

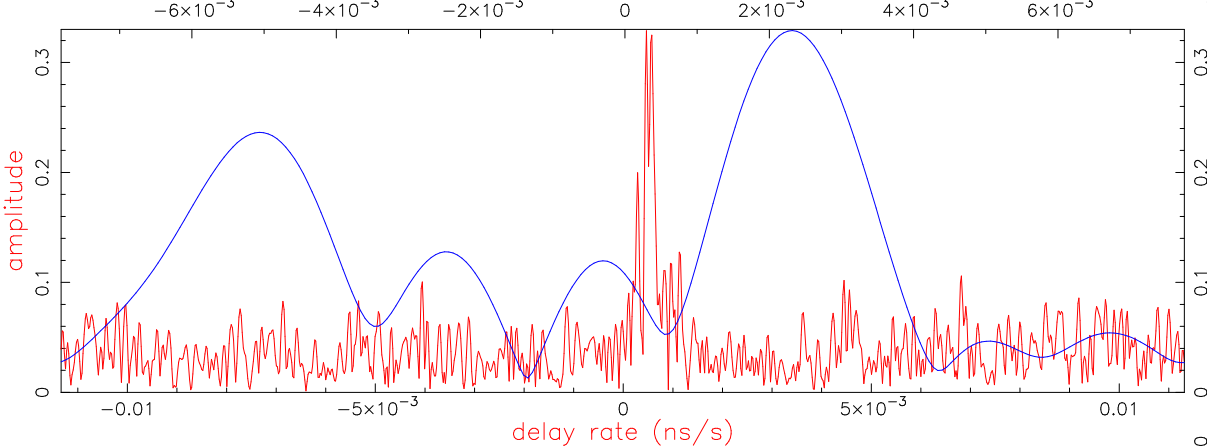
Mk4/DiFX fourfit 3.25 rev 0

aux01

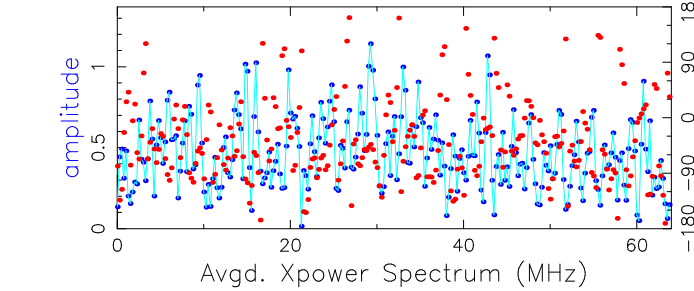
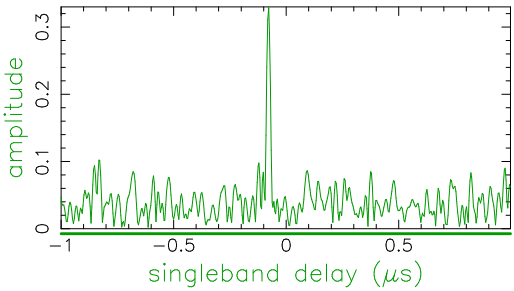
3C371.3MP15Q, No0901, BP

EFLSBERG - PICOVEL, fgroup W, pol RR

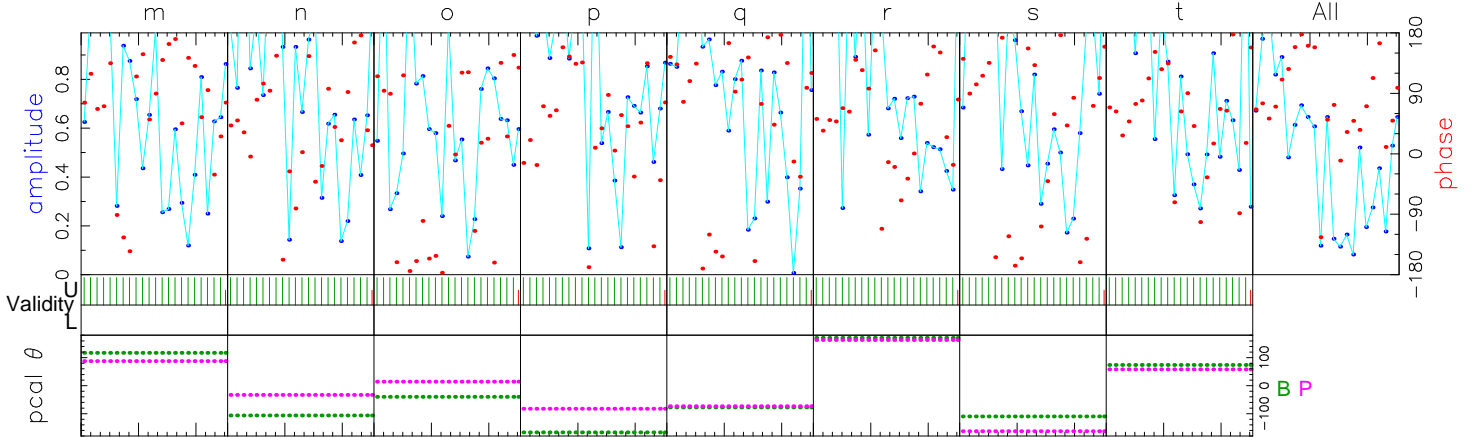
multiband delay ( $\mu$ s)



Fringe quality 9  
 SNR 11.0  
 Int time 149.974  
 Amp 0.330  
 Phase 93.4  
 PFD 5.3e-20  
 Delays (us)  
 SBD -0.078850  
 MBD 0.002288  
 Fringe rate (Hz) 0.039915  
 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  
 2025:041:105529  
 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
99.4	64.7	134.1	57.3	131.1	61.9	146.3	67.3	93.4	Phase	93.4
0.3	0.3	0.2	0.4	0.5	0.4	0.5	0.5	0.4	Ampl.	0.4
234.6	235.9	324.4	236.1	237.4	237.0	236.7	236.2	236.8	Sbd box	236.8
U/L 293/0	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	0	PC freqs	
P 0	0	0	0	0	0	0	0	0	PC freqs	
B:P 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P 118:88	-106:-33	-40:15	-167:-82	-77:-74	171:163	-110:-163	74:58		ManI PC	
B 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P 1000	1000	1000	1000	1000	1000	1000	1000	1000		
B W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
P W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
									Tracks	
Group delay (usec) (SBD)	4.59863922770E+03		Apriori delay (usec)	4.59871506460E+03		Resid mbdelay (usec)	2.28810E-03	+/-	9.8E-05	
Sband delay (usec)	4.59863621435E+03		Apriori clock (usec)	-3.4391655E+01		Resid sbdelay (usec)	-7.88502E-02	+/-	7.8E-04	
Phase delay (usec)	4.59871506761E+03		Apriori clockrate (us/s)	-7.8777609E-07		Resid phdelay (usec)	3.01314E-06	+/-	3.3E-07	
Delay rate (us/s)	6.07596213048E-02		Apriori rate (us/s)	6.07591579364E-02		Resid rate (us/s)	4.63368E-07	+/-	3.9E-09	
Total phase (deg)		332.7	Apriori accel (us/s/s)	-6.73245522055E-06		Resid phase (deg)	93.4	+/-	10.4	
ph/seg (deg)	RMS 60.3	Theor. 24.9	Amplitude Search (1024X32)	0.330 +/- 0.030	0.324	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	102.3	43.4	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)	40.2	14.7	Inc. seg. avg.	0.456	0.456	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	36.8	25.6	Inc. frq. avg.	0.389	0.389	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 4.0 el 30.6 pa -7.6			P: az 359.9 el 16.9 pa -0.0			u,v (fr/asec) -1023.006 -909.984		simultaneous interpolator		
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0901//BP..3MP15Q			Output file: /Exps/c241a/v2/3mm/1234/No0901//BP.W.102.3MP15Q				

Mk4/DiFX fourfit 3.25 rev 0

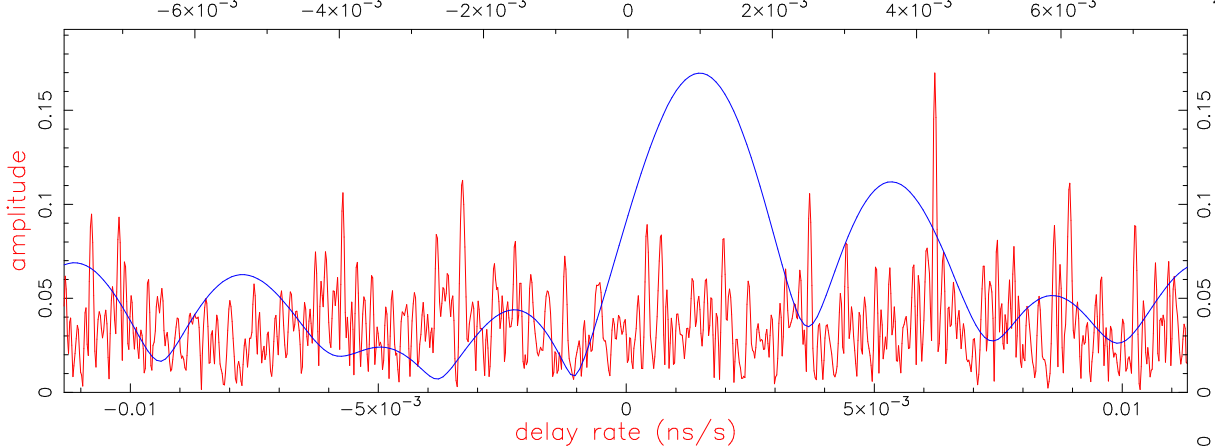
aux01

3C371.3MP15Q, No0901, BP

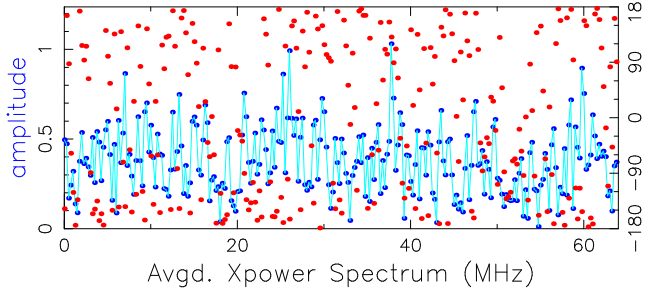
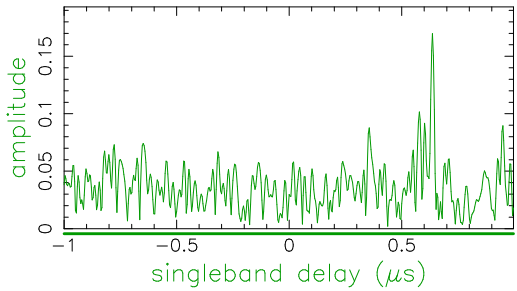
EFLSBERG - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

Fringe quality 0

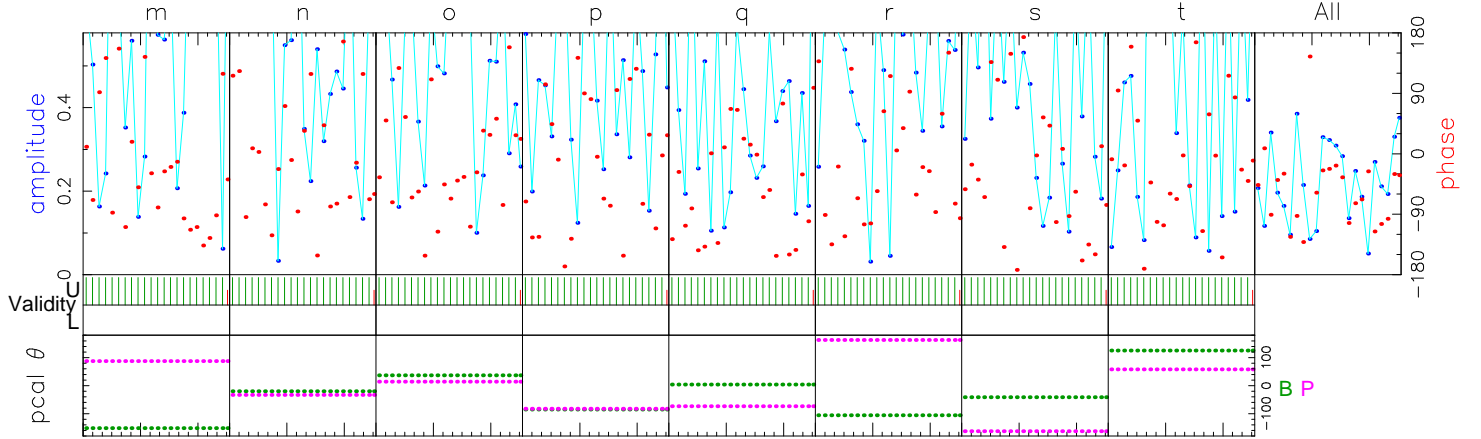


SNR 5.7  
 Int time 149.974  
 Amp 0.193  
 Phase -60.8  
 PFD 7.9e-01  
 Delays (us)  
 SBD 0.636495  
 MBD 0.000987  
 Fringe rate (Hz)  
 0.537505  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105531  
 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
	-78.1	-53.9	-32.8	-30.0	-80.0	-56.4	-98.7	-48.2	Phase	-60.8
	0.4	0.2	0.3	0.0	0.1	0.2	0.2	0.3	Ampl.	0.2
	419.8	46.7	63.2	396.8	313.1	360.8	3.3	107.4	Sbd box	419.9
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	
P	0	0	0	0	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	-151:88	-20:-33	37:15	-85:-82	4:-74	-106:163	-41:-163	125:58	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 4.59935667647E+03 Apriori delay (usec) 4.59871506460E+03 Resid mbdelay (usec) 9.86870E-04 +/- 1.9E-04  
 Sband delay (usec) 4.59935155910E+03 Apriori clock (usec) -3.4391655E+01 Resid sbdelay (usec) 6.36495E-01 +/- 1.5E-03  
 Phase delay (usec) 4.59871506264E+03 Apriori clockrate (us/s) -7.8777609E-07 Resid phdelay (usec) -1.96072E-06 +/- 6.5E-07  
 Delay rate (us/s) 6.07653978349E-02 Apriori rate (us/s) 6.07591579364E-02 Resid rate (us/s) 6.23990E-06 +/- 7.5E-09  
 Total phase (deg) 178.5 Apriori accel (us/s/s) -6.73245522055E-06 Resid phase (deg) -60.8 +/- 20.1

RMS Theor. Amplitude 0.193 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 50.4 48.3 Search (1024X32) 0.168 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 63.6 84.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 26.0 28.5 Inc. seg. avg. 0.185 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 50.4 49.7 Inc. frq. avg. 0.184 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

B: az 4.0 el 30.6 pa -7.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -1023.006 -909.984 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//BP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//BP.W.113.3MP15Q

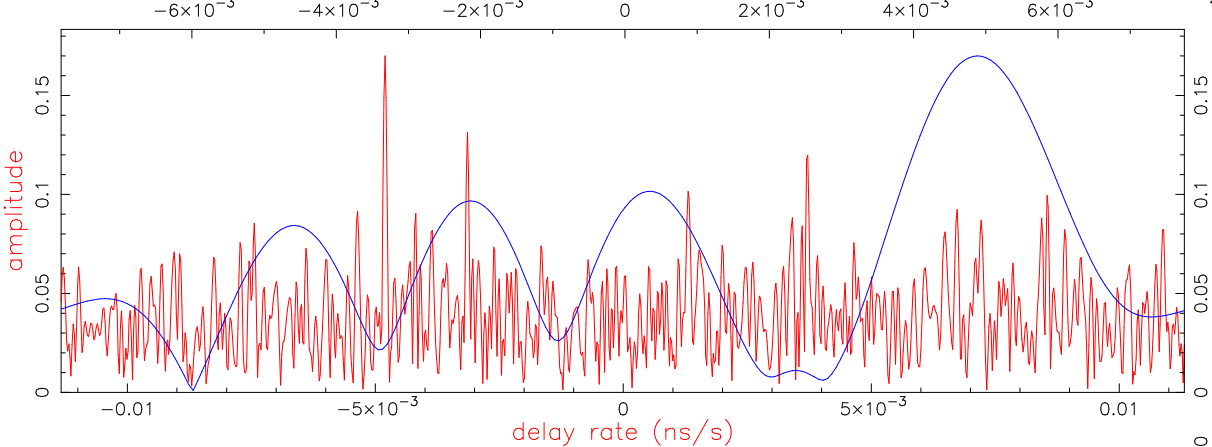
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, BP

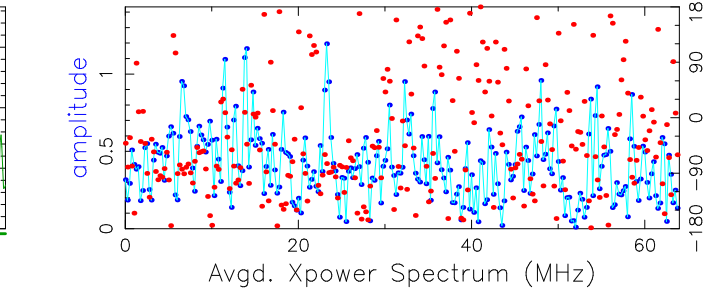
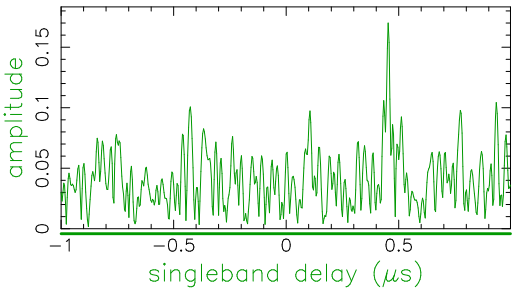
EFLSBERG - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)



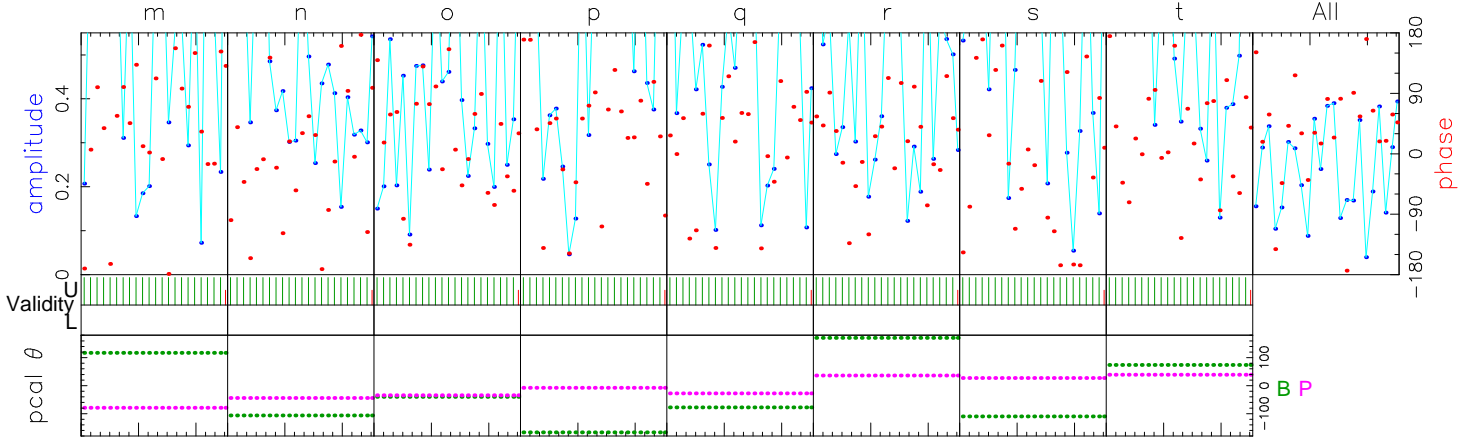
Fringe quality 0

SNR 5.7  
 Int time 149.974  
 Amp 0.183  
 Phase 49.0  
 PFD 7.8e-01  
 Delays (us)  
 SBD 0.453440  
 MBD 0.004899  
 Fringe rate (Hz)  
 -0.414333  
 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  
 2025:041:105536  
 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		
P	0	0	0	0	0	0	0	0		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	118:-79	-106:-44	-40:-34	-167:-8	-77:-28	171:36	-110:27	74:39		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	4.59917308856E+03	Apriori delay (usec)	4.59871506460E+03	Resid mbdelay (usec)	4.89896E-03	+/-	1.9E-04
Sband delay (usec)	4.59916850435E+03	Apriori clock (usec)	-3.4391655E+01	Resid sbdelay (usec)	4.53440E-01	+/-	1.5E-03
Phase delay (usec)	4.59871506618E+03	Apriori clockrate (us/s)	-7.8777609E-07	Resid phdelay (usec)	1.57893E-06	+/-	6.5E-07
Delay rate (us/s)	6.07543479355E-02	Apriori rate (us/s)	6.07591579364E-02	Resid rate (us/s)	-4.81000E-06	+/-	7.5E-09
Total phase (deg)	288.2	Apriori accel (us/s/s)	-6.73245522055E-06	Resid phase (deg)	49.0	+/-	20.1

ph/seg (deg)	67.7	Theor.	48.2	Amplitude	0.183 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.2	Search (1024X32)	0.166	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	63.5	Inc. seg. avg.	0.190	Inc. frq. avg.	0.207	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	39.5	Inc. frq. avg.	0.207	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
B: az 4.0 el 30.6 pa -7.6		P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec)	-1023.006 -909.984	ion window (TEC)	0.00 0.00	simultaneous interpolator		

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//BP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//BP.W.130.3MP15Q

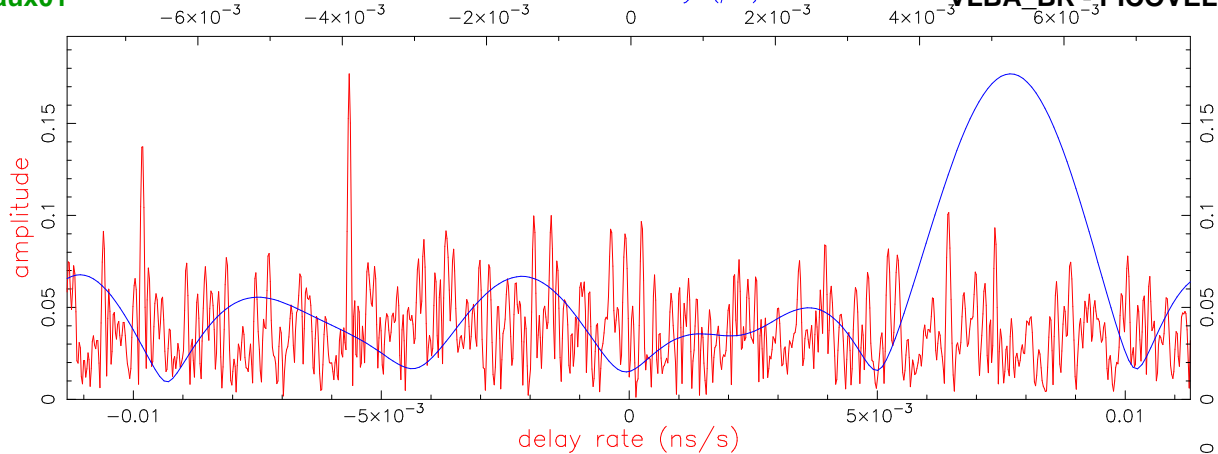
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bP

VLBA\_BR - PICOVEL, fgroup W, pol LL

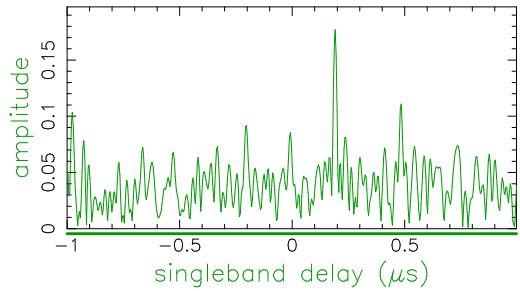
multiband delay ( $\mu$ s)



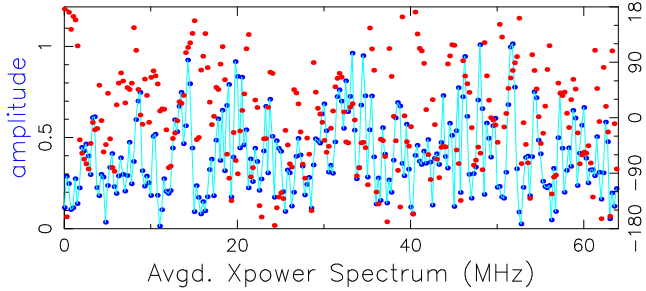
Fringe quality 0

SNR 5.9  
 Int time 149.272  
 Amp 0.197  
 Phase -19.5  
 PFD 3.1e-01  
 Delays (us)  
 SBD 0.190602  
 MBD 0.005253  
 Fringe rate (Hz)  
 -0.487921  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

delay rate (ns/s)

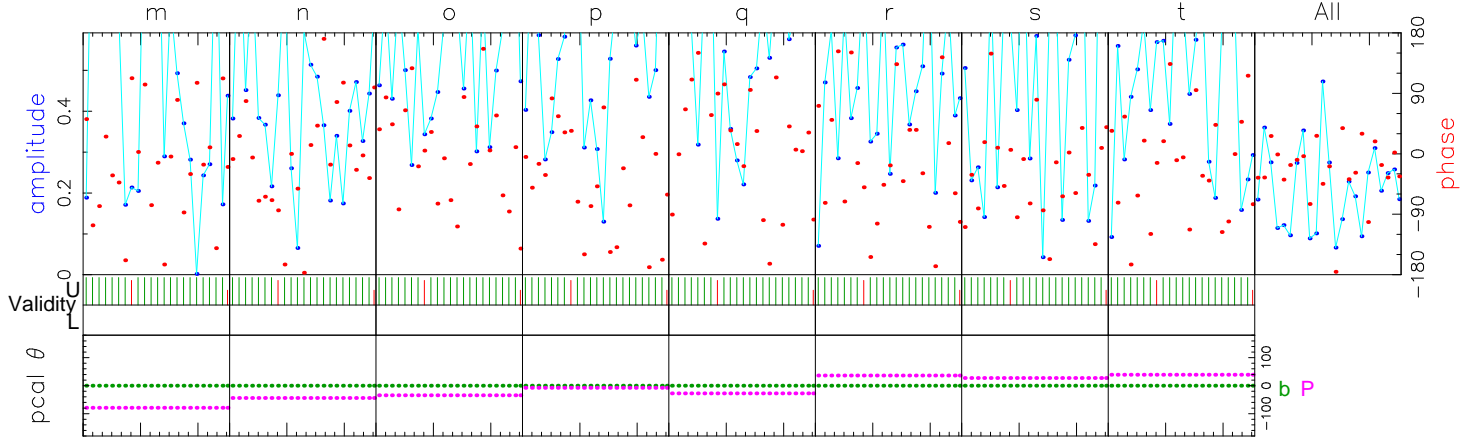


singleband delay ( $\mu$ s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105512  
 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
	-42.8	1.1	-6.2	-38.5	34.3	-46.6	-11.3	-31.4	Phase	-19.5
	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	Ampl.	0.2
	253.9	93.8	207.7	353.5	122.0	33.0	269.1	438.9	Sbd box	305.8
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	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.08660302165E+04	Apriori delay (usec)	1.08658374632E+04	Resid mbdelay (usec)	5.25338E-03	+/-	1.8E-04
Sband delay (usec)	1.08660280657E+04	Apriori clock (usec)	5.6458378E+00	Resid sbdelay (usec)	1.90602E-01	+/-	1.5E-03
Phase delay (usec)	1.08658374625E+04	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	-6.27764E-07	+/-	6.2E-07
Delay rate (us/s)	-3.21237653841E-01	Apriori rate (us/s)	-3.21231989561E-01	Resid rate (us/s)	-5.66428E-06	+/-	7.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.27352363729E-05	Resid phase (deg)	-19.5	+/-	19.3

ph/seg (deg) 46.8 46.3 Search (1024X32) 0.174 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 60.9 80.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 29.8 27.3 Inc. seg. avg. 0.178 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 19.2 47.6 Inc. frq. avg. 0.193 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 b: az 328.9 el 53.3 pa 92.4 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 5222.702 -8761.666 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bP.W.50.3MP15Q

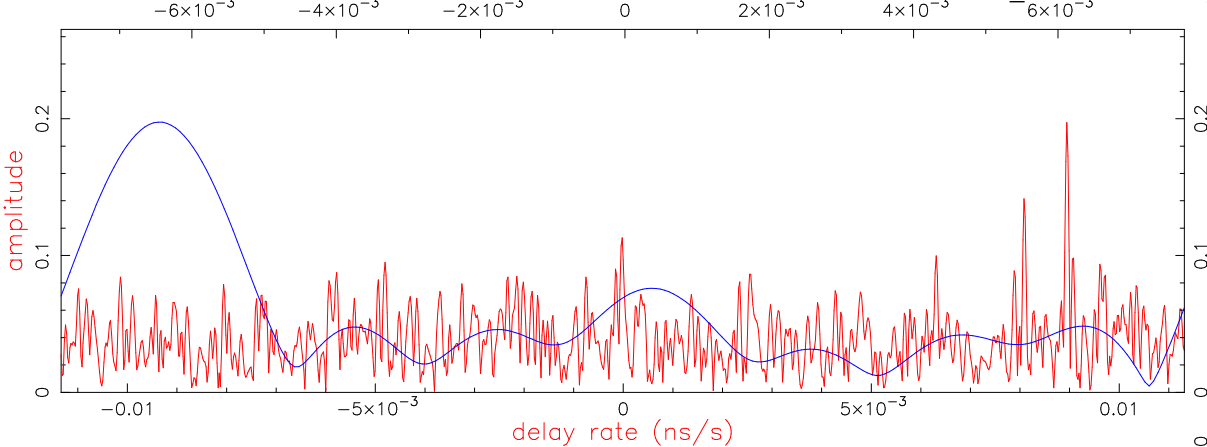
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bP

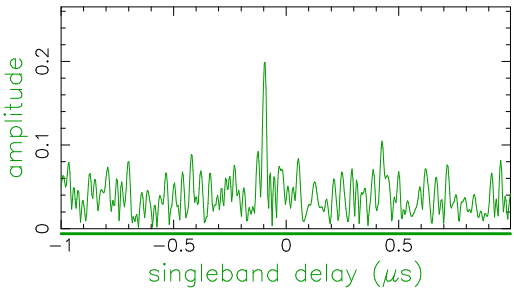
VLBA\_BR - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

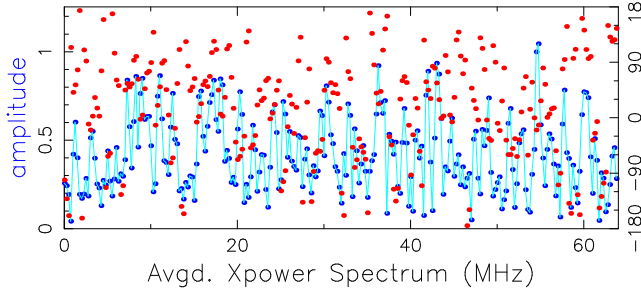


Fringe quality 0

SNR 6.8  
 Int time 149.272  
 Amp 0.265  
 Phase 85.1  
 PFD 2.1e-03  
 Delays (us)  
 SBD -0.095459  
 MBD -0.006383  
 Fringe rate (Hz)  
 0.771856  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

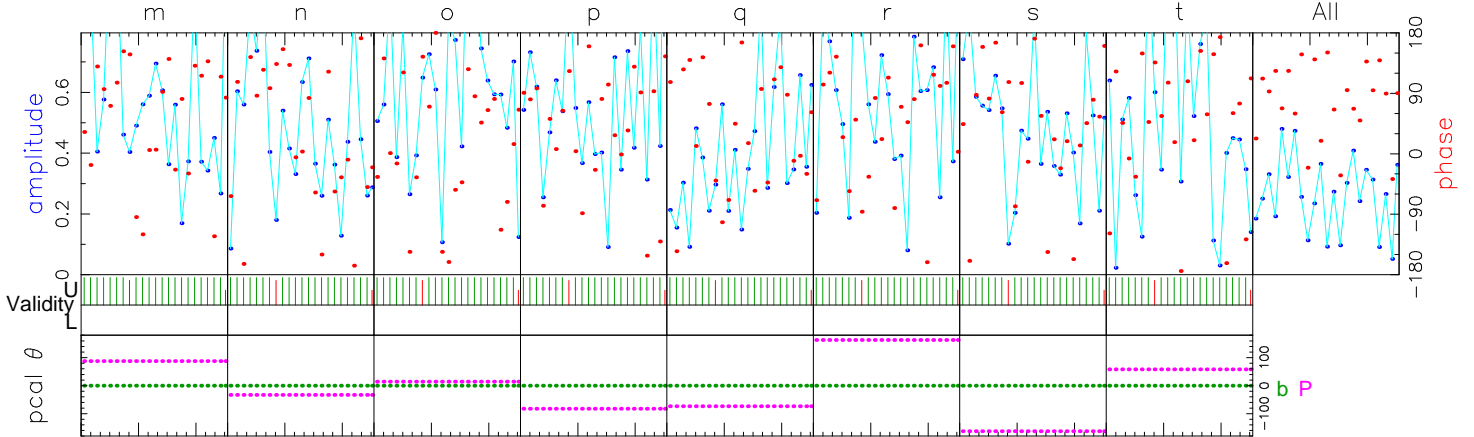


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105514  
 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
	81.2	125.2	74.8	79.2	56.9	89.0	96.2	76.0	Phase	85.1
	0.3	0.2	0.2	0.4	0.2	0.3	0.2	0.3	Ampl.	0.2
	232.9	501.2	410.4	231.5	148.6	420.8	343.9	320.6	Sbd box	232.6
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	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:88	0:33	0:15	0:-82	0:-74	0:163	0:-163	0:58	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.08657373305E+04		Apriori delay (usec)		1.08658374632E+04		Resid mbdelay (usec)		-6.38263E-03	+/- 1.6E-04
Sband delay (usec)	1.08657420047E+04		Apriori clock (usec)		5.6458378E+00		Resid sbdelay (usec)		-9.54585E-02	+/- 1.3E-03
Phase delay (usec)	1.08658374659E+04		Apriori clockrate (us/s)		-2.1796150E-08		Resid phdelay (usec)		2.74430E-06	+/- 5.5E-07
Delay rate (us/s)	-3.21223029082E-01		Apriori rate (us/s)		-3.21231989561E-01		Resid rate (us/s)		8.96048E-06	+/- 6.3E-09
Total phase (deg)	112.7		Apriori accel (us/s/s)		-4.27352363729E-05		Resid phase (deg)		85.1	+/- 17.0

ph/seg (deg) 56.5 40.7 Search (1024X32) 0.192 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 65.2 71.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 21.5 24.0 Inc. seg. avg. 0.273 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 26.1 41.9 Inc. frq. avg. 0.248 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 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 5222.702 -8761.666 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bP...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bP.W.61.3MP15Q

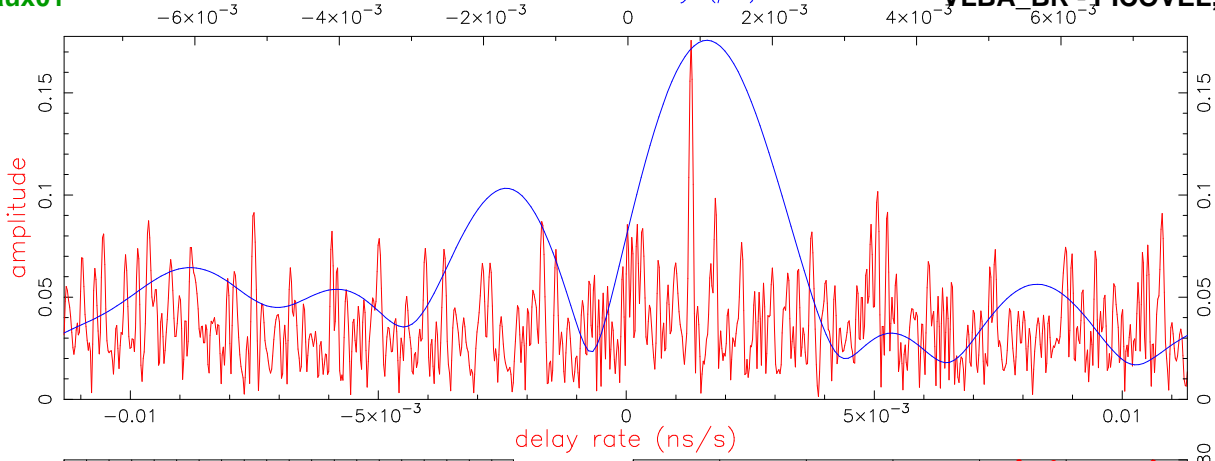
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bP

VLBA\_BR - PICOVEL, fgroup W, pol LR

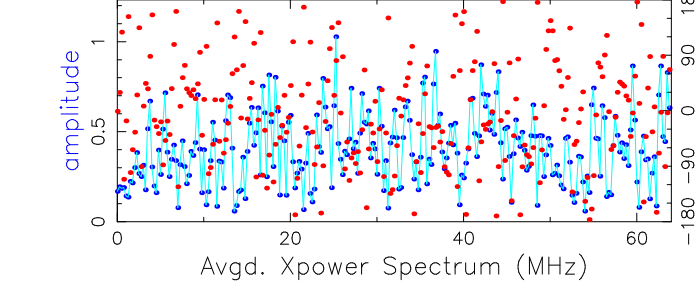
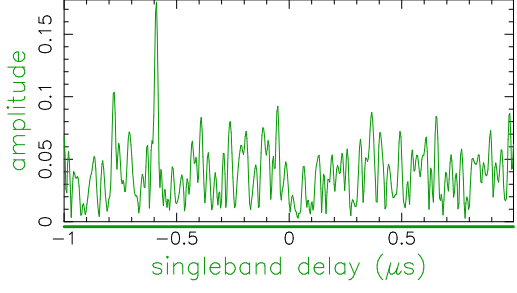
multiband delay ( $\mu$ s)



Fringe quality 0

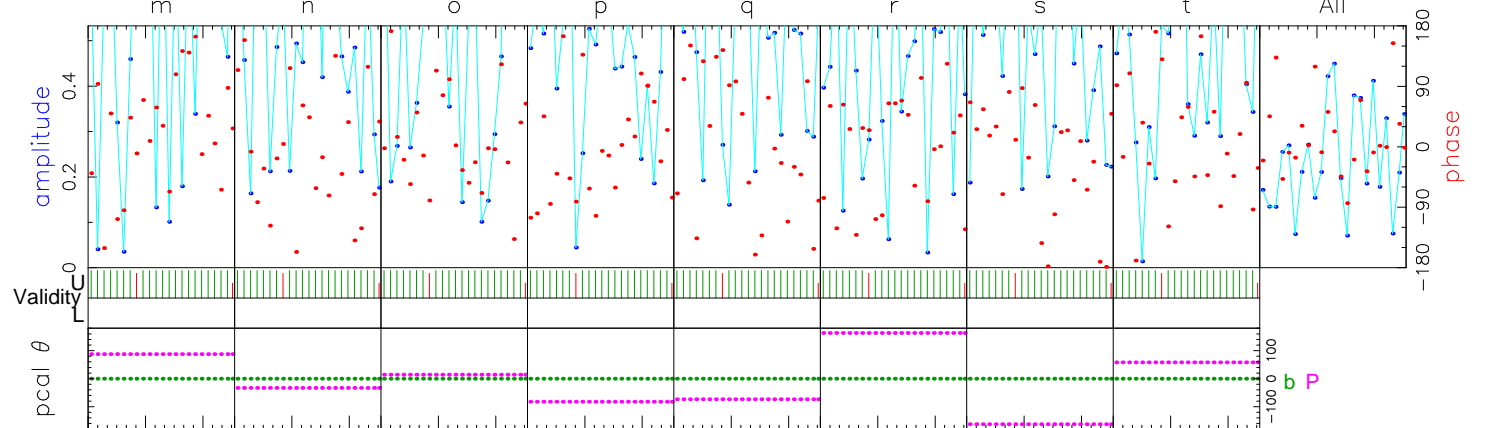
SNR 5.9  
Int time 149.272  
Amp 0.178  
Phase 8.9  
PFD 3.7e-01  
Delays (us)  
SBD -0.590764  
MBD 0.001079  
Fringe rate (Hz) 0.112609  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512

Exp. c241a  
Exper # 1234  
Yr:day 2024:109  
Start 163000.00  
Stop 163230.02  
FRT 163115.00  
Corr/FF/build  
2025:007:141222  
2025:041:105516  
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
	33.8	-30.1	3.8	-28.7	49.3	27.2	17.6	8.5	Phase	8.9
	0.3	0.1	0.3	0.2	0.1	0.1	0.3	0.2	Ampl.	0.2
	241.6	256.6	413.0	273.7	111.3	235.0	105.2	186.1	Sbd box	105.8
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	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.08652447924E+04		Apriori delay (usec)		1.08658374632E+04		Resid mbdelay (usec)		1.07927E-03	+/- 1.8E-04
Sband delay (usec)	1.08652466994E+04		Apriori clock (usec)		5.6458378E+00		Resid sbdelay (usec)		-5.90764E-01	+/- 1.5E-03
Phase delay (usec)	1.08658374634E+04		Apriori clockrate (us/s)		-2.1796150E-08		Resid phdelay (usec)		2.87211E-07	+/- 6.3E-07
Delay rate (us/s)	-3.21230682277E-01		Apriori rate (us/s)		-3.21231989561E-01		Resid rate (us/s)		1.30728E-06	+/- 7.2E-09
Total phase (deg)	36.5		Apriori accel (us/s/s)		-4.27352363729E-05		Resid phase (deg)		8.9	+/- 19.4

ph/seg (deg) 58.6 46.6 Search (1024X32) 0.175 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 72.7 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. 0.179 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 46.1 47.9 Inc. frq. avg. 0.172 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 b: az 328.9 el 53.3 pa 92.4 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 5222.702 -8761.666 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bP.W.67.3MP15Q

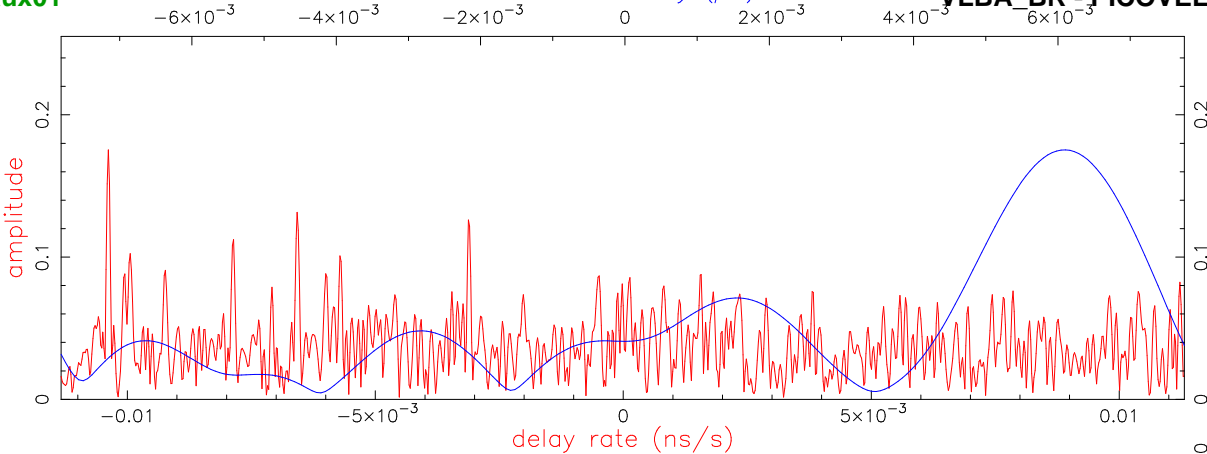
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, bP

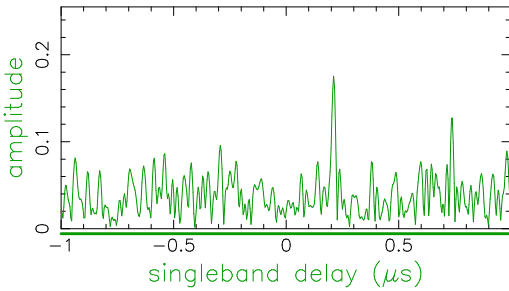
VLBA\_BR - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

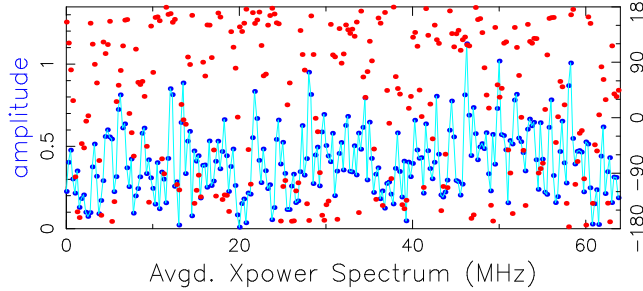


Fringe quality 0

SNR 5.9  
 Int time 149.272  
 Amp 0.255  
 Phase -19.5  
 PFD 4.4e-01  
 Delays (us)  
 SBD 0.211071  
 MBD 0.006094  
 Fringe rate (Hz)  
 -0.896810  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

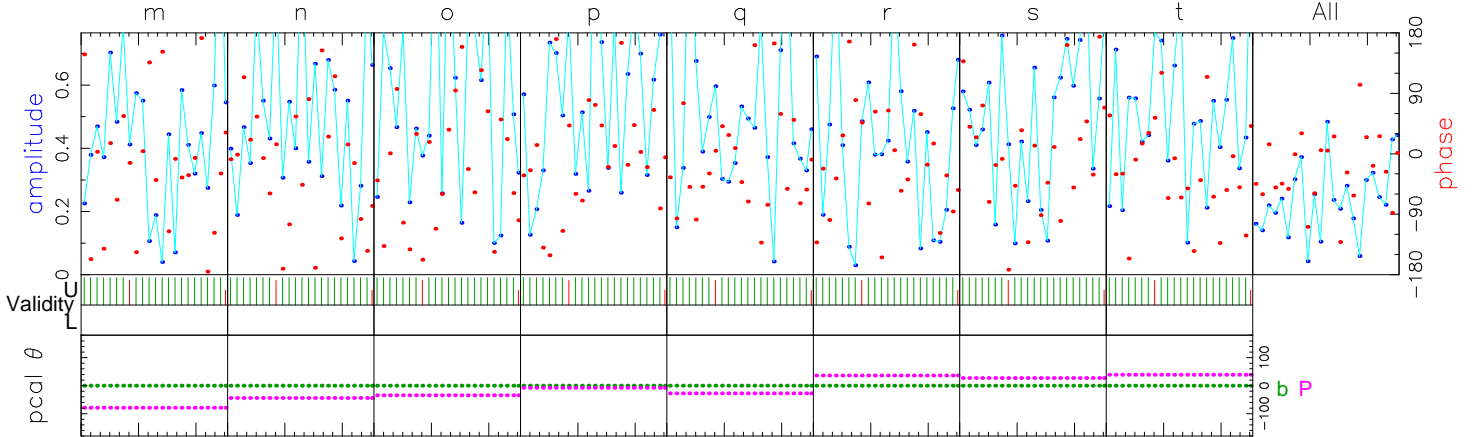


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105518  
 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	-2.7	-12.0	8.1	-40.1	-38.8	15.3	-27.6	Phase	-19.5
	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.3	Ampl.	0.2
	201.3	18.3	495.6	445.8	311.1	148.0	56.2	115.8	Sbd box	311.0
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	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.08660466822E+04	Apriori delay (usec)	1.08658374632E+04	Resid mbdelay (usec)	6.09408E-03	+/-	1.9E-04
Sband delay (usec)	1.08660485339E+04	Apriori clock (usec)	5.6458378E+00	Resid sbdelay (usec)	2.11071E-01	+/-	1.5E-03
Phase delay (usec)	1.08658374625E+04	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	-6.28748E-07	+/-	6.3E-07
Delay rate (us/s)	-3.21242400638E-01	Apriori rate (us/s)	-3.21231989561E-01	Resid rate (us/s)	-1.04111E-05	+/-	7.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.27352363729E-05	Resid phase (deg)	-19.5	+/-	19.6

ph/seg (deg)	51.6	Theor.	46.9	Amplitude	0.255 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.4	Search (1024X32)	0.174	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)	24.3	Inc. seg. avg.	0.258	Inc. frq. avg.	0.245	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.9	Inc. frq. avg.	0.245			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

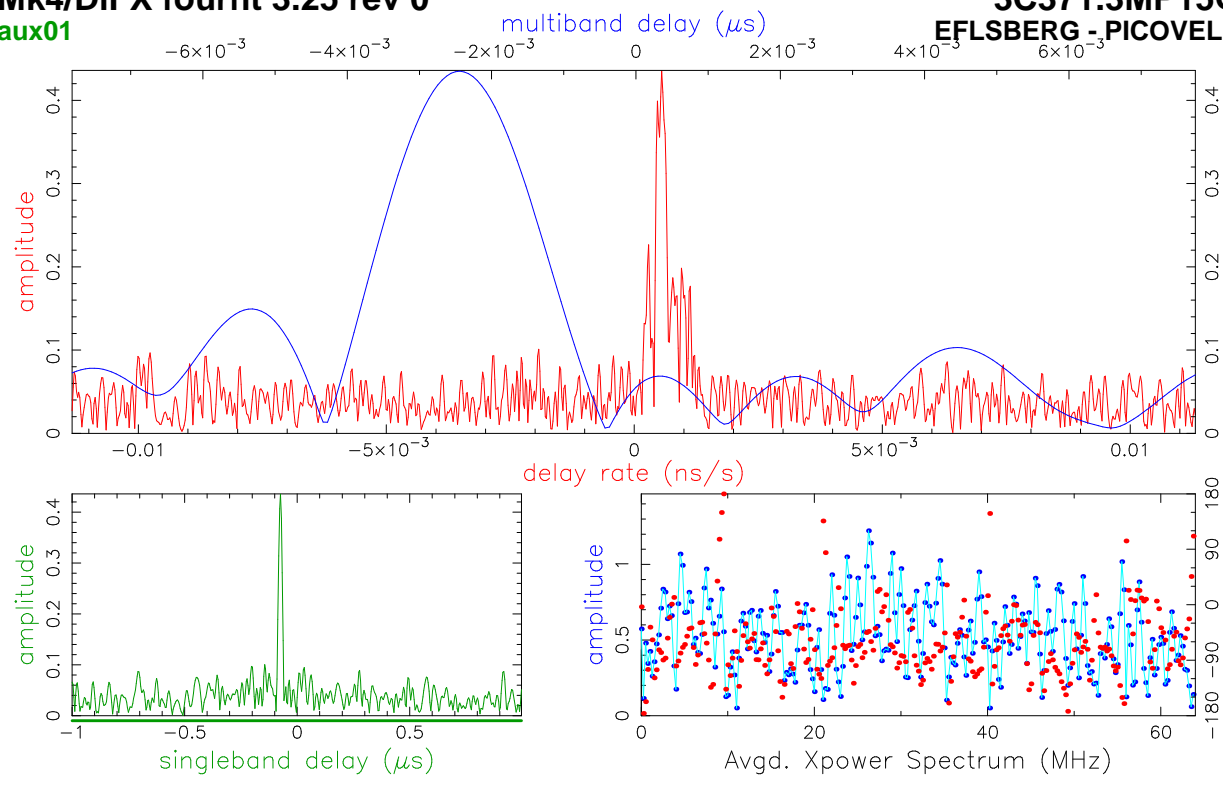
b: az 328.9 el 53.3 pa 92.4 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 5222.702 -8761.666 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/bP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/bP.W.75.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, BP

EFLSBERG - PICOVEL, fgroup W, pol LL

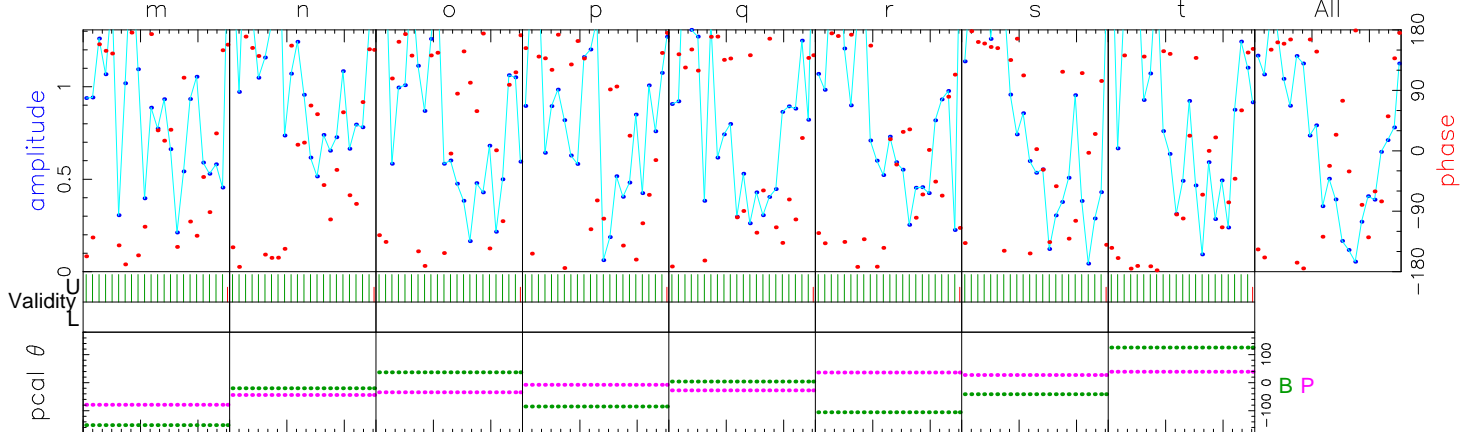


Fringe quality 9

SNR 14.6  
 Int time 149.974  
 Amp 0.436  
 Phase 178.3  
 PFD 1.1e-39  
 Delays (us)  
 SBD -0.074696  
 MBD -0.002459  
 Fringe rate (Hz) 0.048087  
 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  
 2025:041:105527  
 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	
	-175.9	-179.5	166.8	177.0	163.9	-148.2	174.8	175.1	Phase	178.3	
	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	Ampl.	0.4	
	236.3	237.7	238.2	238.0	238.7	238.1	238.5	237.3	Sbd box	237.9	
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		
P	0	0	0	0	0	0	0	0	PC freqs		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:P	-151:-79	-20:-44	37:-34	-85:-8	4:-28	-106:36	-41:27	125:39	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
B	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)	4.59863448032E+03		Apriori delay (usec)		4.59871506460E+03		Resid mbdelay (usec)		-2.45928E-03	+/- 7.4E-05	
Sband delay (usec)	4.59864036835E+03		Apriori clock (usec)		-3.4391655E+01		Resid sbdelay (usec)		-7.46963E-02	+/- 5.9E-04	
Phase delay (usec)	4.59871507035E+03		Apriori clockrate (us/s)		-7.8777609E-07		Resid phdelay (usec)		5.75089E-06	+/- 2.5E-07	
Delay rate (us/s)	6.07597161735E-02		Apriori rate (us/s)		6.07591579364E-02		Resid rate (us/s)		5.88237E-07	+/- 2.9E-09	
Total phase (deg)			Apriori accel (us/s/s)		-6.73245522055E-06		Resid phase (deg)		178.3	+/- 7.9	
	RMS	Theor.	Amplitude	0.436 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	80.8	18.8	Search (1024X32)	0.432		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	111.2	32.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	15.9	11.1	Inc. seg. avg.	0.678		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	10.8	19.4	Inc. frq. avg.	0.439		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 4.0 el 30.6 pa -7.6	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)		-1023.006 -909.984				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//BP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//BP.W.97.3MP15Q								



