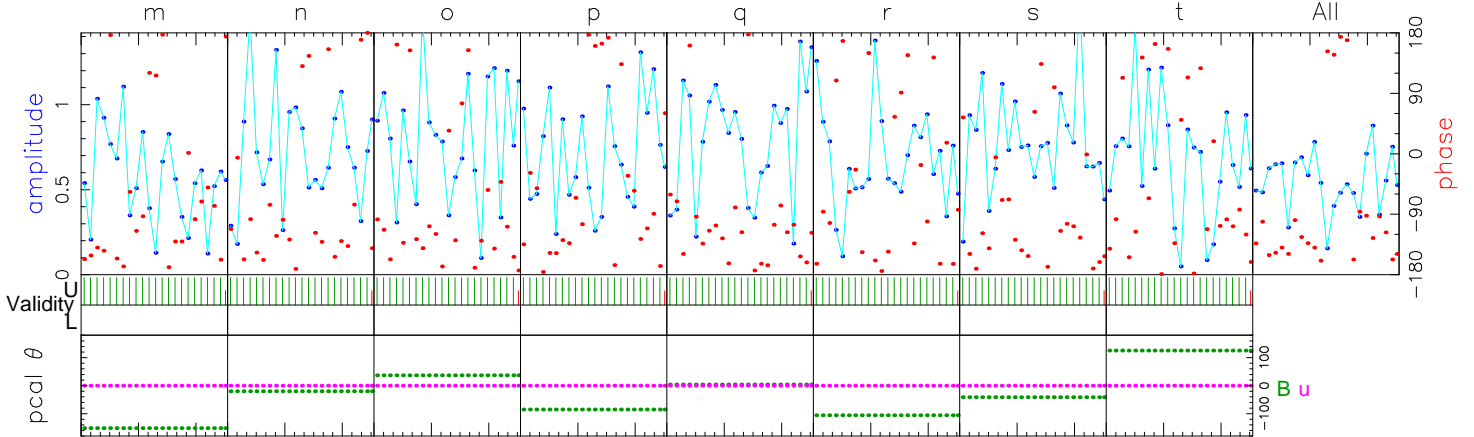


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105517
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-141.5	-140.4	-137.2	-134.0	-130.6	-146.2	-129.8	-148.1	Phase	-137.6
	0.4	0.6	0.5	0.5	0.7	0.3	0.5	0.4	Ampl.	0.5
	272.3	274.0	274.4	274.5	274.6	274.1	274.2	273.4	Sbd box	274.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
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	Mani 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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.89128249473E+03	Apriori delay (usec)	-4.89134103290E+03	Resid mbdelay (usec)	-3.96184E-03	+/-	6.8E-05
Sband delay (usec)	-4.89127476640E+03	Apriori clock (usec)	-3.6738331E+01	Resid sbdelay (usec)	6.62665E-02	+/-	5.4E-04
Phase delay (usec)	-4.89134103734E+03	Apriori clockrate (us/s)	-3.5230000E-07	Resid phdelay (usec)	-4.43698E-06	+/-	2.3E-07
Delay rate (us/s)	-2.59446746094E-01	Apriori rate (us/s)	-2.59446605099E-01	Resid rate (us/s)	-1.40994E-07	+/-	2.7E-09
Total phase (deg)	-344.2	Apriori accel (us/s/s)	4.60098886647E-05	Resid phase (deg)	-137.6	+/-	7.2

ph/seg (deg)	RMS 35.1	Theor. 17.3	Amplitude Search (1024X32)	0.474 +/- 0.030	0.463	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	38.9	30.2	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	7.4	10.2	Inc. seg. avg.	0.525		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 (%)	20.6	17.8	Inc. frq. avg.	0.469		Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

B: az 4.0 el 30.6 pa -7.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 4432.568 10363.488 simultaneous interpolator

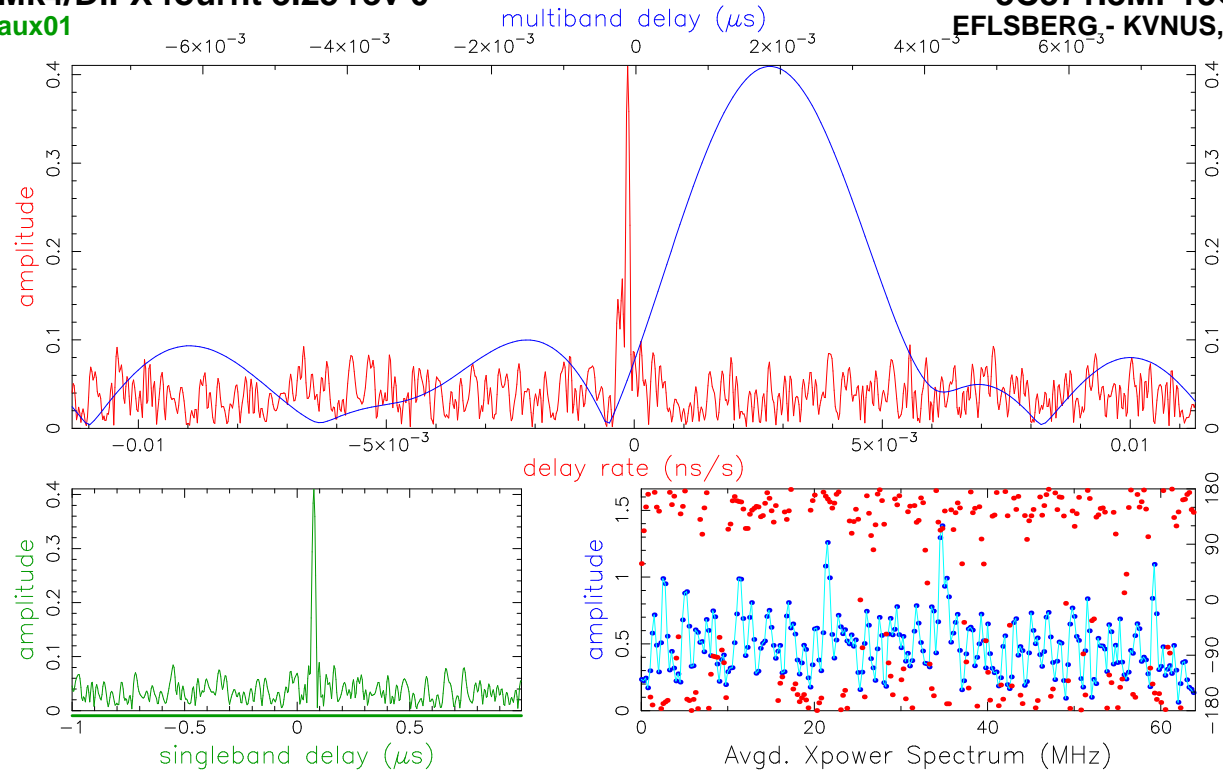
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Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, Bu

EFLSBERG₃-KVNU, fgroup W, pol RR

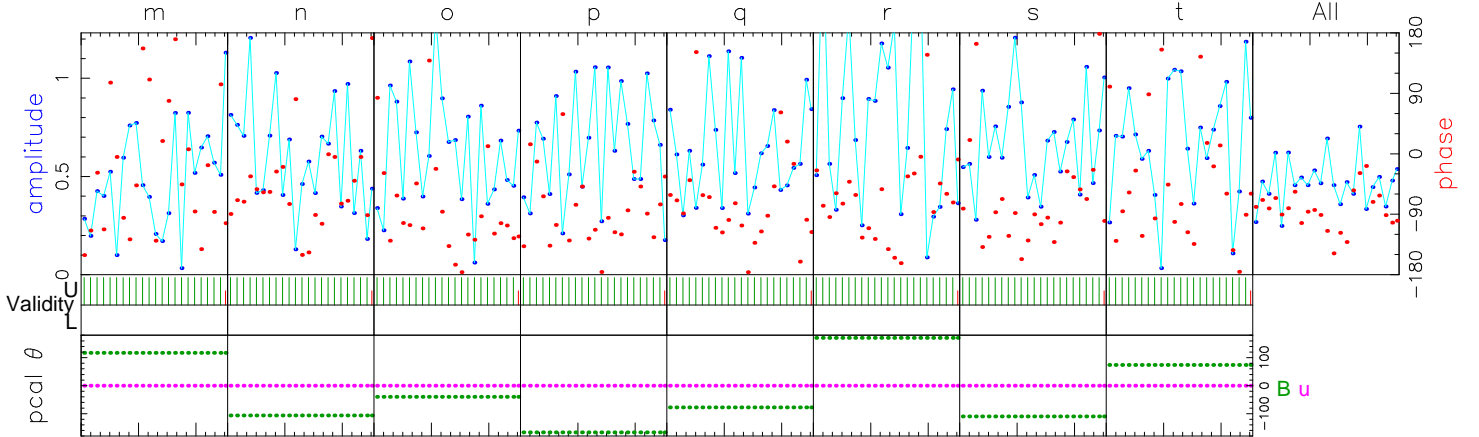


Fringe quality 9

SNR 13.7
 Int time 149.836
 Amp 0.411
 Phase -82.9
 PFD 1.7e-34
 Delays (us)
 SBD 0.073574
 MBD 0.001855
 Fringe rate (Hz)
 -0.012170
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105519
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-101.2	-57.6	-101.3	-92.3	-85.8	-69.8	-96.1	-74.0	Phase	-82.9
	0.1	0.5	0.4	0.5	0.5	0.6	0.5	0.4	Ampl.	0.4
	72.4	275.3	277.1	275.7	276.6	276.6	276.2	274.3	Sbd box	275.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
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)	-4.89126105308E+03		Apriori delay (usec)		-4.89134103290E+03		Resid mbdelay (usec)		1.85482E-03	+/- 7.9E-05
Sband delay (usec)	-4.89126745865E+03		Apriori clock (usec)		-3.6738331E+01		Resid sbdelay (usec)		7.35743E-02	+/- 6.3E-04
Phase delay (usec)	-4.89134103557E+03		Apriori clockrate (us/s)		-3.5230000E-07		Resid phdelay (usec)		-2.67391E-06	+/- 2.7E-07
Delay rate (us/s)	-2.59446746384E-01		Apriori rate (us/s)		-2.59446605099E-01		Resid rate (us/s)		-1.41285E-07	+/- 3.1E-09
Total phase (deg)			Apriori accel (us/s/s)		4.60098886647E-05		Resid phase (deg)		-82.9	+/- 8.3
	RMS	Theor.	Amplitude	0.411 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	29.6	20.0	Search (1024X32)	0.400		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	32.7	34.9	Interp.	0.000		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	17.5	11.8	Inc. seg. avg.	0.443		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.7	20.6	Inc. frq. avg.	0.415		Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00
B: az 4.0 el 30.6 pa -7.6	u: az 22.1 el 47.3 pa -118.3		u, v (fr/asec) 4432.568 10363.488				nlags: 256 t_cohere infinite		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//Bu...3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//Bu.W.83.3MP15Q							

Mk4/DiFX fourfit 3.25 rev 0

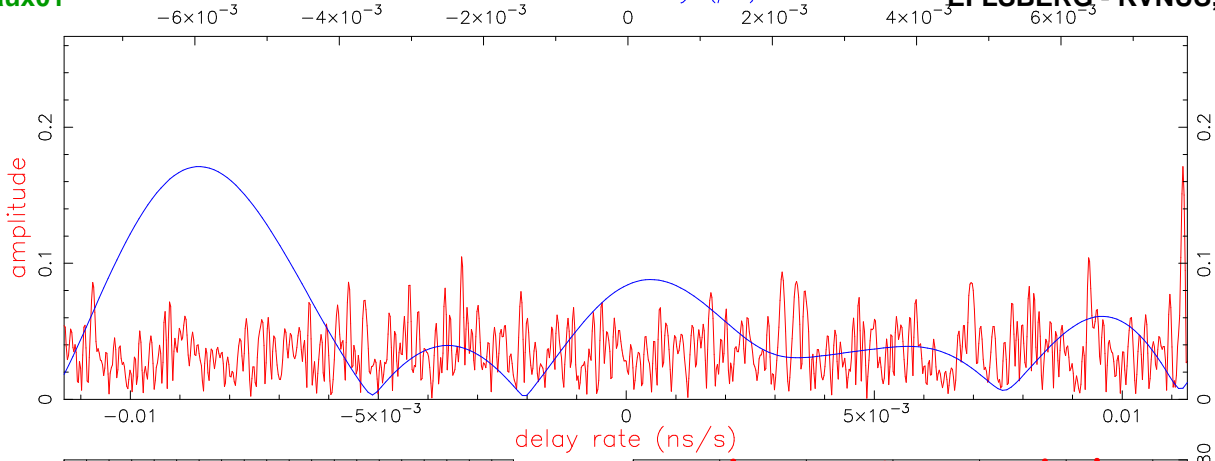
aux01

3C371.3MP15Q, No0901, Bu

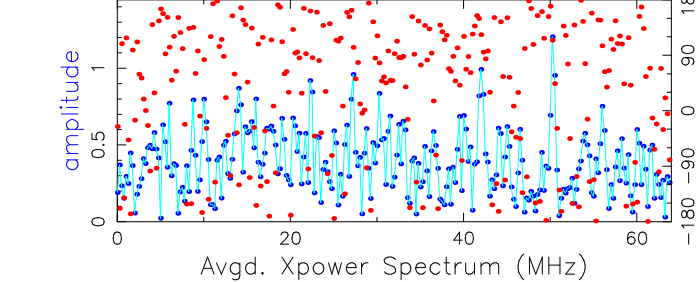
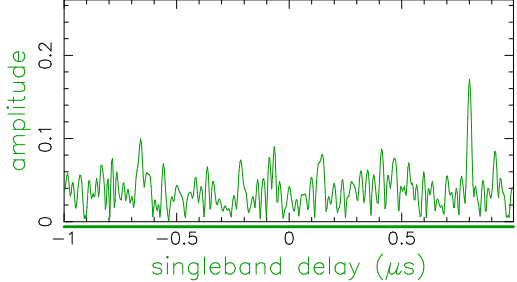
EFLSBERG - KVNUS, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

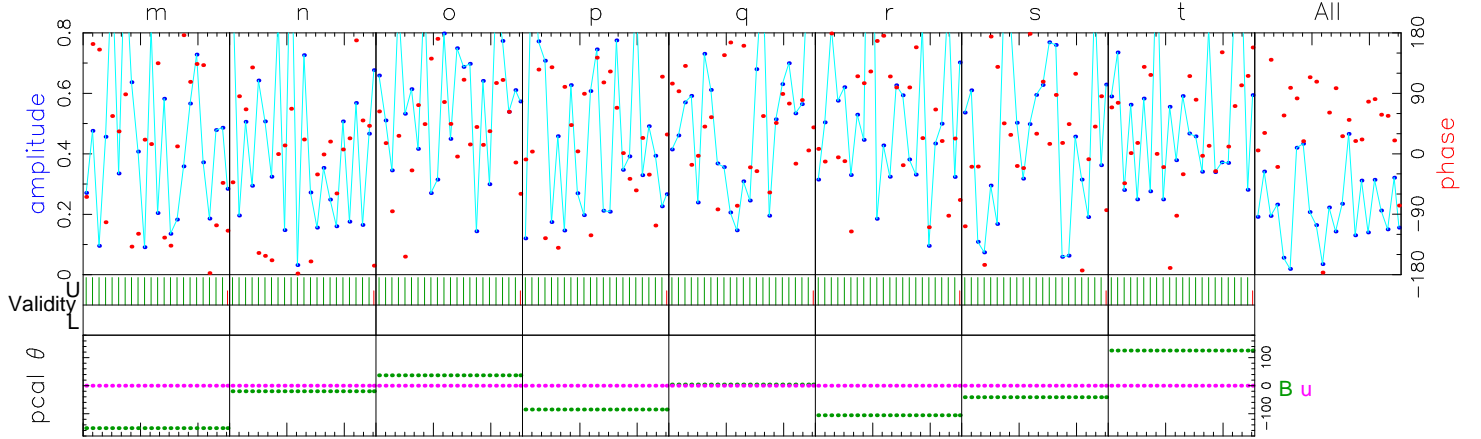


SNR 5.7
 Int time 149.836
 Amp 0.267
 Phase 49.9
 PFD 7.2e-01
 Delays (us)
 SBD 0.800965
 MBD -0.005938
 Fringe rate (Hz)
 0.969137
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105524
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
B	0	0	0	0	0	0	0	0		
B:u	0:0	0:0	60000	0:0	0:0	0:0	4000	0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-4.89053447068E+03	Apriori delay (usec)	-4.89134103290E+03	Resid mbdelay (usec)	-5.93778E-03	+/-	1.9E-04
Sband delay (usec)	-4.89054006740E+03	Apriori clock (usec)	-3.6738331E+01	Resid sbdelay (usec)	8.00965E-01	+/-	1.5E-03
Phase delay (usec)	-4.89134103129E+03	Apriori clockrate (us/s)	-3.5230000E-07	Resid phdelay (usec)	1.60879E-06	+/-	6.5E-07
Delay rate (us/s)	-2.59435354382E-01	Apriori rate (us/s)	-2.59446605099E-01	Resid rate (us/s)	1.12507E-05	+/-	7.4E-09
Total phase (deg)	-156.7	Apriori accel (us/s/s)	4.60098886647E-05	Resid phase (deg)	49.9	+/-	20.0

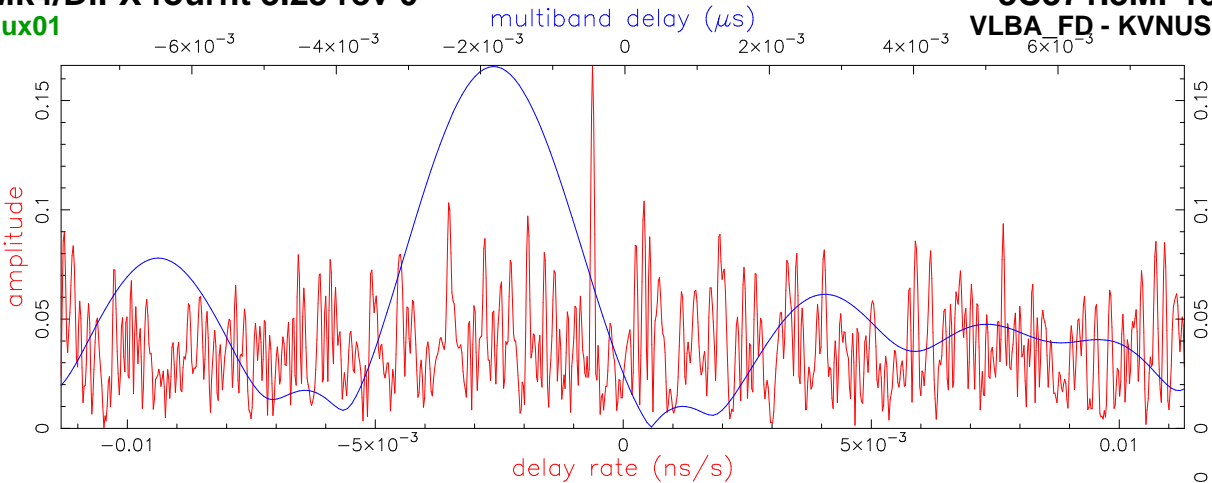
ph/seg (deg) 51.9 48.0 Search (1024X32) 0.170 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.2 83.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.2 28.3 Inc. seg. avg. 0.257 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.8 49.4 Inc. frq. avg. 0.256 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 4.0 el 30.6 pa -7.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 4432.568 10363.488 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//Bu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//Bu.W.93.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

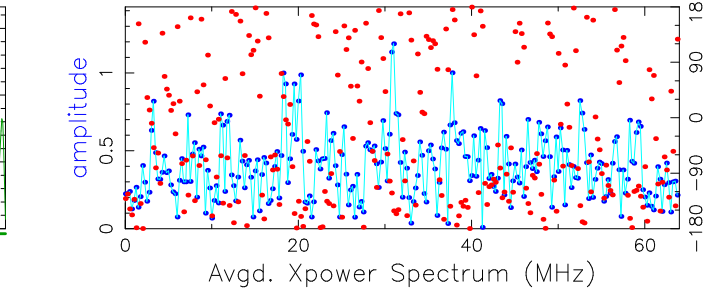
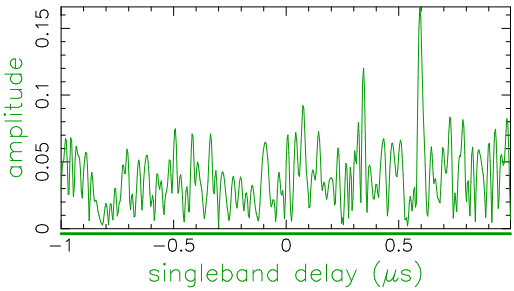
3C371.3MP15Q, No0901, fu

VLBA_FD - KVNUS, fgroup W, pol LL



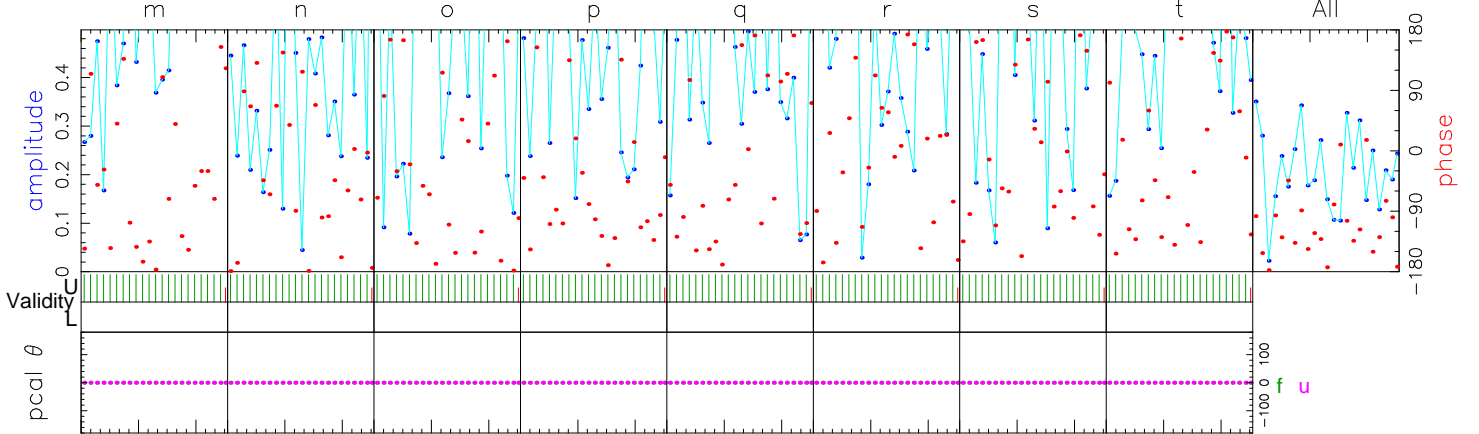
Fringe quality 0

SNR 5.6
 Int time 149.850
 Amp 0.166
 Phase -115.6
 PFD 9.7e-01
 Delays (us)
 SBD 0.594366
 MBD -0.001817
 Fringe rate (Hz)
 -0.053551
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105537
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-120.4	-54.5	-136.3	-102.0	-126.2	-100.0	-104.4	-128.1		-115.6
	0.2	0.0	0.2	0.3	0.2	0.1	0.2	0.2		0.2
	346.9	87.8	422.8	424.2	312.3	462.1	293.9	411.0		409.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
f	0	0	0	0	0	0	0	0		
u	0	0	60000	0	0	0	4000	0		
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-4.32557528720E+03	Apriori delay (usec)	-4.32616721977E+03	Resid mbdelay (usec)	-1.81743E-03	+/-	2.0E-04
Sband delay (usec)	-4.32557285402E+03	Apriori clock (usec)	-1.2805233E+00	Resid sbdelay (usec)	5.94366E-01	+/-	1.6E-03
Phase delay (usec)	-4.32616722350E+03	Apriori clockrate (us/s)	-1.1254105E-07	Resid phdelay (usec)	-3.72641E-06	+/-	6.7E-07
Delay rate (us/s)	-7.73740599198E-01	Apriori rate (us/s)	-7.73739977529E-01	Resid rate (us/s)	-6.21669E-07	+/-	7.7E-09
Total phase (deg)	-227.5	Apriori accel (us/s/s)	1.54158005206E-05	Resid phase (deg)	-115.6	+/-	20.6

	RMS	Theor.	Amplitude	0.166 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	50.1	49.5	Search (1024X32)	0.162	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	56.1	86.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	28.9	29.2	Inc. seg. avg.	0.153	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
amp/frq (%)	48.3	50.9	Inc. frq. avg.	0.153	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 336.4 el 32.3 pa 88.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12884.092 2923.371 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/fu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/fu.W.136.3MP15Q

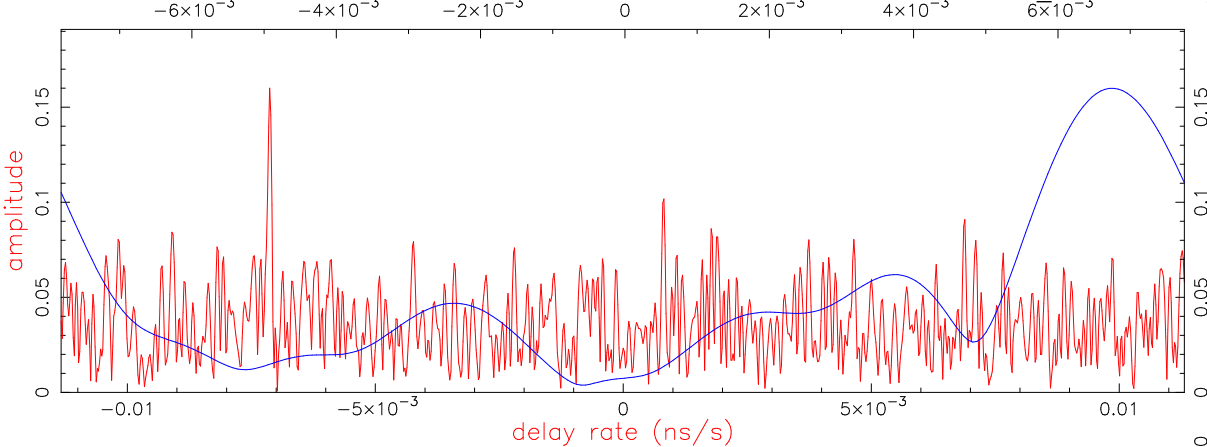
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fu

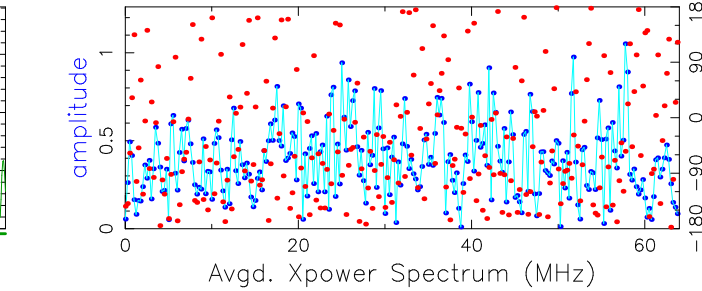
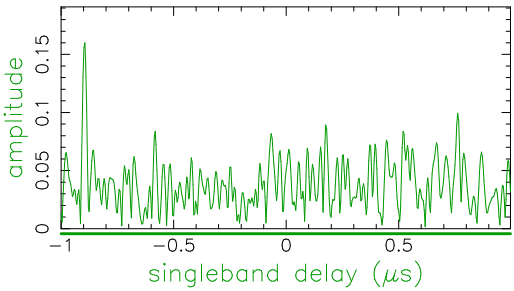
VLBA_FD- KVNUS, fgroup W, pol RR

multiband delay (μ s)



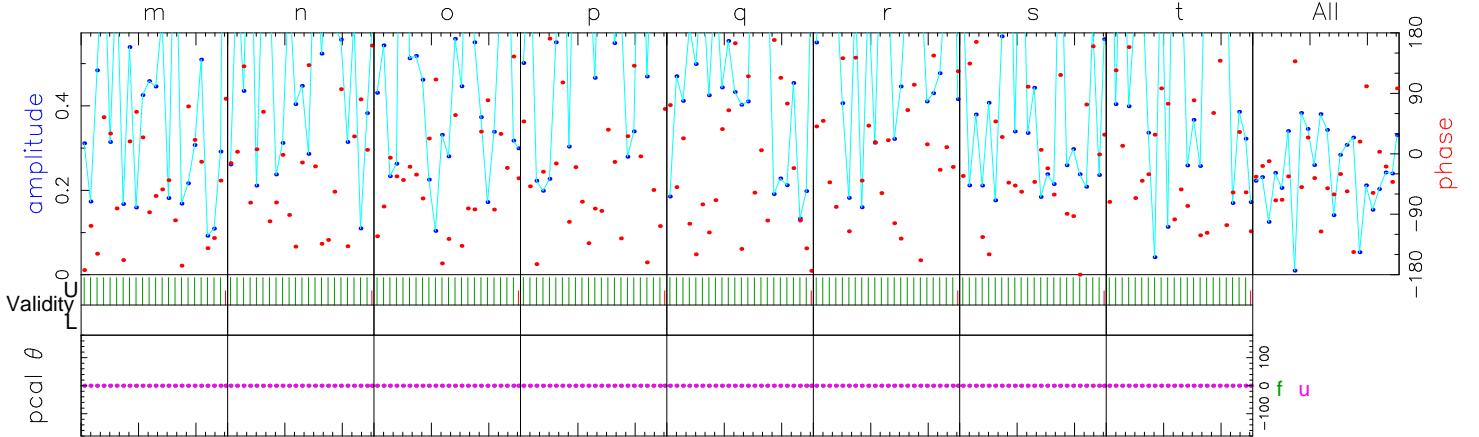
Fringe quality 0

SNR 5.4
 Int time 149.850
 Amp 0.191
 Phase -41.8
 PFD 1.0e+00
 Delays (us)
 SBD -0.895830
 MBD 0.006743
 Fringe rate (Hz)
 -0.615165
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105539
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-34.0	-47.4	-45.0	-45.3	-70.3	12.8	-36.5	-62.3	Phase	-41.8
	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	Ampl.	0.2
	186.9	340.7	28.6	390.4	376.5	54.0	449.0	471.8	Sbd box	27.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -4.32706672693E+03 Apriori delay (usec) -4.32616721977E+03 Resid mbdelay (usec) 6.74284E-03 +/- 2.0E-04
 Sband delay (usec) -4.32706304977E+03 Apriori clock (usec) -1.2805233E+00 Resid sbdelay (usec) -8.95830E-01 +/- 1.6E-03
 Phase delay (usec) -4.32616722112E+03 Apriori clockrate (us/s) -1.1254105E-07 Resid phdelay (usec) -1.34695E-06 +/- 6.8E-07
 Delay rate (us/s) -7.73747118982E-01 Apriori rate (us/s) -7.73739977529E-01 Resid rate (us/s) -7.14145E-06 +/- 7.9E-09
 Total phase (deg) -153.7 Apriori accel (us/s/s) 1.54158005206E-05 Resid phase (deg) -41.8 +/- 21.2

RMS Theor. Amplitude 0.191 +/- 0.035 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 64.4 50.9 Search (1024X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 77.7 88.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 26.9 30.0 Inc. seg. avg. 0.204 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 31.4 52.4 Inc. frq. avg. 0.180 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 336.4 el 32.3 pa 88.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12884.092 2923.371 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//fu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//fu.W.146.3MP15Q

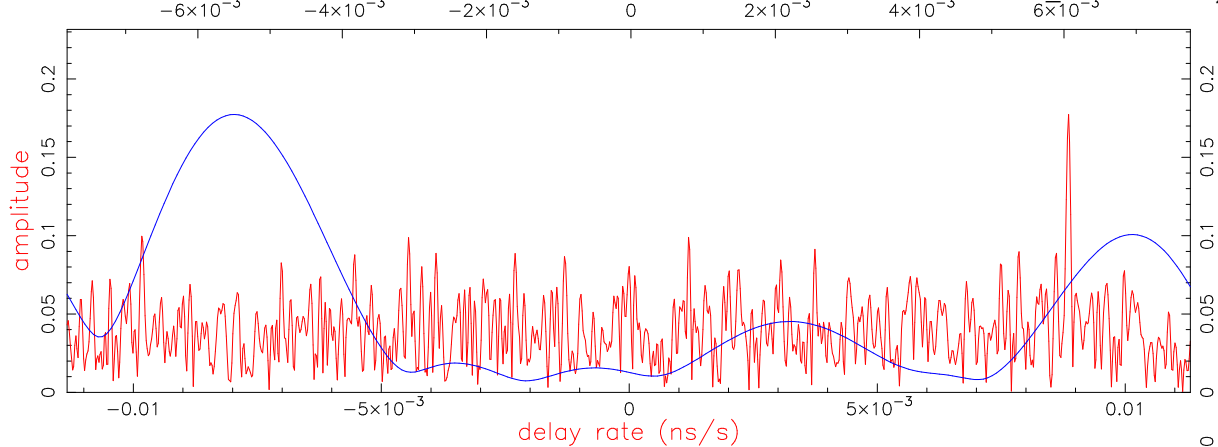
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fu

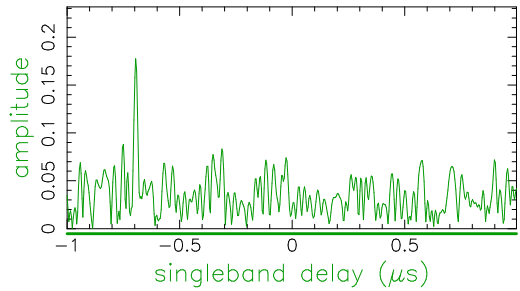
VLBA_FD - KVNUS, fgroup W, pol LR

multiband delay (μ s)

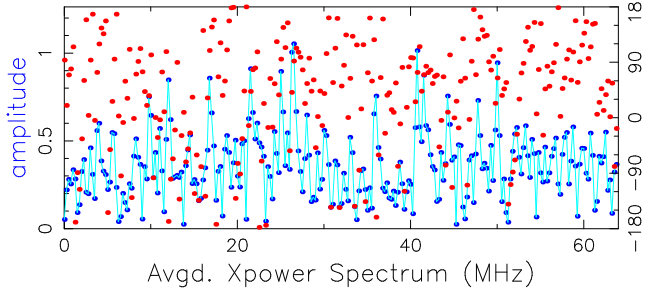


Fringe quality 0

SNR 5.9
 Int time 149.850
 Amp 0.232
 Phase 56.0
 PFD 3.0e-01
 Delays (us)
 SBD -0.694892
 MBD -0.005485
 Fringe rate (Hz)
 0.764169
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

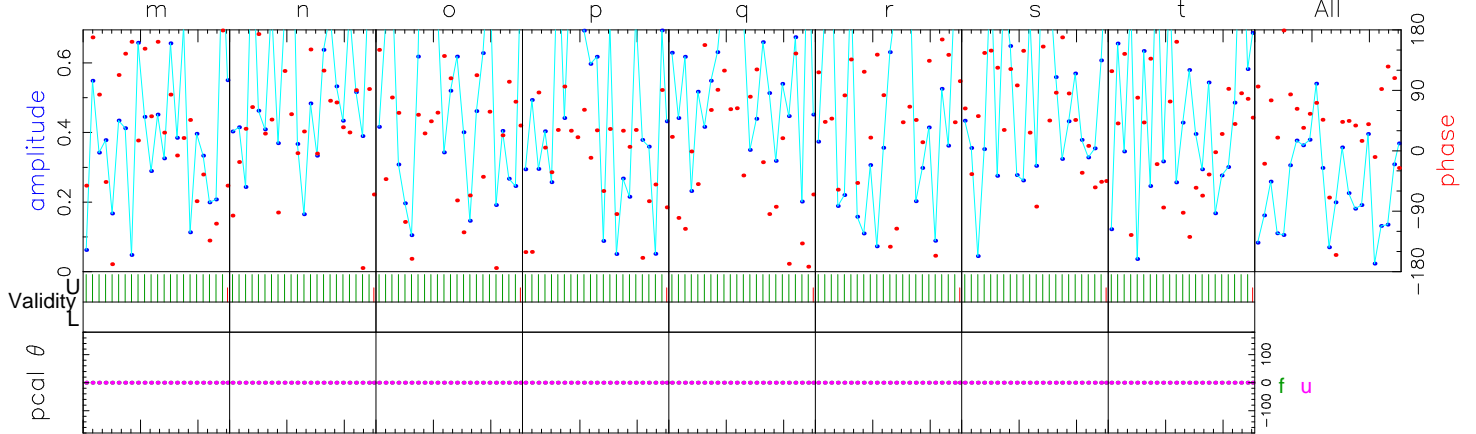


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105541
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	90.7	62.4	47.9	29.6	71.6	79.5	67.7	35.5	Phase	56.0
	0.1	0.4	0.3	0.4	0.1	0.3	0.2	0.2	Ampl.	0.2
	300.1	78.7	53.3	500.3	369.6	80.5	427.1	249.0	Sbd box	79.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-4.32686020502E+03	Apriori delay (usec)	-4.32616721977E+03	Resid mbdelay (usec)	-5.48525E-03	+/-	1.8E-04
Sband delay (usec)	-4.32686211152E+03	Apriori clock (usec)	-1.2805233E+00	Resid sbdelay (usec)	-6.94892E-01	+/-	1.4E-03
Phase delay (usec)	-4.32616721796E+03	Apriori clockrate (us/s)	-1.1254105E-07	Resid phdelay (usec)	1.80655E-06	+/-	6.2E-07
Delay rate (us/s)	-7.73731106290E-01	Apriori rate (us/s)	-7.73739977529E-01	Resid rate (us/s)	8.87124E-06	+/-	7.2E-09
Total phase (deg)	-55.9	Apriori accel (us/s/s)	1.54158005206E-05	Resid phase (deg)	56.0	+/-	19.3

ph/seg (deg)	60.6	RMS	46.2	Theor.	23.6	Amplitude	0.232 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	80.6	60.6	46.2	46.2	23.6	Search (1024X32)	0.173	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	23.6	80.6	46.2	46.2	23.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.7	23.6	46.2	46.2	23.6	Inc. seg. avg.	0.236	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		48.7	46.2	46.2	23.6	Inc. frq. avg.	0.219	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 336.4 el 32.3 pa 88.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12884.092 2923.371 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//fu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//fu.W.156.3MP15Q

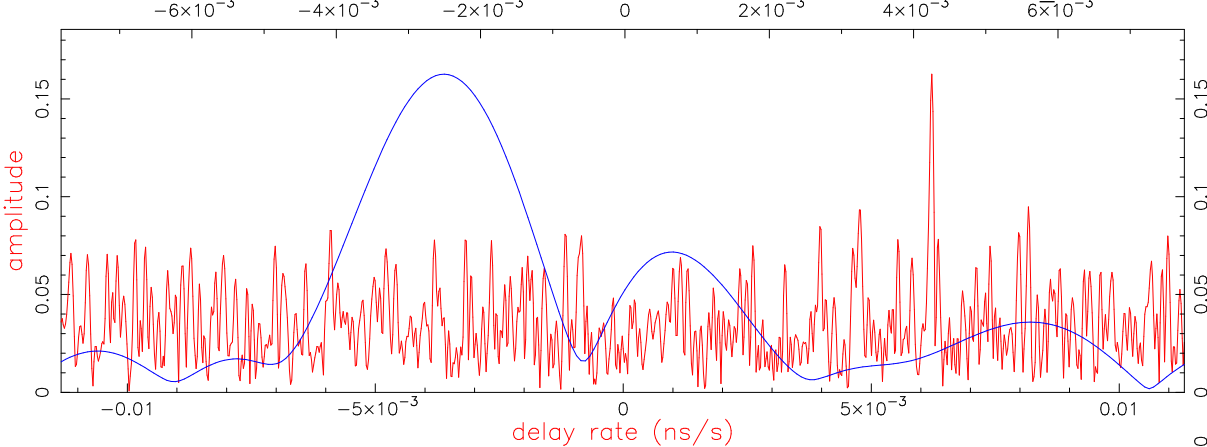
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fu

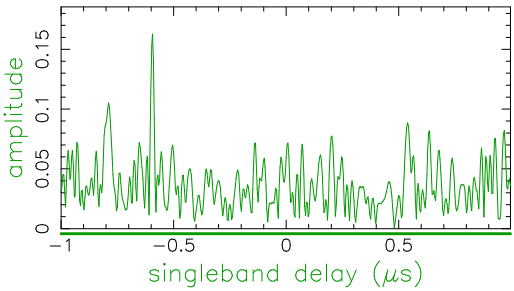
VLBA_FD - KVNUS, fgroup W, pol RL

multiband delay (μ s)

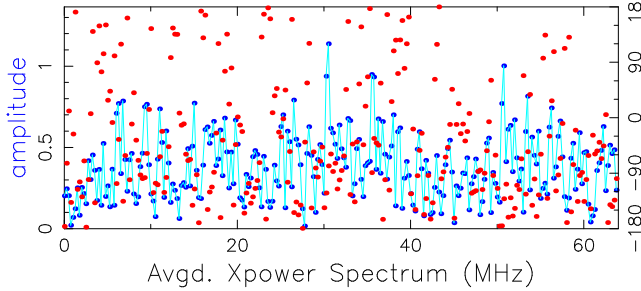


Fringe quality 0

SNR 5.5
 Int time 149.850
 Amp 0.186
 Phase -77.7
 PFD 1.0e+00
 Delays (us)
 SBD -0.594579
 MBD -0.002518
 Fringe rate (Hz)
 0.535902
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

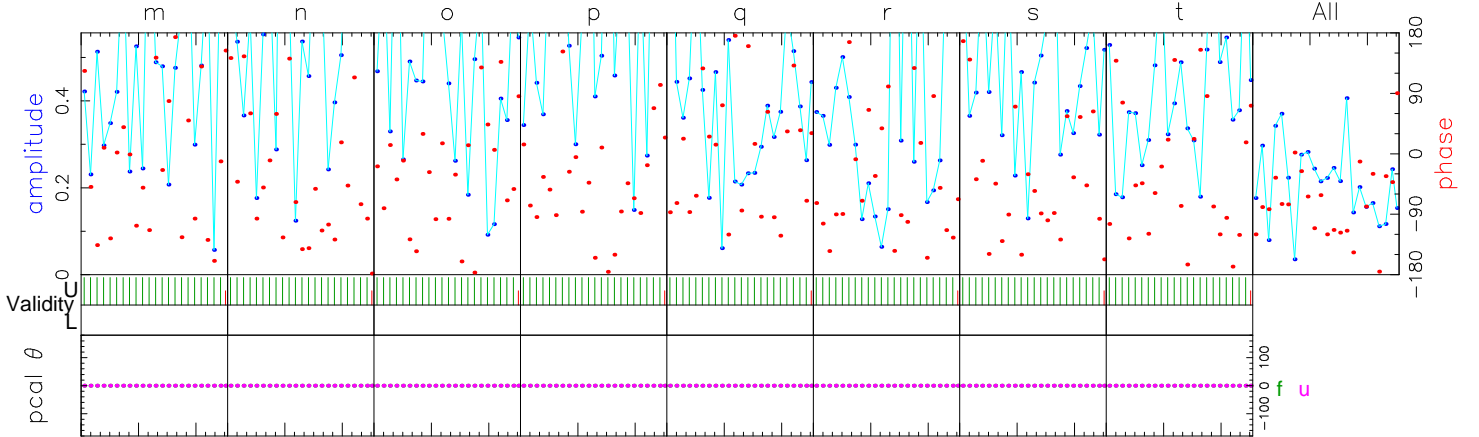


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105544
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-95.7	-97.0	-56.0	-60.9	-56.5	-102.9	-79.0	-73.5	Phase	-77.7
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.2
	146.1	459.9	259.6	19.9	201.7	177.0	308.3	231.5	Sbd box	104.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.32676348749E+03	Apriori delay (usec)	-4.32616721977E+03	Resid mbdelay (usec)	-2.51772E-03	+/-	2.0E-04
Sband delay (usec)	-4.32676179877E+03	Apriori clock (usec)	-1.2805233E+00	Resid sbdelay (usec)	-5.94579E-01	+/-	1.6E-03
Phase delay (usec)	-4.32616722227E+03	Apriori clockrate (us/s)	-1.1254105E-07	Resid phdelay (usec)	-2.50540E-06	+/-	6.8E-07
Delay rate (us/s)	-7.73733756241E-01	Apriori rate (us/s)	-7.73739977529E-01	Resid rate (us/s)	6.22129E-06	+/-	7.8E-09
Total phase (deg)	-189.6	Apriori accel (us/s/s)	1.54158005206E-05	Resid phase (deg)	-77.7	+/-	20.9

ph/seg (deg)	51.1	Theor.	50.2	Amplitude	0.186 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	63.3	Search (1024X32)	0.162	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	20.6	Inc. seg. avg.	0.177	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	30.7	Inc. frq. avg.	0.171	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
				Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 336.4 el 32.3 pa 88.6 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12884.092 2923.371 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//fu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//fu.W.162.3MP15Q

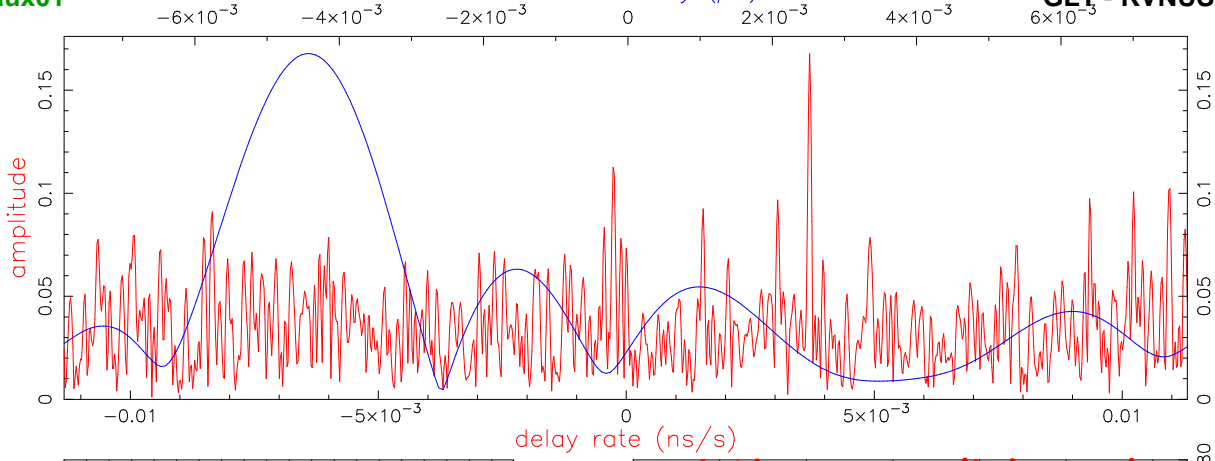
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gu

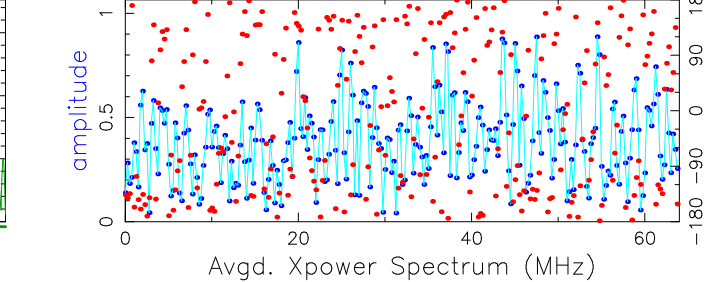
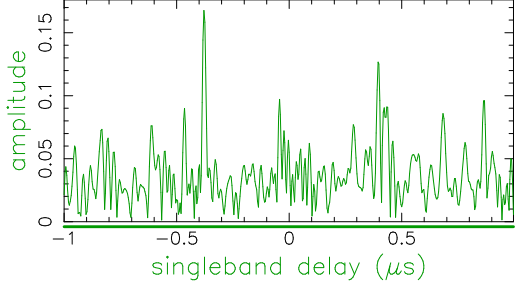
GLT - KVNUS, fgroup W, pol LL

multiband delay (μ s)



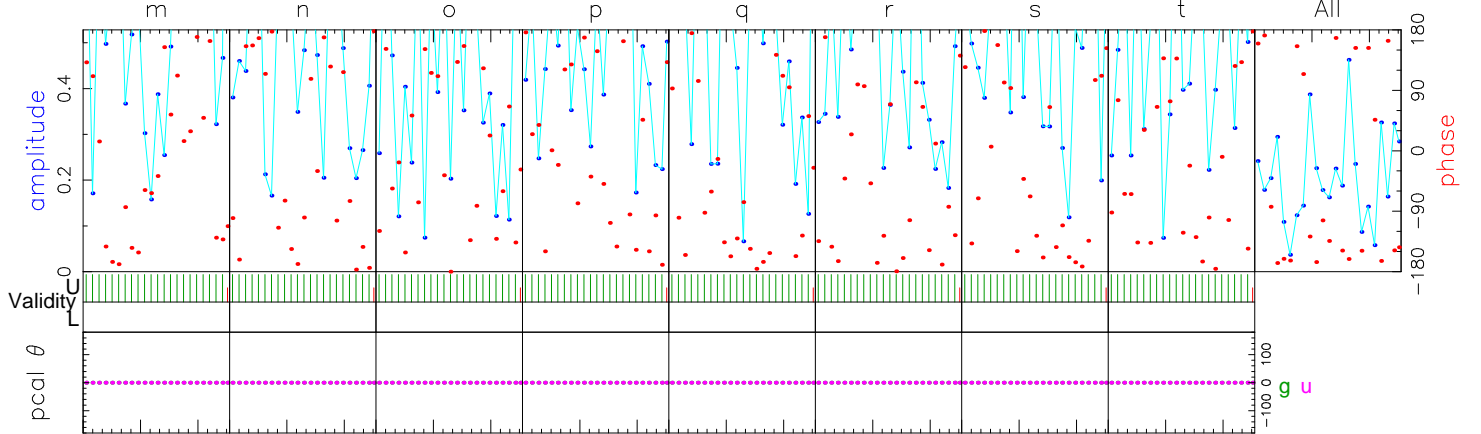
Fringe quality 0

SNR 5.6
 Int time 149.843
 Amp 0.176
 Phase -164.5
 PFD 8.7e-01
 Delays (us)
 SBD -0.378075
 MBD -0.004456
 Fringe rate (Hz)
 0.318790
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105550
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
g	0	0	0	0	0	0	0	0		
u	0	0	60000	0	0	0	4000	0		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	3.03568577754E+03	Apriori delay (usec)	3.03606523337E+03	Resid mbdelay (usec)	-4.45583E-03	+/-	1.9E-04
Sband delay (usec)	3.03568715862E+03	Apriori clock (usec)	-8.7402725E-01	Resid sbdelay (usec)	-3.78075E-01	+/-	1.5E-03
Phase delay (usec)	3.03606522807E+03	Apriori clockrate (us/s)	-8.2800086E-08	Resid phdelay (usec)	-5.30344E-06	+/-	6.6E-07
Delay rate (us/s)	-4.34016695813E-01	Apriori rate (us/s)	-4.34020396648E-01	Resid rate (us/s)	3.70083E-06	+/-	7.6E-09
Total phase (deg)	-91.6	Apriori accel (us/s/s)	2.53660211354E-05	Resid phase (deg)	-164.5	+/-	20.3

ph/seg (deg) 47.8 48.7 Search (1024X32) 0.164 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.7 85.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.7 28.7 Inc. seg. avg. 0.158 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.0 50.2 Inc. frq. avg. 0.159 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 318.7 el 61.6 pa 26.5 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 7280.218 6533.176 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gu.W.189.3MP15Q simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

