

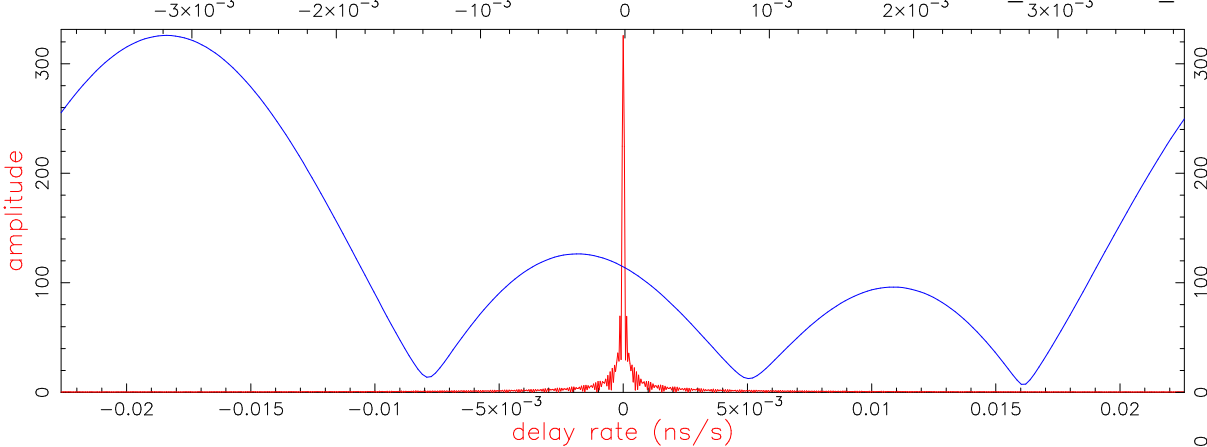
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bb

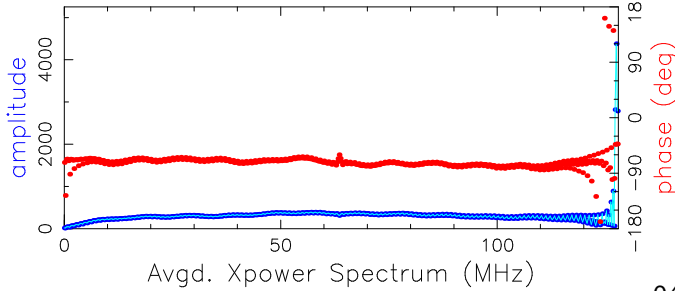
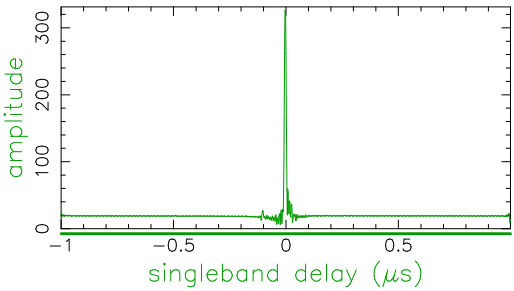
VLBA_BR - VLBA_BR, fgroup Q, pol LR

multiband delay (μ s)



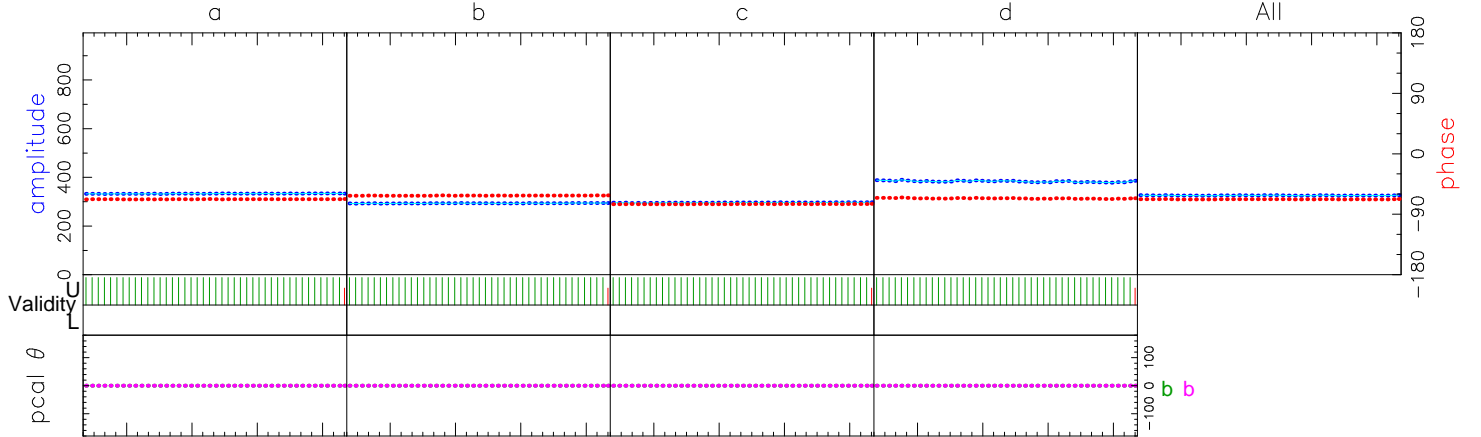
Fringe quality 9

SNR 14036.1
 Int time 239.985
 Amp 331.328
 Phase -67.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003061
 MBD -0.003163
 Fringe rate (Hz)
 -0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102421
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-67.6	-62.2	-74.9	-66.4	Phase	-67.7
	333.1	293.8	296.4	383.6	Ampl.	326.7
	511.9	511.3	510.8	511.6	Sbd box	511.4
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
b	1000	1000	1000	1000	PC freqs	
b:b	0:0	0:0	0:0	0:0	PC phase	
b:b	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
b	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.16293750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.16294E-03	+/-	7.9E-08
Sband delay (usec)	-3.06100000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.06100E-03	+/-	3.1E-07
Phase delay (usec)	-4.35762515390E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-4.35763E-06	+/-	5.3E-10
Delay rate (us/s)	-5.94222633459E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.94223E-11	+/-	3.8E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-67.7	+/-	0.0

ph/seg (deg)	0.2	0.0	Search (1024X16)	317.651	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	1.7	0.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	6.4	0.0	Inc. seg. avg.	325.792	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/frq (%)	11.1	0.0	Inc. frq. avg.	326.729	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	nlags: 512 t_cohere infinite	dr window (ns/s)	-0.023	0.023
b: az 150.6 el 43.7 pa -19.0		b: az 150.6 el 43.7 pa -19.0		u,v (fr/asec) 0.000	0.000		ion window (TEC)	0.00	0.00

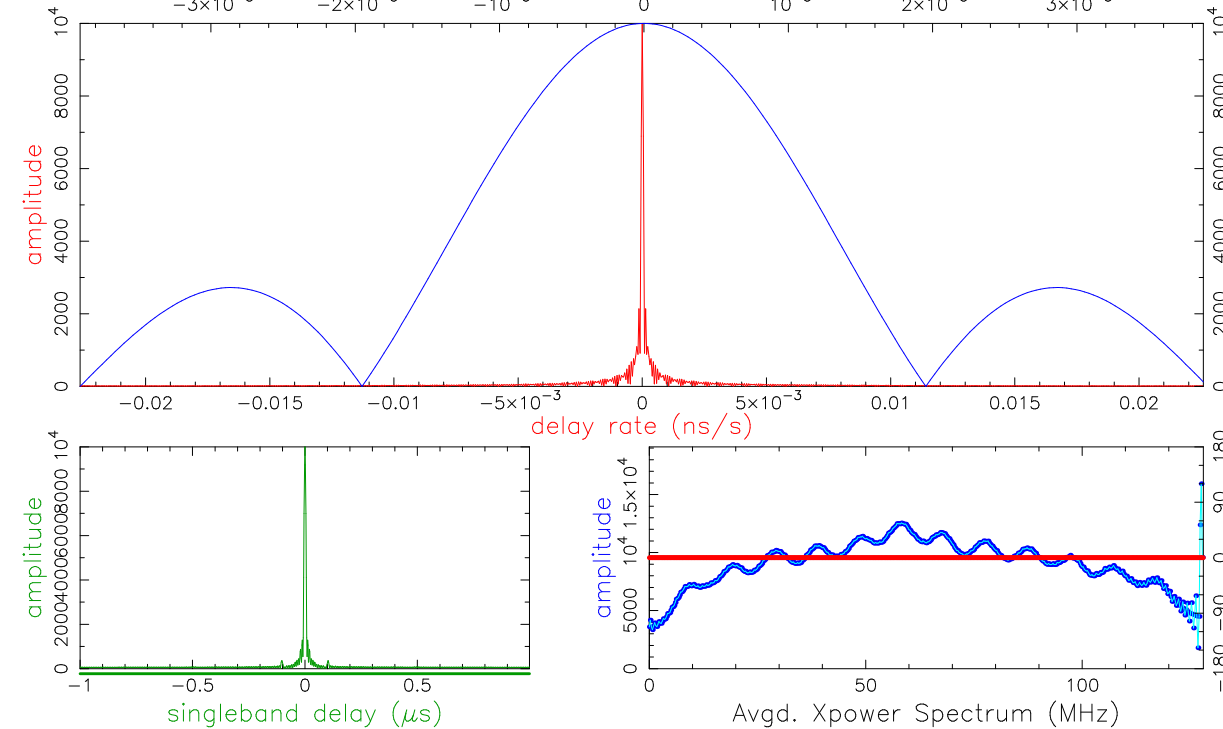
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bb..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bb.Q.13.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bb

VLBA_BR - VLBA_BR, fgroup Q, pol LL

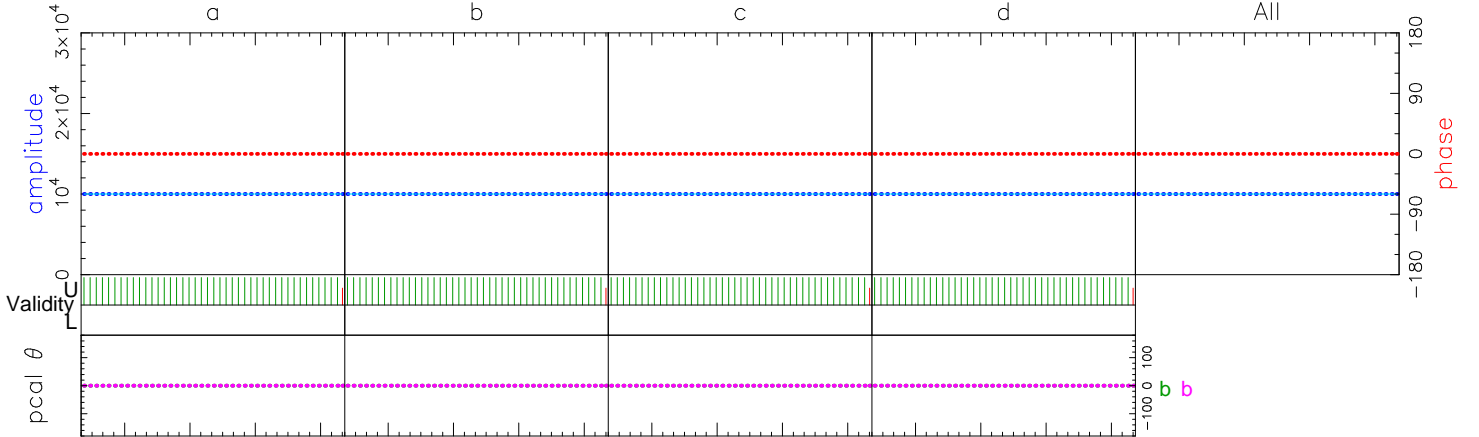


Fringe quality 9

SNR 423633.1
 Int time 239.985
 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) 43140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102417
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	APs used	10000.0
b	1000	1000	1000	1000	PC freqs	513.0
b:b	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	ManI PC	
b	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
b	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	2.6E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.0E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	1.7E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.3E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X16) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us dr window (ns/s) -0.023 0.023
 az 150.6 el 43.7 pa -19.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bb..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bb.Q.1.3N2DRC

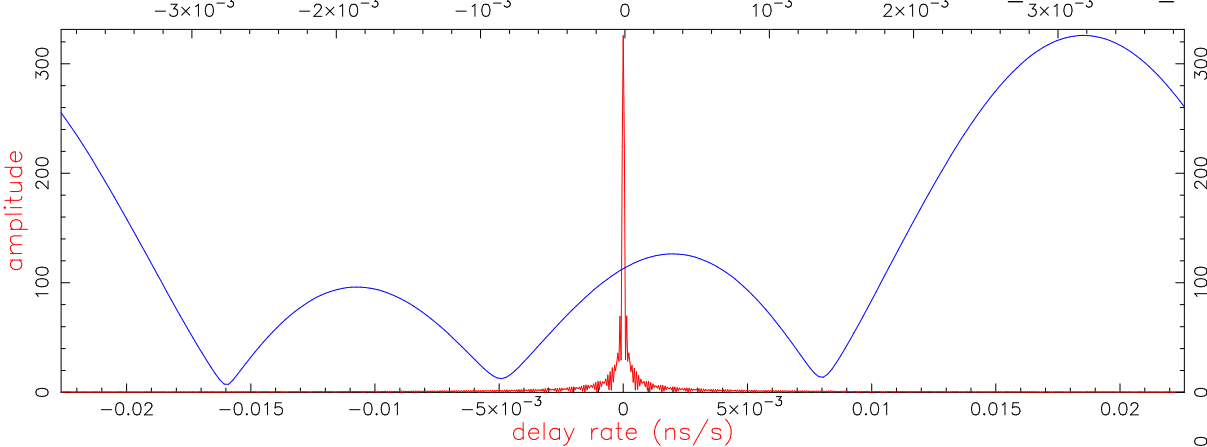
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bb

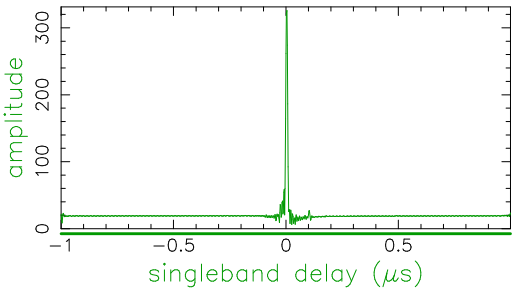
VLBA_BR - VLBA_BR, fgroup Q, pol RL

multiband delay (μ s)

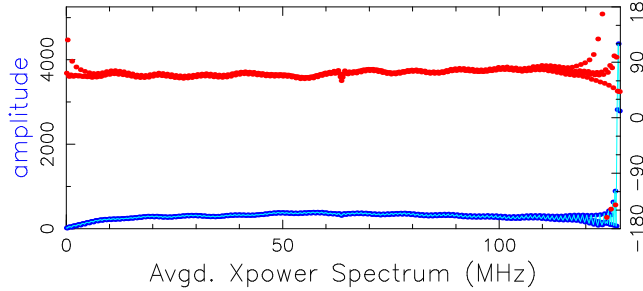


Fringe quality 9

SNR 14036.1
 Int time 239.985
 Amp 331.328
 Phase 67.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.003061
 MBD 0.003163
 Fringe rate (Hz)
 0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



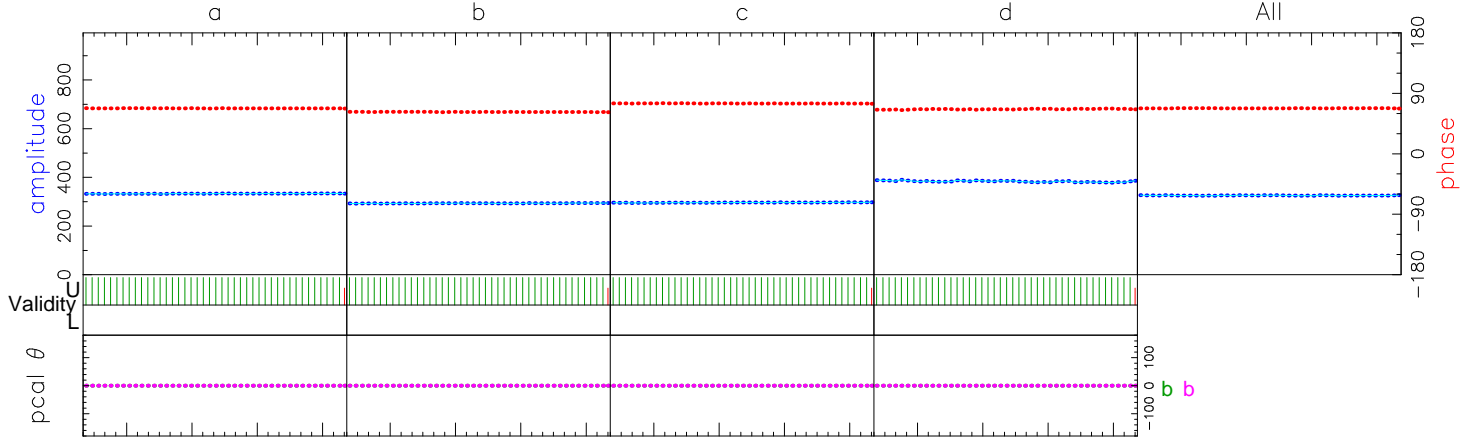
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102422
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	a	b	c	d	All
Validity	[Validity bars]				
pcal θ	[pcal θ values]				
	42912.00	43040.00	43168.00	43296.00	Freq (MHz)
	67.6	62.2	74.9	66.4	Phase
	333.1	293.8	296.4	383.6	Ampl.
	514.1	514.7	515.2	514.4	Sbd box
U/L	469/0	469/0	469/0	469/0	APs used
b	1000	1000	1000	1000	PC freqs
b	1000	1000	1000	1000	PC freqs
b:b	0:0	0:0	0:0	0:0	PC phase
b:b	0:0	0:0	0:0	0:0	Manl PC
b	1000	1000	1000	1000	PC amp
b	1000	1000	1000	1000	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids
b	Q00UL	Q01UL	Q02UL	Q03UL	Tracks
					Chan ids
					Tracks

Group delay (usec) (SBD)	3.16293750000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.16294E-03	+/-	7.9E-08
Sband delay (usec)	3.06100000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.06100E-03	+/-	3.1E-07
Phase delay (usec)	4.35762515365E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.35763E-06	+/-	5.3E-10
Delay rate (us/s)	5.94222633459E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.94223E-11	+/-	3.8E-12
Total phase (deg)	67.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	67.7	+/-	0.0

ph/seg (deg)	0.2	Theor.	Amplitude	331.328 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.7	0.0	Search (1024X16)	317.651	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	6.4	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	11.1	0.0	Inc. seg. avg.	325.792	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	326.729	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00
b: az 150.6 el 43.7 pa -19.0			b: az 150.6 el 43.7 pa -19.0				u,v (fr/asec)	0.000 0.000
								simultaneous interpolator

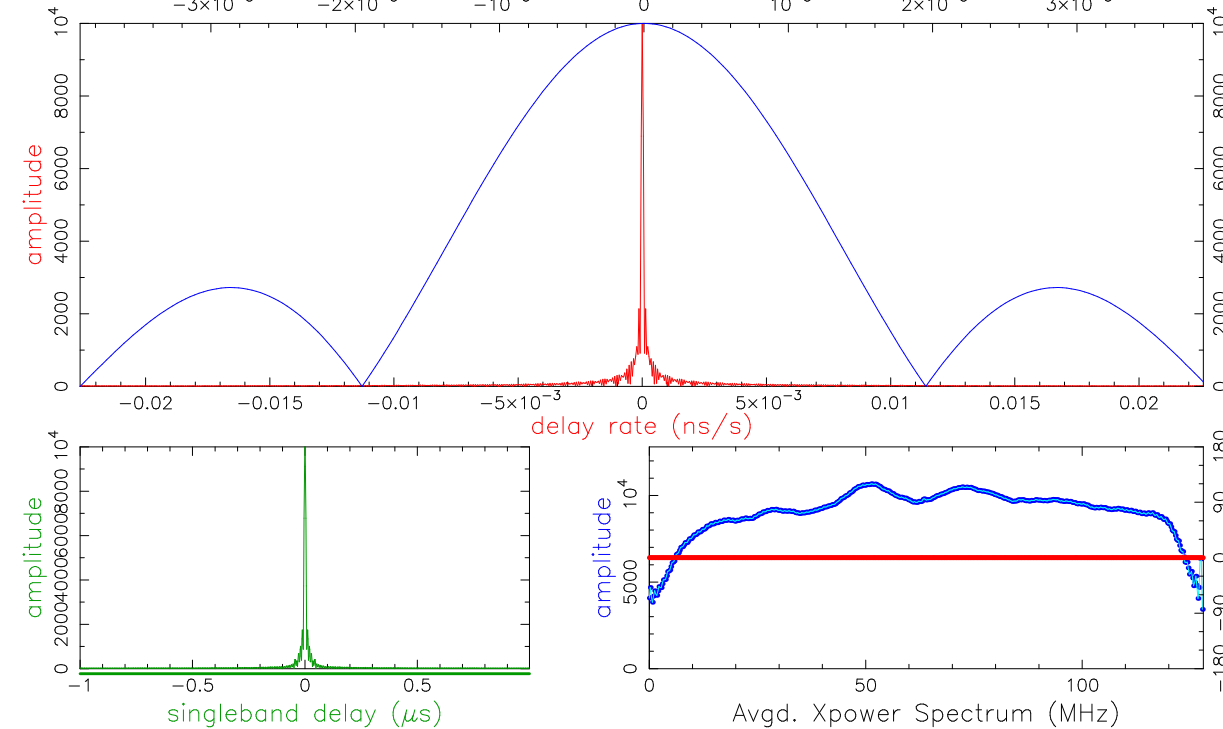
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bb..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bb.Q.22.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bb

