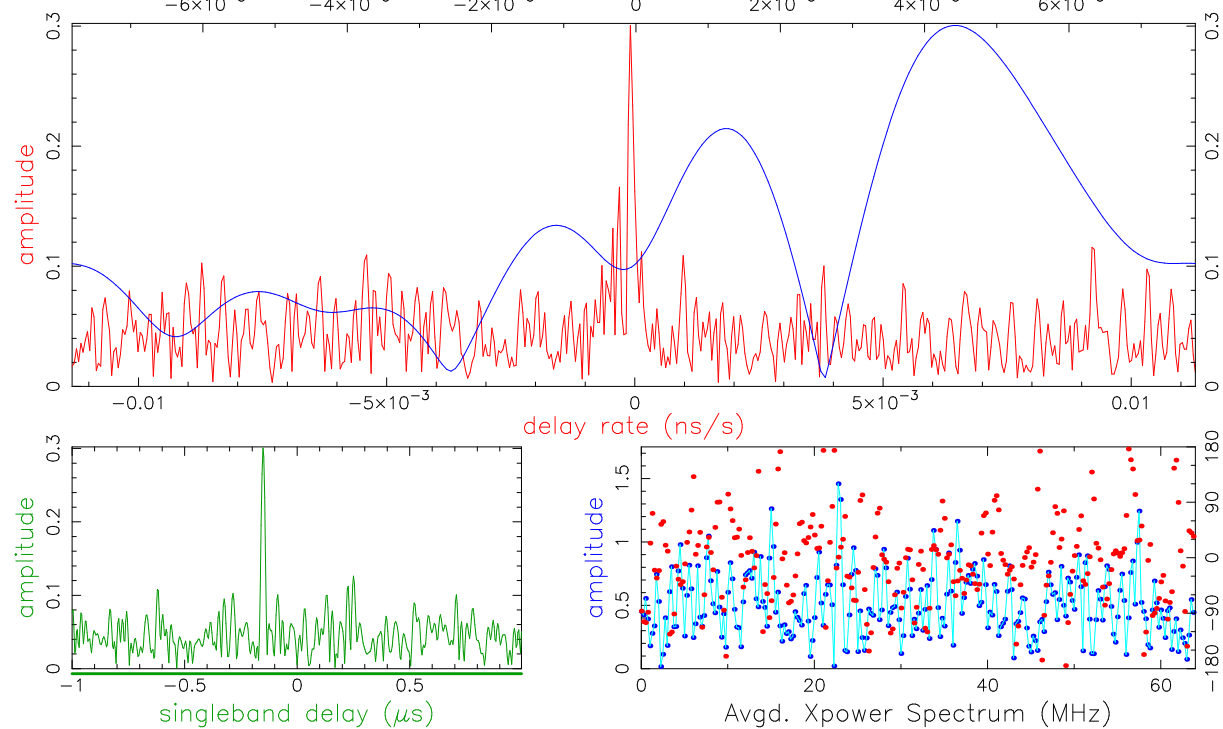


Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bB

VLBA_BR - EFLSBERG, fgroup W, pol LL

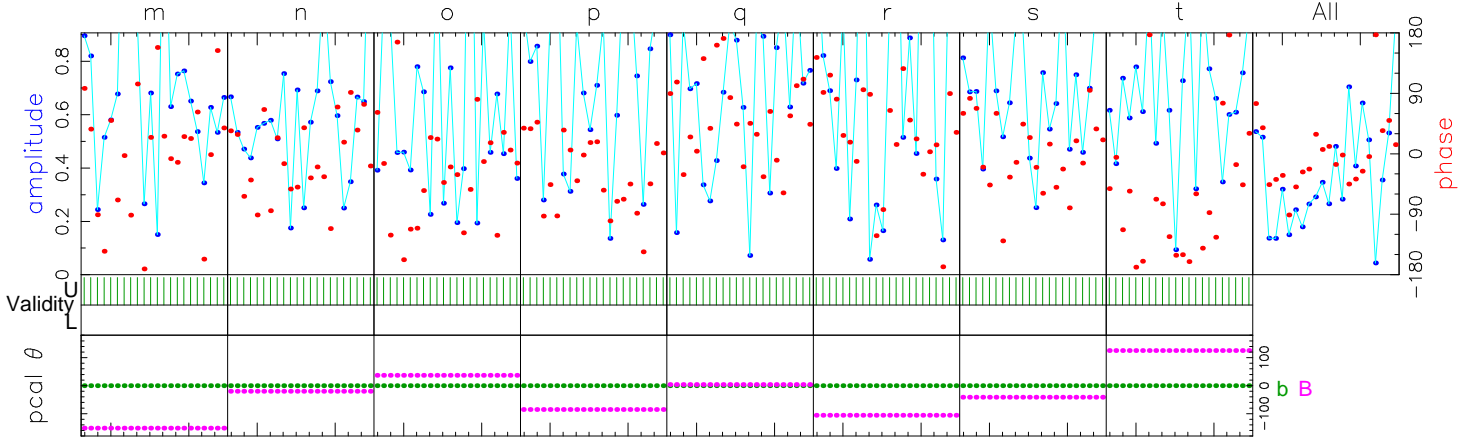


Fringe quality 9

SNR 8.8
 Int time 112.624
 Amp 0.302
 Phase -1.5
 PFD 1.7e-10
 Delays (us)
 SBD -0.151306
 MBD 0.004439
 Fringe rate (Hz)
 -0.006928
 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
 2025:041:112934
 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		218.3
b	0	0	0	0	0	0	0	0	Ampl.	0.4
B	0	0	0	0	0	0	0	0	Sbd box	218.3
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
b:B	0:-151	0:-20	0:37	0:-85	0:4	0:-106	0:-41	0:125	PC phase	
b	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.21051233481E+03	Apriori delay (usec)	6.21066414535E+03	Resid mbdelay (usec)	4.43946E-03	+/-	1.2E-04
Sband delay (usec)	6.21051283935E+03	Apriori clock (usec)	4.0039074E+01	Resid sbdelay (usec)	-1.51306E-01	+/-	9.8E-04
Phase delay (usec)	6.21066414531E+03	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	-4.85317E-08	+/-	4.2E-07
Delay rate (us/s)	1.11160644075E+00	Apriori rate (us/s)	1.11160652119E+00	Resid rate (us/s)	-8.04326E-08	+/-	6.5E-09
Total phase (deg)	171.6	Apriori accel (us/s/s)	-3.50998073989E-05	Resid phase (deg)	-1.5	+/-	13.1

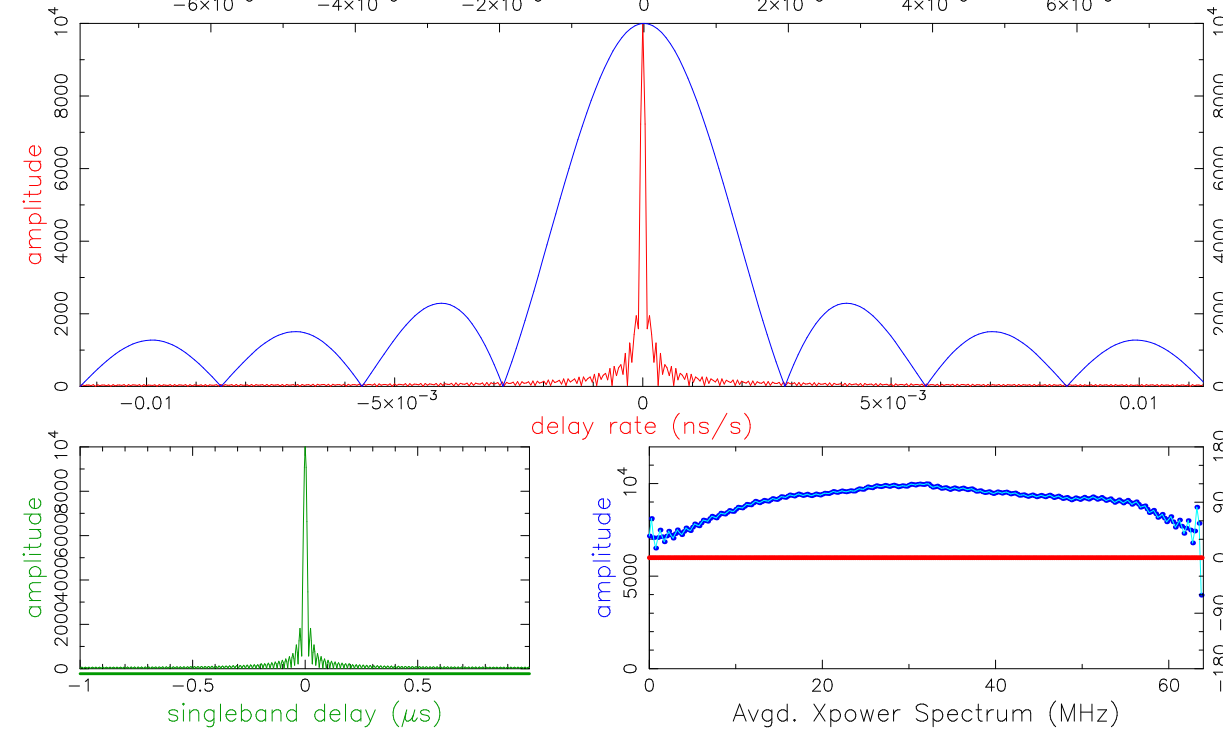
ph/seg (deg) 54.0 30.6 Search (512X32) 0.298 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.4 53.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.9 18.5 Inc. seg. avg. 0.330 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.5 32.2 Inc. frq. avg. 0.388 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 74.8 el 62.9 pa -74.1 B: az 302.9 el 37.3 pa 52.8 u,v (fr/asec) -9535.951 -3182.171 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bB..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bB.W.20.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bb

VLBA_BR - VLBA_BR, fgroup W, pol LL

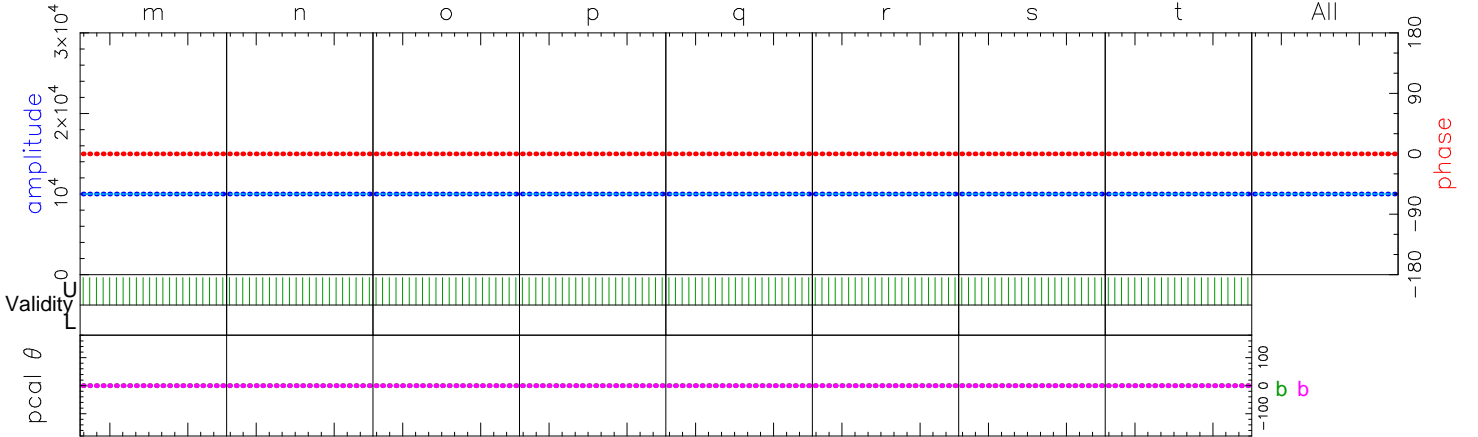


Fringe quality 9

SNR 290210.0
 Int time 112.624
 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
 2025:041:112935
 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
b	0	0	0	0	0	0	0	0	Ampl.	10000.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

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

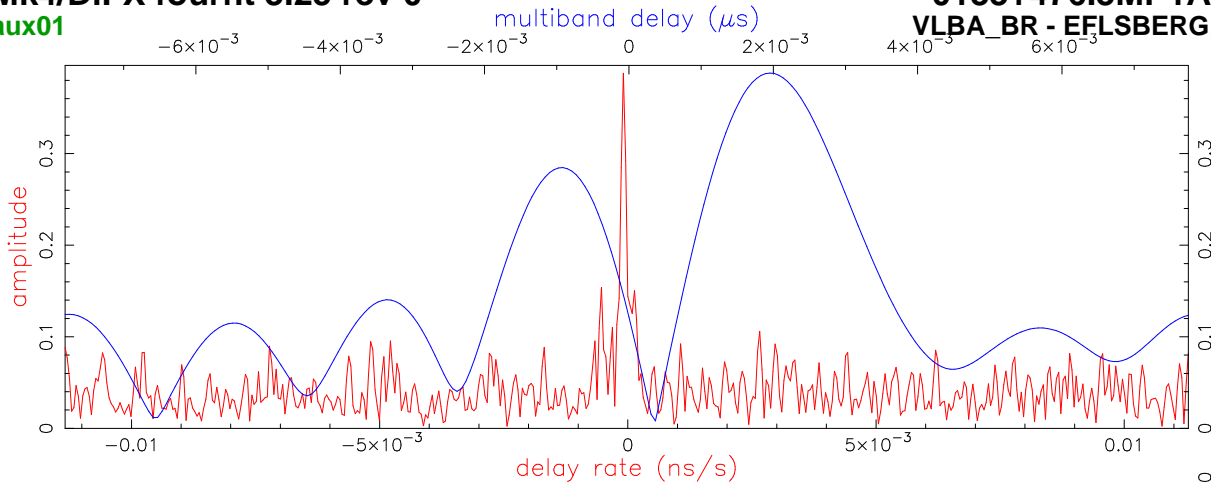
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (512X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (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
 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 b: az 74.8 el 62.9 pa -74.1 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bb..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bb.W.24.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

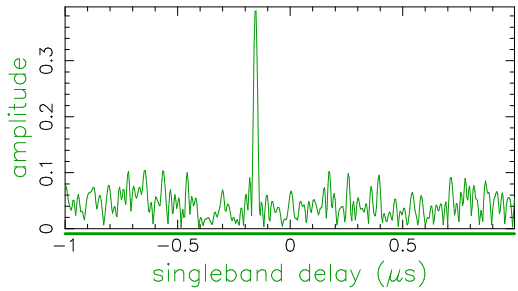
0133+476.3MP1AB, No0916, bB

VLBA_BR - EFLSBERG, fgroup W, pol RR

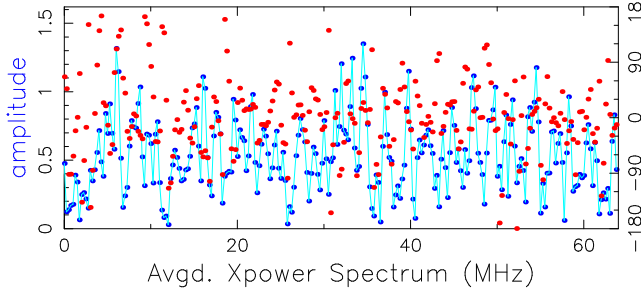


Fringe quality 9

SNR 11.5
 Int time 112.624
 Amp 0.396
 Phase 4.1
 PFD 1.6e-22
 Delays (us)
 SBD -0.154229
 MBD 0.001991
 Fringe rate (Hz)
 -0.008184
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

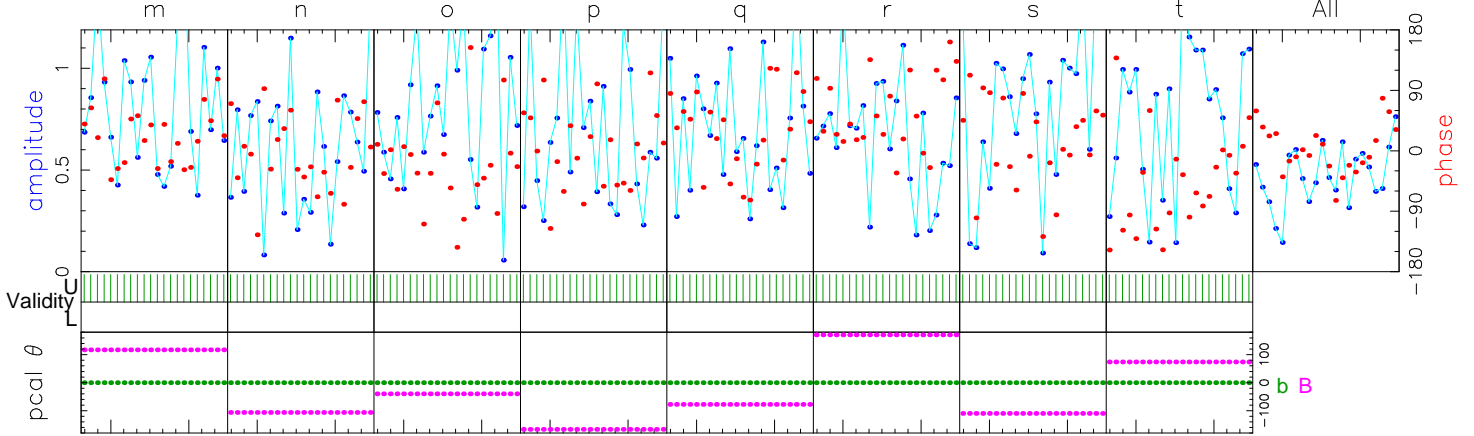


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112935
 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		
B	0	0	0	0	0	0	0	0		
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:B	0:118	0:106	0:40	0:-167	0:-77	0:171	0:-110	0:74		
b	1000	1000	1000	1000	1000	1000	1000	1000		
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.21050988666E+03	Apriori delay (usec)	6.21066414535E+03	Resid mbdelay (usec)	1.99130E-03	+/-	9.4E-05
Sband delay (usec)	6.21050991660E+03	Apriori clock (usec)	4.0039074E+01	Resid sbdelay (usec)	-1.54229E-01	+/-	7.5E-04
Phase delay (usec)	6.21066414549E+03	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	1.30983E-07	+/-	3.2E-07
Delay rate (us/s)	1.11160642617E+00	Apriori rate (us/s)	1.11160652119E+00	Resid rate (us/s)	-9.50119E-08	+/-	4.9E-09
Total phase (deg)	177.2	Apriori accel (us/s/s)	-3.50998073989E-05	Resid phase (deg)	4.1	+/-	10.0

ph/seg (deg)	RMS 35.9	Theor. 23.4	Amplitude Search (512X32)	0.396 +/- 0.034	0.386	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	41.1	40.8	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)	43.1	14.1	Inc. seg. avg.	0.434	0.434	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	30.0	24.6	Inc. frq. avg.	0.465	0.465	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 B: az 302.9 el 37.3 pa 52.8 u, v (fr/asec) -9535.951 -3182.171 simultaneous interpolator

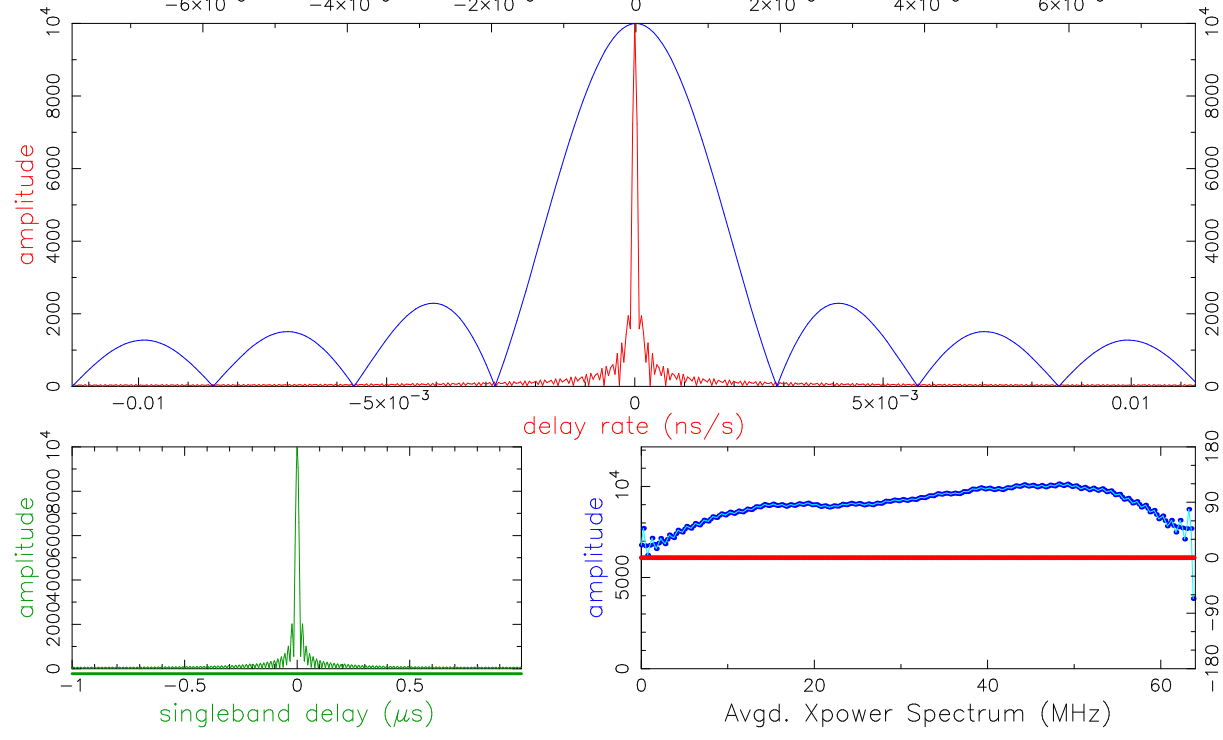
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bB..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bB.W.26.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bb

VLBA_BR - VLBA_BR, fgroup W, pol RR

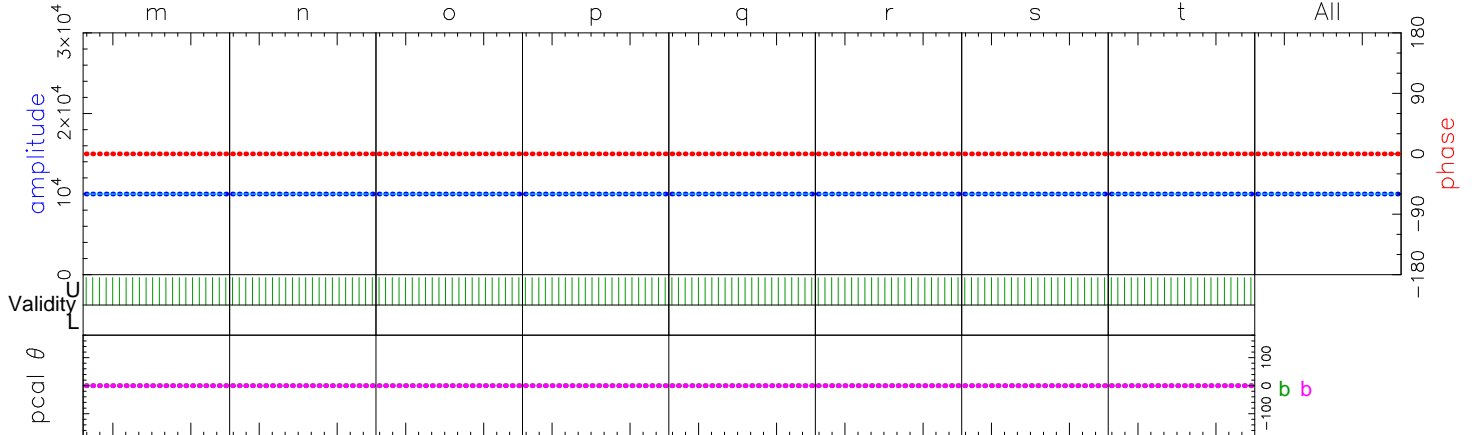


Fringe quality 9

SNR 290210.0
 Int time 112.624
 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
 2025:041:112936
 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



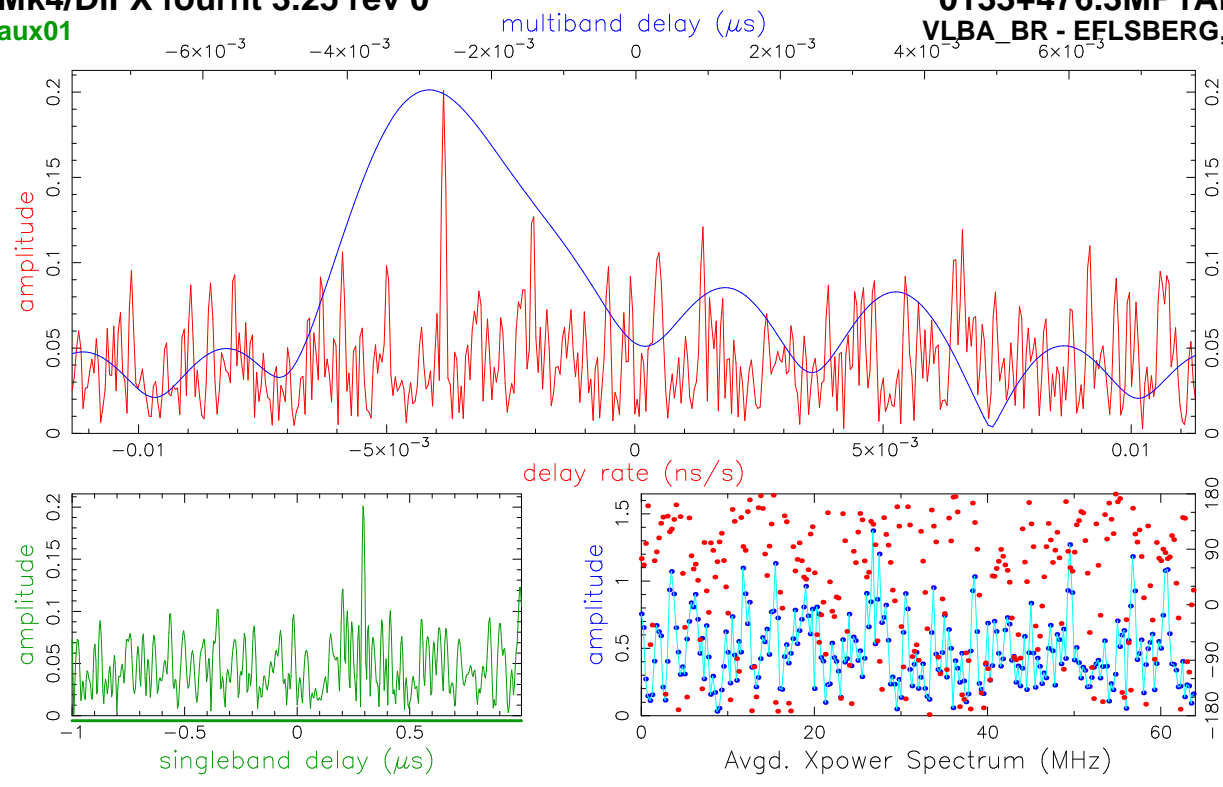
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	10000.0	10000.0
b	0	0	0	0	0	0	0	0	Ampl.	10000.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 3.7E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 3.0E-08
Phase delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 1.3E-11
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000E+00	+/- 2.0E-13
Total phase (deg)			0.0						0.0	+/- 0.0
ph/seg (deg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
amp/seg (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ph/frq (deg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
amp/frq (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
b: az 74.8 el 62.9 pa -74.1	b: az 74.8 el 62.9 pa -74.1		u,v (fr/asec) 0.000 0.000		simultaneous interpolator					
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/bb..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/bb.W.29.3MP1AB							

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bB

VLBA_BR - EFLSBERG, fgroup W, pol LR

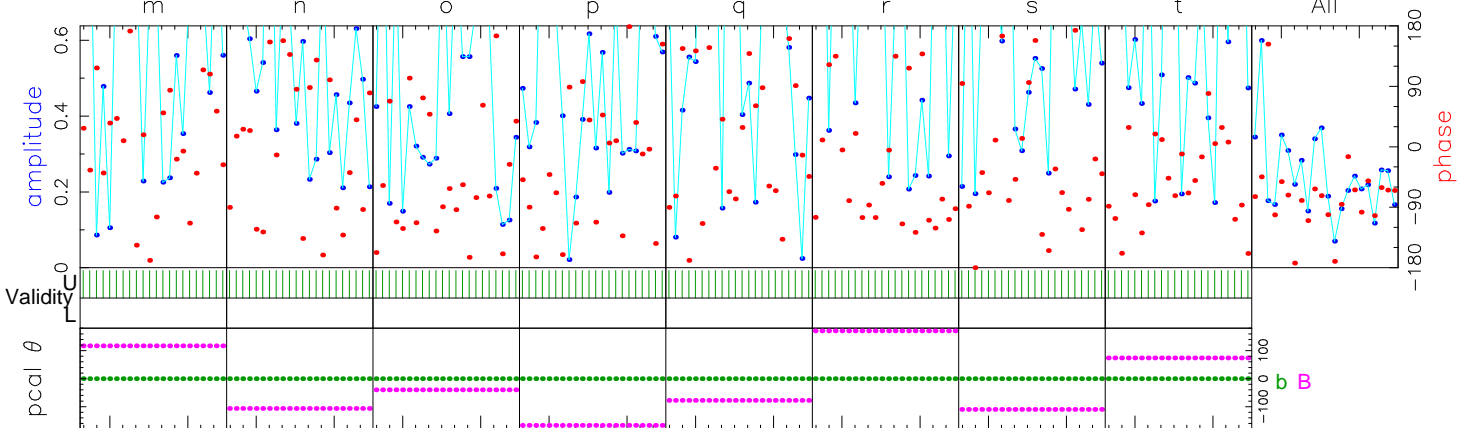


Fringe quality 0

SNR 5.9
 Int time 112.624
 Amp 0.213
 Phase -73.0
 PFD 2.3e-01
 Delays (us)
 SBD 0.294005
 MBD -0.002775
 Fringe rate (Hz)
 -0.333593
 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
 2025:041:112938
 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



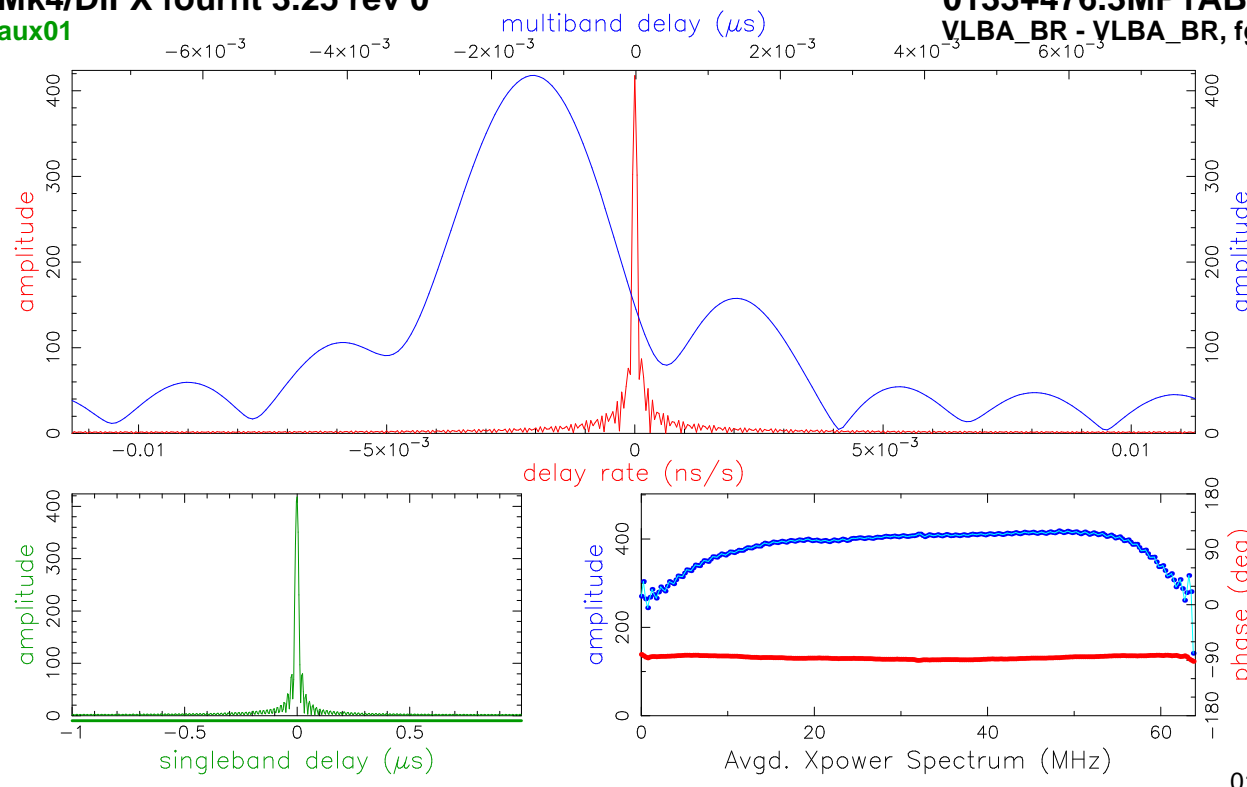
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-3.0	176.2	-84.4	-52.0	-97.0	-86.7	-71.6	-64.2	Phase	-73.0	
	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.4	Ampl.	0.2	
	79.2	511.3	162.9	74.8	33.8	354.7	361.9	310.7	Sbd box	332.3	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
B	0	0	0	0	0	0	0	0	PC freqs		
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:B	0:118	0:-106	0:-40	0:-167	0:-77	0:171	0:-110	0:74	Manl PC		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
B	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	6.21095824511E+03		Apriori delay (usec)		6.21066414535E+03		Resid mbdelay (usec)		-2.77525E-03	+/- 1.8E-04	
Sband delay (usec)	6.21095815010E+03		Apriori clock (usec)		4.0039074E+01		Resid sbdelay (usec)		2.94005E-01	+/- 1.5E-03	
Phase delay (usec)	6.21066414300E+03		Apriori clockrate (us/s)		7.6597994E-07		Resid phdelay (usec)		-2.35479E-06	+/- 6.3E-07	
Delay rate (us/s)	1.11160264850E+00		Apriori rate (us/s)		1.11160652119E+00		Resid rate (us/s)		-3.87269E-06	+/- 9.7E-09	
Total phase (deg)	100.1		Apriori accel (us/s/s)		-3.50998073989E-05		Resid phase (deg)		-73.0	+/- 19.5	
	RMS	Theor.	Amplitude	0.213 +/- 0.036		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	46.6	45.7	Search (512X32)	0.186		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	58.1	79.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	55.7	27.6	Inc. seg. avg.	0.195		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	53.4	48.1	Inc. frq. avg.	0.219		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	B: az 302.9 el 37.3 pa 52.8		u, v (fr/asec)		-9535.951 -3182.171				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/bB..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/bB.W.33.3MP1AB								

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bb

VLBA_BR - VLBA_BR, fgroup W, pol LR

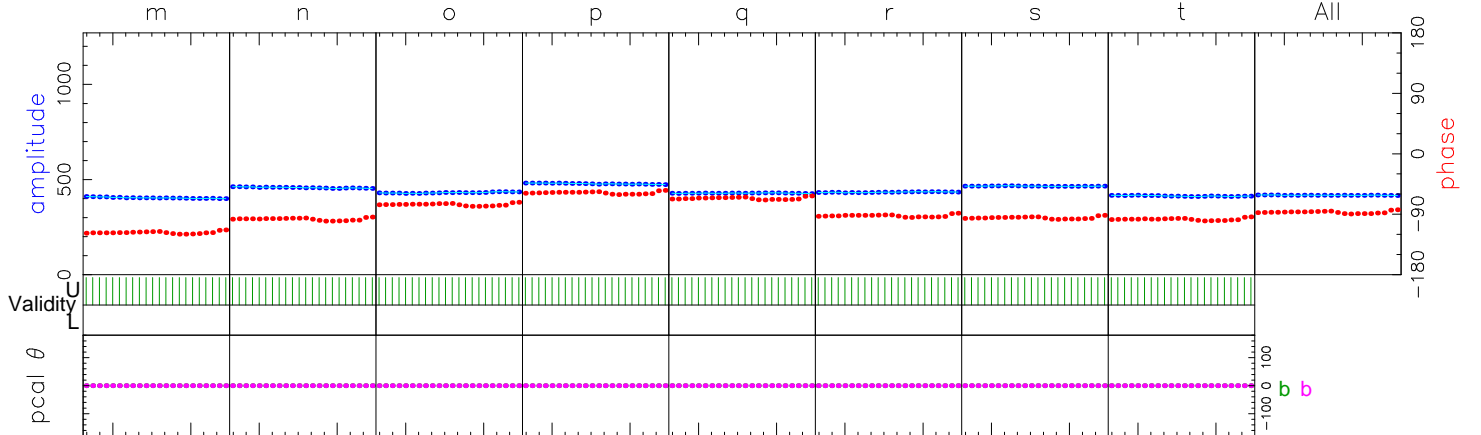


Fringe quality 8

SNR 12298.2
 Int time 112.624
 Amp 423.768
 Phase -87.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001535
 MBD -0.001464
 Fringe rate (Hz)
 -0.000103
 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
 2025:041:112938
 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				
	-117.2	-97.3	-75.6	-58.1	-66.3	-92.3	-95.3	-97.4	Phase	-87.0				
	404.2	457.6	431.2	478.2	428.5	433.7	465.4	414.0	Ampl.	439.1				
	257.0	256.7	256.9	256.6	256.4	256.3	256.7	256.1	Sbd box	256.6				
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					
b	0	0	0	0	0	0	0	0	PC freqs					
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase					
b:b	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					
b	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids					
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks					
									Tracks					
Group delay (usec) (SBD)	-1.46403125000E-03								Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-1.46403E-03	+/-	8.8E-08
Sband delay (usec)	-1.53500000000E-03								Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-1.53500E-03	+/-	7.0E-07
Phase delay (usec)	-2.80513688212E-06								Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-2.80514E-06	+/-	3.0E-10
Delay rate (us/s)	-1.19604526186E-09								Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.19605E-09	+/-	4.6E-12
Total phase (deg)			-87.0						Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-87.0	+/-	0.0
	RMS	Theor.	Amplitude	423.768 +/- 0.034					Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	1.6	0.0	Search (512X32)	417.559					Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000	
amp/seg (%)	1.4	0.0	Interp.	0.000					Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	20.9	0.0	Inc. seg. avg.	417.815					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	6.7	0.0	Inc. frq. avg.	439.102					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			b: az 74.8 el 62.9 pa -74.1						u, v (fr/asec) 0.000	0.000				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c241a/v2/3mm/1234/No0916/bb..3MP1AB						Output file: /Exps/c241a/v2/3mm/1234/No0916/bb.W.34.3MP1AB					

Mk4/DiFX fourfit 3.25 rev 0

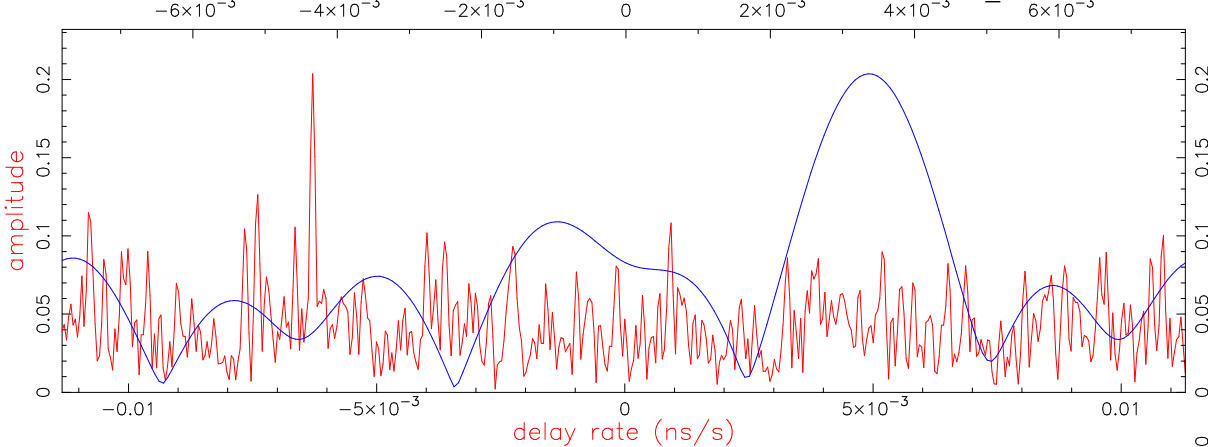
aux01

0133+476.3MP1AB, No0916, bB

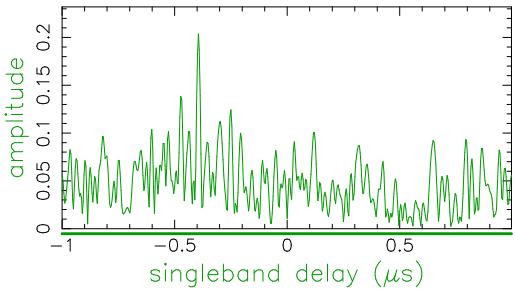
VLBA_BR - EFLSBERG, fgroup W, pol RL

multiband delay (μ s)

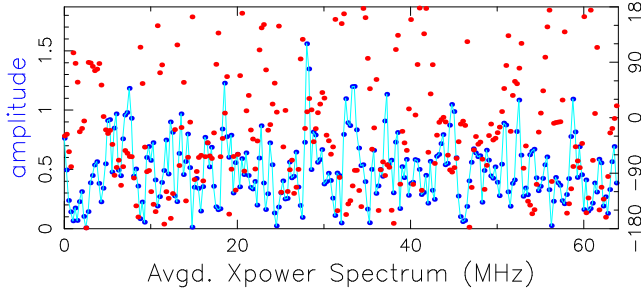
Fringe quality 0



SNR 5.9
 Int time 112.624
 Amp 0.232
 Phase 40.1
 PFD 1.9e-01
 Delays (us)
 SBD -0.394262
 MBD 0.003378
 Fringe rate (Hz)
 -0.542185
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

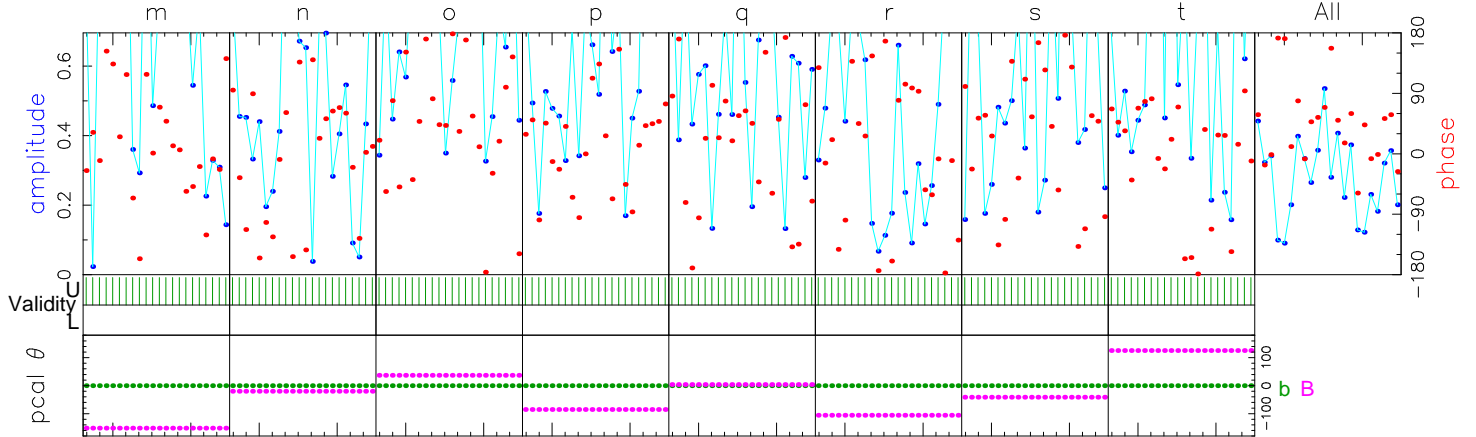


delay rate (ns/s)



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°51'29.100073"

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		
B	0	0	0	0	0	0	0	0		
b:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:B	0:-151	0:-20	0:37	0:-85	0:4	0:-106	0:-41	0:125		
b	1000	1000	1000	1000	1000	1000	1000	1000		
B	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.21027689822E+03	Apriori delay (usec)	6.21066414535E+03	Resid mbdelay (usec)	3.37787E-03	+/-	1.8E-04
Sband delay (usec)	6.21026988285E+03	Apriori clock (usec)	4.0039074E+01	Resid sbdelay (usec)	-3.94262E-01	+/-	1.5E-03
Phase delay (usec)	6.21066414665E+03	Apriori clockrate (us/s)	7.6597994E-07	Resid phdelay (usec)	1.29427E-06	+/-	6.3E-07
Delay rate (us/s)	1.11160022695E+00	Apriori rate (us/s)	1.11160652119E+00	Resid rate (us/s)	-6.29423E-06	+/-	9.6E-09
Total phase (deg)	213.2	Apriori accel (us/s/s)	-3.50998073989E-05	Resid phase (deg)	40.1	+/-	19.4

ph/seg (deg)	59.9	RMS	45.5	Theor.	0.232 +/- 0.039	Amplitude	0.232 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	69.0	Search (512X32)	0.199	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)	19.2	Inc. seg. avg.	0.245	Inc. seg. avg.	0.245	Inc. frq. avg.	0.214	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	60.2	Inc. frq. avg.	0.214	Inc. frq. avg.	0.214	Inc. frq. avg.	0.214	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
								Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
									ion window (TEC) 0.00 0.00

b: az 74.8 el 62.9 pa -74.1 B: az 302.9 el 37.3 pa 52.8 u, v (fr/asec) -9535.951 -3182.171 simultaneous interpolator