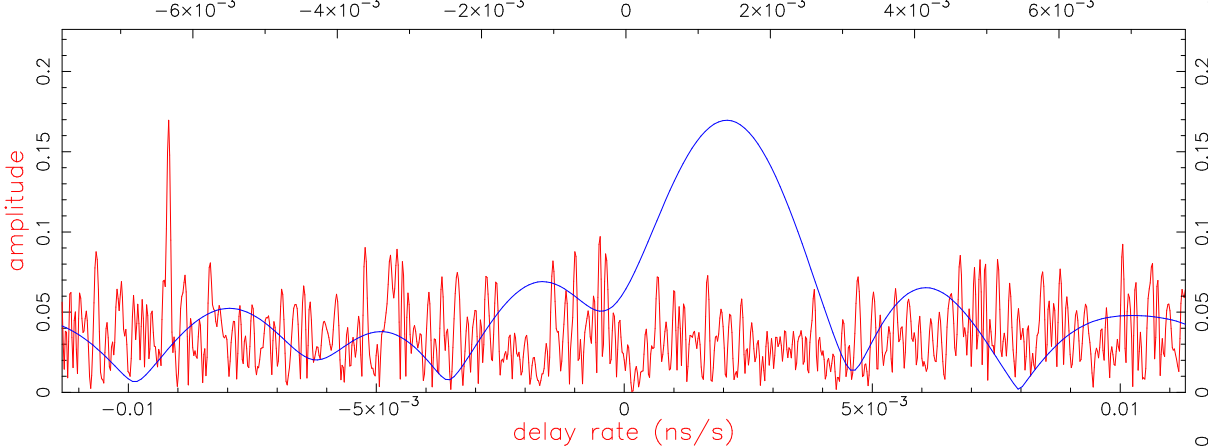
aux01

3C371.3MP15Q, No0901, gu

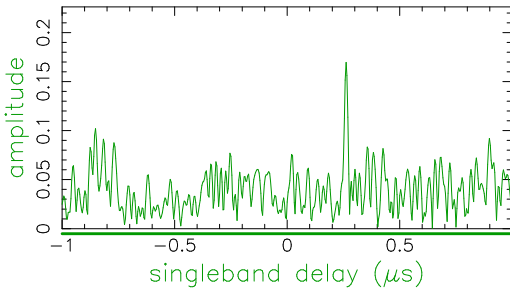
GLT - KVNUS, fgroup W, pol RR

multiband delay (μs)

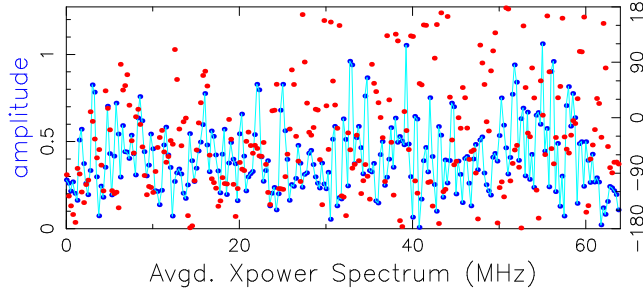
Fringe quality 0



SNR 5.7
 Int time 149.843
 Amp 0.226
 Phase 58.3
 PFD 8.0e-01
 Delays (us)
 SBD 0.262085
 MBD 0.001387
 Fringe rate (Hz)
 -0.792643
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

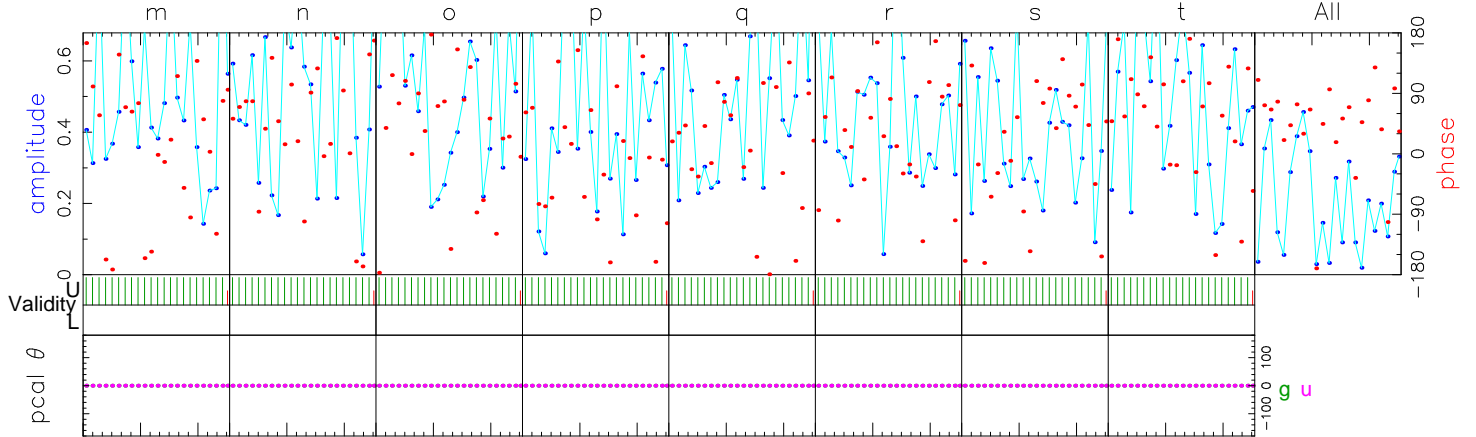


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105552
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	81.4	54.9	71.7	9.0	48.8	39.0	52.5	81.3	Phase	58.3
	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	Ampl.	0.2
	269.3	431.6	306.2	467.8	141.4	289.1	394.9	39.3	Sbd box	324.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	3.03633224566E+03		Apriori delay (usec)		3.03606523337E+03		Resid mbdelay (usec)		1.38730E-03	+/- 1.9E-04
Sband delay (usec)	3.03632731887E+03		Apriori clock (usec)		-8.7402725E-01		Resid sbdelay (usec)		2.62085E-01	+/- 1.5E-03
Phase delay (usec)	3.03606523525E+03		Apriori clockrate (us/s)		-8.2800086E-08		Resid phdelay (usec)		1.88017E-01	+/- 6.5E-07
Delay rate (us/s)	-4.34029598443E-01		Apriori rate (us/s)		-4.34020396648E-01		Resid rate (us/s)		-9.20180E-06	+/- 7.5E-09
Total phase (deg)			131.2		2.53660211354E-05		Resid phase (deg)		58.3	+/- 20.2
	RMS	Theor.	Amplitude	0.226 +/- 0.040		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	55.3	48.4	Search (1024X32)	0.164		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000
amp/seg (%)	83.7	84.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		-0.008 0.008
ph/frq (deg)	26.4	28.5	Inc. seg. avg.	0.200		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011
amp/frq (%)	31.0	49.8	Inc. frq. avg.	0.216		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC) 0.00 0.00
g: az 318.7 el 61.6 pa 26.5	u: az 22.1 el 47.3 pa -118.3		u,v (fr/asec) 7280.218 6533.176						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901/gu..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901/gu.W.197.3MP15Q							

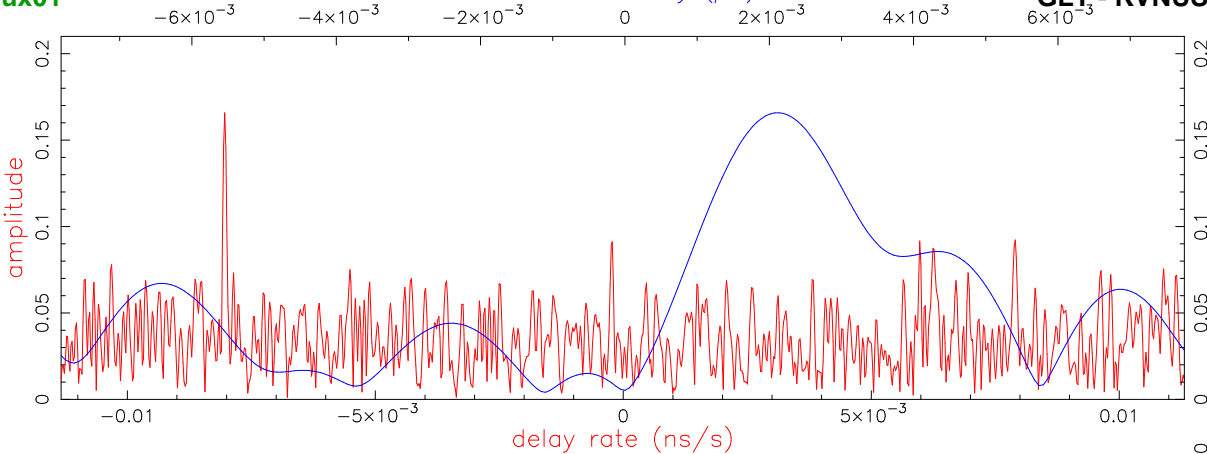
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gu

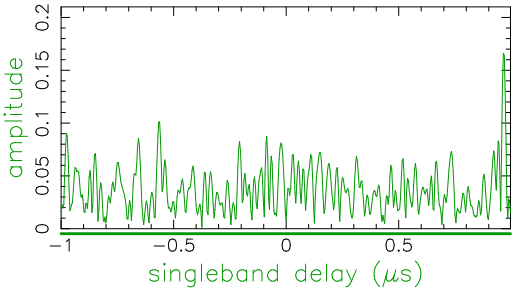
GLT - KVNUS, fgroup W, pol LR

multiband delay (μ s)

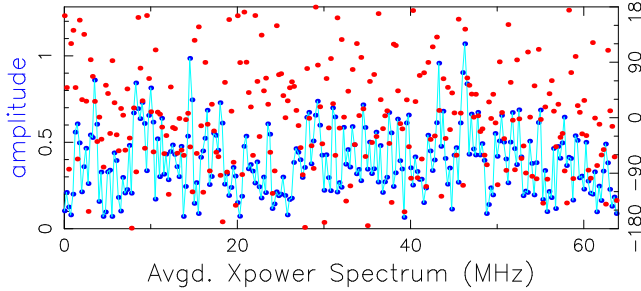


Fringe quality 0

SNR 5.7
 Int time 149.843
 Amp 0.210
 Phase -51.9
 PFD 8.5e-01
 Delays (us)
 SBD 0.966545
 MBD 0.002148
 Fringe rate (Hz) -0.694201
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

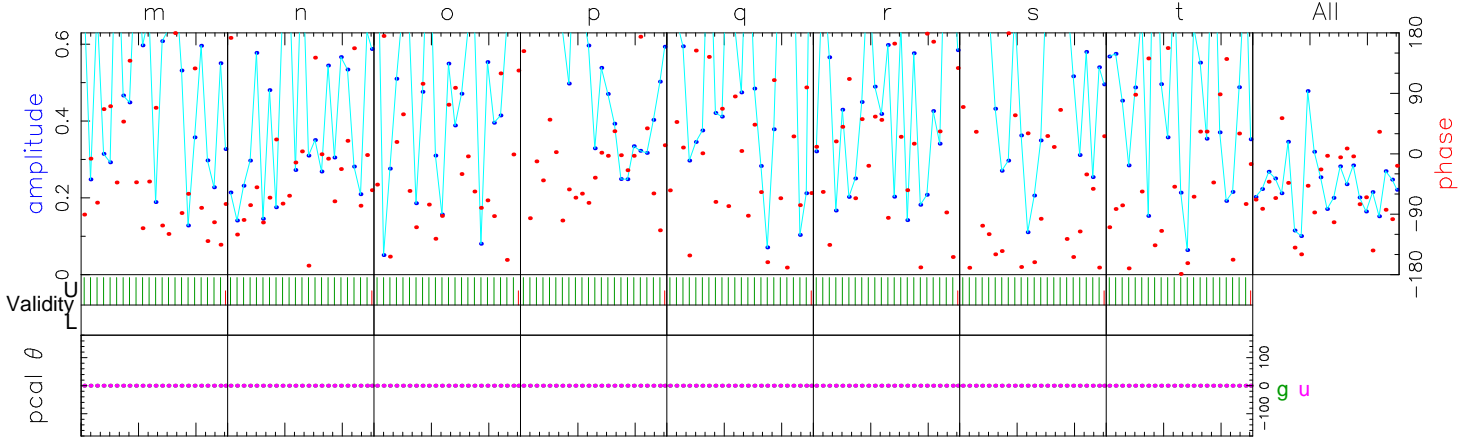


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105556
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-84.6	-41.0	-35.8	-36.9	-29.8	-27.9	-106.7	-75.0	Phase	-51.9
	0.3	0.3	0.2	0.4	0.2	0.1	0.1	0.2	Ampl.	0.2
	505.7	280.9	147.2	202.1	419.5	15.7	126.9	86.3	Sbd box	504.4
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	3.03703613119E+03		Apriori delay (usec)		3.03606523337E+03		Resid mbdelay (usec)		2.14783E-03	+/- 1.9E-04
Sband delay (usec)	3.03703177787E+03		Apriori clock (usec)		-8.7402725E-01		Resid sbdelay (usec)		9.66545E-01	+/- 1.5E-03
Phase delay (usec)	3.03606523169E+03		Apriori clockrate (us/s)		-8.2800086E-08		Resid phdelay (usec)		-1.67487E-06	+/- 6.5E-07
Delay rate (us/s)	-4.3402845633E-01		Apriori rate (us/s)		-4.34020396648E-01		Resid rate (us/s)		-8.05899E-06	+/- 7.5E-09
Total phase (deg)			Apriori accel (us/s/s)		2.53660211354E-05		Resid phase (deg)		-51.9	+/- 20.3

ph/seg (deg) 53.6 48.6 Search (1024X32) 0.162 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.1 84.8 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.3 28.6 Inc. seg. avg. 0.216 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.3 50.0 Inc. frq. avg. 0.200 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 318.7 el 61.6 pa 26.5 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 7280.218 6533.176 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gu.W.206.3MP15Q

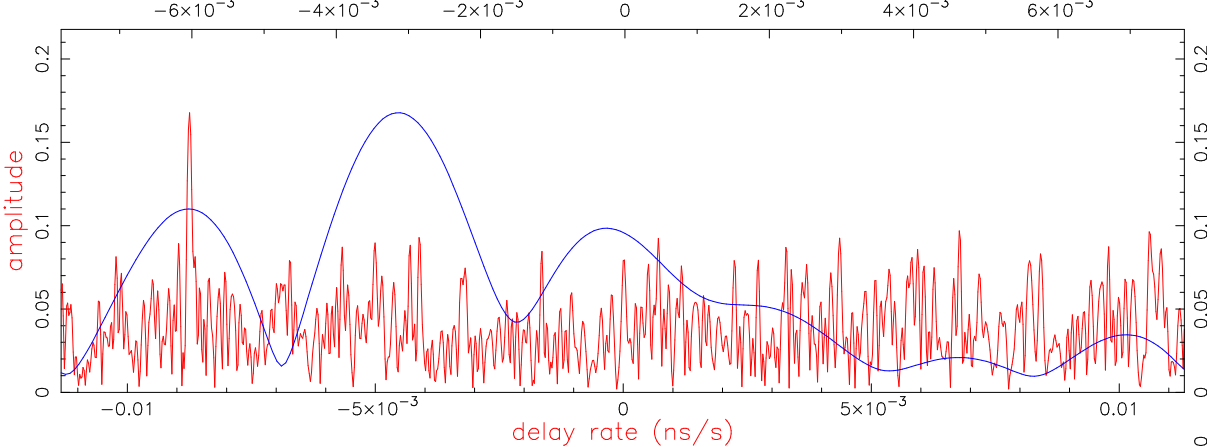
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gu

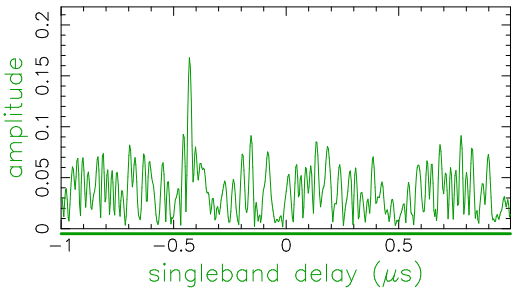
GLT - KVNUS, fgroup W, pol RL

multiband delay (μ s)

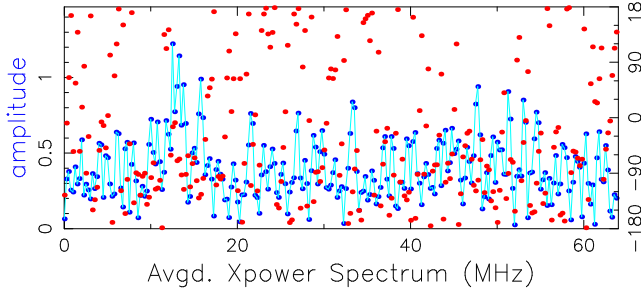


Fringe quality 0

SNR 5.6
 Int time 149.843
 Amp 0.218
 Phase 25.9
 PFD 9.0e-01
 Delays (us)
 SBD -0.429127
 MBD -0.003141
 Fringe rate (Hz)
 -0.754933
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

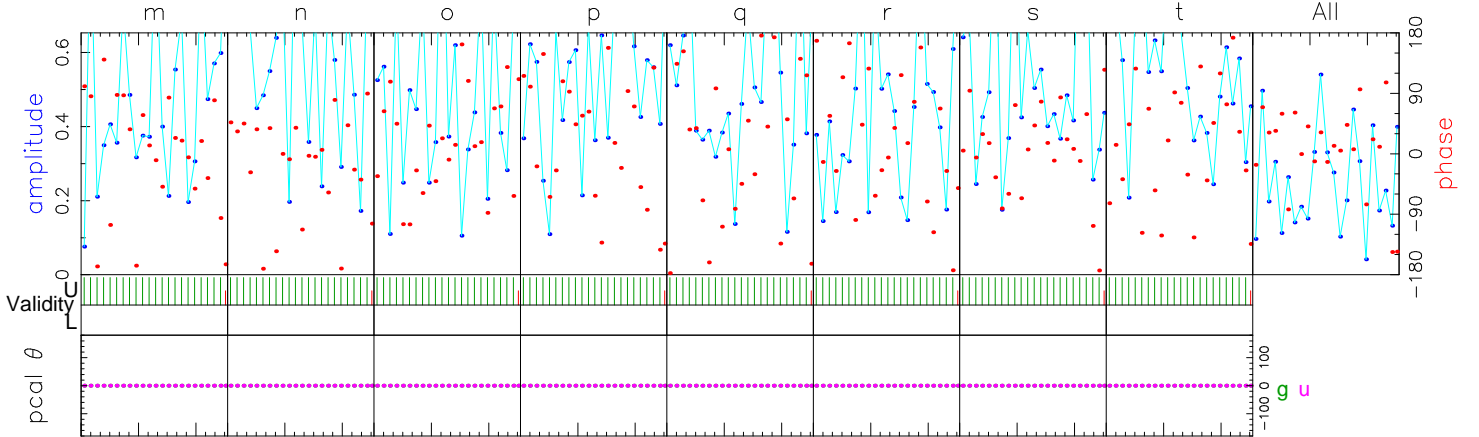


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105558
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	31.9	17.3	12.1	47.7	132.7	12.0	20.8	16.9	Phase	25.9
	0.2	0.4	0.3	0.2	0.1	0.1	0.4	0.2	Ampl.	0.2
	393.4	146.1	185.1	186.1	303.1	425.3	147.0	68.0	Sbd box	147.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.03564021767E+03	Apriori delay (usec)	3.03606523337E+03	Resid mbdelay (usec)	-3.14070E-03	+/-	1.9E-04
Sband delay (usec)	3.03563610662E+03	Apriori clock (usec)	-8.7402725E-01	Resid sbdelay (usec)	-4.29127E-01	+/-	1.5E-03
Phase delay (usec)	3.03606523420E+03	Apriori clockrate (us/s)	-8.2800086E-08	Resid phdelay (usec)	8.34727E-07	+/-	6.6E-07
Delay rate (us/s)	-4.34029160669E-01	Apriori rate (us/s)	-4.34020396648E-01	Resid rate (us/s)	-8.76402E-06	+/-	7.6E-09
Total phase (deg)	98.7	Apriori accel (us/s/s)	2.53660211354E-05	Resid phase (deg)	25.9	+/-	20.4

ph/seg (deg)	RMS 63.1	Theor. 48.9	Amplitude Search (1024X32)	0.218 +/- 0.039	0.167	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	93.5	85.3	Interp.	0.000	0.239	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.6	28.8	Inc. seg. avg.	0.239	0.216	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	57.8	50.3	Inc. frq. avg.	0.216		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

g: az 318.7 el 61.6 pa 26.5 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 7280.218 6533.176 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gu.W.215.3MP15Q

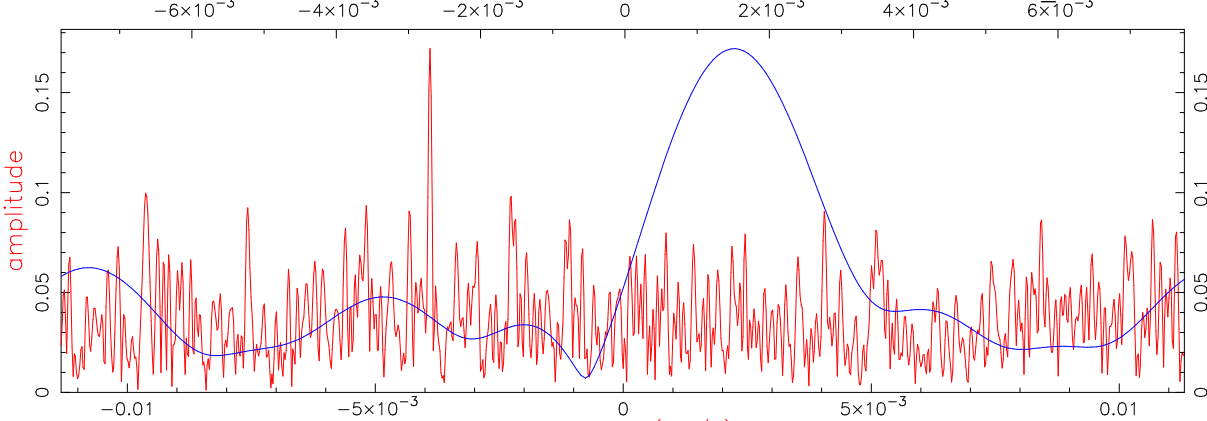
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ku

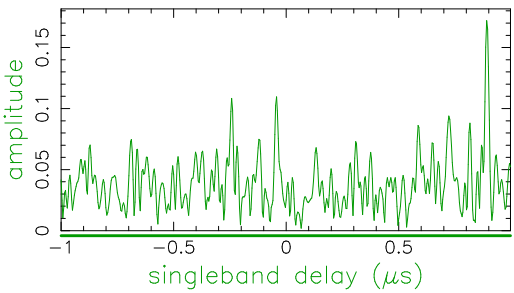
VLBA_KP - KVNUS, fgroup W, pol LL

multiband delay (μ s)

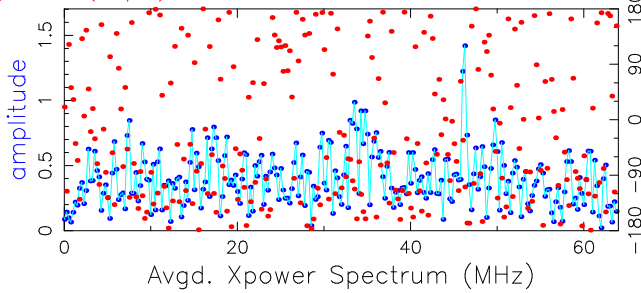


Fringe quality 0

SNR 5.8
 Int time 149.849
 Amp 0.182
 Phase 42.1
 PFD 5.9e-01
 Delays (us)
 SBD 0.891614
 MBD 0.001525
 Fringe rate (Hz)
 -0.335781
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

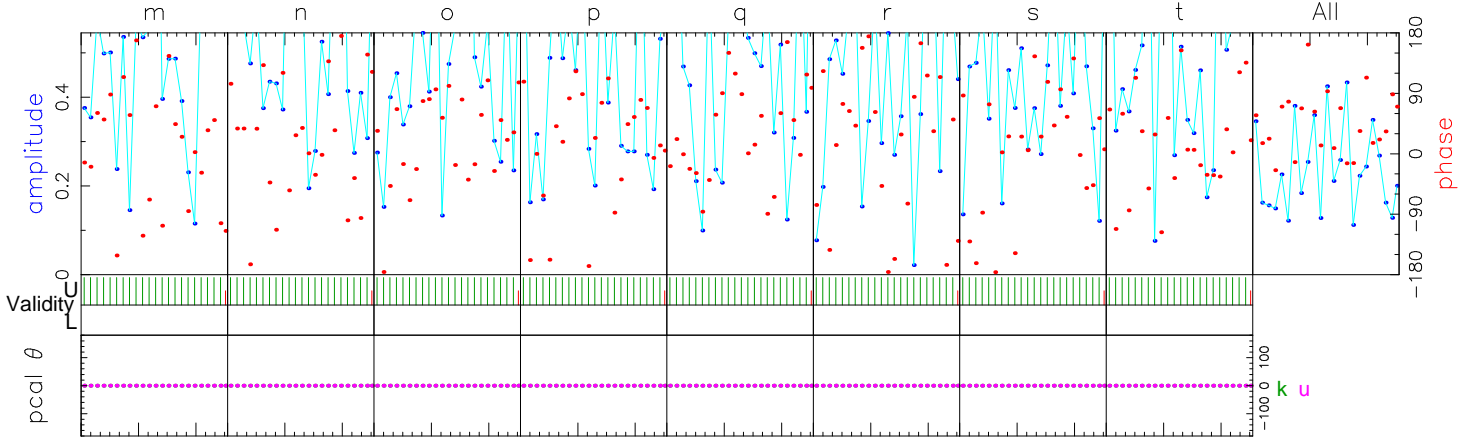


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105625
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	37.9	36.1	33.7	65.5	26.5	92.0	39.6	25.6	Phase	42.1
	0.1	0.1	0.3	0.2	0.3	0.1	0.1	0.2	Ampl.	0.2
	220.0	201.0	272.0	485.8	226.6	110.2	23.7	246.3	Sbd box	485.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-3.1408989626E+03	Apriori delay (usec)	-3.14179114610E+03	Resid mbdelay (usec)	1.52484E-03	+/-	1.9E-04
Sband delay (usec)	-3.14089953185E+03	Apriori clock (usec)	-1.1851120E+00	Resid sbdelay (usec)	8.91614E-01	+/-	1.5E-03
Phase delay (usec)	-3.14179114474E+03	Apriori clockrate (us/s)	-1.0554925E-08	Resid phdelay (usec)	1.35614E-06	+/-	6.4E-07
Delay rate (us/s)	-7.52418804501E-01	Apriori rate (us/s)	-7.52414906414E-01	Resid rate (us/s)	-3.89809E-06	+/-	7.4E-09
Total phase (deg)	-75.0	Apriori accel (us/s/s)	1.12055554827E-05	Resid phase (deg)	42.1	+/-	19.8

ph/seg (deg)	45.6	RMS	47.5	Theor.	45.6	Amplitude	0.182 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.5	45.6	47.5	45.6	68.5	Search (1024X32)	0.170	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	24.8	68.5	82.8	24.8	24.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	34.5	24.8	28.0	34.5	34.5	Inc. seg. avg.	0.187	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		34.5	48.8	34.5	34.5	Inc. frq. avg.	0.172	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 336.1 el 36.1 pa 95.2 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12519.354 2088.124 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ku..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ku.W.295.3MP15Q

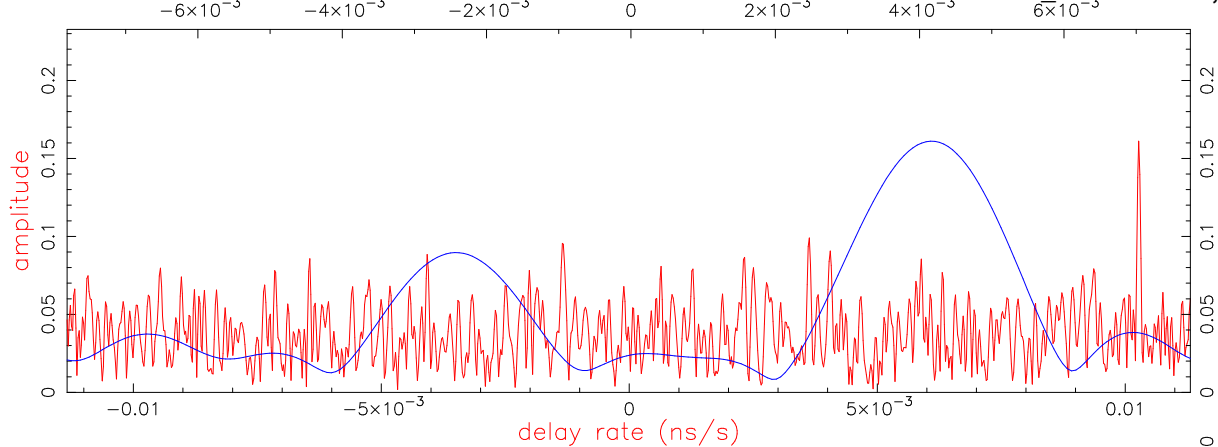
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ku

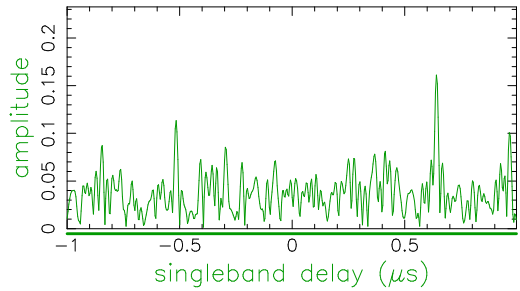
VLBA_KP - KVNUS, fgroup W, pol RR

multiband delay (μ s)

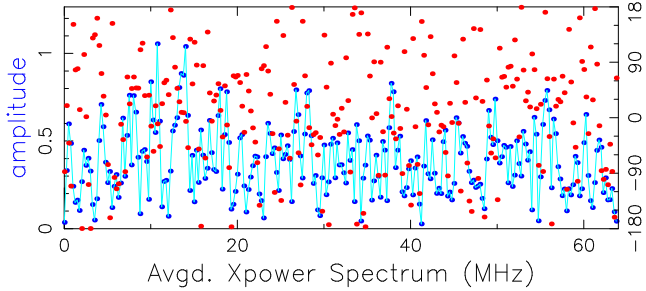


Fringe quality 0

SNR 5.4
 Int time 149.849
 Amp 0.233
 Phase 157.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.641307
 MBD 0.004171
 Fringe rate (Hz) 0.886341
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

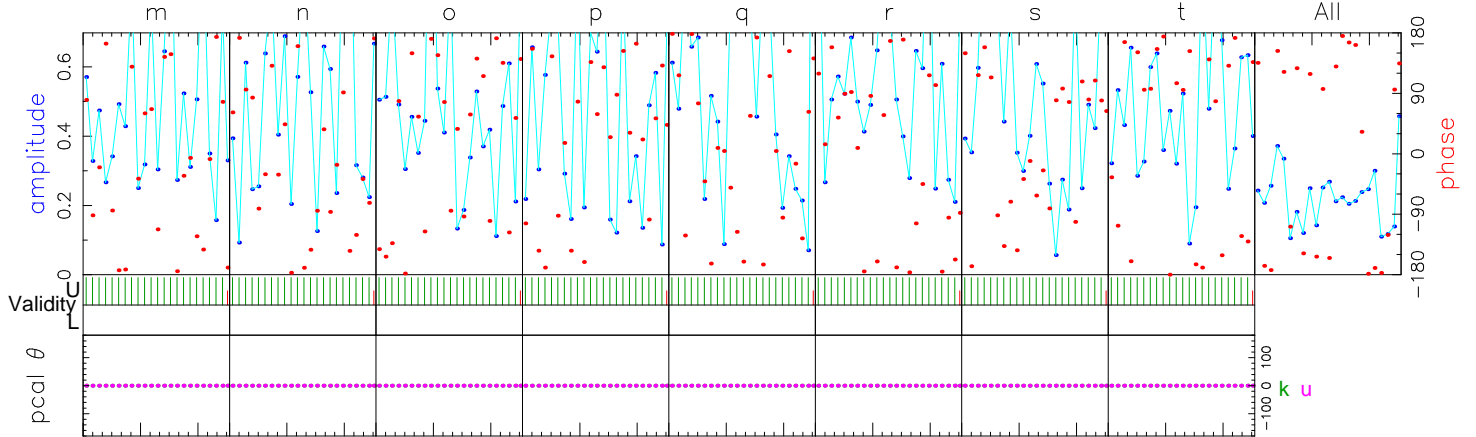


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105627
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
k	0	0	0	0	0	0	0	0		
u	0	0	60000	0	0	0	4000	0		
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-3.14114634980E+03									
Sband delay (usec)	-3.14114983860E+03									
Phase delay (usec)	-3.14179114102E+03									
Delay rate (us/s)	-7.52404616877E-01									
Total phase (deg)			40.5							
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)										
pcal θ										
PC freqs										
PC phase										
Mani PC										
PC amp										
Chan ids										
Tracks										
Chan ids										
Tracks										
RMS										
ph/seg (deg)	50.0	50.8								
amp/seg (%)	61.0	88.7								
ph/frq (deg)	19.4	30.0								
amp/frq (%)	44.3	52.3								
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

k: az 336.1 el 36.1 pa 95.2 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12519.354 2088.124 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ku..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ku.W.305.3MP15Q

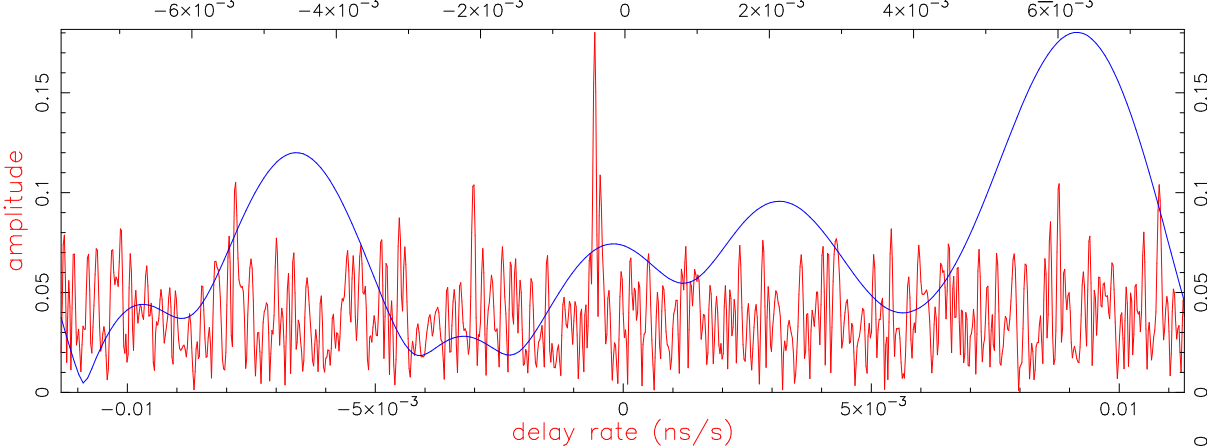
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ku

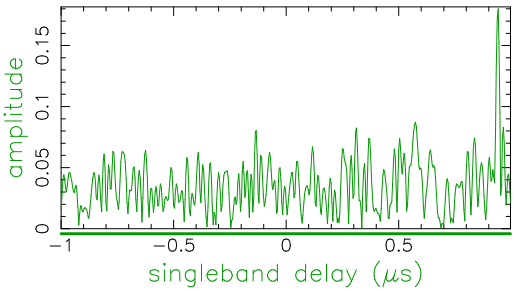
VLBA_KP - KVNUS, fgroup W, pol LR

multiband delay (μ s)

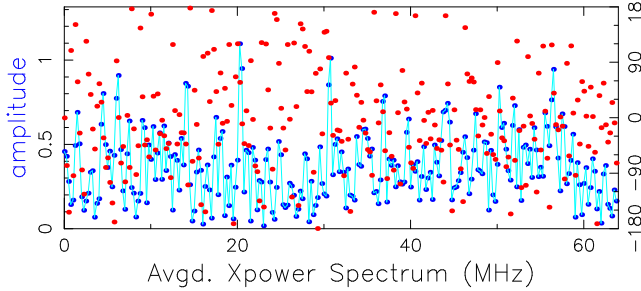


Fringe quality 0

SNR 6.1
 Int time 149.849
 Amp 0.182
 Phase -49.2
 PFD 1.5e-01
 Delays (us)
 SBD 0.940341
 MBD 0.006217
 Fringe rate (Hz)
 -0.049371
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

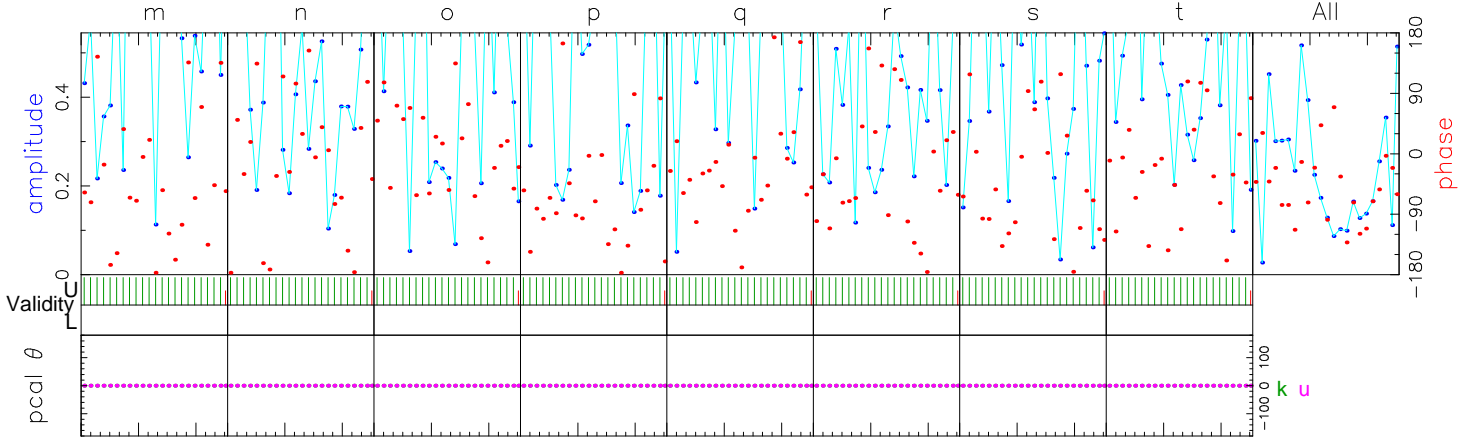


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105630
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.4	16.2	19.3	-75.4	-52.0	-39.8	-77.1	-35.3	Phase	-49.2
	0.3	0.1	0.3	0.3	0.3	0.1	0.1	0.2	Ampl.	0.2
	498.1	366.6	470.8	497.8	497.7	395.0	134.6	43.1	Sbd box	497.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.14084742907E+03	Apriori delay (usec)	-3.14179114610E+03	Resid mbdelay (usec)	6.21703E-03	+/-	1.8E-04
Sband delay (usec)	-3.14085080485E+03	Apriori clock (usec)	-1.1851120E+00	Resid sbdelay (usec)	9.40341E-01	+/-	1.4E-03
Phase delay (usec)	-3.14179114769E+03	Apriori clockrate (us/s)	-1.0554925E-08	Resid phdelay (usec)	-1.58600E-06	+/-	6.1E-07
Delay rate (us/s)	-7.52415479565E-01	Apriori rate (us/s)	-7.52414906414E-01	Resid rate (us/s)	-5.73151E-07	+/-	7.0E-09
Total phase (deg)	-166.2	Apriori accel (us/s/s)	1.12055554827E-05	Resid phase (deg)	-49.2	+/-	18.9

ph/seg (deg)	51.8	Theor.	45.2	Amplitude	0.182 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	77.4		78.9	Search (1024X32)	0.179	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	44.2		26.7	Inc. seg. avg.	0.177	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	57.2		46.6	Inc. frq. avg.	0.198	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

k: az 336.1 el 36.1 pa 95.2 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12519.354 2088.124 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ku..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ku.W.311.3MP15Q

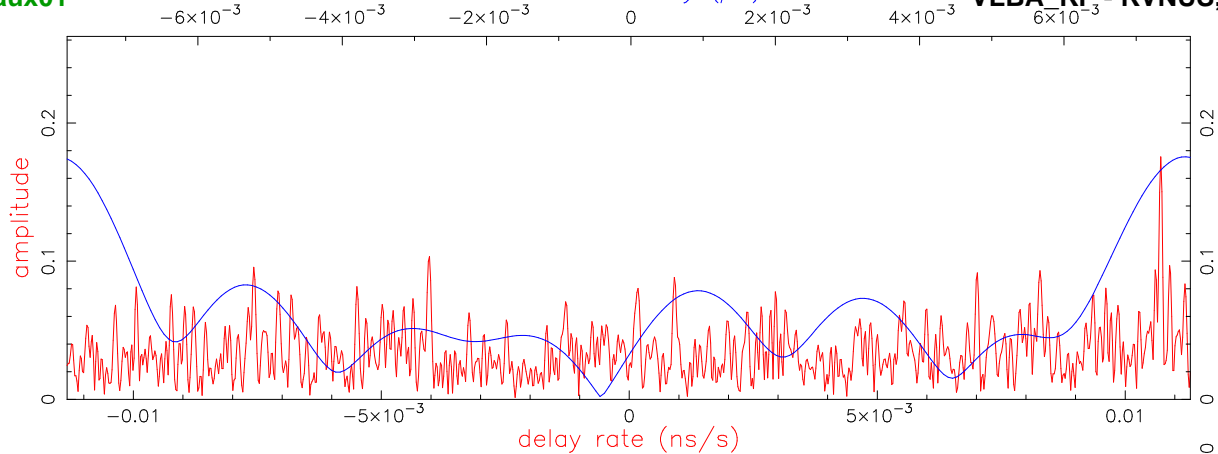
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ku

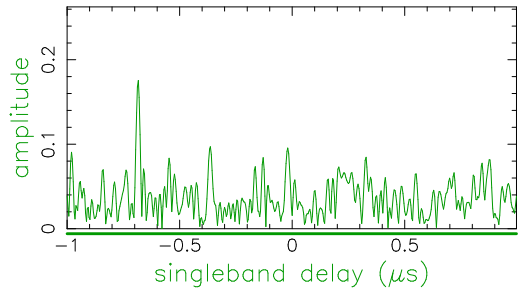
VLBA_KP - KVNUS, fgroup W, pol RL

multiband delay (μs)

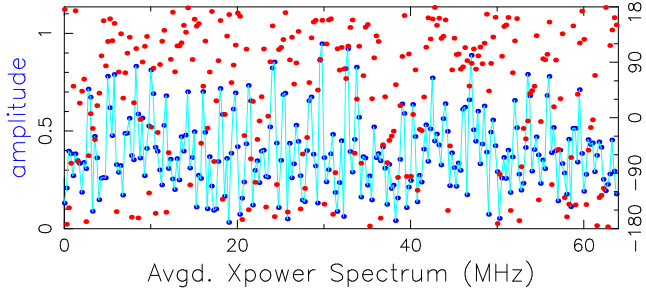


Fringe quality 0

SNR 5.9
 Int time 149.849
 Amp 0.263
 Phase 70.0
 PFD 3.7e-01
 Delays (us)
 SBD -0.684438
 MBD 0.007657
 Fringe rate (Hz)
 0.923610
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

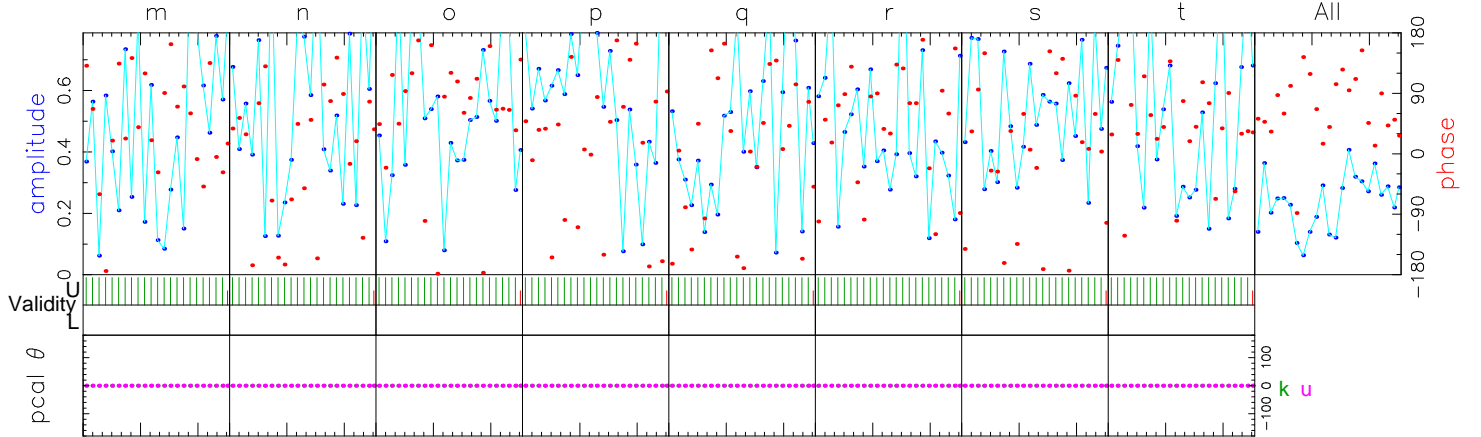


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105632
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.4	35.6	107.5	81.9	79.3	86.0	69.7	51.7	Phase	70.0
	0.4	0.2	0.5	0.2	0.2	0.3	0.2	0.4	Ampl.	0.3
	298.4	301.6	358.0	479.0	49.7	506.2	239.6	81.5	Sbd box	81.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
k:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ku	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) -3.14247098957E+03 Apriori delay (usec) -3.14179114610E+03 Resid mbdelay (usec) 7.65653E-03 +/- 1.8E-04
 Sband delay (usec) -3.14247558435E+03 Apriori clock (usec) -1.1851120E+00 Resid sbdelay (usec) -6.84438E-01 +/- 1.5E-03
 Phase delay (usec) -3.14179114384E+03 Apriori clockrate (us/s) -1.0554925E-08 Resid phdelay (usec) 2.25744E-06 +/- 6.3E-07
 Delay rate (us/s) -7.52404184219E-01 Apriori rate (us/s) -7.52414906414E-01 Resid rate (us/s) 1.07222E-05 +/- 7.2E-09
 Total phase (deg) -47.0 Apriori accel (us/s/s) 1.12055554827E-05 Resid phase (deg) 70.0 +/- 19.4

RMS Theor. Amplitude 0.263 +/- 0.045 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 51.7 46.6 Search (1024X32) 0.173 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 61.1 81.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 27.1 27.5 Inc. seg. avg. 0.265 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 43.8 48.0 Inc. frq. avg. 0.260 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

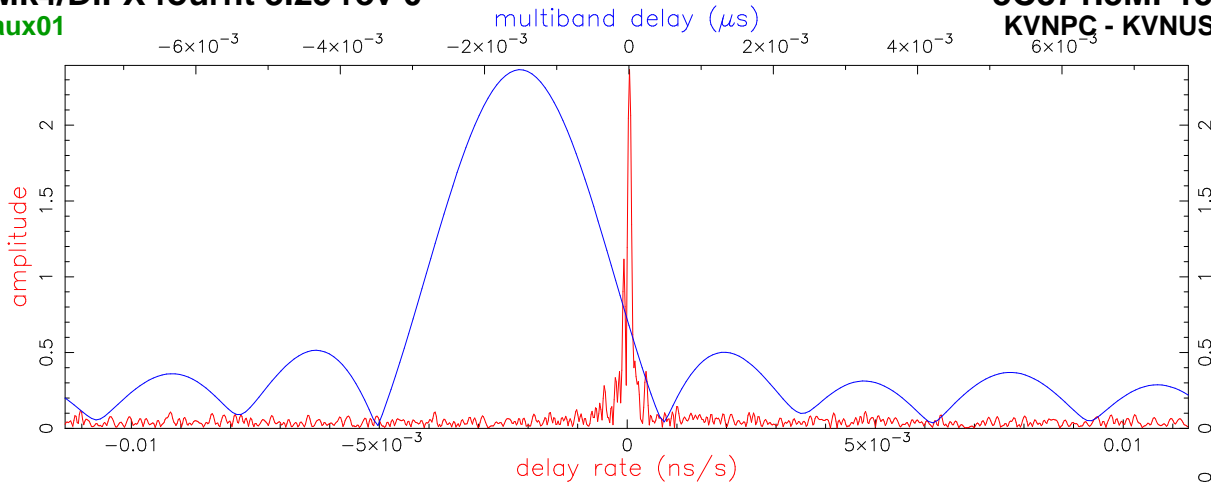
k: az 336.1 el 36.1 pa 95.2 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 12519.354 2088.124 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ku..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ku.W.320.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

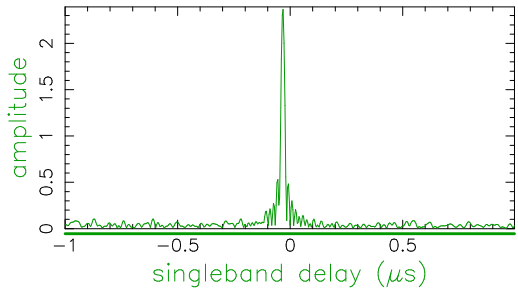
3C371.3MP15Q, No0901, Lu

KVNPC - KVNUS, fgroup W, pol LL

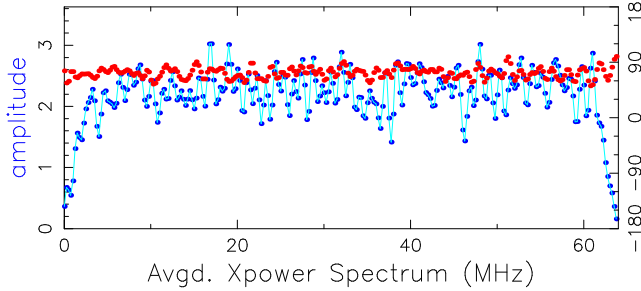


Fringe quality 8

SNR 80.2
 Int time 149.859
 Amp 2.394
 Phase 73.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.032635
 MBD -0.001511
 Fringe rate (Hz)
 0.004516
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

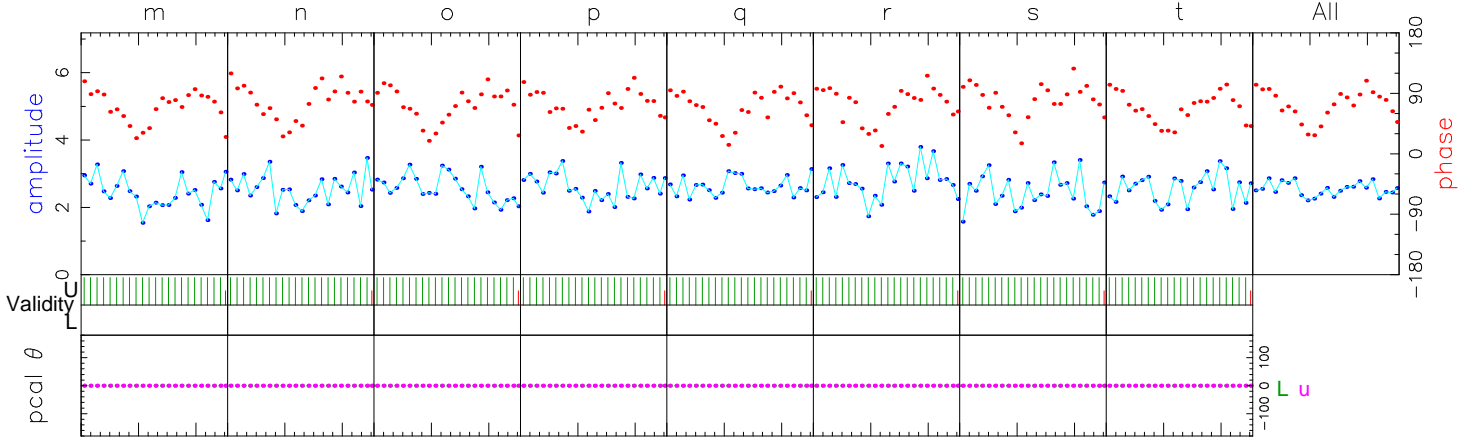


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105603
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	71.4	79.6	72.8	73.2	68.1	75.6	80.8	70.3	Phase	73.9
	2.3	2.3	2.4	2.5	2.4	2.5	2.3	2.4	Ampl.	2.4
	248.7	248.7	248.5	248.7	248.7	248.8	248.5	248.5	Sbd box	248.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
L	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.66394127932E+02	Apriori delay (usec)	3.66426888590E+02	Resid mbdelay (usec)	-1.51066E-03	+/-	1.4E-05
Sband delay (usec)	3.66394253090E+02	Apriori clock (usec)	-2.6705597E+01	Resid sbdelay (usec)	-3.26355E-02	+/-	1.1E-04
Phase delay (usec)	3.66426890974E+02	Apriori clockrate (us/s)	-7.6043000E-06	Resid phdelay (usec)	2.38359E-06	+/-	4.6E-08
Delay rate (us/s)	-4.09162897965E-03	Apriori rate (us/s)	-4.09168141008E-03	Resid rate (us/s)	5.24304E-08	+/-	5.3E-10
Total phase (deg)	139.9	Apriori accel (us/s/s)	8.63977367401E-07	Resid phase (deg)	73.9	+/-	1.4

ph/seg (deg)	22.4	Theor.	3.4	Amplitude	2.394 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	10.3		6.0	Search (1024X32)	2.320	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	4.8		2.0	Inc. seg. avg.	2.541	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	3.8		3.5	Inc. frq. avg.	2.371	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