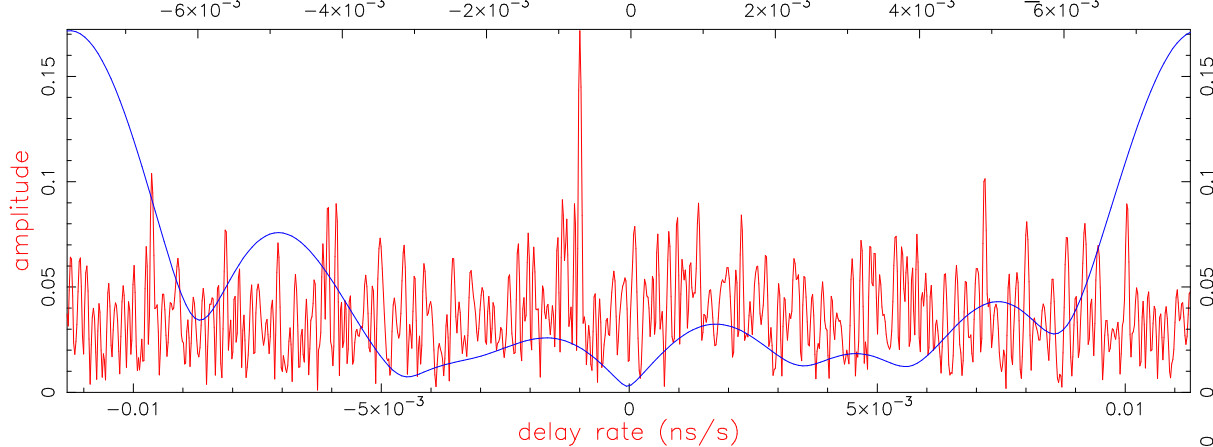
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fP

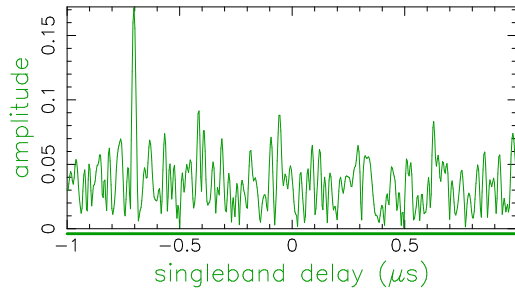
VLBA\_FD - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

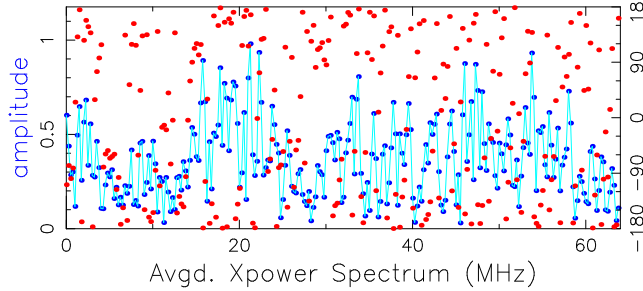


Fringe quality 0

SNR 5.8  
 Int time 149.989  
 Amp 0.172  
 Phase 78.8  
 PFD 6.6e-01  
 Delays (us)  
 SBD -0.703468  
 MBD -0.007777  
 Fringe rate (Hz)  
 -0.086333  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

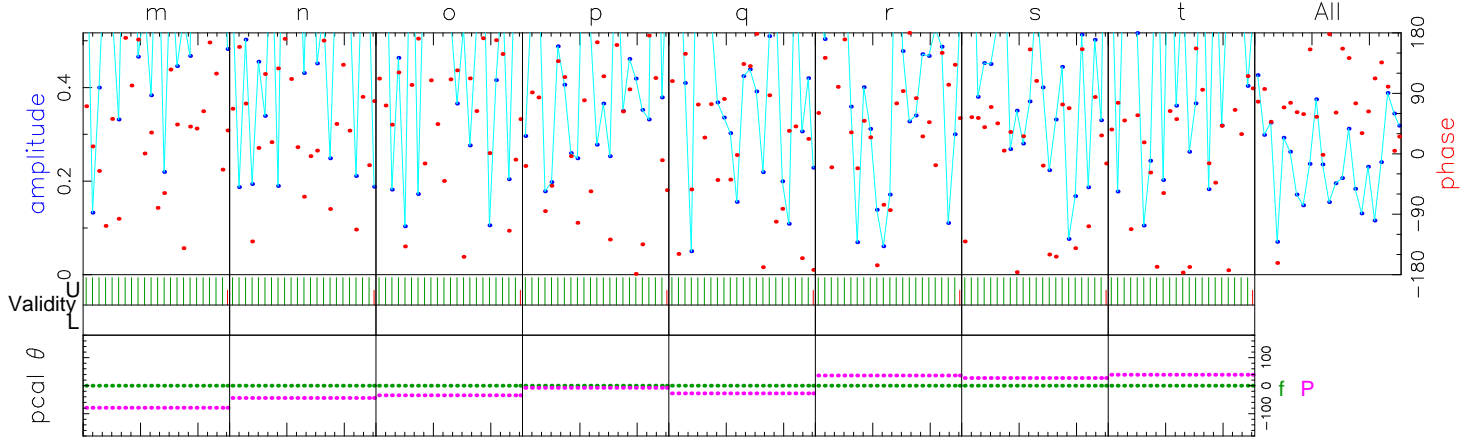


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105545  
 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		
f	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	5.16317797576E+03	Apriori delay (usec)		5.16388887773E+03	Resid mbdelay (usec)	-7.77697E-03	+/-	1.9E-04	
Sband delay (usec)	5.16318540973E+03	Apriori clock (usec)		1.0661507E+00	Resid sbdelay (usec)	-7.03468E-01	+/-	1.5E-03	
Phase delay (usec)	5.1638888027E+03	Apriori clockrate (us/s)		-5.4801714E-07	Resid phdelay (usec)	2.54124E-06	+/-	6.4E-07	
Delay rate (us/s)	-4.53535216734E-01	Apriori rate (us/s)		-4.53534214493E-01	Resid rate (us/s)	-1.00224E-06	+/-	7.4E-09	
Total phase (deg)		52.7	Apriori accel (us/s/s)		-3.73265433646E-05	Resid phase (deg)	78.8	+/-	19.9

ph/seg (deg) 53.2 47.8 Search (1024X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 68.4 83.4 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. 0.182 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 18.6 49.2 Inc. frq. avg. 0.163 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 f: az 336.4 el 32.3 pa 88.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7428.518 -8350.101 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No09011/fP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No09011/fP.W.168.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

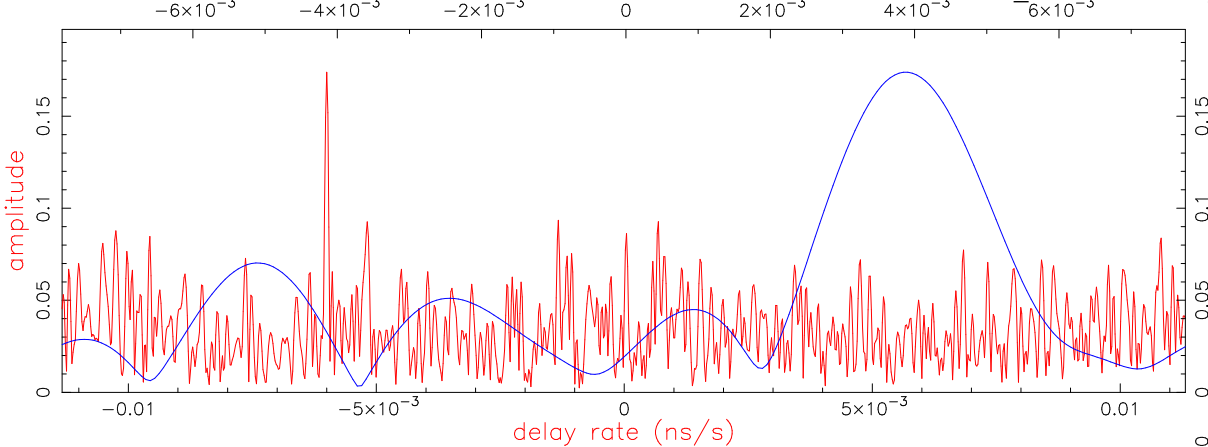
aux01

3C371.3MP15Q, No0901, fP

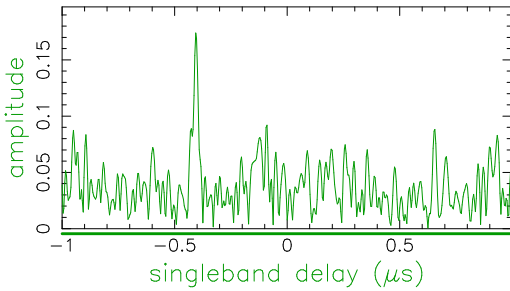
VLBA\_FD - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

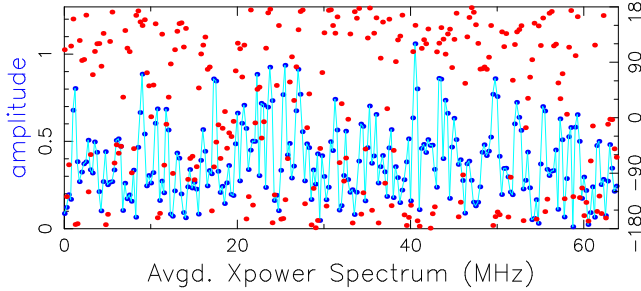
Fringe quality 0



SNR 5.9  
 Int time 149.989  
 Amp 0.197  
 Phase 126.7  
 PFD 4.3e-01  
 Delays (us)  
 SBD -0.405020  
 MBD 0.003907  
 Fringe rate (Hz)  
 -0.517106  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

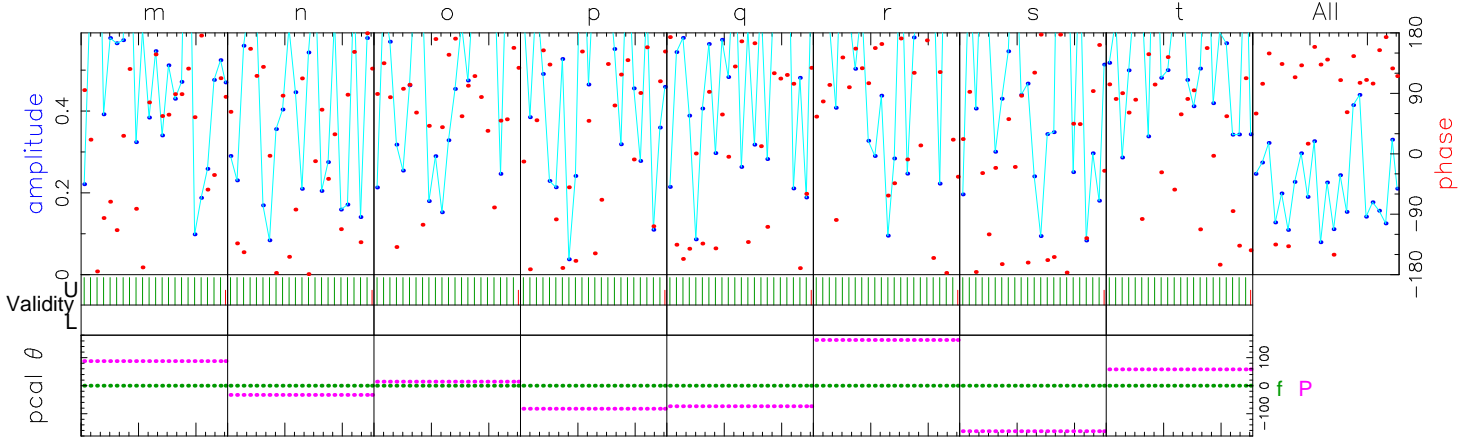


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105547  
 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		
f	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.16348653491E+03	Apriori delay (usec)		5.16388887773E+03	Resid mbdelay (usec)	3.90718E-03	+/-	1.8E-04
Sband delay (usec)	5.16348385798E+03	Apriori clock (usec)		1.0661507E+00	Resid sbdelay (usec)	-4.05020E-01	+/-	1.5E-03
Phase delay (usec)	5.16388888181E+03	Apriori clockrate (us/s)		-5.4801714E-07	Resid phdelay (usec)	4.08417E-06	+/-	6.3E-07
Delay rate (us/s)	-4.53540217580E-01	Apriori rate (us/s)		-4.53534214493E-01	Resid rate (us/s)	-6.00309E-06	+/-	7.3E-09
Total phase (deg)	100.6	Apriori accel (us/s/s)		-3.73265433646E-05	Resid phase (deg)	126.7	+/-	19.5

ph/seg (deg)	RMS 49.1	Theor. 46.8	Amplitude Search (1024X32)	0.173	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.4	81.7	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)	23.1	27.6	Inc. seg. avg.	0.188	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.1	48.2	Inc. frq. avg.	0.186	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 336.4 el 32.3 pa 88.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7428.518 -8350.101 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/fP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/fP.W.179.3MP15Q

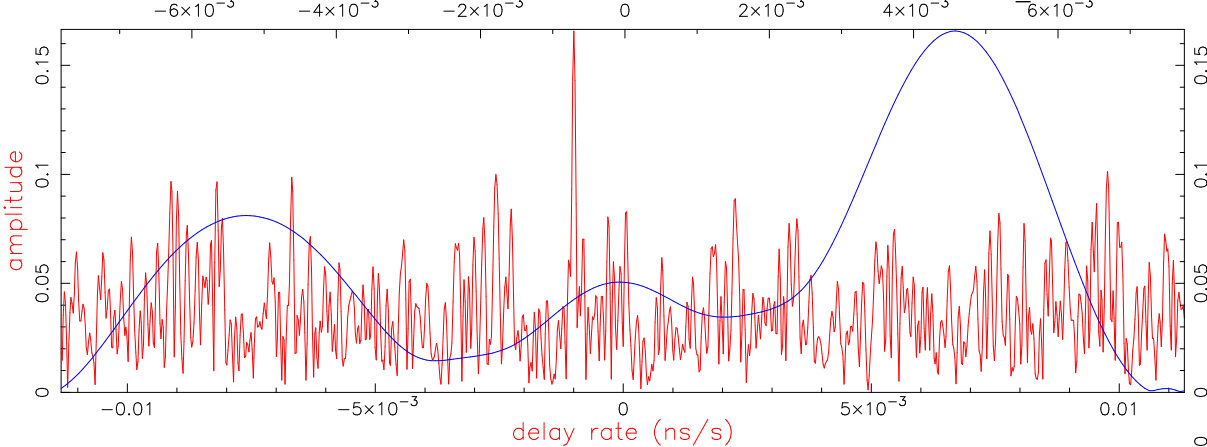
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fP

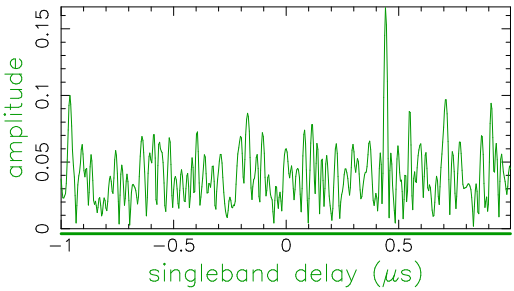
VLBA\_FD - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

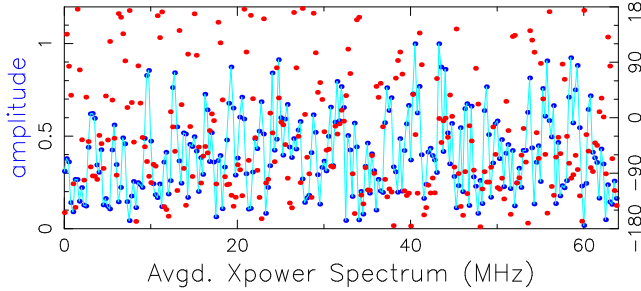


Fringe quality 0

SNR 5.6  
 Int time 149.989  
 Amp 0.167  
 Phase -81.3  
 PFD 9.6e-01  
 Delays (us)  
 SBD 0.441880  
 MBD 0.004595  
 Fringe rate (Hz)  
 -0.085242  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

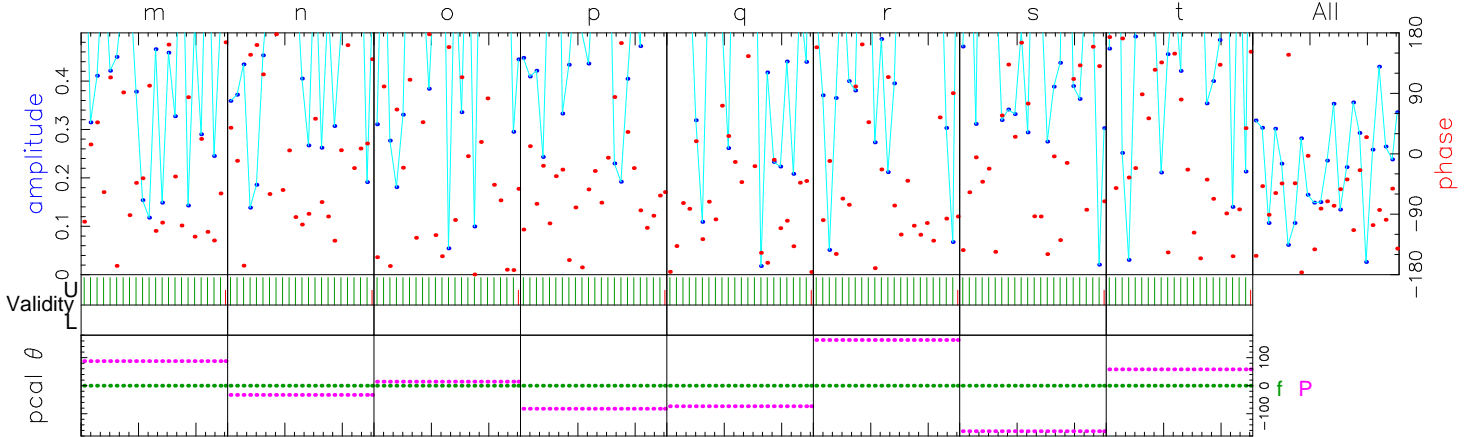


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105550  
 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
	-100.3	-46.9	-135.8	-63.3	-74.6	-107.3	-71.3	-103.3	Phase	-81.3
	0.2	0.1	0.1	0.4	0.2	0.2	0.2	0.1	Ampl.	0.2
	452.2	253.8	405.4	370.0	211.1	127.4	325.9	24.8	Sbd box	370.1
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	
P	0	0	0	0	0	0	0	0	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:88	0:33	0:15	0:-82	0:-74	0:163	0:-163	0:58	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.16433097316E+03	Apriori delay (usec)		5.16388887773E+03	Resid mbdelay (usec)	4.59543E-03	+/-	2.0E-04	
Sband delay (usec)	5.16433075823E+03	Apriori clock (usec)		0.160	Resid sbdelay (usec)	4.41880E-01	+/-	1.5E-03	
Phase delay (usec)	5.1638887511E+03	Apriori clockrate (us/s)		-5.4801714E-07	Resid phdelay (usec)	-2.62310E-06	+/-	6.6E-07	
Delay rate (us/s)	-4.53535204066E-01	Apriori rate (us/s)		-4.53534214493E-01	Resid rate (us/s)	-9.89573E-07	+/-	7.7E-09	
Total phase (deg)		252.6	Apriori accel (us/s/s)		-3.73265433646E-05	Resid phase (deg)	-81.3	+/-	20.6

ph/seg (deg) 54.8 49.4 Search (1024X32) 0.160 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 71.8 86.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 32.0 29.1 Inc. seg. avg. 0.168 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 59.2 50.9 Inc. frq. avg. 0.160 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 f: az 336.4 el 32.3 pa 88.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7428.518 -8350.101 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/fP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/fP.W.187.3MP15Q

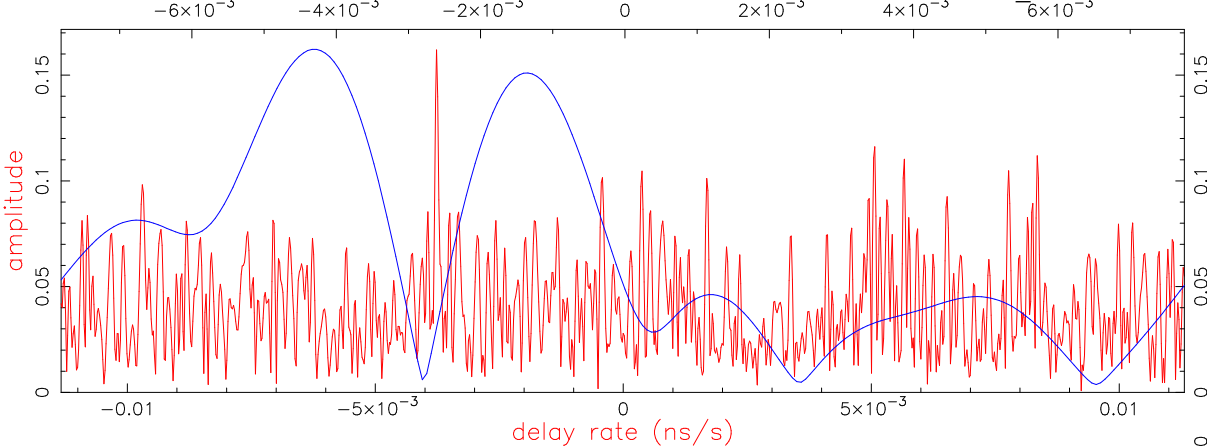
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, fP

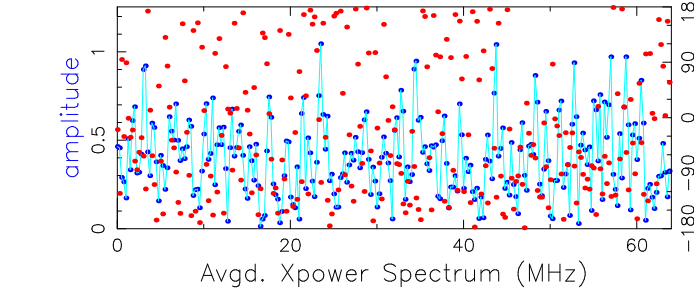
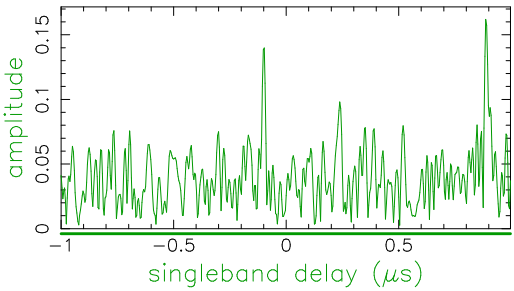
VLBA\_FD - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)



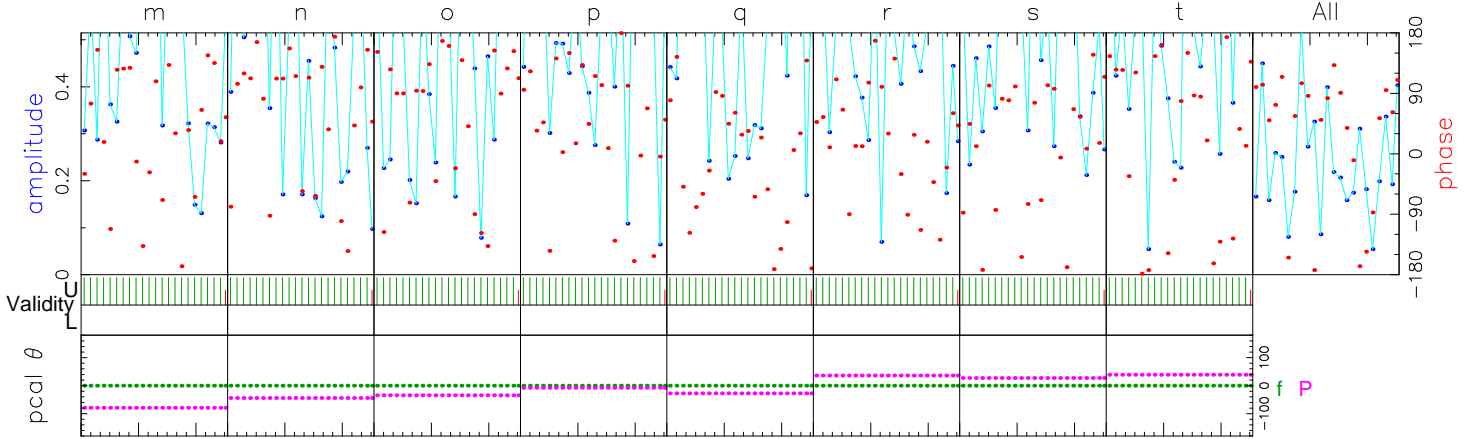
Fringe quality 0

SNR 5.5  
 Int time 149.989  
 Amp 0.172  
 Phase 98.8  
 PFD 9.9e-01  
 Delays (us)  
 SBD 0.888074  
 MBD -0.004240  
 Fringe rate (Hz)  
 -0.324133  
 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  
 2025:041:105552  
 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
	83.1	114.5	128.2	94.2	-17.7	33.1	76.0	136.5	Phase	98.8
	0.1	0.3	0.3	0.2	0.1	0.2	0.2	0.3	Ampl.	0.2
	30.0	111.4	485.0	298.2	231.7	236.9	473.2	230.4	Sbd box	484.3
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	
P	0	0	0	0	0	0	0	0	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	ManI PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.16477526288E+03	Apriori delay (usec)	5.16388887773E+03	Resid mbdelay (usec)	-4.23985E-03	+/-	2.0E-04
Sband delay (usec)	5.16477695148E+03	Apriori clock (usec)	1.0661507E+00	Resid sbdelay (usec)	8.88074E-01	+/-	1.6E-03
Phase delay (usec)	5.16388888091E+03	Apriori clockrate (us/s)	-5.4801714E-07	Resid phdelay (usec)	3.18545E-06	+/-	6.7E-07
Delay rate (us/s)	-4.53537977359E-01	Apriori rate (us/s)	-4.53534214493E-01	Resid rate (us/s)	-3.76287E-06	+/-	7.8E-09
Total phase (deg)		Apriori accel (us/s/s)	-3.73265433646E-05	Resid phase (deg)	98.8	+/-	20.9

ph/seg (deg)	66.5	Theor.	50.0	Amplitude	0.172 +/- 0.031	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.7	Search (1024X32)	0.161	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	59.4	Inc. seg. avg.	0.182	Inc. frq. avg.	0.198	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.3	Inc. frq. avg.	0.198			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

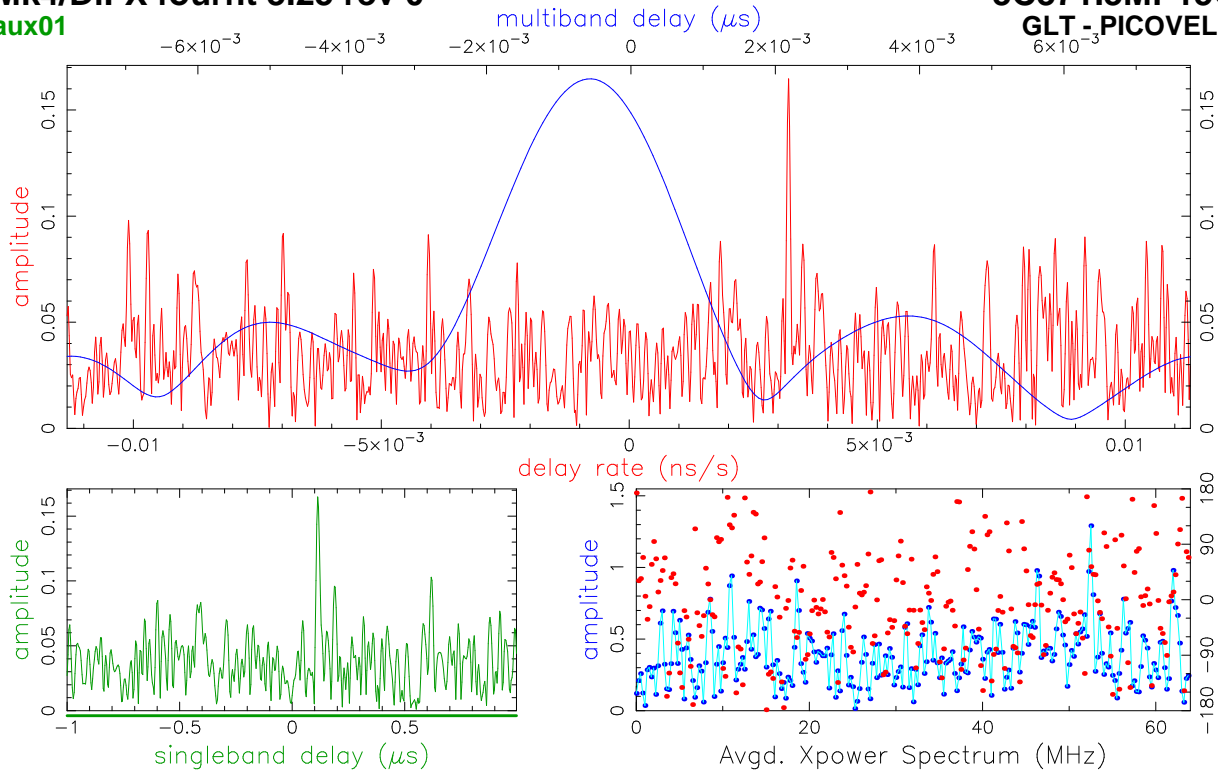
f: az 336.4 el 32.3 pa 88.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7428.518 -8350.101 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//fP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//fP.W.198.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

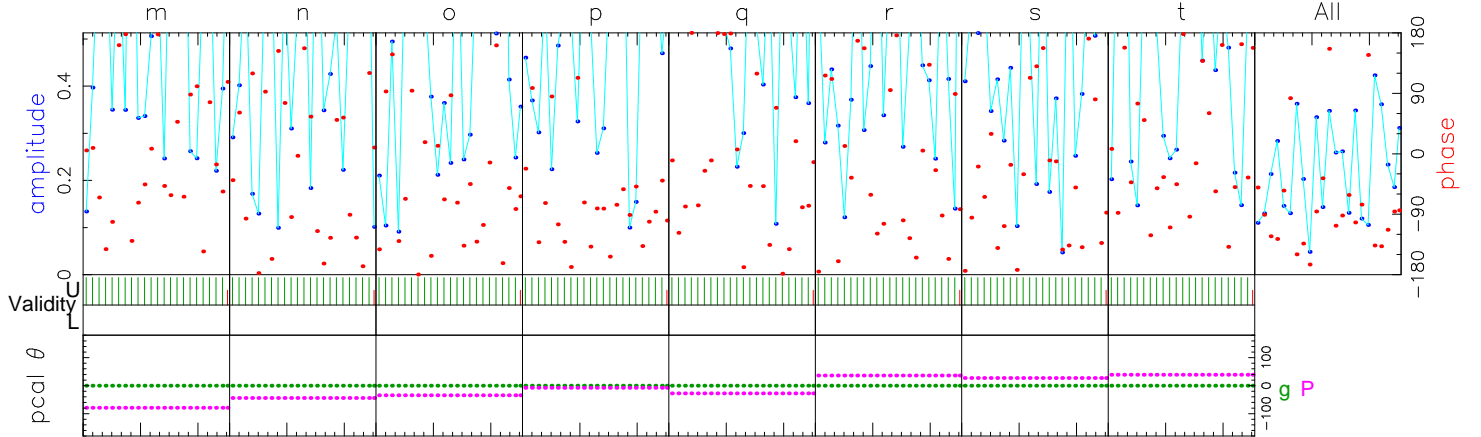
3C371.3MP15Q, No0901, gP

GLT - PICOVEL, fgroup W, pol LL



Fringe quality 0  
 SNR 5.5  
 Int time 149.981  
 Amp 0.171  
 Phase -115.2  
 PFD 9.7e-01  
 Delays (us)  
 SBD 0.114162  
 MBD -0.000553  
 Fringe rate (Hz) 0.276169  
 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  
 2025:041:105559  
 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	
	-91.7	-162.5	-116.9	-98.0	-98.6	-148.7	-116.0	-101.5	Phase	-115.2	
	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	Ampl.	0.2	
	305.0	306.0	369.7	285.7	383.9	287.1	25.3	113.0	Sbd box	286.2	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs		
g:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	PC phase		
P	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
g	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)	1.25262301524E+04		Apriori delay (usec)		1.25261213309E+04		Resid mbdelay (usec)		-5.53461E-04	+/- 2.0E-04	
Sband delay (usec)	1.25262354929E+04		Apriori clock (usec)		1.4726467E+00		Resid sbdelay (usec)		1.14162E-01	+/- 1.6E-03	
Phase delay (usec)	1.25261213272E+04		Apriori clockrate (us/s)		-5.1827618E-07		Resid phdelay (usec)		-3.71574E-06	+/- 6.7E-07	
Delay rate (us/s)	-1.13811427559E-01		Apriori rate (us/s)		-1.13814633612E-01		Resid rate (us/s)		3.20605E-06	+/- 7.7E-09	
Total phase (deg)	43.5		Apriori accel (us/s/s)		-2.73763227499E-05		Resid phase (deg)		-115.2	+/- 20.7	
RMS	56.1	49.6	Amplitude		0.171 +/- 0.031		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	71.8	86.5	Search (1024X32)		0.161		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	27.9	29.2	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	39.7	51.0	Inc. seg. avg.		0.168		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)			Inc. frq. avg.		0.164		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	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)		1824.644 -4740.296				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//gP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//gP.W.225.3MP15Q								

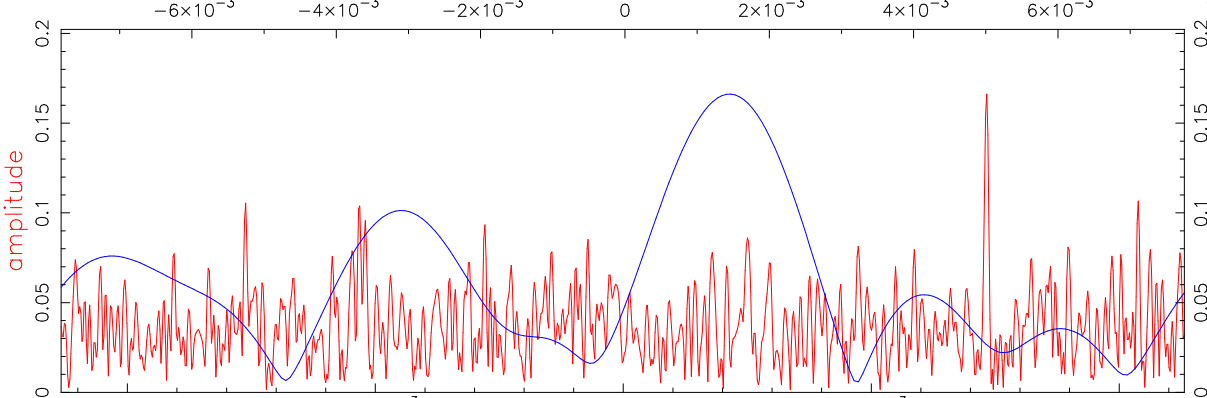
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gP

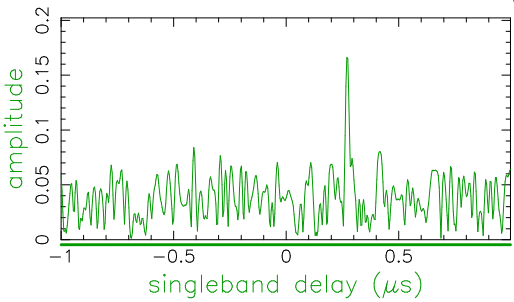
GLT - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

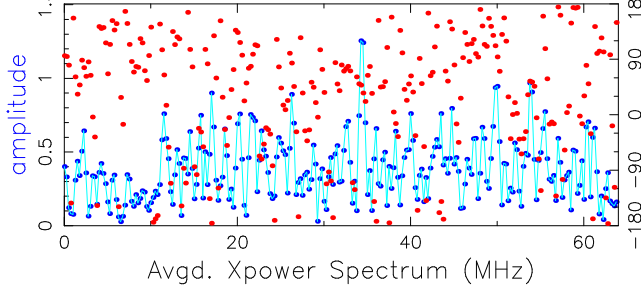


Fringe quality 0

SNR 5.7  
 Int time 149.981  
 Amp 0.202  
 Phase -50.0  
 PFD 8.3e-01  
 Delays (us)  
 SBD 0.271292  
 MBD 0.001422  
 Fringe rate (Hz)  
 0.632190  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

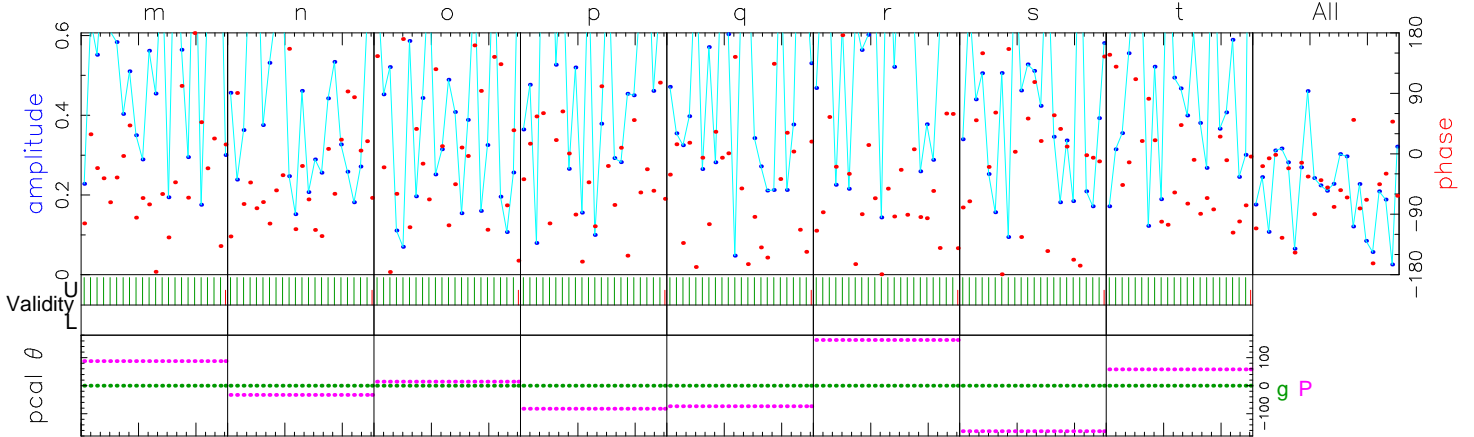


delay rate (ns/s)



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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	1.25263883781E+04	Apriori delay (usec)	1.25261213309E+04	Resid mbdelay (usec)	1.42225E-03	+/-	1.9E-04
Sband delay (usec)	1.25263926231E+04	Apriori clock (usec)	1.4726467E+00	Resid sbdelay (usec)	2.71292E-01	+/-	1.5E-03
Phase delay (usec)	1.25261213293E+04	Apriori clockrate (us/s)	-5.1827618E-07	Resid phdelay (usec)	-1.61078E-06	+/-	6.5E-07
Delay rate (us/s)	-1.13807294517E-01	Apriori rate (us/s)	-1.13814633612E-01	Resid rate (us/s)	7.33910E-06	+/-	7.5E-09
Total phase (deg)	108.8	Apriori accel (us/s/s)	-2.73763227499E-05	Resid phase (deg)	-50.0	+/-	20.2

ph/seg (deg)	53.0	Theor.	48.5	Amplitude	0.202 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	65.7	Search (1024X32)	0.166	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.9	Inc. seg. avg.	0.188	Inc. frq. avg.	0.194	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.1	Inc. frq. avg.	0.194			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

g: az 318.7 el 61.6 pa 26.5 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) 1824.644 -4740.296 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gP.W.238.3MP15Q

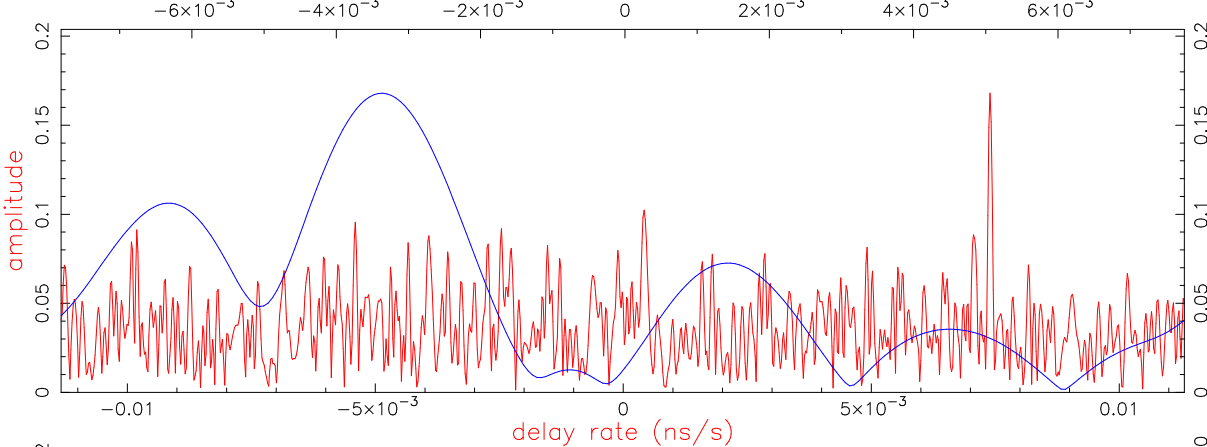
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gP

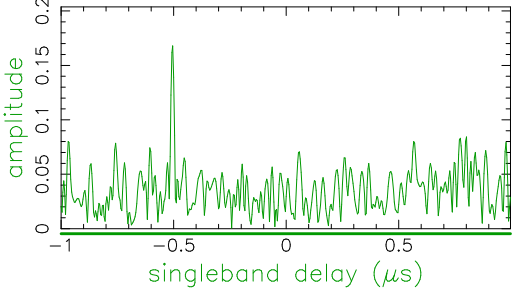
GLT - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

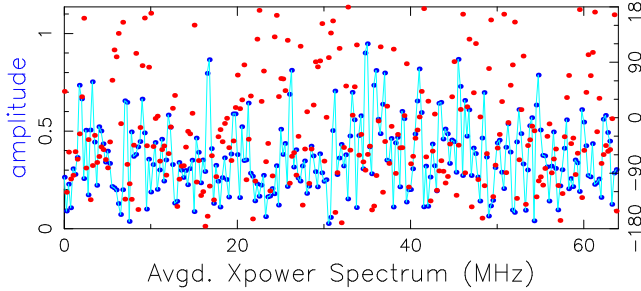


Fringe quality 0

SNR 5.7  
 Int time 149.981  
 Amp 0.204  
 Phase -76.5  
 PFD 7.9e-01  
 Delays (us)  
 SBD -0.505188  
 MBD -0.003361  
 Fringe rate (Hz)  
 0.637188  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

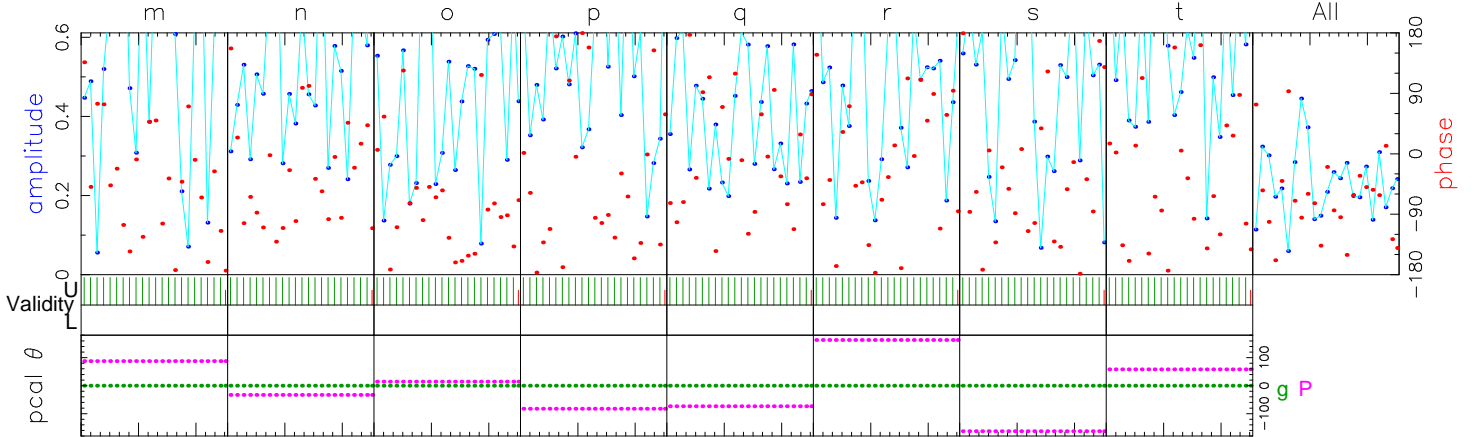


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105609  
 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
	-67.7	-49.3	-101.4	-115.6	-47.5	-5.8	-78.9	-86.6	Phase	-76.5
	0.3	0.3	0.3	0.3	0.1	0.1	0.3	0.1	Ampl.	0.2
	258.9	127.6	127.2	412.3	359.5	123.3	295.5	461.5	Sbd box	127.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
$\tau_{pg}$	0	0	0	0	0	0	0	0	PC freqs	
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.25256179696E+04	Apriori delay (usec)	1.25261213309E+04	Resid mbdelay (usec)	-3.36126E-03	+/-	1.9E-04
Sband delay (usec)	1.25256161426E+04	Apriori clock (usec)	1.4726467E+00	Resid sbdelay (usec)	-5.05188E-01	+/-	1.5E-03
Phase delay (usec)	1.25261213284E+04	Apriori clockrate (us/s)	-5.1827618E-07	Resid phdelay (usec)	-2.46686E-06	+/-	6.5E-07
Delay rate (us/s)	-1.13807236491E-01	Apriori rate (us/s)	-1.13814633612E-01	Resid rate (us/s)	7.39712E-06	+/-	7.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.73763227499E-05	Resid phase (deg)	-76.5	+/-	20.1

ph/seg (deg) 63.1 48.3 Search (1024X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 62.7 84.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 38.6 28.5 Inc. seg. avg. 0.206 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 40.6 49.7 Inc. frq. avg. 0.206 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 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 1824.644 -4740.296 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gP.W.247.3MP15Q

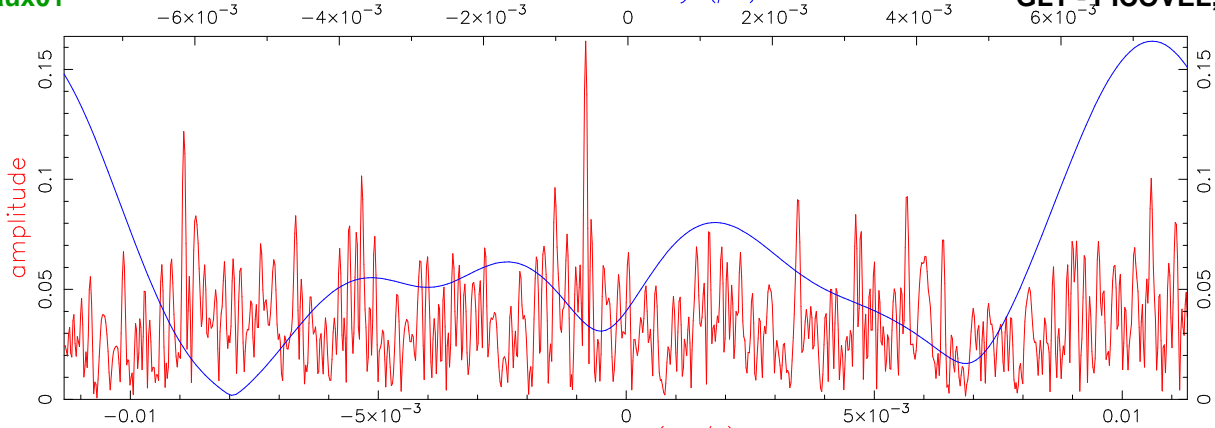
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, gP

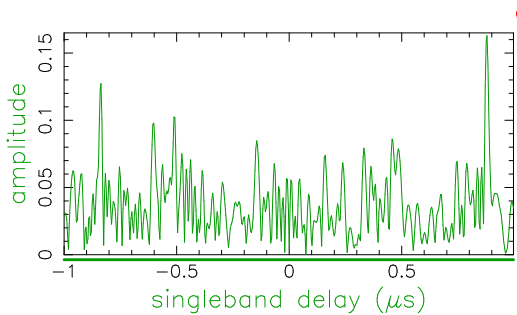
GLT - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

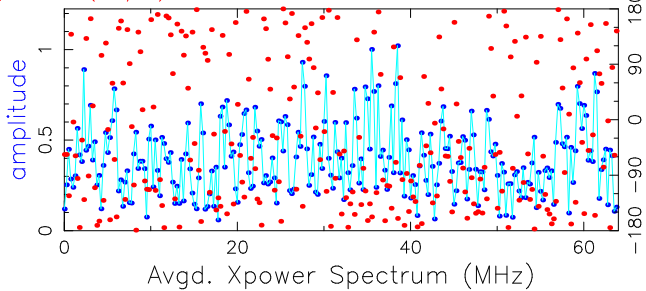


Fringe quality 0

SNR 5.5  
 Int time 149.981  
 Amp 0.165  
 Phase 154.9  
 PFD 9.9e-01  
 Delays (us)  
 SBD 0.877486  
 MBD 0.007247  
 Fringe rate (Hz)  
 -0.070975  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

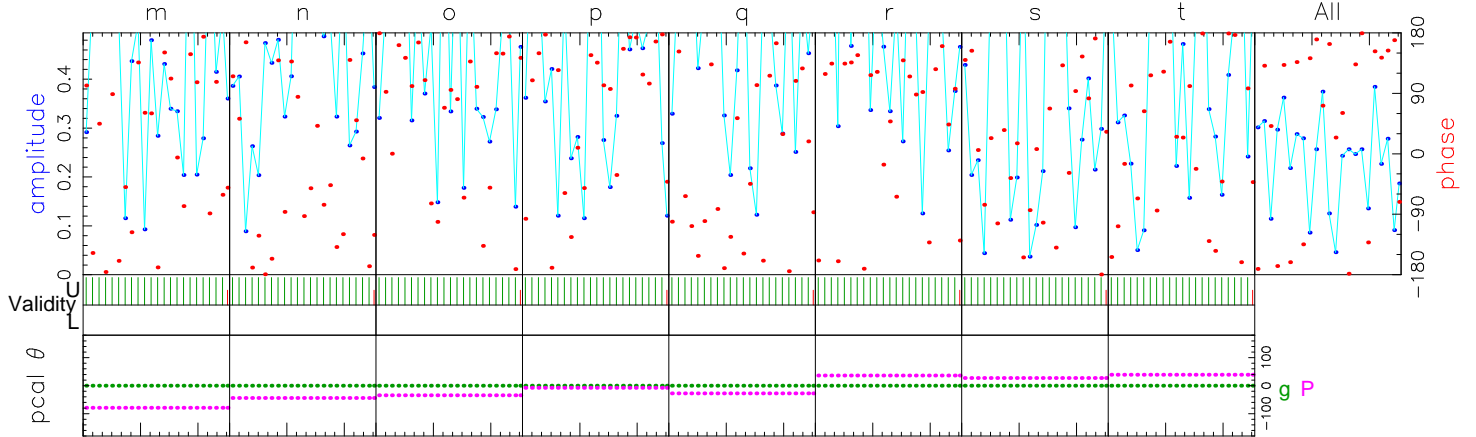


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105612  
 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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
g:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
P	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.25270035780E+04	Apriori delay (usec)	1.25261213309E+04	Resid mbdelay (usec)	7.24711E-03	+/-	2.0E-04
Sband delay (usec)	1.25269988166E+04	Apriori clock (usec)	1.4726467E+00	Resid sbdelay (usec)	8.77486E-01	+/-	1.6E-03
Phase delay (usec)	1.25261213359E+04	Apriori clockrate (us/s)	-5.1827618E-07	Resid phdelay (usec)	4.99640E-06	+/-	6.7E-07
Delay rate (us/s)	-1.13815457565E-01	Apriori rate (us/s)	-1.13814633612E-01	Resid rate (us/s)	-8.23953E-07	+/-	7.7E-09
Total phase (deg)	313.7	Apriori accel (us/s/s)	-2.73763227499E-05	Resid phase (deg)	154.9	+/-	20.8

ph/seg (deg) 57.4 49.8 Search (1024X32) 0.161 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 70.9 87.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 41.8 29.4 Inc. seg. avg. 0.170 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 57.5 51.3 Inc. frq. avg. 0.164 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 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 1824.644 -4740.296 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//gP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//gP.W.258.3MP15Q



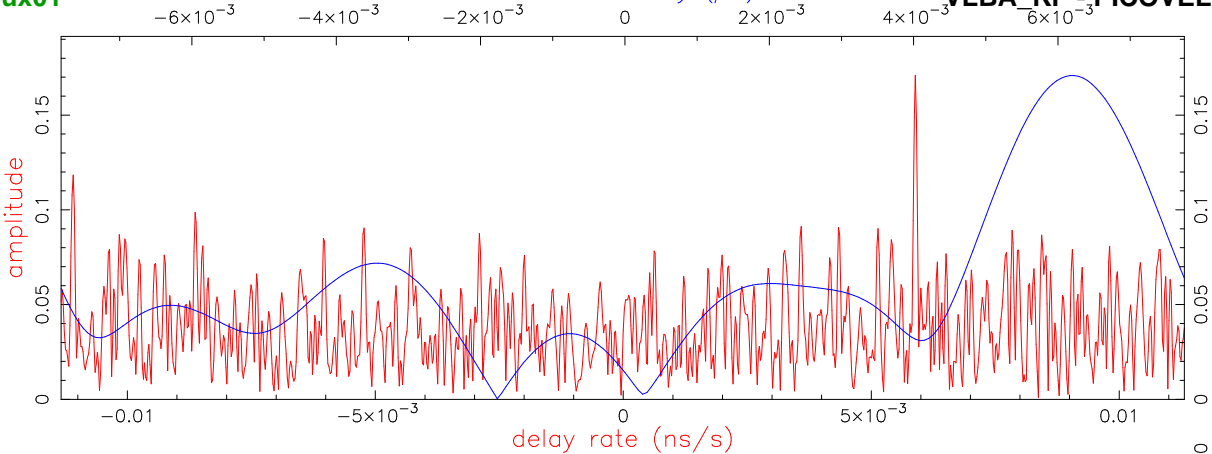
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, kP

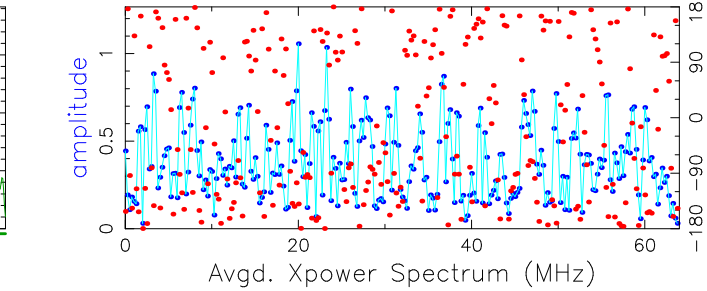
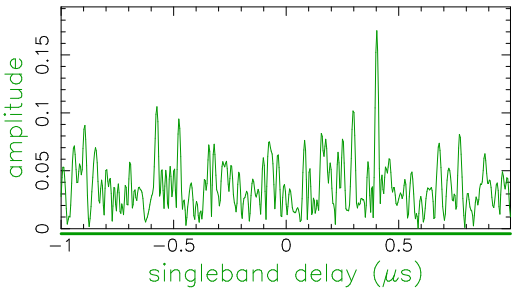
VLBA\_KP - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)