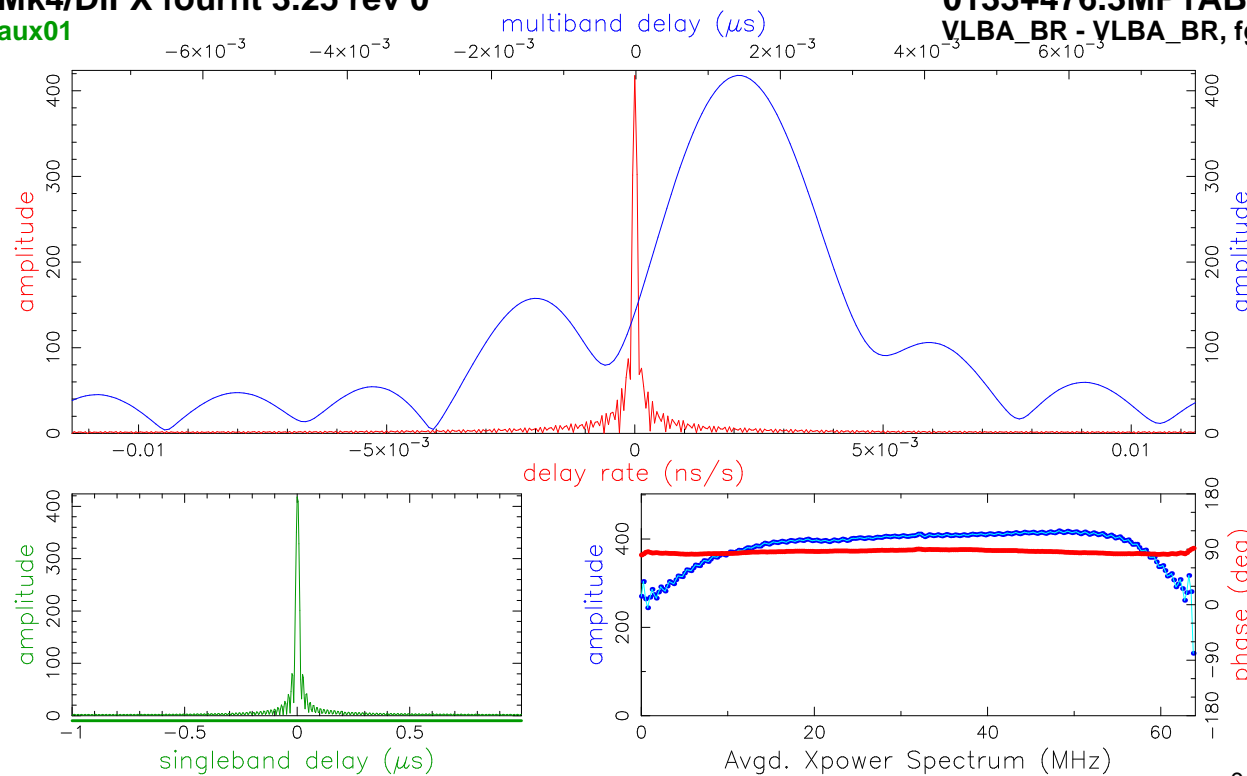
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bB..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bB.W.40.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bb

VLBA_BR - VLBA_BR, fgroup W, pol RL

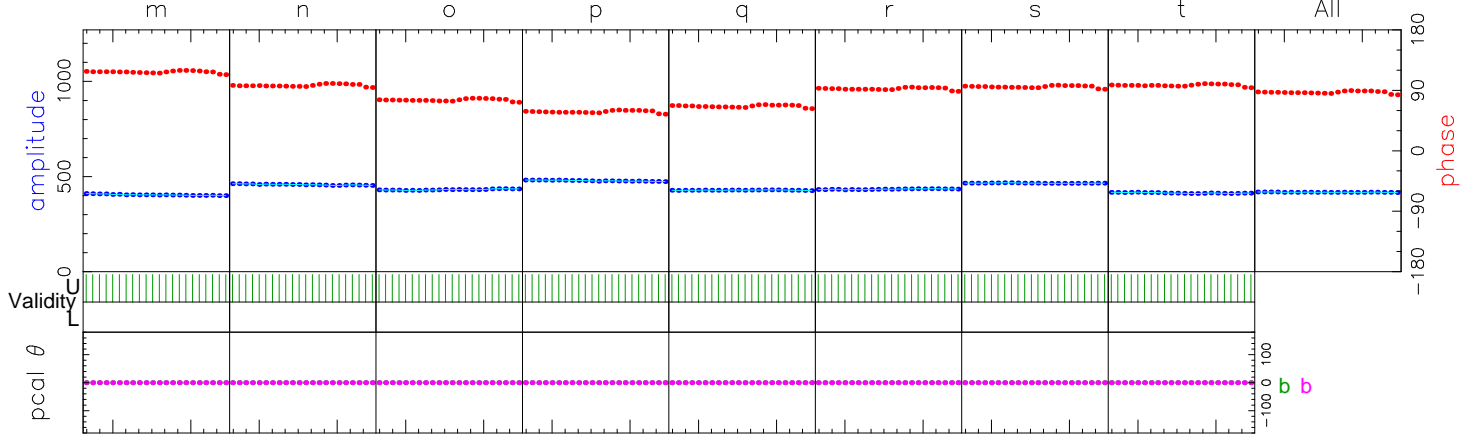


Fringe quality 8

SNR 12298.2
 Int time 112.624
 Amp 423.768
 Phase 87.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.001535
 MBD 0.001464
 Fringe rate (Hz) 0.000103
 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
 2025:041:112939
 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		
b:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 1.46403125000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.46403E-03 +/- 8.8E-08
 Sband delay (usec) 1.53500000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 1.53500E-03 +/- 7.0E-07
 Phase delay (usec) 2.80513688212E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 2.80514E-06 +/- 3.0E-10
 Delay rate (us/s) 1.19604526186E-09 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 1.19605E-09 +/- 4.6E-12
 Total phase (deg) 87.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 87.0 +/- 0.0

ph/seg (deg) 1.6 0.0 Theor. Amplitude 423.768 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.4 0.0 Search (512X32) 417.559 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.9 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 6.7 0.0 Inc. seg. avg. 417.815 Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 439.102 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 b: az 74.8 el 62.9 pa -74.1 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bb..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bb.W.41.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

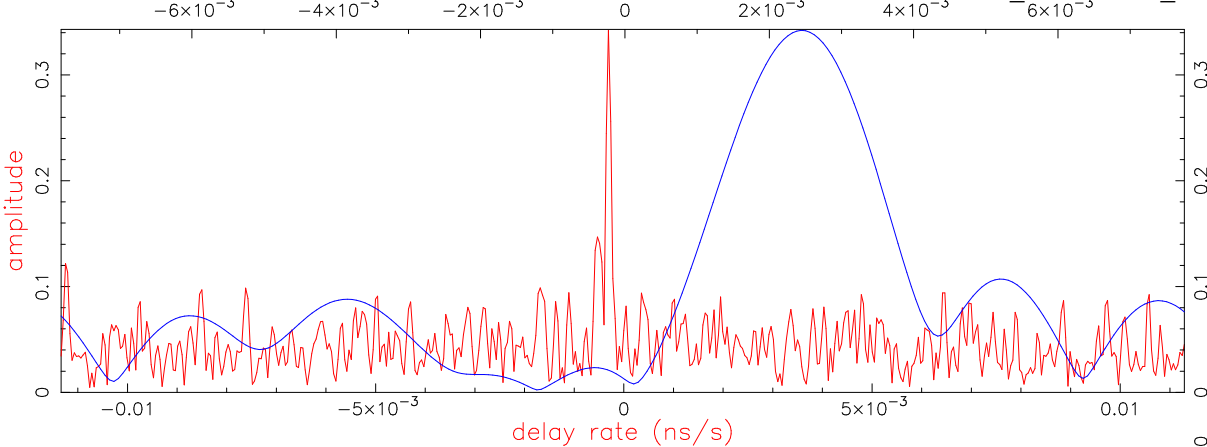
aux01

0133+476.3MP1AB, No0916, bf

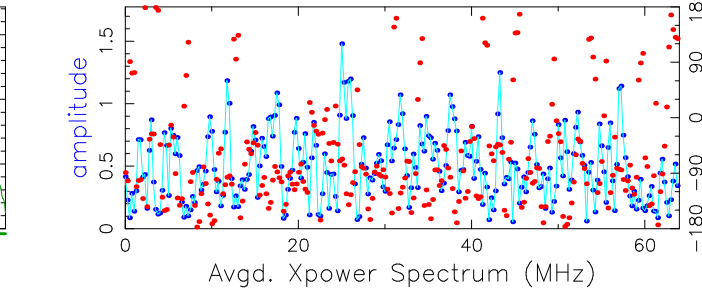
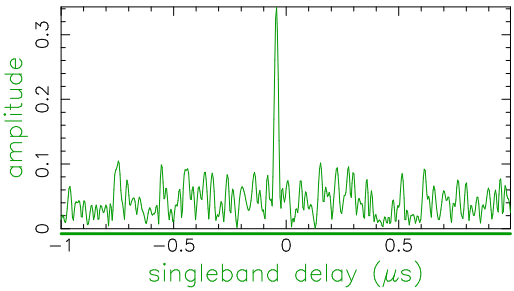
VLBA_BR - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

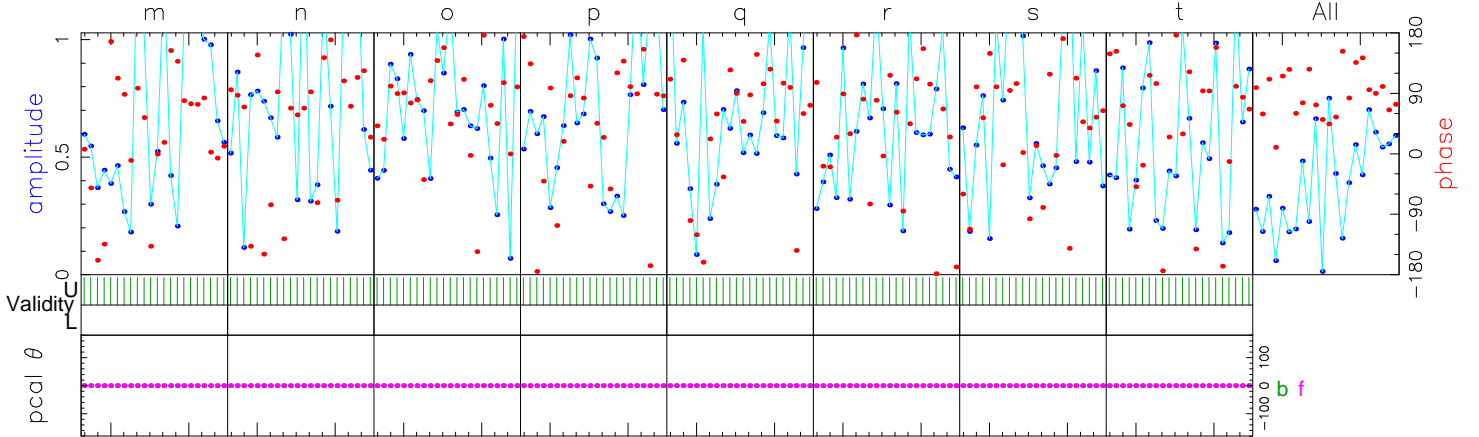


SNR 10.0
 Int time 112.624
 Amp 0.343
 Phase 88.1
 PFD 2.6e-15
 Delays (us)
 SBD -0.043665
 MBD 0.002440
 Fringe rate (Hz) -0.028324
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112935
 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		
f	0	0	0	0	0	0	0	0		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.90489560065E+02	Apriori delay (usec)	-1.90445124916E+02	Resid mbdelay (usec)	2.43985E-03	+/-	1.1E-04
Sband delay (usec)	-1.90488789666E+02	Apriori clock (usec)	4.5807724E+00	Resid sbdelay (usec)	-4.36647E-02	+/-	8.7E-04
Phase delay (usec)	-1.90445122076E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	2.83994E-06	+/-	3.7E-07
Delay rate (us/s)	7.59810233958E-02	Apriori rate (us/s)	7.59813522147E-02	Resid rate (us/s)	-3.28819E-07	+/-	5.7E-09
Total phase (deg)	66.4	Apriori accel (us/s/s)	2.07349396224E-05	Resid phase (deg)	88.1	+/-	11.5

ph/seg (deg)	RMS 35.1	Theor. 27.0	Amplitude Search (512X32)	0.343 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	62.6	47.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	19.3	16.3	Inc. seg. avg.	0.353	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	18.6	28.4	Inc. frq. avg.	0.343	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
					Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 f: az 40.8 el 64.1 pa -123.1 u,v (fr/asec) -636.621 3203.949 simultaneous interpolator

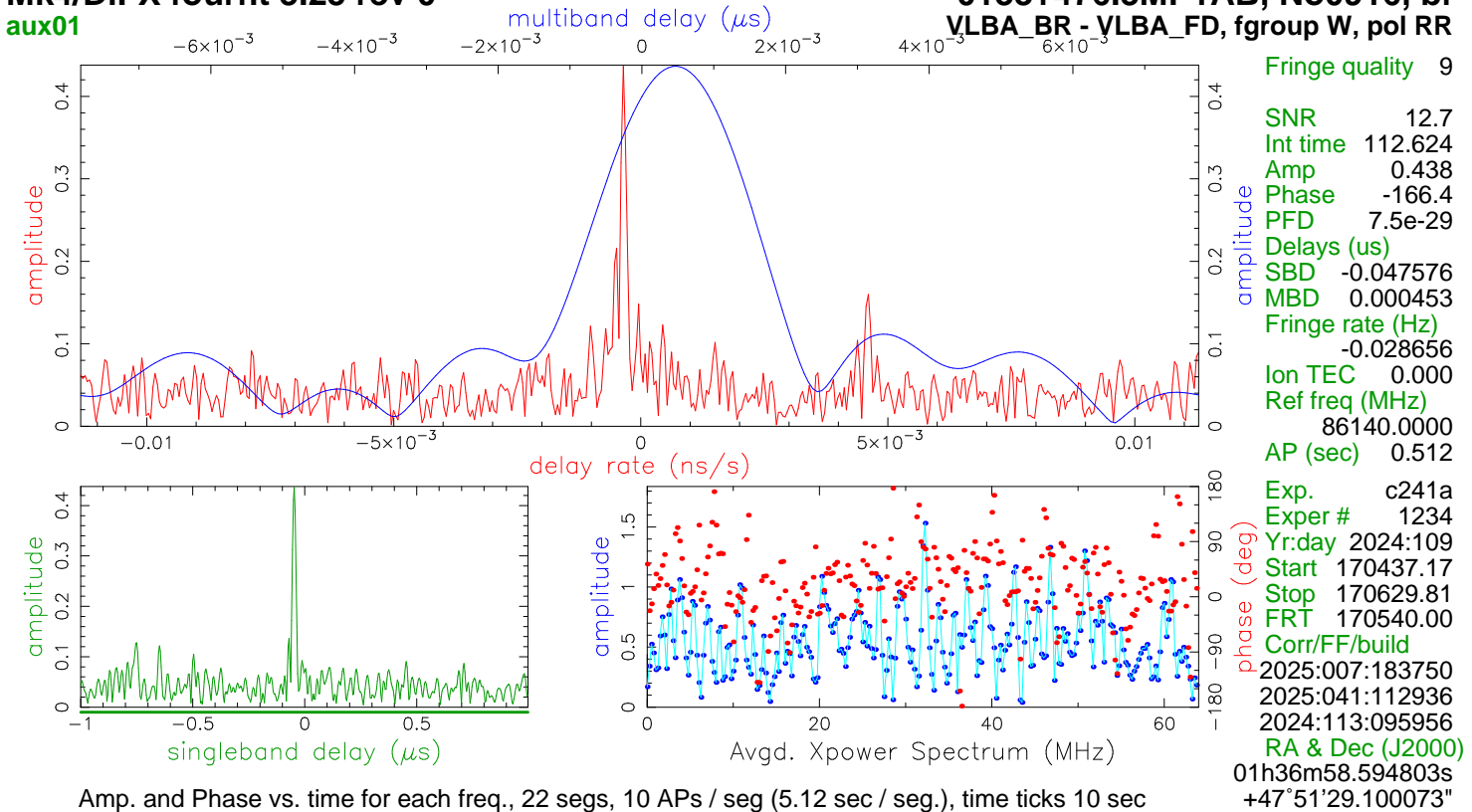
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bf..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bf.W.22.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

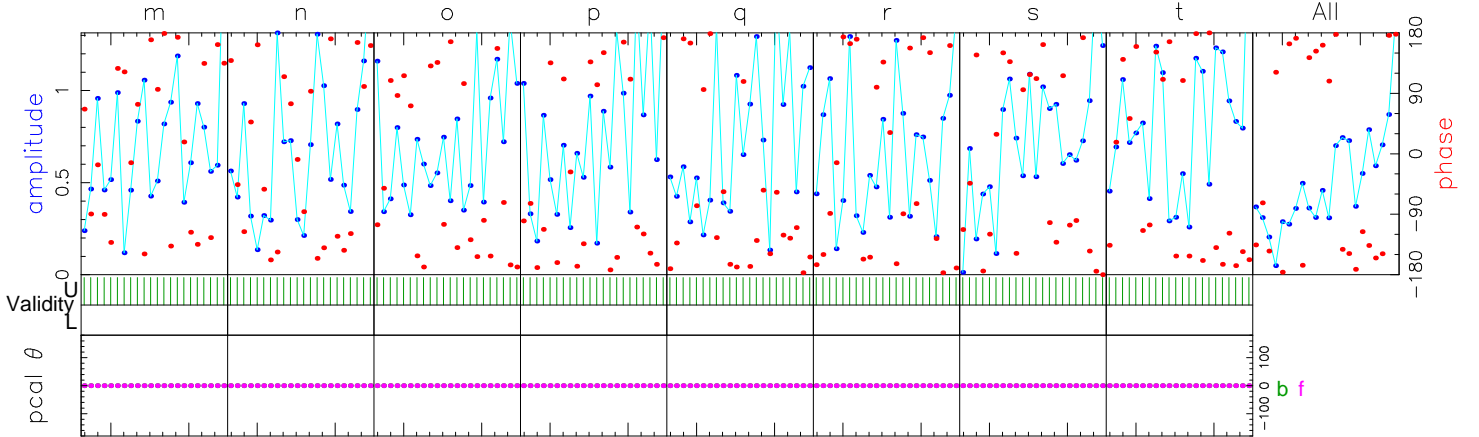
aux01

0133+476.3MP1AB, No0916, bf

VLBA_BR - VLBA_FD, fgroup W, pol RR



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
177.2	-178.0	-164.1	-161.5	-136.6	-168.8	-176.7	-172.8		Phase	-166.4
0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6		Ampl.	0.4
132.7	244.9	244.5	245.4	245.1	245.1	244.7	245.3		Sbd box	244.8
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	
f	0	0	0	0	0	0	0		PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec) (SBD)	-1.90491546679E+02		Apriori delay (usec)	-1.90445124916E+02	Resid mbdelay (usec)	4.53237E-04	+/-	8.5E-05		
Sband delay (usec)	-1.90492701166E+02		Apriori clock (usec)	4.5807724E+00	Resid sbdelay (usec)	-4.75762E-02	+/-	6.8E-04		
Phase delay (usec)	-1.90445130284E+02		Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	-5.36729E-06	+/-	2.9E-07		
Delay rate (us/s)	7.59810195412E-02		Apriori rate (us/s)	7.59813522147E-02	Resid rate (us/s)	-3.32673E-07	+/-	4.5E-09		
Total phase (deg)		-188.1	Apriori accel (us/s/s)	2.07349396224E-05	Resid phase (deg)	-166.4	+/-	9.0		

ph/seg (deg) 39.9 21.2 Amplitude 0.438 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 67.0 36.9 Interp. 0.406 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 15.7 12.8 Inc. seg. avg. 0.478 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 18.9 22.3 Inc. frq. avg. 0.438 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011

b: az 74.8 el 62.9 pa -74.1 f: az 40.8 el 64.1 pa -123.1 u, v (fr/asec) -636.621 3203.949 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/bf..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bf.W.28.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

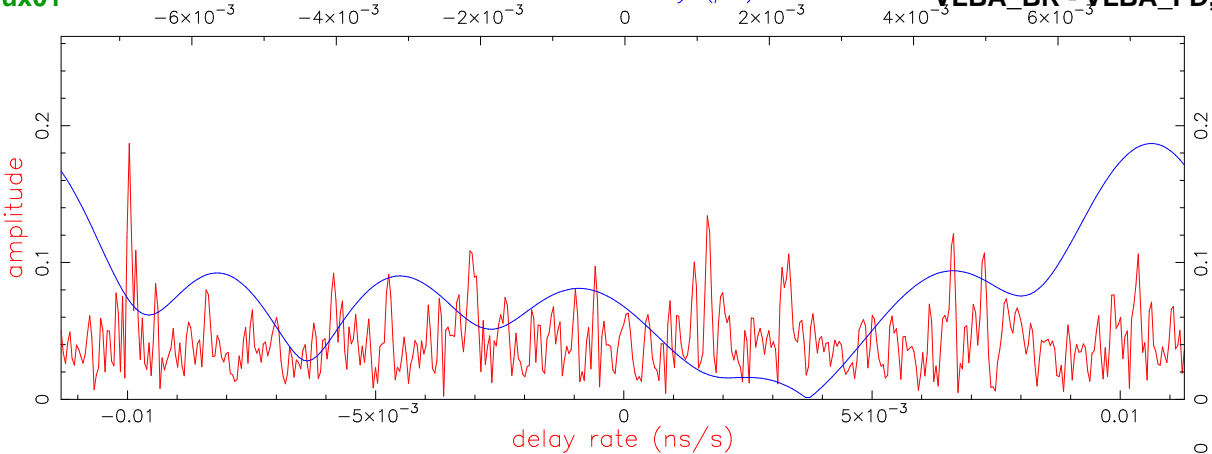
aux01

0133+476.3MP1AB, No0916, bf

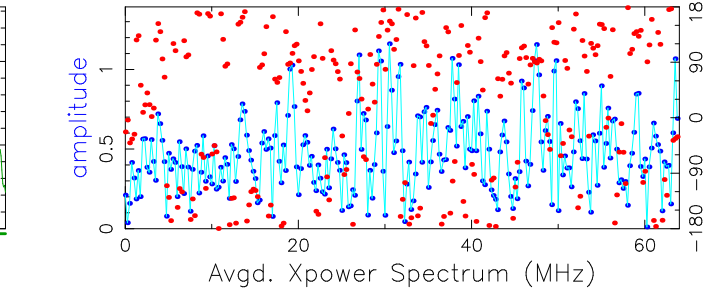
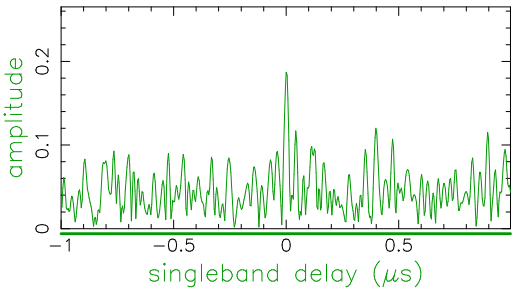
VLBA_BR - VLBA_FD, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

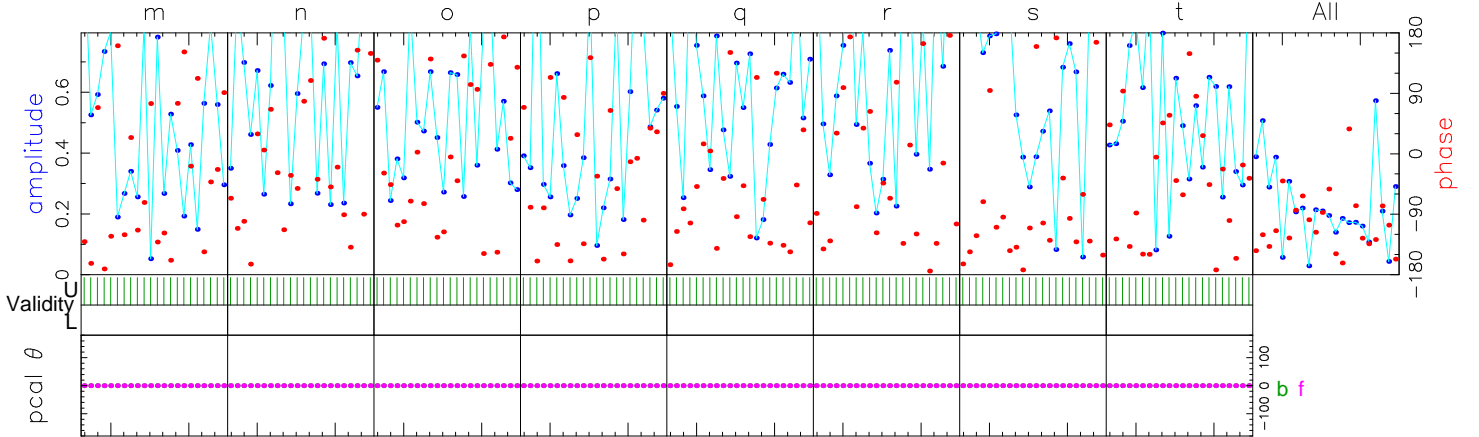


SNR 5.5
 Int time 112.624
 Amp 0.265
 Phase -116.0
 PFD 9.3e-01
 Delays (us)
 SBD 0.001420
 MBD -0.008301
 Fringe rate (Hz)
 -0.858973
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112938
 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
	-121.9	-96.8	-140.5	-70.3	-99.4	-127.8	-132.1	-80.9	Phase	-116.0
	0.3	0.2	0.1	0.1	0.4	0.3	0.7	0.2	Ampl.	0.2
	444.2	399.7	418.9	297.9	268.0	488.8	257.2	51.2	Sbd box	257.4
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	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.90437800698E+02	Apriori delay (usec)	-1.90445124916E+02	Resid mbdelay (usec)	-8.30078E-03	+/-	2.0E-04
Sband delay (usec)	-1.90443705166E+02	Apriori clock (usec)	4.5807724E+00	Resid sbdelay (usec)	1.41975E-03	+/-	1.6E-03
Phase delay (usec)	-1.90445128657E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	-3.74030E-06	+/-	6.8E-07
Delay rate (us/s)	7.59713803914E-02	Apriori rate (us/s)	7.59813522147E-02	Resid rate (us/s)	-9.97182E-06	+/-	1.0E-08
Total phase (deg)	-137.7	Apriori accel (us/s/s)	2.07349396224E-05	Resid phase (deg)	-116.0	+/-	20.9

ph/seg (deg)	RMS 46.7	Theor. 49.1	Amplitude Search (512X32)	0.183	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	74.9	85.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	28.9	29.6	Inc. seg. avg.	0.237	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	77.2	51.7	Inc. frq. avg.	0.246	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 f: az 40.8 el 64.1 pa -123.1 u, v (fr/asec) -636.621 3203.949 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bf..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bf.W.35.3MP1AB

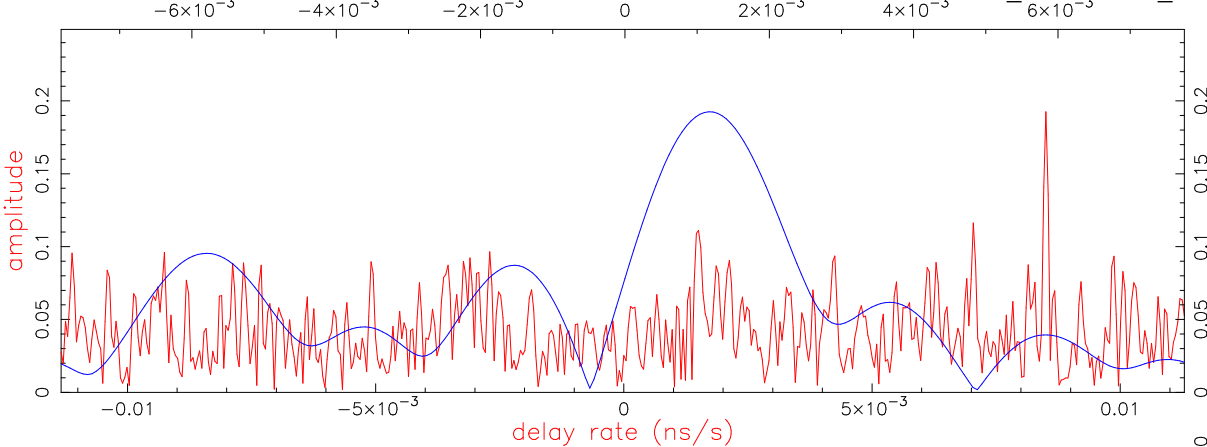
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bf

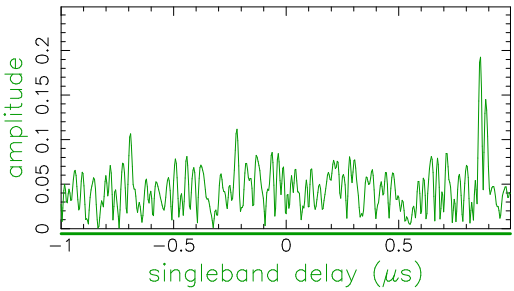
VLBA_BR - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)

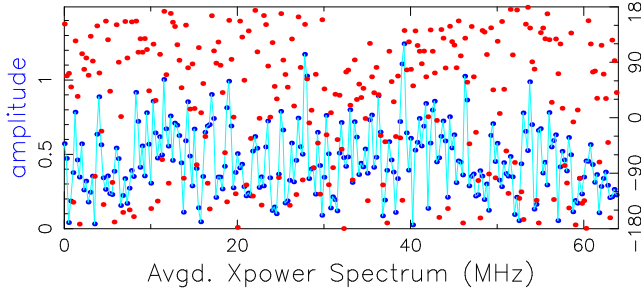


Fringe quality 0

SNR 5.7
 Int time 112.624
 Amp 0.249
 Phase -45.3
 PFD 5.8e-01
 Delays (us)
 SBD 0.861866
 MBD 0.001181
 Fringe rate (Hz)
 0.731980
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

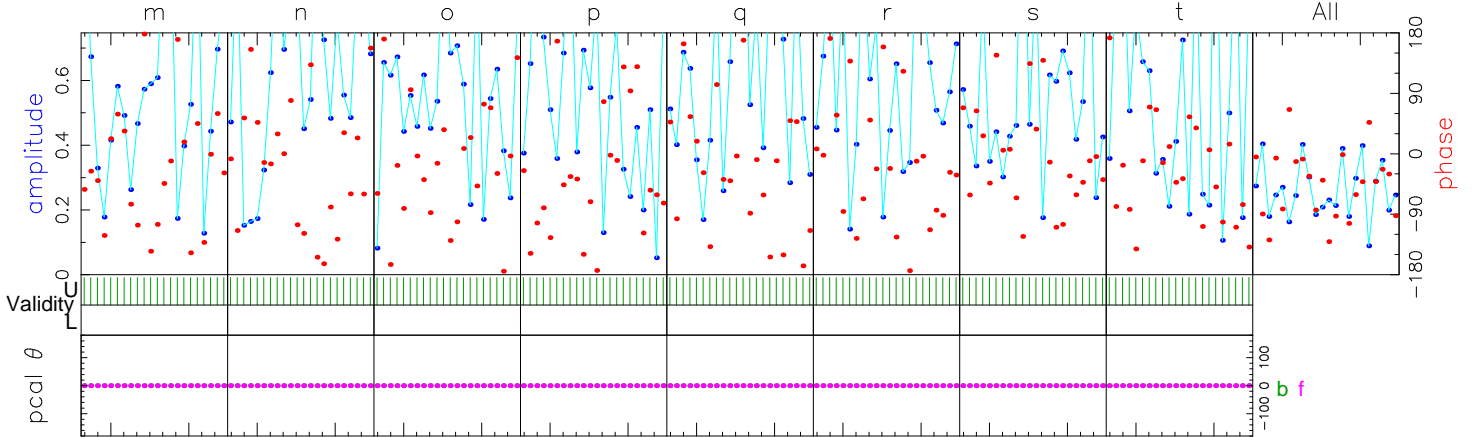


delay rate (ns/s)



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°51'29.100073"

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
	-25.2	-66.0	-29.8	-82.8	-19.5	-48.7	-28.9	-46.4	Phase	-45.3
	0.3	0.2	0.2	0.3	0.1	0.3	0.3	0.4	Ampl.	0.2
	437.3	385.5	463.5	334.7	83.3	199.5	408.8	79.7	Sbd box	477.6
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	
f	0	0	0	0	0	0	0	0	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	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	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.89584568664E+02	Apriori delay (usec)	-1.90445124916E+02	Resid mbdelay (usec)	1.18125E-03	+/-	1.9E-04
Sband delay (usec)	-1.89583258666E+02	Apriori clock (usec)	4.5807724E+00	Resid sbdelay (usec)	8.61866E-01	+/-	1.5E-03
Phase delay (usec)	-1.90445126376E+02	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	-1.45990E-06	+/-	6.5E-07
Delay rate (us/s)	7.59898497733E-02	Apriori rate (us/s)	7.59813522147E-02	Resid rate (us/s)	8.49756E-06	+/-	1.0E-08
Total phase (deg)	-67.0	Apriori accel (us/s/s)	2.07349396224E-05	Resid phase (deg)	-45.3	+/-	20.2

ph/seg (deg)	50.7	Theor.	47.4	Amplitude	0.249 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	55.2	Search (512X32)	0.187	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	23.9	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	39.2	Inc. seg. avg.	0.249	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.232	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

b: az 74.8 el 62.9 pa -74.1 f: az 40.8 el 64.1 pa -123.1 u,v (fr/asec) -636.621 3203.949 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bf..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bf.W.42.3MP1AB

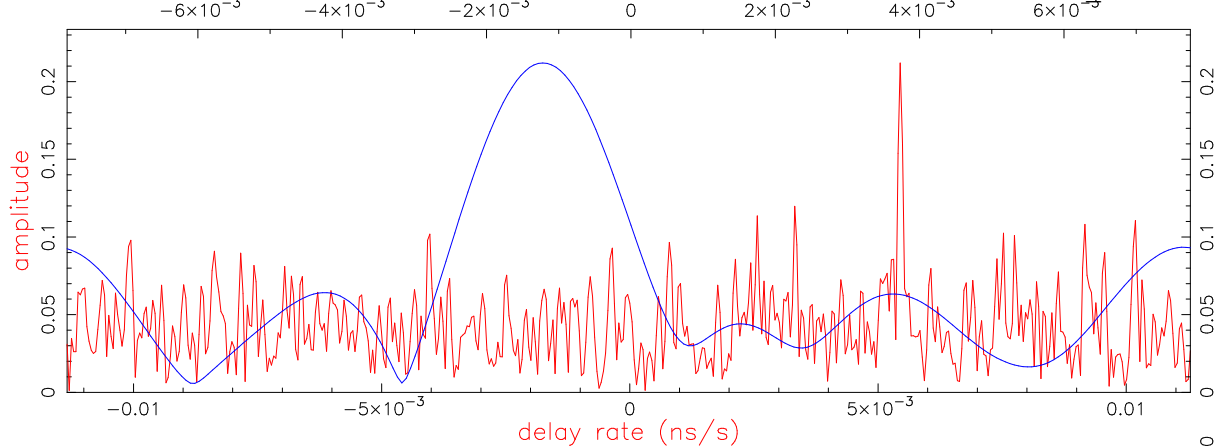
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bg

VLBA_BR - GLT, fgroup W, pol LL

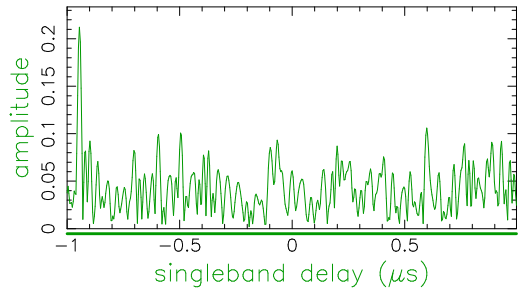
multiband delay (μ s)



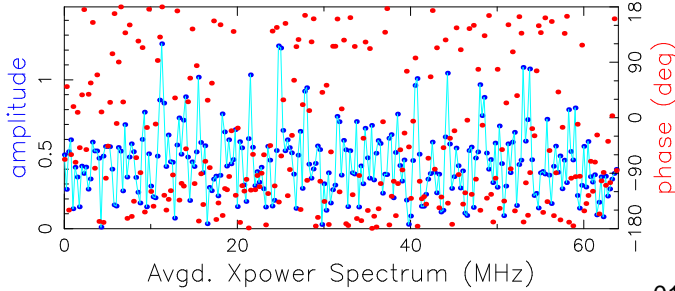
Fringe quality 0

SNR 6.2
 Int time 112.624
 Amp 0.234
 Phase 144.5
 PFD 4.8e-02
 Delays (us)
 SBD -0.944969
 MBD -0.001213
 Fringe rate (Hz)
 0.468098
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

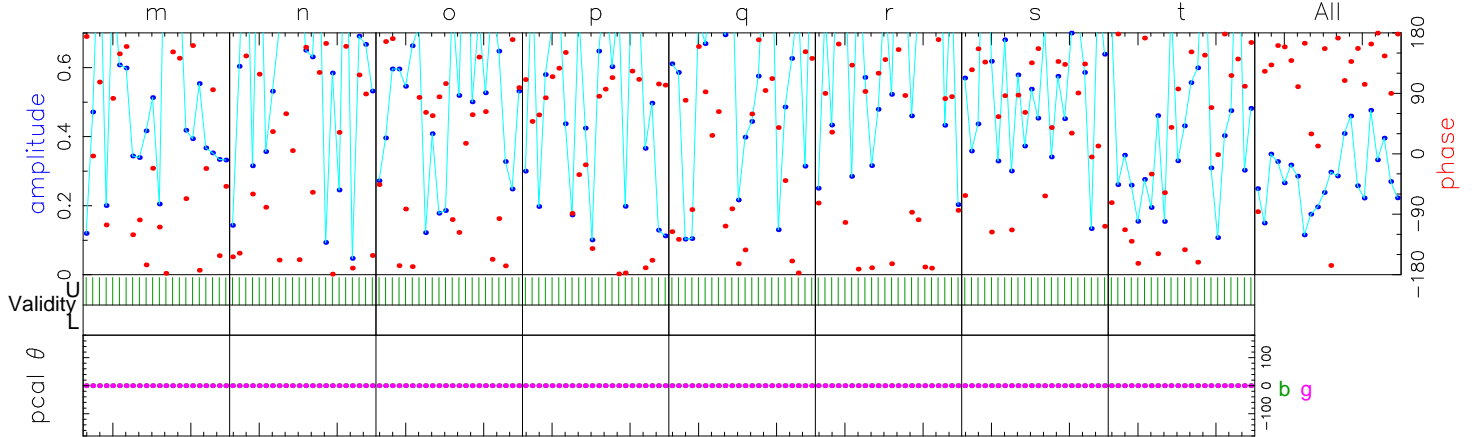
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112935
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



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
	162.4	139.1	165.1	112.3	151.8	160.2	107.7	163.0	Phase	144.5
	0.2	0.3	0.1	0.3	0.2	0.4	0.2	0.2	Ampl.	0.2
	345.2	318.7	266.0	245.9	90.8	14.7	120.6	74.6	Sbd box	15.1
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	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.61988400022E+02	Apriori delay (usec)	3.62927113481E+02	Resid mbdelay (usec)	-1.21346E-03	+/-	1.8E-04
Sband delay (usec)	3.61982143981E+02	Apriori clock (usec)	4.1742153E+00	Resid sbdelay (usec)	-9.44969E-01	+/-	1.4E-03
Phase delay (usec)	3.62927118141E+02	Apriori clockrate (us/s)	4.9648003E-07	Resid phdelay (usec)	4.66012E-06	+/-	6.0E-07
Delay rate (us/s)	4.95552390548E-01	Apriori rate (us/s)	4.95546956393E-01	Resid rate (us/s)	5.43415E-06	+/-	9.2E-09
Total phase (deg)	344.4	Apriori accel (us/s/s)	-2.10694447525E-05	Resid phase (deg)	144.5	+/-	18.6

ph/seg (deg)	53.7	RMS	43.6	Theor.	0.234 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	55.5	Search (512X32)	0.202	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	25.2	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	35.6	Inc. seg. avg.	0.245	Inc. seg. avg.		Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.227	Inc. frq. avg.		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 g: az 194.0 el 61.2 pa 4.9 u,v (fr/asec) -4253.394 -3174.983 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bg..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bg.W.25.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

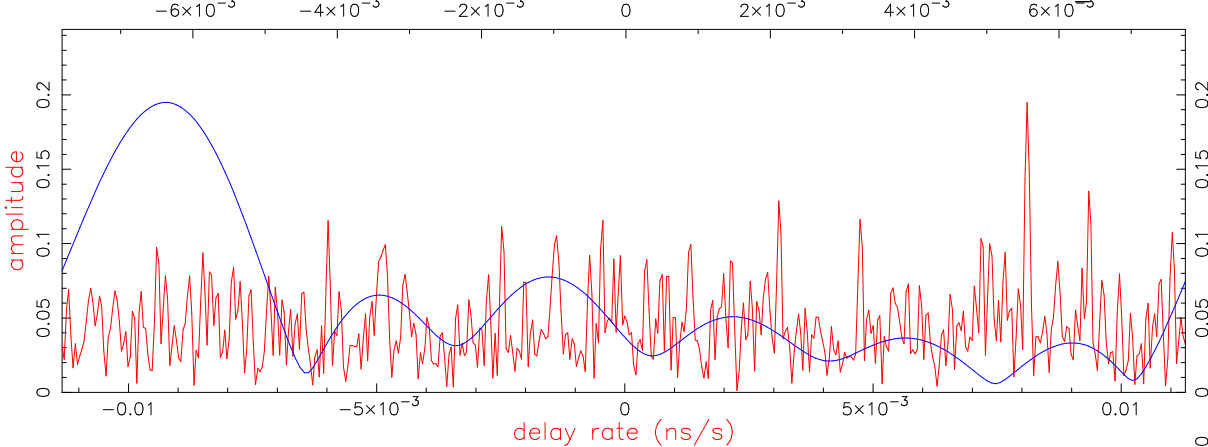
aux01

0133+476.3MP1AB, No0916, bg

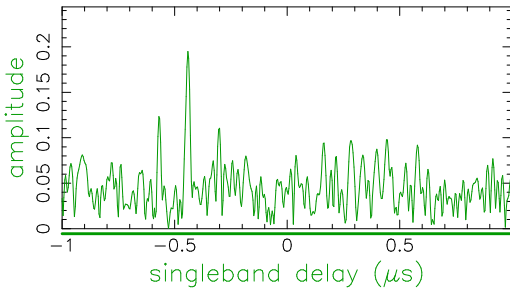
VLBA_BR - GLT, fgroup W, pol RR

multiband delay (μ s)

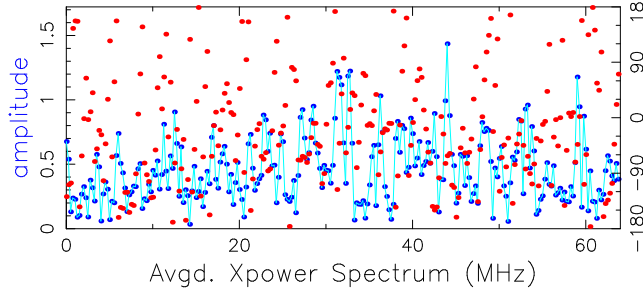
Fringe quality 0



SNR 5.7
 Int time 112.624
 Amp 0.244
 Phase -7.1
 PFD 5.8e-01
 Delays (us)
 SBD -0.440588
 MBD -0.006358
 Fringe rate (Hz)
 0.700982
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