L: az 23.1 el 48.9 pa -116.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 70.654 269.079 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/Lu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/Lu.W.236.3MP15Q

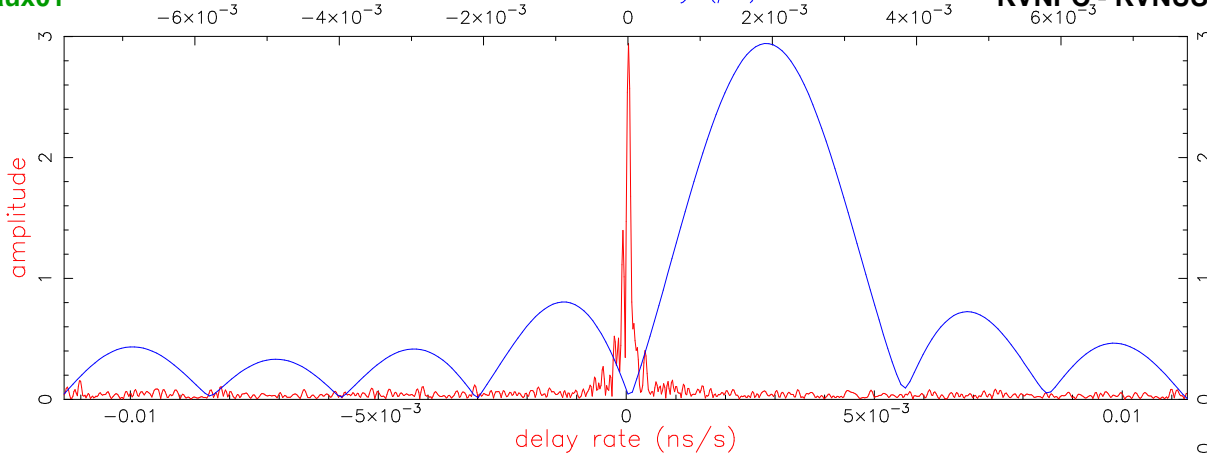
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, Lu

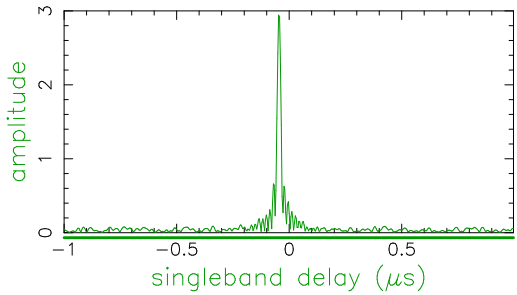
KVNPC- KVNUS, fgroup W, pol RR

multiband delay (μ s)

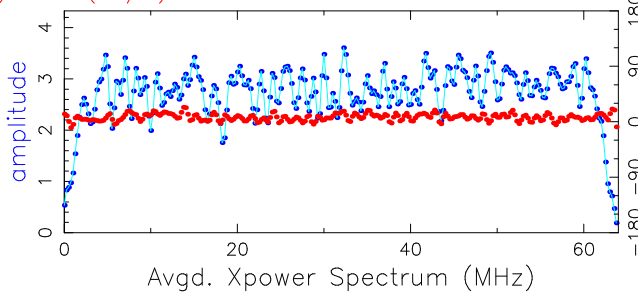


Fringe quality 8

SNR 100.5
 Int time 149.859
 Amp 3.002
 Phase -174.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.045104
 MBD 0.001914
 Fringe rate (Hz)
 0.004542
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

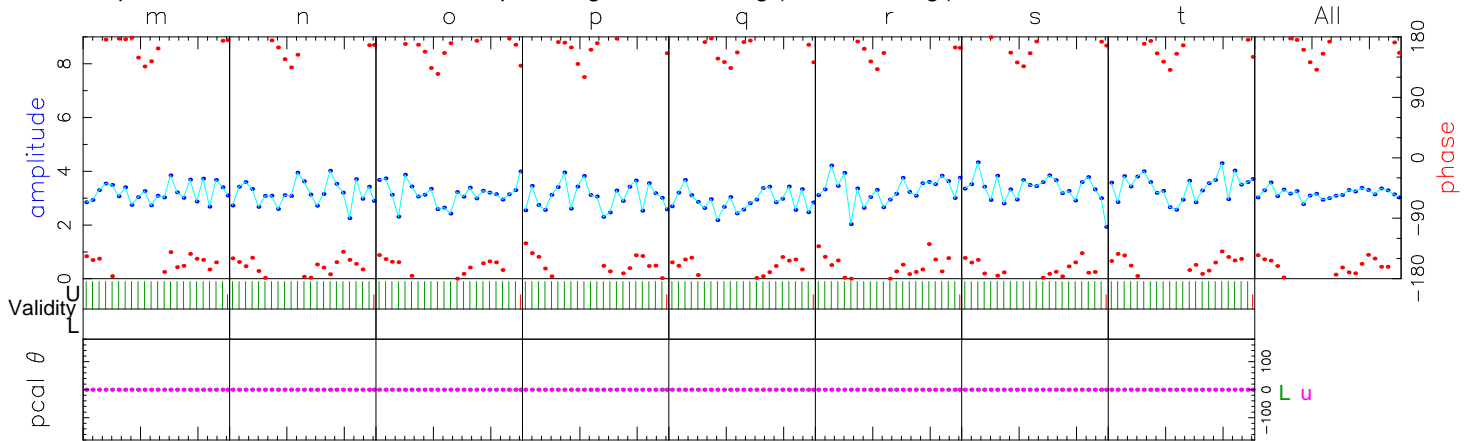


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105605
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-171.5	-173.1	-178.8	-175.1	-175.9	-171.4	-175.7	-171.9	Phase	-174.1
	2.9	3.0	2.9	2.8	2.7	3.0	3.2	3.1	Ampl.	2.9
	245.3	245.5	245.4	245.7	245.6	245.3	245.5	245.3	Sbd box	245.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
L	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.66381927807E+02	Apriori delay (usec)	3.66426888590E+02	Resid mbdelay (usec)	1.91422E-03	+/-	1.1E-05
Sband delay (usec)	3.66381784590E+02	Apriori clock (usec)	-2.6705597E+01	Resid sbdelay (usec)	-4.51040E-02	+/-	8.6E-05
Phase delay (usec)	3.66426882976E+02	Apriori clockrate (us/s)	-7.6043000E-06	Resid phdelay (usec)	-5.61466E-06	+/-	3.7E-08
Delay rate (us/s)	-4.09162868206E-03	Apriori rate (us/s)	-4.09168141008E-03	Resid rate (us/s)	5.27280E-08	+/-	4.2E-10
Total phase (deg)	-108.2	Apriori accel (us/s/s)	8.63977367401E-07	Resid phase (deg)	-174.1	+/-	1.1

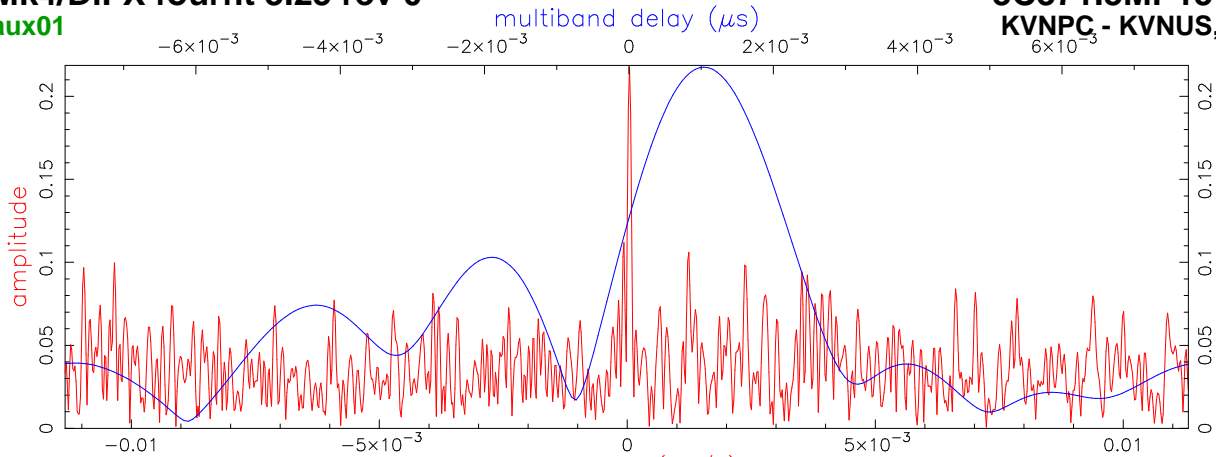
ph/seg (deg) 22.8 2.7 Search (1024X32) 2.880 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 8.3 4.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 2.9 1.6 Inc. seg. avg. 3.179 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.4 2.8 Inc. frq. avg. 2.945 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 L: az 23.1 el 48.9 pa -116.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 70.654 269.079 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/Lu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/Lu.W.244.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

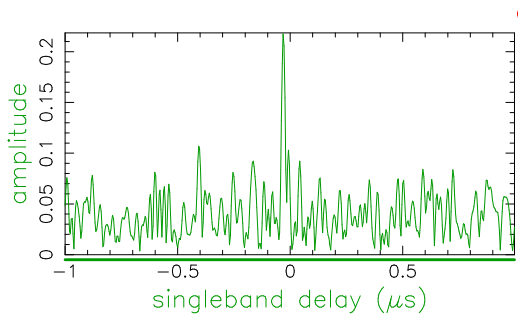
3C371.3MP15Q, No0901, Lu

KVNPC - KVNU, fgroup W, pol LR

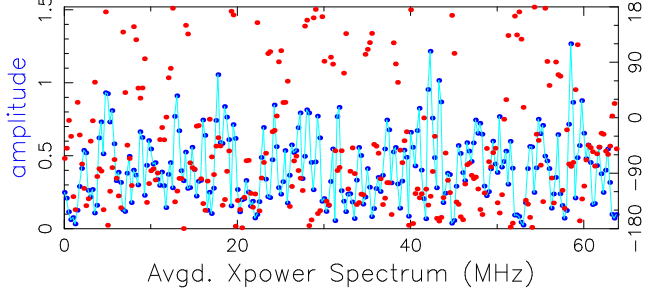


Fringe quality 9

SNR 7.3
 Int time 149.859
 Amp 0.219
 Phase -110.5
 PFD 3.9e-05
 Delays (us)
 SBD -0.030373
 MBD 0.001025
 Fringe rate (Hz)
 0.004474
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

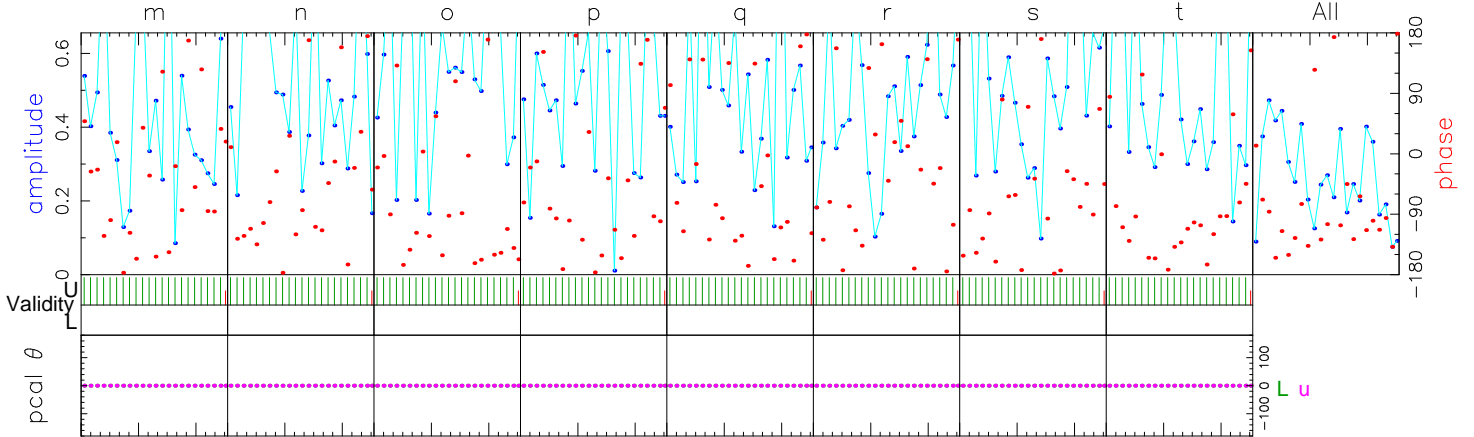


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105611
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-83.3	-99.9	-130.4	-113.6	-143.8	-90.5	-87.0	-115.0	Phase	-110.5
	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.3	Ampl.	0.2
	9.4	250.0	53.2	80.1	365.8	219.0	500.2	248.1	Sbd box	249.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
L	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	3.66396663463E+02	Apriori delay (usec)	3.66426888590E+02	Resid mbdelay (usec)	1.02487E-03	+/-	1.5E-04
Sband delay (usec)	3.66396515590E+02	Apriori clock (usec)	-2.6705597E+01	Resid sbdelay (usec)	-3.03730E-02	+/-	1.2E-03
Phase delay (usec)	3.66426885027E+02	Apriori clockrate (us/s)	-7.6043000E-06	Resid phdelay (usec)	-3.56301E-06	+/-	5.0E-07
Delay rate (us/s)	-4.09162947139E-03	Apriori rate (us/s)	-4.09168141008E-03	Resid rate (us/s)	5.19387E-08	+/-	5.8E-09
Total phase (deg)	-44.5	Apriori accel (us/s/s)	8.63977367401E-07	Resid phase (deg)	-110.5	+/-	15.7

ph/seg (deg)	49.6	RMS	23.6	Theor.	22.1	Amplitude	0.219 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	59.0		31.8		38.6	Search (1024X32)	0.215	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	23.6					Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.8					Inc. seg. avg.	0.222	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.215	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

L: az 23.1 el 48.9 pa -116.3 u: az 22.1 el 47.3 pa -118.3 u, v (fr/asec) 70.654 269.079 simultaneous interpolator

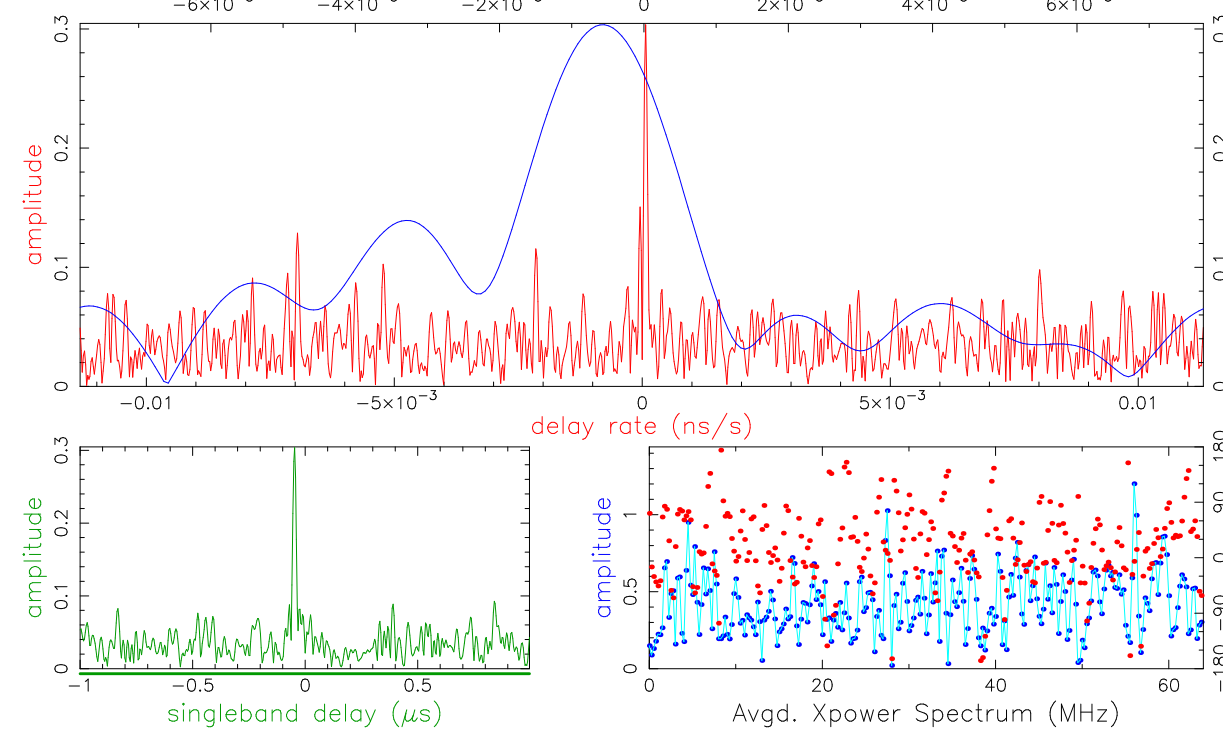
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/Lu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/Lu.W.255.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, Lu

KVNPC - KVNUS, fgroup W, pol RL

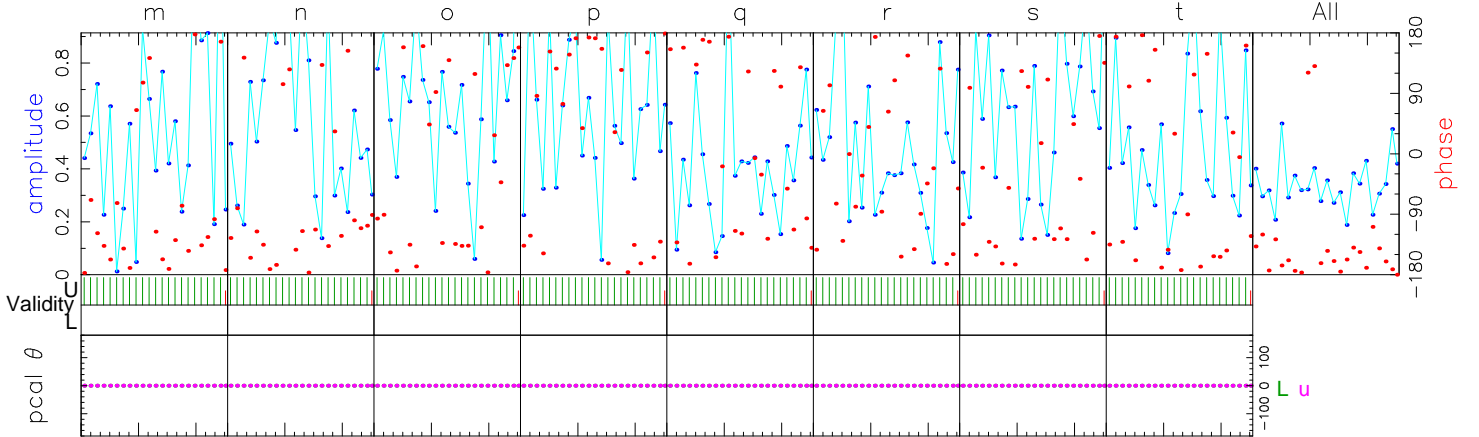


Fringe quality 9

SNR 10.2
 Int time 149.859
 Amp 0.305
 Phase -162.5
 PFD 4.2e-16
 Delays (us)
 SBD -0.047626
 MBD -0.000571
 Fringe rate (Hz)
 0.004906
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105612
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-159.5	-153.4	-162.2	173.2	-171.7	-141.5	-133.3	-179.2	Phase	-162.5
	0.4	0.4	0.4	0.4	0.2	0.1	0.3	0.3	Ampl.	0.3
	244.8	244.8	245.1	244.2	407.9	372.6	244.6	245.2	Sbd box	244.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
L	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	3.66379442962E+02					3.66426888590E+02			Resid mbdelay (usec)	-5.70629E-04 +/- 1.1E-04
Sband delay (usec)	3.66379262840E+02					-2.6705597E+01			Resid sbdelay (usec)	-4.76258E-02 +/- 8.4E-04
Phase delay (usec)	3.66426883349E+02					-7.6043000E-06			Resid phdelay (usec)	-5.24146E-06 +/- 3.6E-07
Delay rate (us/s)	-4.09162445905E-03					-4.09168141008E-03			Resid rate (us/s)	5.69510E-08 +/- 4.2E-09
Total phase (deg)			-96.6			8.63977367401E-07			Resid phase (deg)	-162.5 +/- 11.2
	RMS	Theor.	Amplitude	0.305 +/- 0.030					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	29.4	26.9	Search (1024X32)	0.294					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	32.6	47.0	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	19.8	15.9	Inc. seg. avg.	0.309					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.1	27.7	Inc. frq. avg.	0.305					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite
L: az 23.1 el 48.9 pa -116.3										simultaneous interpolator
u: az 22.1 el 47.3 pa -118.3										
u, v (fr/asec) 70.654 269.079										
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901/Lu..3MP15Q									Output file: /Exps/c241a/v2/3mm/1234/No0901/Lu.W.262.3MP15Q

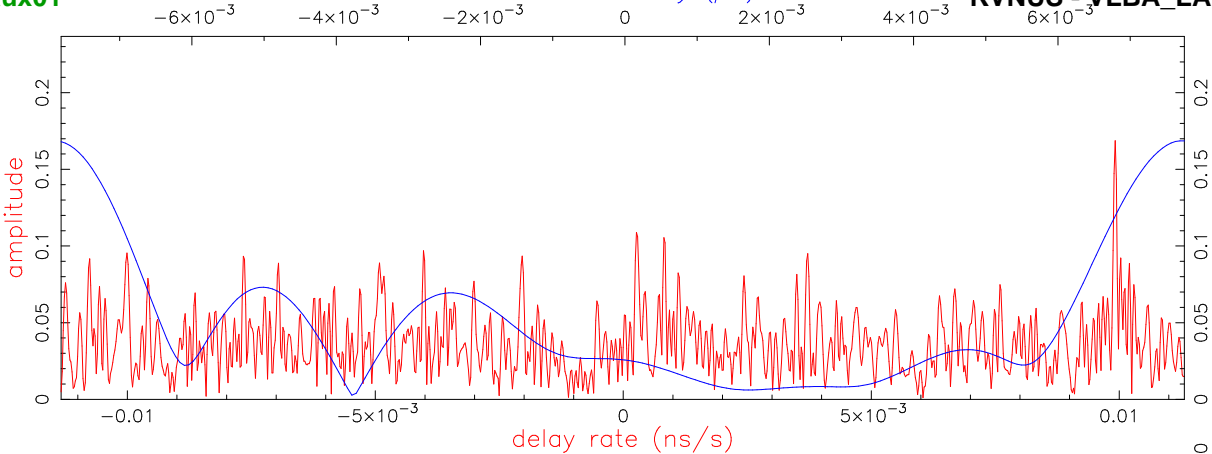
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ul

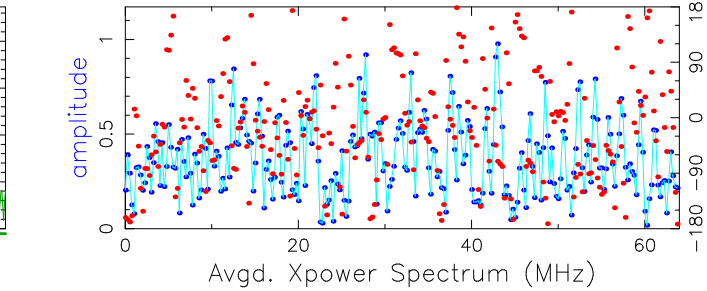
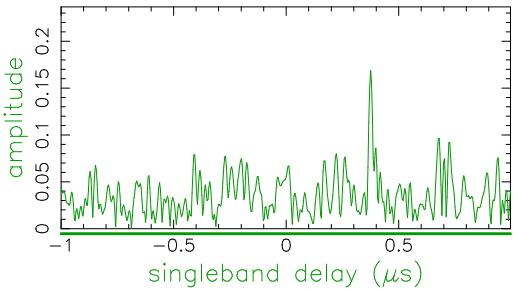
KVNUS - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)



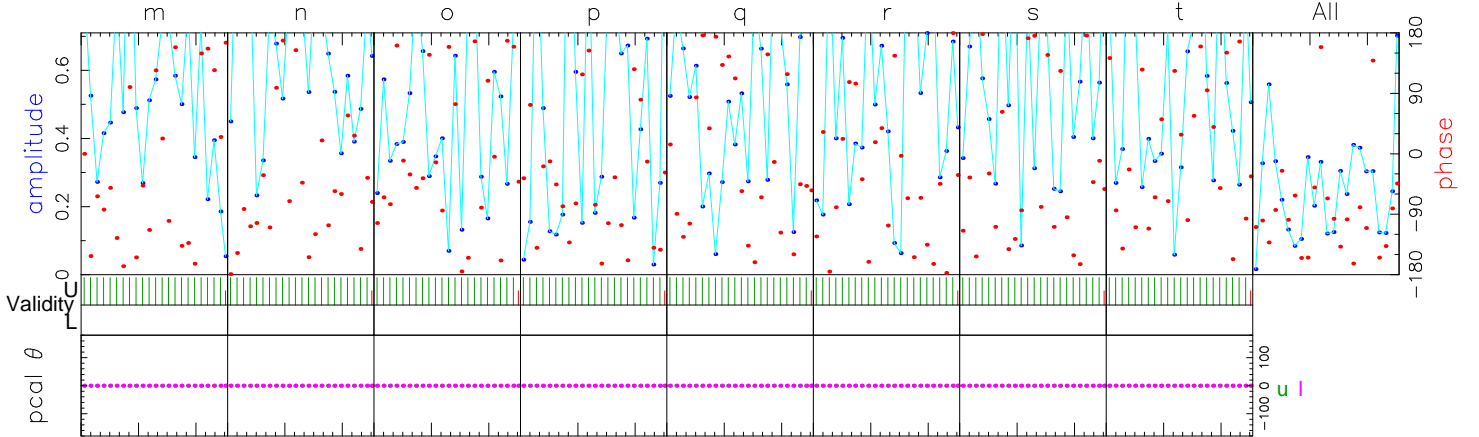
Fringe quality 0

SNR 5.7
 Int time 149.849
 Amp 0.237
 Phase -113.6
 PFD 8.6e-01
 Delays (us)
 SBD 0.375420
 MBD 0.007721
 Fringe rate (Hz)
 0.855002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105645
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
l	0	0	0	0	0	0	0	0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	2.67197539134E+03	Apriori delay (usec)	2.67159266986E+03	Resid mbdelay (usec)	7.72148E-03	+/-	1.9E-04
Sband delay (usec)	2.67196809011E+03	Apriori clock (usec)	9.6455860E+00	Resid sbdelay (usec)	3.75420E-01	+/-	1.5E-03
Phase delay (usec)	2.67159266620E+03	Apriori clockrate (us/s)	3.9676205E-07	Resid phdelay (usec)	-3.66427E-06	+/-	6.5E-07
Delay rate (us/s)	7.44489862661E-01	Apriori rate (us/s)	7.44479936933E-01	Resid rate (us/s)	9.92573E-06	+/-	7.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.45171699865E-05	Resid phase (deg)	-113.6	+/-	20.3

ph/seg (deg)	47.9	Theor.	48.6	Amplitude	0.237 +/- 0.042	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	97.3		84.9	Search (1024X32)	0.164	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	25.0		28.7	Inc. seg. avg.	0.259	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.9		50.0	Inc. frq. avg.	0.224	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
u:	az 22.1 el 47.3 pa -118.3	l:	az 334.9 el 37.8 pa 88.1	u,v (fr/asec)	-12397.505 -2966.347	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ul..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ul.W.345.3MP15Q

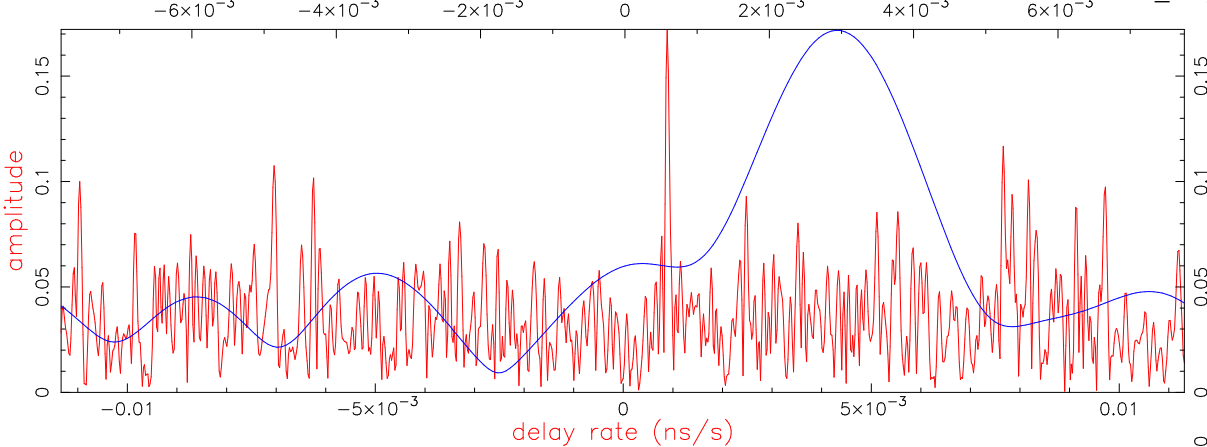
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ul

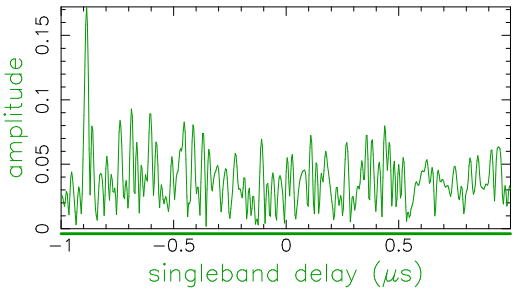
KVNUS - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

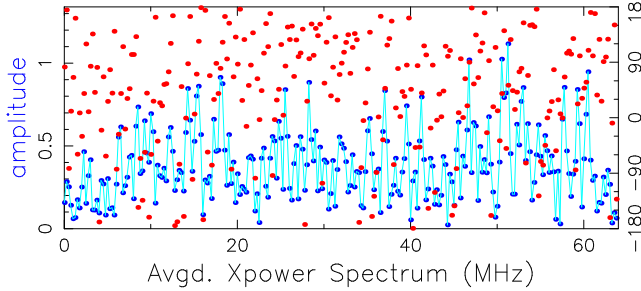


Fringe quality 0

SNR 5.7
 Int time 149.849
 Amp 0.172
 Phase -87.0
 PFD 6.7e-01
 Delays (us)
 SBD -0.886650
 MBD 0.002942
 Fringe rate (Hz)
 0.075979
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

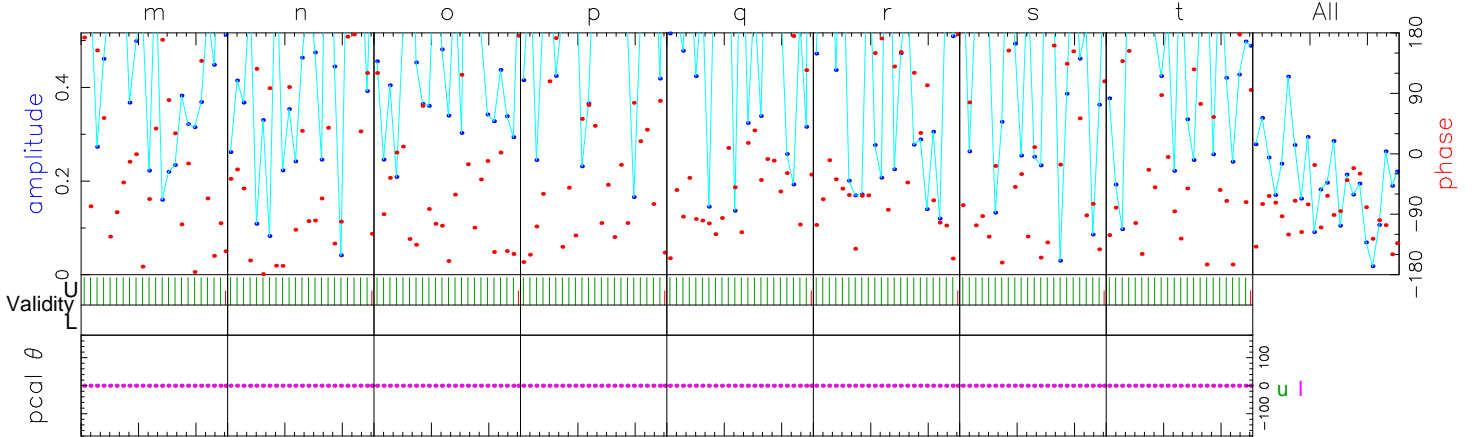


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105647
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
l	0	0	0	0	0	0	0	0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 2.67070498659E+03 Apriori delay (usec) 2.67159266986E+03 Resid mbdelay (usec) 2.94173E-03 +/- 1.9E-04
 Sband delay (usec) 2.67070601986E+03 Apriori clock (usec) 9.6455860E+00 Resid sbdelay (usec) -8.86650E-01 +/- 1.5E-03
 Phase delay (usec) 2.67159266706E+03 Apriori clockrate (us/s) 3.9676205E-07 Resid phdelay (usec) -2.80589E-06 +/- 6.4E-07
 Delay rate (us/s) 7.44480818970E-01 Apriori rate (us/s) 7.44479936933E-01 Resid rate (us/s) 8.82037E-07 +/- 7.4E-09
 Total phase (deg) 122.5 Apriori accel (us/s/s) -1.45171699865E-05 Resid phase (deg) -87.0 +/- 19.9

ph/seg (deg) RMS Theor. Amplitude 0.172 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.9 47.8 Search (1024X32) 0.170 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.6 83.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.9 28.2 Inc. seg. avg. 0.153 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 41.8 49.2 Inc. frq. avg. 0.172 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 l: az 334.9 el 37.8 pa 88.1 u,v (fr/asec) -12397.505 -2966.347 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ul..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ul.W.353.3MP15Q

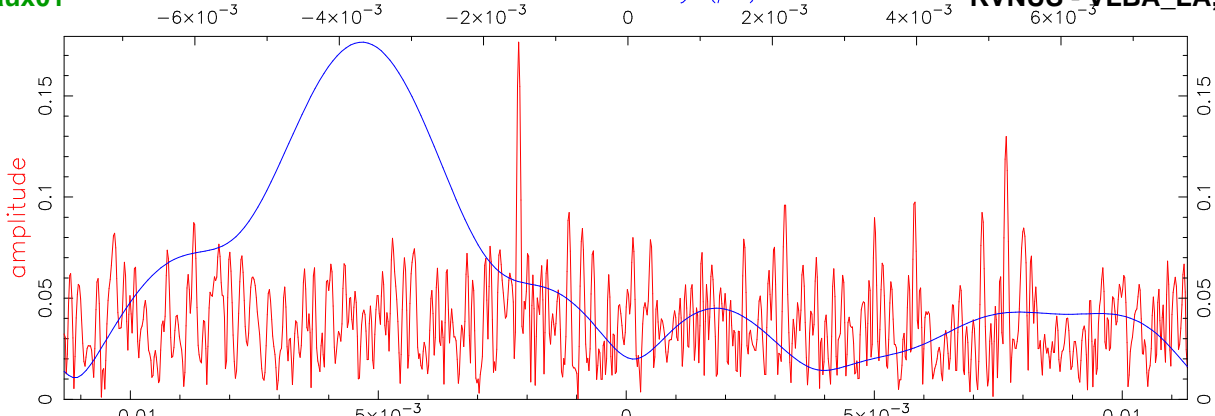
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ul

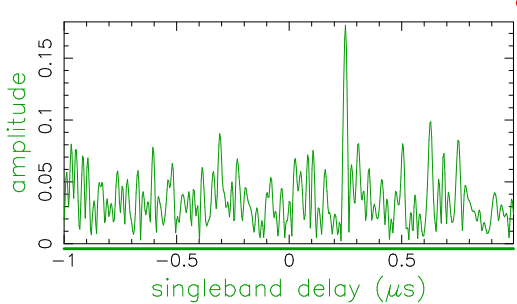
KVNUS - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

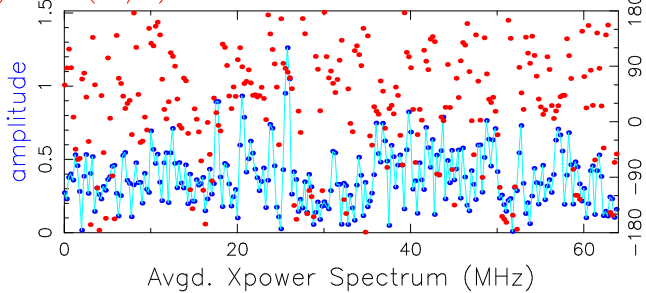


Fringe quality 0

SNR 5.9
 Int time 149.849
 Amp 0.179
 Phase 98.1
 PFD 3.4e-01
 Delays (us)
 SBD 0.249575
 MBD -0.003697
 Fringe rate (Hz)
 -0.186511
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

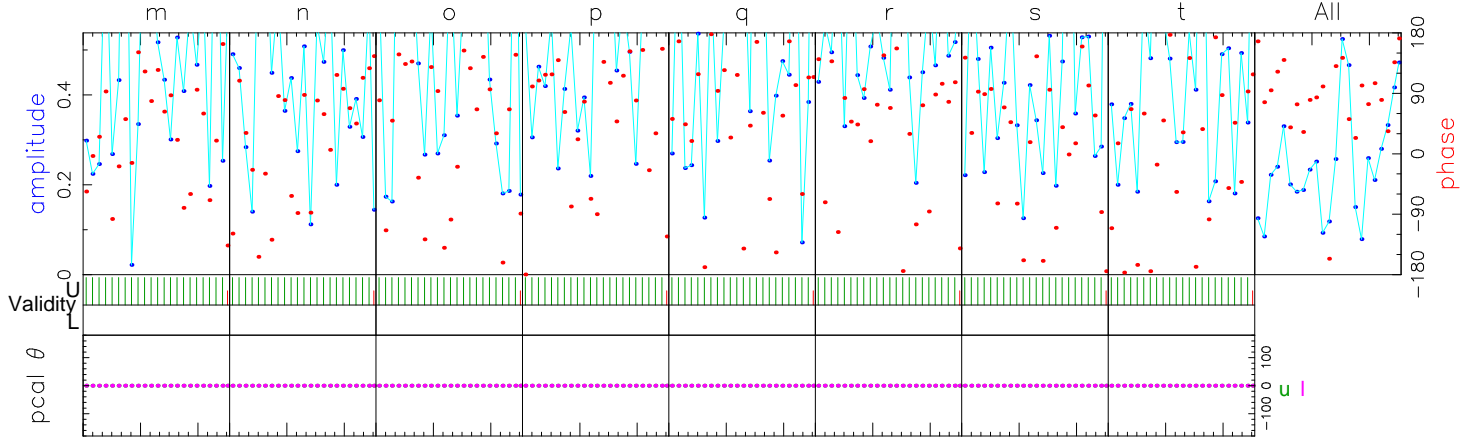


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105651
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 2.67183897317E+03 Apriori delay (usec) 2.67159266986E+03 Resid mbdelay (usec) -3.69669E-03 +/- 1.8E-04
 Sband delay (usec) 2.67184224511E+03 Apriori clock (usec) 9.6455860E+00 Resid sbdelay (usec) 2.49575E-01 +/- 1.5E-03
 Phase delay (usec) 2.67159267303E+03 Apriori clockrate (us/s) 3.9676205E-07 Resid phdelay (usec) 3.16360E-06 +/- 6.2E-07
 Delay rate (us/s) 7.44477771730E-01 Apriori rate (us/s) 7.44479936933E-01 Resid rate (us/s) -2.16520E-06 +/- 7.2E-09
 Total phase (deg) 307.6 Apriori accel (us/s/s) -1.45171699865E-05 Resid phase (deg) 98.1 +/- 19.4

ph/seg (deg) 46.0 46.4 Amplitude 0.179 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.0 81.4 Interp. 0.174 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.7 27.4 Inc. seg. avg. 0.187 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.4 47.8 Inc. frq. avg. 0.184 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 22.1 el 47.3 pa -118.3 l: az 334.9 el 37.8 pa 88.1 u,v (fr/asec) -12397.505 -2966.347 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/ul..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/ul.W.358.3MP15Q

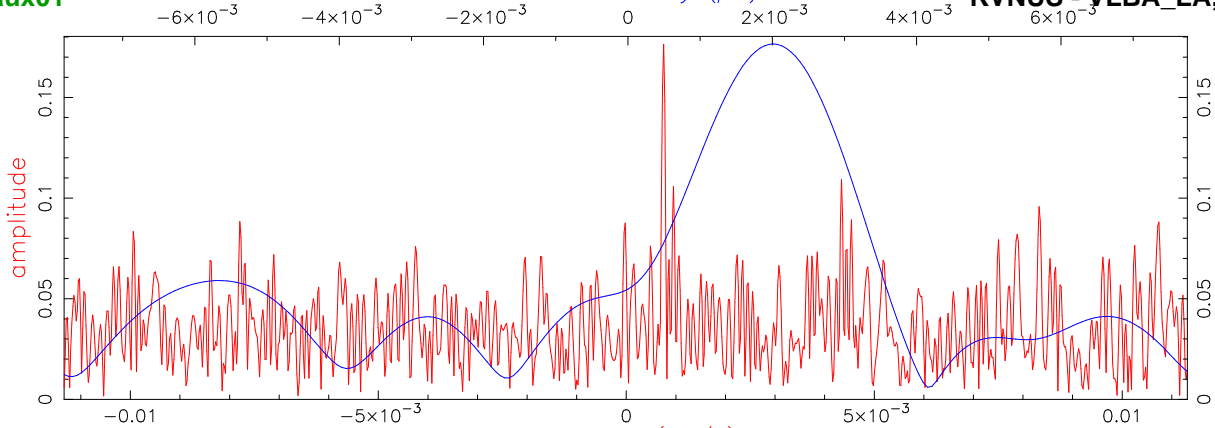
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ul

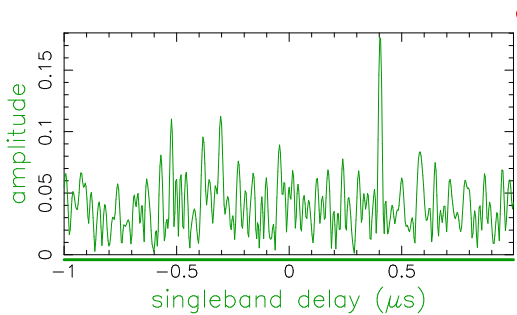
KVNUS - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

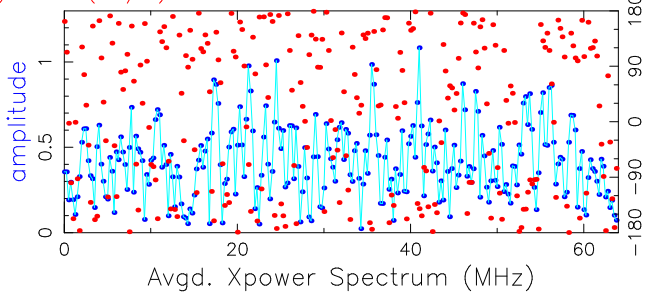


Fringe quality 0

SNR 6.0
 Int time 149.849
 Amp 0.180
 Phase 115.7
 PFD 2.0e-01
 Delays (us)
 SBD 0.404171
 MBD 0.002068
 Fringe rate (Hz)
 0.064926
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

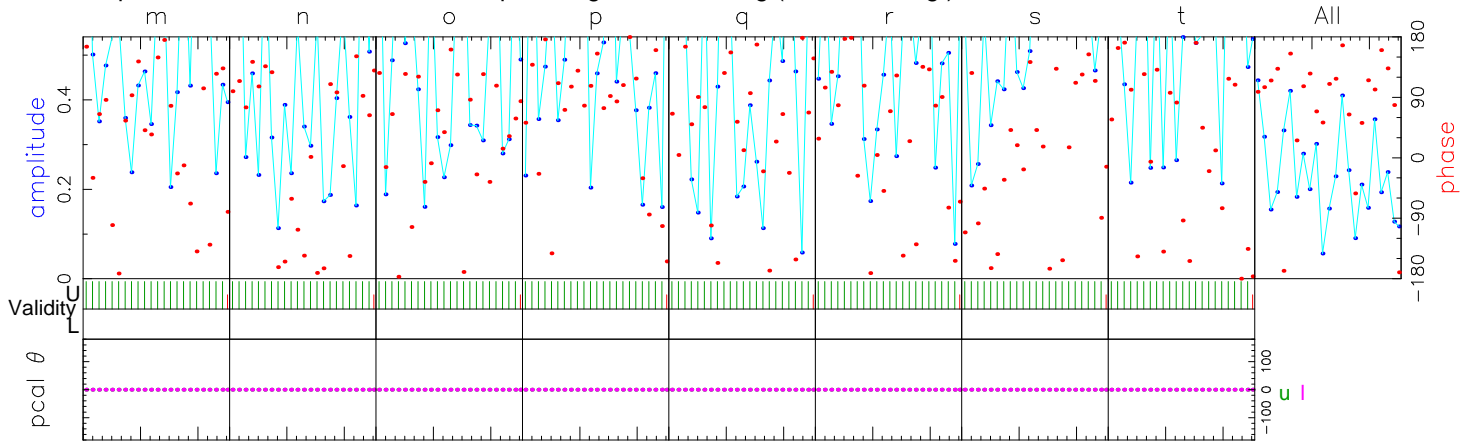


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105653
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
l	0	0	0	0	0	0	0	0		
u:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:l	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		
l	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	2.67200098748E+03	Apriori delay (usec)	2.67159266986E+03	Resid mbdelay (usec)	2.06761E-03	+/-	1.8E-04
Sband delay (usec)	2.67199684036E+03	Apriori clock (usec)	9.6455860E+00	Resid sbdelay (usec)	4.04171E-01	+/-	1.4E-03
Phase delay (usec)	2.67159267359E+03	Apriori clockrate (us/s)	3.9676205E-07	Resid phdelay (usec)	3.72947E-06	+/-	6.1E-07
Delay rate (us/s)	7.44480690654E-01	Apriori rate (us/s)	7.44479936933E-01	Resid rate (us/s)	7.53721E-07	+/-	7.1E-09
Total phase (deg)	325.1	Apriori accel (us/s/s)	-1.45171699865E-05	Resid phase (deg)	115.7	+/-	19.0

ph/seg (deg)	54.5	RMS	45.6	Theor.	54.5	Amplitude	0.180 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	66.1	Search (1024X32)	0.176	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	26.3	Inc. seg. avg.	0.181	Inc. frq. avg.	0.169	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	38.6	Inc. frq. avg.	0.169	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 l: az 334.9 el 37.8 pa 88.1 u,v (fr/asec) -12397.505 -2966.347 simultaneous interpolator

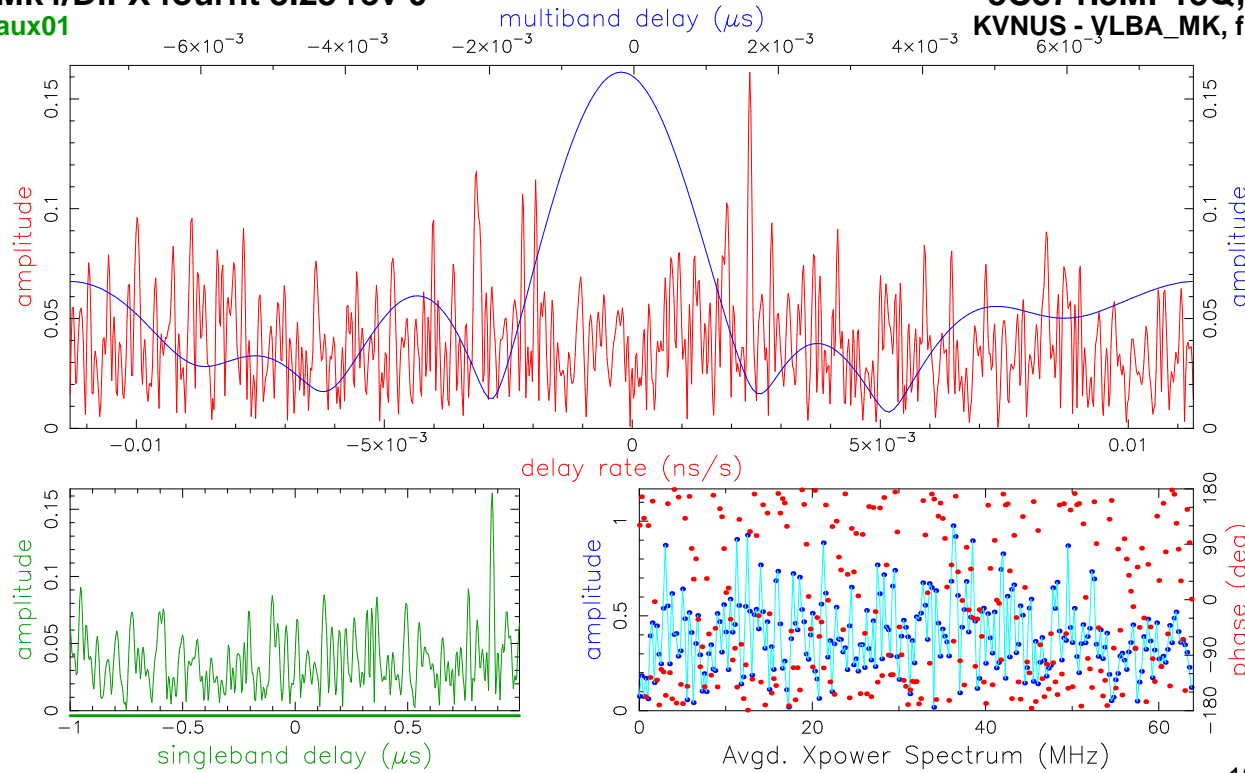
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//ul..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//ul.W.365.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

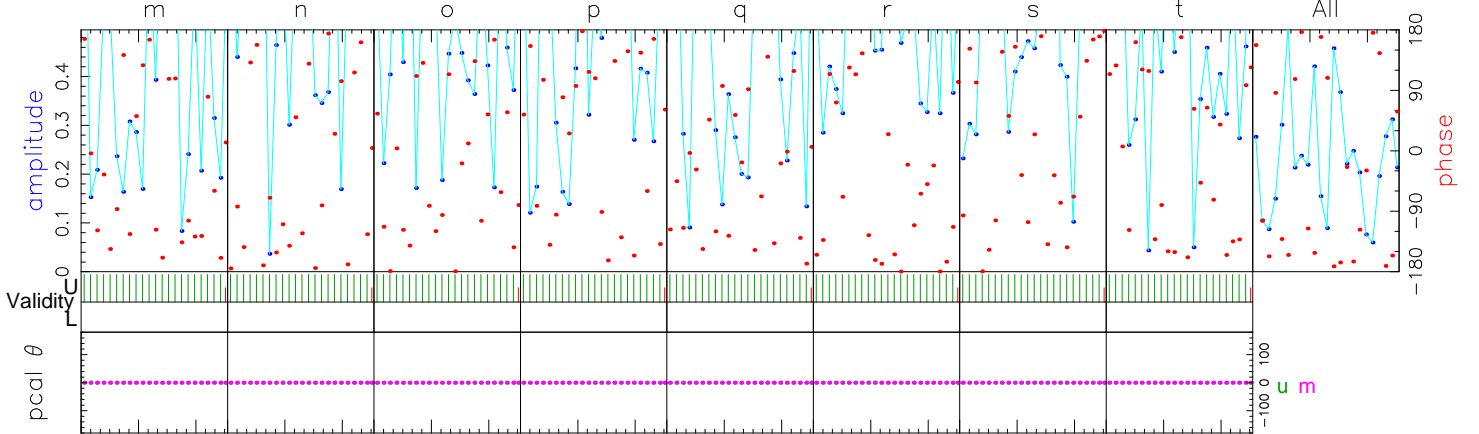
3C371.3MP15Q, No0901, um

KVNUS - VLBA_MK, fgroup W, pol LL



Fringe quality 0
 SNR 5.4
 Int time 149.849
 Amp 0.165
 Phase -166.2
 PFD 1.0e+00
 Delays (us)
 SBD 0.874571
 MBD -0.000194
 Fringe rate (Hz) 0.203873
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105646
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-175.5	-174.4	-113.4	168.3	-106.3	-164.6	-161.5	176.9	Phase	-166.2
	0.2	0.3	0.1	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	54.8	462.9	356.3	480.7	334.8	235.4	230.3	177.6	Sbd box	480.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.76885390553E+03	Apriori delay (usec)	2.76797909910E+03	Resid mbdelay (usec)	-1.93570E-04	+/-	2.0E-04
Sband delay (usec)	2.76885366985E+03	Apriori clock (usec)	7.9607391E-01	Resid sbdelay (usec)	8.74571E-01	+/-	1.6E-03
Phase delay (usec)	2.76797909374E+03	Apriori clockrate (us/s)	1.7726098E-07	Resid phdelay (usec)	-5.35944E-06	+/-	6.8E-07
Delay rate (us/s)	5.56914903993E-01	Apriori rate (us/s)	5.56912537235E-01	Resid rate (us/s)	2.36676E-06	+/-	7.9E-09
Total phase (deg)	48.4	Apriori accel (us/s/s)	1.09087071335E-05	Resid phase (deg)	-166.2	+/-	21.1

ph/seg (deg)	63.4	Theor.	50.6	Search (1024X32)	0.160	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	86.0		88.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	35.3		29.8	Inc. seg. avg.	0.172	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.2		52.1	Inc. frq. avg.	0.162	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 m: az 348.4 el 37.3 pa 146.6 u,v (fr/asec) -9211.487 3179.862 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/um..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/um.W.351.3MP15Q