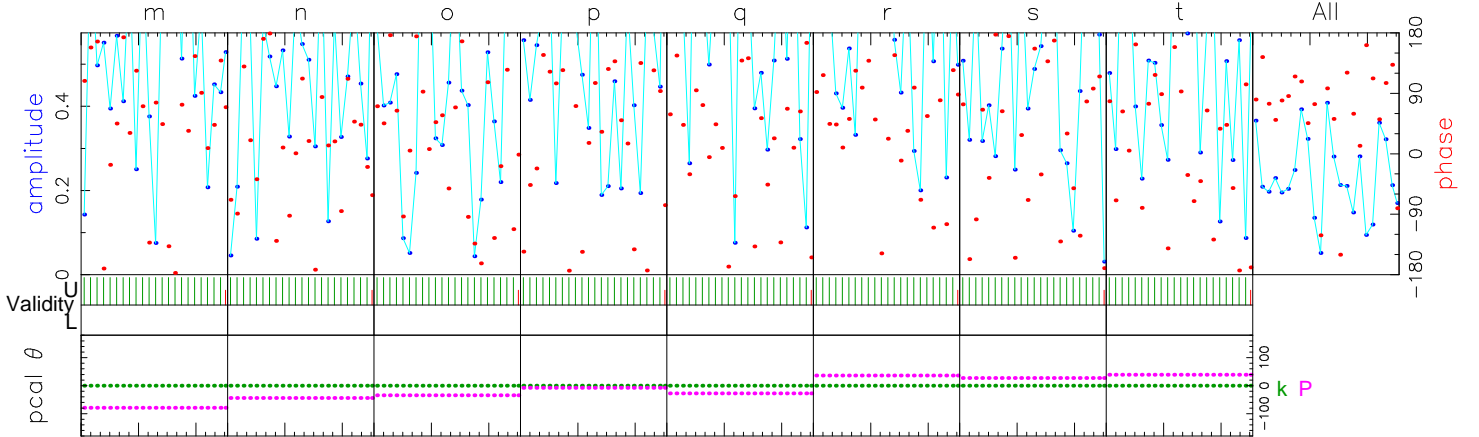
Fringe quality 0

SNR 5.7  
 Int time 149.987  
 Amp 0.192  
 Phase 86.9  
 PFD 7.2e-01  
 Delays (us)  
 SBD 0.402452  
 MBD 0.006197  
 Fringe rate (Hz) 0.507858  
 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  
 2025:041:105638  
 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		
P	0	0	0	0	0	0	0	0		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
k	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.34866177323E+03	Apriori delay (usec)	6.34826495140E+03	Resid mbdelay (usec)	6.19683E-03	+/-	1.9E-04
Sband delay (usec)	6.34866740390E+03	Apriori clock (usec)	1.1615620E+00	Resid sbdelay (usec)	4.02452E-01	+/-	1.5E-03
Phase delay (usec)	6.34826495420E+03	Apriori clockrate (us/s)	-4.4603102E-07	Resid phdelay (usec)	2.80140E-06	+/-	6.5E-07
Delay rate (us/s)	-4.32203247656E-01	Apriori rate (us/s)	-4.32209143378E-01	Resid rate (us/s)	5.89572E-06	+/-	7.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.15367884025E-05	Resid phase (deg)	86.9	+/-	20.0

ph/seg (deg)	59.6	RMS	59.6	Theor.	48.0	Amplitude	0.192 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	66.6		66.6		83.8	Search (1024X32)	0.167	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	30.4		30.4		28.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.9		49.9		49.4	Inc. seg. avg.	0.195	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	0.187	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 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7063.780 -9185.348 simultaneous interpolator

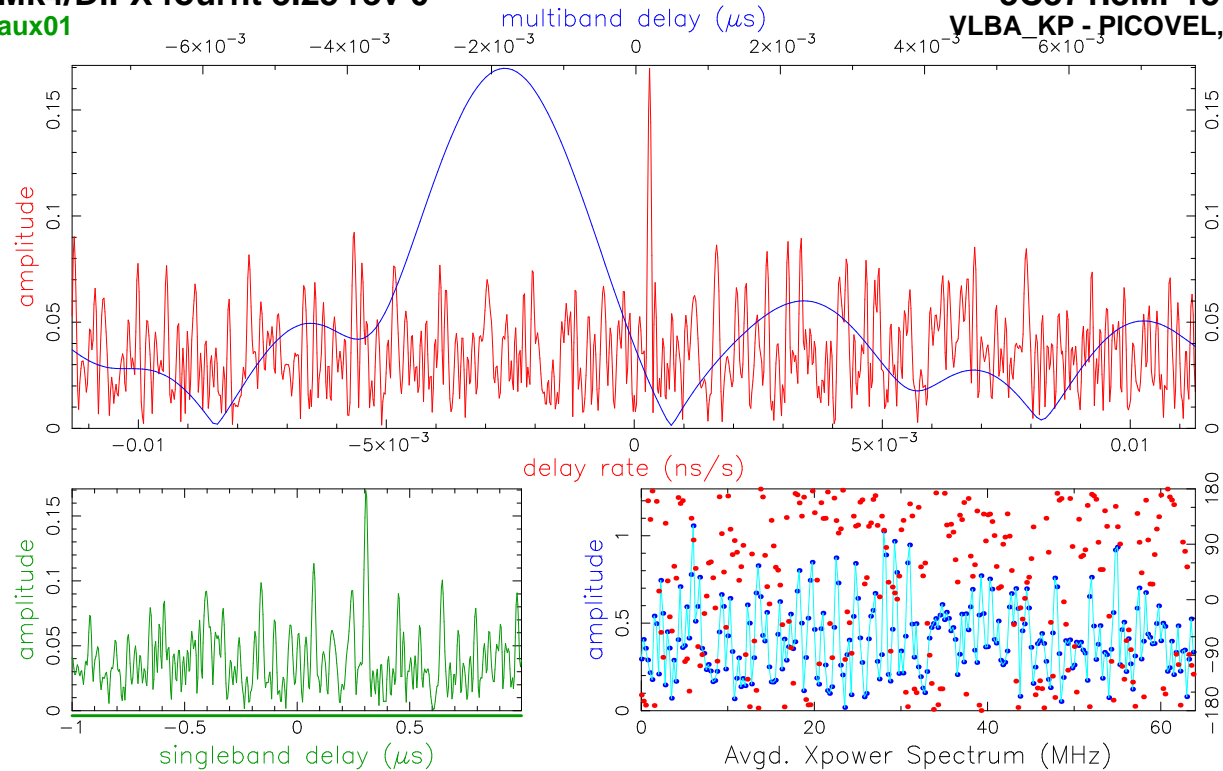
Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No09011/kP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No09011/kP.W.334.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, kP

VLBA\_KP - PICOVEL, fgroup W, pol RR

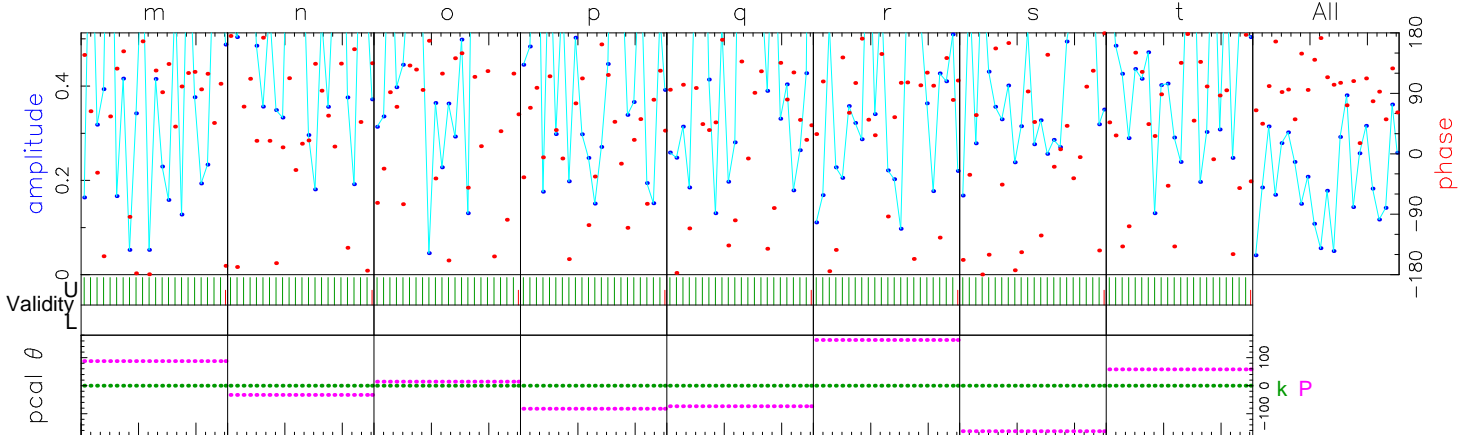


Fringe quality 0

SNR 5.7  
 Int time 149.987  
 Amp 0.171  
 Phase 93.6  
 PFD 7.2e-01  
 Delays (us)  
 SBD 0.305913  
 MBD -0.001815  
 Fringe rate (Hz)  
 0.025942  
 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  
 2025:041:105640  
 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	
	102.5	89.4	106.1	59.5	85.7	121.0	124.2	79.4	Phase	93.6	
	0.3	0.2	0.2	0.2	0.2	0.2	0.0	0.1	Ampl.	0.2	
	506.2	376.9	253.0	458.7	249.4	215.3	329.1	274.6	Sbd box	335.3	
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		
P	0	0	0	0	0	0	0	0	PC freqs		
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.34857563663E+03		Apriori delay (usec)		6.34826495140E+03		Resid mbdelay (usec)		-1.81477E-03	+/- 1.9E-04	
Sband delay (usec)	6.34857086440E+03		Apriori clock (usec)		1.1615620E+00		Resid sbdelay (usec)		3.05913E-01	+/- 1.5E-03	
Phase delay (usec)	6.34826495442E+03		Apriori clockrate (us/s)		-4.4603102E-07		Resid phdelay (usec)		3.01776E-06	+/- 6.5E-07	
Delay rate (us/s)	-4.32208842217E-01		Apriori rate (us/s)		-4.32209143378E-01		Resid rate (us/s)		3.01161E-07	+/- 7.5E-09	
Total phase (deg)			62.4		Apriori accel (us/s/s)		-4.15367884025E-05		93.6	+/- 20.0	
	RMS	Theor.	Amplitude		0.171 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	38.4	48.0	Search (1024X32)		0.164		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
amp/seg (%)	59.9	83.8	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	23.7	28.3	Inc. seg. avg.		0.152		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	38.4	49.4	Inc. frq. avg.		0.160		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		P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec) 7063.780 -9185.348						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0901/kP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901/kP.W.337.3MP15Q							

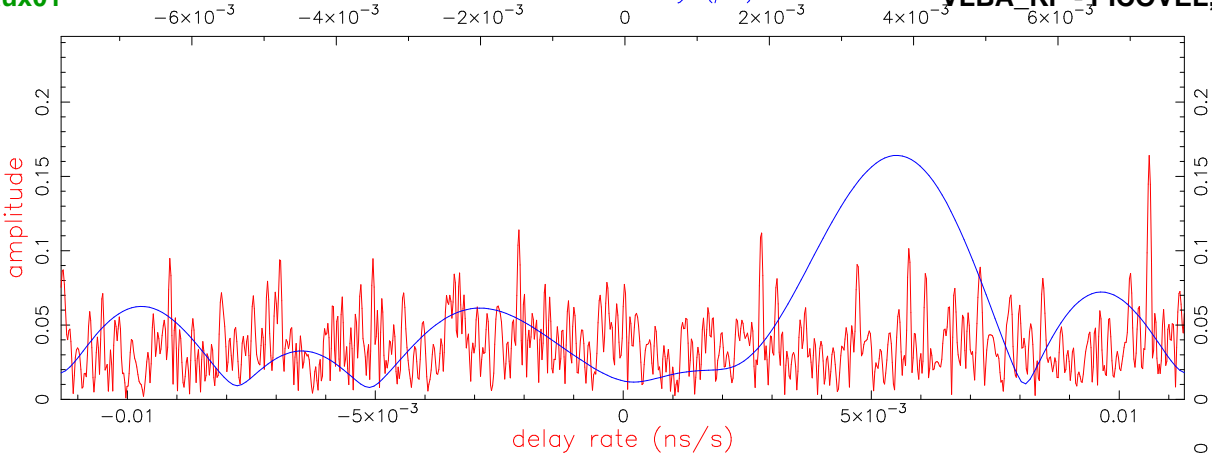
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, kP

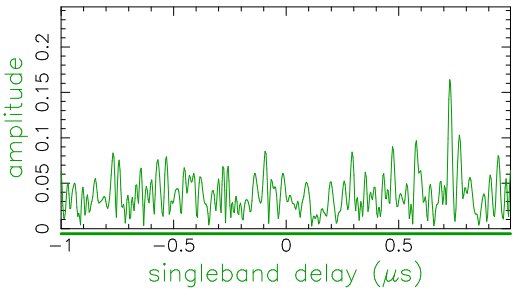
VLBA\_KP - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

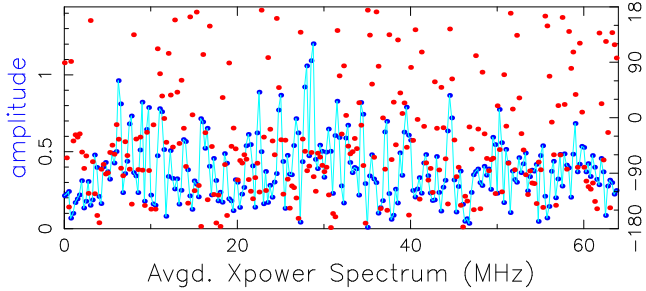


Fringe quality 0

SNR 5.5  
 Int time 149.987  
 Amp 0.244  
 Phase -21.3  
 PFD 9.8e-01  
 Delays (us)  
 SBD 0.727681  
 MBD 0.003805  
 Fringe rate (Hz) 0.914368  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

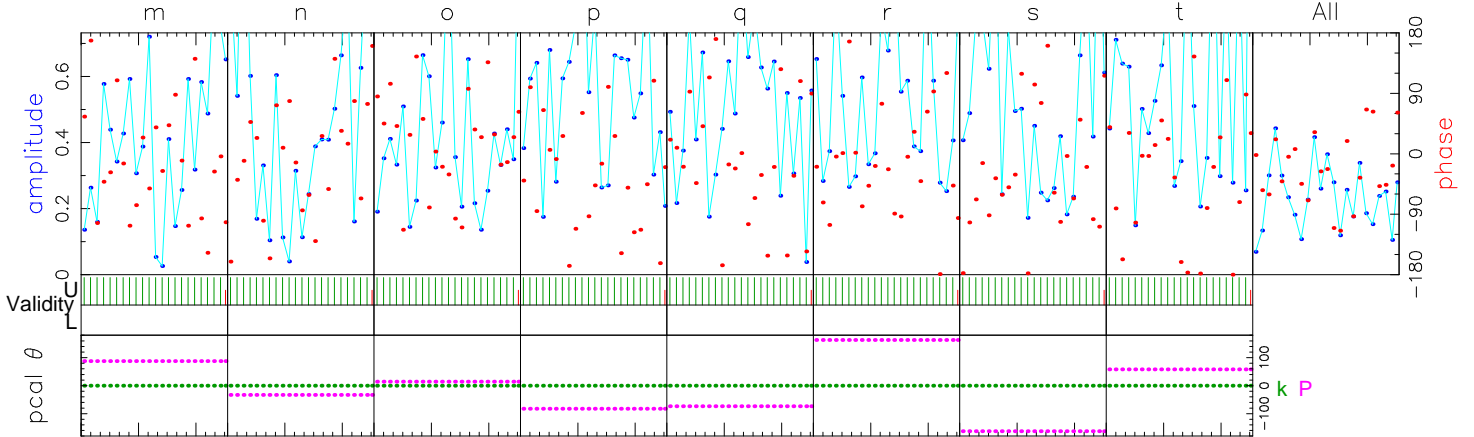


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105643  
 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
	-48.7	11.4	16.4	-45.8	-14.3	-20.4	-57.3	7.8	Phase	-21.3
	0.3	0.2	0.3	0.2	0.2	0.4	0.3	0.2	Ampl.	0.2
	147.3	323.1	92.6	249.1	58.9	185.2	441.8	332.6	Sbd box	443.3
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	
P	0	0	0	0	0	0	0	0	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.34898750609E+03	Apriori delay (usec)	6.34826495140E+03	Resid mbdelay (usec)	3.80469E-03	+/-	2.0E-04
Sband delay (usec)	6.34899263240E+03	Apriori clock (usec)	1.1615620E+00	Resid sbdelay (usec)	7.27681E-01	+/-	1.6E-03
Phase delay (usec)	6.34826495071E+03	Apriori clockrate (us/s)	-4.4603102E-07	Resid phdelay (usec)	-6.85732E-07	+/-	6.7E-07
Delay rate (us/s)	-4.32198528478E-01	Apriori rate (us/s)	-4.32209143378E-01	Resid rate (us/s)	1.06149E-05	+/-	7.7E-09
Total phase (deg)	307.6	Apriori accel (us/s/s)	-4.15367884025E-05	Resid phase (deg)	-21.3	+/-	20.7

ph/seg (deg)	49.5	Theor.	49.7	Amplitude	0.244 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	72.9	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)	31.7	Inc. seg. avg.	0.253	Inc. seg. avg.	0.253	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	23.3	Inc. frq. avg.	0.241	Inc. frq. avg.	0.241	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

k: az 336.1 el 36.1 pa 95.2 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7063.780 -9185.348 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//kP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//kP.W.340.3MP15Q

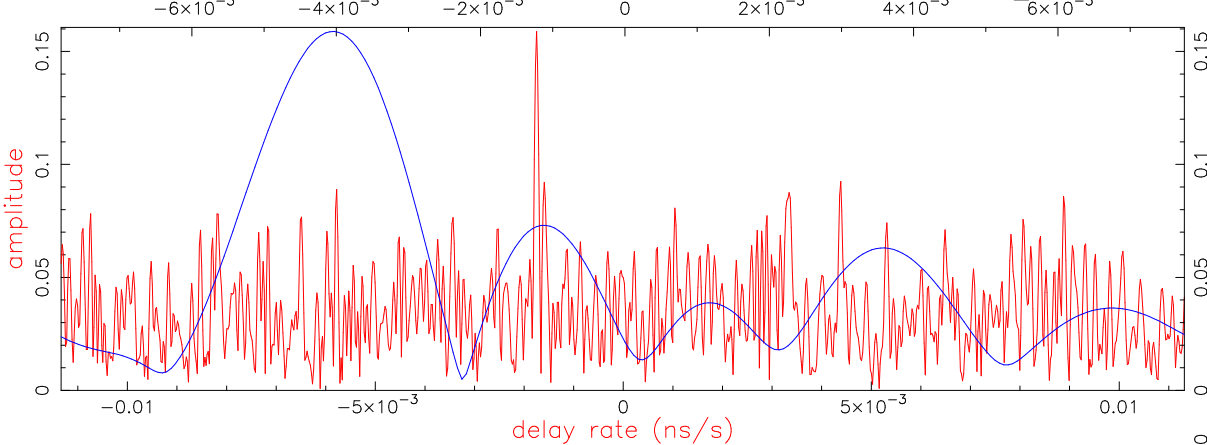
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, kP

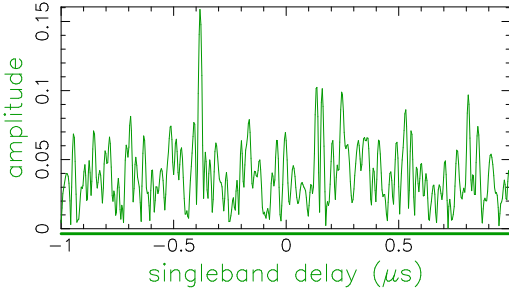
VLBA\_KP - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

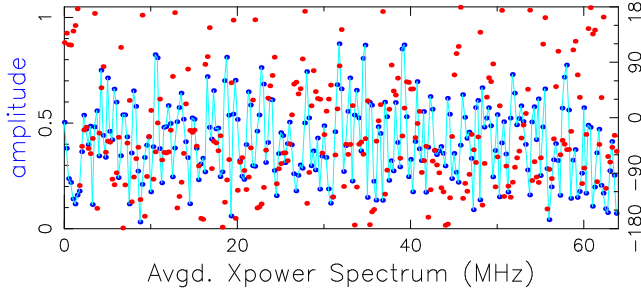


Fringe quality 0

SNR 5.3  
 Int time 149.987  
 Amp 0.161  
 Phase -104.8  
 PFD 1.0e+00  
 Delays (us)  
 SBD -0.382343  
 MBD -0.004052  
 Fringe rate (Hz)  
 -0.151427  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

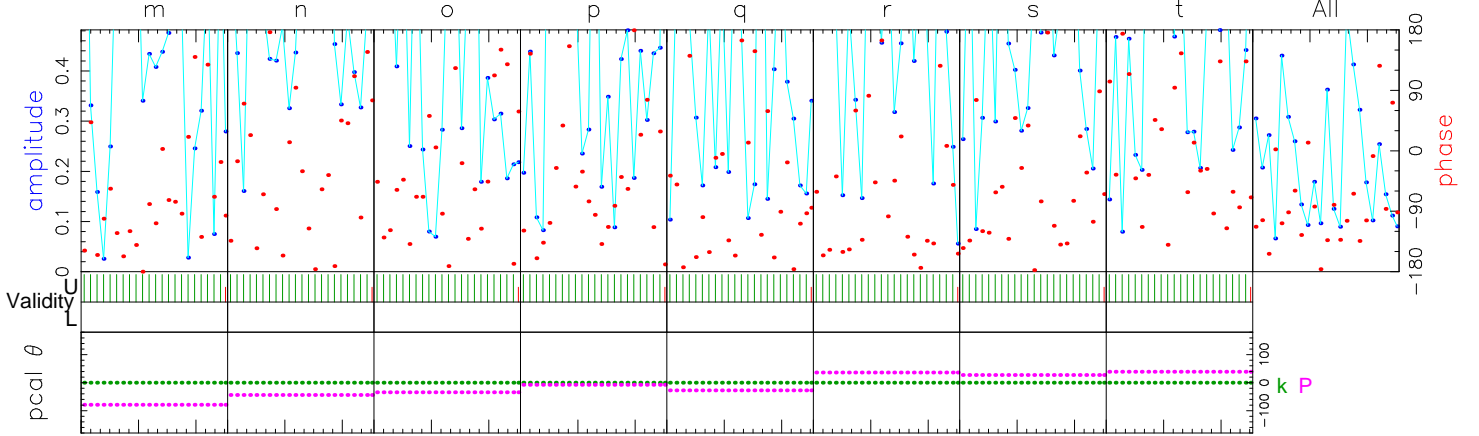


delay rate (ns/s)



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
	-114.1	-83.9	-92.5	-79.5	-130.1	-128.0	-107.3	-53.0	Phase	-104.8
	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	19.1	493.3	50.5	285.0	454.0	170.9	42.0	297.7	Sbd box	159.1
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	
P	0	0	0	0	0	0	0	0	PC freqs	
k:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.34788589987E+03	Apriori delay (usec)	6.34826495140E+03	Resid mbdelay (usec)	-4.05153E-03	+/-	2.0E-04
Sband delay (usec)	6.34788260865E+03	Apriori clock (usec)	1.1615620E+00	Resid sbdelay (usec)	-3.82343E-01	+/-	1.6E-03
Phase delay (usec)	6.34826494802E+03	Apriori clockrate (us/s)	-4.4603102E-07	Resid phdelay (usec)	-3.38013E-06	+/-	6.9E-07
Delay rate (us/s)	-4.32210901295E-01	Apriori rate (us/s)	-4.32209143378E-01	Resid rate (us/s)	-1.75792E-06	+/-	8.0E-09
Total phase (deg)	224.0	Apriori accel (us/s/s)	-4.15367884025E-05	Resid phase (deg)	-104.8	+/-	21.5

ph/seg (deg)	RMS 65.9	Theor. 51.6	Amplitude Search (1024X32)	0.161 +/- 0.030	0.156	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	88.6	90.0	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)	29.4	30.4	Inc. seg. avg.	0.161	0.161	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	38.8	53.1	Inc. frq. avg.	0.151	0.151	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

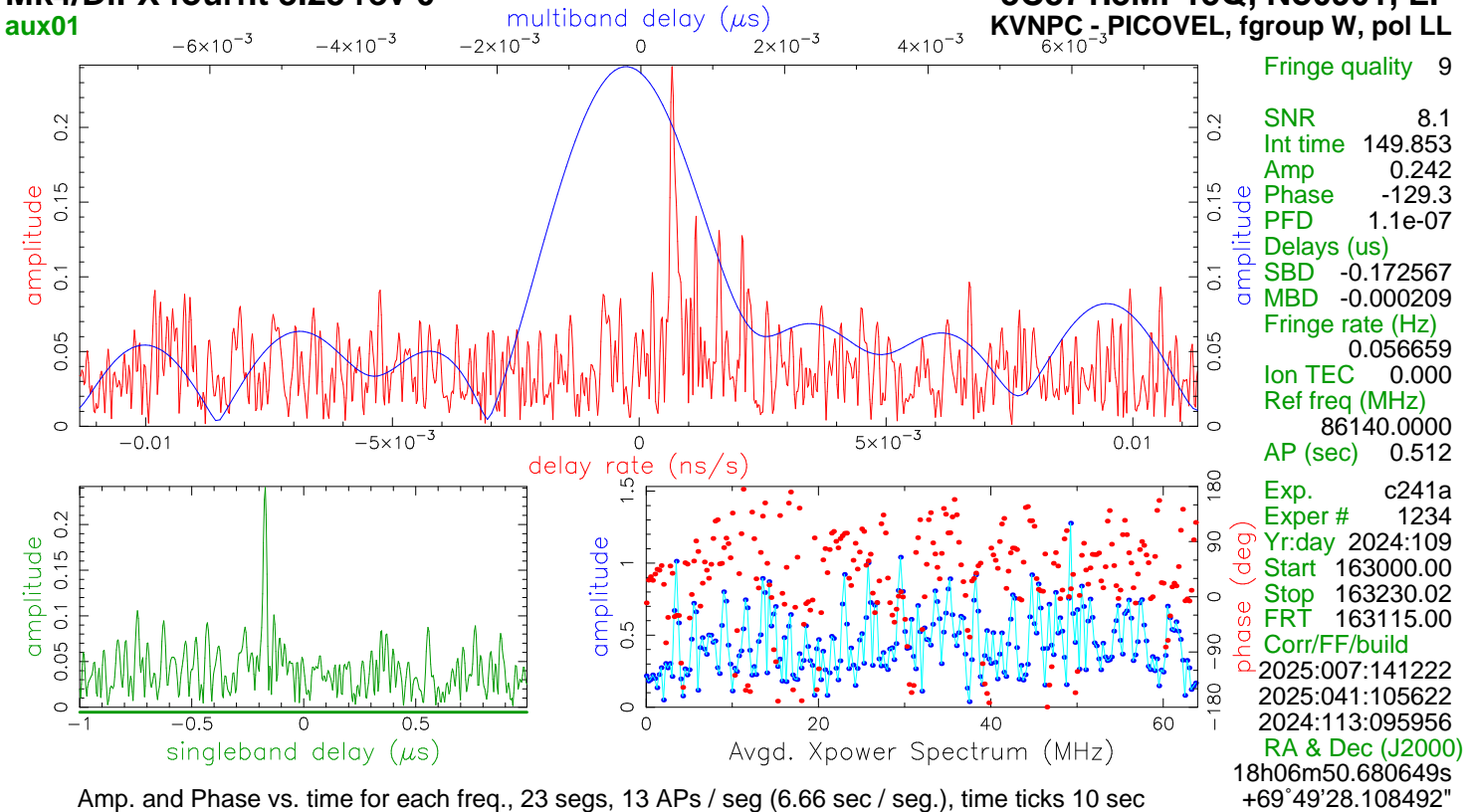
k: az 336.1 el 36.1 pa 95.2 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7063.780 -9185.348 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//kP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//kP.W.346.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, LP

KVNPC - PICOVEL, fgroup W, pol LL



Fringe quality 9

SNR 8.1

Int time 149.853

Amp 0.242

Phase -129.3

PFD 1.1e-07

Delays (us)

SBD -0.172567

MBD -0.000209

Fringe rate (Hz) 0.056659

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

2025:041:105622

2024:113:095956

RA & Dec (J2000)

18h06m50.680649s

+69°49'28.108492"

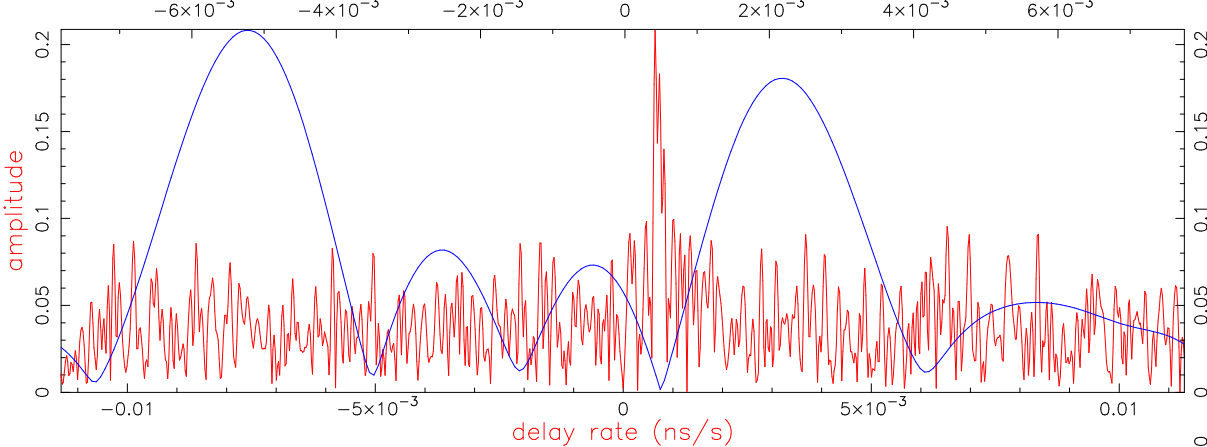
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, LP

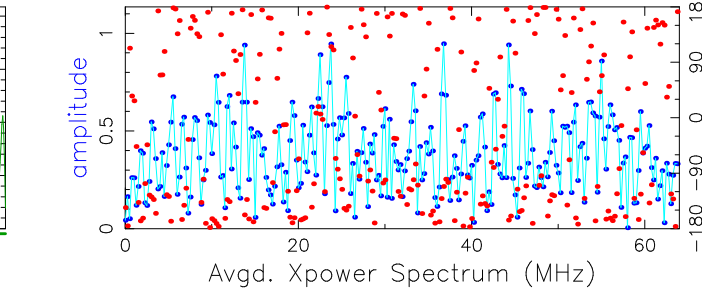
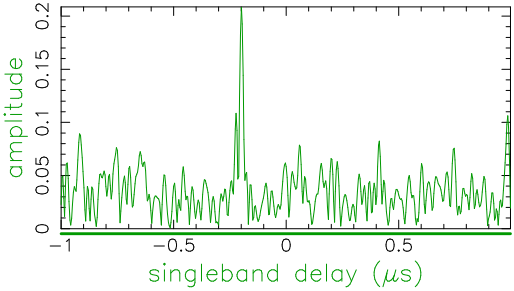
KVNPC - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)



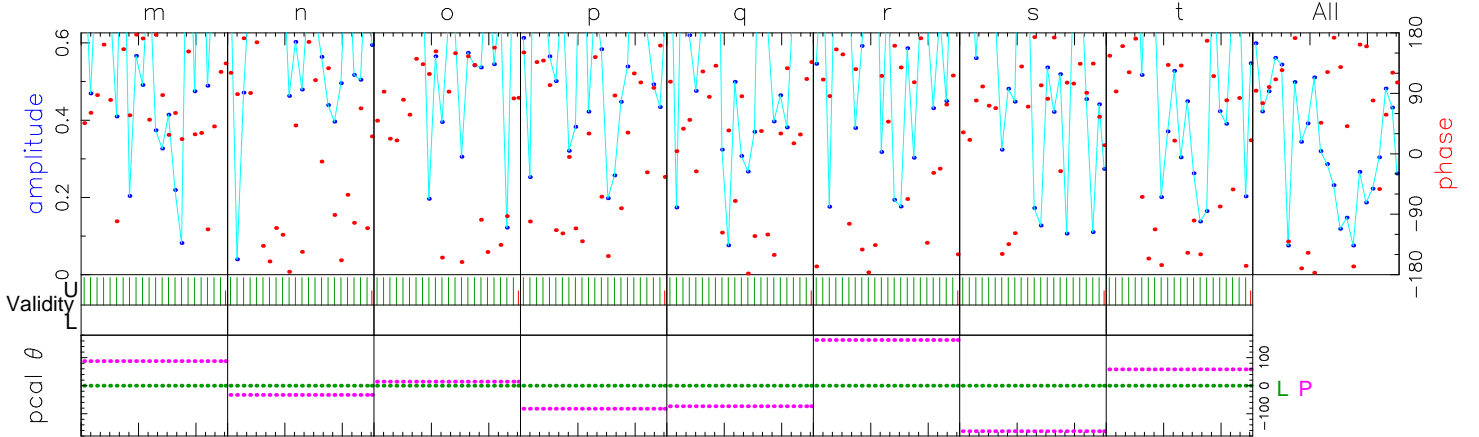
Fringe quality 0

SNR 7.0  
 Int time 149.853  
 Amp 0.209  
 Phase 124.3  
 PFD 4.5e-04  
 Delays (us)  
 SBD -0.198787  
 MBD -0.005221  
 Fringe rate (Hz) 0.054611  
 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  
 2025:041:105626  
 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
	98.1	-163.0	108.2	155.7	80.1	170.0	87.5	151.3	Phase	124.3
	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	Ampl.	0.3
	205.7	161.8	409.9	384.7	200.2	9.3	206.5	207.1	Sbd box	206.1
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	
P	0	0	0	0	0	0	0	0	PC freqs	
L:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	9.85629026552E+03	Apriori delay (usec)	9.85648298609E+03	Resid mbdelay (usec)	-5.22057E-03	+/-	1.6E-04
Sband delay (usec)	9.85628419884E+03	Apriori clock (usec)	-2.4358923E+01	Resid sbdelay (usec)	-1.98787E-01	+/-	1.2E-03
Phase delay (usec)	9.85648299010E+03	Apriori clockrate (us/s)	-8.0397754E-06	Resid phdelay (usec)	4.00697E-06	+/-	5.3E-07
Delay rate (us/s)	3.16114715606E-01	Apriori rate (us/s)	3.16114081626E-01	Resid rate (us/s)	6.33981E-07	+/-	6.1E-09
Total phase (deg)	276.1	Apriori accel (us/s/s)	-5.18783665178E-05	Resid phase (deg)	124.3	+/-	16.4

ph/seg (deg)	64.5	Theor.	39.4	Amplitude	0.209 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	98.0	Search (1024X32)	0.202	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	47.2	Inc. seg. avg.	0.275	Inc. seg. avg.	0.275	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	38.8	Inc. frq. avg.	0.251	Inc. frq. avg.	0.251	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 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) -5384.920 -11004.393 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/LP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/LP.W.299.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

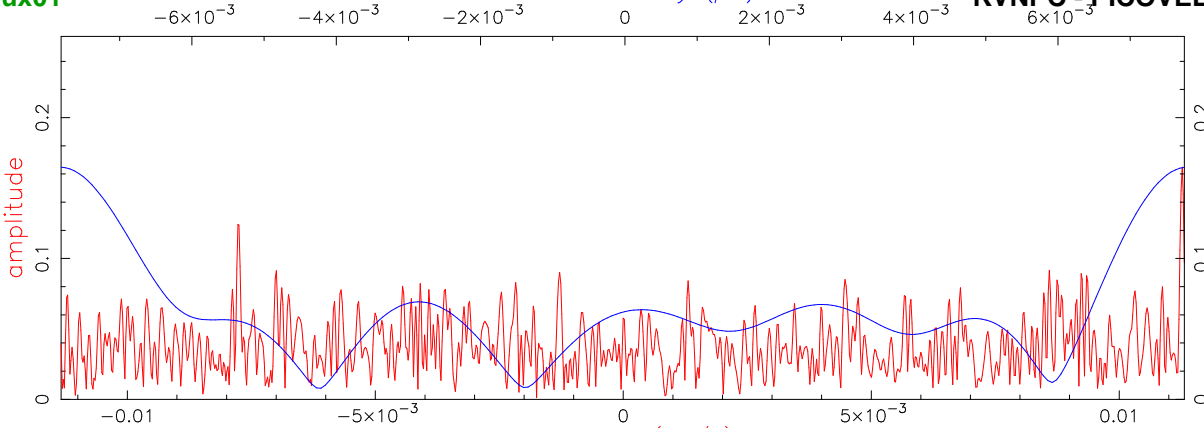
aux01

3C371.3MP15Q, No0901, LP

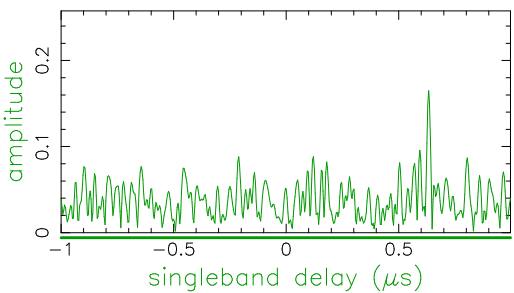
KVNPC - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

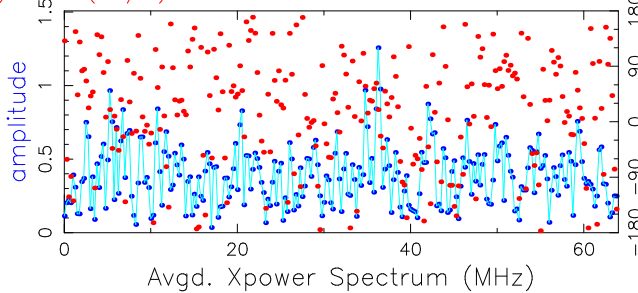
Fringe quality 0



SNR 5.5  
 Int time 149.853  
 Amp 0.258  
 Phase 50.5  
 PFD 9.8e-01  
 Delays (us)  
 SBD 0.633105  
 MBD 0.007804  
 Fringe rate (Hz)  
 0.971418  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

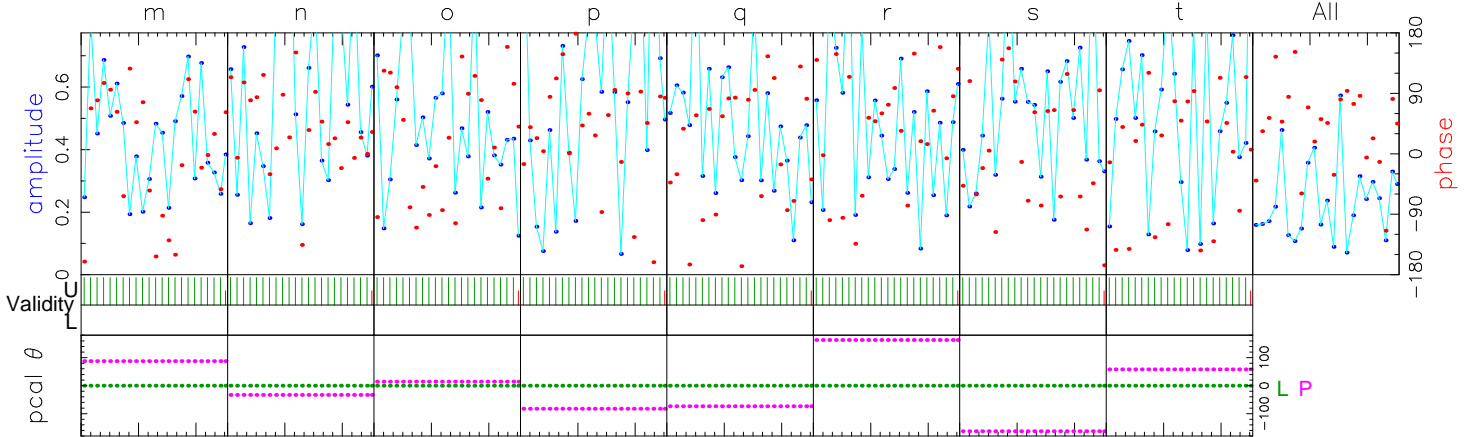


delay rate (ns/s)



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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
L	0	0	60000	0	0	0	4000	0		
P	0	0	0	0	0	0	0	0		
L:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
L:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
L	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	9.85711579046E+03	Apriori delay (usec)		9.85648298609E+03	Resid mbdelay (usec)	7.80437E-03	+/-	2.0E-04	
Sband delay (usec)	9.85711609059E+03	Apriori clock (usec)		-2.4358923E+01	Resid sbdelay (usec)	6.33105E-01	+/-	1.6E-03	
Phase delay (usec)	9.85648298772E+03	Apriori clockrate (us/s)		-8.0397754E-06	Resid phdelay (usec)	1.62777E-06	+/-	6.7E-07	
Delay rate (us/s)	3.16125358826E-01	Apriori rate (us/s)		3.16114081626E-01	Resid rate (us/s)	1.12772E-05	+/-	7.7E-09	
Total phase (deg)		202.3	Apriori accel (us/s/s)		-5.18783665178E-05	Resid phase (deg)	50.5	+/-	20.8

ph/seg (deg)	63.0	Theor. 49.8	Amplitude Search (1024X32)	0.161	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.5	86.9	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)	34.6	29.4	Inc. seg. avg.	0.268	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 (%)	60.8	51.2	Inc. frq. avg.	0.247	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

L: az 23.1 el 48.9 pa -116.3 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) -5384.920 -11004.393 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/LP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/LP.W.309.3MP15Q

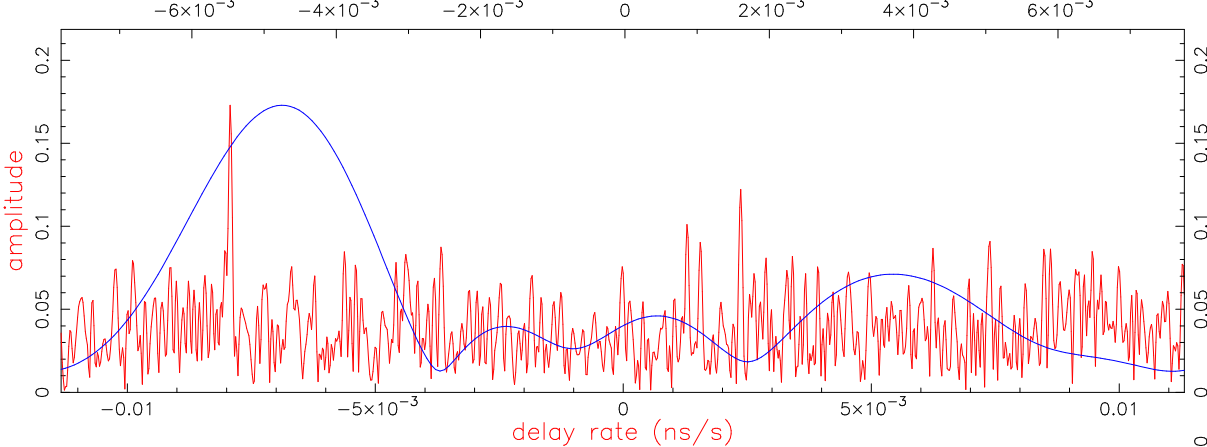
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, LP

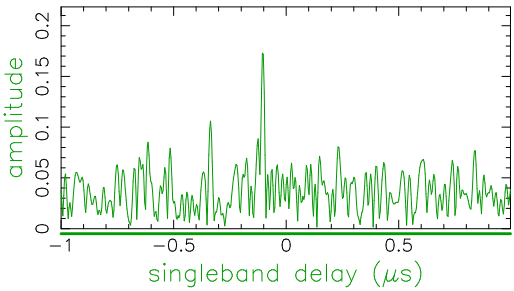
KVNPC - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

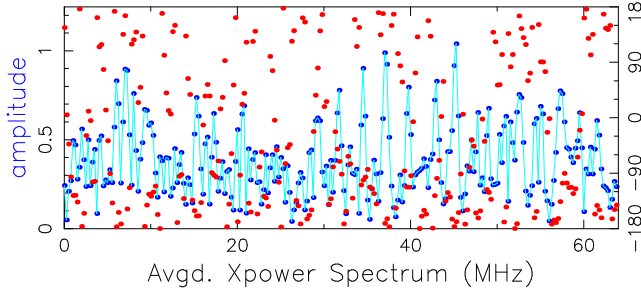


Fringe quality 0

SNR 5.9  
 Int time 149.853  
 Amp 0.219  
 Phase 146.8  
 PFD 3.2e-01  
 Delays (us)  
 SBD -0.103637  
 MBD -0.004716  
 Fringe rate (Hz)  
 -0.683103  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

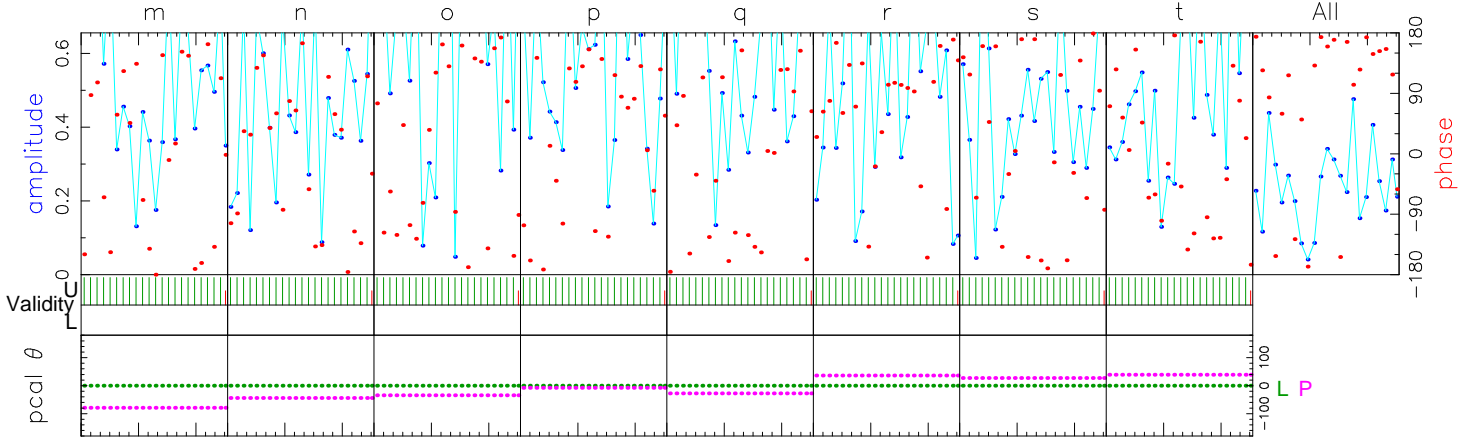


delay rate (ns/s)



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
	154.4	133.8	167.8	126.6	157.7	107.0	162.2	-159.3	Phase	146.8
	0.2	0.1	0.4	0.3	0.2	0.3	0.2	0.1	Ampl.	0.2
	150.4	279.2	229.7	171.3	29.0	417.8	29.3	315.9	Sbd box	230.5
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	
P	0	0	0	0	0	0	0	0	PC freqs	
L:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
L:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
L	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
L	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.85638452016E+03	Apriori delay (usec)	9.85648298609E+03	Resid mbdelay (usec)	-4.71593E-03	+/-	1.8E-04
Sband delay (usec)	9.85637934884E+03	Apriori clock (usec)	-2.4358923E+01	Resid sbdelay (usec)	-1.03637E-01	+/-	1.5E-03
Phase delay (usec)	9.85648299082E+03	Apriori clockrate (us/s)	-8.0397754E-06	Resid phdelay (usec)	4.73376E-06	+/-	6.2E-07
Delay rate (us/s)	3.16106151476E-01	Apriori rate (us/s)	3.16114081626E-01	Resid rate (us/s)	-7.93015E-06	+/-	7.2E-09
Total phase (deg)	298.6	Apriori accel (us/s/s)	-5.18783665178E-05	Resid phase (deg)	146.8	+/-	19.3

ph/seg (deg)	51.2	Theor.	46.3	Amplitude	0.219 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	71.9	Search (1024X32)	0.169	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	31.4	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.3	Inc. seg. avg.	0.226	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.209	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 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -5384.920 -11004.393 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/LP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/LP.W.319.3MP15Q



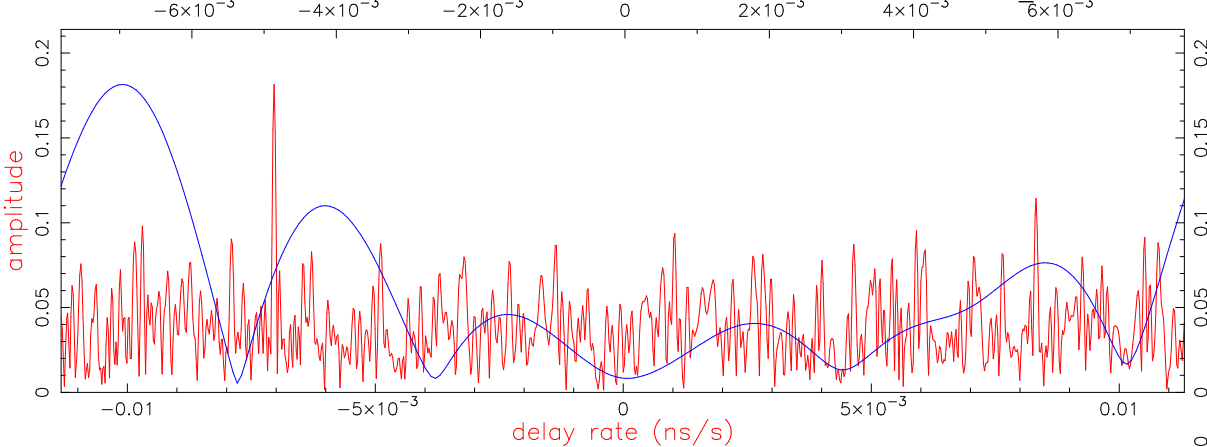
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, IP

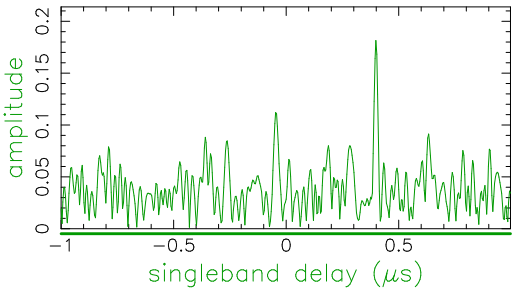
VLBA\_LA - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

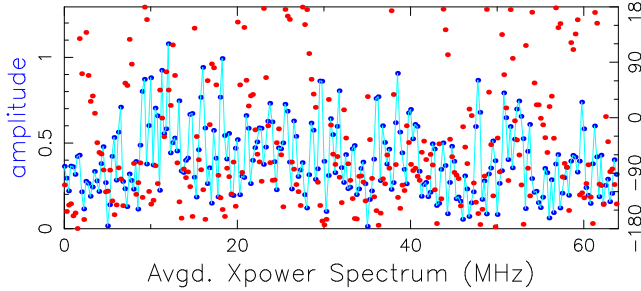


Fringe quality 0

SNR 6.1  
 Int time 149.987  
 Amp 0.214  
 Phase -117.3  
 PFD 1.4e-01  
 Delays (us)  
 SBD 0.398693  
 MBD -0.006958  
 Fringe rate (Hz)  
 -0.606674  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

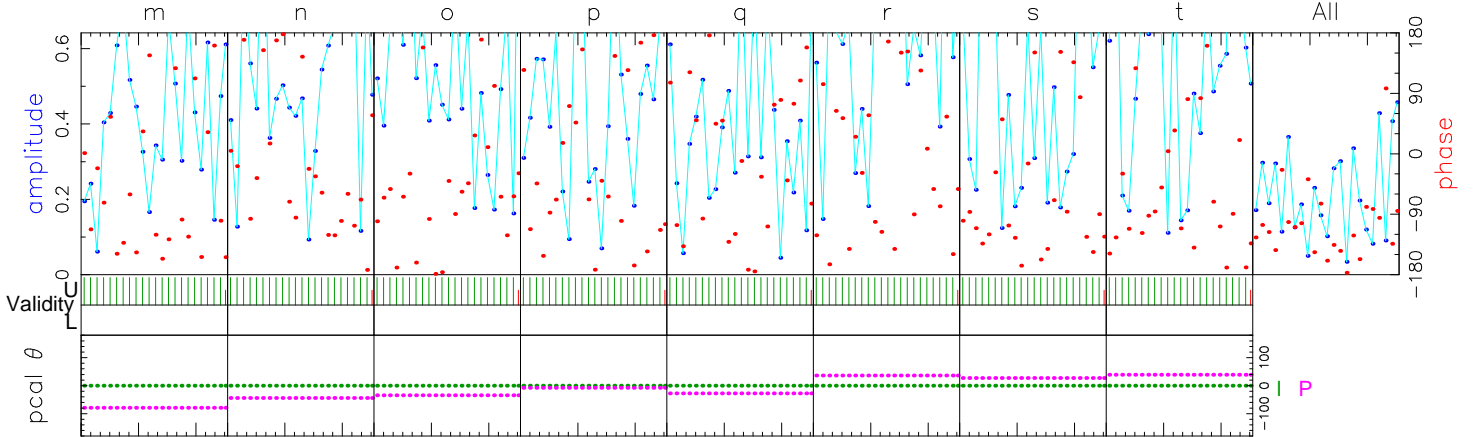


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105726  
 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		
I	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.81886272006E+03	Apriori delay (usec)	6.81846342764E+03	Resid mbdelay (usec)	-6.95758E-03	+/-	1.8E-04
Sband delay (usec)	6.81886212089E+03	Apriori clock (usec)	-7.2989120E+00	Resid sbdelay (usec)	3.98693E-01	+/-	1.4E-03
Phase delay (usec)	6.81846342386E+03	Apriori clockrate (us/s)	-8.3223814E-07	Resid phdelay (usec)	-3.78112E-06	+/-	6.1E-07
Delay rate (us/s)	-4.24281216779E-01	Apriori rate (us/s)	-4.24274173898E-01	Resid rate (us/s)	-7.04288E-06	+/-	7.0E-09
Total phase (deg)	119.1	Apriori accel (us/s/s)	-3.82251738988E-05	Resid phase (deg)	-117.3	+/-	18.8

ph/seg (deg)	48.2	Theor.	45.2	Amplitude	0.214 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	67.6		78.9	Search (1024X32)	0.180	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	21.1		26.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	46.1		46.5	Inc. seg. avg.	0.192	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.202	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

I: az 334.9 el 37.8 pa 88.1 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 6941.931 -8307.125 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/IP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/IP.W.454.3MP15Q

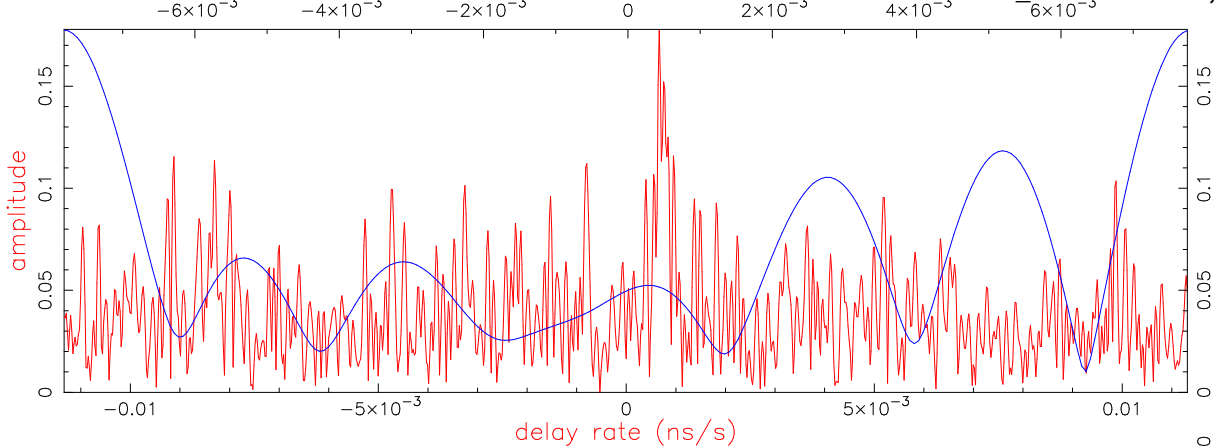
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, IP