VLBA_BR - VLBA_BR, fgroup Q, pol RR

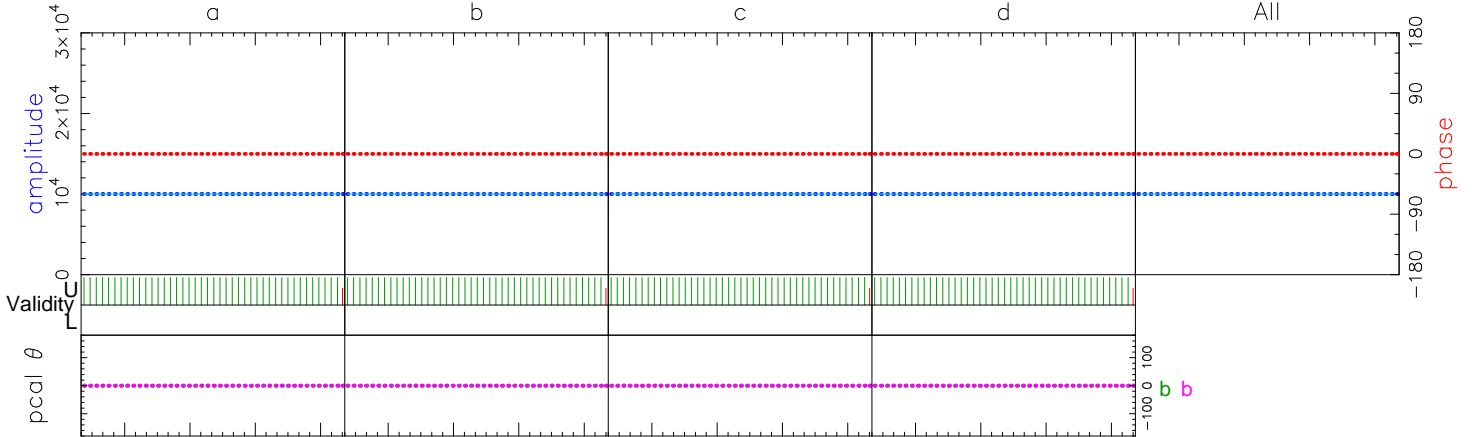


Fringe quality 9

SNR 423633.1
 Int time 239.985
 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)
 43140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102419
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
b:b	0:0	0:0	0:0	0:0	PC freqs	
b:b	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
b	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
b	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec) (SBD)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 2.6E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid sbdelay (usec)	0.00000E+00 +/- 1.0E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid phdelay (usec)	0.00000E+00 +/- 1.7E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	Resid rate (us/s)	0.00000E+00 +/- 1.3E-13
Total phase (deg)		0.0			Resid phase (deg)	0.0 +/- 0.0
	RMS	Theor.	Amplitude	10000.000 +/- 0.024	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.0	0.0	Search (1024X16)	10000.001	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	0.0	0.0	Inc. frq. avg.	10000.001	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 150.6 el 43.7 pa -19.0		b: az 150.6 el 43.7 pa -19.0		u,v (fr/asec) 0.000 0.000		simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/7mm/3001/No0552/bb..3N2DRC		Output file: /Exps/c241c/v2/7mm/3001/No0552/bb.Q.5.3N2DRC		

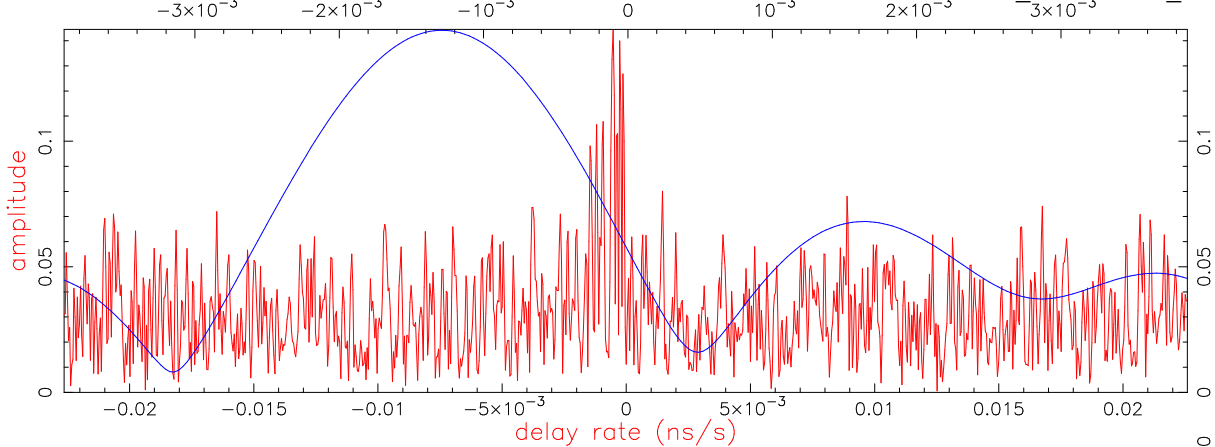
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bc

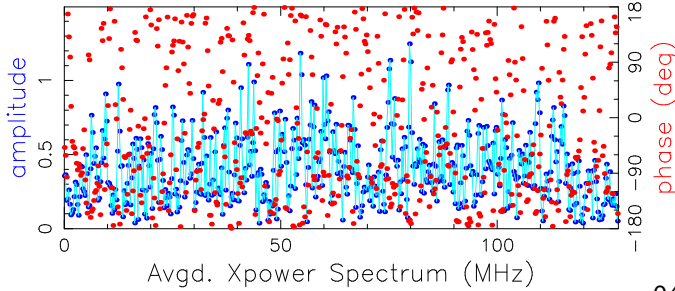
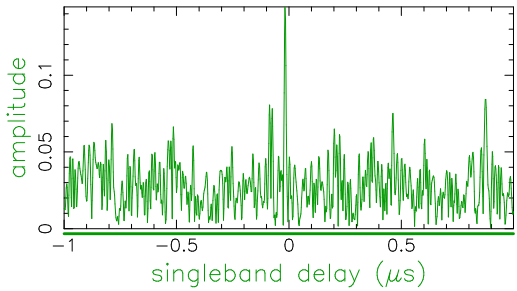
VLBA_BR - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



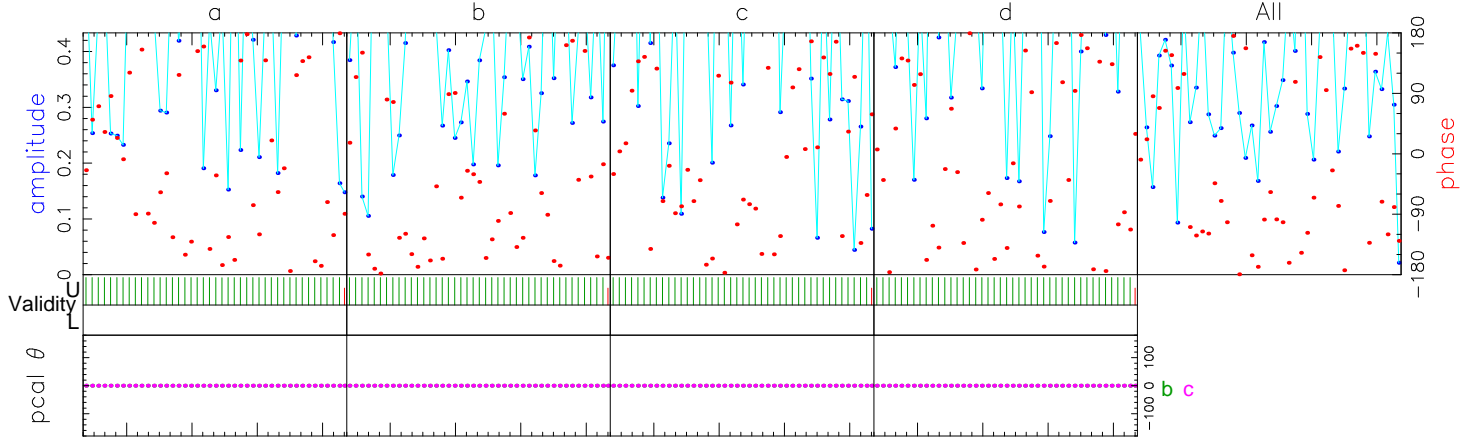
Fringe quality 0

SNR 6.1
 Int time 239.950
 Amp 0.145
 Phase -356.2
 PFD 1.2e-01
 Delays (us)
 SBD -0.017252
 MBD -0.001268
 Fringe rate (Hz)
 -0.022660
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102422
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-157.5	-145.7	-163.0	-155.6	Phase	-153.7
	0.1	0.2	0.1	0.2	Ampl.	0.1
	821.4	503.5	706.6	503.1	Sbd box	504.2
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
b:c	0:0	0:0	0:0	0:0	PC phase	
b:c	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-2.33072529005E+03	Apriori delay (usec)	-2.33070839733E+03	Resid mbdelay (usec)	-1.26772E-03	+/- 1.8E-04
Sband delay (usec)	-2.33072564958E+03	Apriori clock (usec)	9.6564865E-01	Resid sbdelay (usec)	-1.72522E-02	+/- 7.0E-04
Phase delay (usec)	-2.33070840723E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	-9.89968E-06	+/- 1.2E-06
Delay rate (us/s)	1.19914756106E+00	Apriori rate (us/s)	1.19914808632E+00	Resid rate (us/s)	-5.25259E-07	+/- 8.7E-09
Total phase (deg)	-90.1	Apriori accel (us/s/s)	1.70668529451E-05	Resid phase (deg)	-356.2	+/- 18.7

ph/seg (deg)	75.8	Theor.	61.4	Amplitude	0.145 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	177.7		107.1	Search (1024X16)	0.139	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	9.2		18.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.9		32.7	Inc. seg. avg.	0.228	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.138	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite			

b: az 150.6 el 43.7 pa -19.0 c: az 253.9 el 54.4 pa 66.9 u,v (fr/asec) -3449.072 2001.496 simultaneous interpolator

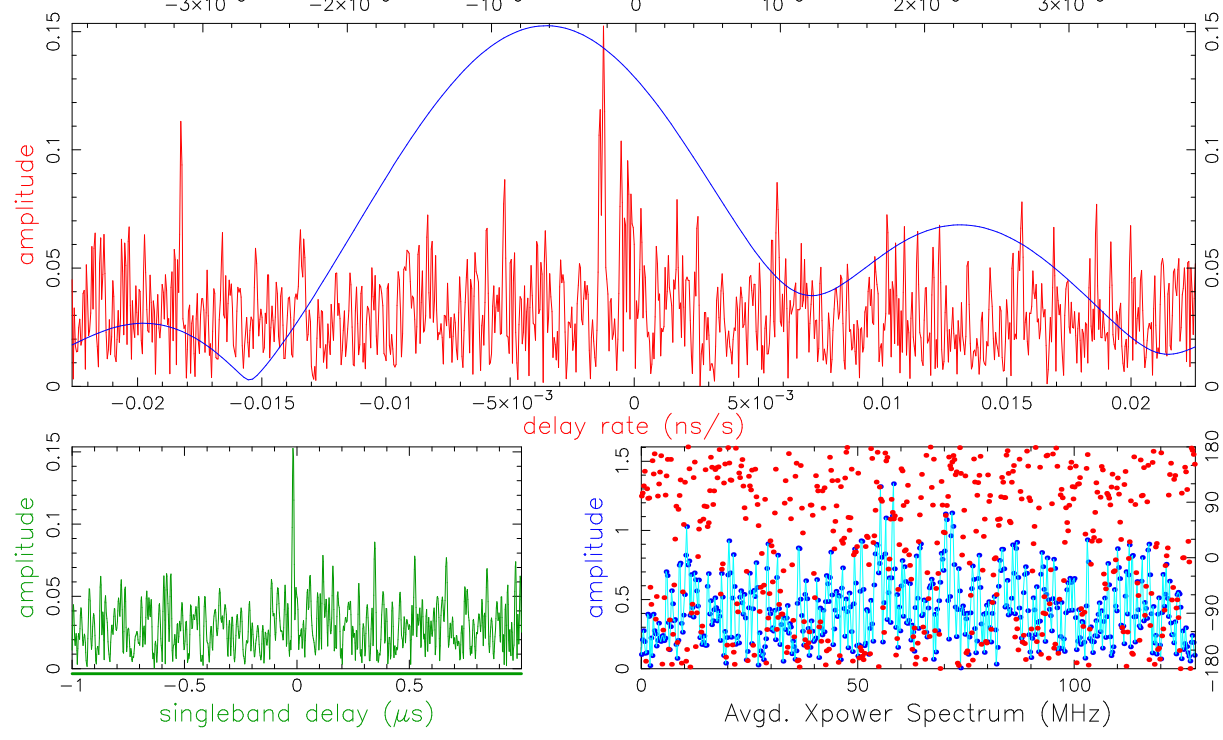
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bc..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bc.Q.19.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bc

VLBA_BR - VLBA_SC, fgroup Q, pol RR

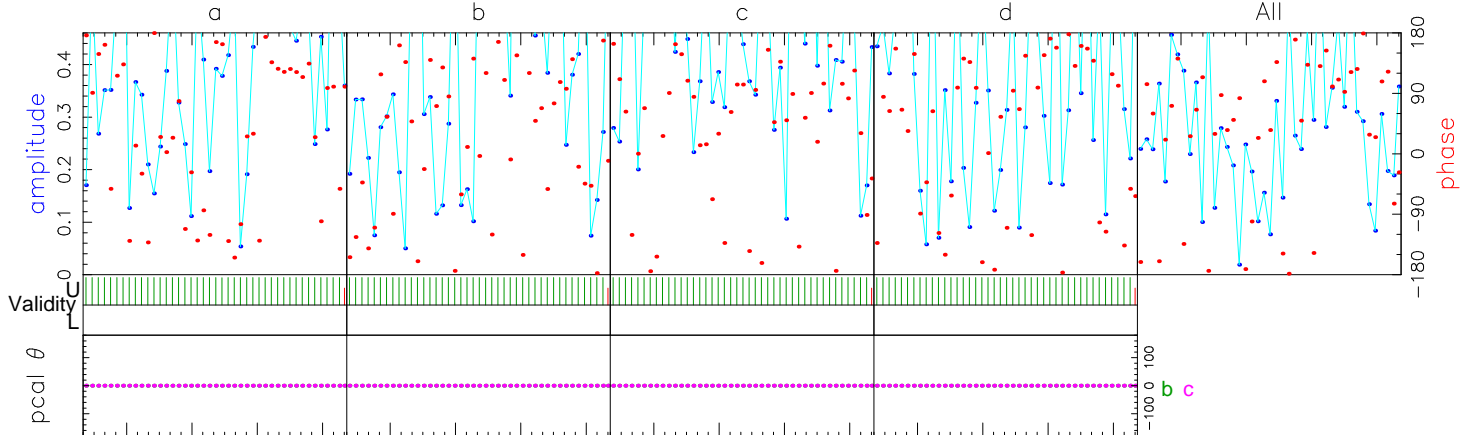


Fringe quality 0

SNR 6.5
 Int time 239.950
 Amp 0.153
 Phase -76.7
 PFD 1.2e-02
 Delays (us)
 SBD -0.017043
 MBD -0.000572
 Fringe rate (Hz)
 -0.053541
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102427
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
135.8	129.2	109.8	135.1	Phase	125.8
0.1	0.1	0.2	0.2	Ampl.	0.1
41.0	671.6	504.5	503.1	Sbd box	504.3
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
b:c 0:0	0:0	0:0	0:0	PC phase	
b:c 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	
Group delay (usec) (SBD)	-2.33072459404E+03	Apriori delay (usec)	-2.33070839733E+03	Resid mbdelay (usec)	-5.71707E-04 +/- 1.7E-04
Sband delay (usec)	-2.33072544021E+03	Apriori clock (usec)	9.6564865E-01	Resid sbdelay (usec)	-1.70429E-02 +/- 6.6E-04
Phase delay (usec)	-2.33070838923E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	8.09737E-06 +/- 1.1E-06
Delay rate (us/s)	1.19914684523E+00	Apriori rate (us/s)	1.19914808632E+00	Resid rate (us/s)	-1.24109E-06 +/- 8.2E-09
Total phase (deg)	-170.6	Apriori accel (us/s/s)	1.70668529451E-05	Resid phase (deg)	-76.7 +/- 17.6
RMS	Theor.	Amplitude	0.153 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
71.2	57.9	Search (1024X16)	0.150	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
129.6	101.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
15.1	17.6	Inc. seg. avg.	0.190	Data rate(MSamp/s): 256 MBps 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
25.6	30.8	Inc. frq. avg.	0.149	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
b: az 150.6 el 43.7 pa -19.0	c: az 253.9 el 54.4 pa 66.9	u, v (fr/asec) -3449.072 2001.496			simultaneous interpolator
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/7mm/3001/No0552/bc..3N2DRC	Output file: /Exps/c241c/v2/7mm/3001/No0552/bc.Q.34.3N2DRC			

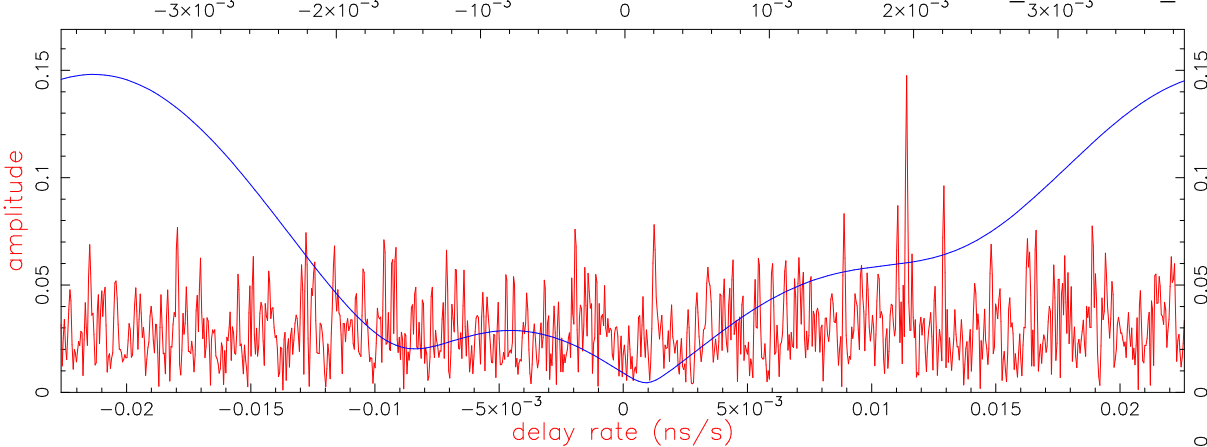
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bc

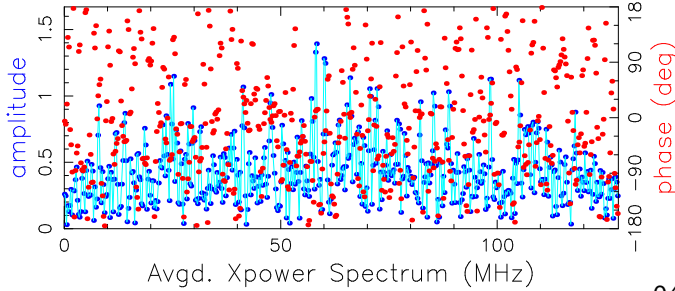
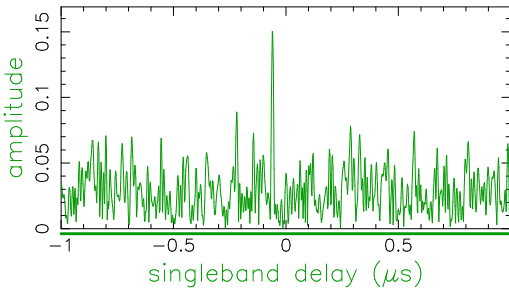
VLBA_BR - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



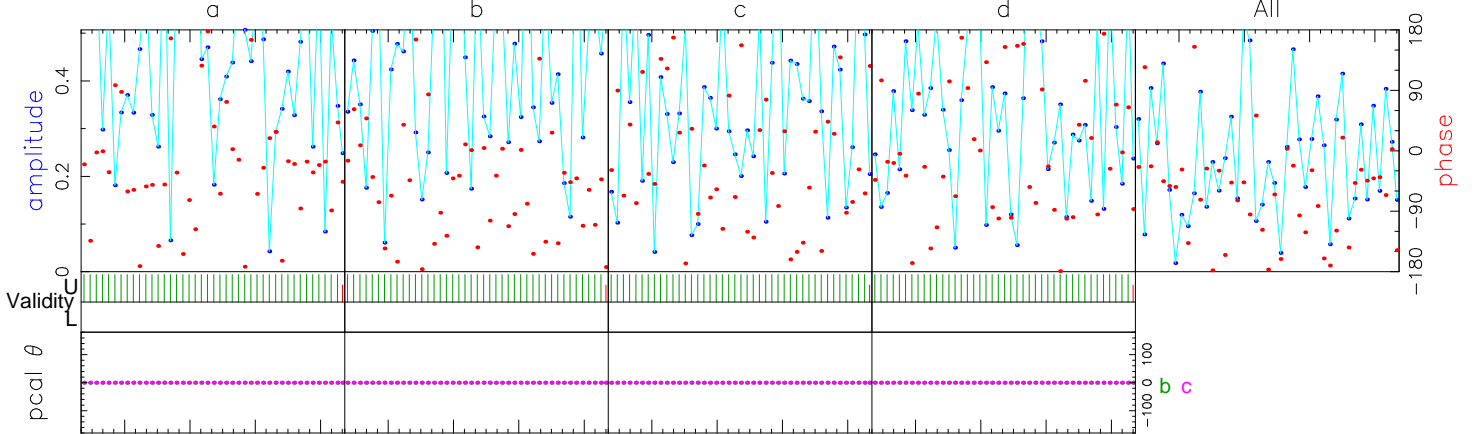
Fringe quality 0

SNR 6.4
 Int time 239.950
 Amp 0.169
 Phase -146.8
 PFD 1.8e-02
 Delays (us)
 SBD -0.059811
 MBD 0.004020
 Fringe rate (Hz)
 0.494882
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102429
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
c	1000	1000	1000	1000		
b:c	0:0	0:0	0:0	0:0		
b:c	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
c	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec) (SBD)	-2.33076687689E+03	Apriori delay (usec)	-2.33070839733E+03	Resid mbdelay (usec)	4.02044E-03	+/- 1.7E-04
Sband delay (usec)	-2.33076820821E+03	Apriori clock (usec)	9.6564865E-01	Resid sbdelay (usec)	-5.98109E-02	+/- 6.7E-04
Phase delay (usec)	-2.33070840099E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	-3.65841E-06	+/- 1.1E-06
Delay rate (us/s)	1.19915955785E+00	Apriori rate (us/s)	1.19914808632E+00	Resid rate (us/s)	1.14715E-05	+/- 8.3E-09
Total phase (deg)	-240.7	Apriori accel (us/s/s)	1.70668529451E-05	Resid phase (deg)	-146.8	+/- 17.8

ph/seg (deg)	68.6	Theor.	58.5	Amplitude	0.169 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	102.0	Search (1024X16)	0.136	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	21.4	Inc. seg. avg.	0.177	Inc. frq. avg.	0.160	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	42.0	Inc. frq. avg.	0.160			Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
							ion window (TEC) 0.00 0.00

