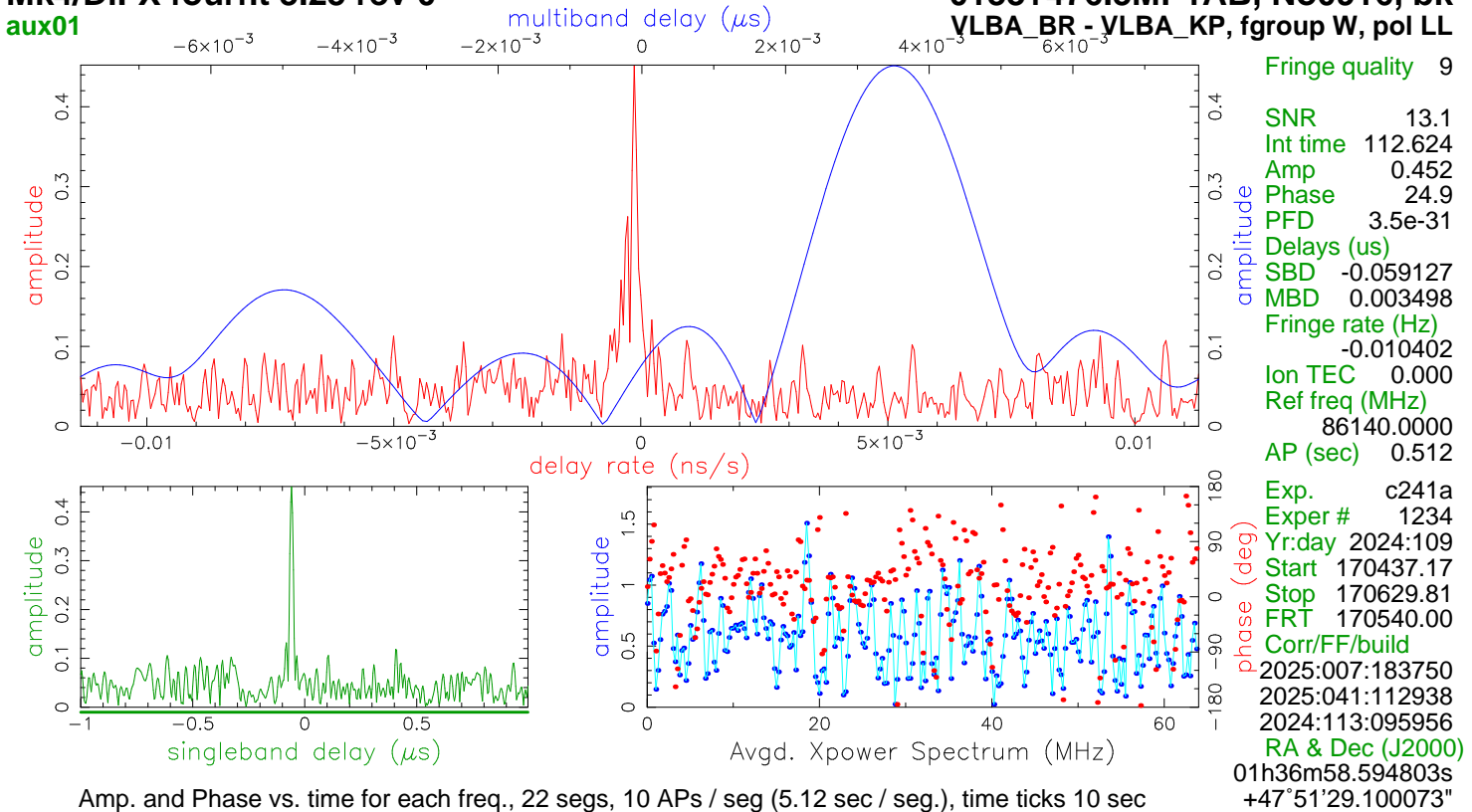


Mk4/DiFX fourfit 3.25 rev 0

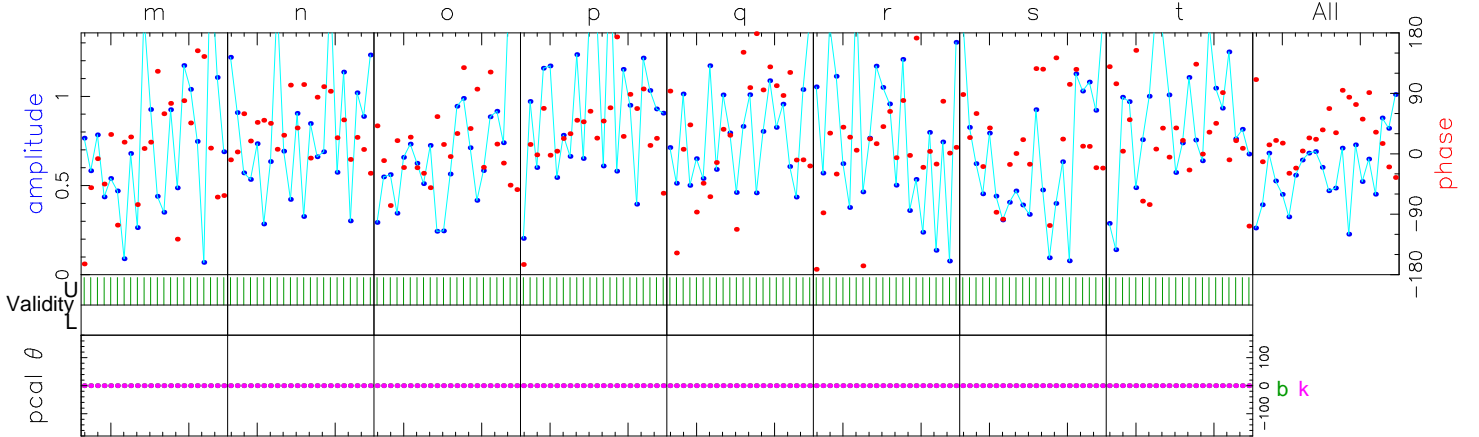
aux01

0133+476.3MP1AB, No0916, bk

VLBA_BR - VLBA_KP, fgroup W, pol LL



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
11.4	31.9	-5.7	40.6	43.9	24.2	30.5	15.7		Phase	24.9
0.3	0.6	0.4	0.7	0.3	0.5	0.4	0.6		Ampl.	0.5
343.5	242.3	241.3	241.5	398.6	241.9	242.3	241.8		Sbd box	241.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0		APs used	
b	0	0	0	0	0	0	0		PC freqs	
k	0	0	0	0	0	0	0		PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC	
b	1000	1000	1000	1000	1000	1000	1000		PC amp	
k	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.28494976811E+02	Apriori delay (usec)	4.28553978812E+02	Resid mbdelay (usec)	3.49800E-03	+/-	8.3E-05
Sband delay (usec)	4.28494852062E+02	Apriori clock (usec)	4.4851513E+00	Resid sbdelay (usec)	-5.91267E-02	+/-	6.6E-04
Phase delay (usec)	4.28553979614E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	8.02241E-07	+/-	2.8E-07
Delay rate (us/s)	-2.23464746374E-02	Apriori rate (us/s)	-2.23463538793E-02	Resid rate (us/s)	-1.20758E-07	+/-	4.3E-09
Total phase (deg)	289.4	Apriori accel (us/s/s)	1.57909430427E-05	Resid phase (deg)	24.9	+/-	8.7

ph/seg (deg)	41.4	RMS	20.5	Theor.	Amplitude	0.452 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	50.8		35.8		Search (512X32)	0.439	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	17.8		12.4		Inc. seg. avg.	0.545	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	33.3		21.6		Inc. frq. avg.	0.456	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 74.8 el 62.9 pa -74.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 201.143 2652.625 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.36.3MP1AB

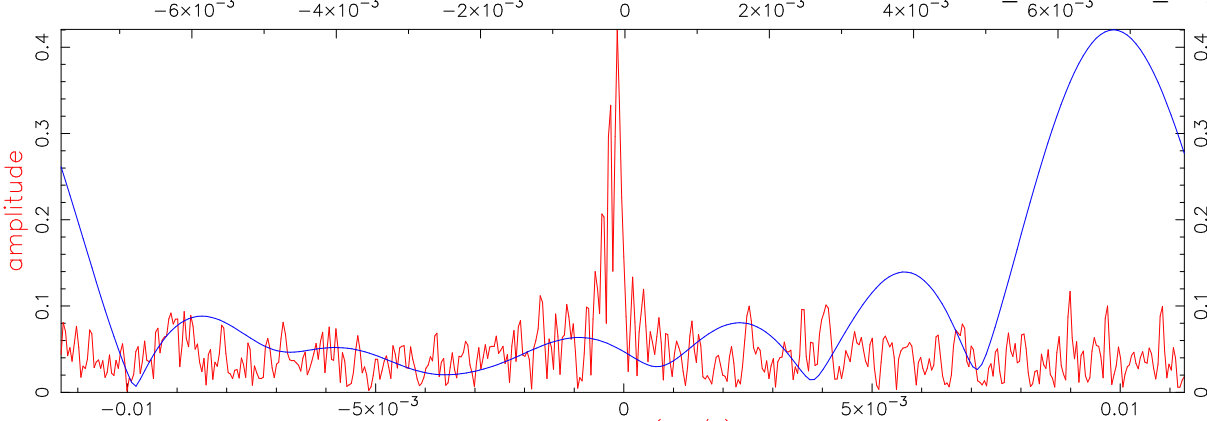
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bk

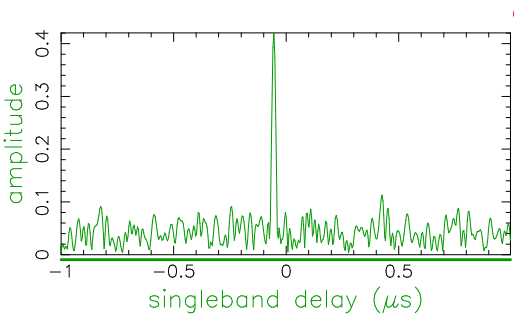
VLBA_BR - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

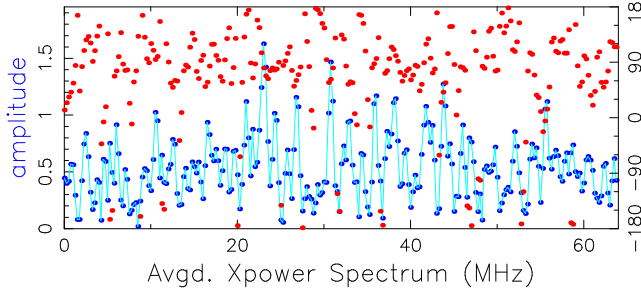


Fringe quality 9

SNR 12.2
Int time 112.624
Amp 0.421
Phase 100.0
PFD 3.7e-26
Delays (us)
SBD -0.055176
MBD 0.006755
Fringe rate (Hz)
-0.009564
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

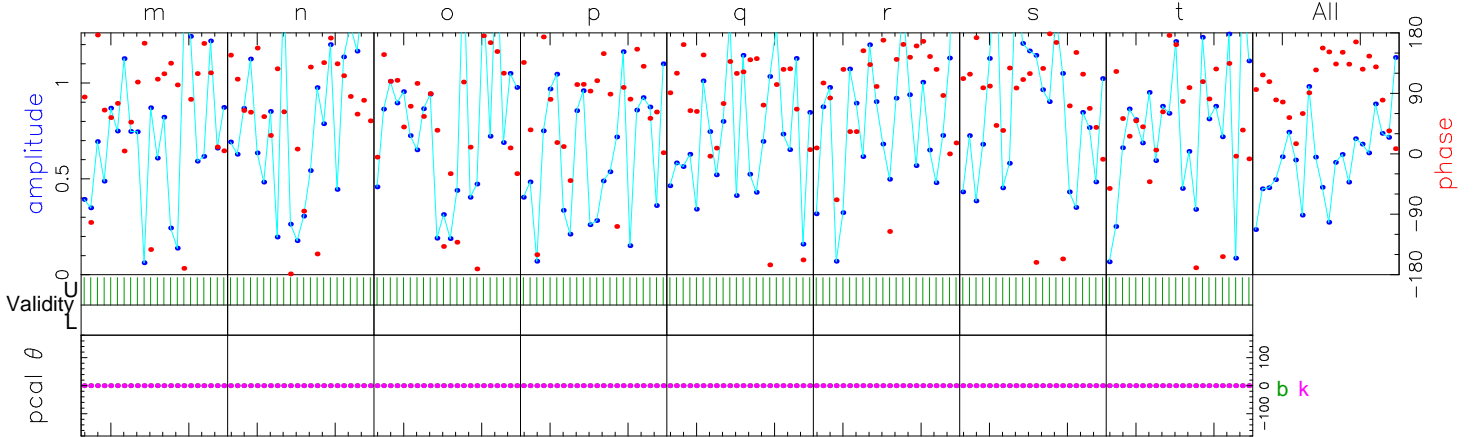


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:112939
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	4.28498233457E+02	Apriori delay (usec)	4.28553978812E+02	Resid mbdelay (usec)	6.75465E-03	+/-	8.9E-05
Sband delay (usec)	4.28498803062E+02	Apriori clock (usec)	4.4851513E+00	Resid sbdelay (usec)	-5.51758E-02	+/-	7.1E-04
Phase delay (usec)	4.28553982037E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	3.22527E-06	+/-	3.0E-07
Delay rate (us/s)	-2.23464649103E-02	Apriori rate (us/s)	-2.23463538793E-02	Resid rate (us/s)	-1.11031E-07	+/-	4.7E-09
Total phase (deg)	4.6	Apriori accel (us/s/s)	1.57909430427E-05	Resid phase (deg)	100.0	+/-	9.4

ph/seg (deg)	45.2	RMS	22.0	Theor.	Amplitude	0.421 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	67.9	45.2	22.0	Search (512X32)	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)	12.7	67.9	38.4	Inc. seg. avg.	Inc. frq. avg.	0.569	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	19.0	67.9	38.4	Inc. frq. avg.	Inc. frq. avg.	0.416	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 k: az 47.5 el 60.5 pa -111.0 u, v (fr/asec) 201.143 2652.625 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.43.3MP1AB

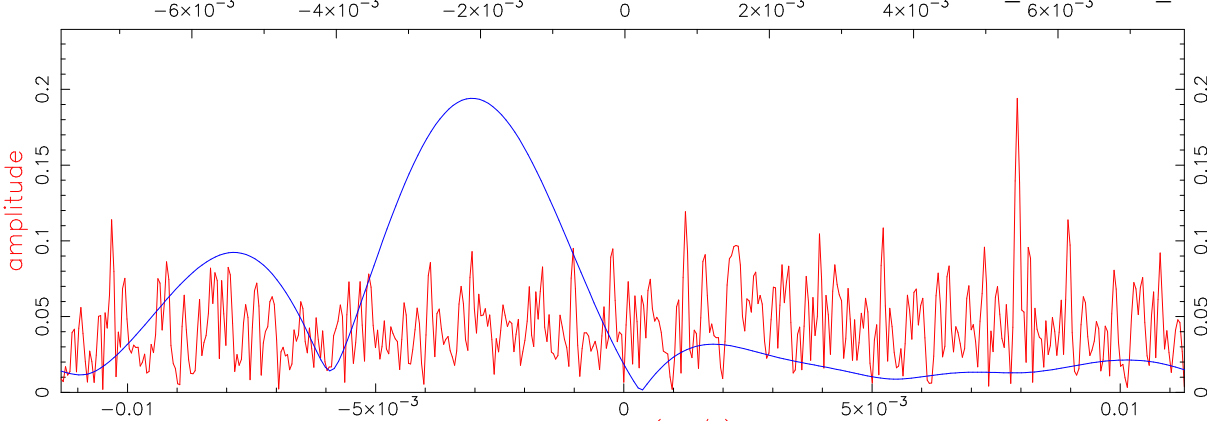
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bk

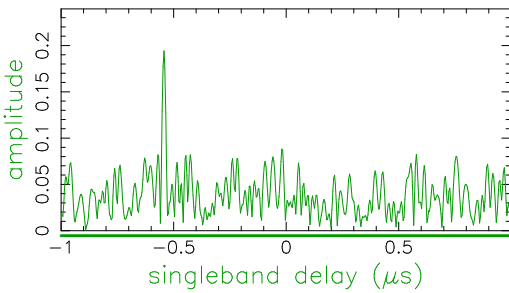
VLBA_BR - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

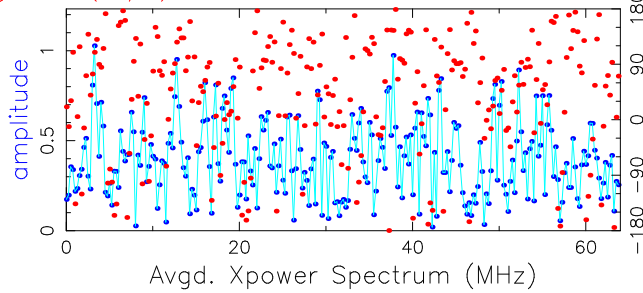


Fringe quality 0

SNR 5.6
 Int time 112.624
 Amp 0.240
 Phase -30.3
 PFD 6.6e-01
 Delays (us)
 SBD -0.543127
 MBD -0.002125
 Fringe rate (Hz)
 0.683872
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

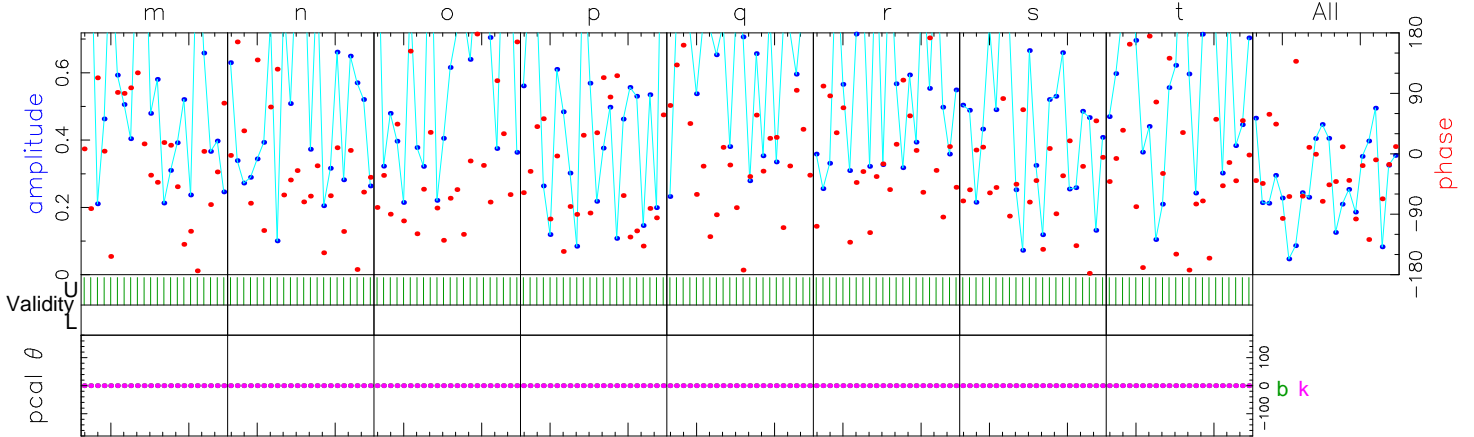


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112940
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-3.5	-38.7	-58.0	-15.1	-11.3	-22.2	-41.7	-31.1	Phase	-30.3
	0.2	0.3	0.3	0.2	0.2	0.4	0.3	0.1	Ampl.	0.2
	406.7	505.4	391.2	459.1	3.9	256.6	249.8	199.2	Sbd box	118.0
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	4.28004979132E+02	Apriori delay (usec)	4.28553978812E+02	Resid mbdelay (usec)	-2.12468E-03	+/-	1.9E-04
Sband delay (usec)	4.28010852062E+02	Apriori clock (usec)	4.4851513E+00	Resid sbdelay (usec)	-5.43127E-01	+/-	1.5E-03
Phase delay (usec)	4.28553977834E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	-9.78311E-07	+/-	6.6E-07
Delay rate (us/s)	-2.23384148001E-02	Apriori rate (us/s)	-2.23463538793E-02	Resid rate (us/s)	7.93908E-06	+/-	1.0E-08
Total phase (deg)	234.2	Apriori accel (us/s/s)	1.57909430427E-05	Resid phase (deg)	-30.3	+/-	20.3

ph/seg (deg)	57.4	Theor.	47.7	Amplitude	0.240 +/- 0.043	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.3		83.3	Search (512X32)	0.186	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	19.8		28.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	37.2		50.2	Inc. seg. avg.	0.253	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	0.222	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

b: az 74.8 el 62.9 pa -74.1 k: az 47.5 el 60.5 pa -111.0 u, v (fr/asec) 201.143 2652.625 simultaneous interpolator

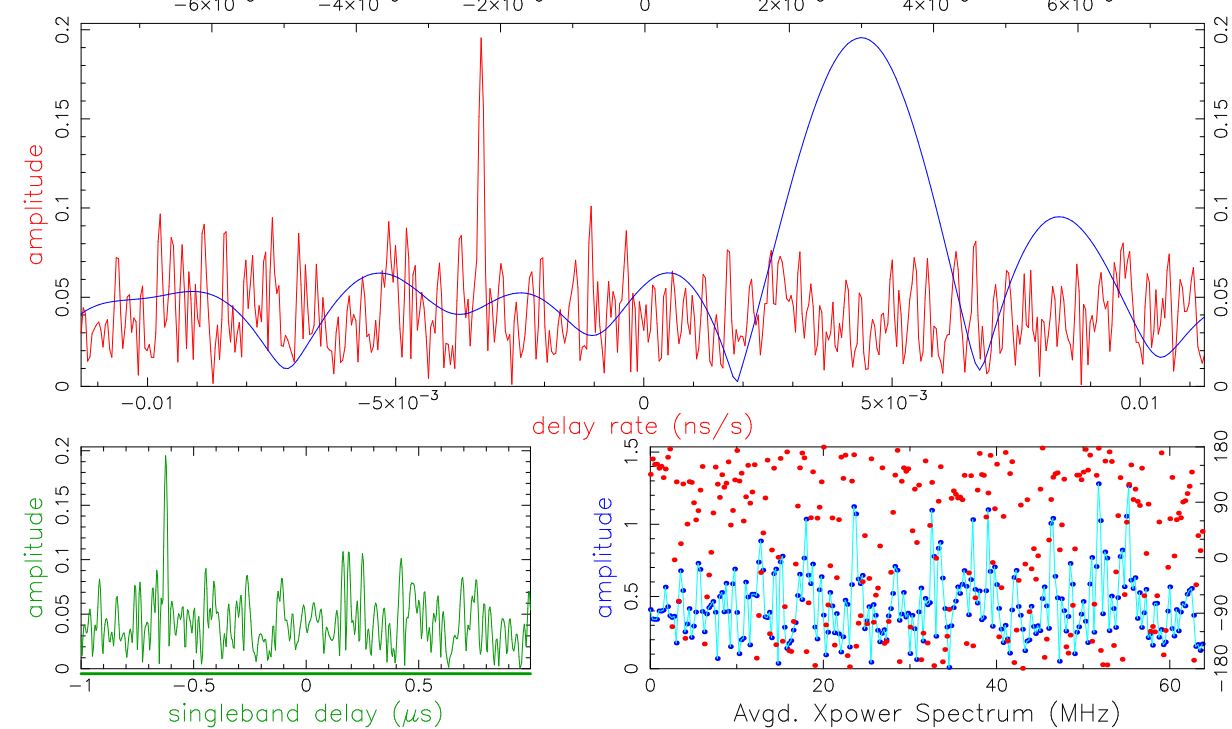
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.47.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bk

VLBA_BR - VLBA_KP, fgroup W, pol RL

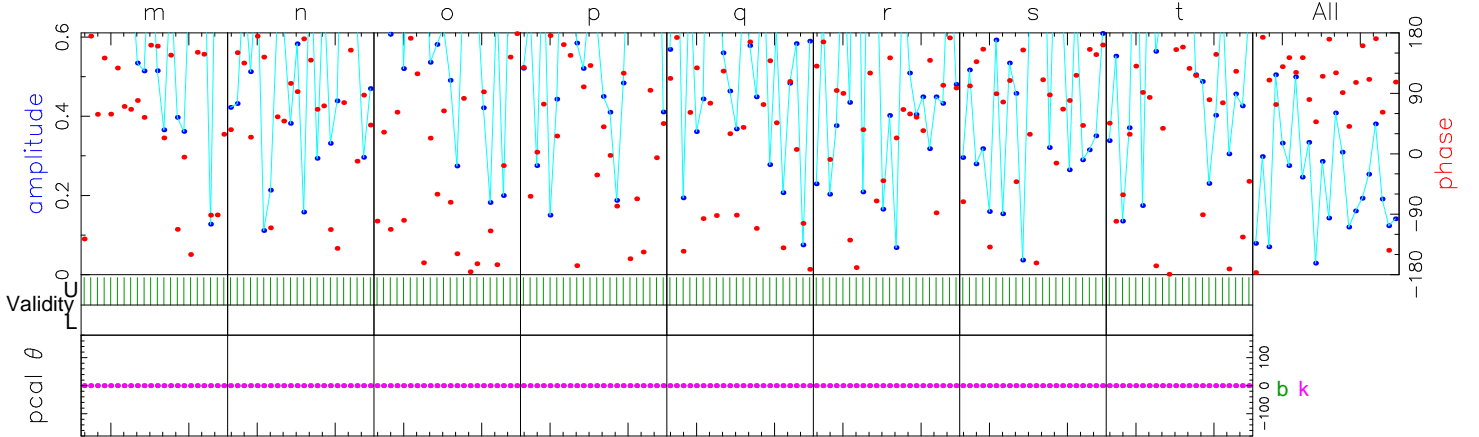


Fringe quality 0

SNR 5.7
 Int time 112.624
 Amp 0.204
 Phase 120.7
 PFD 5.1e-01
 Delays (us)
 SBD -0.624017
 MBD 0.003033
 Fringe rate (Hz)
 -0.281585
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112945
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	132.2	97.9	169.8	109.0	104.1	123.2	100.6	132.8	Phase	120.7
	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.3	Ampl.	0.2
	362.5	272.9	321.6	396.8	99.5	180.4	264.8	78.0	Sbd box	97.3
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.27932011964E+02	Apriori delay (usec)	4.28553978812E+02	Resid mbdelay (usec)	3.03315E-03	+/-	1.9E-04
Sband delay (usec)	4.27929961562E+02	Apriori clock (usec)	4.4851513E+00	Resid sbdelay (usec)	-6.24017E-01	+/-	1.5E-03
Phase delay (usec)	4.28553982705E+02	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	3.89317E-06	+/-	6.5E-07
Delay rate (us/s)	-2.23496228014E-02	Apriori rate (us/s)	-2.23463538793E-02	Resid rate (us/s)	-3.26892E-06	+/-	1.0E-08
Total phase (deg)	25.3	Apriori accel (us/s/s)	1.57909430427E-05	Resid phase (deg)	120.7	+/-	20.1

ph/seg (deg)	44.8	RMS	47.1	Theor.	47.1	Amplitude	0.204 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.4	Search (512X32)	0.188	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	25.9	Inc. seg. avg.	0.189	Inc. frq. avg.	0.194	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	29.2	Inc. frq. avg.	0.194	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 k: az 47.5 el 60.5 pa -111.0 u, v (fr/asec) 201.143 2652.625 simultaneous interpolator

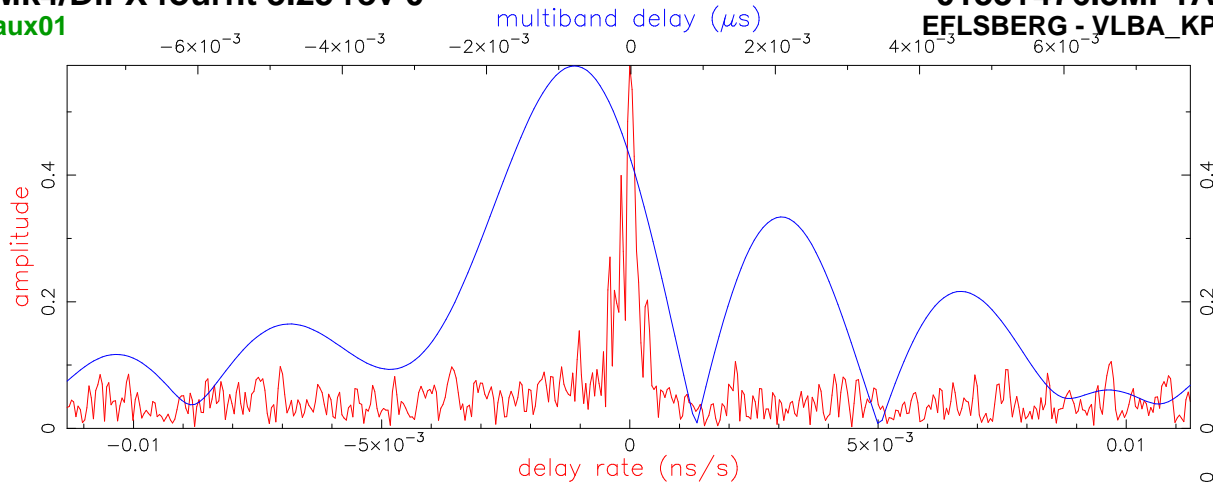
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.54.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

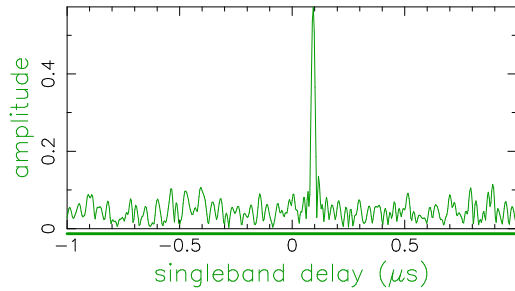
0133+476.3MP1AB, No0916, Bk

EFLSBERG - VLBA_KP, fgroup W, pol LL

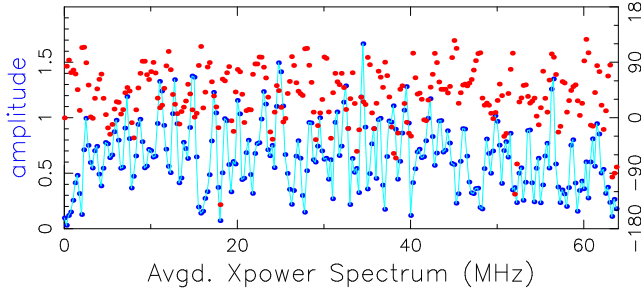


Fringe quality 8

SNR 16.6
 Int time 112.640
 Amp 0.573
 Phase 41.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.093185
 MBD -0.000801
 Fringe rate (Hz)
 -0.000904
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

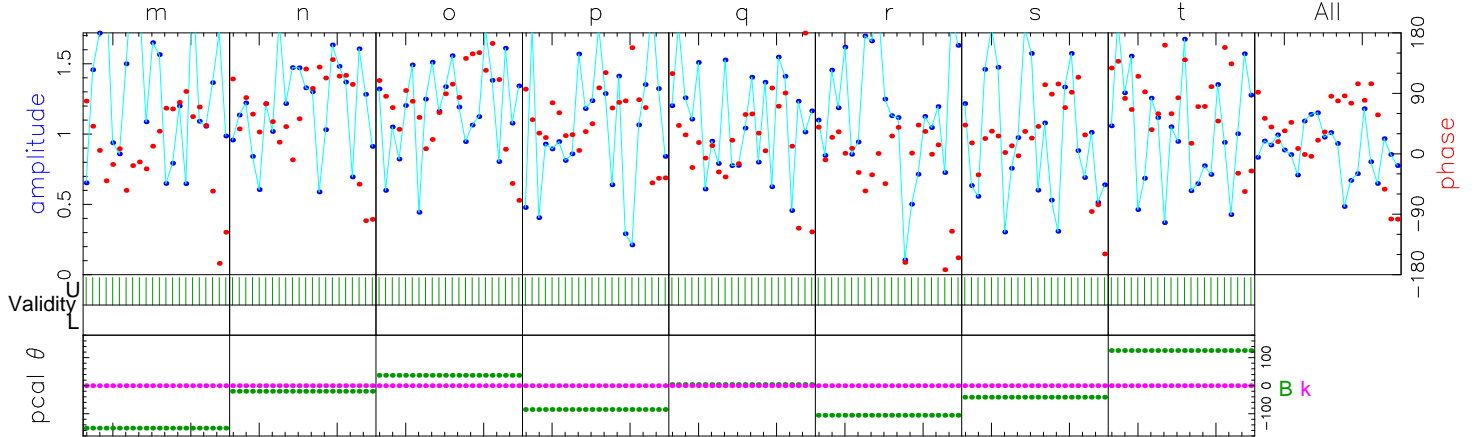


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112946
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
B	0	0	0	0	0	0	0	0		
k	0	0	0	0	0	0	0	0		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -5.78201721720E+03 Apriori delay (usec) -5.78211016654E+03 Resid mbdelay (usec) -8.00656E-04 +/- 6.5E-05
 Sband delay (usec) -5.78201698179E+03 Apriori clock (usec) -3.5553925E+01 Resid sbdelay (usec) 9.31847E-02 +/- 5.2E-04
 Phase delay (usec) -5.78211016520E+03 Apriori clockrate (us/s) -3.4174508E-07 Resid phdelay (usec) 1.34634E-06 +/- 2.2E-07
 Delay rate (us/s) -1.13395288556E+00 Apriori rate (us/s) -1.13395287506E+00 Resid rate (us/s) -1.04980E-08 +/- 3.4E-09
 Total phase (deg) -226.8 Apriori accel (us/s/s) 5.08907504416E-05 Resid phase (deg) 41.8 +/- 6.9

ph/seg (deg) 57.3 16.1 Search (512X32) 0.561 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.9 28.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.2 9.7 Inc. seg. avg. 0.855 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 19.8 17.0 Inc. frq. avg. 0.654 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 302.9 el 37.3 pa 52.8 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 9737.094 5834.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bk.W.57.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

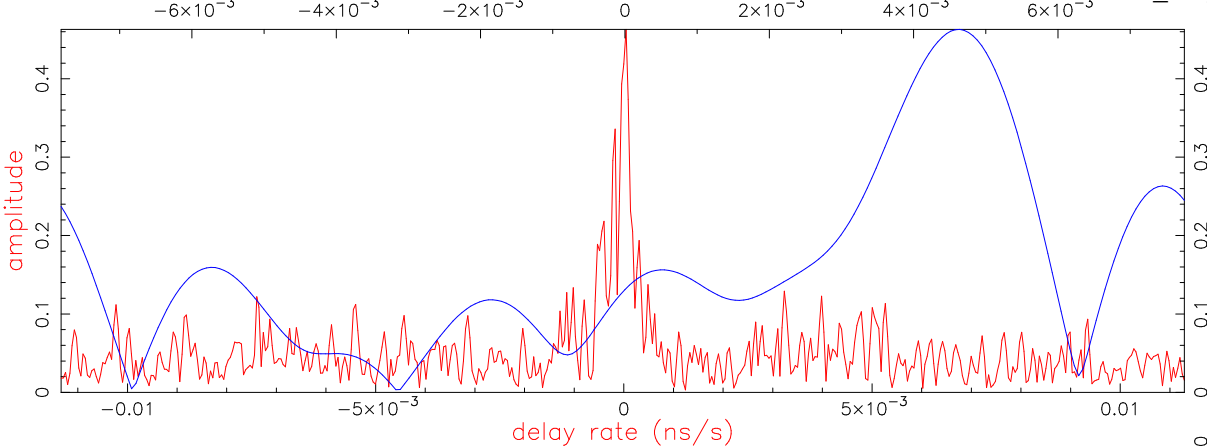
aux01

0133+476.3MP1AB, No0916, Bk

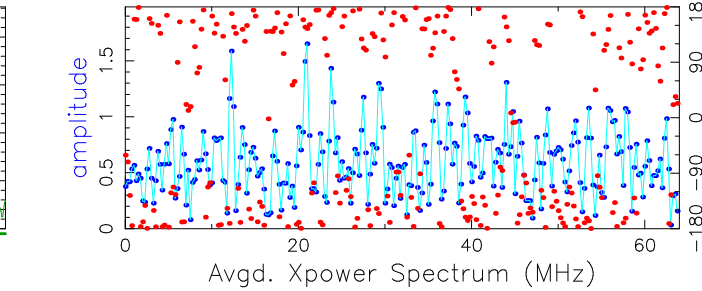
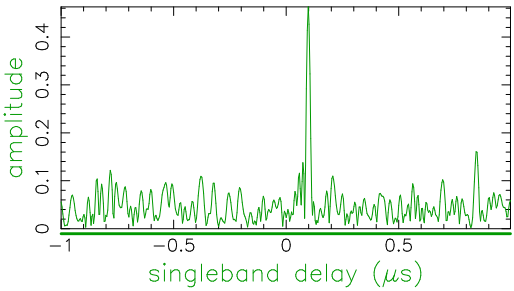
EFLSBERG - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

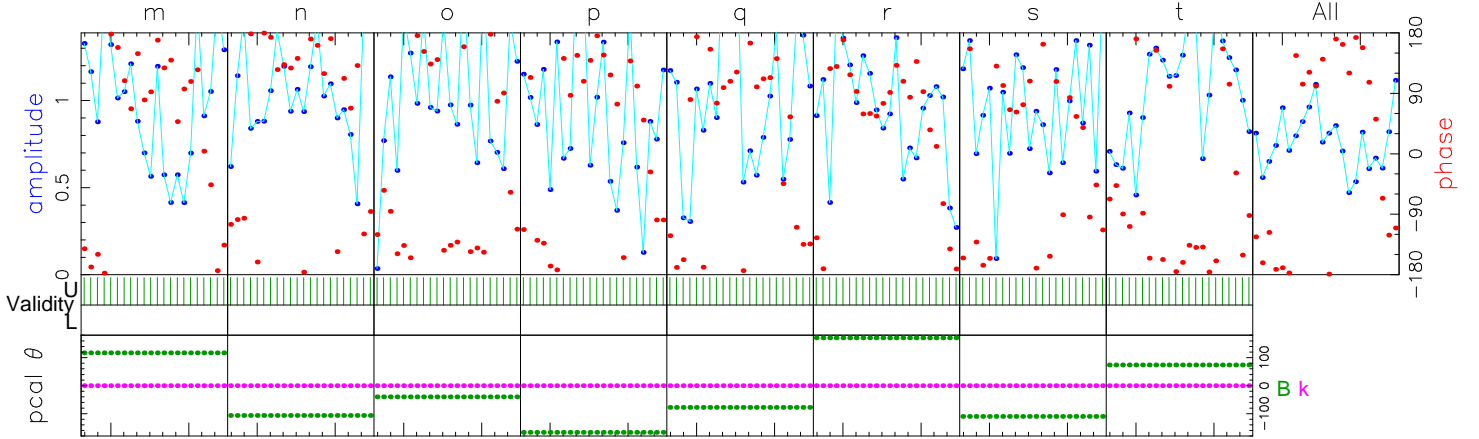


SNR 13.4
 Int time 112.640
 Amp 0.463
 Phase 169.5
 PFD 5.1e-33
 Delays (us)
 SBD 0.097921
 MBD 0.004634
 Fringe rate (Hz) 0.004123
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112947
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
B	0	0	0	0	0	0	0	0		
k	0	0	0	0	0	0	0	0		
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:k	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-5.78201178252E+03	Apriori delay (usec)	-5.78211016654E+03	Resid mbdelay (usec)	4.63402E-03	+/-	8.1E-05
Sband delay (usec)	-5.78201224529E+03	Apriori clock (usec)	-3.5553925E+01	Resid sbdelay (usec)	9.79213E-02	+/-	6.4E-04
Phase delay (usec)	-5.78211016108E+03	Apriori clockrate (us/s)	-3.4174508E-07	Resid phdelay (usec)	5.46626E-06	+/-	2.7E-07
Delay rate (us/s)	-1.13395282720E+00	Apriori rate (us/s)	-1.13395287506E+00	Resid rate (us/s)	4.78673E-08	+/-	4.2E-09
Total phase (deg)	-99.0	Apriori accel (us/s/s)	5.08907504416E-05	Resid phase (deg)	169.5	+/-	8.5

ph/seg (deg)	57.1	Theor.	20.0	Amplitude	0.463 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	75.5	Search (512X32)	0.453	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	36.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	29.6	Inc. seg. avg.	0.727	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.529	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 302.9 el 37.3 pa 52.8 k: az 47.5 el 60.5 pa -111.0 u, v (fr/asec) 9737.094 5834.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bk.W.65.3MP1AB

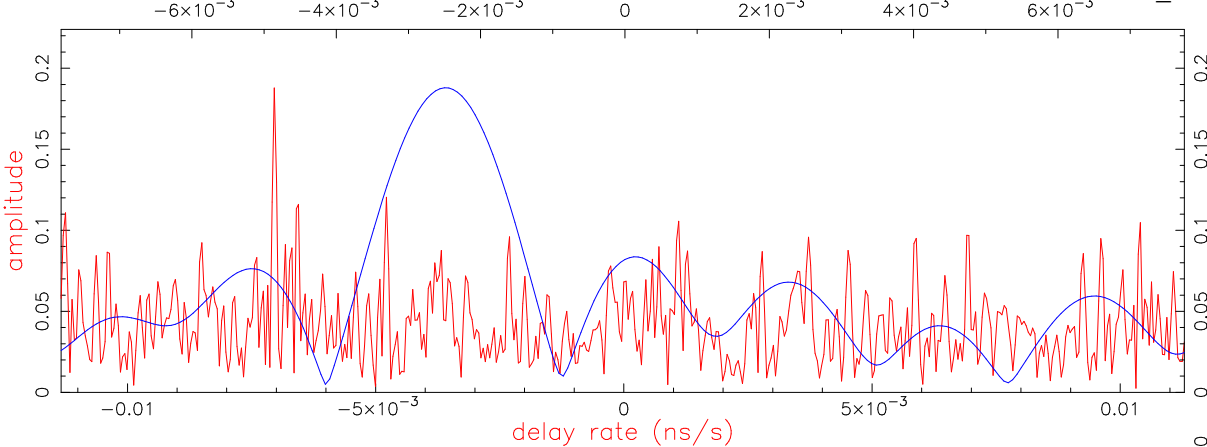
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bk

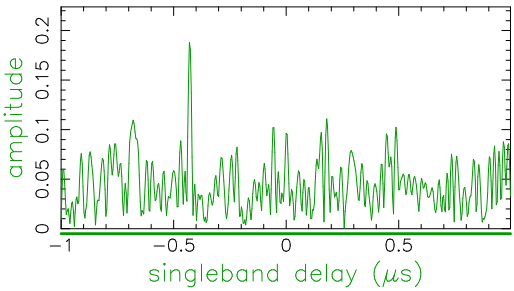
EFLSBERG - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

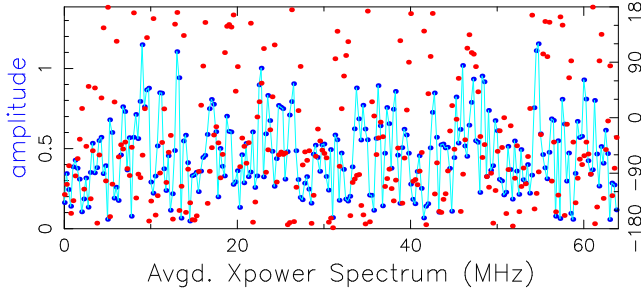


Fringe quality 0

SNR 5.5
 Int time 112.640
 Amp 0.224
 Phase 35.1
 PFD 8.7e-01
 Delays (us)
 SBD -0.428400
 MBD -0.002439
 Fringe rate (Hz)
 -0.606797
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

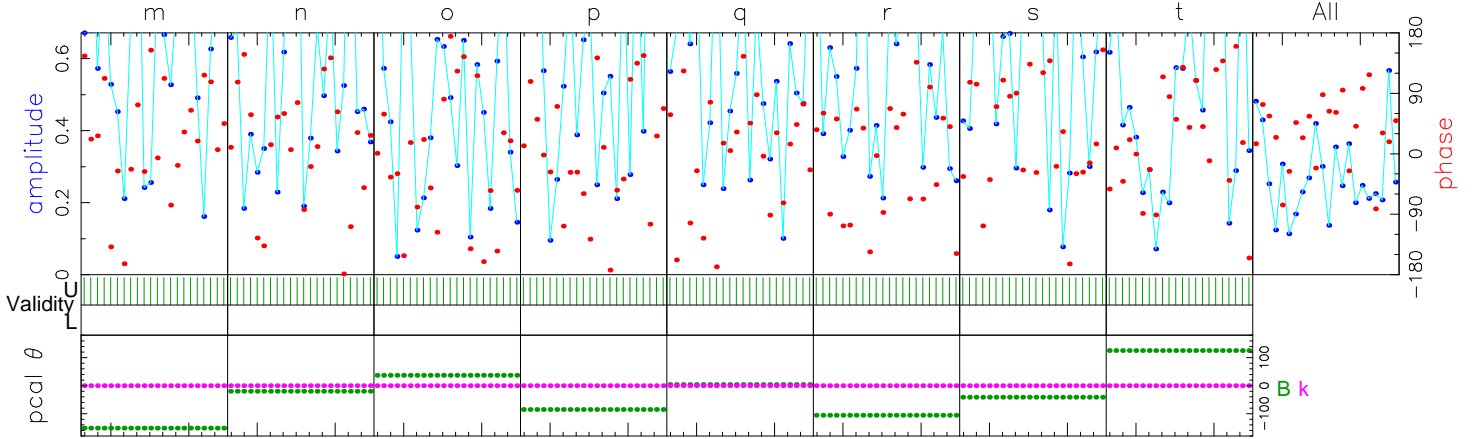


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112948
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	40.9	39.7	41.1	17.0	41.7	31.6	21.1	41.8	Phase	35.1
	0.4	0.2	0.1	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	147.1	3.8	303.1	413.4	83.1	480.1	87.1	172.1	Sbd box	147.3
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-5.78253448097E+03	Apriori delay (usec)	-5.78211016654E+03	Resid mbdelay (usec)	-2.43943E-03	+/-	2.0E-04
Sband delay (usec)	-5.78253856704E+03	Apriori clock (usec)	-3.5553925E+01	Resid sbdelay (usec)	-4.28400E-01	+/-	1.6E-03
Phase delay (usec)	-5.78211016541E+03	Apriori clockrate (us/s)	-3.4174508E-07	Resid phdelay (usec)	1.13289E-06	+/-	6.7E-07
Delay rate (us/s)	-1.13395991937E+00	Apriori rate (us/s)	-1.13395287506E+00	Resid rate (us/s)	-7.04431E-06	+/-	1.0E-08
Total phase (deg)	-233.4	Apriori accel (us/s/s)	5.08907504416E-05	Resid phase (deg)	35.1	+/-	20.8

ph/seg (deg)	51.7	Theor.	48.7	Amplitude	0.224 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.1		85.0	Search (512X32)	0.185	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	10.9		29.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.5		51.3	Inc. seg. avg.	0.241	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.198	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 302.9 el 37.3 pa 52.8 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 9737.094 5834.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bk.W.74.3MP1AB