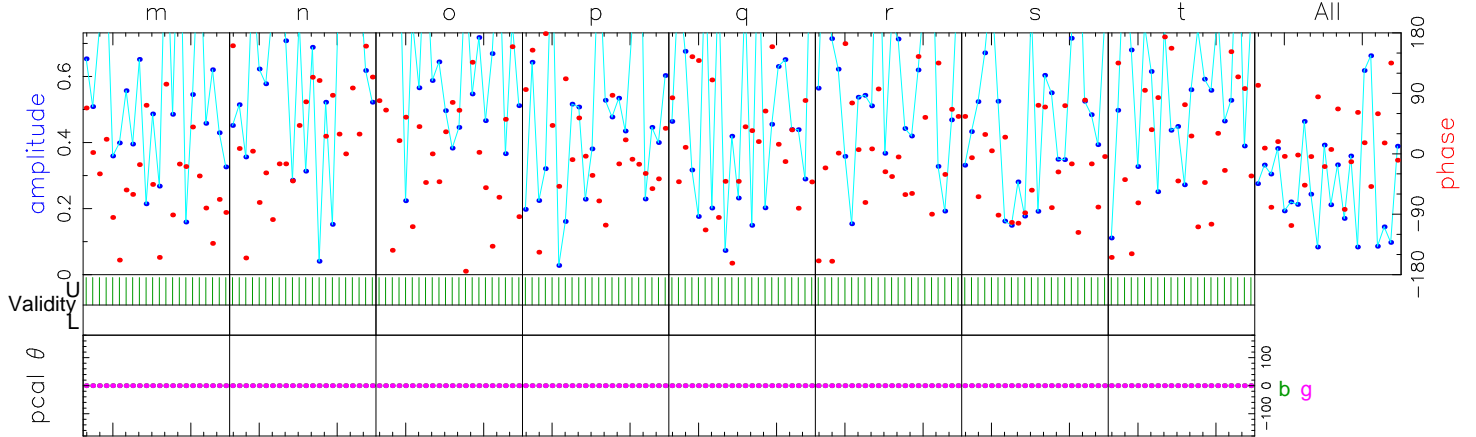


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112937
 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
	-27.1	20.3	-6.7	-5.3	-13.0	0.5	-25.4	36.0	Phase	-7.1
	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.1	Ampl.	0.2
	181.6	341.1	299.9	233.8	277.4	415.2	28.0	423.8	Sbd box	144.2
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	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	3.62483255095E+02		Apriori delay (usec)		3.62927113481E+02		Resid mbdelay (usec)		-6.35839E-03	+/- 1.9E-04
Sband delay (usec)	3.62486525731E+02		Apriori clock (usec)		4.1742153E+00		Resid sbdelay (usec)		-4.40588E-01	+/- 1.5E-03
Phase delay (usec)	3.62927113251E+02		Apriori clockrate (us/s)		4.9648003E-07		Resid phdelay (usec)		-2.30317E-07	+/- 6.5E-07
Delay rate (us/s)	4.9555094098E-01		Apriori rate (us/s)		4.95546956393E-01		Resid rate (us/s)		8.13770E-06	+/- 1.0E-08
Total phase (deg)	192.7		Apriori accel (us/s/s)		-2.10694447525E-05		Resid phase (deg)		-7.1	+/- 20.2

ph/seg (deg) 60.9 47.4 Search (512X32) 0.189 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 92.2 82.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.0 28.6 Inc. seg. avg. 0.265 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.2 49.8 Inc. frq. avg. 0.227 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 74.8 el 62.9 pa -74.1 g: az 194.0 el 61.2 pa 4.9 u,v (fr/asec) -4253.394 -3174.983 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bg..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bg.W.31.3MP1AB

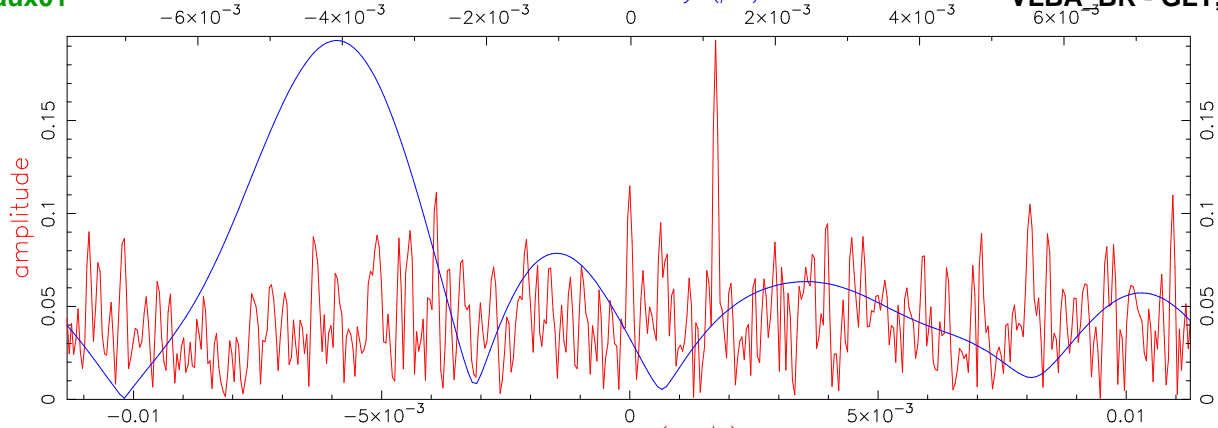
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bg

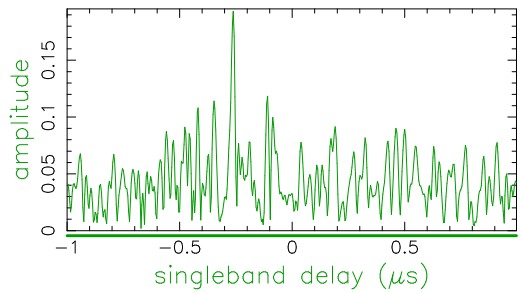
VLBA_BR - GLT, fgroup W, pol LR

multiband delay (μ s)

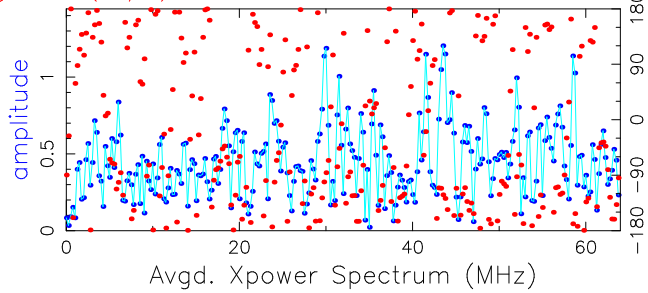


Fringe quality 0

SNR 5.6
 Int time 112.624
 Amp 0.195
 Phase 120.8
 PFD 7.0e-01
 Delays (us)
 SBD -0.262239
 MBD -0.004080
 Fringe rate (Hz)
 0.149710
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

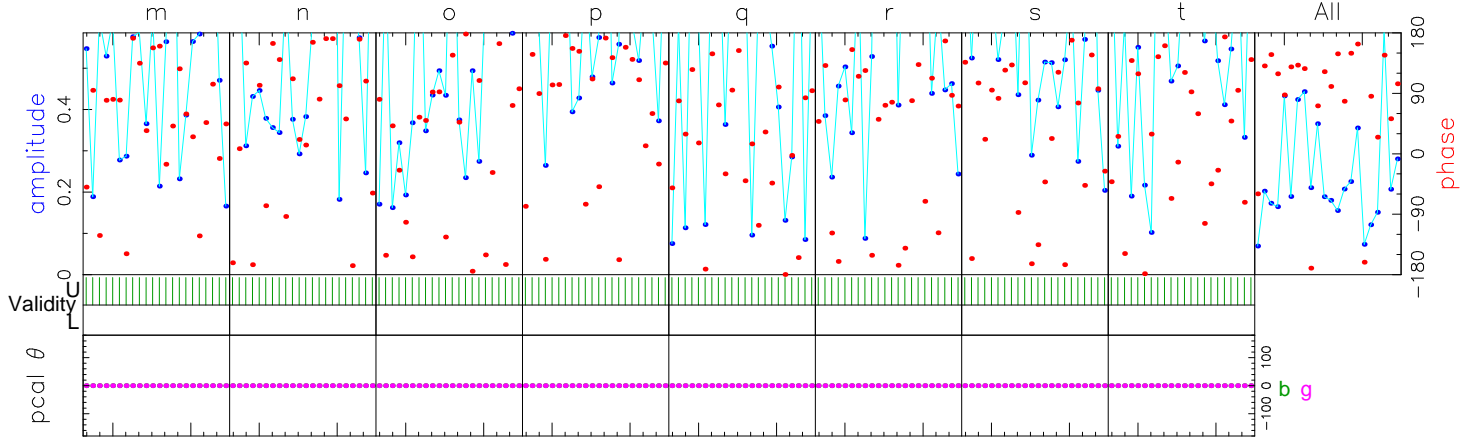


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112938
 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
	71.1	156.8	135.0	141.8	89.1	113.8	123.9	108.2	Phase	120.8
	0.2	0.2	0.2	0.3	0.1	0.2	0.3	0.1	Ampl.	0.2
	167.0	342.6	23.0	188.8	413.2	116.1	186.2	128.8	Sbd box	189.9
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	
g	0	0	0	0	0	0	0	0	PC freqs	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	3.62657408244E+02		Apriori delay (usec)		3.62927113481E+02		Resid mbdelay (usec)		-4.08024E-03	+/- 1.9E-04
Sband delay (usec)	3.62664874231E+02		Apriori clock (usec)		4.1742153E+00		Resid sbdelay (usec)		-2.62239E-01	+/- 1.5E-03
Phase delay (usec)	3.62927117378E+02		Apriori clockrate (us/s)		4.9648003E-07		Resid phdelay (usec)		3.89695E-06	+/- 6.6E-07
Delay rate (us/s)	4.95548694380E-01		Apriori rate (us/s)		4.95546956393E-01		Resid rate (us/s)		1.73799E-06	+/- 1.0E-08
Total phase (deg)	320.7		Apriori accel (us/s/s)		-2.10694447525E-05		Resid phase (deg)		120.8	+/- 20.4

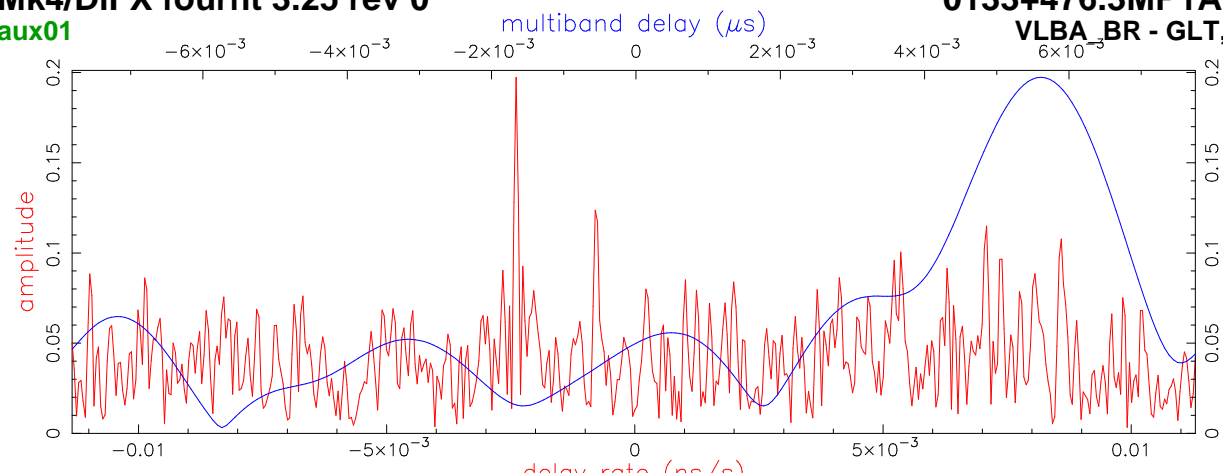
ph/seg (deg) 56.2 47.9 Search (512X32) 0.186 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.7 83.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 30.7 28.9 Inc. seg. avg. 0.184 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.1 50.4 Inc. frq. avg. 0.192 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 74.8 el 62.9 pa -74.1 g: az 194.0 el 61.2 pa 4.9 u, v (fr/asec) -4253.394 -3174.983 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bg..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bg.W.38.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

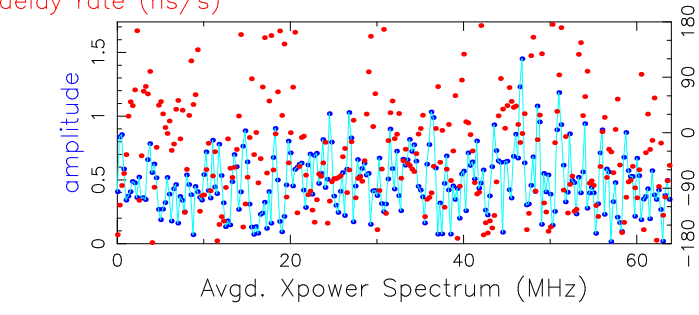
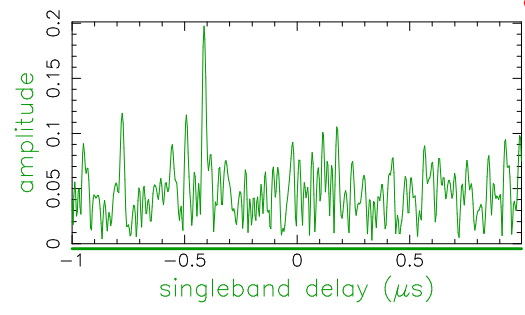
aux01

0133+476.3MP1AB, No0916, bg

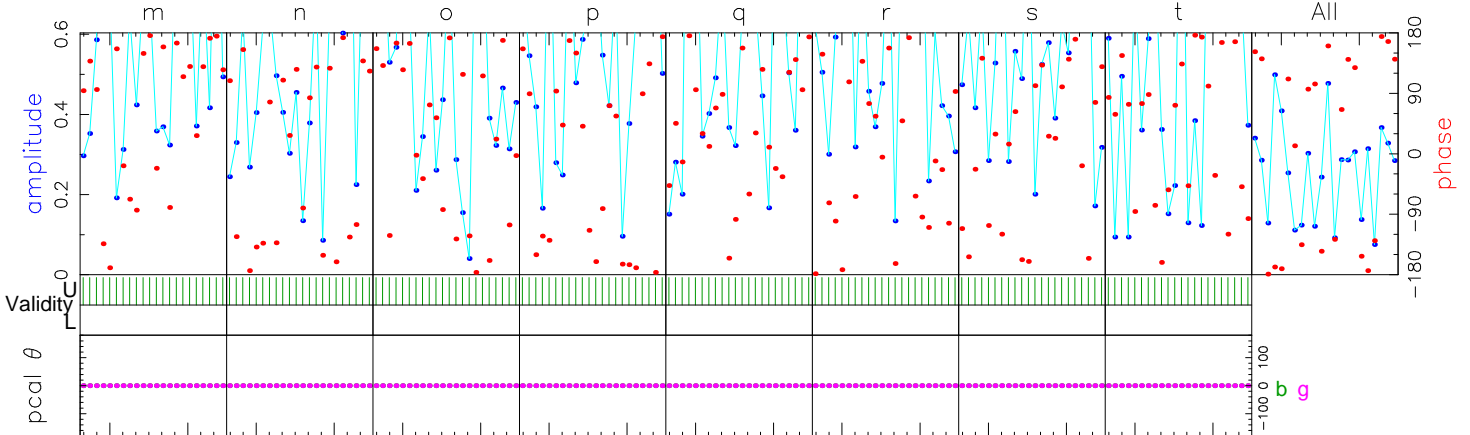
VLBA_BR - GLT, fgroup W, pol RL



Fringe quality 0
 SNR 5.7
 Int time 112.624
 Amp 0.201
 Phase 159.3
 PFD 4.6e-01
 Delays (us)
 SBD -0.413677
 MBD 0.005603
 Fringe rate (Hz)
 -0.206804
 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
 2025:041:112939
 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		
g	0	0	0	0	0	0	0	0		
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	3.62510840994E+02					3.62927113481E+02			5.60251E-03	+/- 1.9E-04
Sband delay (usec)	3.62513436981E+02					4.1742153E+00			-4.13677E-01	+/- 1.5E-03
Phase delay (usec)	3.62927118619E+02					4.9648003E-07			5.13808E-06	+/- 6.4E-07
Delay rate (us/s)	4.9554455604E-01					4.95546956393E-01			-2.40079E-06	+/- 9.9E-09
Total phase (deg)			359.2			-2.10694447525E-05			159.3	+/- 20.0
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
simultaneous interpolator										

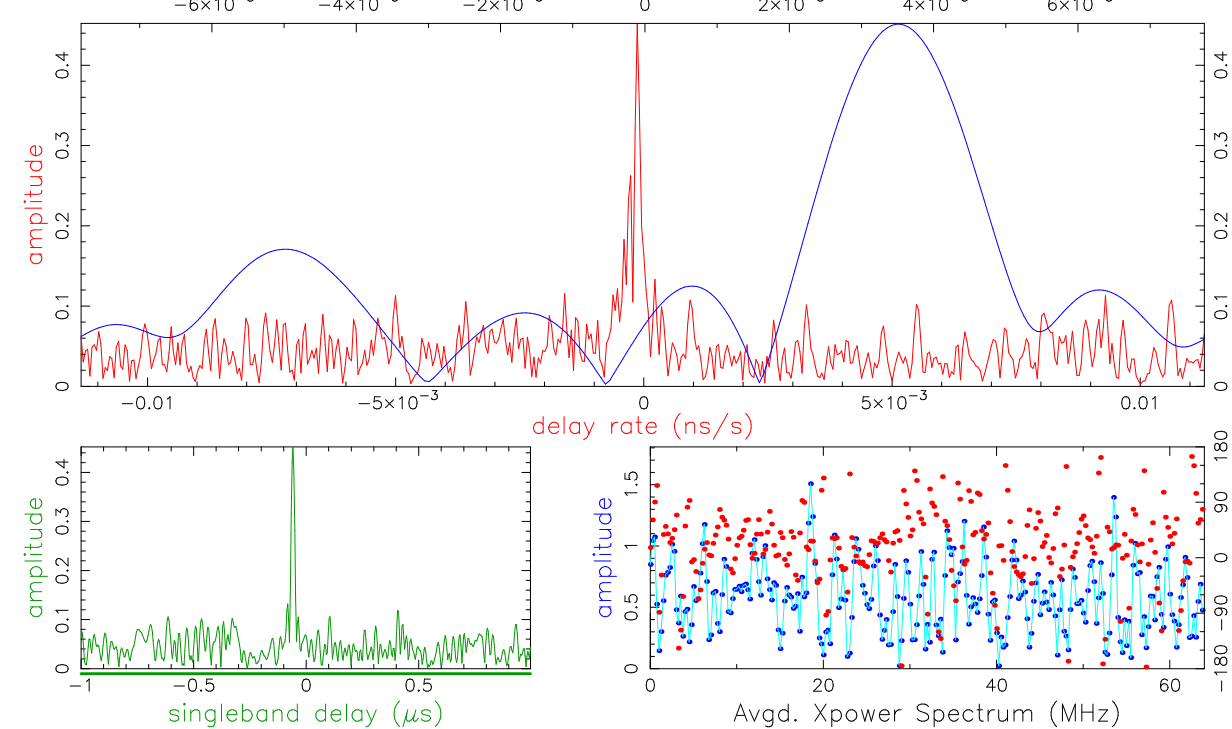
b: az 74.8 el 62.9 pa -74.1 g: az 194.0 el 61.2 pa 4.9 u,v (fr/asec) -4253.394 -3174.983
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bg..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bg.W.45.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

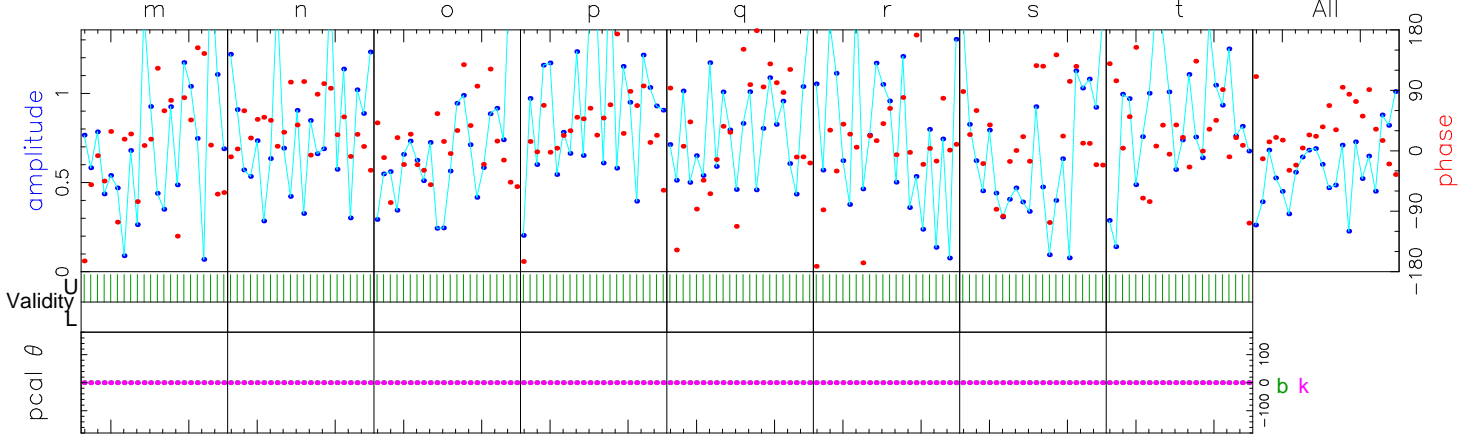
0133+476.3MP1AB, No0916, bk

VLBA_BR - VLBA_KP, fgroup W, pol LL



Fringe quality 9
 SNR 13.1
 Int time 112.624
 Amp 0.452
 Phase 24.9
 PFD 3.5e-31
 Delays (us)
 SBD -0.059127
 MBD 0.003498
 Fringe rate (Hz) -0.010402
 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
 2025:041:112938
 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
	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	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	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 20.5 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 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.3 21.6 Inc. seg. avg. 0.545 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.456 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

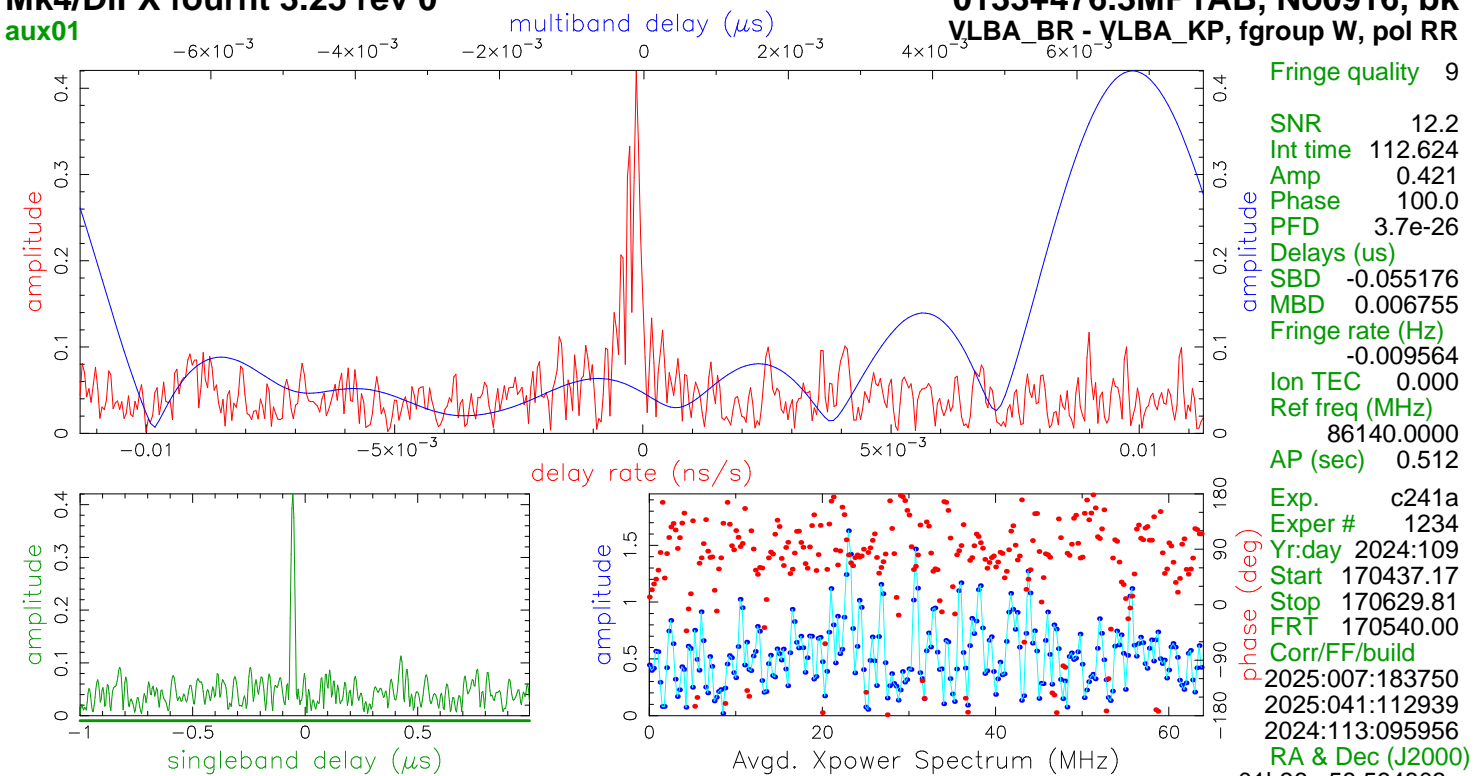
b: az 74.8 el 62.9 pa -74.1 k: az 47.5 el 60.5 pa -111.0 u,v (fr/asec) 201.143 2652.625 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.36.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bk

VLBA_BR - VLBA_KP, fgroup W, pol RR



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

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

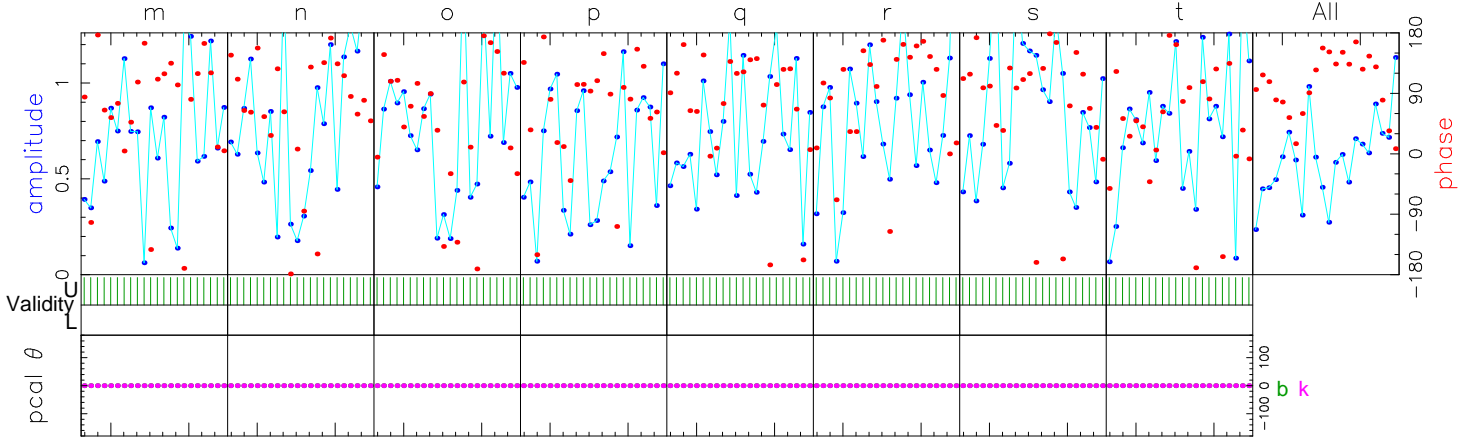
2024:113:095956

RA & Dec (J2000)

01h36m58.594803s

+47°51'29.100073"

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	APs used	
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	Mani 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		
amp/seg (%)	67.9	45.2	22.0	Search (512X32)	0.395		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	12.7	67.9	38.4	Interp.	0.000		Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	19.0	12.7	13.3	Inc. seg. avg.	0.569		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011		
		19.0	23.2	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

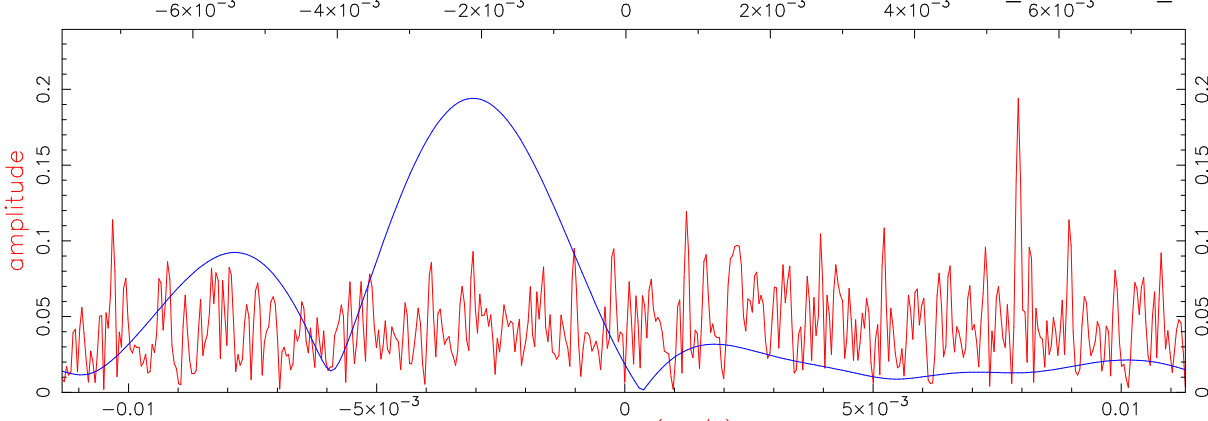
aux01

0133+476.3MP1AB, No0916, bk

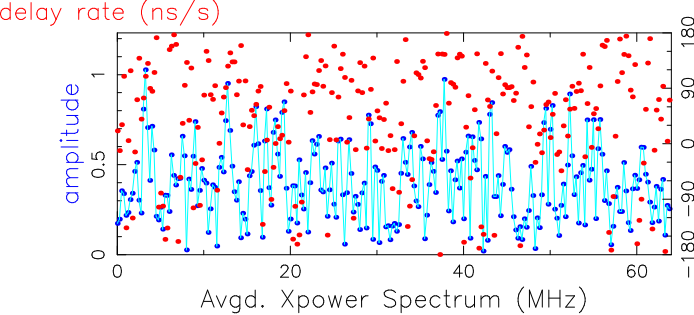
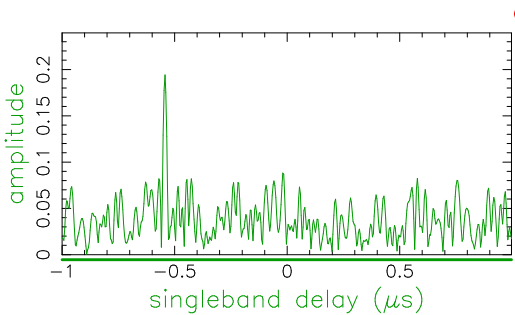
VLBA_BR - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

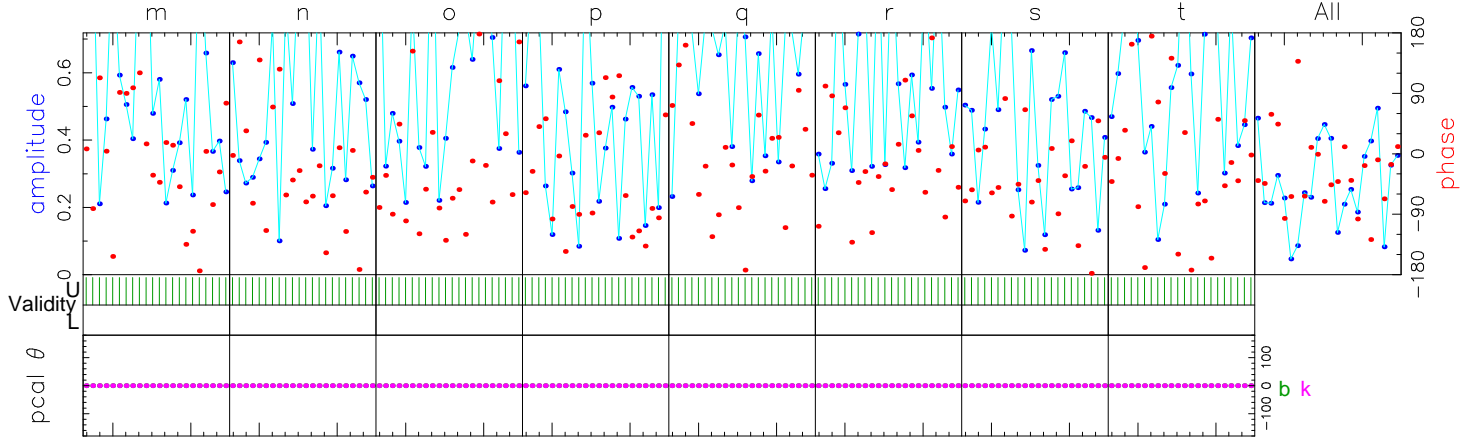


SNR 5.6
 Int time 112.624
 Amp 0.240
 Phase -30.3
 PFD 6.6e-01
 Delays (us)
 SBD -0.543127
 MBD -0.002125
 Fringe rate (Hz)
 0.683872
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



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	
									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

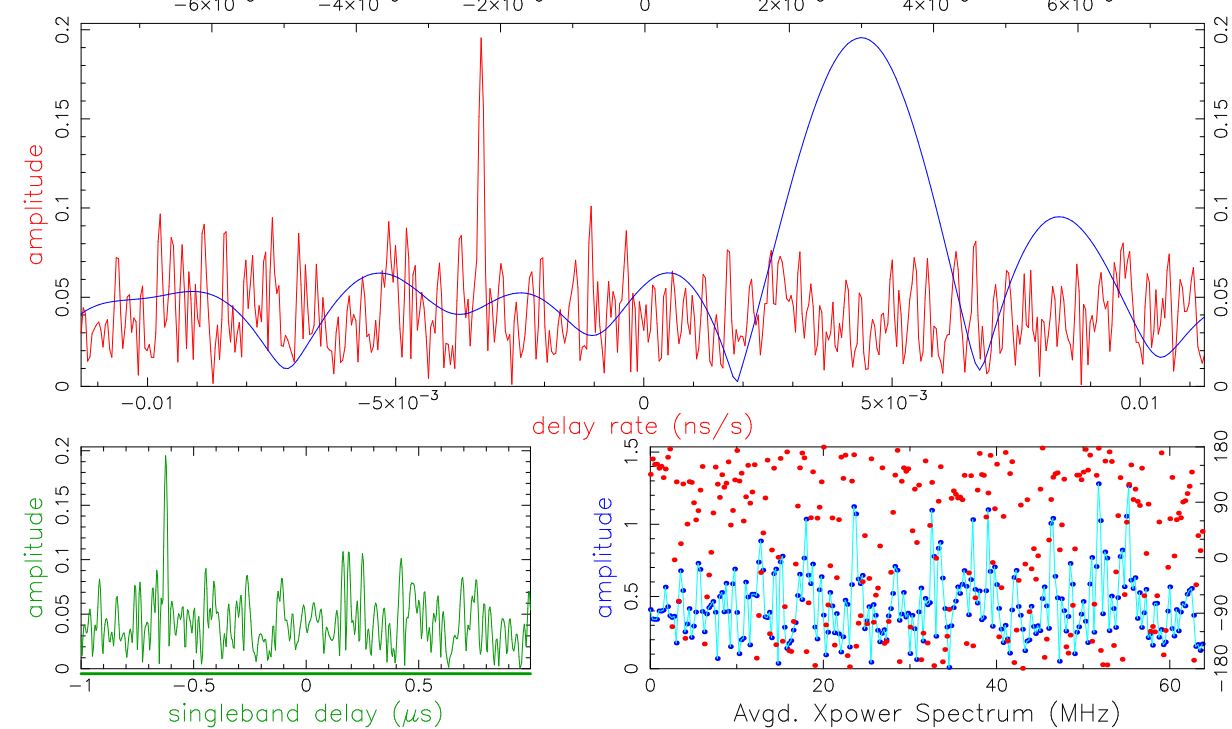
ph/seg (deg) 57.4 47.7 Search (512X32) 0.186 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 77.3 83.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.8 28.8 Inc. seg. avg. 0.253 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.2 50.2 Inc. frq. avg. 0.222 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 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 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/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.47.3MP1AB simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bk

VLBA_BR - VLBA_KP, fgroup W, pol RL

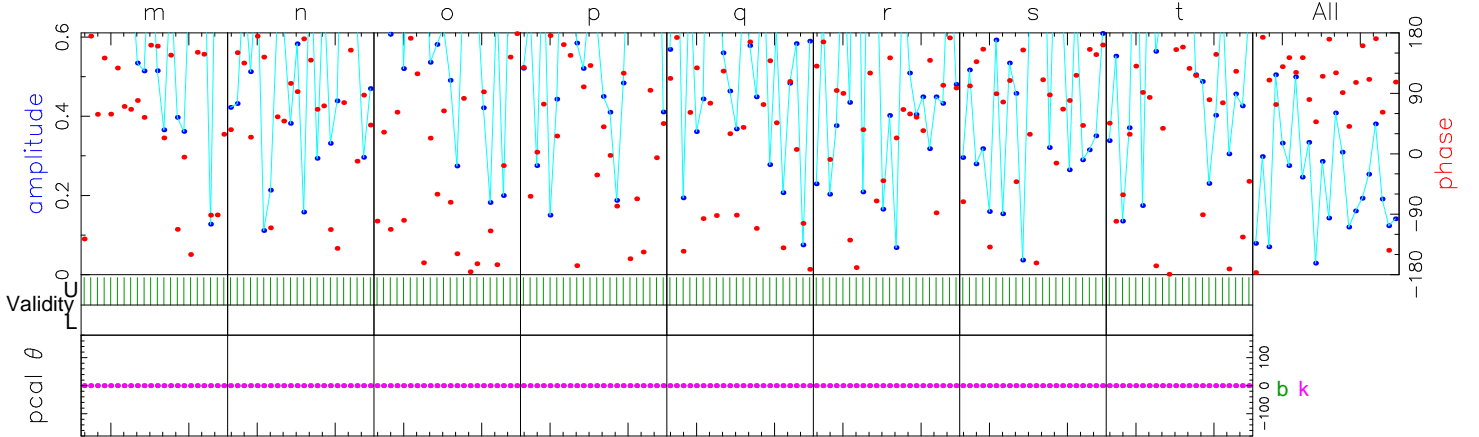


Fringe quality 0

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°51'29.100073"

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	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

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	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
amp/frq (%)	29.2	Inc. frq. avg.	0.194			Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

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

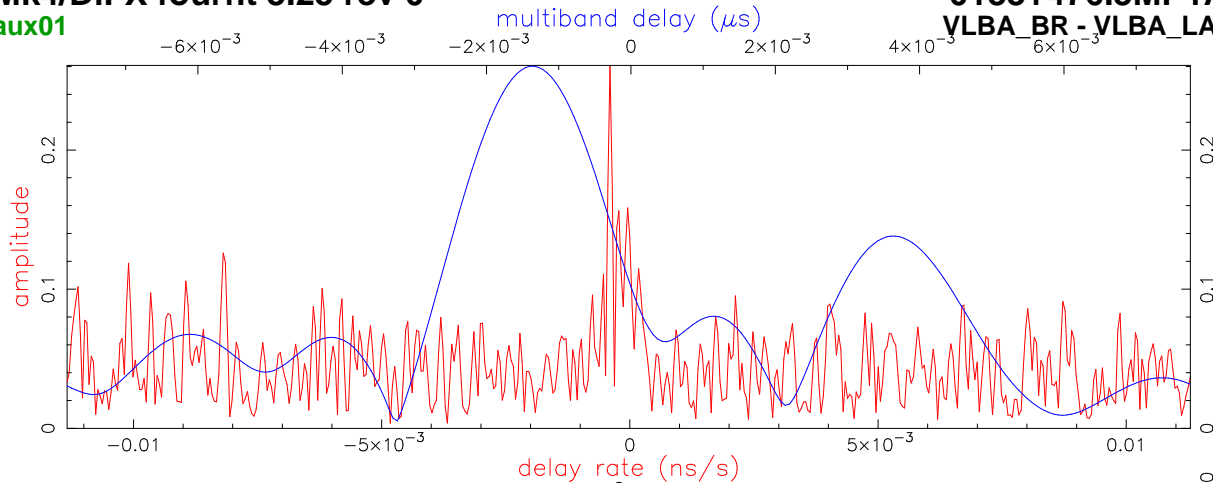
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bk..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bk.W.54.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

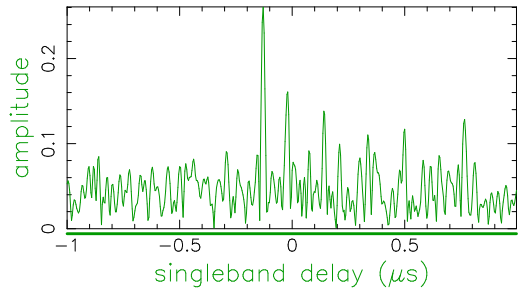
0133+476.3MP1AB, No0916, bl

VLBA_BR - VLBA_LA, fgroup W, pol LL

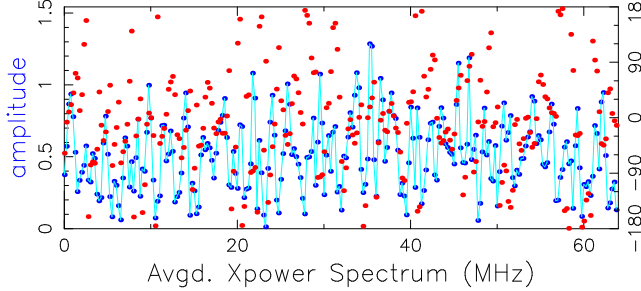


Fringe quality 9

SNR 7.6
 Int time 112.624
 Amp 0.261
 Phase -44.0
 PFD 3.1e-06
 Delays (us)
 SBD -0.129453
 MBD -0.001384
 Fringe rate (Hz)
 -0.032952
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

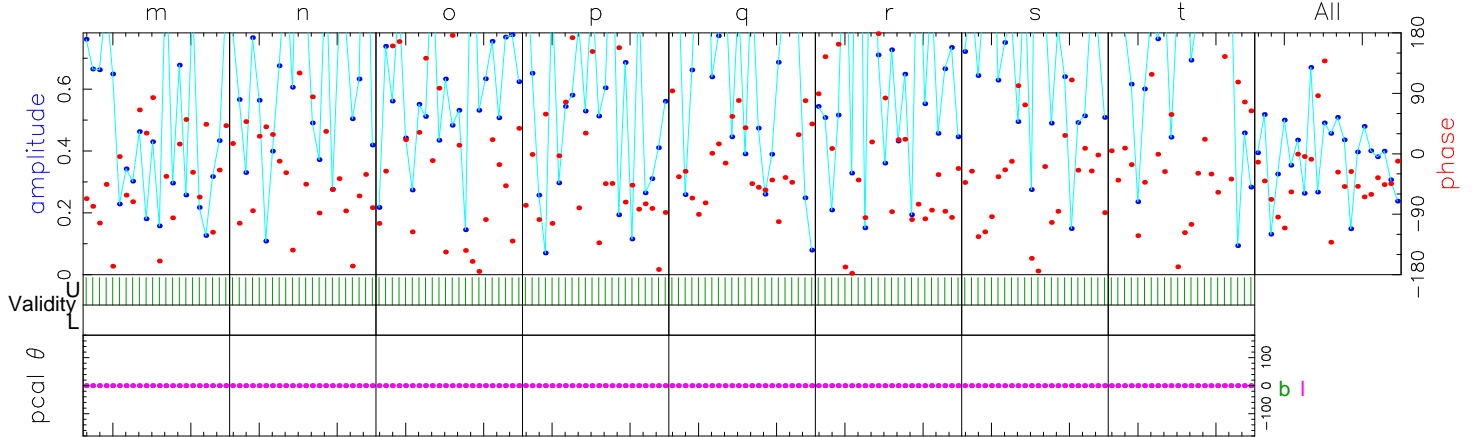


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112938
 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
	-36.6	-30.8	-99.6	-78.6	-25.9	-66.4	-52.1	-23.6	Phase	-44.0
	0.3	0.3	0.1	0.3	0.4	0.2	0.3	0.3	Ampl.	0.3
	352.0	20.9	452.3	342.2	223.8	383.9	231.6	451.2	Sbd box	223.9
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	
l	0	0	0	0	0	0	0	0	PC freqs	
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:l	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	
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.29101670453E+02	Apriori delay (usec)	-5.28975286294E+02	Resid mbdelay (usec)	-1.38416E-03	+/-	1.4E-04
Sband delay (usec)	-5.29104739044E+02	Apriori clock (usec)	1.2946423E+01	Resid sbdelay (usec)	-1.29453E-01	+/-	1.1E-03
Phase delay (usec)	-5.28975287712E+02	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	-1.41850E-06	+/-	4.9E-07
Delay rate (us/s)	6.68496809478E-02	Apriori rate (us/s)	6.68500634895E-02	Resid rate (us/s)	-3.82542E-07	+/-	7.5E-09
Total phase (deg)	-102.1	Apriori accel (us/s/s)	1.62919158147E-05	Resid phase (deg)	-44.0	+/-	15.1

ph/seg (deg)	57.3	Theor.	35.5	Amplitude	0.261 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.9		62.0	Search (512X32)	0.246	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	31.2		21.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	37.3		37.4	Inc. seg. avg.	0.324	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.261	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 l: az 50.4 el 66.3 pa -111.1 u,v (fr/asec) -561.186 2371.416 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bl_.3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bl.W.39.3MP1AB

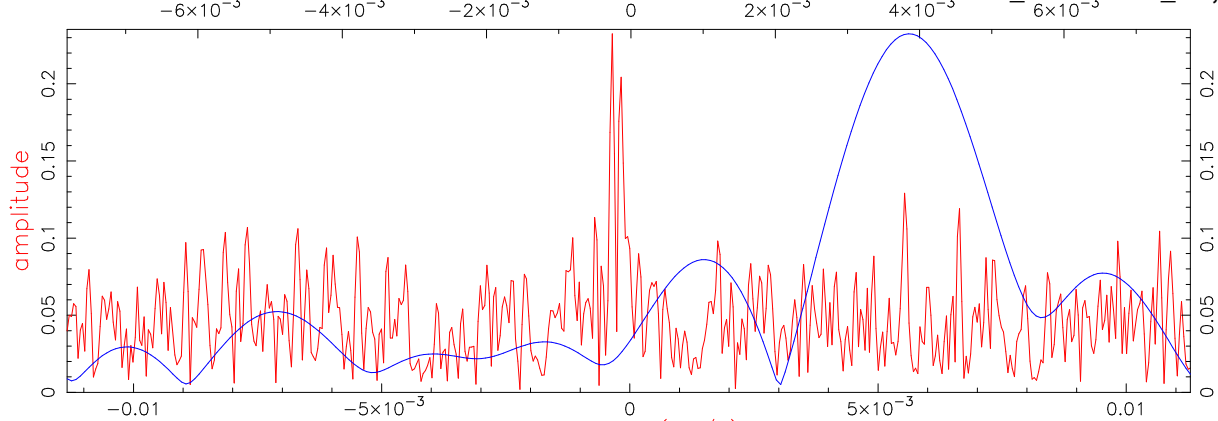
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bl