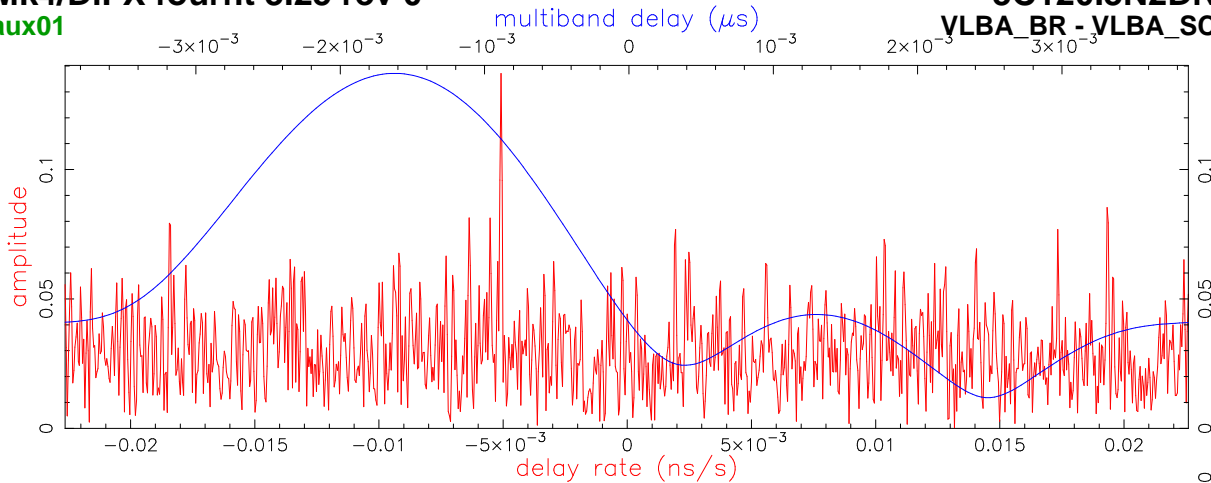
b: az 150.6 el 43.7 pa -19.0 c: az 253.9 el 54.4 pa 66.9 u,v (fr/asec) -3449.072 2001.496 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bc..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bc.Q.50.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

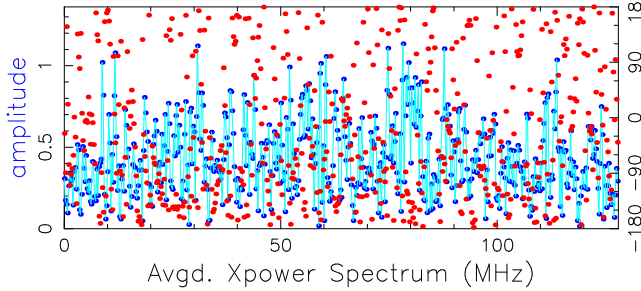
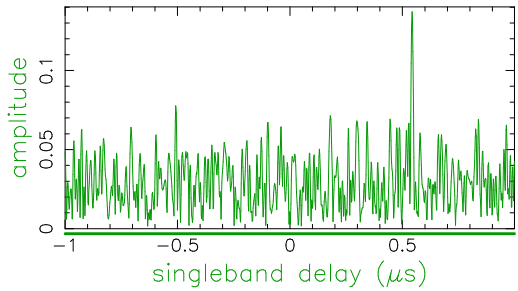
3C120.3N2DRC, No0552, bc

VLBA_BR - VLBA_SC, fgroup Q, pol RL



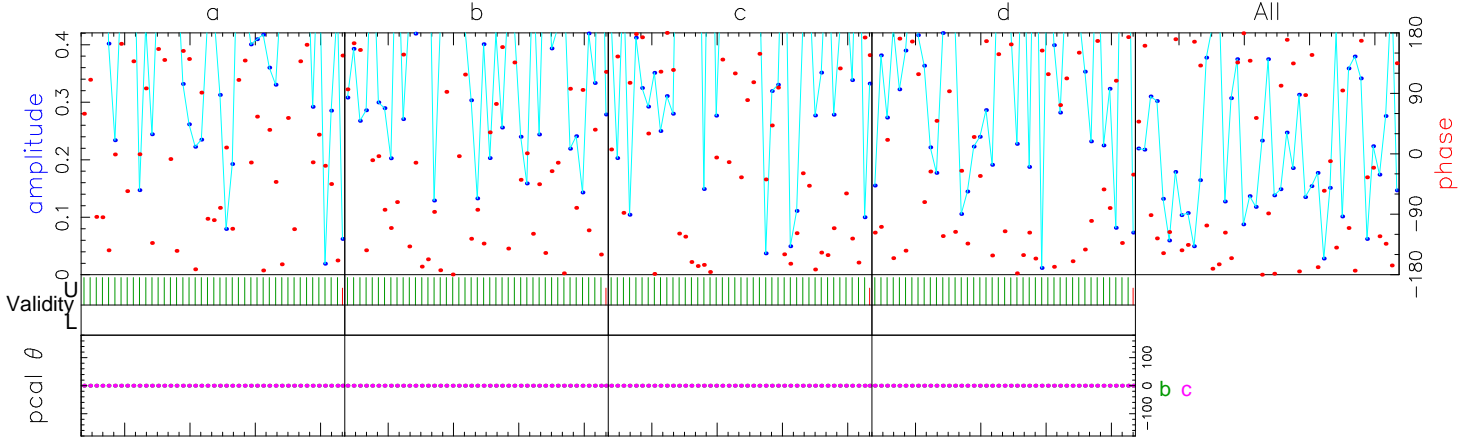
Fringe quality 0

SNR 5.8
 Int time 239.950
 Amp 0.140
 Phase 84.6
 PFD 5.3e-01
 Delays (us)
 SBD 0.543249
 MBD -0.001610
 Fringe rate (Hz)
 -0.220736
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102431
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-174.9	-148.4	-161.9	-166.5	Phase	-162.9
0.1	0.1	0.2	0.2	Ampl.	0.1
73.8	858.8	791.7	287.1	Sbd box	791.1
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
b:c 0:0	0:0	0:0	0:0	PC phase	
b:c 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-2.33016313252E+03	Apriori delay (usec)	-2.33070839733E+03	Resid mbdelay (usec)	-1.61019E-03	+/-	1.9E-04
Sband delay (usec)	-2.33016514808E+03	Apriori clock (usec)	9.6564865E-01	Resid sbdelay (usec)	5.43249E-01	+/-	7.4E-04
Phase delay (usec)	-2.33070840782E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	-1.04860E-05	+/-	1.3E-06
Delay rate (us/s)	1.19914296957E+00	Apriori rate (us/s)	1.19914808632E+00	Resid rate (us/s)	-5.11675E-06	+/-	9.2E-09
Total phase (deg)	350.8	Apriori accel (us/s/s)	1.70668529451E-05	Resid phase (deg)	84.6	+/-	19.7

ph/seg (deg)	RMS 68.3	Theor. 64.6	Amplitude Search (1024X16)	0.140 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	110.9	112.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	13.6	19.7	Inc. seg. avg.	0.140	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	36.2	34.4	Inc. frq. avg.	0.134	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 c: az 253.9 el 54.4 pa 66.9 u,v (fr/asec) -3449.072 2001.496 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bc..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bc.Q.64.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

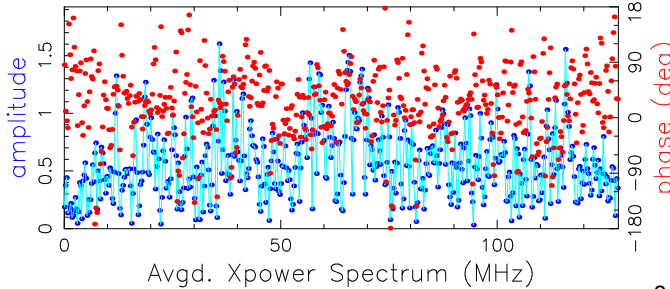
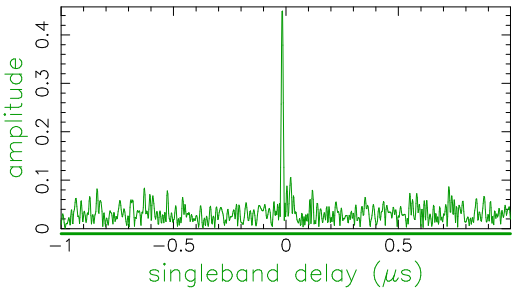
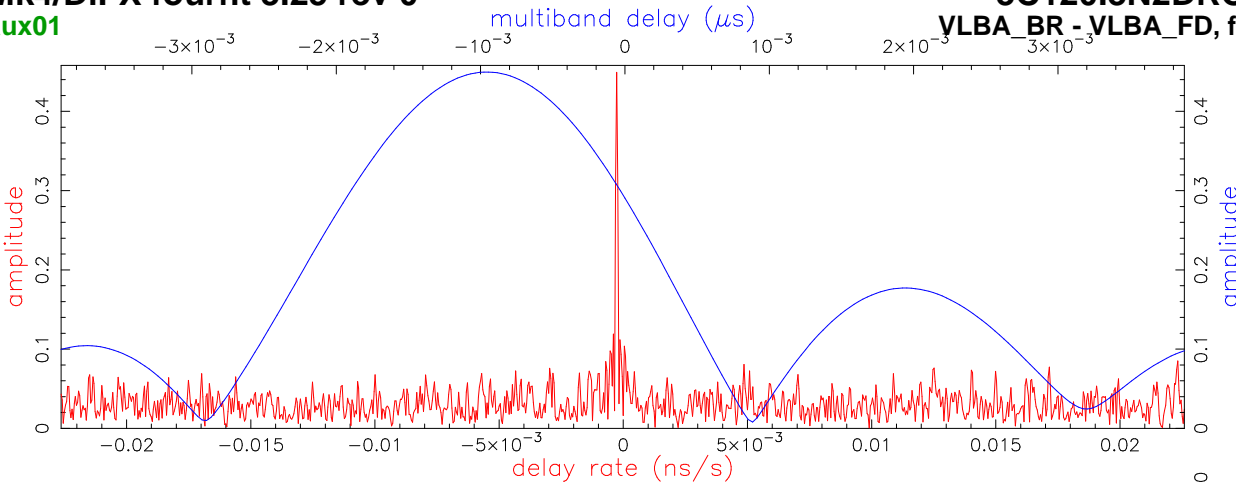
aux01

3C120.3N2DRC, No0552, bf

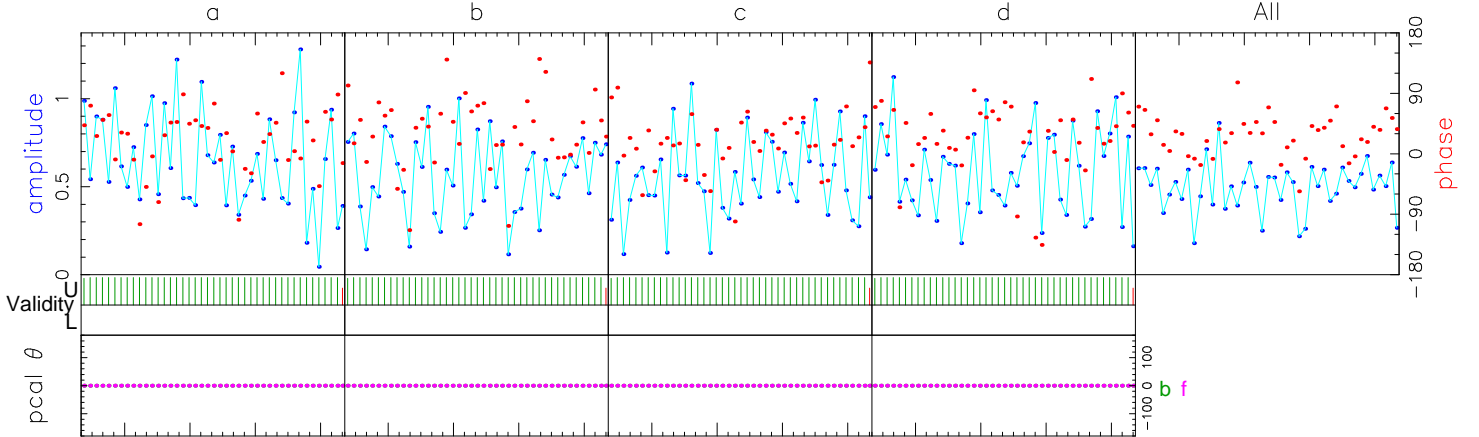
VLBA_BR - VLBA_FD, fgroup Q, pol LR

Fringe quality 9

SNR 19.4
 Int time 239.798
 Amp 0.458
 Phase -172.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.016571
 MBD -0.001008
 Fringe rate (Hz)
 -0.011499
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102421
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
24.4	38.9	21.8	37.4	Phase	30.2
0.5	0.4	0.4	0.4	Ampl.	0.5
504.9	504.8	504.0	504.2	Sbd box	504.5
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
f 1000	1000	1000	1000	PC freqs	
b:f 0:0	0:0	0:0	0:0	PC phase	
b:f 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
f 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
f Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-4.41316464136E+03	Apriori delay (usec)	-4.41314800866E+03	Resid mbdelay (usec)	-1.00770E-03	+/-	5.7E-05
Sband delay (usec)	-4.41316457978E+03	Apriori clock (usec)	4.6037312E+00	Resid sbdelay (usec)	-1.65711E-02	+/-	2.2E-04
Phase delay (usec)	-4.41314800671E+03	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	1.94567E-06	+/-	3.8E-07
Delay rate (us/s)	2.54157488364E-01	Apriori rate (us/s)	2.54157754920E-01	Resid rate (us/s)	-2.66557E-07	+/-	2.7E-09
Total phase (deg)	-205.9	Apriori accel (us/s/s)	2.59886575792E-05	Resid phase (deg)	-172.3	+/-	5.9

ph/seg (deg)	RMS 30.0	Theor. 19.4	Amplitude Search (1024X16)	0.458 +/- 0.024	0.446	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	30.8	33.8	Inc. seg. avg.	0.000	0.475	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	10.7	5.9	Inc. frq. avg.	0.451	0.475	Bits/sample: 2x2	mb window (us) -0.004 0.004
amp/frq (%)	7.8	10.3			0.475	SampCntNorm: enabled	dr window (ns/s) -0.023 0.023
					0.475	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	ion window (TEC) 0.00 0.00
					0.475	Data rate(Mb/s): 2048	
					0.475	nlags: 512 t_cohere infinite	

b: az 150.6 el 43.7 pa -19.0 f: az 168.1 el 64.3 pa -9.7 u,v (fr/asec) -719.722 1134.489 simultaneous interpolator

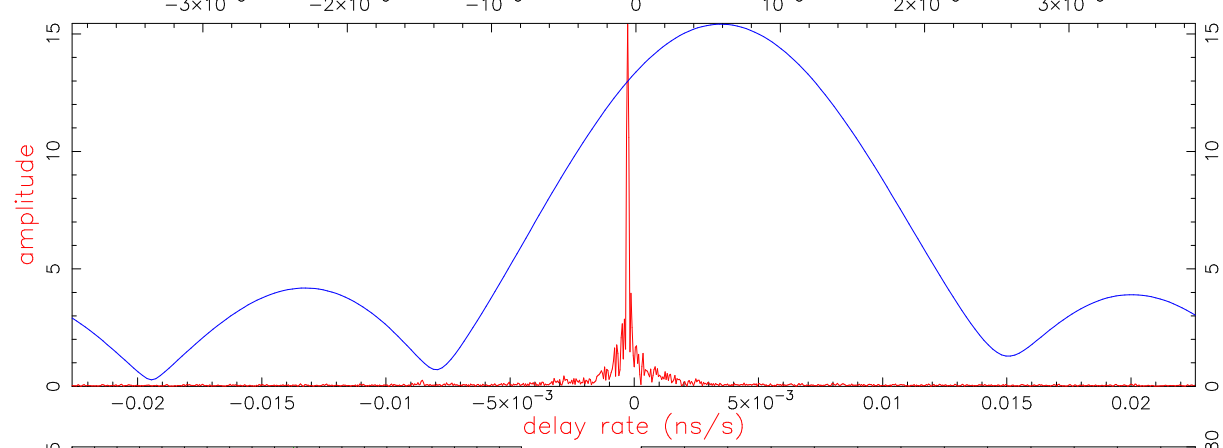
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Mk4/DiFX fourfit 3.25 rev 0

aux01

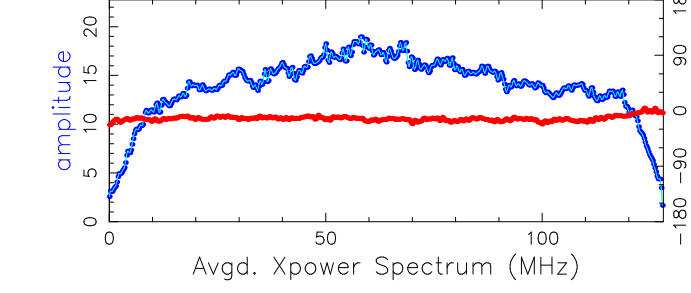
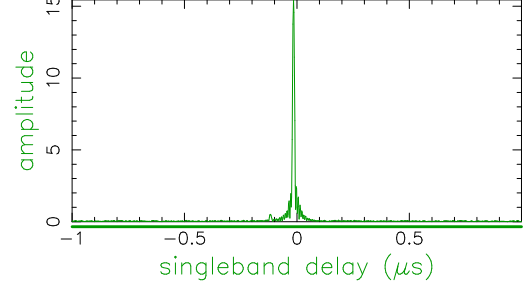
3C120.3N2DRC, No0552, bf

VLBA_BR - VLBA_FD, fgroup Q, pol LL



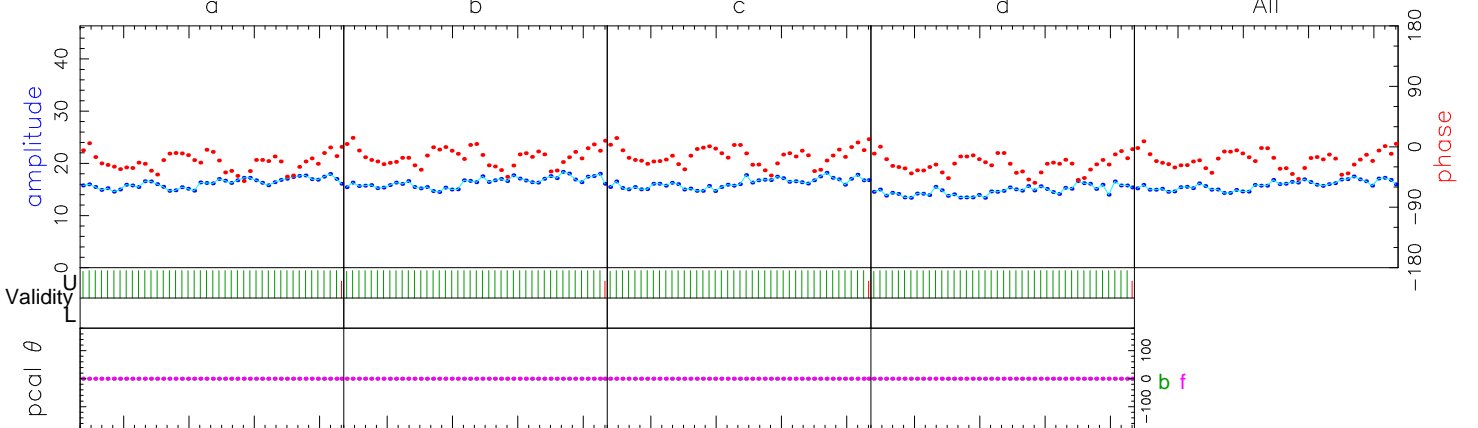
Fringe quality 8

SNR 654.3
 Int time 239.798
 Amp 15.451
 Phase -221.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.015296
 MBD 0.000606
 Fringe rate (Hz)
 -0.011563
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102417
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	a	b	c	d	All
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-22.7	-14.7	-13.7	-26.4	Phase	-19.2
15.8	16.0	15.8	14.4	Ampl.	15.5
505.4	505.3	504.9	504.8	Sbd box	505.2
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
f 1000	1000	1000	1000	PC freqs	
b:f 0:0	0:0	0:0	0:0	PC phase	
b:f 0:0	0:0	0:0	0:0	ManI PC	
b 1000	1000	1000	1000	PC amp	
f 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
f Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-4.41316302730E+03	Apriori delay (usec)	-4.41314800866E+03	Resid mbdelay (usec)	6.06360E-04	+/- 1.7E-06
Sband delay (usec)	-4.41316330491E+03	Apriori clock (usec)	4.6037312E+00	Resid sbdelay (usec)	-1.52962E-02	+/- 6.6E-06
Phase delay (usec)	-4.41314800989E+03	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	-1.23706E-06	+/- 1.1E-08
Delay rate (us/s)	2.54157486886E-01	Apriori rate (us/s)	2.54157754920E-01	Resid rate (us/s)	-2.68034E-07	+/- 8.1E-11
Total phase (deg)	-255.4	Apriori accel (us/s/s)	2.59886575792E-05	Resid phase (deg)	-221.7	+/- 0.2

ph/seg (deg)	12.9	0.6	Search (1024X16)	15.206	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	6.0	1.0	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	7.6	0.2	Inc. seg. avg.	15.814	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	4.2	0.3	Inc. frq. avg.	15.481	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
					Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
						ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 f: az 168.1 el 64.3 pa -9.7 u,v (fr/asec) -719.722 1134.489 simultaneous interpolator