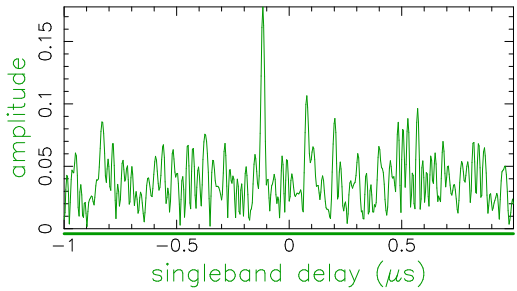
VLBA\_LA - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

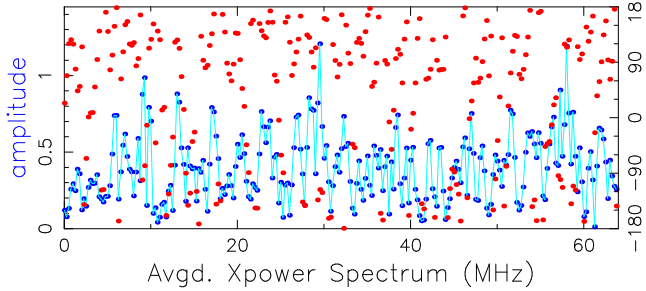


Fringe quality 0

SNR 5.9  
 Int time 149.987  
 Amp 0.178  
 Phase -50.2  
 PFD 3.0e-01  
 Delays (us)  
 SBD -0.117045  
 MBD -0.007819  
 Fringe rate (Hz)  
 0.056458  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

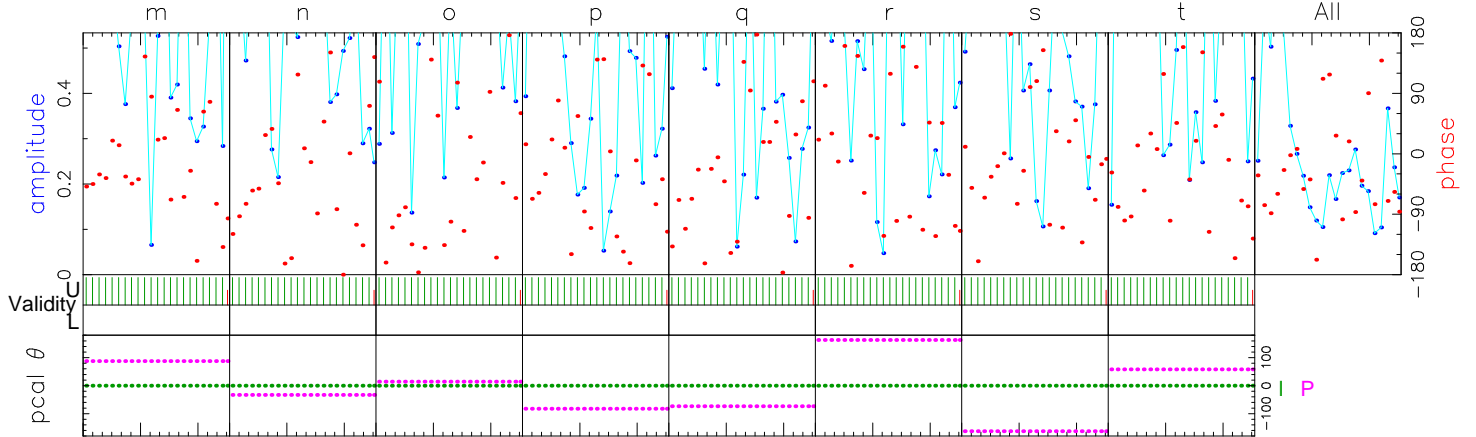


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105729  
 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
	-31.5	-63.7	-120.2	-47.5	-56.4	-42.3	-32.4	-60.7	Phase	-50.2
	0.4	0.2	0.1	0.1	0.2	0.1	0.2	0.2	Ampl.	0.2
	226.3	433.1	506.9	59.4	96.2	55.3	226.9	105.2	Sbd box	227.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
I	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
I:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	ManI PC	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.81834623407E+03	Apriori delay (usec)	6.81846342764E+03	Resid mbdelay (usec)	-7.81857E-03	+/-	1.8E-04
Sband delay (usec)	6.81834638214E+03	Apriori clock (usec)	-7.2989120E+00	Resid sbdelay (usec)	-1.17045E-01	+/-	1.4E-03
Phase delay (usec)	6.81846342602E+03	Apriori clockrate (us/s)	-8.3223814E-07	Resid phdelay (usec)	-1.61918E-06	+/-	6.2E-07
Delay rate (us/s)	-4.24273518482E-01	Apriori rate (us/s)	-4.24274173898E-01	Resid rate (us/s)	6.55416E-07	+/-	7.2E-09
Total phase (deg)	186.2	Apriori accel (us/s/s)	-3.82251738988E-05	Resid phase (deg)	-50.2	+/-	19.3

ph/seg (deg)	78.9	Theor.	46.2	Amplitude	0.178 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	113.8	Search (1024X32)	0.172	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	31.5	Inc. seg. avg.	0.210	Inc. frq. avg.	0.175	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	58.2	Inc. frq. avg.	0.175	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s) -0.011 0.011	ion window (TEC) 0.00 0.00

I: az 334.9 el 37.8 pa 88.1 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 6941.931 -8307.125 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/IP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/IP.W.460.3MP15Q

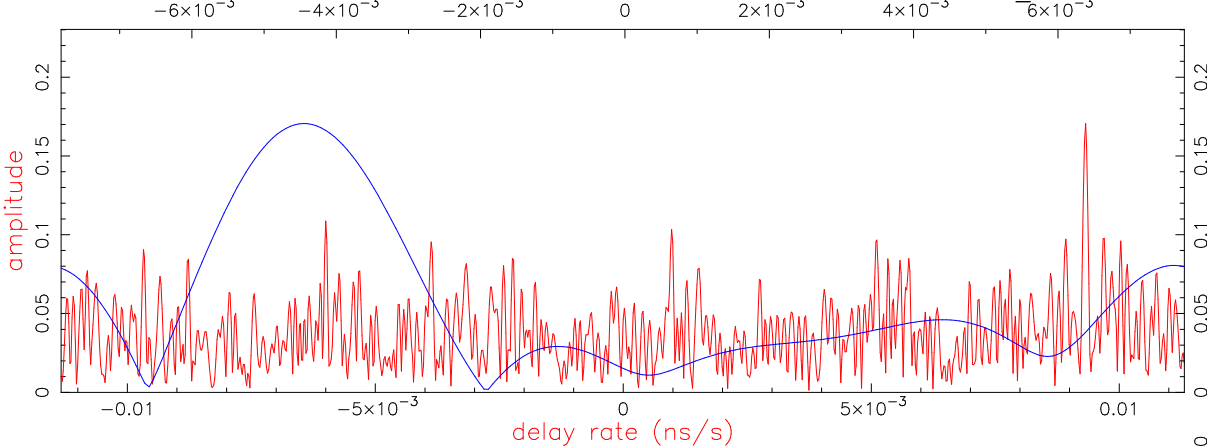
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, IP

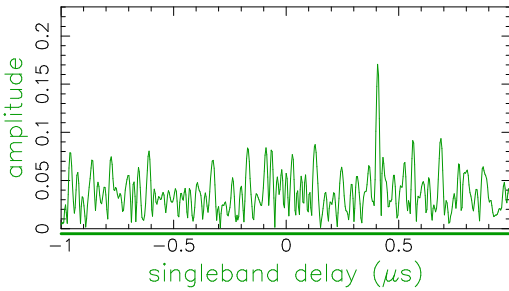
VLBA\_LA - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

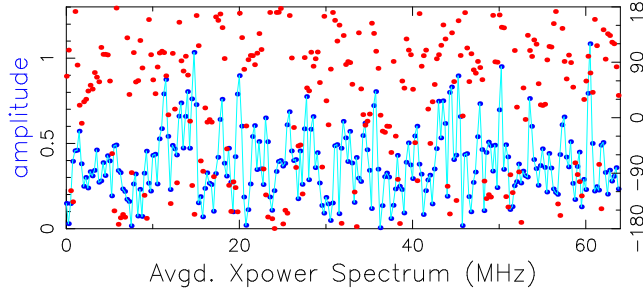


Fringe quality 0

SNR 5.7  
 Int time 149.987  
 Amp 0.230  
 Phase 176.2  
 PFD 7.1e-01  
 Delays (us)  
 SBD 0.406939  
 MBD -0.004427  
 Fringe rate (Hz)  
 0.804862  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

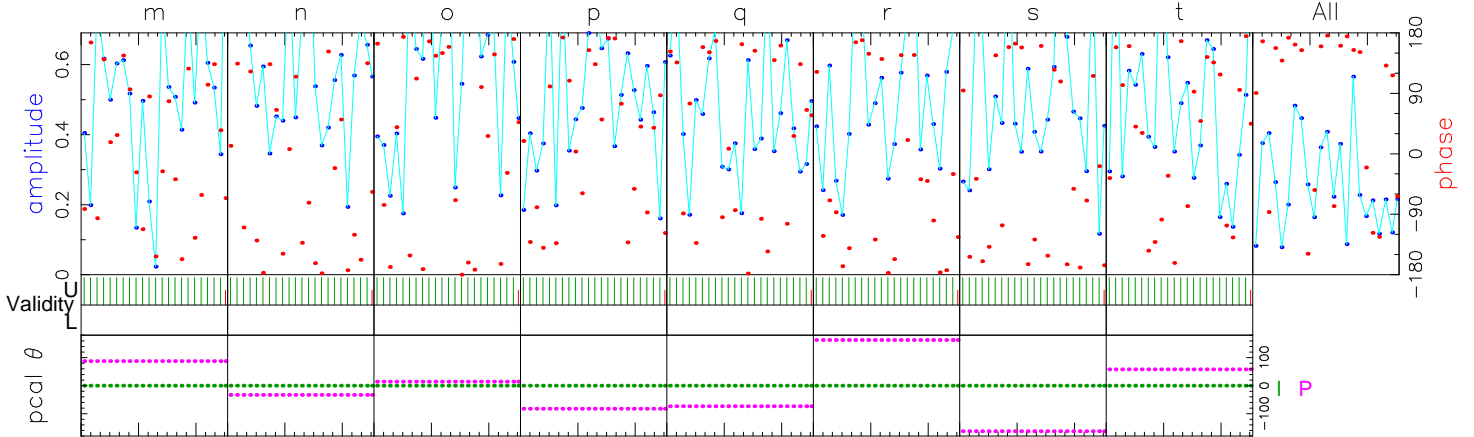


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105731  
 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			
I	0	0	0	0	0	0	0	0			
P	0	0	0	0	0	0	0	0			
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
I:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58			
I	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec) (SBD)	6.81886525015E+03					6.81846342764E+03			Resid mbdelay (usec)	-4.42749E-03 +/- 1.9E-04	
Sband delay (usec)	6.81887036689E+03					-7.2989120E+00			Resid sbdelay (usec)	4.06939E-01 +/- 1.5E-03	
Phase delay (usec)	6.81846343332E+03					-8.3223814E-07			Resid phdelay (usec)	5.68064E-06 +/- 6.4E-07	
Delay rate (us/s)	-4.24264830249E-01					-4.24274173898E-01			Resid rate (us/s)	9.34365E-06 +/- 7.4E-09	
Total phase (deg)			52.6			-3.82251738988E-05			Resid phase (deg)	176.2 +/- 20.0	
RMS	66.1	47.9							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	66.1	47.9							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	96.6	83.7							Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	67.0	28.3							Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011	
amp/frq (%)	57.5	49.3							Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00
I: az 334.9 el 37.8 pa 88.1											simultaneous interpolator
Control file: cf_1234_gmva											

Input file: /Exps/c241a/v2/3mm/1234/No0901/IP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/IP.W.470.3MP15Q

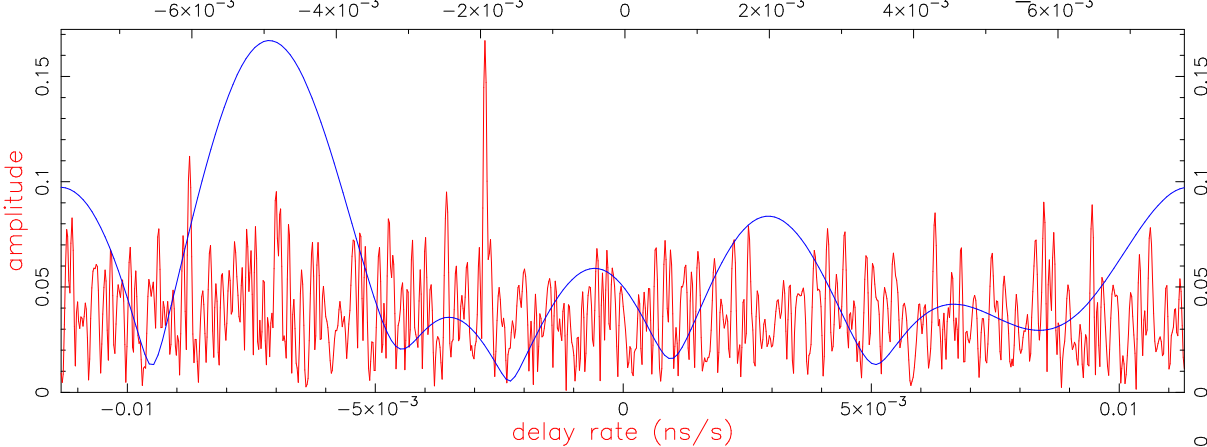
# Mk4/DiFX fourfit 3.25 rev 0

aux01

# 3C371.3MP15Q, No0901, IP

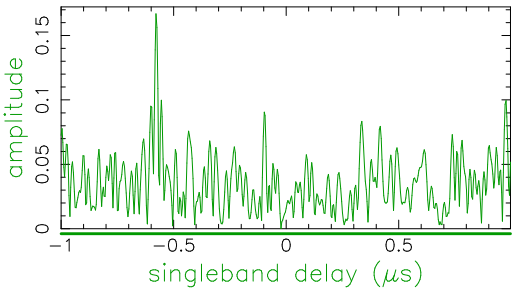
VLBA\_LA - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

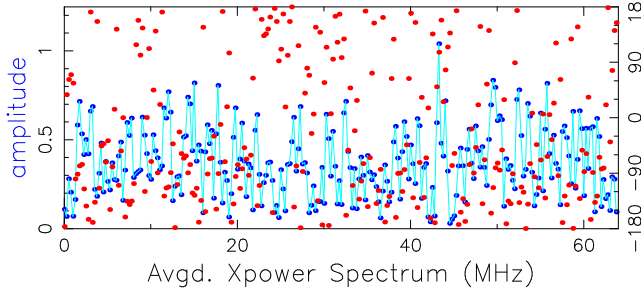


Fringe quality 0

SNR 5.6  
 Int time 149.987  
 Amp 0.172  
 Phase 122.5  
 PFD 8.9e-01  
 Delays (us)  
 SBD -0.577206  
 MBD -0.004892  
 Fringe rate (Hz)  
 -0.240669  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

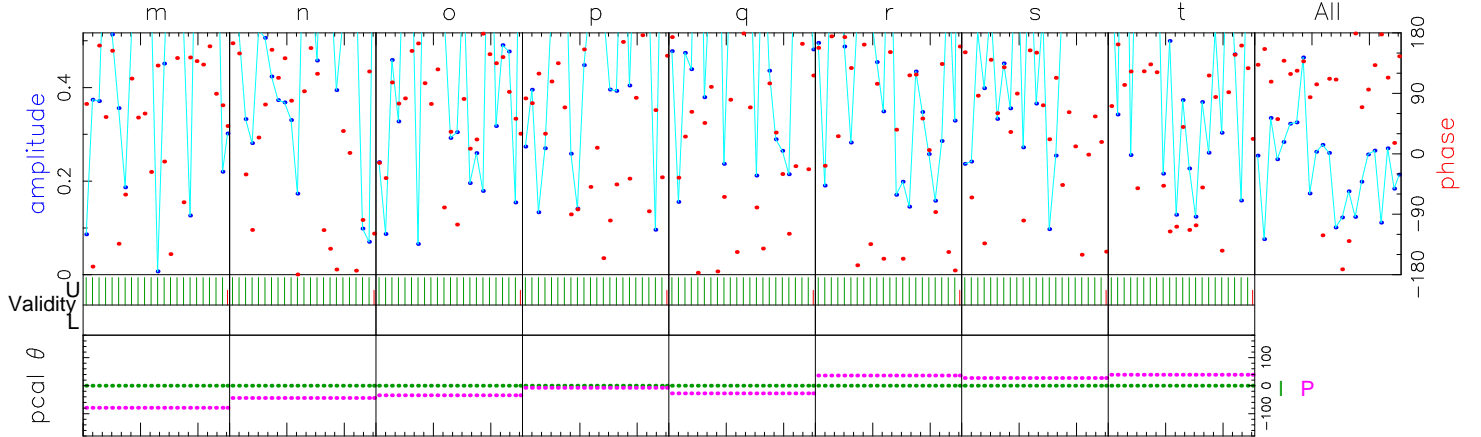


delay rate (ns/s)



Exp. c241a  
 Yr:day 1234  
 Start 2024:109  
 Stop 2024:109  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105733  
 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		
I	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
I:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
I:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
I	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.81788041111E+03	Apriori delay (usec)	6.81846342764E+03	Resid mbdelay (usec)	-4.89153E-03	+/-	1.9E-04
Sband delay (usec)	6.81788622139E+03	Apriori clock (usec)	-7.2989120E+00	Resid sbdelay (usec)	-5.77206E-01	+/-	1.5E-03
Phase delay (usec)	6.81846343159E+03	Apriori clockrate (us/s)	-8.3223814E-07	Resid phdelay (usec)	3.95019E-06	+/-	6.6E-07
Delay rate (us/s)	-4.24276967828E-01	Apriori rate (us/s)	-4.24274173898E-01	Resid rate (us/s)	-2.79393E-06	+/-	7.6E-09
Total phase (deg)	358.9	Apriori accel (us/s/s)	-3.82251738988E-05	Resid phase (deg)	122.5	+/-	20.4

ph/seg (deg)	51.6	Theor.	48.8	Amplitude	0.172 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	65.3	Search (1024X32)	0.163	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)	32.5	Inc. seg. avg.	0.174	Inc. frq. avg.	0.172	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.2	Inc. frq. avg.	0.172			Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

I: az 334.9 el 37.8 pa 88.1 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 6941.931 -8307.125 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/IP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/IP.W.478.3MP15Q

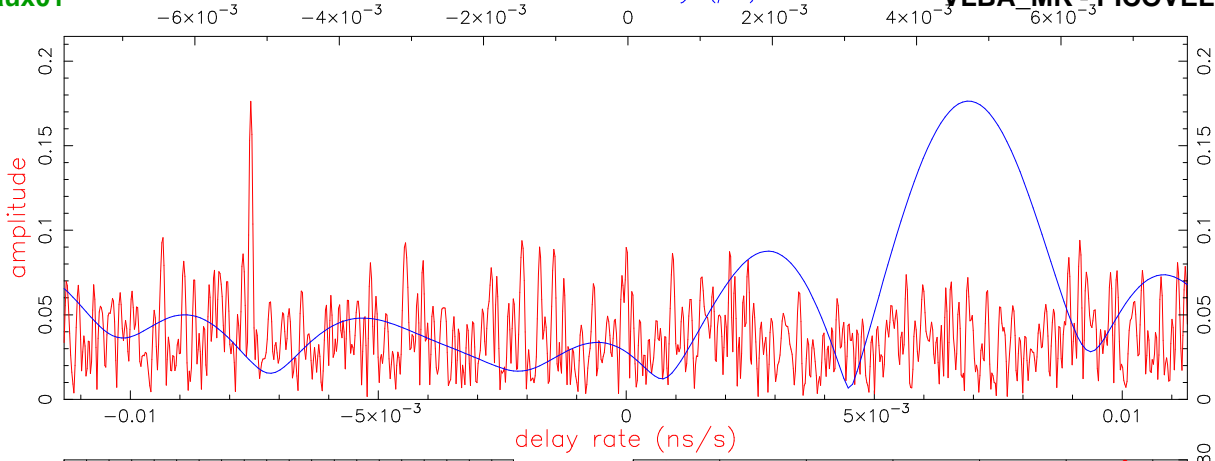
Mk4/DiFX fourfit 3.25 rev 0

aux01

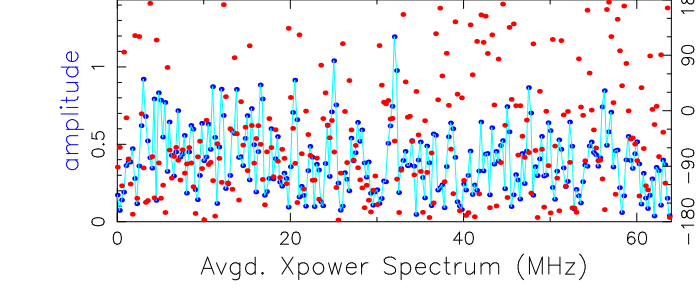
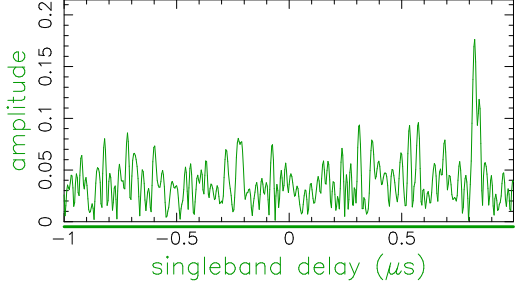
3C371.3MP15Q, No0901, mP

VLBA\_MK - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

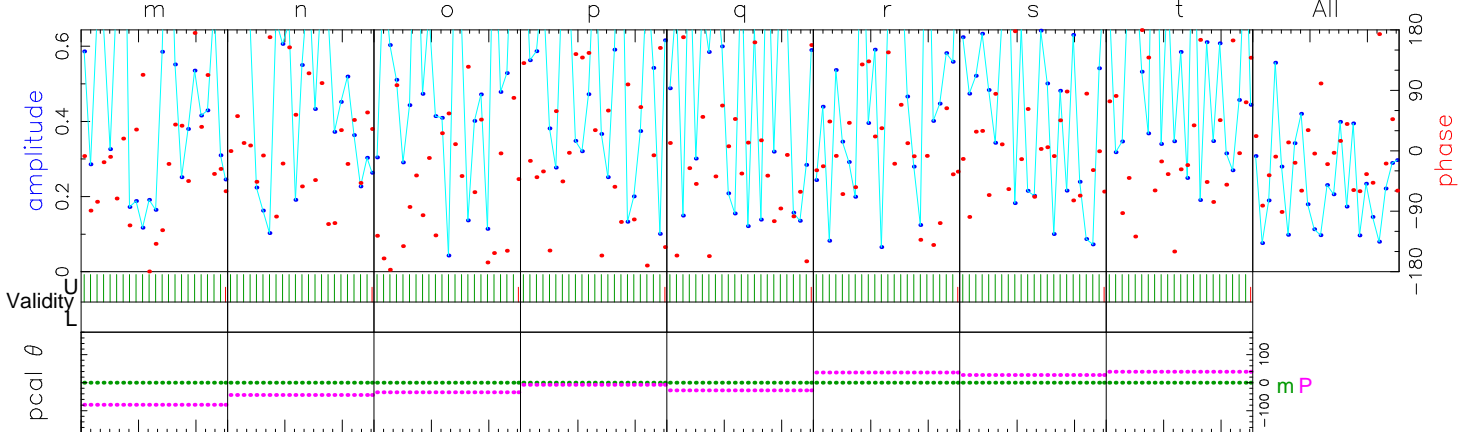


Fringe quality 0  
 SNR 5.9  
 Int time 149.987  
 Amp 0.215  
 Phase -18.0  
 PFD 3.1e-01  
 Delays (us)  
 SBD 0.823190  
 MBD 0.004677  
 Fringe rate (Hz) -0.652803  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105745  
 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
	-23.2	7.1	-58.1	-41.9	-38.8	10.0	-13.1	-19.4	Phase	-18.0
	0.3	0.3	0.2	0.1	0.2	0.2	0.3	0.2	Ampl.	0.2
	468.2	78.9	328.7	428.1	22.3	2.6	468.3	394.6	Sbd box	467.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.72289417504E+03 Apriori delay (usec) 6.72207699840E+03 Resid mbdelay (usec) 4.67664E-03 +/- 1.8E-04  
 Sband delay (usec) 6.72290018815E+03 Apriori clock (usec) 1.5506001E+00 Resid sbdelay (usec) 8.23190E-01 +/- 1.5E-03  
 Phase delay (usec) 6.72207699782E+03 Apriori clockrate (us/s) -6.1273707E-07 Resid phdelay (usec) -5.80790E-07 +/- 6.2E-07  
 Delay rate (us/s) -2.36714352596E-01 Apriori rate (us/s) -2.36706774199E-01 Resid rate (us/s) -7.57840E-06 +/- 7.2E-09  
 Total phase (deg) 213.2 Apriori accel (us/s/s) -6.36510510188E-05 Resid phase (deg) -18.0 +/- 19.3

ph/seg (deg) 57.1 46.3 Search (1024X32) 0.174 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 77.7 80.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 26.1 27.3 Inc. seg. avg. 0.214 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 34.5 47.6 Inc. frq. avg. 0.204 Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 m: az 348.4 el 37.3 pa 146.6 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) 3755.913 -14453.334 simultaneous interpolator  
 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//mP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//mP.W.507.3MP15Q

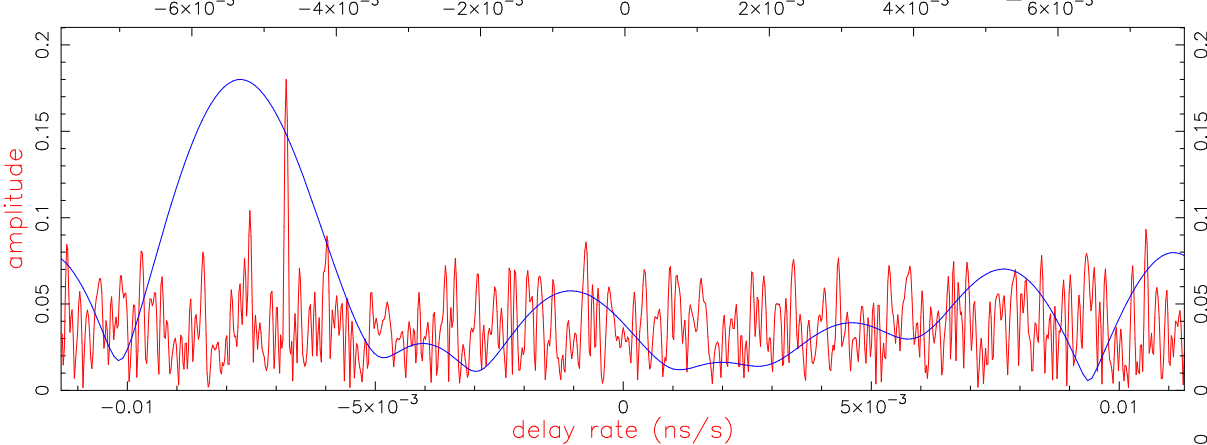
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, mP

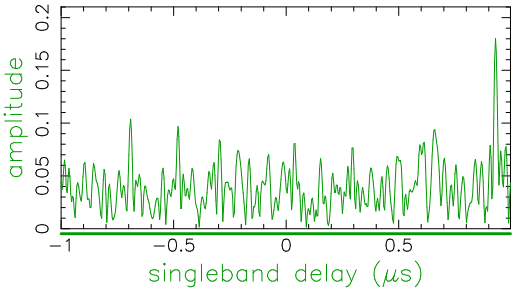
VLBA\_MK - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

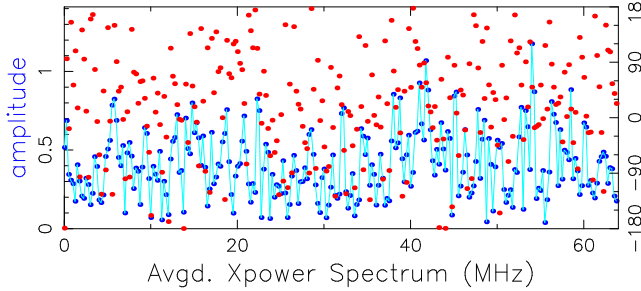


Fringe quality 0

SNR 6.0  
 Int time 149.987  
 Amp 0.210  
 Phase 19.9  
 PFD 1.8e-01  
 Delays (us)  
 SBD 0.930231  
 MBD -0.005327  
 Fringe rate (Hz)  
 -0.586294  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

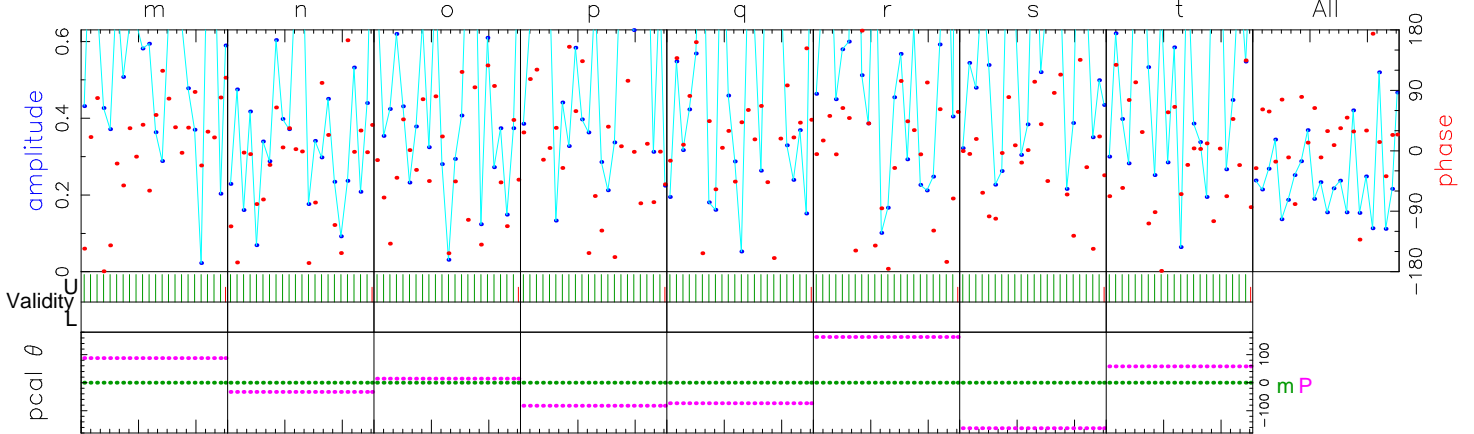


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105747  
 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		
m	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
m	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.72300917169E+03	Apriori delay (usec)	6.72207699840E+03	Resid mbdelay (usec)	-5.32671E-03	+/-	1.8E-04
Sband delay (usec)	6.72300722915E+03	Apriori clock (usec)	1.5506001E+00	Resid sbdelay (usec)	9.30231E-01	+/-	1.4E-03
Phase delay (usec)	6.72207699904E+03	Apriori clockrate (us/s)	-6.1273707E-07	Resid phdelay (usec)	6.40877E-07	+/-	6.1E-07
Delay rate (us/s)	-2.36713580486E-01	Apriori rate (us/s)	-2.36706774199E-01	Resid rate (us/s)	-6.80629E-06	+/-	7.1E-09
Total phase (deg)	251.1	Apriori accel (us/s/s)	-6.36510510188E-05	Resid phase (deg)	19.9	+/-	19.0

ph/seg (deg)	59.1	Theor.	45.5	Amplitude	0.210 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.6		79.4	Search (1024X32)	0.175	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	19.8		26.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.1		46.8	Inc. seg. avg.	0.217	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.196	Data rate(Mb/s): 2048	t_cohere infinite			

m: az 348.4 el 37.3 pa 146.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 3755.913 -14453.334 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//mP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//mP.W.513.3MP15Q

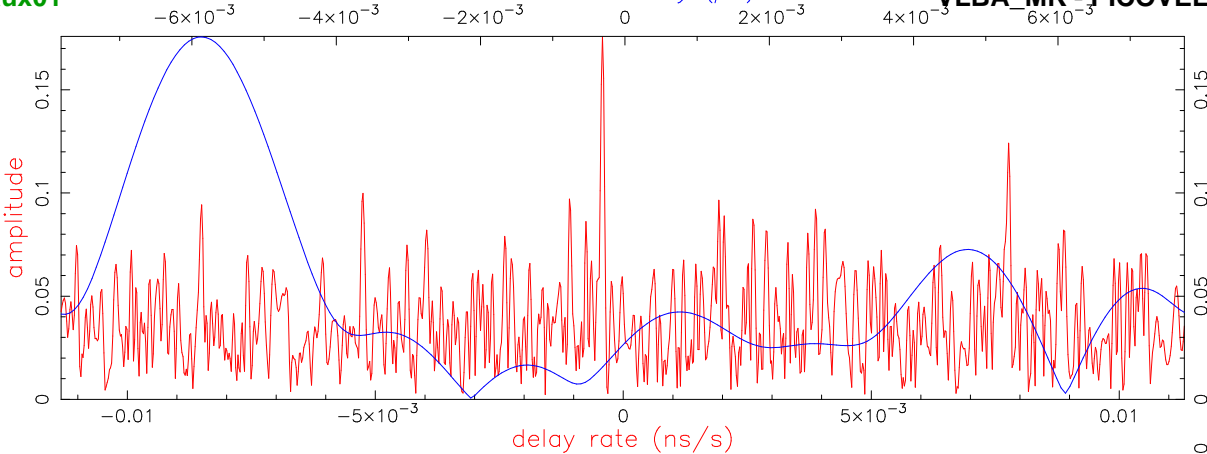
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, mP

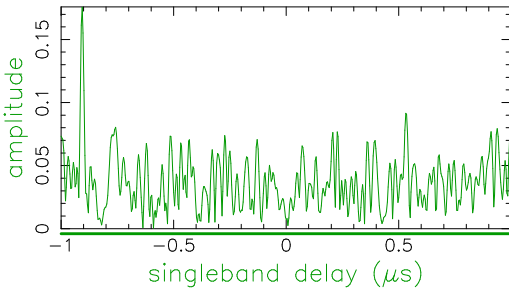
VLBA\_MK - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

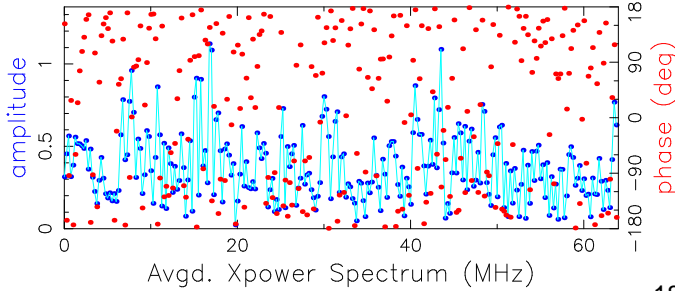


Fringe quality 0

SNR 5.9  
 Int time 149.987  
 Amp 0.176  
 Phase -136.3  
 PFD 3.9e-01  
 Delays (us)  
 SBD -0.906636  
 MBD -0.005894  
 Fringe rate (Hz)  
 -0.036602  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

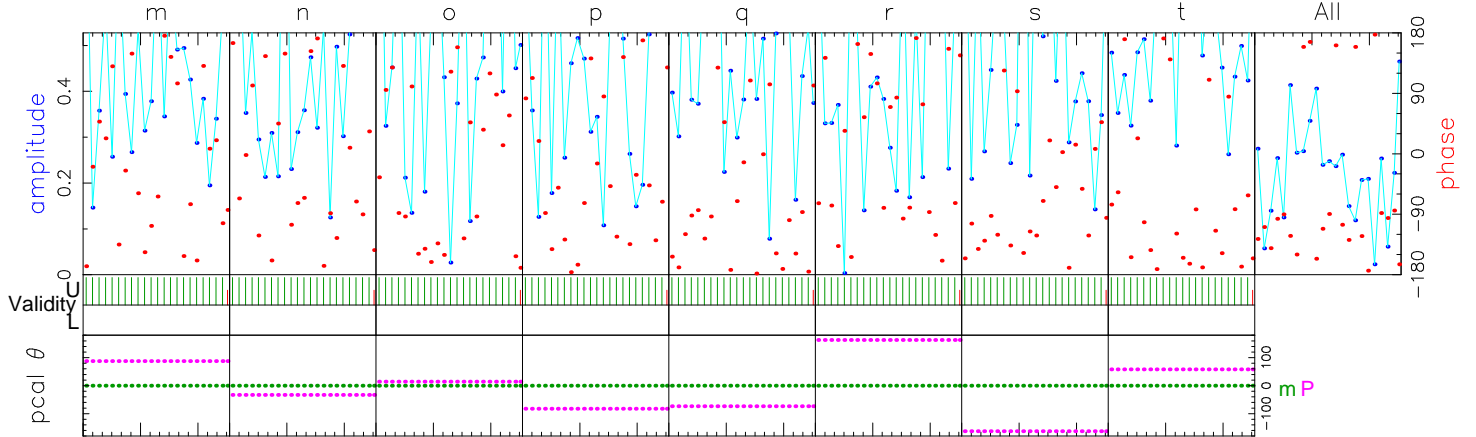


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105751  
 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
	-128.0	-147.7	-172.2	-113.4	-143.3	-140.0	-109.6	-147.0	Phase	-136.3
	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	Ampl.	0.2
	17.6	54.0	503.5	179.9	261.3	23.1	21.1	24.3	Sbd box	24.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	6.72116485452E+03		Apriori delay (usec)		6.72207699840E+03		Resid mbdelay (usec)		-5.89388E-03	+/- 1.8E-04
Sband delay (usec)	6.72117036240E+03		Apriori clock (usec)		1.5506001E+00		Resid sbdelay (usec)		-9.06636E-01	+/- 1.5E-03
Phase delay (usec)	6.72207699400E+03		Apriori clockrate (us/s)		-6.1273707E-07		Resid phdelay (usec)		-4.39666E-06	+/- 6.3E-07
Delay rate (us/s)	-2.36707199116E-01		Apriori rate (us/s)		-2.36706774199E-01		Resid rate (us/s)		-4.24916E-07	+/- 7.2E-09
Total phase (deg)			Apriori accel (us/s/s)		-6.36510510188E-05		Resid phase (deg)		-136.3	+/- 19.5

ph/seg (deg) 39.7 46.7 Search (1024X32) 0.174 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 65.8 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 22.0 27.5 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.7 48.0 Inc. frq. avg. 0.165 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 m: az 348.4 el 37.3 pa 146.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 3755.913 -14453.334 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//mP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//mP.W.517.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

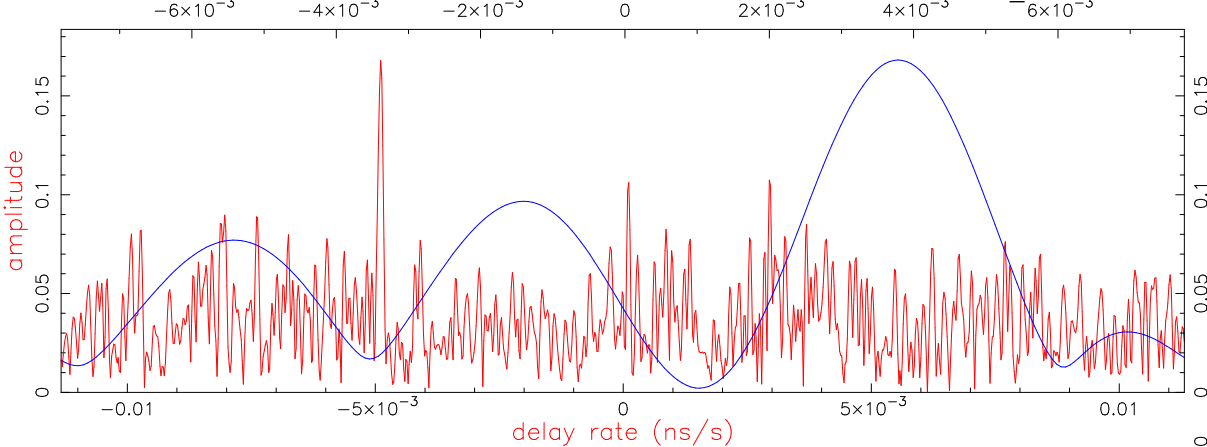
aux01

3C371.3MP15Q, No0901, mP

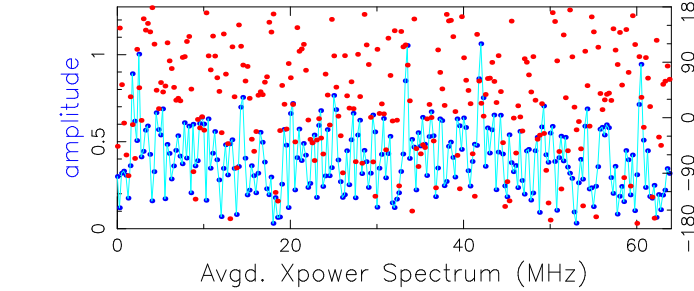
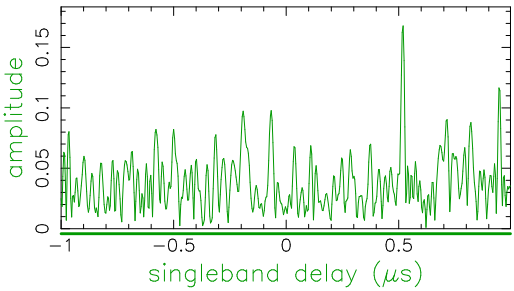
VLBA\_MK - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

Fringe quality 0

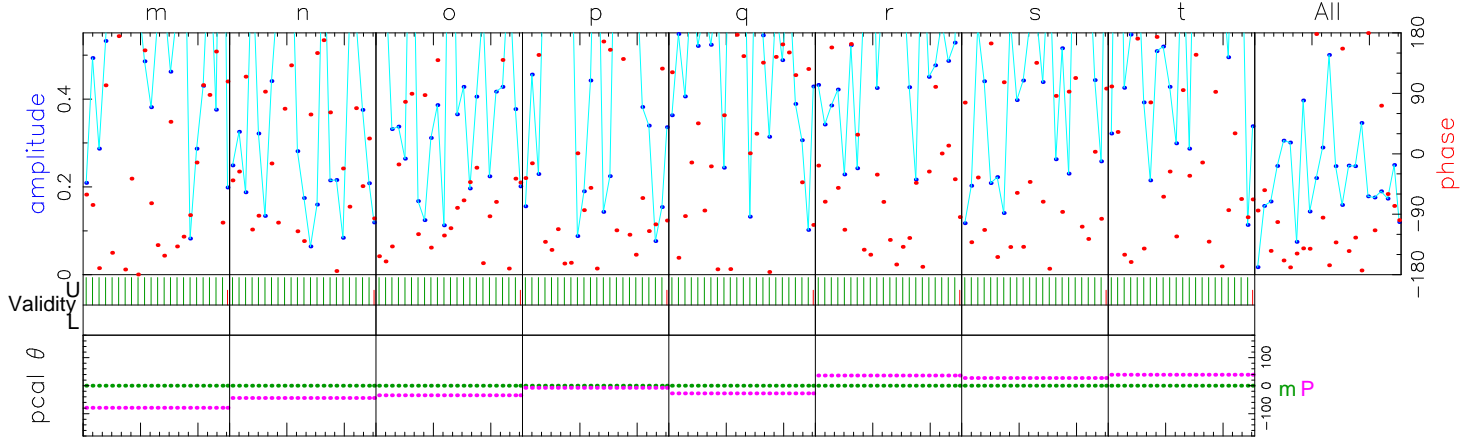


SNR 5.7  
 Int time 149.987  
 Amp 0.184  
 Phase -141.1  
 PFD 7.9e-01  
 Delays (us)  
 SBD 0.518221  
 MBD 0.003716  
 Fringe rate (Hz) -0.421694  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105754  
 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
	-150.8	-114.4	-133.7	-135.3	160.2	-114.8	-131.6	-161.0	Phase	-141.1
	0.3	0.0	0.2	0.4	0.2	0.3	0.2	0.1	Ampl.	0.2
	290.1	155.9	66.6	389.5	177.0	480.5	101.8	10.3	Sbd box	389.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
m:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
m	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)	6.72259633902E+03		Apriori delay (usec)		6.72207699840E+03		Resid mbdelay (usec)		3.71562E-03	+/- 1.9E-04
Sband delay (usec)	6.72259521965E+03		Apriori clock (usec)		1.5506001E+00		Resid sbdelay (usec)		5.18221E-01	+/- 1.5E-03
Phase delay (usec)	6.72207699385E+03		Apriori clockrate (us/s)		-6.1273707E-07		Resid phdelay (usec)		-4.55014E-06	+/- 6.5E-07
Delay rate (us/s)	-2.36711669645E-01		Apriori rate (us/s)		-2.36706774199E-01		Resid rate (us/s)		-4.89545E-06	+/- 7.5E-09
Total phase (deg)	90.1		Apriori accel (us/s/s)		-6.36510510188E-05		Resid phase (deg)		-141.1	+/- 20.1

ph/seg (deg) RMS Theor. Amplitude 0.184 +/- 0.032 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 51.1 48.3 Search (1024X32) 0.164 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 69.0 84.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 30.3 28.5 Inc. seg. avg. 0.181 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 amp/frq (%) 65.2 49.7 Inc. frq. avg. 0.177 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 m: az 348.4 el 37.3 pa 146.6 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 3755.913 -14453.334 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//mP...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//mP.W.525.3MP15Q



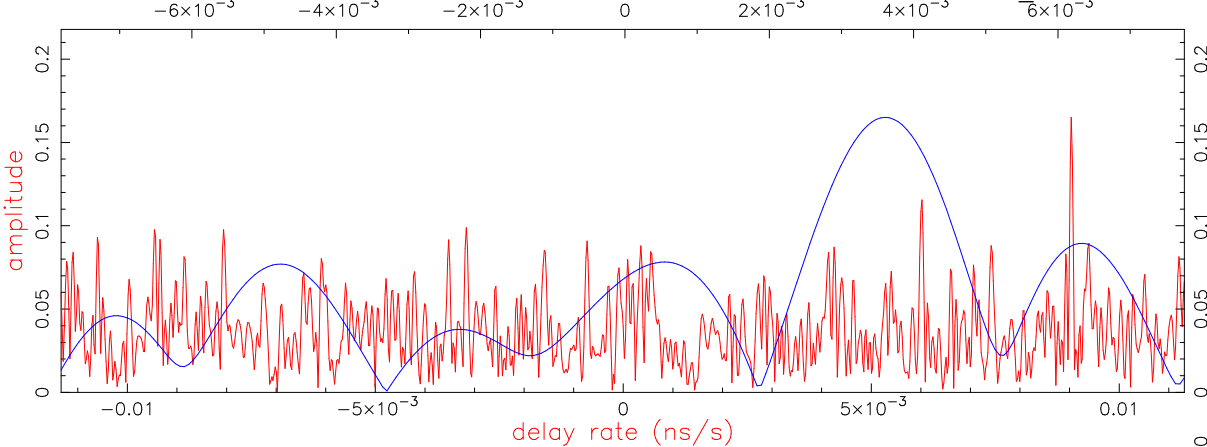
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, nP

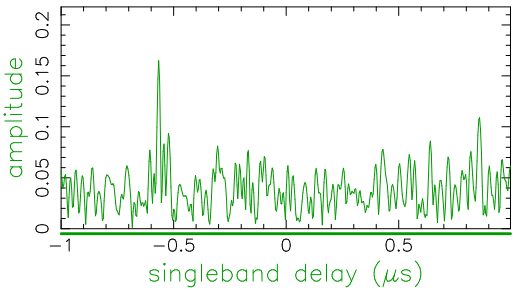
VLBA\_NL - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

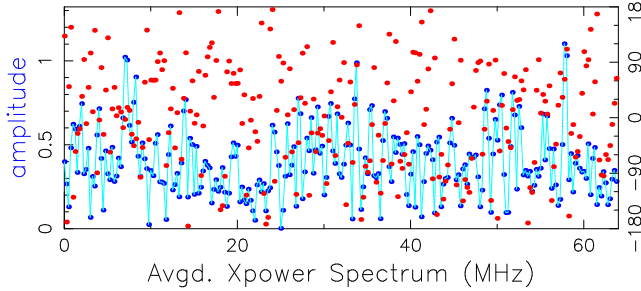


Fringe quality 0

SNR 5.5  
 Int time 149.956  
 Amp 0.218  
 Phase -72.8  
 PFD 9.8e-01  
 Delays (us)  
 SBD -0.566477  
 MBD 0.003606  
 Fringe rate (Hz)  
 0.779691  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

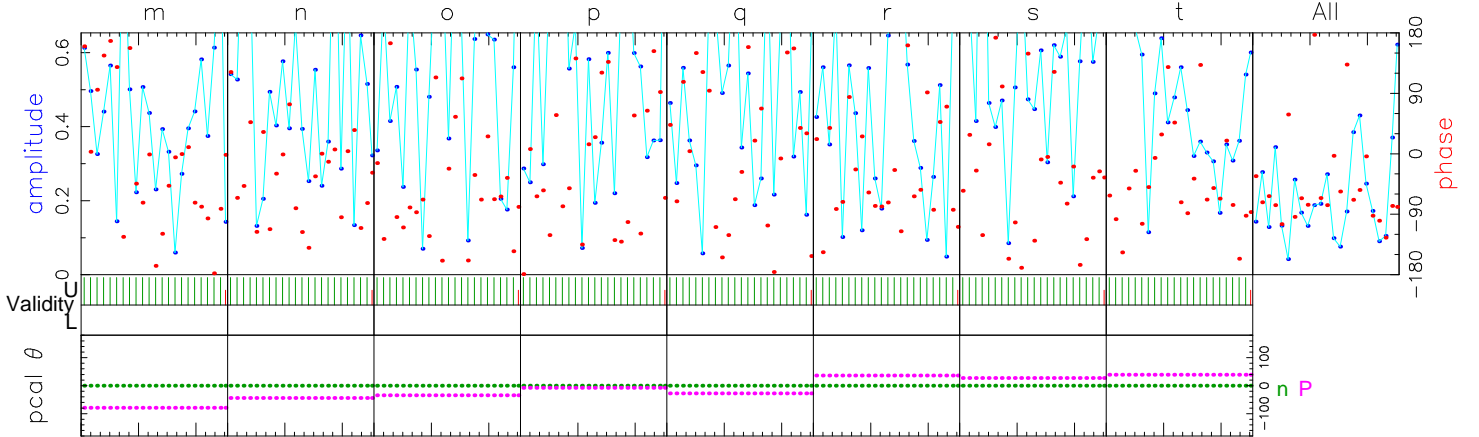


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105753  
 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
	-108.5	-31.8	-85.6	-89.9	-150.8	-66.6	-79.9	-65.7	Phase	-72.8
	0.2	0.4	0.2	0.2	0.1	0.3	0.3	0.4	Ampl.	0.2
	233.7	113.1	174.6	468.0	77.7	25.2	409.5	407.0	Sbd box	112.0
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.94668631135E+03	Apriori delay (usec)	6.94724520520E+03	Resid mbdelay (usec)	3.60615E-03	+/-	2.0E-04
Sband delay (usec)	6.94667872795E+03	Apriori clock (usec)	7.2834778E-01	Resid sbdelay (usec)	-5.66477E-01	+/-	1.6E-03
Phase delay (usec)	6.94724520285E+03	Apriori clockrate (us/s)	-3.0097713E-07	Resid phdelay (usec)	-2.34897E-06	+/-	6.7E-07
Delay rate (us/s)	-3.99804710807E-01	Apriori rate (us/s)	-3.99813762247E-01	Resid rate (us/s)	9.05144E-06	+/-	7.7E-09
Total phase (deg)	278.4	Apriori accel (us/s/s)	-3.02479146692E-05	Resid phase (deg)	-72.8	+/-	20.7

ph/seg (deg)	55.9	Theor.	49.7	Amplitude	0.218 +/- 0.039	Pcdl mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	79.3	Search (1024X32)	0.163	Interp.	0.000	Pcdl rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.0	Inc. seg. avg.	0.202	Inc. seg. avg.	0.202	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.4	Inc. frq. avg.	0.214	Inc. frq. avg.	0.214	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

n: az 334.0 el 38.2 pa 71.8 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) 6558.624 -6348.956 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//nP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//nP.W.522.3MP15Q

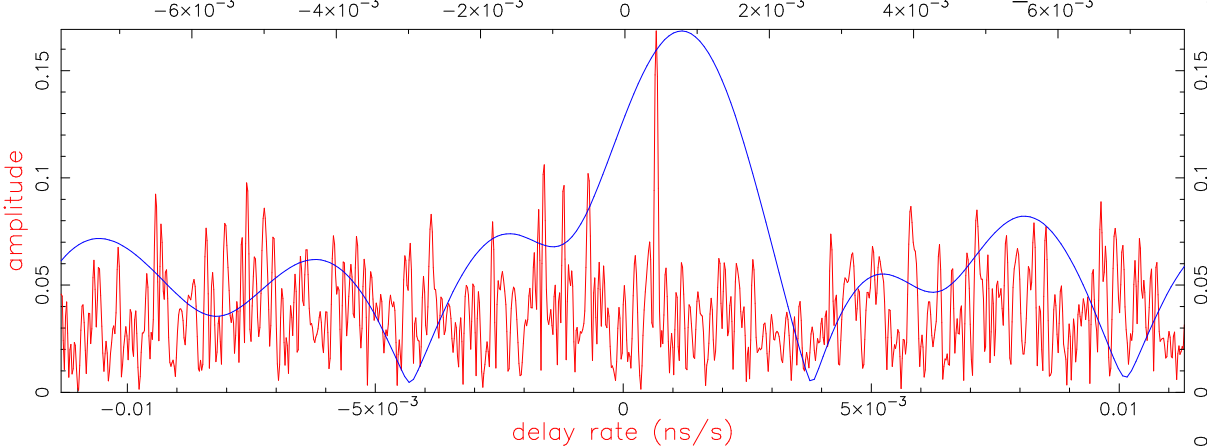
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, nP

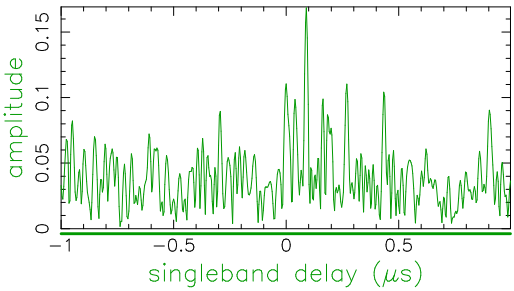
VLBA\_NL - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

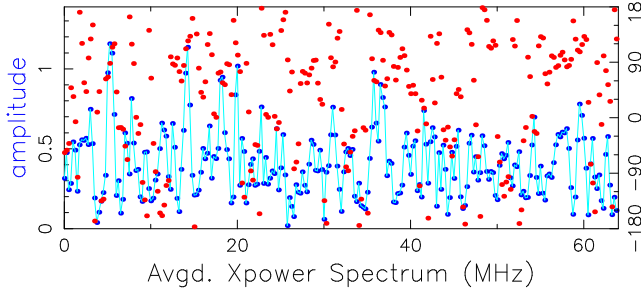


Fringe quality 0

SNR 5.7  
 Int time 149.956  
 Amp 0.169  
 Phase 28.5  
 PFD 8.4e-01  
 Delays (us)  
 SBD 0.089174  
 MBD 0.000773  
 Fringe rate (Hz) 0.056899  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