VLBA_BR - VLBA_LA, fgroup W, pol RR

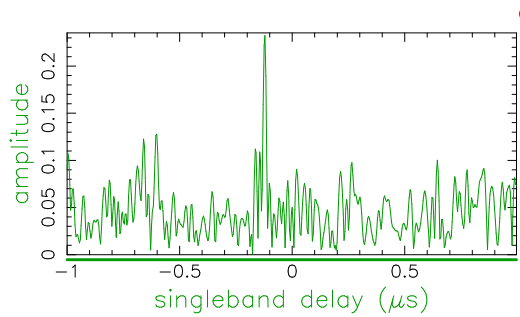
multiband delay (μ s)



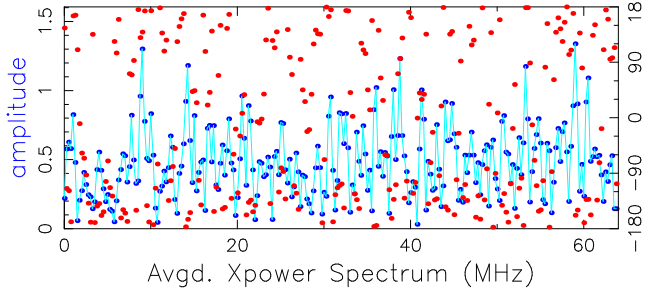
Fringe quality 0

SNR 6.8
 Int time 112.624
 Amp 0.235
 Phase 174.6
 PFD 6.4e-04
 Delays (us)
 SBD -0.122316
 MBD 0.003832
 Fringe rate (Hz)
 -0.032430
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

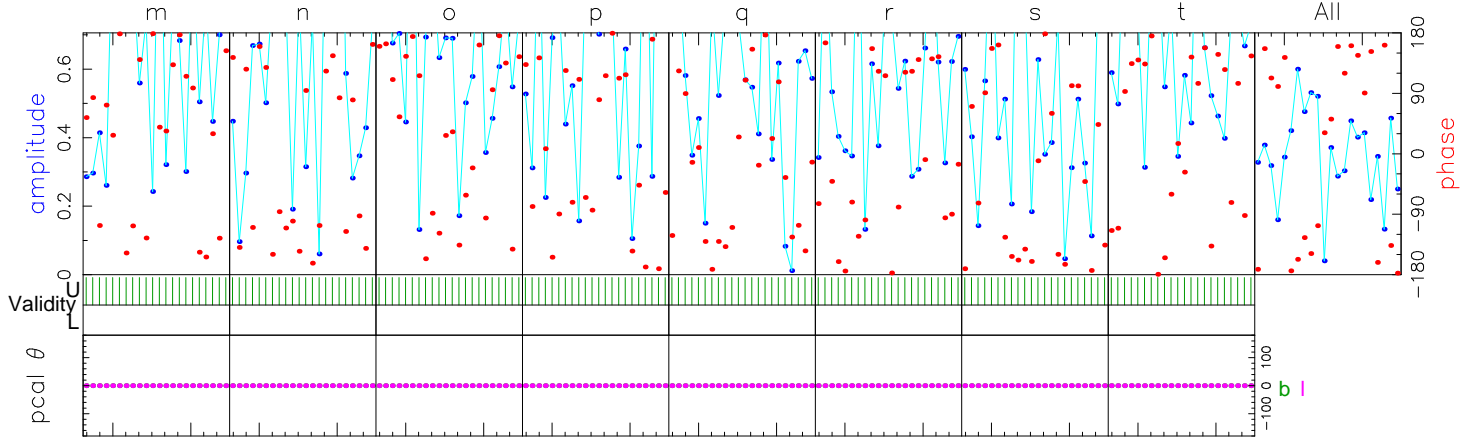
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112939
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.10073"



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
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		
l	0	0	0	0	0	0	0	0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-5.29096453953E+02	Apriori delay (usec)	-5.28975286294E+02	Resid mbdelay (usec)	3.83234E-03	+/-	1.6E-04
Sband delay (usec)	-5.29097602044E+02	Apriori clock (usec)	1.2946423E+01	Resid sbdelay (usec)	-1.22316E-01	+/-	1.3E-03
Phase delay (usec)	-5.28975280664E+02	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	5.62988E-06	+/-	5.4E-07
Delay rate (us/s)	6.68496870130E-02	Apriori rate (us/s)	6.68500634895E-02	Resid rate (us/s)	-3.76476E-07	+/-	8.3E-09
Total phase (deg)	116.5	Apriori accel (us/s/s)	1.62919158147E-05	Resid phase (deg)	174.6	+/-	16.8

ph/seg (deg)	57.9	RMS	75.3	Theor.	39.4	Amplitude	0.235 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.3	Search (512X32)	0.213	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	15.3	Inc. seg. avg.	0.285	Inc. frq. avg.	0.219	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	22.8	Inc. frq. avg.	0.219	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
b: az 74.8 el 62.9 pa -74.1		l: az 50.4 el 66.3 pa -111.1		u, v (fr/asec)	-561.186 2371.416					ion window (TEC)	0.00	0.00

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bl..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bl.W.46.3MP1AB

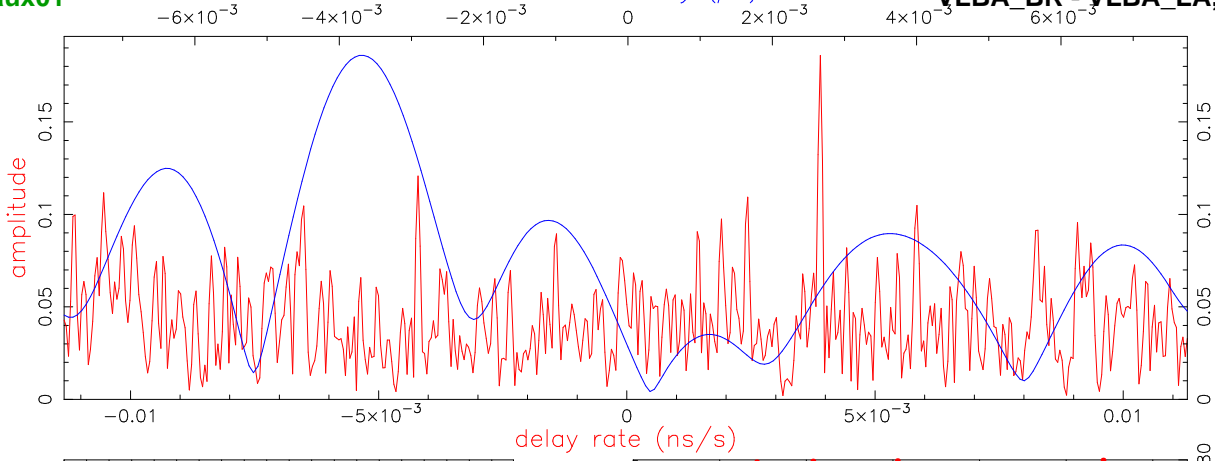
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bl

VLBA_BR - VLBA_LA, fgroup W, pol LR

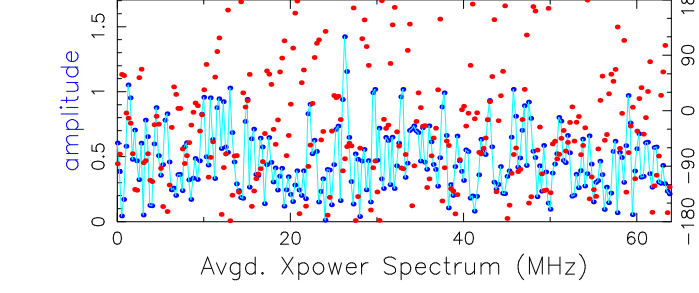
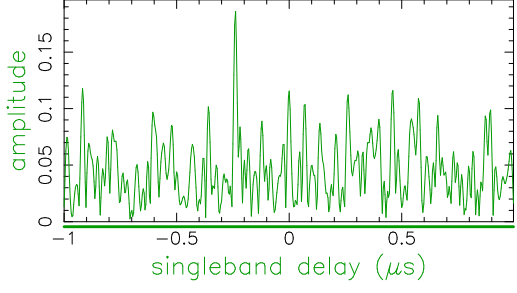
multiband delay (μ s)



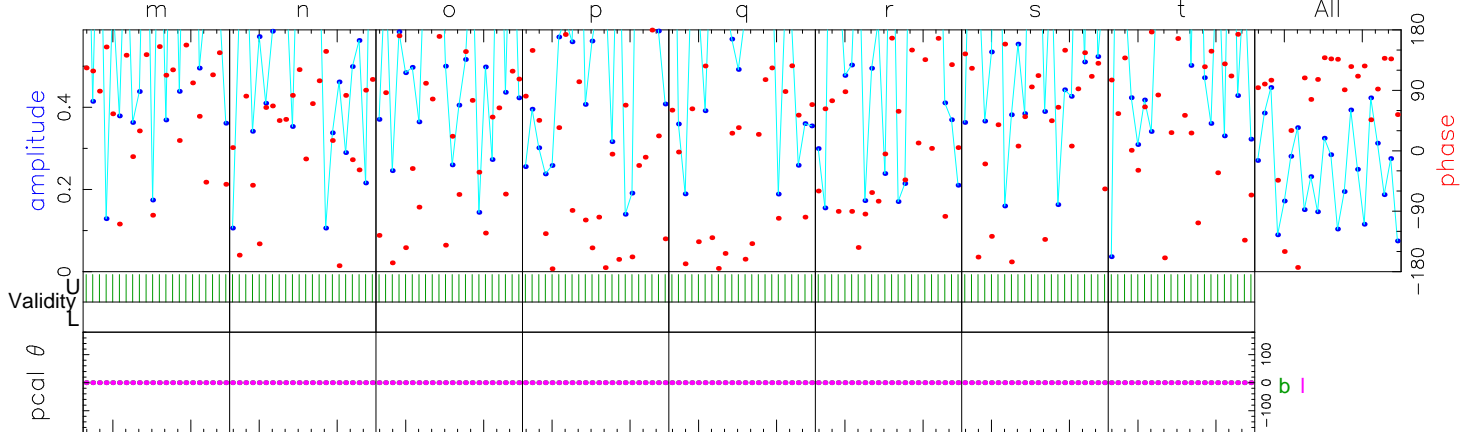
Fringe quality 0

SNR 5.4
 Int time 112.624
 Amp 0.196
 Phase 109.2
 PFD 9.7e-01
 Delays (us)
 SBD -0.239086
 MBD -0.003711
 Fringe rate (Hz) 0.335646
 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
 2025:041:112942
 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		
l	0	0	0	0	0	0	0	0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-5.29213371900E+02									
Sband delay (usec)	-5.29214372794E+02									
Phase delay (usec)	-5.28975282772E+02									
Delay rate (us/s)	6.68539600066E-02									
Total phase (deg)			51.1							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 51.9 49.6 Search (512X32) 0.184 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 67.0 86.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.3 29.9 Inc. seg. avg. 0.190 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.5 52.2 Inc. frq. avg. 0.194 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 74.8 el 62.9 pa -74.1 l: az 50.4 el 66.3 pa -111.1 u, v (fr/asec) -561.186 2371.416 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/bl_.3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bl.W.49.3MP1AB simultaneous interpolator

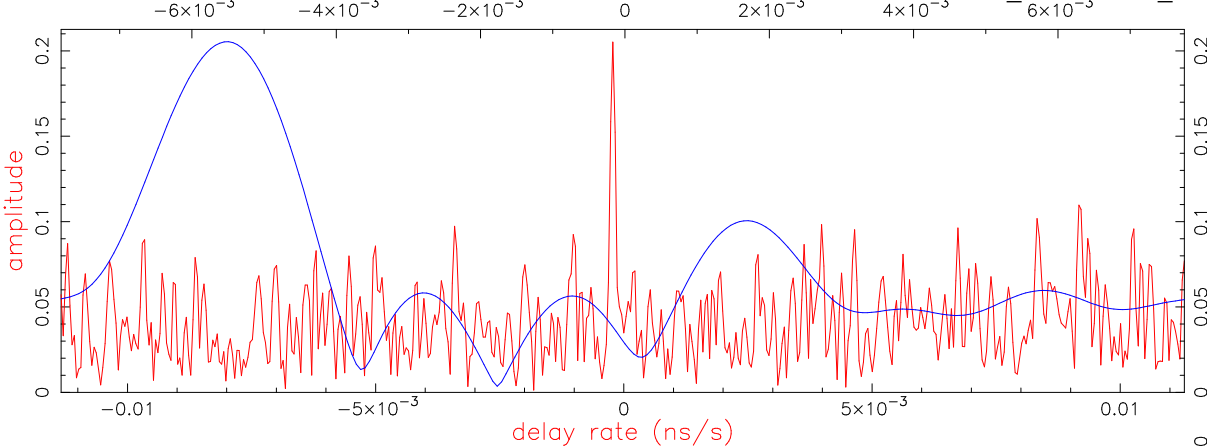
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bl

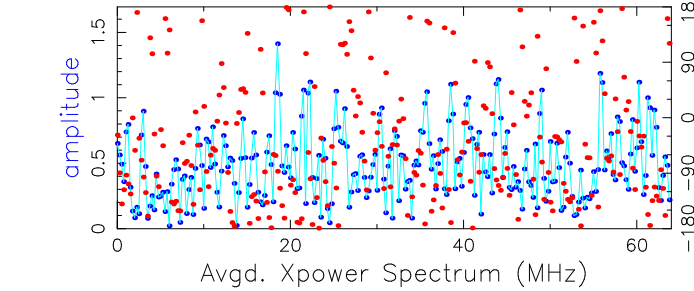
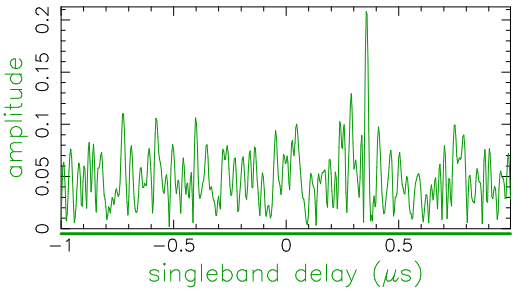
VLBA_BR - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)



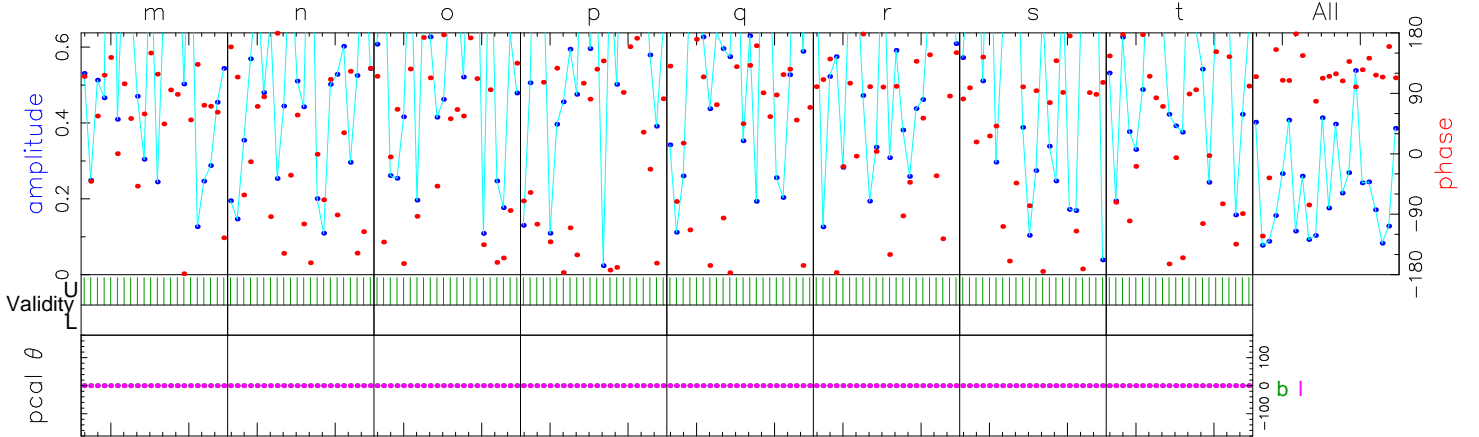
Fringe quality 0

SNR 6.2
 Int time 112.624
 Amp 0.213
 Phase 120.4
 PFD 4.5e-02
 Delays (us)
 SBD 0.357177
 MBD -0.005561
 Fringe rate (Hz)
 -0.018130
 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°51'29.100073"

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		
l	0	0	0	0	0	0	0	0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -5.28621472306E+02 Apriori delay (usec) -5.28975286294E+02 Resid mbdelay (usec) -5.56101E-03 +/- 1.8E-04
 Sband delay (usec) -5.28618109544E+02 Apriori clock (usec) 1.2946423E+01 Resid sbdelay (usec) 3.57177E-01 +/- 1.4E-03
 Phase delay (usec) -5.28975282413E+02 Apriori clockrate (us/s) 8.1044199E-07 Resid phdelay (usec) 3.88105E-06 +/- 6.0E-07
 Delay rate (us/s) 6.68498530139E-02 Apriori rate (us/s) 6.68500634895E-02 Resid rate (us/s) -2.10476E-07 +/- 9.2E-09
 Total phase (deg) 62.3 Apriori accel (us/s/s) 1.62919158147E-05 Resid phase (deg) 120.4 +/- 18.6

ph/seg (deg) 58.5 43.6 Amplitude 0.213 +/- 0.034 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.0 76.0 Search (512X32) 0.202 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 48.9 26.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 39.5 45.9 Inc. seg. avg. 0.185 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 0.207 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 l: az 50.4 el 66.3 pa -111.1 u, v (fr/asec) -561.186 2371.416 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bl.3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bl.W.52.3MP1AB

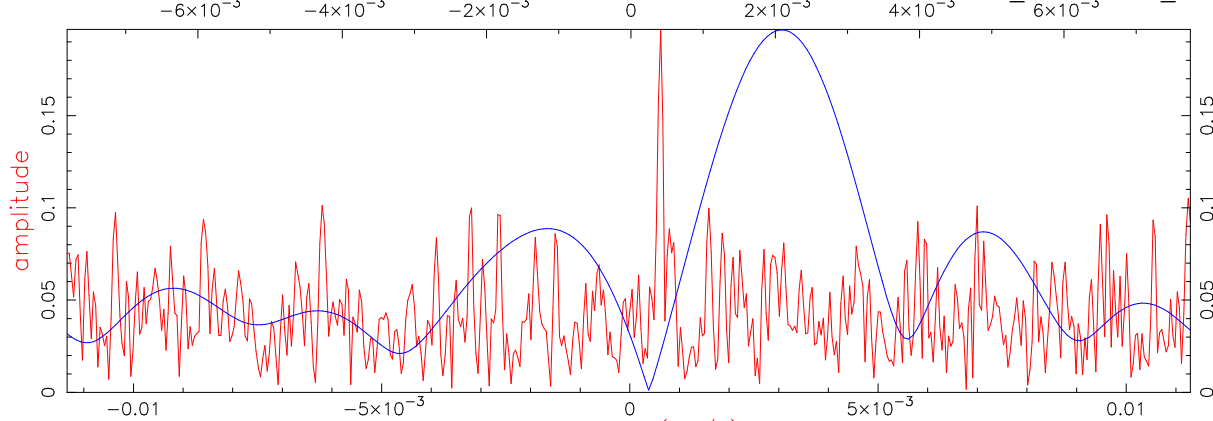
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bm

VLBA_BR - VLBA_MK, fgroup W, pol LL

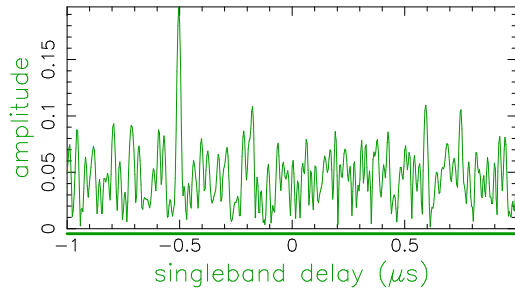
multiband delay (μ s)



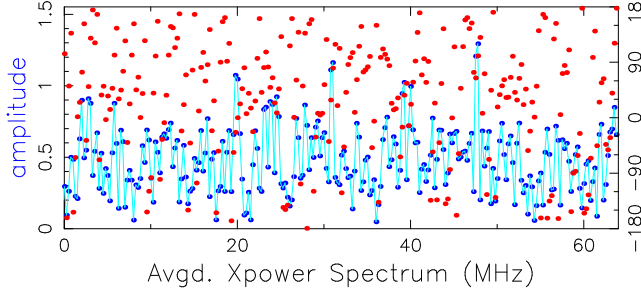
Fringe quality 0

SNR 5.7
 Int time 112.624
 Amp 0.197
 Phase 1.5
 PFD 5.2e-01
 Delays (us)
 SBD -0.503737
 MBD 0.002094
 Fringe rate (Hz)
 0.052242
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

delay rate (ns/s)

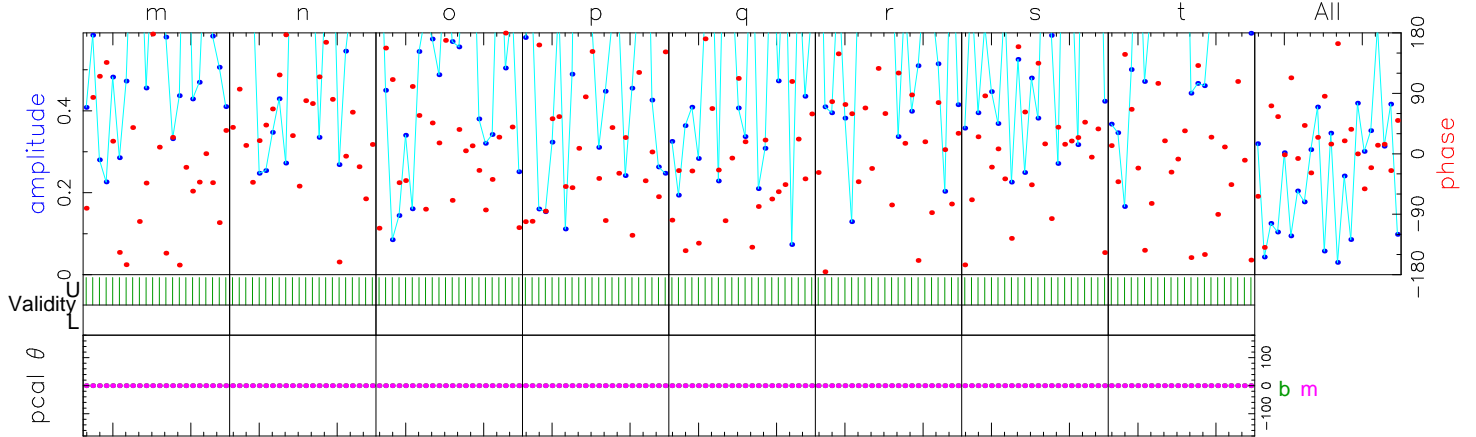


singleband delay (μ s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112938
 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
	-34.3	41.8	-4.6	-12.0	-44.6	16.9	13.4	-3.5		1.5
	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3		0.2
	54.7	37.4	380.0	408.3	433.7	306.0	126.8	380.6		128.0
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		
m	0	0	0	0	0	0	0	0		
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.04601714840E+04	Apriori delay (usec)	1.04606693896E+04	Resid mbdelay (usec)	2.09439E-03	+/-	1.9E-04
Sband delay (usec)	1.04601656524E+04	Apriori clock (usec)	4.0964565E+00	Resid sbdelay (usec)	-5.03737E-01	+/-	1.5E-03
Phase delay (usec)	1.04606693897E+04	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	4.94415E-08	+/-	6.5E-07
Delay rate (us/s)	-4.98748774593E-01	Apriori rate (us/s)	-4.98749381068E-01	Resid rate (us/s)	6.06474E-07	+/-	1.0E-08
Total phase (deg)		Apriori accel (us/s/s)	-2.16248015007E-05	Resid phase (deg)	1.5	+/-	20.1

ph/seg (deg)	RMS 63.7	Theor. 47.1	Amplitude Search (512X32)	0.189	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.4	82.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	30.7	28.4	Inc. seg. avg.	0.182	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	dr window (ns/s)	-0.011	0.011
amp/frq (%)	32.8	49.6	Inc. frq. avg.	0.195	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 m: az 45.2 el 23.3 pa -86.1 u, v (fr/asec) 4248.083 501.700 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bm..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bm.W.37.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

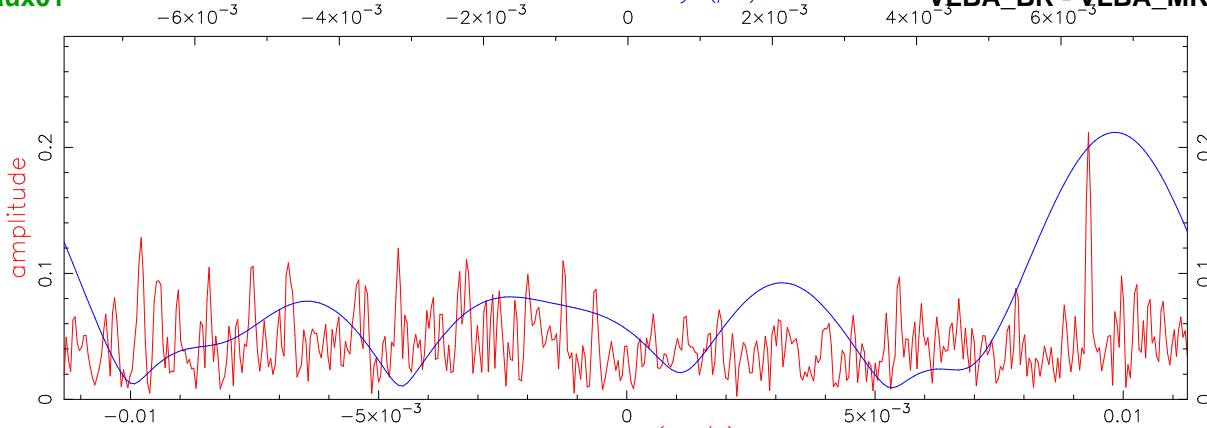
aux01

0133+476.3MP1AB, No0916, bm

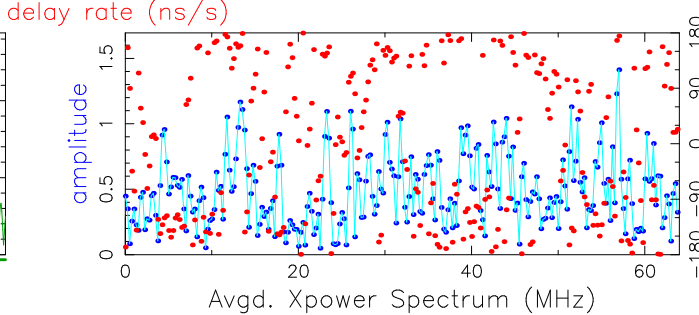
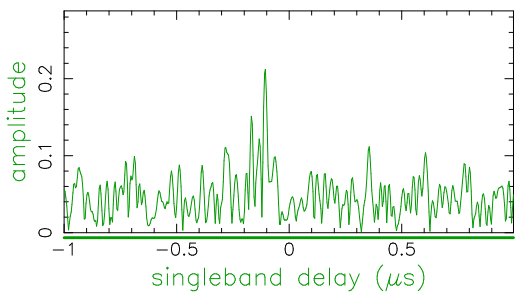
VLBA_BR - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 0

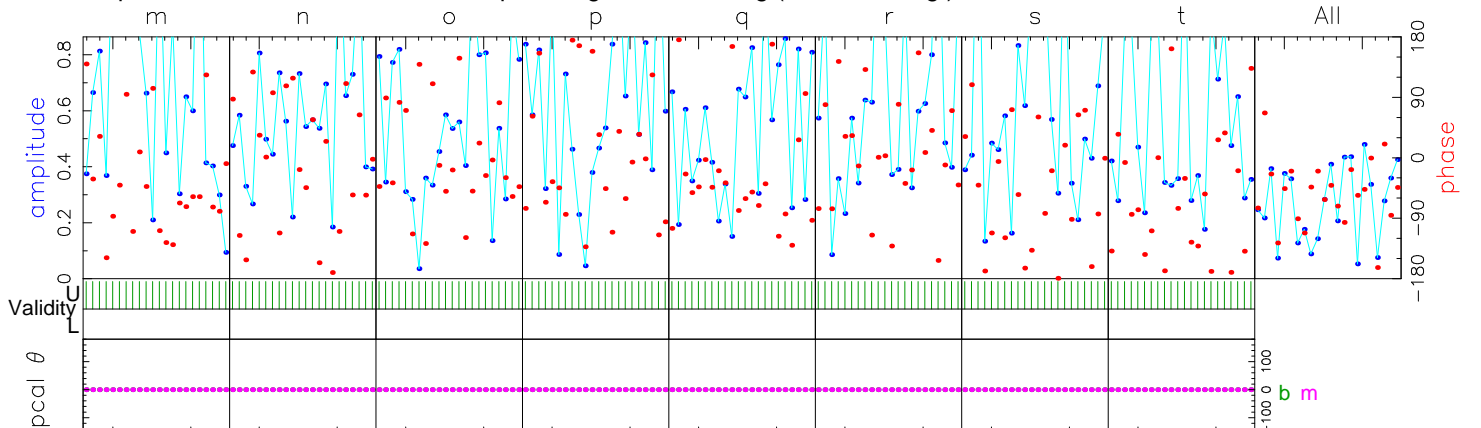


SNR 6.2
Int time 112.624
Amp 0.288
Phase -45.2
PFD 3.3e-02
Delays (us)
SBD -0.106909
MBD 0.006716
Fringe rate (Hz) 0.802968
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:112939
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
	-69.3	10.0	-24.1	-49.8	-61.6	1.9	-46.2	-65.0	Phase	-45.2
	0.5	0.1	0.4	0.3	0.5	0.3	0.3	0.3	Ampl.	0.3
	229.7	329.1	70.9	283.5	230.3	219.7	361.7	362.6	Sbd box	229.6
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	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.04605667303E+04	Apriori delay (usec)	1.04606693896E+04	Resid mbdelay (usec)	6.71572E-03	+/-	1.7E-04
Sband delay (usec)	1.04605624811E+04	Apriori clock (usec)	4.0964565E+00	Resid sbdelay (usec)	-1.06909E-01	+/-	1.4E-03
Phase delay (usec)	1.04606693882E+04	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	-1.45830E-06	+/-	5.9E-07
Delay rate (us/s)	-4.98740059403E-01	Apriori rate (us/s)	-4.98749381068E-01	Resid rate (us/s)	9.32166E-06	+/-	9.1E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.16248015007E-05	Resid phase (deg)	-45.2	+/-	18.4

ph/seg (deg) 49.8 43.2 Search (512X32) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 68.2 75.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 34.1 26.0 Inc. seg. avg. 0.284 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 38.1 45.5 Inc. frq. avg. 0.286 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 m: az 45.2 el 23.3 pa -86.1 u,v (fr/asec) 4248.083 501.700 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bm..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bm.W.44.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

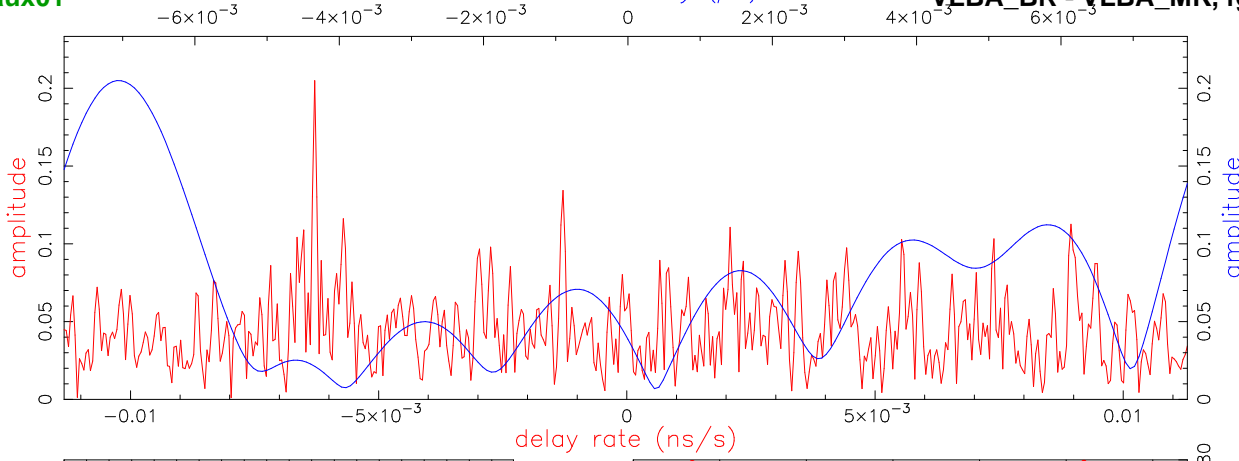
aux01

0133+476.3MP1AB, No0916, bm

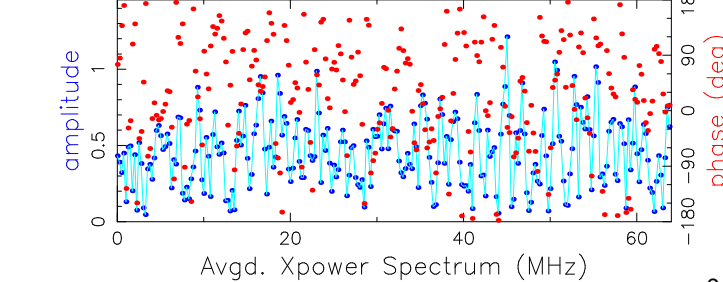
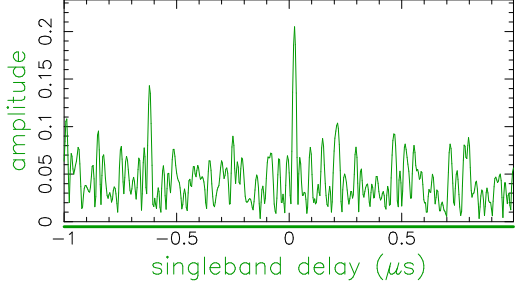
VLBA_BR - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

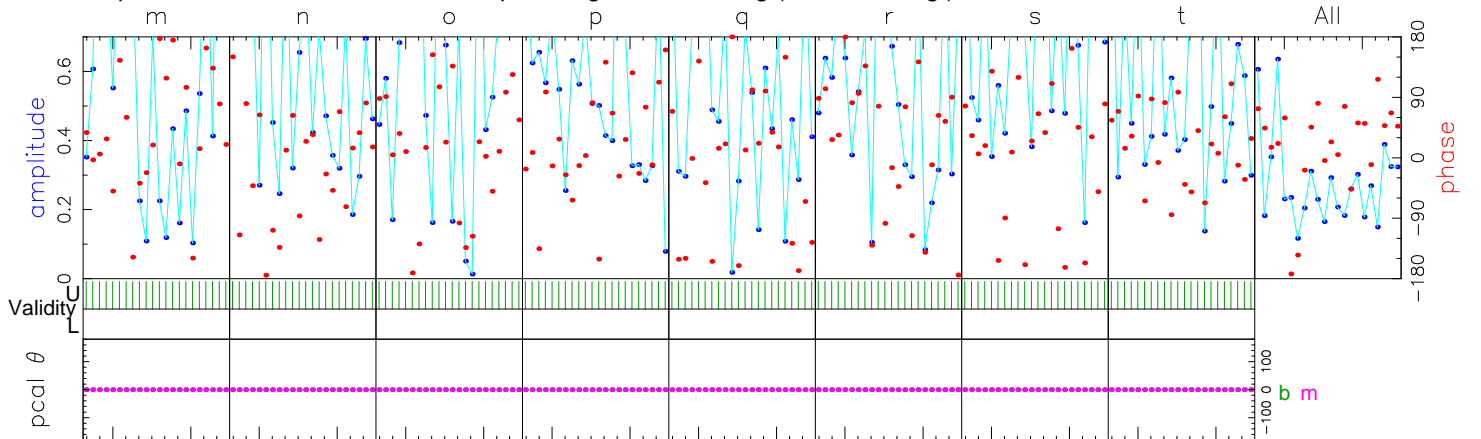


SNR 5.9
 Int time 112.624
 Amp 0.233
 Phase 40.2
 PFD 1.6e-01
 Delays (us)
 SBD 0.023504
 MBD -0.007053
 Fringe rate (Hz)
 -0.541018
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112940
 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
	54.4	-11.9	49.5	10.7	16.3	86.2	63.0	23.0	Phase	40.2
	0.3	0.1	0.3	0.3	0.1	0.2	0.3	0.5	Ampl.	0.2
	377.8	4.2	340.0	96.2	57.4	43.1	264.6	263.4	Sbd box	263.0
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	
m	0	0	0	0	0	0	0	0	PC freqs	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.04606935866E+04	Apriori delay (usec)	1.04606693896E+04	Resid mbdelay (usec)	-7.05301E-03	+/-	1.8E-04
Sband delay (usec)	1.04606928939E+04	Apriori clock (usec)	4.0964565E+00	Resid sbdelay (usec)	2.35042E-02	+/-	1.4E-03
Phase delay (usec)	1.04606693909E+04	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	1.29712E-06	+/-	6.2E-07
Delay rate (us/s)	-4.98755661745E-01	Apriori rate (us/s)	-4.98749381068E-01	Resid rate (us/s)	-6.28068E-06	+/-	9.6E-09
Total phase (deg)	120.4	Apriori accel (us/s/s)	-2.16248015007E-05	Resid phase (deg)	40.2	+/-	19.3

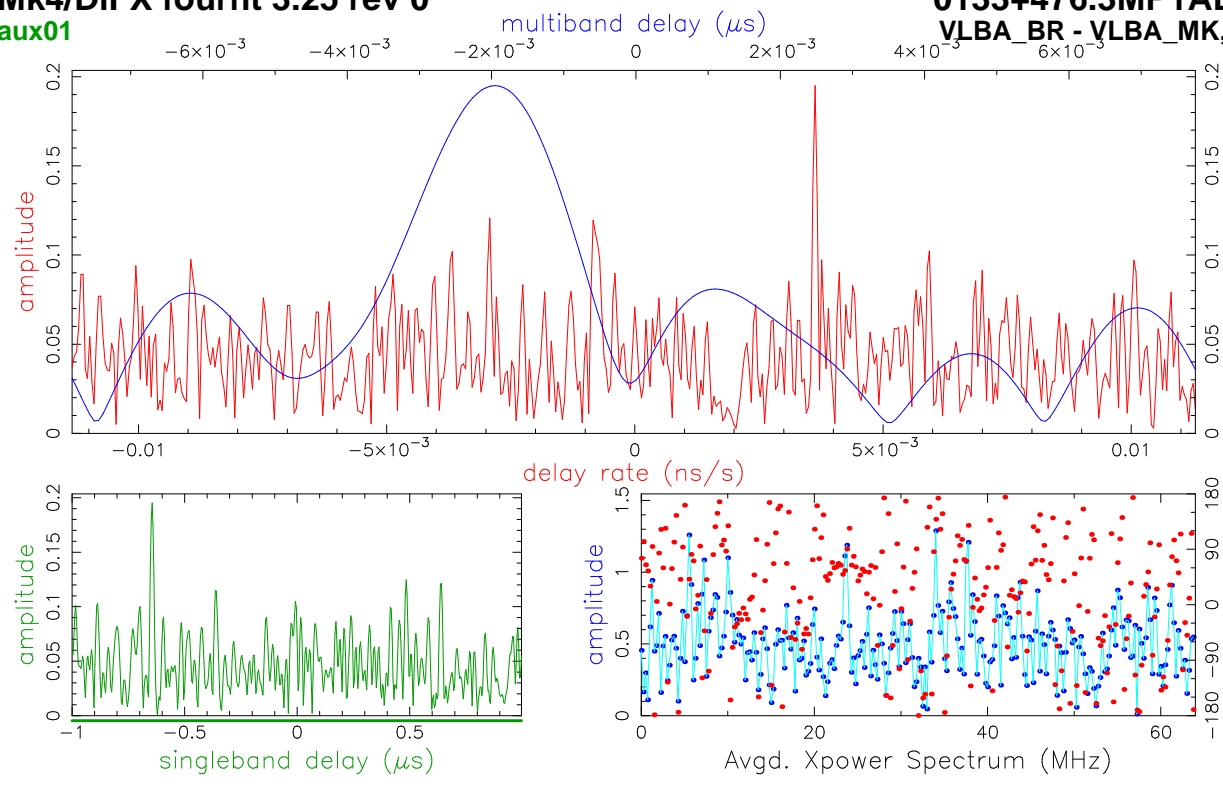
ph/seg (deg) 60.9 45.2 Search (512X32) 0.199 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.2 78.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.1 27.2 Inc. seg. avg. 0.243 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.7 47.5 Inc. frq. avg. 0.234 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 b: az 74.8 el 62.9 pa -74.1 m: az 45.2 el 23.3 pa -86.1 u, v (fr/asec) 4248.083 501.700 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bm..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bm.W.48.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

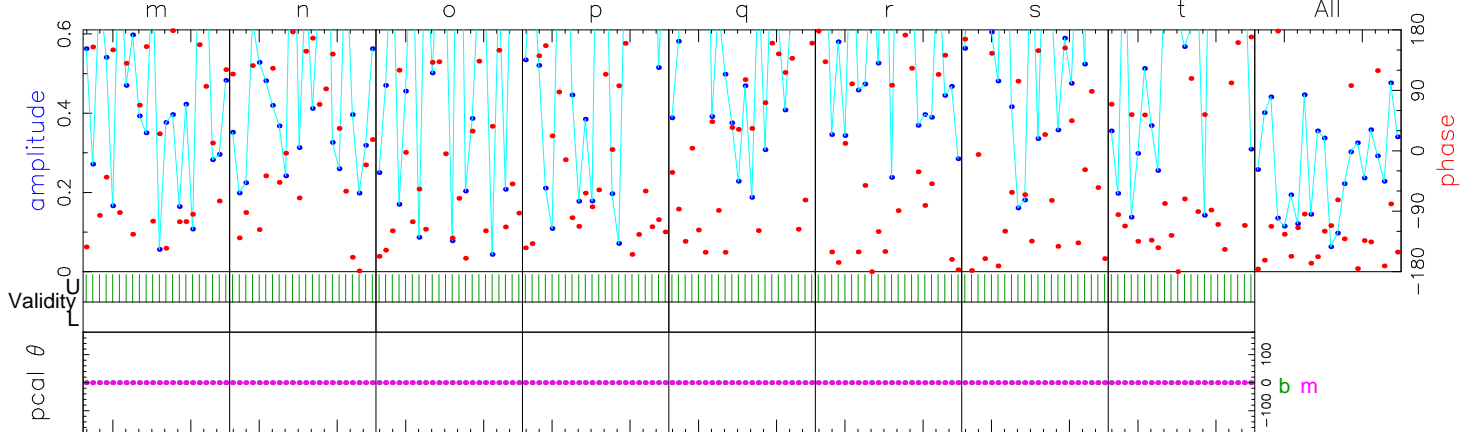
0133+476.3MP1AB, No0916, bm

VLBA_BR - VLBA_MK, fgroup W, pol RL



Fringe quality 0
 SNR 5.7
 Int time 112.624
 Amp 0.204
 Phase -142.5
 PFD 6.0e-01
 Delays (us)
 SBD -0.644802
 MBD -0.001965
 Fringe rate (Hz)
 0.312214
 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
 2025:041:112943
 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