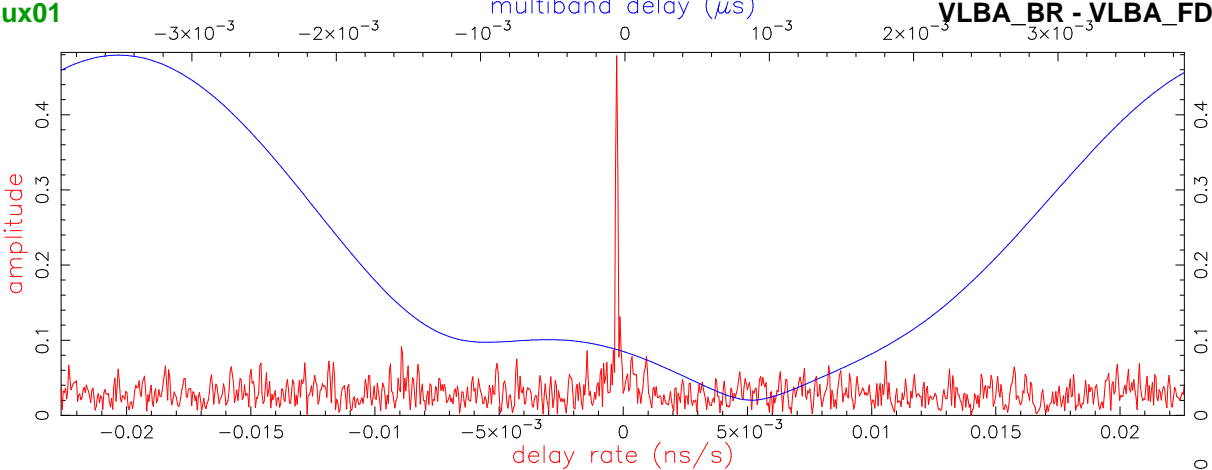
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bf..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bf.Q.2.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

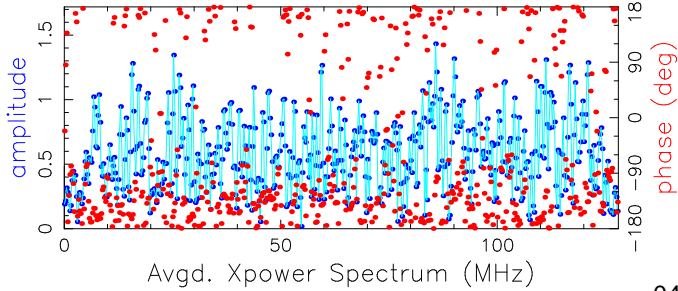
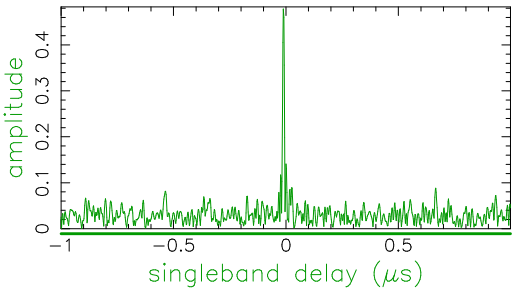
aux01

3C120.3N2DRC, No0552, bf

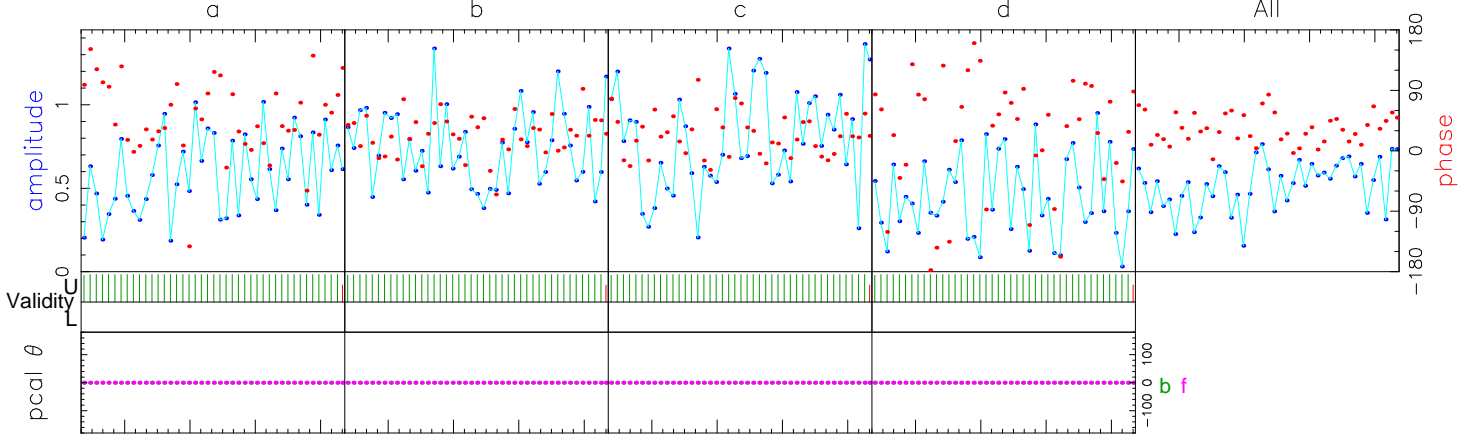
VLBA_BR - VLBA_FD, fgroup Q, pol RL



Fringe quality 6
 Error code G
 SNR 20.5
 Int time 239.798
 Amp 0.483
 Phase -248.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.011118
 MBD -0.003428
 Fringe rate (Hz)
 -0.011557
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512
 Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102423
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	ManI PC	
f	1000	1000	1000	1000	PC amp	
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

Group delay (usec) (SBD)	-4.41315924899E+03	Apriori delay (usec)	-4.41314800866E+03	Resid mbdelay (usec)	-3.42783E-03	+/- 5.4E-05
Sband delay (usec)	-4.41315912703E+03	Apriori clock (usec)	4.6037312E+00	Resid sbdelay (usec)	-1.11184E-02	+/- 2.1E-04
Phase delay (usec)	-4.41314800657E+03	Apriori clockrate (us/s)	5.2622099E-07	Resid phdelay (usec)	2.08431E-06	+/- 3.6E-07
Delay rate (us/s)	2.54157487014E-01	Apriori rate (us/s)	2.54157754920E-01	Resid rate (us/s)	-2.67907E-07	+/- 2.6E-09
Total phase (deg)	-282.5	Apriori accel (us/s/s)	2.59886575792E-05	Resid phase (deg)	-248.9	+/- 5.6

ph/seg (deg)	22.6	Theor.	18.4	Amplitude	0.483 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	31.4	Search (1024X16)	0.476	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.9	Inc. seg. avg.	0.494	Inc. frq. avg.	0.494	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	39.4	Inc. frq. avg.	0.494			Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
							ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 f: az 168.1 el 64.3 pa -9.7 u,v (fr/asec) -719.722 1134.489 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bf..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bf.Q.25.3N2DRC

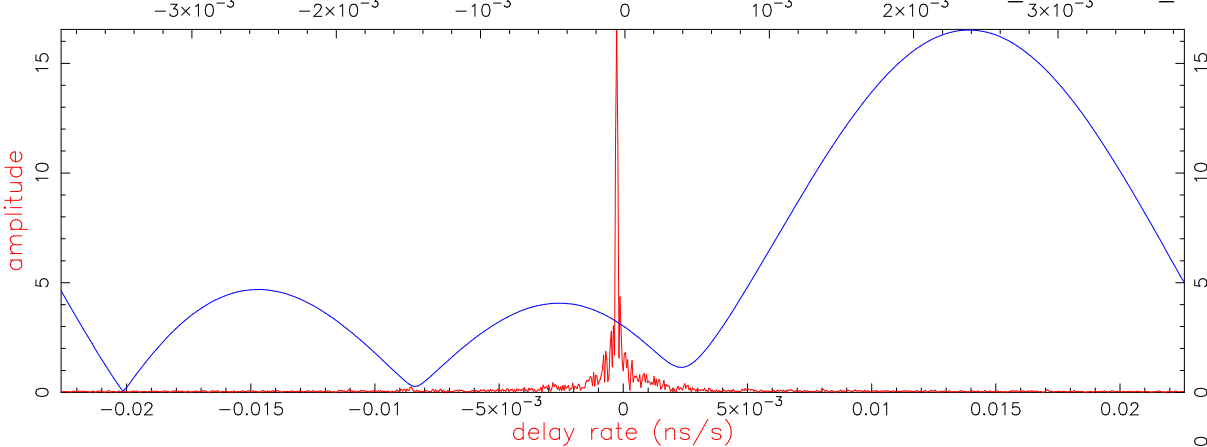
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bf

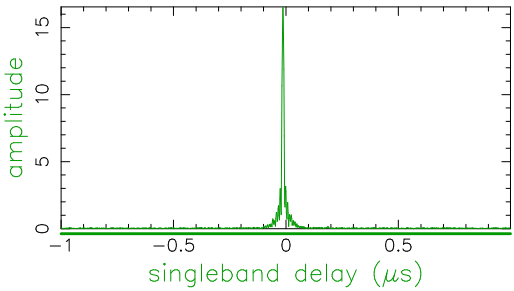
VLBA_BR - VLBA_FD, fgroup Q, pol RR

multiband delay (μ s)

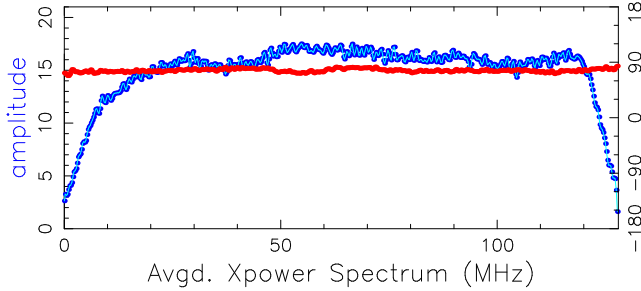


Fringe quality 8

SNR 700.7
 Int time 239.798
 Amp 16.547
 Phase -129.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.013404
 MBD 0.002398
 Fringe rate (Hz)
 -0.011537
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



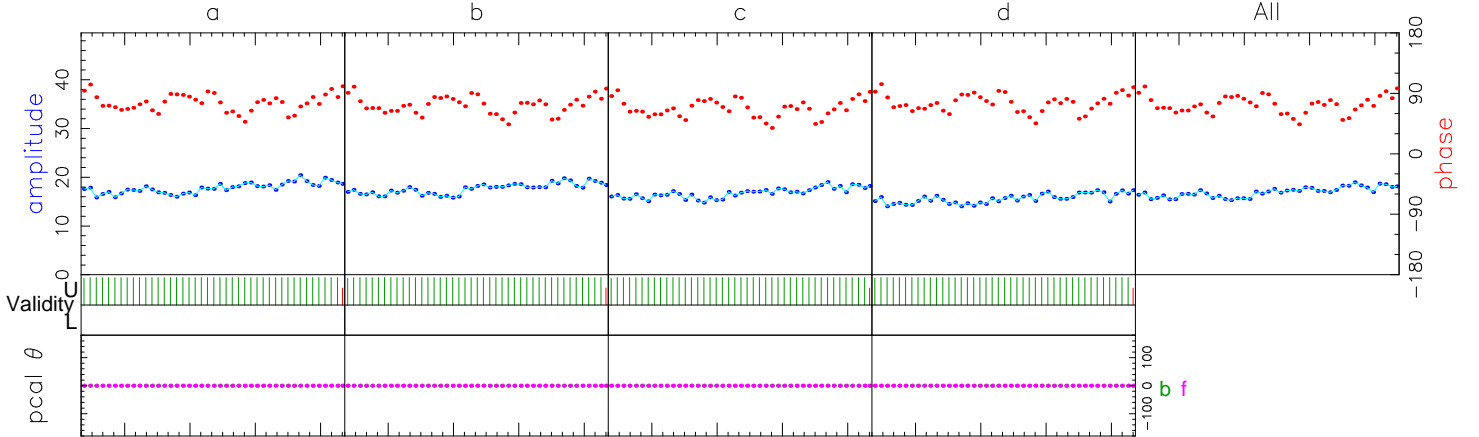
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102419
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
f	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

	42912.00	43040.00	43168.00	43296.00	Resid mbdelay (usec)	2.39827E-03	+/- 1.6E-06
Group delay (usec) (SBD)	-4.41316123539E+03				Resid sbdelay (usec)	-1.34045E-02	+/- 6.1E-06
Sband delay (usec)	-4.41316141316E+03				Resid phdelay (usec)	4.69396E-06	+/- 1.1E-08
Phase delay (usec)	-4.41314800396E+03				Resid rate (us/s)	-2.67426E-07	+/- 7.6E-11
Delay rate (us/s)	2.54157487495E-01				Resid phase (deg)	-129.6	+/- 0.2
Total phase (deg)		-163.3					

	RMS	Theor.	Amplitude	16.547 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	12.8	0.5	Search (1024X16)	16.408	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	6.5	0.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.9	0.2	Inc. seg. avg.	16.940	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.2	0.3	Inc. frq. avg.	16.549	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 f: az 168.1 el 64.3 pa -9.7 u,v (fr/asec) -719.722 1134.489 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bf..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bf.Q.8.3N2DRC

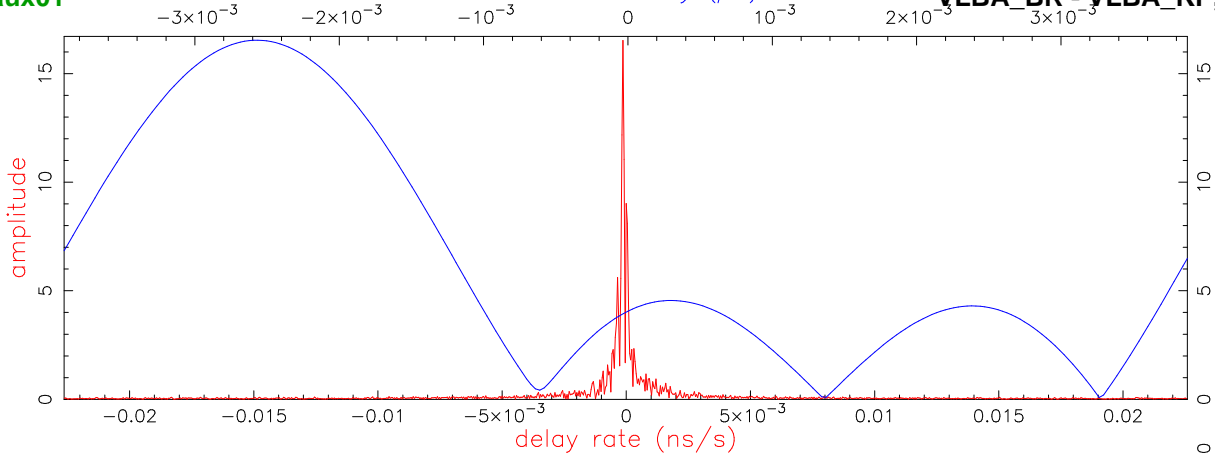
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bk

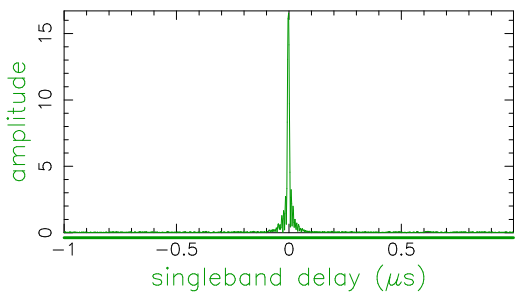
VLBA_BR - VLBA_KP, fgroup Q, pol RR

multiband delay (μ s)

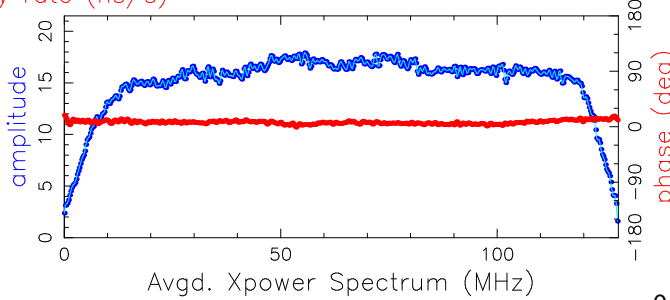


Fringe quality 7

SNR 708.0
 Int time 239.981
 Amp 16.713
 Phase 5.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.002651
 MBD -0.002604
 Fringe rate (Hz)
 -0.005021
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



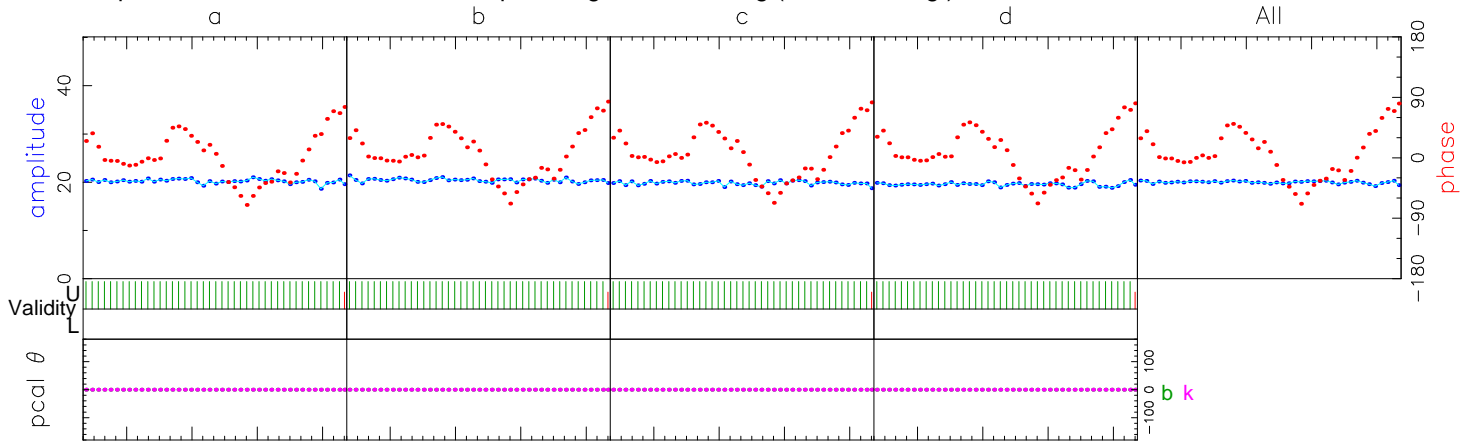
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102421
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
k	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	-3.8611102608E+03	Apriori delay (usec)	-3.86110842230E+03	Resid mbdelay (usec)	-2.60379E-03	+/- 1.6E-06
Group delay (usec) (SBD)	-3.8611102608E+03	15.727	4.5036602E+00	Resid sbdelay (usec)	-2.65063E-03	+/- 6.1E-06
Sband delay (usec)	-3.8611107292E+03	15.727	4.2423487E-07	Resid phdelay (usec)	3.65310E-07	+/- 1.0E-08
Phase delay (usec)	-3.86110842193E+03	16.543	8.18417181255E-02	Resid rate (us/s)	-1.16394E-07	+/- 7.5E-11
Delay rate (us/s)	8.18416017314E-02	16.543	2.28431932504E-05	Resid phase (deg)	5.7	+/- 0.2
Total phase (deg)	-116.0					

	RMS	Theor.	Amplitude	16.713 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	35.1	0.5	Search (1024X16)	15.727	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	19.8	0.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.0	0.2	Inc. seg. avg.	20.007	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.1	0.3	Inc. frq. avg.	16.543	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 k: az 153.1 el 60.9 pa -22.3 u,v (fr/asec) -224.904 1036.095 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bk..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bk.Q.14.3N2DRC

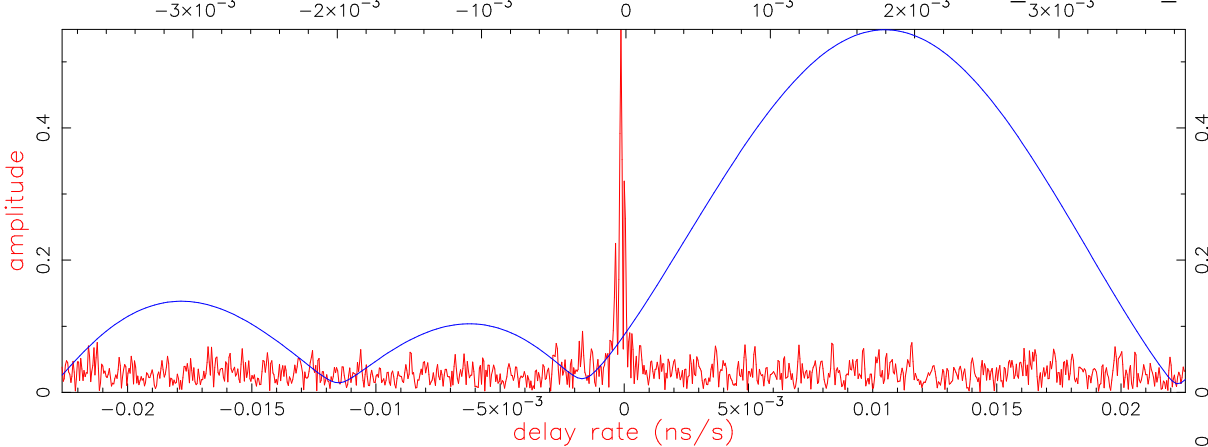
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bk