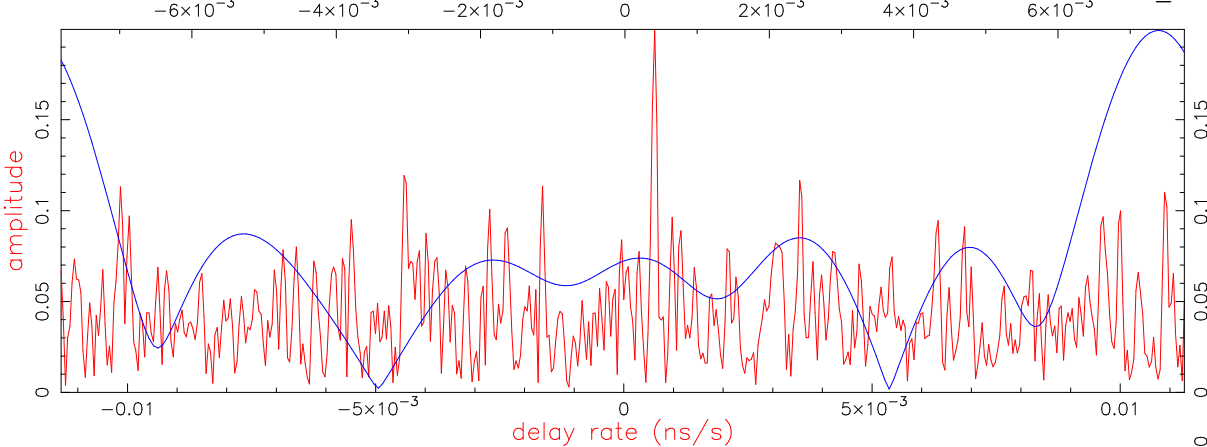
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, Bk

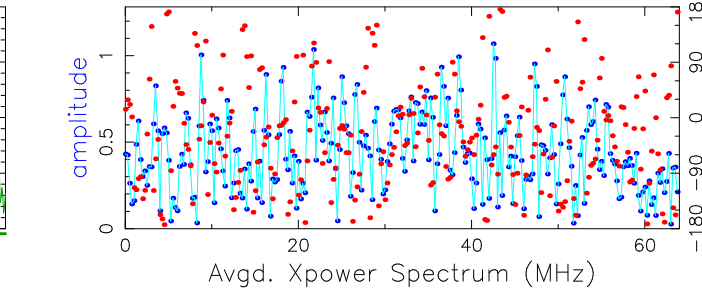
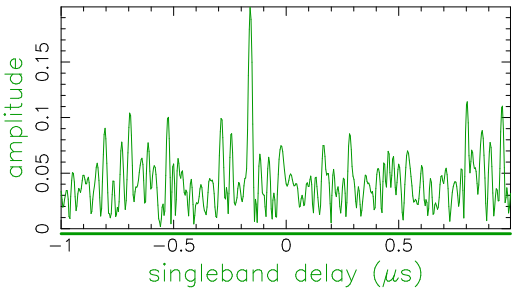
EFLSBERG - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)



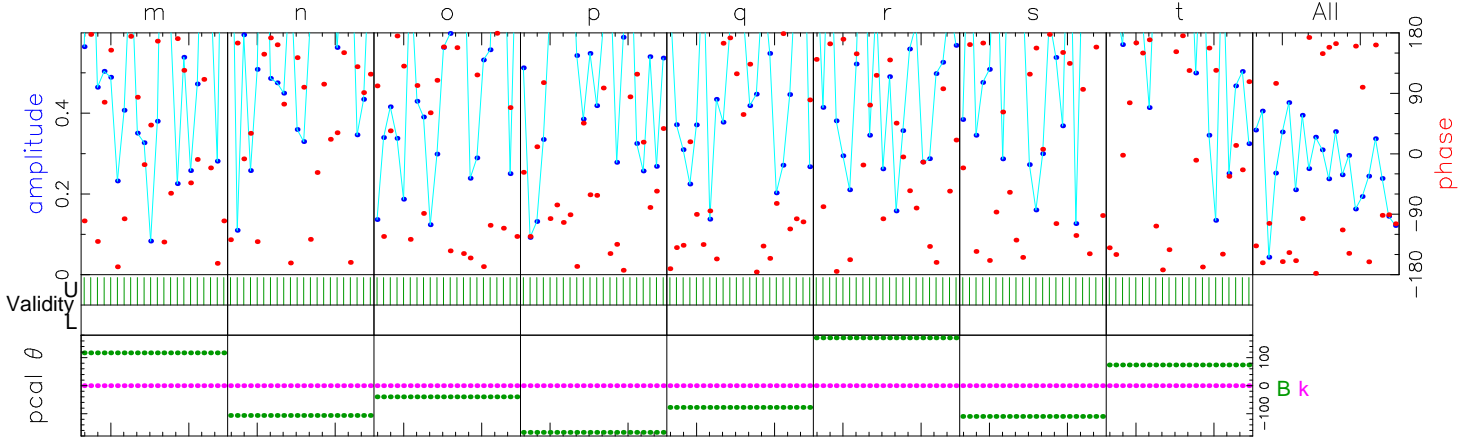
Fringe quality 0

SNR 5.8
 Int time 112.640
 Amp 0.200
 Phase -163.7
 PFD 3.6e-01
 Delays (us)
 SBD -0.159544
 MBD 0.007414
 Fringe rate (Hz)
 0.054928
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112950
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-149.2	150.4	-162.7	-93.9	-152.1	178.1	-158.8	-179.2	Phase	-163.7
	0.2	0.2	0.3	0.1	0.3	0.0	0.3	0.3	Ampl.	0.2
	133.8	334.1	16.2	425.7	248.6	155.8	199.5	215.3	Sbd box	216.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
B:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:k	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.78227462743E+03	Apriori delay (usec)	-5.78211016654E+03	Resid mbdelay (usec)	7.41411E-03	+/-	1.9E-04
Sband delay (usec)	-5.78226971104E+03	Apriori clock (usec)	-3.5553925E+01	Resid sbdelay (usec)	-1.59544E-01	+/-	1.5E-03
Phase delay (usec)	-5.78211017182E+03	Apriori clockrate (us/s)	-3.4174508E-07	Resid phdelay (usec)	-5.27727E-06	+/-	6.4E-07
Delay rate (us/s)	-1.13395223741E+00	Apriori rate (us/s)	-1.13395287506E+00	Resid rate (us/s)	6.37657E-07	+/-	9.8E-09
Total phase (deg)	-72.2	Apriori accel (us/s/s)	5.08907504416E-05	Resid phase (deg)	-163.7	+/-	19.8

ph/seg (deg)	RMS 48.5	Theor. 46.4	Amplitude Search (512X32)	0.200 +/- 0.035	0.191	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	59.9	81.0	Interp.	0.000	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	36.3	28.0	Inc. seg. avg.	0.203	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 (%)	46.5	48.9	Inc. frq. avg.	0.199	Data rate(Mb/s): 2048			ion window (TEC)	0.00	0.00

B: az 302.9 el 37.3 pa 52.8 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 9737.094 5834.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/Bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/Bk.W.82.3MP1AB

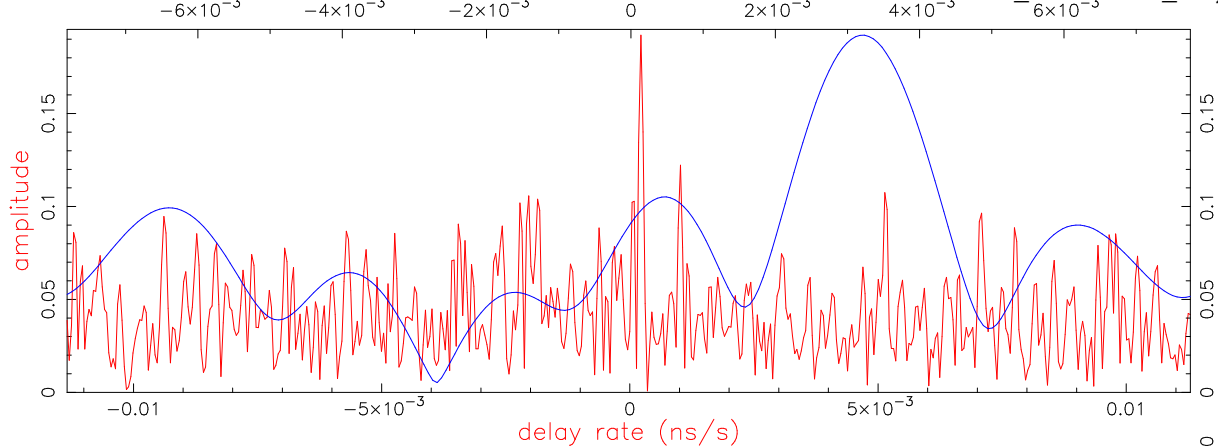
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fk

VLBA_FD - VLBA_KP, fgroup W, pol LR

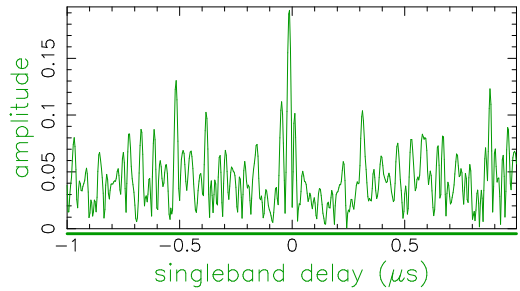
multiband delay (μ s)



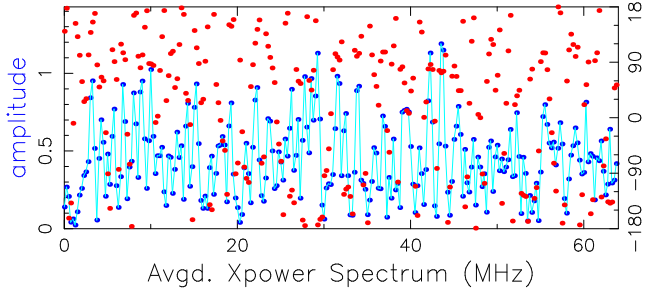
Fringe quality 0

SNR 5.7
 Int time 112.640
 Amp 0.195
 Phase -80.3
 PFD 5.9e-01
 Delays (us)
 SBD -0.013314
 MBD 0.003188
 Fringe rate (Hz)
 0.019091
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

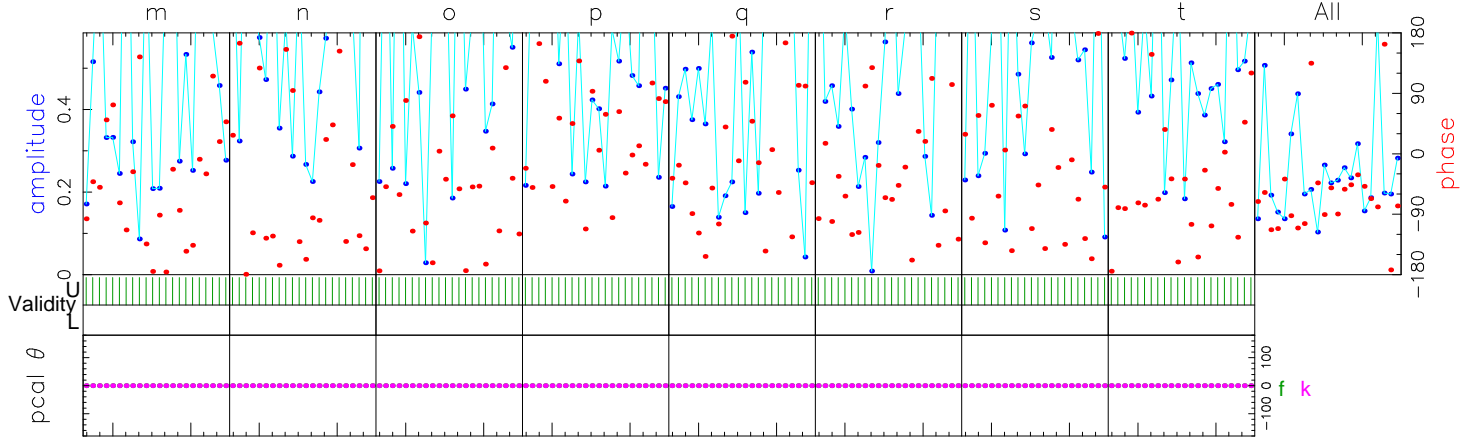
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112957
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-63.7	-136.8	-72.8	18.2	-61.0	-77.0	-86.6	-95.6	Phase	-80.3
	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	237.2	379.7	125.0	445.1	412.5	183.4	392.9	252.1	Sbd box	253.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.189866653E+02	Apriori delay (usec)	6.18999103728E+02	Resid mbdelay (usec)	3.18782E-03	+/-	1.9E-04
Sband delay (usec)	6.18985790228E+02	Apriori clock (usec)	-9.5621109E-02	Resid sbdelay (usec)	-1.33135E-02	+/-	1.5E-03
Phase delay (usec)	6.18999101139E+02	Apriori clockrate (us/s)	-1.0198613E-07	Resid phdelay (usec)	-2.58976E-06	+/-	6.5E-07
Delay rate (us/s)	-9.83274844657E-02	Apriori rate (us/s)	-9.83277060940E-02	Resid rate (us/s)	2.21628E-07	+/-	1.0E-08
Total phase (deg)	205.9	Apriori accel (us/s/s)	-4.94399657976E-06	Resid phase (deg)	-80.3	+/-	20.2

ph/seg (deg)	51.0	Theor.	47.4	Amplitude	0.195 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.1		82.8	Search (512X32)	0.187	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.1		28.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	36.3		49.9	Inc. seg. avg.	0.189	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.214	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 40.8 el 64.1 pa -123.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 837.764 -551.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fk.W.104.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

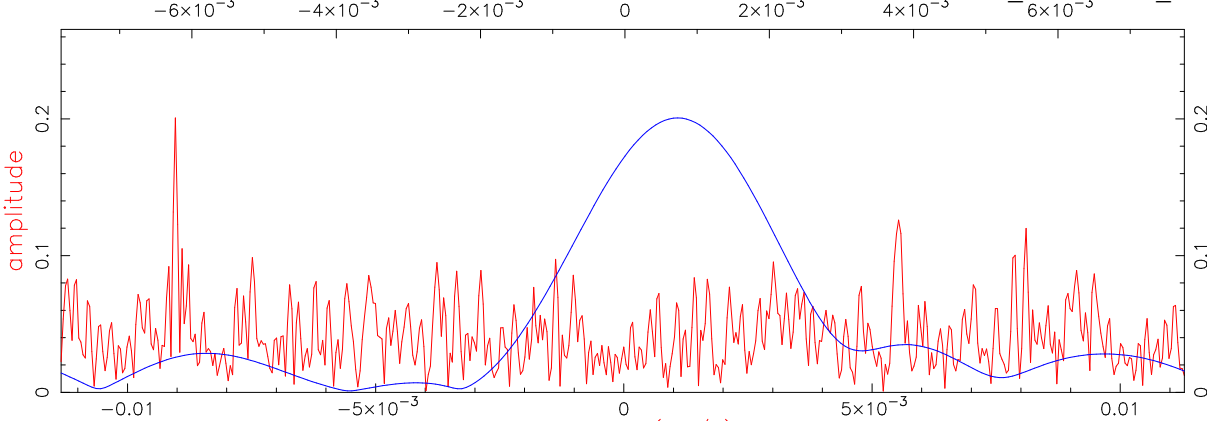
aux01

0133+476.3MP1AB, No0916, fk

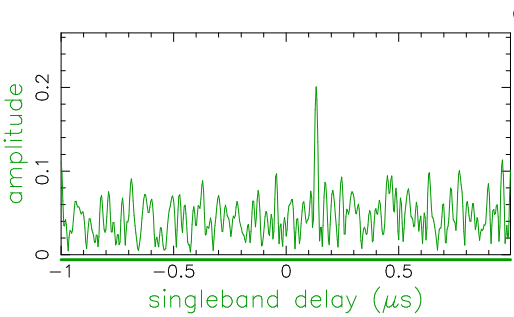
VLBA_FD - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)

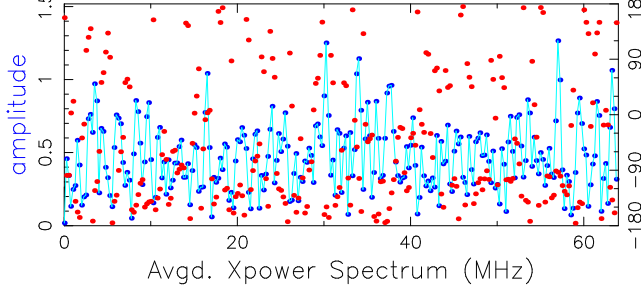
Fringe quality 0



SNR 5.8
 Int time 112.640
 Amp 0.265
 Phase -37.3
 PFD 2.9e-01
 Delays (us)
 SBD 0.133353
 MBD 0.000739
 Fringe rate (Hz)
 -0.779848
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

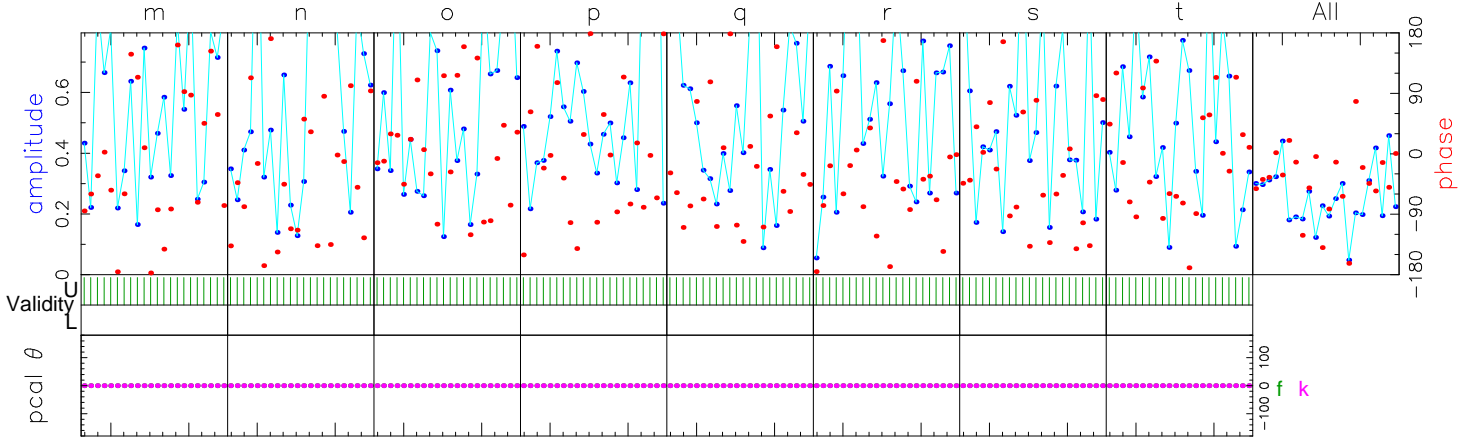


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112958
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-40.5	-37.9	-19.6	-48.0	-42.5	-42.0	-41.4	-22.5	Phase	-37.3
	0.1	0.2	0.3	0.3	0.4	0.4	0.3	0.2	Ampl.	0.2
	319.8	415.0	159.1	209.1	292.2	326.7	502.9	303.2	Sbd box	291.1
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.19124842472E+02	Apriori delay (usec)	6.18999103728E+02	Resid mbdelay (usec)	7.38744E-04	+/-	1.9E-04
Sband delay (usec)	6.19132456228E+02	Apriori clock (usec)	-9.5621109E-02	Resid sbdelay (usec)	1.33353E-01	+/-	1.5E-03
Phase delay (usec)	6.18999102526E+02	Apriori clockrate (us/s)	-1.0198613E-07	Resid phdelay (usec)	-1.20240E-06	+/-	6.3E-07
Delay rate (us/s)	-9.83367593574E-02	Apriori rate (us/s)	-9.83277060940E-02	Resid rate (us/s)	-9.05326E-06	+/-	9.7E-09
Total phase (deg)	249.0	Apriori accel (us/s/s)	-4.94399657976E-06	Resid phase (deg)	-37.3	+/-	19.6

ph/seg (deg)	52.1	Theor.	46.0	Amplitude	0.265 +/- 0.045	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	55.9		80.4	Search (512X32)	0.180	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	11.0		27.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.0		48.5	Inc. seg. avg.	0.256	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.241	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

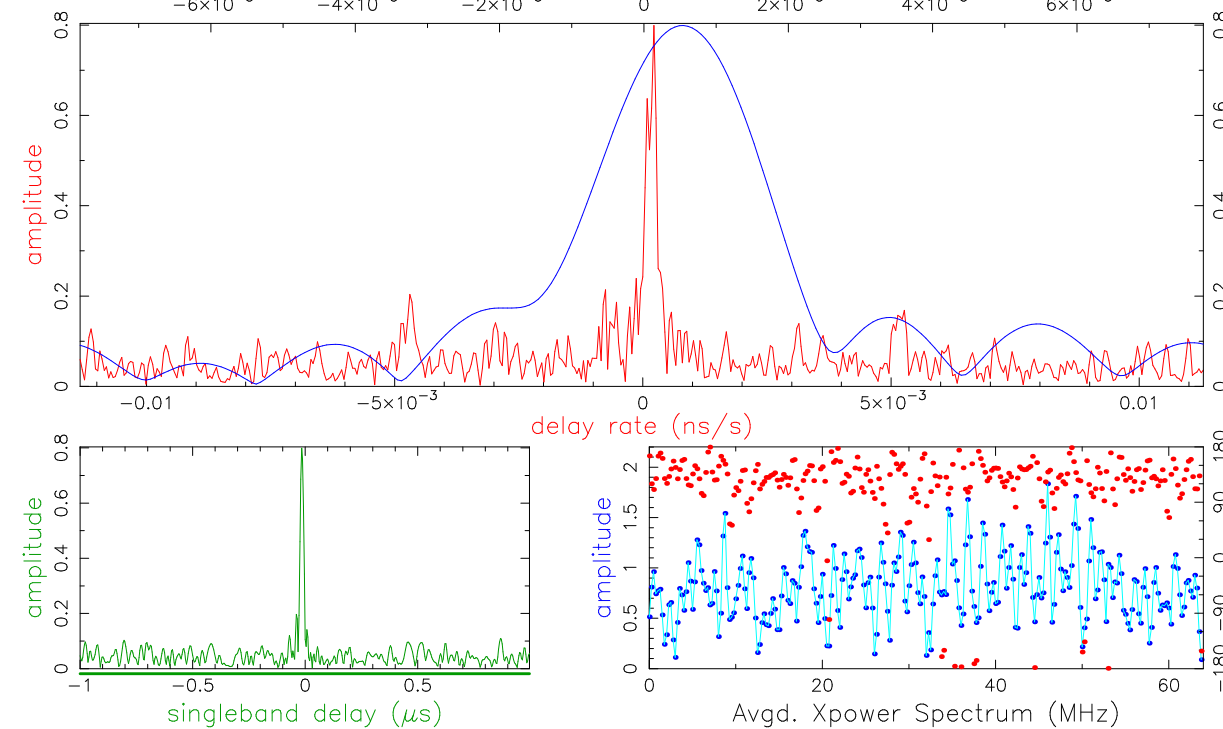
f: az 40.8 el 64.1 pa -123.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 837.764 -551.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fk.W.107.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fk

VLBA_FD - VLBA_KP, fgroup W, pol LL

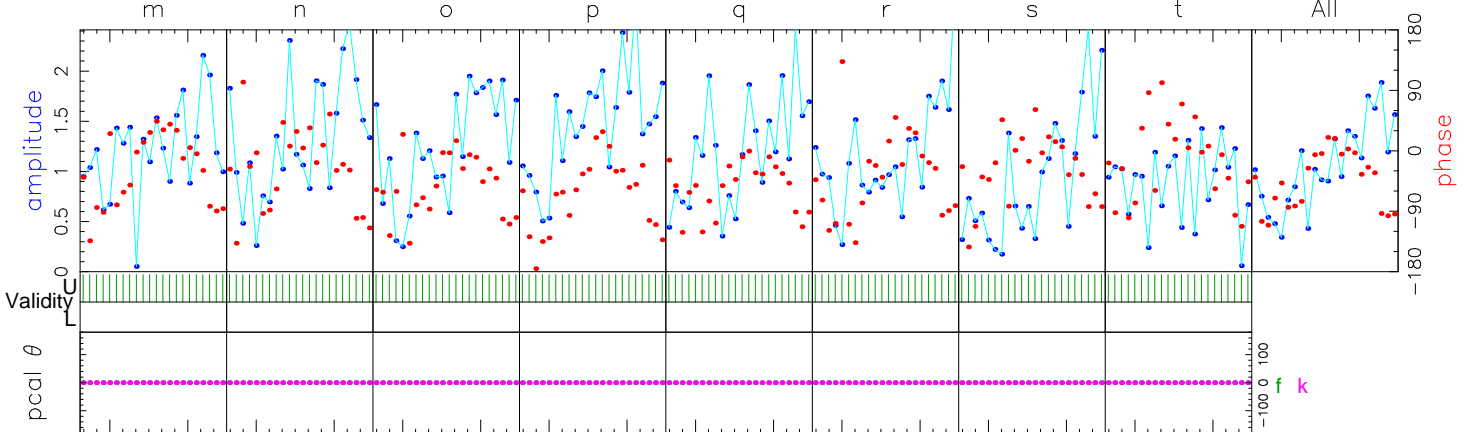


Fringe quality 9

SNR 23.3
 Int time 112.640
 Amp 0.804
 Phase -42.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.014652
 MBD 0.000562
 Fringe rate (Hz) 0.017897
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112955
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-28.6	-27.4	-51.6	-54.4	-56.3	-51.0	-38.6	-20.5	Phase	-42.6
	0.8	0.9	0.9	1.0	1.0	0.7	0.7	0.6	Ampl.	0.8
	253.7	253.2	253.4	253.0	253.5	253.2	252.4	253.6	Sbd box	253.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 6.1898404522E+02 Apriori delay (usec) 6.18999103728E+02 Resid mbdelay (usec) 5.61793E-04 +/- 4.7E-05
 Sband delay (usec) 6.18984451228E+02 Apriori clock (usec) -9.5621109E-02 Resid sbdelay (usec) -1.46525E-02 +/- 3.7E-04
 Phase delay (usec) 6.18999102355E+02 Apriori clockrate (us/s) -1.0198613E-07 Resid phdelay (usec) -1.37378E-06 +/- 1.6E-07
 Delay rate (us/s) -9.83274983223E-02 Apriori rate (us/s) -9.83277060940E-02 Resid rate (us/s) 2.07772E-07 +/- 2.4E-09
 Total phase (deg) 243.7 Apriori accel (us/s/s) -4.94399657976E-06 Resid phase (deg) -42.6 +/- 4.9

ph/seg (deg) RMS Theor. Amplitude 0.804 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 41.6 11.5 Search (512X32) 0.776 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 61.4 20.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 15.3 6.9 Inc. seg. avg. 1.041 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 40.8 el 64.1 pa -123.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 837.764 -551.323 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fk.W.94.3MP1AB

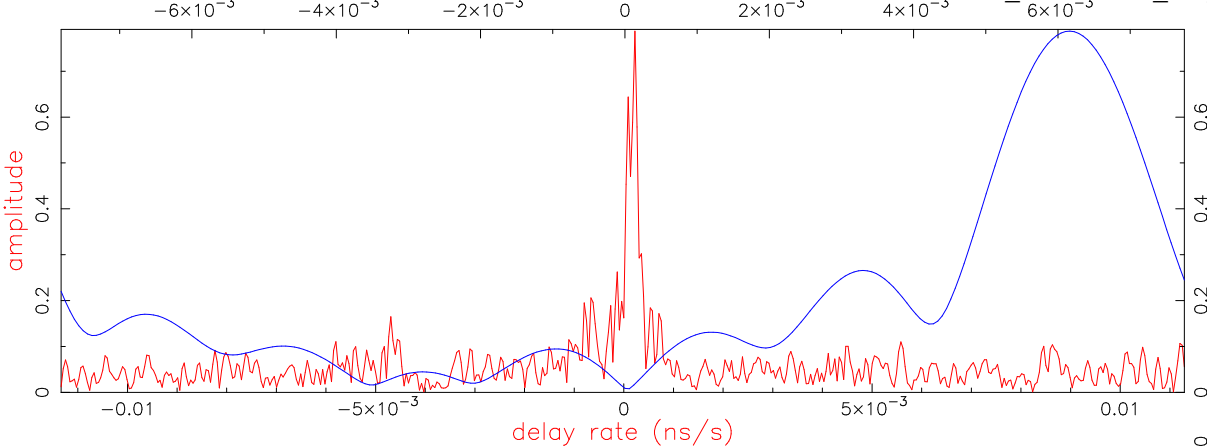
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, fk

VLBA_FD - VLBA_KP, fgroup W, pol RR

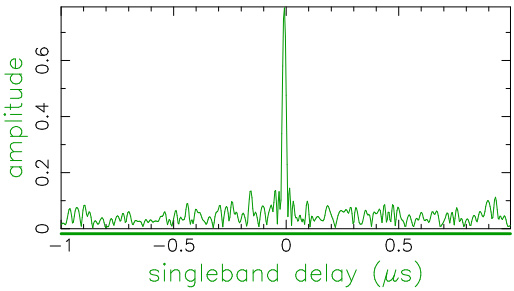
multiband delay (μ s)



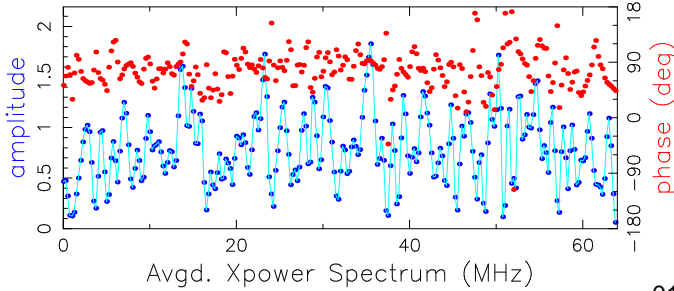
Fringe quality 9

SNR 23.0
 Int time 112.640
 Amp 0.791
 Phase -92.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.008694
 MBD 0.006145
 Fringe rate (Hz) 0.018315
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

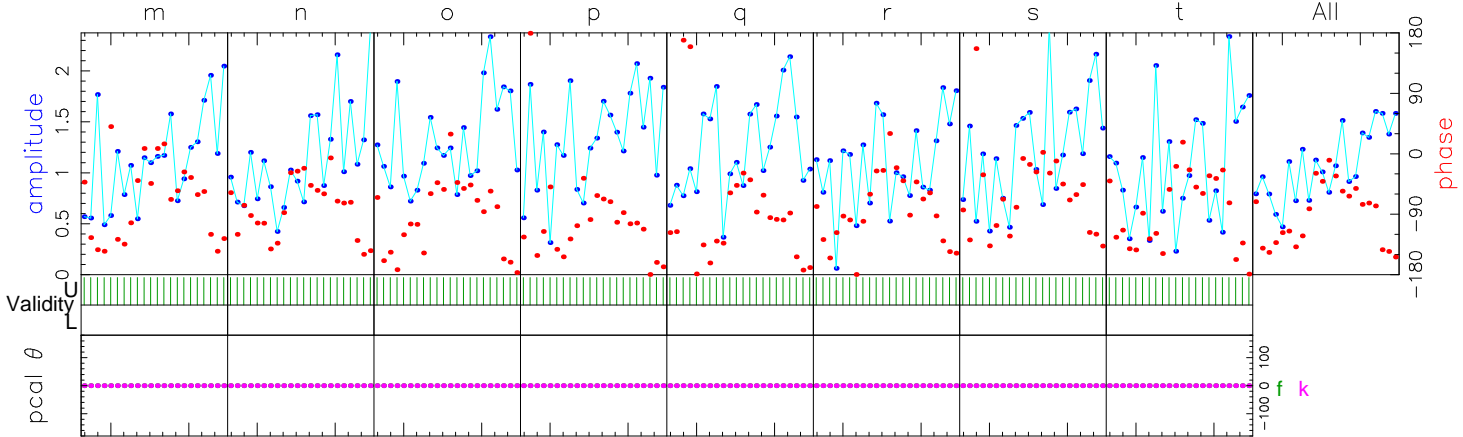
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build 2025:007:183750
 2025:041:112956
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.100073"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-77.9	-81.4	-94.8	-118.3	-112.4	-86.5	-68.3	-91.0	Phase	-92.5
	0.7	0.9	0.8	1.0	0.9	0.7	0.9	0.7	Ampl.	0.8
	254.3	254.3	254.7	254.6	255.3	254.3	254.9	254.4	Sbd box	254.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.18989623678E+02	Apriori delay (usec)	6.18999103728E+02	Resid mbdelay (usec)	6.14495E-03	+/-	4.7E-05
Sband delay (usec)	6.18990409478E+02	Apriori clock (usec)	-9.5621109E-02	Resid sbdelay (usec)	-8.69425E-03	+/-	3.8E-04
Phase delay (usec)	6.18999100747E+02	Apriori clockrate (us/s)	-1.0198613E-07	Resid phdelay (usec)	-2.98140E-06	+/-	1.6E-07
Delay rate (us/s)	-9.83274934786E-02	Apriori rate (us/s)	-9.83277060940E-02	Resid rate (us/s)	2.12615E-07	+/-	2.5E-09
Total phase (deg)	193.8	Apriori accel (us/s/s)	-4.94399657976E-06	Resid phase (deg)	-92.5	+/-	5.0

ph/seg (deg)	43.9	RMS	11.7	Theor.	Amplitude	0.791 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	55.3	Search (512X32)	0.764	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	18.4	Inc. seg. avg.	1.055	Inc. frq. avg.	0.816	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	14.4	Inc. frq. avg.	0.816			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 40.8 el 64.1 pa -123.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 837.764 -551.323 simultaneous interpolator

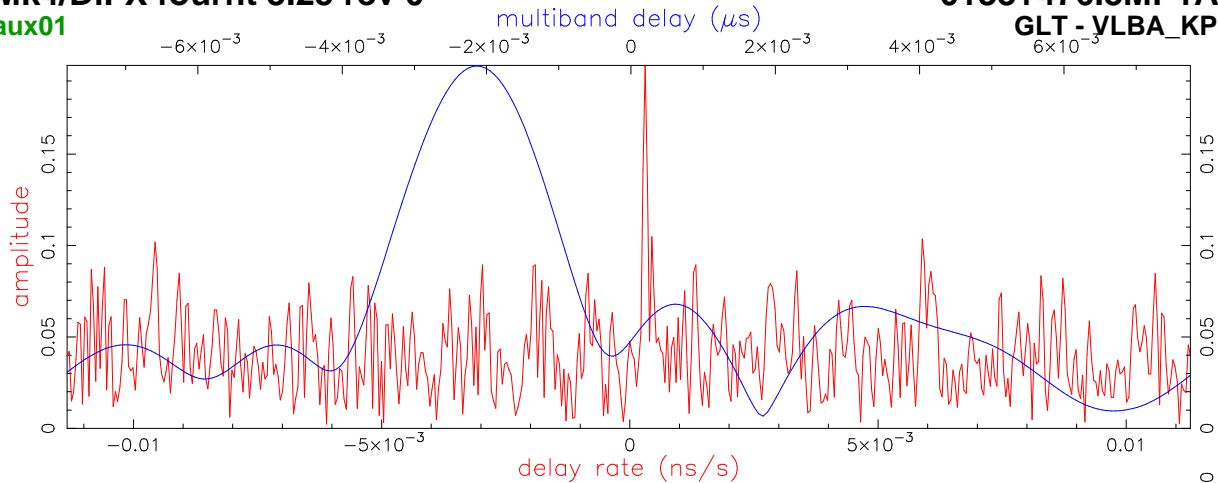
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/fk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/fk.W.99.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

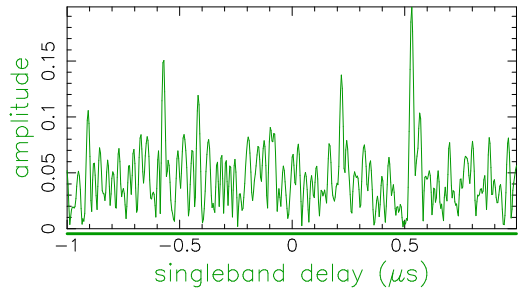
0133+476.3MP1AB, No0916, gk

GLT - VLBA_KP, fgroup W, pol LL

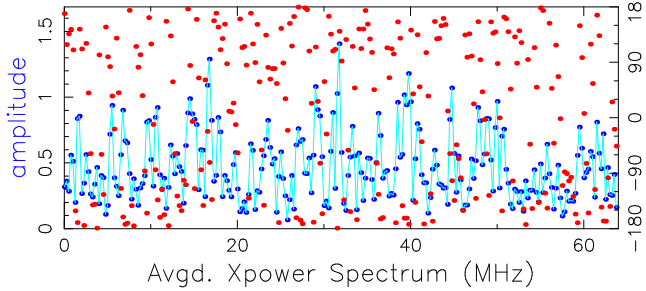


Fringe quality 0

SNR 5.8
 Int time 112.640
 Amp 0.198
 Phase -177.4
 PFD 4.1e-01
 Delays (us)
 SBD 0.530775
 MBD -0.002141
 Fringe rate (Hz)
 0.026828
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

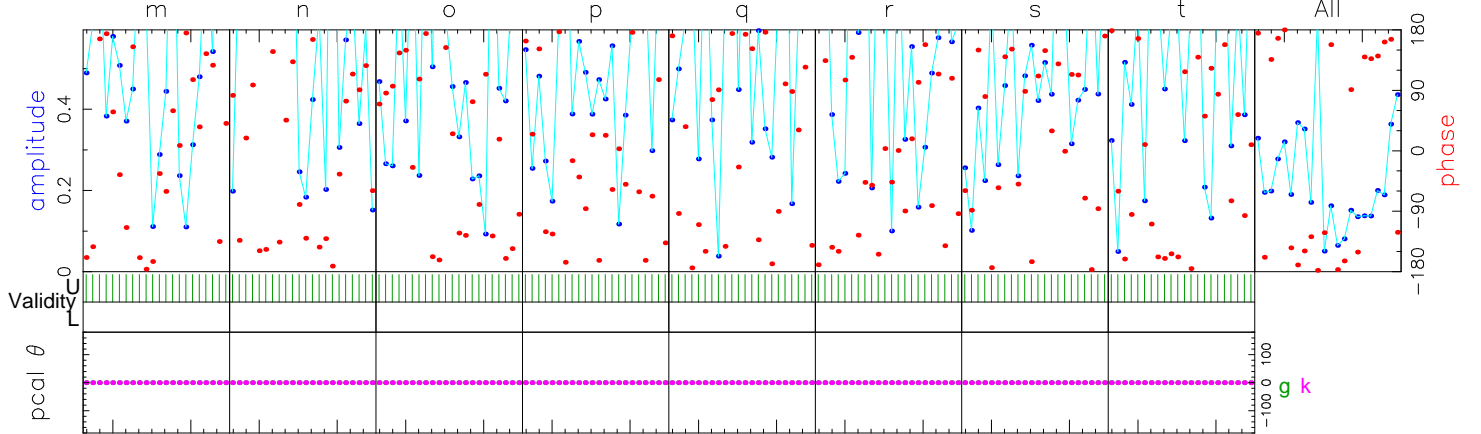


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113015
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
g	0	0	0	0	0	0	0	0		
k	0	0	0	0	0	0	0	0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.61559743231E+01	Apriori delay (usec)	6.56268653311E+01	Resid mbdelay (usec)	-2.14101E-03	+/-	1.9E-04
Sband delay (usec)	6.61576405811E+01	Apriori clock (usec)	3.1093597E-01	Resid sbdelay (usec)	5.30775E-01	+/-	1.5E-03
Phase delay (usec)	6.56268596114E+01	Apriori clockrate (us/s)	-7.2245161E-08	Resid phdelay (usec)	-5.71967E-06	+/-	6.4E-07
Delay rate (us/s)	-5.17892998827E-01	Apriori rate (us/s)	-5.17893310273E-01	Resid rate (us/s)	3.11445E-07	+/-	9.9E-09
Total phase (deg)	-112.7	Apriori accel (us/s/s)	3.68603877952E-05	Resid phase (deg)	-177.4	+/-	19.9

ph/seg (deg) 36.8 46.7 Search (512X32) 0.194 Pcd mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.4 81.4 Interp. 0.000 Pcd rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.7 28.1 Inc. seg. avg. 0.175 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.0 49.1 Inc. frq. avg. 0.190 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 g: az 194.0 el 61.2 pa 4.9 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 4454.537 5827.609 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/gk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/gk.W.135.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

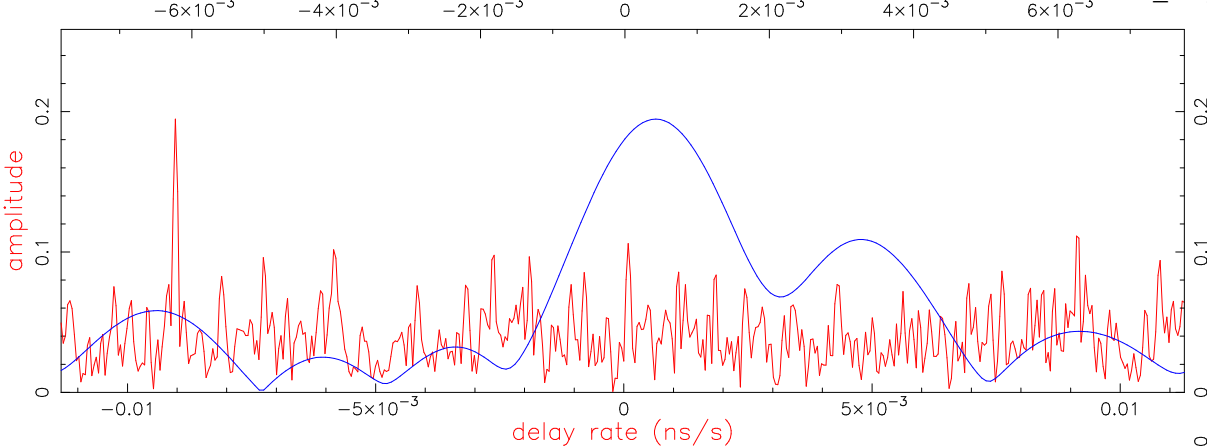
aux01

0133+476.3MP1AB, No0916, gk

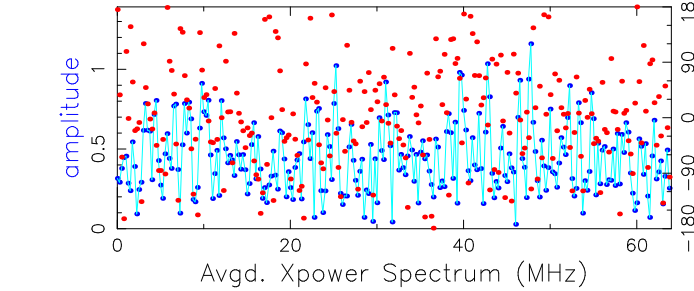
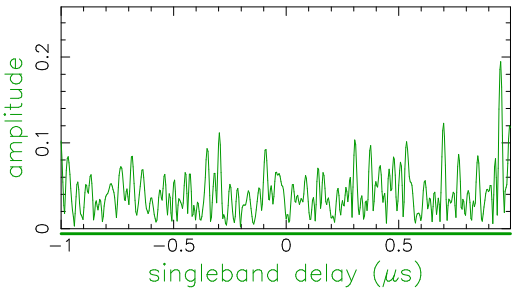
GLT - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

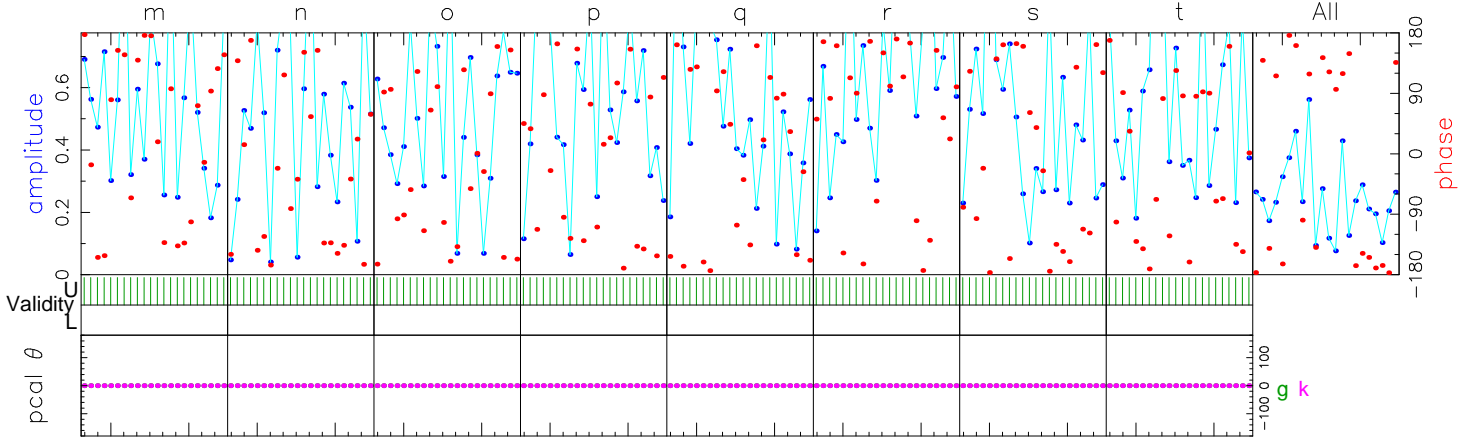


SNR 5.7
 Int time 112.640
 Amp 0.259
 Phase 164.7
 PFD 5.4e-01
 Delays (us)
 SBD 0.952059
 MBD 0.000402
 Fringe rate (Hz) -0.778337
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113016
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
g	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.65803922314E+01	Apriori delay (usec)	6.56268653311E+01	Resid mbdelay (usec)	4.01900E-04	+/-	1.9E-04
Sband delay (usec)	6.65789240811E+01	Apriori clock (usec)	3.1093597E-01	Resid sbdelay (usec)	9.52059E-01	+/-	1.5E-03
Phase delay (usec)	6.56268706437E+01	Apriori clockrate (us/s)	-7.2245161E-08	Resid phdelay (usec)	5.31256E-06	+/-	6.5E-07
Delay rate (us/s)	-5.17902345995E-01	Apriori rate (us/s)	-5.17893310273E-01	Resid rate (us/s)	-9.03572E-06	+/-	1.0E-08
Total phase (deg)	229.4	Apriori accel (us/s/s)	3.68603877952E-05	Resid phase (deg)	164.7	+/-	20.1

ph/seg (deg)	42.0	Theor.	47.2	Amplitude	0.259 +/- 0.045	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.0	Search (512X32)	0.193	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	Inc. seg. avg.	0.245	Inc. frq. avg.	0.242	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.8	Inc. frq. avg.	0.242			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 194.0 el 61.2 pa 4.9 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 4454.537 5827.609 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/gk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/gk.W.138.3MP1AB