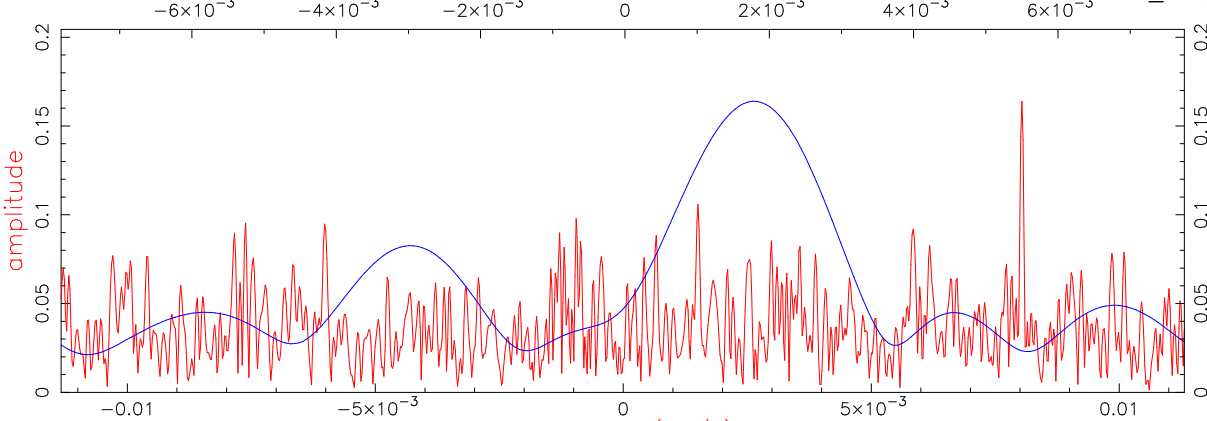
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, um

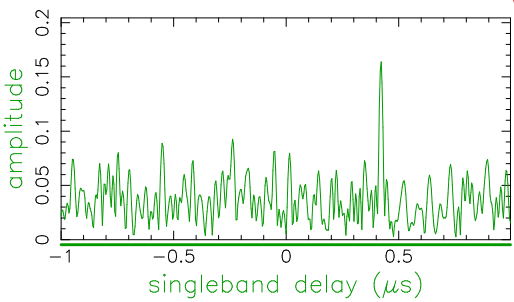
KVNUS - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

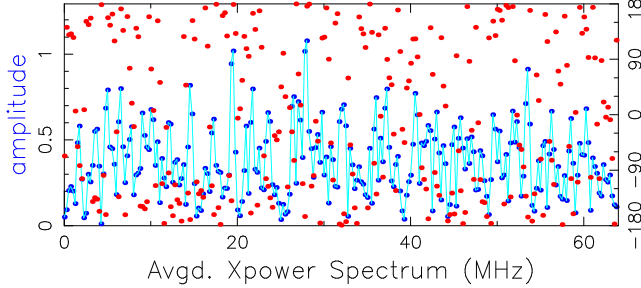


Fringe quality 0

SNR 5.5
 Int time 149.849
 Amp 0.204
 Phase -16.6
 PFD 9.9e-01
 Delays (us)
 SBD 0.421012
 MBD 0.001749
 Fringe rate (Hz) 0.694005
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

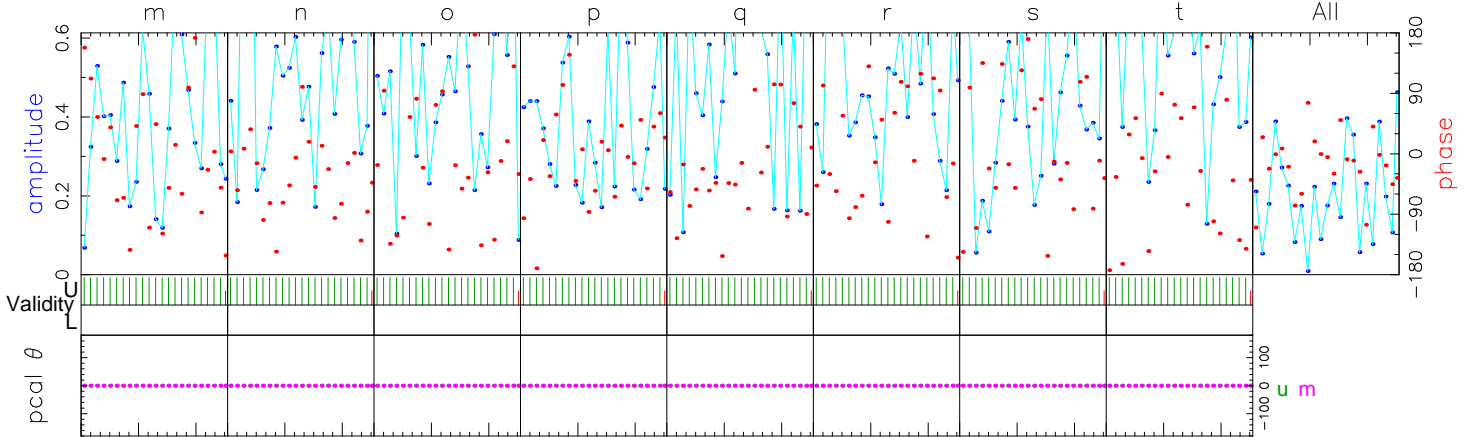


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105651
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-7.5	-21.9	-32.6	10.0	-34.3	-14.4	-64.5	3.0	Phase	-16.6
	0.2	0.5	0.1	0.2	0.3	0.1	0.0	0.2	Ampl.	0.2
	243.6	365.3	250.4	250.8	363.5	357.3	307.4	68.4	Sbd box	364.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.76840272305E+03	Apriori delay (usec)	2.76797909910E+03	Resid mbdelay (usec)	1.74896E-03	+/-	2.0E-04
Sband delay (usec)	2.76840011085E+03	Apriori clock (usec)	7.9607391E-01	Resid sbdelay (usec)	4.21012E-01	+/-	1.6E-03
Phase delay (usec)	2.76797909856E+03	Apriori clockrate (us/s)	1.7726098E-07	Resid phdelay (usec)	-5.36155E-07	+/-	6.7E-07
Delay rate (us/s)	5.56920593945E-01	Apriori rate (us/s)	5.56912537235E-01	Resid rate (us/s)	8.05671E-06	+/-	7.7E-09
Total phase (deg)	198.0	Apriori accel (us/s/s)	1.09087071335E-05	Resid phase (deg)	-16.6	+/-	20.8

ph/seg (deg)	44.3	Theor.	49.9	Amplitude	0.204 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.5	Search (1024X32)	0.160	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	26.0	Inc. seg. avg.	0.181	Inc. frq. avg.	0.188	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	56.1	Inc. frq. avg.	0.188			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 22.1 el 47.3 pa -118.3 m: az 348.4 el 37.3 pa 146.6 u,v (fr/asec) -9211.487 3179.862 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/um..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/um.W.360.3MP15Q

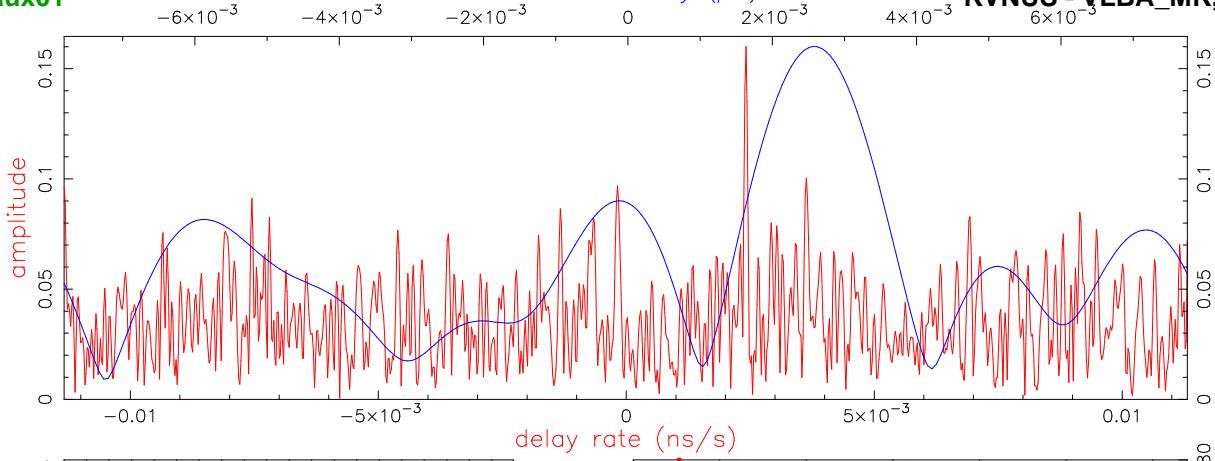
Mk4/DiFX fourfit 3.25 rev 0

aux01

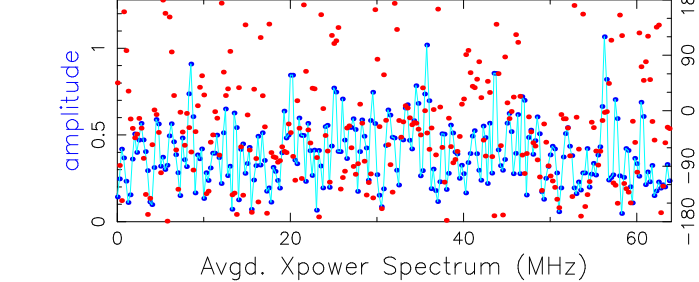
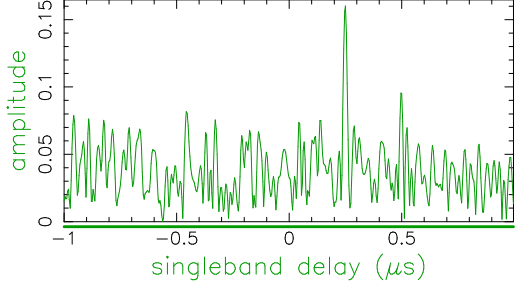
3C371.3MP15Q, No0901, um

KVNUS - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

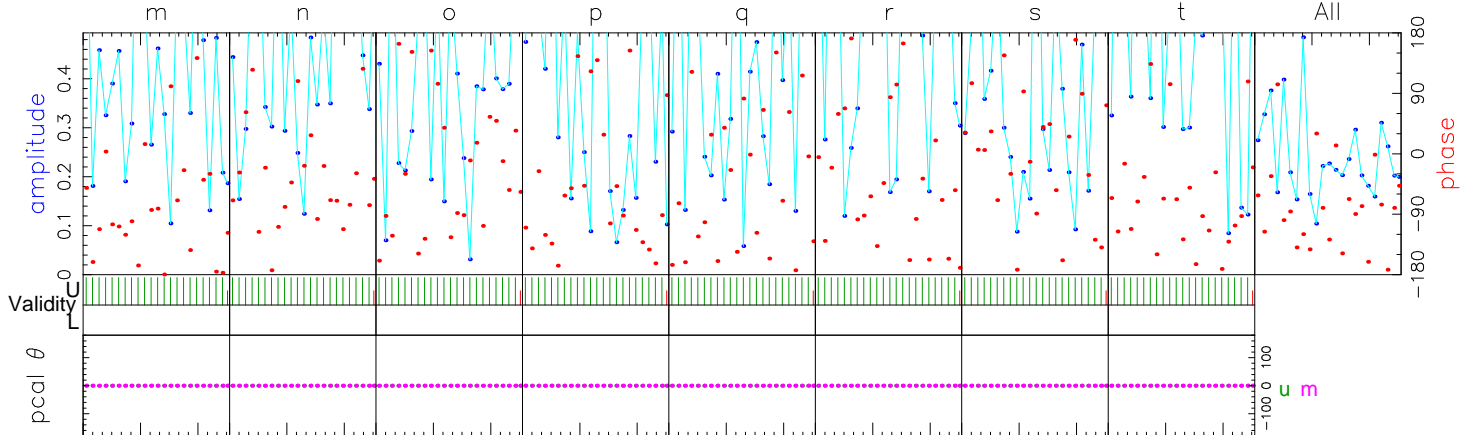


Fringe quality 0
 SNR 5.4
 Int time 149.849
 Amp 0.165
 Phase -93.2
 PFD 1.0e+00
 Delays (us)
 SBD 0.248632
 MBD 0.002555
 Fringe rate (Hz) 0.207437
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105654
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-101.9	-70.5	-97.0	-129.3	-149.8	-72.1	-41.5	-95.2	Phase	-93.2
	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.4	Ampl.	0.2
	491.7	319.5	68.1	3.1	429.6	224.4	315.2	321.0	Sbd box	320.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	60000	0	0	0	4000	0	PC freqs	
u	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.76823165384E+03	Apriori delay (usec)	2.76797909910E+03	Resid mbdelay (usec)	2.55474E-03	+/-	2.0E-04
Sband delay (usec)	2.76822773085E+03	Apriori clock (usec)	7.9607391E-01	Resid sbdelay (usec)	2.48632E-01	+/-	1.6E-03
Phase delay (usec)	2.76797909609E+03	Apriori clockrate (us/s)	1.7726098E-07	Resid phdelay (usec)	-3.00437E-06	+/-	6.8E-07
Delay rate (us/s)	5.56914945369E-01	Apriori rate (us/s)	5.56912537235E-01	Resid rate (us/s)	2.40813E-06	+/-	7.9E-09
Total phase (deg)	121.5	Apriori accel (us/s/s)	1.09087071335E-05	Resid phase (deg)	-93.2	+/-	21.2

ph/seg (deg) 63.1 50.8 Search (1024X32) 0.157 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.4 88.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.0 30.0 Inc. seg. avg. 0.178 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.3 52.3 Inc. frq. avg. 0.160 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 22.1 el 47.3 pa -118.3 m: az 348.4 el 37.3 pa 146.6 u,v (fr/asec) -9211.487 3179.862 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/um..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/um.W.368.3MP15Q

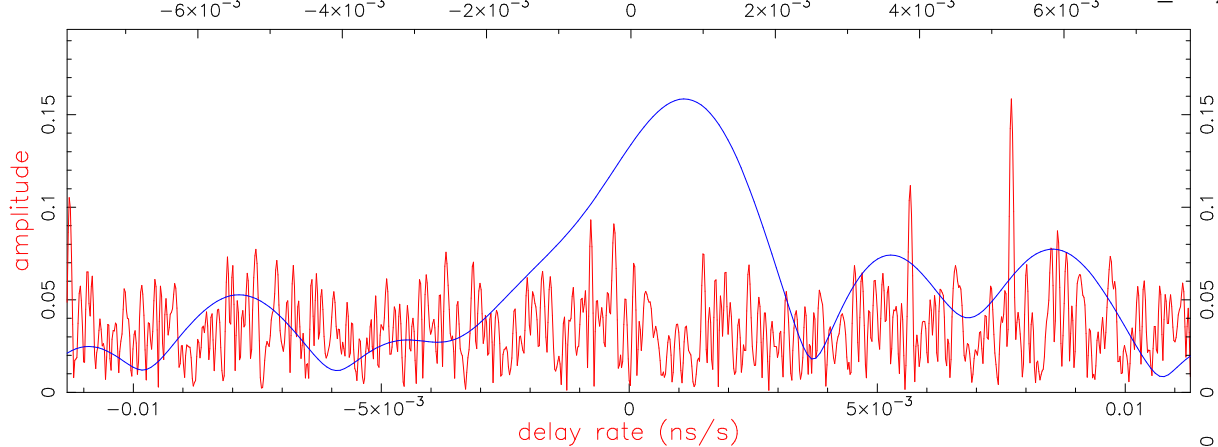
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, um

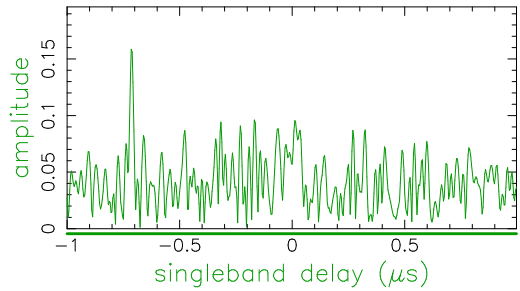
KVNUS - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

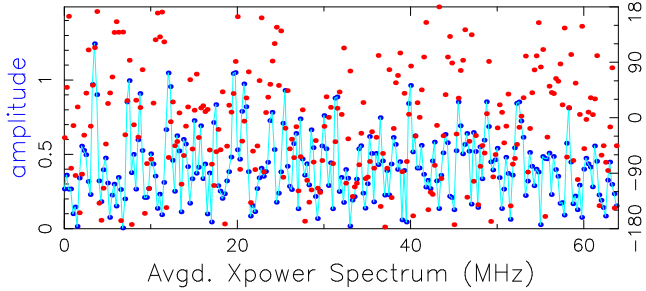


Fringe quality 0

SNR 5.4
 Int time 149.849
 Amp 0.196
 Phase 48.6
 PFD 1.0e+00
 Delays (us)
 SBD -0.713265
 MBD 0.000743
 Fringe rate (Hz)
 0.665400
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

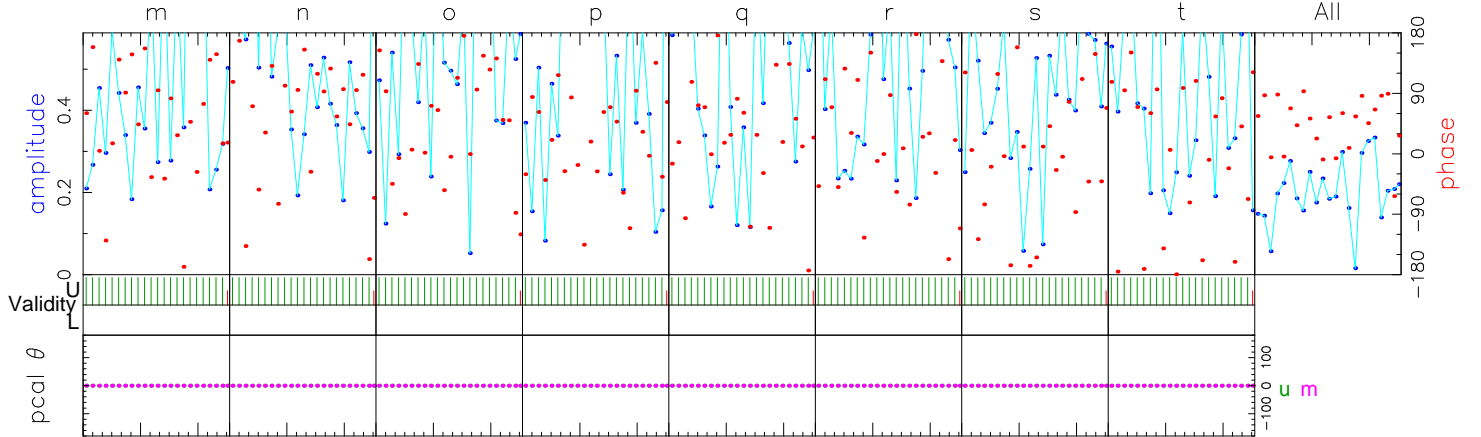


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105657
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	39.4	86.4	78.0	17.3	34.6	19.2	10.8	107.8	Phase	48.6
	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.2	Ampl.	0.2
	461.7	242.4	340.2	75.4	248.2	56.0	409.4	487.5	Sbd box	74.4
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
u:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.76726109248E+03	Apriori delay (usec)	2.76797909910E+03	Resid mbdelay (usec)	7.43381E-04	+/-	2.0E-04
Sband delay (usec)	2.76726583435E+03	Apriori clock (usec)	7.9607391E-01	Resid sbdelay (usec)	-7.13265E-01	+/-	1.6E-03
Phase delay (usec)	2.76797910066E+03	Apriori clockrate (us/s)	1.7726098E-07	Resid phdelay (usec)	1.56652E-06	+/-	6.9E-07
Delay rate (us/s)	5.56920261869E-01	Apriori rate (us/s)	5.56912537235E-01	Resid rate (us/s)	7.72463E-06	+/-	7.9E-09
Total phase (deg)	263.2	Apriori accel (us/s/s)	1.09087071335E-05	Resid phase (deg)	48.6	+/-	21.3

ph/seg (deg)	40.8	51.1	Search (1024X32)	0.156	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	53.6	89.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	39.5	30.1	Inc. seg. avg.	0.175	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.6	52.6	Inc. frq. avg.	0.202	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

u: az 22.1 el 47.3 pa -118.3 m: az 348.4 el 37.3 pa 146.6 u,v (fr/asec) -9211.487 3179.862 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/um..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/um.W.377.3MP15Q

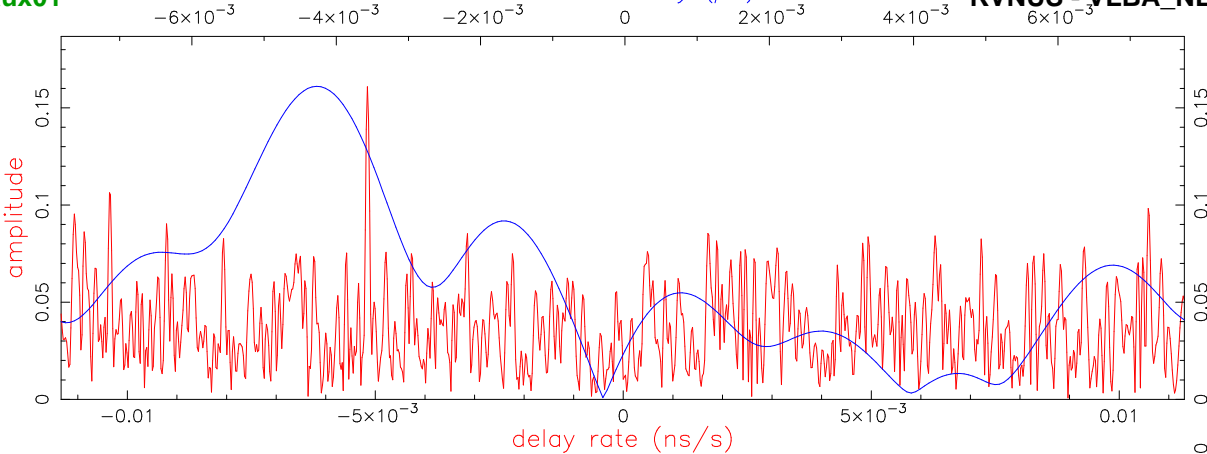
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, un

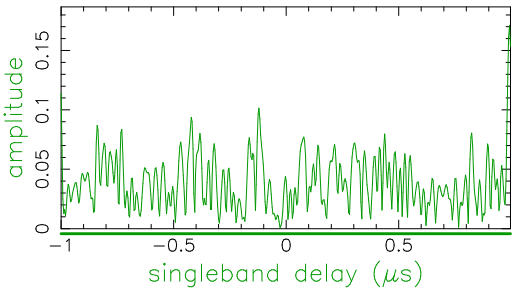
KVNUS - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

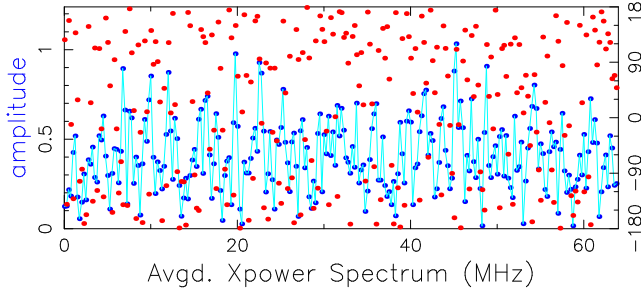


Fringe quality 0

SNR 5.7
 Int time 149.818
 Amp 0.187
 Phase 100.9
 PFD 7.1e-01
 Delays (us)
 SBD 0.991673
 MBD -0.004216
 Fringe rate (Hz)
 -0.444981
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

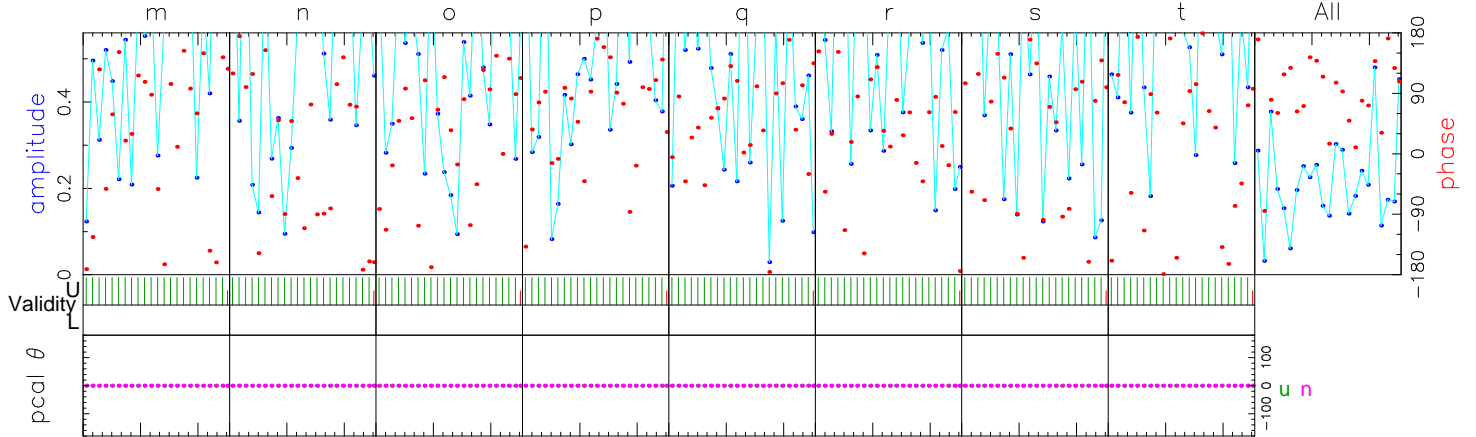


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105652
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
n	0	0	0	0	0	0	0	0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	2.54380667622E+03	Apriori delay (usec)	2.54281089230E+03	Resid mbdelay (usec)	-4.21609E-03	+/-	1.9E-04
Sband delay (usec)	2.54380256480E+03	Apriori clock (usec)	1.6183262E+00	Resid sbdelay (usec)	9.91673E-01	+/-	1.5E-03
Phase delay (usec)	2.54281089556E+03	Apriori clockrate (us/s)	-1.3449897E-07	Resid phdelay (usec)	3.25310E-06	+/-	6.4E-07
Delay rate (us/s)	7.20014359496E-01	Apriori rate (us/s)	7.20019525282E-01	Resid rate (us/s)	-5.16579E-06	+/-	7.4E-09
Total phase (deg)	195.5	Apriori accel (us/s/s)	-2.24944292160E-05	Resid phase (deg)	100.9	+/-	20.0

ph/seg (deg)	58.0	Theor.	Amplitude	0.187 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.7	47.9	Search (1024X32)	0.167	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.9	28.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.7	49.3	Inc. seg. avg.	0.175	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.191	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 22.1 el 47.3 pa -118.3 n: az 334.0 el 38.2 pa 71.8 u,v (fr/asec) -12014.198 -4924.516 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/un..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/un.W.361.3MP15Q

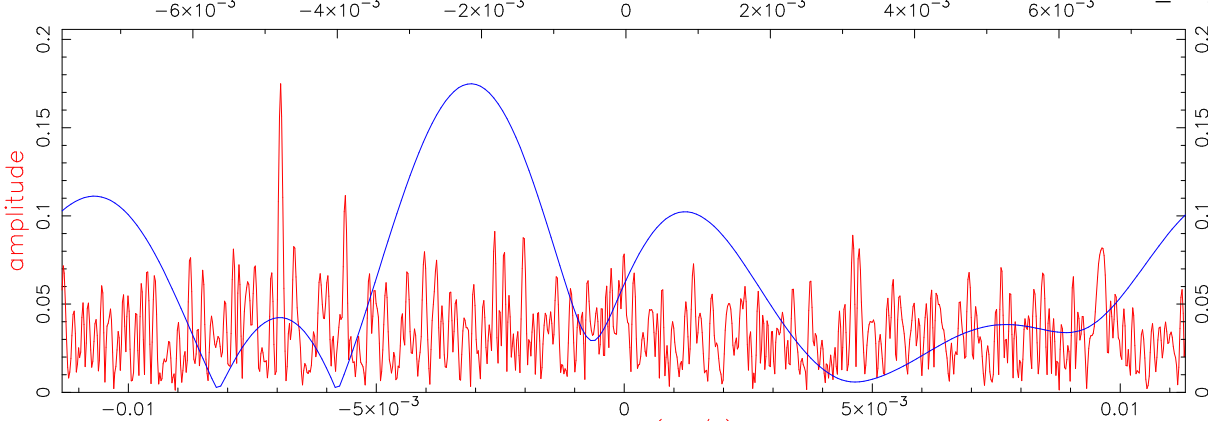
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, un

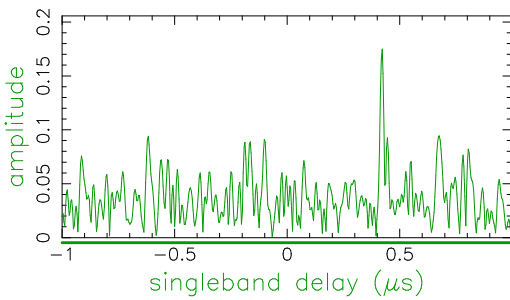
KVNUS - VLBA_NL, fgroup W, pol RR

multiband delay (μs)

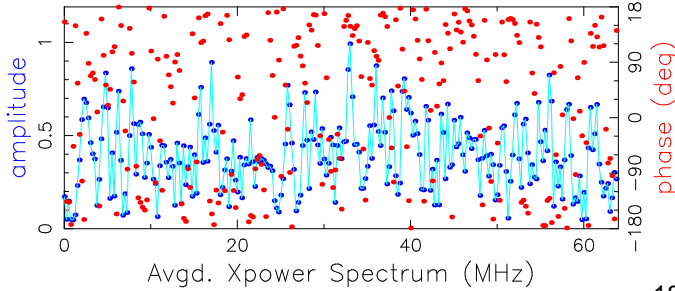


Fringe quality 0

SNR 5.9
 Int time 149.818
 Amp 0.206
 Phase -10.3
 PFD 4.2e-01
 Delays (us)
 SBD 0.421134
 MBD -0.002155
 Fringe rate (Hz)
 -0.596952
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

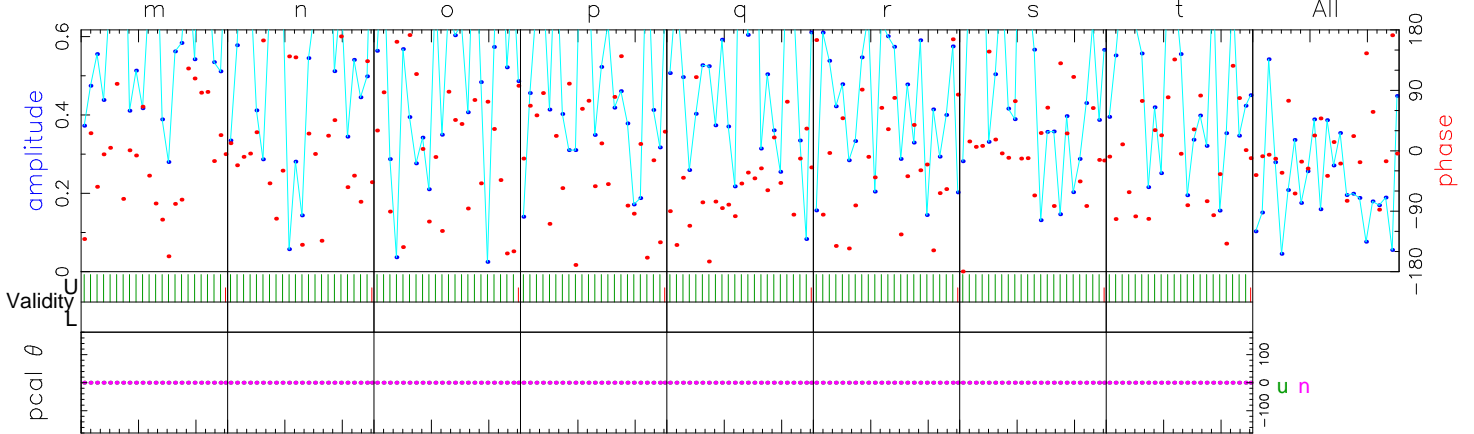


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105654
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-1.3	-25.7	30.2	39.7	-59.2	-10.7	2.5	-2.9		-10.3
	0.2	0.3	0.1	0.2	0.4	0.1	0.4	0.1		0.2
	310.1	144.1	422.6	402.9	365.4	4.2	364.1	191.3		364.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
n	0	0	0	0	0	0	0	0		
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:n	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		
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	2.54323061272E+03	Apriori delay (usec)	2.54281089230E+03	Resid mbdelay (usec)	-2.15458E-03	+/-	1.8E-04
Sband delay (usec)	2.54323202605E+03	Apriori clock (usec)	1.6183262E+00	Resid sbdelay (usec)	4.21134E-01	+/-	1.5E-03
Phase delay (usec)	2.54281089197E+03	Apriori clockrate (us/s)	-1.3449897E-07	Resid phdelay (usec)	-3.33285E-07	+/-	6.3E-07
Delay rate (us/s)	7.20012595256E-01	Apriori rate (us/s)	7.20019525282E-01	Resid rate (us/s)	-6.93003E-06	+/-	7.3E-09
Total phase (deg)	84.3	Apriori accel (us/s/s)	-2.24944292160E-05	Resid phase (deg)	-10.3	+/-	19.5

ph/seg (deg)	62.8	Theor.	46.8	Amplitude	0.206 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.6		81.6	Search (1024X32)	0.172	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	34.3		27.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.8		48.1	Inc. seg. avg.	0.201	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.212	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 22.1 el 47.3 pa -118.3 n: az 334.0 el 38.2 pa 71.8 u,v (fr/asec) -12014.198 -4924.516 simultaneous interpolator

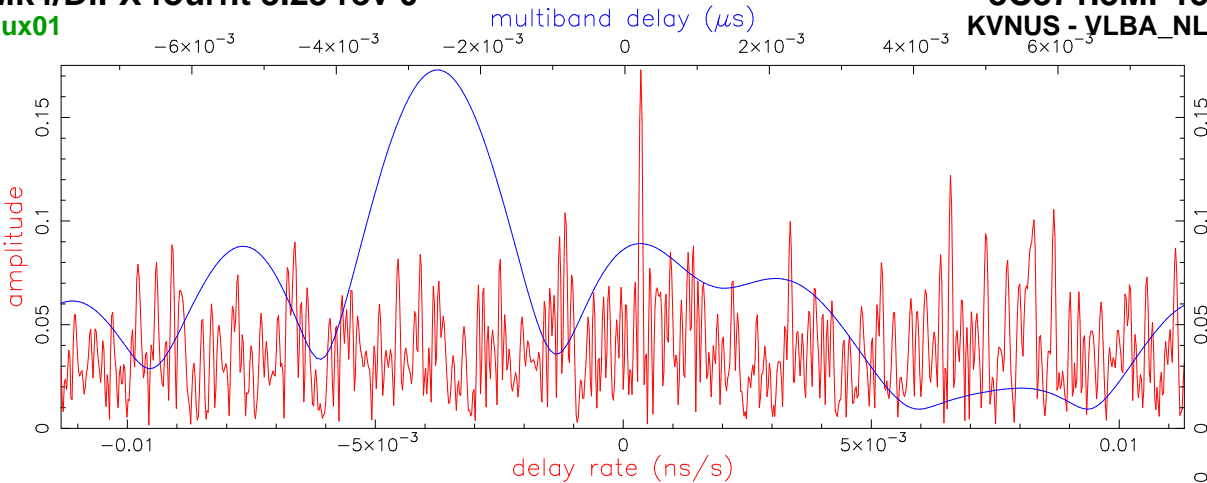
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Mk4/DiFX fourfit 3.25 rev 0

aux01

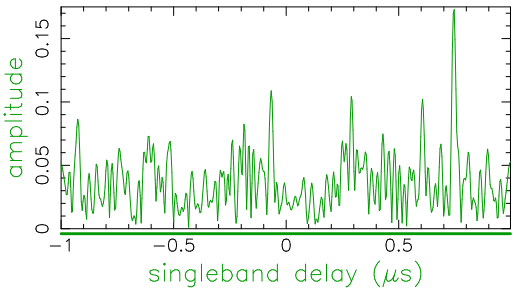
3C371.3MP15Q, No0901, un

KVNUS - VLBA_NL, fgroup W, pol LR

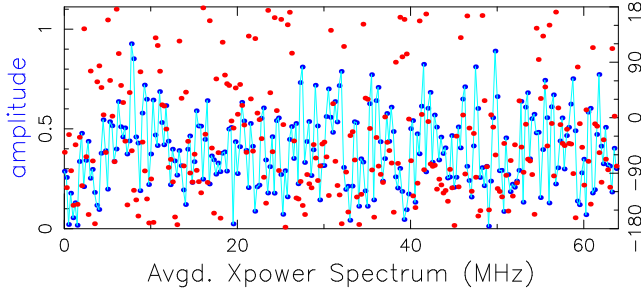


Fringe quality 0

SNR 5.9
 Int time 149.818
 Amp 0.175
 Phase -112.5
 PFD 4.5e-01
 Delays (us)
 SBD 0.744588
 MBD -0.002571
 Fringe rate (Hz)
 0.030669
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

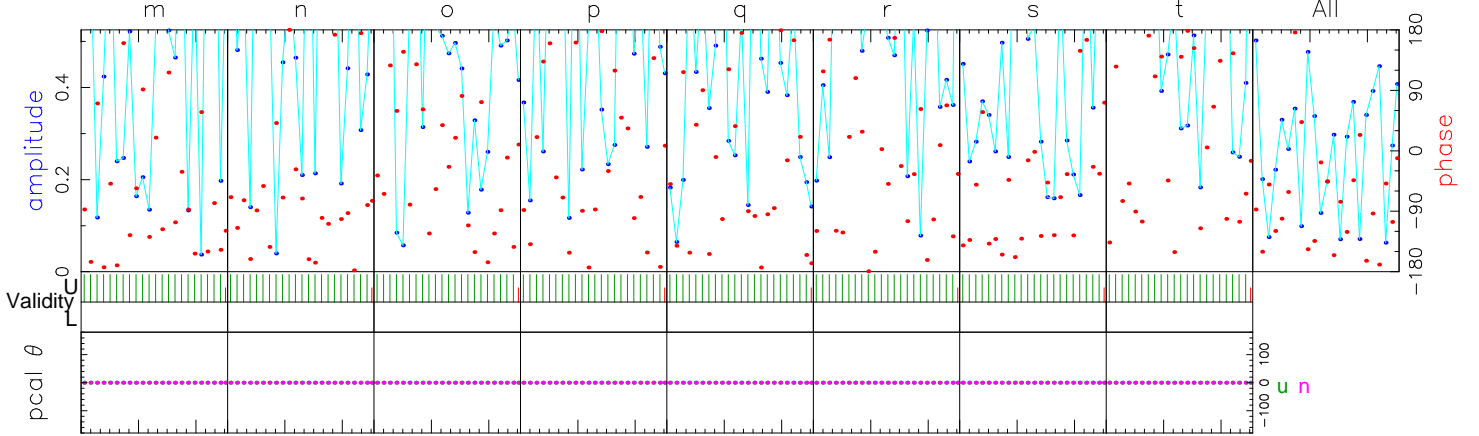


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105656
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.1	-112.8	-72.0	-143.7	-126.8	-98.8	-103.5	-125.0	Phase	-112.5
	0.3	0.4	0.1	0.1	0.2	0.1	0.2	0.2	Ampl.	0.2
	446.7	448.5	422.7	390.1	333.6	248.4	149.8	343.6	Sbd box	447.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.54355832144E+03	Apriori delay (usec)	2.54281089230E+03	Resid mbdelay (usec)	-2.57086E-03	+/-	1.9E-04
Sband delay (usec)	2.54355548080E+03	Apriori clock (usec)	1.6183262E+00	Resid sbdelay (usec)	7.44588E-01	+/-	1.5E-03
Phase delay (usec)	2.54281088868E+03	Apriori clockrate (us/s)	-1.3449897E-07	Resid phdelay (usec)	-3.62653E-06	+/-	6.3E-07
Delay rate (us/s)	7.20019881320E-01	Apriori rate (us/s)	7.20019525282E-01	Resid rate (us/s)	3.56037E-07	+/-	7.3E-09
Total phase (deg)	-17.8	Apriori accel (us/s/s)	-2.24944292160E-05	Resid phase (deg)	-112.5	+/-	19.6

ph/seg (deg)	65.0	Theor.	46.9	Amplitude	0.175 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	93.1		81.9	Search (1024X32)	0.169	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	23.2		27.7	Inc. seg. avg.	0.200	Bits/sample:	2x2	SampCntNorm: enabled		dr window (ns/s)	-0.011	0.011
amp/frq (%)	63.0		48.3	Inc. frq. avg.	0.160	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 22.1 el 47.3 pa -118.3 n: az 334.0 el 38.2 pa 71.8 u,v (fr/asec) -12014.198 -4924.516 simultaneous interpolator

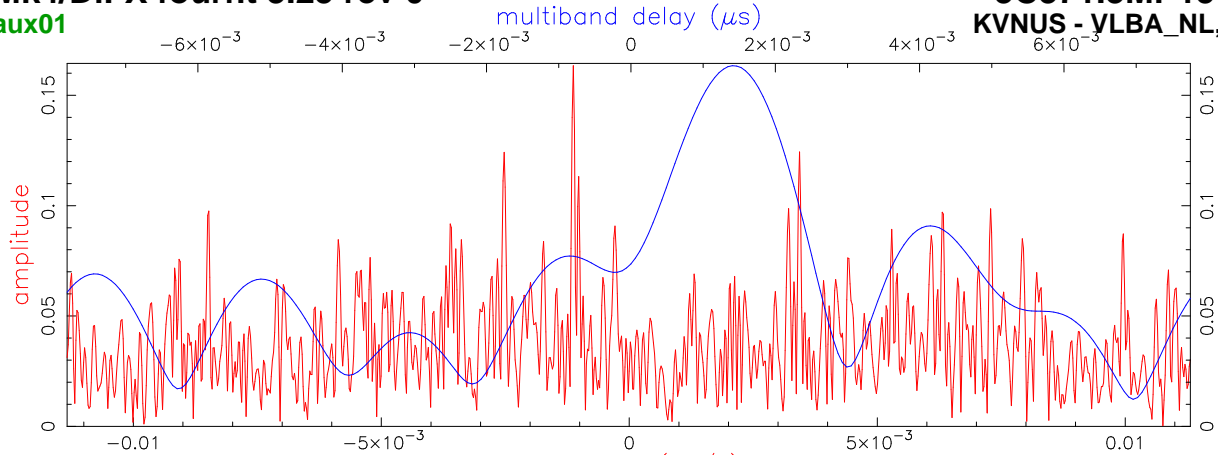
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/un..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/un.W.376.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, un

KVNUS - VLBA_NL, fgroup W, pol RL



Fringe quality 0

SNR 5.5

Int time 149.818

Amp 0.164

Phase -109.7

PFD 9.9e-01

Delays (us)

SBD -0.362661

MBD 0.001415

Fringe rate (Hz)

-0.097418

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c241a

Exper # 1234

Yr:day 2024:109

Start 163000.00

Stop 163230.02

FRT 163115.00

Corr/FF/build

2025:007:141222

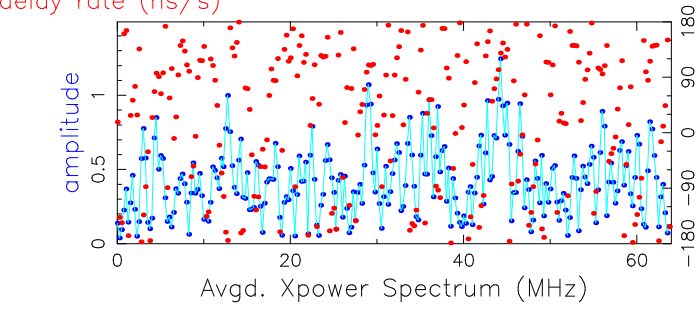
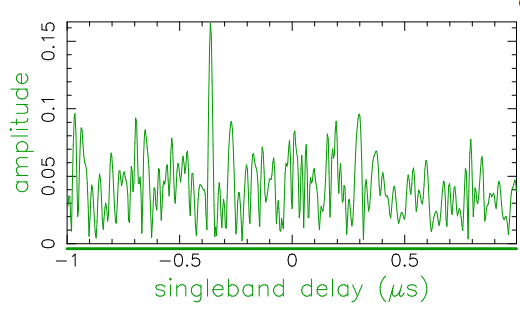
2025:041:105658

2024:113:095956

RA & Dec (J2000)

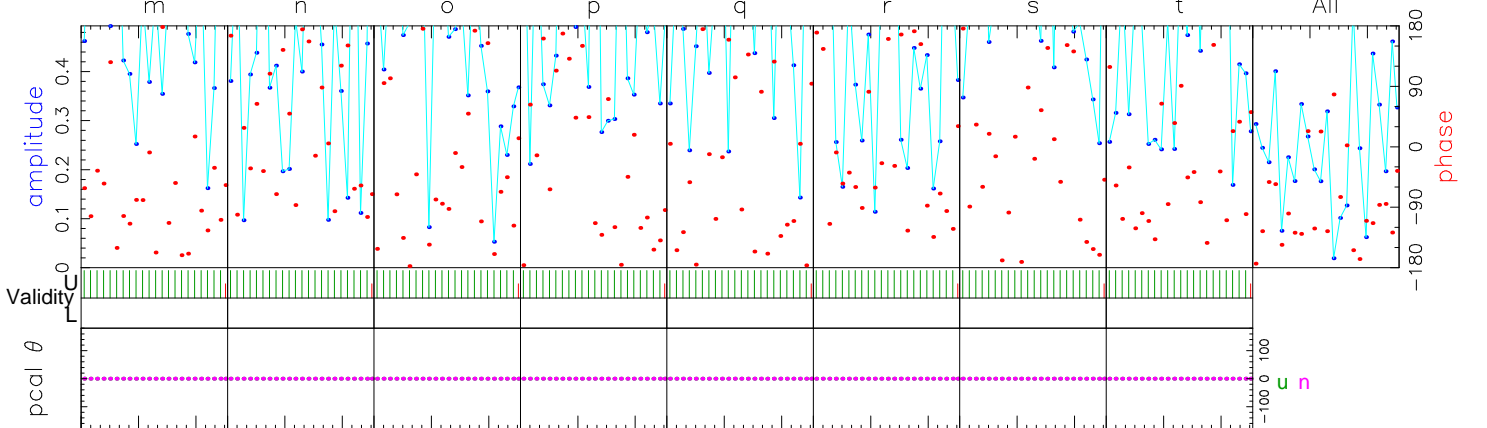
18h06m50.680649s

+69°49'28.108492"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-100.6	-70.7	-104.5	-159.7	-159.6	-104.9	-73.5	-84.1	Phase	-109.7
	0.4	0.1	0.2	0.2	0.2	0.2	0.1	0.2	Ampl.	0.2
	164.0	355.1	454.2	461.4	359.0	189.9	334.6	288.6	Sbd box	164.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	60000	0	0	0	4000	0	PC freqs	
u:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:n	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	2.54245293233E+03	Apriori delay (usec)	2.54281089230E+03	Resid mbdelay (usec)	1.41503E-03	+/-	2.0E-04
Sband delay (usec)	2.54244823155E+03	Apriori clock (usec)	1.6183262E+00	Resid sbdelay (usec)	-3.62661E-01	+/-	1.6E-03
Phase delay (usec)	2.54281088876E+03	Apriori clockrate (us/s)	-1.3449897E-07	Resid phdelay (usec)	-3.53782E-06	+/-	6.7E-07
Delay rate (us/s)	7.20018394358E-01	Apriori rate (us/s)	7.20019525282E-01	Resid rate (us/s)	-1.13092E-06	+/-	7.8E-09
Total phase (deg)	-15.1	Apriori accel (us/s/s)	-2.24944292160E-05	Resid phase (deg)	-109.7	+/-	20.9

ph/seg (deg)	67.1	Theor.	50.1	Amplitude	0.164 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	95.0		87.5	Search (1024X32)	0.162	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	37.9		29.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.1		51.6	Inc. seg. avg.	0.181	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.169	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 22.1 el 47.3 pa -118.3 n: az 334.0 el 38.2 pa 71.8 u,v (fr/asec) -12014.198 -4924.516 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/un..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/un.W.381.3MP15Q

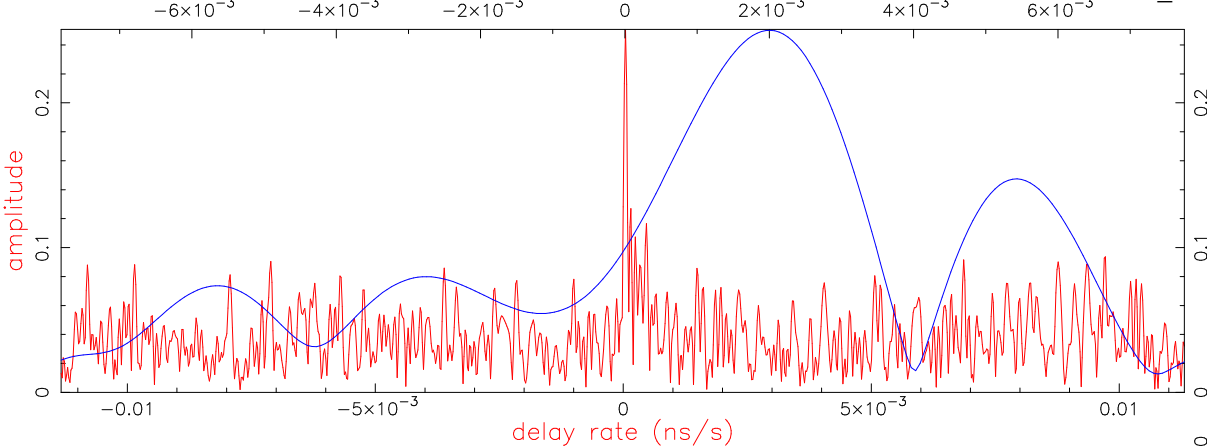
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uu

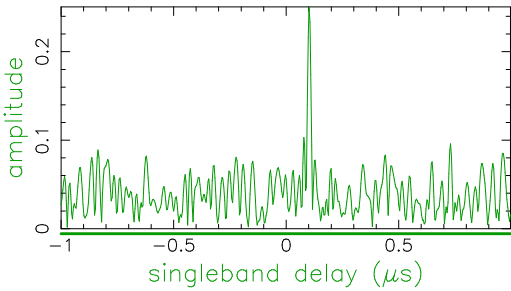
KVNUS - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

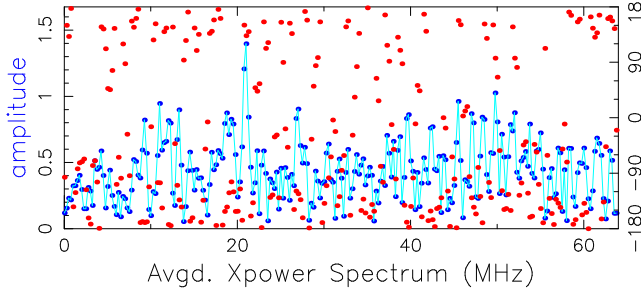


Fringe quality 9

SNR 8.4
 Int time 149.847
 Amp 0.251
 Phase -92.2
 PFD 8.5e-09
 Delays (us)
 SBD 0.102205
 MBD 0.002036
 Fringe rate (Hz) 0.003651
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