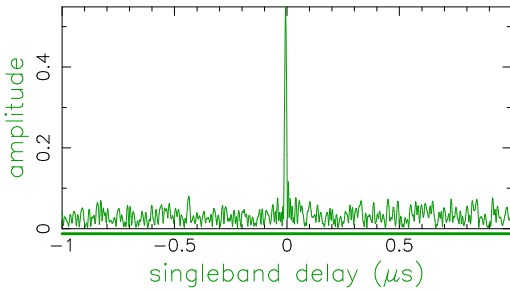
VLBA_BR - VLBA_KP, fgroup Q, pol LR

multiband delay (μ s)

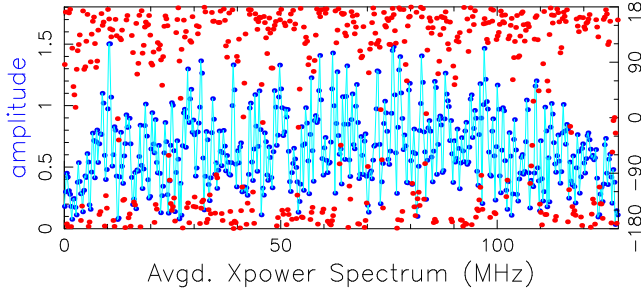


Fringe quality 9

SNR 23.3
 Int time 239.981
 Amp 0.549
 Phase -297.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.006093
 MBD 0.001783
 Fringe rate (Hz)
 -0.004836
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



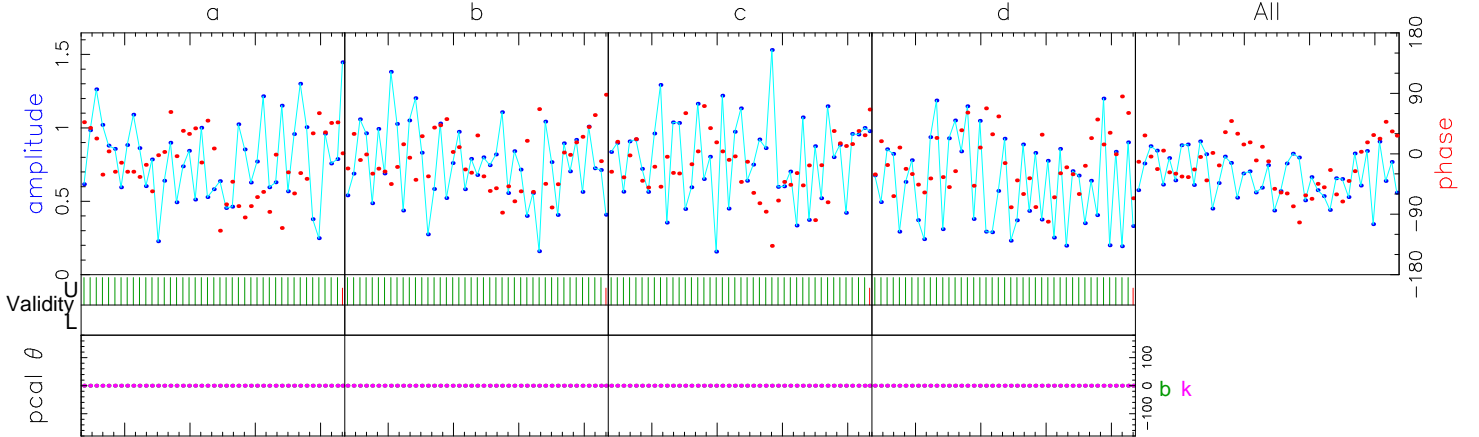
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102423
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-17.3	-13.8	-19.6	-13.2	Phase	-16.1
	0.5	0.6	0.6	0.5	Ampl.	0.5
	510.3	509.9	509.2	510.2	Sbd box	509.9
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	PC freqs	
b:k	0:0	0:0	0:0	0:0	PC phase	
b:k	0:0	0:0	0:0	0:0	ManI PC	
b	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.86111445177E+03	Apriori delay (usec)	-3.86110842230E+03	Resid mbdelay (usec)	1.78302E-03	+/-	4.8E-05
Sband delay (usec)	-3.86111451567E+03	Apriori clock (usec)	4.5036602E+00	Resid sbdelay (usec)	-6.09337E-03	+/-	1.9E-04
Phase delay (usec)	-3.86110842333E+03	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	-1.03550E-06	+/-	3.2E-07
Delay rate (us/s)	8.18416060268E-02	Apriori rate (us/s)	8.18417181255E-02	Resid rate (us/s)	-1.12099E-07	+/-	2.3E-09
Total phase (deg)	-59.0	Apriori accel (us/s/s)	2.28431932504E-05	Resid phase (deg)	-297.3	+/-	4.9

ph/seg (deg)	RMS 36.6	Theor. 16.2	Amplitude Search (1024X16)	0.549 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	35.2	28.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	3.7	4.9	Inc. seg. avg.	0.652	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	nlags: 512 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	9.6	8.6	Inc. frq. avg.	0.547	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 k: az 153.1 el 60.9 pa -22.3 u,v (fr/asec) -224.904 1036.095 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bk..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bk.Q.23.3N2DRC

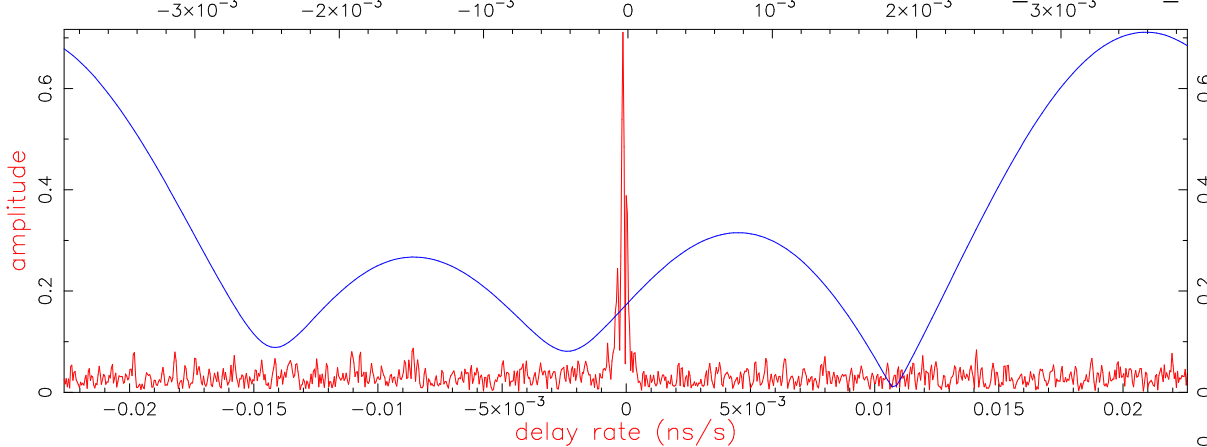
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bk

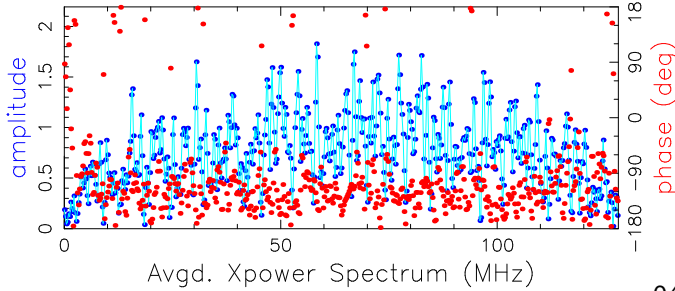
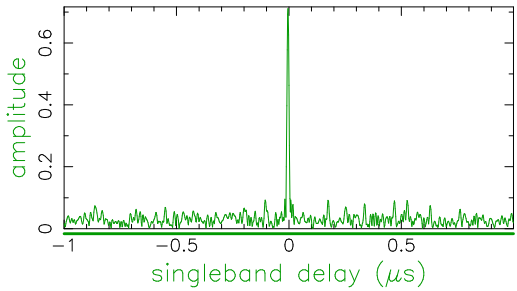
VLBA_BR - VLBA_KP, fgroup Q, pol RL

multiband delay (μ s)



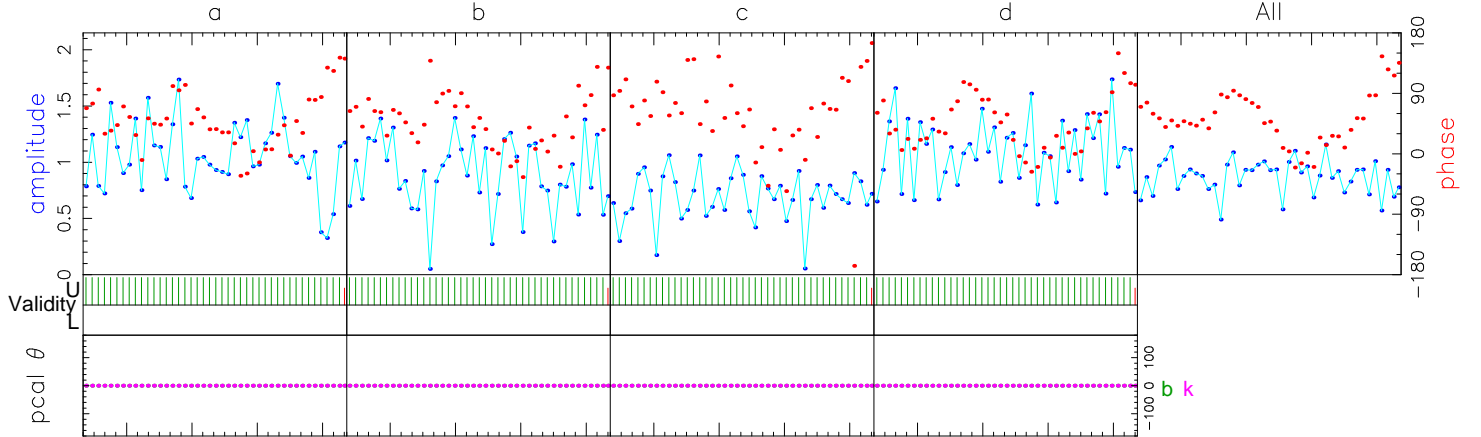
Fringe quality 7

SNR 30.4
 Int time 239.981
 Amp 0.717
 Phase -231.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004554
 MBD 0.003566
 Fringe rate (Hz)
 -0.005108
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102426
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



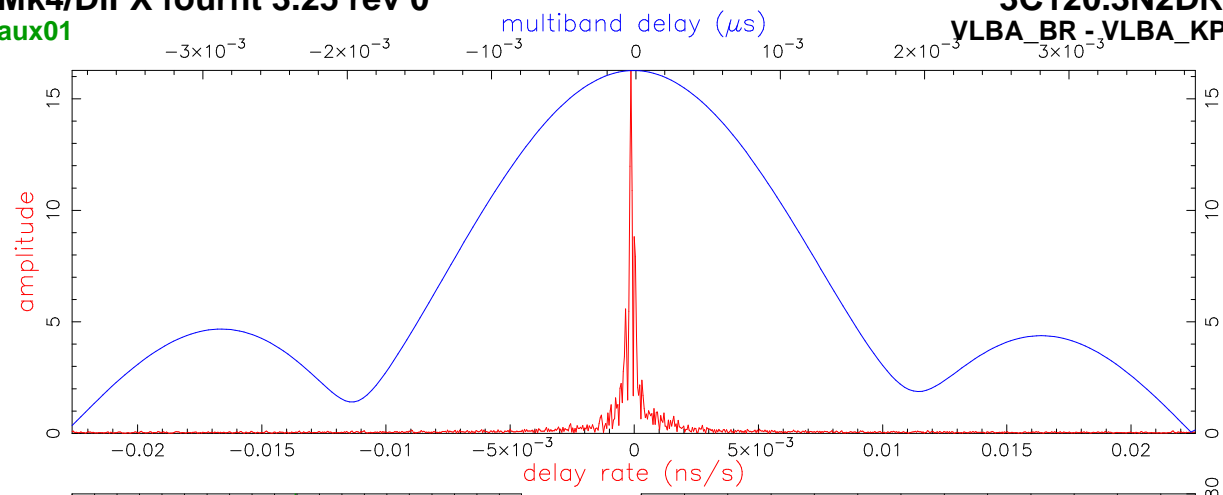
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
45.3	49.6	69.1	44.9	Phase	50.2
0.8	0.7	0.5	0.9	Ampl.	0.7
510.4	511.0	510.8	510.4	Sbd box	510.7
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
k 1000	1000	1000	1000	PC freqs	
b:k 0:0	0:0	0:0	0:0	PC phase	
b:k 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
k 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
k Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-3.86111266912E+03	Apriori delay (usec)	-3.86110842230E+03	Resid mbdelay (usec)	3.56568E-03	+/- 3.7E-05
Sband delay (usec)	-3.86111297642E+03	Apriori clock (usec)	4.5036602E+00	Resid sbdelay (usec)	-4.55413E-03	+/- 1.4E-04
Phase delay (usec)	-3.86110841907E+03	Apriori clockrate (us/s)	4.2423487E-07	Resid phdelay (usec)	3.22934E-06	+/- 2.4E-07
Delay rate (us/s)	8.18415997110E-02	Apriori rate (us/s)	8.18417181255E-02	Resid rate (us/s)	-1.18414E-07	+/- 1.8E-09
Total phase (deg)	-352.7	Apriori accel (us/s/s)	2.28431932504E-05	Resid phase (deg)	-231.1	+/- 3.8

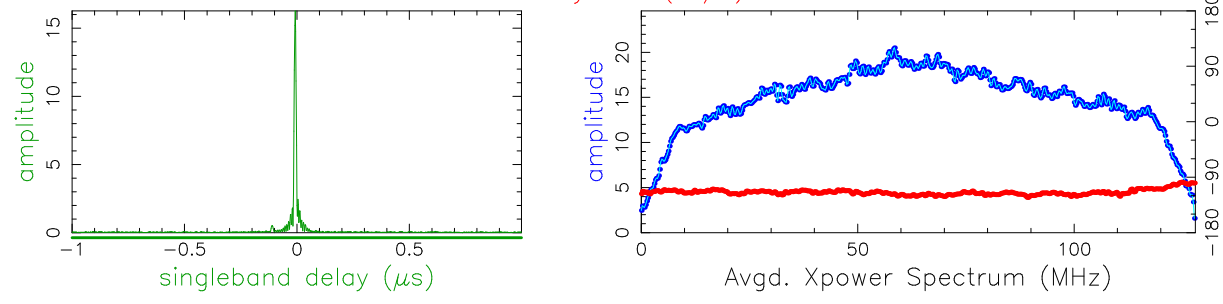
ph/seg (deg)	38.0	Theor.	12.4	Amplitude	0.717 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	30.2		21.6	Search (1024X16)	0.677	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	14.3		3.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	20.4		6.6	Inc. seg. avg.	0.854	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.718	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

b: az 150.6 el 43.7 pa -19.0 k: az 153.1 el 60.9 pa -22.3 u,v (fr/asec) -224.904 1036.095 simultaneous interpolator

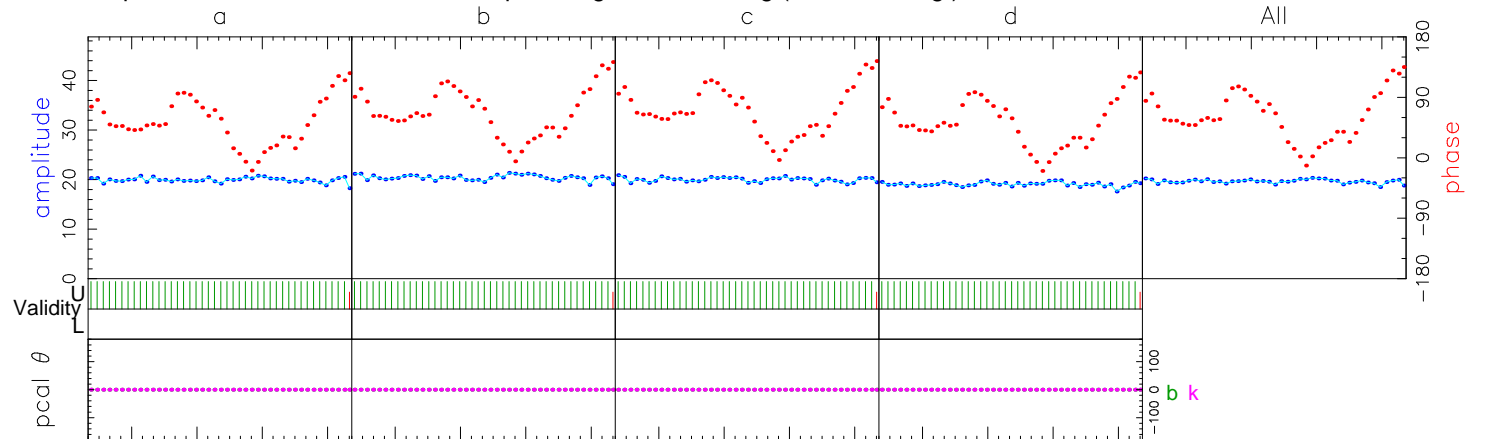
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bk..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bk.Q.30.3N2DRC



Fringe quality 5
SNR 689.5
Int time 239.981
Amp 16.276
Phase -219.8
PFD 0.0e+00
Delays (us)
SBD -0.007982
MBD -0.000024
Fringe rate (Hz)
-0.005045
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512
Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 210920.00
Stop 211320.12
FRT 211120.00
Corr/FF/build
2025:048:110113
2025:049:102419
2024:113:095956
RA & Dec (J2000)
04h33m11.095531s
+05°21'15.619266"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
k	1000	1000	1000	1000		
b:k	0:0	0:0	0:0	0:0		
b:k	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
k	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
k	Q00UL	Q01UL	Q02UL	Q03UL		
Group delay (usec) (SBD)	-3.86111625849E+03					
Sband delay (usec)	-3.86111640442E+03					
Phase delay (usec)	-3.86110841834E+03					
Delay rate (us/s)	8.18416011824E-02					
Total phase (deg)		-341.4				
Apriori delay (usec)			-3.86110842230E+03		-2.36952E-05	+/- 1.6E-06
Apriori clock (usec)			4.5036602E+00		-7.98212E-03	+/- 6.2E-06
Apriori clockrate (us/s)			4.2423487E-07		3.95978E-06	+/- 1.1E-08
Apriori rate (us/s)			8.18417181255E-02		Resid rate (us/s)	-1.16943E-07 +/- 7.7E-11
Apriori accel (us/s/s)			2.28431932504E-05		Resid phase (deg)	-219.8 +/- 0.2

ph/seg (deg) 34.9 0.5 Search (1024X16) 15.594 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 21.0 1.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 11.5 0.2 Inc. seg. avg. 19.673 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
amp/frq (%) 2.7 0.3 Inc. frq. avg. 16.435 Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us dr window (ns/s) -0.023 0.023
b: az 150.6 el 43.7 pa -19.0 k: az 153.1 el 60.9 pa -22.3 u,v (fr/asec) -224.904 1036.095 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bk..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bk.Q.6.3N2DRC simultaneous interpolator

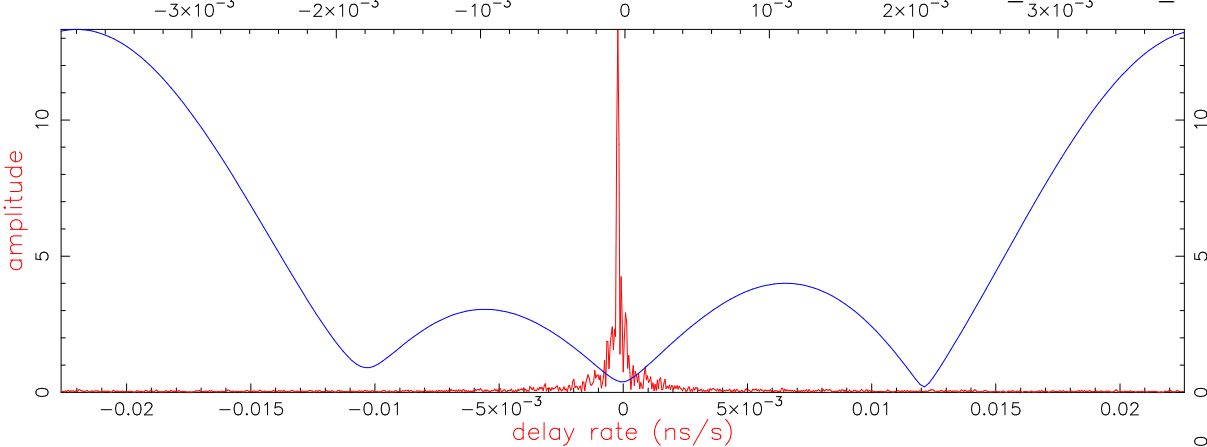
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bl

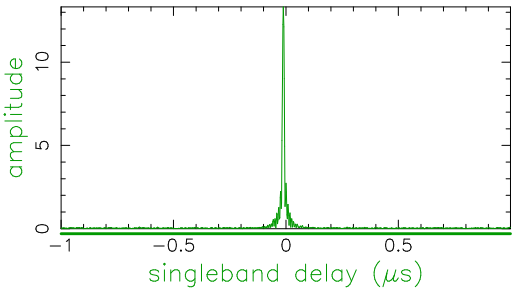
VLBA_BR - VLBA_LA, fgroup Q, pol RR

multiband delay (μ s)