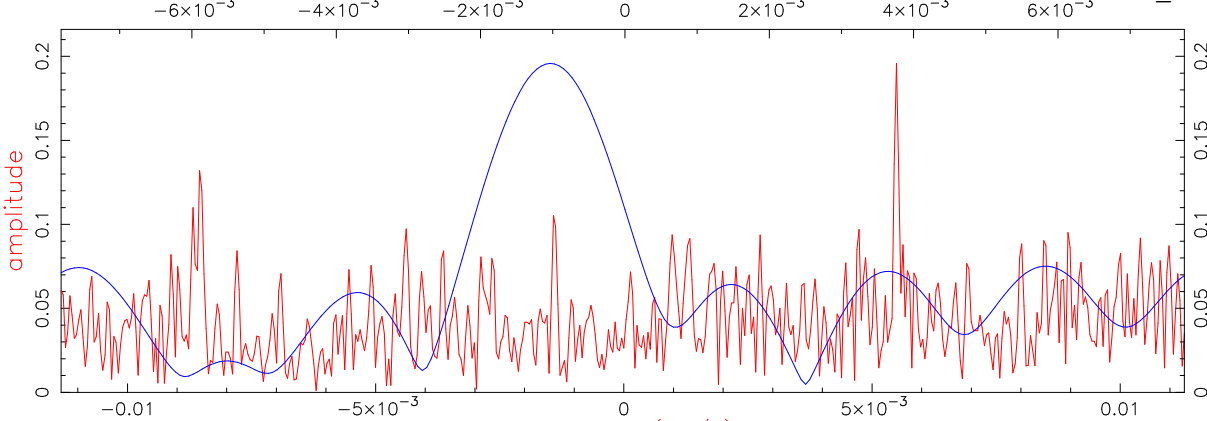
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, gk

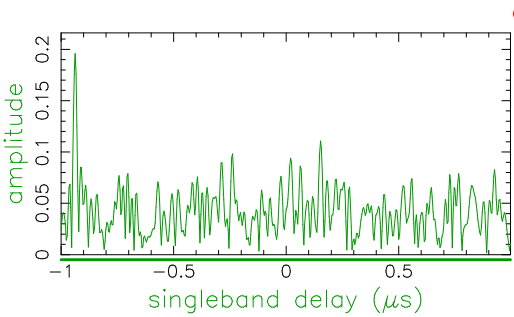
GLT - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

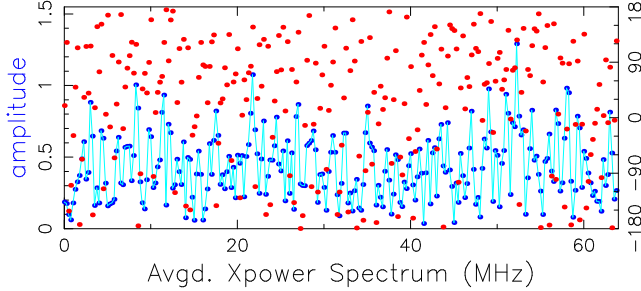


Fringe quality 0

SNR 5.7
 Int time 112.640
 Amp 0.216
 Phase 103.7
 PFD 5.5e-01
 Delays (us)
 SBD -0.937723
 MBD -0.001036
 Fringe rate (Hz)
 0.472428
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

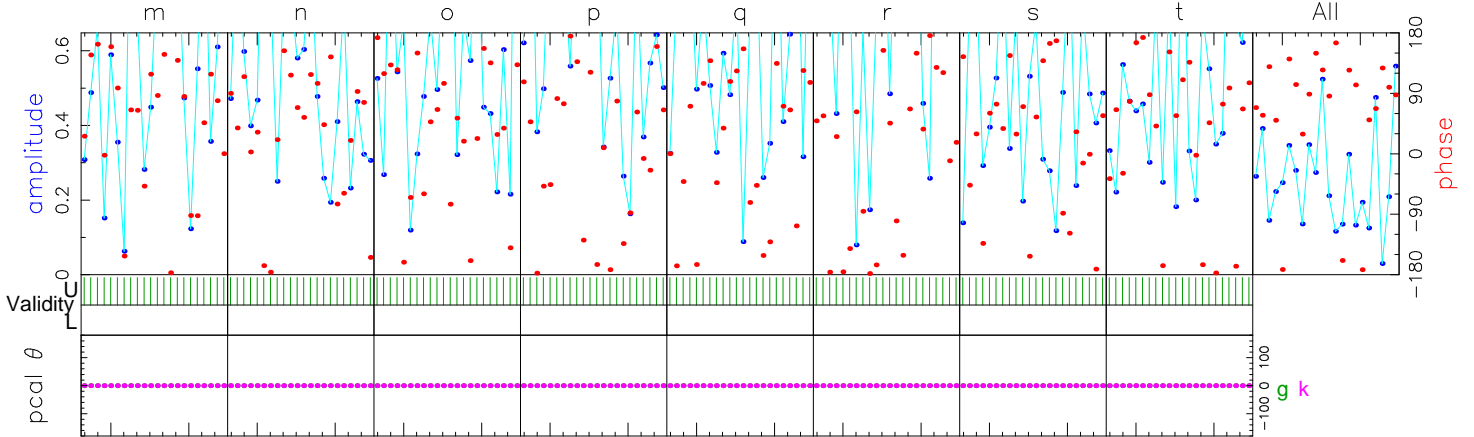


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113018
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
g	0	0	0	0	0	0	0	0		
k	0	0	0	0	0	0	0	0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.46883296123E+01	Apriori delay (usec)	6.56268653311E+01	Resid mbdelay (usec)	-1.03572E-03	+/-	1.9E-04
Sband delay (usec)	6.46891425811E+01	Apriori clock (usec)	3.1093597E-01	Resid sbdelay (usec)	-9.37723E-01	+/-	1.5E-03
Phase delay (usec)	6.56268686746E+01	Apriori clockrate (us/s)	-7.2245161E-08	Resid phdelay (usec)	3.34345E-06	+/-	6.5E-07
Delay rate (us/s)	-5.17887825850E-01	Apriori rate (us/s)	-5.17893310273E-01	Resid rate (us/s)	5.48442E-06	+/-	1.0E-08
Total phase (deg)	168.3	Apriori accel (us/s/s)	3.68603877952E-05	Resid phase (deg)	103.7	+/-	20.2

ph/seg (deg)	RMS 47.6	Theor. 47.3	Amplitude Search (512X32)	0.216 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	76.4	82.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	32.6	28.5	Inc. seg. avg.	0.213	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.4	49.8	Inc. frq. avg.	0.208	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
g: az 194.0 el 61.2 pa 4.9	k: az 47.5 el 60.5 pa -111.0		u,v (fr/asec) 4454.537 5827.609		simultaneous interpolator				
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/gk..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/gk.W.141.3MP1AB						

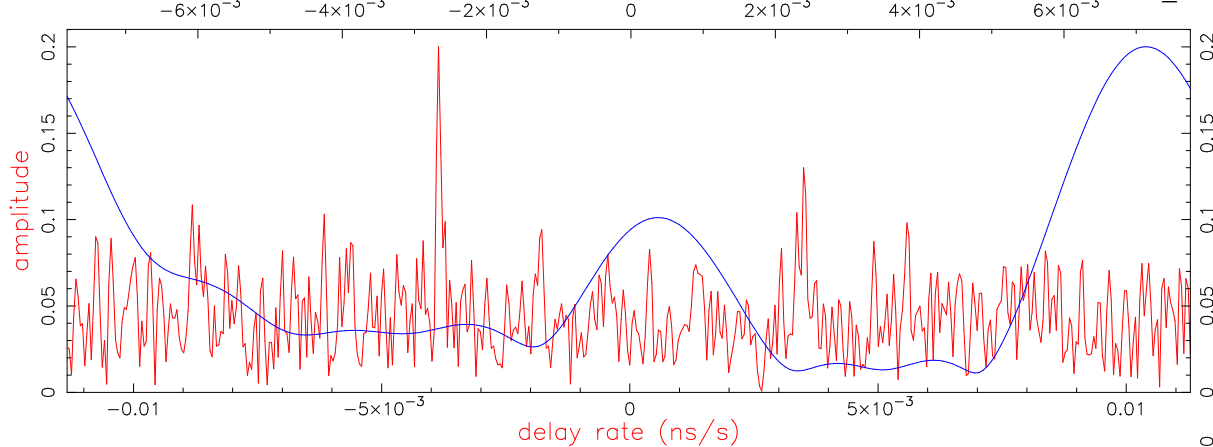
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, gk

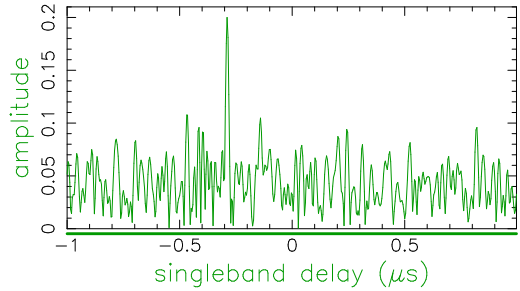
GLT - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)

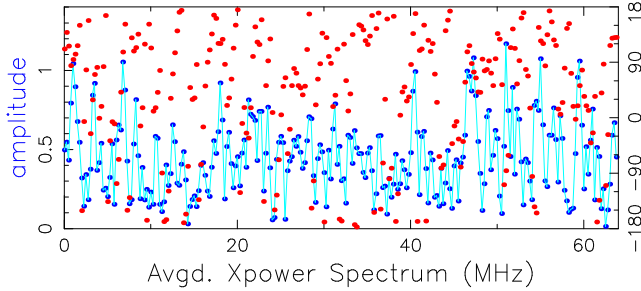


Fringe quality 0

SNR 5.8
 Int time 112.640
 Amp 0.210
 Phase -70.4
 PFD 3.2e-01
 Delays (us)
 SBD -0.288822
 MBD 0.007140
 Fringe rate (Hz)
 -0.332590
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

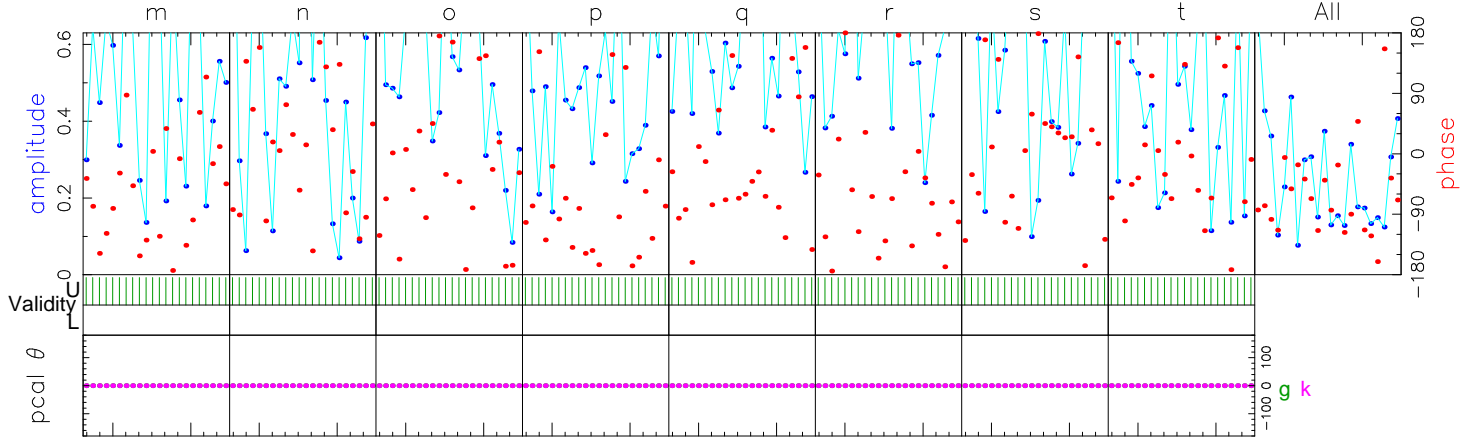


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113020
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-60.3	-9.8	-69.7	-105.2	-57.5	-90.4	-24.8	-68.1	Phase	-70.4
	0.2	0.1	0.2	0.3	0.3	0.4	0.2	0.2	Ampl.	0.2
	362.2	261.3	204.1	297.1	191.7	183.6	395.6	467.0	Sbd box	183.1
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.53371303957E+01	Apriori delay (usec)	6.56268653311E+01	Resid mbdelay (usec)	7.14006E-03	+/-	1.9E-04
Sband delay (usec)	6.53380430811E+01	Apriori clock (usec)	0.195	Resid sbdelay (usec)	-2.88822E-01	+/-	1.5E-03
Phase delay (usec)	6.56268630623E+01	Apriori clockrate (us/s)	-7.2245161E-08	Resid phdelay (usec)	-2.26886E-06	+/-	6.4E-07
Delay rate (us/s)	-5.17897171308E-01	Apriori rate (us/s)	-5.17893310273E-01	Resid rate (us/s)	-3.86104E-06	+/-	9.8E-09
Total phase (deg)	-5.7	Apriori accel (us/s/s)	3.68603877952E-05	Resid phase (deg)	-70.4	+/-	19.7

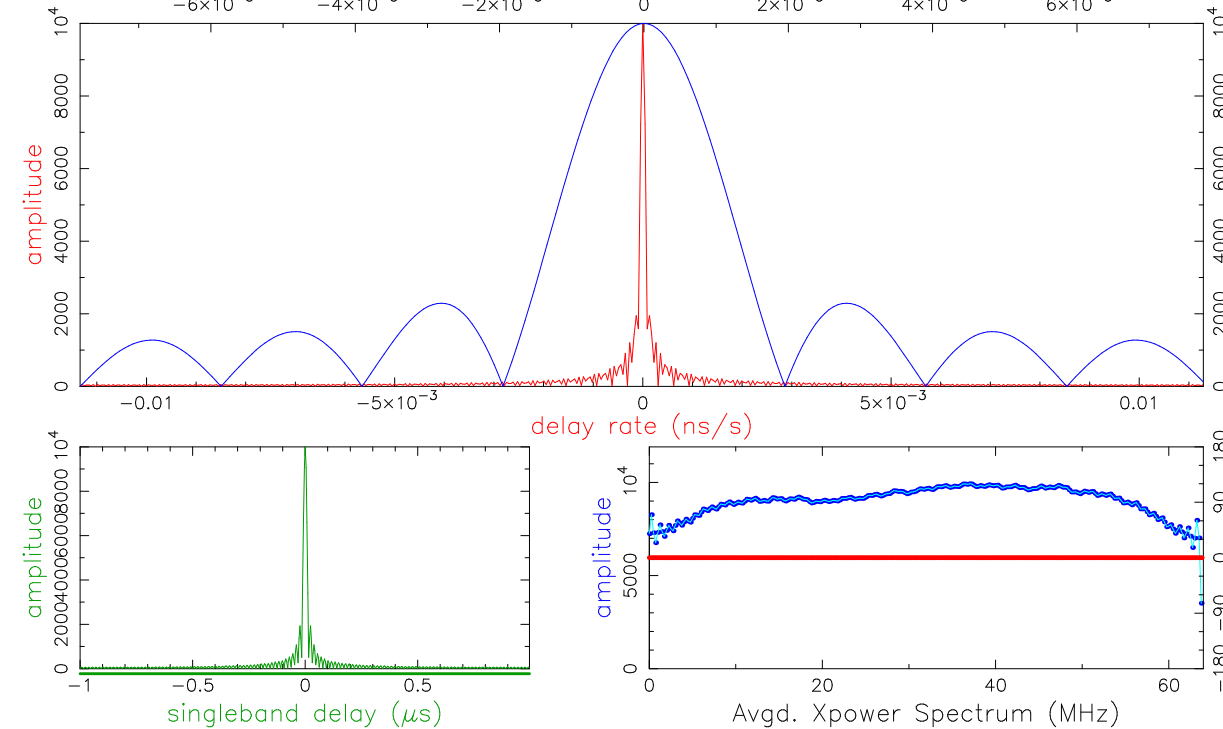
ph/seg (deg)	54.6	Theor.	46.2	Amplitude	0.210 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	81.1	Search (512X32)	0.195	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.6	Inc. seg. avg.	0.206	Inc. frq. avg.	0.209	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.5	Inc. frq. avg.	0.209			Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
g: az 194.0 el 61.2 pa 4.9		k: az 47.5 el 60.5 pa -111.0		u, v (fr/asec)	4454.537 5827.609	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/No0916/gk..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/gk.W.149.3MP1AB		simultaneous interpolator				

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kk

VLBA_KP - VLBA_KP, fgroup W, pol LL

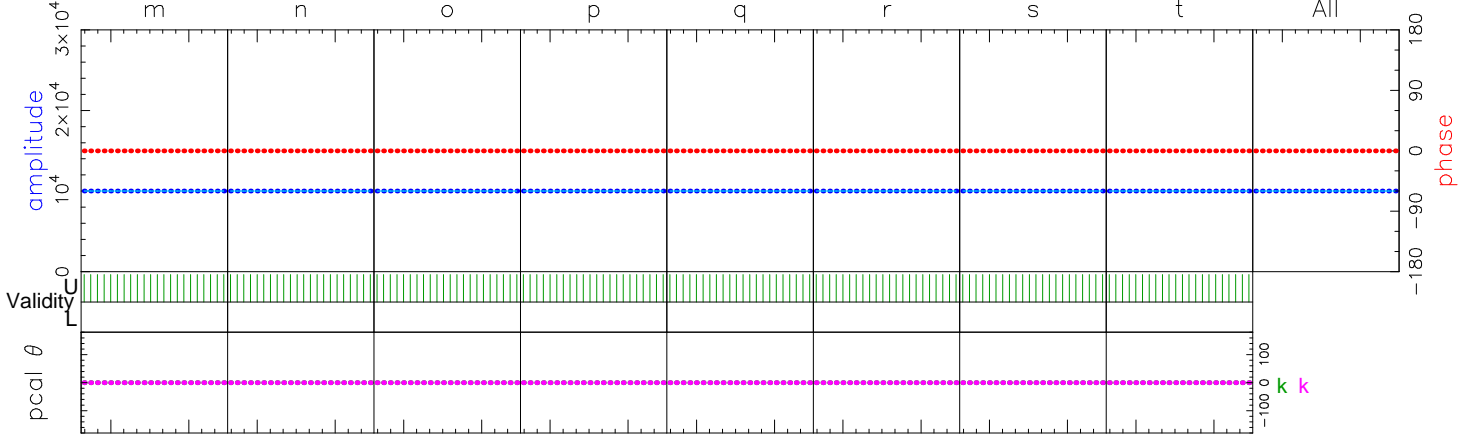


Fringe quality 9

SNR 290231.1
 Int time 112.640
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113019
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
k	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 +/- 3.7E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 3.0E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 1.3E-11
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.0E-13
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

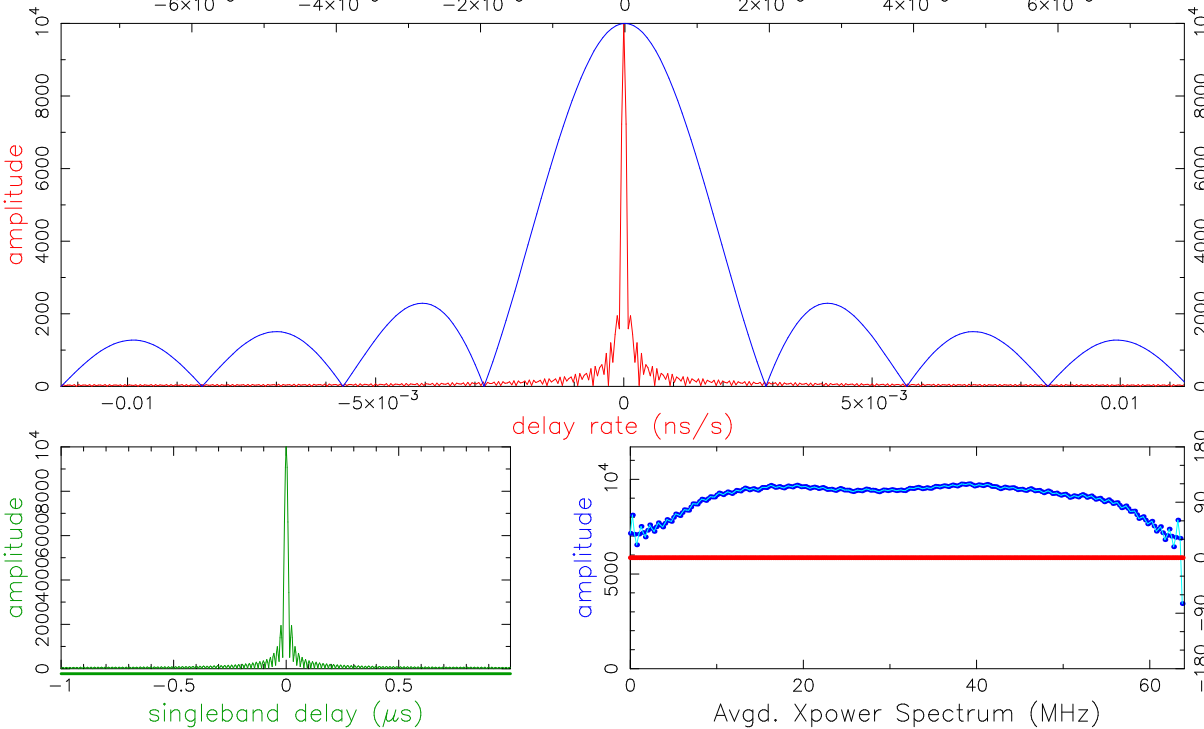
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (512X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 k: az 47.5 el 60.5 pa -111.0 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/No0916/kk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kk.W.143.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kk

VLBA_KP - VLBA_KP, fgroup W, pol RR

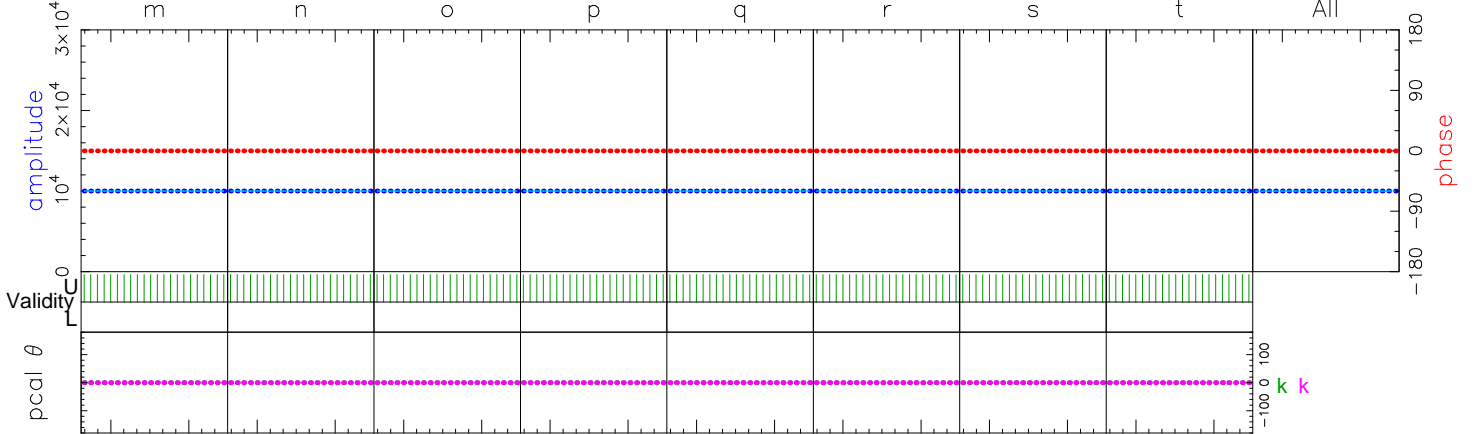


Fringe quality 9

SNR 290231.1
 Int time 112.640
 Amp 10000.000
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113020
 2024:113:095956
 RA & Dec (J2000) 01h36m58.594803s +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	10000.0	10000.0
k	0	0	0	0	0	0	0	0	Ampl.	10000.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC phase	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.7E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	3.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.3E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.0E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

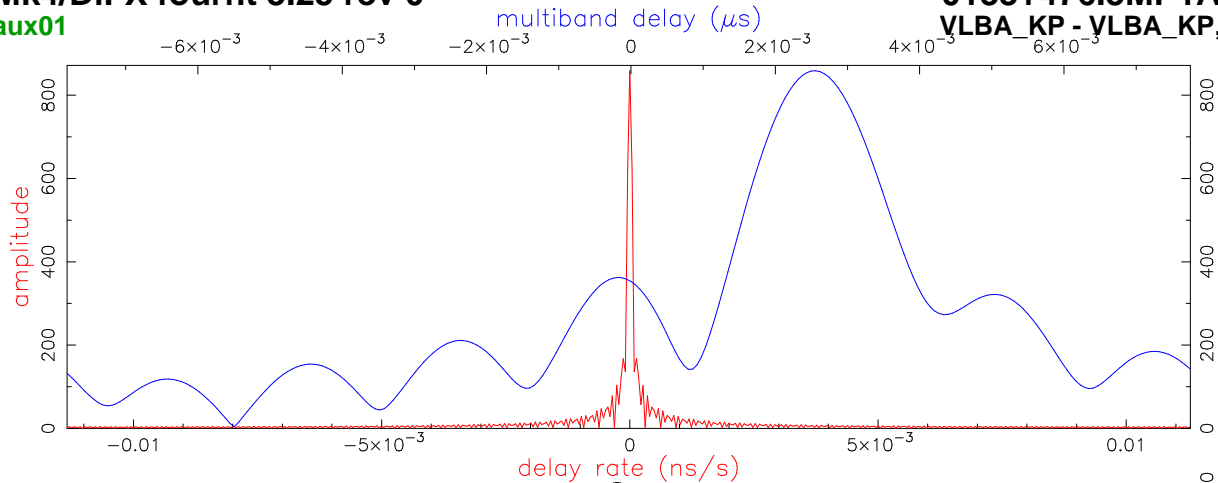
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (512X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 k: az 47.5 el 60.5 pa -111.0 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/No0916/kk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kk.W.150.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

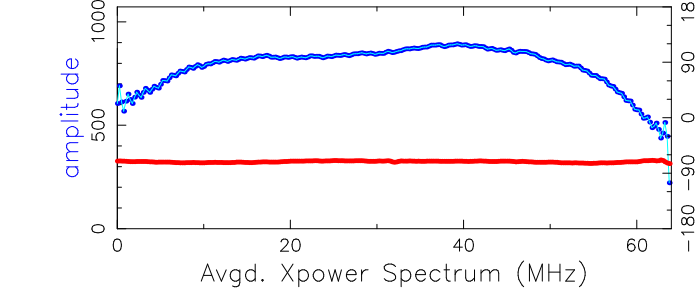
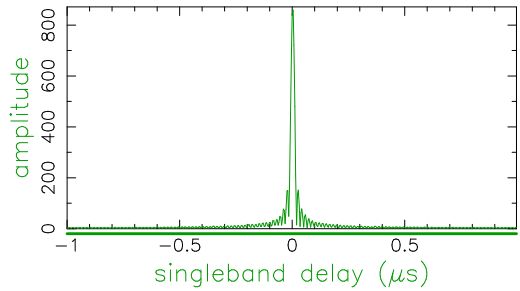
0133+476.3MP1AB, No0916, kk

VLBA_KP - VLBA_KP, fgroup W, pol LR



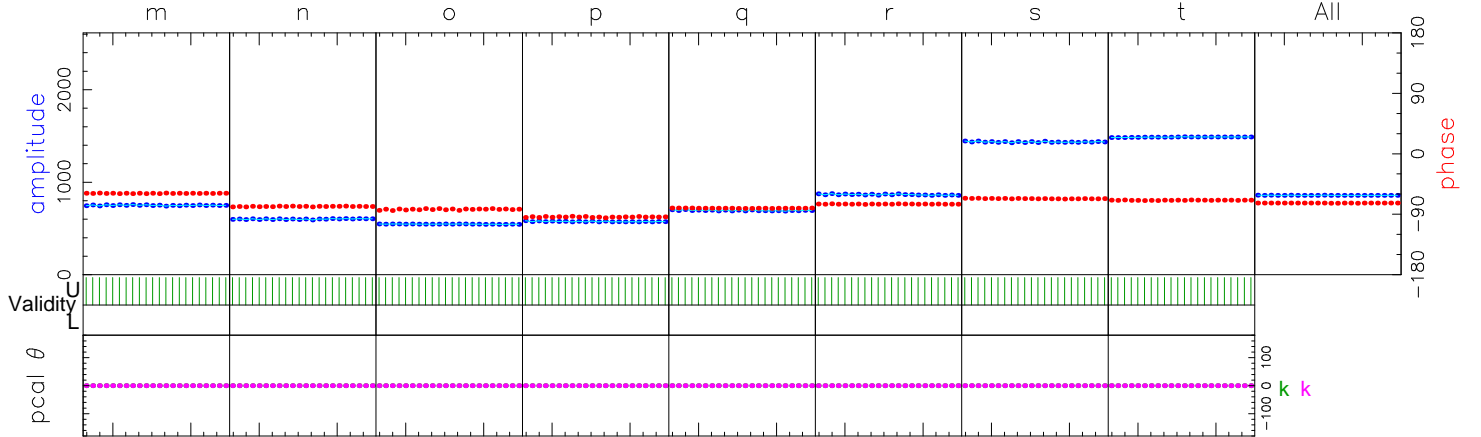
Fringe quality 6

SNR 25299.9
 Int time 112.640
 Amp 871.715
 Phase -73.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.002314
 MBD 0.002517
 Fringe rate (Hz) 0.000003
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113021
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-58.9	-78.4	-82.7	-94.1	-81.0	-74.9	-66.8	-69.2	Phase	-73.4
	750.7	601.8	546.9	575.6	694.8	866.2	1435.7	1487.4	Ampl.	869.9
	257.5	257.2	257.8	257.6	257.9	257.7	257.6	257.4	Sbd box	257.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	2.517281250000E-03	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	2.51728E-03	+/-	4.3E-08
Sband delay (usec)	2.314250000000E-03	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	2.31425E-03	+/-	3.4E-07
Phase delay (usec)	-2.36545251883E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	-2.36545E-06	+/-	1.5E-10
Delay rate (us/s)	3.68449962184E-11	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	3.68450E-11	+/-	2.2E-12
Total phase (deg)	-73.4	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	-73.4	+/-	0.0

ph/seg (deg)	0.1	Theor.	Amplitude	871.714 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	1.5	0.0	Search (512X32)	854.667	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	12.1	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	40.7	0.0	Inc. seg. avg.	858.567	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
			Inc. frq. avg.	869.876	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
k: az 47.5 el 60.5 pa -111.0						ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva						simultaneous interpolator

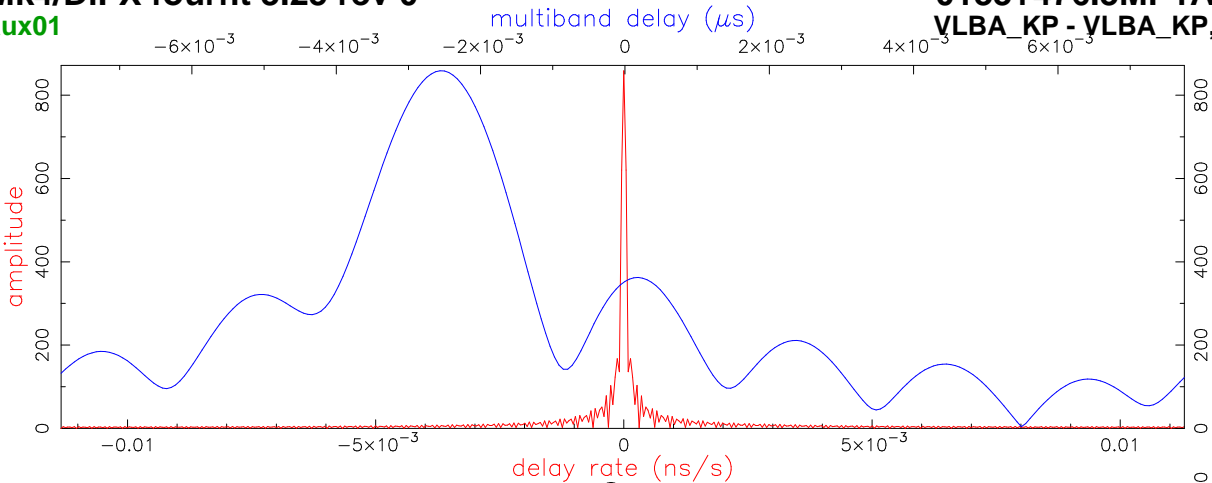
Input file: /Exps/c241a/v2/3mm/1234/No0916/kk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kk.W.154.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

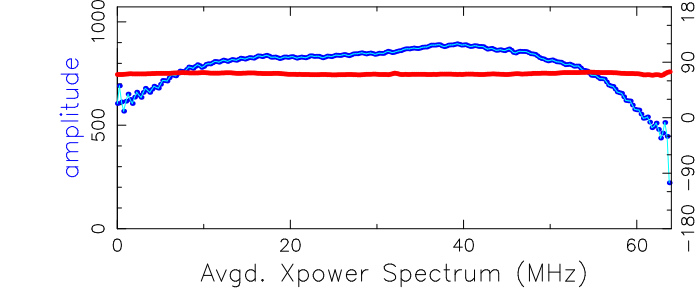
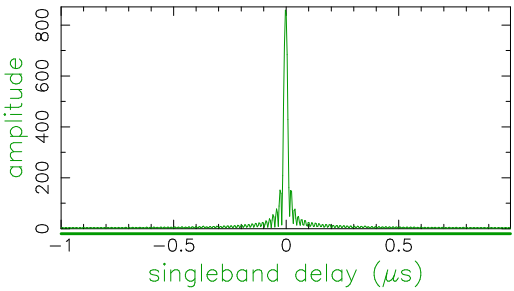
0133+476.3MP1AB, No0916, kk

VLBA_KP - VLBA_KP, fgroup W, pol RL



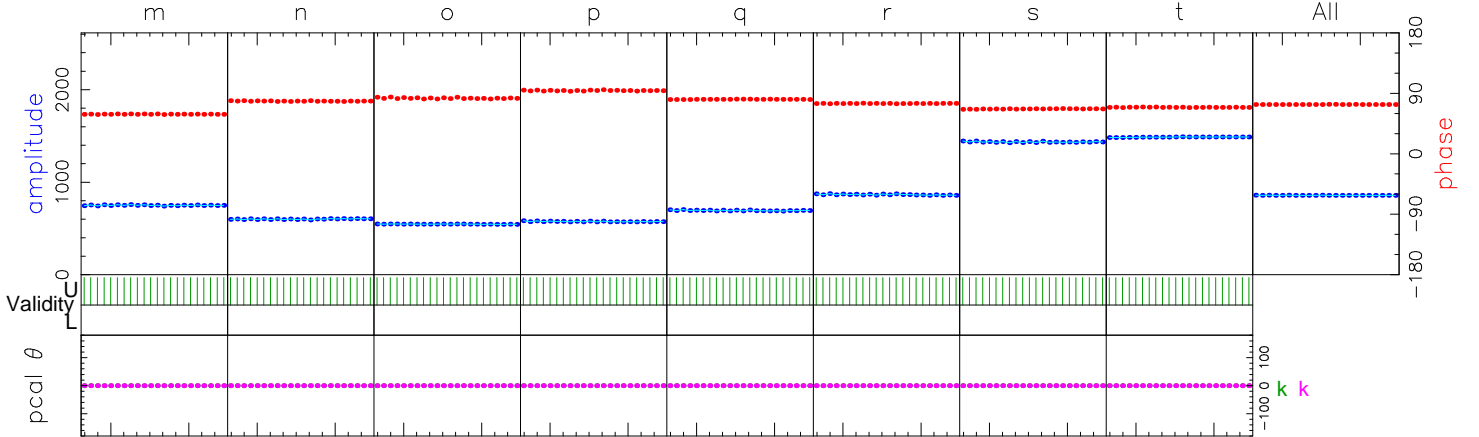
Fringe quality 6

SNR 25299.9
 Int time 112.640
 Amp 871.715
 Phase 73.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.002314
 MBD -0.002517
 Fringe rate (Hz)
 -0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Yr:day 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113022
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	869.9
k	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	256.4
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	APs used	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC freqs	

Group delay (usec) (SBD) -2.51728125000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -2.51728E-03 +/- 4.3E-08
 Sband delay (usec) -2.31425000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -2.31425E-03 +/- 3.4E-07
 Phase delay (usec) 2.36545251883E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 2.36545E-06 +/- 1.5E-10
 Delay rate (us/s) -3.68449962184E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -3.68450E-11 +/- 2.2E-12
 Total phase (deg) 73.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 73.4 +/- 0.0

RMS Theor. Amplitude 871.714 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (512X32) 854.667 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.5 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.1 0.0 Inc. seg. avg. 858.567 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.7 0.0 Inc. frq. avg. 869.876 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

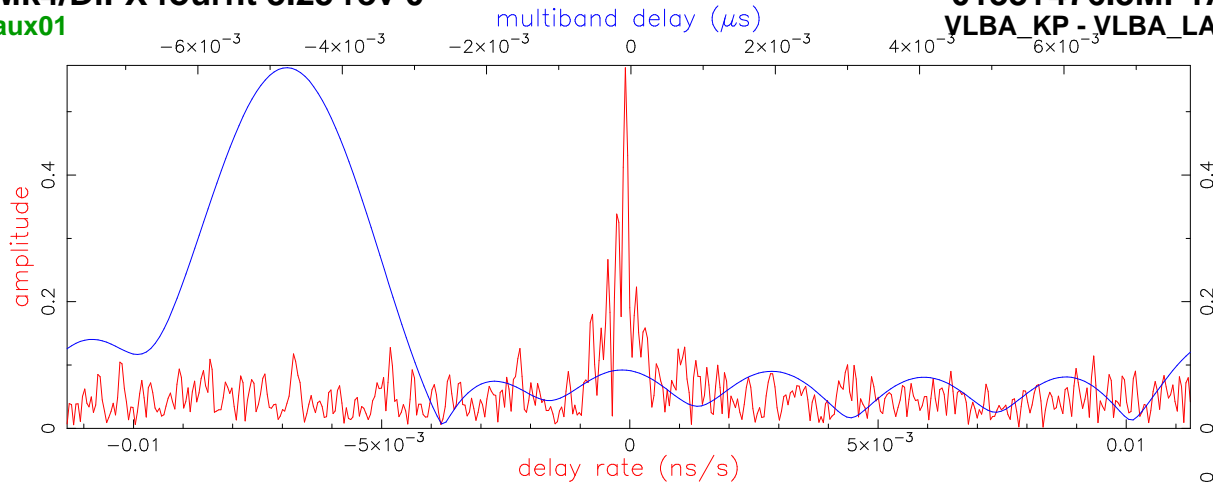
k: az 47.5 el 60.5 pa -111.0 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kk.W.158.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

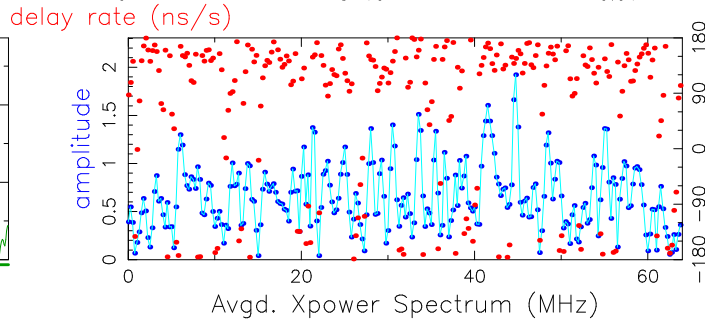
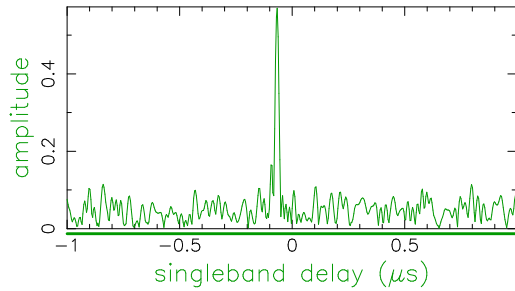
0133+476.3MP1AB, No0916, kl

VLBA_KP - VLBA_LA, fgroup W, pol LL



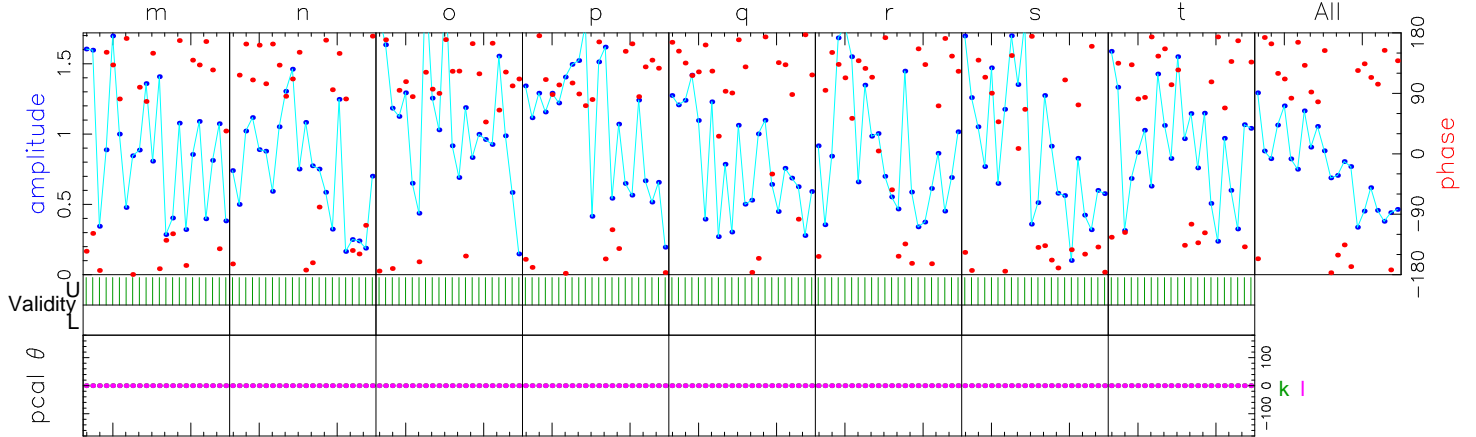
Fringe quality 9

SNR 16.6
 Int time 112.640
 Amp 0.573
 Phase 146.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.067465
 MBD -0.004790
 Fringe rate (Hz)
 -0.009413
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113023
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-9.57596554961E+02	Apriori delay (usec)	-9.57529265106E+02	Resid mbdelay (usec)	-4.78985E-03	+/-	6.5E-05
Sband delay (usec)	-9.57596729606E+02	Apriori clock (usec)	8.4612713E+00	Resid sbdelay (usec)	-6.74645E-02	+/-	5.2E-04
Phase delay (usec)	-9.57529260394E+02	Apriori clockrate (us/s)	3.8620713E-07	Resid phdelay (usec)	4.71135E-06	+/-	2.2E-07
Delay rate (us/s)	8.91963080923E-02	Apriori rate (us/s)	8.91964173689E-02	Resid rate (us/s)	-1.09277E-07	+/-	3.4E-09
Total phase (deg)	-176.5	Apriori accel (us/s/s)	5.00972771992E-07	Resid phase (deg)	146.1	+/-	6.9

ph/seg (deg)	41.3	RMS	16.2	Theor.	16.2	Amplitude	0.573 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	58.4		28.2		28.2	Search (512X32)	0.532	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	11.7		9.7		9.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	19.6		17.0		17.0	Inc. seg. avg.	0.742	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.570	Data rate(Mb/s):	2048	t_cohere	infinite			

k: az 47.5 el 60.5 pa -111.0 l: az 50.4 el 66.3 pa -111.1 u,v (fr/asec) -762.329 -281.210 simultaneous interpolator