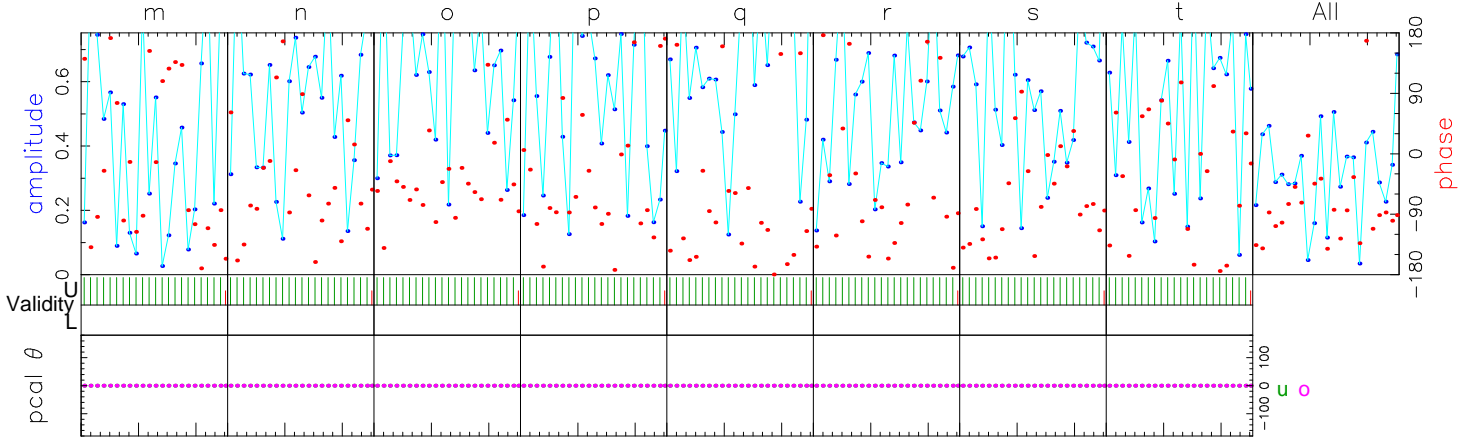


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105652
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.3	-84.2	-55.4	-76.8	-131.8	-114.0	-84.0	34.5	Phase	-92.2
	0.2	0.3	0.5	0.3	0.5	0.2	0.3	0.1	Ampl.	0.3
	214.8	119.4	282.6	283.8	283.4	43.2	282.2	188.4	Sbd box	283.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	4000	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:o	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	
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.09673427147E+03	Apriori delay (usec)	1.09663848520E+03	Resid mbdelay (usec)	2.03628E-03	+/-	1.3E-04
Sband delay (usec)	1.09674069045E+03	Apriori clock (usec)	-2.3727177E+01	Resid sbdelay (usec)	1.02205E-01	+/-	1.0E-03
Phase delay (usec)	1.09663848222E+03	Apriori clockrate (us/s)	-3.1851106E-07	Resid phdelay (usec)	-2.97265E-06	+/-	4.4E-07
Delay rate (us/s)	7.07691619597E-01	Apriori rate (us/s)	7.07691577210E-01	Resid rate (us/s)	4.23873E-08	+/-	5.1E-09
Total phase (deg)		Apriori accel (us/s/s)	-8.47568200306E-06	Resid phase (deg)	-92.2	+/-	13.7

ph/seg (deg)	45.1	Theor.	32.7	Amplitude	0.251 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	61.7		57.1	Search (1024X32)	0.250	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	58.8		19.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.2		33.7	Inc. seg. avg.	0.270	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.279	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 22.1 el 47.3 pa -118.3 o: az 334.6 el 43.2 pa 98.8 u,v (fr/asec) -11771.244 -1744.812 simultaneous interpolator

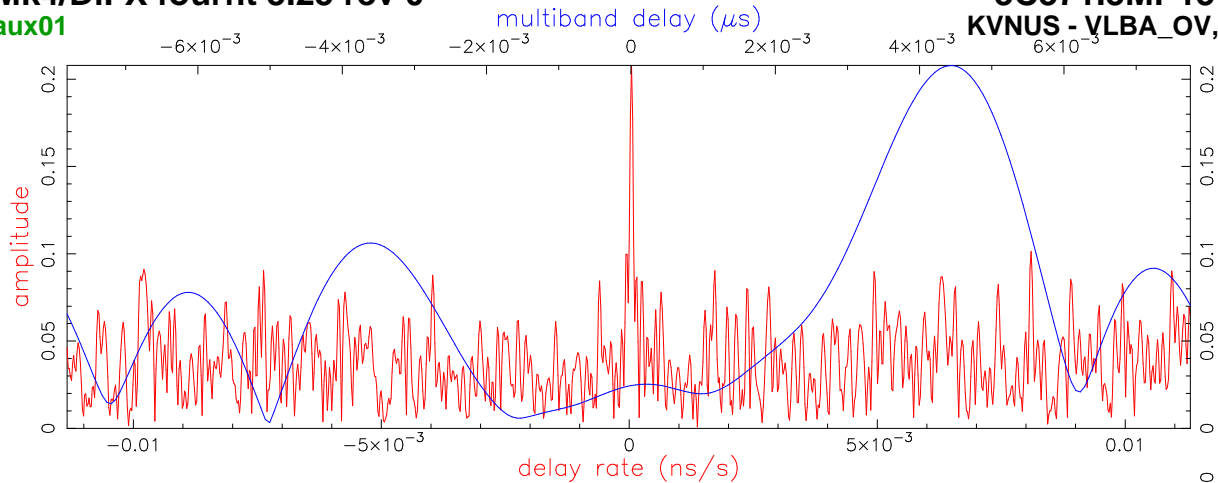
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uu.W.364.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

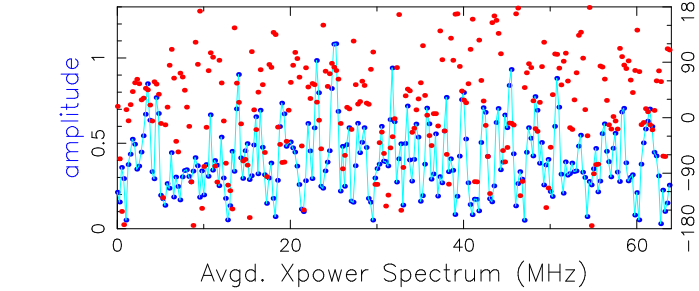
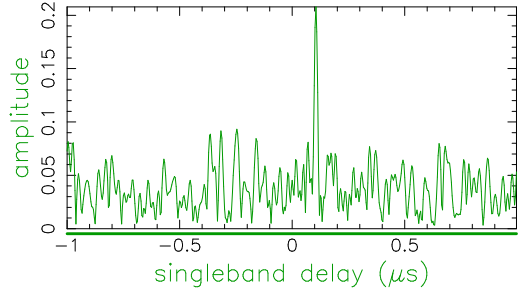
3C371.3MP15Q, No0901, uo

KVNUS - VLBA_OV, fgroup W, pol RR



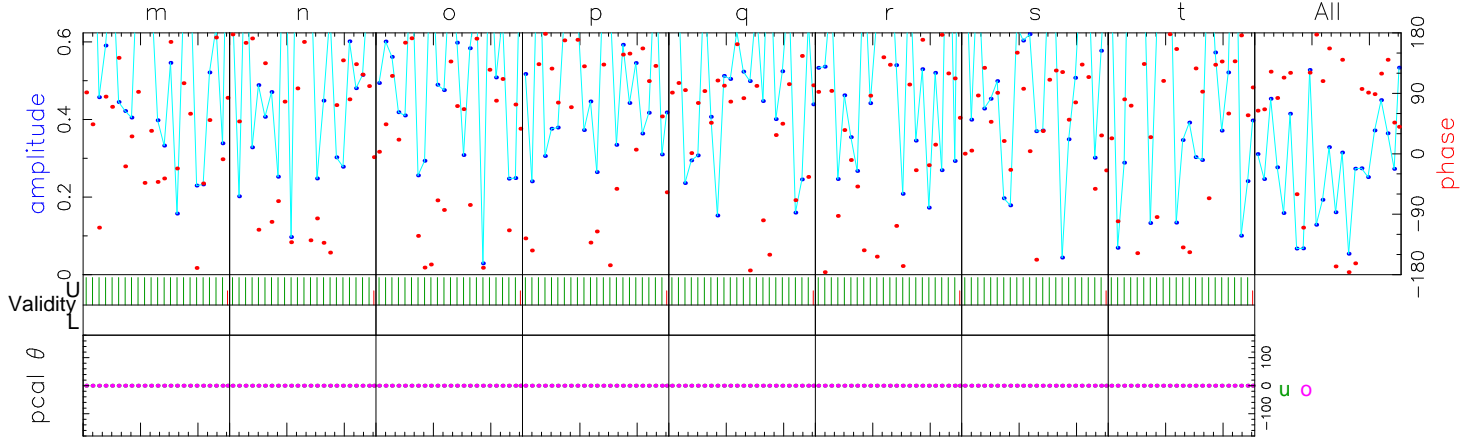
Fringe quality 0

SNR 7.0
 Int time 149.847
 Amp 0.208
 Phase 113.1
 PFD 5.1e-04
 Delays (us)
 SBD 0.105277
 MBD 0.004433
 Fringe rate (Hz)
 0.002982
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105655
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



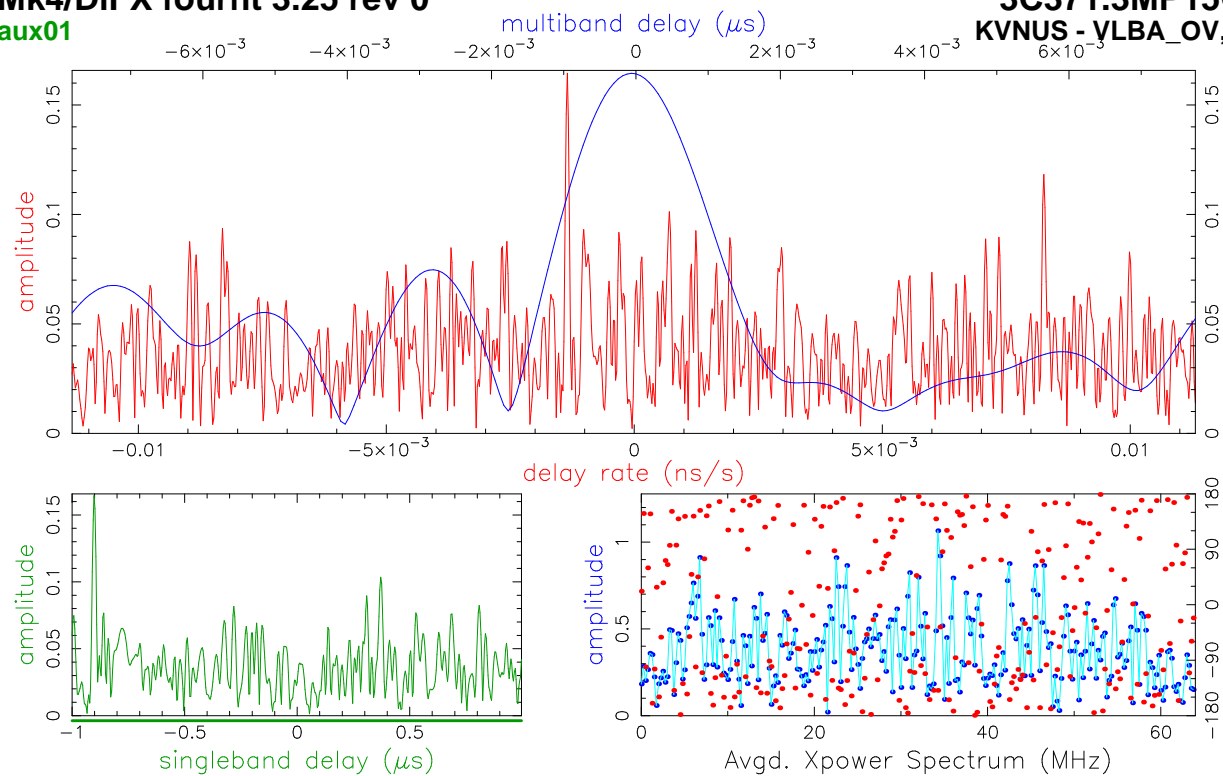
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
o	0	0	0	0	0	0	0	0		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	1.09673666860E+03	Apriori delay (usec)	1.09663848520E+03	Resid mbdelay (usec)	4.43340E-03	+/-	1.6E-04
Sband delay (usec)	1.09674376245E+03	Apriori clock (usec)	-2.3727177E+01	Resid sbdelay (usec)	1.05277E-01	+/-	1.2E-03
Phase delay (usec)	1.09663848884E+03	Apriori clockrate (us/s)	-3.1851106E-07	Resid phdelay (usec)	3.64743E-06	+/-	5.3E-07
Delay rate (us/s)	7.07691611832E-01	Apriori rate (us/s)	7.07691577210E-01	Resid rate (us/s)	3.46230E-08	+/-	6.1E-09
Total phase (deg)	154.4	Apriori accel (us/s/s)	-8.47568200306E-06	Resid phase (deg)	113.1	+/-	16.5

ph/seg (deg)	62.8	RMS	Theor.	Amplitude	0.208 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.9	62.8	39.5	Search (1024X32)	0.202	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.5	71.9	68.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.8	35.5	23.3	Inc. seg. avg.	0.224	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		25.8	40.6	Inc. frq. avg.	0.226	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

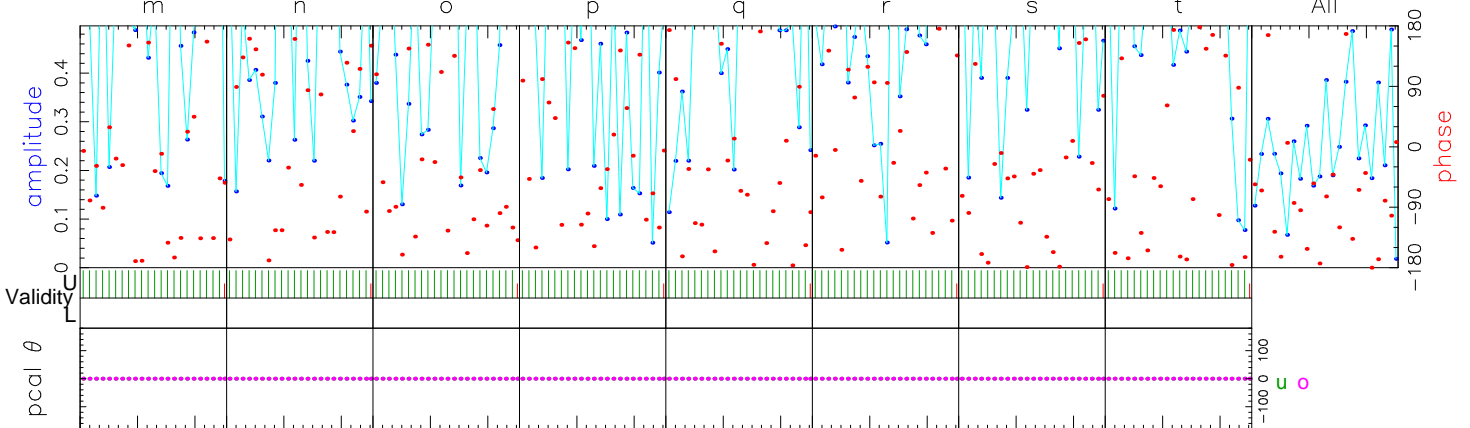
u: az 22.1 el 47.3 pa -118.3 o: az 334.6 el 43.2 pa 98.8 u,v (fr/asec) -11771.244 -1744.812 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uo..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uo.W.372.3MP15Q



Fringe quality 0
SNR 5.5
Int time 149.847
Amp 0.166
Phase -115.8
PFD 9.8e-01
Delays (us)
SBD -0.901698
MBD -0.000055
Fringe rate (Hz)
-0.116529
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105657
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-108.0	-139.7	-119.3	-94.3	-108.1	-98.3	-82.0	-153.9	Phase	-115.8		
	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	Ampl.	0.2		
	186.4	434.0	70.7	337.1	237.1	400.8	327.4	28.0	Sbd box	26.2		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used			
o	0	0	60000	0	0	0	4000	0	PC freqs			
o	0	0	0	0	0	0	0	0	PC freqs			
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
u:o	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			
o	1000	1000	1000	1000	1000	1000	1000	1000				
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Chan ids			
									Tracks			
Group delay (usec) (SBD)	1.09573218037E+03		Apriori delay (usec)		1.09663848520E+03		Resid mbdelay (usec)		-5.48308E-05	+/- 2.0E-04		
Sband delay (usec)	1.09573678770E+03		Apriori clock (usec)		-2.3727177E+01		Resid sbdelay (usec)		-9.01698E-01	+/- 1.6E-03		
Phase delay (usec)	1.09663848146E+03		Apriori clockrate (us/s)		-3.1851106E-07		Resid phdelay (usec)		-3.73355E-06	+/- 6.7E-07		
Delay rate (us/s)	7.07690224421E-01		Apriori rate (us/s)		7.07691577210E-01		Resid rate (us/s)		-1.35279E-06	+/- 7.7E-09		
Total phase (deg)			Apriori accel (us/s/s)		-8.47568200306E-06		Resid phase (deg)		-115.8	+/- 20.8		
	RMS	Theor.	Amplitude	0.166 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	58.7	49.8	Search (1024X32)	0.163		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	86.8	86.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.0	29.4	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 (%)	34.9	51.3	Inc. frq. avg.	0.158		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
u: az 22.1 el 47.3 pa -118.3	o: az 334.6 el 43.2 pa 98.8		u, v (fr/asec) -11771.244 -1744.812						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901/uo..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901/uo.W.378.3MP15Q									

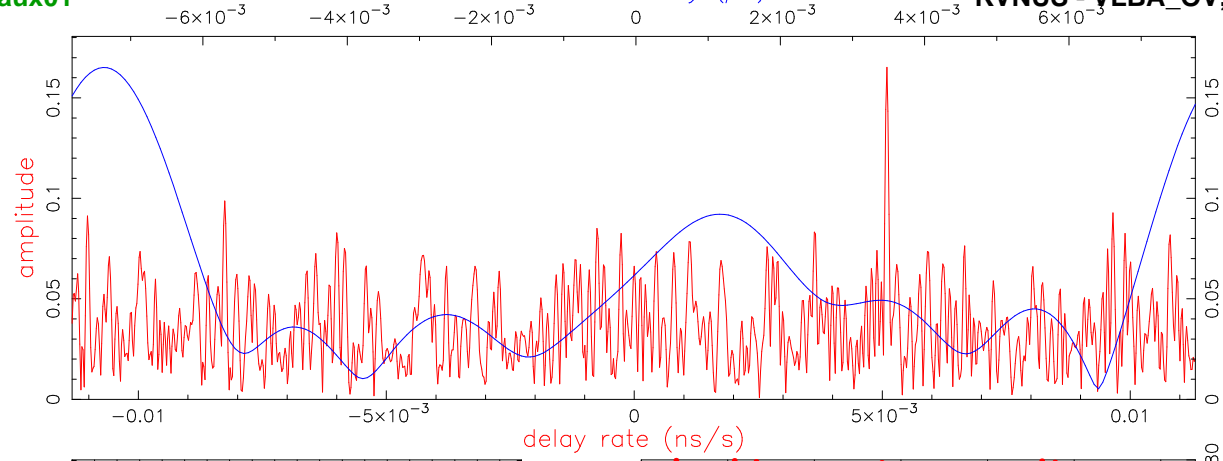
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uo

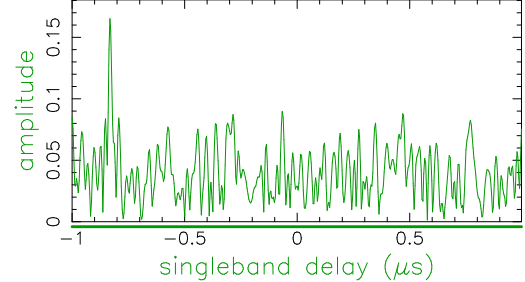
KVNUS - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

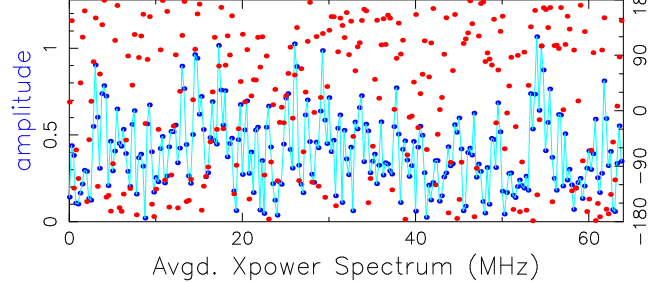


Fringe quality 0

SNR 5.6
Int time 149.847
Amp 0.181
Phase 6.0
PFD 9.6e-01
Delays (us)
SBD -0.831208
MBD -0.007360
Fringe rate (Hz)
0.438806
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

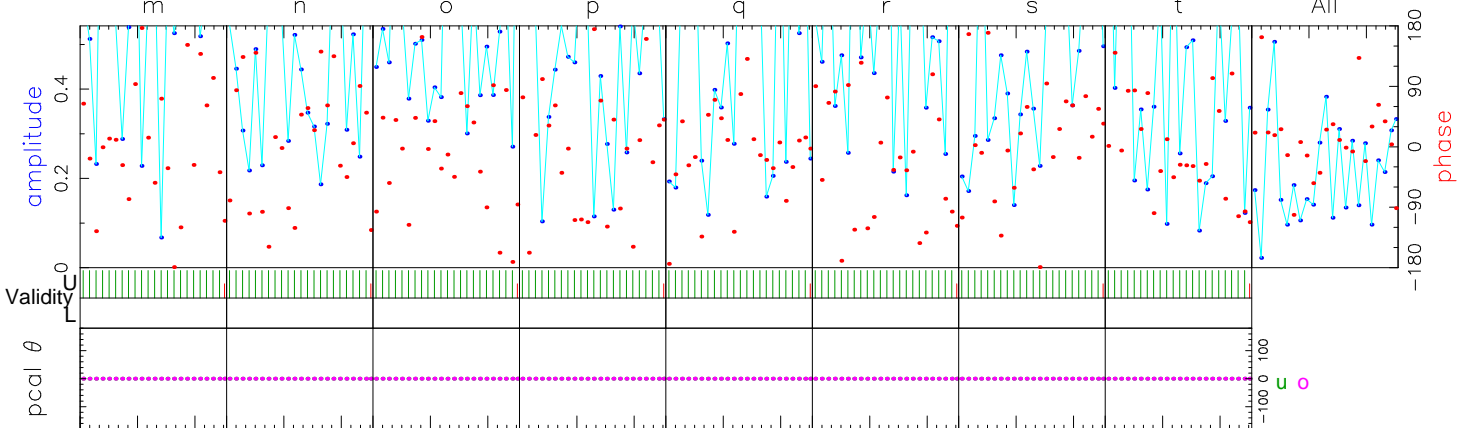


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105659
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"

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

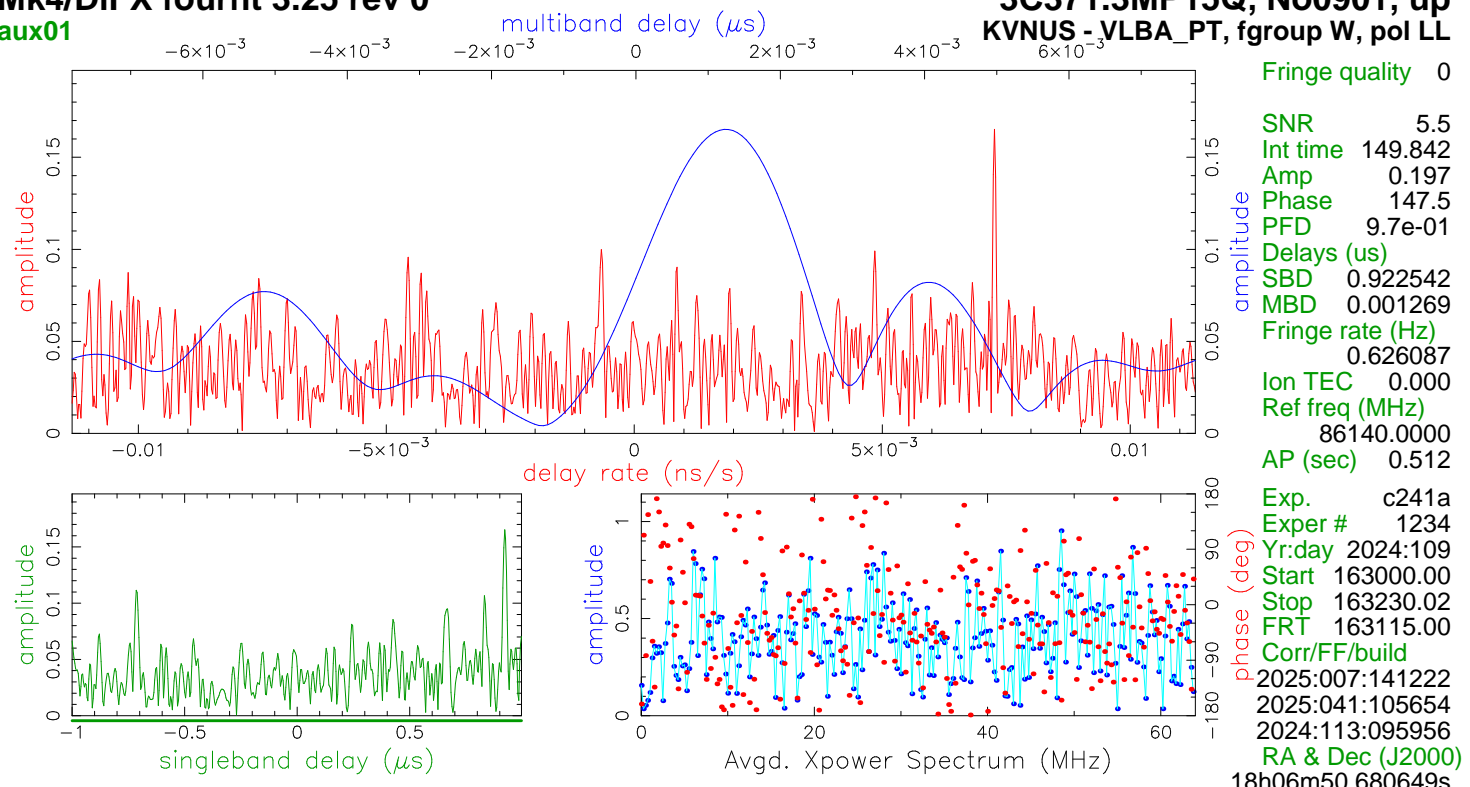


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	7.9	27.3	5.2	-45.9	7.8	-43.7	26.1	-4.5		6.0
	0.2	0.1	0.2	0.1	0.4	0.1	0.3	0.2		0.2
	11.9	314.8	427.8	252.2	43.3	60.9	54.6	178.4		44.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
o	0	0	0	0	0	0	0	0		
u:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

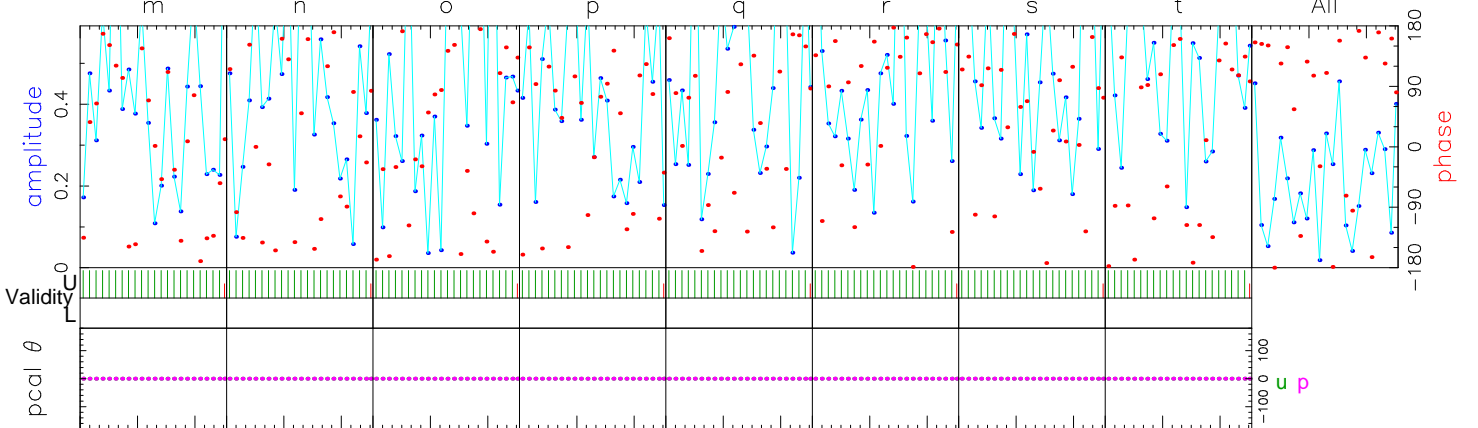
Group delay (usec) (SBD) 1.09580300057E+03 Apriori delay (usec) 1.09663848520E+03 Resid mbdelay (usec) -7.35963E-03 +/- 2.0E-04
 Sband delay (usec) 1.09580727745E+03 Apriori clock (usec) -2.3727177E+01 Resid sbdelay (usec) -8.31208E-01 +/- 1.6E-03
 Phase delay (usec) 1.09663848539E+03 Apriori clockrate (us/s) -3.1851106E-07 Resid phdelay (usec) 1.93223E-07 +/- 6.7E-07
 Delay rate (us/s) 7.07696671308E-01 Apriori rate (us/s) 7.07691577210E-01 Resid rate (us/s) 5.09410E-06 +/- 7.7E-09
 Total phase (deg) 47.3 Apriori accel (us/s/s) -8.47568200306E-06 Resid phase (deg) 6.0 +/- 20.6

ph/seg (deg) RMS Theor. Amplitude 0.181 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.3 49.5 Search (1024X32) 0.164 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 74.2 86.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.0 29.2 Inc. seg. avg. 0.171 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 54.9 50.9 Inc. frq. avg. 0.168 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 o: az 334.6 el 43.2 pa 98.8 u,v (fr/asec) -11771.244 -1744.812 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uo...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uo.W.386.3MP15Q



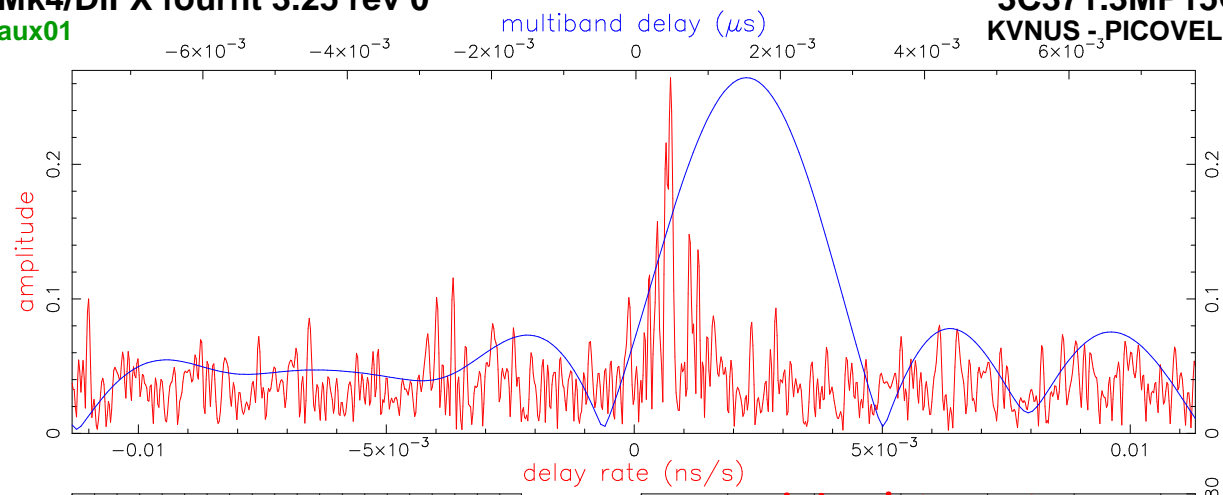
Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
123.1	154.4	-167.9	133.2	117.2	144.5	116.2	161.7	161.7	Phase	147.5
0.2	0.1	0.3	0.2	0.1	0.3	0.2	0.3	0.3	Ampl.	0.2
100.7	57.9	399.9	33.3	382.7	137.7	201.6	428.0	428.0	Sbd box	493.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
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)	2.86024438513E+03	Apriori delay (usec)	2.85932124066E+03	Resid mbdelay (usec)	1.26947E-03	+/-	2.0E-04
Sband delay (usec)	2.86024378266E+03	Apriori clock (usec)	-4.3718147E+00	Resid sbdelay (usec)	9.22542E-01	+/-	1.6E-03
Phase delay (usec)	2.85932124542E+03	Apriori clockrate (us/s)	-2.1593599E-07	Resid phdelay (usec)	4.75796E-06	+/-	6.7E-07
Delay rate (us/s)	7.48756359248E-01	Apriori rate (us/s)	7.48749090994E-01	Resid rate (us/s)	7.26825E-06	+/-	7.7E-09
Total phase (deg)	28.8	Apriori accel (us/s/s)	-1.33638500842E-05	Resid phase (deg)	147.5	+/-	20.7

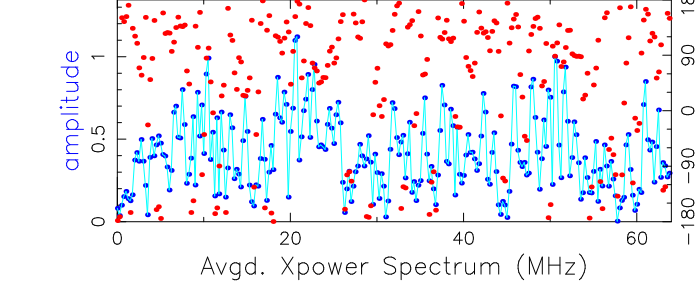
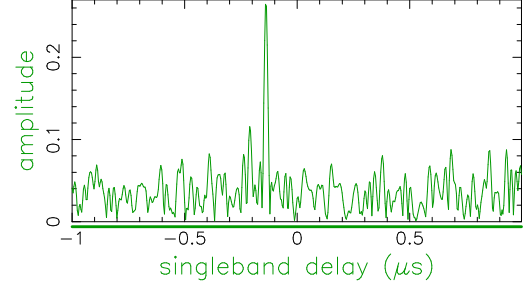
ph/seg (deg) 64.1 49.6 Search (1024X32) 0.160 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 80.6 86.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 28.7 29.2 Inc. seg. avg. 0.185 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 42.2 51.0 Inc. frq. avg. 0.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
u: az 22.1 el 47.3 pa -118.3 p: az 335.3 el 37.1 pa 90.7 u, v (fr/asec) -12464.909 -2654.818 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/!up..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/!up.W.369.3MP15Q



Fringe quality 9

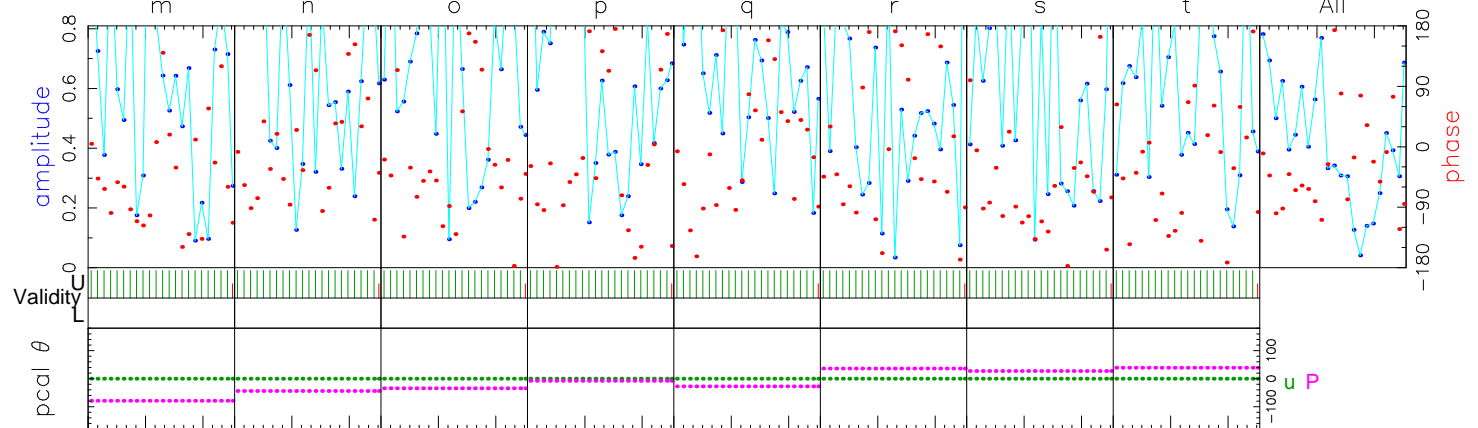
SNR 9.0
Int time 149.856
Amp 0.270
Phase -59.1
PFD 3.6e-11
Delays (us)
SBD -0.138857
MBD 0.001531
Fringe rate (Hz) 0.062144
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105655
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"



Avgd. Xpower Spectrum (MHz)

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-68.2	-35.7	-61.2	-77.6	-36.8	-60.0	-71.8	-42.4	Phase	-59.1		
	0.3	0.2	0.4	0.2	0.2	0.2	0.4	0.2	Ampl.	0.3		
	221.4	38.4	221.8	203.2	373.2	140.6	221.3	372.3	Sbd box	221.5		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec) (SBD)	9.48991700324E+03		Apriori delay (usec)		9.49005609750E+03		Resid mbdelay (usec)		1.53074E-03	+/- 1.2E-04		
Sband delay (usec)	9.48991724050E+03		Apriori clock (usec)		2.3466740E+00		Resid sbdelay (usec)		-1.38857E-01	+/- 9.6E-04		
Phase delay (usec)	9.49005609559E+03		Apriori clockrate (us/s)		-4.3547609E-07		Resid phdelay (usec)		-1.90473E-06	+/- 4.1E-07		
Delay rate (us/s)	3.20206484471E-01		Apriori rate (us/s)		3.20205763036E-01		Resid rate (us/s)		7.21435E-07	+/- 4.7E-09		
Total phase (deg)			Apriori accel (us/s/s)		-5.27423438852E-05		Resid phase (deg)		-59.1	+/- 12.7		
	RMS	Theor.	Amplitude	0.270 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	66.8	30.5	Search (1024X32)	0.260		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	92.3	53.2	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	17.8	18.0	Inc. seg. avg.	0.362		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	25.8	31.4	Inc. frq. avg.	0.261		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
u: az 22.1 el 47.3 pa -118.3	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec) -5455.574 -11273.472						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//uP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//uP.W.373.3MP15Q									

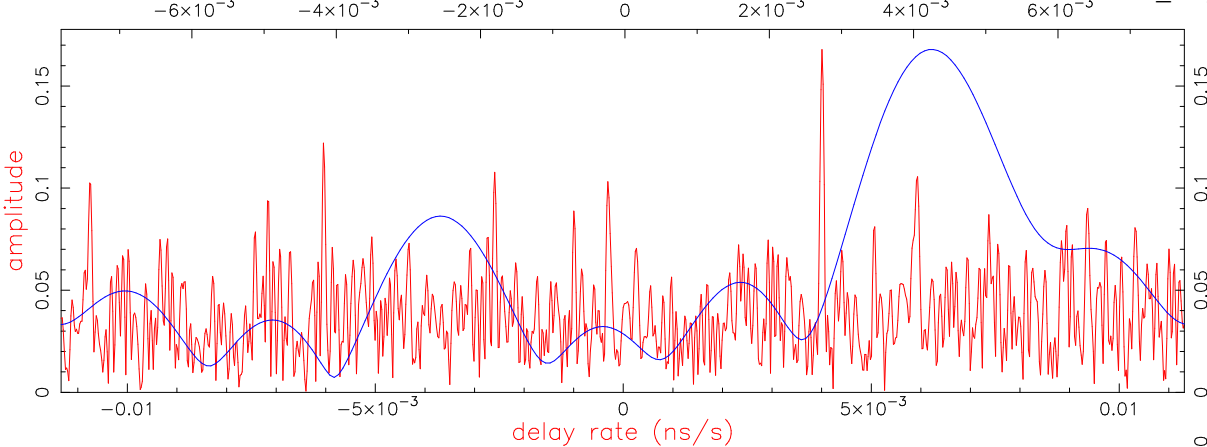
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, up

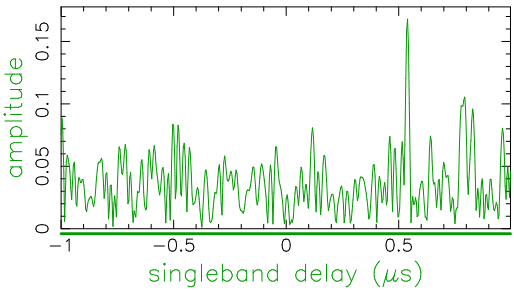
KVNUS - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

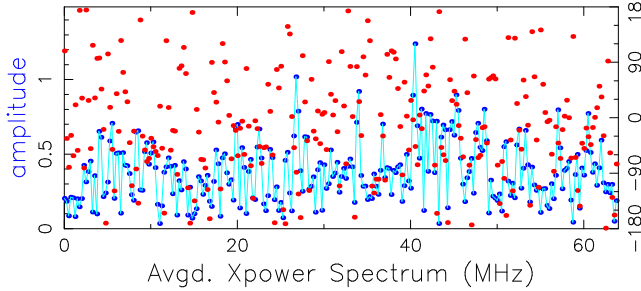


Fringe quality 0

SNR 5.6
 Int time 149.842
 Amp 0.178
 Phase 15.1
 PFD 8.7e-01
 Delays (us)
 SBD 0.538194
 MBD 0.004219
 Fringe rate (Hz)
 0.346692
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

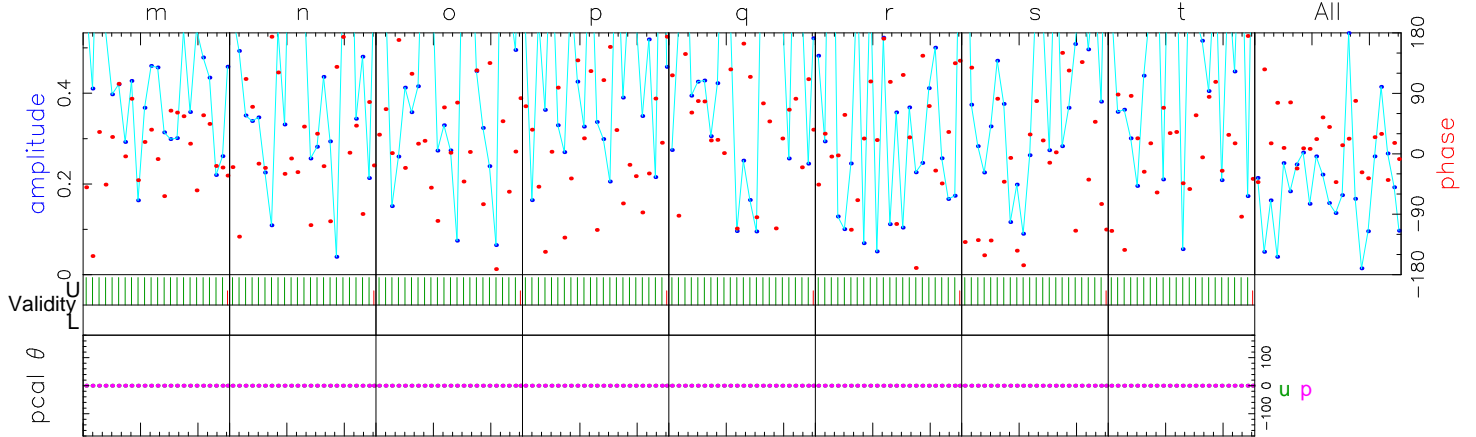


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105656
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
p	0	0	0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
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)	2.85985670956E+03	Apriori delay (usec)	2.85932124066E+03	Resid mbdelay (usec)	4.21890E-03	+/-	1.9E-04
Sband delay (usec)	2.85985943491E+03	Apriori clock (usec)	-4.3718147E+00	Resid sbdelay (usec)	5.38194E-01	+/-	1.5E-03
Phase delay (usec)	2.85932124114E+03	Apriori clockrate (us/s)	-2.1593599E-07	Resid phdelay (usec)	4.86472E-07	+/-	6.5E-07
Delay rate (us/s)	7.48753115746E-01	Apriori rate (us/s)	7.48749090994E-01	Resid rate (us/s)	4.02475E-06	+/-	7.6E-09
Total phase (deg)	256.4	Apriori accel (us/s/s)	-1.33638500842E-05	Resid phase (deg)	15.1	+/-	20.3

ph/seg (deg)	43.2	Theor.	48.7	Amplitude	0.178 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	69.6		84.9	Search (1024X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	37.8		28.7	Inc. seg. avg.	0.155	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.4		50.1	Inc. frq. avg.	0.169	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 p: az 335.3 el 37.1 pa 90.7 u,v (fr/asec) -12464.909 -2654.818 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//up..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//up.W.375.3MP15Q

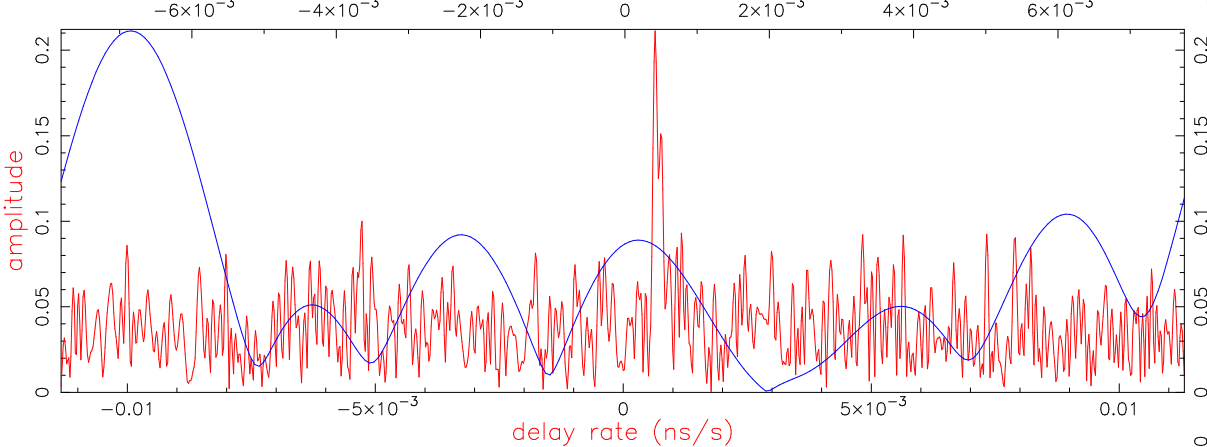
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uP

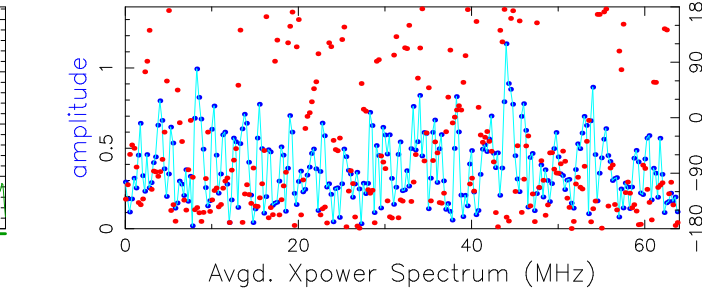
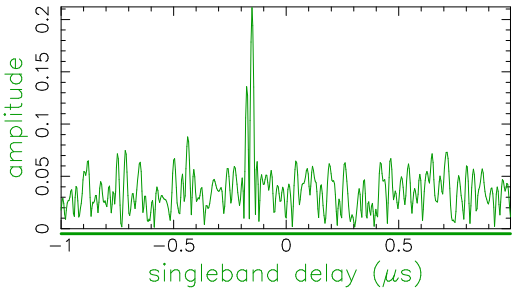
KVNUS - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



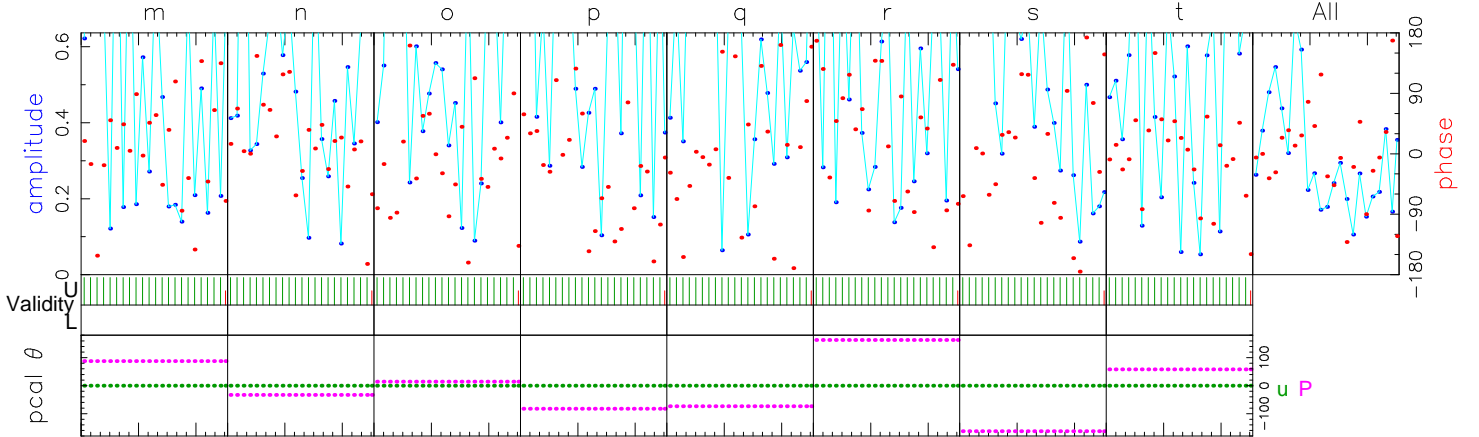
Fringe quality 0

SNR 7.1
 Int time 149.856
 Amp 0.212
 Phase 3.4
 PFD 2.0e-04
 Delays (us)
 SBD -0.151756
 MBD -0.006851
 Fringe rate (Hz)
 0.055316
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105658
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	0	0		
P	0	0	0	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)	9.48990862156E+03	Apriori delay (usec)	9.49005609750E+03	Resid mbdelay (usec)	-6.85094E-03	+/-	1.5E-04
Sband delay (usec)	9.48990434150E+03	Apriori clock (usec)	2.3466740E+00	Resid sbdelay (usec)	-1.51756E-01	+/-	1.2E-03
Phase delay (usec)	9.49005609761E+03	Apriori clockrate (us/s)	-4.3547609E-07	Resid phdelay (usec)	1.09945E-07	+/-	5.2E-07
Delay rate (us/s)	3.20206405203E-01	Apriori rate (us/s)	3.20205763036E-01	Resid rate (us/s)	6.42167E-07	+/-	6.0E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.27423438852E-05	Resid phase (deg)	3.4	+/-	16.2

ph/seg (deg)	65.0	Theor.	38.7	Amplitude	0.212 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.8	Search (1024X32)	0.210	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.9	Inc. seg. avg.	0.252	Inc. frq. avg.	0.214	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.7	Inc. frq. avg.	0.214			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
u:	az 22.1 el 47.3 pa -118.3	P:	az 359.9 el 16.9 pa -0.0	u,v (fr/asec)	-5455.574 -11273.472	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uP.W.379.3MP15Q