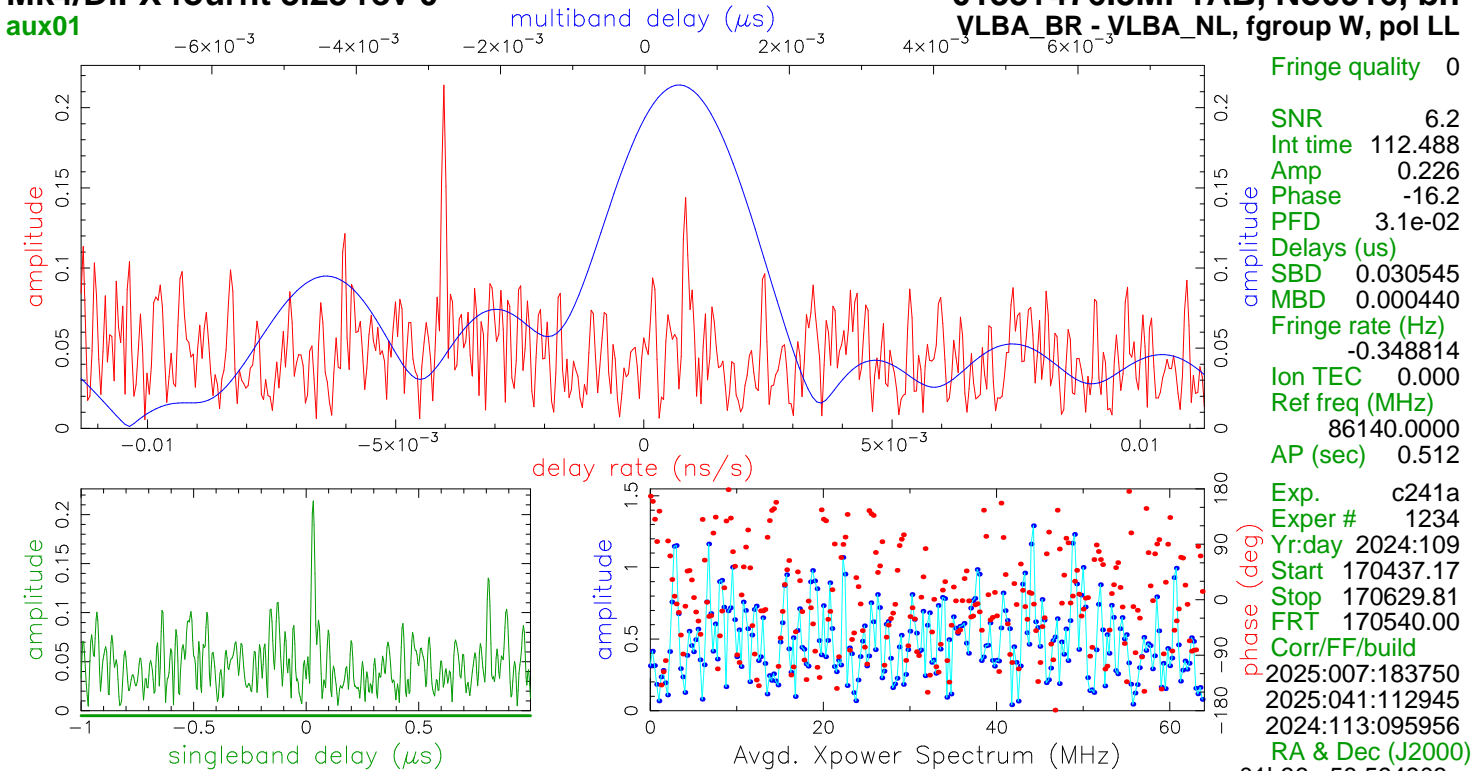
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-148.2	133.3	-110.0	-116.4	-147.9	-176.1	-149.4	-127.4	Phase	-142.5	
	0.2	0.1	0.2	0.3	0.2	0.3	0.2	0.3	Ampl.	0.2	
	307.9	251.3	10.9	54.9	2.9	166.6	133.7	160.3	Sbd box	91.9	
U/L	220/0	220/0	220/0	220/0	220/0	220/0	220/0	220/0	APs used		
b	0	0	0	0	0	0	0	0	PC freqs		
m	0	0	0	0	0	0	0	0	PC freqs		
b:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:m	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		
m	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	1.04600267997E+04		Apriori delay (usec)		1.04606693896E+04		Resid mbdelay (usec)		-1.96489E-03	+/- 1.9E-04	
Sband delay (usec)	1.04600245874E+04		Apriori clock (usec)		4.0964565E+00		Resid sbdelay (usec)		-6.44802E-01	+/- 1.5E-03	
Phase delay (usec)	1.04606693850E+04		Apriori clockrate (us/s)		5.9094092E-07		Resid phdelay (usec)		-4.59527E-06	+/- 6.5E-07	
Delay rate (us/s)	-4.98745756577E-01		Apriori rate (us/s)		-4.98749381068E-01		Resid rate (us/s)		3.62449E-06	+/- 1.0E-08	
Total phase (deg)			Apriori accel (us/s/s)		-2.16248015007E-05		Resid phase (deg)		-142.5	+/- 20.2	
	RMS	Theor.	Amplitude	0.204 +/- 0.036		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	45.3	47.5	Search (512X32)	0.187		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	71.7	82.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	41.4	28.6	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 (%)	34.0	50.0	Inc. frq. avg.	0.206		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	m: az 45.2 el 23.3 pa -86.1		u, v (fr/asec) 4248.083 501.700		simultaneous interpolator						
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/bm..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/bm.W.50.3MP1AB								

Mk4/DiFX fourfit 3.25 rev 0

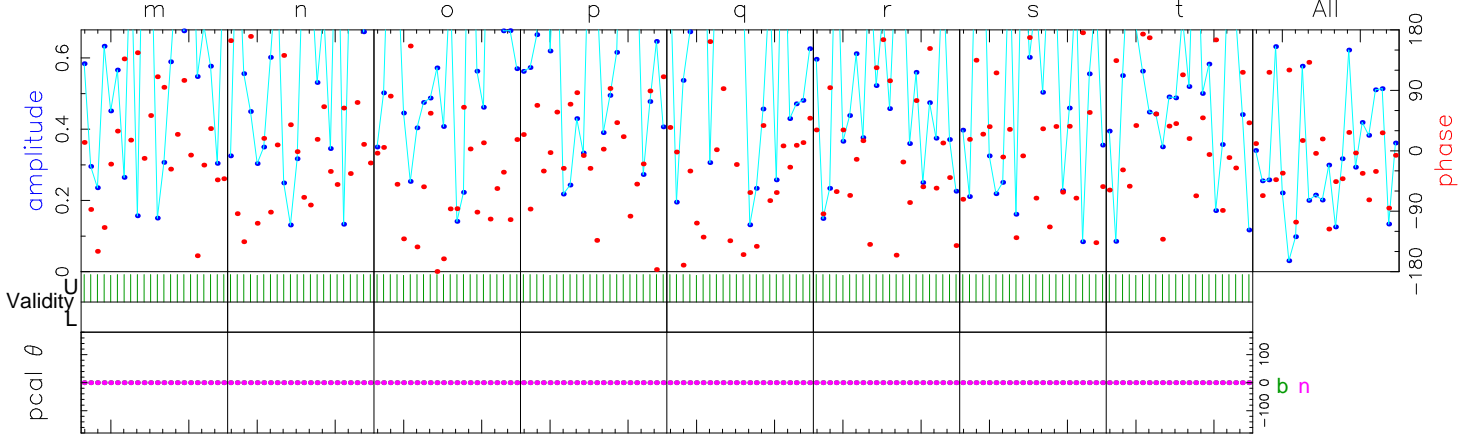
aux01

0133+476.3MP1AB, No0916, bn

VLBA_BR - VLBA_NL, 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
	3.7	-31.3	-49.0	4.0	-31.6	-33.0	-4.9	-2.8	Phase	-16.2
	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	Ampl.	0.2
	254.1	174.8	29.5	271.9	41.3	86.2	479.9	3.7	Sbd box	264.8
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	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-1.90907241034E+03	Apriori delay (usec)	-1.90910410020E+03	Resid mbdelay (usec)	4.39855E-04	+/-	1.7E-04
Sband delay (usec)	-1.90907355570E+03	Apriori clock (usec)	4.9180660E+00	Resid sbdelay (usec)	3.05445E-02	+/-	1.4E-03
Phase delay (usec)	-1.90910410072E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-5.23683E-07	+/-	5.9E-07
Delay rate (us/s)	2.84272219793E-01	Apriori rate (us/s)	2.84276269174E-01	Resid rate (us/s)	-4.04938E-06	+/-	9.1E-09
Total phase (deg)	-85.0	Apriori accel (us/s/s)	1.67658826162E-05	Resid phase (deg)	-16.2	+/-	18.4

ph/seg (deg)	66.4	Theor.	43.2	Amplitude	0.226 +/- 0.036	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	91.4		75.3	Search (512X32)	0.194	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	22.1		26.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	32.9		45.4	Inc. seg. avg.	0.262	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.217	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 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2420.418 1937.660 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bn.W.53.3MP1AB

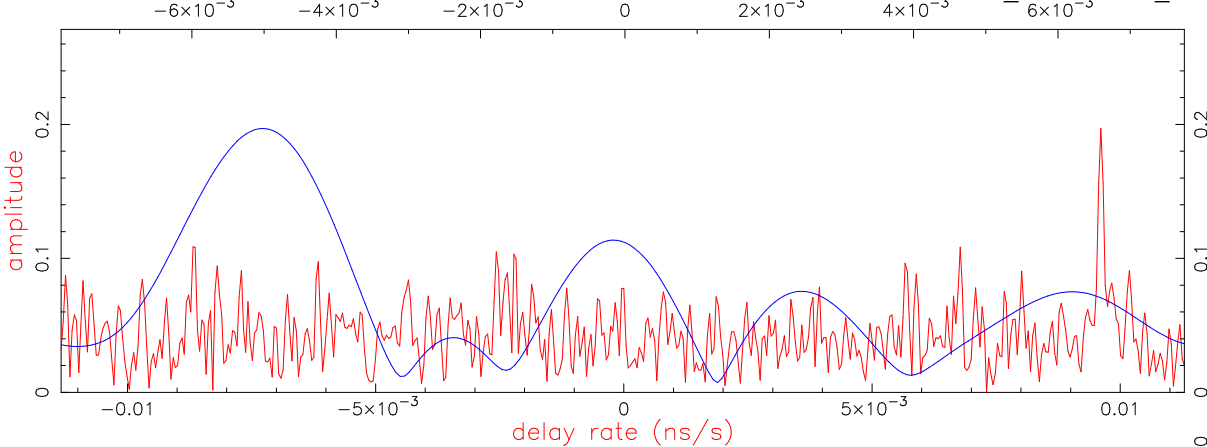
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bn

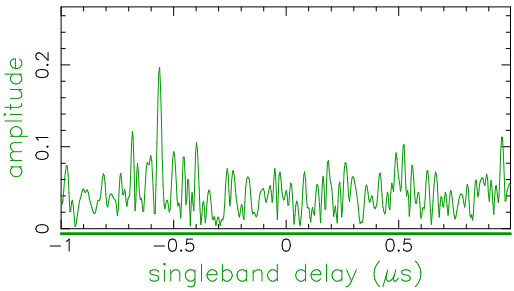
VLBA_BR - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

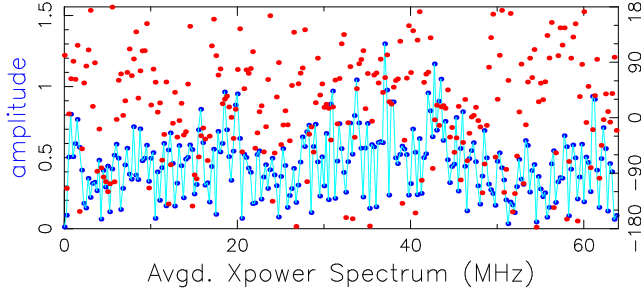


Fringe quality 0

SNR 5.7
 Int time 112.488
 Amp 0.271
 Phase 84.2
 PFD 4.5e-01
 Delays (us)
 SBD -0.563395
 MBD -0.005031
 Fringe rate (Hz)
 0.827696
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

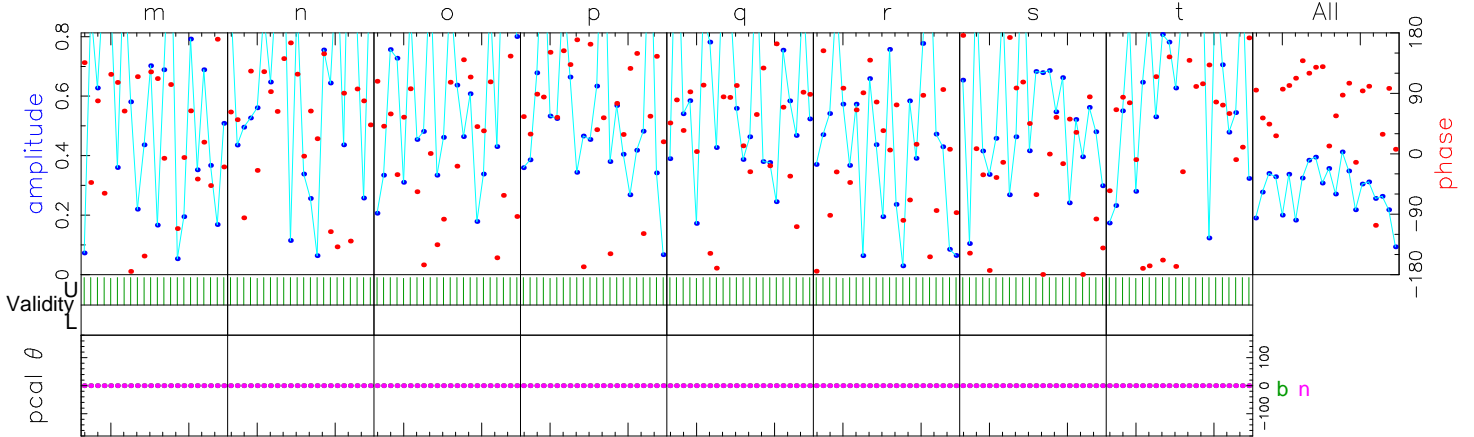


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112947
 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
	57.7	112.3	63.6	95.9	77.5	54.6	29.1	104.4	Phase	84.2
	0.2	0.3	0.1	0.5	0.5	0.1	0.2	0.4	Ampl.	0.3
	504.9	497.5	144.7	113.5	113.4	250.8	444.9	190.8	Sbd box	112.8
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	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	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	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.90967163120E+03	Apriori delay (usec)	-1.90910410020E+03	Resid mbdelay (usec)	-5.03100E-03	+/-	1.9E-04
Sband delay (usec)	-1.90966749520E+03	Apriori clock (usec)	4.9180660E+00	Resid sbdelay (usec)	-5.63395E-01	+/-	1.5E-03
Phase delay (usec)	-1.90910409749E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	2.71372E-06	+/-	6.4E-07
Delay rate (us/s)	2.84285877907E-01	Apriori rate (us/s)	2.84276269174E-01	Resid rate (us/s)	9.60873E-06	+/-	9.9E-09
Total phase (deg)	15.3	Apriori accel (us/s/s)	1.67658826162E-05	Resid phase (deg)	84.2	+/-	20.0

ph/seg (deg)	RMS 56.3	Theor. 46.9	Amplitude Search (512X32)	0.271 +/- 0.047	0.190	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.1	81.8	Interp.	0.000	0.190	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	32.7	28.3	Inc. seg. avg.	0.296	0.190	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	55.2	49.3	Inc. frq. avg.	0.263	0.190	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			

b: az 74.8 el 62.9 pa -74.1 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2420.418 1937.660 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bn.W.60.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

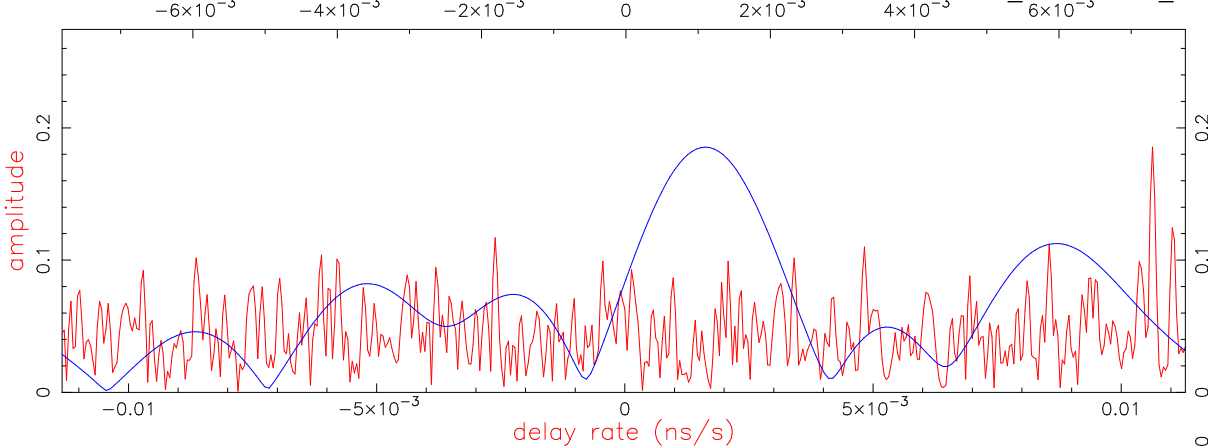
aux01

0133+476.3MP1AB, No0916, bn

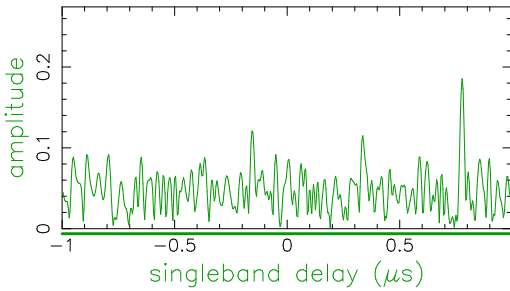
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

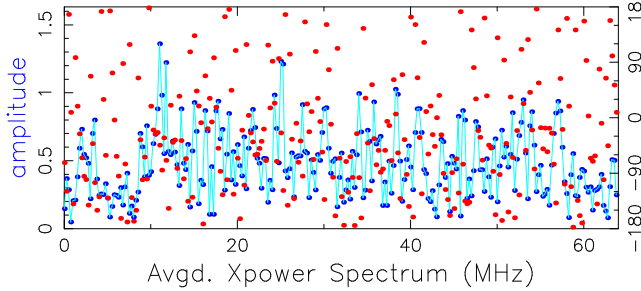
Fringe quality 0



SNR 5.4
 Int time 112.488
 Amp 0.274
 Phase -121.9
 PFD 9.9e-01
 Delays (us)
 SBD 0.777316
 MBD 0.001101
 Fringe rate (Hz)
 0.915891
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

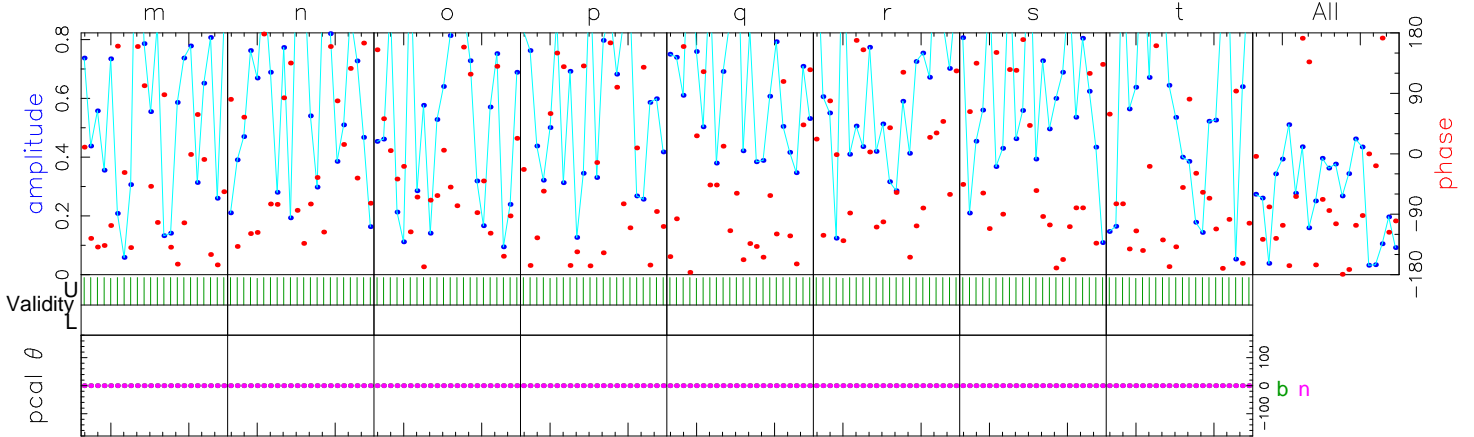


delay rate (ns/s)



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°51'29.100073"

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		
n	0	0	0	0	0	0	0	0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.90832174968E+03	Apriori delay (usec)	-1.90910410020E+03	Resid mbdelay (usec)	1.10052E-03	+/-	2.0E-04
Sband delay (usec)	-1.90832678395E+03	Apriori clock (usec)	4.9180660E+00	Resid sbdelay (usec)	7.77316E-01	+/-	1.6E-03
Phase delay (usec)	-1.90910410413E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-3.93177E-06	+/-	6.9E-07
Delay rate (us/s)	2.84286901761E-01	Apriori rate (us/s)	2.84276269174E-01	Resid rate (us/s)	1.06326E-05	+/-	1.1E-08
Total phase (deg)	-190.7	Apriori accel (us/s/s)	1.67658826162E-05	Resid phase (deg)	-121.9	+/-	21.3

ph/seg (deg)	60.4	Theor.	50.0	Amplitude	0.274 +/- 0.051	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	91.3	Search (512X32)	0.182	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.7	Inc. seg. avg.	0.295	Inc. frq. avg.	0.266	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	49.1	Inc. frq. avg.	0.266			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 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2420.418 1937.660 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bn.W.67.3MP1AB

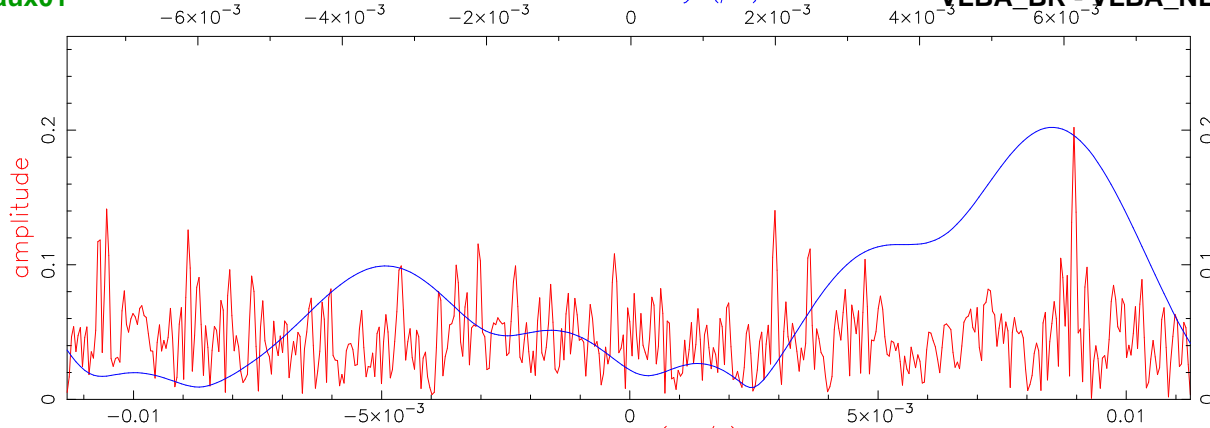
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bn

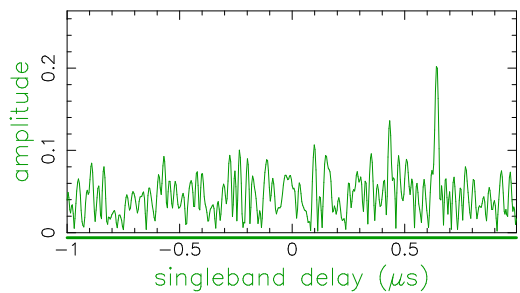
VLBA_BR - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)

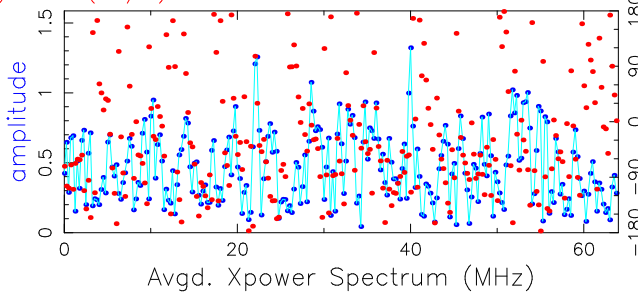


Fringe quality 0

SNR 6.0
 Int time 112.488
 Amp 0.270
 Phase 67.0
 PFD 1.5e-01
 Delays (us)
 SBD 0.642357
 MBD 0.005879
 Fringe rate (Hz)
 0.772866
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

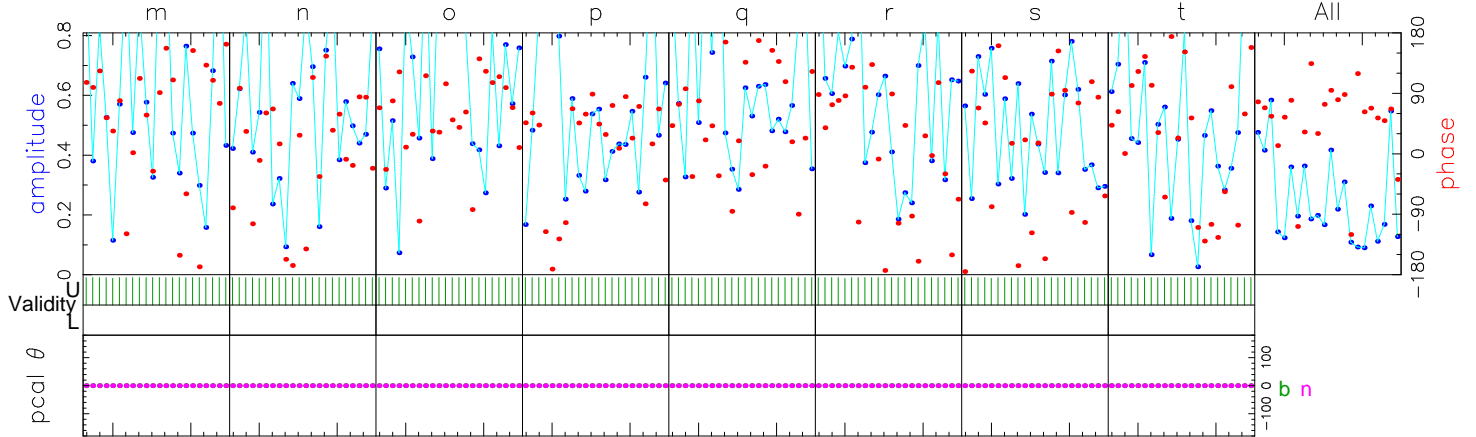


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112949
 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		
n	0	0	0	0	0	0	0	0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.90845759578E+03	Apriori delay (usec)	-1.90910410020E+03	Resid mbdelay (usec)	5.87942E-03	+/-	1.8E-04
Sband delay (usec)	-1.90846174345E+03	Apriori clock (usec)	4.9180660E+00	Resid sbdelay (usec)	6.42357E-01	+/-	1.4E-03
Phase delay (usec)	-1.90910409804E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	2.16072E-06	+/-	6.2E-07
Delay rate (us/s)	2.84285241384E-01	Apriori rate (us/s)	2.84276269174E-01	Resid rate (us/s)	8.97221E-06	+/-	9.5E-09
Total phase (deg)	-1.8	Apriori accel (us/s/s)	1.67658826162E-05	Resid phase (deg)	67.0	+/-	19.2

ph/seg (deg)	62.9	Theor.	45.1	Amplitude	0.270 +/- 0.045	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	76.9		78.7	Search (512X32)	0.190	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	36.1		27.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	57.4		47.5	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.	0.274	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 n: az 51.3 el 79.0 pa -119.7 u,v (fr/asec) -2420.418 1937.660 simultaneous interpolator

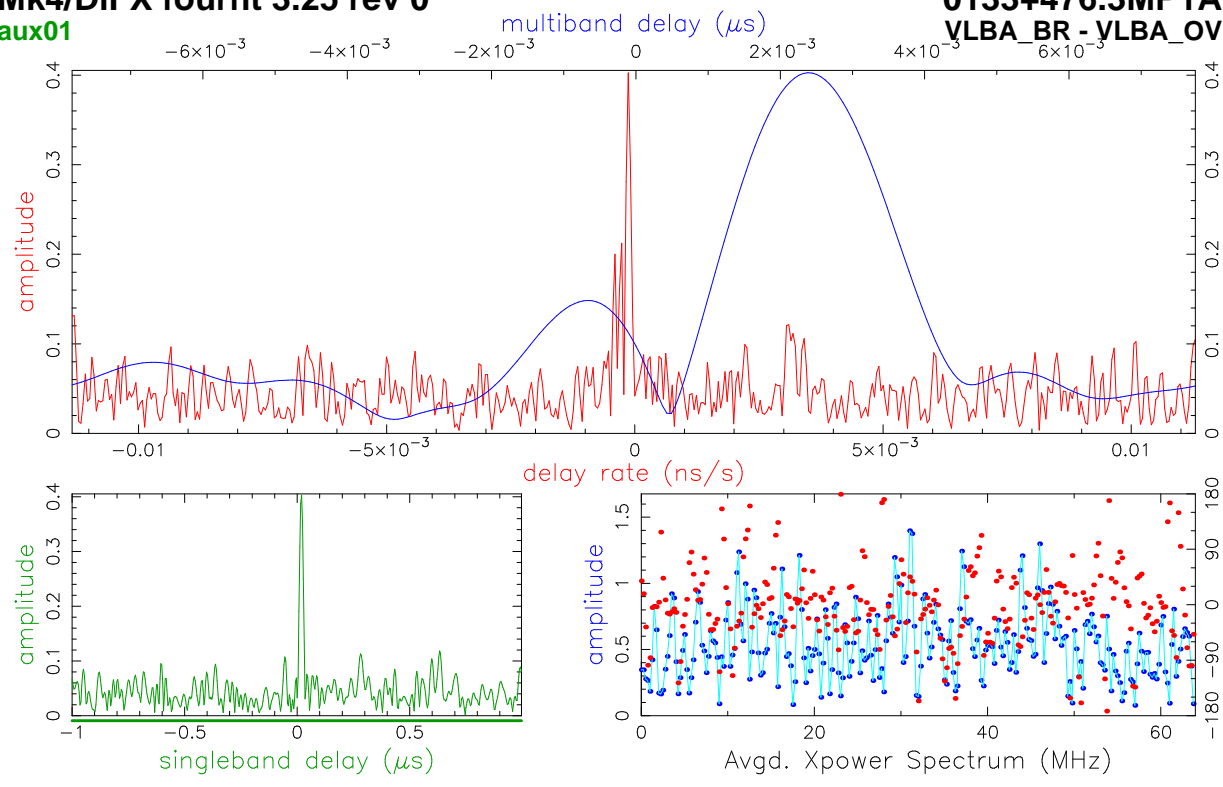
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bn..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bn.W.76.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bo

VLBA_BR - VLBA_OV, fgroup W, pol LL

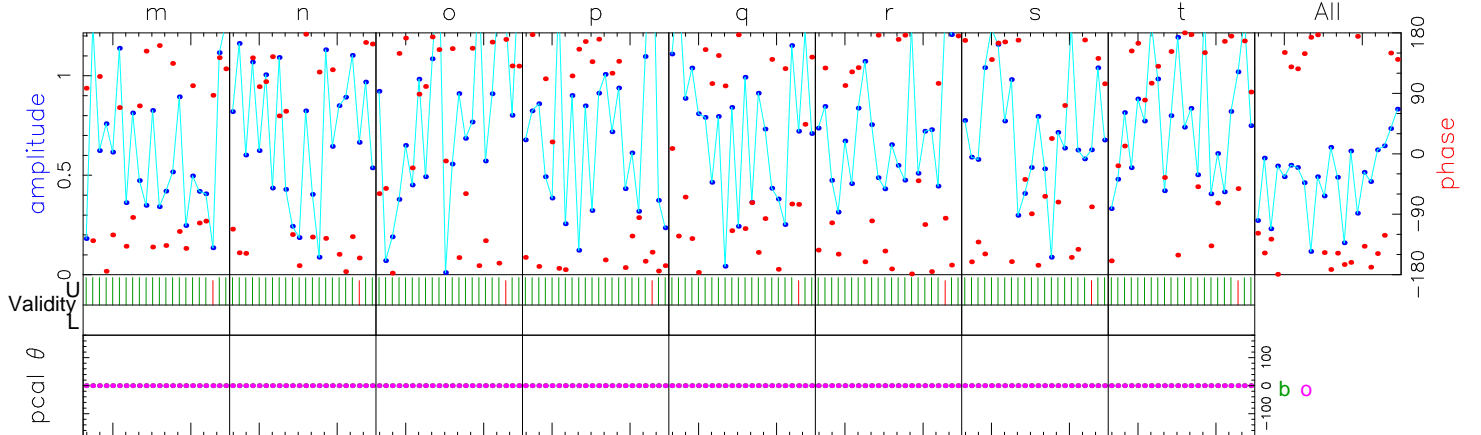


Fringe quality 9

SNR 11.7
 Int time 112.043
 Amp 0.405
 Phase -176.7
 PFD 1.1e-23
 Delays (us)
 SBD 0.018432
 MBD 0.002372
 Fringe rate (Hz)
 -0.012537
 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
 2025:041:112946
 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	
	-179.6	-179.5	169.7	-179.2	-129.9	-170.0	-170.4	159.9	Phase	-176.7	
	0.3	0.4	0.5	0.5	0.3	0.5	0.4	0.3	Ampl.	0.4	
	14.4	262.2	262.0	261.9	57.3	261.7	260.8	393.7	Sbd box	261.7	
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		
o	0	0	0	0	0	0	0	0	PC freqs		
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
b:o	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		
o	1000	1000	1000	1000	1000	1000	1000	1000			
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	6.10475725168E+02		Apriori delay (usec)		6.10457728138E+02		Resid mbdelay (usec)		2.37203E-03	+/- 9.3E-05	
Sband delay (usec)	6.10476160388E+02		Apriori clock (usec)		-2.0427818E+01		Resid sbdelay (usec)		1.84323E-02	+/- 7.3E-04	
Phase delay (usec)	6.10457722439E+02		Apriori clockrate (us/s)		9.5168881E-08		Resid phdelay (usec)		-5.69914E-06	+/- 3.1E-07	
Delay rate (us/s)	-7.12768250424E-02		Apriori rate (us/s)		-7.12766794962E-02		Resid rate (us/s)		-1.45546E-07	+/- 4.8E-09	
Total phase (deg)	75.9		Apriori accel (us/s/s)		8.34917747314E-06		Resid phase (deg)		-176.7	+/- 9.8	
ph/seg (deg)	RMS	Theor.	Amplitude		0.405 +/- 0.035		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
amp/seg (%)	34.2	22.9	Search (512X32)		0.392		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000	
ph/frq (deg)	48.0	40.0	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	22.5	13.8	Inc. seg. avg.		0.451		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
	24.4	24.1	Inc. frq. avg.		0.408		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	o: az 56.8 el 59.3 pa -95.8		u, v (fr/asec) 614.877 1553.446						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/bo..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/bo.W.59.3MP1AB								

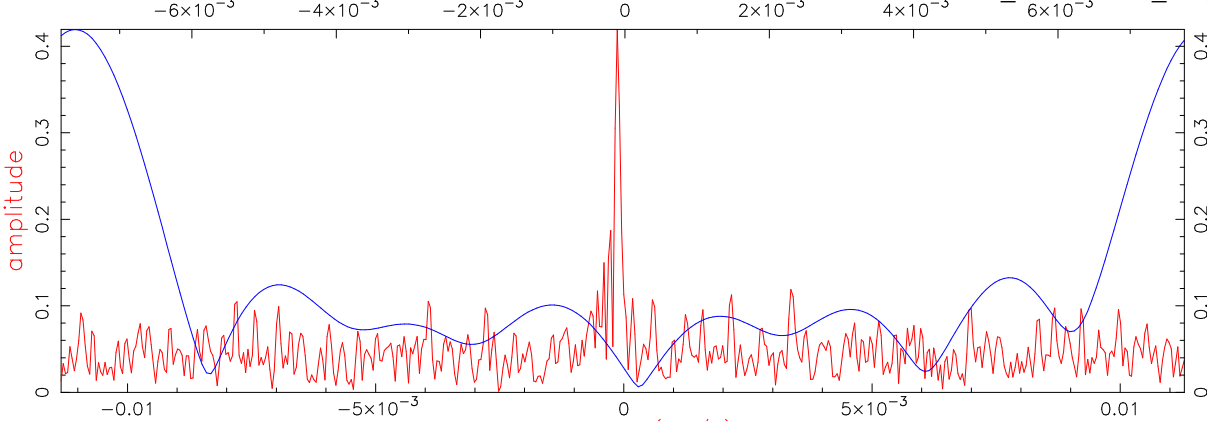
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bo

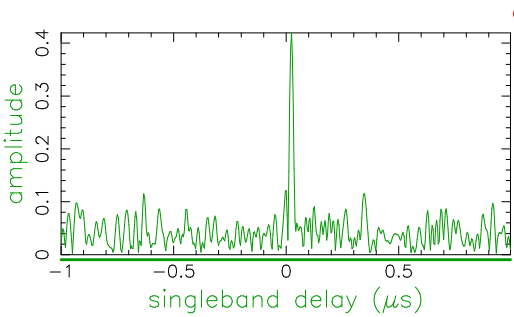
VLBA_BR - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

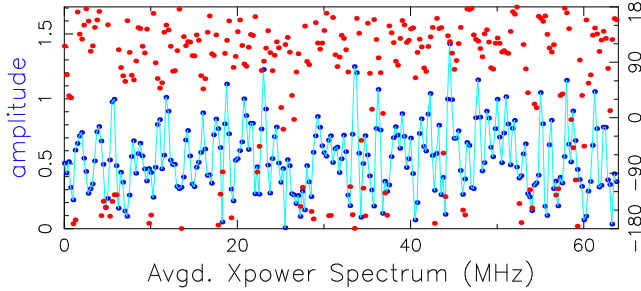


Fringe quality 9

SNR 12.1
 Int time 112.043
 Amp 0.419
 Phase 123.8
 PFD 8.1e-26
 Delays (us)
 SBD 0.023169
 MBD -0.007618
 Fringe rate (Hz)
 -0.012193
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

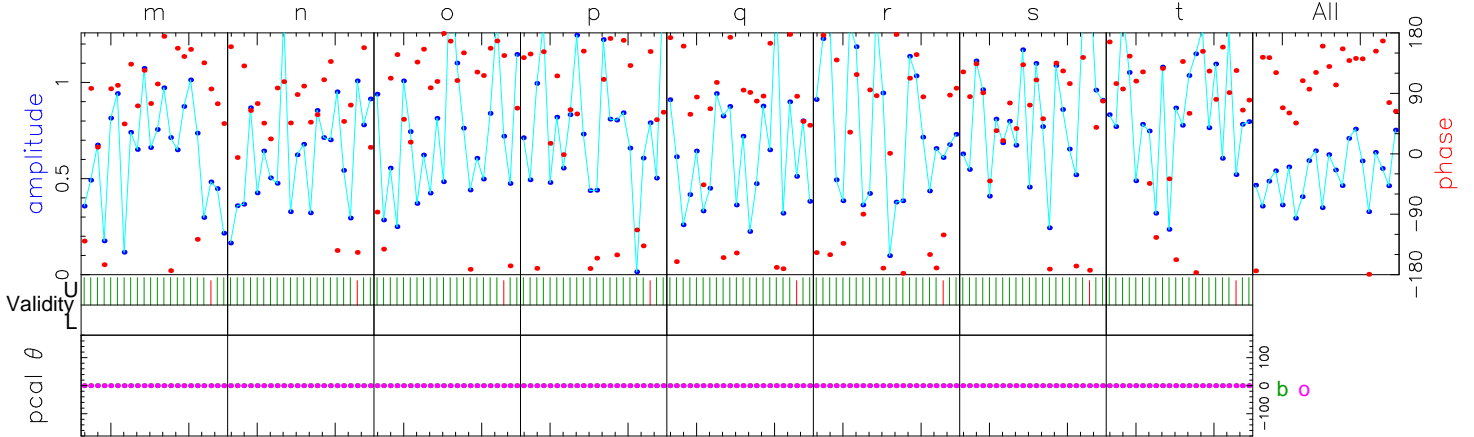


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112947
 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		
o	0	0	0	0	0	0	0	0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.10481360169E+02	Apriori delay (usec)	6.10457728138E+02	Resid mbdelay (usec)	-7.61797E-03	+/-	8.9E-05
Sband delay (usec)	6.10480896638E+02	Apriori clock (usec)	-2.0427818E+01	Resid sbdelay (usec)	2.31685E-02	+/-	7.1E-04
Phase delay (usec)	6.10457732131E+02	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	3.99267E-06	+/-	3.0E-07
Delay rate (us/s)	-7.12768210490E-02	Apriori rate (us/s)	-7.12766794962E-02	Resid rate (us/s)	-1.41553E-07	+/-	4.7E-09
Total phase (deg)	16.5	Apriori accel (us/s/s)	8.34917747314E-06	Resid phase (deg)	123.8	+/-	9.4

ph/seg (deg)	39.5	RMS	22.1	Theor.	Amplitude	0.419 +/- 0.035	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	40.2	Search (512X32)	0.406	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	Interp.	0.000	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	20.3	Inc. seg. avg.	0.486	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	Inc. frq. avg.	0.426	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	18.8	Inc. frq. avg.	0.426	Data rate(Mb/s): 2048			ion window (TEC)	0.00	0.00		

b: az 74.8 el 62.9 pa -74.1 o: az 56.8 el 59.3 pa -95.8 u, v (fr/asec) 614.877 1553.446 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bo..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bo.W.66.3MP1AB

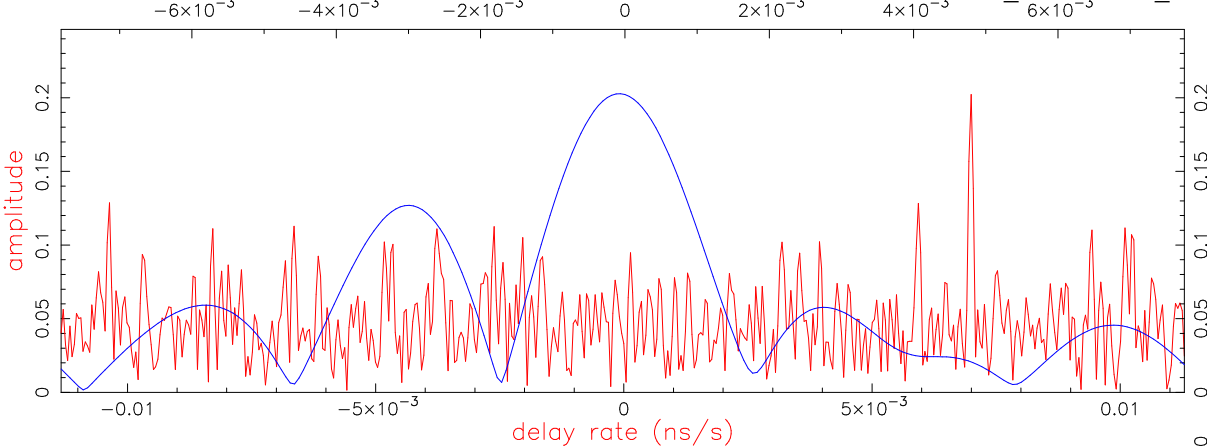
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bo

VLBA_BR - VLBA_OV, fgroup W, pol LR

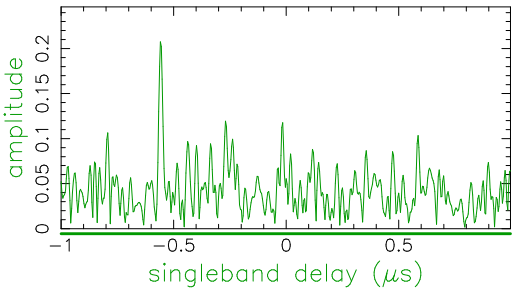
multiband delay (μ s)



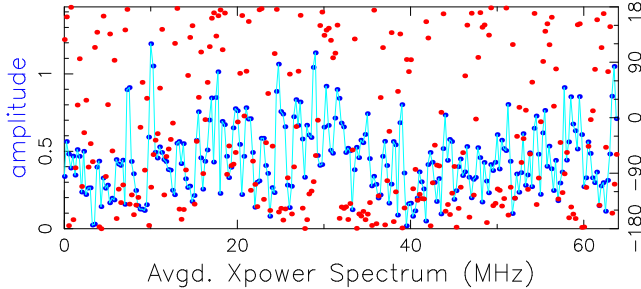
Fringe quality 0

SNR 6.1
 Int time 112.043
 Amp 0.246
 Phase -97.8
 PFD 8.4e-02
 Delays (us)
 SBD -0.557258
 MBD -0.000158
 Fringe rate (Hz)
 0.603600
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

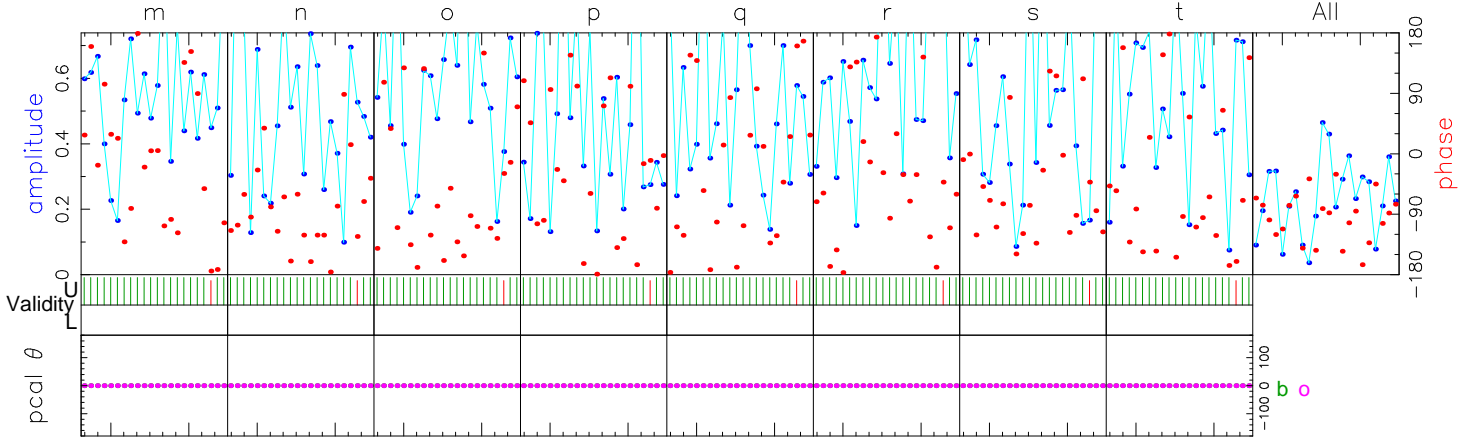
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112949
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