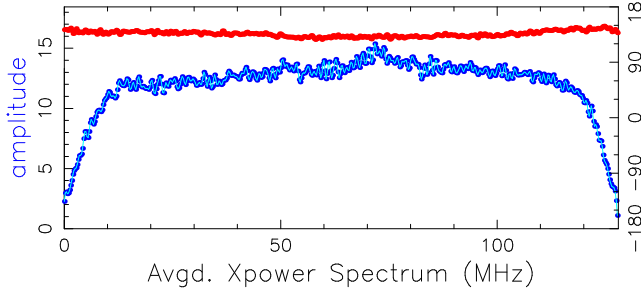


Fringe quality 8

SNR 564.5
 Int time 239.982
 Amp 13.325
 Phase -329.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.011778
 MBD -0.003801
 Fringe rate (Hz)
 -0.009874
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

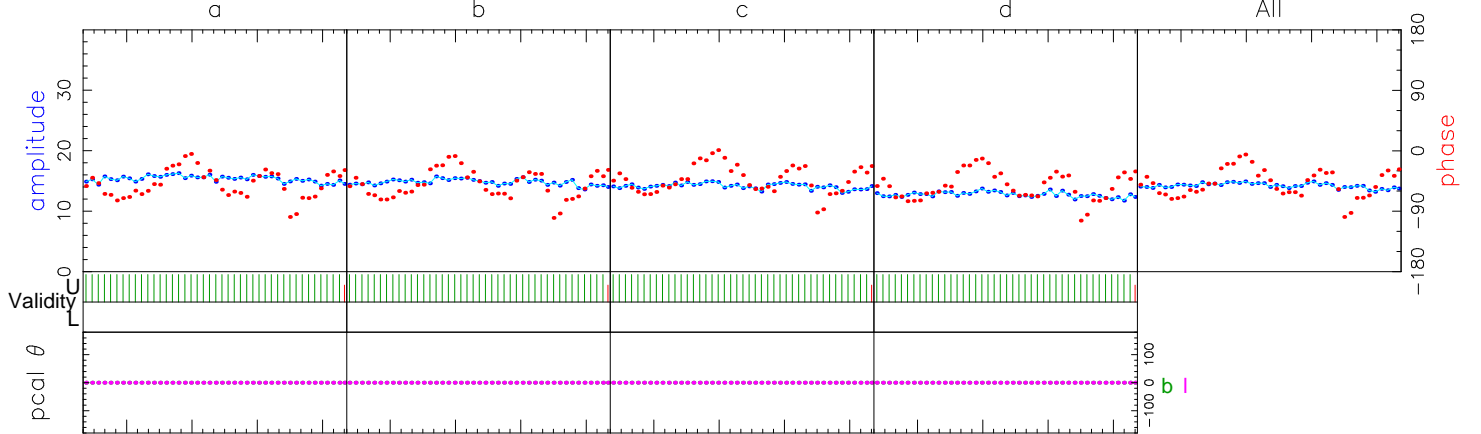


singleband delay (μ s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102421
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	Phase	-48.2
l	1000	1000	1000	1000	Ampl.	13.4
b:l	0:0	0:0	0:0	0:0	Sbd box	507.0
b:l	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	PC freqs	
b	Q00UR	Q01UR	Q02UR	Q03UR	PC phase	
l	Q00UR	Q01UR	Q02UR	Q03UR	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.45629181636E+03	Apriori delay (usec)	-3.45628020308E+03	Resid mbdelay (usec)	-3.80078E-03	+/-	2.0E-06
Sband delay (usec)	-3.45629198158E+03	Apriori clock (usec)	1.2981783E+01	Resid sbdelay (usec)	-1.17785E-02	+/-	7.6E-06
Phase delay (usec)	-3.45628020619E+03	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	-3.10640E-06	+/-	1.3E-08
Delay rate (us/s)	2.09655161388E-01	Apriori rate (us/s)	2.09655390271E-01	Resid rate (us/s)	-2.28883E-07	+/-	9.4E-11
Total phase (deg)	-315.4	Apriori accel (us/s/s)	2.01479190962E-05	Resid phase (deg)	-329.5	+/-	0.2

ph/seg (deg)	RMS 20.7	Theor. 0.7	Amplitude Search (1024X16)	13.325 +/- 0.024	13.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	7.5	1.2	Interp.	0.000	14.232	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	5.4	0.2	Inc. seg. avg.	14.232	13.354	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	6.8	0.4	Inc. frq. avg.	13.354		Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 l: az 165.6 el 58.9 pa -11.3 u,v (fr/asec) -594.105 781.414 simultaneous interpolator

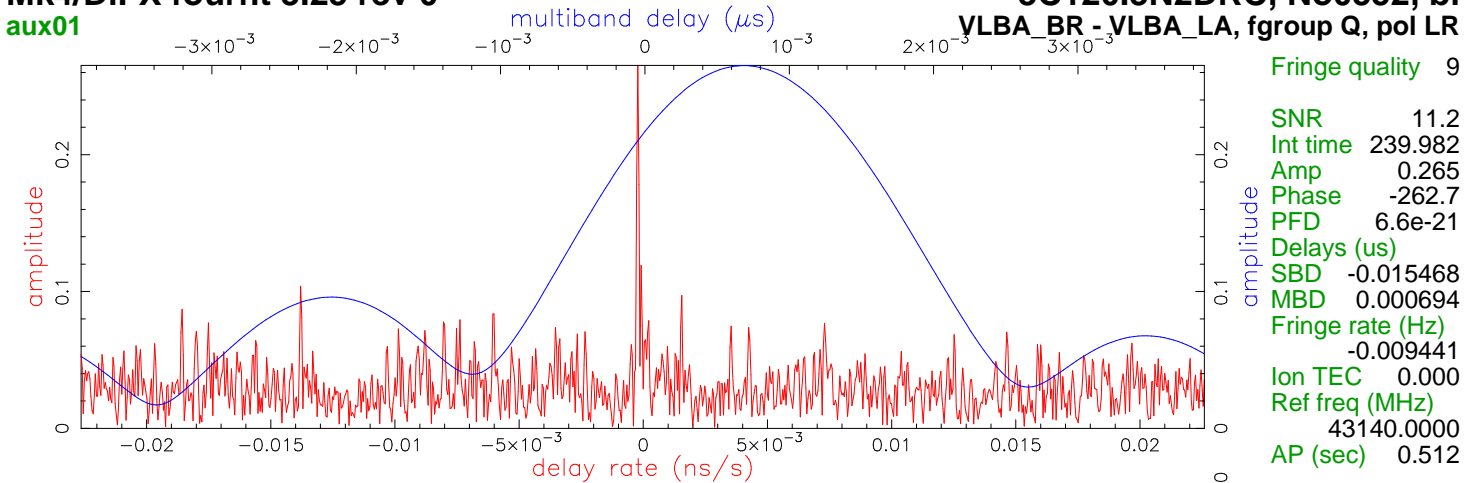
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bl..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bl.Q.15.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bl

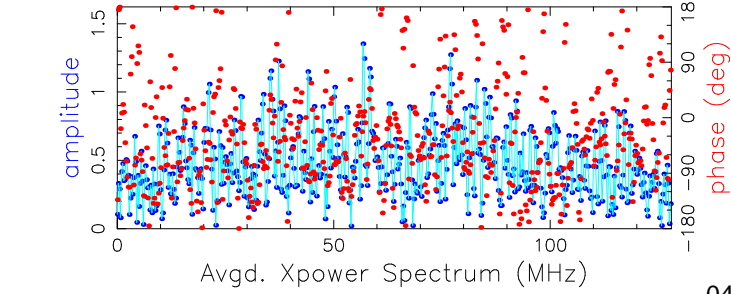
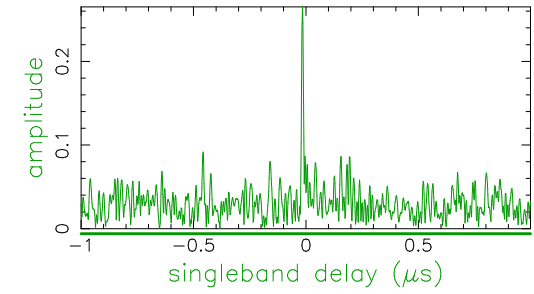
VLBA_BR - VLBA_LA, fgroup Q, pol LR



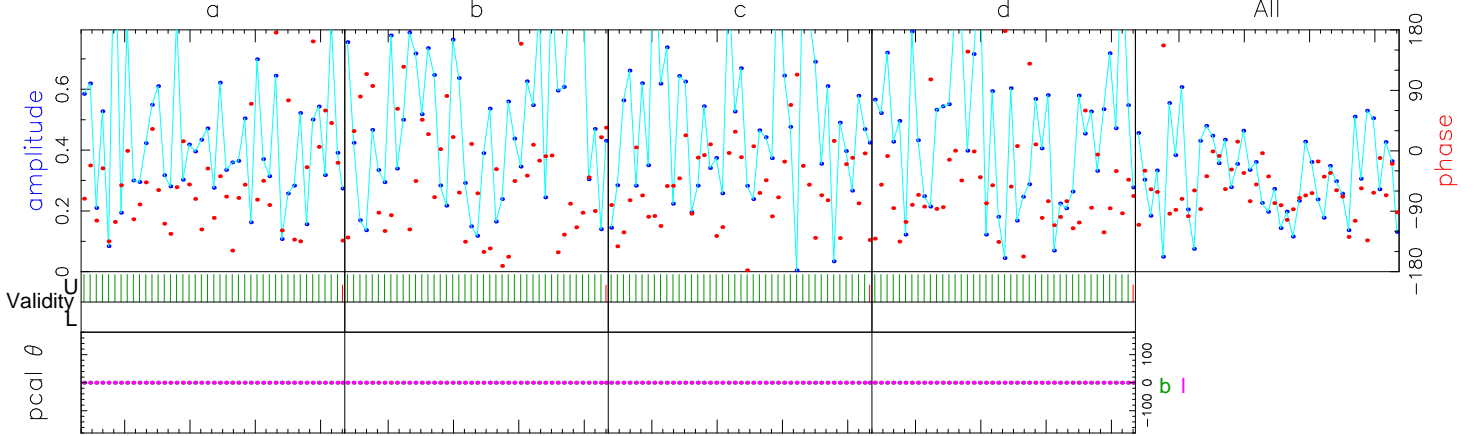
Fringe quality 9

SNR 11.2
 Int time 239.982
 Amp 0.265
 Phase -262.7
 PFD 6.6e-21
 Delays (us)
 SBD -0.015468
 MBD 0.000694
 Fringe rate (Hz)
 -0.009441
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102423
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	
l	1000	1000	1000	1000	PC freqs	
b:l	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
l	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec) (SBD)	-3.45629513452E+03	Apriori delay (usec)	-3.45628020308E+03	Resid mbdelay (usec)	6.93560E-04	+/-	9.9E-05
Sband delay (usec)	-3.45629567133E+03	Apriori clock (usec)	1.2981783E+01	Resid sbdelay (usec)	-1.54683E-02	+/-	3.8E-04
Phase delay (usec)	-3.45628020696E+03	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	-3.87889E-06	+/-	6.6E-07
Delay rate (us/s)	2.09655171416E-01	Apriori rate (us/s)	2.09655390271E-01	Resid rate (us/s)	-2.18855E-07	+/-	4.7E-09
Total phase (deg)	-248.6	Apriori accel (us/s/s)	2.01479190962E-05	Resid phase (deg)	-262.7	+/-	10.2

ph/seg (deg) 40.3 33.4 Search (1024X16) 0.258 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 55.1 58.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 6.4 10.2 Inc. seg. avg. 0.275 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 20.0 17.8 Inc. frq. avg. 0.262 Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us dr window (ns/s) -0.023 0.023
 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 l: az 165.6 el 58.9 pa -11.3 u,v (fr/asec) -594.105 781.414 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bl..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bl.Q.24.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

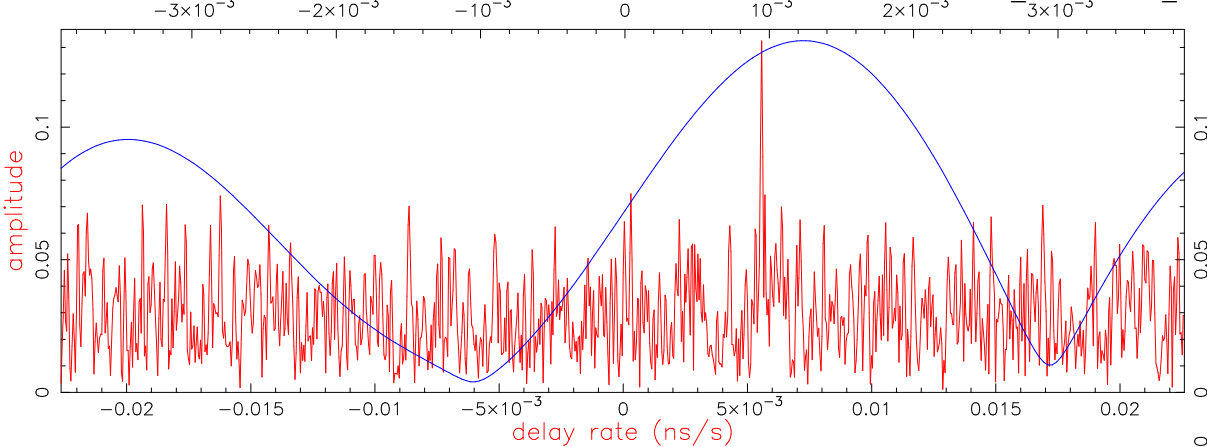
aux01

3C120.3N2DRC, No0552, bl

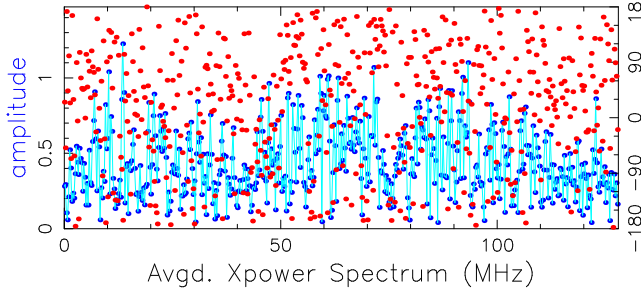
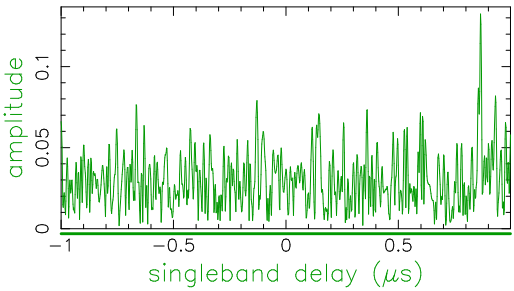
VLBA_BR - VLBA_LA, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 0

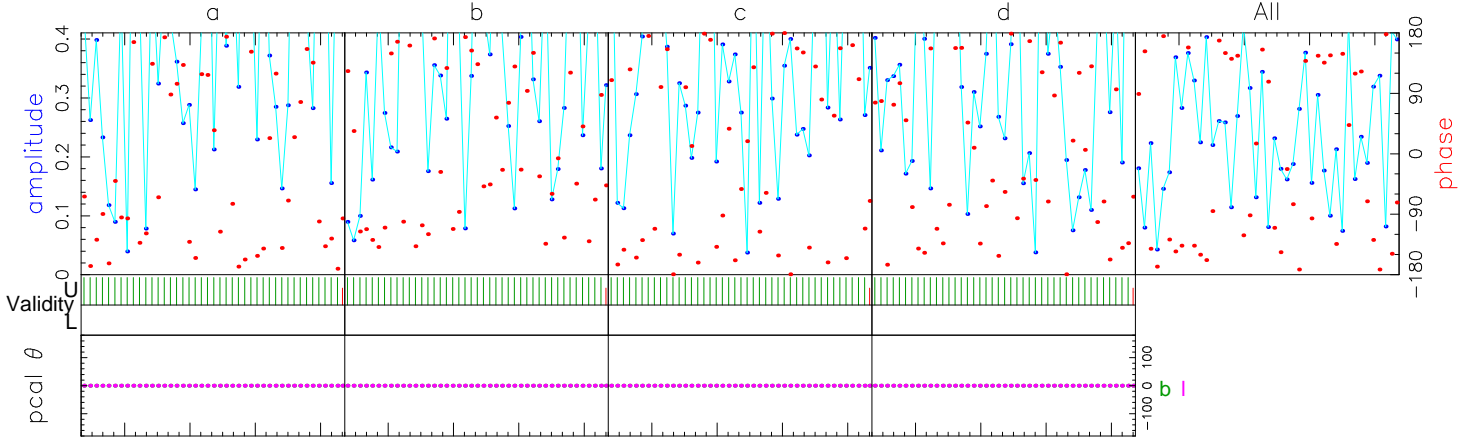


SNR 5.7
 Int time 239.982
 Amp 0.137
 Phase 95.2
 PFD 8.6e-01
 Delays (us)
 SBD 0.865746
 MBD 0.001278
 Fringe rate (Hz)
 0.241937
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102426
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
l	1000	1000	1000	1000		
b:l	0:0	0:0	0:0	0:0		
b:l	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
l	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
l	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.45541173768E+03	Apriori delay (usec)	-3.45628020308E+03	Resid mbdelay (usec)	1.27790E-03	+/-	2.0E-04
Sband delay (usec)	-3.45541445683E+03	Apriori clock (usec)	1.2981783E+01	Resid sbdelay (usec)	8.65746E-01	+/-	7.6E-04
Phase delay (usec)	-3.45628021361E+03	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	-1.05285E-05	+/-	1.3E-06
Delay rate (us/s)	2.09660998462E-01	Apriori rate (us/s)	2.09655390271E-01	Resid rate (us/s)	5.60819E-06	+/-	9.4E-09
Total phase (deg)	109.3	Apriori accel (us/s/s)	2.01479190962E-05	Resid phase (deg)	95.2	+/-	20.3

ph/seg (deg)	65.7	Theor.	66.5	Amplitude	0.137 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	111.6	Search (1024X16)	0.129	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	40.1	Inc. seg. avg.	0.145	Inc. frq. avg.	0.143	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	34.6	Inc. frq. avg.	0.143			Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite
							ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 l: az 165.6 el 58.9 pa -11.3 u,v (fr/asec) -594.105 781.414 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bl..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bl.Q.31..3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

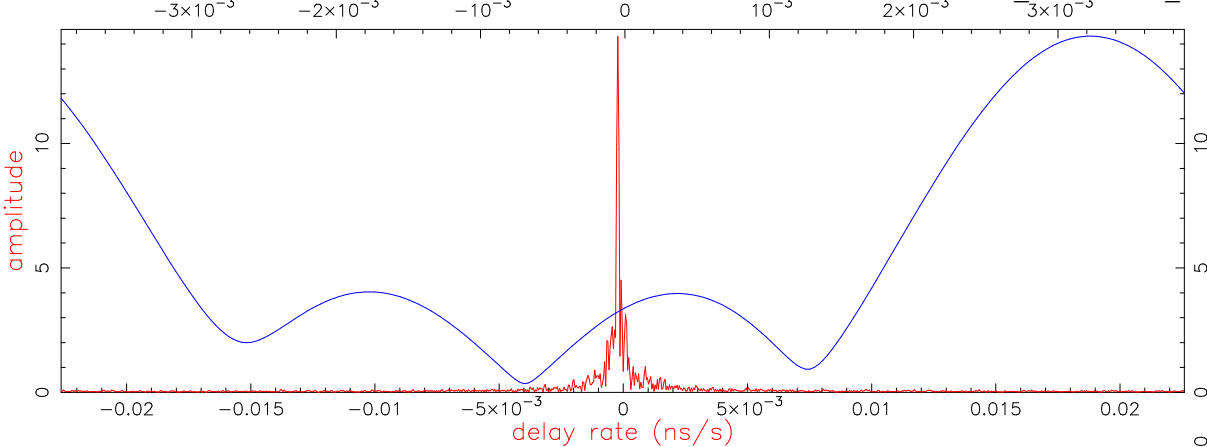
aux01

3C120.3N2DRC, No0552, bl

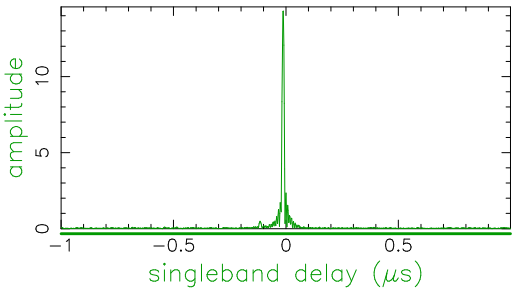
VLBA_BR - VLBA_LA, fgroup Q, pol LL

multiband delay (μ s)

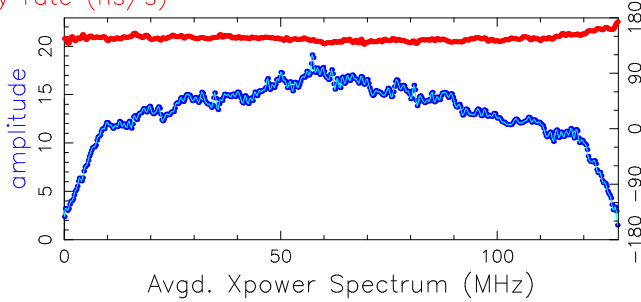
Fringe quality 7



SNR 617.9
 Int time 239.982
 Amp 14.587
 Phase -61.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.012677
 MBD 0.003174
 Fringe rate (Hz)
 -0.009889
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512