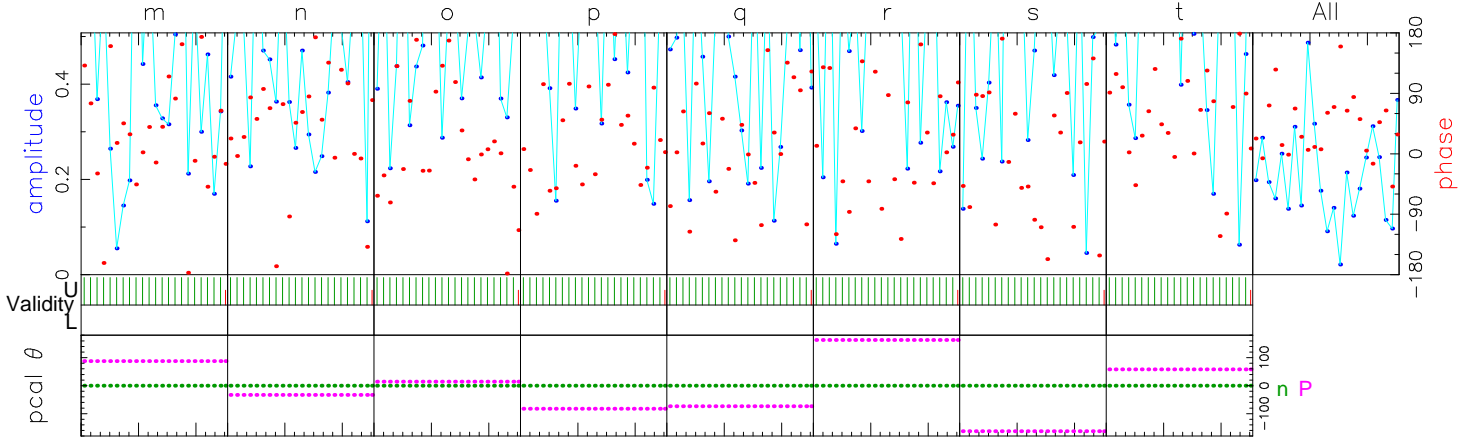


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105756  
 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		
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
n	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	6.94733972847E+03					6.94724520520E+03			7.73275E-04	+/- 1.9E-04
Sband delay (usec)	6.94733437945E+03					7.2834778E-01			8.91742E-02	+/- 1.5E-03
Phase delay (usec)	6.94724520611E+03					-3.0097713E-07			9.18291E-07	+/- 6.5E-07
Delay rate (us/s)	-3.99813101709E-01					-3.99813762247E-01			6.60537E-07	+/- 7.5E-09
Total phase (deg)			19.7			-3.02479146692E-05			28.5	+/- 20.2
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011							
Data rate (Mb/s):	2048		nlags: 256 t_cohere infinite							
ion window (TEC)	0.00 0.00		simultaneous interpolator							

n: az 334.0 el 38.2 pa 71.8 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) 6558.624 -6348.956  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//nP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//nP.W.531.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

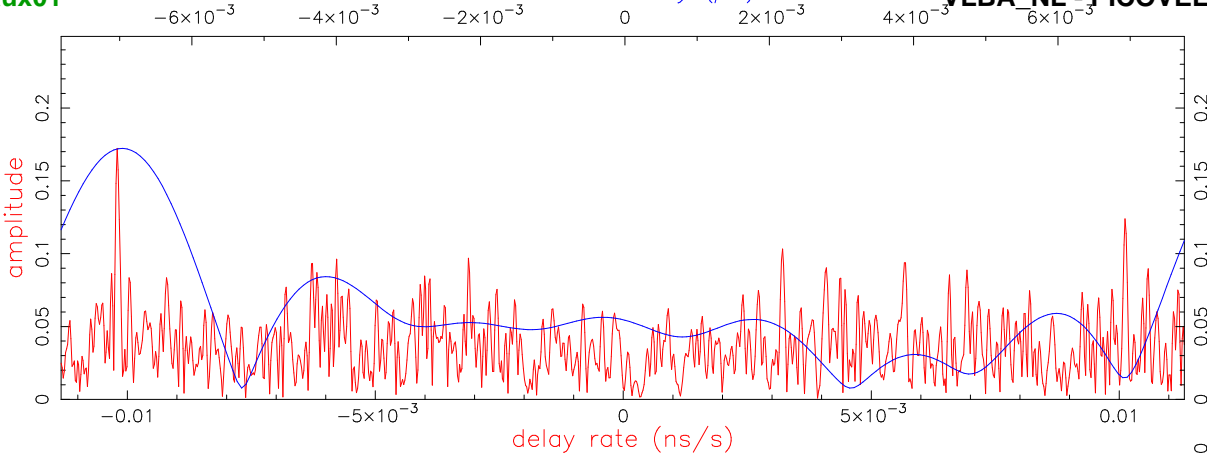
aux01

3C371.3MP15Q, No0901, nP

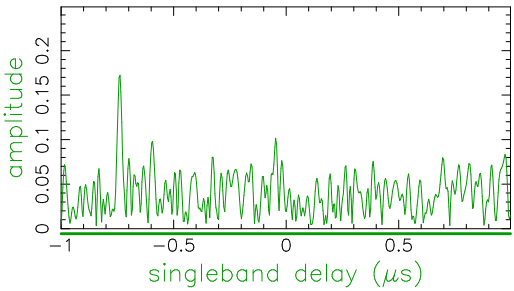
VLBA\_NL - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

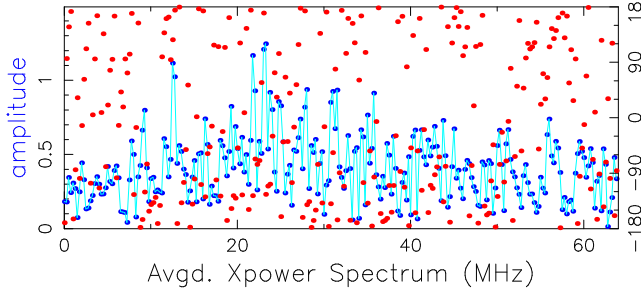
Fringe quality 0



SNR 5.8  
 Int time 149.956  
 Amp 0.249  
 Phase 43.6  
 PFD 5.2e-01  
 Delays (us)  
 SBD -0.739715  
 MBD -0.006971  
 Fringe rate (Hz)  
 -0.880280  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

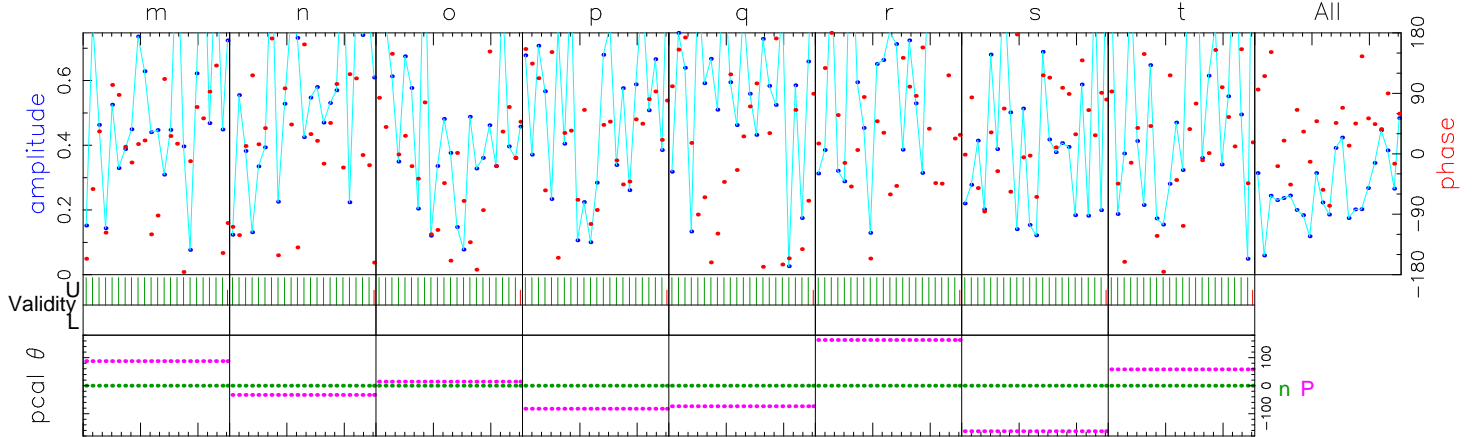


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105802  
 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



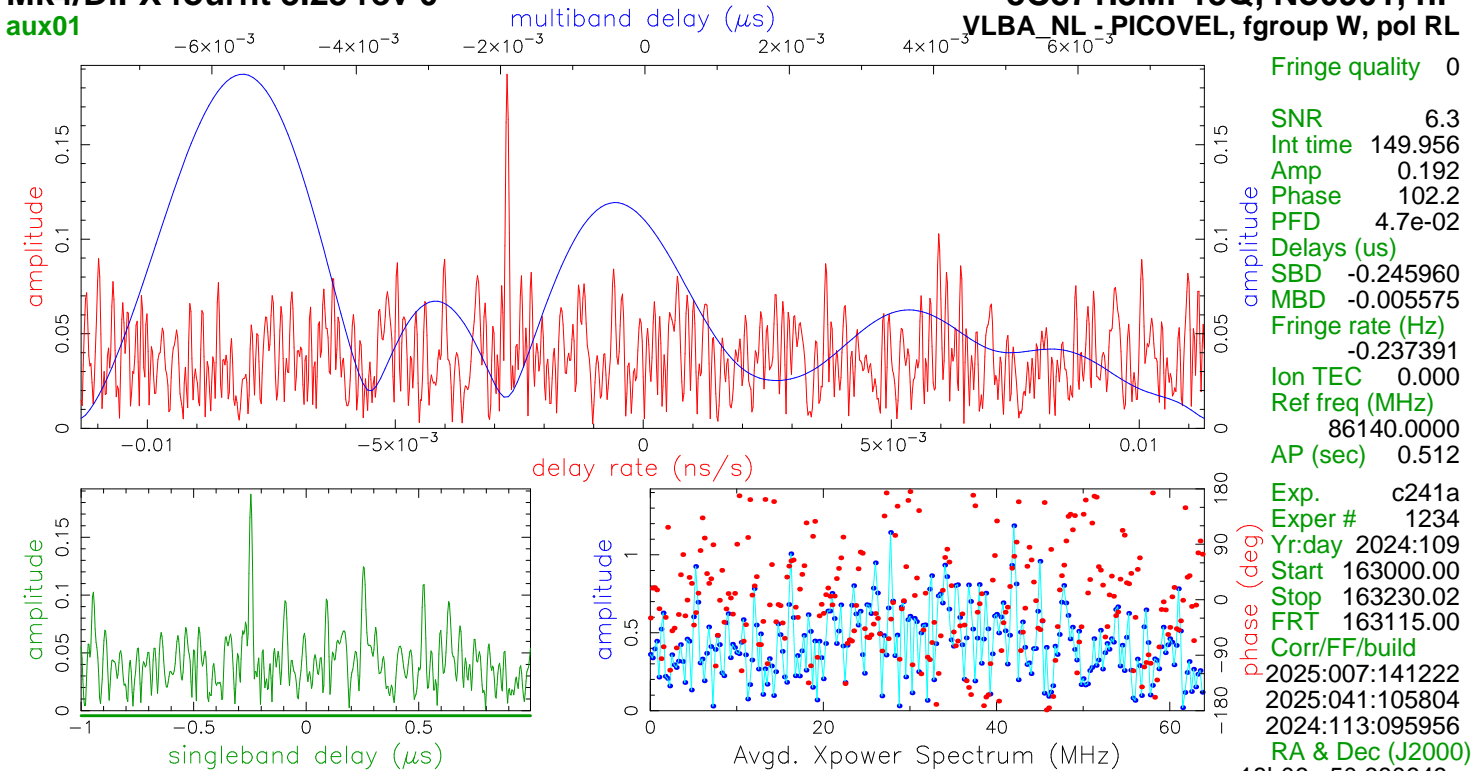
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	39.5	41.7	40.1	54.9	177.3	19.6	50.4	45.3	Phase	43.6	
	0.3	0.2	0.2	0.3	0.1	0.3	0.3	0.4	Ampl.	0.2	
	235.0	438.0	245.8	149.8	103.5	59.0	66.1	68.4	Sbd box	67.6	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
n	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
n:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.94650385892E+03		Apriori delay (usec)		6.94724520520E+03		Resid mbdelay (usec)		-6.97127E-03	+/- 1.9E-04	
Sband delay (usec)	6.94650549045E+03		Apriori clock (usec)		7.2834778E-01		Resid sbdelay (usec)		-7.39715E-01	+/- 1.5E-03	
Phase delay (usec)	6.94724520660E+03		Apriori clockrate (us/s)		-3.0097713E-07		Resid phdelay (usec)		1.40555E-06	+/- 6.3E-07	
Delay rate (us/s)	-3.99823981422E-01		Apriori rate (us/s)		-3.99813762247E-01		Resid rate (us/s)		-1.02192E-05	+/- 7.3E-09	
Total phase (deg)			Apriori accel (us/s/s)		-3.02479146692E-05		Resid phase (deg)		43.6	+/- 19.7	
RMS	58.6	47.2	Search (1024X32)		0.166	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	77.0	82.4	Interp.		0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	55.8	27.8	Inc. seg. avg.		0.281	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	36.0	48.6	Inc. frq. avg.		0.243	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)						Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
n: az 334.0 el 38.2 pa 71.8	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)		6558.624 -6348.956				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//nP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//nP.W.538.3MP15Q								

Mk4/DiFX fourfit 3.25 rev 0

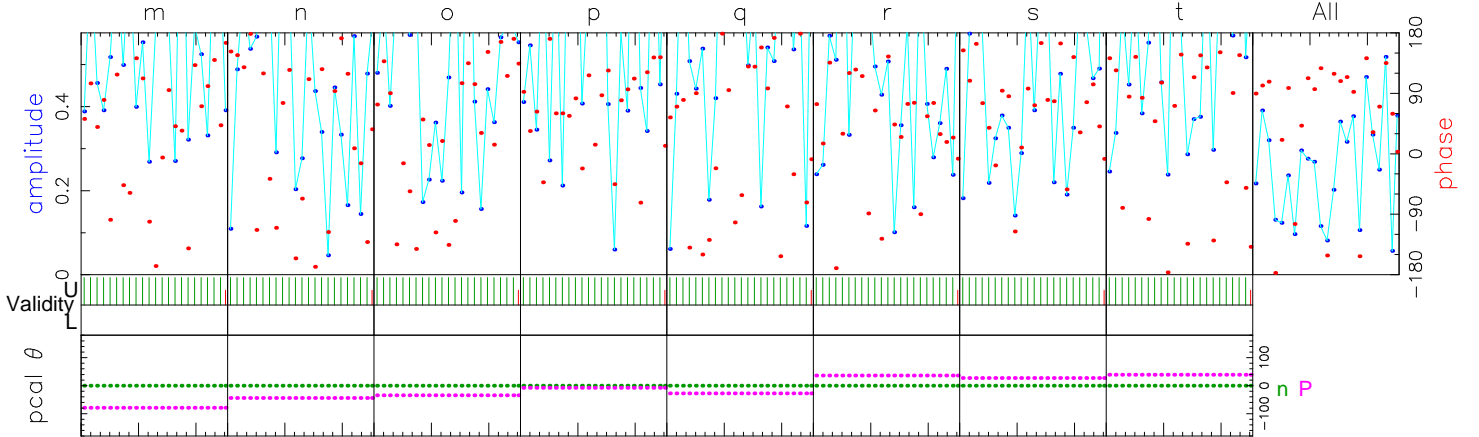
aux01

3C371.3MP15Q, No0901, nP

VLBA\_NL - PICOVEL, fgroup W, pol RL



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



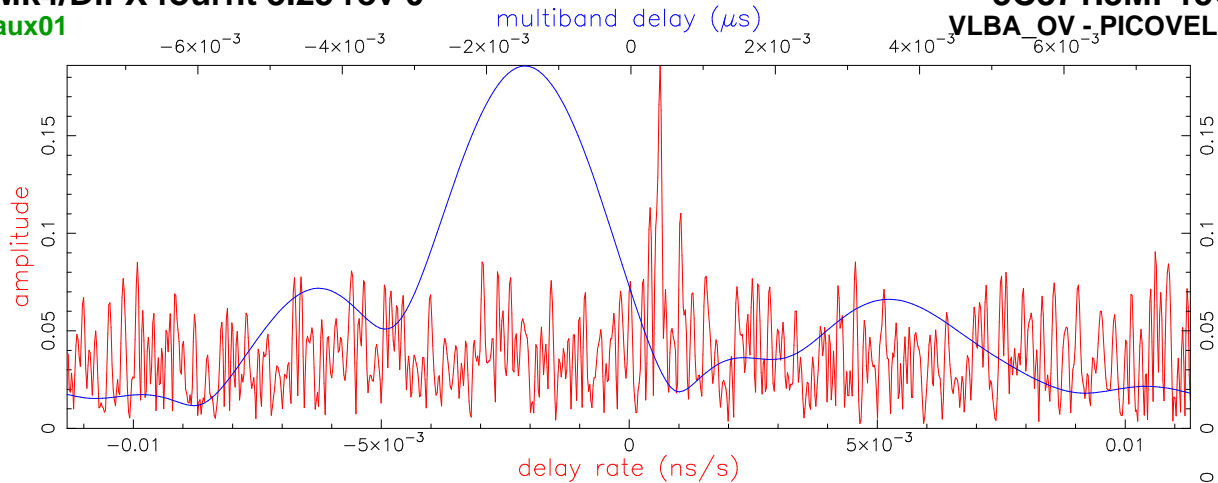
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	83.6	132.5	156.6	79.4	141.7	68.2	86.8	126.7	Phase	102.2		
	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.2	Ampl.	0.2		
	17.4	185.1	449.4	193.9	321.8	290.0	324.7	225.6	Sbd box	194.0		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used			
n	0	0	0	0	0	0	0	0	PC freqs			
P	0	0	0	0	0	0	0	0	PC freqs			
n:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
n:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC			
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
P	1000	1000	1000	1000	1000	1000	1000	1000				
n	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)	6.94700525563E+03		Apriori delay (usec)		6.94724520520E+03		Resid mbdelay (usec)		-5.57457E-03	+/- 1.7E-04		
Sband delay (usec)	6.94699924570E+03		Apriori clock (usec)		7.2834778E-01		Resid sbdelay (usec)		-2.45960E-01	+/- 1.4E-03		
Phase delay (usec)	6.94724520849E+03		Apriori clockrate (us/s)		-3.0097713E-07		Resid phdelay (usec)		3.29484E-06	+/- 5.9E-07		
Delay rate (us/s)	-3.99816518125E-01		Apriori rate (us/s)		-3.99813762247E-01		Resid rate (us/s)		-2.75588E-06	+/- 6.8E-09		
Total phase (deg)	93.4		Apriori accel (us/s/s)		-3.02479146692E-05		Resid phase (deg)		102.2	+/- 18.3		
RMS	59.5	43.8	Amplitude		0.192 +/- 0.031		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	76.5	76.5	Search (1024X32)		0.181		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	37.2	25.8	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	43.7	45.1	Inc. seg. avg.		0.202		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011		
amp/frq (%)			Inc. frq. avg.		0.199		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
n: az 334.0 el 38.2 pa 71.8	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)		6558.624 -6348.956				simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//nP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//nP.W.542.3MP15Q									

Mk4/DiFX fourfit 3.25 rev 0

aux01

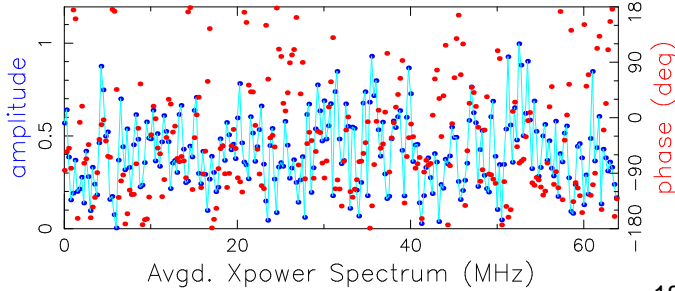
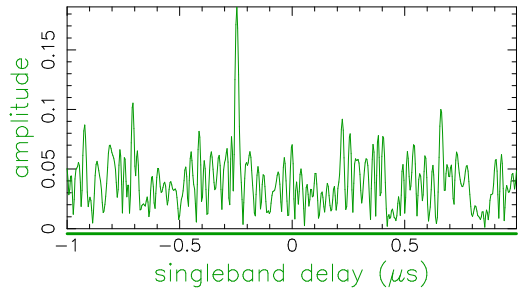
3C371.3MP15Q, No0901, oP

VLBA\_OV - PICOVEL, fgroup W, pol LL



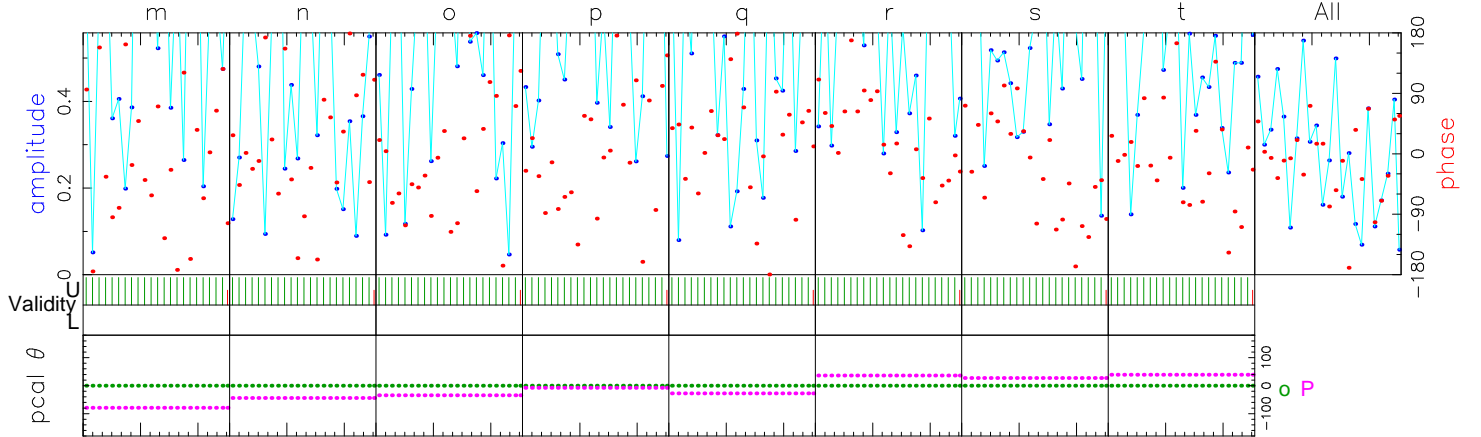
Fringe quality 0

SNR 6.2  
 Int time 149.985  
 Amp 0.186  
 Phase -2.8  
 PFD 6.3e-02  
 Delays (us)  
 SBD -0.246340  
 MBD -0.001475  
 Fringe rate (Hz)  
 0.054297  
 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  
 2025:041:105816  
 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	
	-6.7	-15.0	-16.2	-11.1	22.9	28.0	-33.7	-11.9	Phase	-2.8	
	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.3	Ampl.	0.2	
	88.1	67.7	32.6	148.3	193.8	195.7	19.9	192.5	Sbd box	193.9	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
o	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
o:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
o	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)	8.39316613780E+03		Apriori delay (usec)		8.39341761230E+03		Resid mbdelay (usec)		-1.47450E-03	+/- 1.7E-04	
Sband delay (usec)	8.39317127180E+03		Apriori clock (usec)		2.6073851E+01		Resid sbdelay (usec)		-2.46340E-01	+/- 1.4E-03	
Phase delay (usec)	8.39341761221E+03		Apriori clockrate (us/s)		-1.1696503E-07		Resid phdelay (usec)		-9.16245E-08	+/- 5.9E-07	
Delay rate (us/s)	-3.87485183837E-01		Apriori rate (us/s)		-3.87485814174E-01		Resid rate (us/s)		6.30337E-07	+/- 6.9E-09	
Total phase (deg)			Apriori accel (us/s/s)		-4.42666618822E-05		Resid phase (deg)		-2.8	+/- 18.4	
	RMS	Theor.	Amplitude	0.186 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	57.7	44.2	Search (1024X32)	0.181		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	91.2	77.1	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	22.6	26.0	Inc. seg. avg.	0.221		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	36.7	45.4	Inc. frq. avg.	0.181		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
o: az 334.6 el 43.2 pa 98.8		P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec) 6315.670 -9528.660						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0901//oP...3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//oP.W.571.3MP15Q							

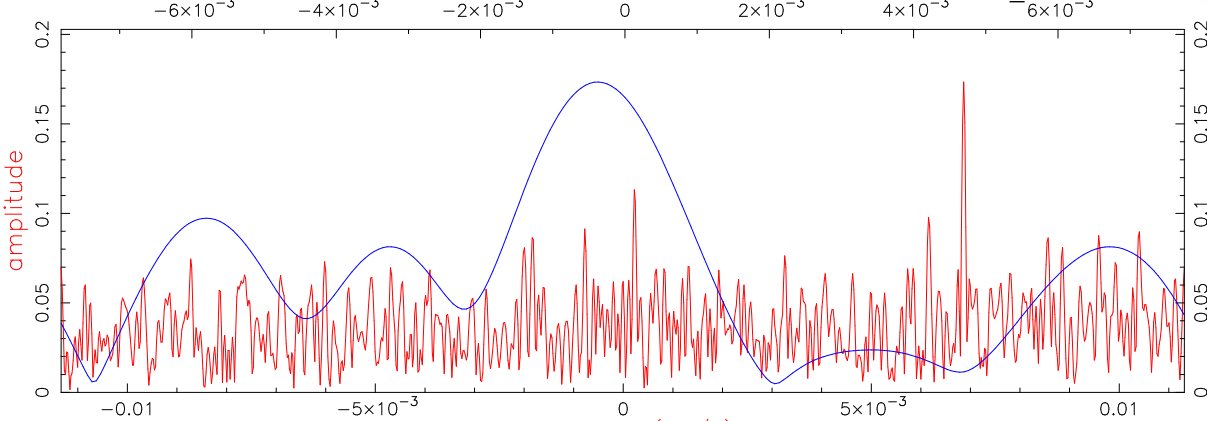
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, oP

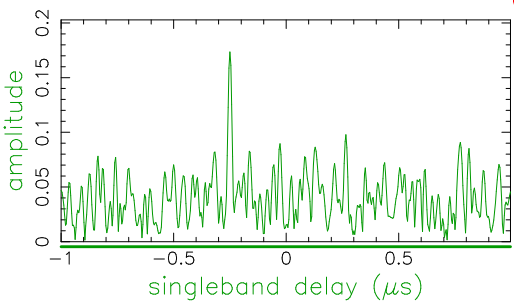
VLBA\_OV - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

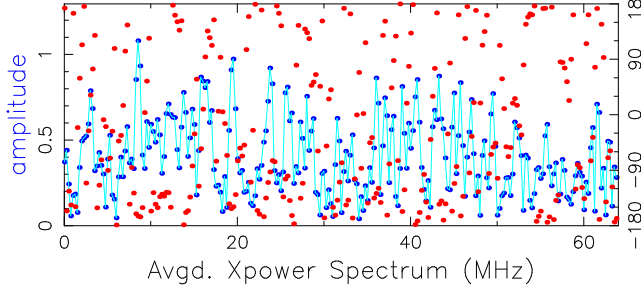


Fringe quality 0

SNR 5.8  
 Int time 149.985  
 Amp 0.203  
 Phase -145.4  
 PFD 5.4e-01  
 Delays (us)  
 SBD -0.249789  
 MBD -0.000383  
 Fringe rate (Hz)  
 0.592580  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

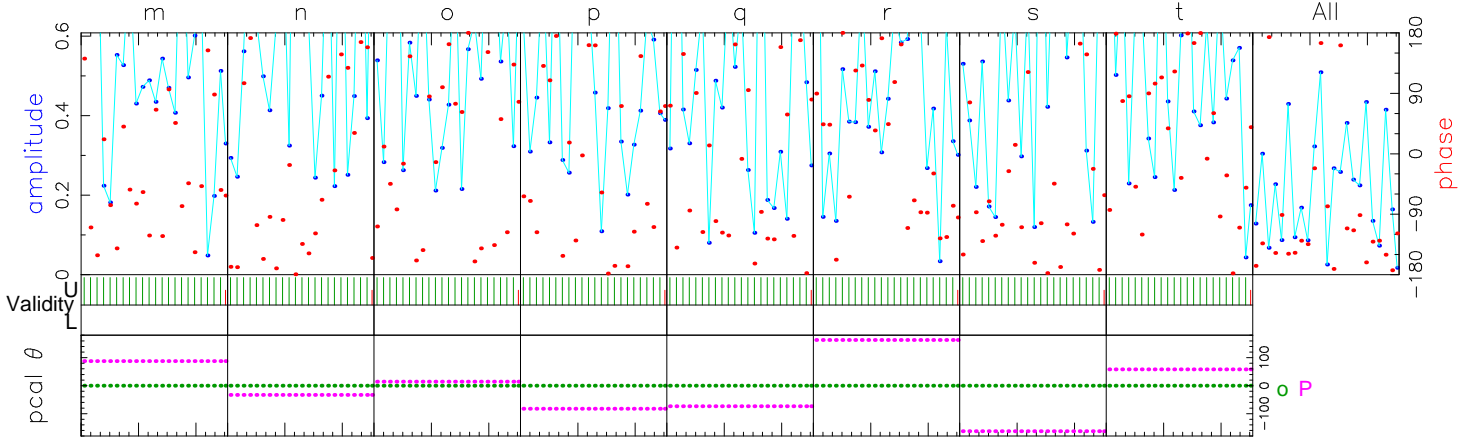


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105820  
 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
	-89.8	-170.9	-161.9	-157.5	-138.3	173.2	-129.4	-155.4	Phase	-145.4
	0.3	0.5	0.2	0.2	0.3	0.0	0.3	0.1	Ampl.	0.2
	75.9	192.2	82.8	62.2	325.0	342.1	250.7	131.0	Sbd box	193.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	8.39316722907E+03	Apriori delay (usec)	8.39341761230E+03	Resid mbdelay (usec)	-3.83228E-04	+/-	1.9E-04
Sband delay (usec)	8.39316782305E+03	Apriori clock (usec)	2.6073851E+01	Resid sbdelay (usec)	-2.49789E-01	+/-	1.5E-03
Phase delay (usec)	8.39341760761E+03	Apriori clockrate (us/s)	-1.1696503E-07	Resid phdelay (usec)	-4.69001E-06	+/-	6.4E-07
Delay rate (us/s)	-3.87478934908E-01	Apriori rate (us/s)	-3.87485814174E-01	Resid rate (us/s)	6.87927E-06	+/-	7.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.42666618822E-05	Resid phase (deg)	-145.4	+/-	19.7

ph/seg (deg)	41.4	Theor.	47.3	Amplitude	0.203 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.4	Search (1024X32)	0.171	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	32.3	Inc. seg. avg.	0.196	Inc. frq. avg.	0.203	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	63.1	Inc. frq. avg.	0.203			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
o: az 334.6 el 43.2 pa 98.8		P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec)	6315.670 -9528.660	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

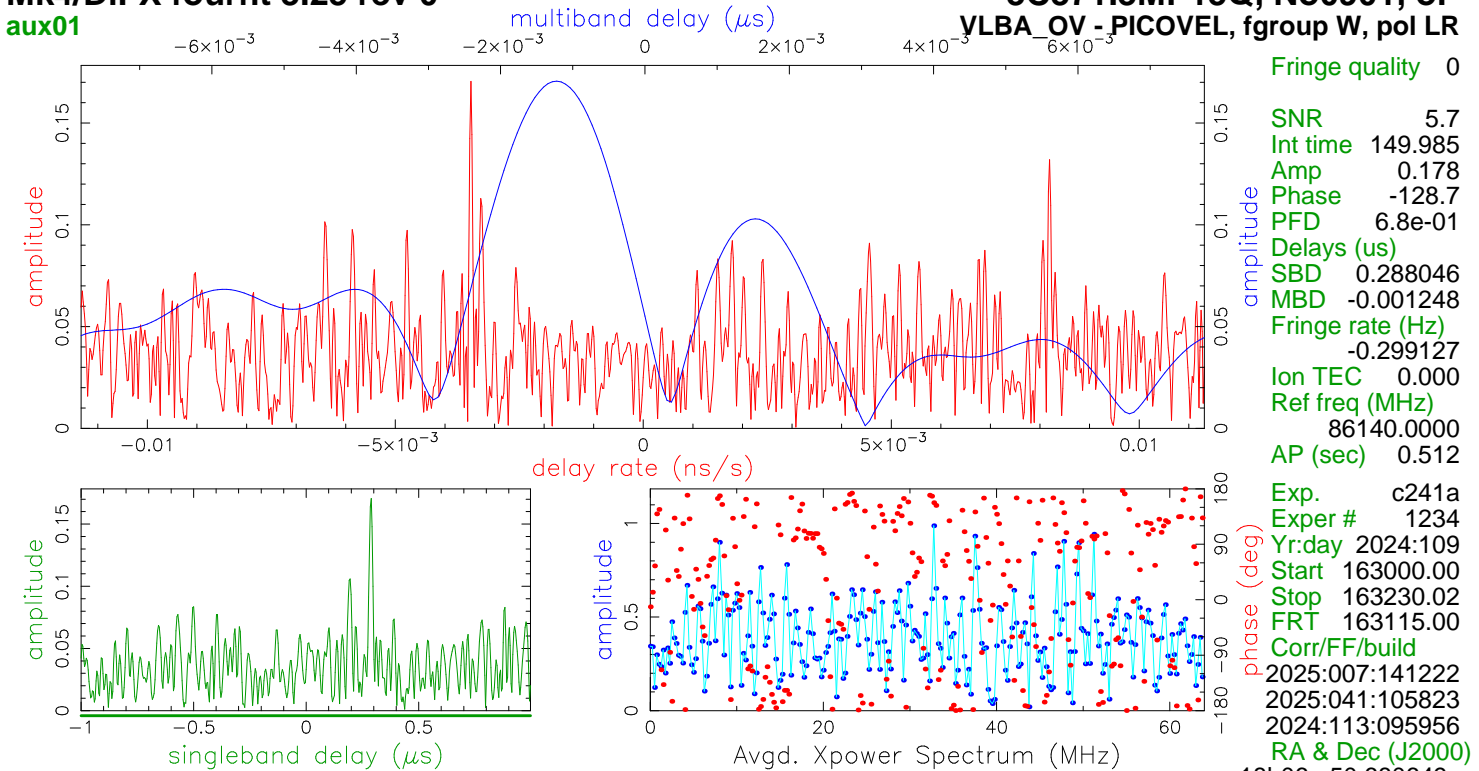
Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//oP...3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//oP.W.575.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, oP

VLBA\_OV - PICOVEL, fgroup W, pol LR



Fringe quality 0

SNR 5.7

Int time 149.985

Amp 0.178

Phase -128.7

PFD 6.8e-01

Delays (us)

SBD 0.288046

MBD -0.001248

Fringe rate (Hz)

-0.299127

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

2025:041:105823

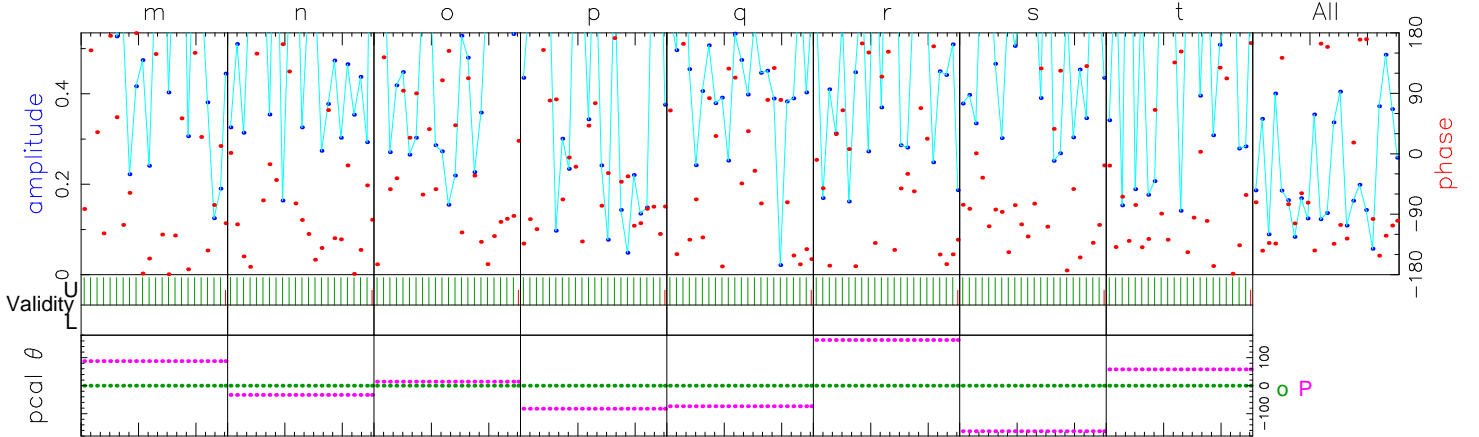
2024:113:095956

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



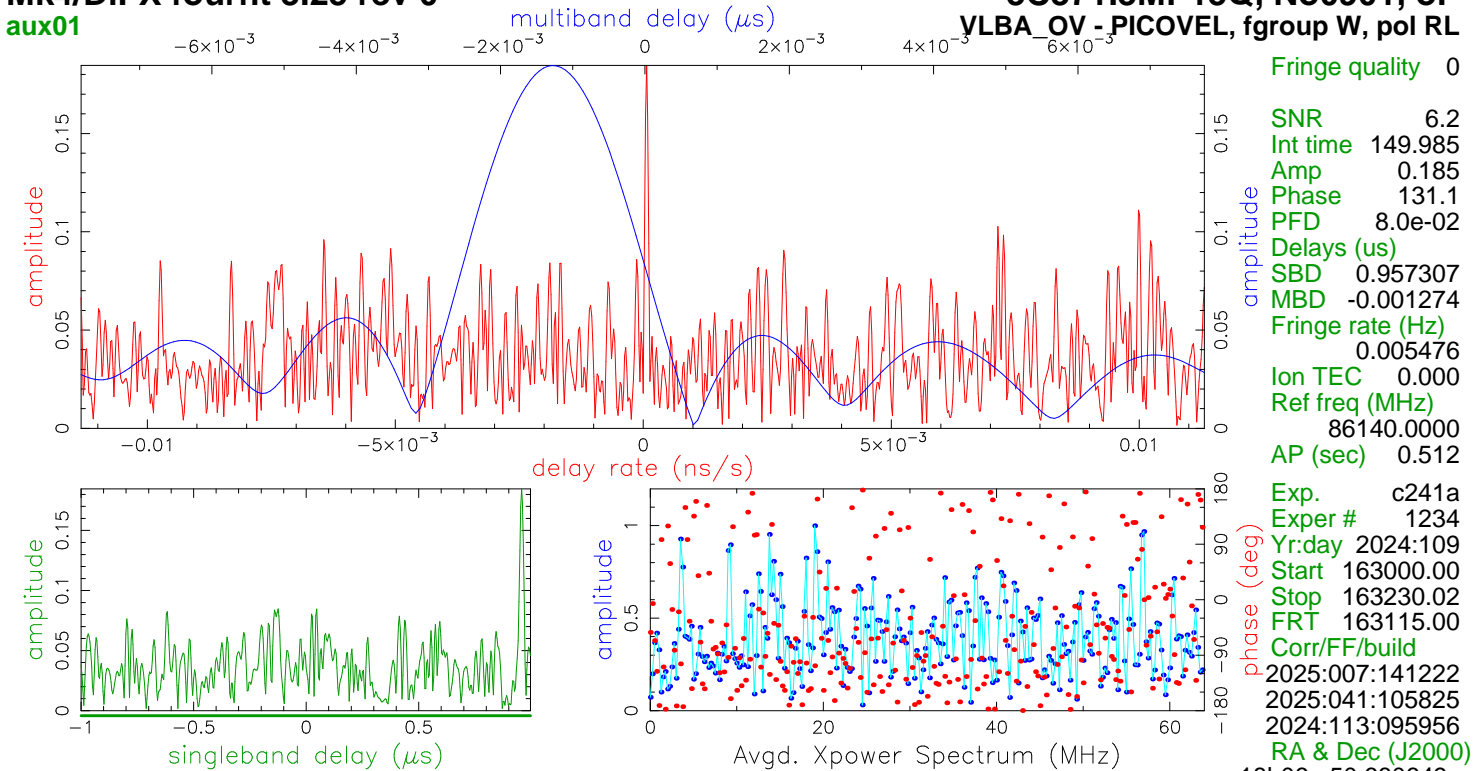
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-157.4	-109.7	-115.0	-114.3	-174.1	-174.3	-103.8	-136.9	Phase	-128.7	
	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.3	Ampl.	0.2	
	109.8	144.3	164.7	114.2	54.2	159.1	330.7	452.4	Sbd box	330.7	
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used		
P	0	0	0	0	0	0	0	0	PC freqs		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
o:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	8.39371323962E+03		Apriori delay (usec)		8.39341761230E+03		Resid mbdelay (usec)		-1.24768E-03	+/- 1.9E-04	
Sband delay (usec)	8.39370565830E+03		Apriori clock (usec)		2.6073851E+01		Resid sbdelay (usec)		2.88046E-01	+/- 1.5E-03	
Phase delay (usec)	8.39341760815E+03		Apriori clockrate (us/s)		-1.1696503E-07		Resid phdelay (usec)		-4.14875E-06	+/- 6.4E-07	
Delay rate (us/s)	-3.87489286742E-01		Apriori rate (us/s)		-3.87485814174E-01		Resid rate (us/s)		-3.47257E-06	+/- 7.4E-09	
Total phase (deg)			Apriori accel (us/s/s)		-4.42666618822E-05		Resid phase (deg)		-128.7	+/- 19.9	
	RMS	Theor.	Amplitude	0.178 +/- 0.031	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	53.5	47.8	Search (1024X32)	0.169	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	79.4	83.5	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	32.7	28.2	Inc. seg. avg.	0.176	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	46.9	49.2	Inc. frq. avg.	0.174	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
o: az 334.6 el 43.2 pa 98.8		P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec) 6315.670 -9528.660				simultaneous interpolator			
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0901//oP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//oP.W.587.3MP15Q							

Mk4/DiFX fourfit 3.25 rev 0

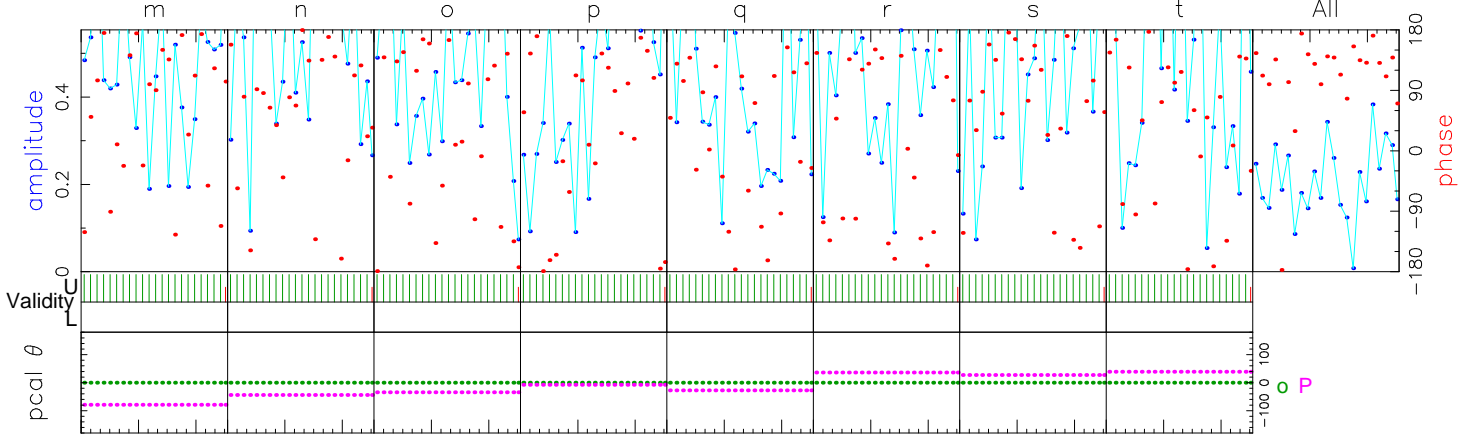
aux01

3C371.3MP15Q, No0901, oP

VLBA\_OV - PICOVEL, fgroup W, pol RL



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
140.2	116.5	159.7	120.6	121.9	149.8	130.3	125.0	125.0	Phase	131.1
0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
461.5	45.7	204.7	24.0	171.8	83.7	247.1	223.6	223.6	Sbd box	502.1
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
o:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	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)	8.39436946355E+03		Apriori delay (usec)	8.39341761230E+03	Resid mbdelay (usec)	-1.27375E-03	+/-	1.8E-04		
Sband delay (usec)	8.39437491905E+03		Apriori clock (usec)	2.6073851E+01	Resid sbdelay (usec)	9.57307E-01	+/-	1.4E-03		
Phase delay (usec)	8.39341761653E+03		Apriori clockrate (us/s)	-1.1696503E-07	Resid phdelay (usec)	4.22803E-06	+/-	6.0E-07		
Delay rate (us/s)	-3.87485750602E-01		Apriori rate (us/s)	-3.87485814174E-01	Resid rate (us/s)	6.35718E-08	+/-	6.9E-09		
Total phase (deg)		175.7	Apriori accel (us/s/s)	-4.42666618822E-05	Resid phase (deg)	131.1	+/-	18.5		
RMS	34.3	44.4	Amplitude	0.185 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	48.0	77.6	Search (1024X32)	0.181	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	16.8	26.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	23.4	45.7	Inc. seg. avg.	0.161	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
amp/frq (%)			Inc. frq. avg.	0.172	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
o: az 334.6 el 43.2 pa 98.8			P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec) 6315.670 -9528.660				simultaneous interpolator	
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0901//oP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//oP.W.596.3MP15Q					



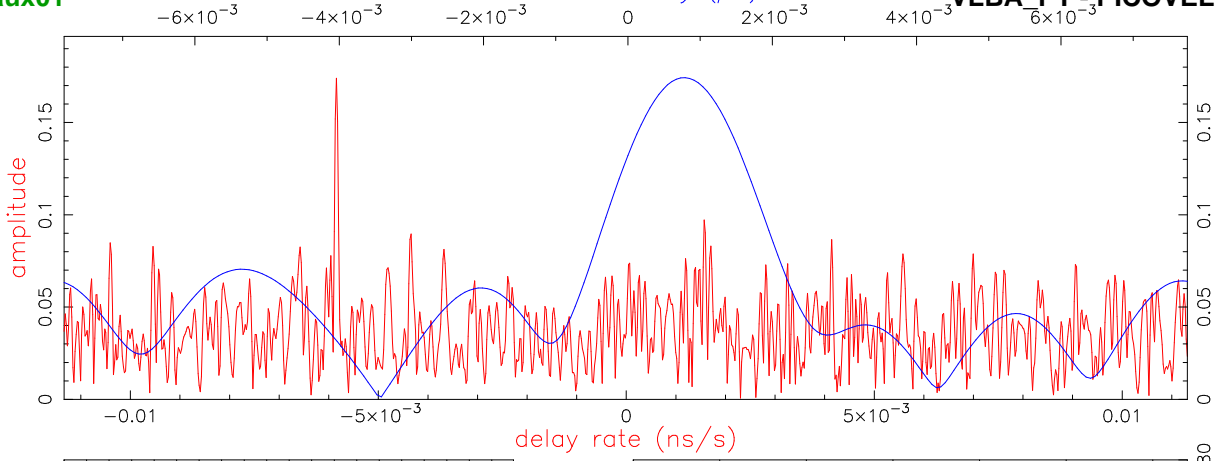
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, pP

VLBA\_PT - PICOVEL, fgroup W, pol LL

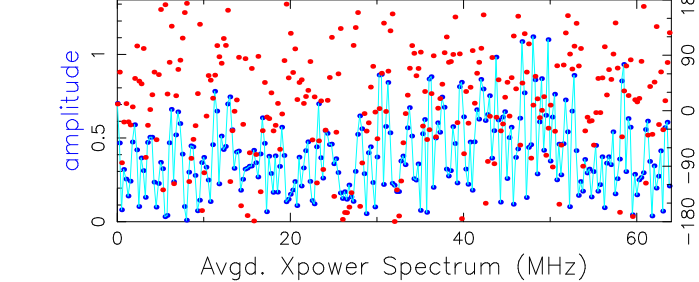
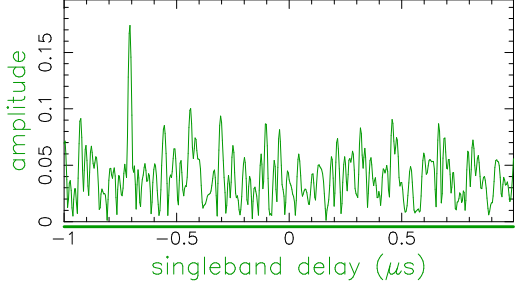
multiband delay ( $\mu$ s)



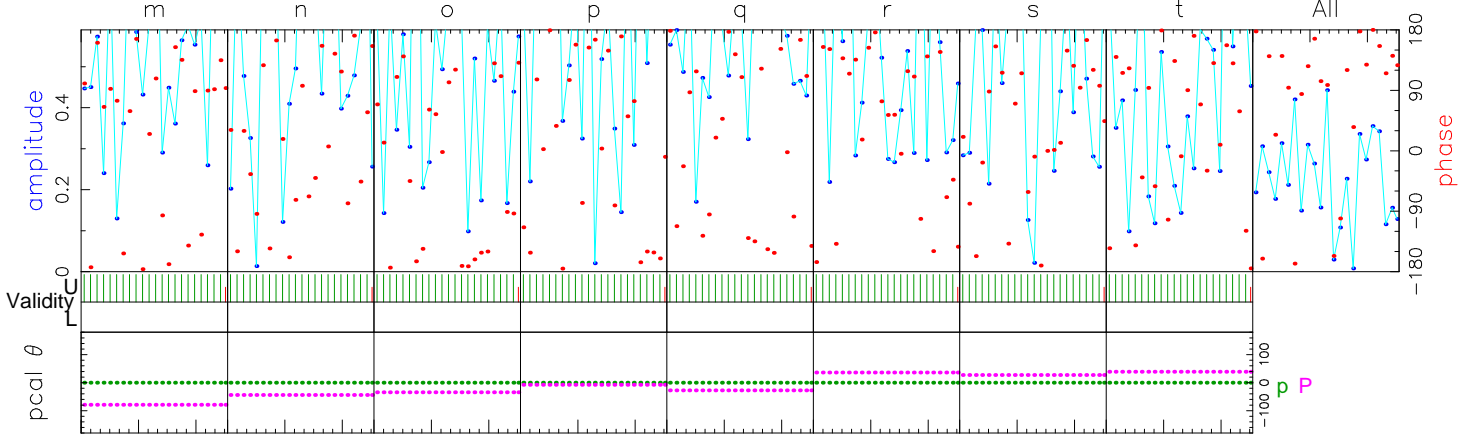
Fringe quality 0

SNR 5.9  
 Int time 149.980  
 Amp 0.197  
 Phase 145.7  
 PFD 4.0e-01  
 Delays (us)  
 SBD -0.708221  
 MBD 0.000715  
 Fringe rate (Hz)  
 -0.504981  
 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  
 2025:041:105821  
 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
	127.2	145.0	151.5	153.8	176.5	162.5	104.3	145.7	Phase	145.7
	0.4	0.1	0.2	0.2	0.2	0.3	0.2	0.1	Ampl.	0.2
	75.4	289.7	249.2	206.2	439.0	106.6	435.2	229.6	Sbd box	75.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
p	0	0	0	0	0	0	0	0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.63003244664E+03	Apriori delay (usec)	6.63073485684E+03	Resid mbdelay (usec)	7.14796E-04	+/-	1.8E-04
Sband delay (usec)	6.63002663534E+03	Apriori clock (usec)	6.7184887E+00	Resid sbdelay (usec)	-7.08221E-01	+/-	1.5E-03
Phase delay (usec)	6.63073486154E+03	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	4.69751E-06	+/-	6.3E-07
Delay rate (us/s)	-4.28549190287E-01	Apriori rate (us/s)	-4.28543327958E-01	Resid rate (us/s)	-5.86233E-06	+/-	7.3E-09
Total phase (deg)	350.3	Apriori accel (us/s/s)	-3.93784938010E-05	Resid phase (deg)	145.7	+/-	19.5

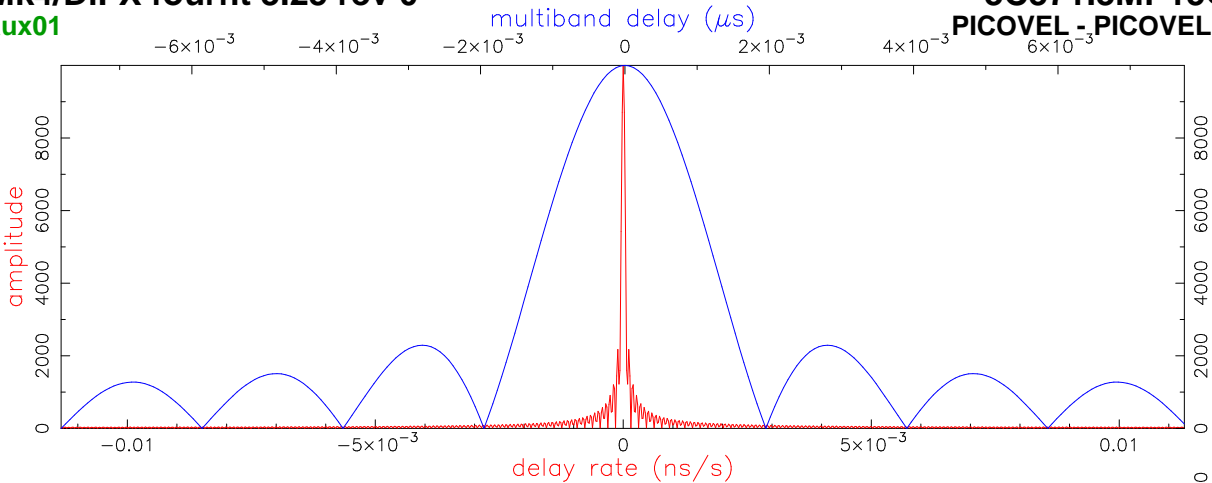
ph/seg (deg) 53.7 46.7 Search (1024X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 71.6 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 23.8 27.5 Inc. seg. avg. 0.194 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 41.1 48.1 Inc. frq. avg. 0.187 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 p: az 335.3 el 37.1 pa 90.7 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7009.335 -8618.654 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//pP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//pP.W.579.3MP15Q simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, PP

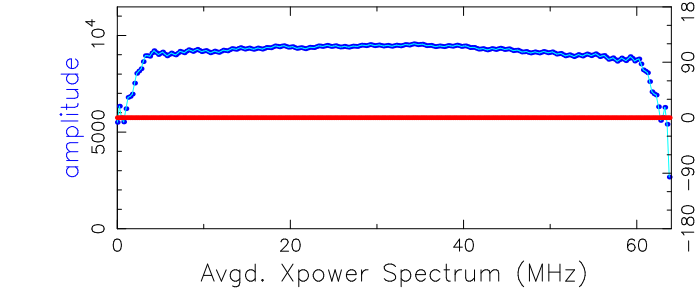
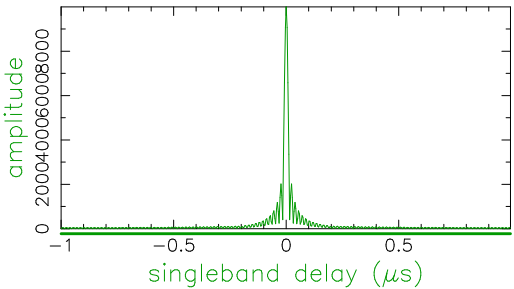
PICOVEL - PICOVEL, fgroup W, pol LL