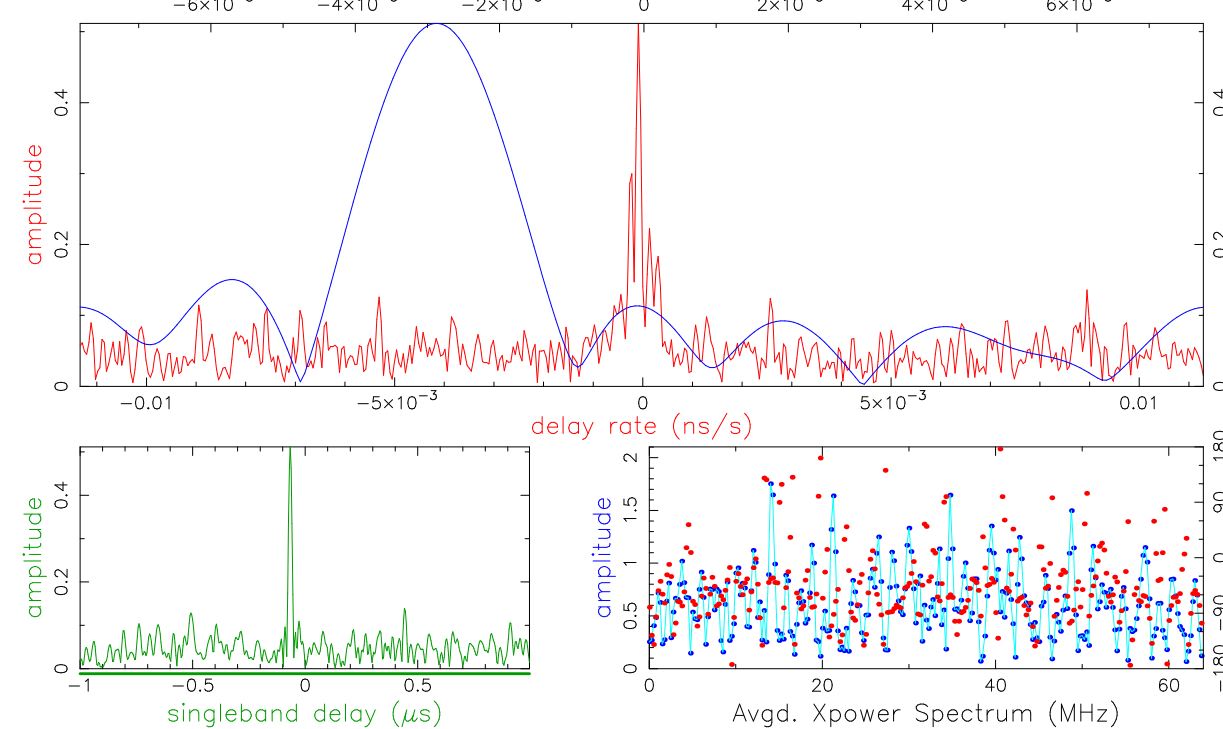
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kl..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kl.W.160.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kl

VLBA_KP - VLBA_LA, fgroup W, pol RR

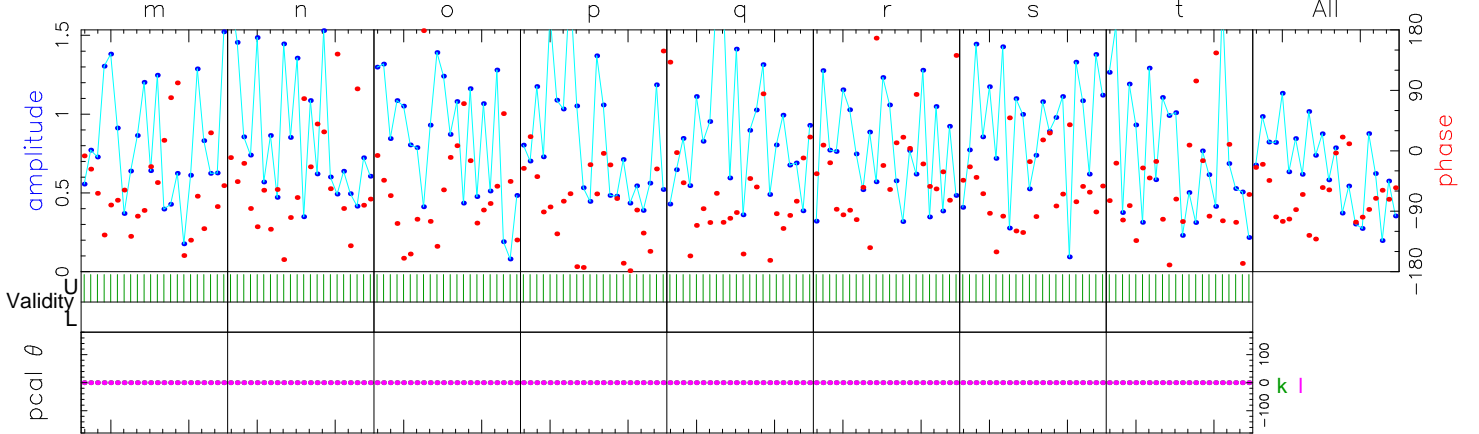


Fringe quality 9

SNR 14.9
 Int time 112.640
 Amp 0.512
 Phase -69.8
 PFD 1.1e-41
 Delays (us)
 SBD -0.066445
 MBD -0.002874
 Fringe rate (Hz)
 -0.008855
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113024
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	
	-70.9	-61.1	-73.5	-74.9	-83.1	-48.4	-68.0	-75.6	Phase	-69.8	
	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.5	Ampl.	0.5	
	240.0	240.4	240.0	240.4	239.8	240.3	239.6	239.5	Sbd box	240.0	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used		
k	0	0	0	0	0	0	0	0	PC freqs		
l	0	0	0	0	0	0	0	0	PC freqs		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
l	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	-9.57594639336E+02		Apriori delay (usec)		-9.57529265106E+02		Resid mbdelay (usec)		-2.87423E-03	+/- 7.3E-05	
Sband delay (usec)	-9.57595710106E+02		Apriori clock (usec)		8.4612713E+00		Resid sbdelay (usec)		-6.64450E-02	+/- 5.8E-04	
Phase delay (usec)	-9.57529267356E+02		Apriori clockrate (us/s)		3.8620713E-07		Resid phdelay (usec)		-2.25082E-06	+/- 2.5E-07	
Delay rate (us/s)	8.91963145713E-02		Apriori rate (us/s)		8.91964173689E-02		Resid rate (us/s)		-1.02798E-07	+/- 3.8E-09	
Total phase (deg)			Apriori accel (us/s/s)		5.00972771992E-07		Resid phase (deg)		-69.8	+/- 7.7	
	RMS	Theor.	Amplitude	0.512 +/- 0.034		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	41.4	18.1	Search (512X32)	0.495		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	57.1	31.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	11.5	10.9	Inc. seg. avg.	0.635		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	13.4	19.0	Inc. frq. avg.	0.510		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
k: az 47.5 el 60.5 pa -111.0			l: az 50.4 el 66.3 pa -111.1			u, v (fr/asec) -762.329 -281.210			simultaneous interpolator		
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916/kl..3MP1AB			Output file: /Exps/c241a/v2/3mm/1234/No0916/kl.W.162.3MP1AB					

Mk4/DiFX fourfit 3.25 rev 0

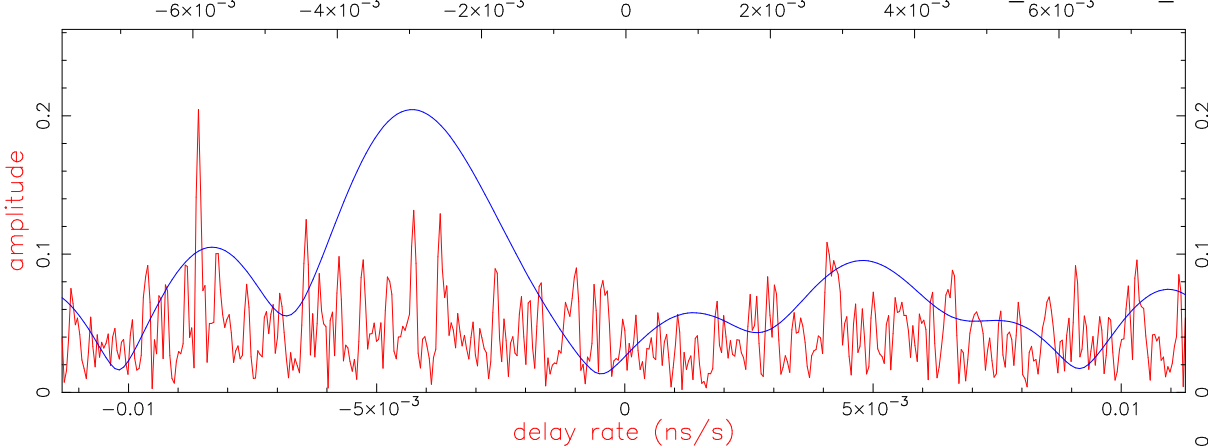
aux01

0133+476.3MP1AB, No0916, kl

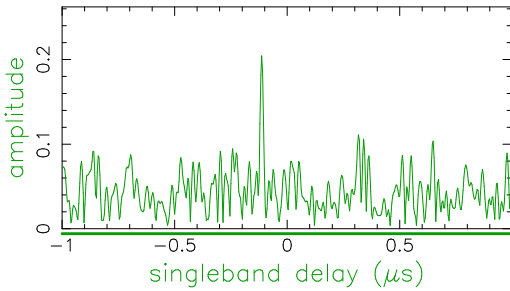
VLBA_KP - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

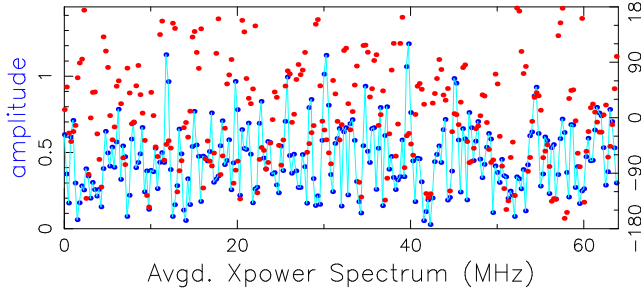
Fringe quality 0



SNR 5.9
 Int time 112.640
 Amp 0.262
 Phase 166.0
 PFD 1.7e-01
 Delays (us)
 SBD -0.113124
 MBD -0.002961
 Fringe rate (Hz)
 -0.741498
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

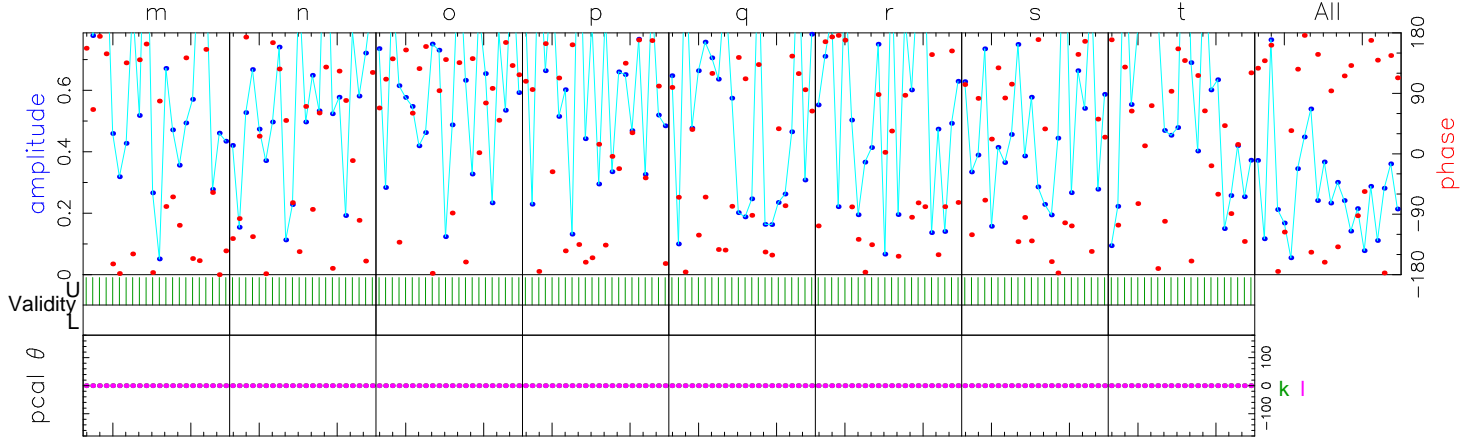


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113026
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-9.57641601525E+02	Apriori delay (usec)	-9.57529265106E+02	Resid mbdelay (usec)	-2.96142E-03	+/-	1.8E-04
Sband delay (usec)	-9.57642389606E+02	Apriori clock (usec)	8.4612713E+00	Resid sbdelay (usec)	-1.13124E-01	+/-	1.5E-03
Phase delay (usec)	-9.57529259753E+02	Apriori clockrate (us/s)	3.8620713E-07	Resid phdelay (usec)	5.35224E-06	+/-	6.2E-07
Delay rate (us/s)	8.91878093092E-02	Apriori rate (us/s)	8.91964173689E-02	Resid rate (us/s)	-8.60806E-06	+/-	9.6E-09
Total phase (deg)	-156.7	Apriori accel (us/s/s)	5.00972771992E-07	Resid phase (deg)	166.0	+/-	19.3

ph/seg (deg)	59.1	Theor.	45.3	Amplitude	0.262 +/- 0.044	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.3		79.0	Search (512X32)	0.193	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	38.2		27.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.9		47.7	Inc. seg. avg.	0.271	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.272	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 47.5 el 60.5 pa -111.0 l: az 50.4 el 66.3 pa -111.1 u,v (fr/asec) -762.329 -281.210 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kl..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kl.W.163.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

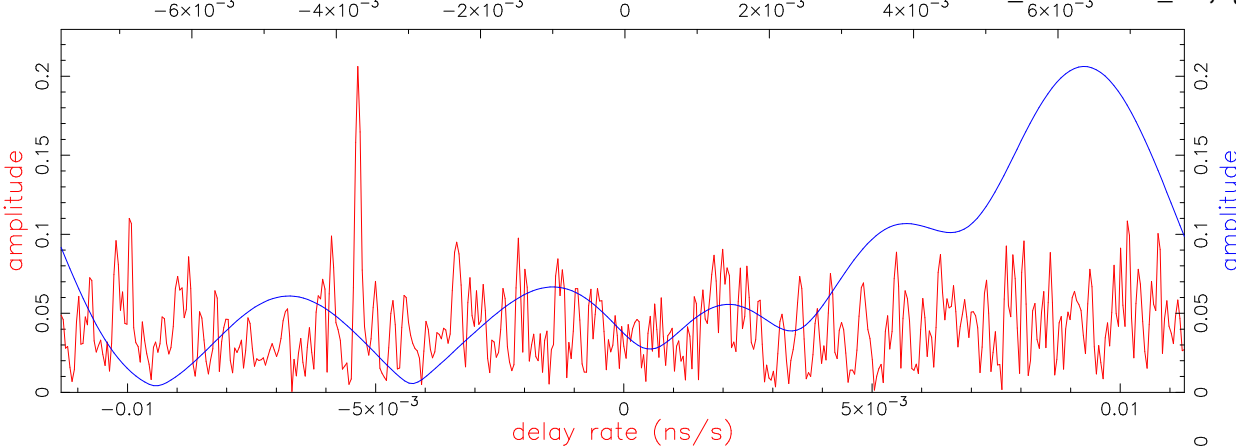
aux01

0133+476.3MP1AB, No0916, kl

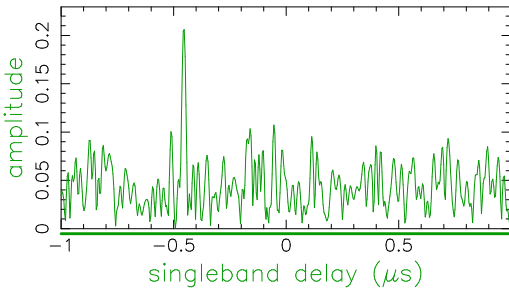
VLBA_KP - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)

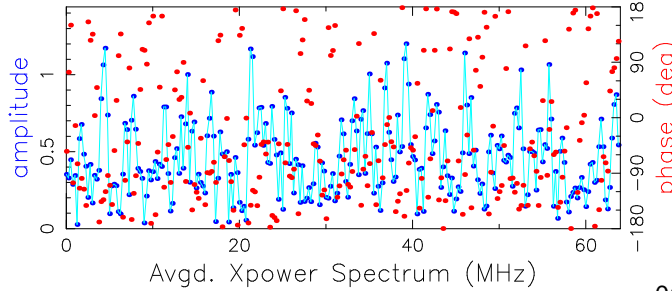
Fringe quality 0



SNR 6.1
 Int time 112.640
 Amp 0.230
 Phase -17.5
 PFD 8.1e-02
 Delays (us)
 SBD -0.454854
 MBD 0.006332
 Fringe rate (Hz)
 -0.460888
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

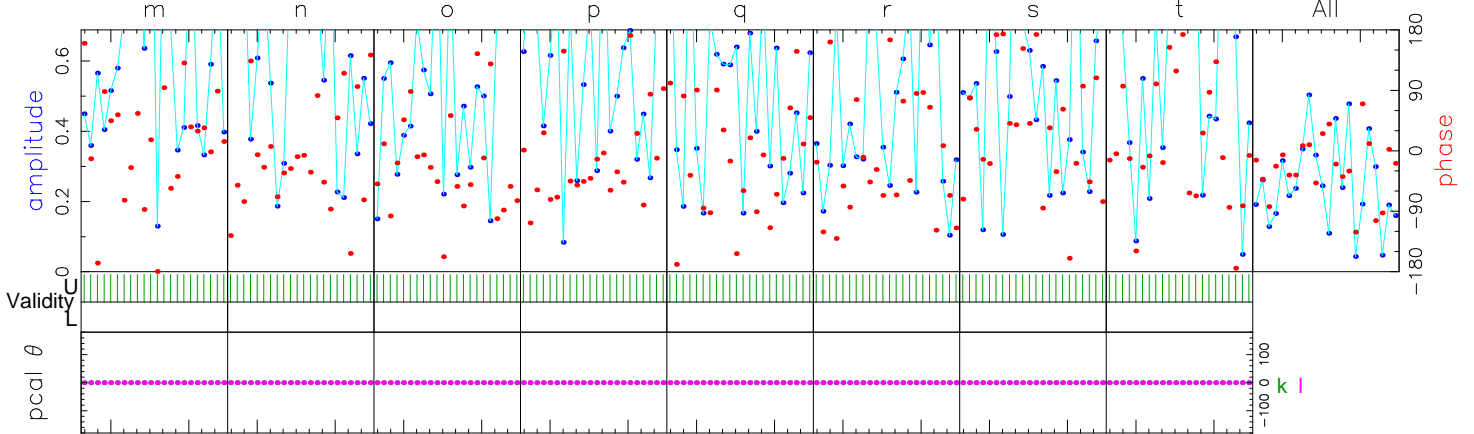


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113027
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
l	0	0	0	0	0	0	0	0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-9.57991682761E+02	Apriori delay (usec)	-9.57529265106E+02	Resid mbdelay (usec)	6.33234E-03	+/-	1.8E-04
Sband delay (usec)	-9.57984119356E+02	Apriori clock (usec)	8.4612713E+00	Resid sbdelay (usec)	-4.54854E-01	+/-	1.4E-03
Phase delay (usec)	-9.57529265669E+02	Apriori clockrate (us/s)	3.8620713E-07	Resid phdelay (usec)	-5.63565E-07	+/-	6.1E-07
Delay rate (us/s)	8.91910669114E-02	Apriori rate (us/s)	8.91964173689E-02	Resid rate (us/s)	-5.35046E-06	+/-	9.4E-09
Total phase (deg)	-340.1	Apriori accel (us/s/s)	5.00972771992E-07	Resid phase (deg)	-17.5	+/-	18.9

ph/seg (deg)	45.9	RMS	44.3	Theor.	44.3	Amplitude	0.230 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	63.3	Search (512X32)	0.200	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	32.4	Inc. seg. avg.	0.213	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	45.7	Inc. frq. avg.	0.232	u, v (fr/asec)	-762.329 -281.210	simultaneous interpolator						

k: az 47.5 el 60.5 pa -111.0

l: az 50.4 el 66.3 pa -111.1

u, v (fr/asec) -762.329 -281.210

simultaneous interpolator

Control file: cf_1234_gmva

Input file: /Exps/c241a/v2/3mm/1234/No0916/kl..3MP1AB

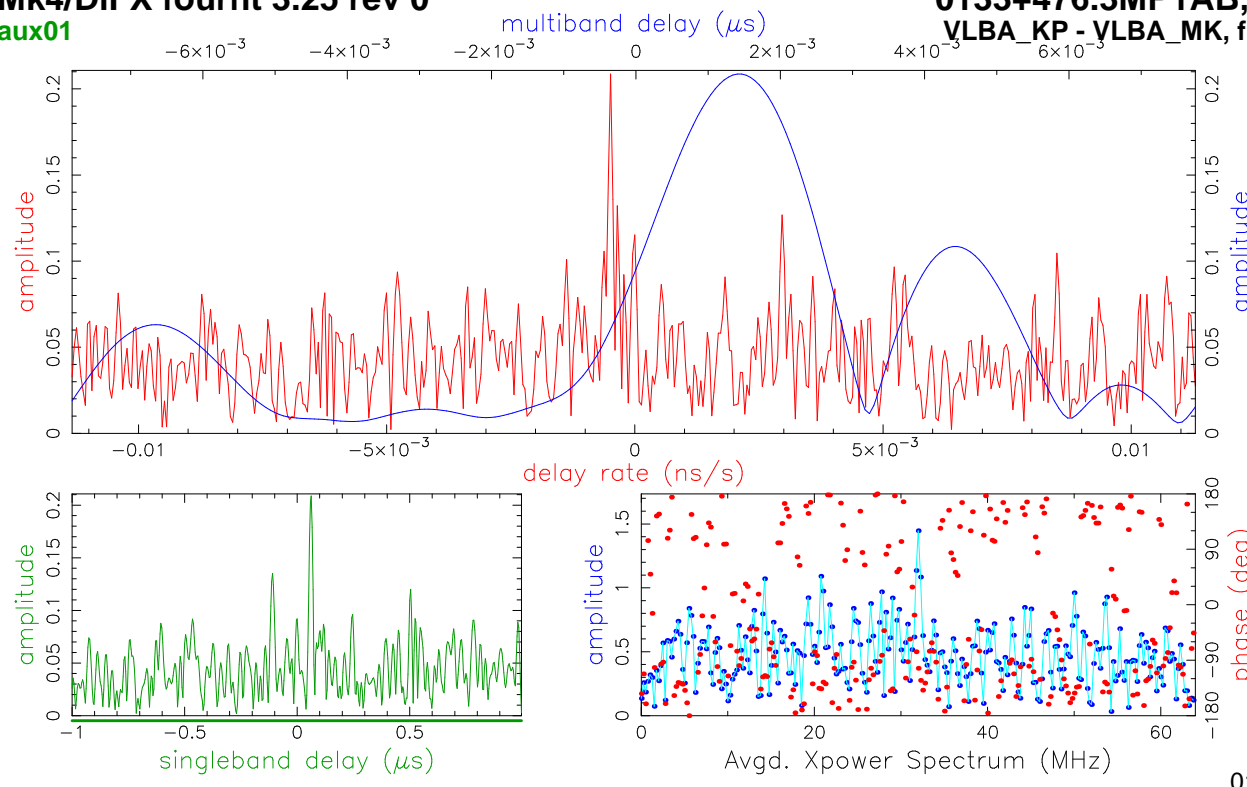
Output file: /Exps/c241a/v2/3mm/1234/No0916/kl.W.169.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, km

VLBA_KP - VLBA_MK, fgroup W, pol LL

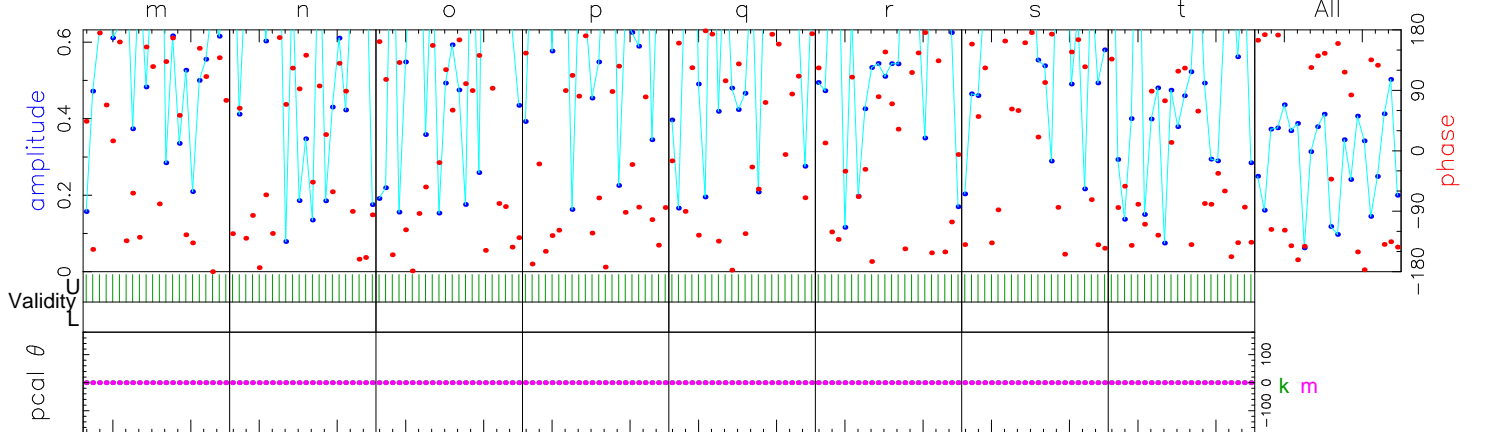


Fringe quality 0

SNR 6.1
 Int time 112.640
 Amp 0.211
 Phase -175.1
 PFD 6.3e-02
 Delays (us)
 SBD 0.061223
 MBD 0.001405
 Fringe rate (Hz)
 -0.041873
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113026
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	173.0	-157.4	-171.8	-152.5	146.8	170.9	176.7	-119.1	Phase	-175.1
	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	Ampl.	0.2
	384.6	271.5	428.8	510.3	204.8	75.0	257.8	311.4	Sbd box	272.7
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 1.00321793155E+04 Apriori delay (usec) 1.00321154108E+04 Resid mbdelay (usec) 1.40470E-03 +/- 1.8E-04
 Sband delay (usec) 1.00321766343E+04 Apriori clock (usec) -3.8869476E-01 Resid sbdelay (usec) 6.12235E-02 +/- 1.4E-03
 Phase delay (usec) 1.00321154052E+04 Apriori clockrate (us/s) 1.6670606E-07 Resid phdelay (usec) -5.64641E-06 +/- 6.0E-07
 Delay rate (us/s) -4.76403513296E-01 Apriori rate (us/s) -4.76403027188E-01 Resid rate (us/s) -4.86107E-07 +/- 9.3E-09
 Total phase (deg) 0.5 Apriori accel (us/s/s) -3.74157445434E-05 Resid phase (deg) -175.1 +/- 18.8

ph/seg (deg) 52.4 44.0 Search (512X32) 0.208 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.2 76.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.1 26.5 Inc. seg. avg. 0.231 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.4 46.3 Inc. frq. avg. 0.207 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 m: az 45.2 el 23.3 pa -86.1 u,v (fr/asec) 4046.940 -2150.926 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/km..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/km.W.164.3MP1AB simultaneous interpolator

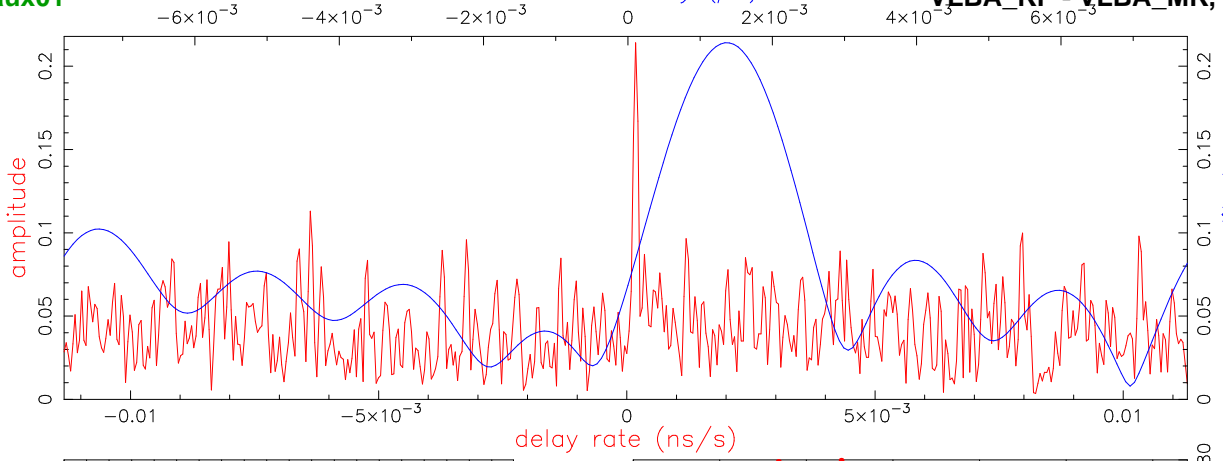
Mk4/DiFX fourfit 3.25 rev 0

aux01

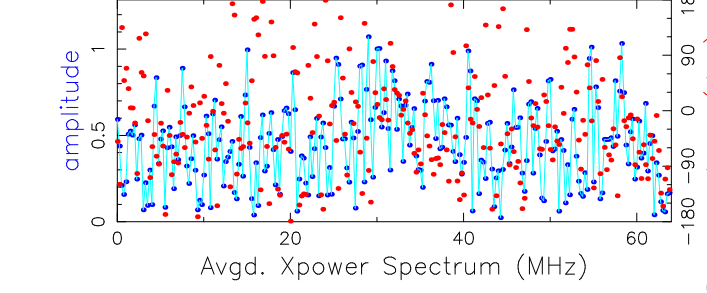
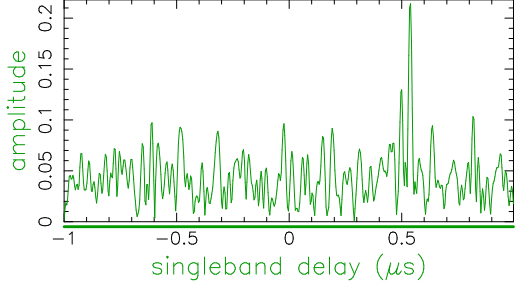
0133+476.3MP1AB, No0916, km

VLBA_KP - VLBA_MK, fgroup W, pol RR

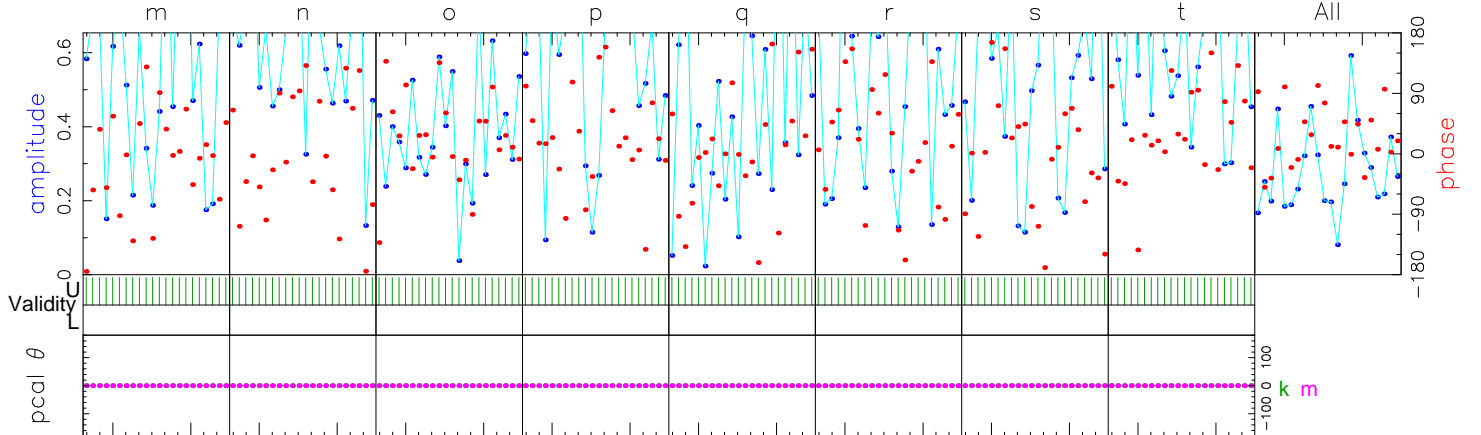
multiband delay (μ s)



Fringe quality 0
 SNR 6.3
 Int time 112.640
 Amp 0.218
 Phase 23.3
 PFD 1.7e-02
 Delays (us)
 SBD 0.537460
 MBD 0.001345
 Fringe rate (Hz) 0.015660
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113027
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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		
	16.7	16.3	33.6	35.2	-27.3	47.6	-28.3	36.1	Phase	23.3		
	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.3	Ampl.	0.2		
	393.6	156.6	35.7	394.2	427.9	399.2	58.0	395.6	Sbd box	394.6		
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used			
k	0	0	0	0	0	0	0	0	PC freqs			
m	0	0	0	0	0	0	0	0	PC freqs			
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
m	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec) (SBD)	1.00326480053E+04		Apriori delay (usec)		1.00321154108E+04		Resid mbdelay (usec)		1.34452E-03	+/- 1.7E-04		
Sband delay (usec)	1.00326528706E+04		Apriori clock (usec)		-3.8869476E-01		Resid sbdelay (usec)		5.37460E-01	+/- 1.4E-03		
Phase delay (usec)	1.00321154116E+04		Apriori clockrate (us/s)		1.6670606E-07		Resid phdelay (usec)		7.50288E-07	+/- 5.8E-07		
Delay rate (us/s)	-4.76402845387E-01		Apriori rate (us/s)		-4.76403027188E-01		Resid rate (us/s)		1.81802E-07	+/- 9.0E-09		
Total phase (deg)			198.9		Apriori accel (us/s/s)		-3.74157445434E-05		23.3	+/- 18.1		
	RMS	Theor.	Amplitude		0.218 +/- 0.034		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	44.9	42.5	Search (512X32)		0.211		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	60.4	74.2	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	32.4	25.6	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 (%)	40.8	44.7	Inc. frq. avg.		0.210		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00
k: az 47.5 el 60.5 pa -111.0			m: az 45.2 el 23.3 pa -86.1			u,v (fr/asec) 4046.940 -2150.926			simultaneous interpolator			
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916/km..3MP1AB			Output file: /Exps/c241a/v2/3mm/1234/No0916/km.W.168.3MP1AB						

Mk4/DiFX fourfit 3.25 rev 0

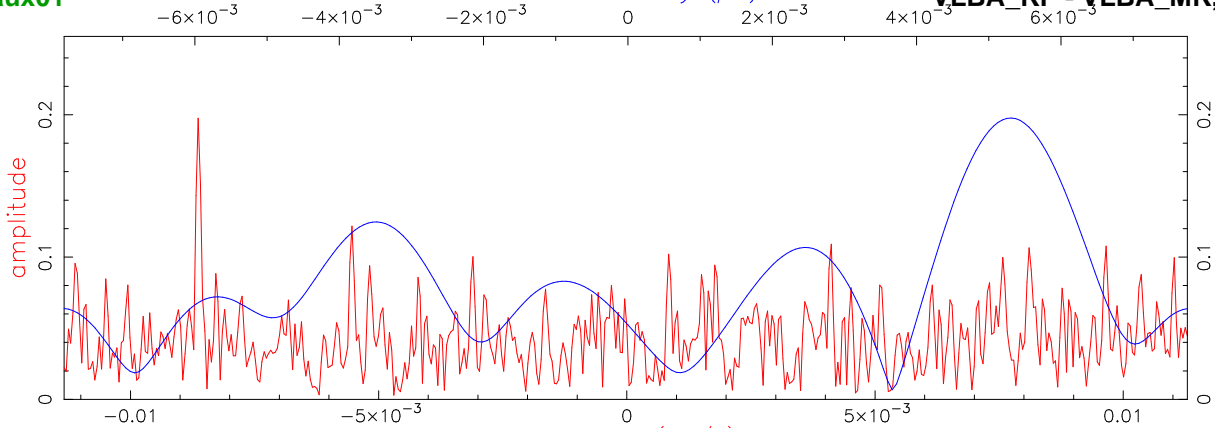
aux01

0133+476.3MP1AB, No0916, km

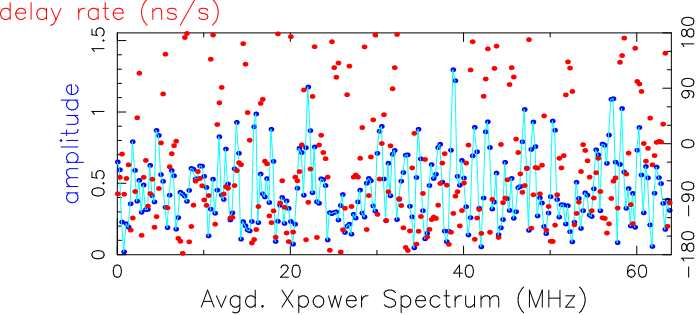
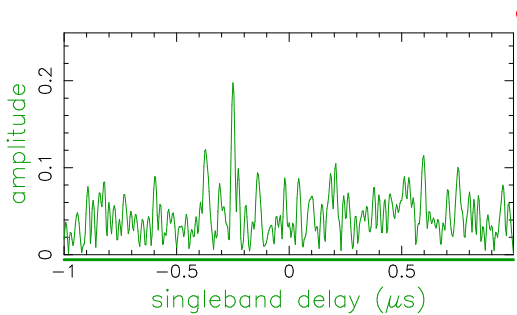
VLBA_KP - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

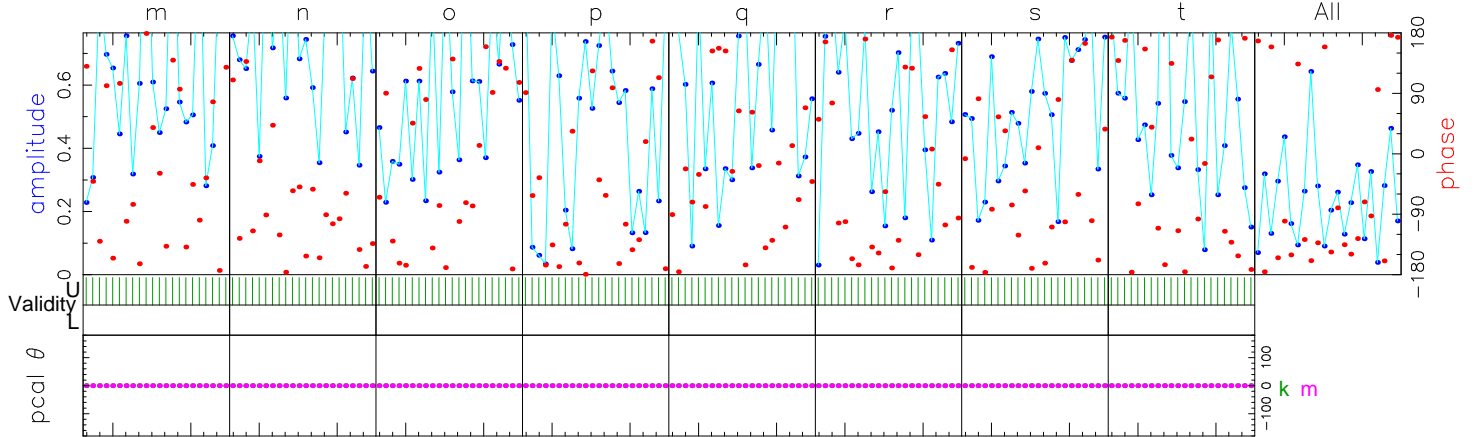


SNR 5.8
 Int time 112.640
 Amp 0.255
 Phase -145.7
 PFD 4.1e-01
 Delays (us)
 SBD -0.249171
 MBD 0.005335
 Fringe rate (Hz)
 -0.743625
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113028
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-172.9	-112.7	176.6	-165.0	-64.9	-153.3	-107.1	-172.4	Phase	-145.7
	0.3	0.5	0.3	0.3	0.2	0.3	0.2	0.4	Ampl.	0.3
	357.0	193.6	52.2	301.7	300.3	226.1	450.6	192.5	Sbd box	193.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.00318707462E+04 Apriori delay (usec) 1.00321154108E+04 Resid mbdelay (usec) 5.33540E-03 +/- 1.9E-04
 Sband delay (usec) 1.00318662393E+04 Apriori clock (usec) -3.8869476E-01 Resid sbdelay (usec) -2.49171E-01 +/- 1.5E-03
 Phase delay (usec) 1.00321154061E+04 Apriori clockrate (us/s) 1.6670606E-07 Resid phdelay (usec) -4.69937E-06 +/- 6.4E-07
 Delay rate (us/s) -4.76411659940E-01 Apriori rate (us/s) -4.76403027188E-01 Resid rate (us/s) -8.63275E-06 +/- 9.9E-09
 Total phase (deg) 29.9 Apriori accel (us/s/s) -3.74157445434E-05 Resid phase (deg) -145.7 +/- 19.9

ph/seg (deg) 47.2 46.7 Search (512X32) 0.195 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.4 81.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.5 28.1 Inc. seg. avg. 0.235 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.8 49.1 Inc. frq. avg. 0.280 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 47.5 el 60.5 pa -111.0 m: az 45.2 el 23.3 pa -86.1 u, v (fr/asec) 4046.940 -2150.926 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/km..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/km.W.173.3MP1AB

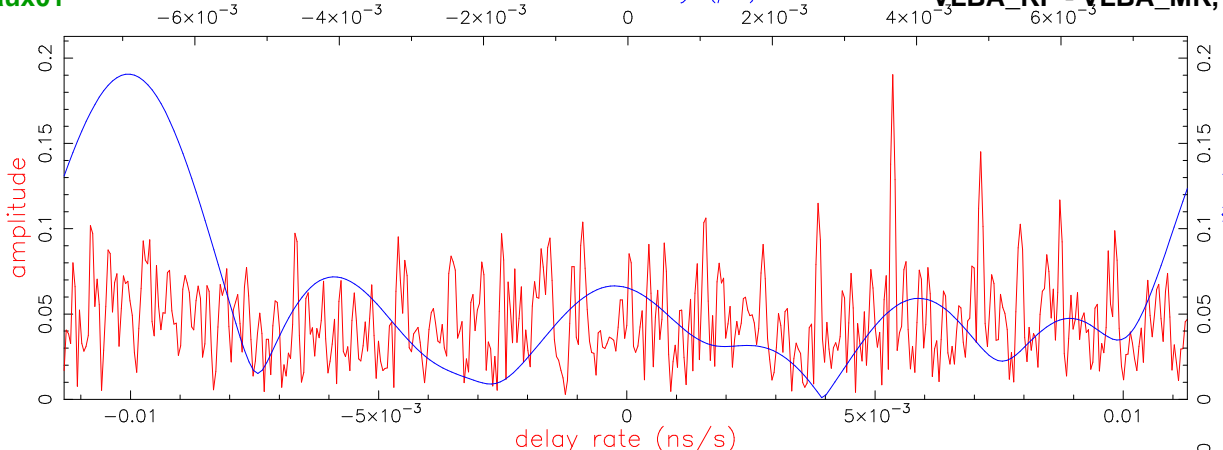
Mk4/DiFX fourfit 3.25 rev 0

aux01

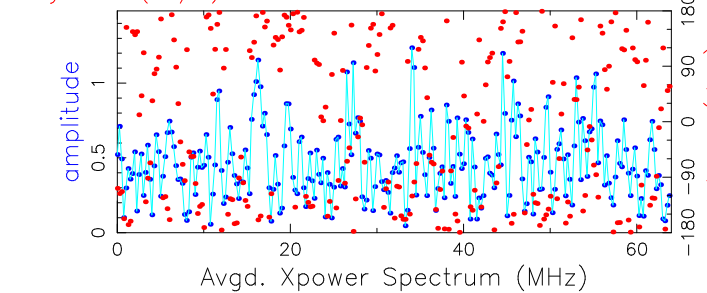
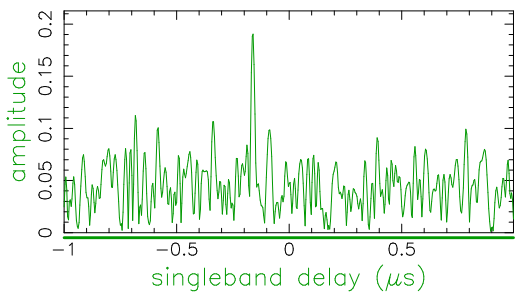
0133+476.3MP1AB, No0916, km

VLBA_KP - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

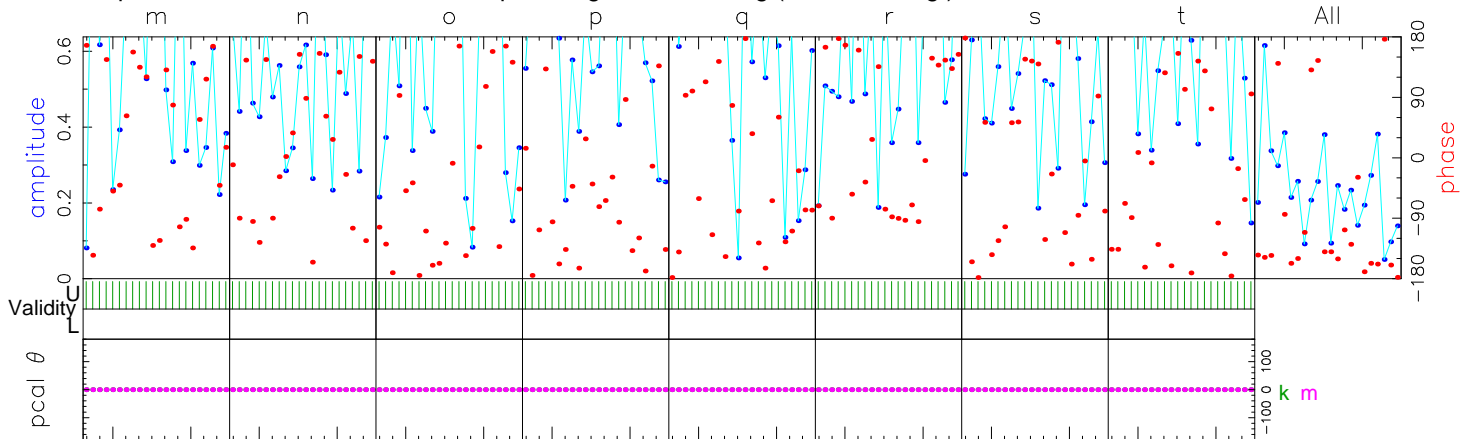


Fringe quality 0
 SNR 5.6
 Int time 112.640
 Amp 0.213
 Phase -151.6
 PFD 6.8e-01
 Delays (us)
 SBD -0.161895
 MBD -0.006976
 Fringe rate (Hz) 0.461867
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113029
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
m	0	0	0	0	0	0	0	0		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.00319521848E+04	Apriori delay (usec)	1.00321154108E+04	Resid mbdelay (usec)	-6.97603E-03	+/-	1.9E-04
Sband delay (usec)	1.00319535156E+04	Apriori clock (usec)	-3.8869476E-01	Resid sbdelay (usec)	-1.61895E-01	+/-	1.5E-03
Phase delay (usec)	1.00321154059E+04	Apriori clockrate (us/s)	1.6670606E-07	Resid phdelay (usec)	-4.88899E-06	+/-	6.6E-07
Delay rate (us/s)	-4.76397665366E-01	Apriori rate (us/s)	-4.76403027188E-01	Resid rate (us/s)	5.36182E-06	+/-	1.0E-08
Total phase (deg)	24.0	Apriori accel (us/s/s)	-3.74157445434E-05	Resid phase (deg)	-151.6	+/-	20.4

ph/seg (deg) 43.2 47.8
 amp/seg (%) 68.8 83.4
 ph/frq (deg) 28.0 28.8
 amp/frq (%) 18.0 50.3