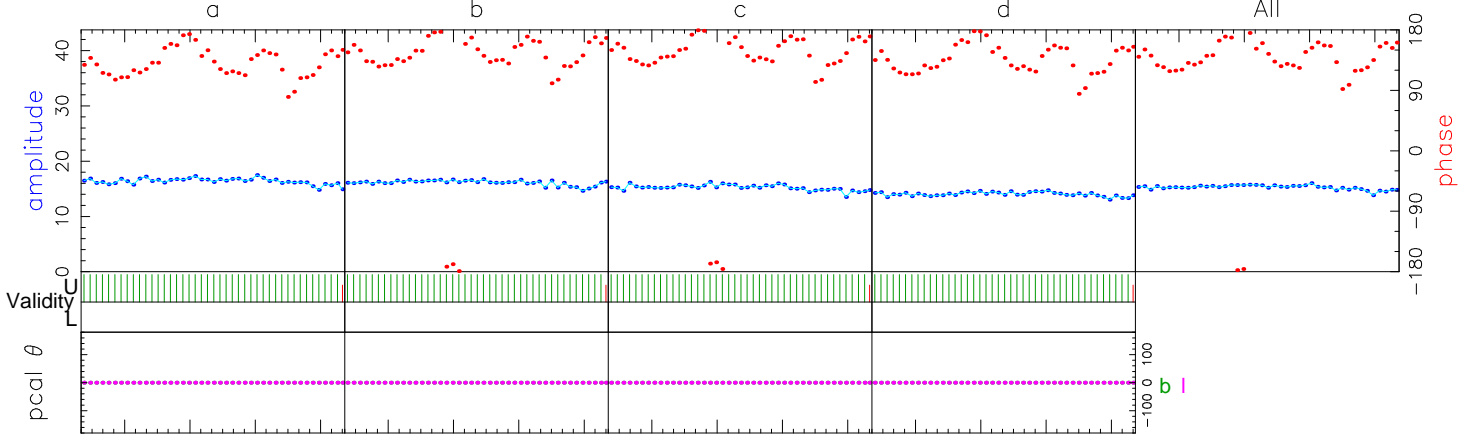


singleband delay (μ s)



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102419
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	130.2	148.3	150.7	136.1	Phase	141.3
	15.4	15.1	14.3	13.1	Ampl.	14.5
	507.1	506.6	506.2	506.0	Sbd box	506.5
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	PC freqs	
b:l	0:0	0:0	0:0	0:0	PC phase	
b:l	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
l	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.45629265421E+03	Apriori delay (usec)	-3.45628020308E+03	Resid mbdelay (usec)	3.17387E-03	+/-	1.8E-06
Sband delay (usec)	-3.45629288020E+03	Apriori clock (usec)	1.2981783E+01	Resid sbdelay (usec)	-1.26771E-02	+/-	7.0E-06
Phase delay (usec)	-3.45628019398E+03	Apriori clockrate (us/s)	8.1044199E-07	Resid phdelay (usec)	9.09897E-06	+/-	1.2E-08
Delay rate (us/s)	2.09655161039E-01	Apriori rate (us/s)	2.09655390271E-01	Resid rate (us/s)	-2.29231E-07	+/-	8.6E-11
Total phase (deg)	-47.1	Apriori accel (us/s/s)	2.01479190962E-05	Resid phase (deg)	-61.2	+/-	0.2

ph/seg (deg)	RMS 20.7	Theor. 0.6	Amplitude Search (1024X16)	14.587 +/- 0.024	13.930	13.930	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	5.5	1.1	Interp.	0.000	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	12.0	0.2	Inc. seg. avg.	15.271	15.271	15.271	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023	
amp/frq (%)	6.0	0.3	Inc. frq. avg.	14.464	14.464	14.464	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 l: az 165.6 el 58.9 pa -11.3 u,v (fr/asec) -594.105 781.414 simultaneous interpolator

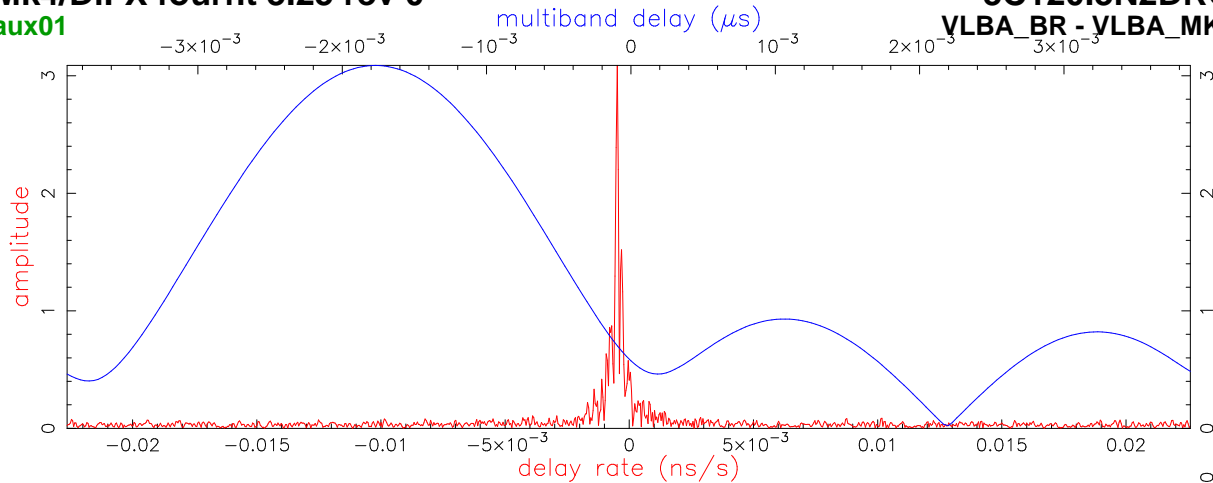
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bl..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bl.Q.7.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

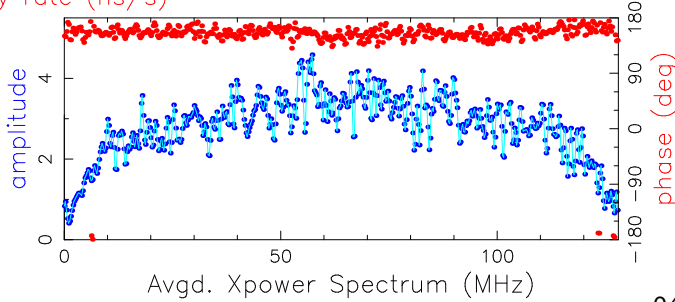
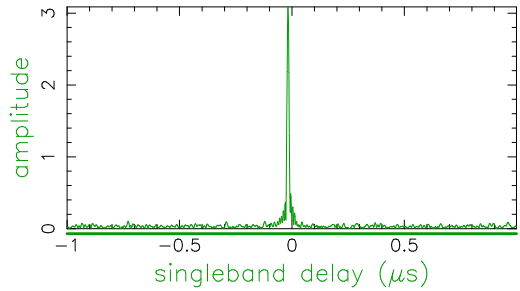
3C120.3N2DRC, No0552, bm

VLBA_BR - VLBA_MK, fgroup Q, pol LL



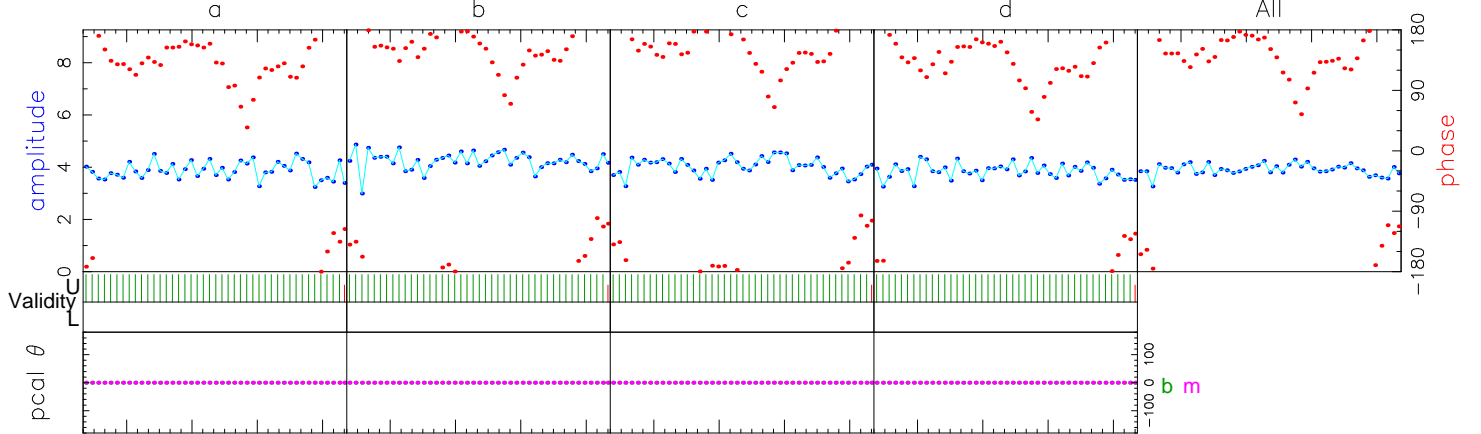
Fringe quality 5

SNR 130.8
 Int time 239.985
 Amp 3.088
 Phase -51.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.017572
 MBD -0.001770
 Fringe rate (Hz)
 -0.021150
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102420
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0	Sbd box	504.0
b	1000	1000	1000	1000	APs used	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b	1000	1000	1000	1000	Manl PC	
m	1000	1000	1000	1000	PC amp	
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	2.91035110876E+03	Apriori delay (usec)	2.91036850412E+03	Resid mbdelay (usec)	-1.77036E-03	+/- 8.5E-06
Group delay (usec) (SBD)	2.91035093162E+03	Apriori clock (usec)	4.1222382E+00	Resid sbdelay (usec)	-1.75725E-02	+/- 3.3E-05
Sband delay (usec)	2.91036851387E+03	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	9.74801E-06	+/- 5.6E-08
Phase delay (usec)	-8.49343360834E-01	Apriori rate (us/s)	-8.49342870578E-01	Resid rate (us/s)	-4.90256E-07	+/- 4.1E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-1.11461821723E-05	Resid phase (deg)	-51.1	+/- 0.9
Total phase (deg)	-314.7					

	RMS	Theor.	Amplitude	3.088 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	40.2	2.9	Search (1024X16)	2.988	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	27.7	5.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	15.7	0.9	Inc. seg. avg.	3.915	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	4.4	1.5	Inc. frq. avg.	3.147	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 m: az 96.6 el 33.2 pa -69.8 u,v (fr/asec) 2436.597 1751.424 simultaneous interpolator

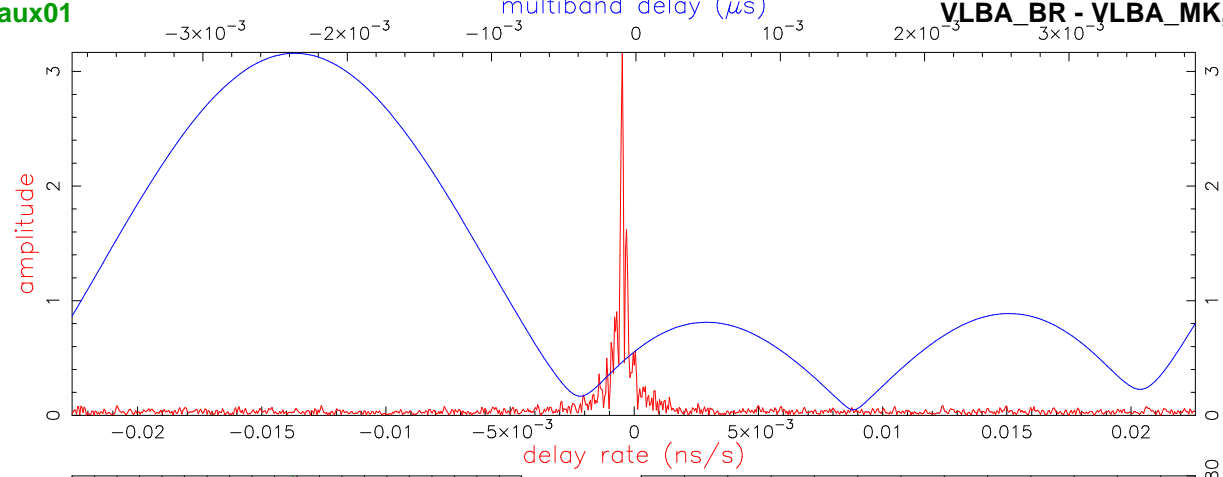
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bm..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bm.Q.10.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bm

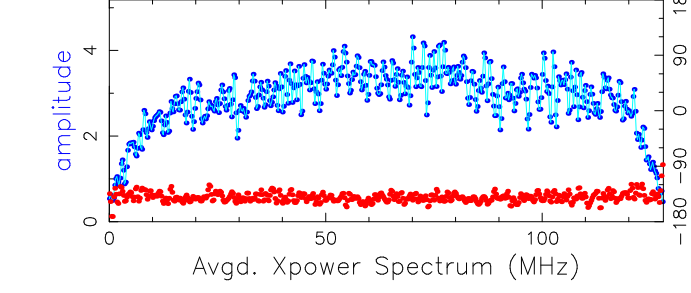
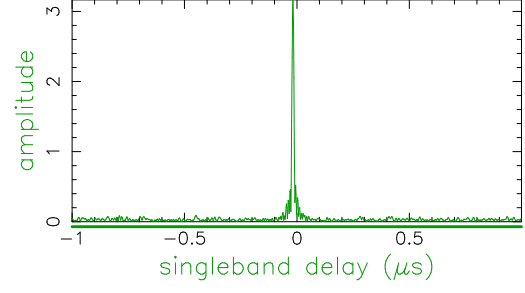
VLBA_BR - VLBA_MK, fgroup Q, pol RR



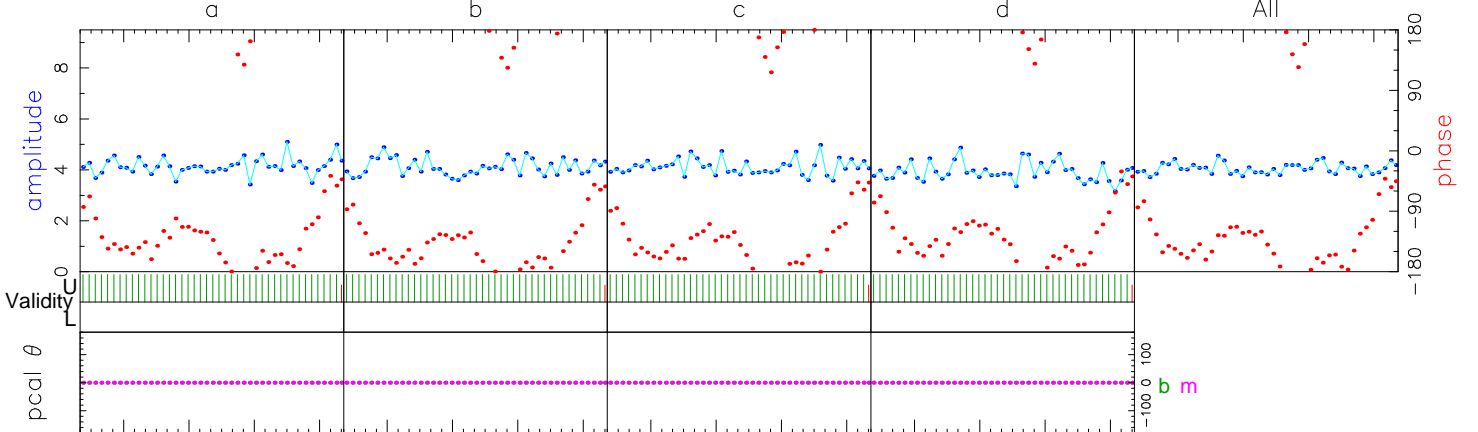
Fringe quality 6

SNR 134.1
Int time 239.985
Amp 3.166
Phase -341.0
PFD 0.0e+00
Delays (us)
SBD -0.017907
MBD -0.002381
Fringe rate (Hz)
-0.021131
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512

Exp. c241c
Exper # 1234
Yr:day 2024:112
Start 210920.00
Stop 211320.12
FRT 211120.00
Corr/FF/build
2025:048:110113
2025:049:102422
2024:113:095956
RA & Dec (J2000)
04h33m11.095531s
+05°21'15.619266"



Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-134.4	-145.3	-141.6	-132.6	Phase	-138.5
	3.2	3.2	3.2	3.0	Ampl.	3.2
	503.6	503.8	503.9	504.0	Sbd box	503.8
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	2.91035049807E+03	Apriori delay (usec)	2.91036850412E+03	Resid mbdelay (usec)	-2.38105E-03	+/- 8.3E-06
Group delay (usec) (SBD)	2.91035059762E+03	Apriori clock (usec)	4.1222382E+07	Resid sbdelay (usec)	-1.79065E-02	+/- 3.2E-05
Sband delay (usec)	2.91036849520E+03	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	-8.92065E-06	+/- 5.5E-08
Phase delay (usec)	-8.49343360398E-01	Apriori rate (us/s)	-8.49342870578E-01	Resid rate (us/s)	-4.89821E-07	+/- 4.0E-10
Delay rate (us/s)		Apriori accel (us/s/s)	-1.11461821723E-05	Resid phase (deg)	-341.0	+/- 0.9
Total phase (deg)	-244.6					

	RMS	Theor.	Amplitude	3.166 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	40.8	2.8	Search (1024X16)	3.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	29.0	4.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	7.3	0.9	Inc. seg. avg.	4.055	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.4	1.5	Inc. frq. avg.	3.171	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 m: az 96.6 el 33.2 pa -69.8 u,v (fr/asec) 2436.597 1751.424 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bm..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bm.Q.18.3N2DRC

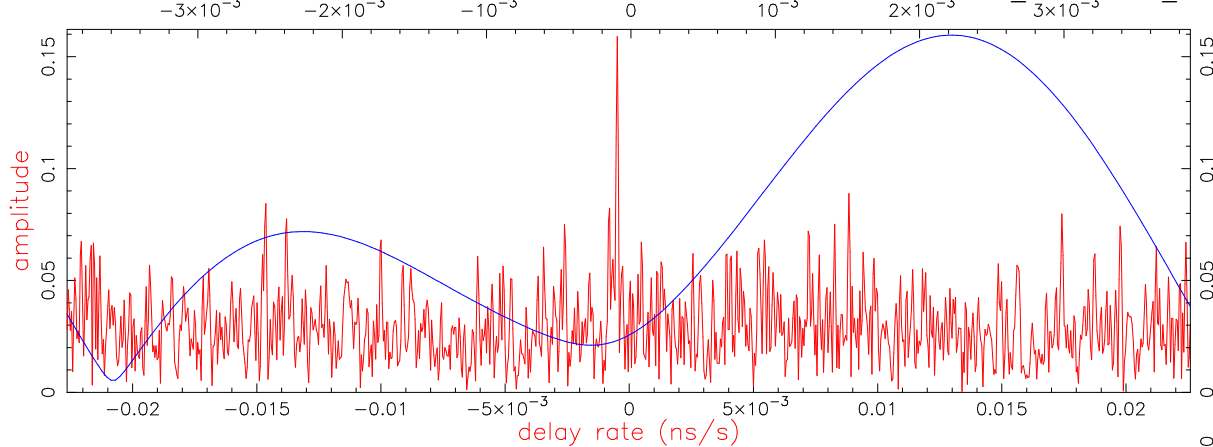
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bm

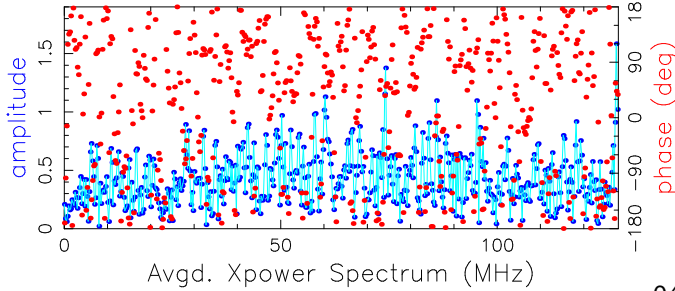
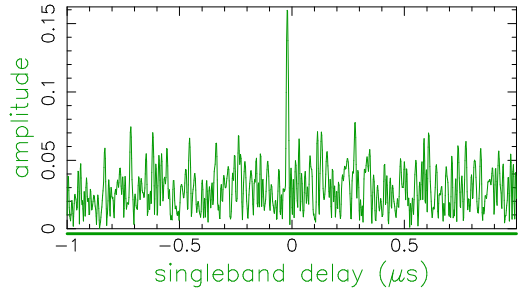
VLBA_BR - VLBA_MK, fgroup Q, pol LR

multiband delay (μ s)