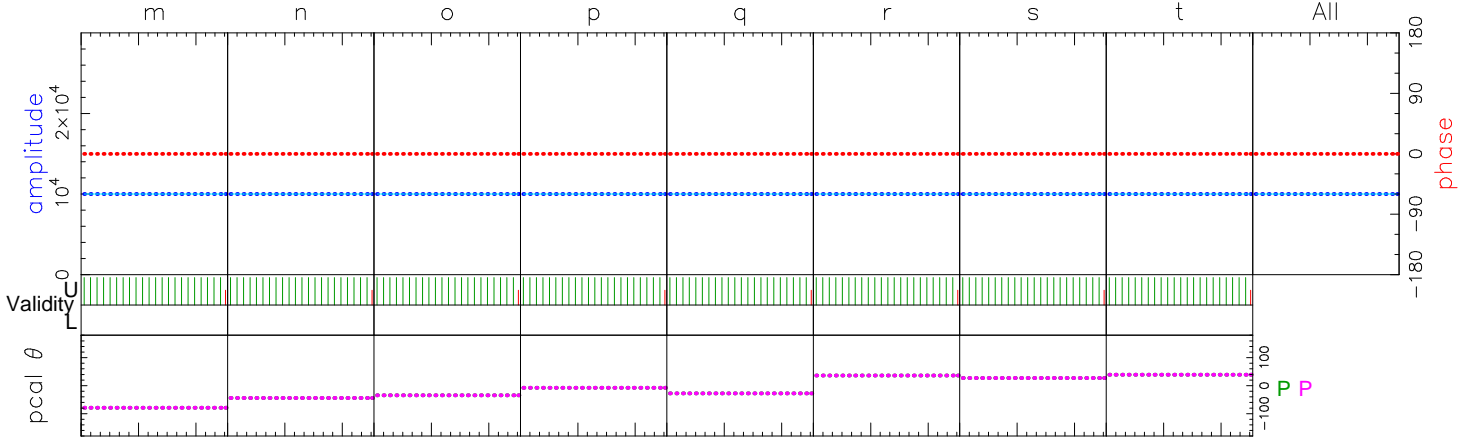
Fringe quality 9

SNR 334914.8  
 Int time 149.994  
 Amp 9999.999  
 Phase 0.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000000  
 MBD 0.000000  
 Fringe rate (Hz) 0.000000  
 Ion TEC 0.000  
 Ref freq (MHz) 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  
 2025:041:105822  
 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		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	-79:-79	-44:-44	-34:-34	-8:-8	-28:-28	36:36	27:27	39:39		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

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 RMS Theor. Amplitude 9999.999 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (1024X32) 9999.999 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  
 P: az 359.9 el 16.9 pa -0.0 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PP.W.583.3MP15Q simultaneous interpolator

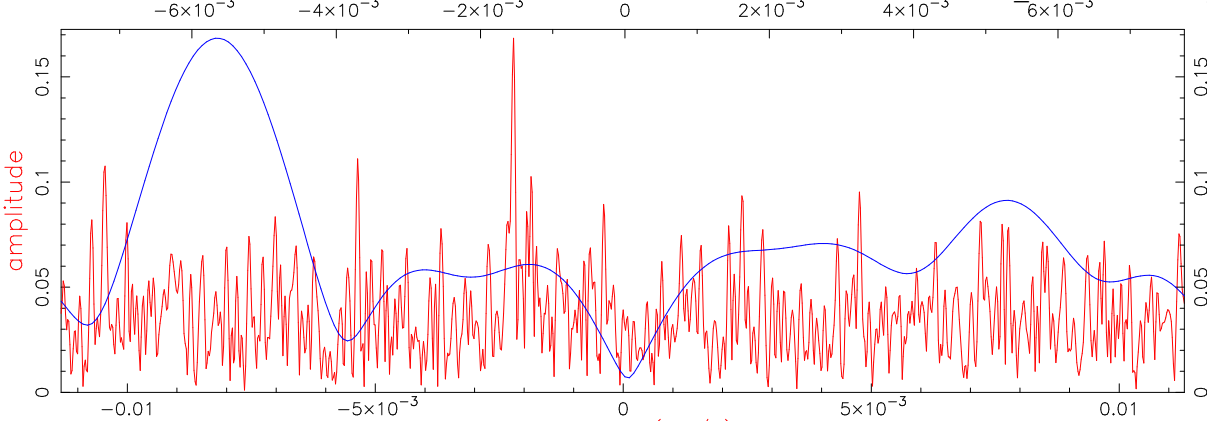
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, pP

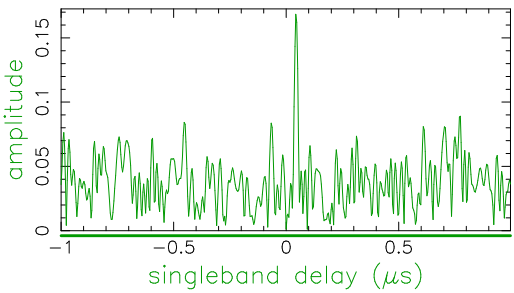
VLBA\_PT - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

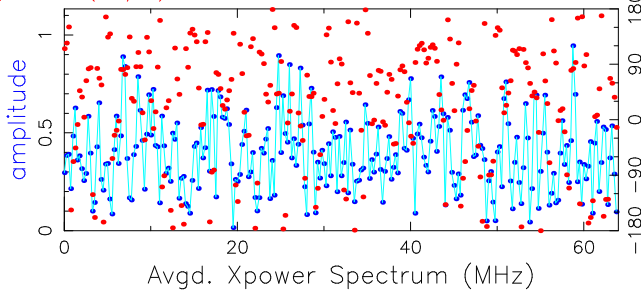


Fringe quality 0

SNR 5.7  
 Int time 149.980  
 Amp 0.173  
 Phase -84.9  
 PFD 7.9e-01  
 Delays (us)  
 SBD 0.044166  
 MBD -0.005627  
 Fringe rate (Hz)  
 -0.190650  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

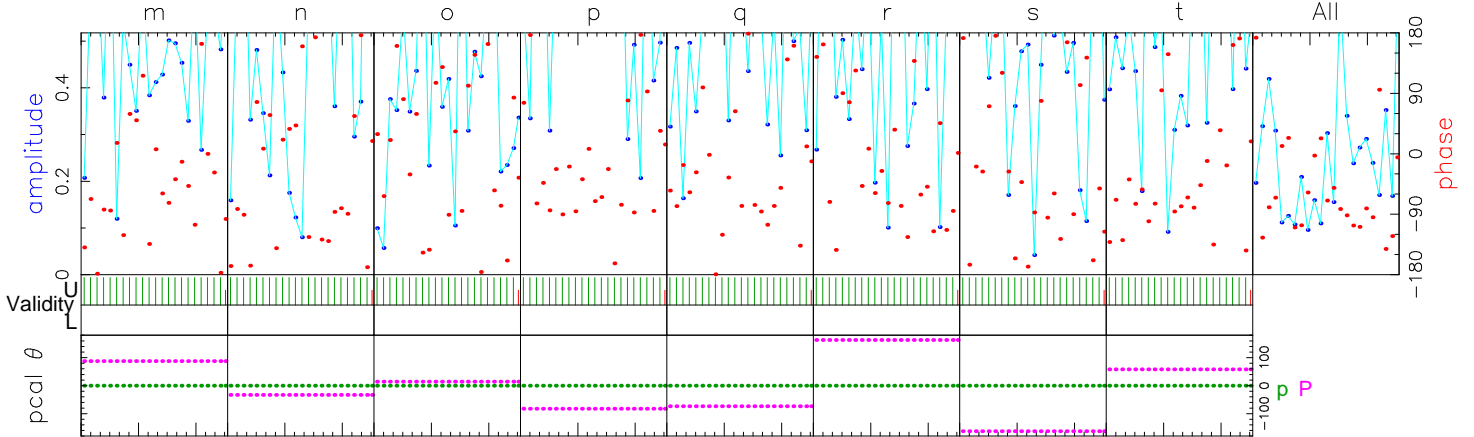


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105823  
 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



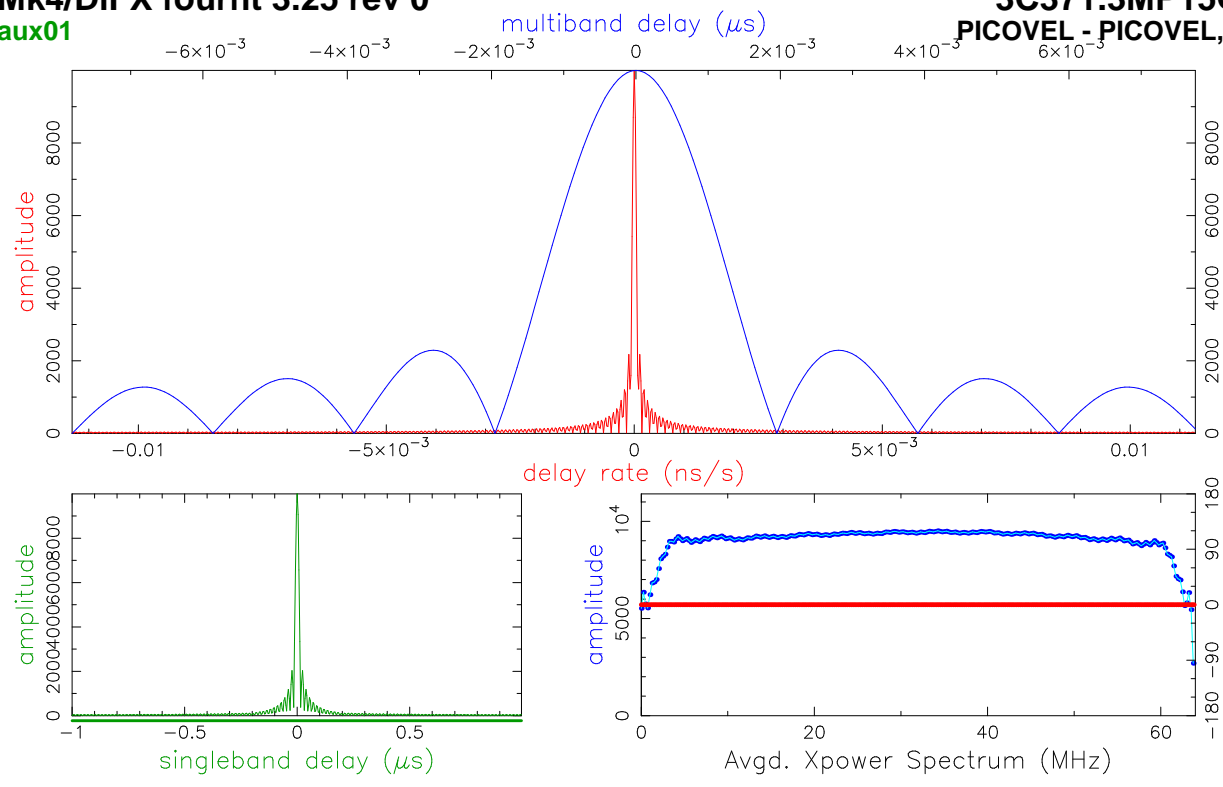
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-73.7	-116.3	-174.4	-48.6	-83.8	-68.3	-136.9	-81.8	Phase	-84.9
	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.3	Ampl.	0.2
	139.6	15.9	418.2	268.0	63.3	492.2	505.3	266.4	Sbd box	268.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
p:P	0	0	0	0	0	0	0	0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.63077610456E+03	Apriori delay (usec)	6.63073485684E+03	Resid mbdelay (usec)	-5.62728E-03	+/-	1.9E-04
Sband delay (usec)	6.63077902259E+03	Apriori clock (usec)	6.7184887E+00	Resid sbdelay (usec)	4.41657E-02	+/-	1.5E-03
Phase delay (usec)	6.63073485410E+03	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	-2.73715E-06	+/-	6.5E-07
Delay rate (us/s)	-4.28545541216E-01	Apriori rate (us/s)	-4.28543327958E-01	Resid rate (us/s)	-2.21326E-06	+/-	7.5E-09
Total phase (deg)	119.7	Apriori accel (us/s/s)	-3.93784938010E-05	Resid phase (deg)	-84.9	+/-	20.1

ph/seg (deg) 65.5 48.3 Search (1024X32) 0.173 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 88.8 84.3 Interp. 0.166 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.3 28.5 Inc. seg. avg. 0.186 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 52.8 49.7 Inc. frq. avg. 0.180 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 p: az 335.3 el 37.1 pa 90.7 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7009.335 -8618.654 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/pP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/pP.W.585.3MP15Q simultaneous interpolator

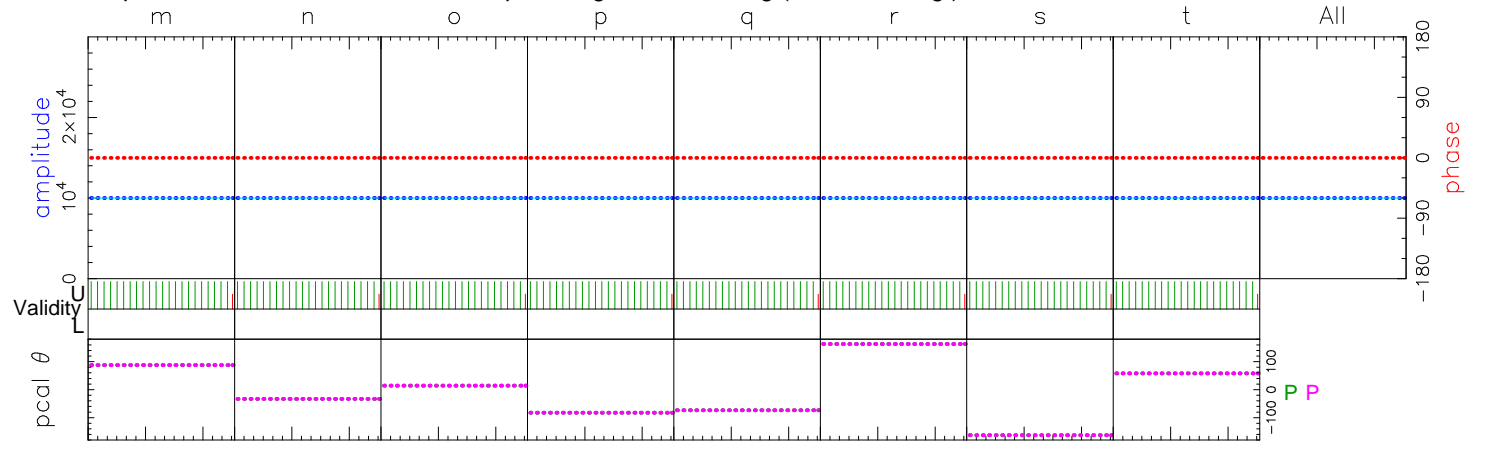
Mk4/DiFX fourfit 3.25 rev 0  
aux01

3C371.3MP15Q, No0901, PP  
PICOVEL - PICOVEL, fgroup W, pol RR



Fringe quality 9  
SNR 334914.8  
Int time 149.994  
Amp 9999.999  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c241a  
Yr:day 1234  
Start 2024:109  
Stop 2025:007:141222  
FRT 163115.00  
2025:041:105824  
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
P	0	0	0	0	0	0	0	0	Ampl.	10000.0
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
P:P	88:88	-33:-33	15:15	-82:-82	-74:-74	163:163	-163:-163	58:58	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 3.2E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 2.6E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 1.1E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 1.3E-13
Total phase (deg)			0.0						Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	9999.999 +/- 0.030					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X32)	9999.999					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	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.	9999.999					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
P: az 359.9 el 16.9 pa -0.0			P: az 359.9 el 16.9 pa -0.0						nlags: 256 t_cohere infinite	simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0901/PP..3MP15Q						u,v (fr/asec) 0.000 0.000	
									Output file: /Exps/c241a/v2/3mm/1234/No0901/PP.W.590.3MP15Q	

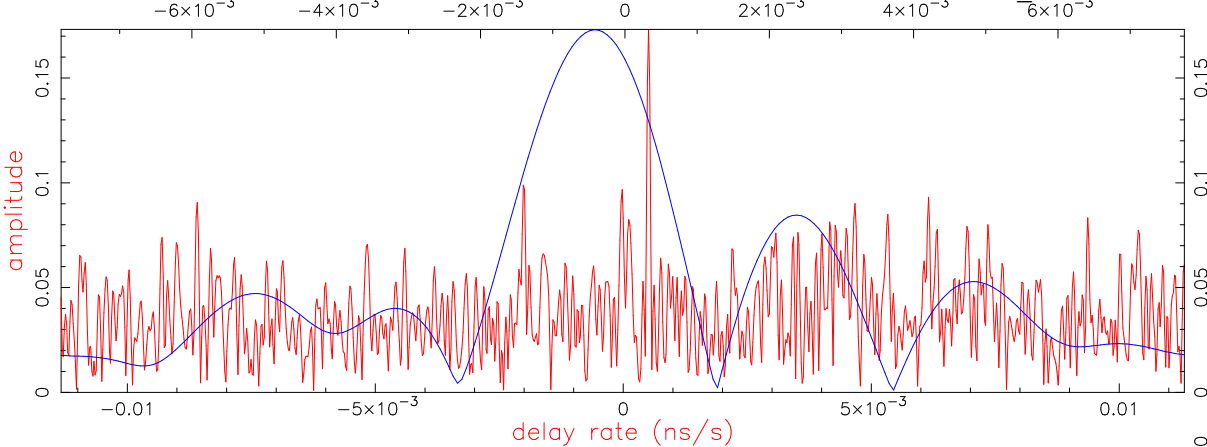
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, pP

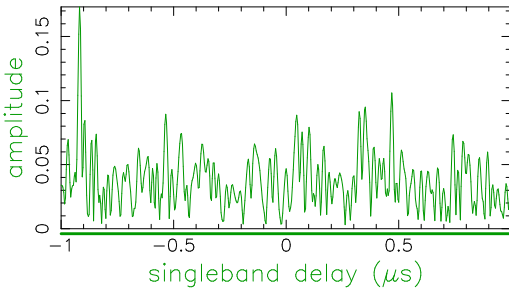
VLBA\_PT - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

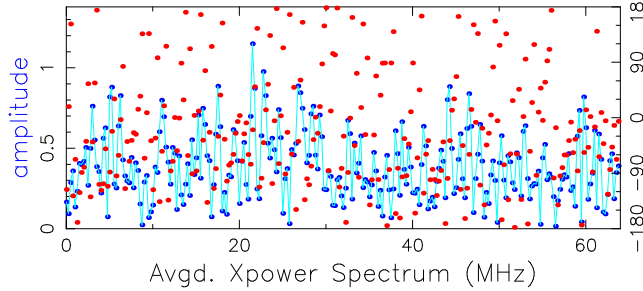


Fringe quality 0

SNR 5.8  
 Int time 149.980  
 Amp 0.173  
 Phase -177.3  
 PFD 5.7e-01  
 Delays (us)  
 SBD -0.917732  
 MBD -0.000412  
 Fringe rate (Hz)  
 0.043744  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

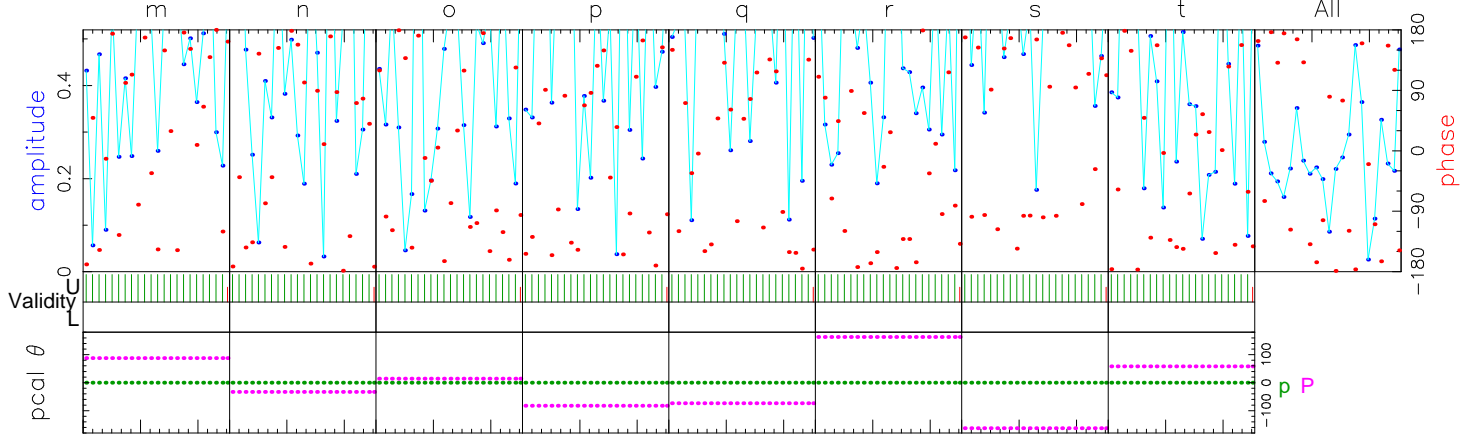


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105824  
 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



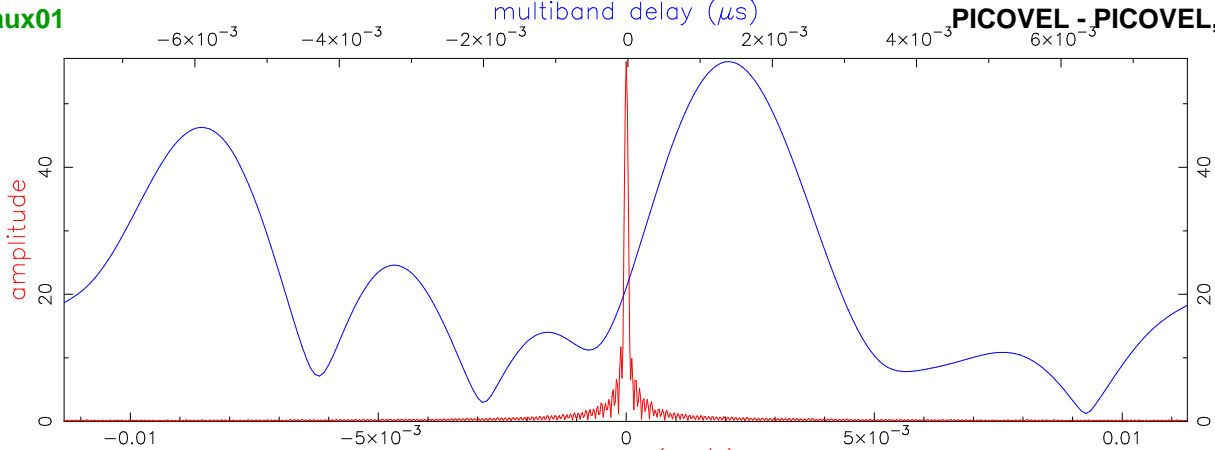
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
p:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
p	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	6.62981256953E+03				6.63073485684E+03				-4.12310E-04	+/- 1.9E-04
Sband delay (usec)	6.62981712434E+03				6.7184887E+00				-9.17732E-01	+/- 1.5E-03
Phase delay (usec)	6.63073485112E+03				-2.1954010E-07				-5.71883E-06	+/- 6.4E-07
Delay rate (us/s)	-4.28542820138E-01				-4.28543327958E-01				5.07820E-07	+/- 7.4E-09
Total phase (deg)			27.3		-3.93784938010E-05				-177.3	+/- 19.8
ph/seg (deg)	62.4	47.4			0.173 +/- 0.030					
amp/seg (%)	79.1	82.7			0.000					
ph/frq (deg)	17.8	28.0			0.187					
amp/frq (%)	30.5	48.8			0.161					
p: az 335.3 el 37.1 pa 90.7	P: az 359.9 el 16.9 pa -0.0		u,v (fr/asec) 7009.335 -8618.654		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//pP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//pP.W.592.3MP15Q		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		ion window (TEC) 0.00 0.00	

Mk4/DiFX fourfit 3.25 rev 0

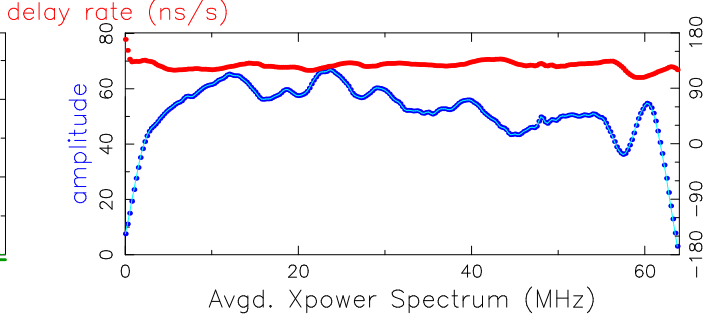
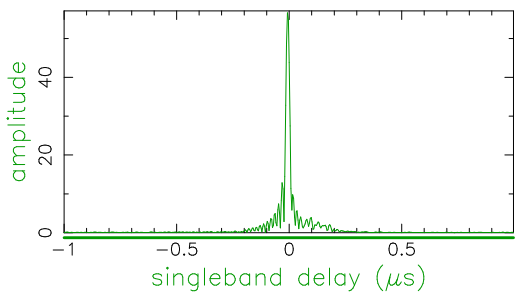
aux01

3C371.3MP15Q, No0901, PP

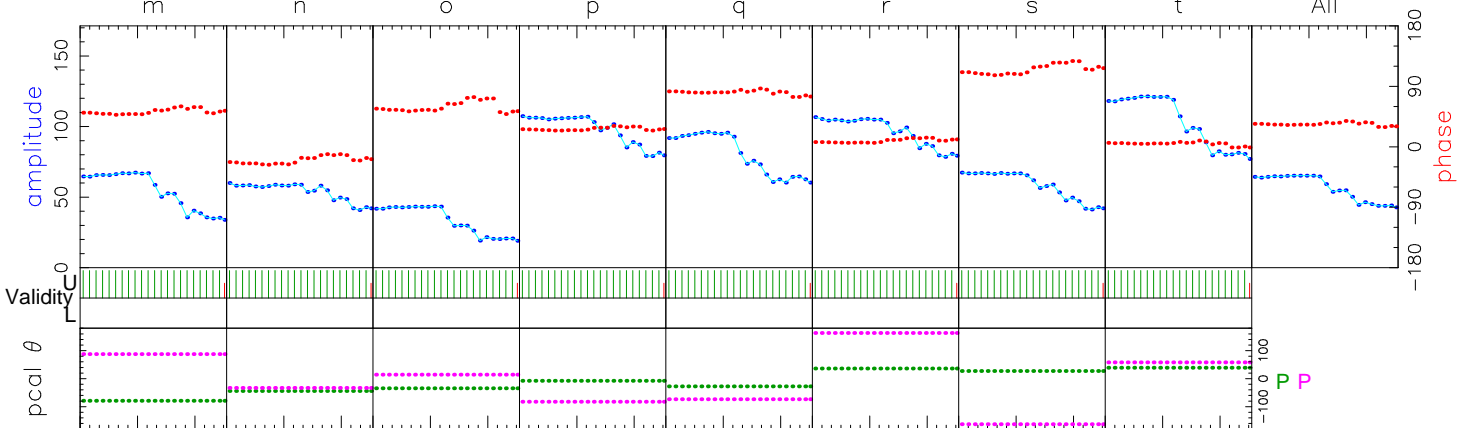
PICOVEL - PICOVEL, fgroup W, pol LR



Fringe quality 5  
 Error code G  
 SNR 1913.6  
 Int time 149.994  
 Amp 57.138  
 Phase 33.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006565  
 MBD 0.001424  
 Fringe rate (Hz) 0.000006  
 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  
 2025:041:105826  
 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		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	-79:88	-44:-33	-34:15	-8:-82	-28:-74	36:163	27:-163	39:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -1.42010937500E-02 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.42391E-03 +/- 5.7E-07  
 Sband delay (usec) -6.56525000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -6.56525E-03 +/- 4.5E-06  
 Phase delay (usec) 1.09000607355E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 1.09001E-06 +/- 1.9E-09  
 Delay rate (us/s) 6.66044162409E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 6.66044E-11 +/- 2.2E-11  
 Total phase (deg) 33.8 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 33.8 +/- 0.1

ph/seg (deg) 2.2 0.1 RMS Theor. Amplitude 57.138 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 15.5 0.3 Search (1024X32) 56.514 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 48.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 49.9 0.1 Inc. seg. avg. 56.649 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 P: az 359.9 el 16.9 pa -0.0 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PP.W.597.3MP15Q simultaneous interpolator

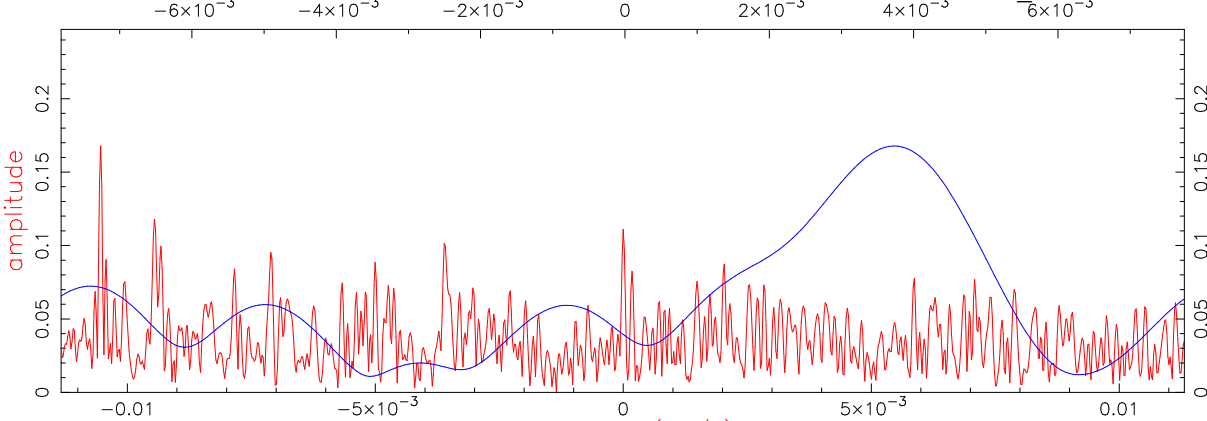
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, pP

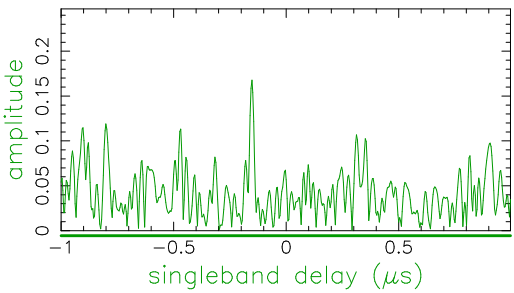
VLBA\_PT - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

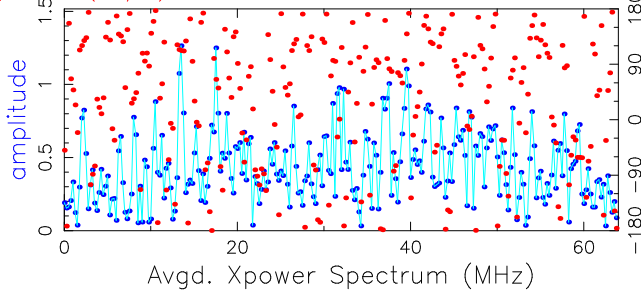


Fringe quality 0

SNR 5.6  
 Int time 149.980  
 Amp 0.247  
 Phase 104.9  
 PFD 9.0e-01  
 Delays (us)  
 SBD -0.152806  
 MBD 0.003730  
 Fringe rate (Hz)  
 -0.909883  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

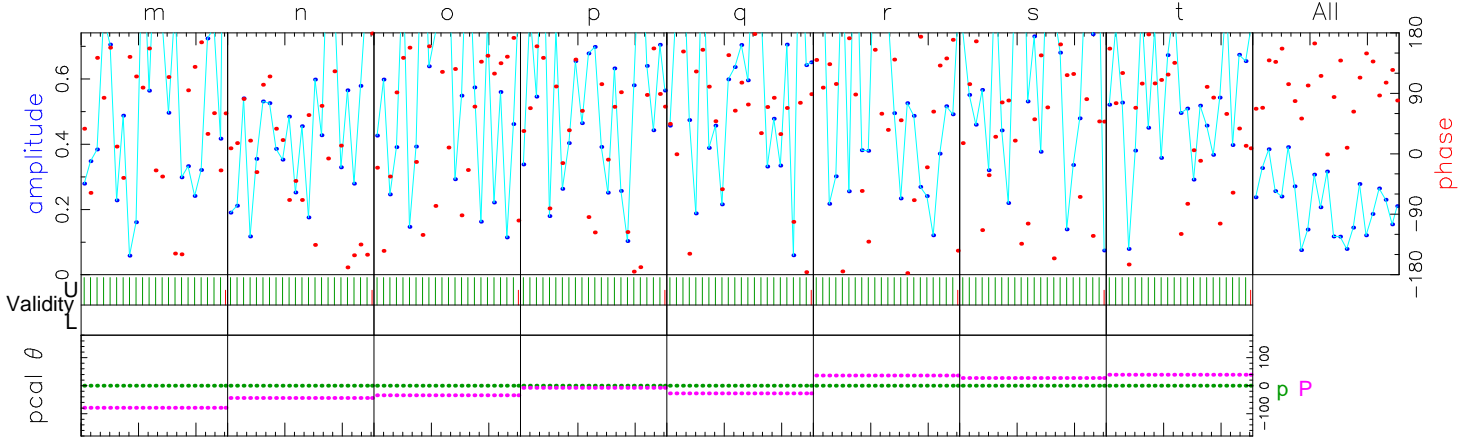


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105827  
 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
	71.9	87.9	172.4	119.0	98.6	130.7	80.6	85.6	Phase	104.9
	0.3	0.0	0.1	0.4	0.5	0.4	0.2	0.3	Ampl.	0.2
	85.4	337.1	347.1	507.7	216.9	218.9	220.5	277.4	Sbd box	217.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
p:P	0	0	0	0	0	0	0	0	PC freqs	
p:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
p:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.63058233718E+03	Apriori delay (usec)	6.63073485684E+03	Resid mbdelay (usec)	3.73034E-03	+/-	1.9E-04
Sband delay (usec)	6.63058205084E+03	Apriori clock (usec)	6.7184887E+00	Resid sbdelay (usec)	-1.52806E-01	+/-	1.5E-03
Phase delay (usec)	6.63073486022E+03	Apriori clockrate (us/s)	-2.1954010E-07	Resid phdelay (usec)	3.38206E-06	+/-	6.6E-07
Delay rate (us/s)	-4.28553890802E-01	Apriori rate (us/s)	-4.28543327958E-01	Resid rate (us/s)	-1.05628E-05	+/-	7.6E-09
Total phase (deg)	309.5	Apriori accel (us/s/s)	-3.93784938010E-05	Resid phase (deg)	104.9	+/-	20.4

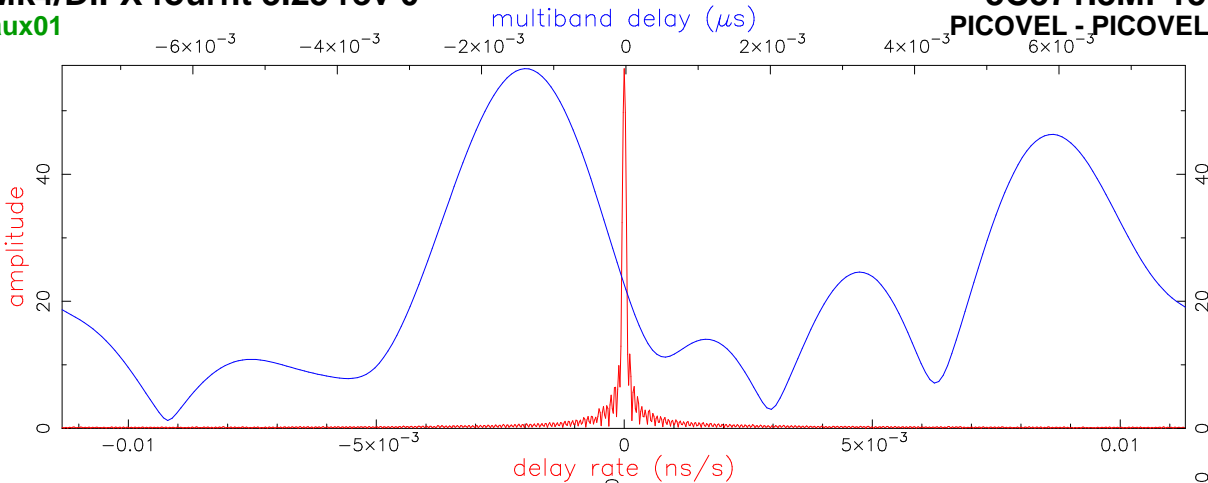
ph/seg (deg) 43.5 48.9 Search (1024X32) 0.166 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 62.1 85.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 36.1 28.8 Inc. seg. avg. 0.237 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 61.1 50.3 Inc. frq. avg. 0.242 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 p: az 335.3 el 37.1 pa 90.7 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 7009.335 -8618.654 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//pP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//pP.W.600.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

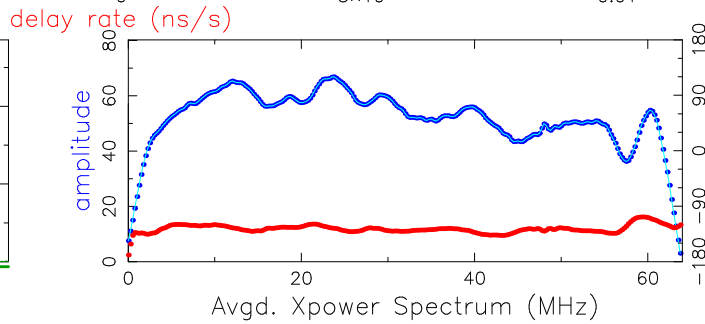
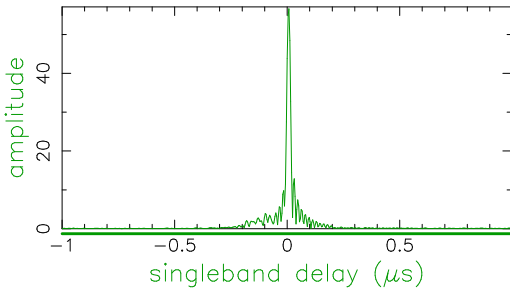
aux01

3C371.3MP15Q, No0901, PP

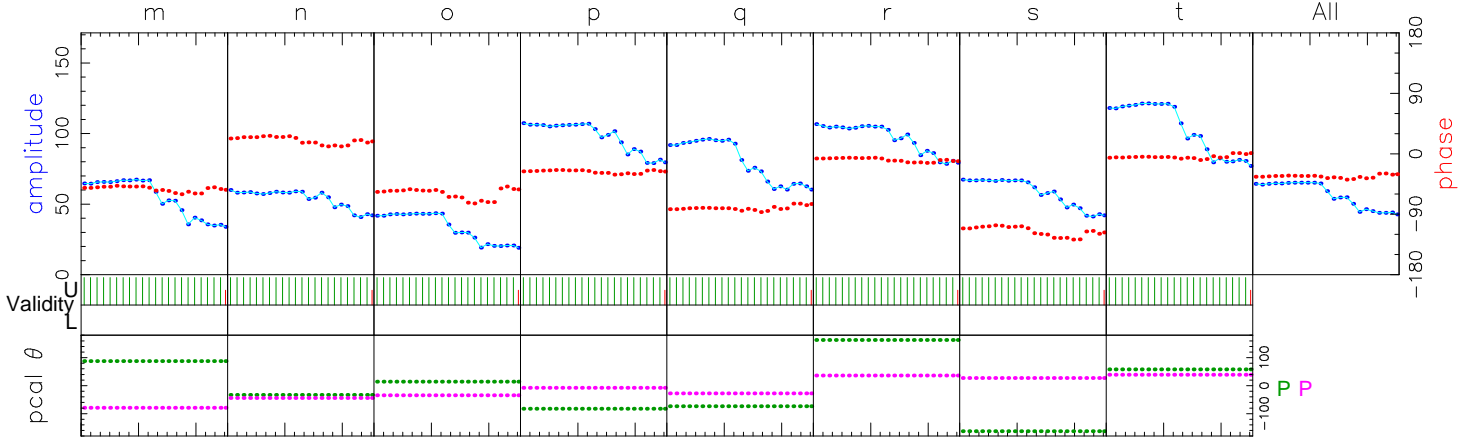
PICOVEL - PICOVEL, fgroup W, pol RL



Fringe quality 5  
 Error code G  
 SNR 1913.6  
 Int time 149.994  
 Amp 57.138  
 Phase -33.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006565  
 MBD -0.001424  
 Fringe rate (Hz)  
 -0.000006  
 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  
 2025:041:105828  
 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		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	88:-79	-33:-44	15:-34	-82:-8	-74:-28	163:36	-163:27	58:39		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.42010937500E-02	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-1.42391E-03	+/-	5.7E-07
Sband delay (usec)	6.56525000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	6.56525E-03	+/-	4.5E-06
Phase delay (usec)	-1.09000607350E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.09001E-06	+/-	1.9E-09
Delay rate (us/s)	-6.66044162409E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-6.66044E-11	+/-	2.2E-11
Total phase (deg)	-33.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-33.8	+/-	0.1

ph/seg (deg) 2.2 0.1 RMS Theor. Amplitude 57.138 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 15.5 0.3 Search (1024X32) 56.514 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 48.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 49.9 0.1 Inc. seg. avg. 56.649 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 P: az 359.9 el 16.9 pa -0.0 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PP.W.602.3MP15Q simultaneous interpolator



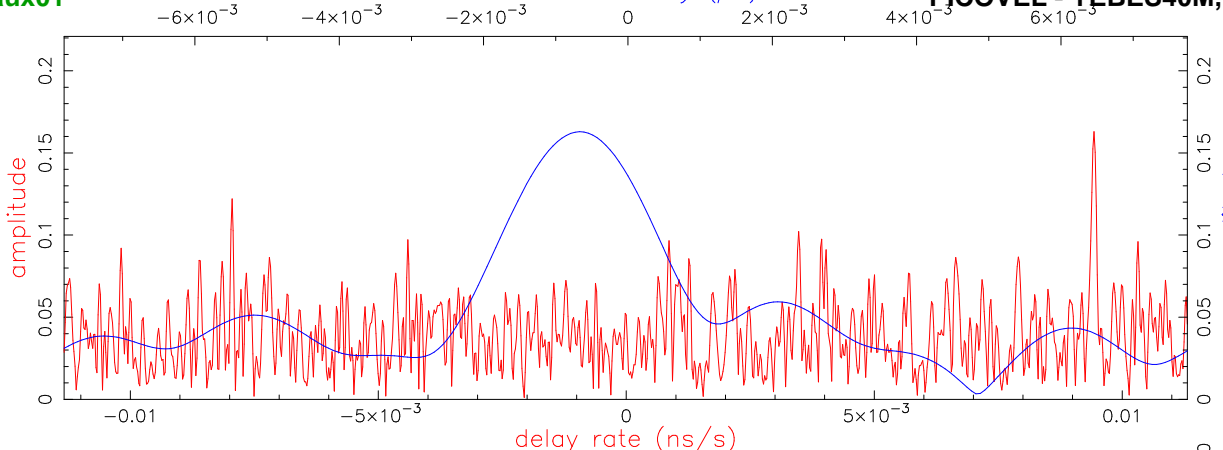
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, PY

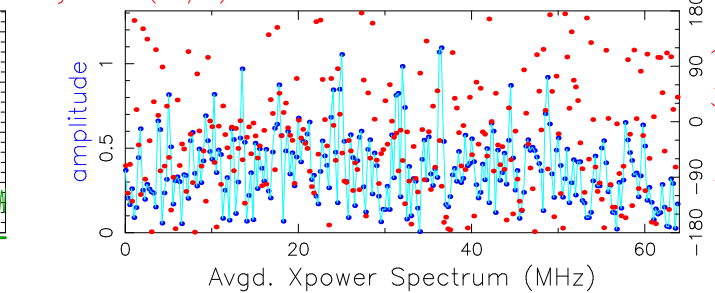
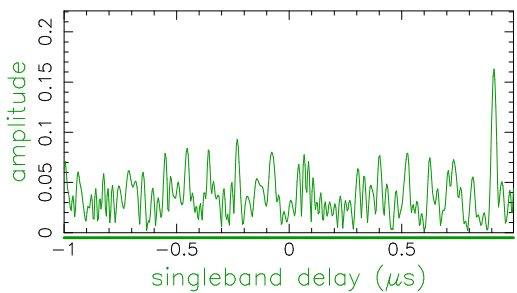
PICOVEL - YEBES40M, fgroup W, pol LL

multiband delay ( $\mu$ s)



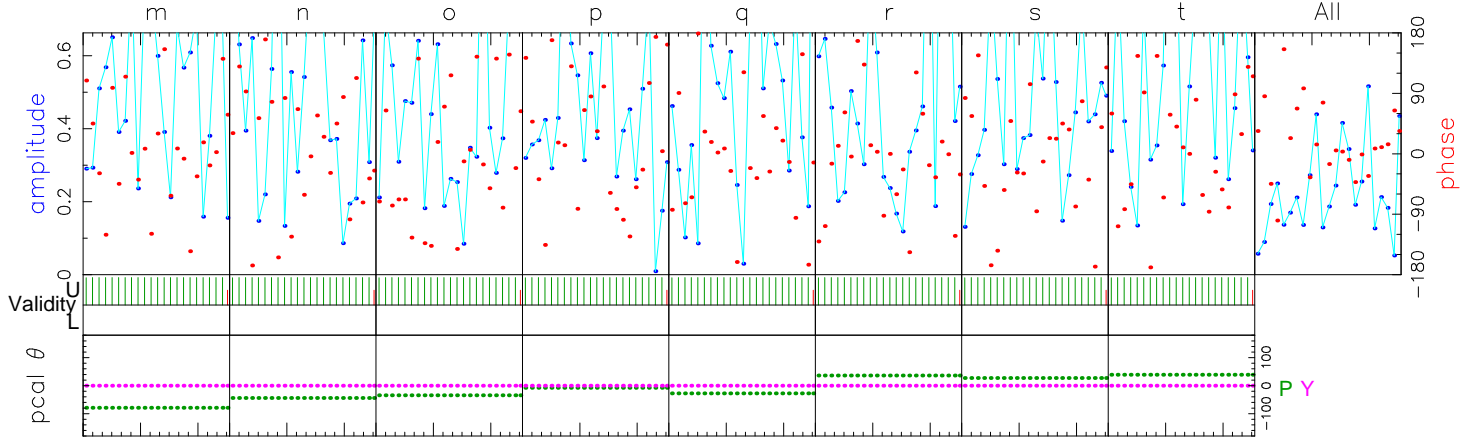
Fringe quality 0

SNR 5.5  
 Int time 149.802  
 Amp 0.221  
 Phase 1.1  
 PFD 1.0e+00  
 Delays (us)  
 SBD 0.909765  
 MBD -0.000673  
 Fringe rate (Hz)  
 0.814105  
 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  
 2025:041:105824  
 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
	-2.8	27.4	-8.5	24.6	-9.7	-9.9	17.0	8.3	Phase	1.1
	0.2	0.1	0.1	0.1	0.4	0.3	0.2	0.2	Ampl.	0.2
	76.6	196.9	350.8	334.1	491.4	229.9	114.2	310.4	Sbd box	489.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	-79:0	-44:0	-34:0	-8:0	-28:0	36:0	27:0	39:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.10146323819E+03	Apriori delay (usec)	-1.10236881491E+03	Resid mbdelay (usec)	-6.73278E-04	+/-	2.0E-04
Sband delay (usec)	-1.10145904991E+03	Apriori clock (usec)	1.0953640E+02	Resid sbdelay (usec)	9.09765E-01	+/-	1.6E-03
Phase delay (usec)	-1.10236881488E+03	Apriori clockrate (us/s)	1.8119061E-02	Resid phdelay (usec)	3.63747E-08	+/-	6.8E-07
Delay rate (us/s)	-2.14958578712E-03	Apriori rate (us/s)	-2.15903674263E-03	Resid rate (us/s)	9.45096E-06	+/-	7.8E-09
Total phase (deg)	-256.9	Apriori accel (us/s/s)	1.48181841379E-06	Resid phase (deg)	1.1	+/-	21.0

ph/seg (deg)	57.2	Theor.	50.4	Amplitude	0.221 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.1		87.9	Search (1024X32)	0.161	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	17.8		29.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.6		51.8	Inc. seg. avg.	0.219	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.200	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 359.9 el 16.9 pa -0.0 Y: az 0.0 el 20.3 pa -0.2 u, v (fr/asec) 38.830 173.004 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PY.W.591.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

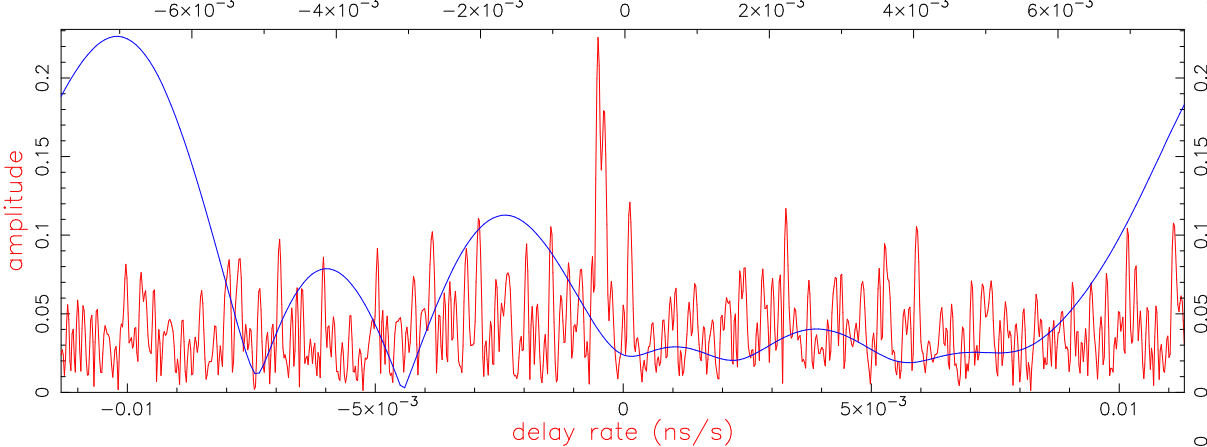
aux01

3C371.3MP15Q, No0901, PY

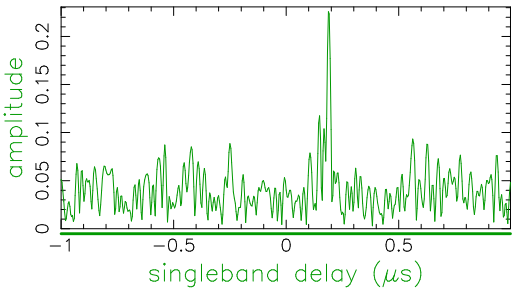
PICOVEL - YEBES40M, fgroup W, pol RR

multiband delay ( $\mu$ s)

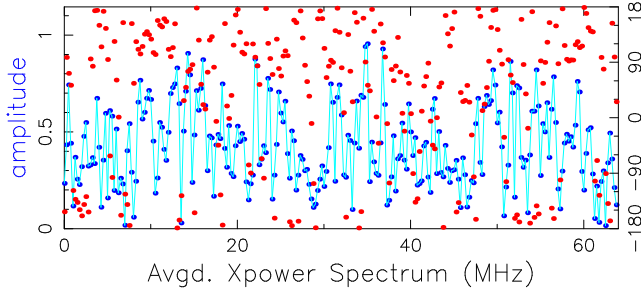
Fringe quality 9



SNR 7.7  
 Int time 149.802  
 Amp 0.231  
 Phase -135.2  
 PFD 1.9e-06  
 Delays (us)  
 SBD 0.189262  
 MBD -0.006943  
 Fringe rate (Hz)  
 -0.044132  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

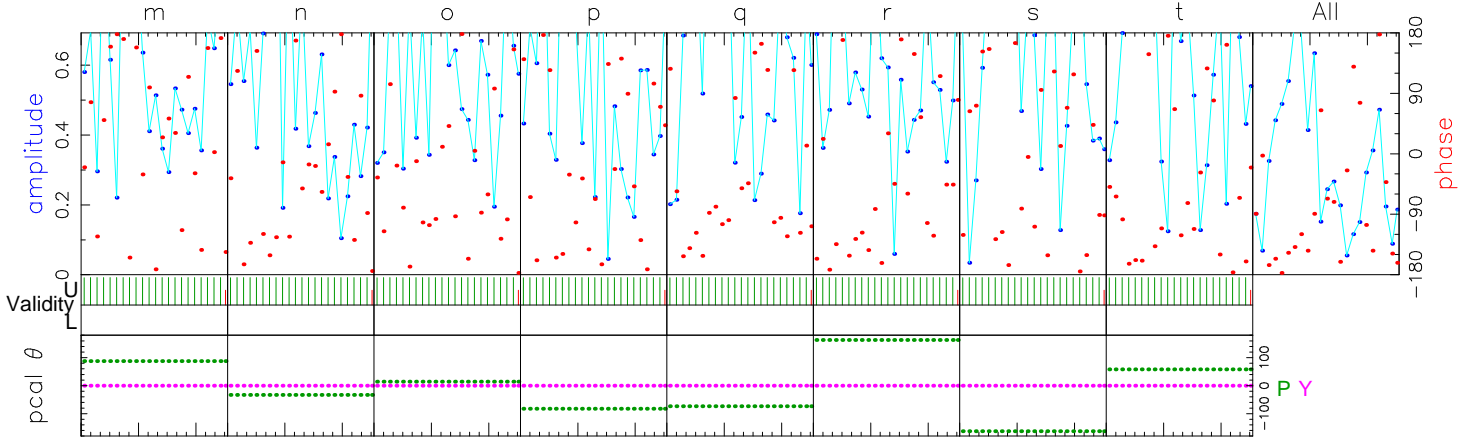


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105826  
 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
	149.6	-122.0	-91.5	-146.3	-107.4	-138.3	-164.5	-141.1	Phase	-135.2
	0.1	0.3	0.2	0.2	0.4	0.3	0.3	0.3	Ampl.	0.2
	308.2	237.7	454.9	416.6	305.5	440.8	304.8	305.3	Sbd box	305.5
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	88:0	-33:0	15:0	-82:0	-74:0	163:0	-163:0	58:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.10217263279E+03	Apriori delay (usec)	-1.10236881491E+03	Resid mbdelay (usec)	-6.94288E-03	+/-	1.4E-04
Sband delay (usec)	-1.10217955241E+03	Apriori clock (usec)	1.0953640E+02	Resid sbdelay (usec)	1.89262E-01	+/-	1.1E-03
Phase delay (usec)	-1.10236881927E+03	Apriori clockrate (us/s)	1.8119061E-06	Resid phdelay (usec)	-4.36015E-06	+/-	4.8E-07
Delay rate (us/s)	-2.15954906805E-03	Apriori rate (us/s)	-2.15903674263E-03	Resid rate (us/s)	-5.12325E-07	+/-	5.5E-09
Total phase (deg)	-33.2	Apriori accel (us/s/s)	1.48181841379E-06	Resid phase (deg)	-135.2	+/-	14.8

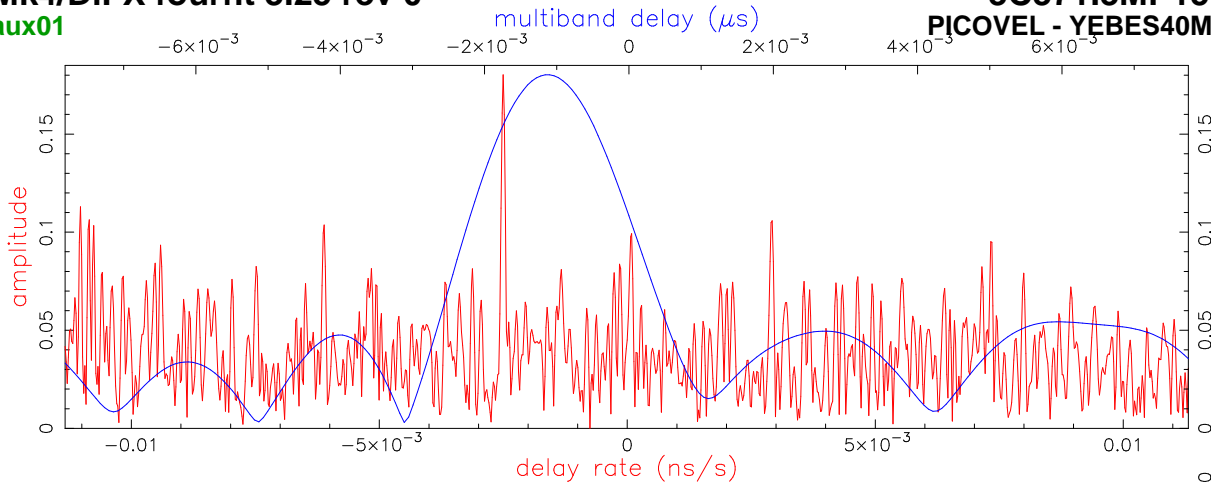
ph/seg (deg) 71.8 35.6 Search (1024X32) 0.224 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 94.2 62.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 39.8 21.0 Inc. seg. avg. 0.268 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 29.1 36.6 Inc. frq. avg. 0.243 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 P: az 359.9 el 16.9 pa -0.0 Y: az 0.0 el 20.3 pa -0.2 u,v (fr/asec) 38.830 173.004 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PY.W.598.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