RMS Theor. Amplitude 0.213 +/- 0.038
 Search (512X32) 0.189
 Interp. 0.000
 Inc. seg. avg. 0.196
 Inc. frq. avg. 0.201

Group delay (usec) (SBD) 1.00319521848E+04
 Sband delay (usec) 1.00319535156E+04
 Phase delay (usec) 1.00321154059E+04
 Delay rate (us/s) -4.76397665366E-01
 Total phase (deg) 24.0

Apriori delay (usec) 1.00321154108E+04
 Apriori clock (usec) -3.8869476E-01
 Apriori clockrate (us/s) 1.6670606E-07
 Apriori rate (us/s) -4.76403027188E-01
 Apriori accel (us/s/s) -3.74157445434E-05

Resid mbdelay (usec) -6.97603E-03
 Resid sbdelay (usec) -1.61895E-01
 Resid phdelay (usec) -4.88899E-06
 Resid rate (us/s) 5.36182E-06
 Resid phase (deg) -151.6

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

k: az 47.5 el 60.5 pa -111.0 m: az 45.2 el 23.3 pa -86.1 u,v (fr/asec) 4046.940 -2150.926 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/km..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/km.W.177.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

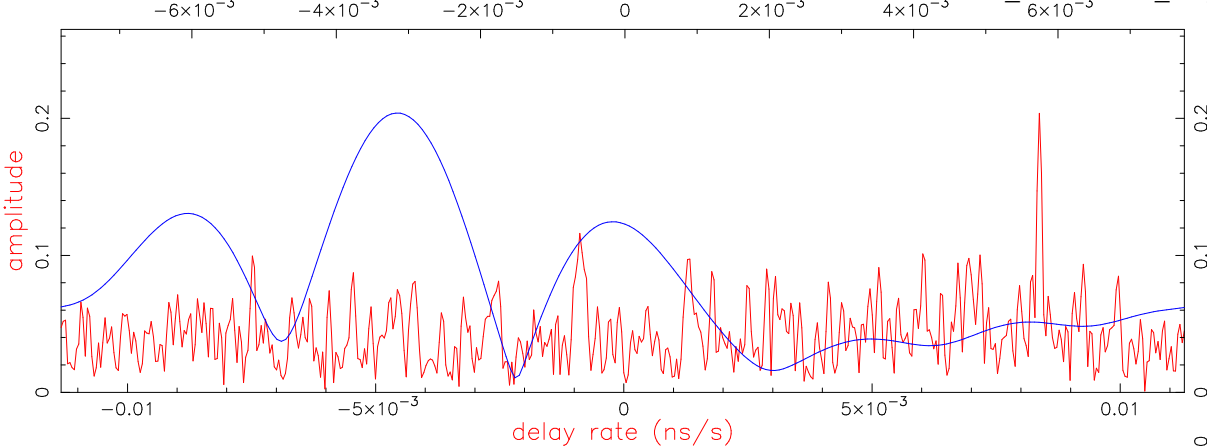
aux01

0133+476.3MP1AB, No0916, kn

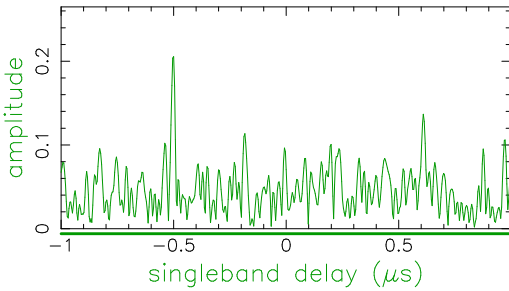
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

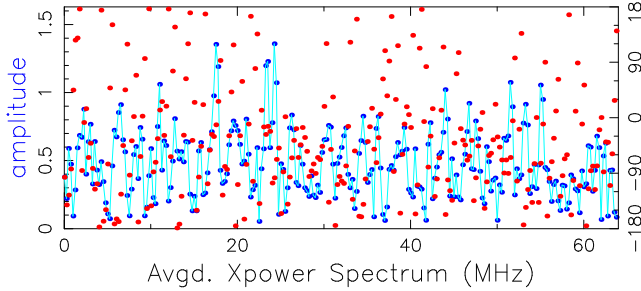
Fringe quality 0



SNR 6.1
 Int time 112.505
 Amp 0.265
 Phase -51.1
 PFD 8.2e-02
 Delays (us)
 SBD -0.501720
 MBD -0.003100
 Fringe rate (Hz)
 0.723092
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

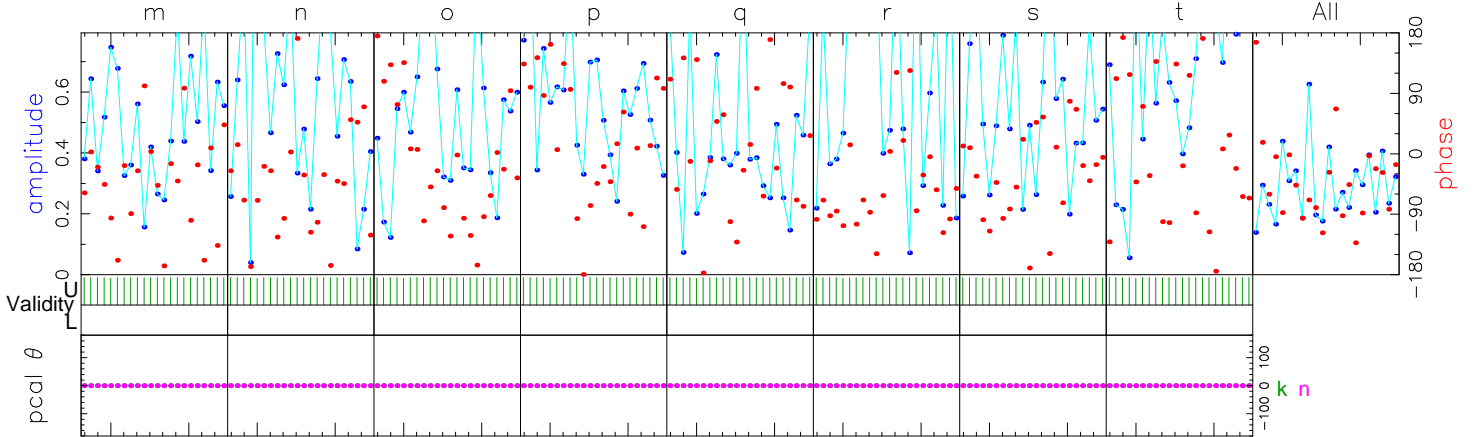


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113028
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-54.5	-54.7	-57.8	71.7	0.8	-74.7	-40.1	-74.1	Phase	-51.1
	0.3	0.5	0.2	0.2	0.2	0.5	0.4	0.2	Ampl.	0.3
	208.5	128.7	409.9	162.1	45.1	128.0	367.4	95.3	Sbd box	128.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.33816117886E+03	Apriori delay (usec)	-2.33765807901E+03	Resid mbdelay (usec)	-3.09985E-03	+/-	1.8E-04
Sband delay (usec)	-2.33815979901E+03	Apriori clock (usec)	4.3291473E-01	Resid sbdelay (usec)	-5.01720E-01	+/-	1.4E-03
Phase delay (usec)	-2.33765808066E+03	Apriori clockrate (us/s)	-1.4505389E-07	Resid phdelay (usec)	-1.64716E-06	+/-	6.1E-07
Delay rate (us/s)	3.06631017432E-01	Apriori rate (us/s)	3.06622623053E-01	Resid rate (us/s)	8.39438E-06	+/-	9.4E-09
Total phase (deg)	-24.4	Apriori accel (us/s/s)	9.74939573528E-07	Resid phase (deg)	-51.1	+/-	18.9

ph/seg (deg)	RMS 55.9	Theor. 44.3	Amplitude Search (512X32)	0.265 +/- 0.044	0.192	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	66.8	77.3	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)	56.3	26.7	Inc. seg. avg.	0.285	0.278	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	47.7	46.6	Inc. frq. avg.	0.278	0.278	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 47.5 el 60.5 pa -111.0 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2621.561 -714.965 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kn.W.170.3MP1AB

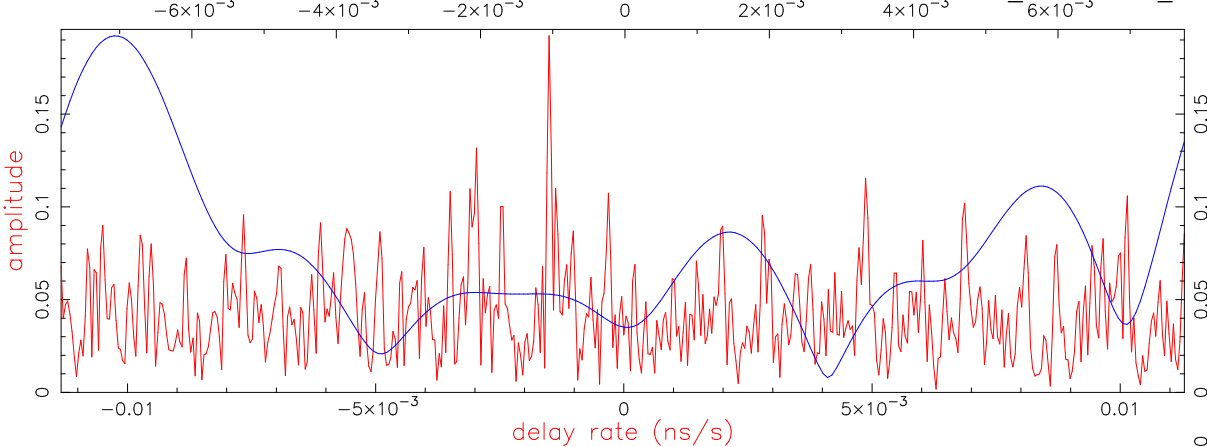
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kn

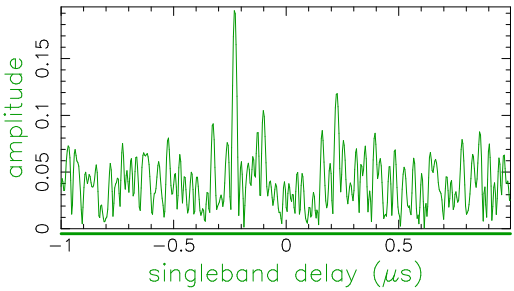
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

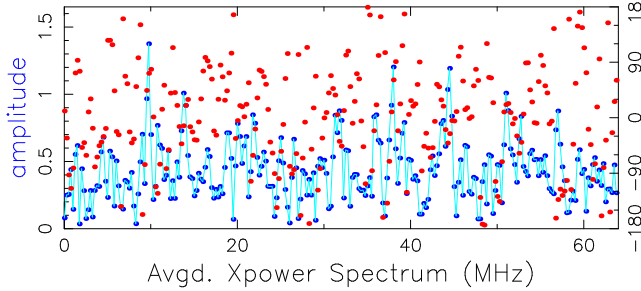


Fringe quality 0

SNR 5.6
 Int time 112.505
 Amp 0.196
 Phase -27.6
 PFD 6.5e-01
 Delays (us)
 SBD -0.228925
 MBD -0.007054
 Fringe rate (Hz)
 -0.129304
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

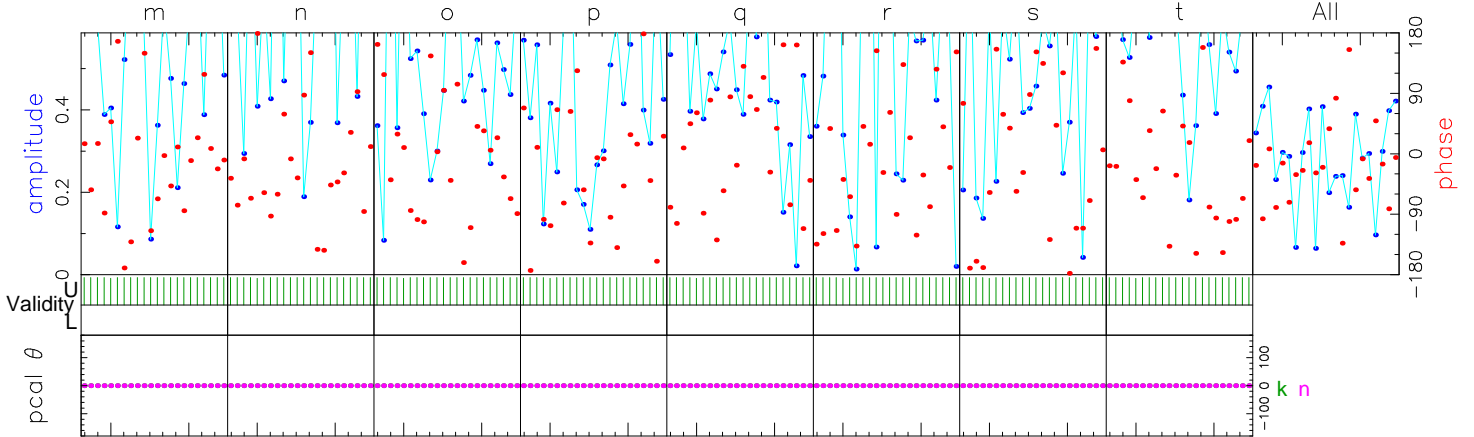


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113029
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	
	-14.2	-47.8	-26.3	-12.7	19.1	-12.5	-159.7	-45.5		Phase	
	0.3	0.4	0.2	0.1	0.1	0.3	0.0	0.2		Ampl.	
	325.7	197.6	465.7	113.1	93.8	119.2	239.1	509.7		Sbd box	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		198.4	
k	0	0	0	0	0	0	0	0		APs used	
n	0	0	0	0	0	0	0	0		PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
										Tracks	
Group delay (usec) (SBD)	-2.33788388267E+03					-2.33765807901E+03			Resid mbdelay (usec)	-7.05366E-03	+/- 1.9E-04
Sband delay (usec)	-2.33788700376E+03					4.3291473E-01			Resid sbdelay (usec)	-2.28925E-01	+/- 1.5E-03
Phase delay (usec)	-2.33765807990E+03					-1.4505389E-07			Resid phdelay (usec)	-8.88818E-07	+/- 6.6E-07
Delay rate (us/s)	3.06621121957E-01					3.06622623053E-01			Resid rate (us/s)	-1.50110E-06	+/- 1.0E-08
Total phase (deg)			-0.9			9.74939573528E-07			Resid phase (deg)	-27.6	+/- 20.3
ph/seg (deg)	61.3	47.7							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	74.8	83.2							PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	59.1	28.8							Bits/sample: 2x2	mb window (us)	-0.008 0.008
amp/frq (%)	63.6	50.2							SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
									Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC)	0.00 0.00
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	
k: az 47.5 el 60.5 pa -111.0		n: az 51.3 el 79.0 pa -119.7				u, v (fr/asec) -2621.561 -714.965					simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0916/kn..3MP1AB				Output file: /Exps/c241a/v2/3mm/1234/No0916/kn.W.174.3MP1AB					

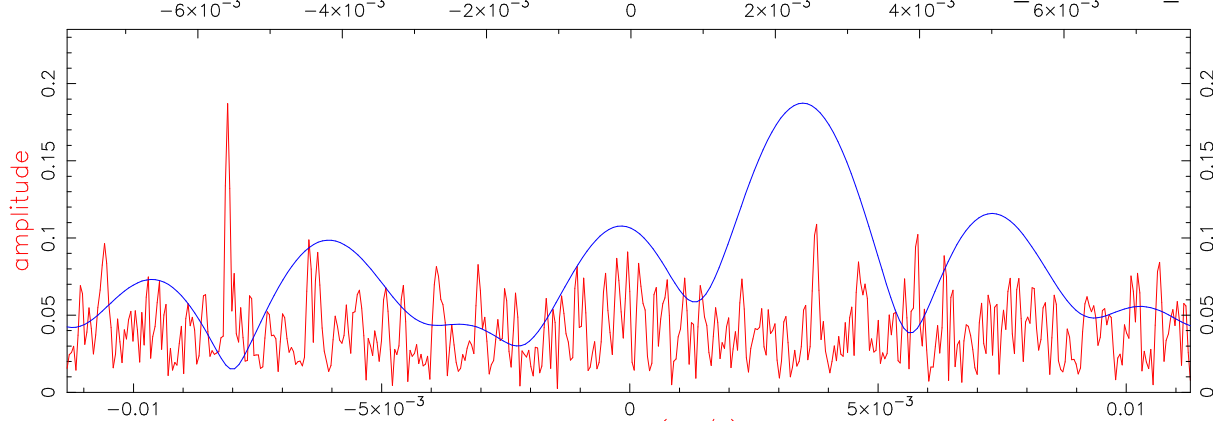
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kn

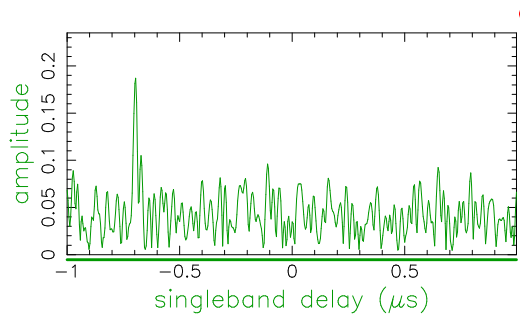
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

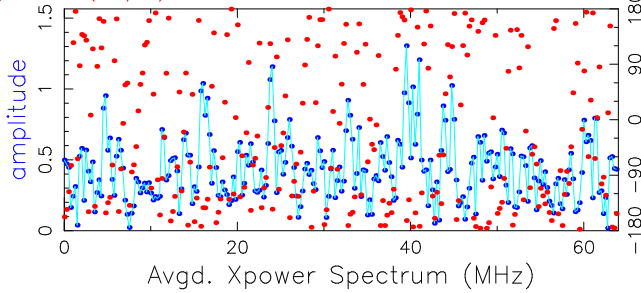


Fringe quality 0

SNR 5.5
 Int time 112.505
 Amp 0.235
 Phase 66.1
 PFD 9.3e-01
 Delays (us)
 SBD -0.696538
 MBD 0.002338
 Fringe rate (Hz)
 -0.698248
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

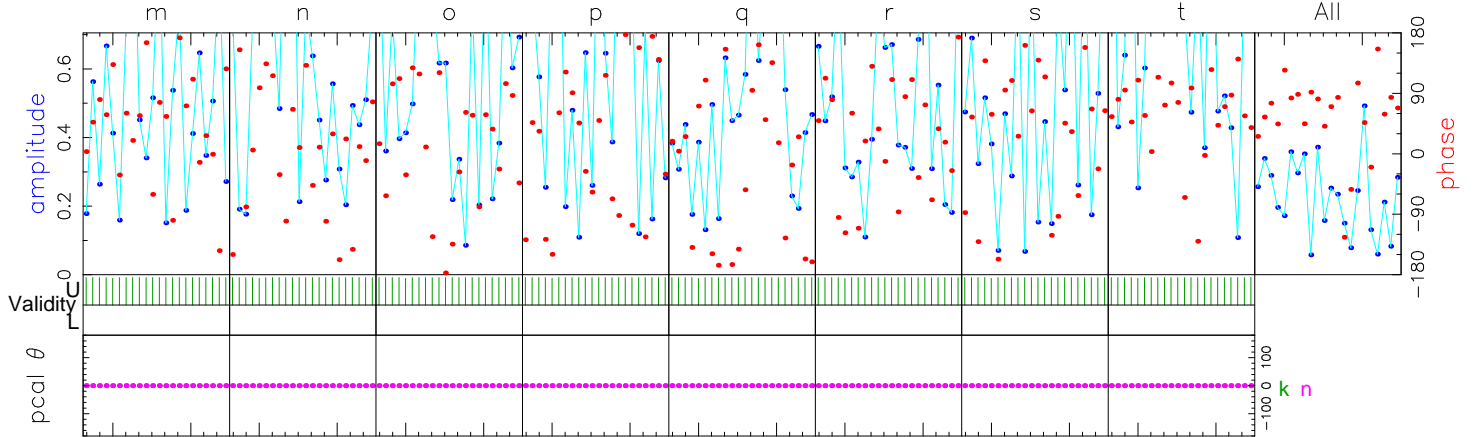


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113030
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -2.33835886629E+03 Apriori delay (usec) -2.33765807901E+03 Resid mbdelay (usec) 2.33772E-03 +/- 2.0E-04
 Sband delay (usec) -2.33835461676E+03 Apriori clock (usec) 4.3291473E-01 Resid sbdelay (usec) -6.96538E-01 +/- 1.6E-03
 Phase delay (usec) -2.33765807688E+03 Apriori clockrate (us/s) -1.4505389E-07 Resid phdelay (usec) 2.13315E-06 +/- 6.8E-07
 Delay rate (us/s) 3.06614517086E-01 Apriori rate (us/s) 3.06622623053E-01 Resid rate (us/s) -8.10597E-06 +/- 1.0E-08
 Total phase (deg) -267.2 Apriori accel (us/s/s) 9.74939573528E-07 Resid phase (deg) 66.1 +/- 20.9

RMS Theor. Amplitude 0.235 +/- 0.043 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 56.2 49.1 Search (512X32) 0.185 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 63.2 85.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 56.3 29.6 Inc. seg. avg. 0.210 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 78.4 51.7 Inc. frq. avg. 0.214 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

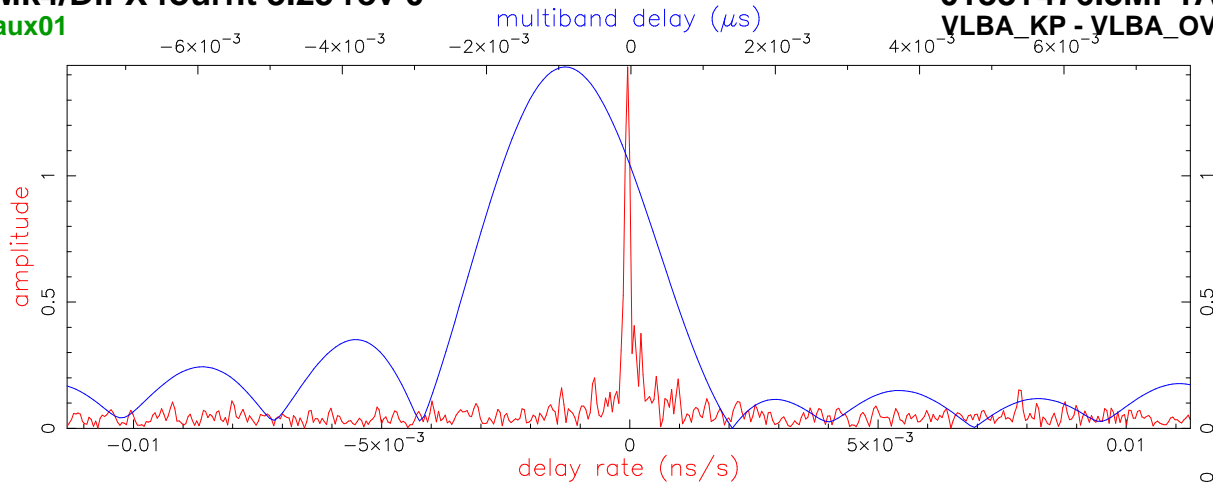
k: az 47.5 el 60.5 pa -111.0 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2621.561 -714.965 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kn.W.178.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

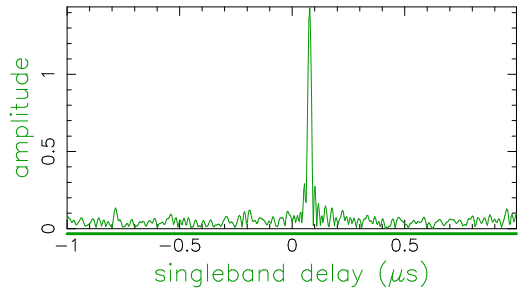
0133+476.3MP1AB, No0916, ko

VLBA_KP - VLBA_OV, fgroup W, pol LL

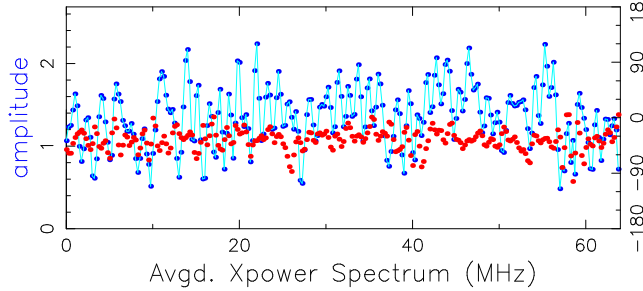


Fringe quality 8

SNR 41.6
 Int time 112.059
 Amp 1.438
 Phase 145.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.077278
 MBD -0.000933
 Fringe rate (Hz)
 -0.002583
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

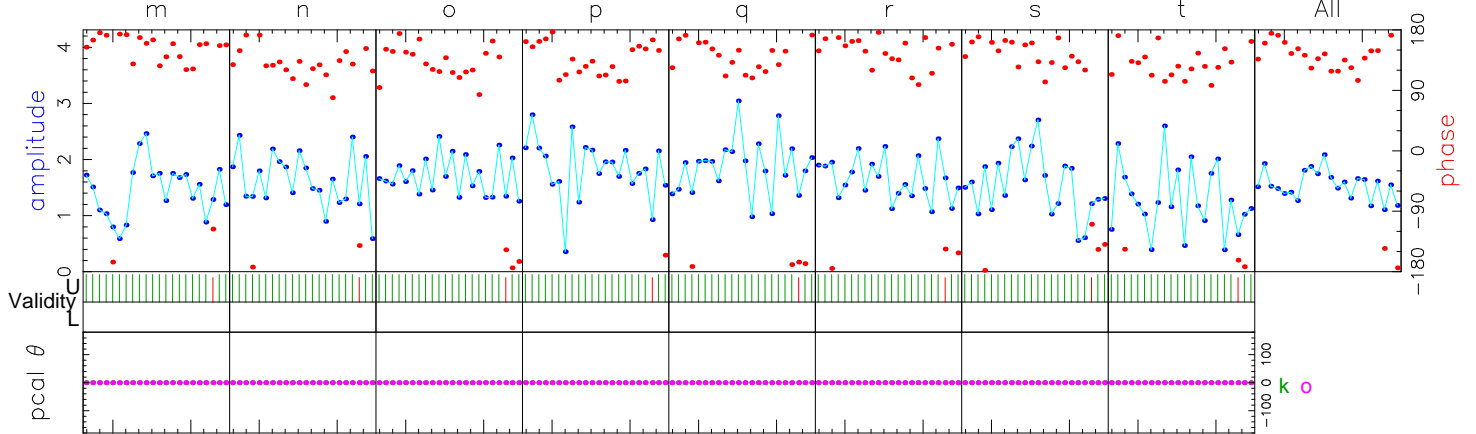


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113027
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
k	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.81980941336E+02	Apriori delay (usec)	1.81903749326E+02	Resid mbdelay (usec)	-9.32990E-04	+/-	2.6E-05
Sband delay (usec)	1.81981027076E+02	Apriori clock (usec)	-2.4912970E+01	Resid sbdelay (usec)	7.72777E-02	+/-	2.1E-04
Phase delay (usec)	1.81903754019E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	4.69283E-06	+/-	8.9E-08
Delay rate (us/s)	-4.89303555974E-02	Apriori rate (us/s)	-4.89303256169E-02	Resid rate (us/s)	-2.99805E-08	+/-	1.4E-09
Total phase (deg)	133.6	Apriori accel (us/s/s)	-7.44176556953E-06	Resid phase (deg)	145.5	+/-	2.8

ph/seg (deg)	24.4	Theor.	6.5	Amplitude	1.438 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	18.9	Search (512X32)	1.389	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	9.3	Inc. seg. avg.	1.541	Inc. frq. avg.	1.442	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	12.0	Inc. frq. avg.	1.442			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 47.5 el 60.5 pa -111.0 o: az 56.8 el 59.3 pa -95.8 u,v (fr/asec) 413.734 -1099.180 simultaneous interpolator

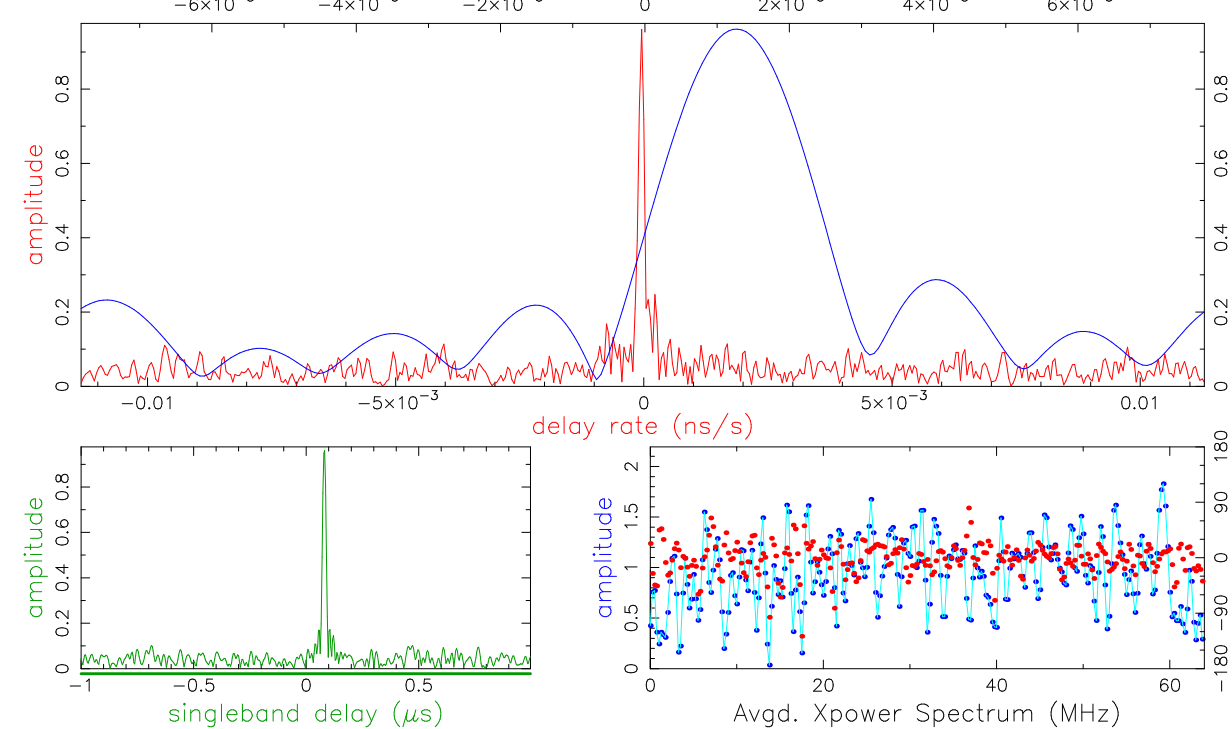
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/ko..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/ko.W.167.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, ko

VLBA_KP - VLBA_OV, fgroup W, pol RR

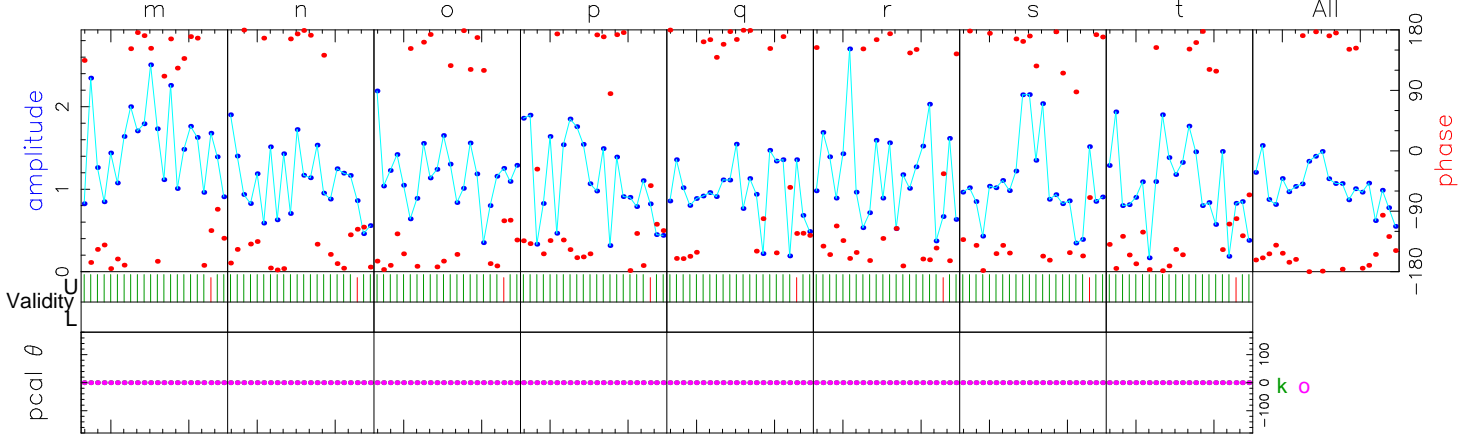


Fringe quality 8

SNR 28.3
 Int time 112.059
 Amp 0.977
 Phase -169.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.080365
 MBD 0.001229
 Fringe rate (Hz) -0.002692
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113028
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	178.7	-165.4	-171.4	-152.9	-173.6	-165.1	-174.3	-167.0	Phase	-169.3
	1.3	1.0	1.0	0.9	0.9	1.0	0.9	0.9	Ampl.	1.0
	277.6	277.5	277.3	277.2	277.3	277.9	277.7	278.4	Sbd box	277.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 1.81983103555E+02 Apriori delay (usec) 1.81903749326E+02 Resid mbdelay (usec) 1.22923E-03 +/- 3.8E-05
 Sband delay (usec) 1.81984114076E+02 Apriori clock (usec) -2.4912970E+01 Resid sbdelay (usec) 8.03647E-02 +/- 3.0E-04
 Phase delay (usec) 1.81903743868E+02 Apriori clockrate (us/s) -3.2906598E-07 Resid phdelay (usec) -5.45791E-06 +/- 1.3E-07
 Delay rate (us/s) -4.89303568643E-02 Apriori rate (us/s) -4.89303256169E-02 Resid rate (us/s) -3.12474E-08 +/- 2.0E-09
 Total phase (deg) 178.9 Apriori accel (us/s/s) -7.44176556953E-06 Resid phase (deg) -169.3 +/- 4.1

RMS Theor. Amplitude 0.977 +/- 0.035 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 24.6 9.5 Search (512X32) 0.924 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 25.7 16.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 9.1 5.7 Inc. seg. avg. 1.028 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 12.7 10.0 Inc. frq. avg. 0.966 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

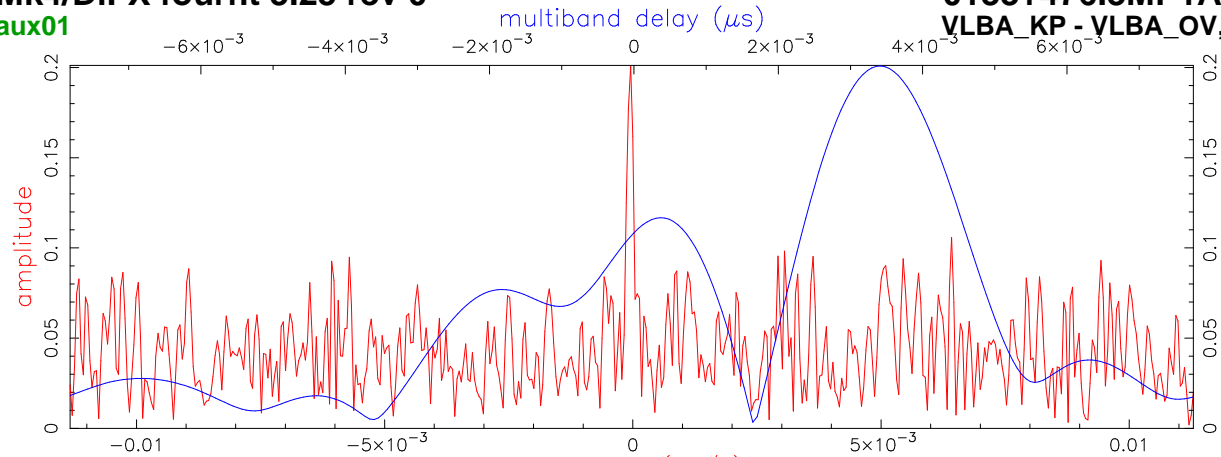
k: az 47.5 el 60.5 pa -111.0 o: az 56.8 el 59.3 pa -95.8 u,v (fr/asec) 413.734 -1099.180 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/ko..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/ko.W.171.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

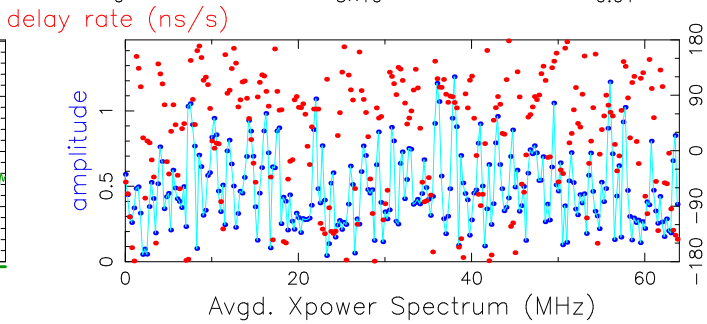
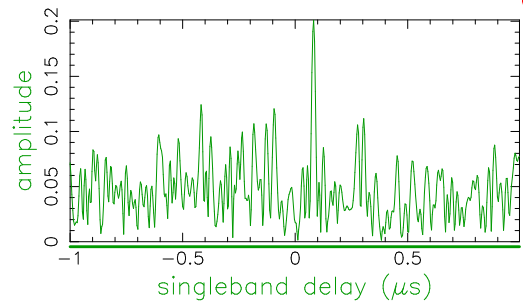
0133+476.3MP1AB, No0916, ko

VLBA_KP - VLBA_OV, fgroup W, pol LR



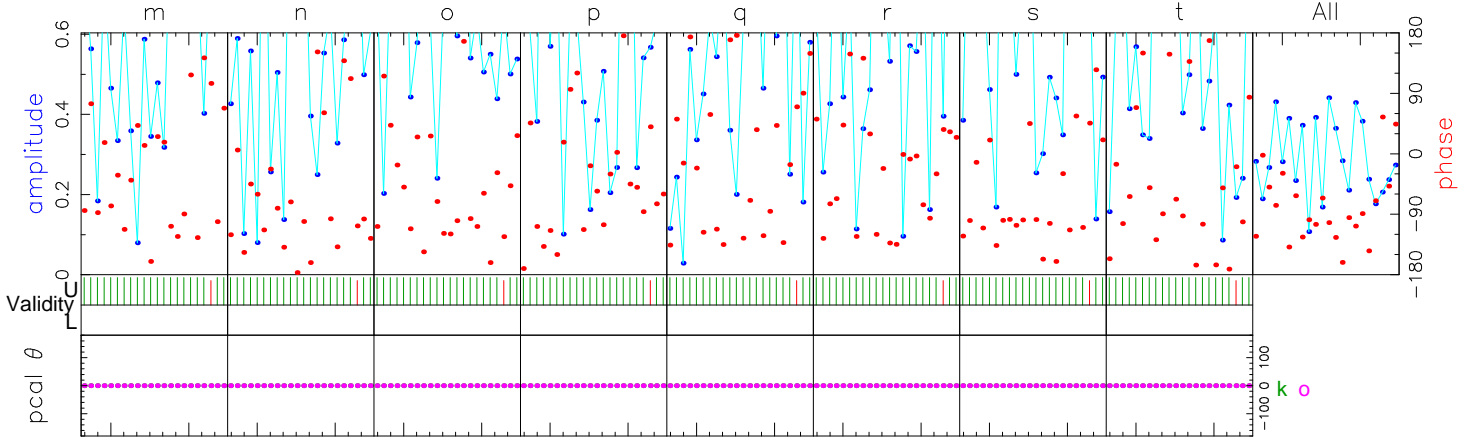
Fringe quality 0

SNR 5.8
 Int time 112.059
 Amp 0.201
 Phase -93.5
 PFD 3.0e-01
 Delays (us)
 SBD 0.081440
 MBD 0.003417
 Fringe rate (Hz)
 -0.003277
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113029
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-76.1	-109.1	-87.6	-106.9	-121.0	-40.5	-84.2	-130.8	Phase	-93.5
	0.1	0.3	0.3	0.2	0.1	0.2	0.3	0.2	Ampl.	0.2
	332.0	266.3	140.1	349.6	3.6	403.8	276.5	280.6	Sbd box	277.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.81985291649E+02	Apriori delay (usec)	1.81903749326E+02	Resid mbdelay (usec)	3.41732E-03	+/-	1.9E-04
Sband delay (usec)	1.81985189576E+02	Apriori clock (usec)	-2.4912970E+01	Resid sbdelay (usec)	8.14402E-02	+/-	1.5E-03
Phase delay (usec)	1.81903746310E+02	Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-3.01626E-06	+/-	6.3E-07
Delay rate (us/s)	-4.89303636579E-02	Apriori rate (us/s)	-4.89303256169E-02	Resid rate (us/s)	-3.80410E-08	+/-	9.8E-09
Total phase (deg)	254.6	Apriori accel (us/s/s)	-7.44176556953E-06	Resid phase (deg)	-93.5	+/-	19.7

ph/seg (deg)	RMS 56.5	Theor. 46.1	Amplitude 512X32	0.201 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	64.5	80.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.1	27.8	Inc. seg. avg.	0.219	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 (%)	36.3	48.6	Inc. frq. avg.	0.199	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

k: az 47.5 el 60.5 pa -111.0 o: az 56.8 el 59.3 pa -95.8 u,v (fr/asec) 413.734 -1099.180 simultaneous interpolator

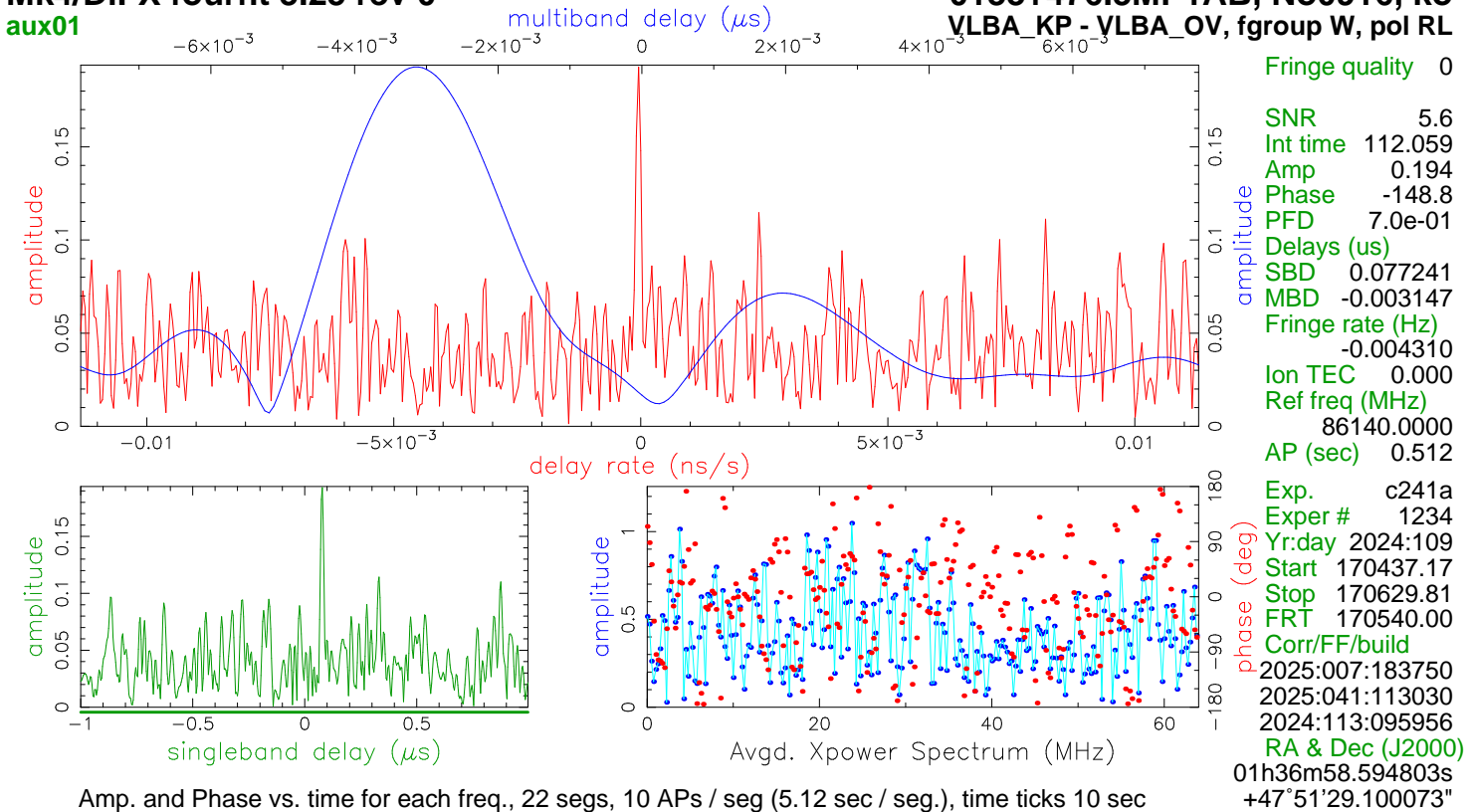
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/ko..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/ko.W.175.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