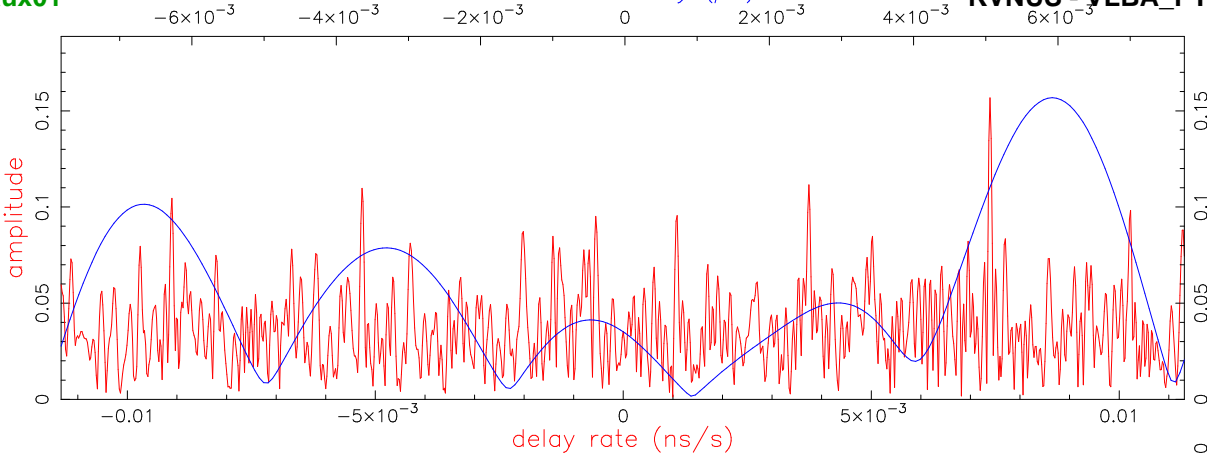
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, up

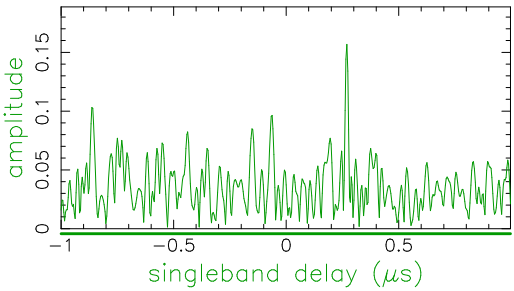
KVNUS - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

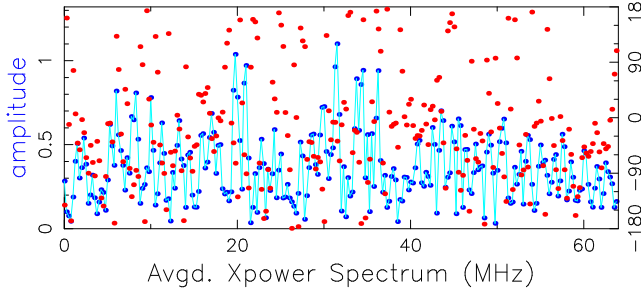


Fringe quality 0

SNR 5.3
 Int time 149.842
 Amp 0.189
 Phase 100.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.268953
 MBD 0.005920
 Fringe rate (Hz)
 0.638941
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

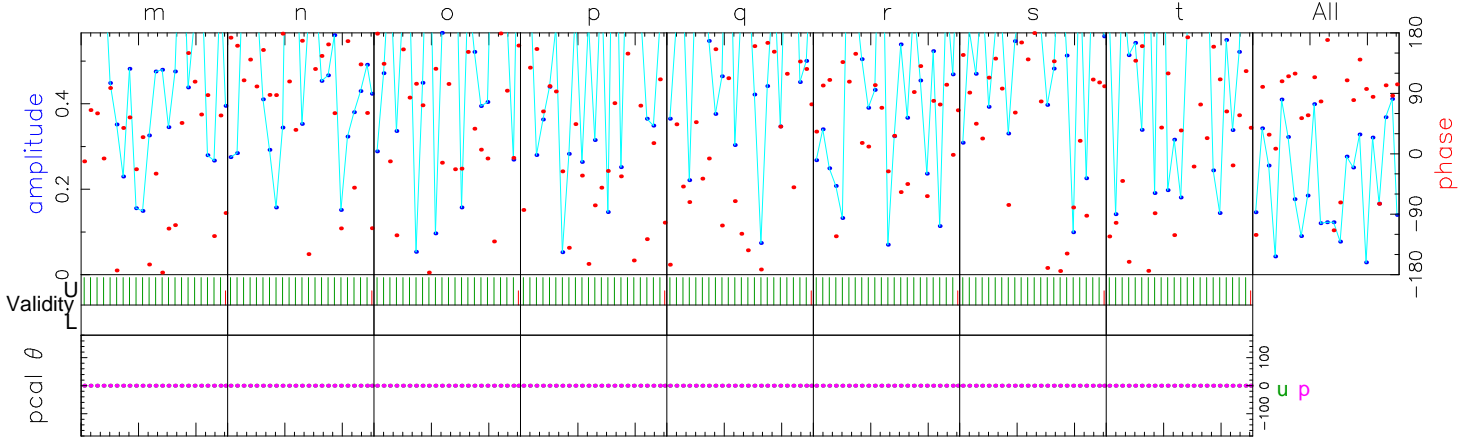


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105658
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	4000	0		
p	0	0	0	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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	2.85959278527E+03	Apriori delay (usec)	2.85932124066E+03	Resid mbdelay (usec)	5.91962E-03	+/-	2.1E-04
Sband delay (usec)	2.85959019341E+03	Apriori clock (usec)	-4.3718147E+00	Resid sbdelay (usec)	2.68953E-01	+/-	1.6E-03
Phase delay (usec)	2.85932124389E+03	Apriori clockrate (us/s)	-2.1593599E-07	Resid phdelay (usec)	3.23720E-06	+/-	7.0E-07
Delay rate (us/s)	7.48756508460E-01	Apriori rate (us/s)	7.48749090994E-01	Resid rate (us/s)	7.41747E-06	+/-	8.1E-09
Total phase (deg)	341.7	Apriori accel (us/s/s)	-1.33638500842E-05	Resid phase (deg)	100.4	+/-	21.8

ph/seg (deg)	RMS 75.3	Theor. 52.2	Amplitude Search (1024X32)	0.189 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.7	91.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.8	30.8	Inc. seg. avg.	0.190	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	54.5	53.7	Inc. frq. avg.	0.185	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 p: az 335.3 el 37.1 pa 90.7 u,v (fr/asec) -12464.909 -2654.818 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//up..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//up.W.382.3MP15Q

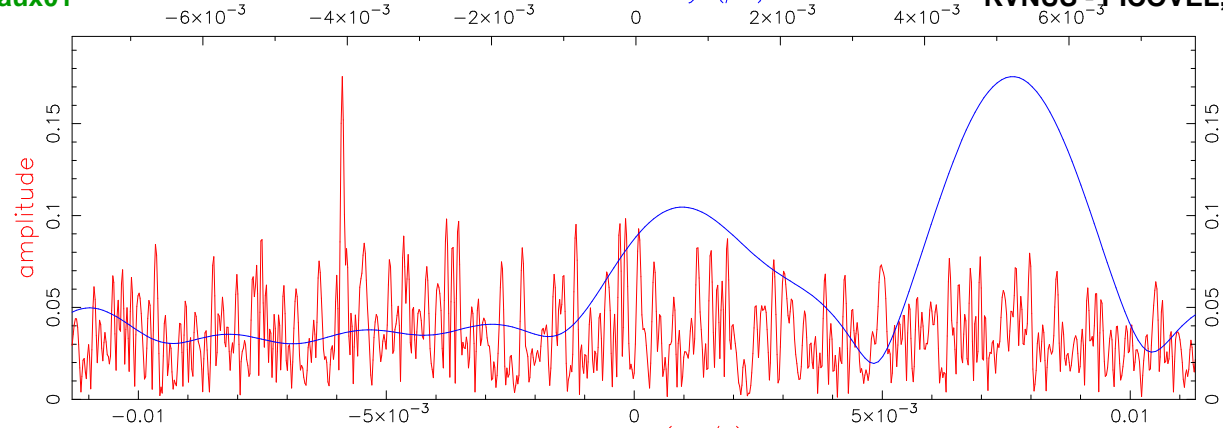
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uP

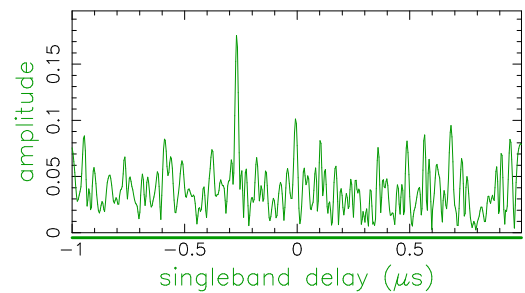
KVNUS - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

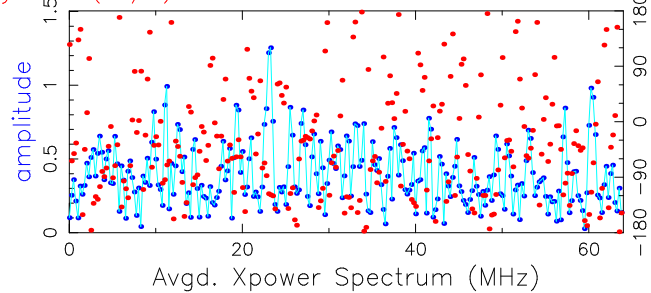


Fringe quality 0

SNR 5.9
 Int time 149.856
 Amp 0.197
 Phase 10.7
 PFD 3.7e-01
 Delays (us)
 SBD -0.268774
 MBD 0.005229
 Fringe rate (Hz)
 -0.507717
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

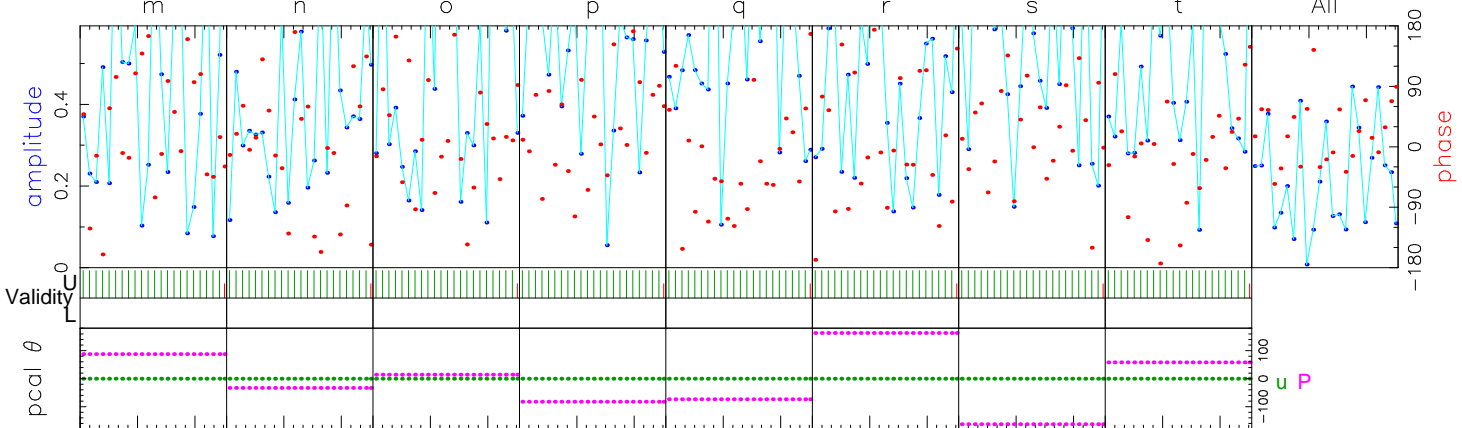


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105700
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



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

Group delay (usec) (SBD)	9.48978007661E+03	Apriori delay (usec)		9.49005609750E+03	Resid mbdelay (usec)		5.22911E-03	+/- 1.8E-04	
Sband delay (usec)	9.48978732350E+03	Apriori clock (usec)		2.3466740E+00	Resid sbdelay (usec)		-2.68774E-01	+/- 1.5E-03	
Phase delay (usec)	9.49005609784E+03	Apriori clockrate (us/s)		-4.3547609E-07	Resid phdelay (usec)		3.43983E-07	+/- 6.3E-07	
Delay rate (us/s)	3.20199868947E-01	Apriori rate (us/s)		3.20205763036E-01	Resid rate (us/s)		-5.89409E-06	+/- 7.2E-09	
Total phase (deg)	96.5		Apriori accel (us/s/s)		-5.27423438852E-05	Resid phase (deg)		10.7 +/- 19.4	

ph/seg (deg) 47.8 46.6 Search (1024X32) 0.171 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.6 81.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.6 27.5 Inc. seg. avg. 0.186 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 53.0 47.9 Inc. frq. avg. 0.195 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 22.1 el 47.3 pa -118.3 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -5455.574 -11273.472 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uP...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uP.W.387.3MP15Q

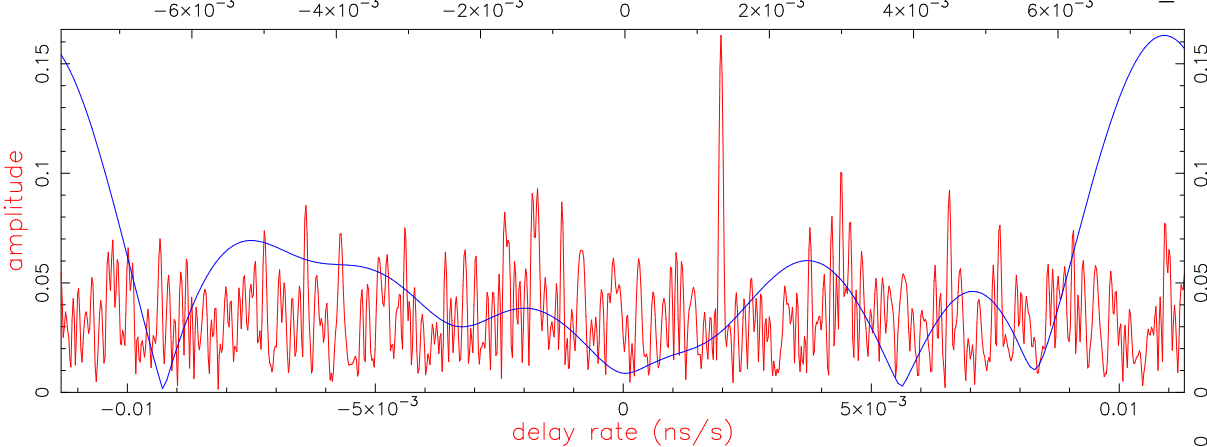
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, up

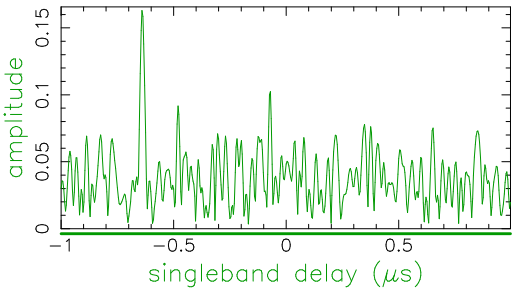
KVNUS - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

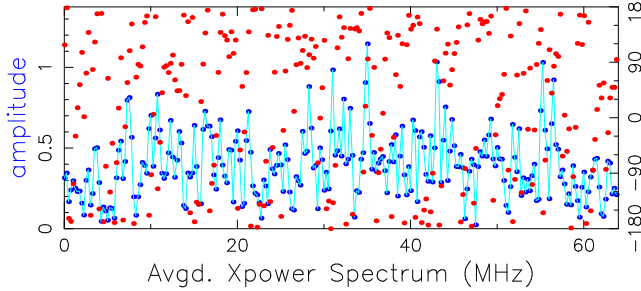


Fringe quality 0

SNR 5.5
 Int time 149.842
 Amp 0.166
 Phase -118.0
 PFD 9.9e-01
 Delays (us)
 SBD -0.639606
 MBD 0.007487
 Fringe rate (Hz)
 0.169717
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

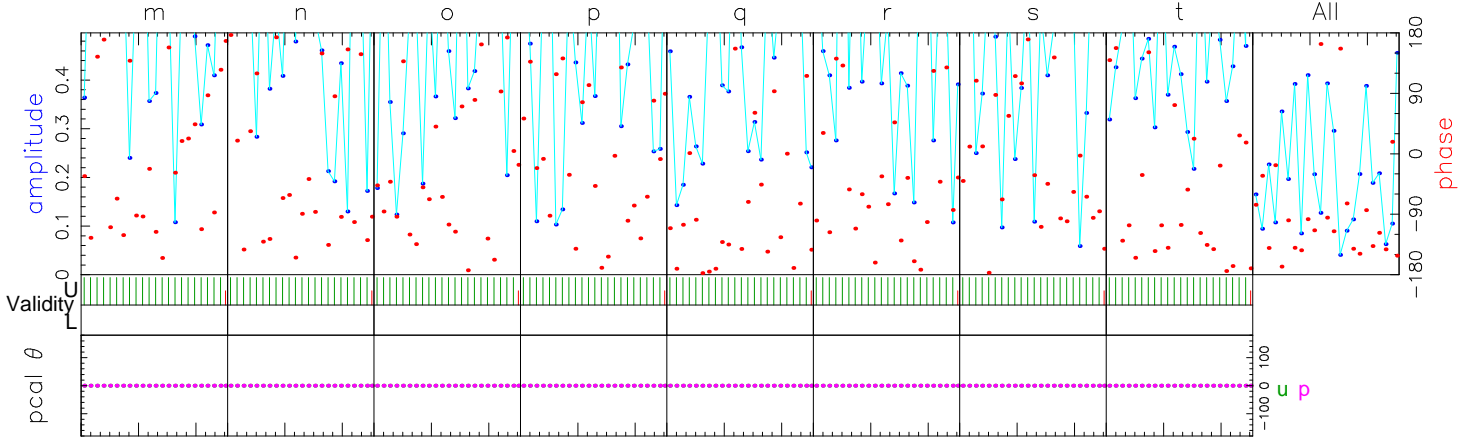


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105700
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-129.0	-117.9	-94.8	-67.3	-147.5	-114.8	-86.2	-134.1	Phase	-118.0
	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	Ampl.	0.2
	238.2	477.1	80.1	295.7	247.7	252.8	388.6	262.3	Sbd box	93.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	0:0	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	
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)	2.85868810255E+03	Apriori delay (usec)	2.85932124066E+03	Resid mbdelay (usec)	7.48689E-03	+/-	2.0E-04
Sband delay (usec)	2.85868163491E+03	Apriori clock (usec)	-4.3718147E+00	Resid sbdelay (usec)	-6.39606E-01	+/-	1.6E-03
Phase delay (usec)	2.85932123685E+03	Apriori clockrate (us/s)	-2.1593599E-07	Resid phdelay (usec)	-3.80570E-06	+/-	6.7E-07
Delay rate (us/s)	7.48751061236E-01	Apriori rate (us/s)	7.48749090994E-01	Resid rate (us/s)	1.97024E-06	+/-	7.8E-09
Total phase (deg)	123.3	Apriori accel (us/s/s)	-1.33638500842E-05	Resid phase (deg)	-118.0	+/-	20.9

ph/seg (deg)	52.8	Theor.	50.2	Search (1024X32)	0.162	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.4		87.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.0		29.6	Inc. seg. avg.	0.152	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.8		51.6	Inc. frq. avg.	0.157	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 22.1 el 47.3 pa -118.3 p: az 335.3 el 37.1 pa 90.7 u,v (fr/asec) -12464.909 -2654.818 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/1/up..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/1/up.W.389.3MP15Q

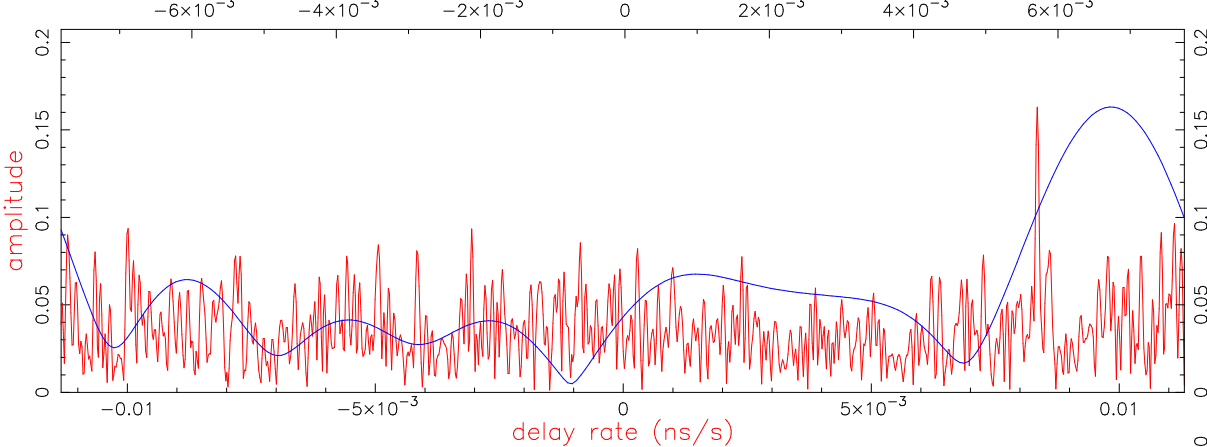
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uP

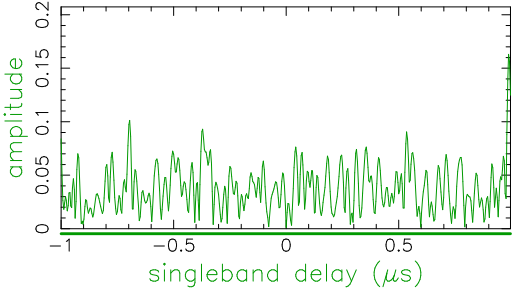
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

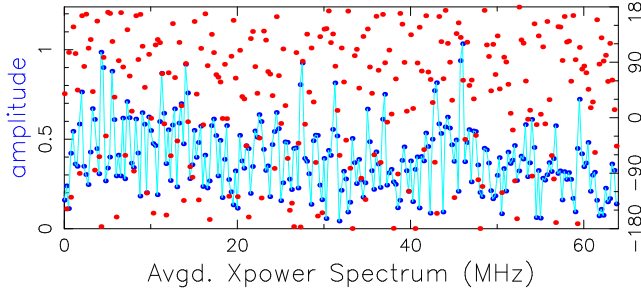


Fringe quality 0

SNR 5.5
 Int time 149.856
 Amp 0.207
 Phase -94.8
 PFD 9.9e-01
 Delays (us)
 SBD 0.989322
 MBD 0.006709
 Fringe rate (Hz) 0.719363
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

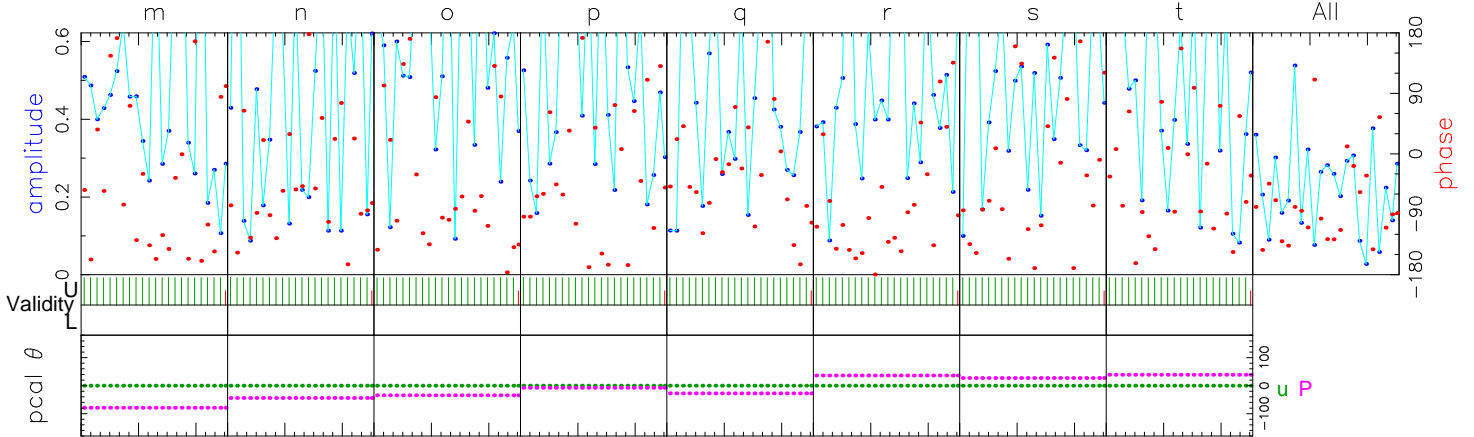


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105702
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



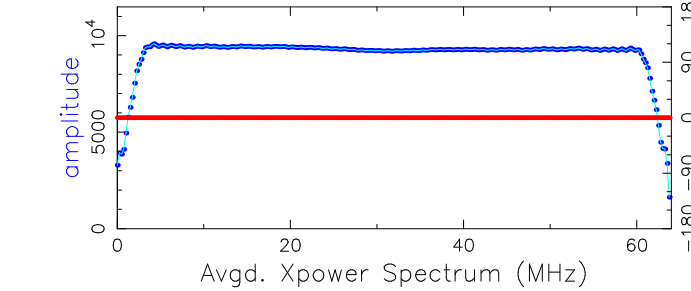
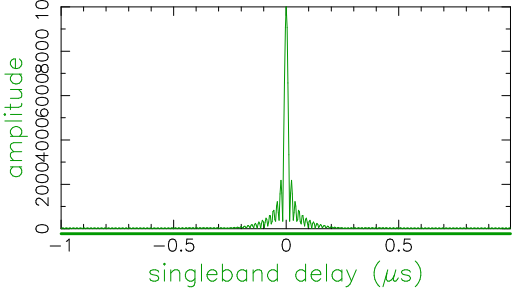
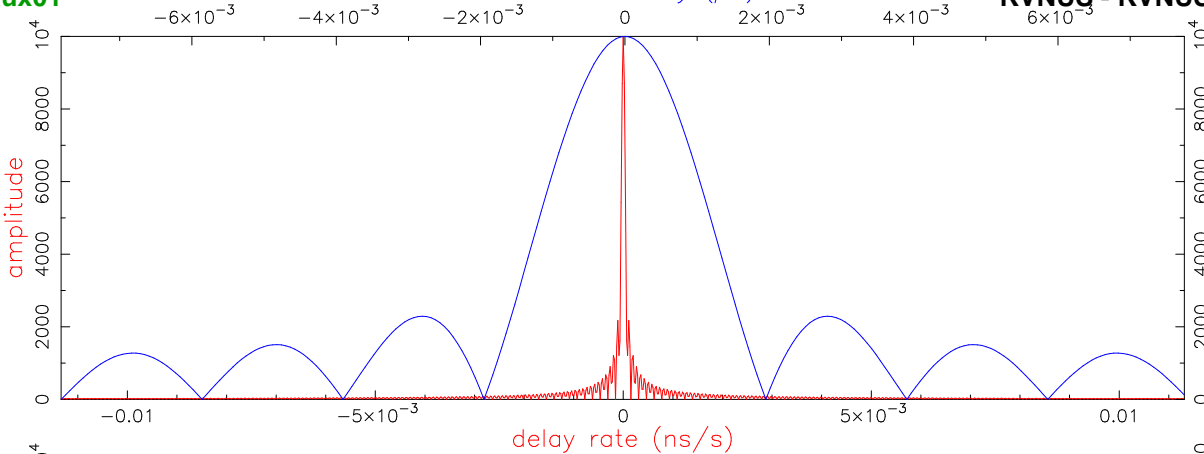
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-120.4	-76.4	-113.1	-67.3	-42.1	-117.3	-132.4	-76.1	Phase	-94.8	
	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2	
	97.0	274.8	446.0	79.4	419.8	449.8	181.3	326.7	Sbd box	510.3	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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		
									Tracks		
Group delay (usec) (SBD)	9.49104718144E+03		Apriori delay (usec)		9.49005609750E+03		Resid mbdelay (usec)		6.70894E-03	+/- 2.0E-04	
Sband delay (usec)	9.49104541925E+03		Apriori clock (usec)		2.3466740E+00		Resid sbdelay (usec)		9.89322E-01	+/- 1.6E-03	
Phase delay (usec)	9.49005609444E+03		Apriori clockrate (us/s)		-4.3547609E-07		Resid phdelay (usec)		-3.05599E-06	+/- 6.7E-07	
Delay rate (us/s)	3.20214114121E-01		Apriori rate (us/s)		3.20205763036E-01		Resid rate (us/s)		8.35109E-06	+/- 7.8E-09	
Total phase (deg)			Apriori accel (us/s/s)		-5.27423438852E-05		Resid phase (deg)		-94.8	+/- 20.9	
	RMS	Theor.	Amplitude	0.207 +/- 0.038		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	60.7	50.0	Search (1024X32)	0.158		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	81.5	87.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	34.5	29.5	Inc. seg. avg.	0.205		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	32.0	51.5	Inc. frq. avg.	0.208		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
u: az 22.1 el 47.3 pa -118.3	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)		-5455.574 -11273.472				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//uP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//uP.W.392.3MP15Q								

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uu

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

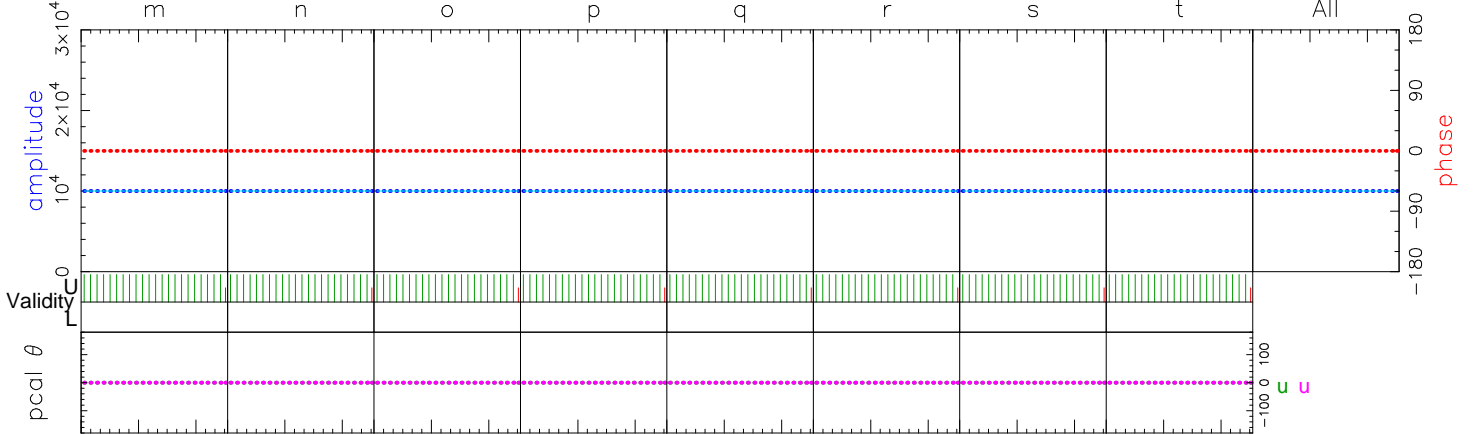


Fringe quality 9

SNR 334767.2
 Int time 149.862
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105645
 2024:113:095956
 RA & Dec (J2000) 18h06m50.680649s +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	10000.0	10000.0
u	0	0	60000	0	0	0	4000	0	Ampl.	10000.0
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
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 phase	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

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

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

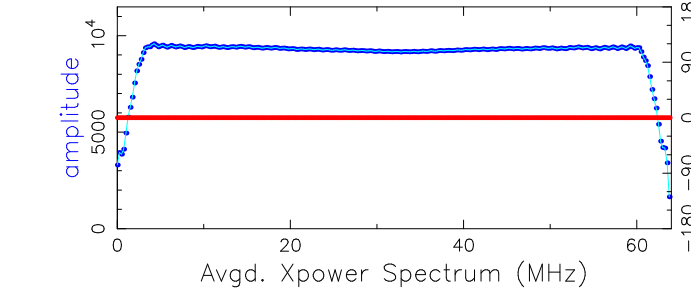
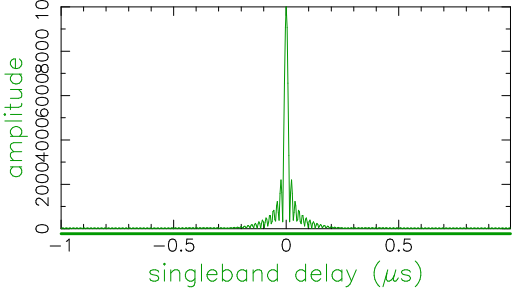
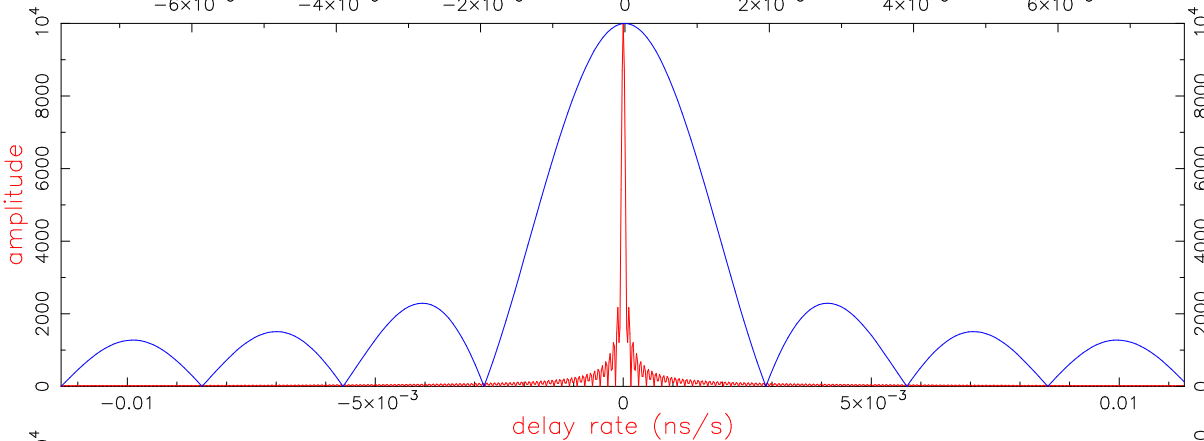
u: az 22.1 el 47.3 pa -118.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uu.W.342.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

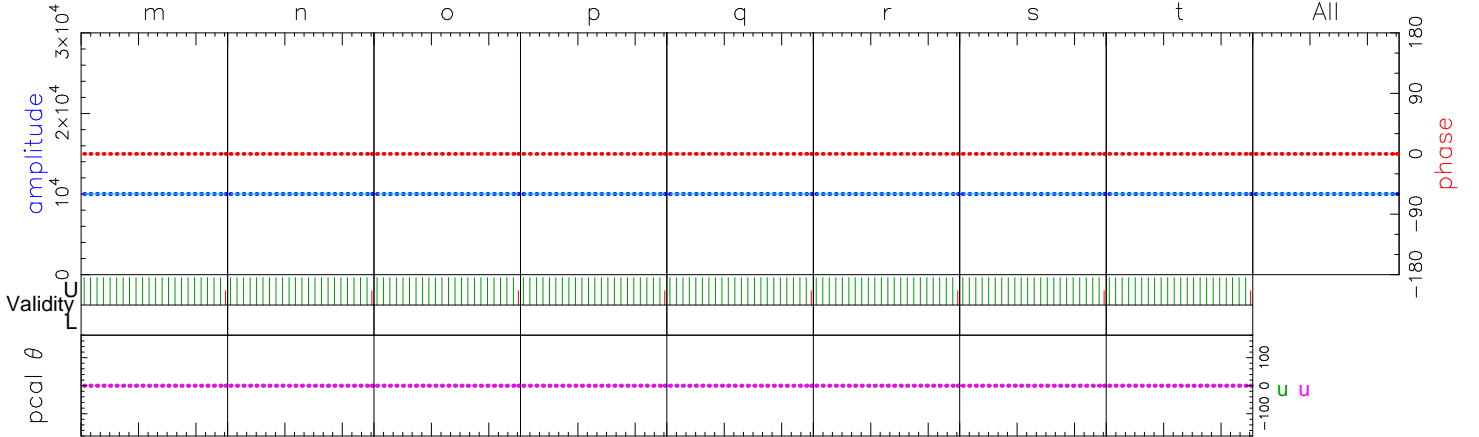
3C371.3MP15Q, No0901, uu

KVNUS- KVNUS, fgroup W, pol RR



Fringe quality 9
 SNR 334767.2
 Int time 149.862
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Yr:day 1234
 Start 2024:109
 Stop 2025:007:141222
 FRT 2025:041:105646
 2024:113:095956
 Corr/FF/build RA & Dec (J2000) 18h06m50.680649s +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.2E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.6E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.1E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 1.3E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

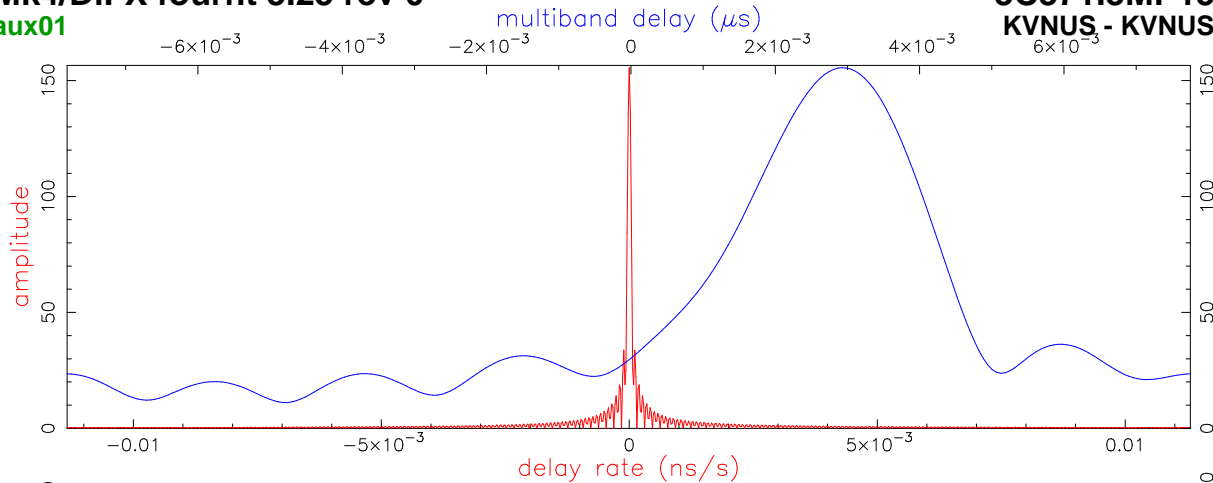
RMS Theor. Amplitude 10000.000 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 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
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 22.1 el 47.3 pa -118.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uu.W.350.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

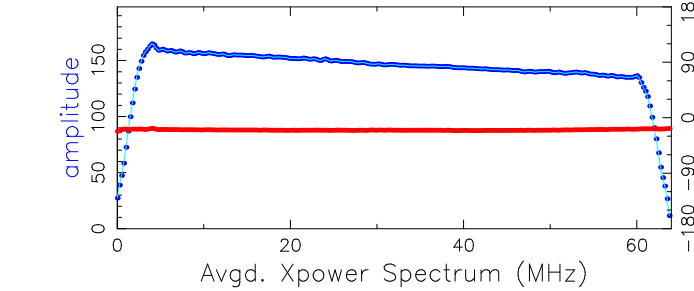
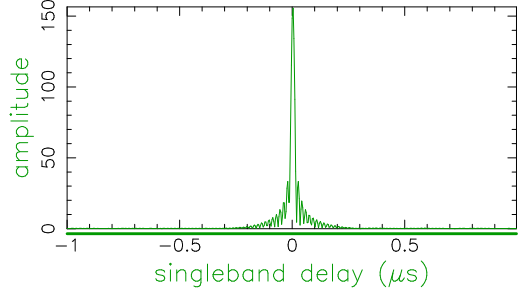
aux01

3C371.3MP15Q, No0901, uu

KVNUS - KVNUS, fgroup W, pol LR

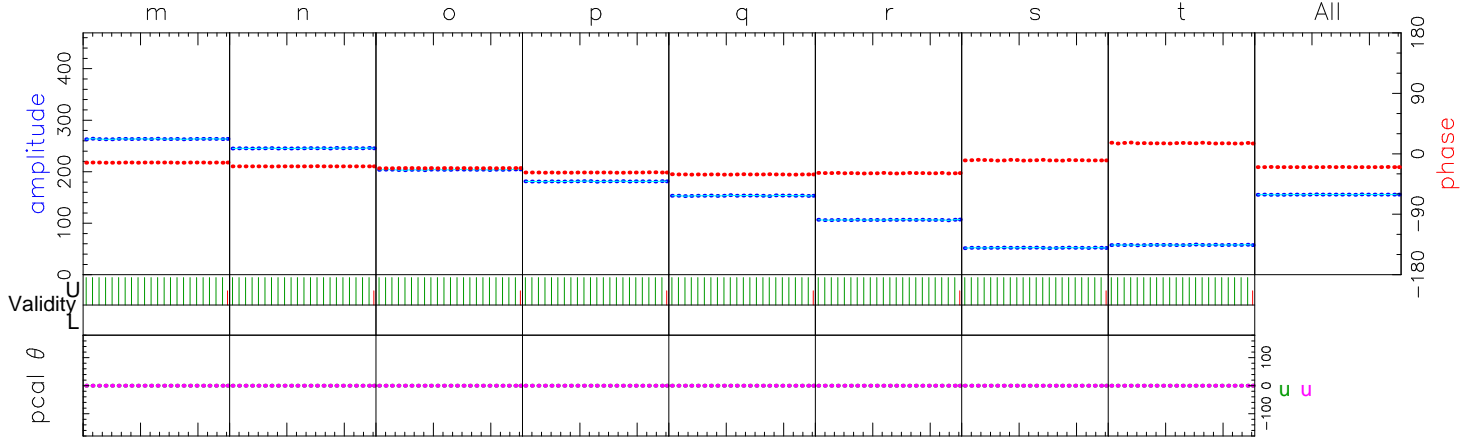


Fringe quality 6
 Error code G
 SNR 5240.7
 Int time 149.862
 Amp 156.549
 Phase -19.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.002904
 MBD 0.002932
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Yr:day 1234
 Start 2024:109
 Stop 2024:109
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105650
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-13.1	-18.7	-21.4	-27.9	-30.8	-28.9	-9.6	15.8	Phase	-19.7
	263.5	245.5	203.8	181.3	153.4	106.4	52.3	57.9	Ampl.	158.0
	257.6	257.8	257.6	257.8	257.7	257.8	258.4	258.0	Sbd box	257.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
u	0	0	60000	0	0	0	0	0	PC freqs	
u	0	0	60000	0	0	0	4000	0	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.93221875000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.93222E-03	+/-	2.1E-07
Sband delay (usec)	2.90350000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.90350E-03	+/-	1.6E-06
Phase delay (usec)	-6.36800474476E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-6.36800E-07	+/-	7.1E-10
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	8.1E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-19.7	+/-	0.0

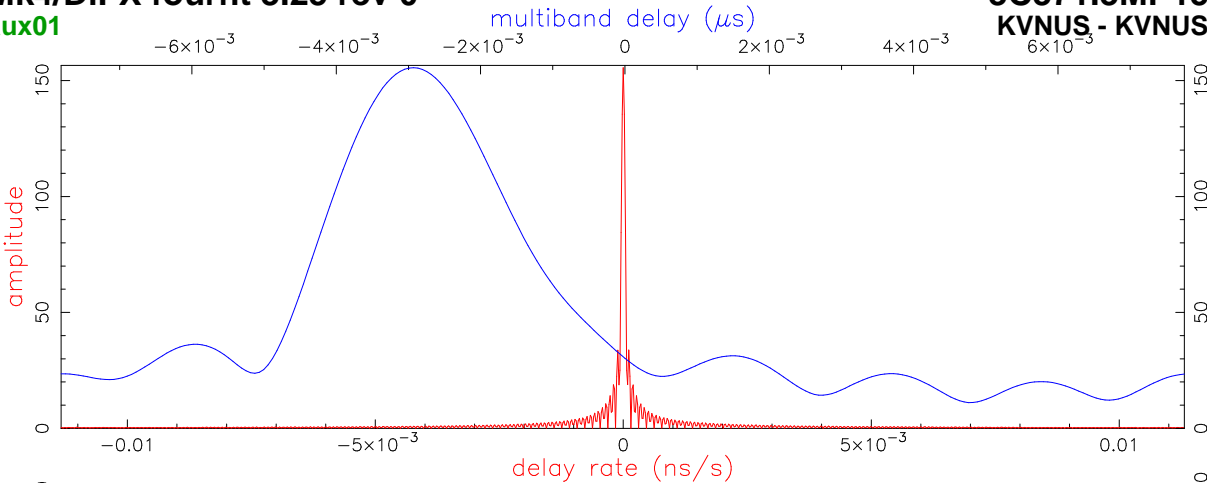
ph/seg (deg) 0.0 0.1 Search (1024X32) 155.577 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.6 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.7 0.0 Inc. seg. avg. 155.577 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.1 0.1 Inc. frq. avg. 158.013 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 u: az 22.1 el 47.3 pa -118.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uu.W.356.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

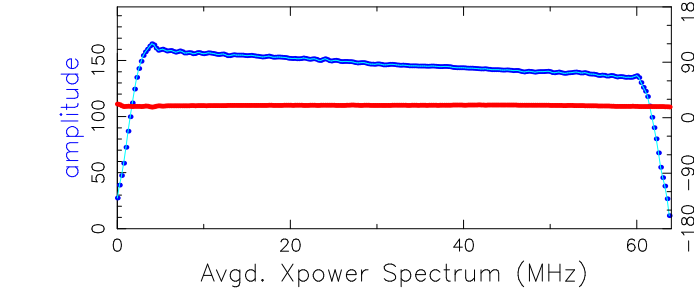
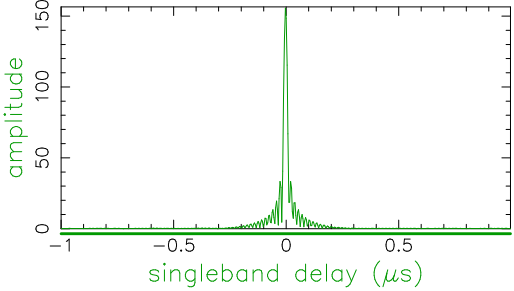
aux01

3C371.3MP15Q, No0901, uu

KVNUS - KVNUS, fgroup W, pol RL

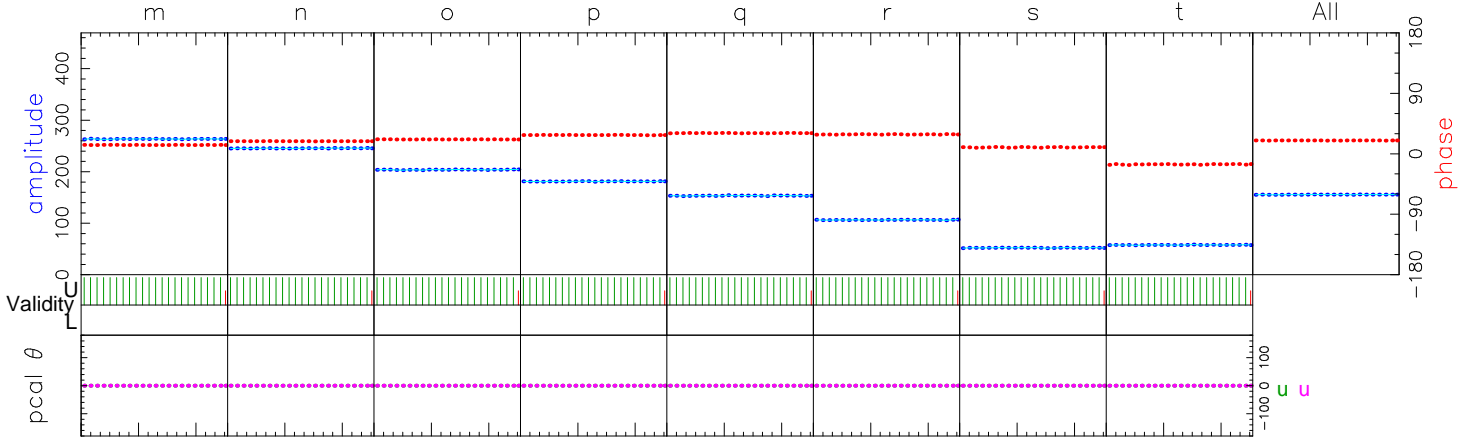


Fringe quality 6
 Error code G
 SNR 5240.7
 Int time 149.862
 Amp 156.549
 Phase 19.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.002904
 MBD -0.002932
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Yr:day 1234
 Start 2024:109
 Stop 2024:109
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105652
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



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

Group delay (usec) (SBD) -2.93221875000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -2.93222E-03 +/- 2.1E-07
 Sband delay (usec) -2.90350000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -2.90350E-03 +/- 1.6E-06
 Phase delay (usec) 6.36800474476E-07 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 6.36800E-07 +/- 7.1E-10
 Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 8.1E-12
 Total phase (deg) 19.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 19.7 +/- 0.0

RMS Theor. Amplitude 156.549 +/- 0.030 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.1 Search (1024X32) 155.577 Pcd 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) 16.7 0.0 Inc. seg. avg. 155.577 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 48.1 0.1 Inc. frq. avg. 158.013 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

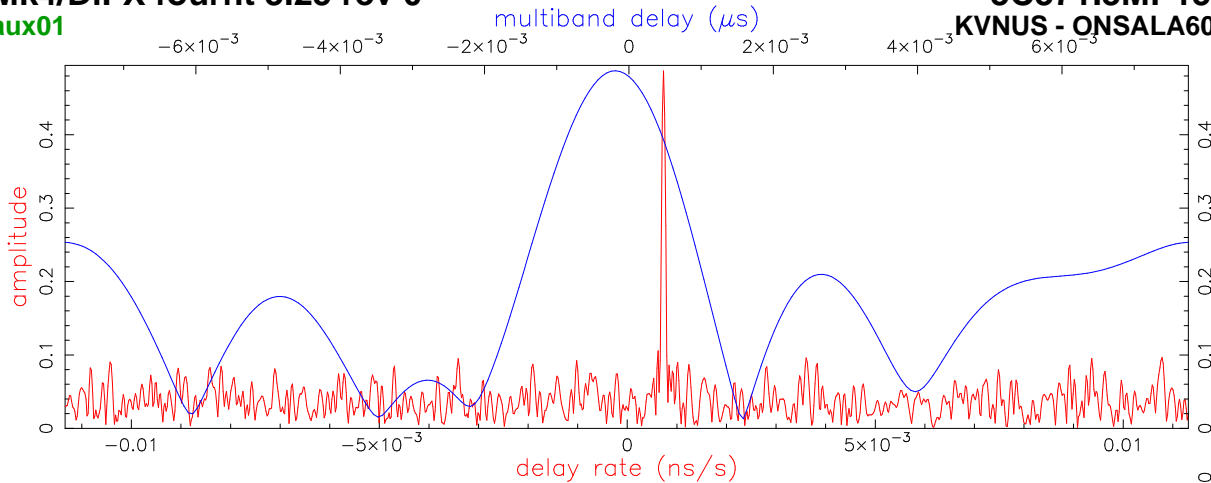
u: az 22.1 el 47.3 pa -118.3 u: az 22.1 el 47.3 pa -118.3 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uu..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uu.W.362.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

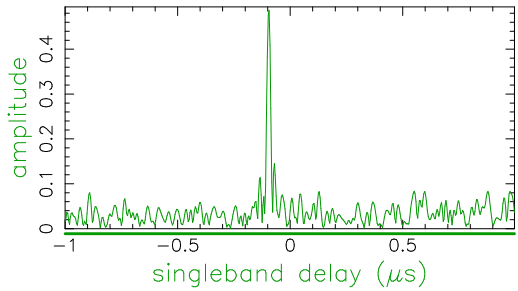
3C371.3MP15Q, No0901, uX

KVNUS - ONSALA60, fgroup W, pol LL

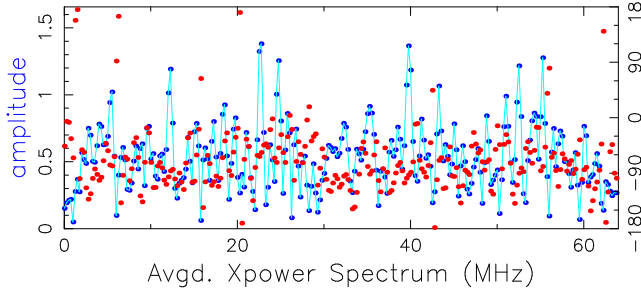


Fringe quality 8

SNR 16.5
 Int time 149.700
 Amp 0.494
 Phase -91.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.095253
 MBD -0.000225
 Fringe rate (Hz)
 0.062586
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