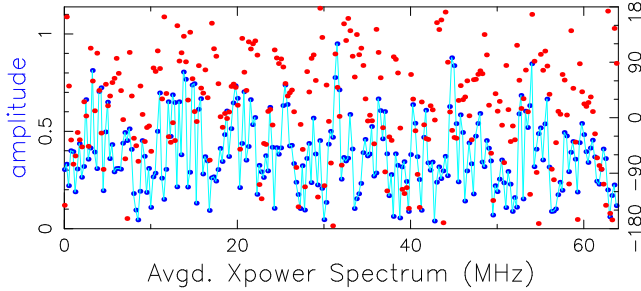
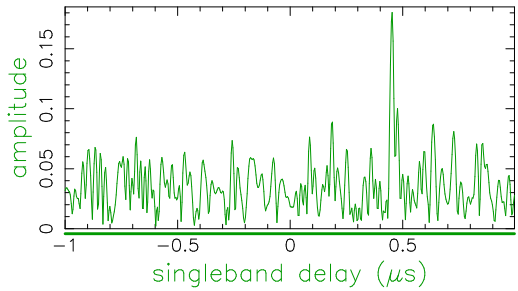
3C371.3MP15Q, No0901, PY

PICOVEL - YEBES40M, fgroup W, pol LR



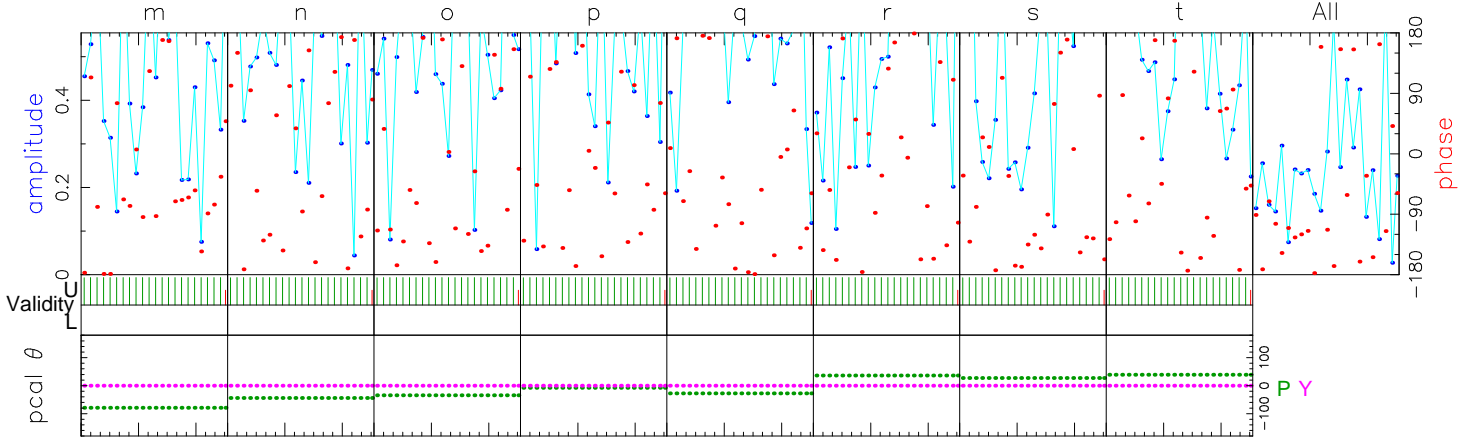
Fringe quality 0

SNR 6.1  
 Int time 149.802  
 Amp 0.185  
 Phase -136.0  
 PFD 1.6e-01  
 Delays (us)  
 SBD 0.452124  
 MBD -0.001144  
 Fringe rate (Hz)  
 -0.215429  
 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  
 2025:041:105828  
 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
	-106.6	175.2	-135.2	-142.9	-117.5	-133.6	-139.5	-136.2	Phase	-136.0
	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
	322.9	289.2	372.2	385.0	374.4	22.5	170.7	418.2	Sbd box	372.7
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	-79:0	-44:0	-34:0	-8:0	-28:0	36:0	27:0	39:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.10191683346E+03	Apriori delay (usec)	-1.10236881491E+03	Resid mbdelay (usec)	-1.14355E-03	+/-	1.8E-04
Sband delay (usec)	-1.10191669066E+03	Apriori clock (usec)	1.0953640E+02	Resid sbdelay (usec)	4.52124E-01	+/-	1.4E-03
Phase delay (usec)	-1.10236881930E+03	Apriori clockrate (us/s)	1.8119061E-06	Resid phdelay (usec)	-4.38577E-06	+/-	6.1E-07
Delay rate (us/s)	-2.16153766052E-03	Apriori rate (us/s)	-2.15903674263E-03	Resid rate (us/s)	-2.50092E-06	+/-	7.0E-09
Total phase (deg)	-34.0	Apriori accel (us/s/s)	1.48181841379E-06	Resid phase (deg)	-136.0	+/-	18.9

ph/seg (deg)	60.7	Theor.	45.3	Amplitude	0.185 +/- 0.030	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	92.4		79.0	Search (1024X32)	0.179	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	24.7		26.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.9		46.6	Inc. seg. avg.	0.196	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.176	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
P:	az 359.9 el 16.9 pa -0.0	Y:	az 0.0 el 20.3 pa -0.2	u, v (fr/asec)	38.830 173.004				simultaneous interpolator	

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PY.W.603.3MP15Q

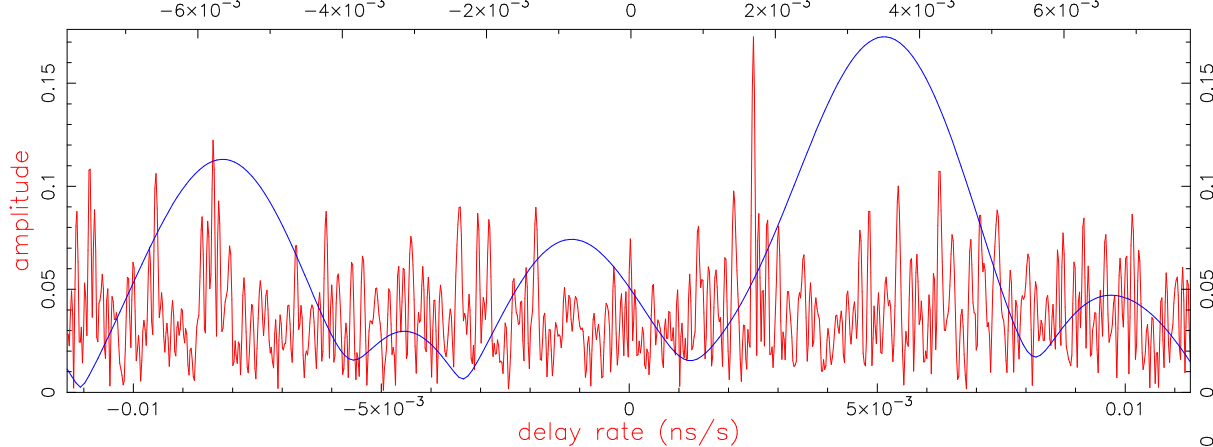
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, PY

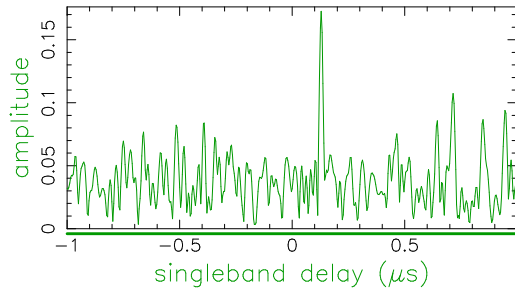
PICOVEL - YEBES40M, fgroup W, pol RL

multiband delay ( $\mu$ s)

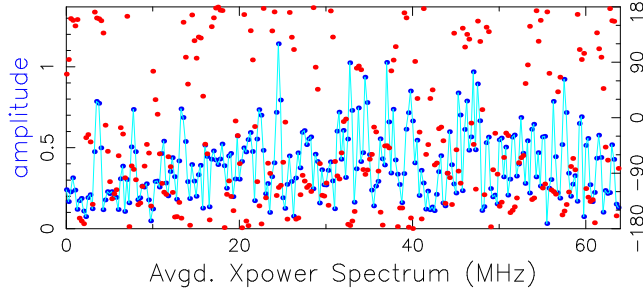


Fringe quality 0

SNR 5.8  
 Int time 149.802  
 Amp 0.176  
 Phase -142.0  
 PFD 6.1e-01  
 Delays (us)  
 SBD 0.128642  
 MBD 0.003489  
 Fringe rate (Hz)  
 0.216168  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

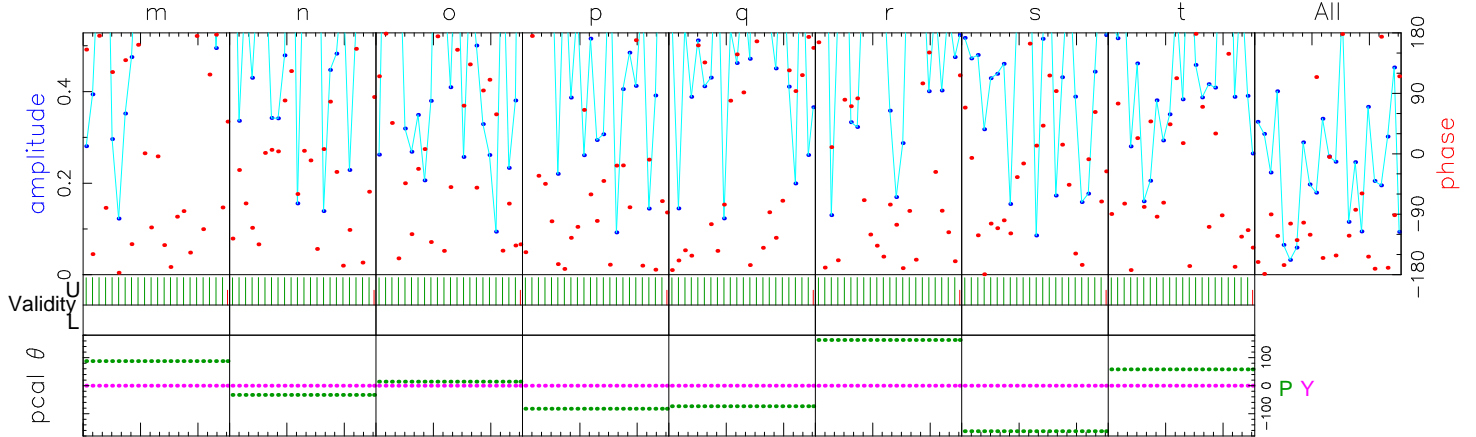


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105829  
 2024:113:095956  
 RA & Dec (J2000)  
 18h06m50.680649s  
 +69°49'28.108492"

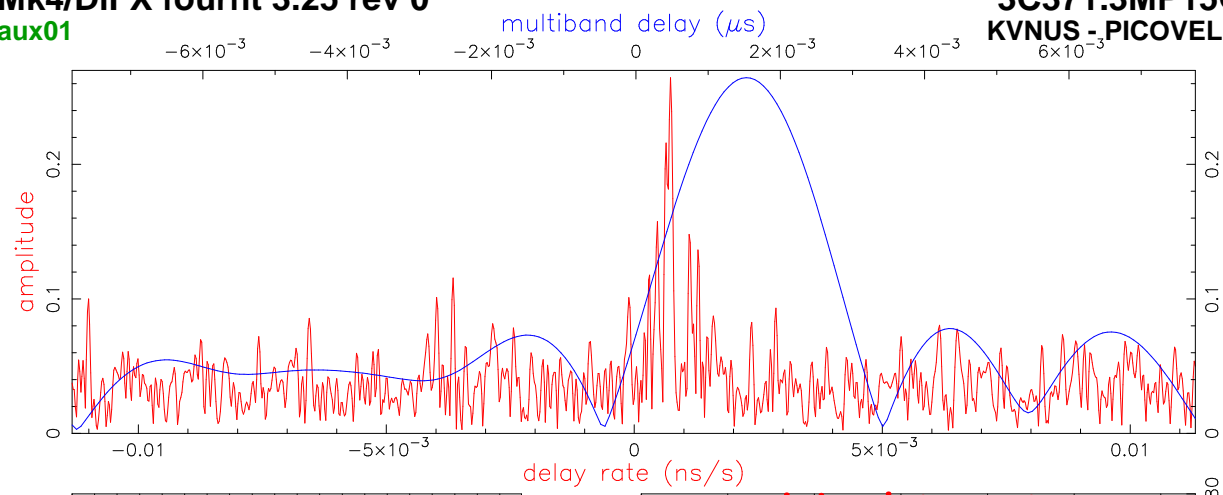
Amp. and Phase vs. time for each freq., 23 segs, 13 APs / seg (6.66 sec / seg.), time ticks 10 sec



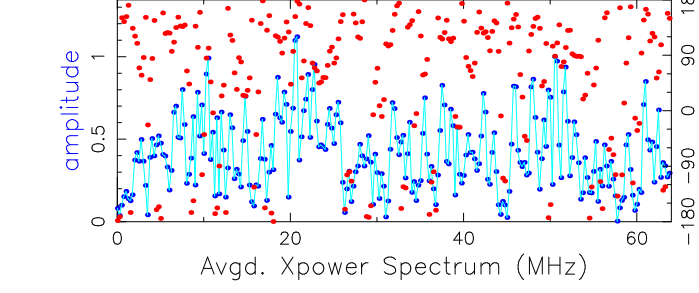
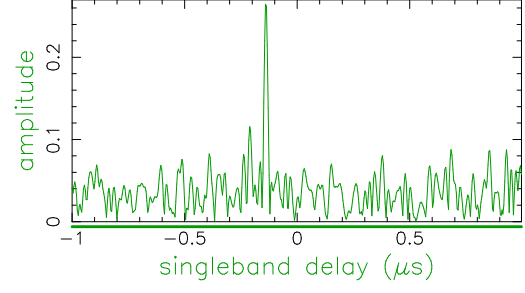
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-141.5	-103.0	-165.2	-111.8	-178.1	-151.8	-46.7	-135.6	Phase	-142.0
	0.3	0.1	0.2	0.3	0.3	0.3	0.1	0.1	Ampl.	0.2
	209.1	115.8	195.2	487.9	289.2	40.6	285.1	284.6	Sbd box	289.9
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	88:0	-33:0	15:0	-82:0	-74:0	163:0	-163:0	58:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.10224032577E+03	Apriori delay (usec)	-1.10236881491E+03	Resid mbdelay (usec)	3.48914E-03	+/-	1.9E-04
Sband delay (usec)	-1.10224017266E+03	Apriori clock (usec)	1.0953640E+02	Resid sbdelay (usec)	1.28642E-01	+/-	1.5E-03
Phase delay (usec)	-1.10236881950E+03	Apriori clockrate (us/s)	1.8119061E-02	Resid phdelay (usec)	-4.58070E-06	+/-	6.4E-07
Delay rate (us/s)	-2.15652724411E-03	Apriori rate (us/s)	-2.15903674263E-03	Resid rate (us/s)	2.50950E-06	+/-	7.4E-09
Total phase (deg)	-40.1	Apriori accel (us/s/s)	1.48181841379E-06	Resid phase (deg)	-142.0	+/-	19.8

ph/seg (deg) 52.9 47.6 Search (1024X32) 0.168 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 87.9 83.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 47.4 28.1 Inc. seg. avg. 0.187 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.9 49.0 Inc. frq. avg. 0.184 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 P: az 359.9 el 16.9 pa -0.0 Y: az 0.0 el 20.3 pa -0.2 u, v (fr/asec) 38.830 173.004 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//PY..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//PY.W.605.3MP15Q

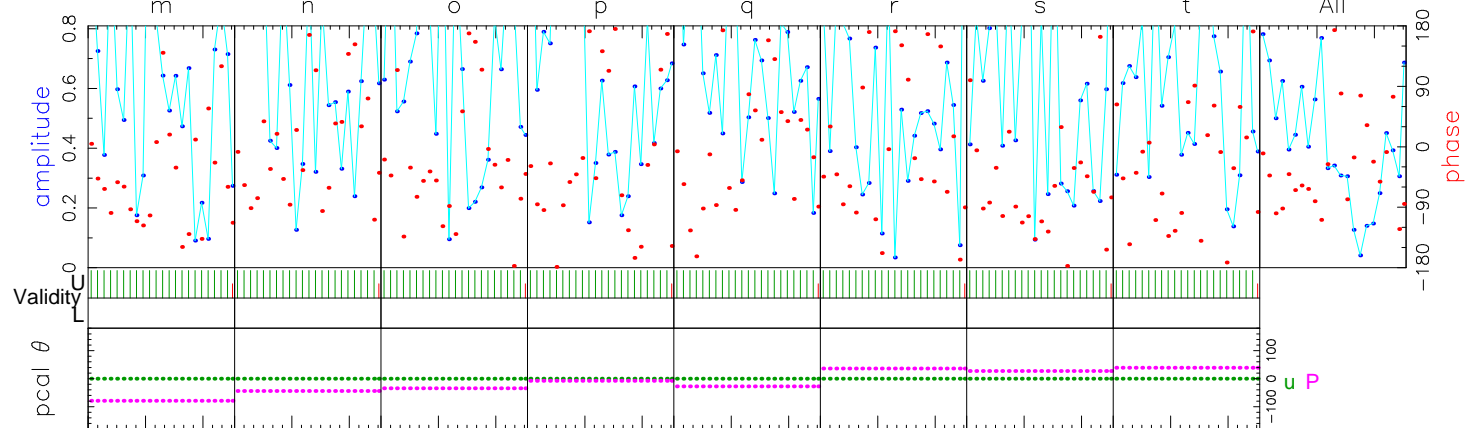


Fringe quality 9  
SNR 9.0  
Int time 149.856  
Amp 0.270  
Phase -59.1  
PFD 3.6e-11  
Delays (us)  
SBD -0.138857  
MBD 0.001531  
Fringe rate (Hz) 0.062144  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c241a  
Exper # 1234  
Yr:day 2024:109  
Start 163000.00  
Stop 163230.02  
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
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

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)	26.8	Apriori accel (us/s/s)	-5.27423438852E-05	Resid phase (deg)	-59.1	+/-	12.7

ph/seg (deg) 66.8 30.5 Search (1024X32) 0.260 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 92.3 53.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 17.8 18.0 Inc. seg. avg. 0.362 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 25.8 31.4 Inc. frq. avg. 0.261 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.373.3MP15Q



Mk4/DiFX fourfit 3.25 rev 0

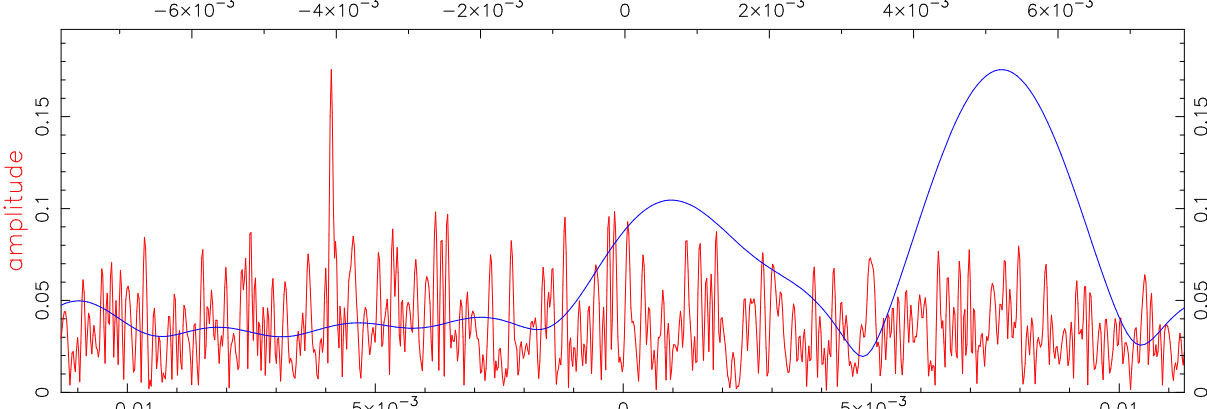
aux01

3C371.3MP15Q, No0901, uP

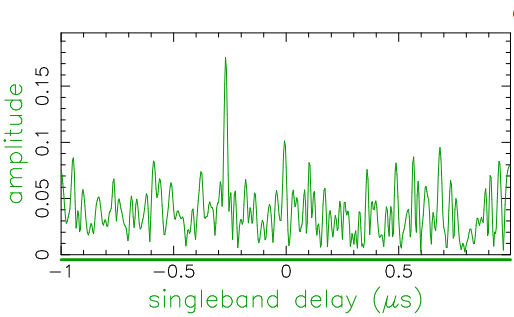
KVNUS - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

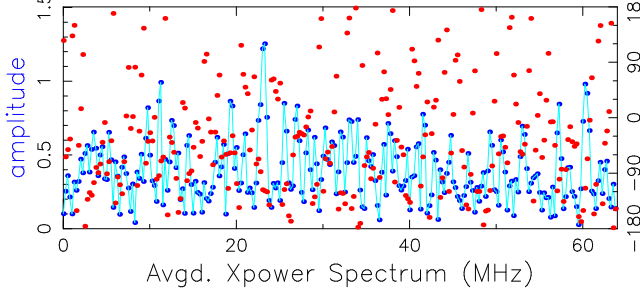
Fringe quality 0



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

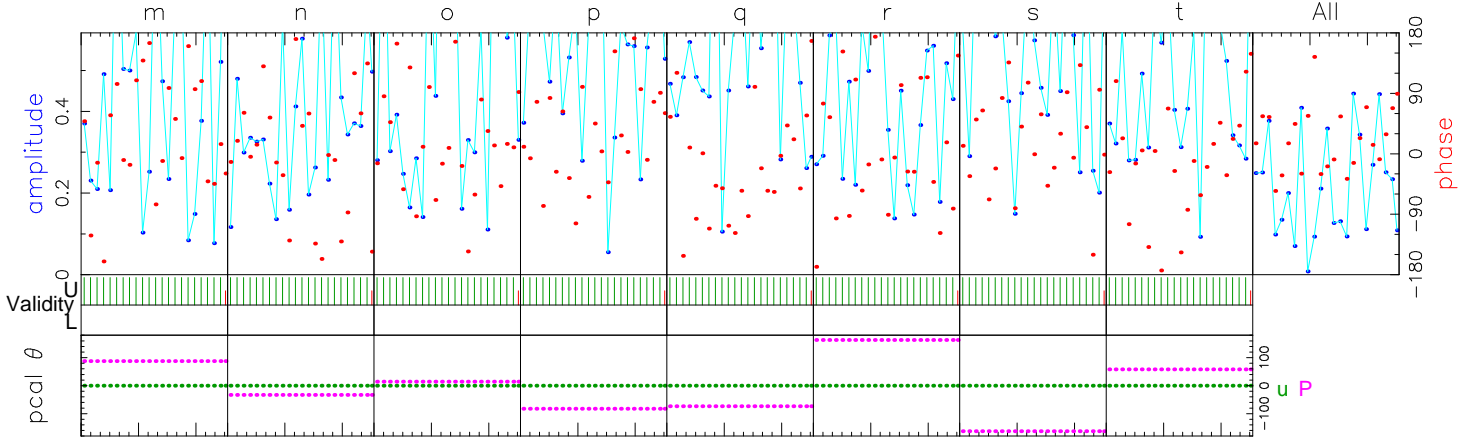


delay rate (ns/s)



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	Theor.	46.6	Search (1024X32)	0.171	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	75.6		81.3	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)	30.6		27.5	Inc. seg. avg.	0.186	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	53.0		47.9	Inc. frq. avg.	0.195	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.387.3MP15Q

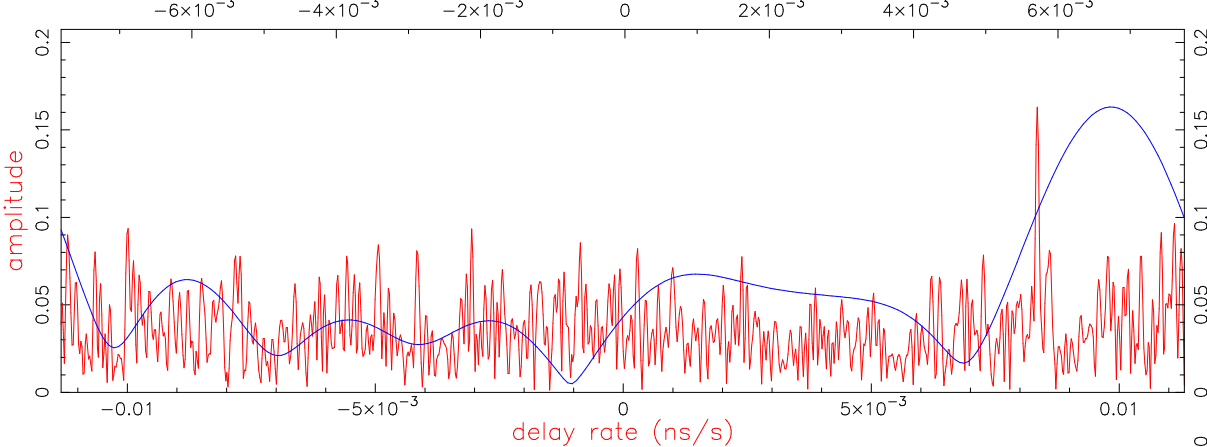
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, uP

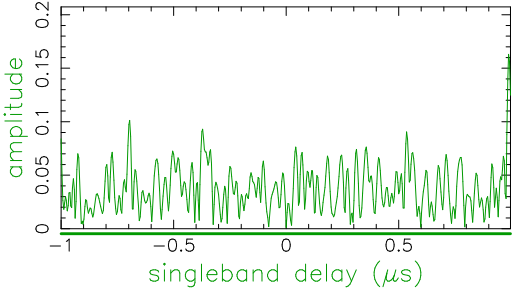
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

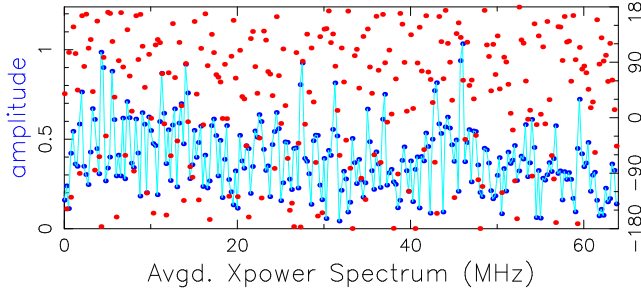


Fringe quality 0

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

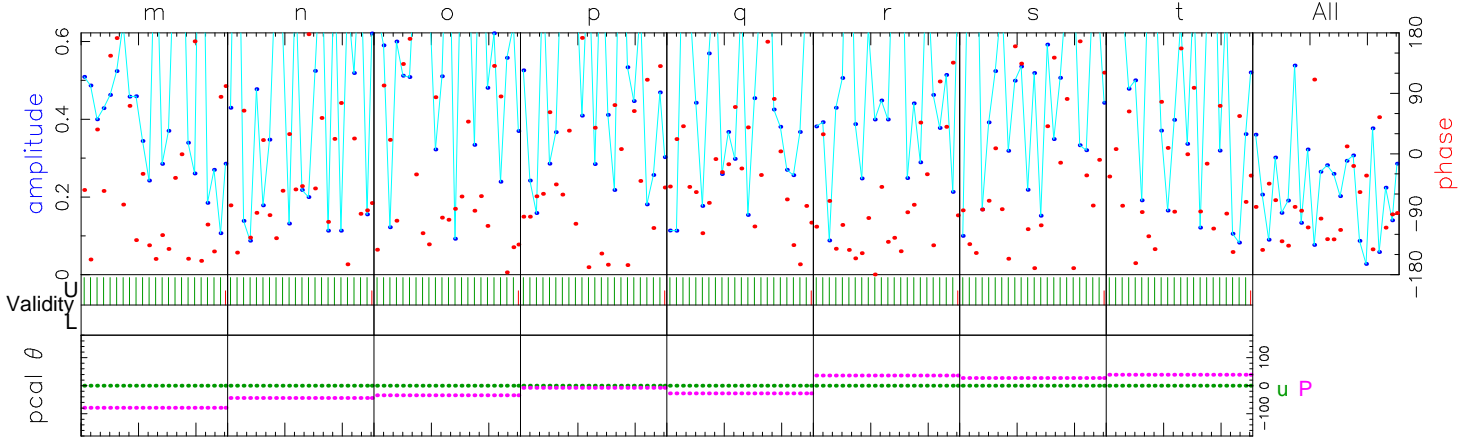


delay rate (ns/s)



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	

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)	-8.9	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	sb window (us)	-1.000	1.000
ph/seg (deg)	60.7	50.0	Search (1024X32)	0.158	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	81.5	87.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	34.5	29.5	Inc. seg. avg.	0.205	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
amp/frq (%)	32.0	51.5	Inc. frq. avg.	0.208	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

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

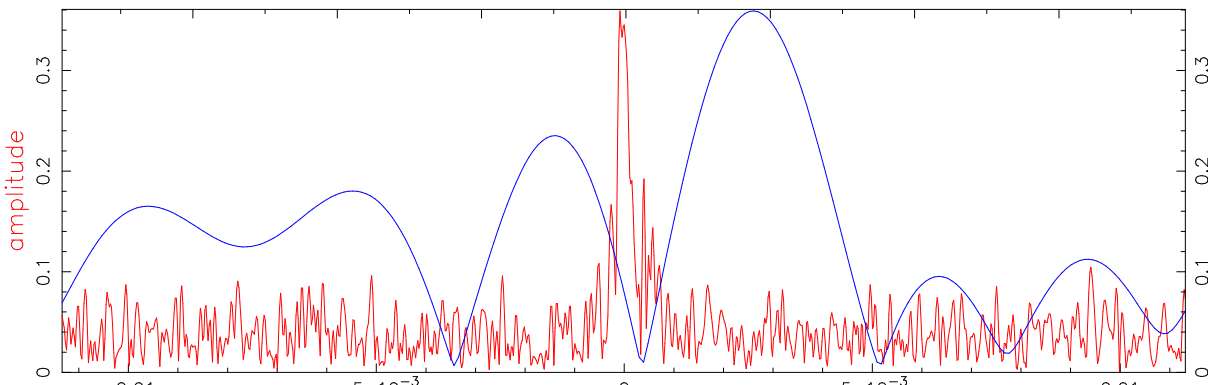
aux01

3C371.3MP15Q, No0901, XP

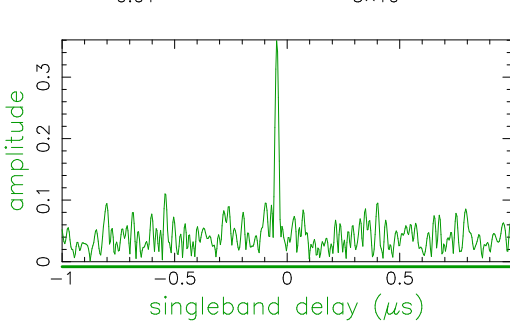
ONSALA60 - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)

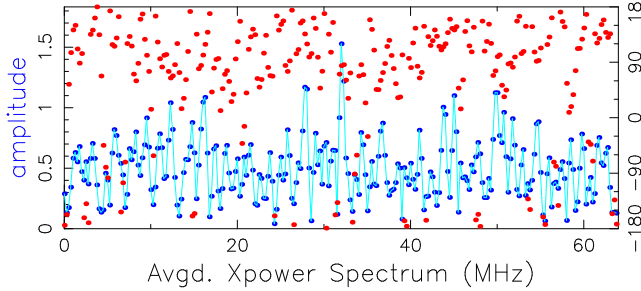
Fringe quality 9



SNR 12.1  
 Int time 149.838  
 Amp 0.361  
 Phase -80.2  
 PFD 3.8e-25  
 Delays (us)  
 SBD -0.046016  
 MBD 0.001781  
 Fringe rate (Hz)  
 -0.008294  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

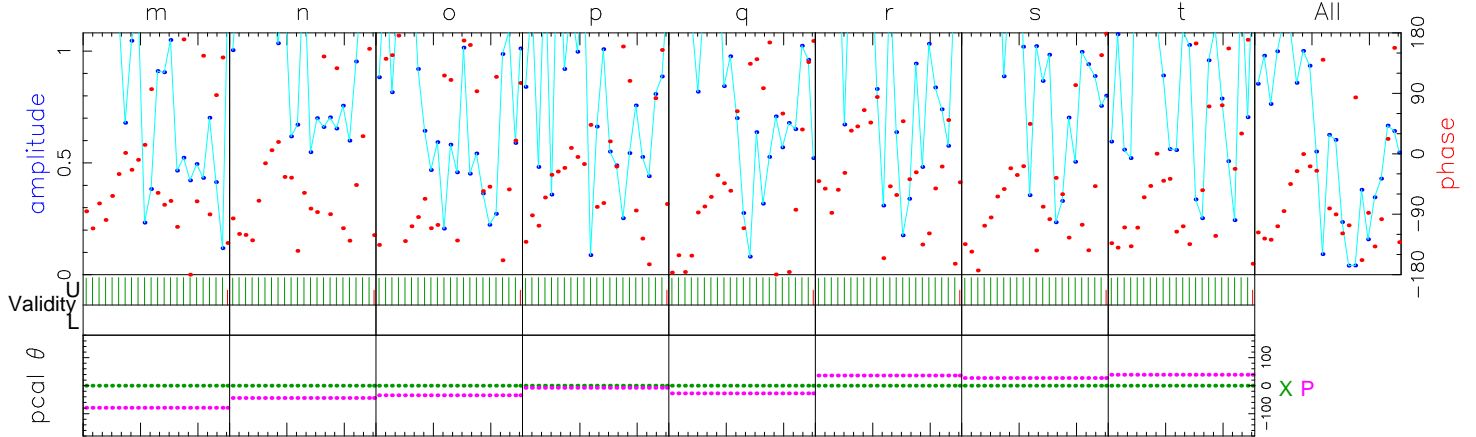


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105807  
 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
	-72.3	-75.8	-151.9	-48.8	-130.0	-21.7	-94.7	-93.1	Phase	-80.2
	0.6	0.5	0.3	0.4	0.3	0.5	0.6	0.4	Ampl.	0.4
	244.8	245.3	244.7	246.6	246.9	245.9	245.4	245.0	Sbd box	245.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.93115115898E+03	Apriori delay (usec)	6.93119625313E+03	Resid mbdelay (usec)	1.78085E-03	+/-	9.0E-05
Sband delay (usec)	6.93115023738E+03	Apriori clock (usec)	1.1367192E+02	Resid sbdelay (usec)	-4.60158E-02	+/-	7.1E-04
Phase delay (usec)	6.93119625054E+03	Apriori clockrate (us/s)	6.1838598E-07	Resid phdelay (usec)	-2.58774E-06	+/-	3.1E-07
Delay rate (us/s)	7.62693638448E-02	Apriori rate (us/s)	7.62694601279E-02	Resid rate (us/s)	-9.62831E-08	+/-	3.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.08662492608E-05	Resid phase (deg)	-80.2	+/-	9.5

ph/seg (deg)	69.6	RMS	22.8	Theor.	Amplitude	0.361 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	117.3		39.7		Search (1024X32)	0.350	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	45.6		13.4		Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	38.7		23.4		Inc. seg. avg.	0.565	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011		
					Inc. frq. avg.	0.430	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

X: az 62.5 el 37.7 pa -10.4 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -1289.948 -1574.347 simultaneous interpolator

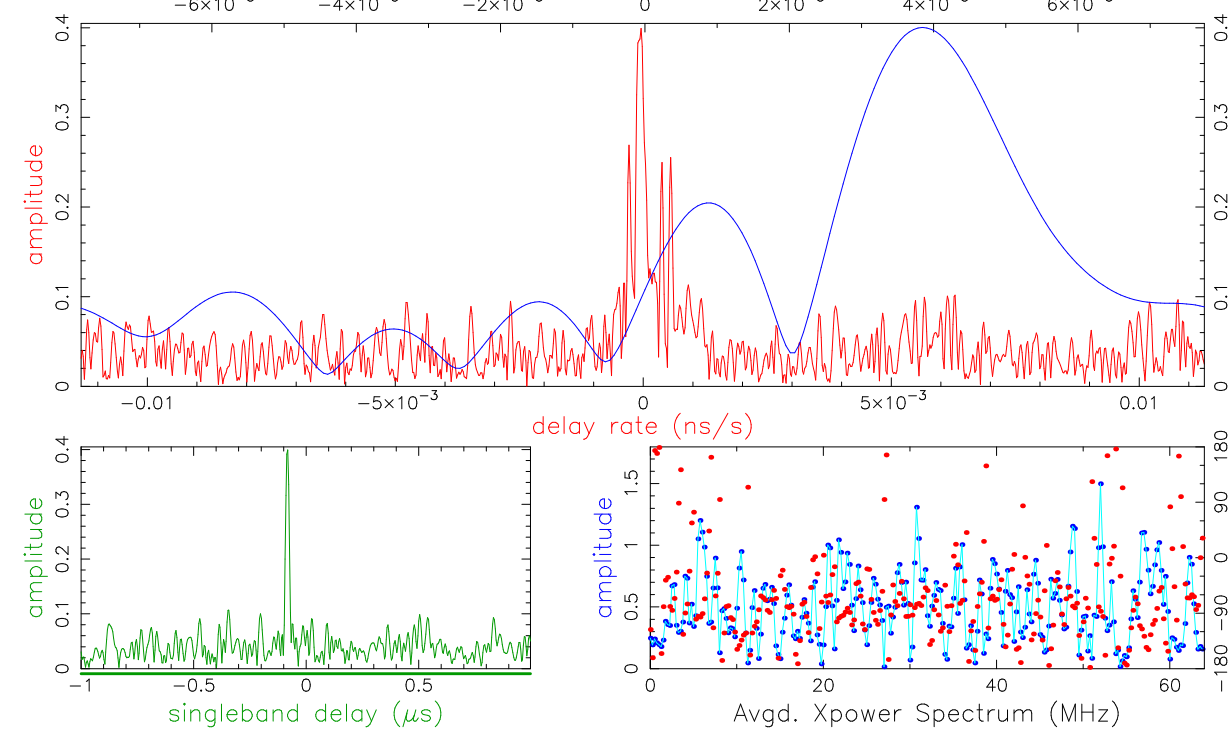
Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//XP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//XP.W.550.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

aux01

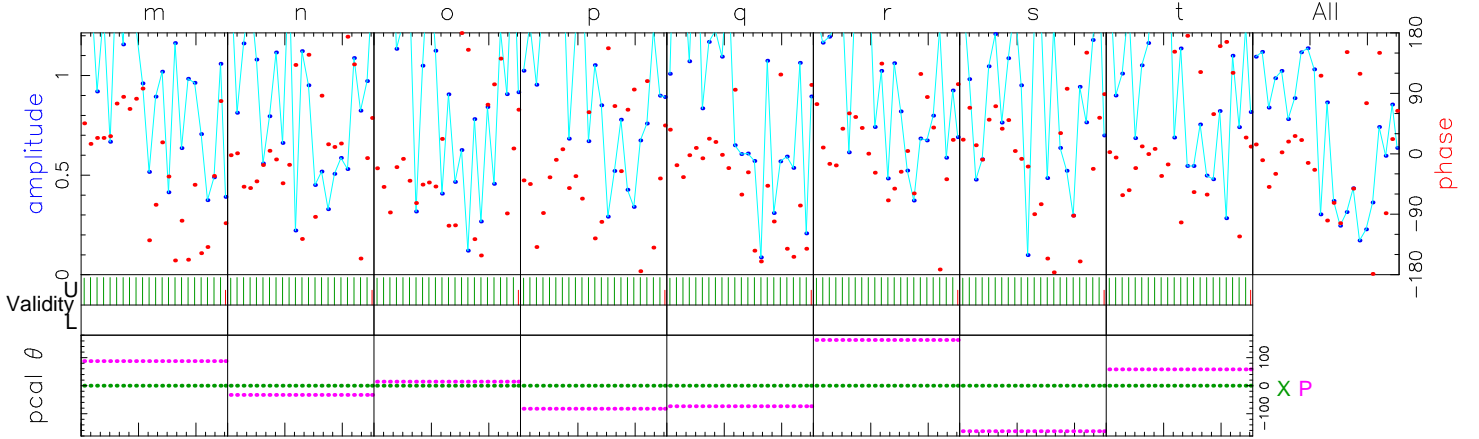
3C371.3MP15Q, No0901, XP

ONSALA60 - PICOVEL, fgroup W, pol RR



Fringe quality 9  
 SNR 13.6  
 Int time 149.838  
 Amp 0.405  
 Phase -8.2  
 PFD 2.2e-33  
 Delays (us)  
 SBD -0.083568  
 MBD 0.003760  
 Fringe rate (Hz)  
 -0.003460  
 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  
 2025:041:105809  
 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		
	44.2	-18.1	-45.2	-48.0	-13.6	22.9	26.9	-15.7	Phase	-8.2		
	0.4	0.4	0.5	0.4	0.6	0.3	0.3	0.5	Ampl.	0.5		
	234.3	235.2	235.9	235.8	236.5	236.2	235.8	234.7	Sbd box	235.6		
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used			
X	0	0	0	0	0	0	0	0	PC freqs			
P	0	0	0	0	0	0	0	0	PC freqs			
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
X:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC			
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
P	1000	1000	1000	1000	1000	1000	1000	1000				
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	6.93110626360E+03		Apriori delay (usec)		6.93119625313E+03		Resid mbdelay (usec)		3.76047E-03	+/- 8.0E-05		
Sband delay (usec)	6.93111268538E+03		Apriori clock (usec)		1.1367192E+02		Resid sbdelay (usec)		-8.35678E-02	+/- 6.4E-04		
Phase delay (usec)	6.93119625287E+03		Apriori clockrate (us/s)		6.1838598E-07		Resid phdelay (usec)		-2.64800E-07	+/- 2.7E-07		
Delay rate (us/s)	7.62694199584E-02		Apriori rate (us/s)		7.62694601279E-02		Resid rate (us/s)		-4.01695E-08	+/- 3.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-1.08662492608E-05		Resid phase (deg)		-8.2	+/- 8.5		
	RMS	Theor.	Amplitude	0.405 +/- 0.030		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	83.6	20.3	Search (1024X32)	0.399		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	109.4	35.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	36.7	12.0	Inc. seg. avg.	0.661		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	25.9	20.9	Inc. frq. avg.	0.453		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
X: az 6.5 el 37.7 pa -10.4	P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec) -1289.948 -1574.347						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0901//XP..3MP15Q		Output file: /Exps/c241a/v2/3mm/1234/No0901//XP.W.557.3MP15Q									

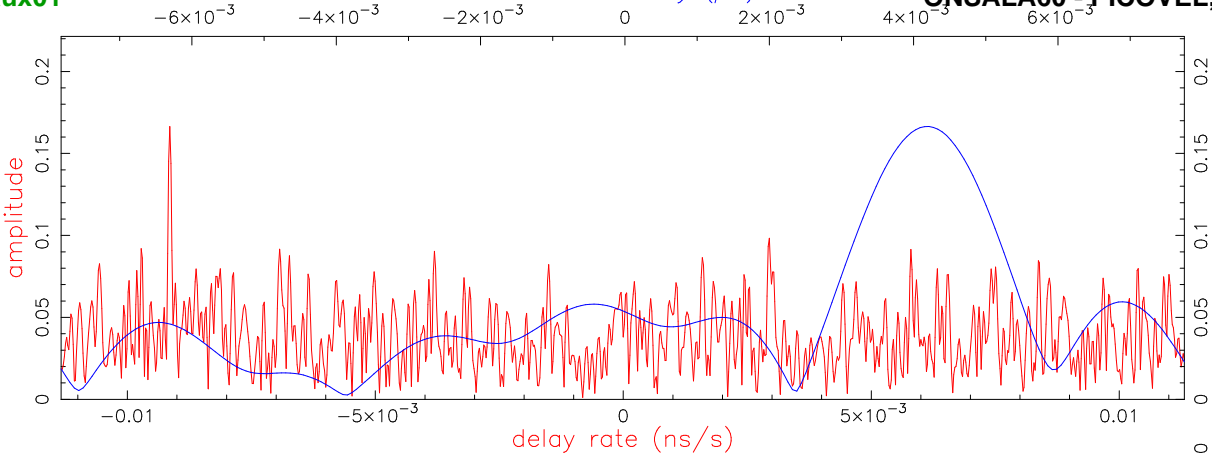
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, XP

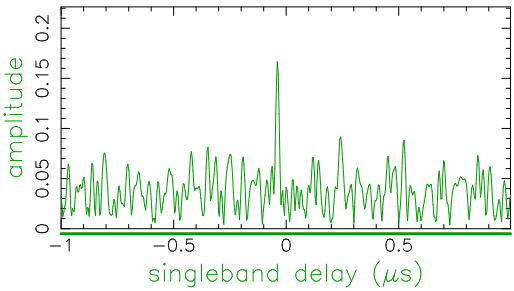
ONSALA60 - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

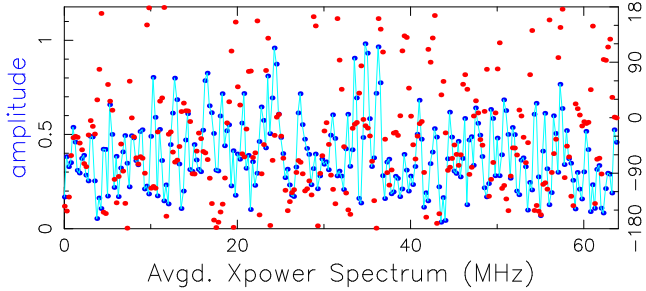


Fringe quality 0

SNR 5.6  
 Int time 149.838  
 Amp 0.221  
 Phase 159.3  
 PFD 9.5e-01  
 Delays (us)  
 SBD -0.038727  
 MBD 0.004190  
 Fringe rate (Hz)  
 -0.788959  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

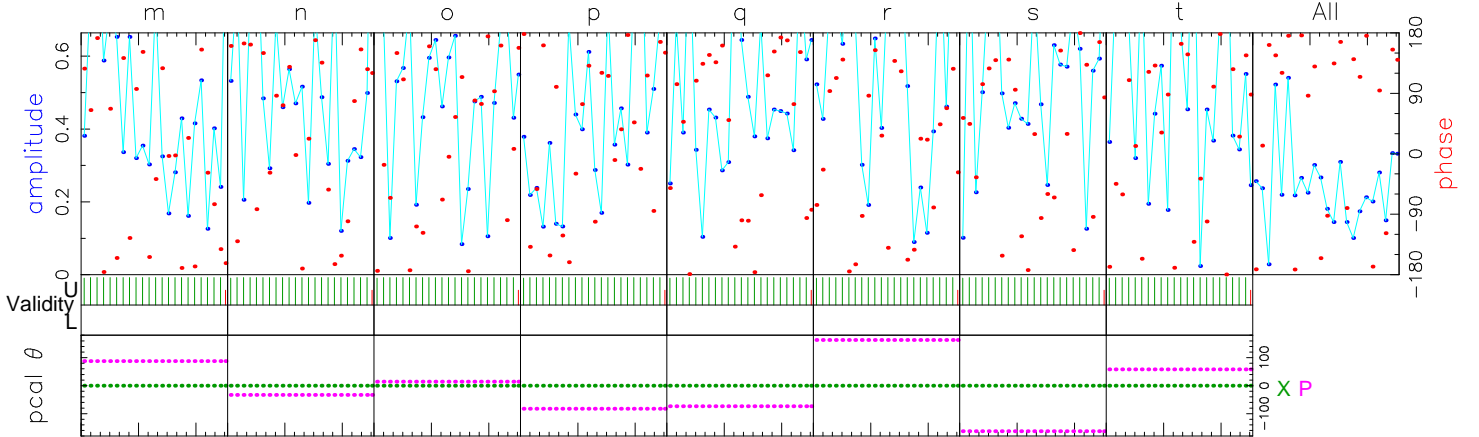


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105811  
 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		
X	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.93115356824E+03	Apriori delay (usec)	6.93119625313E+03	Resid mbdelay (usec)	4.19011E-03	+/-	1.9E-04
Sband delay (usec)	6.93115752563E+03	Apriori clock (usec)	1.1367192E+02	Resid sbdelay (usec)	-3.87275E-02	+/-	1.5E-03
Phase delay (usec)	6.93119625827E+03	Apriori clockrate (us/s)	6.1838598E-07	Resid phdelay (usec)	5.13620E-06	+/-	6.6E-07
Delay rate (us/s)	7.62603010925E-02	Apriori rate (us/s)	7.62694601279E-02	Resid rate (us/s)	-9.15904E-06	+/-	7.7E-09
Total phase (deg)	247.3	Apriori accel (us/s/s)	-1.08662492608E-05	Resid phase (deg)	159.3	+/-	20.5

ph/seg (deg)	58.0	RMS	58.0	Theor.	49.3	Amplitude	0.221 +/- 0.040	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	83.0	Search (1024X32)	0.163	Apriori clock (usec)	1.1367192E+02	Apriori rate (us/s)	7.62694601279E-02	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	20.2	Inc. seg. avg.	0.237	Apriori clockrate (us/s)	6.1838598E-07	Apriori accel (us/s/s)	-1.08662492608E-05	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.8	Inc. frq. avg.	0.205	Apriori rate (us/s)	7.62694601279E-02	Apriori accel (us/s/s)	-1.08662492608E-05	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
X:	az 6.5 el 37.7 pa -10.4	P:	az 359.9 el 16.9 pa -0.0	u, v (fr/asec)	-1289.948 -1574.347	simultaneous interpolator		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//XP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//XP.W.562.3MP15Q

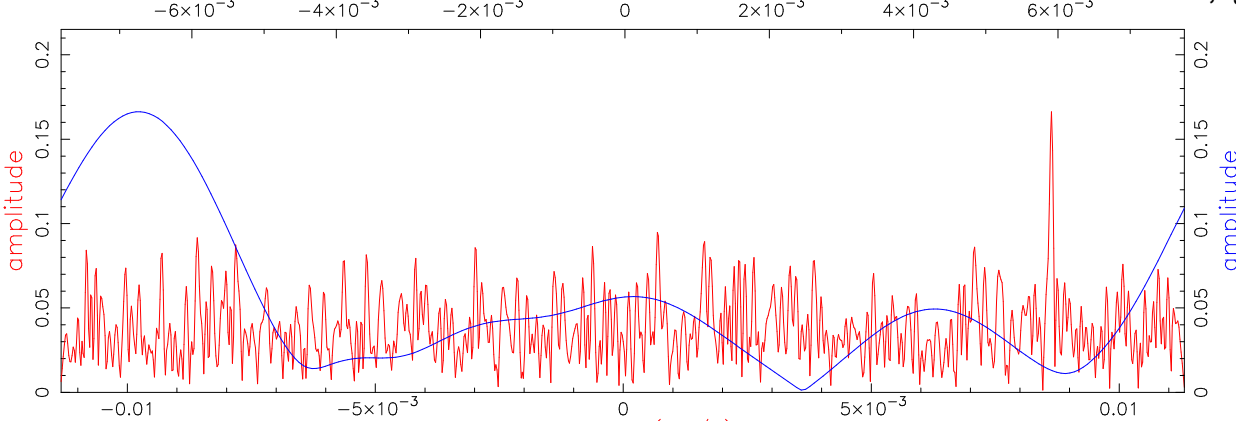
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, XP

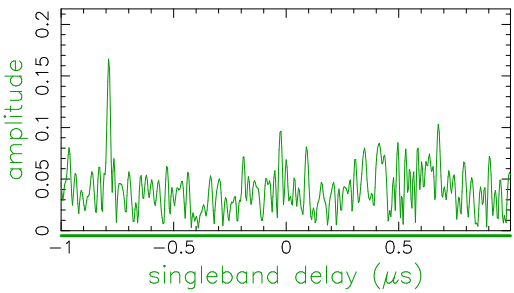
ONSALA60 - PICOVEL, fgroup W, pol RL

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

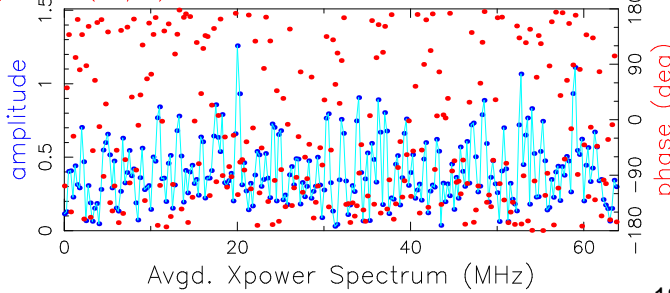


Fringe quality 0

SNR 5.6  
 Int time 149.838  
 Amp 0.215  
 Phase -159.4  
 PFD 9.3e-01  
 Delays (us)  
 SBD -0.788194  
 MBD -0.006738  
 Fringe rate (Hz) 0.745693  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

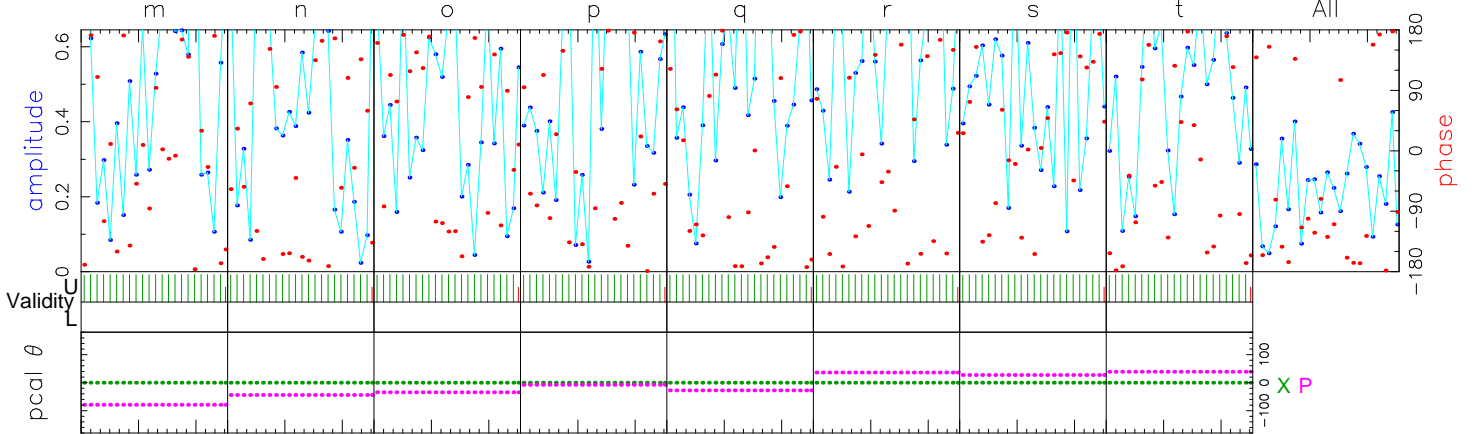


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105814  
 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
	-165.5	-162.4	-160.9	-127.3	-178.3	-153.1	109.7	-151.6	Phase	-159.4
	0.1	0.3	0.2	0.3	0.4	0.3	0.0	0.2	Ampl.	0.2
	276.6	52.7	276.3	428.2	297.9	45.7	298.5	255.3	Sbd box	55.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
X	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.93040826549E+03	Apriori delay (usec)	6.93119625313E+03	Resid mbdelay (usec)	-6.73764E-03	+/-	1.9E-04
Sband delay (usec)	6.93040805938E+03	Apriori clock (usec)	1.1367192E+02	Resid sbdelay (usec)	-7.88194E-01	+/-	1.5E-03
Phase delay (usec)	6.93119624799E+03	Apriori clockrate (us/s)	6.1838598E-07	Resid phdelay (usec)	-5.13973E-06	+/-	6.6E-07
Delay rate (us/s)	7.62781168895E-02	Apriori rate (us/s)	7.62694601279E-02	Resid rate (us/s)	8.65676E-06	+/-	7.6E-09
Total phase (deg)	-71.3	Apriori accel (us/s/s)	-1.08662492608E-05	Resid phase (deg)	-159.4	+/-	20.5

ph/seg (deg)	48.1	RMS	48.1	Theor.	49.1	Amplitude	0.215 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	73.2		73.2		85.7	Search (1024X32)	0.165	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.4		40.4		29.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.4		46.4		50.6	Inc. seg. avg.	0.213	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	0.202	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