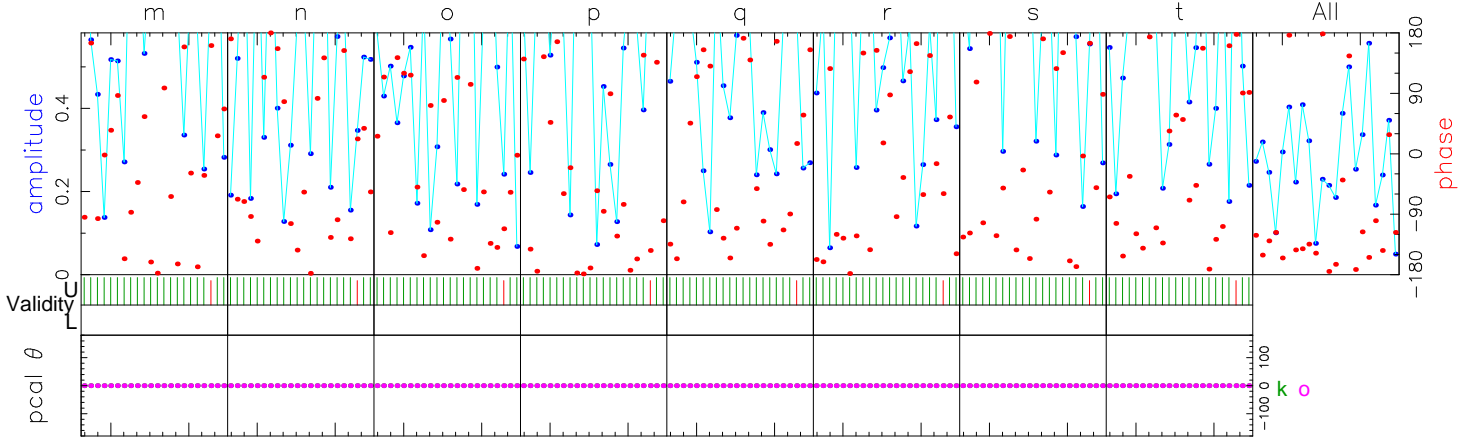
aux01

0133+476.3MP1AB, No0916, ko

VLBA_KP - VLBA_OV, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



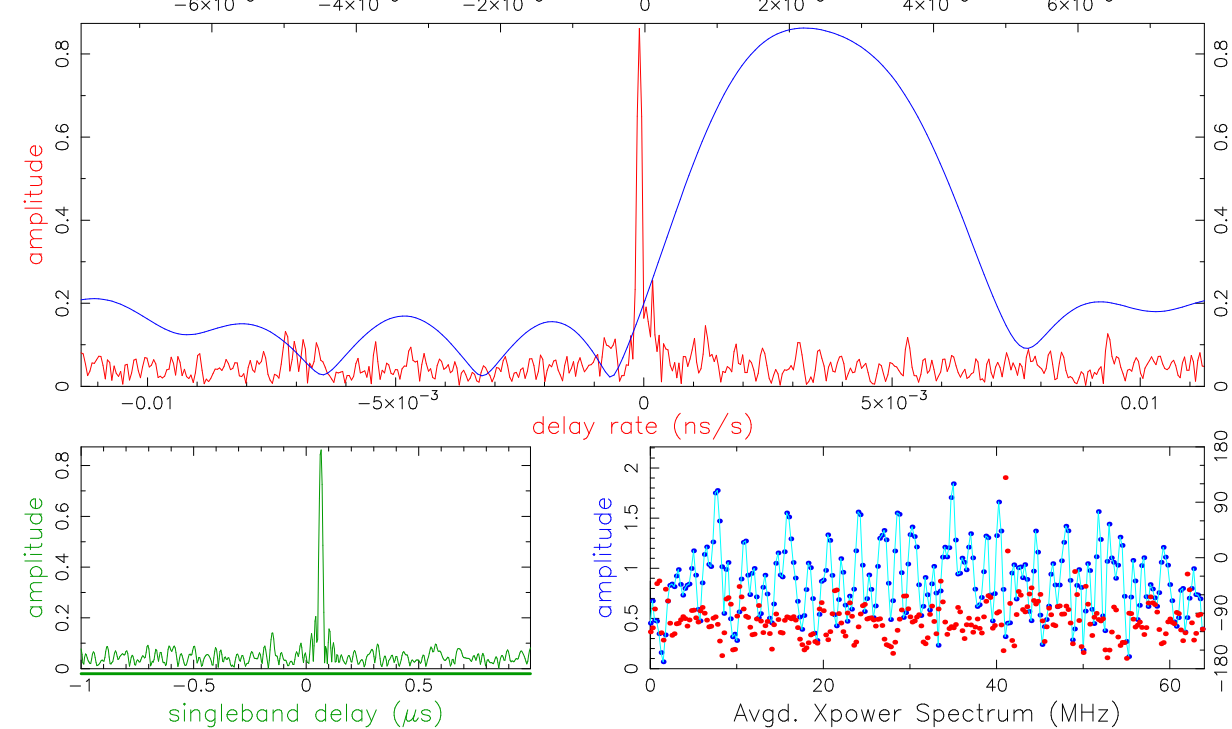
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-120.6	-146.7	-147.3	-172.1	-136.4	-147.1	-150.0	-137.2	Phase	-148.8
	0.1	0.2	0.1	0.3	0.2	0.2	0.3	0.2	Ampl.	0.2
	257.9	455.2	161.7	277.0	137.3	114.6	275.9	251.1	Sbd box	276.8
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.81978727336E+02		Apriori delay (usec)	1.81903749326E+02	Resid mbdelay (usec)	-3.14699E-03	+/-	1.9E-04		
Sband delay (usec)	1.81980990076E+02		Apriori clock (usec)	-2.4912970E+01	Resid sbdelay (usec)	7.72408E-02	+/-	1.5E-03		
Phase delay (usec)	1.81903744529E+02		Apriori clockrate (us/s)	-3.2906598E-07	Resid phdelay (usec)	-4.79739E-06	+/-	6.6E-07		
Delay rate (us/s)	-4.89303756552E-02		Apriori rate (us/s)	-4.89303256169E-02	Resid rate (us/s)	-5.00383E-08	+/-	1.0E-08		
Total phase (deg)		199.3	Apriori accel (us/s/s)	-7.44176556953E-06	Resid phase (deg)	-148.8	+/-	20.4		
	RMS	Theor.	Amplitude	0.194 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5			
ph/seg (deg)	51.7	47.9	Search (512X32)	0.189	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
amp/seg (%)	78.6	83.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
ph/frq (deg)	16.5	28.9	Inc. seg. avg.	0.208	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011			
amp/frq (%)	46.8	50.4	Inc. frq. avg.	0.177	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00		
k: az 47.5 el 60.5 pa -111.0		o: az 56.8 el 59.3 pa -95.8		u, v (fr/asec) 413.734 -1099.180						simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0916/ko..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/ko.W.179.3MP1AB						

Mk4/DiFX fourfit 3.25 rev 0

aux01

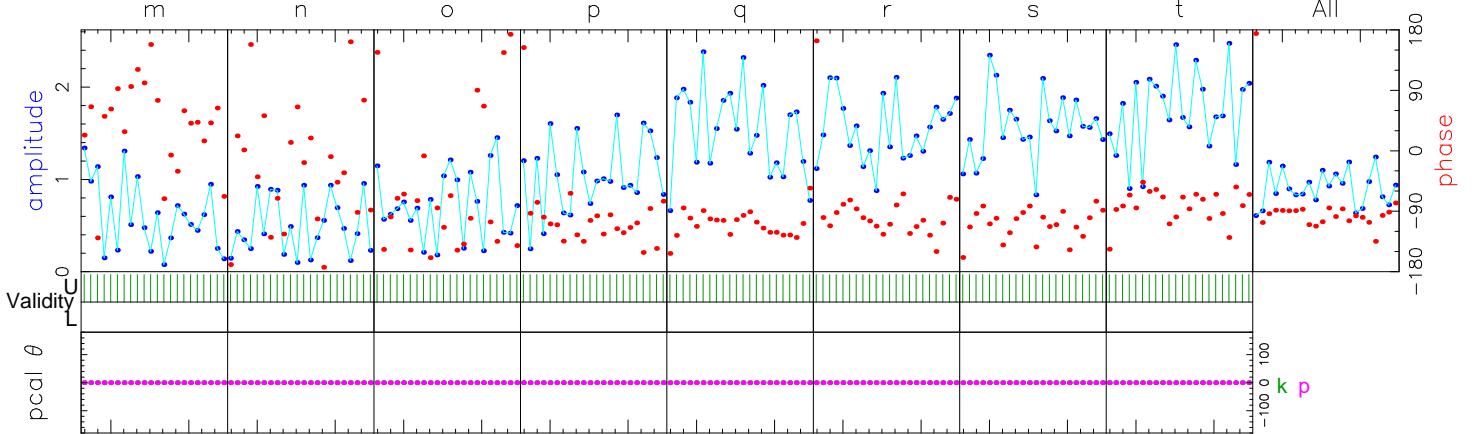
0133+476.3MP1AB, No0916, kp

VLBA_KP - VLBA_PT, fgroup W, pol LL



Fringe quality 7
 Error code G
 SNR 25.4
 Int time 112.633
 Amp 0.874
 Phase -99.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.064908
 MBD 0.002119
 Fringe rate (Hz)
 -0.008449
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113027
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
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		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
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)	-6.46159686547E+02	Apriori delay (usec)	-6.46224305504E+02	Resid mbdelay (usec)	2.11896E-03	+/-	4.3E-05
Sband delay (usec)	-6.46159397004E+02	Apriori clock (usec)	-5.5573940E+00	Resid sbdelay (usec)	6.49085E-02	+/-	3.4E-04
Phase delay (usec)	-6.46224308720E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	-3.21596E-06	+/-	1.5E-07
Delay rate (us/s)	5.74091137427E-02	Apriori rate (us/s)	5.74092118326E-02	Resid rate (us/s)	-9.80899E-08	+/-	2.2E-09
Total phase (deg)	-343.1	Apriori accel (us/s/s)	5.33009253807E-07	Resid phase (deg)	-99.7	+/-	4.5

ph/seg (deg)	22.0	Theor.	Amplitude	0.874 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	21.5	10.6	Search (512X32)	0.849	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	68.0	6.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	62.4	11.2	Inc. seg. avg.	0.895	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	0.981	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.166.3MP1AB

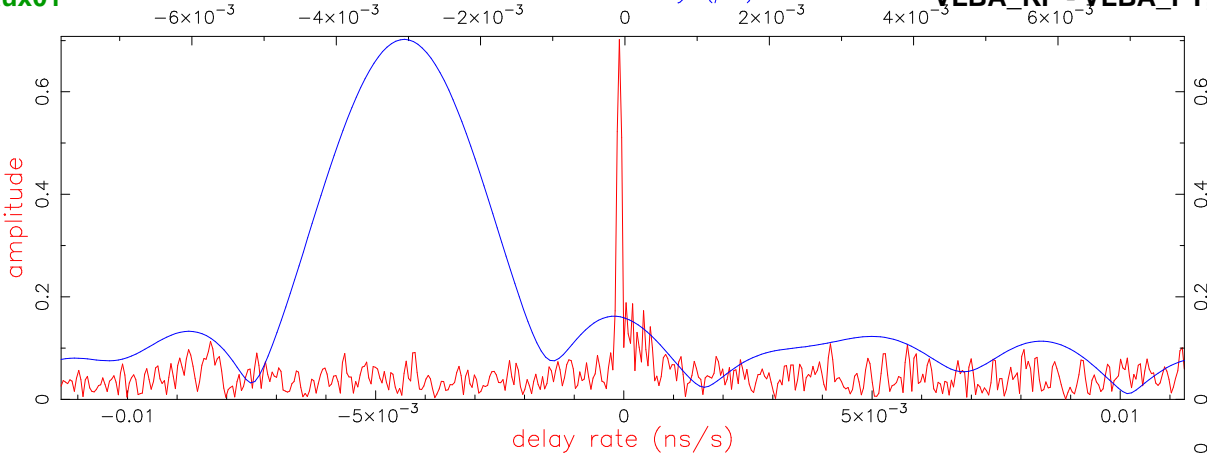
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kp

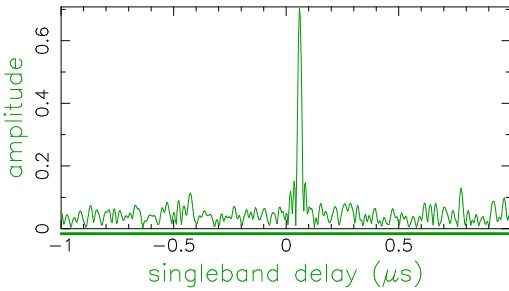
VLBA_KP - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

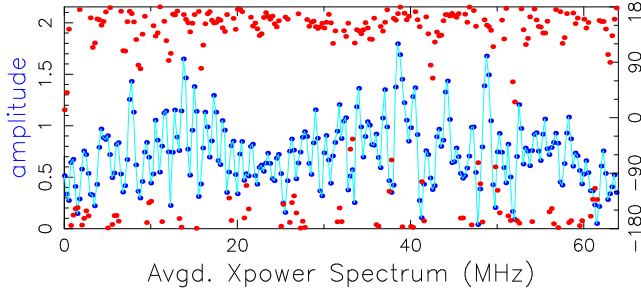


Fringe quality 9

SNR 20.5
 Int time 112.633
 Amp 0.708
 Phase 168.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.059781
 MBD -0.003039
 Fringe rate (Hz)
 -0.008343
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

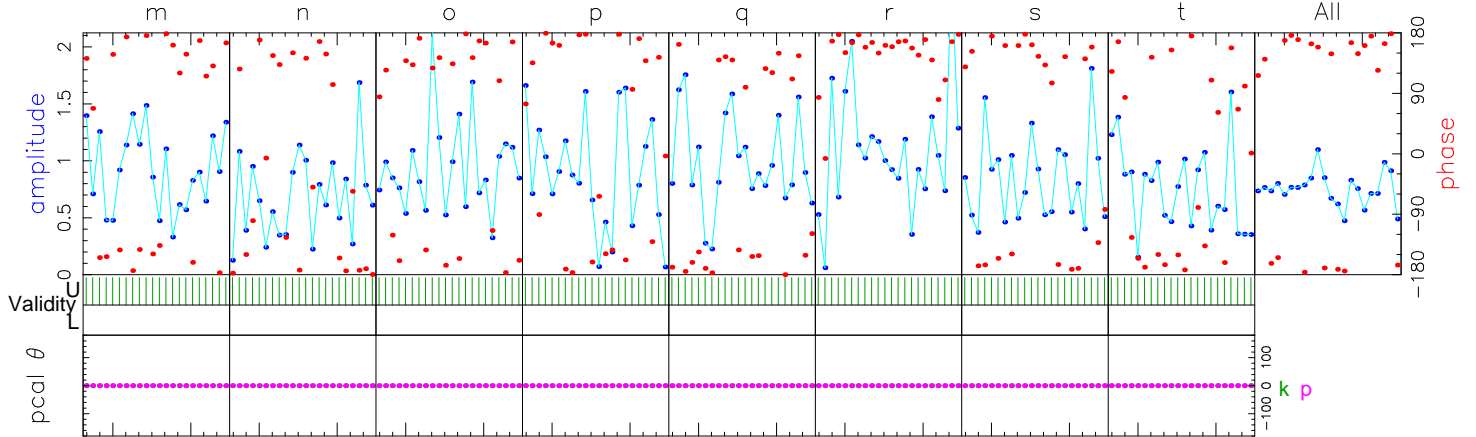


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113028
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
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		
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-6.46164844672E+02	Apriori delay (usec)	-6.46224305504E+02	Resid mbdelay (usec)	-3.03917E-03	+/-	5.3E-05
Sband delay (usec)	-6.46164524254E+02	Apriori clock (usec)	-5.5573940E+00	Resid sbdelay (usec)	5.97812E-02	+/-	4.2E-04
Phase delay (usec)	-6.46224300081E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	5.42363E-06	+/-	1.8E-07
Delay rate (us/s)	5.74091149756E-02	Apriori rate (us/s)	5.74092118326E-02	Resid rate (us/s)	-9.68570E-08	+/-	2.8E-09
Total phase (deg)	-75.2	Apriori accel (us/s/s)	5.33009253807E-07	Resid phase (deg)	168.2	+/-	5.6

ph/seg (deg)	22.2	Theor.	13.1	Amplitude	0.708 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	21.1	Search (512X32)	0.692	Search (512X32)	0.692	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.3	Inc. seg. avg.	0.736	Inc. seg. avg.	0.736	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.4	Inc. frq. avg.	0.702	Inc. frq. avg.	0.702	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

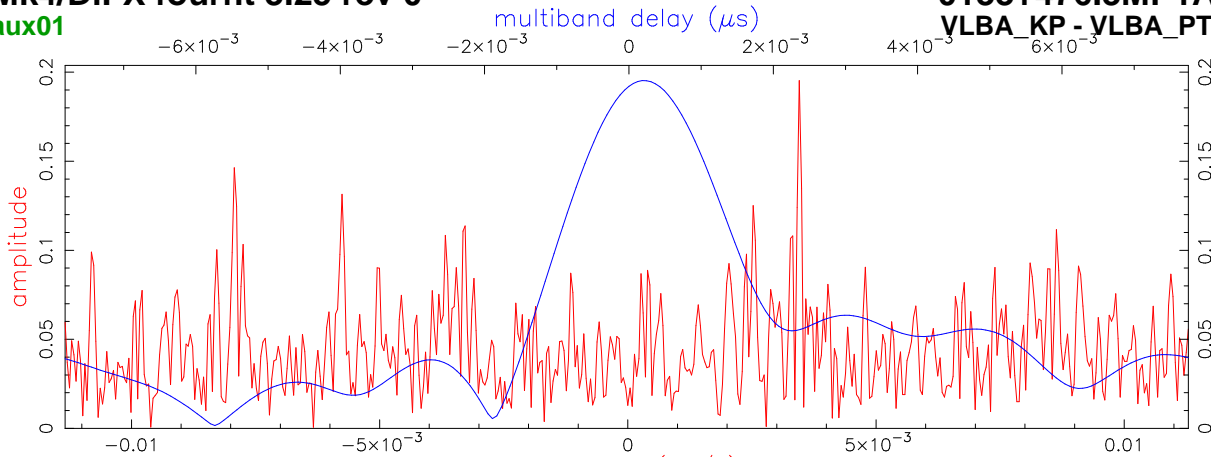
k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.172.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

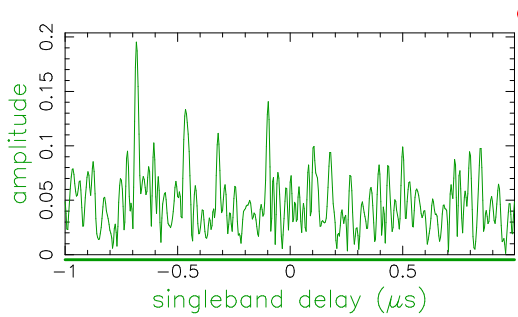
0133+476.3MP1AB, No0916, kp

VLBA_KP - VLBA_PT, fgroup W, pol LR

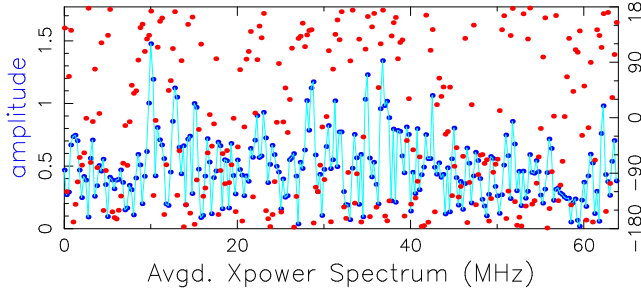


Fringe quality 0

SNR 5.7
 Int time 112.633
 Amp 0.204
 Phase -123.9
 PFD 5.4e-01
 Delays (us)
 SBD -0.682693
 MBD 0.000211
 Fringe rate (Hz) 0.297286
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

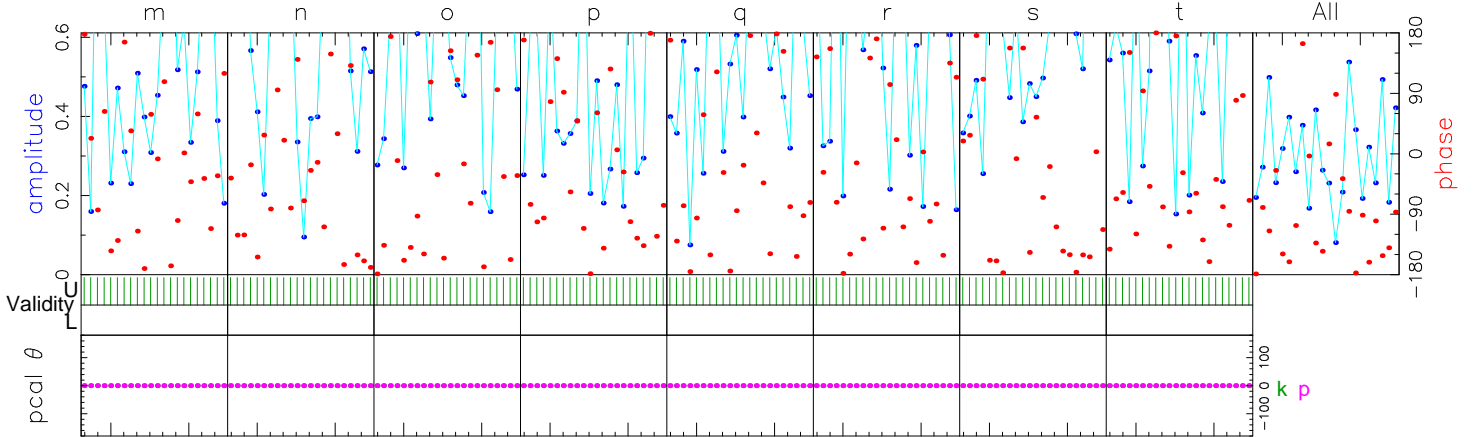


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113029
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-96.9	-113.8	-145.0	-118.0	-130.9	-133.7	-142.5	-94.8	Phase	-123.9
	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Ampl.	0.2
	174.5	316.4	240.4	328.9	454.8	139.0	282.5	138.9	Sbd box	82.2
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	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	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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	
									Tracks	
Group delay (usec) (SBD)	-6.46911594572E+02		Apriori delay (usec)		-6.46224305504E+02		Resid mbdelay (usec)		2.10932E-04	+/- 1.9E-04
Sband delay (usec)	-6.46906999004E+02		Apriori clock (usec)		-5.5573940E+00		Resid sbdelay (usec)		-6.82693E-01	+/- 1.5E-03
Phase delay (usec)	-6.46224309499E+02		Apriori clockrate (us/s)		-2.2649092E-07		Resid phdelay (usec)		-3.99447E-06	+/- 6.5E-07
Delay rate (us/s)	5.74126630325E-02		Apriori rate (us/s)		5.74092118326E-02		Resid rate (us/s)		3.45120E-06	+/- 1.0E-08
Total phase (deg)			Apriori accel (us/s/s)		5.33009253807E-07		Resid phase (deg)		-123.9	+/- 20.1

ph/seg (deg) RMS 66.0 Theor. 47.2 Amplitude 0.204 +/- 0.036 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.6 82.4 Search (512X32) 0.193 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.0 28.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.9 49.7 Inc. seg. avg. 0.235 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -490.515 -154.861 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/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.176.3MP1AB simultaneous interpolator

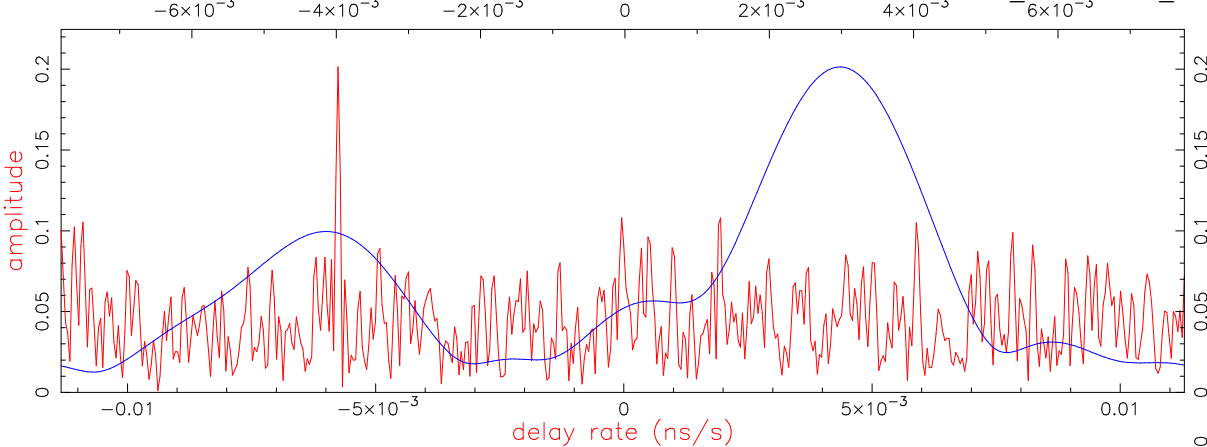
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kp

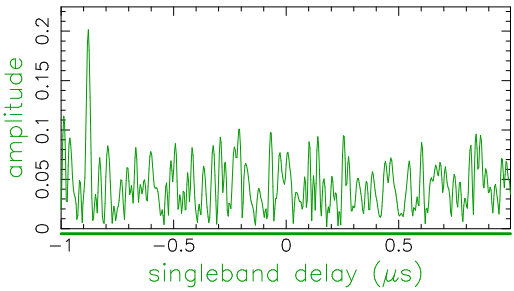
VLBA_KP - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

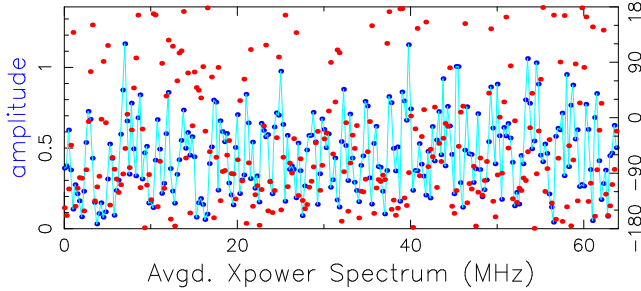


Fringe quality 0

SNR 5.9
 Int time 112.633
 Amp 0.225
 Phase 173.6
 PFD 2.7e-01
 Delays (us)
 SBD -0.879306
 MBD 0.002974
 Fringe rate (Hz)
 -0.495549
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

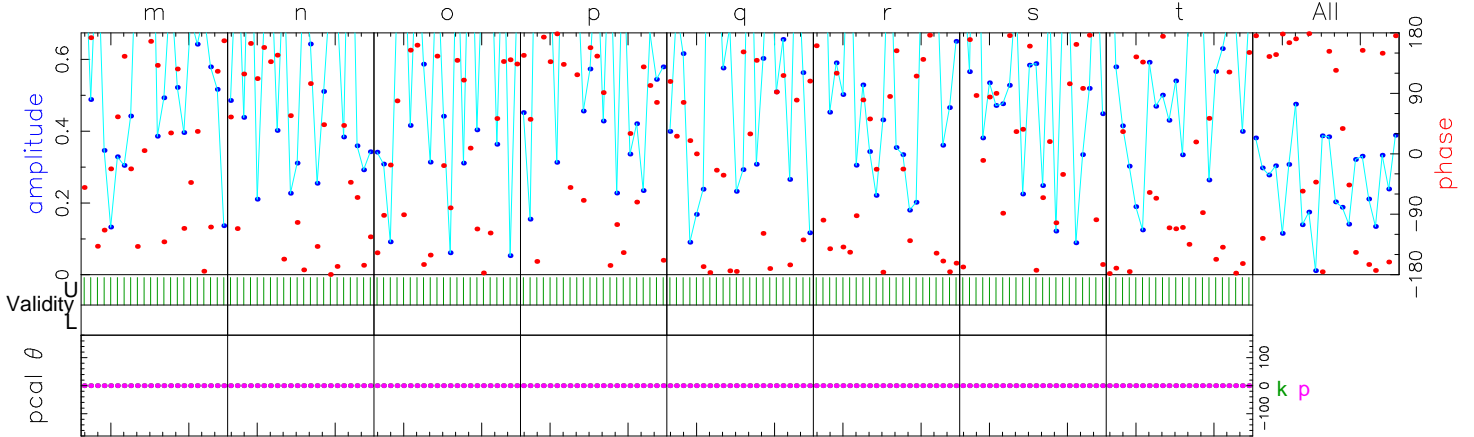


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113030
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-143.0	177.3	167.8	161.4	126.3	-178.5	127.7	-153.8	Phase	173.6
	0.1	0.3	0.3	0.4	0.1	0.4	0.1	0.3	Ampl.	0.2
	189.9	162.8	9.3	426.9	260.0	369.0	357.0	105.0	Sbd box	31.9
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	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	
kp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
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)	-6.47096331631E+02	Apriori delay (usec)	-6.46224305504E+02	Resid mbdelay (usec)	2.97387E-03	+/-	1.9E-04
Sband delay (usec)	-6.47103611254E+02	Apriori clock (usec)	-5.5573940E+00	Resid sbdelay (usec)	-8.79306E-01	+/-	1.5E-03
Phase delay (usec)	-6.46224299907E+02	Apriori clockrate (us/s)	-2.2649092E-07	Resid phdelay (usec)	5.59763E-06	+/-	6.3E-07
Delay rate (us/s)	5.74034590022E-02	Apriori rate (us/s)	5.74092118326E-02	Resid rate (us/s)	-5.75283E-06	+/-	9.7E-09
Total phase (deg)	-69.8	Apriori accel (us/s/s)	5.33009253807E-07	Resid phase (deg)	173.6	+/-	19.6

ph/seg (deg)	63.3	Theor.	45.9	Amplitude	0.225 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	62.8	Search (512X32)	0.199	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	35.5	Inc. seg. avg.	0.220	Inc. frq. avg.	0.222	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	43.6	Inc. frq. avg.	0.222			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 47.5 el 60.5 pa -111.0 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -490.515 -154.861 simultaneous interpolator

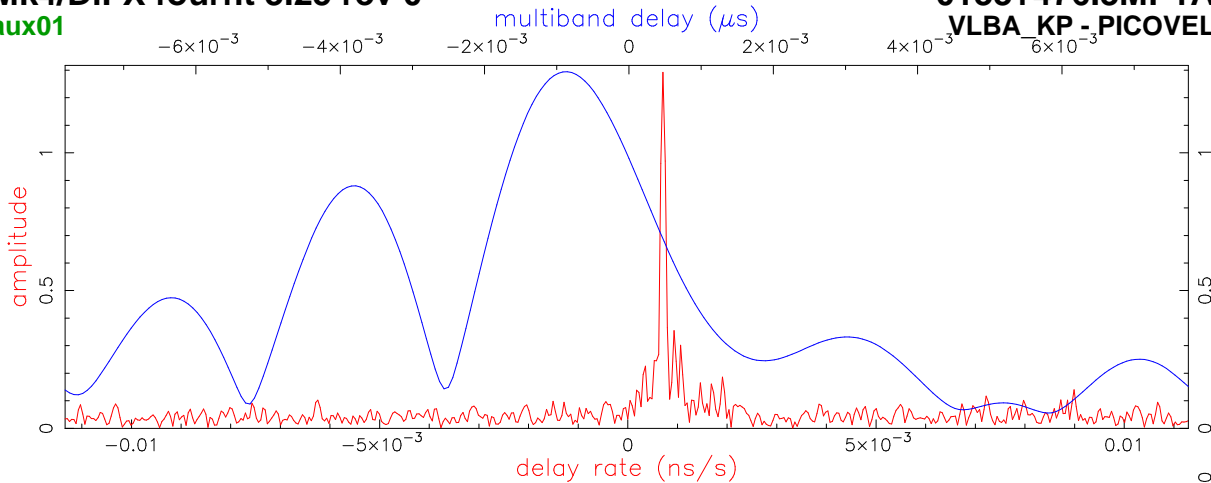
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kp.W.180.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

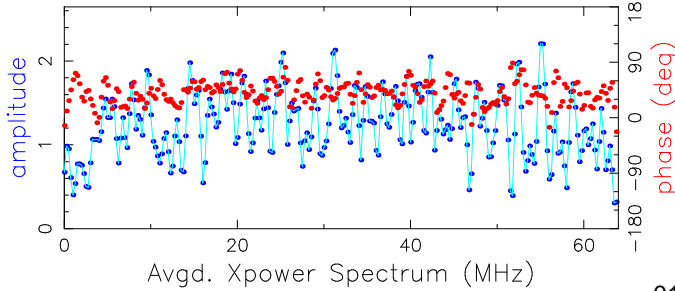
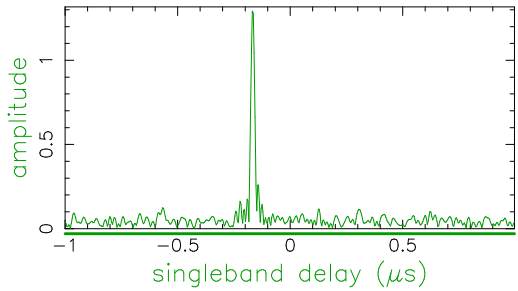
0133+476.3MP1AB, No0916, kP

VLBA_KP - PICOVEL, fgroup W, pol LL



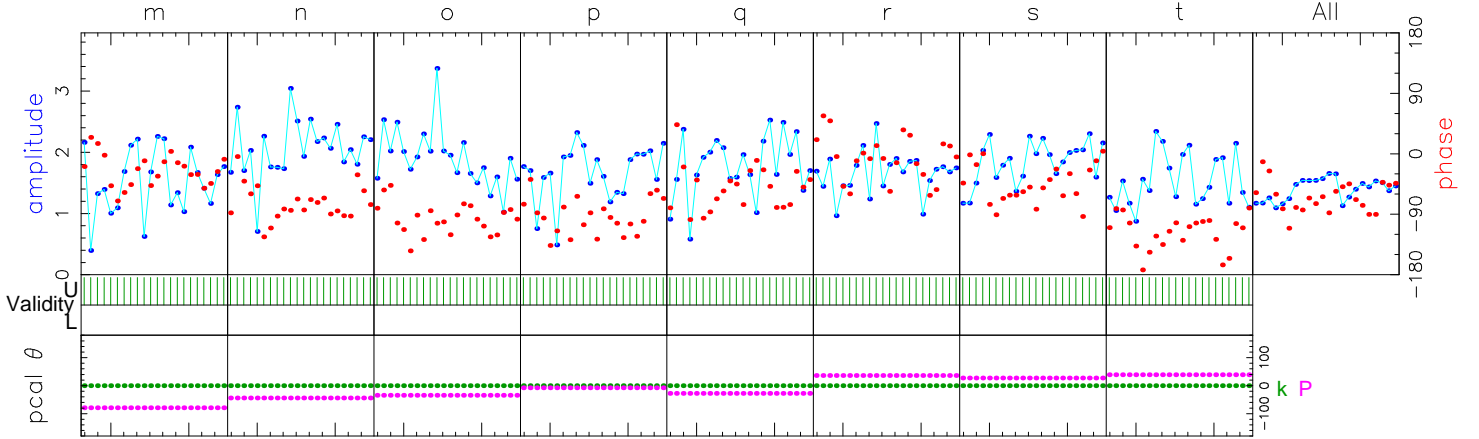
Fringe quality 6

SNR 38.2
 Int time 112.640
 Amp 1.317
 Phase -65.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.166247
 MBD -0.000809
 Fringe rate (Hz)
 0.062490
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113032
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		
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)	6.23835360141E+03	Apriori delay (usec)	6.23852628544E+03	Resid mbdelay (usec)	-8.09036E-04	+/-	2.8E-05
Sband delay (usec)	6.23836003894E+03	Apriori clock (usec)	1.1606407E+00	Resid sbdelay (usec)	-1.66247E-01	+/-	2.3E-04
Phase delay (usec)	6.23852628334E+03	Apriori clockrate (us/s)	-4.4603102E-07	Resid phdelay (usec)	-2.10331E-06	+/-	9.7E-08
Delay rate (us/s)	1.27839143827E+00	Apriori rate (us/s)	1.27839071282E+00	Resid rate (us/s)	7.25452E-07	+/-	1.5E-09
Total phase (deg)	16.9	Apriori accel (us/s/s)	-3.93295835485E-05	Resid phase (deg)	-65.2	+/-	3.0

ph/seg (deg)	22.8	RMS	22.8	Theor.	7.0	Amplitude	1.317 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.4	Search (512X32)	1.234	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	41.6	Inc. seg. avg.	1.385	Inc. frq. avg.	1.561	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	22.5	Inc. frq. avg.	1.561	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (ns/s)	-0.011	0.011

k: az 47.5 el 60.5 pa -111.0 P: az 307.1 el 35.7 pa 71.7 u,v (fr/asec) -10965.644 -3819.179 simultaneous interpolator

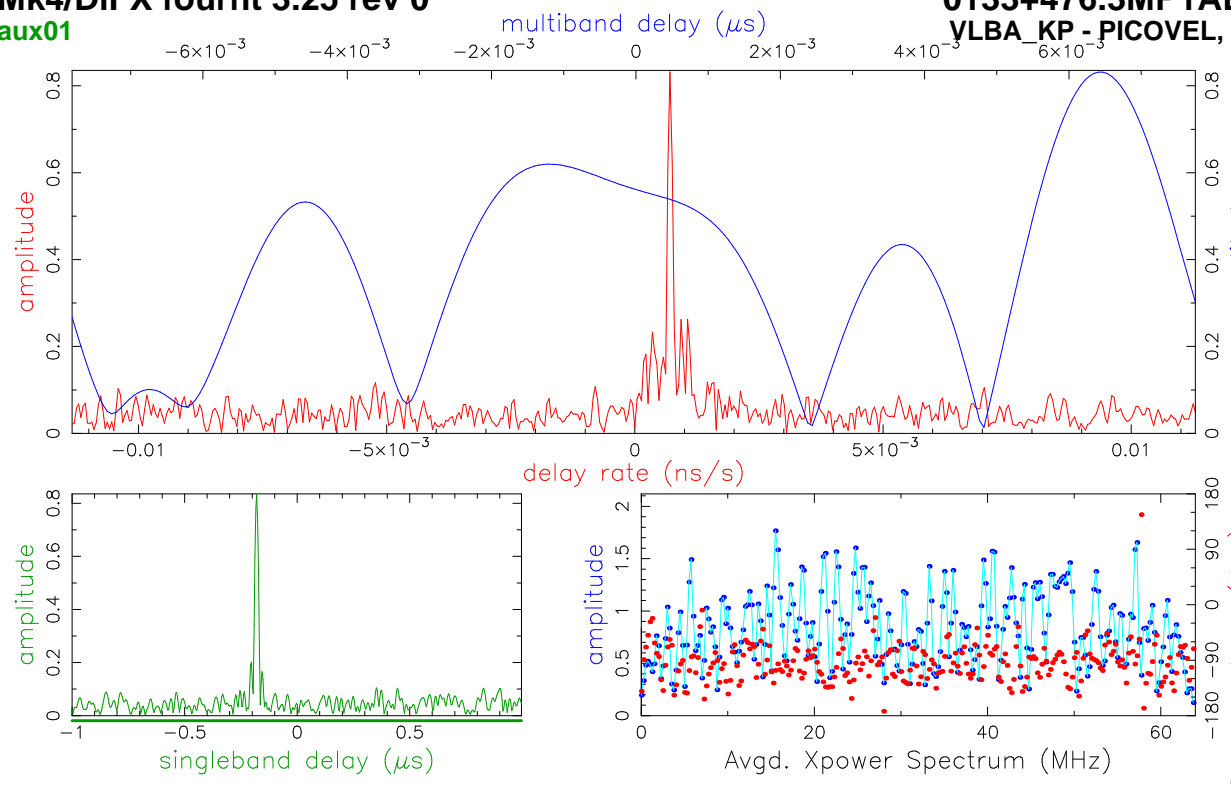
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kP.W.181.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kP

VLBA_KP - PICOVEL, fgroup W, pol RR

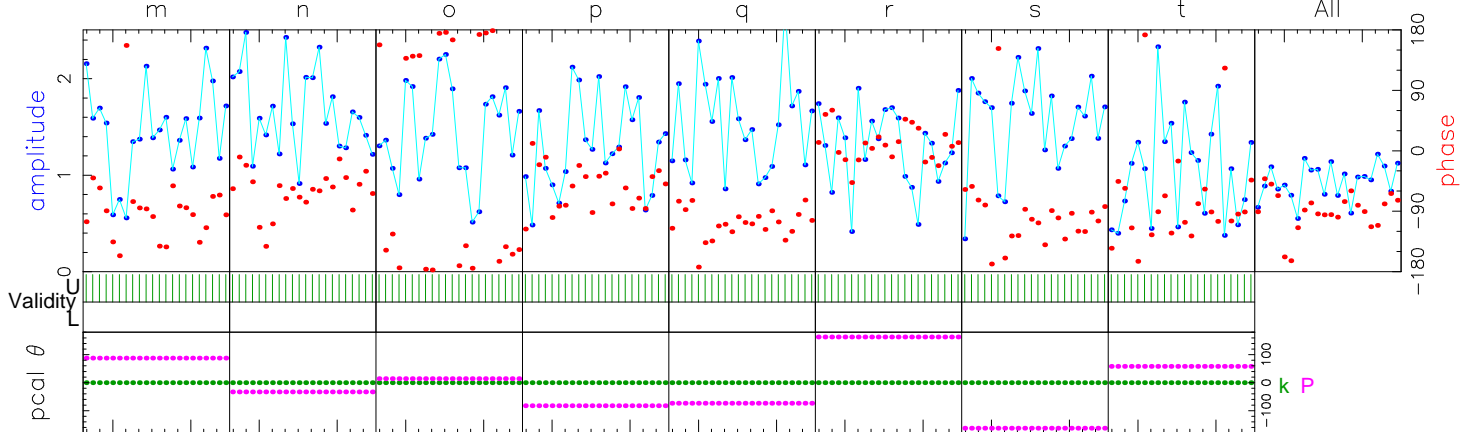


Fringe quality 6

SNR 24.2
 Int time 112.640
 Amp 0.836
 Phase -88.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.180365
 MBD 0.006425
 Fringe rate (Hz)
 0.062265
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113033
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-94.6	-58.2	-177.9	-51.3	-112.0	8.2	-105.7	-100.5	Phase	-88.2		
	1.2	1.4	1.3	1.1	1.4	1.2	1.1	0.8	Ampl.	1.2		
	209.8	211.5	211.7	212.0	212.2	211.8	211.4	209.5	Sbd box	210.8		
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	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			
									Chan ids			
									Tracks			
Group delay (usec) (SBD)	6.23834521047E+03		Apriori delay (usec)		6.23852628544E+03		Resid mbdelay (usec)		6.42503E-03	+/- 4.5E-05		
Sband delay (usec)	6.23834592019E+03		Apriori clock (usec)		1.1606407E+00		Resid sbdelay (usec)		-1.80365E-01	+/- 3.6E-04		
Phase delay (usec)	6.23852628260E+03		Apriori clockrate (us/s)		-4.4603102E-07		Resid phdelay (usec)		-2.84420E-06	+/- 1.5E-07		
Delay rate (us/s)	1.27839143566E+00		Apriori rate (us/s)		1.27839071282E+00		Resid rate (us/s)		7.22836E-07	+/- 2.3E-09		
Total phase (deg)			Apriori accel (us/s/s)		-3.93295835485E-05		Resid phase (deg)		-88.2	+/- 4.7		
	RMS	Theor.	Amplitude	0.836 +/- 0.035		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	29.2	11.1	Search (512X32)	0.800		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	24.7	19.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	58.7	6.7	Inc. seg. avg.	0.920		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	53.2	11.7	Inc. frq. avg.	1.234		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
k: az 47.5 el 60.5 pa -111.0	P: az 307.1 el 35.7 pa 71.7		u, v (fr/asec) -10965.644 -3819.179						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/kP..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/kP.W.183.3MP1AB									

Mk4/DiFX fourfit 3.25 rev 0

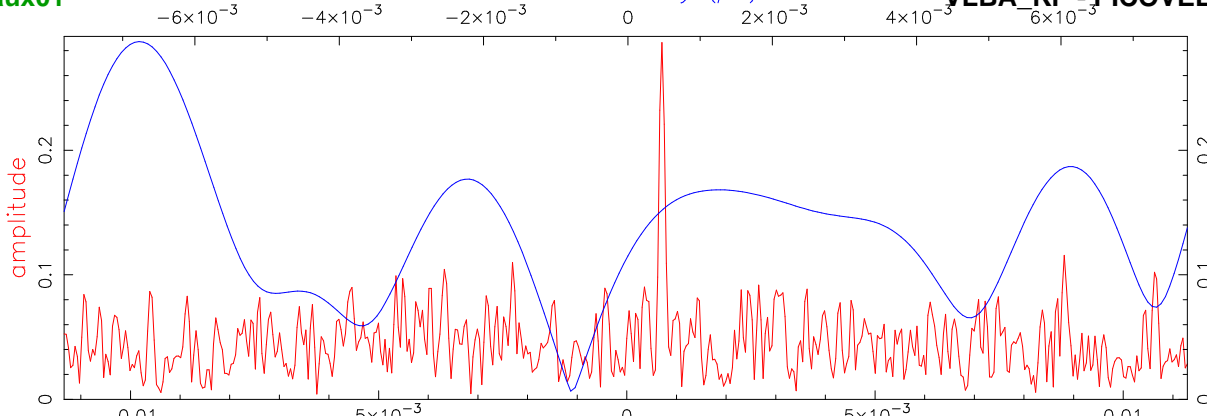
aux01

0133+476.3MP1AB, No0916, kP

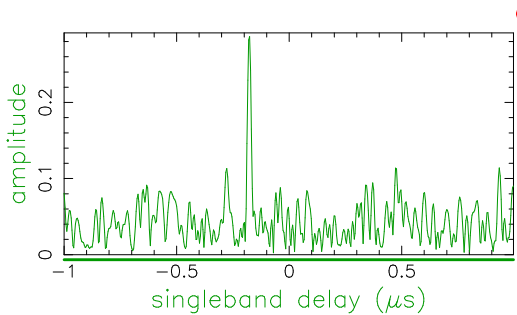
VLBA_KP - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

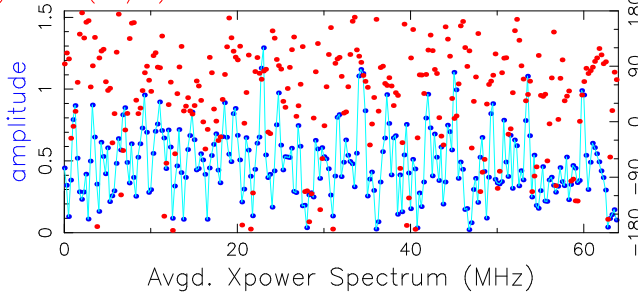
Fringe quality 9



SNR 8.4
 Int time 112.640
 Amp 0.291
 Phase -89.4
 PFD 2.7e-09
 Delays (us)
 SBD -0.177394
 MBD -0.006845
 Fringe rate (Hz)
 0.062887
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