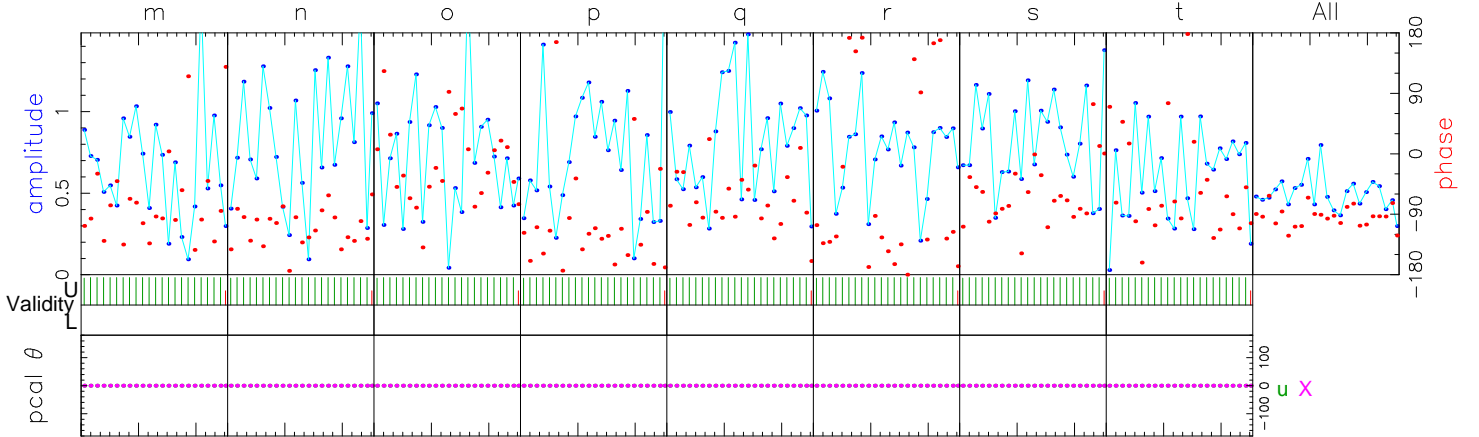


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105652
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-94.1	-106.6	-25.4	-129.1	-70.8	-153.4	-64.8	-83.6	Phase	-91.8
	0.6	0.7	0.5	0.6	0.7	0.6	0.7	0.4	Ampl.	0.6
	233.6	232.4	231.7	231.8	231.9	231.7	232.3	233.2	Sbd box	232.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	

Group delay (usec) (SBD)	2.55876586948E+03	Apriori delay (usec)	2.55885984437E+03	Resid mbdelay (usec)	-2.24885E-04	+/-	6.6E-05
Sband delay (usec)	2.55876459137E+03	Apriori clock (usec)	-1.1132524E+02	Resid sbdelay (usec)	-9.52530E-02	+/-	5.2E-04
Phase delay (usec)	2.55885984141E+03	Apriori clockrate (us/s)	-1.0538621E-06	Resid phdelay (usec)	-2.96164E-06	+/-	2.2E-07
Delay rate (us/s)	2.43937029473E-01	Apriori rate (us/s)	2.43936302908E-01	Resid rate (us/s)	7.26565E-07	+/-	2.6E-09
Total phase (deg)	266.0	Apriori accel (us/s/s)	-4.18760946244E-05	Resid phase (deg)	-91.8	+/-	6.9

ph/seg (deg)	14.9	Theor.	16.6	Amplitude	0.494 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	20.6	Search (1024X32)	0.470	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	42.9	Inc. seg. avg.	0.484	Inc. frq. avg.	0.591	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.0	Inc. frq. avg.	0.591			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 22.1 el 47.3 pa -118.3 X: az 6.5 el 37.7 pa -10.4 u,v (fr/asec) -4165.625 -9699.125 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uX..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uX.W.363.3MP15Q

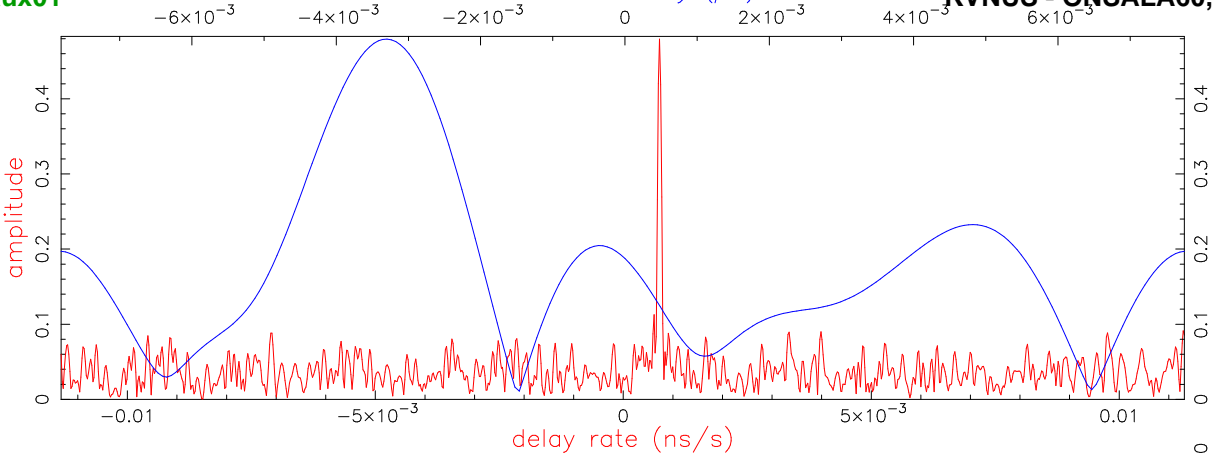
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uX

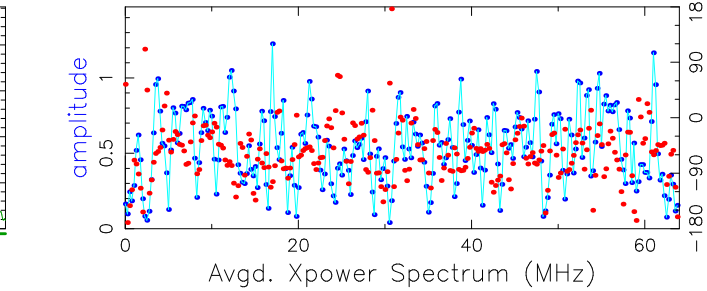
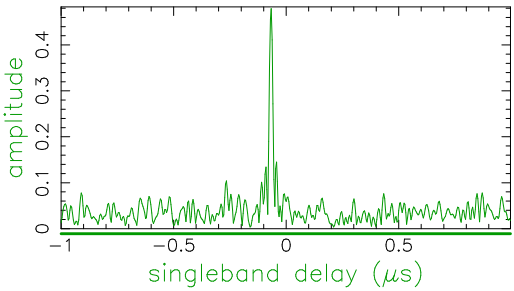
KVNUS - ONSALA60, fgroup W, pol RR

multiband delay (μ s)



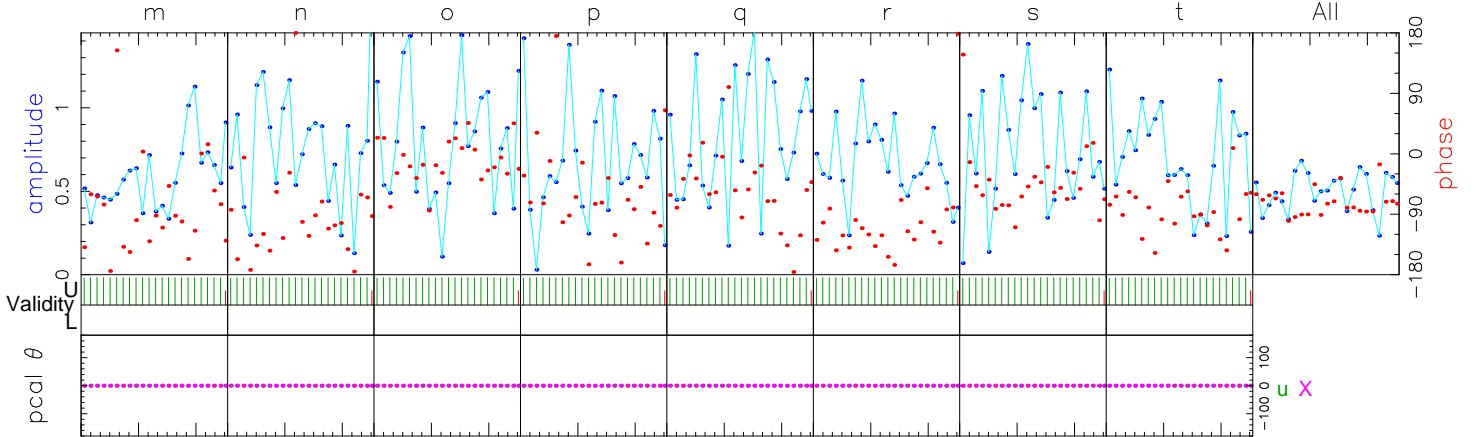
Fringe quality 8

SNR 16.1
 Int time 149.700
 Amp 0.483
 Phase -73.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.067362
 MBD -0.003329
 Fringe rate (Hz)
 0.062602
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105654
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-102.4	-105.4	-7.8	-81.3	-58.0	-117.5	-50.6	-84.7	Phase	-73.9
	0.4	0.6	0.7	0.5	0.6	0.6	0.6	0.6	Ampl.	0.6
	240.7	239.7	238.9	238.9	238.9	239.2	239.8	240.5	Sbd box	239.8
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.55879401495E+03	Apriori delay (usec)	2.55885984437E+03	Resid mbdelay (usec)	-3.32942E-03	+/-	6.7E-05
Sband delay (usec)	2.55879248237E+03	Apriori clock (usec)	-1.1132524E+02	Resid sbdelay (usec)	-6.73620E-02	+/-	5.3E-04
Phase delay (usec)	2.55885984198E+03	Apriori clockrate (us/s)	-1.0538621E-06	Resid phdelay (usec)	-2.38431E-06	+/-	2.3E-07
Delay rate (us/s)	2.43937029653E-01	Apriori rate (us/s)	2.43936302908E-01	Resid rate (us/s)	7.26745E-07	+/-	2.6E-09
Total phase (deg)	283.9	Apriori accel (us/s/s)	-4.18760946244E-05	Resid phase (deg)	-73.9	+/-	7.1

ph/seg (deg)	19.6	Theor.	17.0	Search (1024X32)	0.474	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	24.0		29.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	38.8		10.0	Inc. seg. avg.	0.482	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	27.8		17.5	Inc. frq. avg.	0.572	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 X: az 6.5 el 37.7 pa -10.4 u,v (fr/asec) -4165.625 -9699.125 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uX..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uX.W.371.3MP15Q

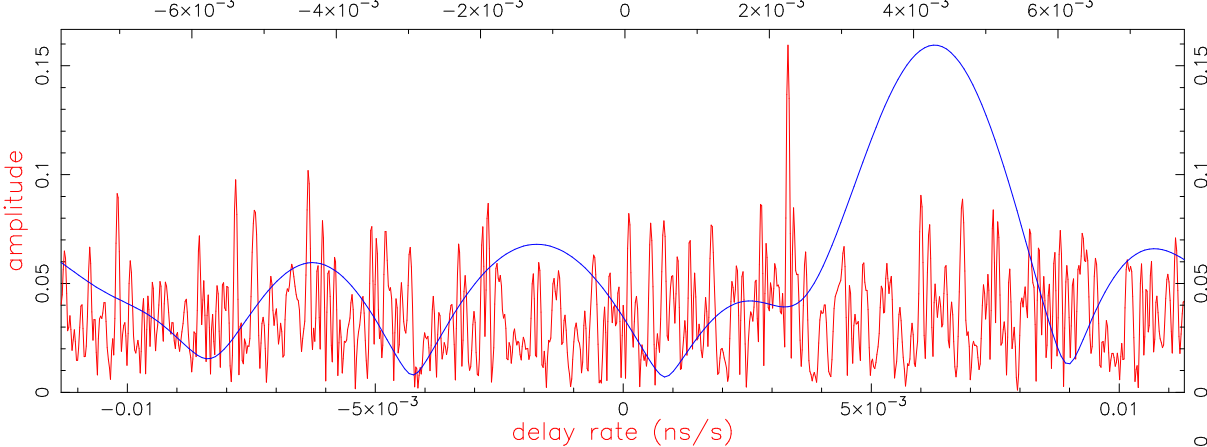
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uX

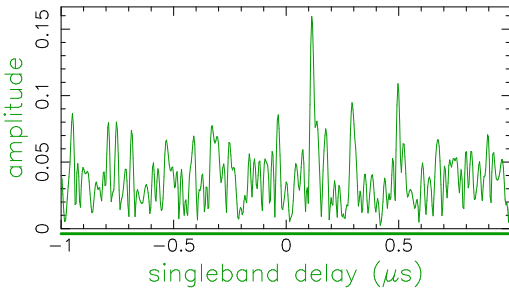
KVNUS - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

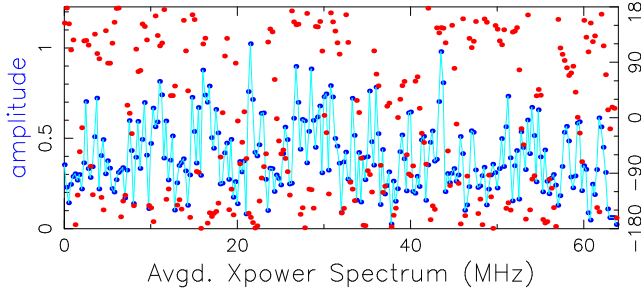


Fringe quality 0

SNR 5.4
 Int time 149.700
 Amp 0.167
 Phase 2.9
 PFD 1.0e+00
 Delays (us)
 SBD 0.114520
 MBD 0.004313
 Fringe rate (Hz)
 0.286406
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

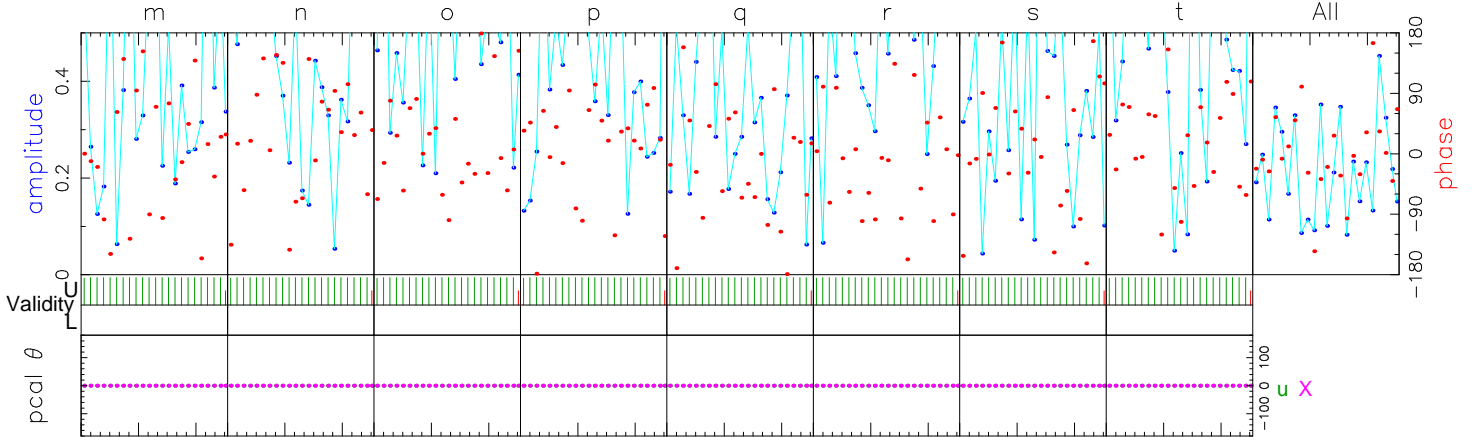


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105658
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 2.55897353262E+03 Apriori delay (usec) 2.55885984437E+03 Resid mbdelay (usec) 4.31325E-03 +/- 2.0E-04
 Sband delay (usec) 2.55897436487E+03 Apriori clock (usec) -1.1132524E+02 Resid sbdelay (usec) 1.14520E-01 +/- 1.6E-03
 Phase delay (usec) 2.55885984446E+03 Apriori clockrate (us/s) -1.0538621E-06 Resid phdelay (usec) 9.29183E-08 +/- 6.9E-07
 Delay rate (us/s) 2.43939627793E-01 Apriori rate (us/s) 2.43936302908E-01 Resid rate (us/s) 3.32489E-06 +/- 7.9E-09
 Total phase (deg) 0.7 Apriori accel (us/s/s) -4.18760946244E-05 Resid phase (deg) 2.9 +/- 21.3

ph/seg (deg) 61.7 51.0 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.4 89.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.9 30.1 Inc. seg. avg. 0.162 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.7 52.5 Inc. frq. avg. 0.160 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 X: az 6.5 el 37.7 pa -10.4 u,v (fr/asec) -4165.625 -9699.125 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uX...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uX.W.379.3MP15Q

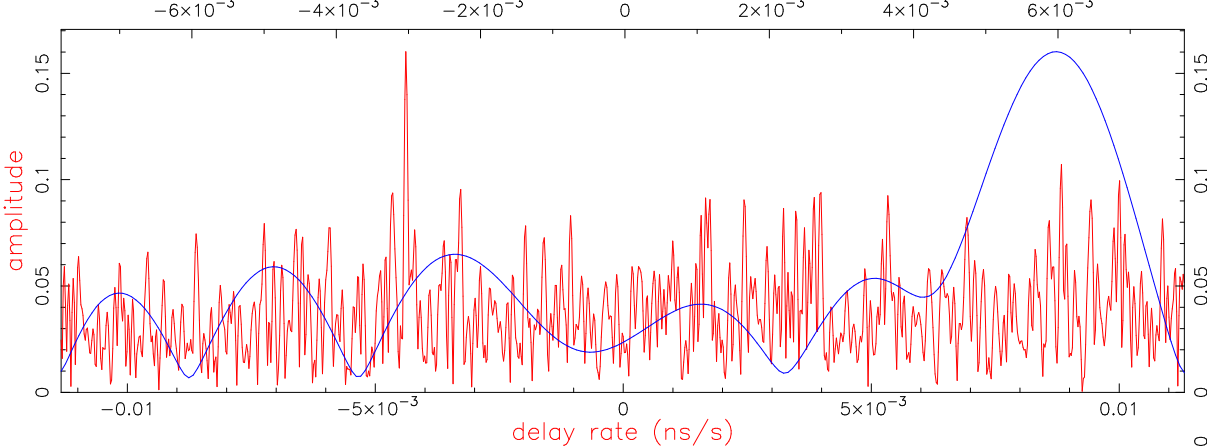
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uX

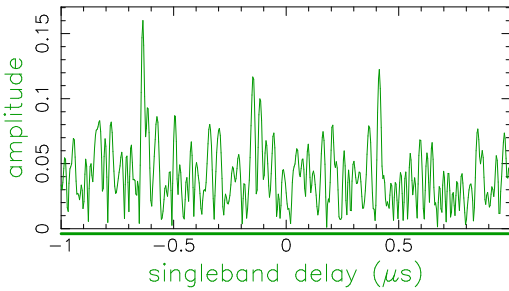
KVNUS - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

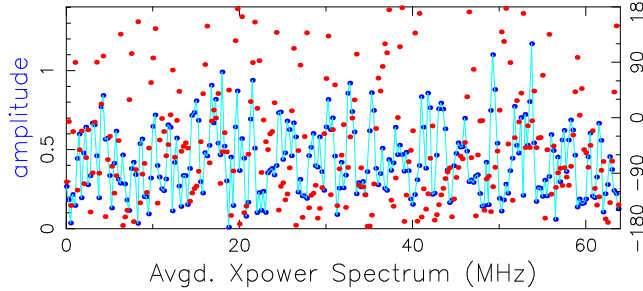


Fringe quality 0

SNR 5.4
 Int time 149.700
 Amp 0.171
 Phase 62.1
 PFD 1.0e+00
 Delays (us)
 SBD -0.637120
 MBD 0.005974
 Fringe rate (Hz)
 -0.377711
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

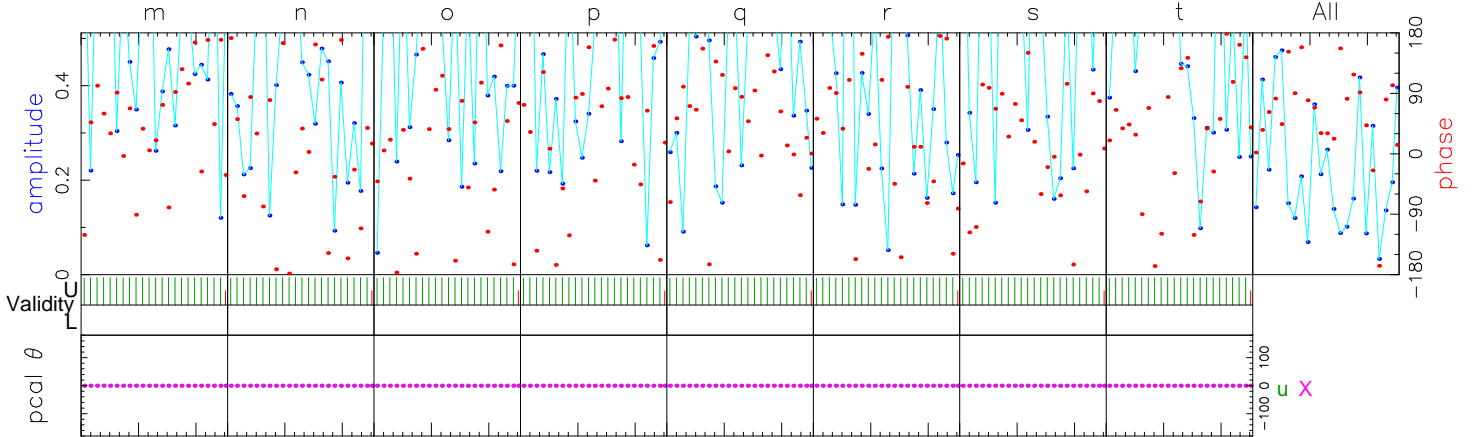


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105659
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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)	2.55822519374E+03	Apriori delay (usec)	2.55885984437E+03	Resid mbdelay (usec)	5.97437E-03	+/-	2.0E-04
Sband delay (usec)	2.55822272412E+03	Apriori clock (usec)	-1.1132524E+02	Resid sbdelay (usec)	-6.37120E-01	+/-	1.6E-03
Phase delay (usec)	2.55885984637E+03	Apriori clockrate (us/s)	-1.0538621E-06	Resid phdelay (usec)	2.00160E-06	+/-	6.9E-07
Delay rate (us/s)	2.43931918061E-01	Apriori rate (us/s)	2.43936302908E-01	Resid rate (us/s)	-4.38485E-06	+/-	8.0E-09
Total phase (deg)	59.9	Apriori accel (us/s/s)	-4.18760946244E-05	Resid phase (deg)	62.1	+/-	21.4

ph/seg (deg)	55.2	Theor.	51.2	Amplitude	0.171 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	90.5		89.4	Search (1024X32)	0.159	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	16.8		30.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	45.1		52.7	Inc. seg. avg.	0.168	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.155	Data rate(Mb/s): 2048	t_cohere infinite			

u: az 22.1 el 47.3 pa -118.3 X: az 6.5 el 37.7 pa -10.4 u,v (fr/asec) -4165.625 -9699.125 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uX...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uX.W.385.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

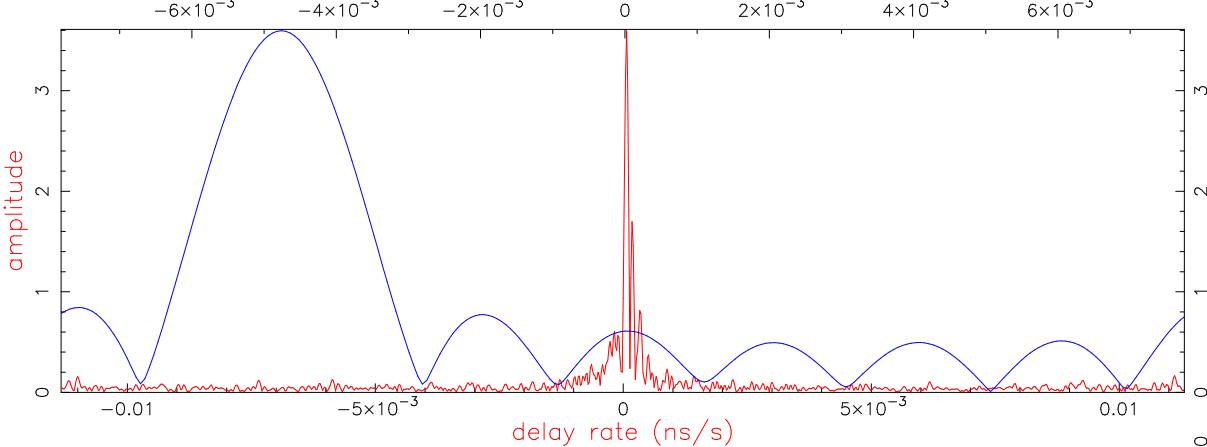
aux01

3C371.3MP15Q, No0901, uy

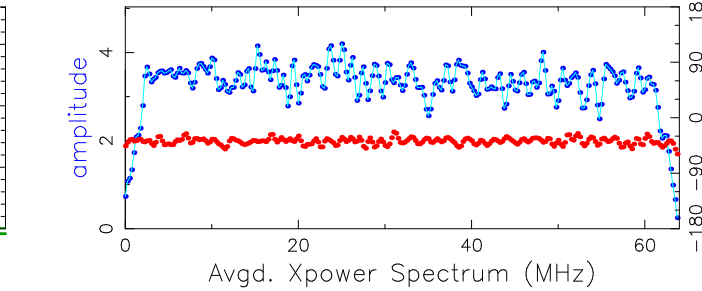
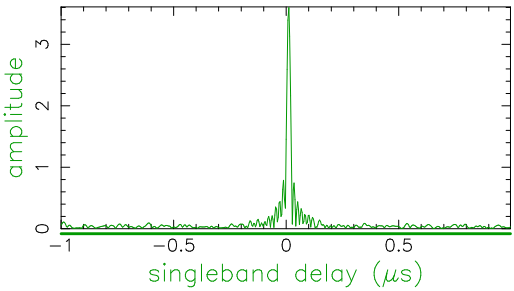
KVNU\$ - KVNY\$, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 7

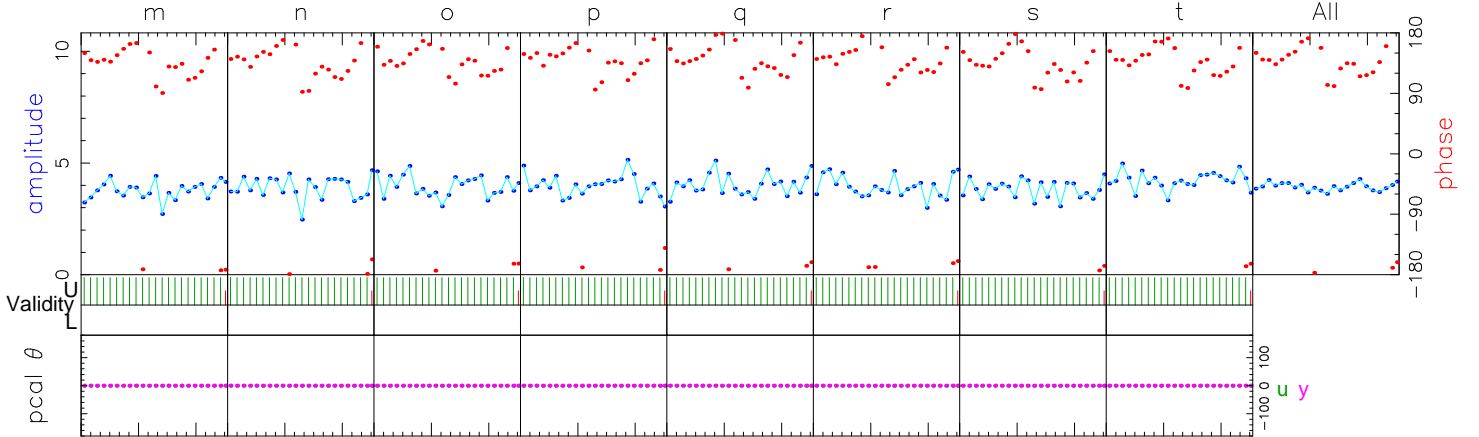


SNR 120.9
 Int time 149.862
 Amp 3.610
 Phase 143.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.010931
 MBD -0.004760
 Fringe rate (Hz)
 0.006598
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105646
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
u	0	0	60000	0	0	0	0	0	APs used	
y	0	0	60000	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) -2.88779234295E+02 Apriori delay (usec) -2.88790099354E+02 Resid mbdelay (usec) -4.75994E-03 +/- 9.0E-06
 Sband delay (usec) -2.88779168604E+02 Apriori clock (usec) -5.0917435E+00 Resid sbdelay (usec) 1.09307E-02 +/- 7.1E-05
 Phase delay (usec) -2.88790094743E+02 Apriori clockrate (us/s) 1.6319997E-07 Resid phdelay (usec) 4.61071E-06 +/- 3.1E-08
 Delay rate (us/s) -3.11025594296E-03 Apriori rate (us/s) -3.11033253804E-03 Resid rate (us/s) 7.65951E-08 +/- 3.5E-10
 Total phase (deg) 86.0 Apriori accel (us/s/s) -1.48807153221E-06 Resid phase (deg) 143.0 +/- 0.9

ph/seg (deg) 24.4 RMS 2.3 Theor. 2.3 Amplitude 3.610 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 10.3 2.4 2.3 Search (1024X32) 3.475 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.0 1.3 1.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 3.7 2.3 2.3 Inc. seg. avg. 3.936 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 3.599 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 y: az 23.5 el 48.4 pa -114.6 u,v (fr/asec) 47.125 -405.070 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uy..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uy.W.348.3MP15Q

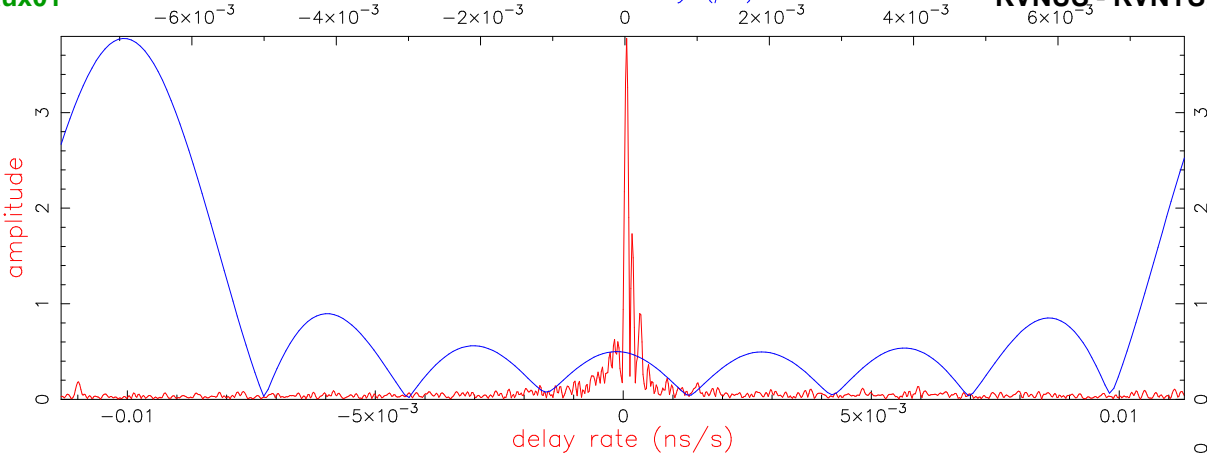
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uy

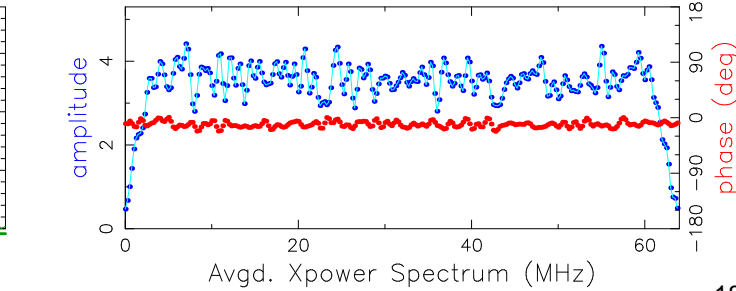
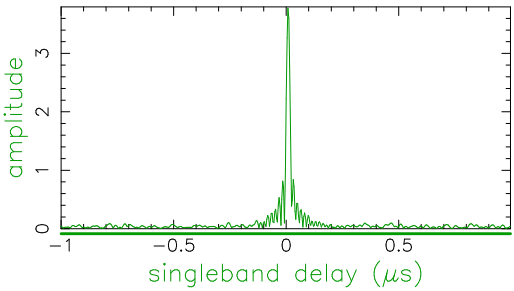
KVNU5 - KVNY5, fgroup W, pol RR

multiband delay (μ s)



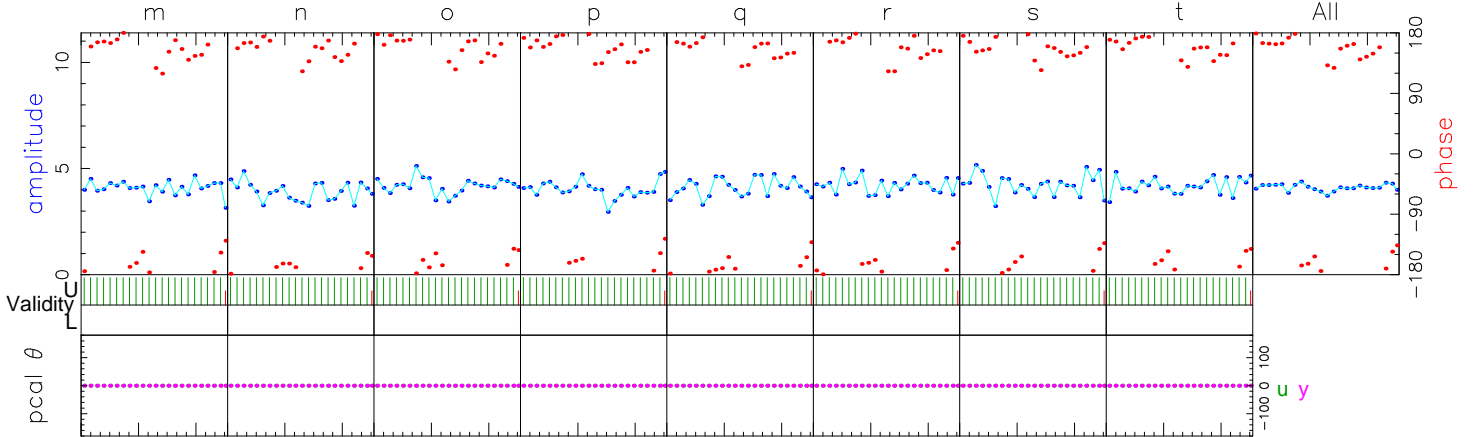
Fringe quality 7

SNR 127.1
 Int time 149.862
 Amp 3.797
 Phase 169.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.008750
 MBD -0.006940
 Fringe rate (Hz)
 0.006618
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105651
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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	

Group delay (usec) (SBD) -2.88781413952E+02 Apriori delay (usec) -2.88790099354E+02 Resid mbdelay (usec) -6.93960E-03 +/- 8.5E-06
 Sband delay (usec) -2.88781349354E+02 Apriori clock (usec) -5.0917435E+00 Resid sbdelay (usec) 8.75000E-03 +/- 6.8E-05
 Phase delay (usec) -2.88790093878E+02 Apriori clockrate (us/s) 1.6319997E-07 Resid phdelay (usec) 5.47564E-06 +/- 2.9E-08
 Delay rate (us/s) -3.11025571056E-03 Apriori rate (us/s) -3.11033253804E-03 Resid rate (us/s) 7.68275E-08 +/- 3.4E-10
 Total phase (deg) 112.8 Apriori accel (us/s/s) -1.48807153221E-06 Resid phase (deg) 169.8 +/- 0.9

RMS Theor. Amplitude 3.797 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 23.8 2.2 Search (1024X32) 3.647 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 9.3 3.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 1.8 1.3 Inc. seg. avg. 4.112 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 2.4 2.2 Inc. frq. avg. 3.777 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 y: az 23.5 el 48.4 pa -114.6 u,v (fr/asec) 47.125 -405.070 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uy..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uy.W.359.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

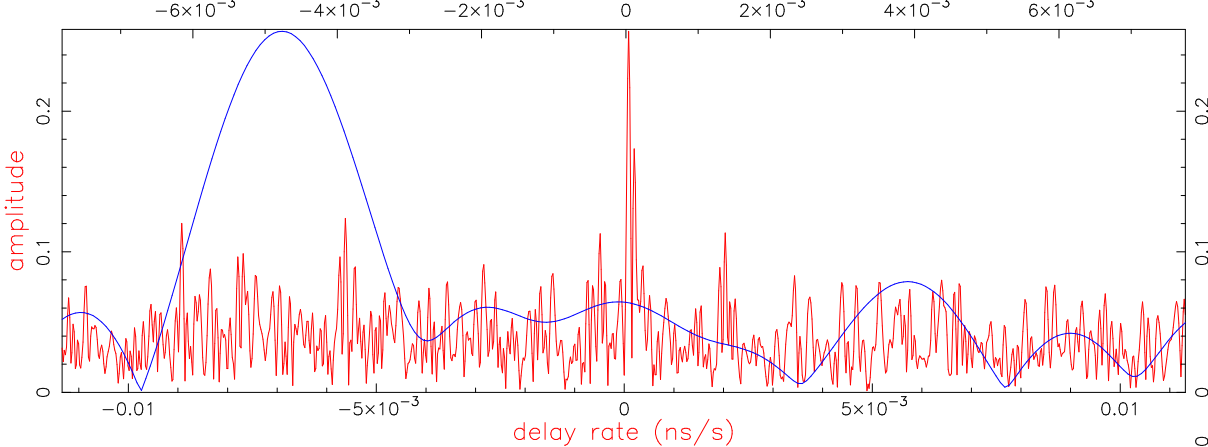
aux01

3C371.3MP15Q, No0901, uy

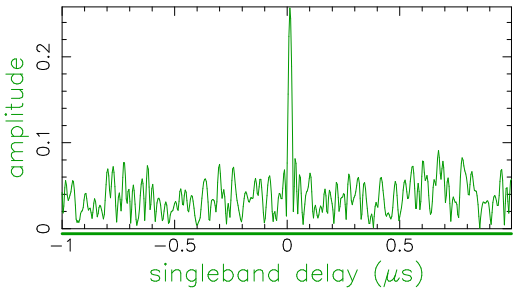
KVNU\$ - KVNY\$, fgroup W, pol LR

multiband delay (μ s)

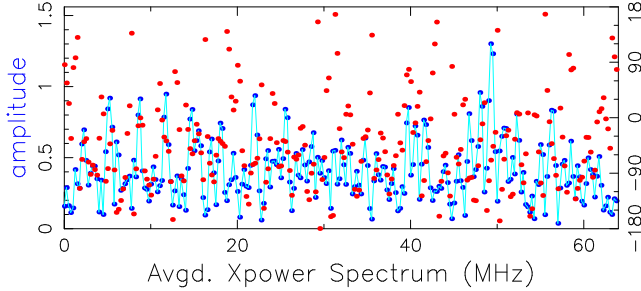
Fringe quality 9



SNR 8.6
 Int time 149.862
 Amp 0.258
 Phase 144.4
 PFD 1.0e-09
 Delays (us)
 SBD 0.012647
 MBD -0.004761
 Fringe rate (Hz)
 0.006823
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

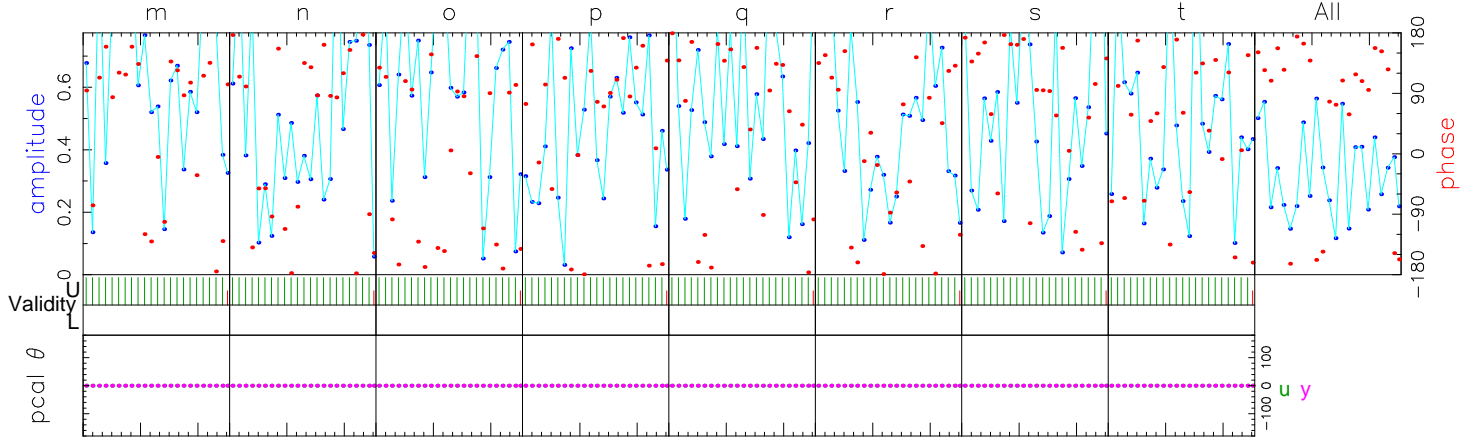


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105653
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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)	-2.88779235390E+02				-2.88790099354E+02				-4.76104E-03	+/- 1.3E-04
Sband delay (usec)	-2.88777452104E+02				-5.0917435E+00				1.26472E-02	+/- 1.0E-03
Phase delay (usec)	-2.88790094699E+02				1.6319997E-07				4.65542E-06	+/- 4.3E-07
Delay rate (us/s)	-3.11025332413E-03				-3.11033253804E-03				7.92139E-08	+/- 4.9E-09
Total phase (deg)			87.4		-1.48807153221E-06				144.4	+/- 13.3
pcal mode:	MANUAL, MANUAL				MANUAL, MANUAL				PC period (AP's) 5, 5	
pcal rate:	0.000E+00, 0.000E+00 (us/s)				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				Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us				dr window (ns/s) -0.011 0.011	
Data rate(Mb/s):	2048				Data rate(Mb/s): 2048				ion window (TEC) 0.00 0.00	
nlags:	256				t_cohere infinite				simultaneous interpolator	
u:	az 22.1 el 47.3 pa -118.3				u,v (fr/asec) 47.125 -405.070					
y:	az 23.5 el 48.4 pa -114.6									
Control file:	cf_1234_gmva				Input file: /Exps/c241a/v2/3mm/1234/No0901/uy..3MP15Q				Output file: /Exps/c241a/v2/3mm/1234/No0901/uy.W.367.3MP15Q	

ph/seg (deg) 44.2 31.8 Amplitude 0.258 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 60.2 55.5 Search (1024X32) 0.248 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.6 18.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.2 32.7 Inc. seg. avg. 0.287 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.251 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 22.1 el 47.3 pa -118.3 y: az 23.5 el 48.4 pa -114.6 u,v (fr/asec) 47.125 -405.070 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uy..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uy.W.367.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

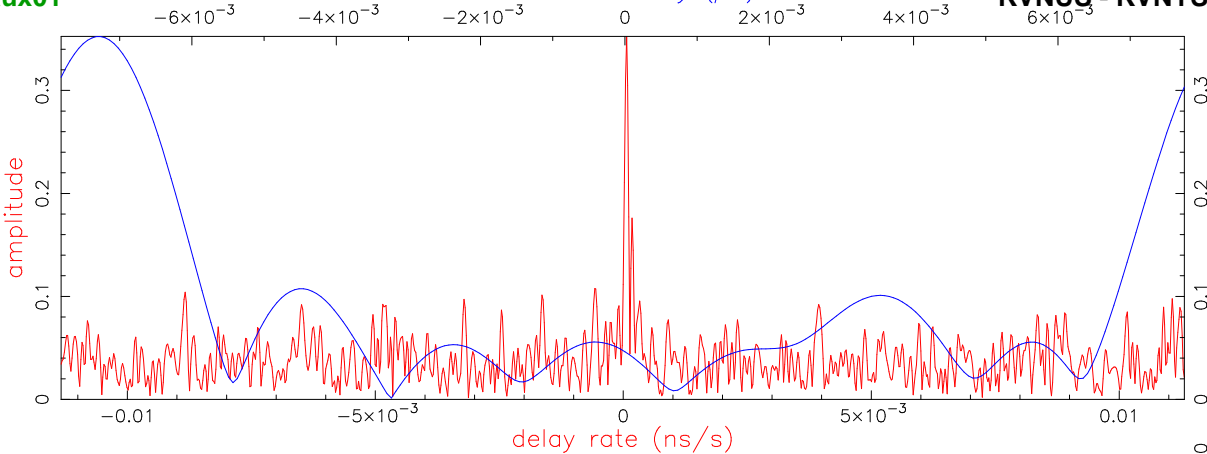
aux01

3C371.3MP15Q, No0901, uy

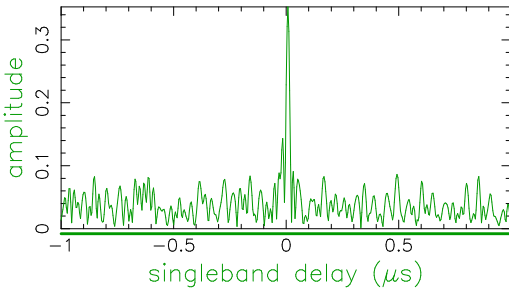
KVNU_S - KVNY_S, fgroup W, pol RL

multiband delay (μ s)

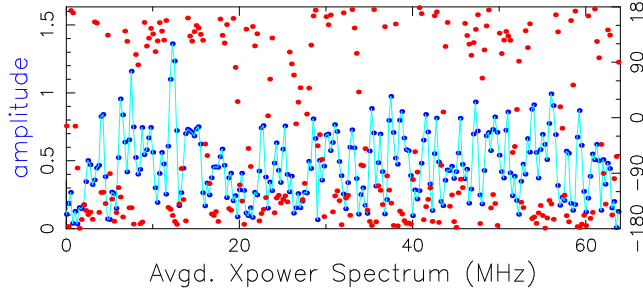
Fringe quality 9



SNR 11.8
Int time 149.862
Amp 0.352
Phase -1.3
PFD 9.7e-24
Delays (us)
SBD 0.007584
MBD -0.007288
Fringe rate (Hz) 0.006395
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

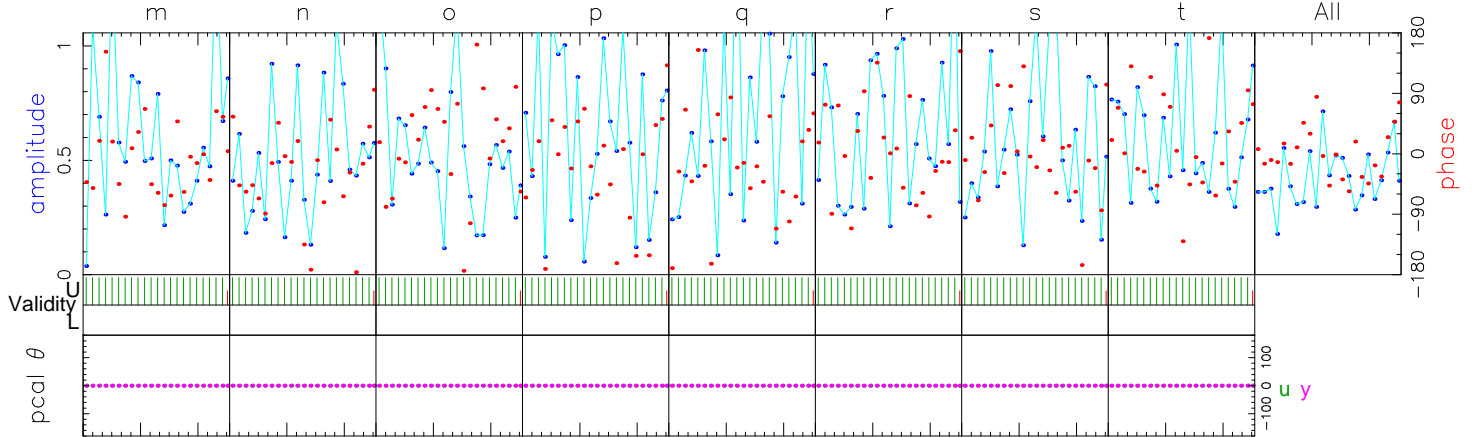


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105655
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"

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



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

Group delay (usec) (SBD)	-2.88781762045E+02	Apriori delay (usec)	-2.88790099354E+02	Resid mbdelay (usec)	-7.28769E-03	+/-	9.2E-05
Sband delay (usec)	-2.88782515354E+02	Apriori clock (usec)	-5.0917435E+00	Resid sbdelay (usec)	7.58400E-03	+/-	7.3E-04
Phase delay (usec)	-2.88790099395E+02	Apriori clockrate (us/s)	1.6319997E-07	Resid phdelay (usec)	-4.04858E-08	+/-	3.1E-07
Delay rate (us/s)	-3.11025829962E-03	Apriori rate (us/s)	-3.11033253804E-03	Resid rate (us/s)	7.42384E-08	+/-	3.6E-09
Total phase (deg)	-58.3	Apriori accel (us/s/s)	-1.48807153221E-06	Resid phase (deg)	-1.3	+/-	9.7

ph/seg (deg)	35.8	Theor.	23.3	Amplitude	0.352 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	41.6	Search (1024X32)	0.346	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	14.9	Inc. seg. avg.	0.394	Inc. frq. avg.	0.350	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.9	Inc. frq. avg.	0.350			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 22.1 el 47.3 pa -118.3 y: az 23.5 el 48.4 pa -114.6 u,v (fr/asec) 47.125 -405.070 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/uy..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/uy.W.372.3MP15Q

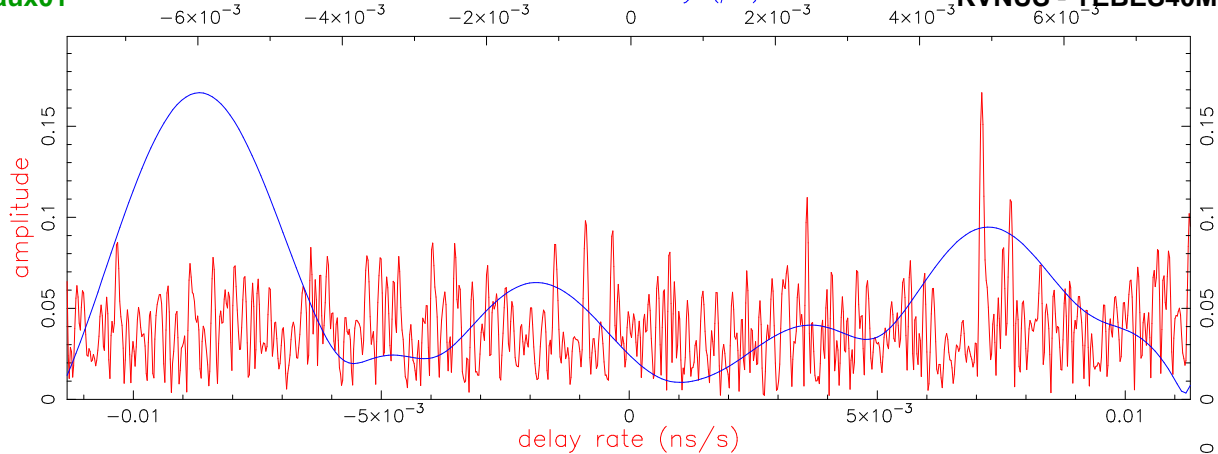
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uY