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
	-101.1	-89.8	-130.7	-109.8	-115.2	-77.6	-71.5	-112.7	Phase	-97.8
	0.2	0.4	0.3	0.1	0.1	0.3	0.4	0.3	Ampl.	0.2
	9.7	113.9	226.7	253.1	13.1	79.3	291.1	331.1	Sbd box	114.3
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	
o	0	0	0	0	0	0	0	0	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.09895070358E+02	Apriori delay (usec)	6.10457728138E+02	Resid mbdelay (usec)	-1.57780E-04	+/-	1.8E-04
Sband delay (usec)	6.09900469638E+02	Apriori clock (usec)	-2.0427818E+01	Resid sbdelay (usec)	-5.57258E-01	+/-	1.4E-03
Phase delay (usec)	6.10457724983E+02	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	-3.15538E-06	+/-	6.1E-07
Delay rate (us/s)	-7.12696723006E-02	Apriori rate (us/s)	-7.12766794962E-02	Resid rate (us/s)	7.00720E-06	+/-	9.4E-09
Total phase (deg)	154.8	Apriori accel (us/s/s)	8.34917747314E-06	Resid phase (deg)	-97.8	+/-	18.9

ph/seg (deg)	RMS 35.7	Theor. 44.3	Amplitude Search (512X32)	0.246 +/- 0.041	0.199	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	56.3	77.4	Interp.	0.000	0.199	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	22.1	26.7	Inc. seg. avg.	0.214	0.199	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.3	46.7	Inc. frq. avg.	0.228	0.199	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 o: az 56.8 el 59.3 pa -95.8 u,v (fr/asec) 614.877 1553.446 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bo..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bo.W.75.3MP1AB

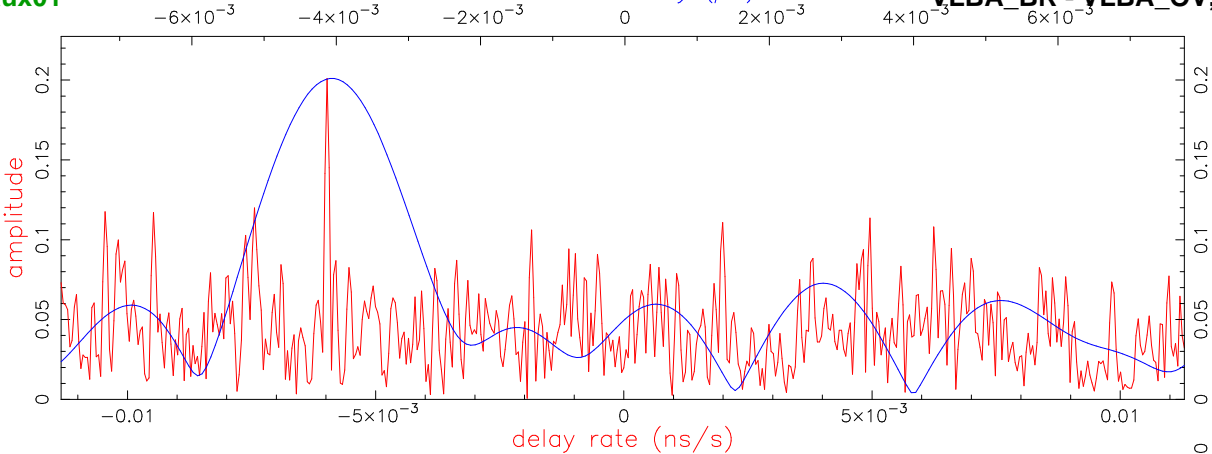
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bo

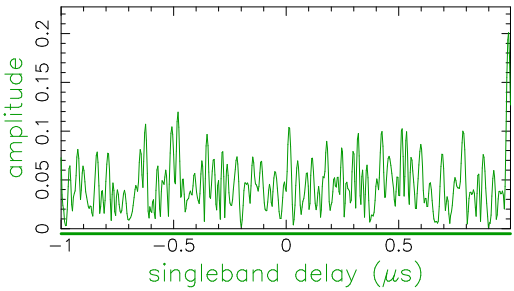
VLBA_BR - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

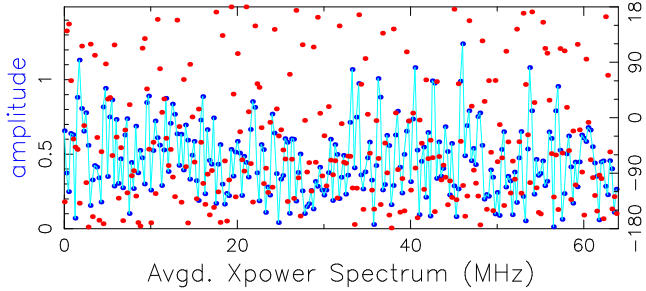


Fringe quality 0

SNR 5.9
 Int time 112.043
 Amp 0.227
 Phase 157.1
 PFD 2.6e-01
 Delays (us)
 SBD 0.987189
 MBD -0.004083
 Fringe rate (Hz)
 -0.513991
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

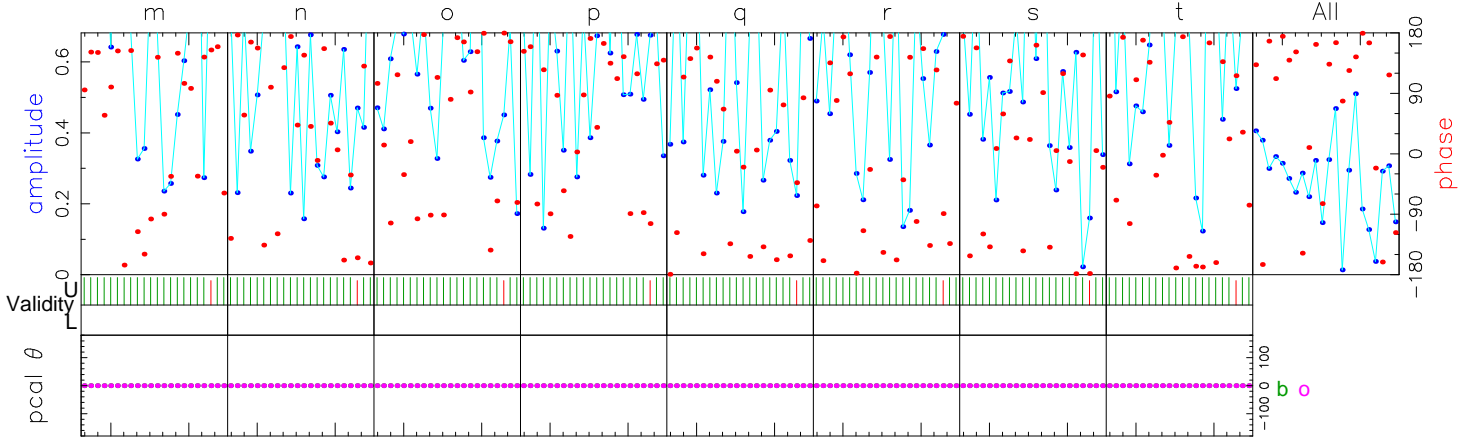


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112950
 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		
o	0	0	0	0	0	0	0	0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.11438019749E+02	Apriori delay (usec)	6.10457728138E+02	Resid mbdelay (usec)	-4.08339E-03	+/-	1.9E-04
Sband delay (usec)	6.11444916638E+02	Apriori clock (usec)	-2.0427818E+01	Resid sbdelay (usec)	9.87189E-01	+/-	1.5E-03
Phase delay (usec)	6.10457733203E+02	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	5.06479E-06	+/-	6.3E-07
Delay rate (us/s)	-7.12826464186E-02	Apriori rate (us/s)	-7.12766794962E-02	Resid rate (us/s)	-5.96692E-06	+/-	9.7E-09
Total phase (deg)	49.7	Apriori accel (us/s/s)	8.34917747314E-06	Resid phase (deg)	157.1	+/-	19.6

ph/seg (deg)	66.7	RMS	45.9	Theor.	66.7	Amplitude	0.227 +/- 0.039	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	68.5	Search (512X32)	0.191	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	20.7	Inc. seg. avg.	0.229	Inc. frq. avg.	0.210	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	32.9	Inc. frq. avg.	0.210	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 o: az 56.8 el 59.3 pa -95.8 u, v (fr/asec) 614.877 1553.446 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bo..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bo.W.83.3MP1AB

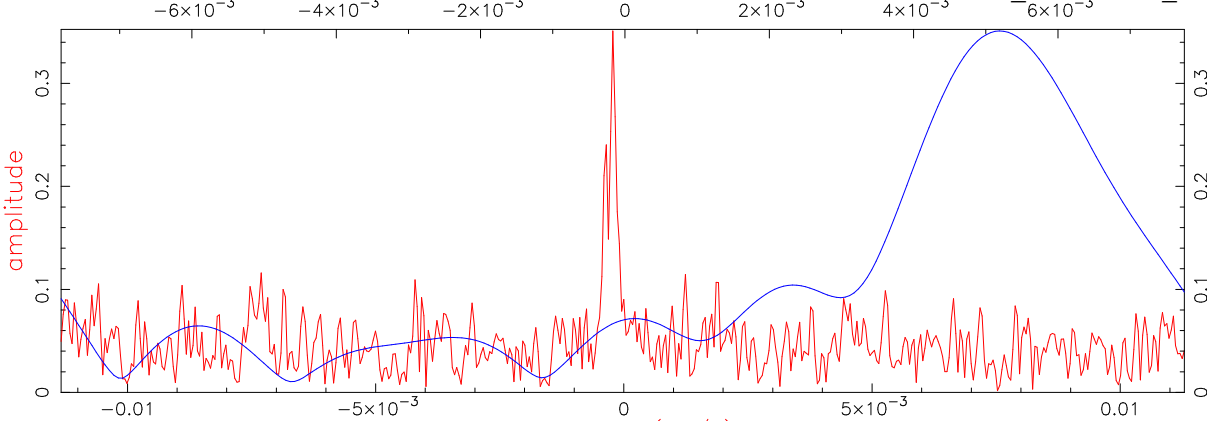
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

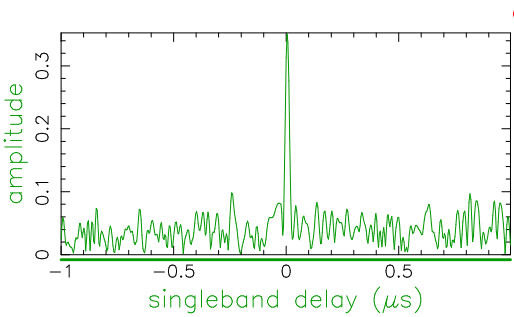
VLBA_BR - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

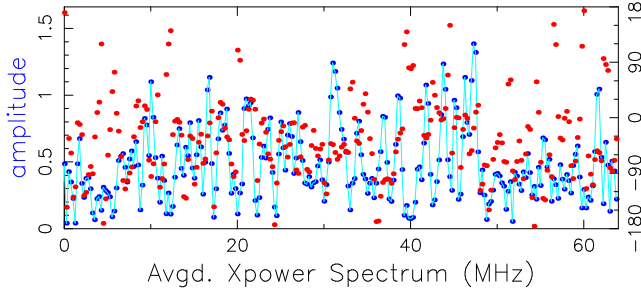


Fringe quality 9

SNR 10.2
Int time 112.617
Amp 0.352
Phase -43.0
PFD 1.6e-16
Delays (us)
SBD 0.004807
MBD 0.005187
Fringe rate (Hz) -0.018684
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

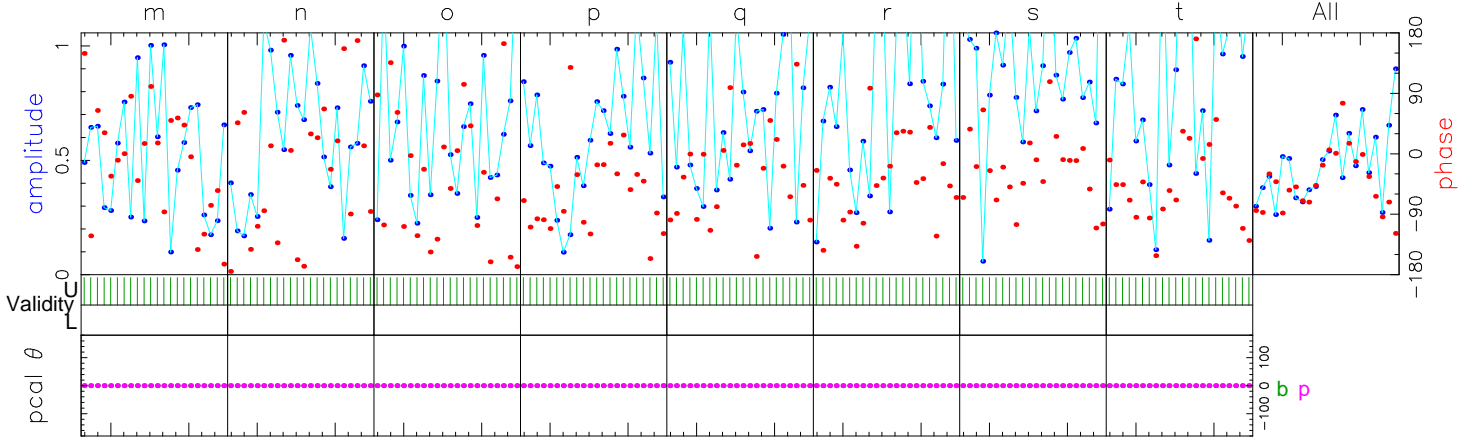


delay rate (ns/s)



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:112943
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
	-7.2	-30.7	-90.9	-58.7	-44.1	-36.9	-31.1	-50.1	Phase	-43.0
	0.1	0.1	0.1	0.4	0.4	0.5	0.6	0.5	Ampl.	0.4
	82.7	239.0	509.7	258.7	259.3	257.2	258.5	258.0	Sbd box	258.2
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	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.17665139736E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	5.18696E-03	+/-	1.1E-04
Sband delay (usec)	-2.17665519942E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	4.80675E-03	+/-	8.4E-04
Phase delay (usec)	-2.17670328080E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-1.38802E-06	+/-	3.6E-07
Delay rate (us/s)	3.50626410524E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	-2.16901E-07	+/-	5.6E-09
Total phase (deg)		Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-43.0	+/-	11.2

ph/seg (deg)	43.9	Theor.	26.3	Amplitude	0.352 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.8		45.9	Search (512X32)	0.346	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	26.5		15.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.9		27.7	Inc. seg. avg.	0.439	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.352	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 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -289.372 2497.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.51.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

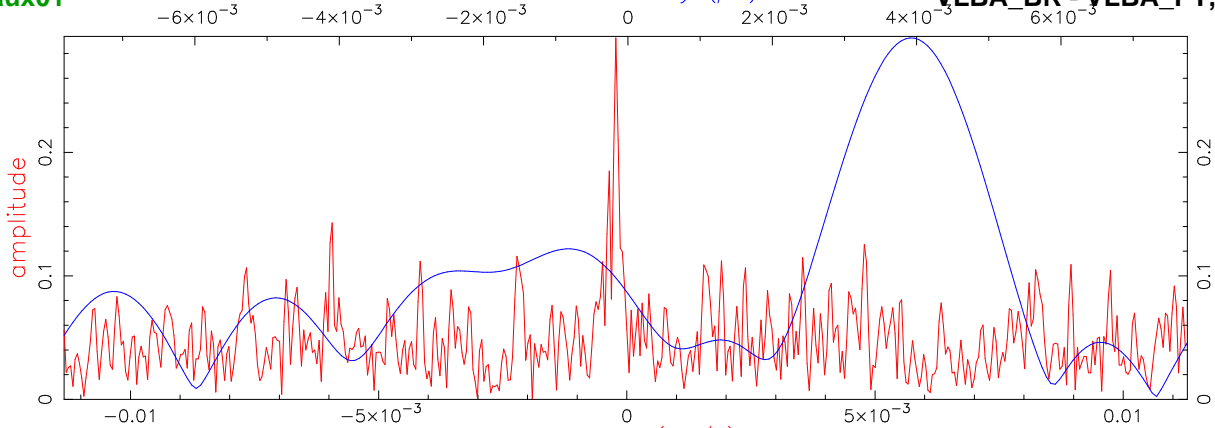
aux01

0133+476.3MP1AB, No0916, bp

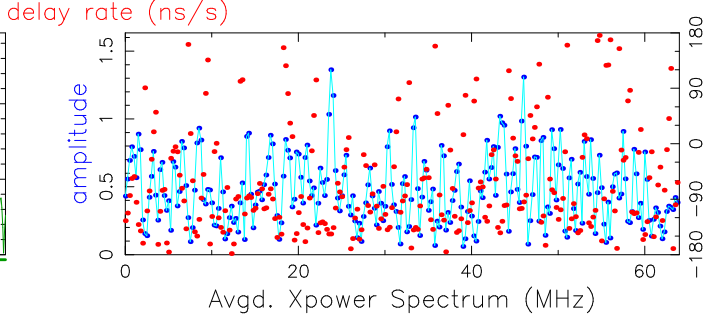
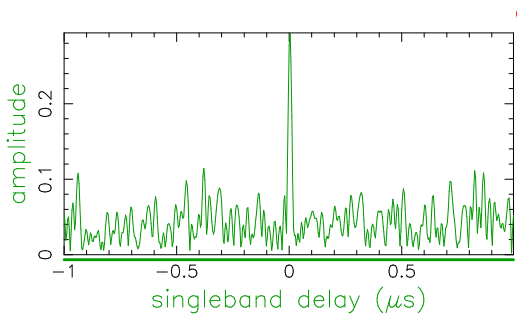
VLBA_BR - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

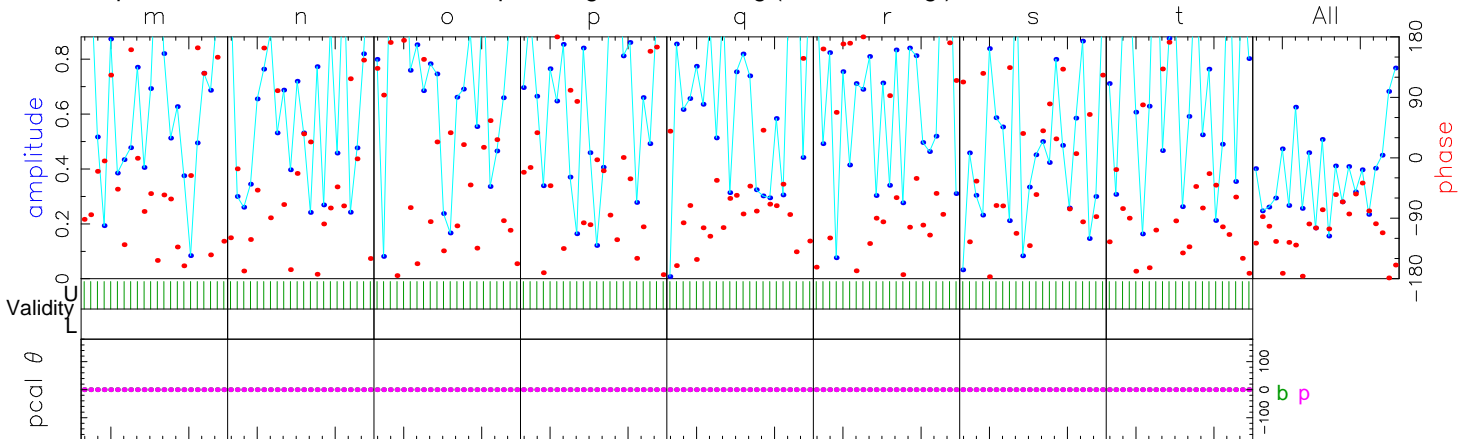


SNR 8.5
Int time 112.617
Amp 0.294
Phase -112.5
PFD 1.4e-09
Delays (us)
SBD 0.003080
MBD 0.003909
Fringe rate (Hz) -0.017653
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170437.17
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:112946
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
	-118.9	-102.5	-141.6	-93.9	-99.0	-132.7	-95.7	-111.0	Phase	-112.5
	0.3	0.2	0.2	0.2	0.5	0.4	0.1	0.5	Ampl.	0.3
	210.4	340.9	245.4	463.0	257.1	257.8	429.5	257.6	Sbd box	257.8
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	
p	0	0	0	0	0	0	0	0	PC freqs	
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	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	
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.17666417954E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	3.90874E-03	+/-	1.3E-04
Sband delay (usec)	-2.17667247192E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	3.07950E-03	+/-	1.0E-03
Phase delay (usec)	-2.17670330319E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-3.62624E-06	+/-	4.3E-07
Delay rate (us/s)	3.50626530185E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	-2.04935E-07	+/-	6.7E-09
Total phase (deg)	-91.3	Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-112.5	+/-	13.4

ph/seg (deg)	39.3	Theor.	31.5	Amplitude	0.294 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	61.5		55.0	Search (512X32)	0.279	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.2		19.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.2		33.2	Inc. seg. avg.	0.335	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.288	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 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -289.372 2497.764 simultaneous interpolator

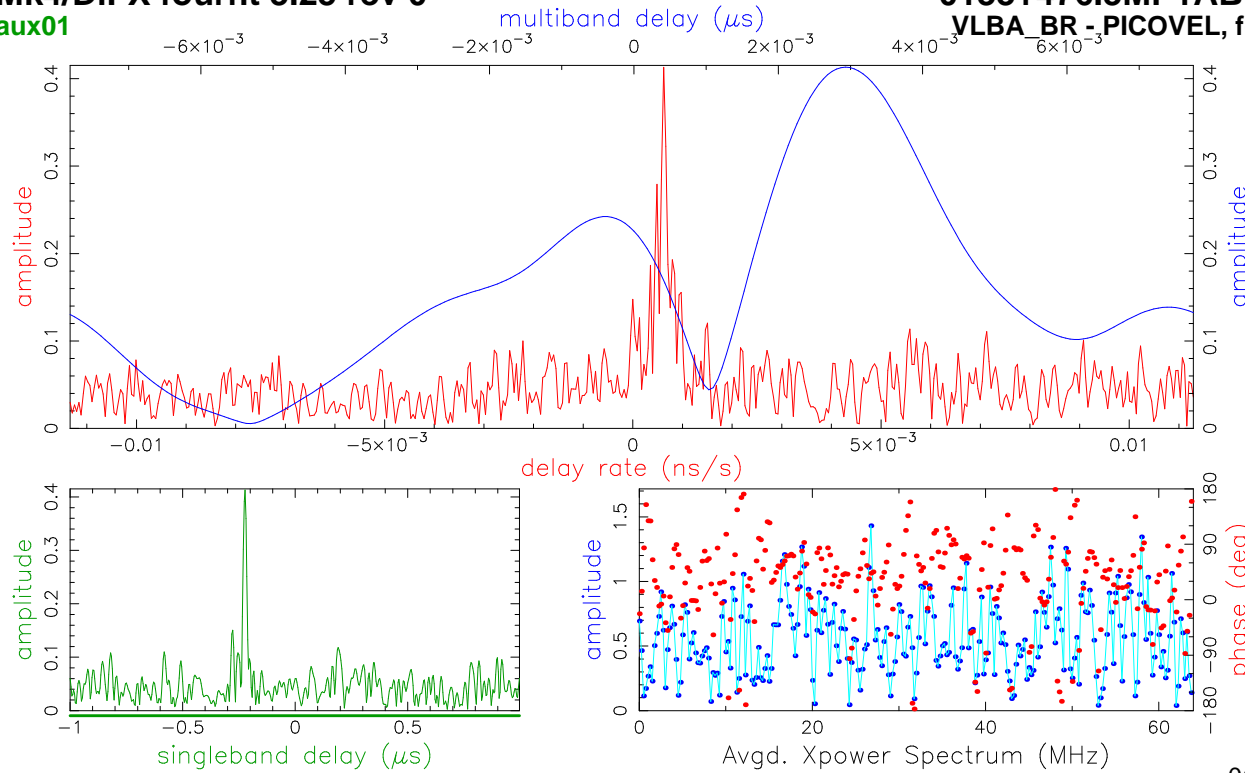
Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.55.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bP

VLBA_BR - PICOVEL, fgroup W, pol LL

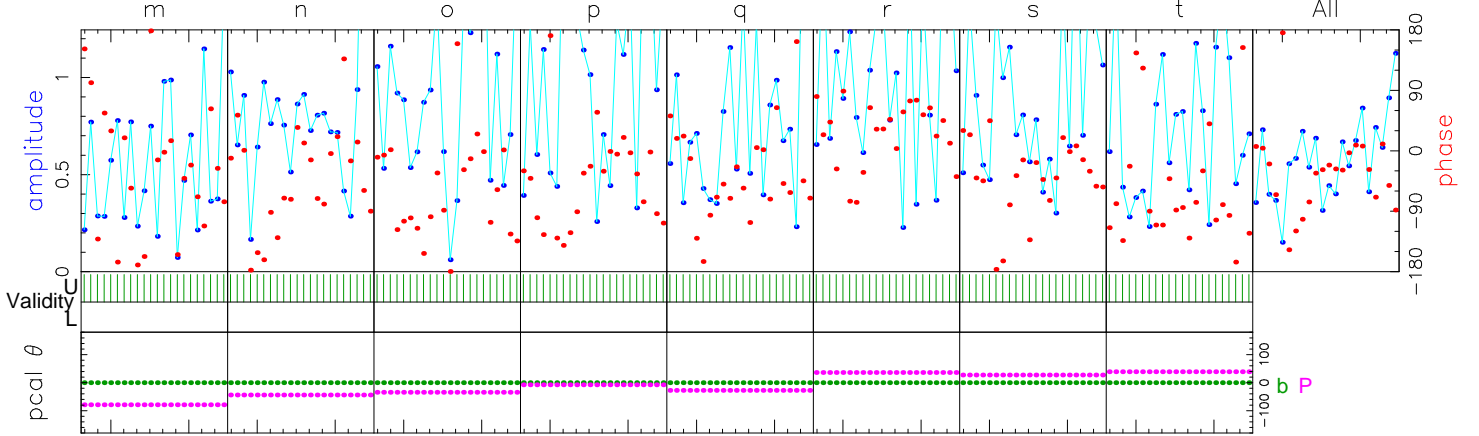


Fringe quality 9

SNR 12.0
 Int time 112.624
 Amp 0.415
 Phase -41.6
 PFD 2.9e-25
 Delays (us)
 SBD -0.223506
 MBD 0.002887
 Fringe rate (Hz) 0.051612
 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
	-49.9	-45.8	-53.2	-62.5	-43.0	28.8	-27.6	-96.1	Phase	-41.6
	0.2	0.4	0.5	0.6	0.5	0.7	0.6	0.5	Ampl.	0.5
	196.8	199.8	199.7	199.8	199.7	200.0	199.9	197.8	Sbd box	199.8
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	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.66686440115E+03	Apriori delay (usec)	6.66708026426E+03	Resid mbdelay (usec)	2.88689E-03	+/-	9.0E-05
Sband delay (usec)	6.66685675801E+03	Apriori clock (usec)	5.6457920E+00	Resid sbdelay (usec)	-2.23506E-01	+/-	7.2E-04
Phase delay (usec)	6.66708026292E+03	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	-1.34044E-06	+/-	3.1E-07
Delay rate (us/s)	1.25604495811E+00	Apriori rate (us/s)	1.25604435894E+00	Resid rate (us/s)	5.99168E-07	+/-	4.7E-09
Total phase (deg)	305.1	Apriori accel (us/s/s)	-2.35386405058E-05	Resid phase (deg)	-41.6	+/-	9.5

ph/seg (deg)	52.7	Theor.	22.3	Amplitude	0.415 +/- 0.034	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	65.9	Search (512X32)	0.389	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	38.3	Inc. seg. avg.	0.541	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	44.5	Inc. frq. avg.	0.499	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 P: az 307.1 el 35.7 pa 71.7 u, v (fr/asec) -10764.501 -1166.553 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bP.W.61.3MP1AB

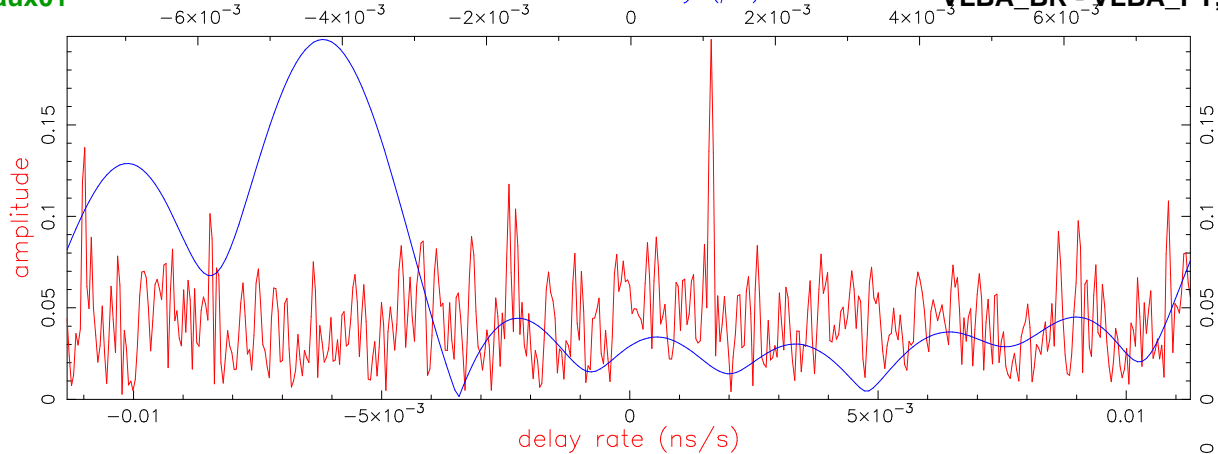
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

VLBA_BR - VLBA_PT, fgroup W, pol LR

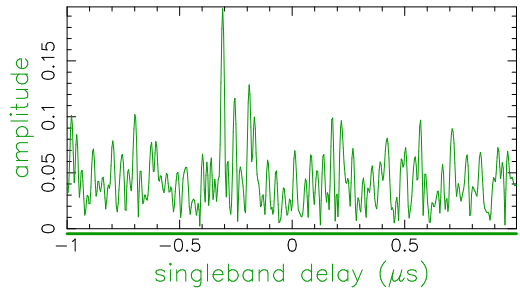
multiband delay (μ s)



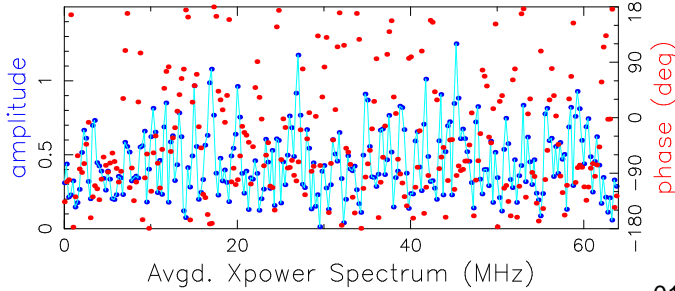
Fringe quality 0

SNR 5.7
 Int time 112.617
 Amp 0.198
 Phase 5.1
 PFD 5.1e-01
 Delays (us)
 SBD -0.308768
 MBD -0.004274
 Fringe rate (Hz)
 0.140170
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

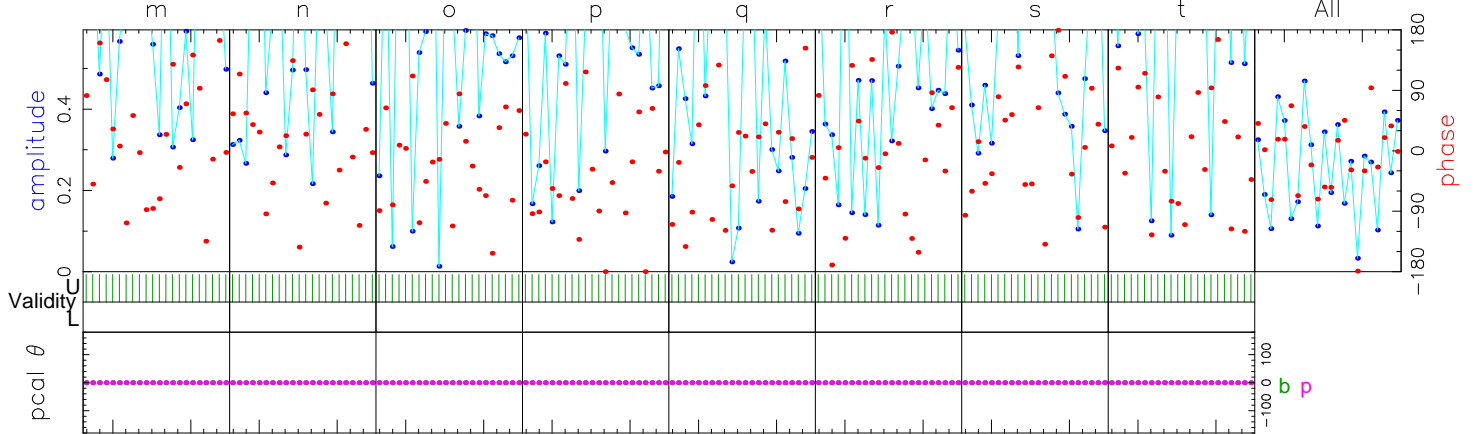
Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112947
 2024:113:095956
 RA & Dec (J2000)
 01h36m58.594803s
 +47°51'29.100073"



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
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		
p	0	0	0	0	0	0	0	0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-2.17971475690E+02									
Sband delay (usec)	-2.17979094692E+02									
Phase delay (usec)	-2.17670326529E+02									
Delay rate (us/s)	3.50644851870E-02									
Total phase (deg)			-333.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 58.8 47.1 Search (512X32) 0.190
 amp/seg (%) 67.3 82.2 Interp. 0.000
 ph/frq (deg) 24.9 28.4 Inc. seg. avg. 0.194
 amp/frq (%) 42.4 49.6 Inc. frq. avg. 0.188
 b: az 74.8 el 62.9 pa -74.1 p: az 49.1 el 64.2 pa -111.4 u,v (fr/asec) -289.372 2497.764
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.62.3MP1AB

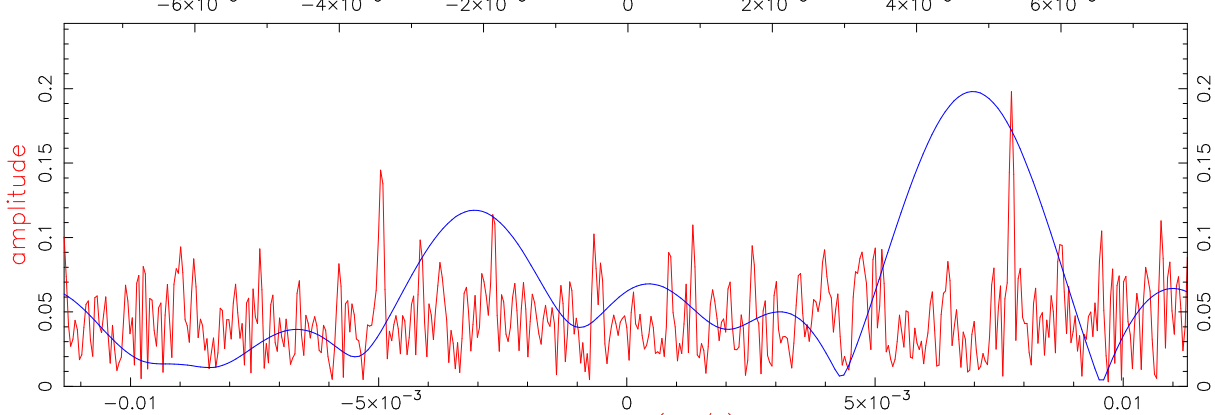
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bp

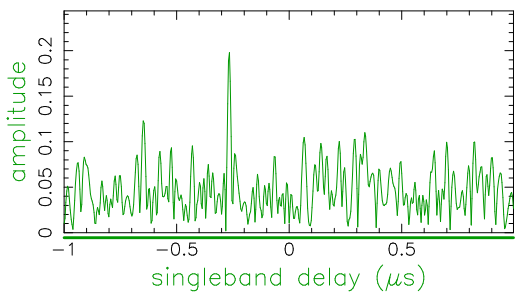
VLBA_BR - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

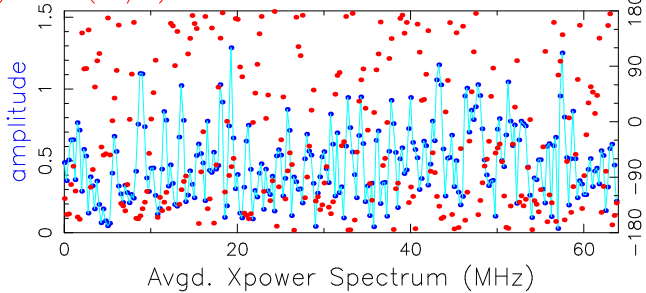


Fringe quality 0

SNR 5.8
 Int time 112.617
 Amp 0.244
 Phase -31.8
 PFD 3.5e-01
 Delays (us)
 SBD -0.266721
 MBD 0.004747
 Fringe rate (Hz)
 0.667100
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

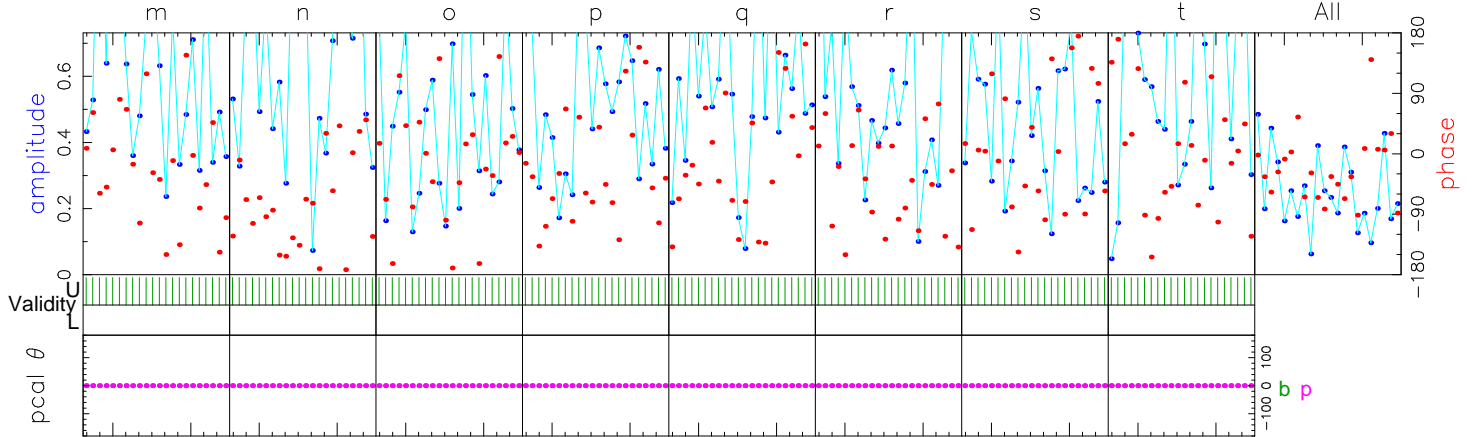


delay rate (ns/s)



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°51'29.100073"

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		
p	0	0	0	0	0	0	0	0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-2.17931204738E+02	Apriori delay (usec)	-2.17670326692E+02	Resid mbdelay (usec)	4.74695E-03	+/-	1.9E-04
Sband delay (usec)	-2.17937047442E+02	Apriori clock (usec)	-1.0722427E+00	Resid sbdelay (usec)	-2.66721E-01	+/-	1.5E-03
Phase delay (usec)	-2.17670327718E+02	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-1.02536E-06	+/-	6.4E-07
Delay rate (us/s)	3.50706023180E-02	Apriori rate (us/s)	3.50628579532E-02	Resid rate (us/s)	7.74436E-06	+/-	9.8E-09
Total phase (deg)	-10.7	Apriori accel (us/s/s)	1.63239522965E-05	Resid phase (deg)	-31.8	+/-	19.8

ph/seg (deg)	RMS 52.9	Theor. 46.4	Amplitude Search (512X32)	0.244 +/- 0.042	0.194	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	62.8	80.9	Interp.	0.000	0.233	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	31.5	28.0	Inc. seg. avg.	0.233	0.245	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.5	48.8	Inc. frq. avg.	0.245		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 p: az 49.1 el 64.2 pa -111.4 u, v (fr/asec) -289.372 2497.764 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bp..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bp.W.71.3MP1AB

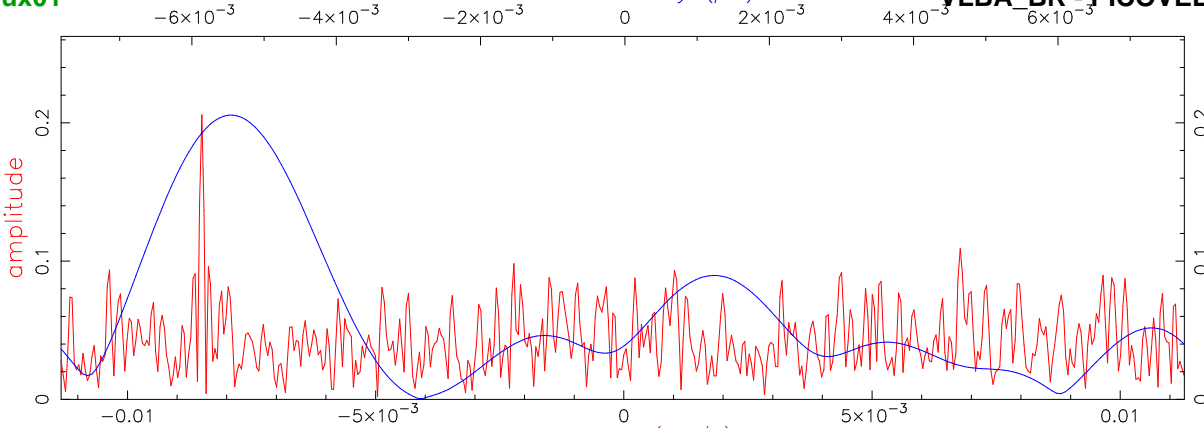
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bP

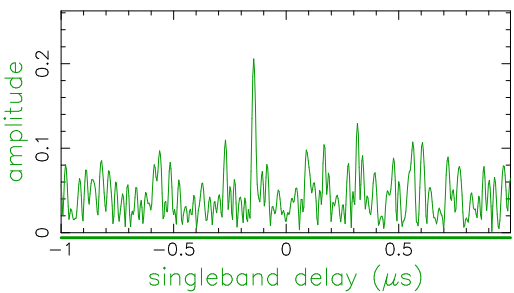
VLBA_BR - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

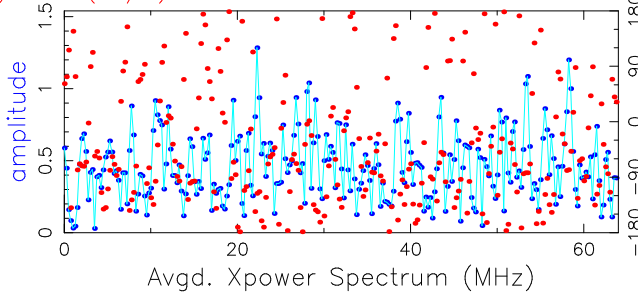


Fringe quality 0

SNR 6.0
 Int time 112.624
 Amp 0.262
 Phase 109.4
 PFD 1.4e-01
 Delays (us)
 SBD -0.144158
 MBD -0.005448
 Fringe rate (Hz)
 -0.732850
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

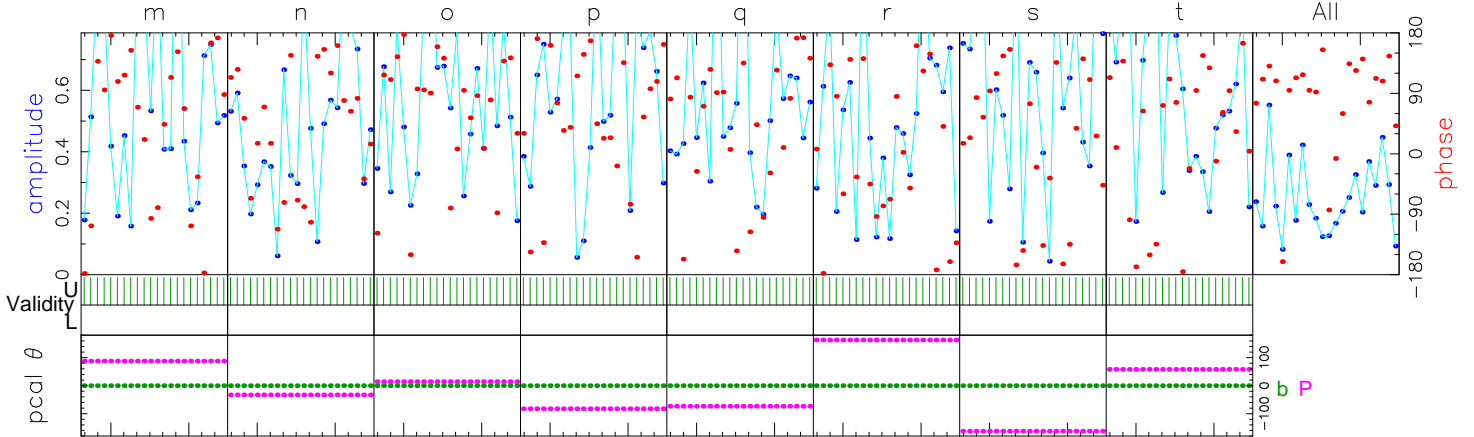


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112949
 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		
P	0	0	0	0	0	0	0	0		
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58		
b	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	6.66693419172E+03	Apriori delay (usec)	6.66708026426E+03	Resid mbdelay (usec)	-5.44753E-03	+/-	1.8E-04
Sband delay (usec)	6.66693610626E+03	Apriori clock (usec)	5.6457920E+00	Resid sbdelay (usec)	-1.44158E-01	+/-	1.4E-03
Phase delay (usec)	6.66708026778E+03	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	3.52679E-06	+/-	6.2E-07
Delay rate (us/s)	1.25603585127E+00	Apriori rate (us/s)	1.25604435894E+00	Resid rate (us/s)	-8.50767E-06	+/-	9.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.35386405058E-05	Resid phase (deg)	109.4	+/-	19.2

ph/seg (deg)	54.5	RMS	45.0	Theor.	28.0	Amplitude	0.262 +/- 0.044	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	62.5	Search (512X32)	0.202	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)	27.2	Inc. seg. avg.	0.246	Inc. frq. avg.	0.253	Bits/sample: 2x2		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	28.0	Inc. frq. avg.	0.253			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 P: az 307.1 el 35.7 pa 71.7 u, v (fr/asec) -10764.501 -1166.553 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bP.W.79.3MP1AB