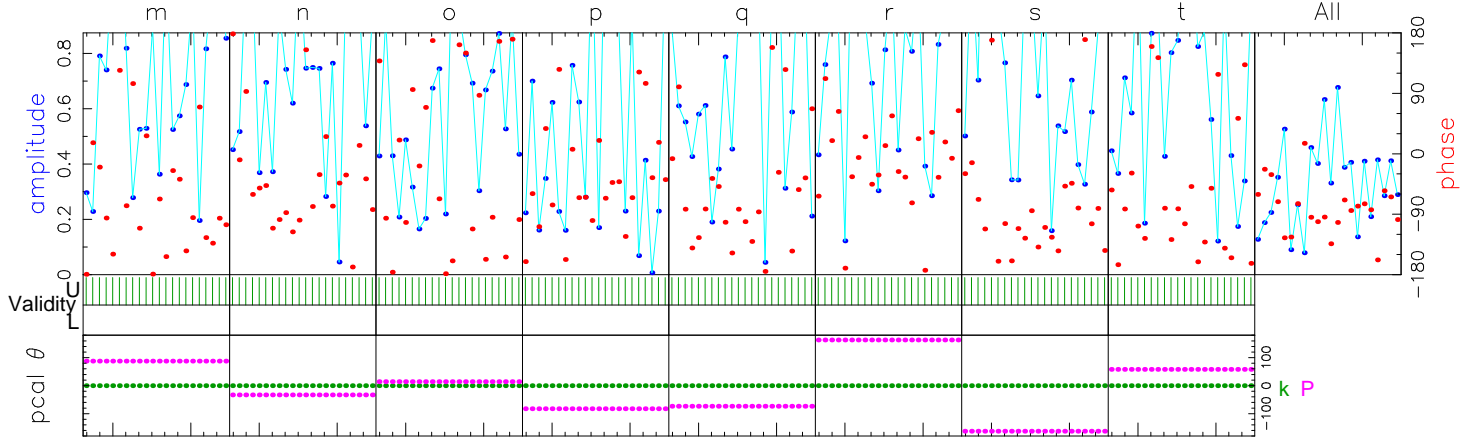


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113034
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 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
	-116.7	-72.9	-160.2	-56.0	-87.0	6.7	-106.7	-120.6	Phase	-89.4
	0.4	0.4	0.3	0.4	0.4	0.5	0.4	0.4	Ampl.	0.4
	92.0	211.6	481.6	212.9	213.2	212.0	212.0	210.3	Sbd box	211.6
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.23834756588E+03	Apriori delay (usec)	6.23852628544E+03	Resid mbdelay (usec)	-6.84457E-03	+/-	1.3E-04
Sband delay (usec)	6.23834889169E+03	Apriori clock (usec)	1.1606407E+00	Resid sbdelay (usec)	-1.77394E-01	+/-	1.0E-03
Phase delay (usec)	6.23852628256E+03	Apriori clockrate (us/s)	-4.4603102E-07	Resid phdelay (usec)	-2.88172E-06	+/-	4.4E-07
Delay rate (us/s)	1.27839144288E+00	Apriori rate (us/s)	1.27839071282E+00	Resid rate (us/s)	7.30061E-07	+/-	6.7E-09
Total phase (deg)	-7.2	Apriori accel (us/s/s)	-3.93295835485E-05	Resid phase (deg)	-89.4	+/-	13.6

ph/seg (deg)	38.4	Theor.	31.8	Amplitude	0.291 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	56.4	Search (512X32)	0.273	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	54.2	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.7	Inc. seg. avg.	0.288	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.395	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

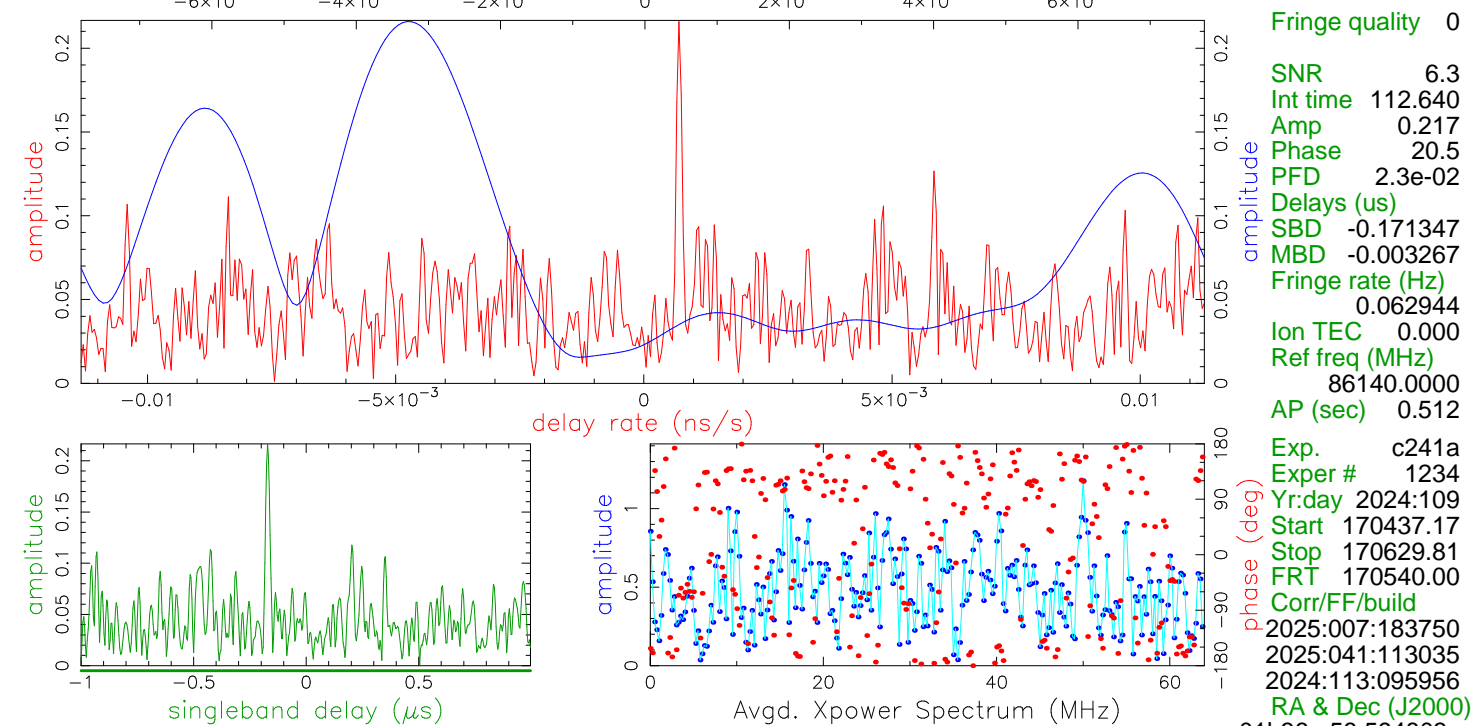
k: az 47.5 el 60.5 pa -111.0 P: az 307.1 el 35.7 pa 71.7 u, v (fr/asec) -10965.644 -3819.179 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kP.W.185.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

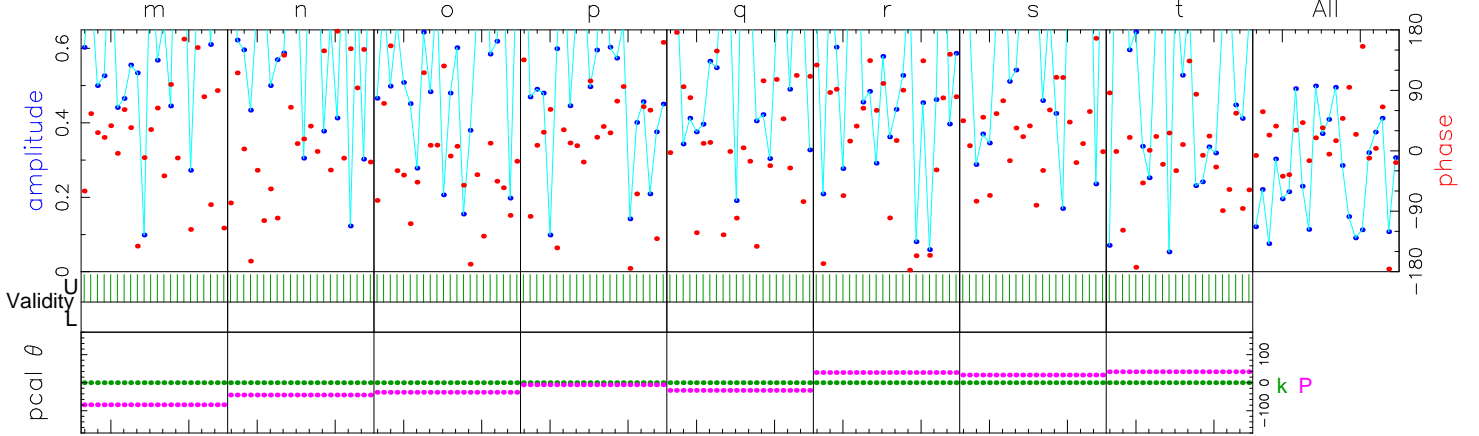
aux01

0133+476.3MP1AB, No0916, kP

VLBA_KP - PICOVEL, fgroup W, pol RL



Amp. and Phase vs. time for each freq., 22 segs, 10 APs / seg (5.12 sec / seg.), time ticks 10 sec



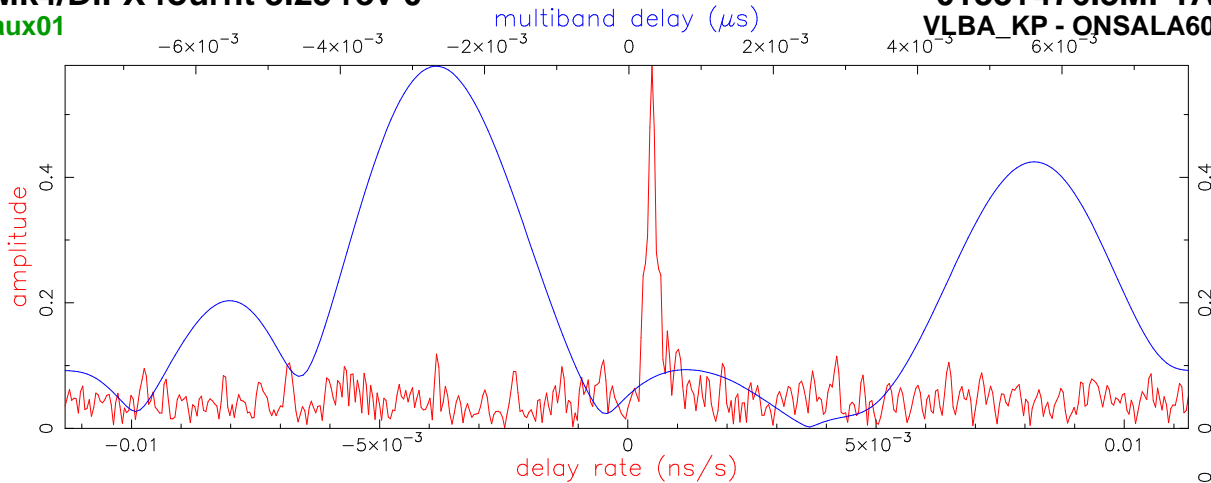
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.7	-1.8	-30.5	42.9	24.2	84.9	25.1	-29.3		Phase 20.5
	0.2	0.2	0.3	0.2	0.1	0.3	0.5	0.3		Ampl. 0.2
	145.9	448.7	136.6	483.1	280.1	92.5	212.9	356.6		Sbd box 213.1
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0		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
										Tracks
Group delay (usec) (SBD)	6.23835114374E+03		Apriori delay (usec)		6.23852628544E+03		Resid mbdelay (usec)		-3.26670E-03	+/- 1.7E-04
Sband delay (usec)	6.23835493819E+03		Apriori clock (usec)		1.1606407E+00		Resid sbdelay (usec)		-1.71347E-01	+/- 1.4E-03
Phase delay (usec)	6.23852628610E+03		Apriori clockrate (us/s)		-4.4603102E-07		Resid phdelay (usec)		6.59983E-07	+/- 5.9E-07
Delay rate (us/s)	1.27839144354E+00		Apriori rate (us/s)		1.27839071282E+00		Resid rate (us/s)		7.30718E-07	+/- 9.1E-09
Total phase (deg)	102.6		Apriori accel (us/s/s)		-3.93295835485E-05		Resid phase (deg)		20.5	+/- 18.3
RMS	55.4	42.8	Amplitude		0.217 +/- 0.035		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
ph/seg (deg)	67.8	74.8	Search (512X32)		0.203		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000	
amp/seg (%)	42.0	25.8	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	
ph/frq (deg)	46.0	45.1	Inc. seg. avg.		0.210		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011	
amp/frq (%)			Inc. frq. avg.		0.242		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	
k: az 47.5 el 60.5 pa -111.0	P: az 307.1 el 35.7 pa 71.7		u, v (fr/asec) -10965.644 -3819.179						ion window (TEC) 0.00 0.00	
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/kP..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/kP.W.189.3MP1AB						simultaneous interpolator	

Mk4/DiFX fourfit 3.25 rev 0

aux01

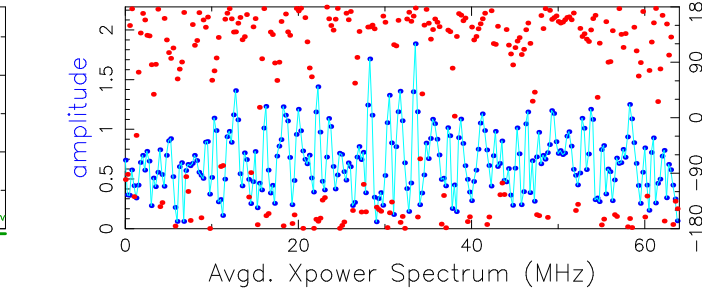
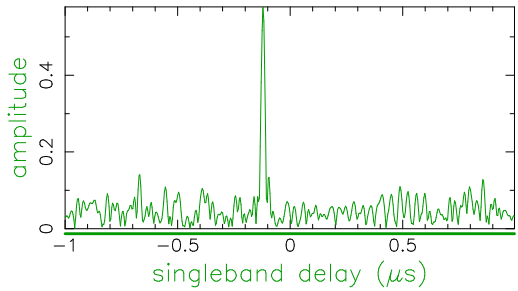
0133+476.3MP1AB, No0916, kX

VLBA_KP - ONSALA60, fgroup W, pol LL



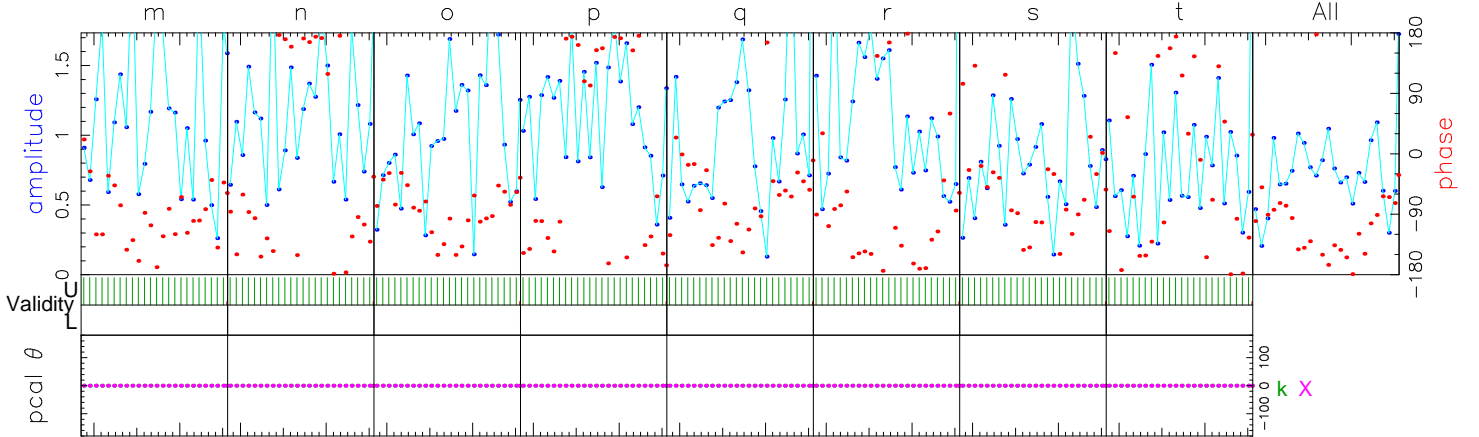
Fringe quality 8

SNR 15.7
 Int time 98.816
 Amp 0.578
 Phase -118.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.120569
 MBD -0.002661
 Fringe rate (Hz)
 0.042736
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113211
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-100.7	-153.8	-87.9	-166.2	-71.8	-135.9	-74.1	-159.7	Phase	-118.6
	0.9	0.8	0.8	0.9	0.7	0.7	0.5	0.4	Ampl.	0.7
	225.5	225.8	226.0	225.9	225.1	226.2	225.2	224.0	Sbd box	226.1
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.29316591664E+03	Apriori delay (usec)	5.29329357755E+03	Resid mbdelay (usec)	-2.66091E-03	+/-	6.9E-05
Sband delay (usec)	5.29317300855E+03	Apriori clock (usec)	-1.1251256E+02	Resid sbdelay (usec)	-1.20569E-01	+/-	5.5E-04
Phase delay (usec)	5.29329357372E+03	Apriori clockrate (us/s)	-1.0644170E+00	Resid phdelay (usec)	-3.82501E-06	+/-	2.4E-07
Delay rate (us/s)	1.03480517499E+00	Apriori rate (us/s)	1.03480467887E+00	Resid rate (us/s)	4.96121E-07	+/-	4.1E-09
Total phase (deg)	158.6	Apriori accel (us/s/s)	-5.50006795884E-05	Resid phase (deg)	-118.6	+/-	7.3

ph/seg (deg)	RMS 38.9	Theor. 18.2	Amplitude Search (512X32)	0.578 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	47.1	31.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	42.7	10.3	Inc. seg. avg.	0.680	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	38.2	18.0	Inc. frq. avg.	0.700	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011

k: az 47.5 el 60.5 pa -111.0 X: az 301.3 el 38.5 pa 43.4 u,v (fr/asec) -8891.320 -6615.586 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kX..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kX.W.349.3MP1AB

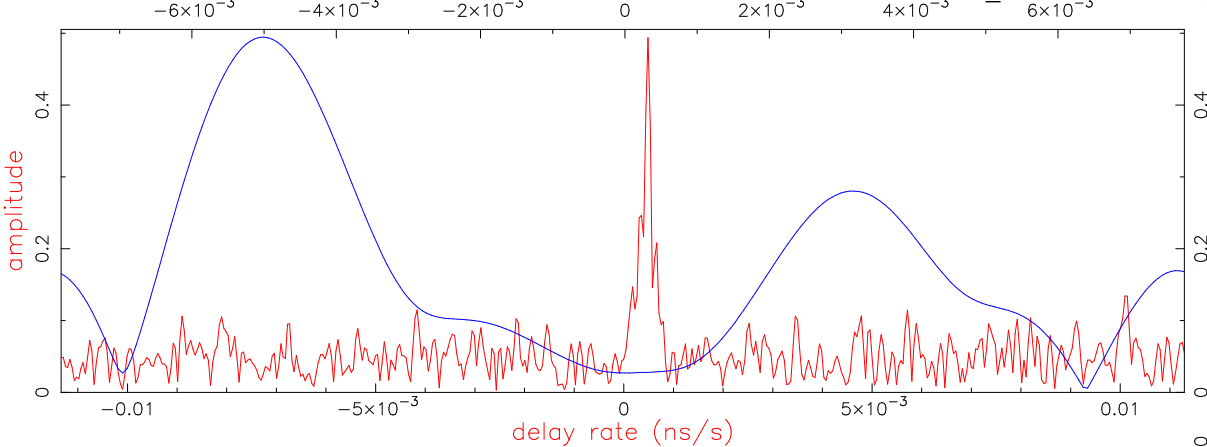
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kX

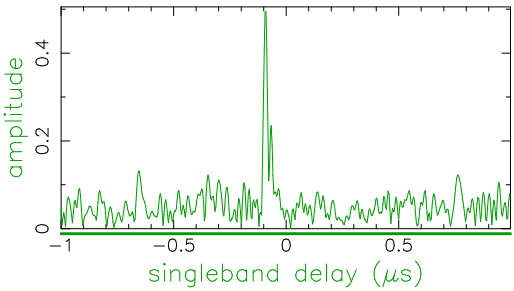
VLBA_KP - ONSALA60, fgroup W, pol RR

multiband delay (μ s)

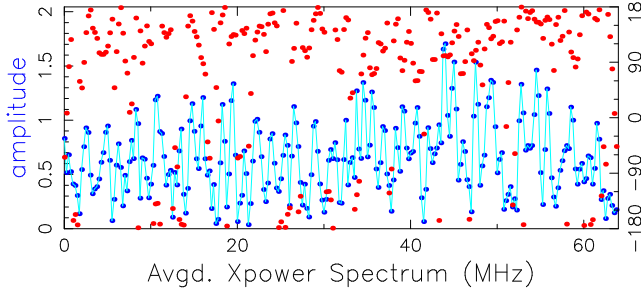


Fringe quality 9

SNR 13.7
 Int time 98.816
 Amp 0.505
 Phase -142.6
 PFD 1.0e-34
 Delays (us)
 SBD -0.091759
 MBD -0.005074
 Fringe rate (Hz)
 0.042014
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

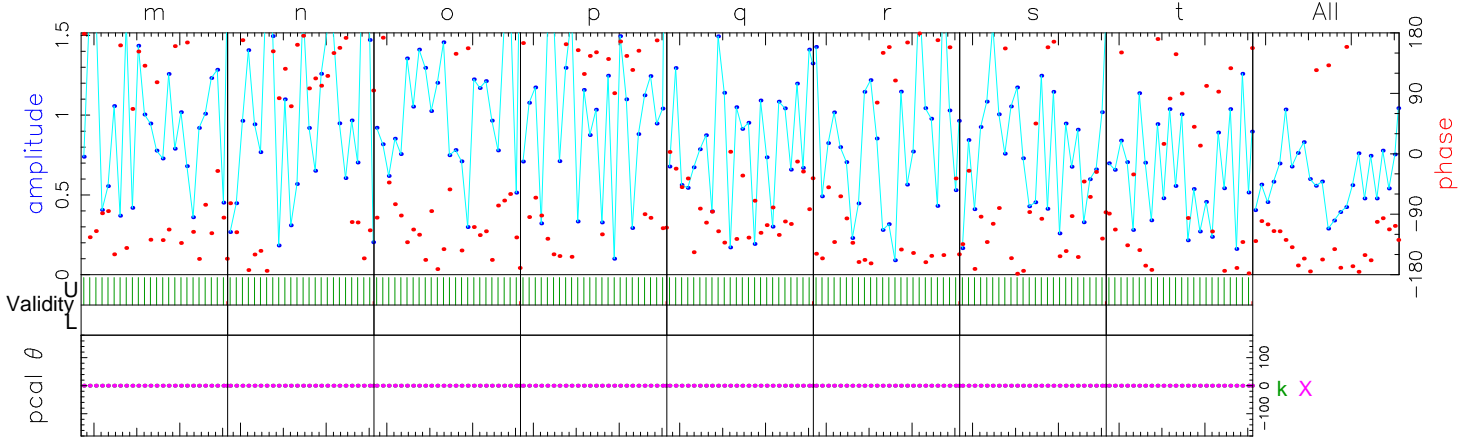


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113214
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-139.2	173.3	-115.8	-163.6	-86.0	-154.4	-125.3	168.2	Phase	-142.6	
	0.6	0.7	0.8	0.6	0.6	0.6	0.5	0.3	Ampl.	0.6	
	233.1	233.7	233.0	233.3	232.7	233.4	231.9	231.0	Sbd box	233.5	
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used		
k	0	0	0	0	0	0	0	0	PC freqs		
X	0	0	0	0	0	0	0	0	PC freqs		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
X	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	5.29319475361E+03		Apriori delay (usec)		5.29329357755E+03		Resid mbdelay (usec)		-5.07394E-03	+/- 7.9E-05	
Sband delay (usec)	5.29320181830E+03		Apriori clock (usec)		-1.1251256E+02		Resid sbdelay (usec)		-9.17592E-02	+/- 6.3E-04	
Phase delay (usec)	5.29329357295E+03		Apriori clockrate (us/s)		-1.0644170E+02		Resid phdelay (usec)		-4.59834E-06	+/- 2.7E-07	
Delay rate (us/s)	1.03480516661E+00		Apriori rate (us/s)		1.03480467887E+00		Resid rate (us/s)		4.87743E-07	+/- 4.7E-09	
Total phase (deg)			134.6		Apriori accel (us/s/s)		-5.50006795884E-05		Resid phase (deg)	-142.6	+/- 8.3

ph/seg (deg) 38.3 20.9 Search (512X32) 0.489 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.4 36.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.1 11.8 Inc. seg. avg. 0.561 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.4 20.6 Inc. frq. avg. 0.573 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 k: az 47.5 el 60.5 pa -111.0 X: az 301.3 el 38.5 pa 43.4 u,v (fr/asec) -8891.320 -6615.586 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kX..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kX.W.350.3MP1AB

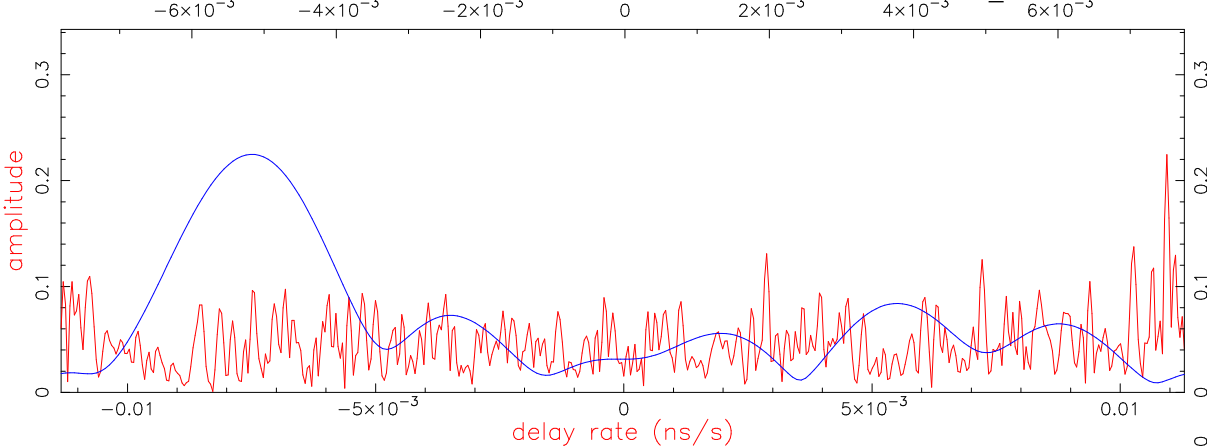
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kX

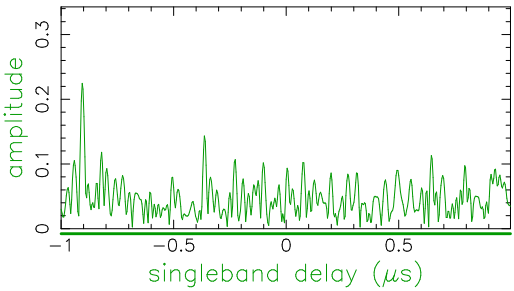
VLBA_KP - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

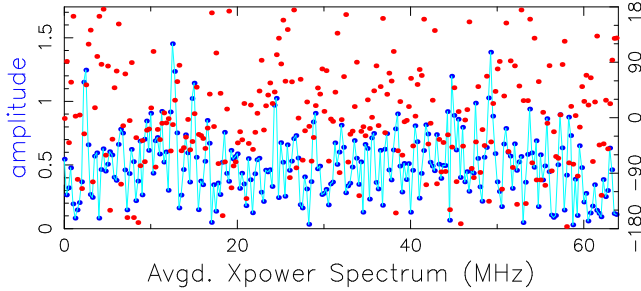


Fringe quality 0

SNR 6.1
 Int time 98.816
 Amp 0.343
 Phase 66.0
 PFD 5.4e-02
 Delays (us)
 SBD -0.905240
 MBD -0.005108
 Fringe rate (Hz)
 0.942643
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

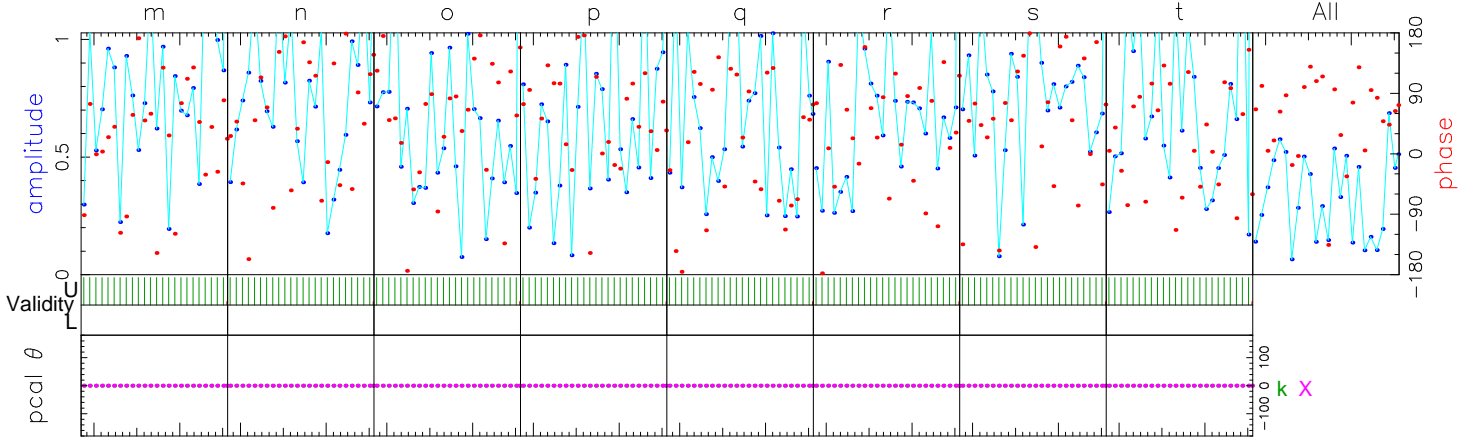


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113217
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	44.2	86.8	93.1	66.1	84.3	48.4	77.5	42.9	Phase	66.0
	0.5	0.2	0.5	0.5	0.2	0.4	0.3	0.3	Ampl.	0.3
	231.5	434.4	51.2	224.5	408.4	44.9	289.3	164.0	Sbd box	25.3
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.29238221947E+03	Apriori delay (usec)	5.29329357755E+03	Resid mbdelay (usec)	-5.10808E-03	+/-	1.8E-04
Sband delay (usec)	5.29238833805E+03	Apriori clock (usec)	-1.1251256E+02	Resid sbdelay (usec)	-9.05240E-01	+/-	1.4E-03
Phase delay (usec)	5.29329357968E+03	Apriori clockrate (us/s)	-1.0644170E-02	Resid phdelay (usec)	2.12743E-06	+/-	6.0E-07
Delay rate (us/s)	1.03481562202E+00	Apriori rate (us/s)	1.03480467887E+00	Resid rate (us/s)	1.09431E-05	+/-	1.1E-08
Total phase (deg)	343.2	Apriori accel (us/s/s)	-5.50006795884E-05	Resid phase (deg)	66.0	+/-	18.7

ph/seg (deg)	56.0	Theor.	46.7	Amplitude	0.343 +/- 0.056	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	91.5	Search (512X32)	0.220	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	22.2	Inc. seg. avg.	0.376	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	29.8	Inc. frq. avg.	0.327	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

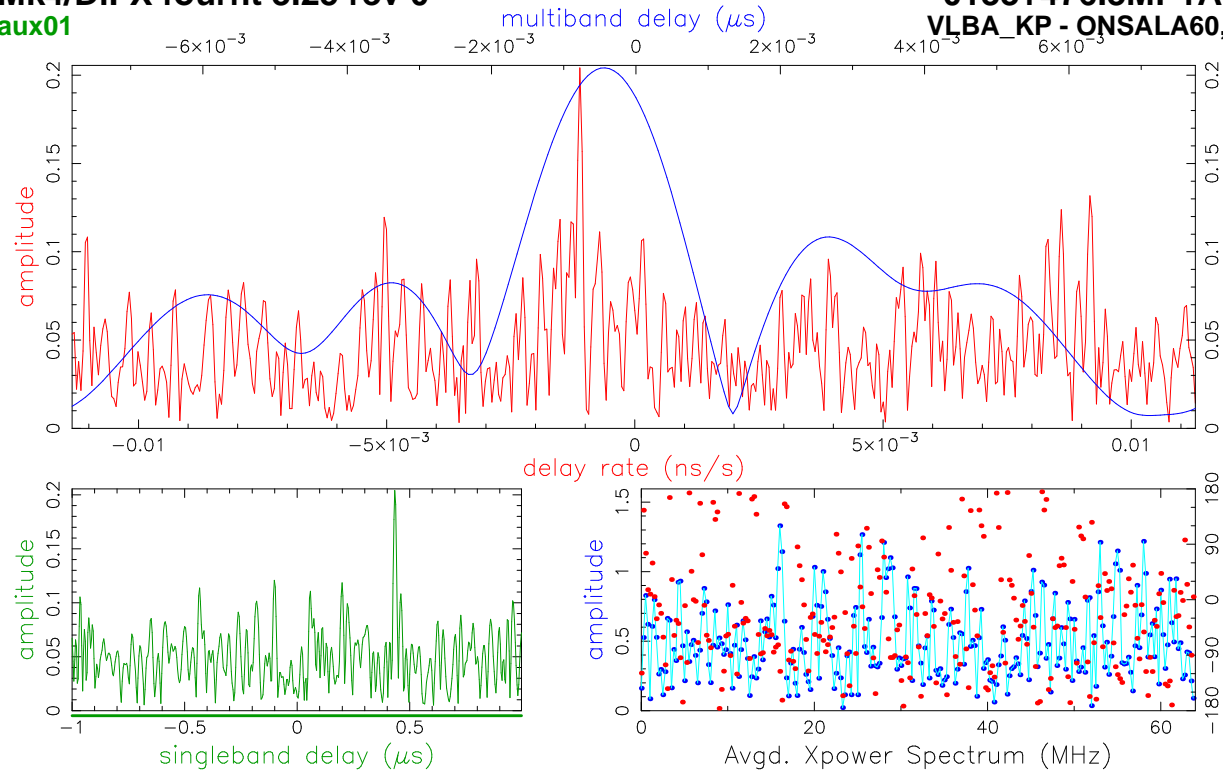
k: az 47.5 el 60.5 pa -111.0 X: az 301.3 el 38.5 pa 43.4 u,v (fr/asec) -8891.320 -6615.586 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kX..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kX.W.354.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

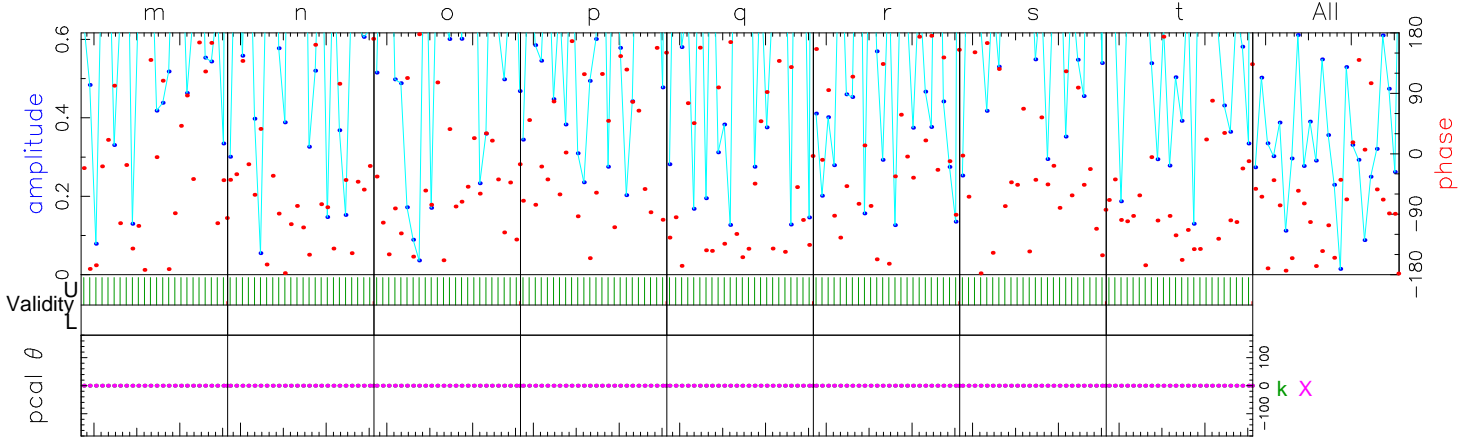
0133+476.3MP1AB, No0916, kX

VLBA_KP - ONSALA60, fgroup W, pol RL



Fringe quality 0
 SNR 5.6
 Int time 98.816
 Amp 0.206
 Phase -90.3
 PFD 7.9e-01
 Delays (us)
 SBD 0.434274
 MBD -0.000419
 Fringe rate (Hz)
 -0.096137
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113220
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-107.8	-88.5	-64.3	-74.3	-135.6	-80.4	-69.2	-94.8	Phase	-90.3	
	0.1	0.4	0.3	0.1	0.3	0.1	0.3	0.3	Ampl.	0.2	
	115.5	367.8	357.0	140.8	368.8	114.5	352.1	273.3	Sbd box	368.2	
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used		
k	0	0	0	0	0	0	0	0	PC freqs		
X	0	0	0	0	0	0	0	0	PC freqs		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
k:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
X	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	5.29373065833E+03		Apriori delay (usec)		5.29329357755E+03		Resid mbdelay (usec)		-4.19224E-04	+/- 1.9E-04	
Sband delay (usec)	5.29372785130E+03		Apriori clock (usec)		-1.1251256E+02		Resid sbdelay (usec)		4.34274E-01	+/- 1.5E-03	
Phase delay (usec)	5.29329357464E+03		Apriori clockrate (us/s)		-1.0644170E-02		Resid phdelay (usec)		-2.91278E-06	+/- 6.6E-07	
Delay rate (us/s)	1.03480356282E+00		Apriori rate (us/s)		1.03480467887E+00		Resid rate (us/s)		-1.11605E-06	+/- 1.2E-08	
Total phase (deg)			Apriori accel (us/s/s)		-5.50006795884E-05		Resid phase (deg)		-90.3	+/- 20.6	
	RMS	Theor.	Amplitude	0.206 +/- 0.037		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.0	51.5	Search (512X32)	0.200		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	99.7	89.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	25.3	29.1	Inc. seg. avg.	0.243		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	57.3	50.8	Inc. frq. avg.	0.199		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
k: az 47.5 el 60.5 pa -111.0		X: az 301.3 el 38.5 pa 43.4		u, v (fr/asec) -8891.320 -6615.586		simultaneous interpolator					
Control file: cf_1234_gmva		Input file: /Exps/c241a/v2/3mm/1234/No0916/kX..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/kX.W.356.3MP1AB							

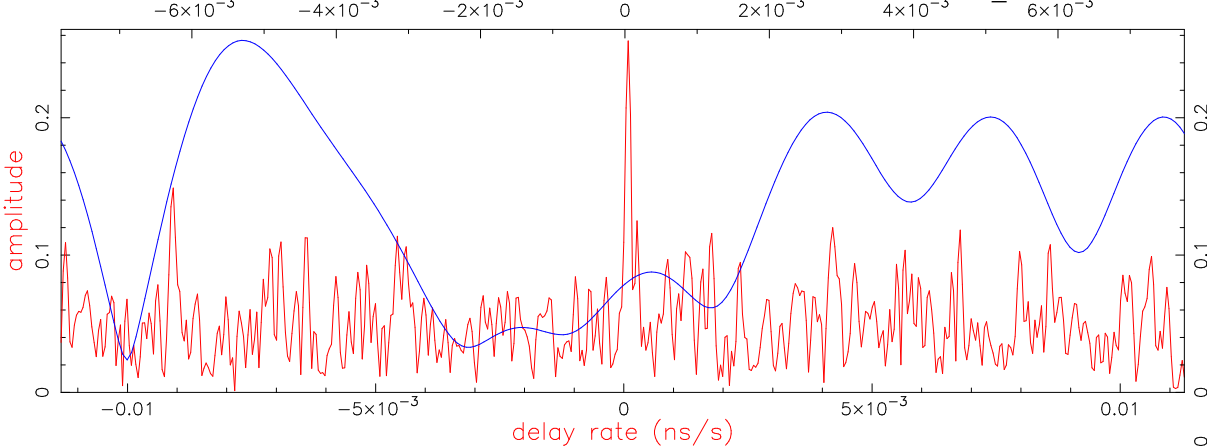
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kY

VLBA_KP - YEBES40M, fgroup W, pol LL

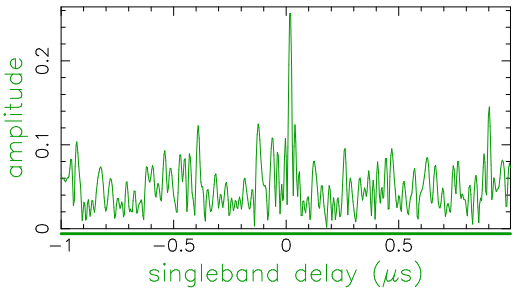
multiband delay (μ s)



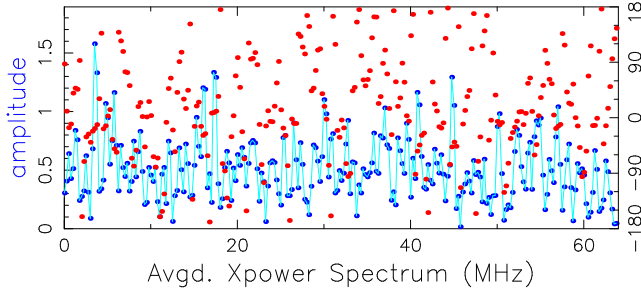
Fringe quality 9

SNR 7.2
 Int time 99.772
 Amp 0.264
 Phase -88.8
 PFD 4.0e-05
 Delays (us)
 SBD 0.017608
 MBD -0.005233
 Fringe rate (Hz)
 0.006607
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

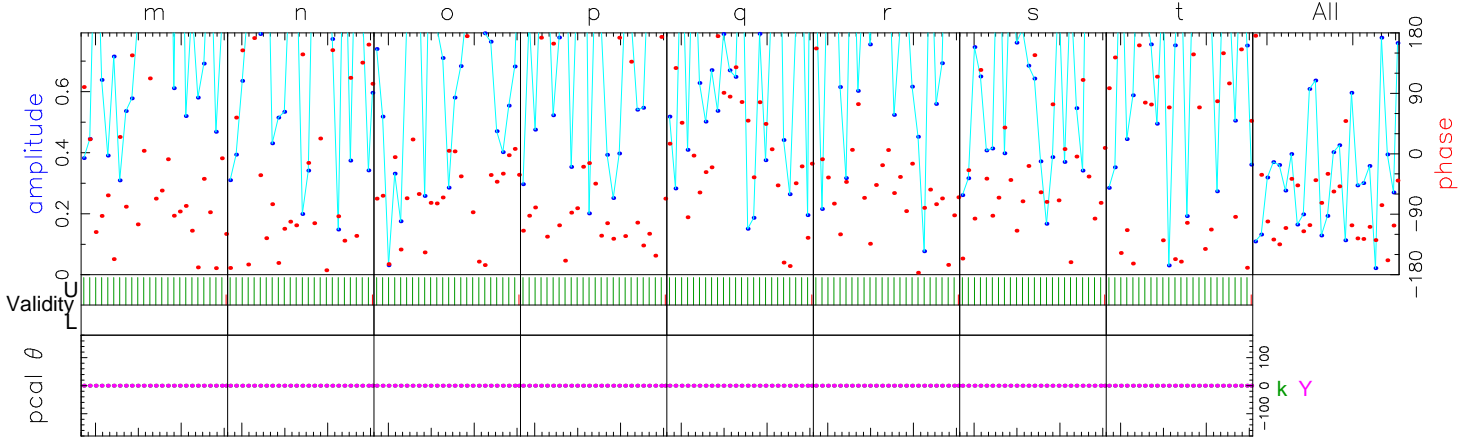
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113131
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-74.2	-146.1	-58.1	-120.3	10.7	-60.6	-60.8	172.4	Phase	-88.8
	0.5	0.4	0.4	0.5	0.3	0.5	0.4	0.4	Ampl.	0.4
	260.6	261.1	261.8	260.7	121.1	261.0	260.1	258.6	Sbd box	261.5
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.79884958079E+03	Apriori delay (usec)	5.79883918895E+03	Resid mbdelay (usec)	-5.23315E-03	+/-	1.5E-04
Sband delay (usec)	5.79885679745E+03	Apriori clock (usec)	1.1070078E+02	Resid sbdelay (usec)	1.76085E-02	+/-	1.2E-03
Phase delay (usec)	5.79883918609E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	-2.86375E-06	+/-	5.1E-07
Delay rate (us/s)	1.24122152033E+00	Apriori rate (us/s)	1.24122144362E+00	Resid rate (us/s)	7.67056E-08	+/-	8.9E-09
Total phase (deg)	176.2	Apriori accel (us/s/s)	-4.03368446042E-05	Resid phase (deg)	-88.8	+/-	15.9

ph/seg (deg)	50.1	Theor.	39.7	Amplitude	0.264 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.5	Search (512X32)	0.252	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	66.7	Inc. seg. avg.	0.269	Inc. frq. avg.	0.387	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	61.3	Inc. frq. avg.	0.387			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 47.5 el 60.5 pa -111.0 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10648.006 -4186.228 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kY.W.276.3MP1AB