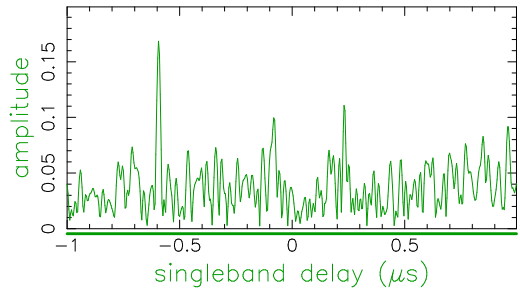
KVNUS - YEBES40M, fgroup W, pol LL

multiband delay (μs)

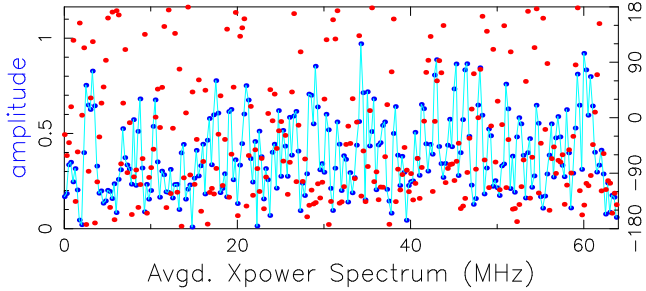


Fringe quality 0

SNR 5.6
 Int time 149.664
 Amp 0.199
 Phase -31.5
 PFD 8.8e-01
 Delays (us)
 SBD -0.593483
 MBD -0.005978
 Fringe rate (Hz) 0.613829
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

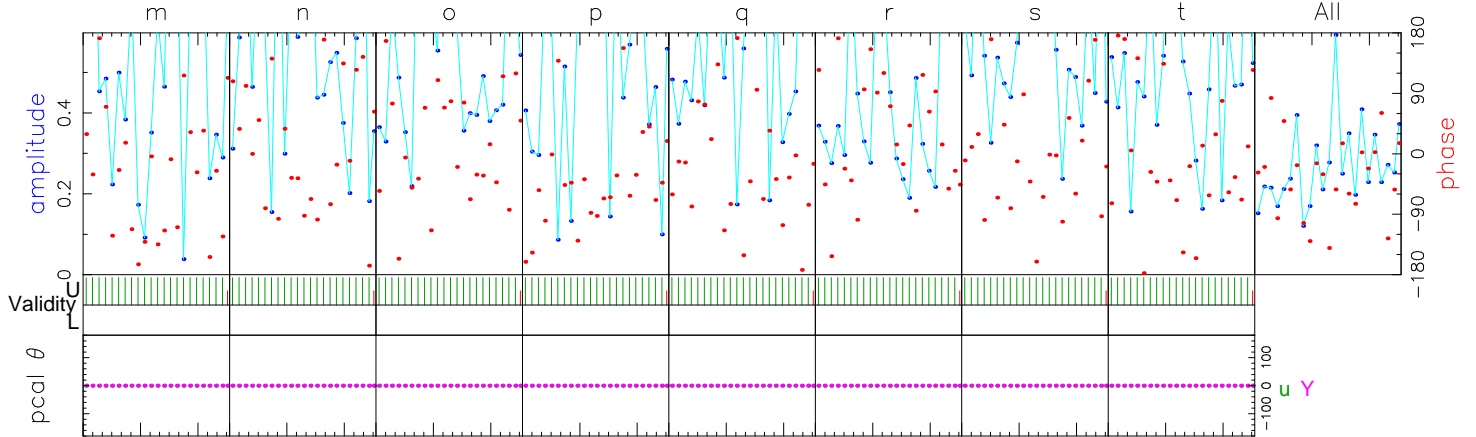


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105656
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-31.8	-34.9	18.5	-58.0	-43.6	15.1	-19.7	-44.2	Phase	-31.5
	0.2	0.1	0.2	0.4	0.2	0.1	0.3	0.2	Ampl.	0.2
	244.9	191.7	324.8	104.4	393.1	186.3	304.4	316.9	Sbd box	105.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	Mani 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)	8.38708755490E+03	Apriori delay (usec)	8.38768728258E+03	Resid mbdelay (usec)	-5.97768E-03	+/-	1.9E-04
Sband delay (usec)	8.38709379933E+03	Apriori clock (usec)	1.1188307E+02	Resid sbdelay (usec)	-5.93483E-01	+/-	1.5E-03
Phase delay (usec)	8.38768728157E+03	Apriori clockrate (us/s)	1.3764300E-06	Resid phdelay (usec)	-1.01448E-06	+/-	6.6E-07
Delay rate (us/s)	3.18053852244E-01	Apriori rate (us/s)	3.18046726293E-01	Resid rate (us/s)	7.12595E-06	+/-	7.6E-09
Total phase (deg)	156.4	Apriori accel (us/s/s)	-5.12605254714E-05	Resid phase (deg)	-31.5	+/-	20.3

	RMS	Theor.	Amplitude	0.199 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.9	48.7	Search (1024X32)	0.165	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	84.6	85.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	31.2	28.7	Inc. seg. avg.	0.232	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
amp/frq (%)	46.2	50.2	Inc. frq. avg.	0.195	Data rate(Mb/s): 2048	t_cohere infinite			

u: az 22.1 el 47.3 pa -118.3 Y: az 0.0 el 20.3 pa -0.2 u,v (fr/asec) -5416.744 -11100.468 simultaneous interpolator

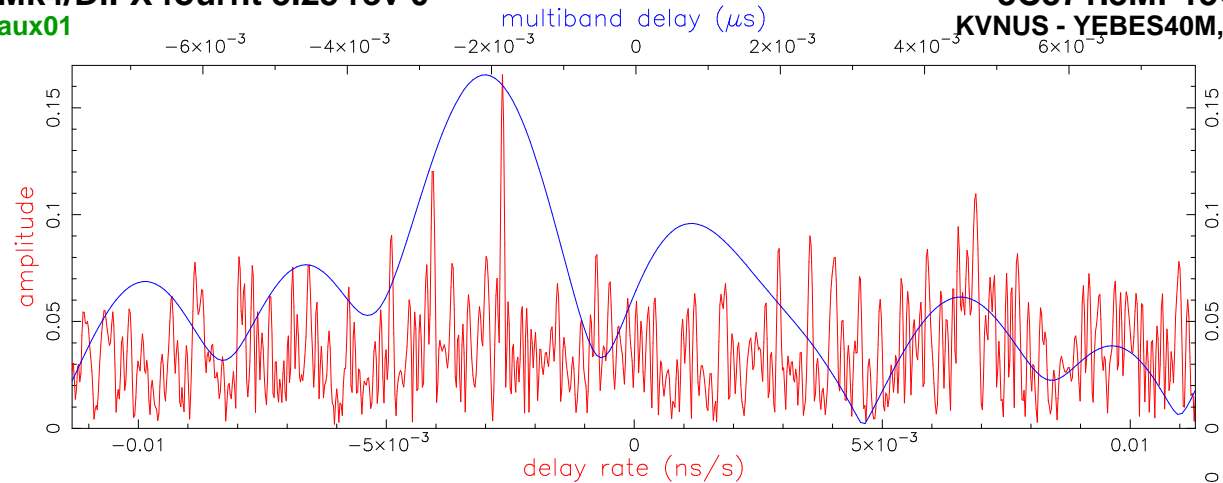
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uY...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uY.W.374.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

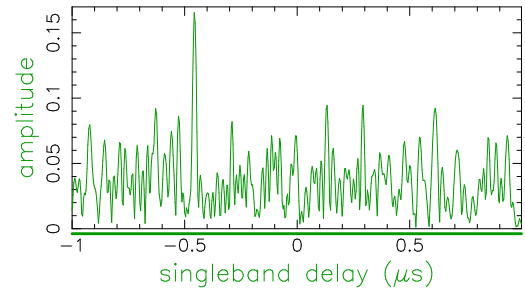
3C371.3MP15Q, No0901, uY

KVNUS - YEBES40M, fgroup W, pol RR

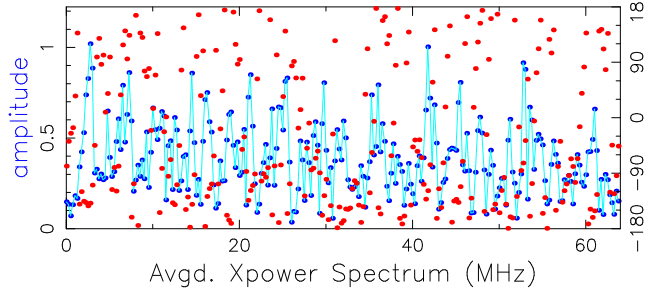


Fringe quality 0

SNR 5.6
 Int time 149.664
 Amp 0.170
 Phase 23.3
 PFD 9.7e-01
 Delays (us)
 SBD -0.456235
 MBD -0.002098
 Fringe rate (Hz)
 -0.229135
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

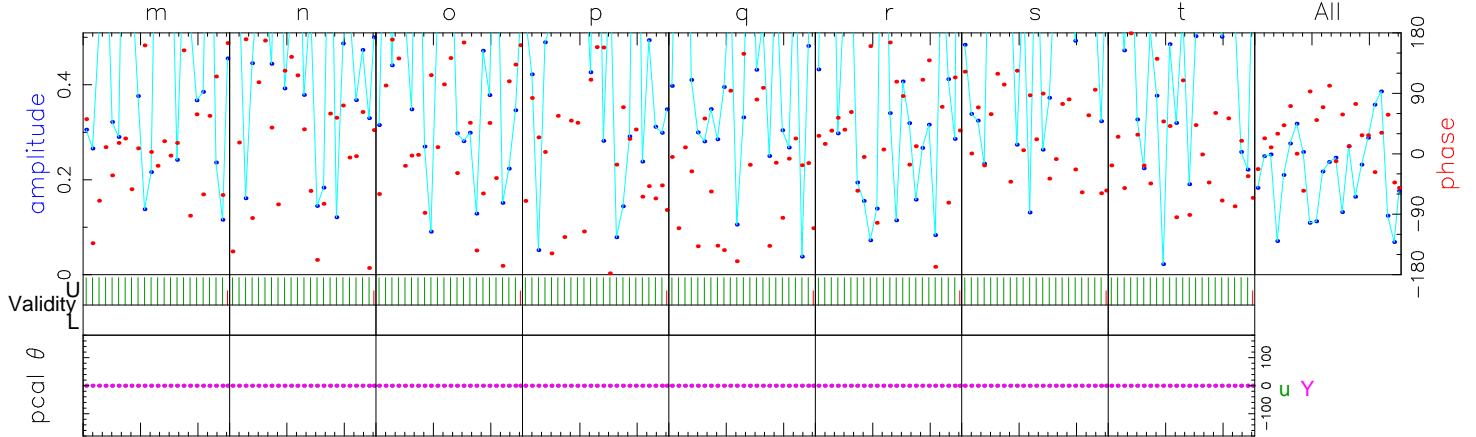


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105658
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	3.3	66.7	58.1	27.8	-21.5	38.1	40.8	-1.9	Phase	23.3
	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	Ampl.	0.2
	140.6	290.7	171.1	43.0	412.4	480.3	154.4	412.4	Sbd box	140.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	8.38723205986E+03	Apriori delay (usec)	8.38768728258E+03	Resid mbdelay (usec)	-2.09773E-03	+/-	2.0E-04
Sband delay (usec)	8.38723104733E+03	Apriori clock (usec)	1.1188307E+02	Resid sbdelay (usec)	-4.56235E-01	+/-	1.6E-03
Phase delay (usec)	8.38768728333E+03	Apriori clockrate (us/s)	1.3764300E-02	Resid phdelay (usec)	7.50624E-07	+/-	6.7E-07
Delay rate (us/s)	3.18044066259E-01	Apriori rate (us/s)	3.18046726293E-01	Resid rate (us/s)	-2.66003E-06	+/-	7.7E-09
Total phase (deg)	211.1	Apriori accel (us/s/s)	-5.12605254714E-05	Resid phase (deg)	23.3	+/-	20.6

ph/seg (deg)	RMS 43.0	Theor. 49.5	Amplitude Search (1024X32)	0.170 +/- 0.031	0.164	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	59.3	86.3	Interp.	0.000	0.164	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	33.4	29.2	Inc. seg. avg.	0.161	0.167	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	55.3	50.9	Inc. frq. avg.	0.167	0.167	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 Y: az 0.0 el 20.3 pa -0.2 u,v (fr/asec) -5416.744 -11100.468 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uY.W.380.3MP15Q

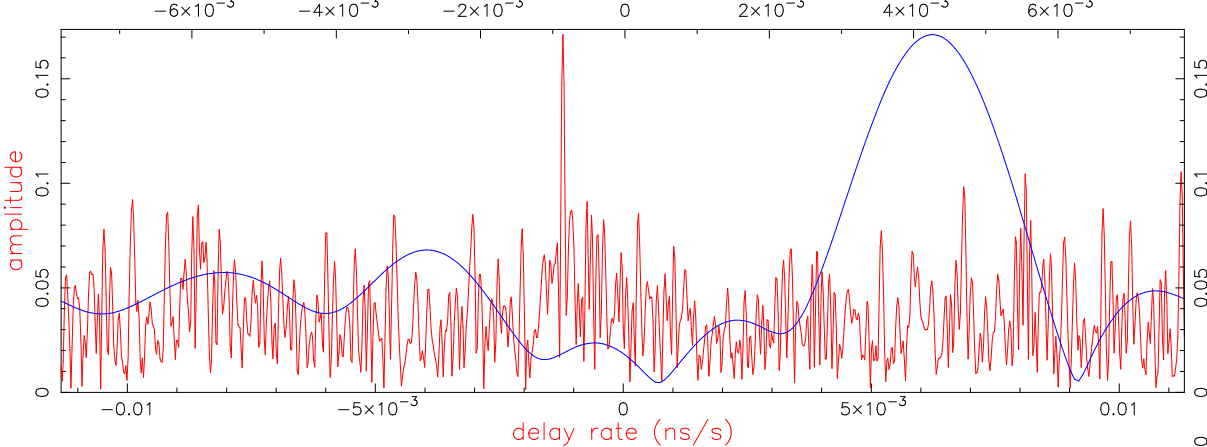
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uY

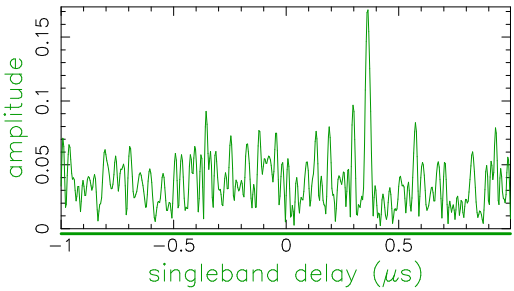
KVNUS - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

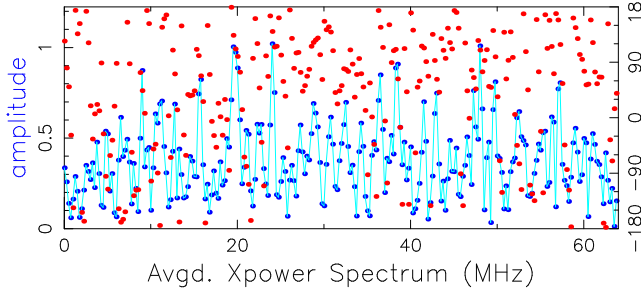


Fringe quality 0

SNR 5.8
 Int time 149.664
 Amp 0.174
 Phase -100.1
 PFD 6.0e-01
 Delays (us)
 SBD 0.361697
 MBD 0.004256
 Fringe rate (Hz)
 -0.104939
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

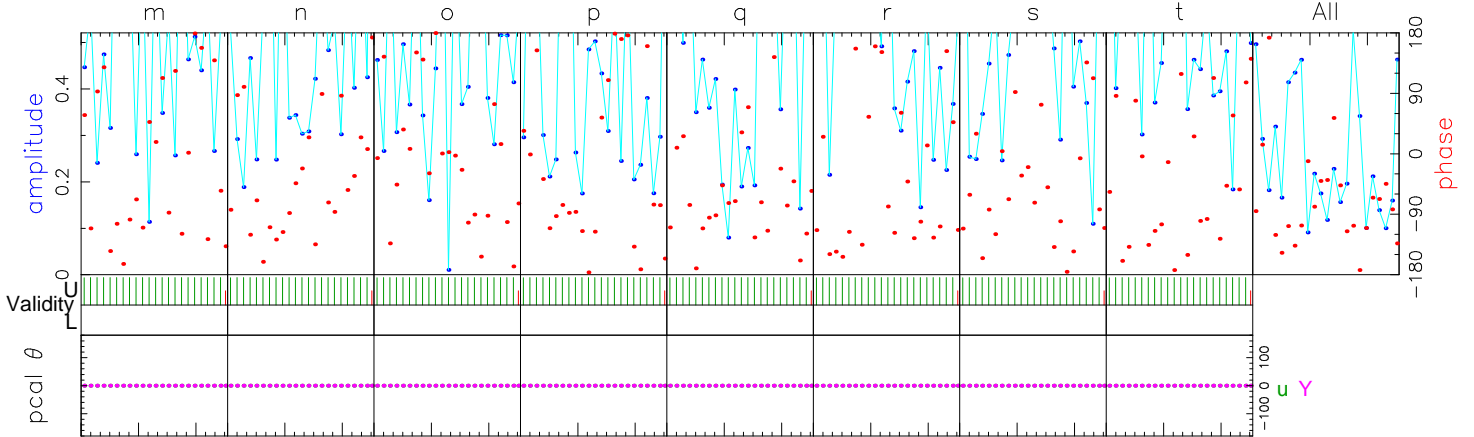


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105700
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-123.1	-81.5	-72.3	-126.2	-78.1	-129.8	-77.2	-131.5	Phase	-100.1
	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.1	Ampl.	0.2
	288.3	424.6	405.1	496.8	349.9	322.7	189.4	287.5	Sbd box	349.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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)	8.38805091321E+03	Apriori delay (usec)	8.38768728258E+03	Resid mbdelay (usec)	4.25563E-03	+/-	1.9E-04
Sband delay (usec)	8.38804897933E+03	Apriori clock (usec)	0.170	Resid sbdelay (usec)	3.61697E-01	+/-	1.5E-03
Phase delay (usec)	8.38768727936E+03	Apriori clockrate (us/s)	1.3764300E-02	Resid phdelay (usec)	-3.22638E-06	+/-	6.4E-07
Delay rate (us/s)	3.18045508054E-01	Apriori rate (us/s)	3.18046726293E-01	Resid rate (us/s)	-1.21824E-06	+/-	7.4E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.12605254714E-05	Resid phase (deg)	-100.1	+/-	19.8

ph/seg (deg)	59.1	Theor.	47.5	Amplitude	0.174 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	92.6	Search (1024X32)	0.170	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	29.5	Inc. seg. avg.	0.192	Inc. frq. avg.	0.169	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	33.1	Inc. frq. avg.	0.169			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 22.1 el 47.3 pa -118.3 Y: az 0.0 el 20.3 pa -0.2 u,v (fr/asec) -5416.744 -11100.468 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uY.W.388.3MP15Q

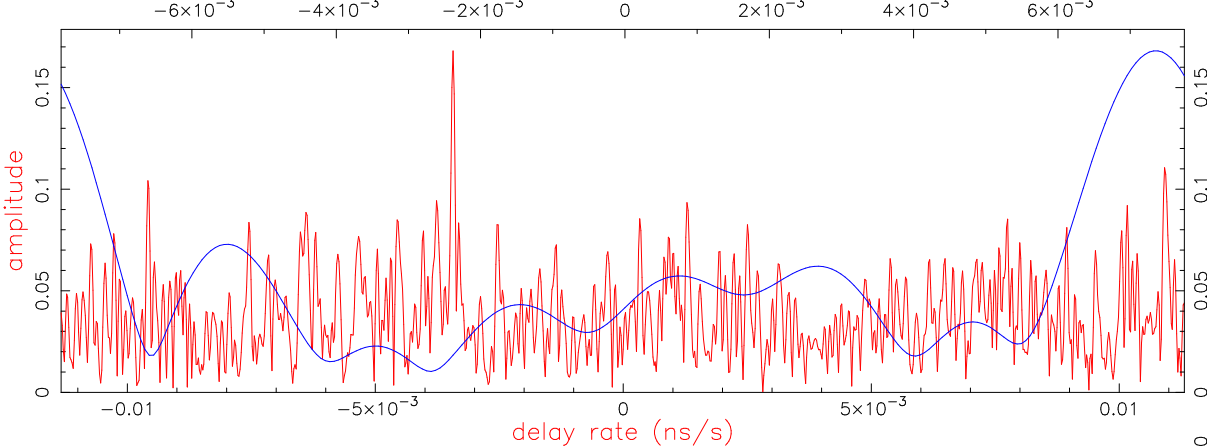
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uY

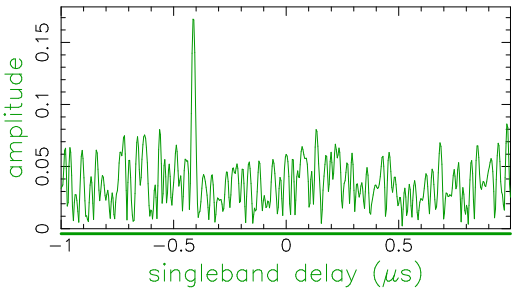
KVNUS - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

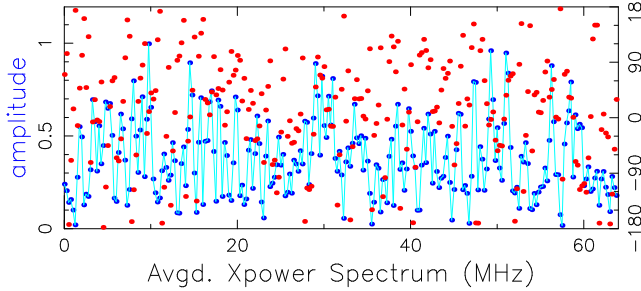


Fringe quality 0

SNR 5.8
Int time 149.664
Amp 0.179
Phase 57.9
PFD 6.6e-01
Delays (us)
SBD -0.412218
MBD -0.008298
Fringe rate (Hz)
-0.296337
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

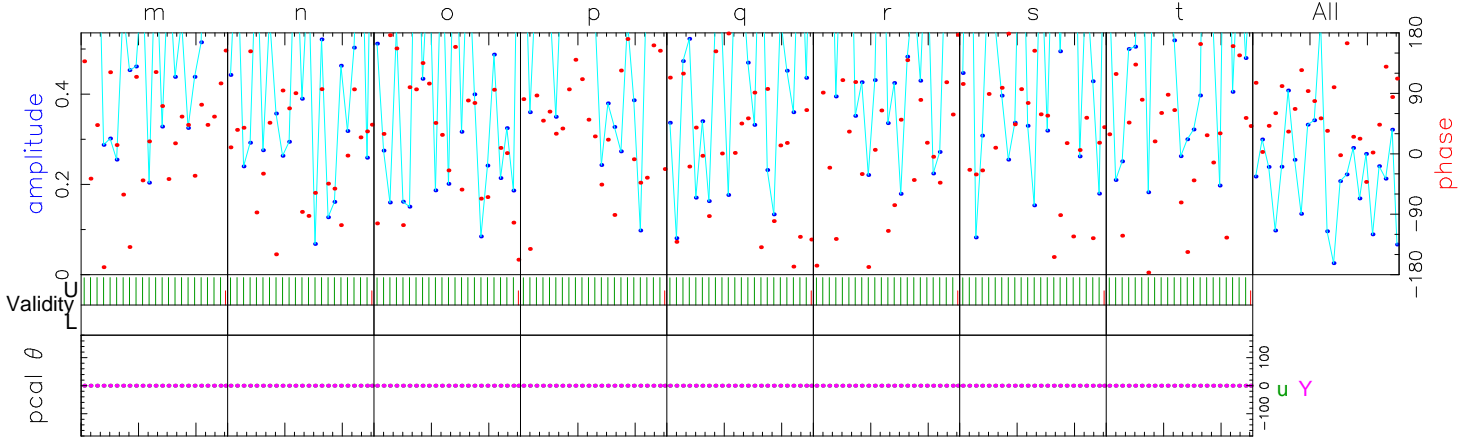


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 163000.00
Stop 163230.02
FRT 163115.00
Corr/FF/build
2025:007:141222
2025:041:105702
2024:113:095956
RA & Dec (J2000)
18h06m50.680649s
+69°49'28.108492"

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



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

Group delay (usec) (SBD)	8.38727273427E+03	Apriori delay (usec)	8.38768728258E+03	Resid mbdelay (usec)	-8.29831E-03	+/-	1.9E-04
Sband delay (usec)	8.38727506433E+03	Apriori clock (usec)	1.1188307E+02	Resid sbdelay (usec)	-4.12218E-01	+/-	1.5E-03
Phase delay (usec)	8.38768728445E+03	Apriori clockrate (us/s)	1.3764300E-02	Resid phdelay (usec)	1.86808E-06	+/-	6.4E-07
Delay rate (us/s)	3.18043286114E-01	Apriori rate (us/s)	3.18046726293E-01	Resid rate (us/s)	-3.44018E-06	+/-	7.4E-09
Total phase (deg)	245.8	Apriori accel (us/s/s)	-5.12605254714E-05	Resid phase (deg)	57.9	+/-	19.9

ph/seg (deg)	49.2	Theor.	47.8	Amplitude	0.179 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	77.4		83.4	Search (1024X32)	0.163	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	25.5		28.2	Inc. seg. avg.	0.181	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.1		49.2	Inc. frq. avg.	0.166	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 Y: az 0.0 el 20.3 pa -0.2 u,v (fr/asec) -5416.744 -11100.468 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uY...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uY.W.393.3MP15Q

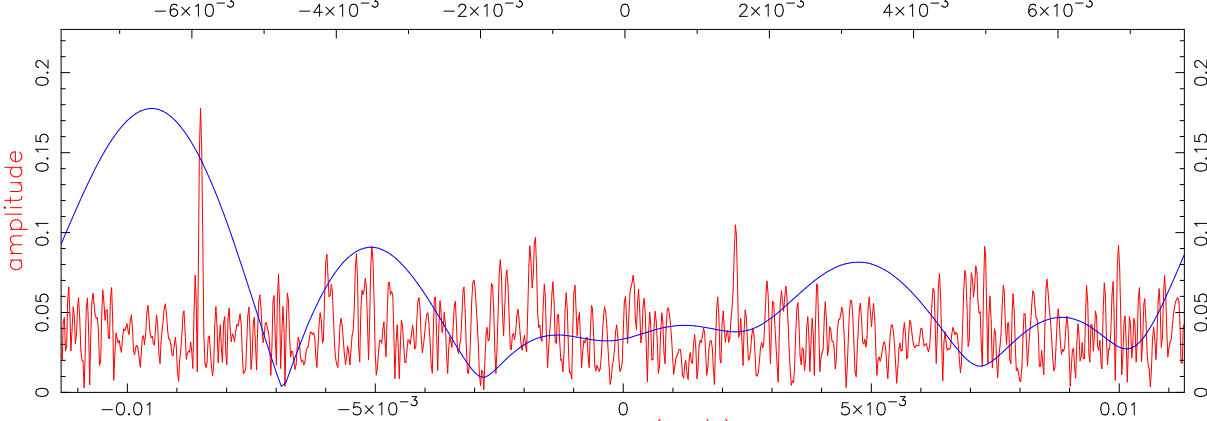
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uZ

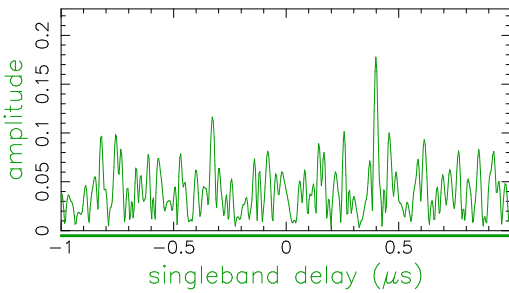
KVNUS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

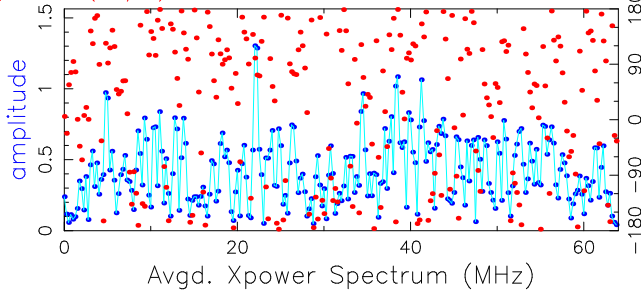


Fringe quality 0

SNR 5.9
 Int time 149.815
 Amp 0.227
 Phase 113.7
 PFD 3.0e-01
 Delays (us)
 SBD 0.398394
 MBD -0.006559
 Fringe rate (Hz)
 -0.736030
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

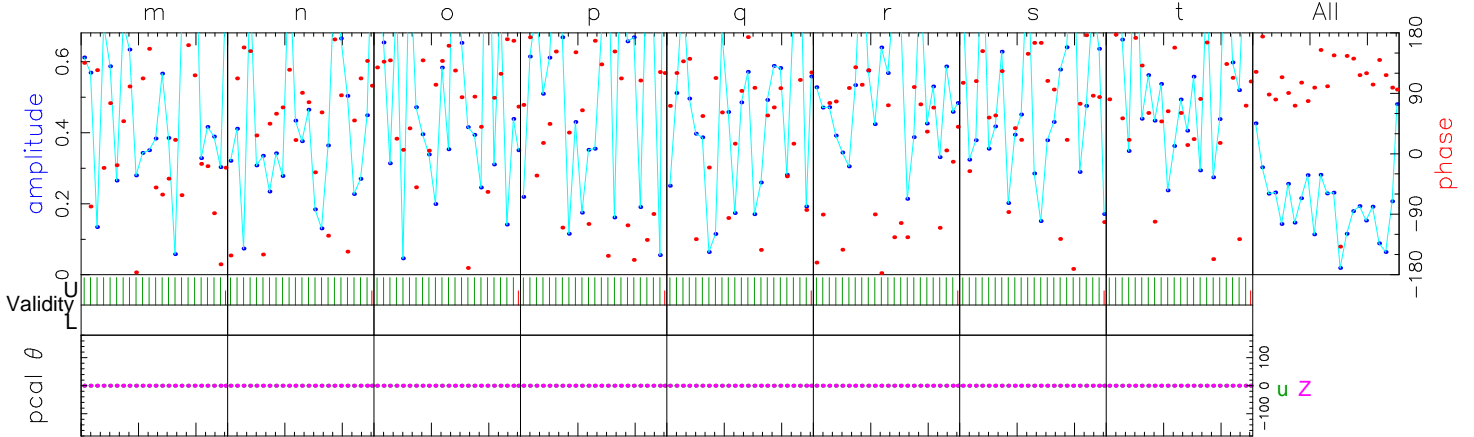


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105645
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



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

Group delay (usec) (SBD)	1.57172830785E+03	Apriori delay (usec)	1.57132861703E+03	Resid mbdelay (usec)	-6.55918E-03	+/-	1.8E-04
Sband delay (usec)	1.57172701128E+03	Apriori clock (usec)	1.2236538E+00	Resid sbdelay (usec)	3.98394E-01	+/-	1.4E-03
Phase delay (usec)	1.57132862069E+03	Apriori clockrate (us/s)	-4.4709896E-07	Resid phdelay (usec)	3.66608E-06	+/-	6.2E-07
Delay rate (us/s)	1.96091184935E-01	Apriori rate (us/s)	1.96099729511E-01	Resid rate (us/s)	-8.54458E-06	+/-	7.2E-09
Total phase (deg)	139.1	Apriori accel (us/s/s)	-3.87369355509E-05	Resid phase (deg)	113.7	+/-	19.3

ph/seg (deg)	RMS 34.6	Theor. 46.2	Amplitude Search (1024X32)	0.227 +/- 0.038	0.176	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	55.9	80.7	Interp.	0.000	0.176	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	44.5	27.3	Inc. seg. avg.	0.195	0.176	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	43.1	47.6	Inc. frq. avg.	0.230	0.176	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
						Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 22.1 el 47.3 pa -118.3 Z: az 12.3 el 41.5 pa -18.1 u,v (fr/asec) -3363.710 -9115.954 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uZ...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uZ.W.343.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

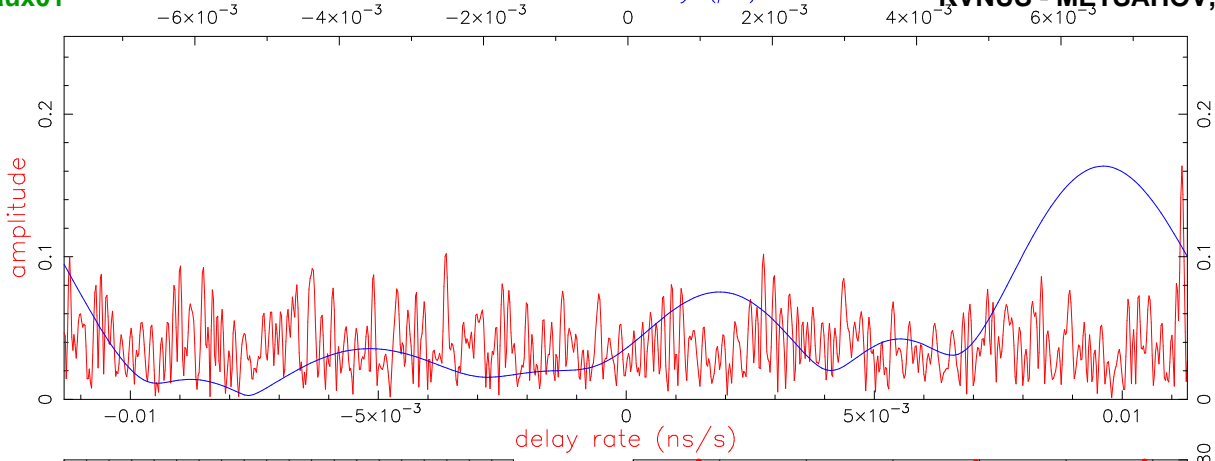
aux01

3C371.3MP15Q, No0901, uZ

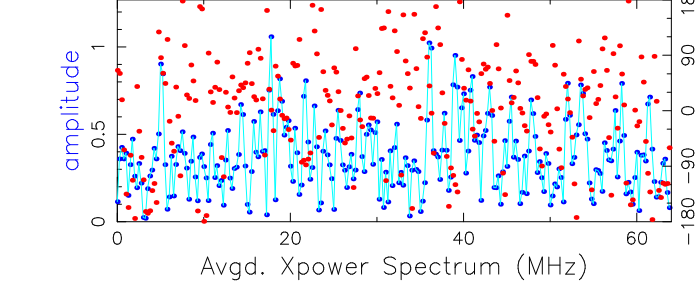
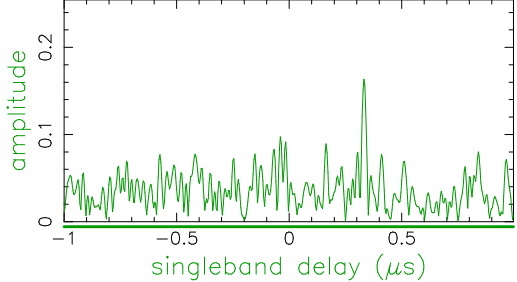
KVNUS - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

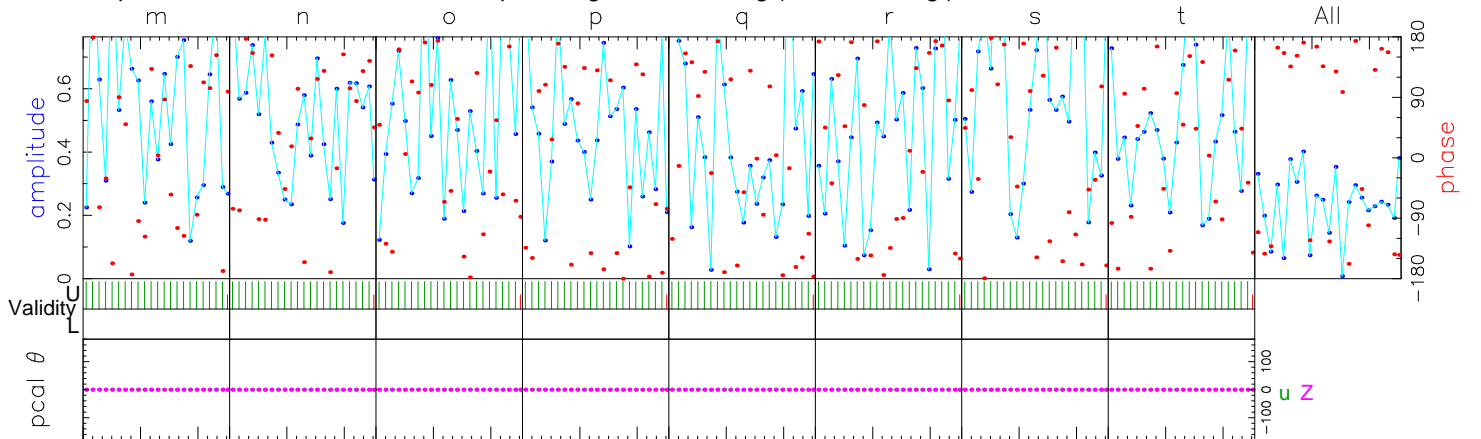


SNR 5.5
 Int time 149.815
 Amp 0.255
 Phase 178.7
 PFD 9.9e-01
 Delays (us)
 SBD 0.332467
 MBD 0.006588
 Fringe rate (Hz)
 0.966719
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105647
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.4	150.4	-157.4	172.3	-170.8	-165.1	179.5	132.1	Phase	178.7
	0.2	0.2	0.2	0.5	0.2	0.3	0.4	0.1	Ampl.	0.2
	314.9	317.0	199.4	342.4	160.2	364.4	343.4	487.8	Sbd box	342.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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)	1.5716633024E+03	Apriori delay (usec)	1.57132861703E+03	Resid mbdelay (usec)	6.58822E-03	+/-	2.0E-04
Sband delay (usec)	1.57166108428E+03	Apriori clock (usec)	1.2236538E+00	Resid sbdelay (usec)	3.32467E-01	+/-	1.6E-03
Phase delay (usec)	1.57132862279E+03	Apriori clockrate (us/s)	-4.4709896E-07	Resid phdelay (usec)	5.76340E-06	+/-	6.7E-07
Delay rate (us/s)	1.96110952162E-01	Apriori rate (us/s)	1.96099729511E-01	Resid rate (us/s)	1.12227E-05	+/-	7.8E-09
Total phase (deg)	204.1	Apriori accel (us/s/s)	-3.87369355509E-05	Resid phase (deg)	178.7	+/-	20.9

ph/seg (deg)	51.8	Theor.	50.2	Search (1024X32)	0.161	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
amp/seg (%)	75.7		87.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	25.7		29.6	Inc. seg. avg.	0.263	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	48.0		51.6	Inc. frq. avg.	0.234	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	

u: az 22.1 el 47.3 pa -118.3 Z: az 12.3 el 41.5 pa -18.1 u,v (fr/asec) -3363.710 -9115.954 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uZ..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uZ.W.352.3MP15Q

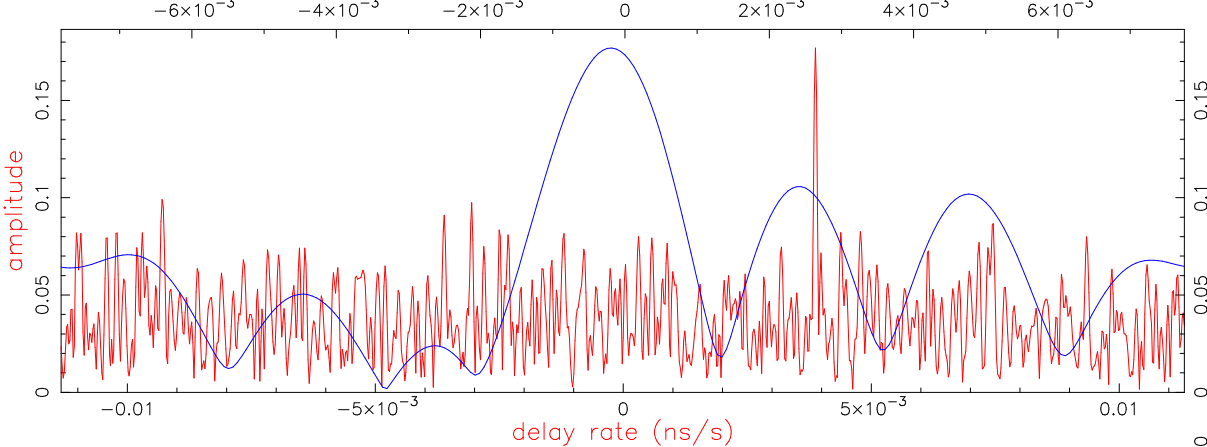
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uZ

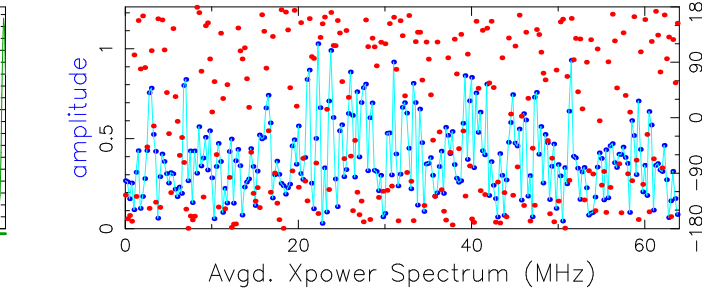
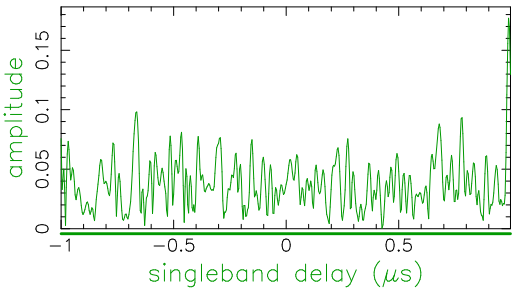
KVNUS - METSAHOV, fgroup W, pol LR

multiband delay (μ s)



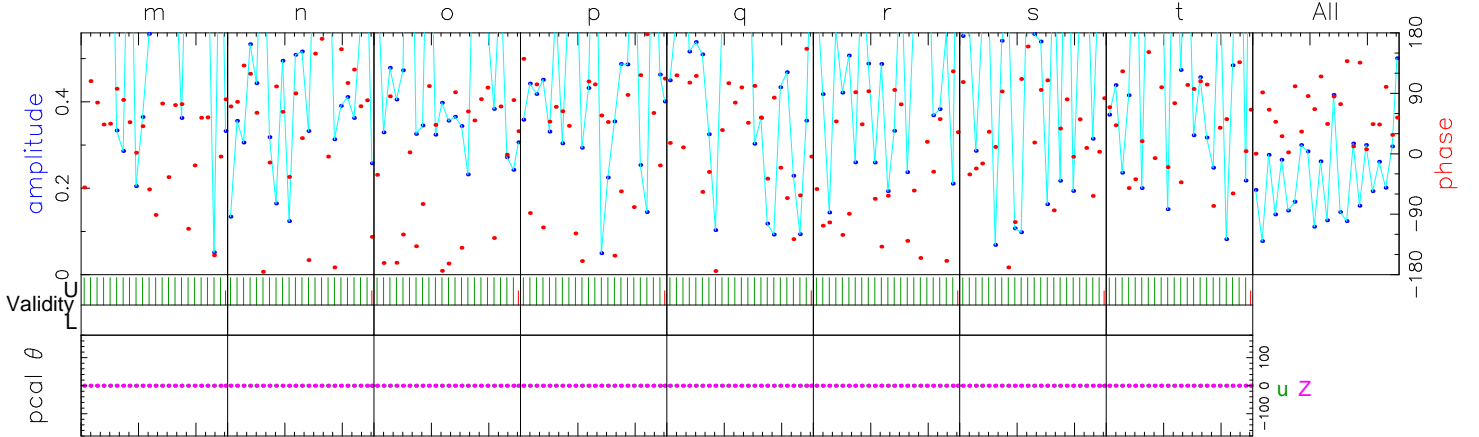
Fringe quality 0

SNR 5.9
 Int time 149.815
 Amp 0.186
 Phase 56.0
 PFD 3.0e-01
 Delays (us)
 SBD 0.989102
 MBD -0.000166
 Fringe rate (Hz)
 0.335217
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105651
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



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

Group delay (usec) (SBD) 1.57231282553E+03 Apriori delay (usec) 1.57132861703E+03 Resid mbdelay (usec) -1.66499E-04 +/- 1.8E-04
 Sband delay (usec) 1.57231771953E+03 Apriori clock (usec) 1.2236538E+00 Resid sbdelay (usec) 9.89102E-01 +/- 1.4E-03
 Phase delay (usec) 1.57132861883E+03 Apriori clockrate (us/s) -4.4709896E-07 Resid phdelay (usec) 1.80585E-06 +/- 6.2E-07
 Delay rate (us/s) 1.96103621045E-01 Apriori rate (us/s) 1.96099729511E-01 Resid rate (us/s) 3.89153E-06 +/- 7.2E-09
 Total phase (deg) 81.4 Apriori accel (us/s/s) -3.87369355509E-05 Resid phase (deg) 56.0 +/- 19.3

RMS Theor. Amplitude 0.186 +/- 0.031 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 40.6 46.2 Search (1024X32) 0.175 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 58.0 80.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 36.9 27.3 Inc. seg. avg. 0.177 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 48.6 47.6 Inc. frq. avg. 0.189 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 22.1 el 47.3 pa -118.3 Z: az 12.3 el 41.5 pa -18.1 u,v (fr/asec) -3363.710 -9115.954 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uZ..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uZ.W.357.3MP15Q

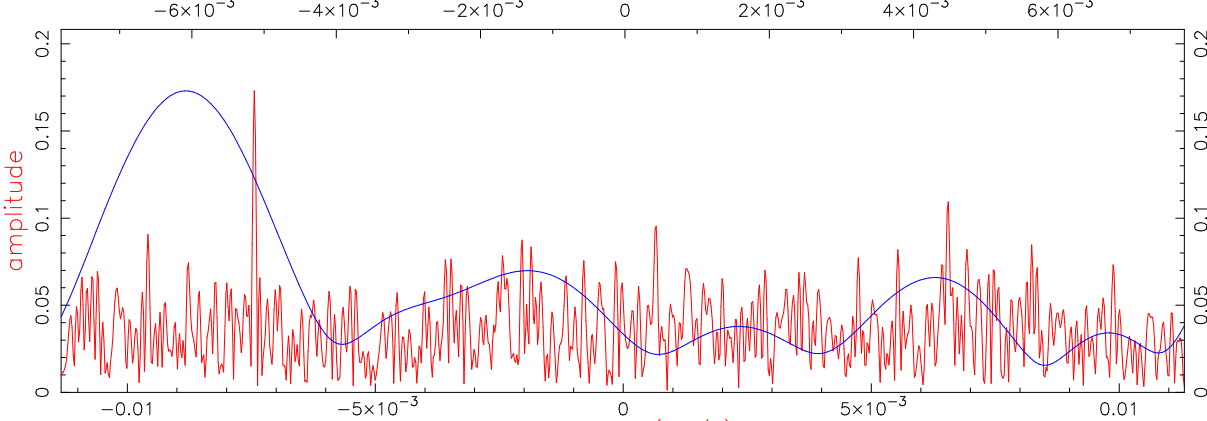
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uZ

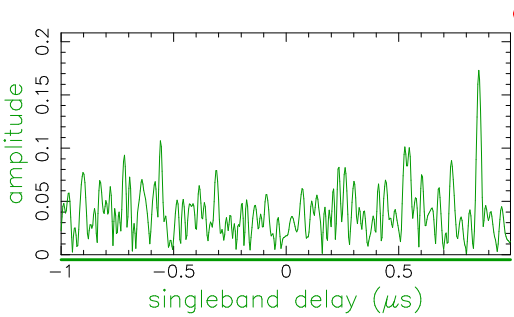
KVNUS - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

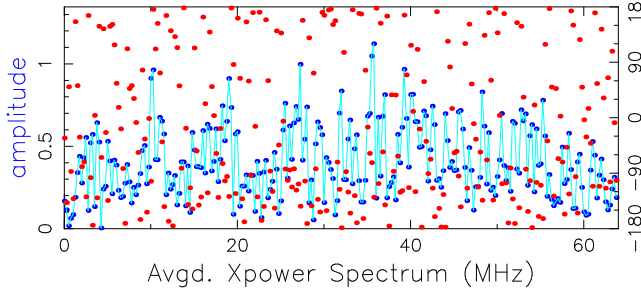


Fringe quality 0

SNR 5.8
 Int time 149.815
 Amp 0.208
 Phase 70.1
 PFD 5.7e-01
 Delays (us)
 SBD 0.855855
 MBD -0.006068
 Fringe rate (Hz)
 -0.642719
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

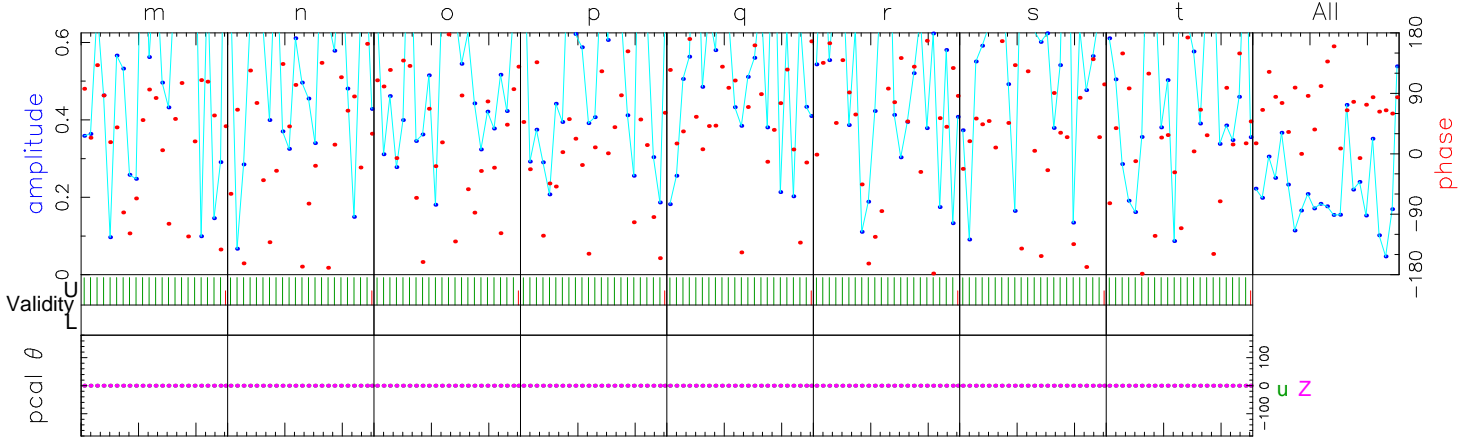


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 163000.00
 Stop 163230.02
 FRT 163115.00
 Corr/FF/build
 2025:007:141222
 2025:041:105653
 2024:113:095956
 RA & Dec (J2000)
 18h06m50.680649s
 +69°49'28.108492"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	63.6	87.4	109.5	36.2	76.3	101.5	58.0	49.8	Phase	70.1
	0.3	0.1	0.2	0.3	0.3	0.2	0.3	0.1	Ampl.	0.2
	390.8	160.9	92.4	476.1	475.3	169.9	145.1	204.8	Sbd box	476.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	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	

Group delay (usec) (SBD)	1.57218192407E+03	Apriori delay (usec)	1.57132861703E+03	Resid mbdelay (usec)	-6.06796E-03	+/-	1.9E-04
Sband delay (usec)	1.57218447228E+03	Apriori clock (usec)	1.2236538E+00	Resid sbdelay (usec)	8.55855E-01	+/-	1.5E-03
Phase delay (usec)	1.57132861929E+03	Apriori clockrate (us/s)	-4.4709896E-07	Resid phdelay (usec)	2.26041E-06	+/-	6.4E-07
Delay rate (us/s)	1.96092268175E-01	Apriori rate (us/s)	1.96099729511E-01	Resid rate (us/s)	-7.46134E-06	+/-	7.4E-09
Total phase (deg)	95.5	Apriori accel (us/s/s)	-3.87369355509E-05	Resid phase (deg)	70.1	+/-	19.8

ph/seg (deg)	41.2	Theor.	47.4	Amplitude	0.208 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.5		82.8	Search (1024X32)	0.172	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	27.8		28.0	Inc. seg. avg.	0.195	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.4		48.8	Inc. frq. avg.	0.203	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 22.1 el 47.3 pa -118.3 Z: az 12.3 el 41.5 pa -18.1 u,v (fr/asec) -3363.710 -9115.954 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//uZ..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//uZ.W.366.3MP15Q