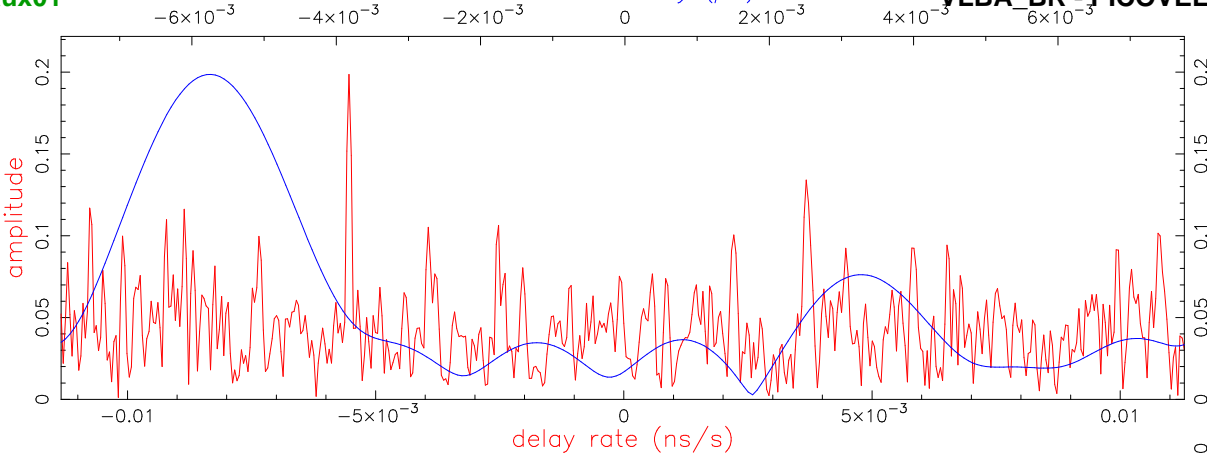
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bP

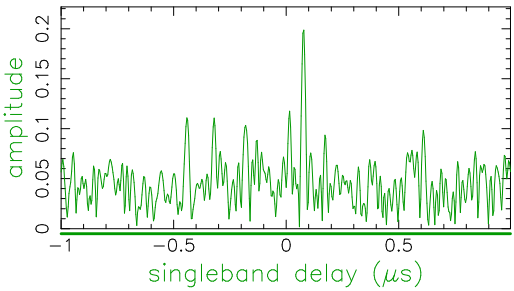
VLBA_BR - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

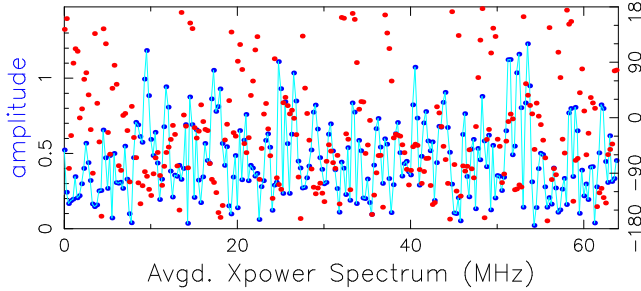


Fringe quality 0

SNR 5.8
 Int time 112.624
 Amp 0.222
 Phase 162.8
 PFD 3.0e-01
 Delays (us)
 SBD 0.076591
 MBD -0.005766
 Fringe rate (Hz)
 -0.476103
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

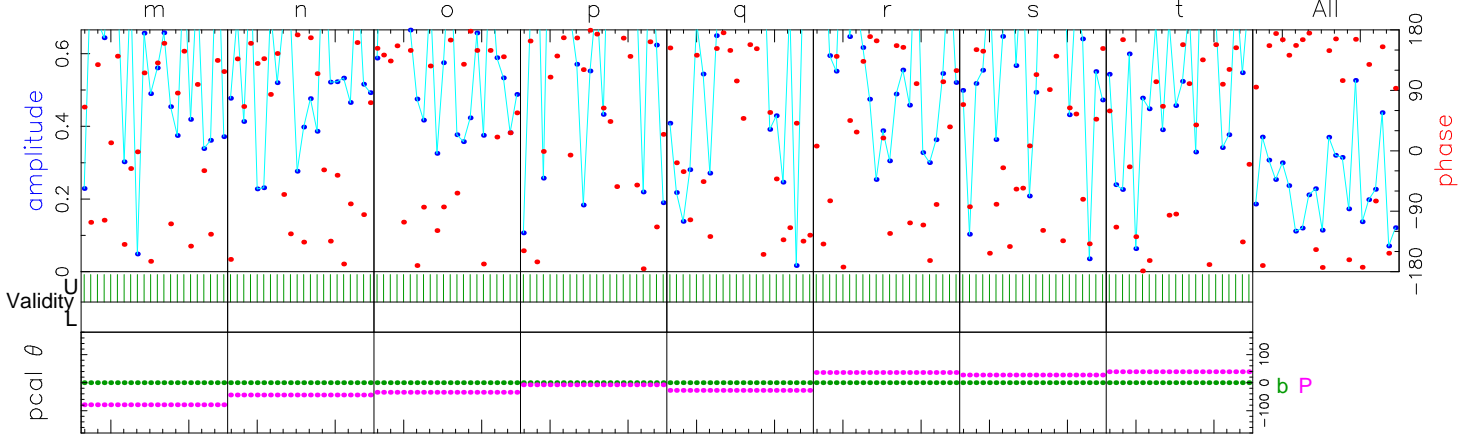


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170437.17
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:112950
 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	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
b:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.66715262295E+03	Apriori delay (usec)	6.66708026426E+03	Resid mbdelay (usec)	-5.76630E-03	+/-	1.9E-04
Sband delay (usec)	6.66715685576E+03	Apriori clock (usec)	5.6457920E+00	Resid sbdelay (usec)	7.65915E-02	+/-	1.5E-03
Phase delay (usec)	6.66708026951E+03	Apriori clockrate (us/s)	-2.1796150E-08	Resid phdelay (usec)	5.25052E-06	+/-	6.3E-07
Delay rate (us/s)	1.25603883185E+00	Apriori rate (us/s)	1.25604435894E+00	Resid rate (us/s)	-5.52709E-06	+/-	9.8E-09
Total phase (deg)	149.5	Apriori accel (us/s/s)	-2.35386405058E-05	Resid phase (deg)	162.8	+/-	19.7

ph/seg (deg)	41.4	Theor.	46.1	Amplitude	0.222 +/- 0.038	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	60.4	Search (512X32)	0.195	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	24.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	36.1	Inc. seg. avg.	0.202	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.205	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 P: az 307.1 el 35.7 pa 71.7 u, v (fr/asec) -10764.501 -1166.553 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bP..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bP.W.86.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

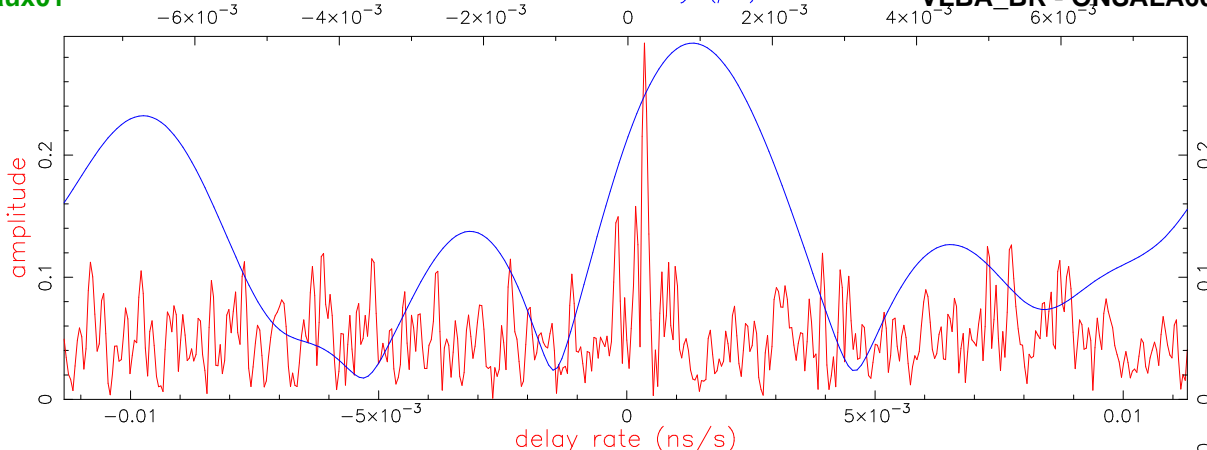
aux01

0133+476.3MP1AB, No0916, bX

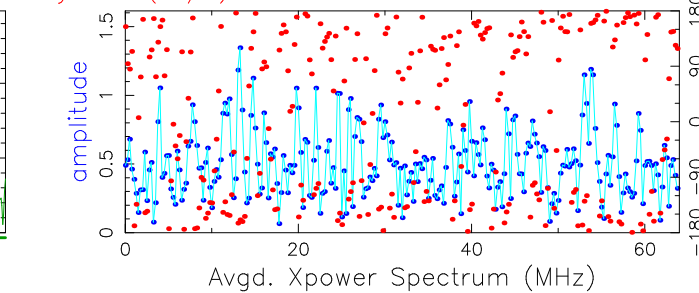
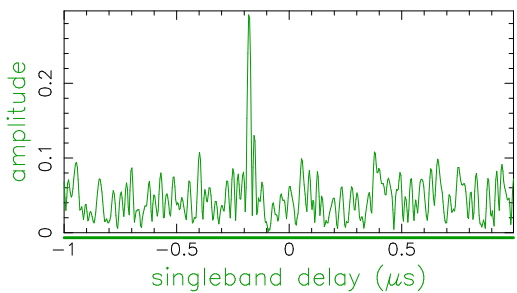
VLBA_BR - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 9

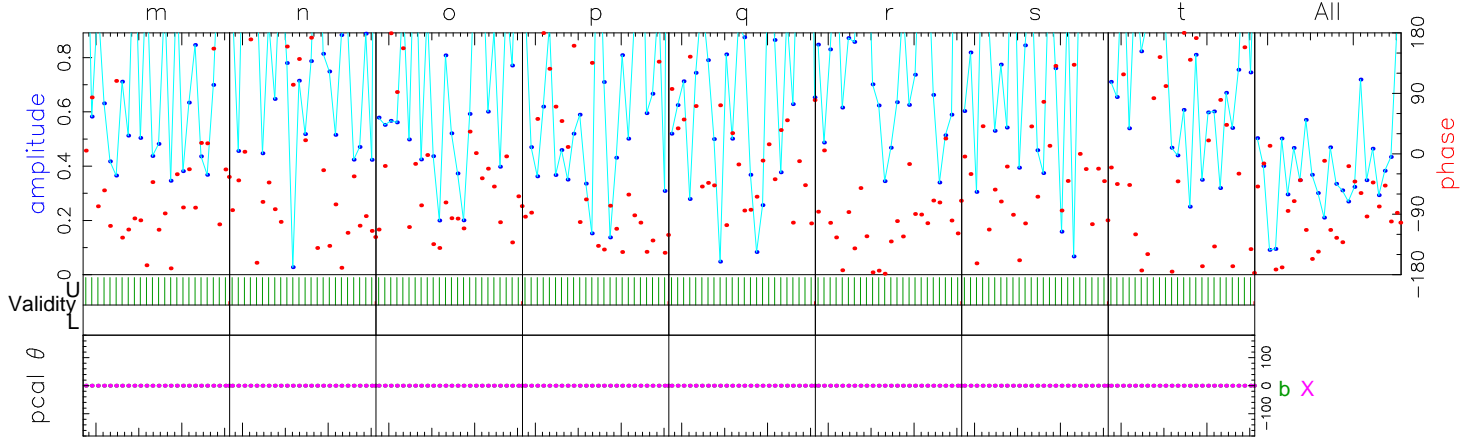


SNR 8.1
 Int time 98.800
 Amp 0.297
 Phase -82.5
 PFD 5.9e-08
 Delays (us)
 SBD -0.178030
 MBD 0.000907
 Fringe rate (Hz)
 0.032128
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113148
 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
	-74.1	-110.5	-51.3	-130.6	-25.0	-105.0	-36.9	165.5	Phase	-82.5
	0.4	0.4	0.4	0.4	0.4	0.7	0.5	0.2	Ampl.	0.4
	211.5	210.6	210.3	210.7	209.9	211.1	210.3	363.0	Sbd box	211.4
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.72167658826E+03	Apriori delay (usec)	5.72184755636E+03	Resid mbdelay (usec)	9.06897E-04	+/-	1.3E-04
Sband delay (usec)	5.72166952661E+03	Apriori clock (usec)	-1.0802740E+02	Resid sbdelay (usec)	-1.78030E-01	+/-	1.1E-03
Phase delay (usec)	5.72184755370E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	-2.65968E-06	+/-	4.6E-07
Delay rate (us/s)	1.01245869797E+00	Apriori rate (us/s)	1.01245832499E+00	Resid rate (us/s)	3.72976E-07	+/-	8.0E-09
Total phase (deg)	99.3	Apriori accel (us/s/s)	-3.92097365457E-05	Resid phase (deg)	-82.5	+/-	14.2

ph/seg (deg)	51.0	Theor.	35.5	Amplitude	0.297 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.5	Search (512X32)	0.276	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	61.3	Inc. seg. avg.	0.333	Inc. frq. avg.	0.383	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	52.5	Inc. frq. avg.	0.383			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 X: az 301.3 el 38.5 pa 43.4 u, v (fr/asec) -8690.177 -3962.961 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bX...3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bX.W.316.3MP1AB

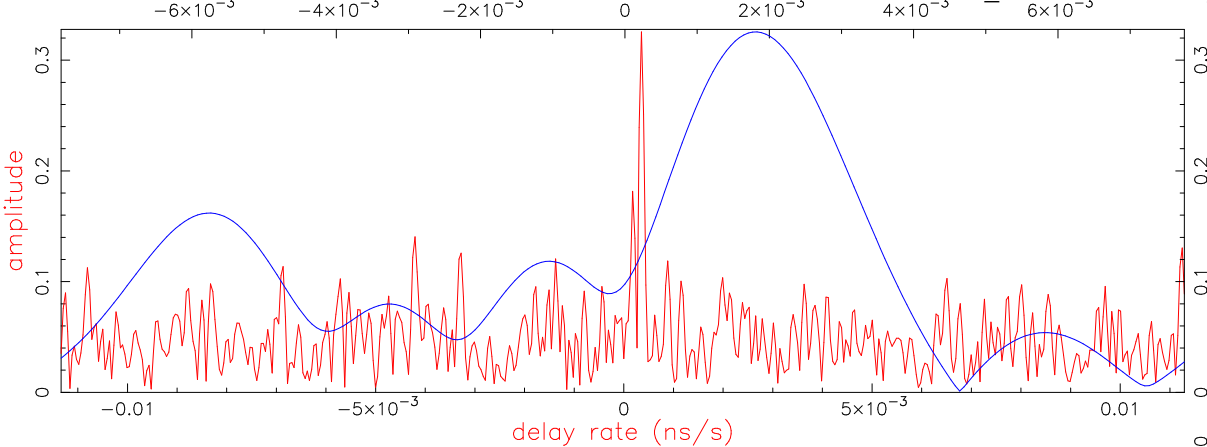
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bX

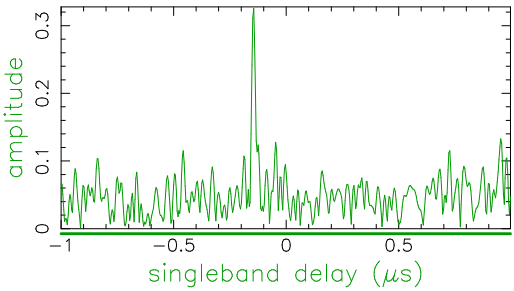
VLBA_BR - ONSALA60, fgroup W, pol RR

multiband delay (μ s)



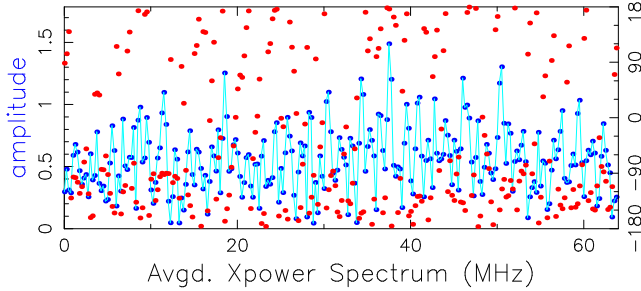
Fringe quality 9

SNR 8.9
 Int time 98.800
 Amp 0.328
 Phase -44.6
 PFD 5.0e-11
 Delays (us)
 SBD -0.145564
 MBD 0.001801
 Fringe rate (Hz)
 0.031574
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



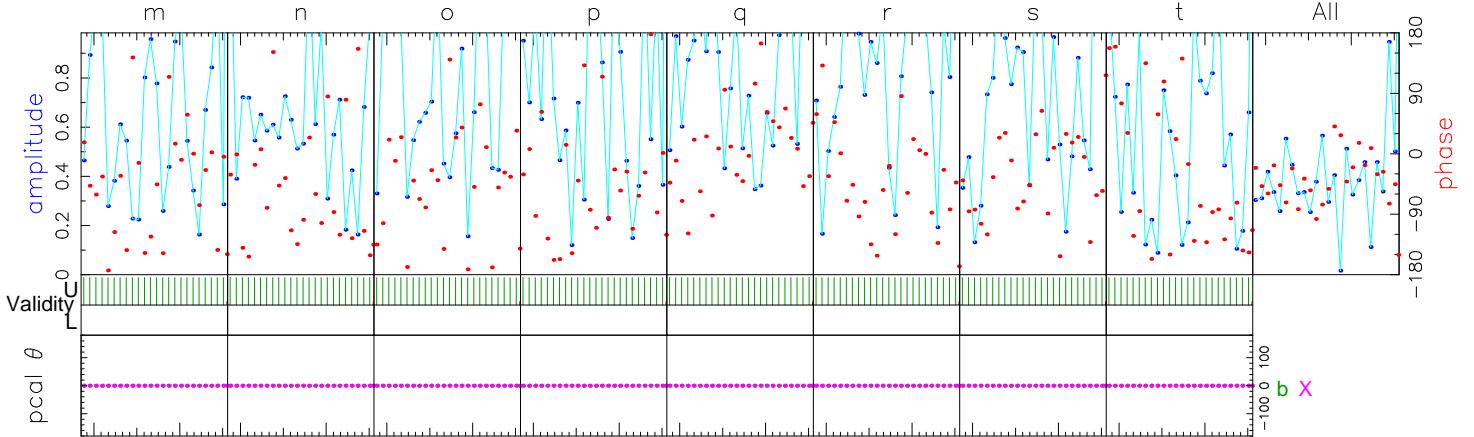
singleband delay (μ s)

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
 2025:041:113150
 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
	-52.2	-84.7	-17.0	-70.8	-7.7	-42.1	-26.4	-123.7	Phase	-44.6
	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.3	Ampl.	0.4
	297.6	423.0	219.8	218.5	218.9	219.1	218.9	141.9	Sbd box	219.7
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.72170873245E+03	Apriori delay (usec)	5.72184755636E+03	Resid mbdelay (usec)	1.80108E-03	+/-	1.2E-04
Sband delay (usec)	5.72170199211E+03	Apriori clock (usec)	-1.0802740E+02	Resid sbdelay (usec)	-1.45564E-01	+/-	9.7E-04
Phase delay (usec)	5.72184755492E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	-1.43707E-06	+/-	4.1E-07
Delay rate (us/s)	1.01245869153E+00	Apriori rate (us/s)	1.01245832499E+00	Resid rate (us/s)	3.66543E-07	+/-	7.3E-09
Total phase (deg)	137.2	Apriori accel (us/s/s)	-3.92097365457E-05	Resid phase (deg)	-44.6	+/-	12.9

ph/seg (deg)	36.0	Theor.	32.2	Amplitude	0.328 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	60.6	Search (512X32)	0.317	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	43.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	32.6	Inc. seg. avg.	0.338	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.369	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 X: az 301.3 el 38.5 pa 43.4 u, v (fr/asec) -8690.177 -3962.961 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bX..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bX.W.320.3MP1AB

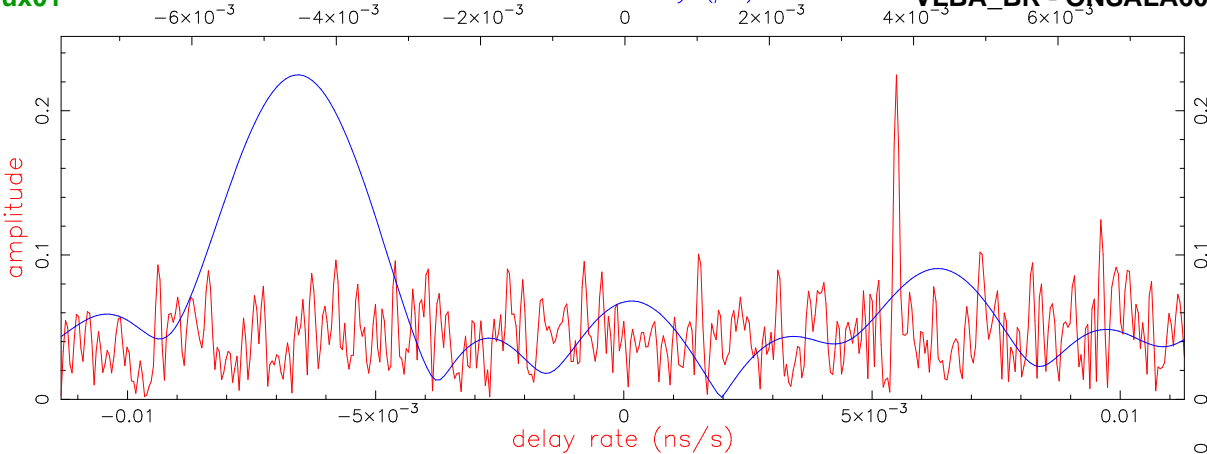
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bX

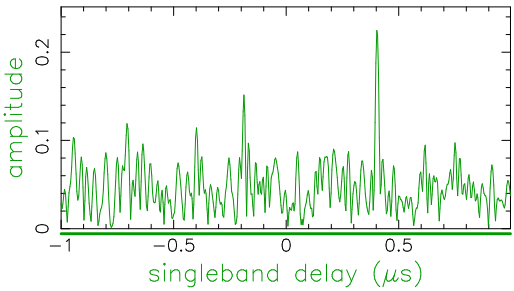
VLBA_BR - ONSALA60, fgroup W, pol LR

multiband delay (μs)

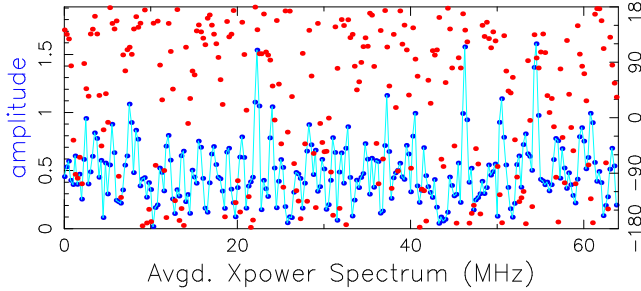


Fringe quality 0

SNR 6.2
 Int time 98.800
 Amp 0.251
 Phase 163.2
 PFD 3.9e-02
 Delays (us)
 SBD 0.403799
 MBD -0.004494
 Fringe rate (Hz)
 0.474218
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

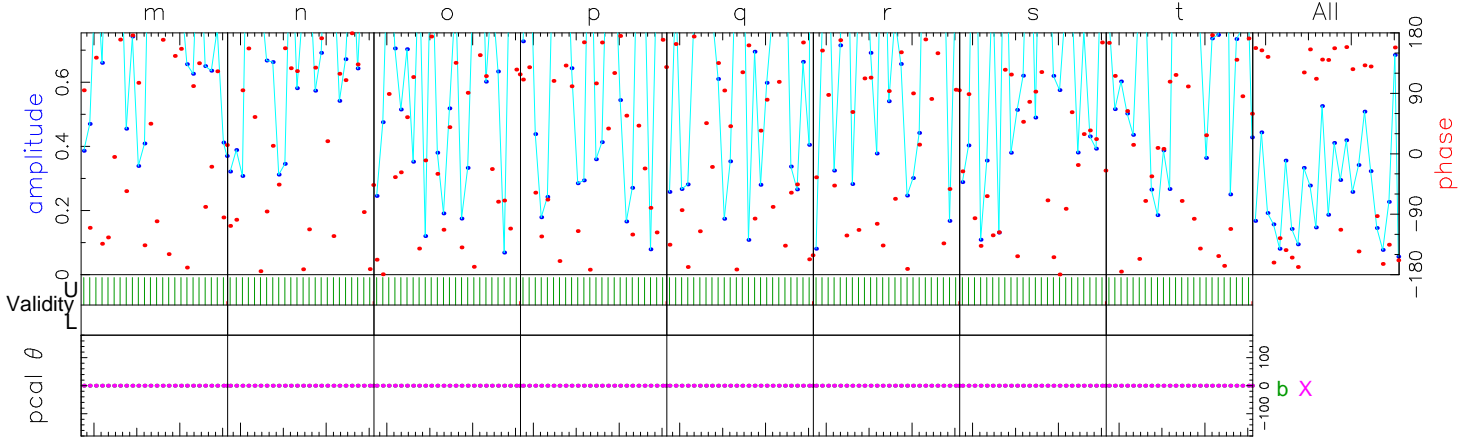


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113151
 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
	179.6	169.7	152.2	136.9	179.7	157.0	126.8	176.5	Phase	163.2
	0.3	0.3	0.2	0.3	0.2	0.3	0.1	0.3	Ampl.	0.2
	294.7	477.5	73.2	118.1	29.8	208.6	450.0	121.8	Sbd box	360.4
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	5.72224931251E+03	Apriori delay (usec)	5.72184755636E+03	Resid mbdelay (usec)	-4.49385E-03	+/-	1.8E-04
Sband delay (usec)	5.72225135511E+03	Apriori clock (usec)	-1.0802740E+02	Resid sbdelay (usec)	4.03799E-01	+/-	1.4E-03
Phase delay (usec)	5.72184756162E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	5.26197E-06	+/-	6.0E-07
Delay rate (us/s)	1.01246383019E+00	Apriori rate (us/s)	1.01245832499E+00	Resid rate (us/s)	5.50520E-06	+/-	1.0E-08
Total phase (deg)	345.0	Apriori accel (us/s/s)	-3.92097365457E-05	Resid phase (deg)	163.2	+/-	18.5

ph/seg (deg)	44.1	RMS	46.3	Theor.	46.3	Amplitude	0.251 +/- 0.041	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	72.0	Search (512X32)	0.217	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	SampCntNorm:	enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	22.1	Inc. seg. avg.	0.235	Bits/sample:	2x2	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
amp/frq (%)	33.1	Inc. frq. avg.	0.234	Data rate(Mb/s):	2048	nlags:	256	t_cohere	infinite		

b: az 74.8 el 62.9 pa -74.1 X: az 301.3 el 38.5 pa 43.4 u,v (fr/asec) -8690.177 -3962.961 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bX...3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bX.W.323.3MP1AB

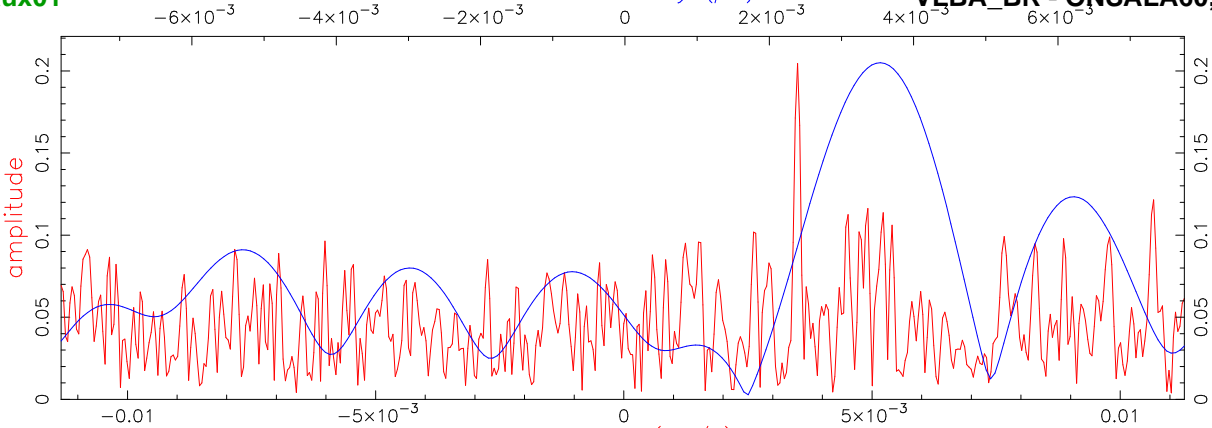
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bX

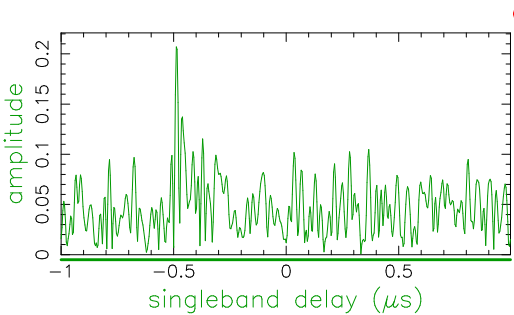
VLBA_BR - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

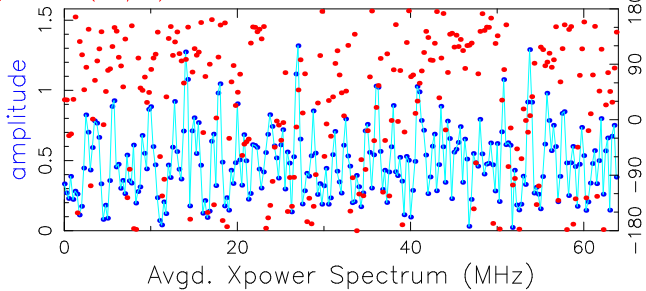


Fringe quality 0

SNR 5.8
 Int time 98.800
 Amp 0.221
 Phase -144.4
 PFD 3.8e-01
 Delays (us)
 SBD -0.486501
 MBD 0.003467
 Fringe rate (Hz) 0.301318
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

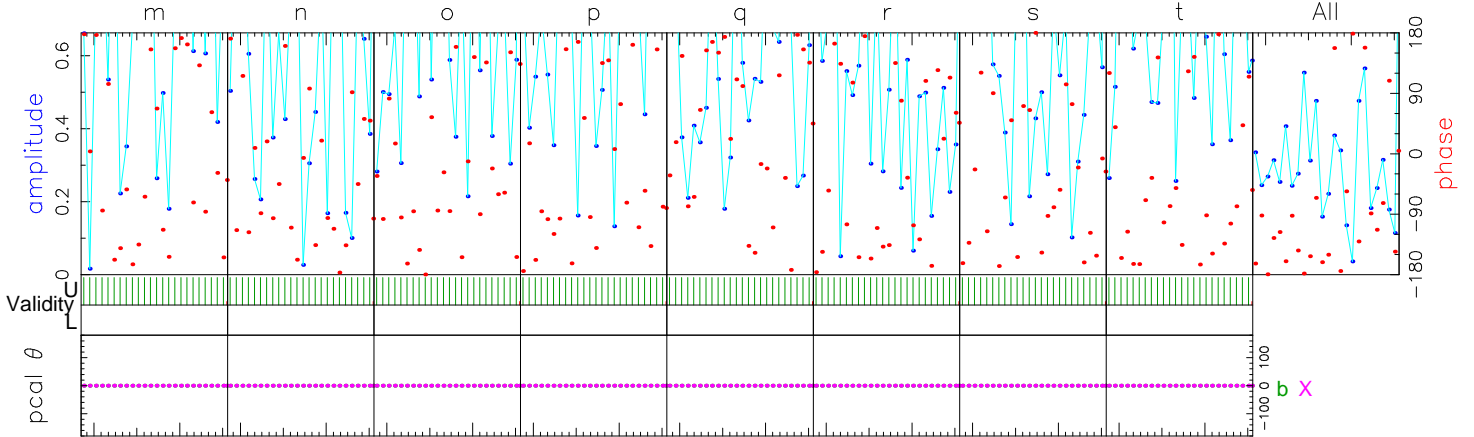


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113152
 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
	-170.0	-117.1	-126.0	-131.0	100.2	-173.9	-136.7	-133.1	Phase	-144.4
	0.3	0.2	0.2	0.3	0.0	0.2	0.2	0.4	Ampl.	0.2
	392.0	391.7	84.5	38.8	159.2	191.8	138.9	251.0	Sbd box	132.5
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
X	0	0	0	0	0	0	0	0	PC freqs	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	5.72136664795E+03	Apriori delay (usec)	5.72184755636E+03	Resid mbdelay (usec)	3.46659E-03	+/-	1.9E-04
Sband delay (usec)	5.72136105536E+03	Apriori clock (usec)	-1.0802740E+02	Resid sbdelay (usec)	-4.86501E-01	+/-	1.5E-03
Phase delay (usec)	5.72184755170E+03	Apriori clockrate (us/s)	-6.4018213E-07	Resid phdelay (usec)	-4.65746E-06	+/-	6.4E-07
Delay rate (us/s)	1.01246182300E+00	Apriori rate (us/s)	1.01245832499E+00	Resid rate (us/s)	3.49800E-06	+/-	1.1E-08
Total phase (deg)		Apriori accel (us/s/s)	-3.92097365457E-05	Resid phase (deg)	-144.4	+/-	19.8

ph/seg (deg)	48.4	RMS	49.6	Theor.	0.221 +/- 0.038	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.8	Search (512X32)	0.203	Amplitude		PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	52.1	Interp.	0.000	Search (512X32)		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	45.4	Inc. seg. avg.	0.224	Inc. seg. avg.		Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.210	Inc. frq. avg.		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 X: az 301.3 el 38.5 pa 43.4 u, v (fr/asec) -8690.177 -3962.961 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bX..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bX.W.326.3MP1AB

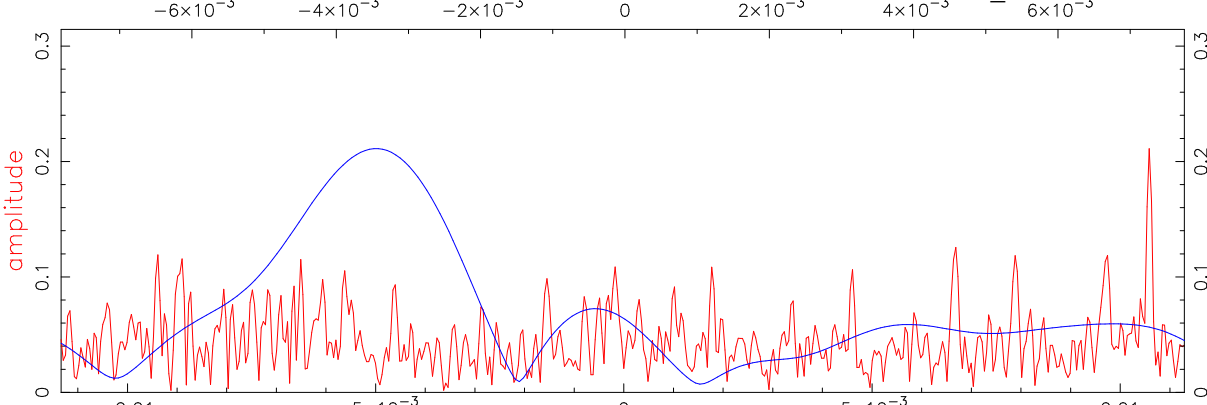
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bY

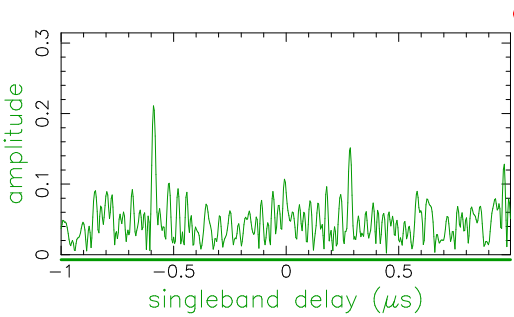
VLBA_BR - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

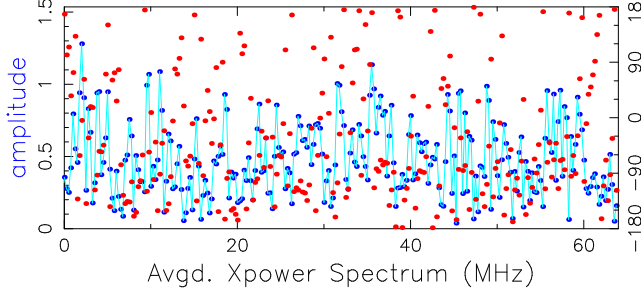


Fringe quality 0

SNR 5.8
 Int time 99.755
 Amp 0.314
 Phase 8.2
 PFD 3.2e-01
 Delays (us)
 SBD -0.588621
 MBD -0.003396
 Fringe rate (Hz) 0.914263
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

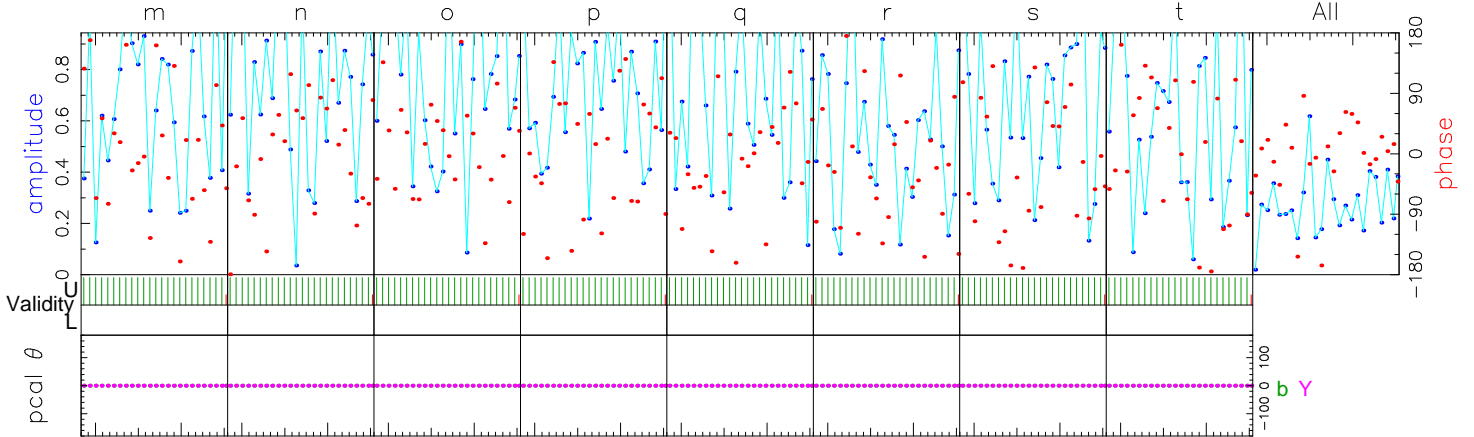


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113115
 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
	14.4	25.0	7.6	-0.1	-4.2	-36.7	6.5	45.5	Phase	8.2
	0.3	0.5	0.6	0.1	0.5	0.2	0.2	0.2	Ampl.	0.3
	157.7	328.4	106.9	57.4	106.2	151.3	171.2	95.4	Sbd box	106.3
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.22681164680E+03	Apriori delay (usec)	6.22739316776E+03	Resid mbdelay (usec)	-3.39596E-03	+/-	1.9E-04
Sband delay (usec)	6.22680454701E+03	Apriori clock (usec)	1.1518594E+02	Resid sbdelay (usec)	-5.88621E-01	+/-	1.5E-03
Phase delay (usec)	6.22739316803E+03	Apriori clockrate (us/s)	1.7901099E-02	Resid phdelay (usec)	2.64348E-07	+/-	6.4E-07
Delay rate (us/s)	1.21888570344E+00	Apriori rate (us/s)	1.21887508975E+00	Resid rate (us/s)	1.06137E-05	+/-	1.1E-08
Total phase (deg)	177.7	Apriori accel (us/s/s)	-2.45459015615E-05	Resid phase (deg)	8.2	+/-	19.7

ph/seg (deg)	57.4	RMS	49.3	Theor.	57.4	Amplitude	0.314 +/- 0.054	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	63.5	Search (512X32)	0.204	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)	25.7	Inc. seg. avg.	0.296	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 (%)	48.9	Inc. frq. avg.	0.296										

b: az 74.8 el 62.9 pa -74.1 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10446.864 -1533.603 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bY.W.262.3MP1AB

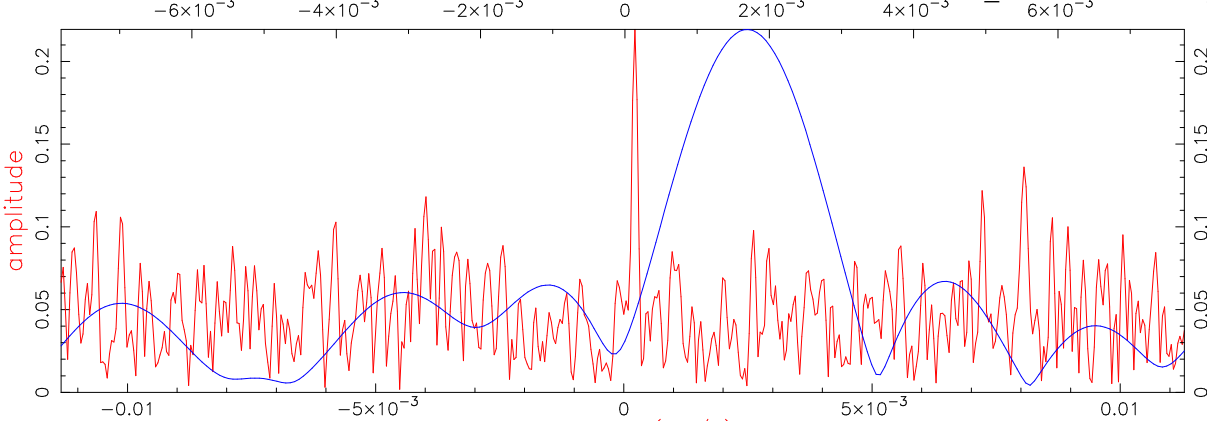
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bY

VLBA_BR - YEYES40M, fgroup W, pol RR

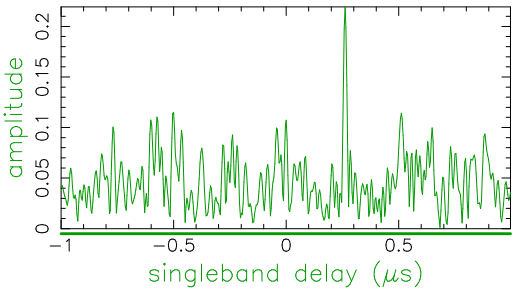
multiband delay (μ s)



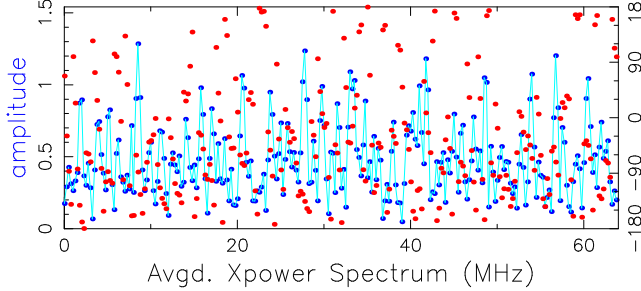
Fringe quality 0

SNR 6.0
 Int time 99.755
 Amp 0.219
 Phase 37.6
 PFD 1.3e-01
 Delays (us)
 SBD 0.261816
 MBD 0.001695
 Fringe rate (Hz) 0.019839
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

delay rate (ns/s)