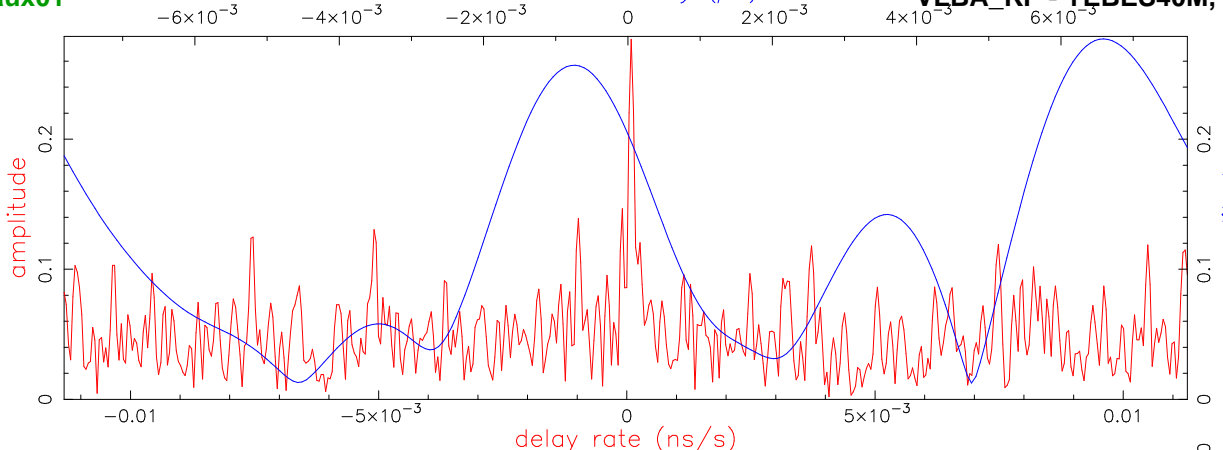
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kY

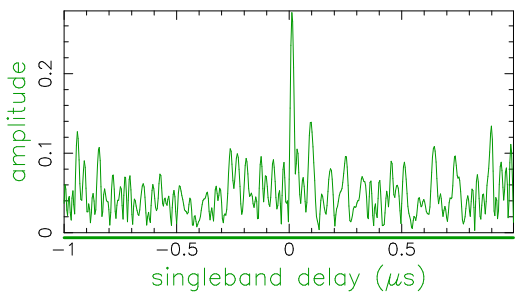
VLBA_KP - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

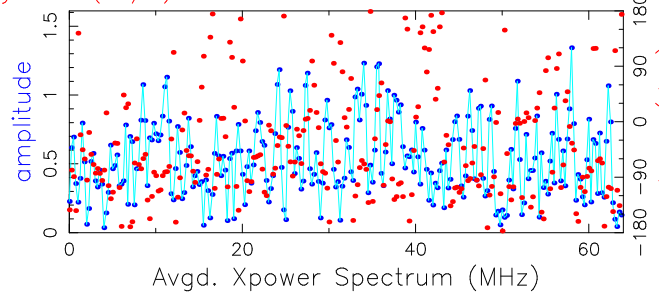


Fringe quality 9

SNR 7.6
 Int time 99.772
 Amp 0.279
 Phase -3.4
 PFD 2.0e-06
 Delays (us)
 SBD 0.012840
 MBD 0.006640
 Fringe rate (Hz)
 0.007149
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

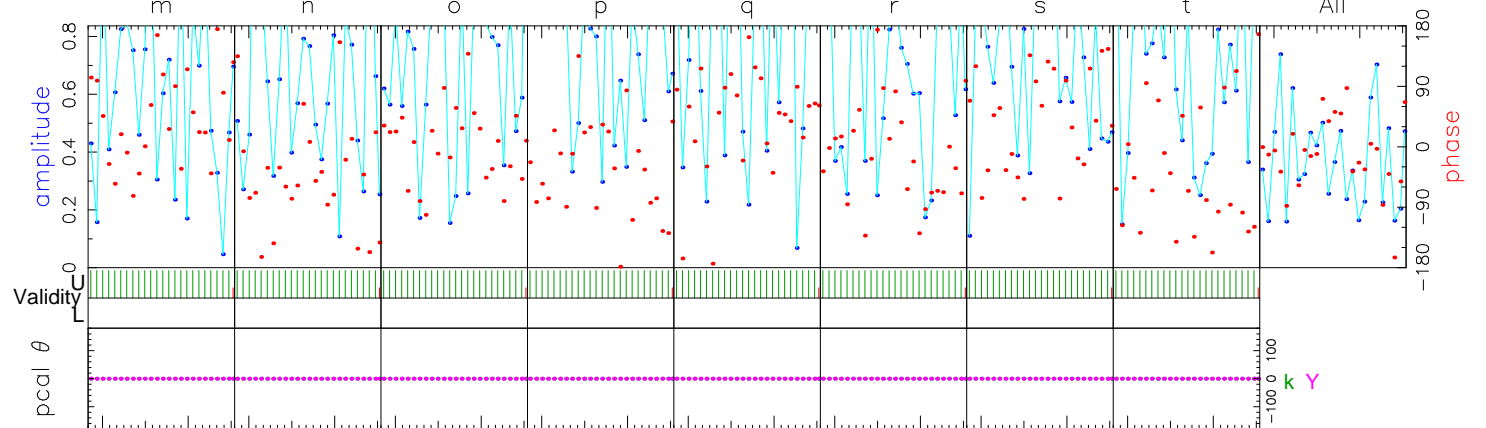


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113132
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	19.7	-60.3	6.3	-47.7	62.9	-13.9	45.1	-78.3	Phase	-3.4
	0.4	0.3	0.5	0.5	0.6	0.4	0.3	0.3	Ampl.	0.4
	259.9	15.2	261.1	259.6	260.5	260.2	460.6	258.5	Sbd box	260.3
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	5.79884582929E+03		Apriori delay (usec)		5.79883918895E+03		Resid mbdelay (usec)		6.64035E-03	+/- 1.4E-04
Sband delay (usec)	5.79885202895E+03		Apriori clock (usec)		1.1070078E+02		Resid sbdelay (usec)		1.28400E-02	+/- 1.1E-03
Phase delay (usec)	5.79883918884E+03		Apriori clockrate (us/s)		1.3658751E-06		Resid phdelay (usec)		-1.09132E-07	+/- 4.8E-07
Delay rate (us/s)	1.24122152662E+00		Apriori rate (us/s)		1.24122144362E+00		Resid rate (us/s)		8.29976E-08	+/- 8.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.03368446042E-05		Resid phase (deg)		-3.4	+/- 15.0

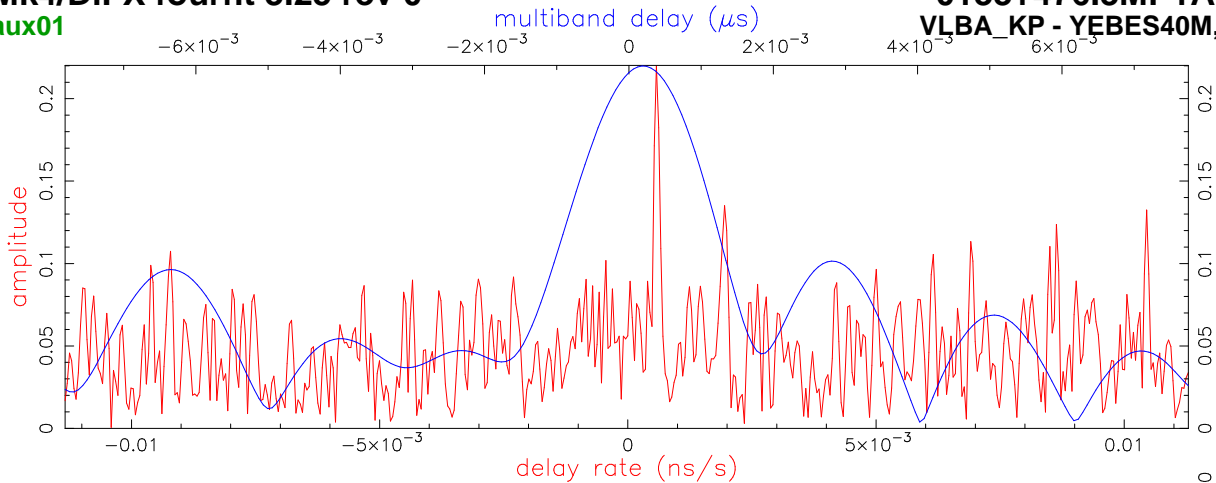
ph/seg (deg) 55.2 37.6 Amplitude 0.279 +/- 0.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.8 65.6 Search (512X32) 0.271 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.2 21.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.3 37.1 Inc. seg. avg. 0.308 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.372 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 k: az 47.5 el 60.5 pa -111.0 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10648.006 -4186.228 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kY.W.279.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

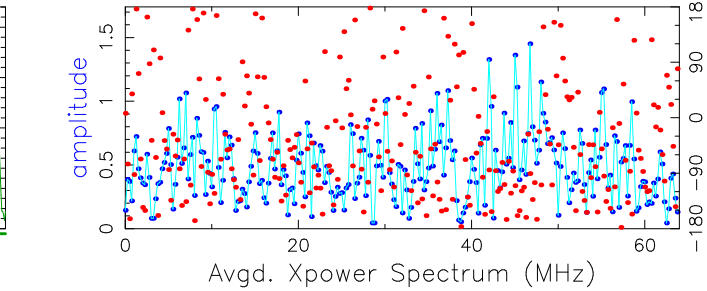
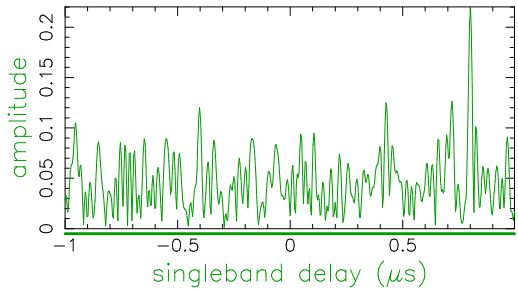
0133+476.3MP1AB, No0916, kY

VLBA_KP - YEBES40M, fgroup W, pol LR



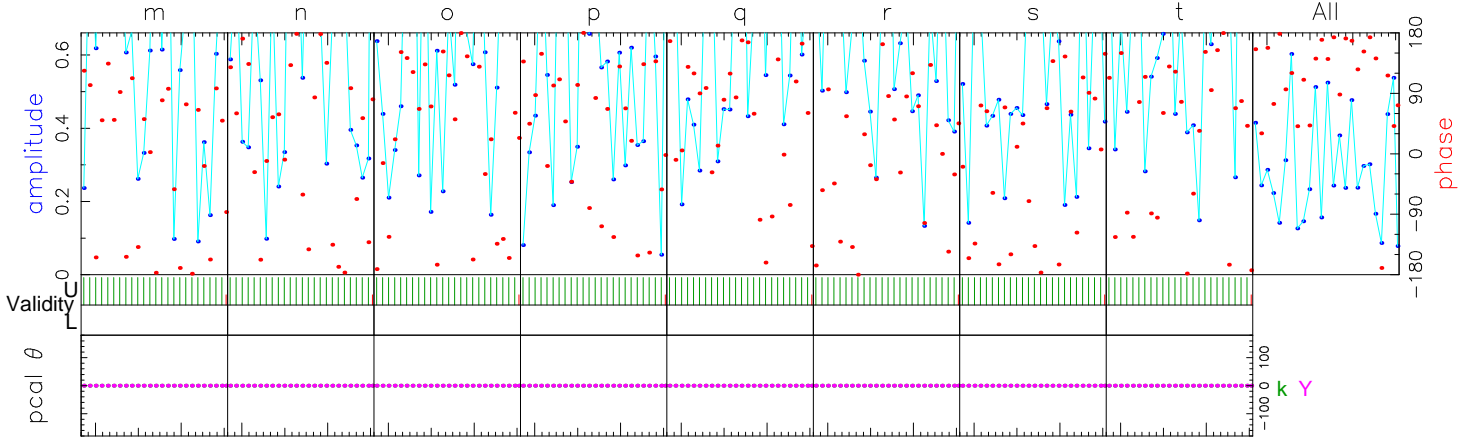
Fringe quality 0

SNR 6.0
 Int time 99.772
 Amp 0.220
 Phase 127.0
 PFD 1.1e-01
 Delays (us)
 SBD 0.800492
 MBD 0.000190
 Fringe rate (Hz) 0.050937
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113133
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0		
k	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	5.79963625420E+03	Apriori delay (usec)	5.79883918895E+03	Resid mbdelay (usec)	1.90250E-04	+/-	1.8E-04
Sband delay (usec)	5.79963968045E+03	Apriori clock (usec)	1.1070078E+02	Resid sbdelay (usec)	8.00492E-01	+/-	1.4E-03
Phase delay (usec)	5.79883919304E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	4.09504E-06	+/-	6.2E-07
Delay rate (us/s)	1.24122203496E+00	Apriori rate (us/s)	1.24122144362E+00	Resid rate (us/s)	5.91334E-07	+/-	1.1E-08
Total phase (deg)		Apriori accel (us/s/s)	-4.03368446042E-05	Resid phase (deg)	127.0	+/-	19.1

ph/seg (deg)	48.6	Theor.	47.7	Amplitude	0.220 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.1	Search (512X32)	0.207	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	25.2	Inc. seg. avg.	0.225	Inc. frq. avg.	0.209	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	40.5	Inc. frq. avg.	0.209			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 47.5 el 60.5 pa -111.0 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10648.006 -4186.228 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kY.W.282.3MP1AB

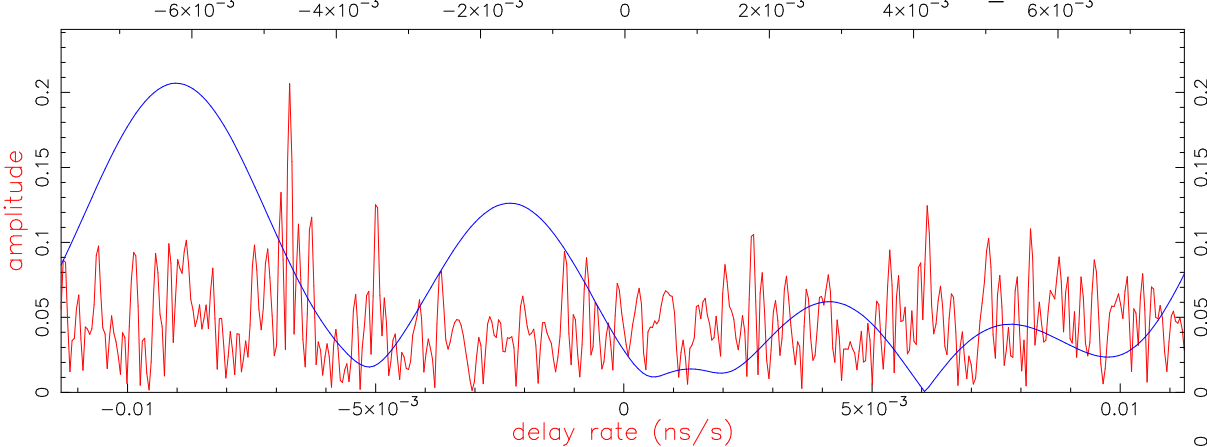
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kY

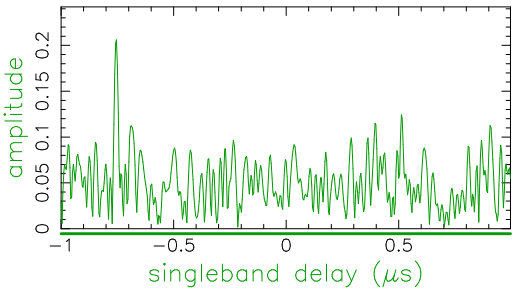
VLBA_KP - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

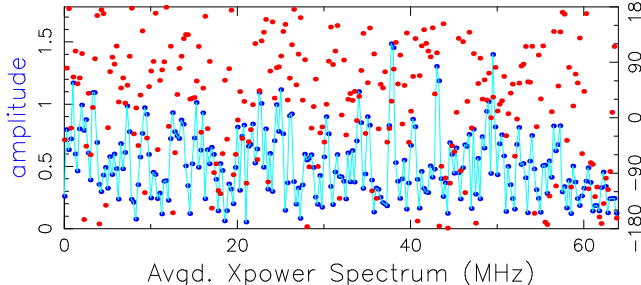


Fringe quality 0

SNR 5.7
 Int time 99.772
 Amp 0.242
 Phase 79.0
 PFD 5.4e-01
 Delays (us)
 SBD -0.755391
 MBD -0.006280
 Fringe rate (Hz)
 -0.581342
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

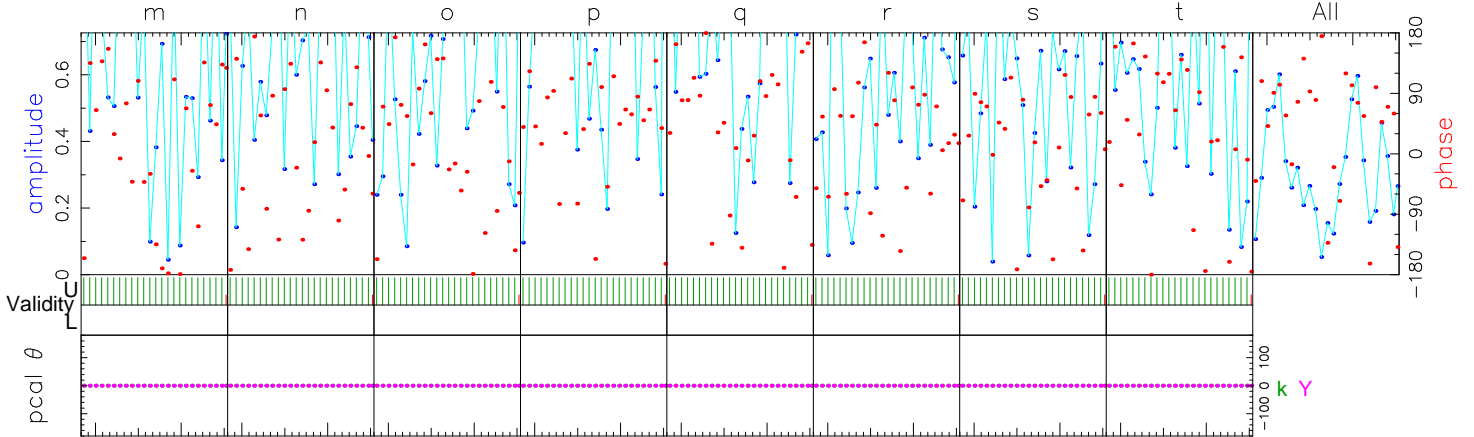


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113134
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	87.5	96.0	42.8	71.8	106.7	55.1	48.4	114.4	Phase	79.0
	0.2	0.1	0.2	0.5	0.4	0.3	0.2	0.3	Ampl.	0.2
	387.9	319.0	222.6	64.3	62.7	313.8	329.8	387.5	Sbd box	63.6
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.79808290908E+03	Apriori delay (usec)	5.79883918895E+03	Resid mbdelay (usec)	-6.27987E-03	+/-	1.9E-04
Sband delay (usec)	5.79808379845E+03	Apriori clock (usec)	1.1070078E+02	Resid sbdelay (usec)	-7.55391E-01	+/-	1.5E-03
Phase delay (usec)	5.79883919150E+03	Apriori clockrate (us/s)	1.3658751E-06	Resid phdelay (usec)	2.54870E-06	+/-	6.5E-07
Delay rate (us/s)	1.24121469482E+00	Apriori rate (us/s)	1.24122144362E+00	Resid rate (us/s)	-6.74880E-06	+/-	1.1E-08
Total phase (deg)	344.0	Apriori accel (us/s/s)	-4.03368446042E-05	Resid phase (deg)	79.0	+/-	20.1

ph/seg (deg)	70.2	Theor.	50.4	Amplitude	0.242 +/- 0.043	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	86.7	Search (512X32)	0.197	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	29.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	57.1	Inc. seg. avg.	0.257	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.234	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 47.5 el 60.5 pa -111.0 Y: az 305.2 el 37.5 pa 68.1 u,v (fr/asec) -10648.006 -4186.228 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kY.W.284.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

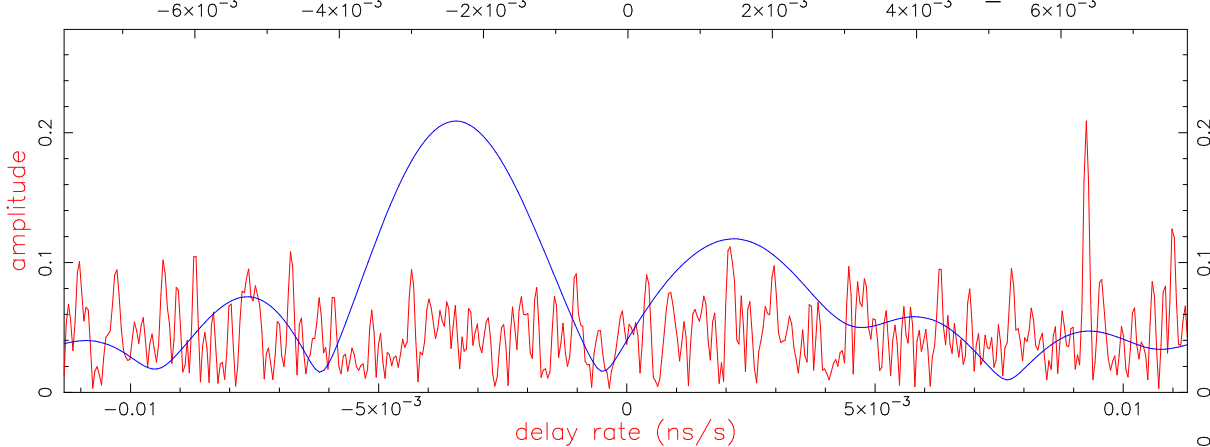
aux01

0133+476.3MP1AB, No0916, kZ

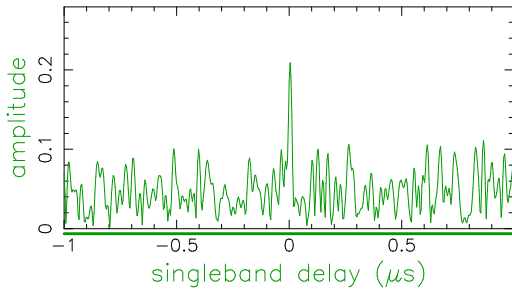
VLBA_KP - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

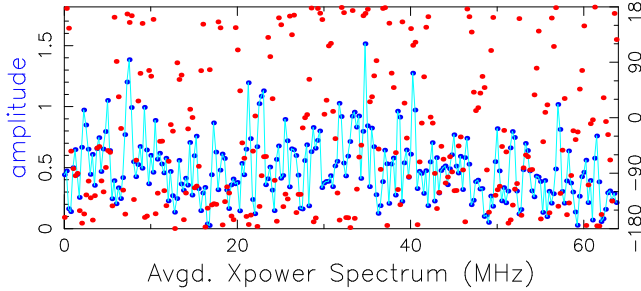
Fringe quality 0



SNR 5.7
 Int time 98.746
 Amp 0.280
 Phase -68.8
 PFD 5.6e-01
 Delays (us)
 SBD 0.004205
 MBD -0.002378
 Fringe rate (Hz)
 0.796613
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

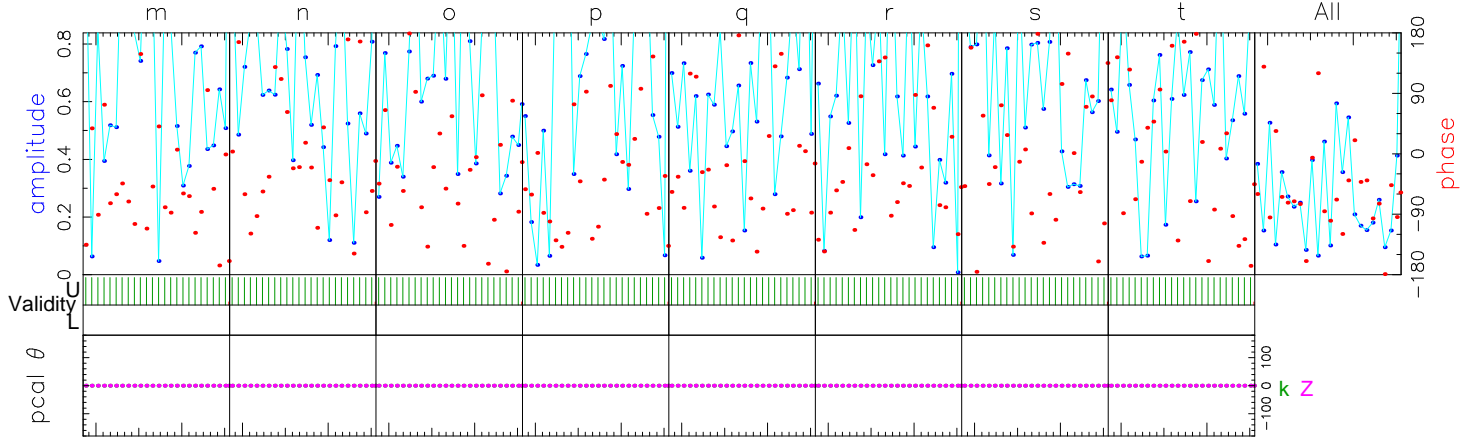


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113155
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-84.6	-45.3	-31.0	-91.9	-60.6	-58.5	-55.3	-127.3	Phase	-68.8
	0.6	0.4	0.1	0.3	0.4	0.4	0.2	0.1	Ampl.	0.3
	384.0	372.8	336.3	366.2	427.5	194.4	415.8	131.8	Sbd box	258.1
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.51911330394E+03	Apriori delay (usec)	6.51911568178E+03	Resid mbdelay (usec)	-2.37784E-03	+/-	1.9E-04
Sband delay (usec)	6.51911988628E+03	Apriori clock (usec)	3.7595749E-02	Resid sbdelay (usec)	4.20450E-03	+/-	1.5E-03
Phase delay (usec)	6.51911567956E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-2.22002E-06	+/-	6.5E-07
Delay rate (us/s)	9.76825831276E-01	Apriori rate (us/s)	9.76816583395E-01	Resid rate (us/s)	9.24788E-06	+/-	1.1E-08
Total phase (deg)	229.3	Apriori accel (us/s/s)	-6.30658677582E-05	Resid phase (deg)	-68.8	+/-	20.2

ph/seg (deg)	66.7	Theor.	50.4	Amplitude	0.280 +/- 0.049	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	84.0	Search (512X32)	0.205	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	33.0	Inc. seg. avg.	0.265	Inc. frq. avg.	0.269	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	53.2	Inc. frq. avg.	0.269			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 47.5 el 60.5 pa -111.0 Z: az 307.5 el 34.7 pa 36.0 u,v (fr/asec) -8400.923 -7472.462 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kZ.W.334.3MP1AB

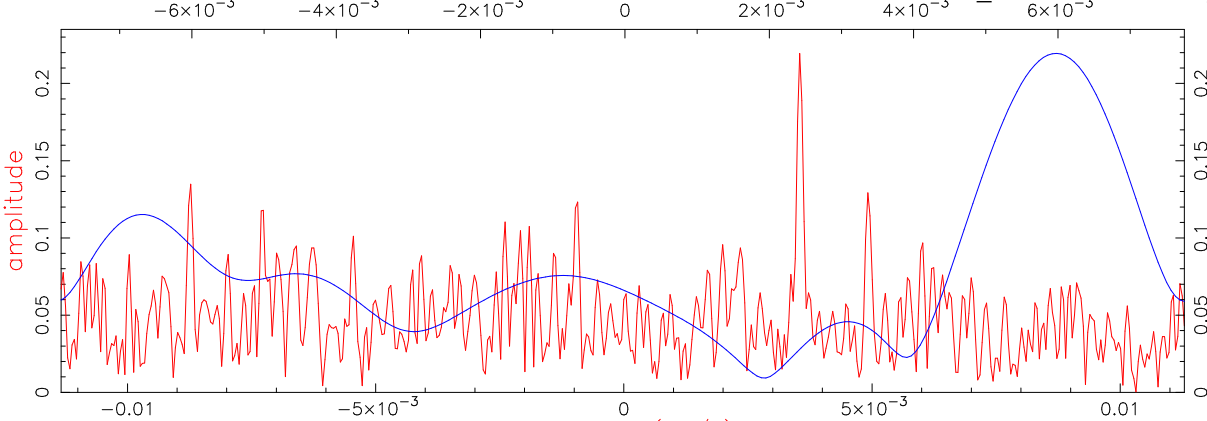
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kZ

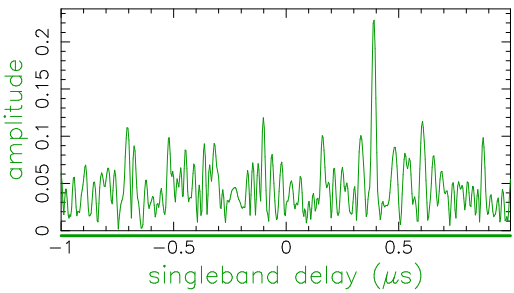
VLBA_KP - METSAHOV, fgroup W, pol RR

multiband delay (μ s)



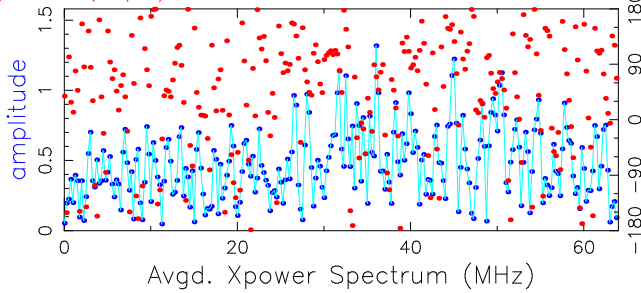
Fringe quality 0

SNR 6.1
 Int time 98.746
 Amp 0.235
 Phase -179.3
 PFD 5.5e-02
 Delays (us)
 SBD 0.389068
 MBD 0.005959
 Fringe rate (Hz)
 0.304179
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



singleband delay (μ s)

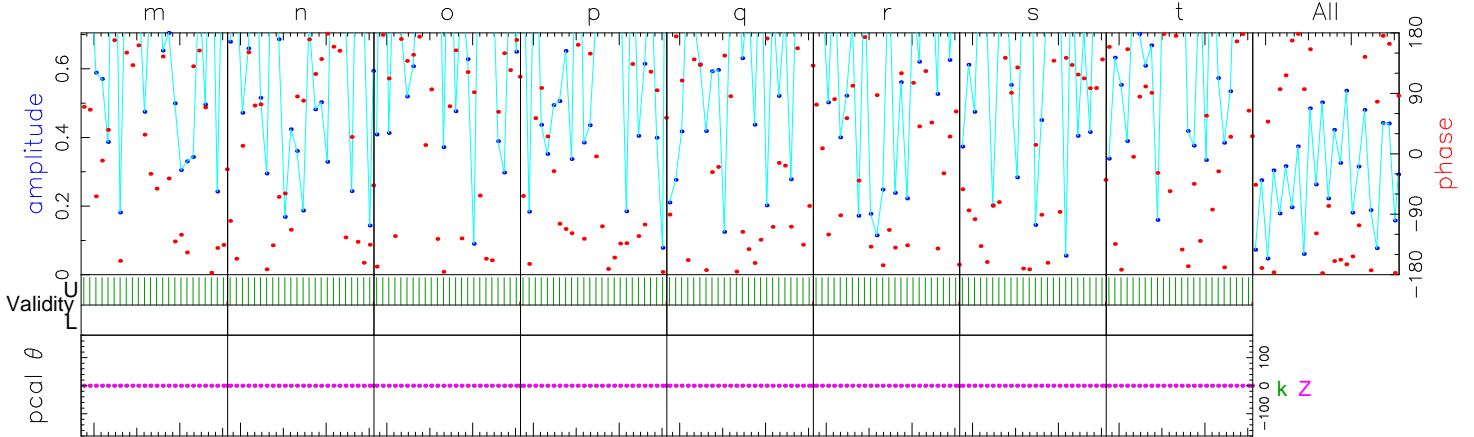
delay rate (ns/s)



Avgd. Xpower Spectrum (MHz)

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113156
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0		
k	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.51951226599E+03	Apriori delay (usec)	6.51911568178E+03	Resid mbdelay (usec)	5.95922E-03	+/-	1.8E-04
Sband delay (usec)	6.51950474978E+03	Apriori clock (usec)	3.7595749E-02	Resid sbdelay (usec)	3.89068E-01	+/-	1.4E-03
Phase delay (usec)	6.51911567600E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-5.78120E-06	+/-	6.0E-07
Delay rate (us/s)	9.76820114616E-01	Apriori rate (us/s)	9.76816583395E-01	Resid rate (us/s)	3.53122E-06	+/-	1.1E-08
Total phase (deg)	118.9	Apriori accel (us/s/s)	-6.30658677582E-05	Resid phase (deg)	-179.3	+/-	18.7

ph/seg (deg)	60.8	RMS	Theor.	Amplitude	0.235 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.5	60.8	46.7	Search (512X32)	0.217	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.7	70.5	81.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.0	44.7	26.4	Inc. seg. avg.	0.224	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		37.0	46.1	Inc. frq. avg.	0.241	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 47.5 el 60.5 pa -111.0 Z: az 307.5 el 34.7 pa 36.0 u, v (fr/asec) -8400.923 -7472.462 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kZ.W.339.3MP1AB

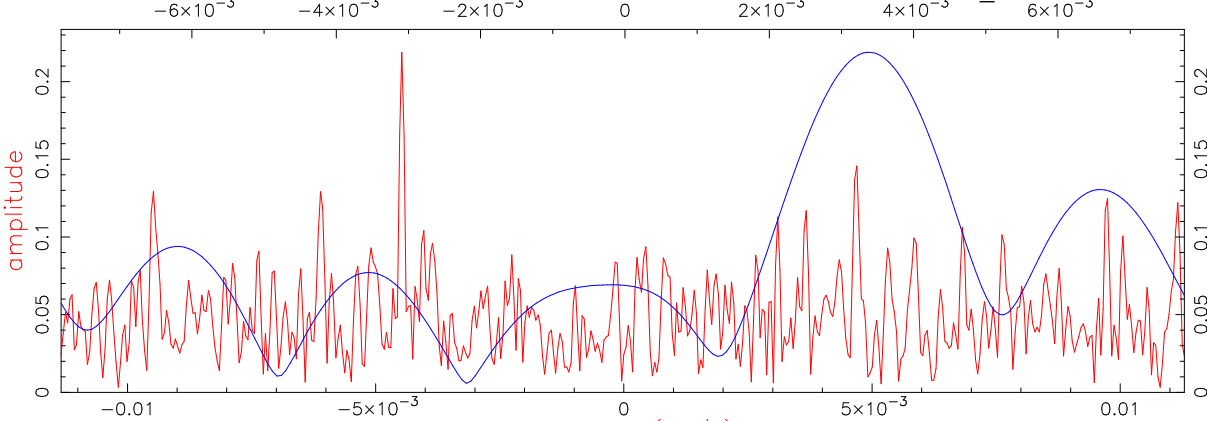
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, kZ

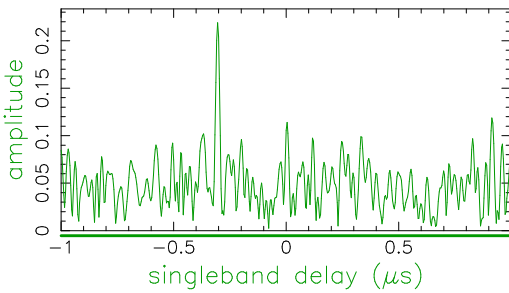
VLBA_KP - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

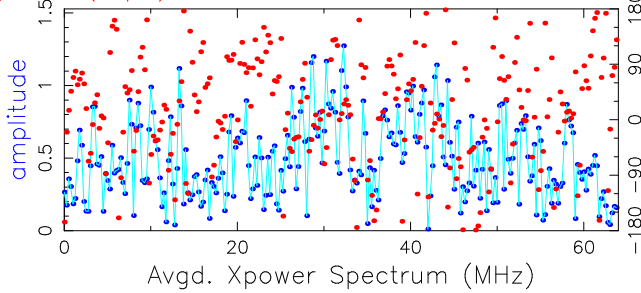


Fringe quality 0

SNR 6.0
 Int time 98.746
 Amp 0.234
 Phase 83.2
 PFD 1.6e-01
 Delays (us)
 SBD -0.304435
 MBD 0.003381
 Fringe rate (Hz)
 -0.384620
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

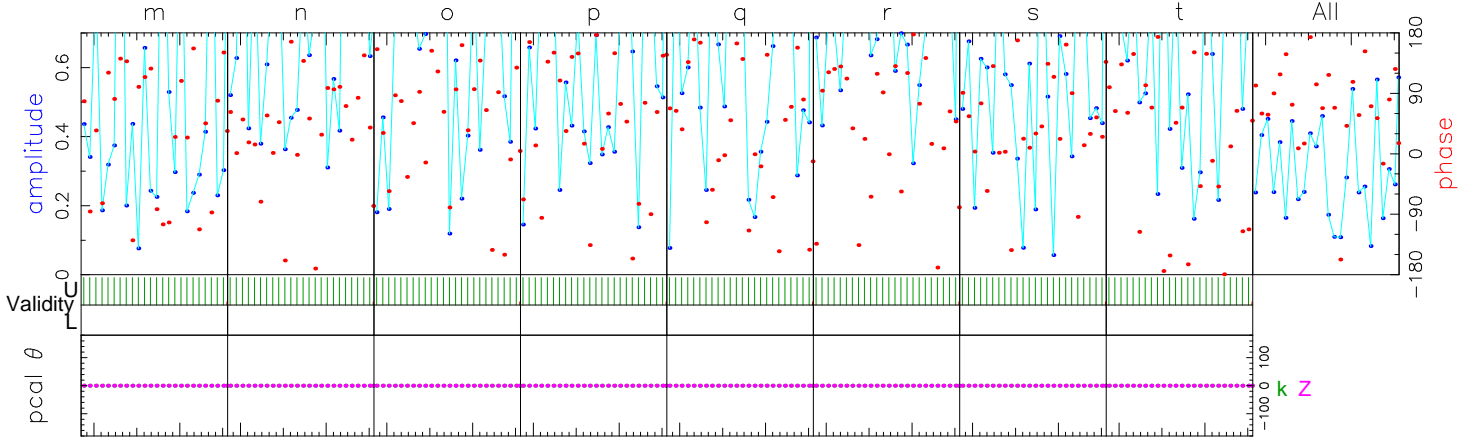


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113158
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0		
k	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.51880656288E+03	Apriori delay (usec)	6.51911568178E+03	Resid mbdelay (usec)	3.38110E-03	+/-	1.8E-04
Sband delay (usec)	6.51881124728E+03	Apriori clock (usec)	3.7595749E-02	Resid sbdelay (usec)	-3.04435E-01	+/-	1.4E-03
Phase delay (usec)	6.51911568446E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	2.68300E-06	+/-	6.2E-07
Delay rate (us/s)	9.76812118334E-01	Apriori rate (us/s)	9.76816583395E-01	Resid rate (us/s)	-4.46506E-06	+/-	1.1E-08
Total phase (deg)	21.4	Apriori accel (us/s/s)	-6.30658677582E-05	Resid phase (deg)	83.2	+/-	19.3

ph/seg (deg)	50.9	Theor.	48.1	Amplitude	0.234 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	71.2		84.0	Search (512X32)	0.214	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.2		27.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	55.5		47.5	Inc. seg. avg.	0.235	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.241	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

k: az 47.5 el 60.5 pa -111.0 Z: az 307.5 el 34.7 pa 36.0 u, v (fr/asec) -8400.923 -7472.462 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kZ.W.344.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

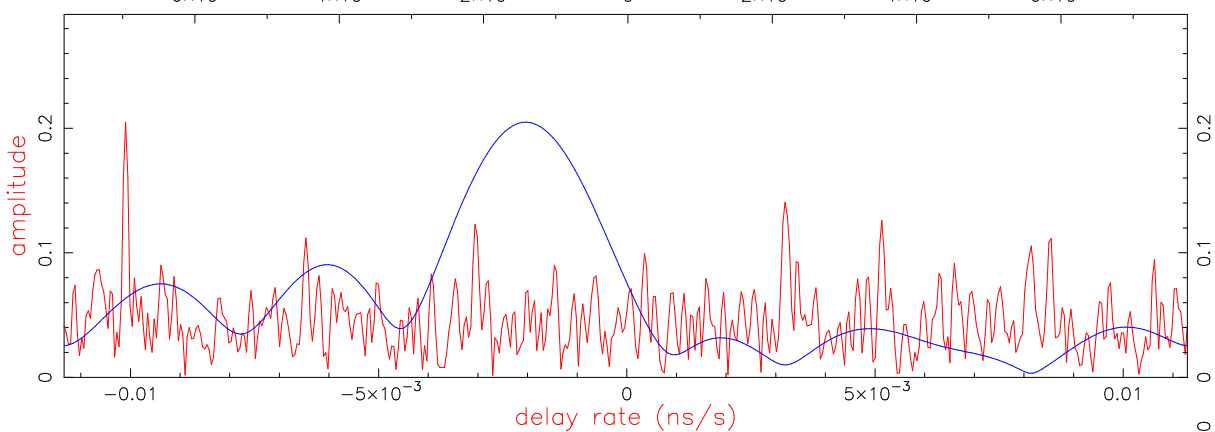
aux01

0133+476.3MP1AB, No0916, kZ

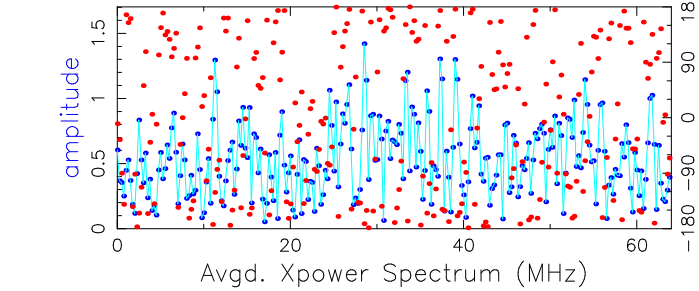
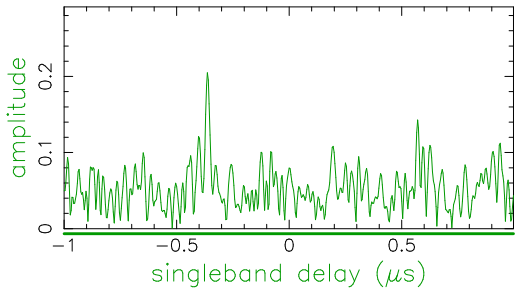
VLBA_KP - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

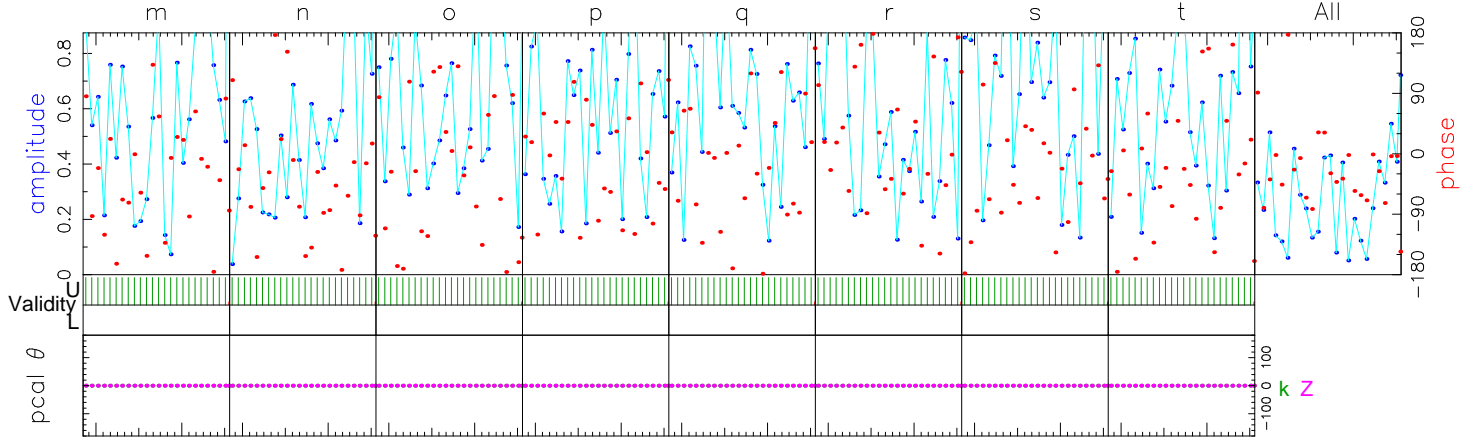


SNR 5.6
 Int time 98.746
 Amp 0.291
 Phase -23.9
 PFD 7.8e-01
 Delays (us)
 SBD -0.362803
 MBD -0.001416
 Fringe rate (Hz)
 -0.870592
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113159
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"

Amp. and Phase vs. time for each freq., 25 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-4.6	-50.4	-28.7	-20.0	-16.2	-11.0	-23.2	-36.0	Phase	-23.9
	0.3	0.4	0.1	0.2	0.4	0.4	0.4	0.3	Ampl.	0.3
	38.4	112.5	304.3	336.3	181.9	409.4	115.2	83.8	Sbd box	164.1
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.51875489116E+03	Apriori delay (usec)	6.51911568178E+03	Resid mbdelay (usec)	-1.41562E-03	+/-	1.9E-04
Sband delay (usec)	6.51875287928E+03	Apriori clock (usec)	3.7595749E-02	Resid sbdelay (usec)	-3.62803E-01	+/-	1.5E-03
Phase delay (usec)	6.51911568101E+03	Apriori clockrate (us/s)	-4.5765388E-07	Resid phdelay (usec)	-7.69724E-07	+/-	6.6E-07
Delay rate (us/s)	9.76806476688E-01	Apriori rate (us/s)	9.76816583395E-01	Resid rate (us/s)	-1.01067E-05	+/-	1.2E-08
Total phase (deg)	274.3	Apriori accel (us/s/s)	-6.30658677582E-05	Resid phase (deg)	-23.9	+/-	20.6

ph/seg (deg)	RMS 52.1	Theor. 51.4	Amplitude Search (512X32)	0.291 +/- 0.052	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	81.6	89.7	Interp.	0.199	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	15.7	29.1	Inc. seg. avg.	0.272	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.6	50.7	Inc. frq. avg.	0.267	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

k: az 47.5 el 60.5 pa -111.0 Z: az 307.5 el 34.7 pa 36.0 u,v (fr/asec) -8400.923 -7472.462 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/kZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/kZ.W.348.3MP1AB