X: az 6.5 el 37.7 pa -10.4 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -1289.948 -1574.347 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//XP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//XP.W.565.3MP15Q

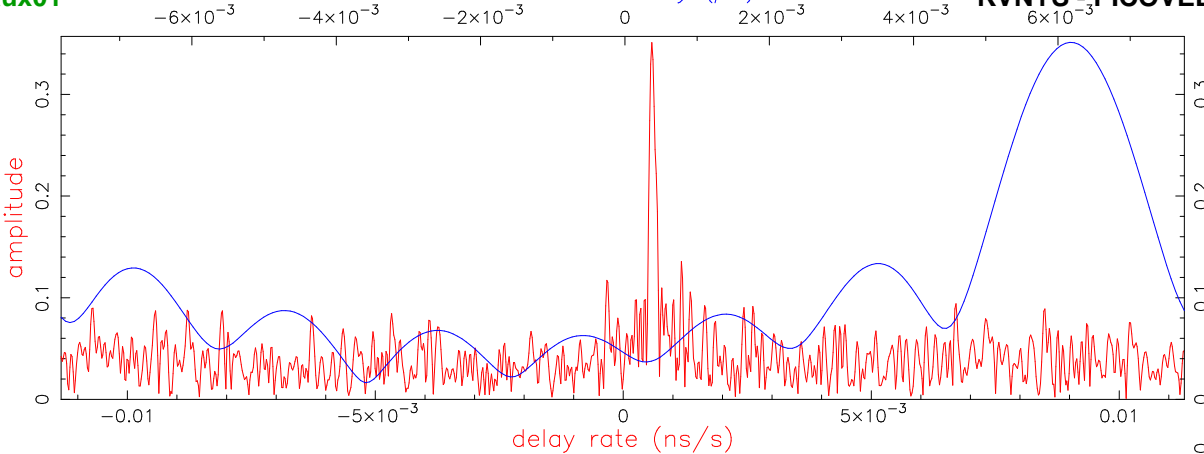
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, yP

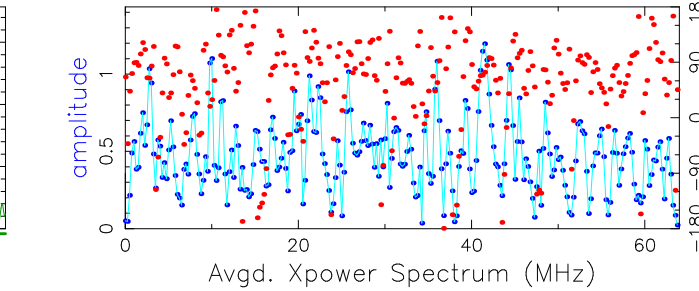
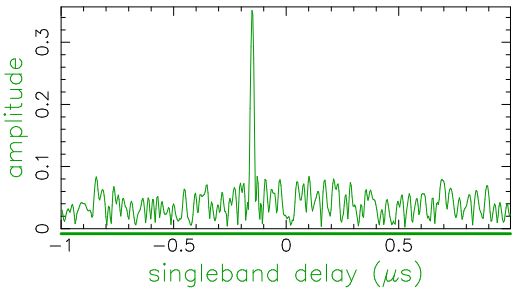
KVNYS - PICOVEL, fgroup W, pol LL

multiband delay ( $\mu$ s)



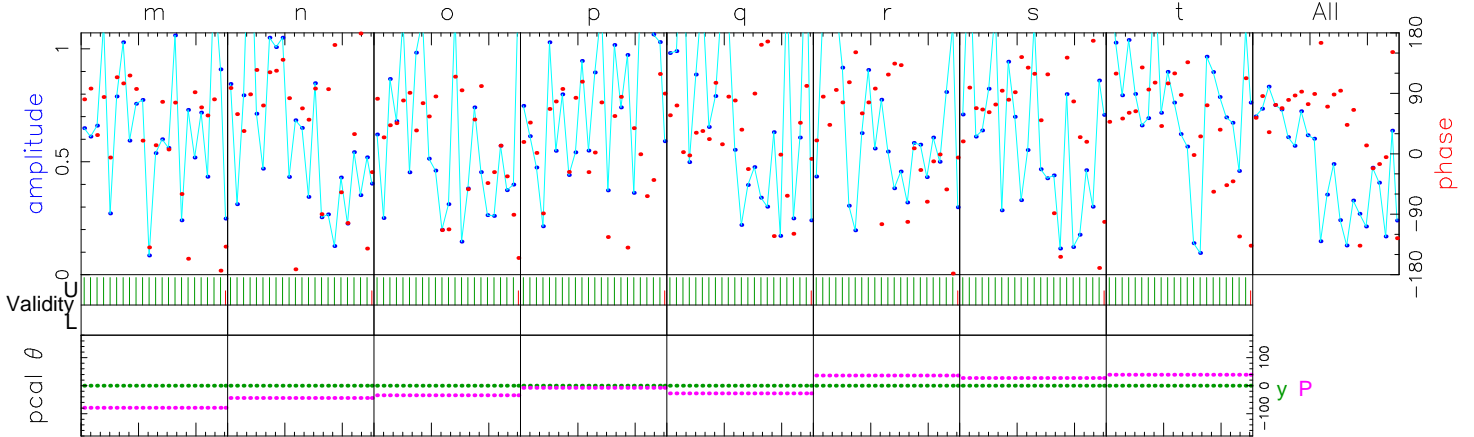
Fringe quality 9

SNR 11.9  
 Int time 149.859  
 Amp 0.357  
 Phase 71.2  
 PFD 1.8e-24  
 Delays (us)  
 SBD -0.150763  
 MBD 0.006206  
 Fringe rate (Hz)  
 0.049903  
 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  
 2025:041:105708  
 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		
y	0	0	60000	0	0	0	4000	0		
P	0	0	0	0	0	0	0	0		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks

Group delay (usec) (SBD) 9.77869615301E+03 Apriori delay (usec) 9.77884619685E+03 Resid mbdelay (usec) 6.20616E-03 +/- 9.1E-05  
 Sband delay (usec) 9.77869543335E+03 Apriori clock (usec) 7.4384174E+00 Resid sbdelay (usec) -1.50763E-01 +/- 7.2E-04  
 Phase delay (usec) 9.77884619915E+03 Apriori clockrate (us/s) -5.9867606E-07 Resid phdelay (usec) 2.29481E-06 +/- 3.1E-07  
 Delay rate (us/s) 3.23316674896E-01 Apriori rate (us/s) 3.23316095574E-01 Resid rate (us/s) 5.79322E-07 +/- 3.6E-09  
 Total phase (deg) 214.0 Apriori accel (us/s/s) -5.12542723530E-05 Resid phase (deg) 71.2 +/- 9.6

ph/seg (deg) RMS Theor. Amplitude 0.357 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 60.5 23.0 Search (1024X32) 0.342 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 71.1 40.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 24.1 13.6 Inc. seg. avg. 0.447 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

y: az 23.5 el 48.4 pa -114.6 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) -5502.699 -10868.402 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No09011/yP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No09011/yP.W.414.3MP15Q

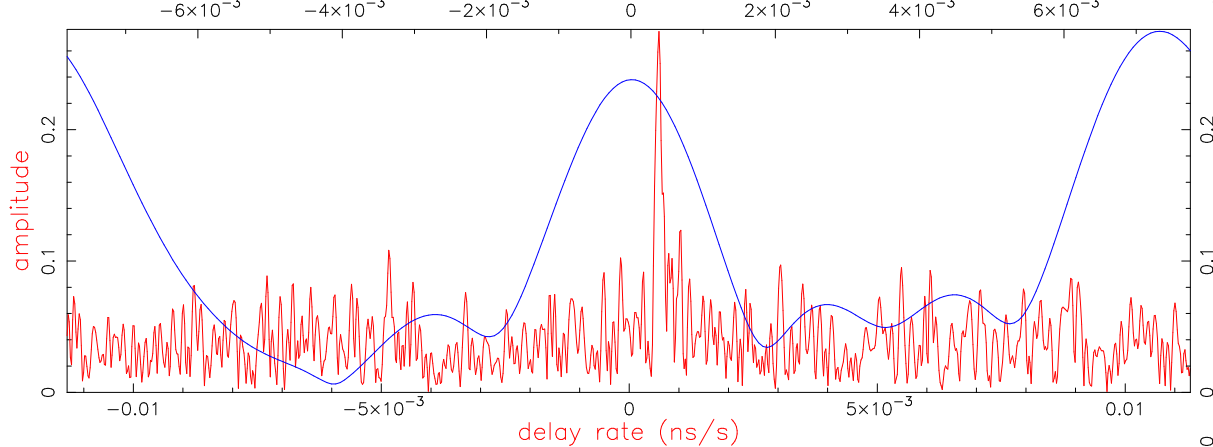
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, yP

KVNS - PICOVEL, fgroup W, pol RR

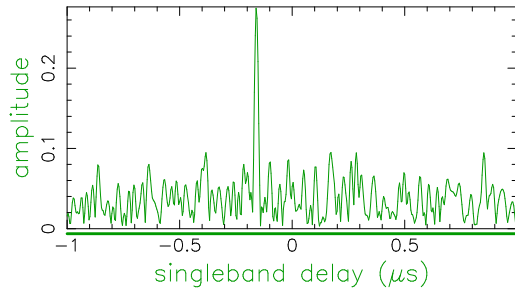
multiband delay ( $\mu$ s)



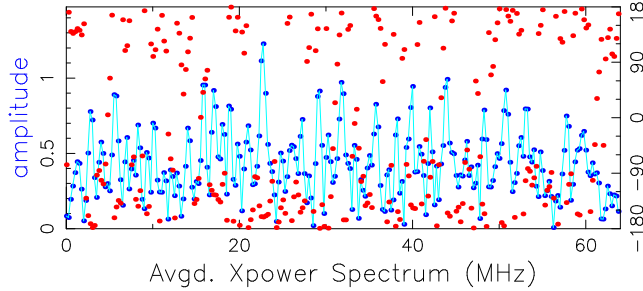
Fringe quality 9

SNR 9.2  
 Int time 149.859  
 Amp 0.276  
 Phase 73.8  
 PFD 4.8e-12  
 Delays (us)  
 SBD -0.159240  
 MBD 0.007376  
 Fringe rate (Hz)  
 0.050687  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

delay rate (ns/s)



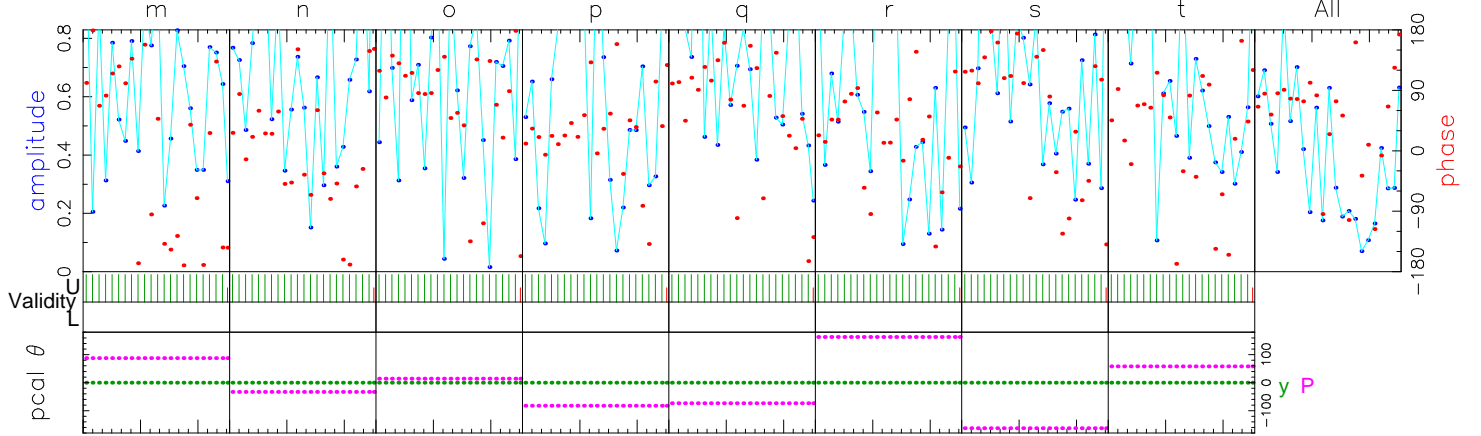
singleband delay ( $\mu$ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105713  
 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		
y	0	0	60000	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	9.77868169810E+03	Apriori delay (usec)	9.77884619685E+03	Resid mbdelay (usec)	7.37625E-03	+/-	1.2E-04
Sband delay (usec)	9.77868695735E+03	Apriori clock (usec)	7.4384174E+00	Resid sbdelay (usec)	-1.59240E-01	+/-	9.3E-04
Phase delay (usec)	9.77884619923E+03	Apriori clockrate (us/s)	-5.9867606E-07	Resid phdelay (usec)	2.37904E-06	+/-	4.0E-07
Delay rate (us/s)	3.23316684001E-01	Apriori rate (us/s)	3.23316095574E-01	Resid rate (us/s)	5.88427E-07	+/-	4.6E-09
Total phase (deg)	216.7	Apriori accel (us/s/s)	-5.12542723530E-05	Resid phase (deg)	73.8	+/-	12.4

ph/seg (deg)	76.4	Theor.	29.7	Amplitude	0.276 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	91.2	Search (1024X32)	0.270	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	52.9	Inc. seg. avg.	0.345	Inc. frq. avg.	0.354	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	47.4	Inc. frq. avg.	0.354	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
y: az 23.5 el 48.4 pa -114.6	P: az 359.9 el 16.9 pa -0.0	u, v (fr/asec)	-5502.699 -10868.402	simultaneous interpolator			

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/yP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/yP.W.423.3MP15Q

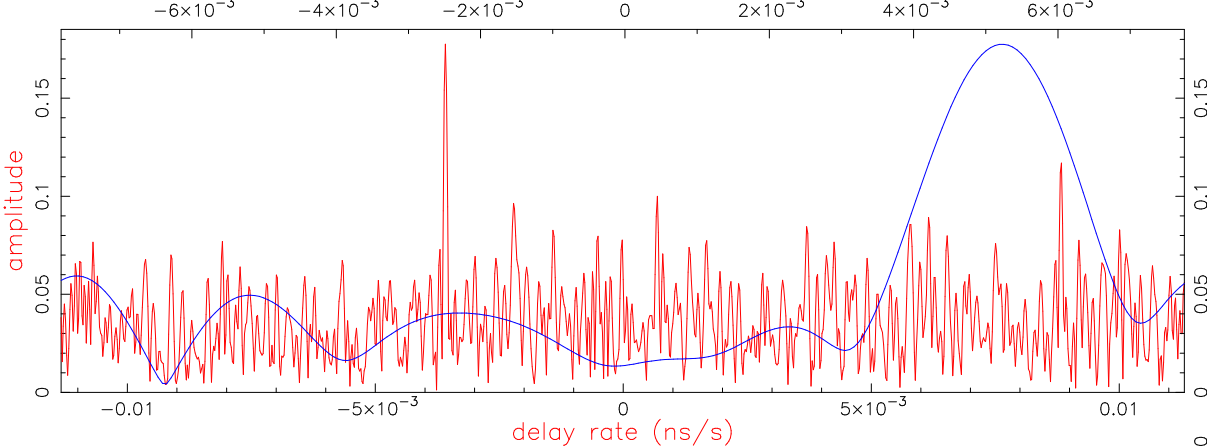
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, yP

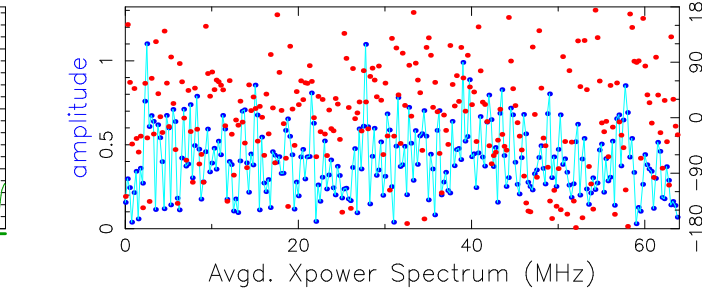
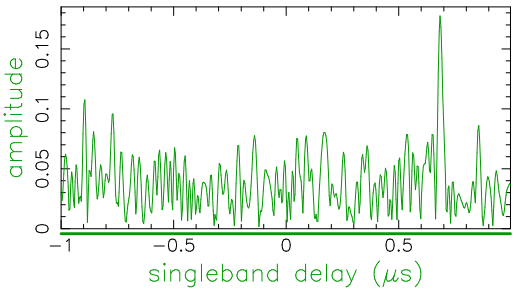
KVNYS - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)



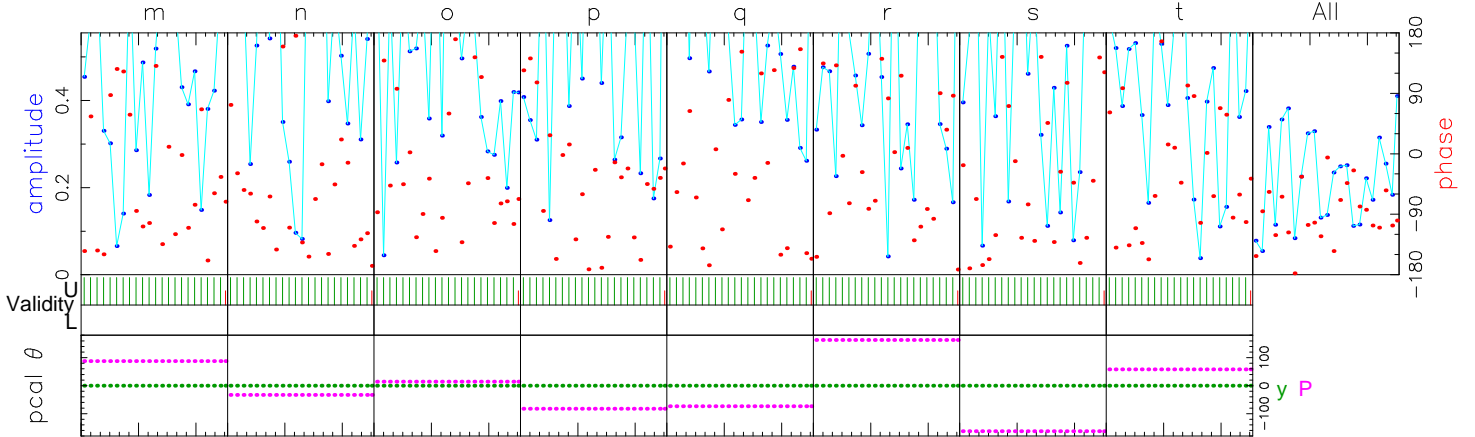
Fringe quality 0

SNR 5.9  
 Int time 149.859  
 Amp 0.185  
 Phase -87.3  
 PFD 3.0e-01  
 Delays (us)  
 SBD 0.683877  
 MBD 0.005233  
 Fringe rate (Hz)  
 -0.308676  
 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  
 2025:041:105716  
 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		
y	0	0	60000	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 9.77952330508E+03 Apriori delay (usec) 9.77884619685E+03 Resid mbdelay (usec) 5.23323E-03 +/- 1.8E-04  
 Sband delay (usec) 9.77953007335E+03 Apriori clock (usec) 7.4384174E+00 Resid sbdelay (usec) 6.83877E-01 +/- 1.4E-03  
 Phase delay (usec) 9.77884619404E+03 Apriori clockrate (us/s) -5.9867606E-07 Resid phdelay (usec) -2.81404E-06 +/- 6.2E-07  
 Delay rate (us/s) 3.23312512151E-01 Apriori rate (us/s) 3.23316095574E-01 Resid rate (us/s) -3.58342E-06 +/- 7.2E-09  
 Total phase (deg) 55.6 Apriori accel (us/s/s) -5.12542723530E-05 Resid phase (deg) -87.3 +/- 19.3

ph/seg (deg) 41.8 46.2 Search (1024X32) 0.175 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 61.1 80.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 20.6 27.3 Inc. seg. avg. 0.170 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 30.2 47.6 Inc. frq. avg. 0.174 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011  
 y: az 23.5 el 48.4 pa -114.6 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) -5502.699 -10868.402 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/yP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/yP.W.429.3MP15Q

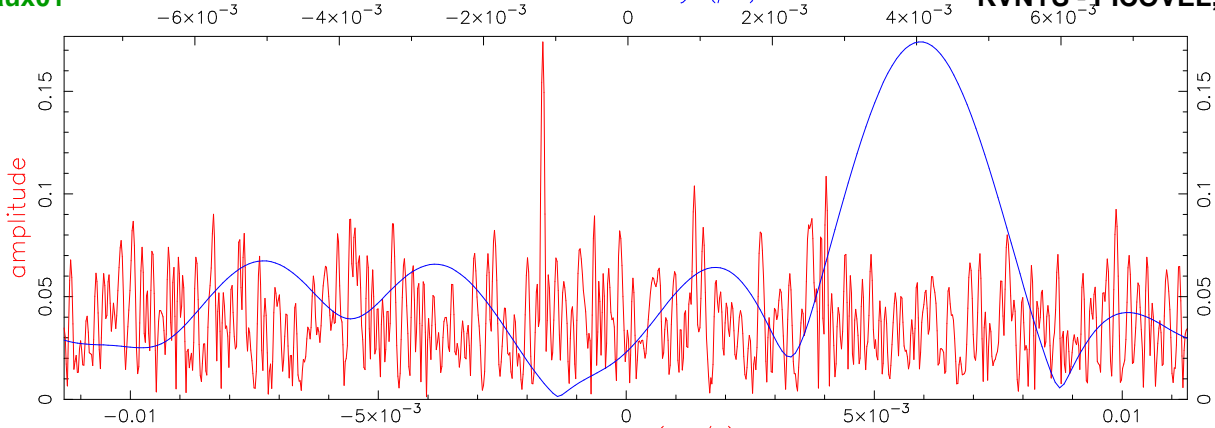
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, yP

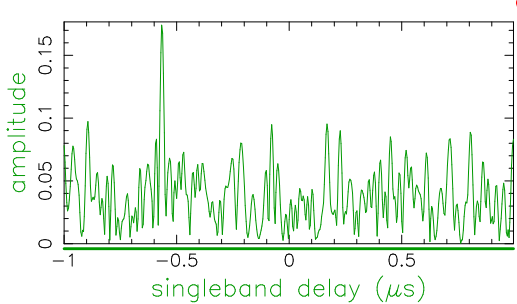
KVNS - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

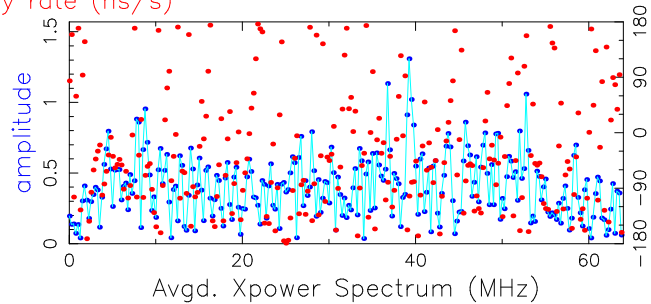


Fringe quality 0

SNR 5.9  
 Int time 149.859  
 Amp 0.177  
 Phase -154.7  
 PFD 4.4e-01  
 Delays (us)  
 SBD -0.565345  
 MBD 0.004074  
 Fringe rate (Hz)  
 -0.145662  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

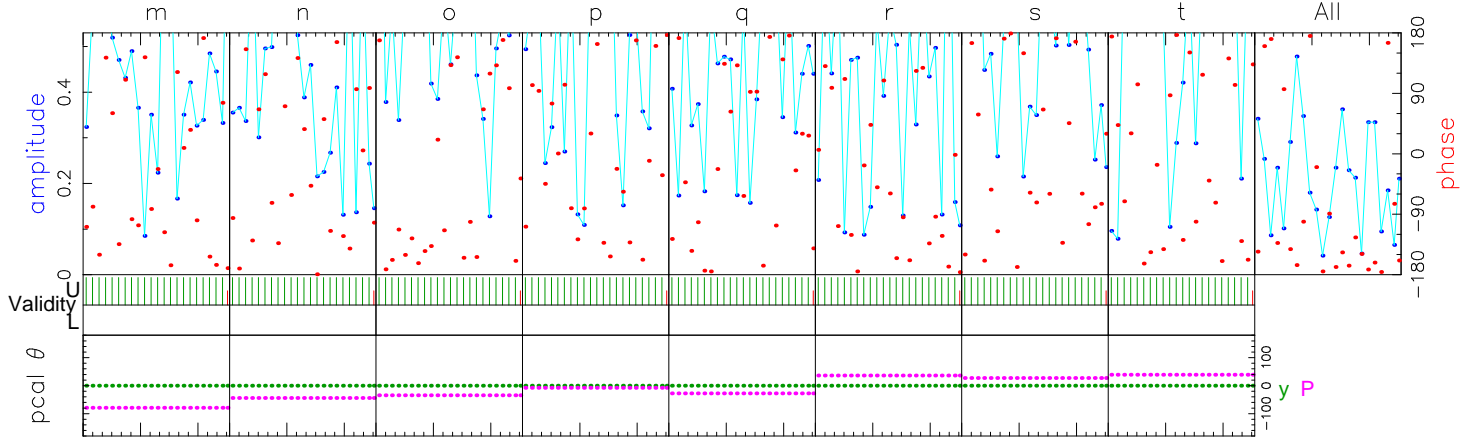


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105719  
 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
	-145.4	-144.7	-161.5	-153.9	-160.3	-158.3	-142.3	-159.4	Phase	-154.7
	0.2	0.1	0.4	0.1	0.1	0.2	0.2	0.2	Ampl.	0.2
	309.0	283.6	112.9	246.2	472.5	480.7	206.3	127.4	Sbd box	112.3
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
y	0	0	60000	0	0	0	4000	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	9.77828777113E+03	Apriori delay (usec)	9.77884619685E+03	Resid mbdelay (usec)	4.07428E-03	+/-	1.9E-04
Sband delay (usec)	9.77828085235E+03	Apriori clock (usec)	7.4384174E+00	Resid sbdelay (usec)	-5.65345E-01	+/-	1.5E-03
Phase delay (usec)	9.77884619187E+03	Apriori clockrate (us/s)	-5.9867606E-07	Resid phdelay (usec)	-4.98755E-06	+/-	6.3E-07
Delay rate (us/s)	3.23314404577E-01	Apriori rate (us/s)	3.23316095574E-01	Resid rate (us/s)	-1.69100E-06	+/-	7.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-5.12542723530E-05	Resid phase (deg)	-154.7	+/-	19.5

ph/seg (deg)	RMS 48.5	Theor. 46.9	Amplitude 48.5	0.177 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	69.8	81.8	Search (1024X32)	0.166	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	8.7	27.6	Inc. seg. avg.	0.162	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.4	48.3	Inc. frq. avg.	0.159	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

y: az 23.5 el 48.4 pa -114.6 P: az 359.9 el 16.9 pa -0.0 u, v (fr/asec) -5502.699 -10868.402 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901/yP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901/yP.W.435.3MP15Q

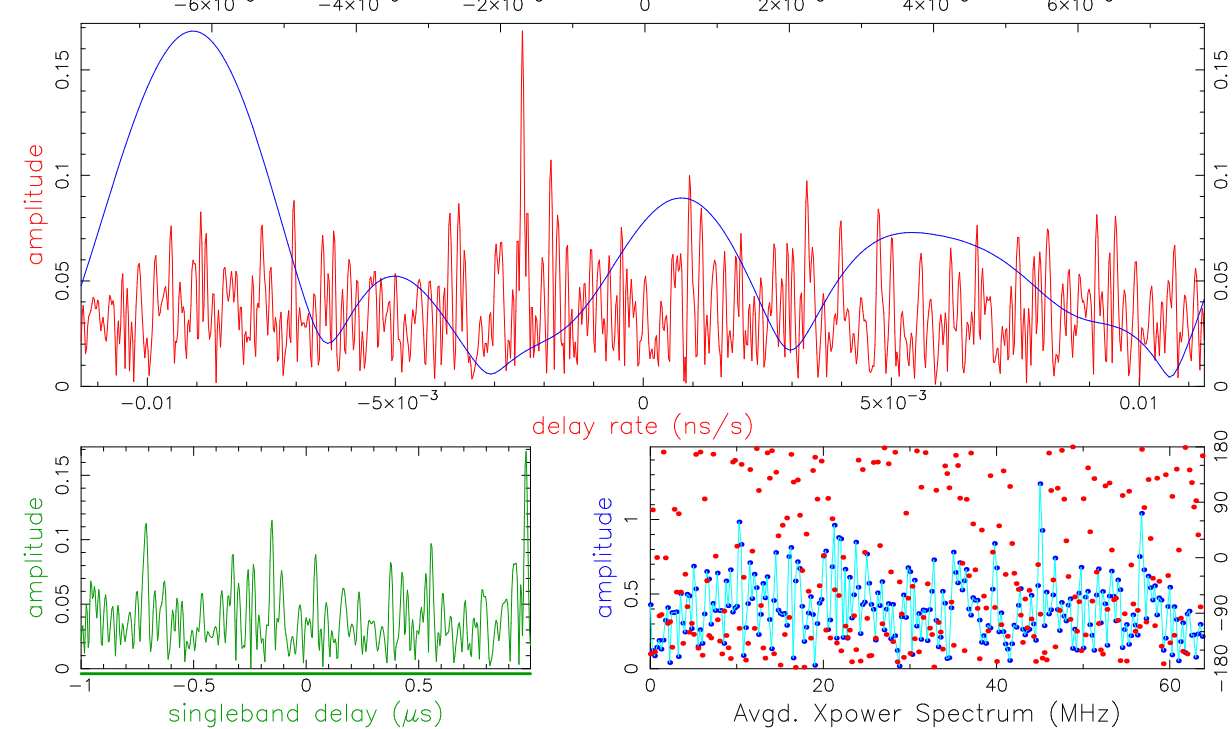


Mk4/DiFX fourfit 3.25 rev 0

aux01

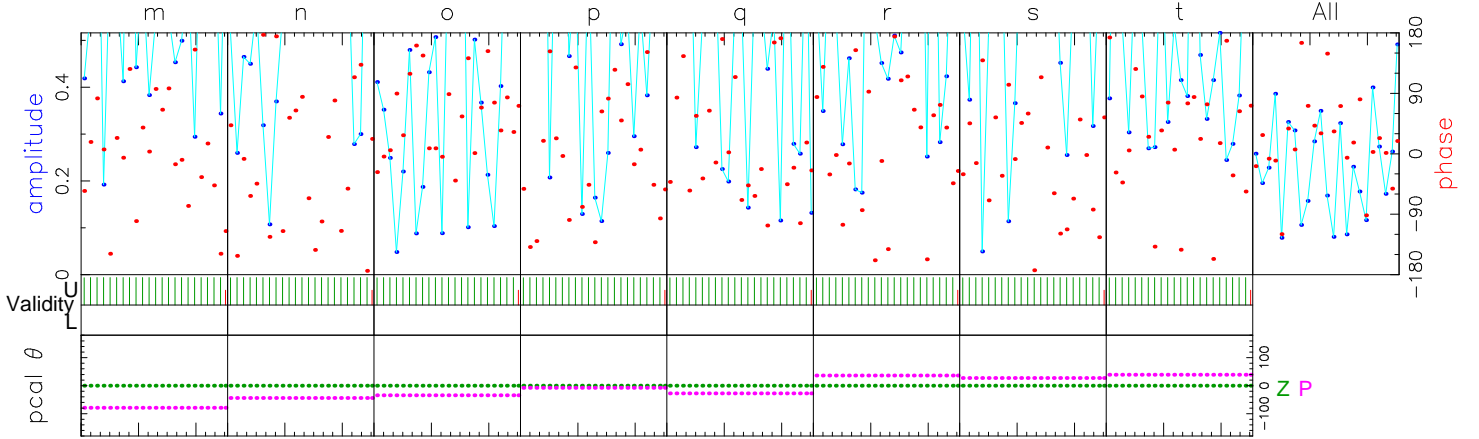
3C371.3MP15Q, No0901, ZP

MEṬSAHOV - PICOVEL, fgroup W, pol LL



Fringe quality 0  
 SNR 5.7  
 Int time 149.954  
 Amp 0.172  
 Phase 18.2  
 PFD 8.6e-01  
 Delays (us)  
 SBD 0.975945  
 MBD -0.006287  
 Fringe rate (Hz)  
 -0.210175  
 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  
 2025:041:105737  
 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			
Z	0	0	0	0	0	0	0	0			
P	0	0	0	0	0	0	0	0			
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39			
Z	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec) (SBD)	7.91970556798E+03					7.91872748047E+03			Resid mbdelay (usec)	-6.28749E-03 +/- 1.9E-04	
Sband delay (usec)	7.91970342572E+03					1.1230202E+00			Resid sbdelay (usec)	9.75945E-01 +/- 1.5E-03	
Phase delay (usec)	7.91872748106E+03					1.1622864E-08			Resid phdelay (usec)	5.86569E-07 +/- 6.5E-07	
Delay rate (us/s)	1.24103593599E-01					1.24106033525E-01			Resid rate (us/s)	-2.43993E-06 +/- 7.5E-09	
Total phase (deg)			78.7			-1.40054083343E-05			Resid phase (deg)	18.2 +/- 20.3	
ph/seg (deg)	63.1	48.6		Search (1024X32)	0.163				PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	72.3	84.9		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	28.7		Inc. seg. avg.	0.174				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	44.9	50.0		Inc. frq. avg.	0.173				Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011	
Z: az 12.3 el 41.5 pa -18.1				P: az 359.9 el 16.9 pa -0.0					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//ZP..3MP15Q							simultaneous interpolator
											Output file: /Exps/c241a/v2/3mm/1234/No0901//ZP.W.485.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

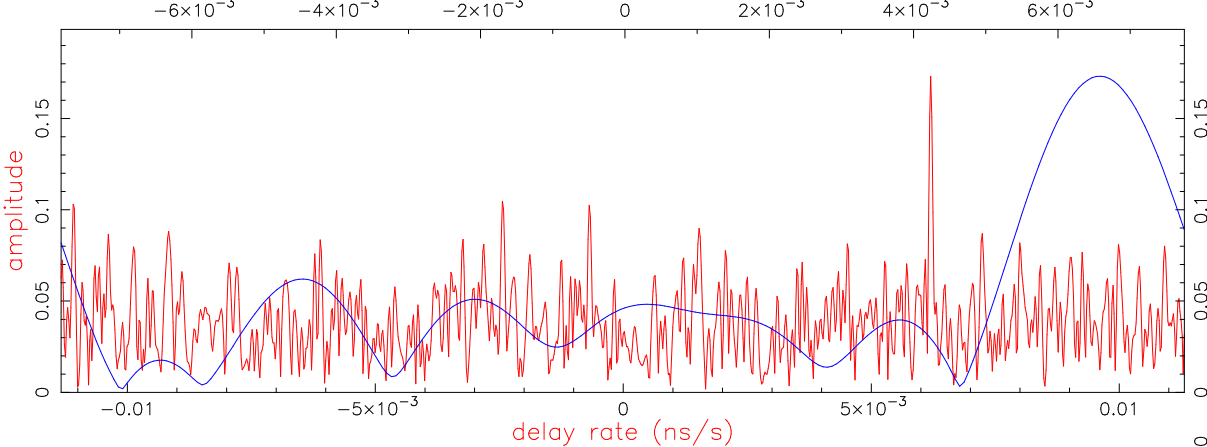
aux01

3C371.3MP15Q, No0901, ZP

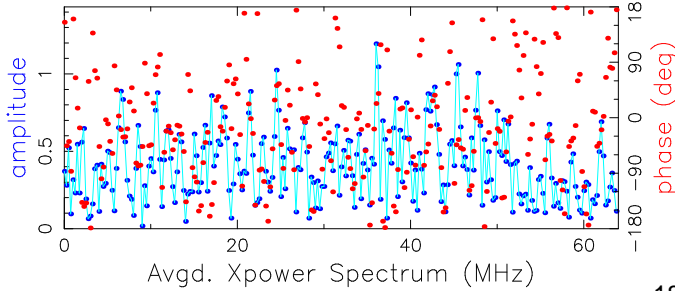
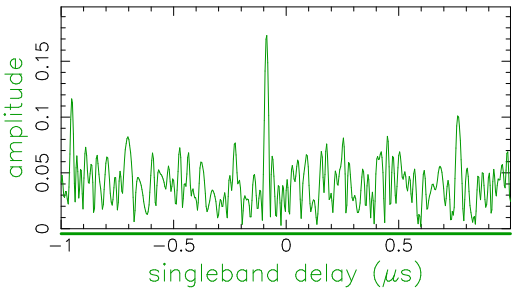
MEṬSAHOV - PICOVEL, fgroup W, pol RR

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

Fringe quality 0

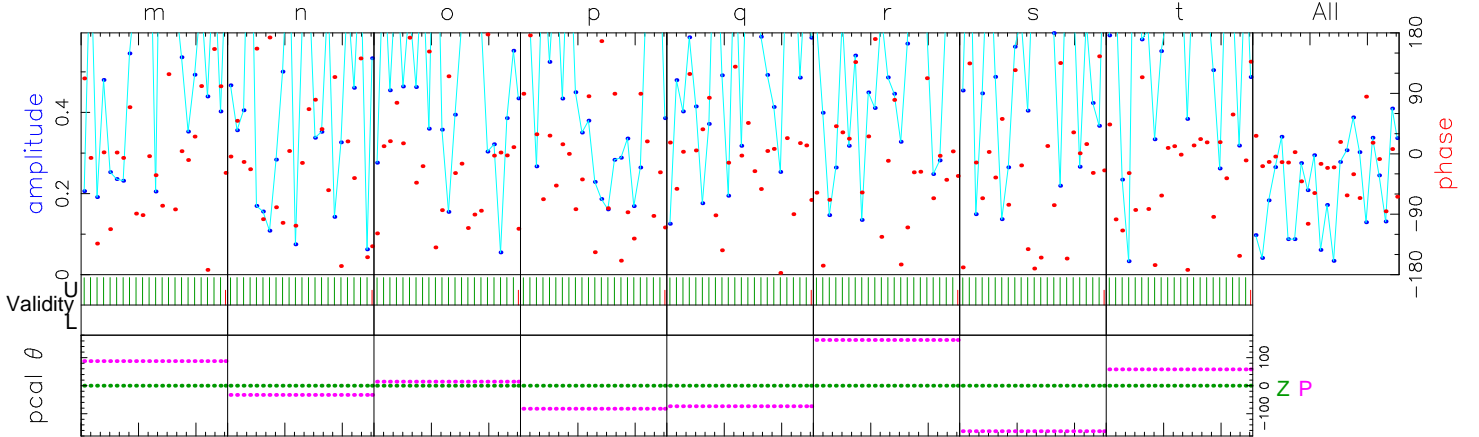


SNR 5.9  
 Int time 149.954  
 Amp 0.199  
 Phase -23.4  
 PFD 4.3e-01  
 Delays (us)  
 SBD -0.087414  
 MBD 0.006559  
 Fringe rate (Hz) 0.534836  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105739  
 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
	-26.3	-4.4	-50.1	-35.7	-7.0	-21.1	-48.2	-19.5	Phase	-23.4
	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3	Ampl.	0.2
	510.2	61.8	232.9	199.3	234.1	405.6	374.0	279.4	Sbd box	234.6
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	7.91864028916E+03	Apriori delay (usec)	7.91872748047E+03	Resid mbdelay (usec)	6.55869E-03	+/-	1.9E-04
Sband delay (usec)	7.91864006622E+03	Apriori clock (usec)	1.1230202E+00	Resid sbdelay (usec)	-8.74142E-02	+/-	1.5E-03
Phase delay (usec)	7.91872747972E+03	Apriori clockrate (us/s)	1.1622864E-08	Resid phdelay (usec)	-7.55620E-07	+/-	6.3E-07
Delay rate (us/s)	1.24112242440E-01	Apriori rate (us/s)	1.24106033525E-01	Resid rate (us/s)	6.20891E-06	+/-	7.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.40054083343E-05	Resid phase (deg)	-23.4	+/-	19.5

ph/seg (deg)	40.2	Theor.	46.8	Amplitude	0.199 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.7		81.8	Search (1024X32)	0.169	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	18.9		27.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.8		48.2	Inc. seg. avg.	0.183	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.182	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 12.3 el 41.5 pa -18.1 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -2091.864 -2157.518 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//ZP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//ZP.W.494.3MP15Q

Mk4/DiFX fourfit 3.25 rev 0

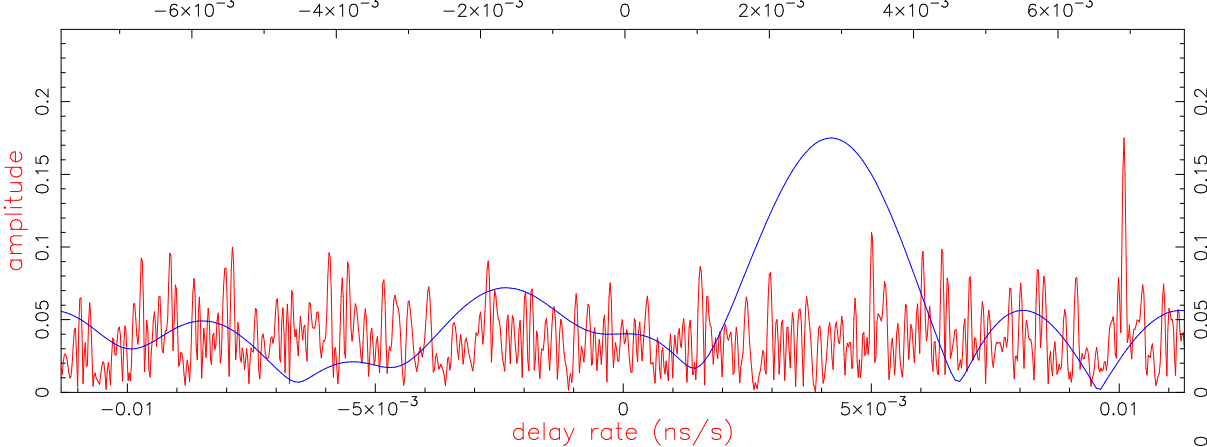
aux01

3C371.3MP15Q, No0901, ZP

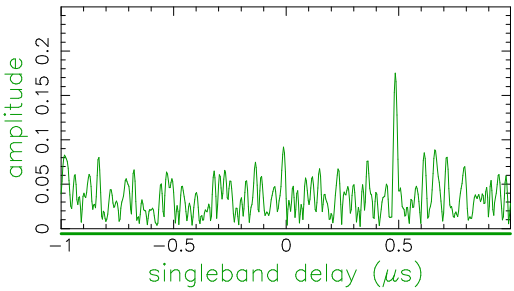
MEṬSAHOV - PICOVEL, fgroup W, pol LR

multiband delay ( $\mu$ s)

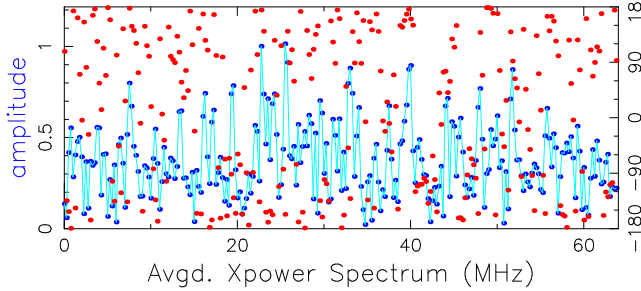
Fringe quality 0



SNR 5.9  
 Int time 149.954  
 Amp 0.250  
 Phase -42.8  
 PFD 4.0e-01  
 Delays (us)  
 SBD 0.485130  
 MBD 0.002853  
 Fringe rate (Hz) 0.871353  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

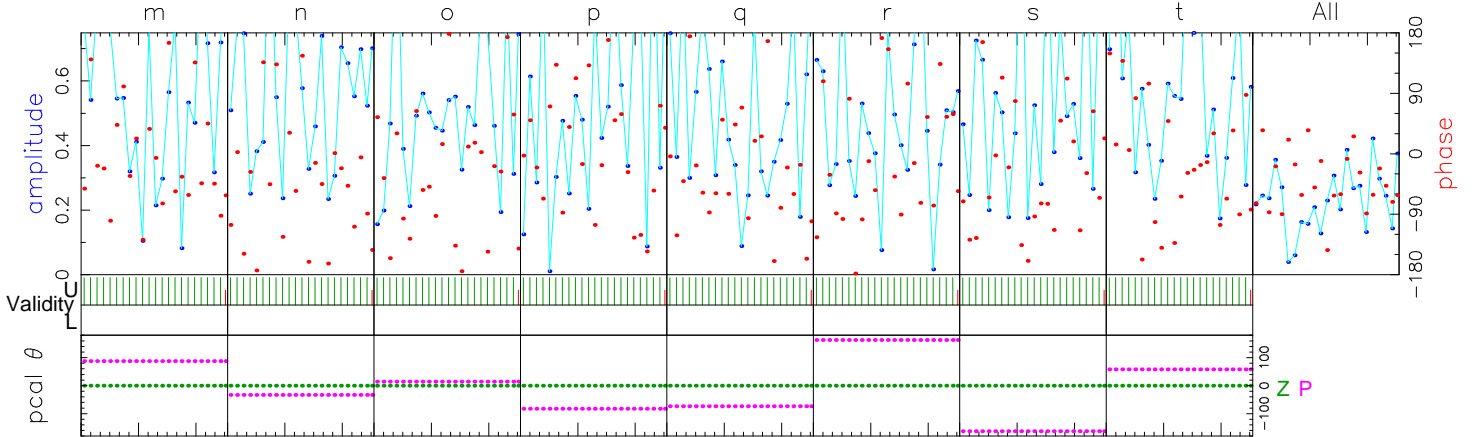


delay rate (ns/s)



Exp. c241a  
 Exper # 1234  
 Yr:day 2024:109  
 Start 163000.00  
 Stop 163230.02  
 FRT 163115.00  
 Corr/FF/build  
 2025:007:141222  
 2025:041:105742  
 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
	-30.2	-56.9	-46.1	-31.8	-47.1	-57.7	-65.3	-15.8	Phase	-42.8
	0.4	0.3	0.1	0.2	0.4	0.2	0.3	0.3	Ampl.	0.2
	348.5	316.6	93.7	353.3	76.8	181.6	426.2	157.7	Sbd box	381.2
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:88	0:33	0:15	0:-82	0:-74	0:163	0:-163	0:58	ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	7.91921470878E+03	Apriori delay (usec)	7.91872748047E+03	Resid mbdelay (usec)	2.85331E-03	+/-	1.8E-04
Sband delay (usec)	7.91921261097E+03	Apriori clock (usec)	1.1230202E+00	Resid sbdelay (usec)	4.85130E-01	+/-	1.5E-03
Phase delay (usec)	7.91872747909E+03	Apriori clockrate (us/s)	1.1622864E-08	Resid phdelay (usec)	-1.38174E-06	+/-	6.3E-07
Delay rate (us/s)	1.24116149075E-01	Apriori rate (us/s)	1.24106033525E-01	Resid rate (us/s)	1.01156E-05	+/-	7.3E-09
Total phase (deg)	17.6	Apriori accel (us/s/s)	-1.40054083343E-05	Resid phase (deg)	-42.8	+/-	19.5

ph/seg (deg)	44.7	Theor.	46.7	Amplitude	0.250 +/- 0.042	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	63.1	Search (1024X32)	0.172	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	18.1	Inc. seg. avg.	0.246	Inc. frq. avg.	0.232	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	36.0	Inc. frq. avg.	0.232	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
Z: az 12.3 el 41.5 pa -18.1		P: az 359.9 el 16.9 pa -0.0		u, v (fr/asec) -2091.864 -2157.518		ion window (TEC) 0.00 0.00	simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//ZP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//ZP.W.499.3MP15Q

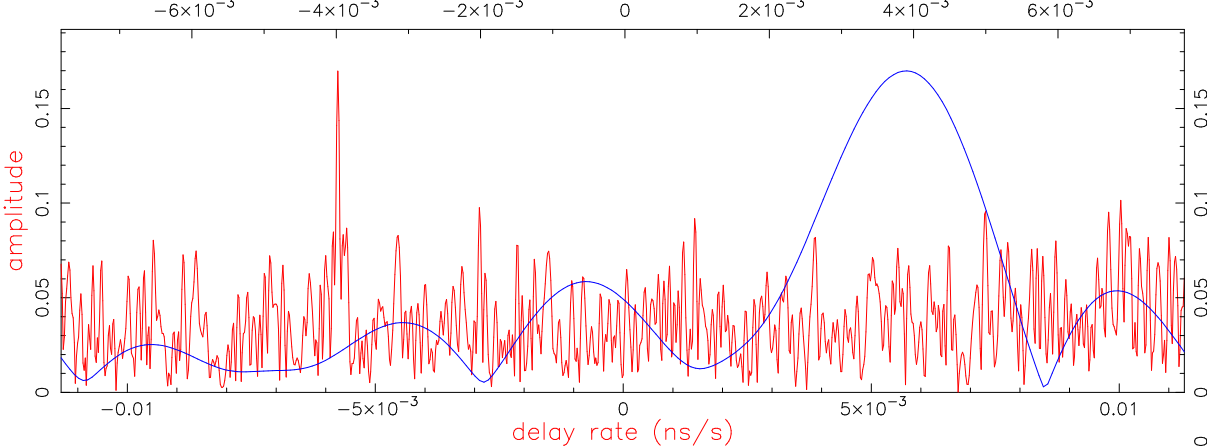
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C371.3MP15Q, No0901, ZP

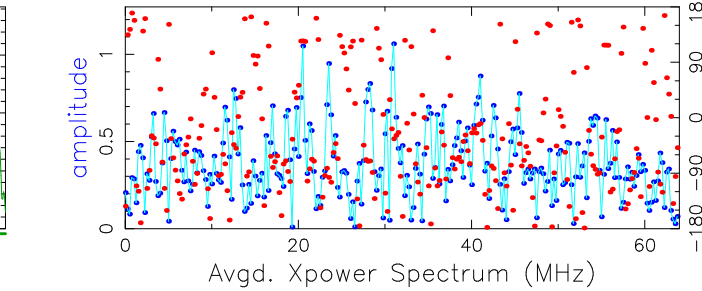
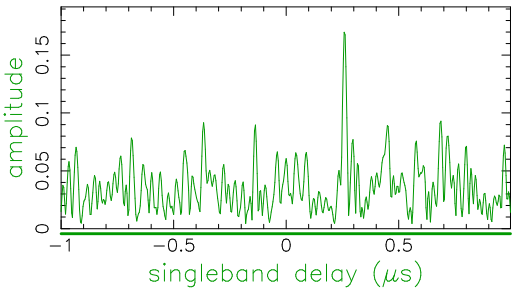
METSAHOV - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)



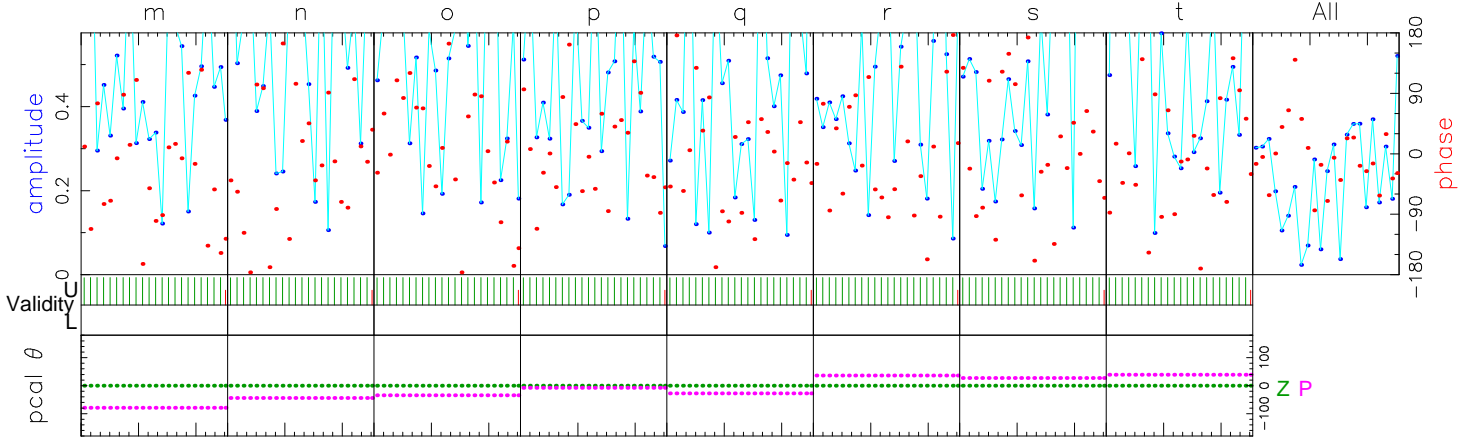
Fringe quality 0

SNR 5.8  
 Int time 149.954  
 Amp 0.192  
 Phase -12.7  
 PFD 6.4e-01  
 Delays (us)  
 SBD 0.259420  
 MBD 0.003919  
 Fringe rate (Hz)  
 -0.496035  
 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  
 2025:041:105744  
 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
	-34.5	-20.0	31.4	-3.7	-15.8	-42.9	-0.4	-17.5	Phase	-12.7
	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	98.8	341.1	17.8	185.0	340.3	429.2	510.0	223.0	Sbd box	323.4
U/L	293/0	293/0	293/0	293/0	293/0	293/0	293/0	293/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	7.91898139995E+03	Apriori delay (usec)	7.91872748047E+03	Resid mbdelay (usec)	3.91948E-03	+/-	1.9E-04
Sband delay (usec)	7.91898690072E+03	Apriori clock (usec)	1.1230202E+00	Resid sbdelay (usec)	2.59420E-01	+/-	1.5E-03
Phase delay (usec)	7.91872748006E+03	Apriori clockrate (us/s)	1.1622864E-08	Resid phdelay (usec)	-4.10959E-07	+/-	6.4E-07
Delay rate (us/s)	1.24100275053E-01	Apriori rate (us/s)	1.24106033525E-01	Resid rate (us/s)	-5.75847E-06	+/-	7.4E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.40054083343E-05	Resid phase (deg)	-12.7	+/-	19.9

ph/seg (deg)	50.0	Theor.	47.7	Amplitude	0.192 +/- 0.033	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	75.5			Search (1024X32)	0.168	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008	
ph/frq (deg)	24.7			Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	18.1			Inc. seg. avg.	0.188	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.181	Data rate (Mb/s):	2048						

Z: az 12.3 el 41.5 pa -18.1 P: az 359.9 el 16.9 pa -0.0 u,v (fr/asec) -2091.864 -2157.518 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241a/v2/3mm/1234/No0901//ZP..3MP15Q Output file: /Exps/c241a/v2/3mm/1234/No0901//ZP.W.504.3MP15Q