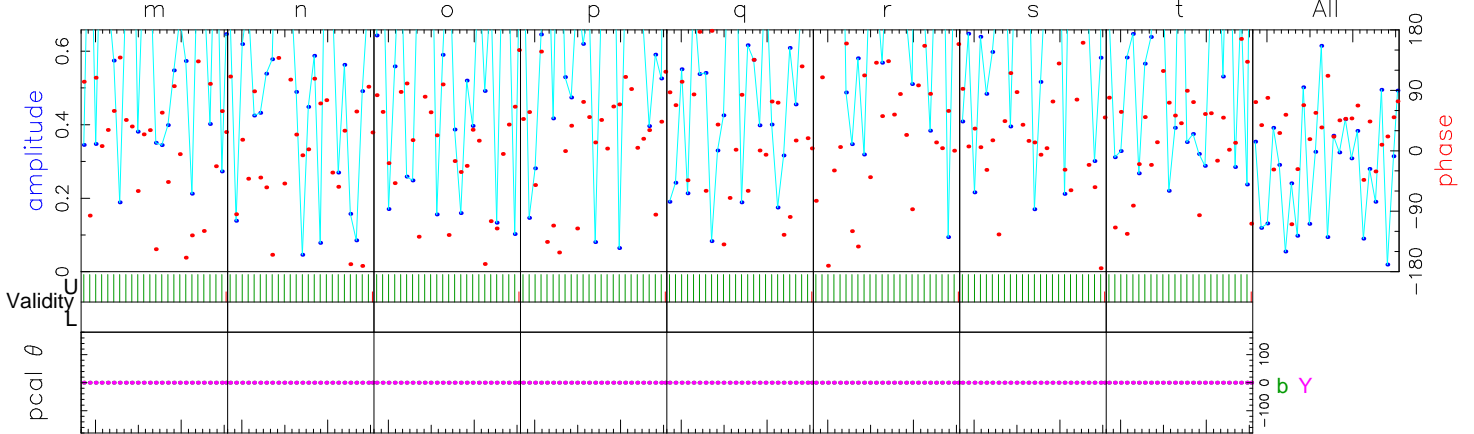
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113116
 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		
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.22766048775E+03	Apriori delay (usec)	6.22739316776E+03	Resid mbdelay (usec)	1.69499E-03	+/-	1.8E-04
Sband delay (usec)	6.22765498376E+03	Apriori clock (usec)	1.1518594E+02	Resid sbdelay (usec)	2.61816E-01	+/-	1.4E-03
Phase delay (usec)	6.22739316897E+03	Apriori clockrate (us/s)	1.7901099E-06	Resid phdelay (usec)	1.21190E-06	+/-	6.2E-07
Delay rate (us/s)	1.21887532006E+00	Apriori rate (us/s)	1.21887508975E+00	Resid rate (us/s)	2.30315E-07	+/-	1.1E-08
Total phase (deg)	207.1	Apriori accel (us/s/s)	-2.45459015615E-05	Resid phase (deg)	37.6	+/-	19.1

ph/seg (deg)	47.5	Theor.	47.8	Amplitude	0.219 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	75.3		83.5	Search (512X32)	0.212	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.0		27.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	22.2		47.2	Inc. seg. avg.	0.205	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.202	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 74.8 el 62.9 pa -74.1 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10446.864 -1533.603 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bY.W.265.3MP1AB

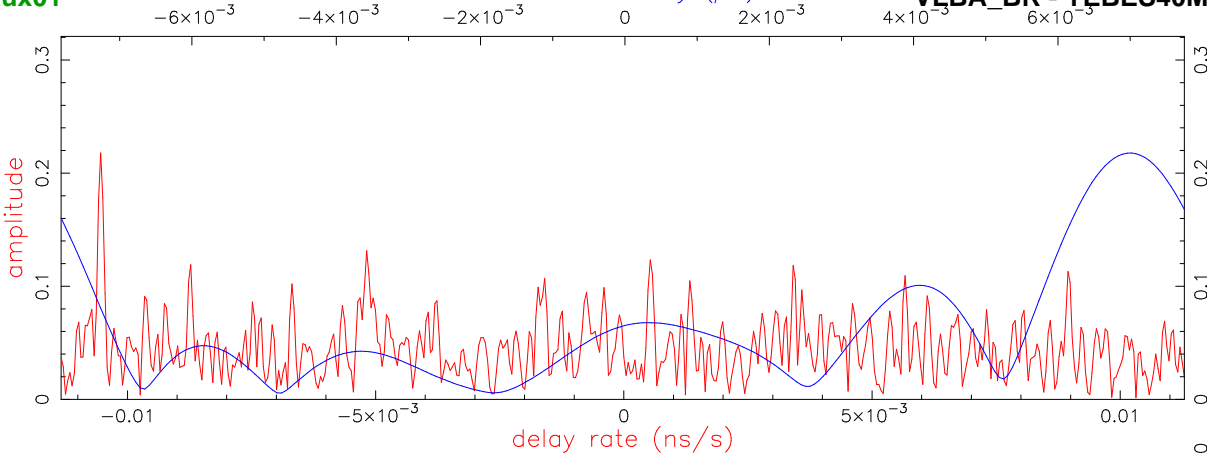
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bY

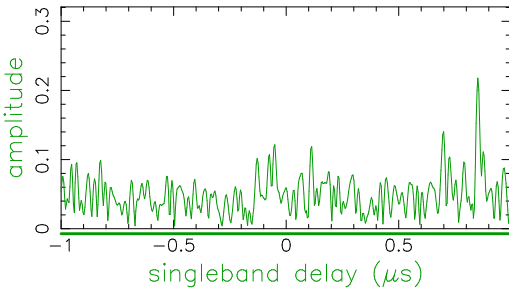
VLBA_BR - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

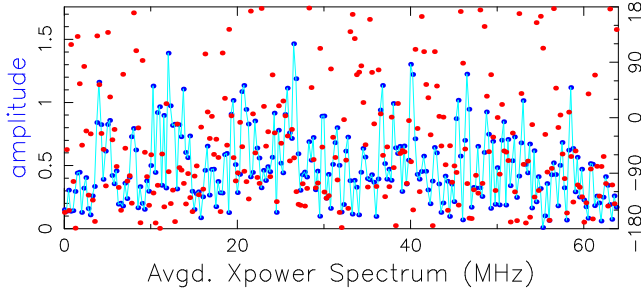


Fringe quality 0

SNR 6.0
 Int time 99.755
 Amp 0.321
 Phase -76.7
 PFD 1.6e-01
 Delays (us)
 SBD 0.851663
 MBD 0.006999
 Fringe rate (Hz)
 -0.910670
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

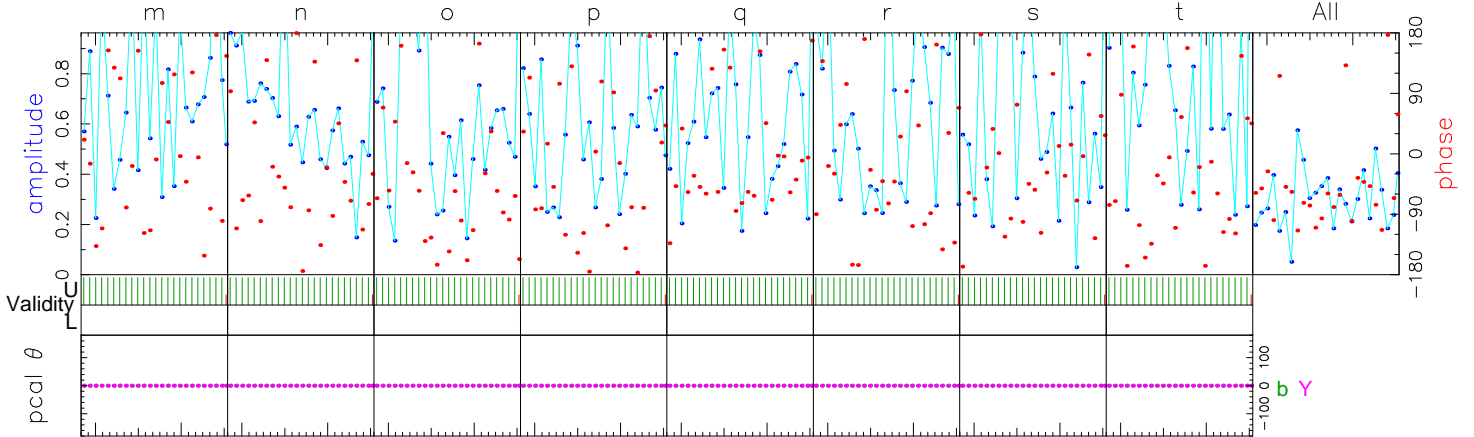


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170449.97
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113117
 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
	-74.2	-71.5	-84.1	-132.6	-52.0	-77.8	-63.5	-89.7	Phase	-76.7
	0.2	0.4	0.4	0.2	0.4	0.3	0.4	0.4	Ampl.	0.3
	125.8	511.6	241.3	488.8	464.8	178.5	451.3	3.8	Sbd box	475.0
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Y	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	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.22824391687E+03	Apriori delay (usec)	6.22739316776E+03	Resid mbdelay (usec)	6.99910E-03	+/-	1.8E-04
Sband delay (usec)	6.22824483026E+03	Apriori clock (usec)	1.1518594E+02	Resid sbdelay (usec)	8.51663E-01	+/-	1.4E-03
Phase delay (usec)	6.22739316529E+03	Apriori clockrate (us/s)	1.7901099E-06	Resid phdelay (usec)	-2.47401E-06	+/-	6.2E-07
Delay rate (us/s)	1.21886451777E+00	Apriori rate (us/s)	1.21887508975E+00	Resid rate (us/s)	-1.05720E-05	+/-	1.1E-08
Total phase (deg)	92.8	Apriori accel (us/s/s)	-2.45459015615E-05	Resid phase (deg)	-76.7	+/-	19.3

ph/seg (deg)	58.5	RMS	48.1	Theor.	58.5	Amplitude	0.321 +/- 0.054	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	65.3		65.3		65.3	Search (512X32)	0.210	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	SampCntNorm:	enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	26.4		27.2		26.4	Interp.	0.000	Bits/sample:	2x2	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	28.1		47.5		28.1	Inc. seg. avg.	0.329	Data rate(Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.304								

b: az 74.8 el 62.9 pa -74.1 Y: az 305.2 el 37.5 pa 68.1 u, v (fr/asec) -10446.864 -1533.603 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bY..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bY.W.268.3MP1AB

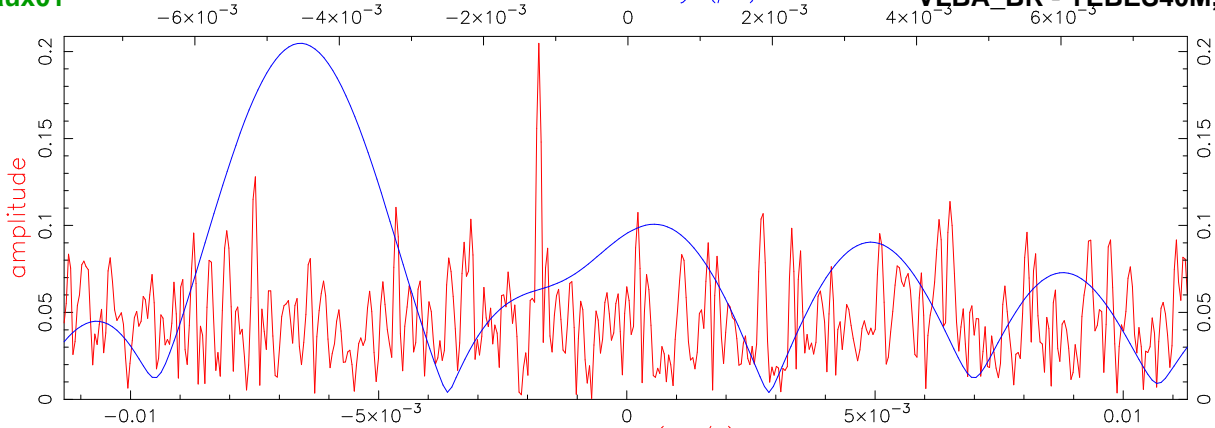
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bY

VLBA_BR - YESES40M, fgroup W, pol RL

multiband delay (μ s)

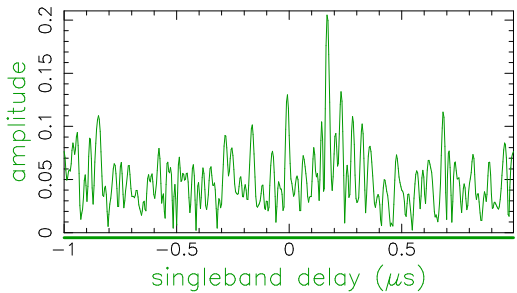


Fringe quality 0

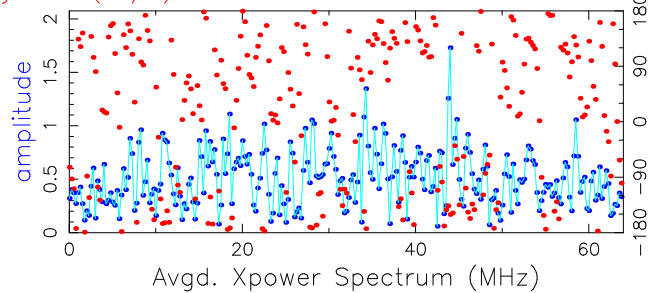
SNR 5.6
Int time 99.755
Amp 0.209
Phase -11.1
PFD 6.4e-01
Delays (us)
SBD 0.169270
MBD -0.004526
Fringe rate (Hz)
-0.153110
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c241a
Exper # 1234
Yr:day 2024:109
Start 170449.97
Stop 170629.81
FRT 170540.00
Corr/FF/build
2025:007:183750
2025:041:113130
2024:113:095956
RA & Dec (J2000)
01h36m58.594803s
+47°51'29.10073"

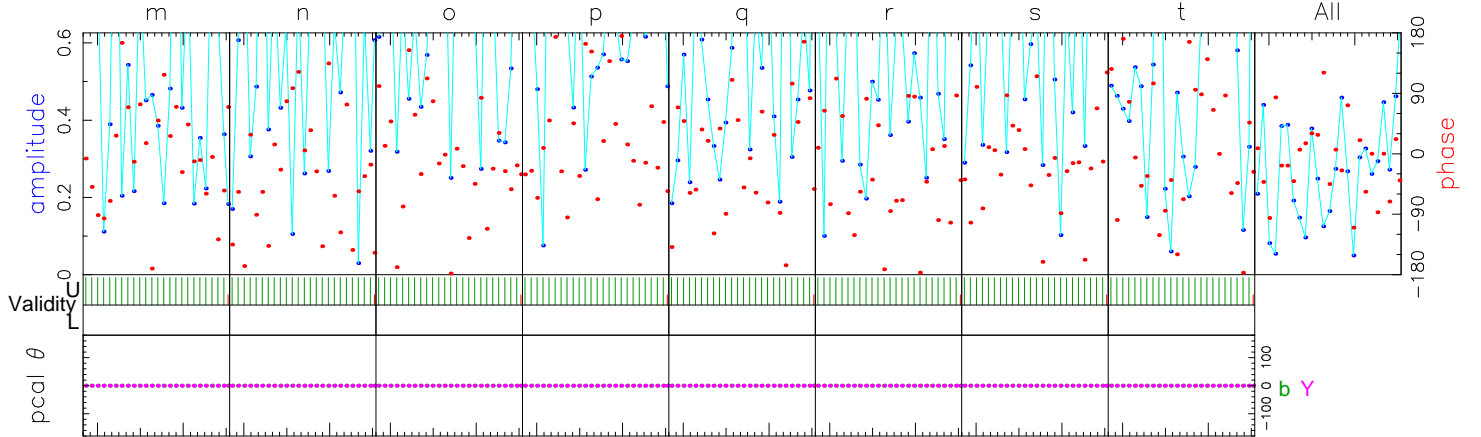
delay rate (ns/s)



singleband delay (μ s)



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



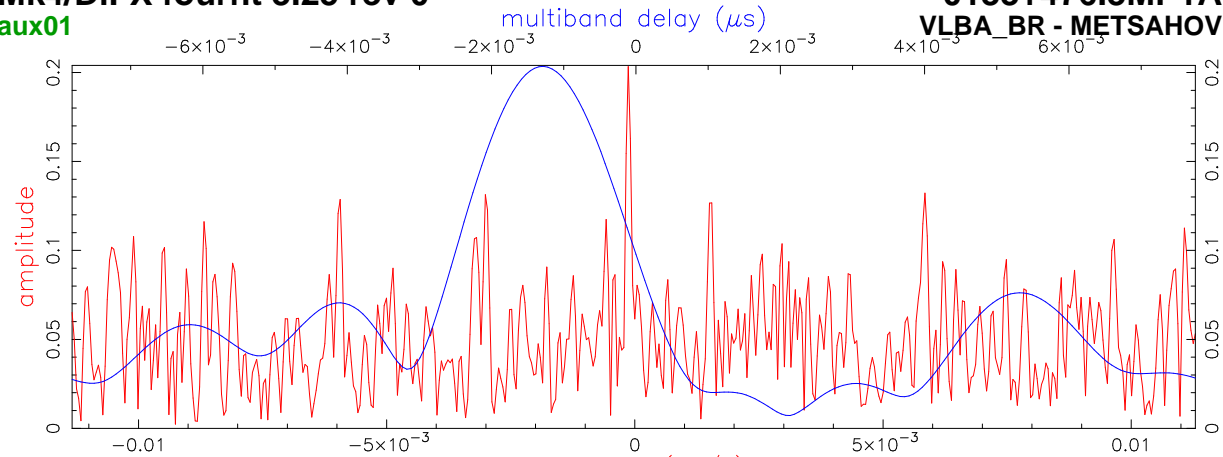
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	6.5	-63.2	-8.6	-1.9	-6.0	-58.1	3.5	-18.0		Phase -11.1		
	0.3	0.1	0.3	0.3	0.1	0.2	0.4	0.1		Ampl. 0.2		
	485.8	199.2	109.5	417.8	329.0	184.5	300.0	477.2		Sbd box 300.3		
U/L	195/0	195/0	195/0	195/0	195/0	195/0	195/0	195/0		APs used		
b	0	0	0	0	0	0	0	0		PC freqs		
Y	0	0	0	0	0	0	0	0		PC freqs		
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase		
b:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC		
b	1000	1000	1000	1000	1000	1000	1000	1000		PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000				
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks		
										Tracks		
Group delay (usec) (SBD)	6.22756051703E+03		Apriori delay (usec)		6.22739316776E+03		Resid mbdelay (usec)		-4.52574E-03	+/- 1.9E-04		
Sband delay (usec)	6.22756243726E+03		Apriori clock (usec)		1.1518594E+02		Resid sbdelay (usec)		1.69270E-01	+/- 1.5E-03		
Phase delay (usec)	6.22739316740E+03		Apriori clockrate (us/s)		1.7901099E-02		Resid phdelay (usec)		-3.57397E-07	+/- 6.5E-07		
Delay rate (us/s)	1.21887331229E+00		Apriori rate (us/s)		1.21887508975E+00		Resid rate (us/s)		-1.77745E-06	+/- 1.1E-08		
Total phase (deg)	158.4		Apriori accel (us/s/s)		-2.45459015615E-05		Resid phase (deg)		-11.1	+/- 20.3		
	RMS	Theor.	Amplitude	0.209 +/- 0.037		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	54.5	50.8	Search (512X32)	0.201		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	72.1	88.6	Interp.	0.000		SampCntNorm: enabled		mb window (us)	-0.008	0.008		
ph/frq (deg)	30.6	28.7	Inc. seg. avg.	0.195		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	53.1	50.1	Inc. frq. avg.	0.200		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	Y: az 305.2 el 37.5 pa 68.1		u, v (fr/asec) -10446.864 -1533.603						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c241a/v2/3mm/1234/No0916/bY..3MP1AB		Output file: /Exps/c241a/v2/3mm/1234/No0916/bY.W.272.3MP1AB									

Mk4/DiFX fourfit 3.25 rev 0

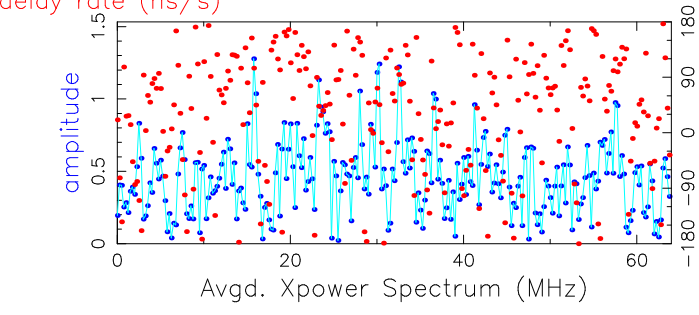
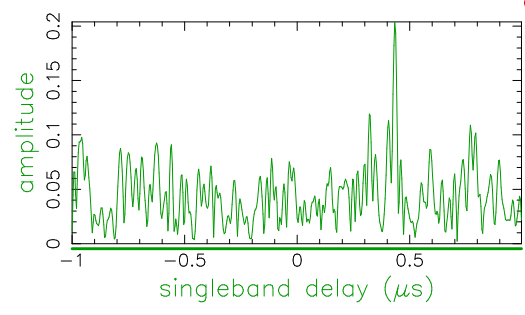
aux01

0133+476.3MP1AB, No0916, bZ

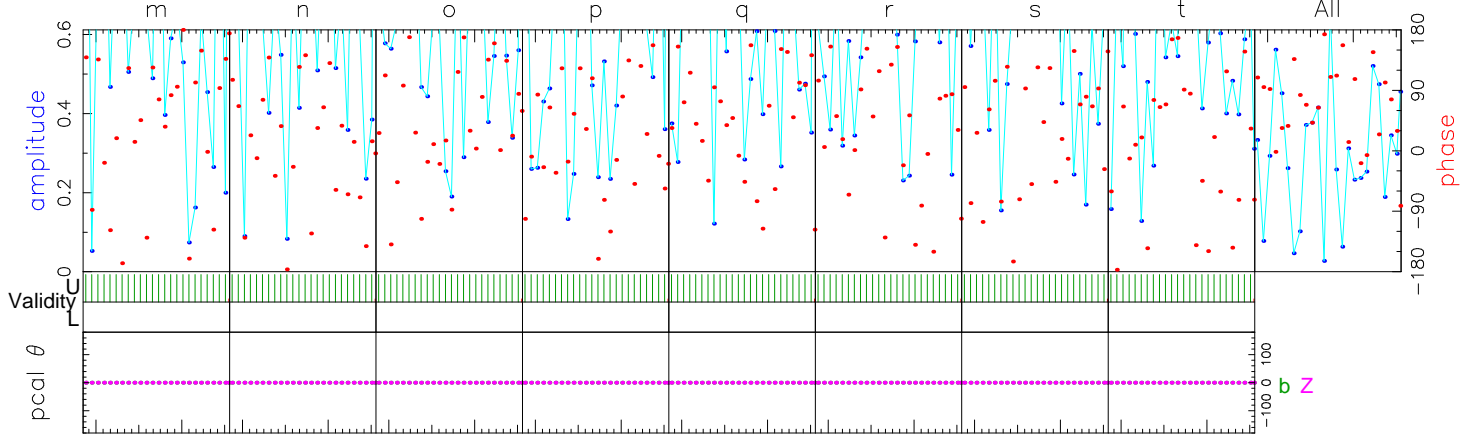
VLBA_BR - METSAHOV, fgroup W, pol LL



Fringe quality 0
 SNR 5.5
 Int time 98.730
 Amp 0.204
 Phase 63.2
 PFD 8.3e-01
 Delays (us)
 SBD 0.434348
 MBD -0.001274
 Fringe rate (Hz)
 -0.011929
 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
 2025:041:113146
 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		
b	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0		
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	6.94810588624E+03	Apriori delay (usec)	6.94766966059E+03	Resid mbdelay (usec)	-1.27435E-03	+/-	2.0E-04
Sband delay (usec)	6.94810400859E+03	Apriori clock (usec)	4.5227470E+00	Resid sbdelay (usec)	4.34348E-01	+/-	1.6E-03
Phase delay (usec)	6.94766966263E+03	Apriori clockrate (us/s)	-3.3419014E-08	Resid phdelay (usec)	2.03920E-06	+/-	6.7E-07
Delay rate (us/s)	9.54470091032E-01	Apriori rate (us/s)	9.54470229515E-01	Resid rate (us/s)	-1.38483E-07	+/-	1.2E-08
Total phase (deg)	266.0	Apriori accel (us/s/s)	-4.72749247155E-05	Resid phase (deg)	63.2	+/-	20.7

ph/seg (deg)	54.2	Theor.	Amplitude	0.204 +/- 0.037	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	93.2	51.7	Search (512X32)	0.200	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	24.1	29.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	28.6	51.0	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
			Inc. frq. avg.	0.194	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 74.8 el 62.9 pa -74.1 Z: az 307.5 el 34.7 pa 36.0 u, v (fr/asec) -8199.780 -4819.836 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bZ.W.312.3MP1AB

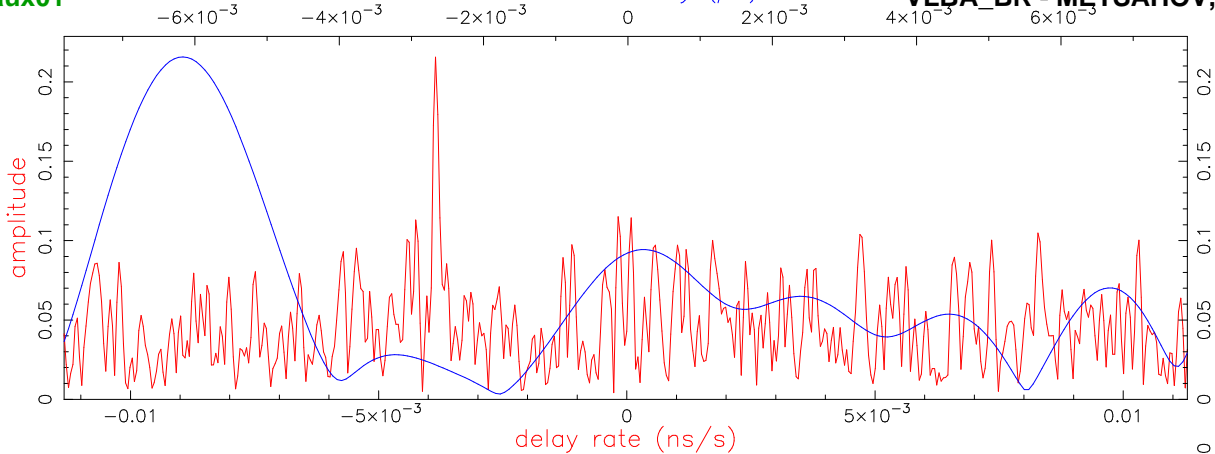
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bZ

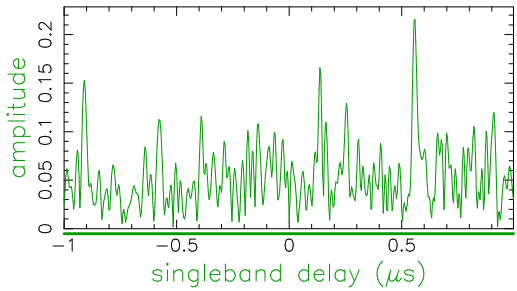
VLBA_BR - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

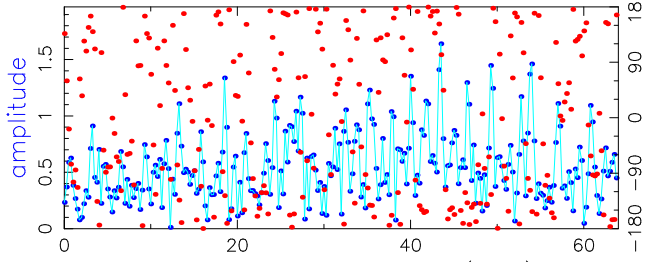


Fringe quality 0

SNR 5.9
 Int time 98.730
 Amp 0.229
 Phase -170.6
 PFD 1.9e-01
 Delays (us)
 SBD 0.556966
 MBD -0.006219
 Fringe rate (Hz)
 -0.333682
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

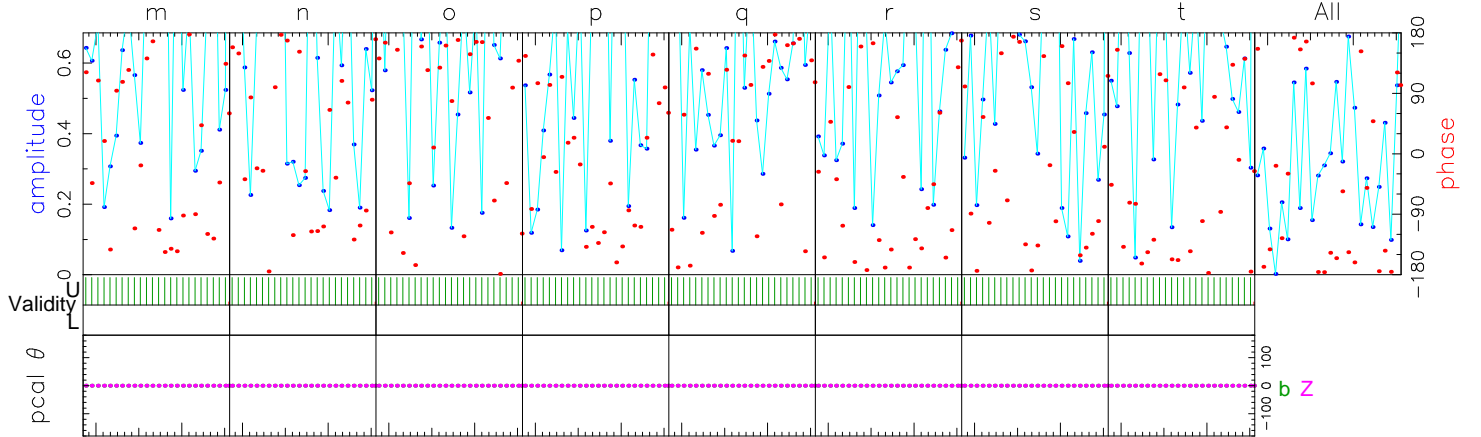


delay rate (ns/s)



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113147
 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
	-161.2	-172.2	166.8	-136.5	170.8	-157.9	-134.0	174.2	Phase	-170.6
	0.3	0.1	0.4	0.1	0.3	0.2	0.2	0.2	Ampl.	0.2
	24.0	482.0	399.0	298.1	491.7	117.0	14.2	20.5	Sbd box	399.6
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	6.94822594204E+03	Apriori delay (usec)	6.94766966059E+03	Resid mbdelay (usec)	-6.21855E-03	+/-	1.8E-04
Sband delay (usec)	6.94822662709E+03	Apriori clock (usec)	4.5227470E+00	Resid sbdelay (usec)	5.56966E-01	+/-	1.5E-03
Phase delay (usec)	6.94766965509E+03	Apriori clockrate (us/s)	-3.3419014E-08	Resid phdelay (usec)	-5.50137E-06	+/-	6.2E-07
Delay rate (us/s)	9.54466355797E-01	Apriori rate (us/s)	9.54470229515E-01	Resid rate (us/s)	-3.87372E-06	+/-	1.1E-08
Total phase (deg)		Apriori accel (us/s/s)	-4.72749247155E-05	Resid phase (deg)	-170.6	+/-	19.4

	RMS	Theor.	Amplitude	0.229 +/- 0.039	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	68.4	48.4	Search (512X32)	0.204	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	92.6	84.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	25.3	27.4	Inc. seg. avg.	0.239	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
amp/frq (%)	36.5	47.8	Inc. frq. avg.	0.218	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 74.8 el 62.9 pa -74.1 Z: az 307.5 el 34.7 pa 36.0 u, v (fr/asec) -8199.780 -4819.836 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bZ.W.314.3MP1AB

Mk4/DiFX fourfit 3.25 rev 0

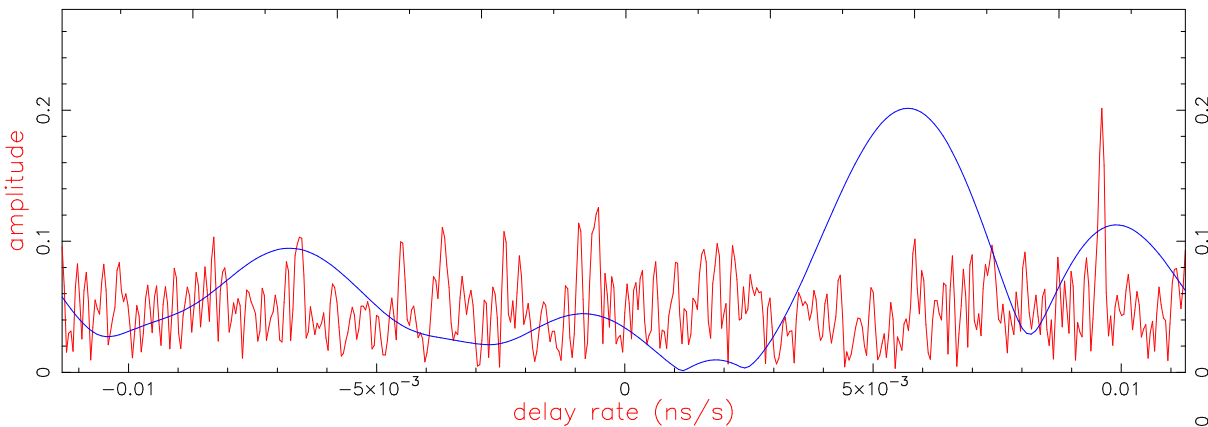
aux01

0133+476.3MP1AB, No0916, bZ

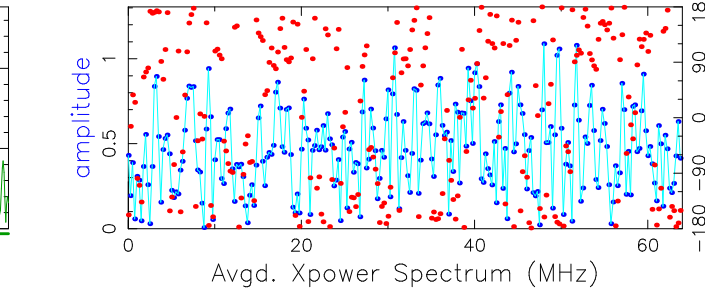
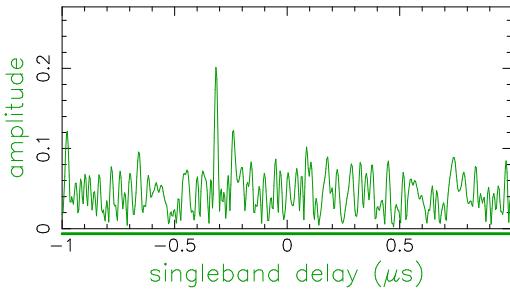
VLBA_BR - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 0

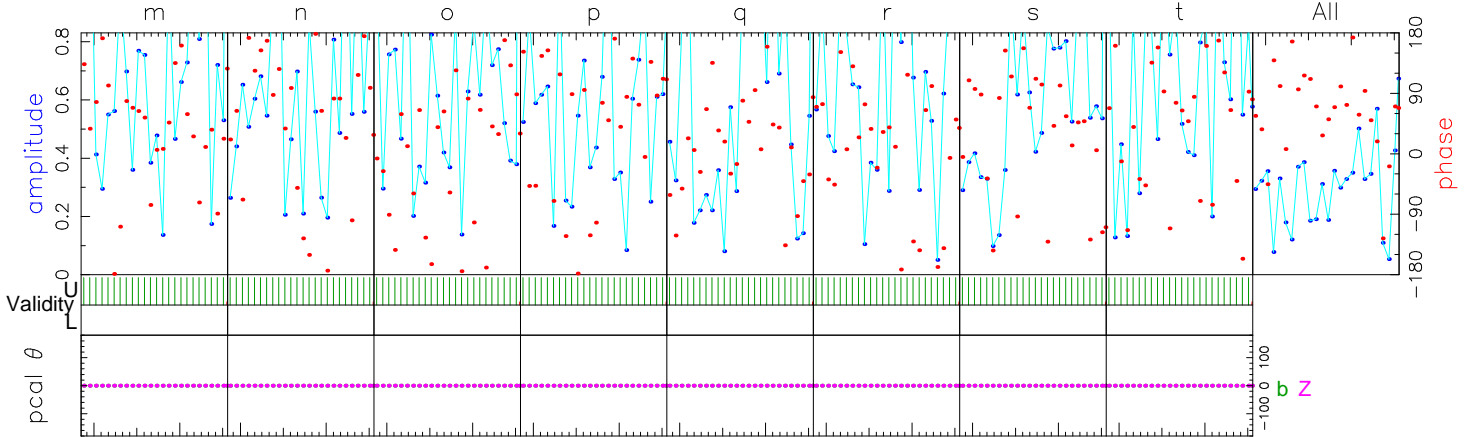


SNR 5.5
 Int time 98.730
 Amp 0.277
 Phase 68.5
 PFD 9.1e-01
 Delays (us)
 SBD -0.315793
 MBD 0.003936
 Fringe rate (Hz)
 0.828454
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113148
 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
	50.1	114.8	48.4	97.6	23.3	56.8	80.8	82.2	Phase	68.5
	0.4	0.4	0.2	0.3	0.4	0.4	0.3	0.2	Ampl.	0.3
	505.1	140.5	458.8	107.9	510.5	6.3	119.8	285.1	Sbd box	176.2
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) 6.94736109690E+03 Apriori delay (usec) 6.94766966059E+03 Resid mbdelay (usec) 3.93631E-03 +/- 2.0E-04
 Sband delay (usec) 6.94735386809E+03 Apriori clock (usec) 4.5227470E-08 Resid sbdelay (usec) -3.15793E-01 +/- 1.6E-03
 Phase delay (usec) 6.94766966280E+03 Apriori clockrate (us/s) -3.3419014E-08 Resid phdelay (usec) 2.20833E-06 +/- 6.7E-07
 Delay rate (us/s) 9.54479847043E-01 Apriori rate (us/s) 9.54470229515E-01 Resid rate (us/s) 9.61753E-06 +/- 1.2E-08
 Total phase (deg) 271.2 Apriori accel (us/s/s) -4.72749247155E-05 Resid phase (deg) 68.5 +/- 20.9

RMS Theor. Amplitude 0.277 +/- 0.050 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 61.4 52.2 Search (512X32) 0.198 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 78.1 91.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 32.3 29.5 Inc. seg. avg. 0.284 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.2 51.6 Inc. frq. avg. 0.279 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 Z: az 307.5 el 34.7 pa 36.0 u,v (fr/asec) -8199.780 -4819.836 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bZ.W.315.3MP1AB

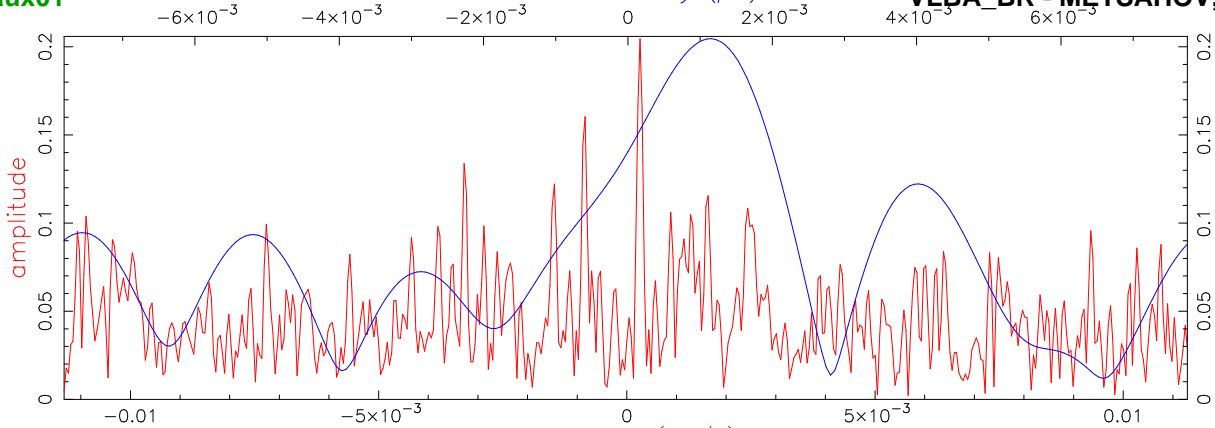
Mk4/DiFX fourfit 3.25 rev 0

aux01

0133+476.3MP1AB, No0916, bZ

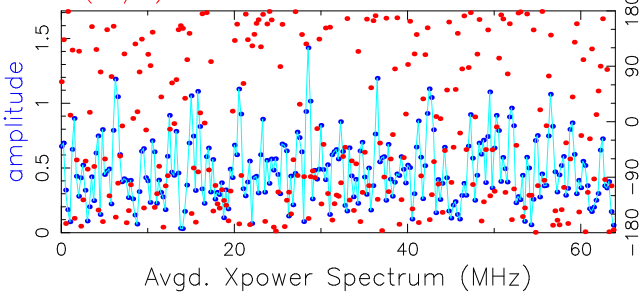
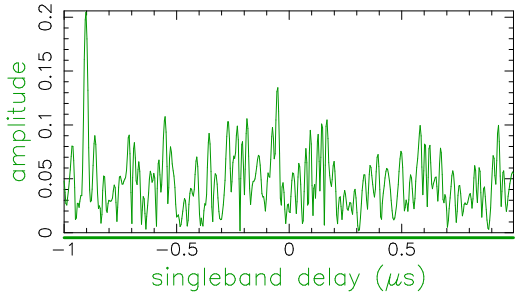
VLBA_BR - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

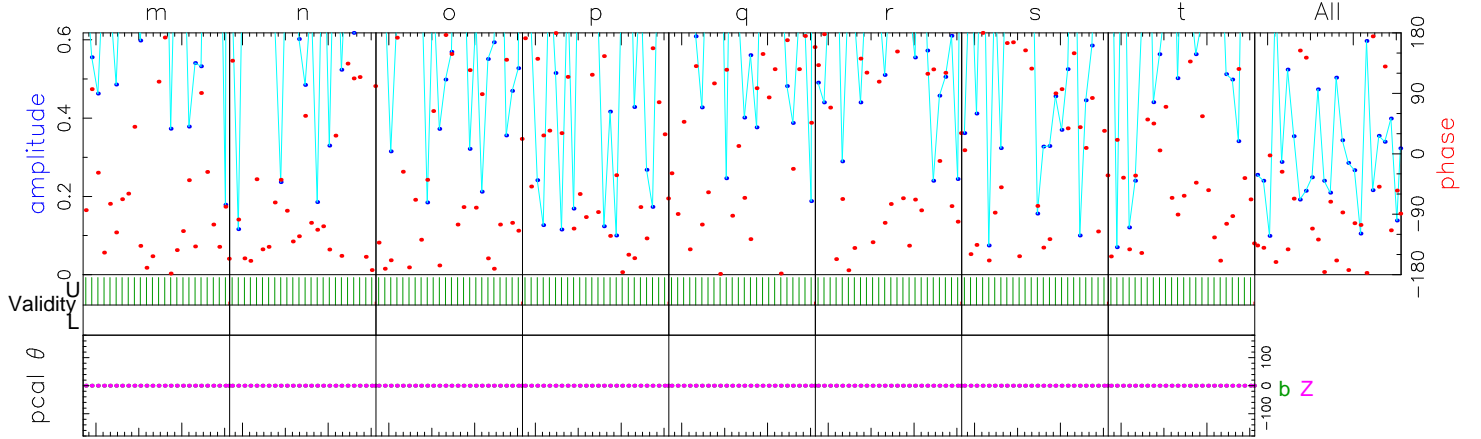


Fringe quality 0
 SNR 5.6
 Int time 98.730
 Amp 0.206
 Phase -136.3
 PFD 7.4e-01
 Delays (us)
 SBD -0.903456
 MBD 0.001113
 Fringe rate (Hz)
 0.023706
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c241a
 Exper # 1234
 Yr:day 2024:109
 Start 170450.99
 Stop 170629.81
 FRT 170540.00
 Corr/FF/build
 2025:007:183750
 2025:041:113149
 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
	-120.0	-146.1	-129.4	-132.6	165.4	-146.2	172.0	-61.7	Phase	-136.3
	0.4	0.3	0.3	0.1	0.2	0.2	0.2	0.3	Ampl.	0.2
	79.4	355.0	114.2	443.2	232.3	112.4	407.5	400.0	Sbd box	25.7
U/L	193/0	193/0	193/0	193/0	193/0	193/0	193/0	193/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
b:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	6.94676452332E+03	Apriori delay (usec)	6.94766966059E+03	Resid mbdelay (usec)	1.11274E-03	+/-	1.9E-04
Sband delay (usec)	6.94676620459E+03	Apriori clock (usec)	4.5227470E+00	Resid sbdelay (usec)	-9.03456E-01	+/-	1.5E-03
Phase delay (usec)	6.94766965619E+03	Apriori clockrate (us/s)	-3.3419014E-08	Resid phdelay (usec)	-4.39442E-06	+/-	6.6E-07
Delay rate (us/s)	9.54470504716E-01	Apriori rate (us/s)	9.54470229515E-01	Resid rate (us/s)	2.75201E-07	+/-	1.2E-08
Total phase (deg)	66.4	Apriori accel (us/s/s)	-4.72749247155E-05	Resid phase (deg)	-136.3	+/-	20.5

ph/seg (deg)	60.2	Theor.	51.2	Amplitude	0.206 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	91.1	Search (512X32)	0.201	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	45.0	Interp.	0.000	Inc. seg. avg.	0.227	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.3	Inc. frq. avg.	0.225	Inc. frq. avg.	0.225	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 Z: az 307.5 el 34.7 pa 36.0 u, v (fr/asec) -8199.780 -4819.836 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241a/v2/3mm/1234/No0916/bZ..3MP1AB Output file: /Exps/c241a/v2/3mm/1234/No0916/bZ.W.319.3MP1AB