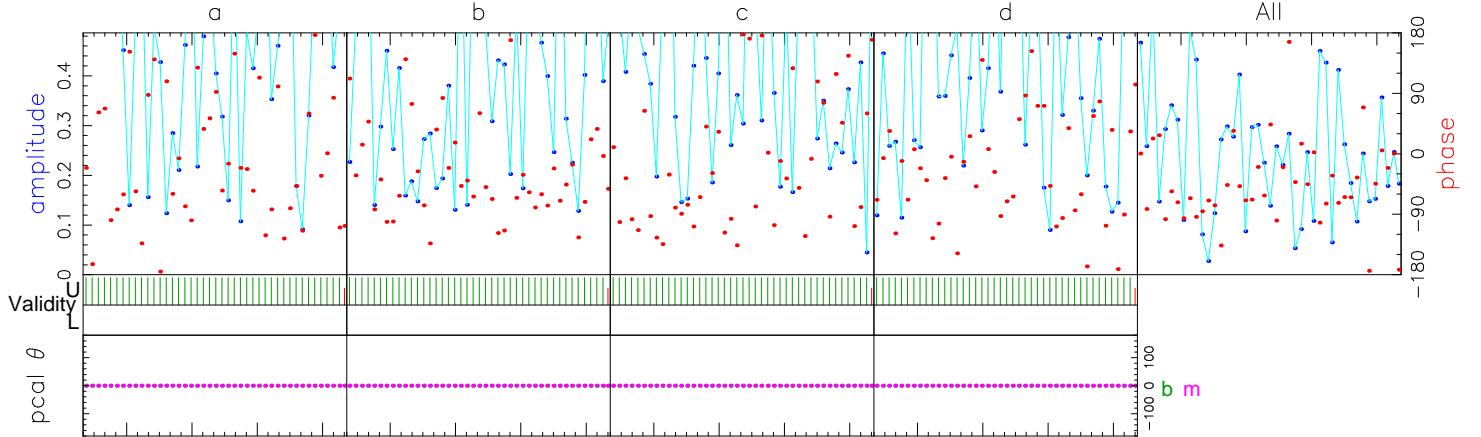
Fringe quality 0

SNR 6.9
 Int time 239.985
 Amp 0.162
 Phase -175.2
 PFD 9.5e-04
 Delays (us)
 SBD -0.020559
 MBD 0.002114
 Fringe rate (Hz)
 -0.021722
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102423
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b:m	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
m	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
m	Q00UR	Q01UR	Q02UR	Q03UR		
					Validity	
					pcal θ	

Group delay (usec) (SBD)	2.91034718054E+03	Apriori delay (usec)	2.91036850412E+03	Resid mbdelay (usec)	2.11392E-03	+/-	1.6E-04
Sband delay (usec)	2.91034794500E+03	Apriori clock (usec)	4.1222382E+00	Resid sbdelay (usec)	-2.05591E-02	+/-	6.3E-04
Phase delay (usec)	2.91036850081E+03	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	-3.31347E-06	+/-	1.1E-06
Delay rate (us/s)	-8.49343374094E-01	Apriori rate (us/s)	-8.49342870578E-01	Resid rate (us/s)	-5.03516E-07	+/-	7.7E-09
Total phase (deg)	-78.8	Apriori accel (us/s/s)	-1.11461821723E-05	Resid phase (deg)	-175.2	+/-	16.7

ph/seg (deg)	55.3	Theor.	54.7	Amplitude	0.162 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	96.2		95.5	Search (1024X16)	0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	27.4		16.7	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.004 0.004
amp/frq (%)	33.2		29.1	Inc. seg. avg.	0.170	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023 0.023
				Inc. frq. avg.	0.161	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00

b: az 150.6 el 43.7 pa -19.0 m: az 96.6 el 33.2 pa -69.8 u,v (fr/asec) 2436.597 1751.424 simultaneous interpolator

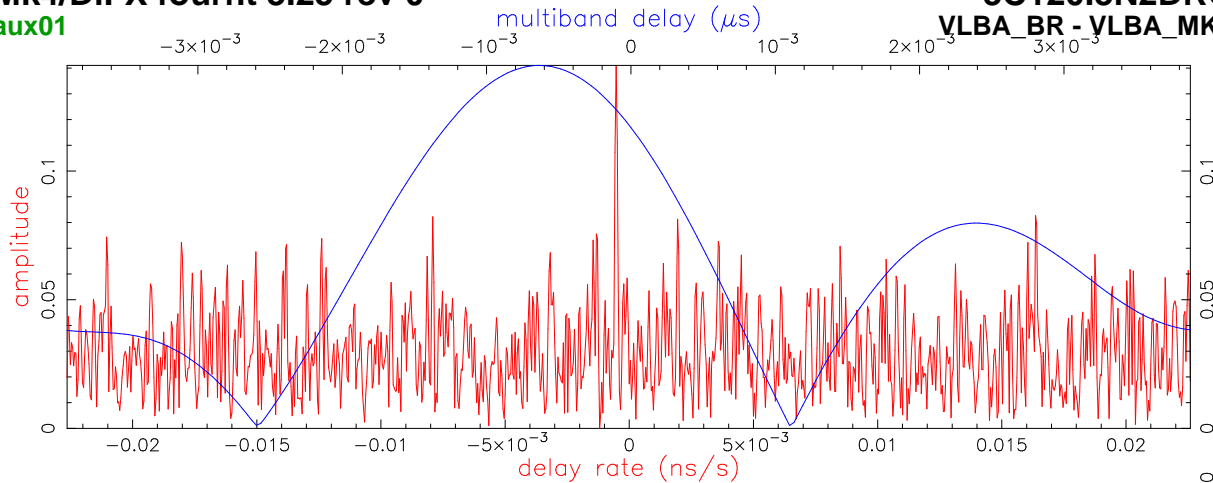
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bm..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bm.Q.27.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

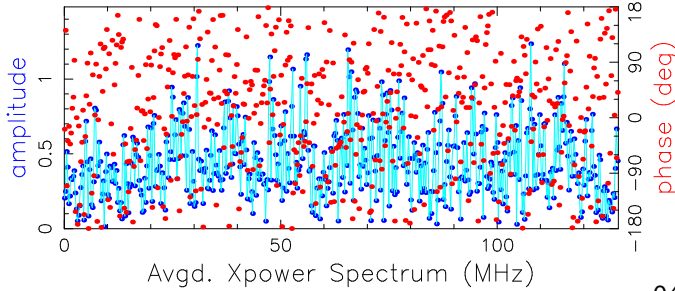
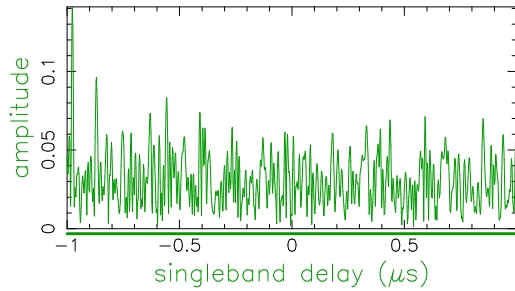
3C120.3N2DRC, No0552, bm

VLBA_BR - VLBA_MK, fgroup Q, pol RL



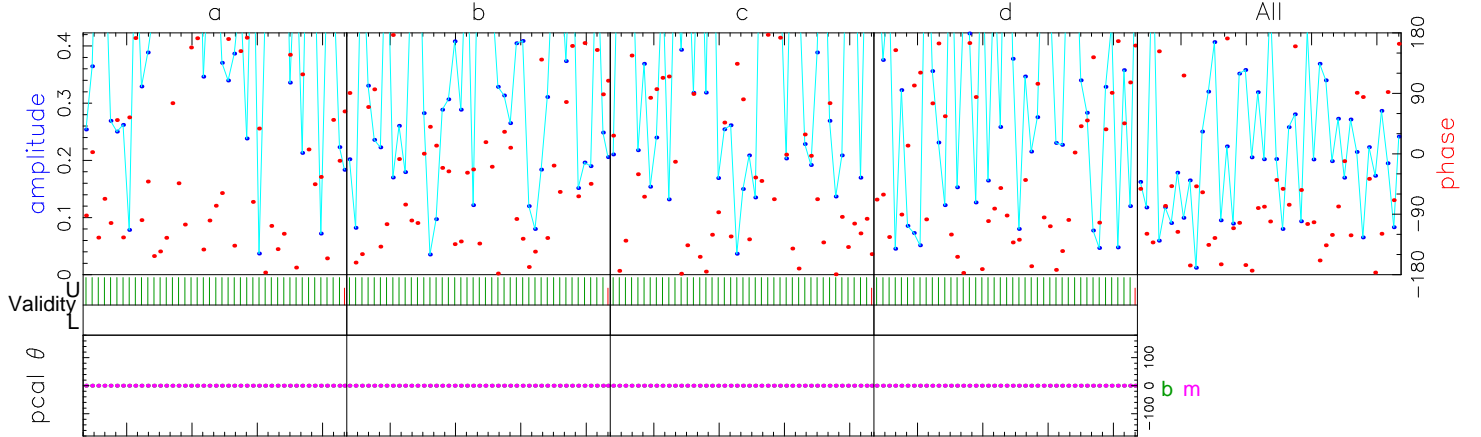
Fringe quality 0

SNR 6.0
 Int time 239.985
 Amp 0.141
 Phase -354.5
 PFD 2.6e-01
 Delays (us)
 SBD -0.976528
 MBD -0.000633
 Fringe rate (Hz)
 -0.022126
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102427
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-121.9	-88.7	-134.1	-109.5	Phase	-118.3
	0.2	0.1	0.2	0.1	Ampl.	0.1
	504.6	1023.6	12.6	165.9	Sbd box	13.0
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	PC freqs	
b:m	0:0	0:0	0:0	0:0	PC phase	
b:m	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
m	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	2.90939130856E+03	Apriori delay (usec)	2.91036850412E+03	Resid mbdelay (usec)	-6.33062E-04	+/-	1.9E-04
Sband delay (usec)	2.90939197662E+03	Apriori clock (usec)	4.1222382E+00	Resid sbdelay (usec)	-9.76528E-01	+/-	7.2E-04
Phase delay (usec)	2.91036849651E+03	Apriori clockrate (us/s)	5.9094092E-07	Resid phdelay (usec)	-7.61657E-06	+/-	1.2E-06
Delay rate (us/s)	-8.49343383460E-01	Apriori rate (us/s)	-8.49342870578E-01	Resid rate (us/s)	-5.12882E-07	+/-	8.9E-09
Total phase (deg)	-258.1	Apriori accel (us/s/s)	-1.11461821723E-05	Resid phase (deg)	-354.5	+/-	19.2

ph/seg (deg)	RMS 66.3	Theor. 62.9	Amplitude Search (1024X16)	0.141 +/- 0.024	0.134	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	104.4	109.8	Interp.	0.000	0.139	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	24.7	19.2	Inc. seg. avg.	0.139	0.138	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.7	33.5	Inc. frq. avg.	0.138		Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 m: az 96.6 el 33.2 pa -69.8 u,v (fr/asec) 2436.597 1751.424 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bm..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bm.Q.33.3N2DRC

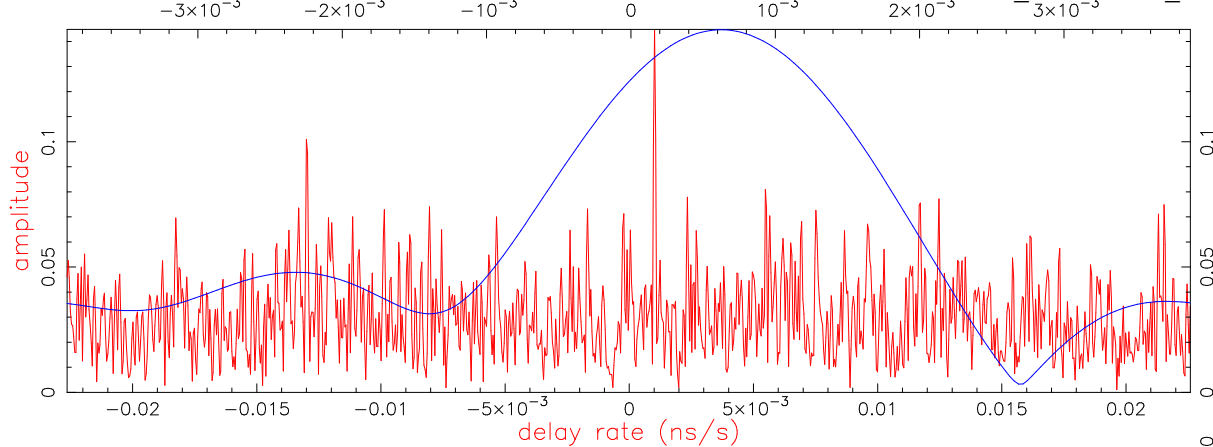
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bn

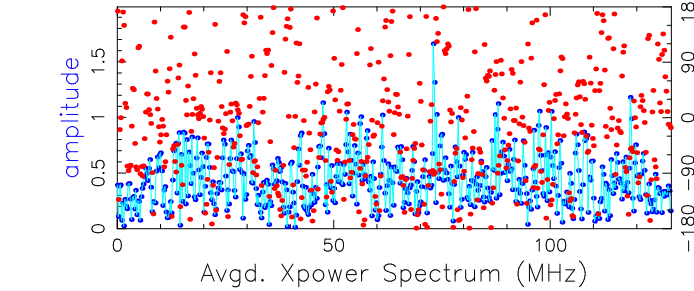
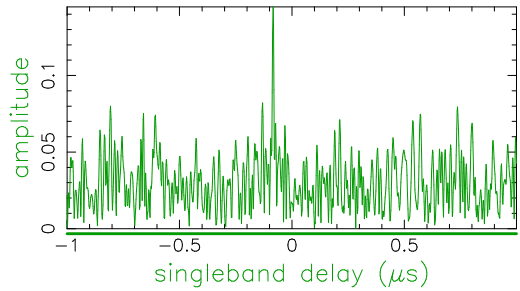
VLBA_BR - VLBA_NL, fgroup Q, pol RR

multiband delay (μ s)



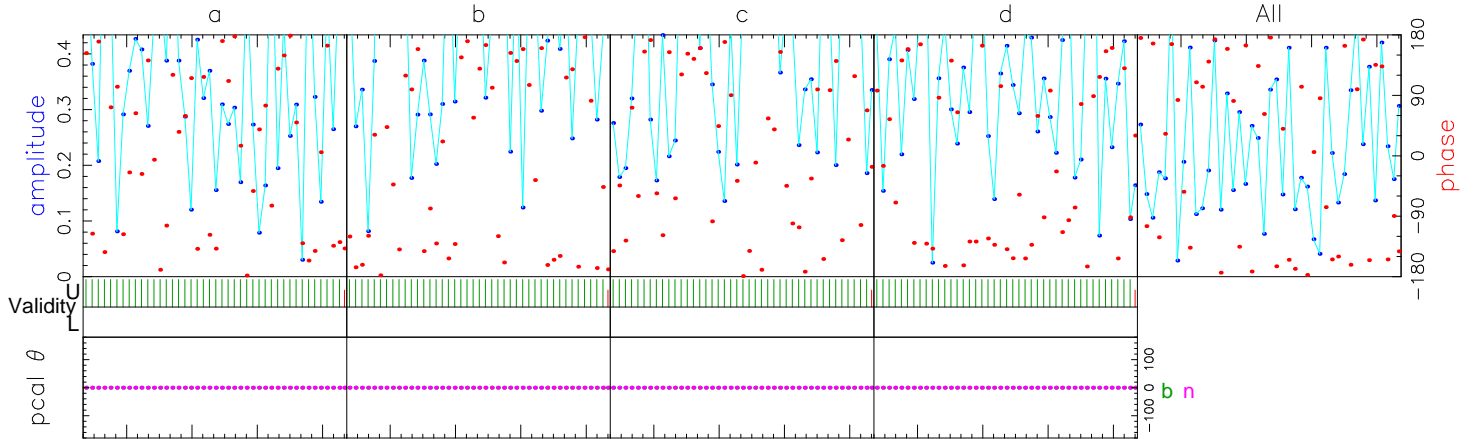
Fringe quality 0

SNR 6.1
 Int time 239.972
 Amp 0.145
 Phase -34.1
 PFD 1.1e-01
 Delays (us)
 SBD -0.083885
 MBD 0.000632
 Fringe rate (Hz)
 0.044521
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102422
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR		
n	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec) (SBD)	-2.19578560695E+03	Apriori delay (usec)	-2.19570030190E+03	Resid mbdelay (usec)	6.32455E-04	+/- 1.8E-04
Sband delay (usec)	-2.19578418678E+03	Apriori clock (usec)	4.9302464E+00	Resid sbdelay (usec)	-8.38849E-02	+/- 7.0E-04
Phase delay (usec)	-2.19570029033E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	1.15702E-05	+/- 1.2E-06
Delay rate (us/s)	5.15871887925E-01	Apriori rate (us/s)	5.15870855902E-01	Resid rate (us/s)	1.03202E-06	+/- 8.7E-09
Total phase (deg)	-42.7	Apriori accel (us/s/s)	1.25371630621E-05	Resid phase (deg)	-34.1	+/- 18.7

ph/seg (deg)	68.4	Theor.	61.3	Amplitude	0.145 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	105.7	Search (1024X16)	0.137	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	13.1	Inc. seg. avg.	0.149	Inc. frq. avg.	0.139	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	29.1	Inc. frq. avg.	0.139			Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
						Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite

b: az 150.6 el 43.7 pa -19.0 n: az 192.0 el 53.1 pa 9.3 u,v (fr/asec) -1479.783 392.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bn..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bn.Q.17.3N2DRC

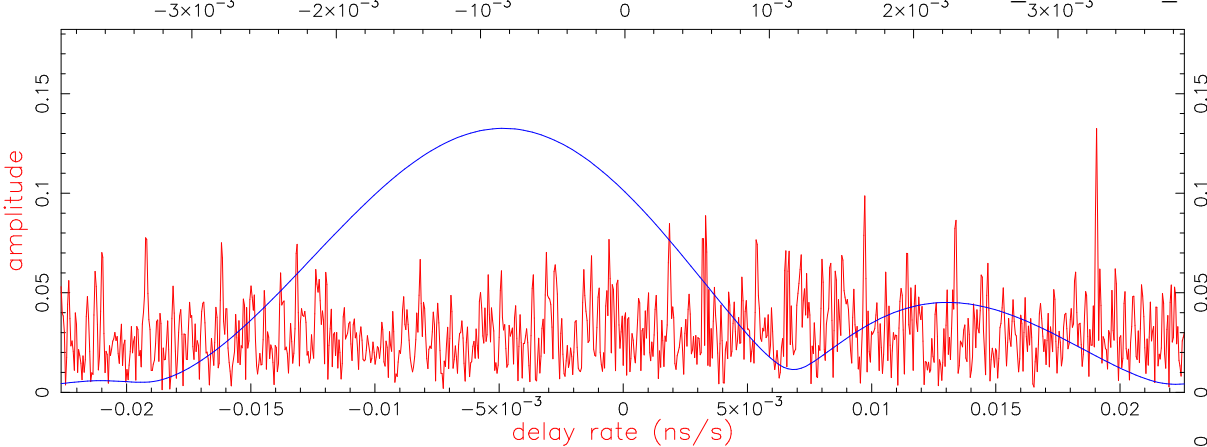
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bn

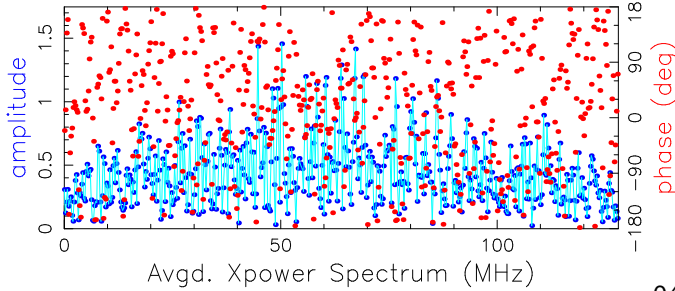
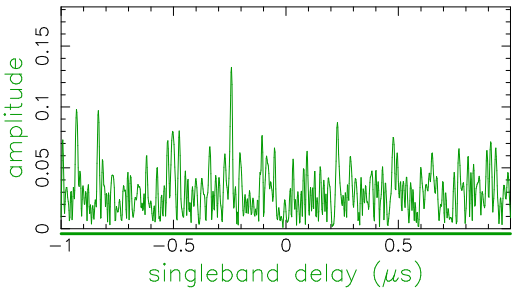
VLBA_BR - VLBA_NL, fgroup Q, pol LR

multiband delay (μ s)



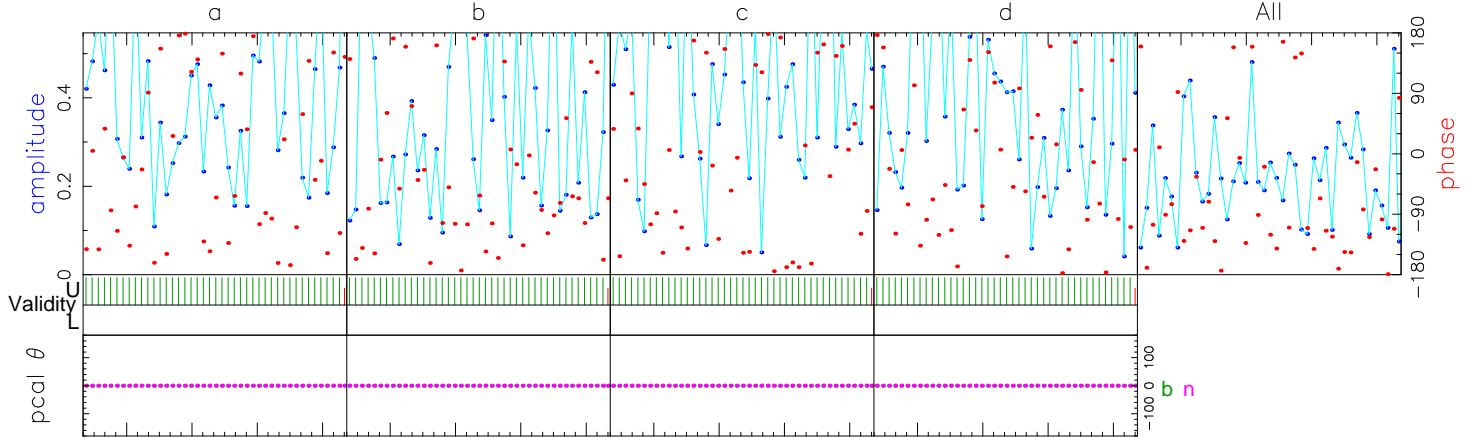
Fringe quality 0

SNR 5.6
 Int time 239.972
 Amp 0.182
 Phase -199.7
 PFD 8.7e-01
 Delays (us)
 SBD -0.242728
 MBD -0.000882
 Fringe rate (Hz)
 0.825814
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102423
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-131.2	-107.9	-134.4	-113.2	Phase	-121.0
	0.2	0.2	0.2	0.1	Ampl.	0.2
	220.3	565.7	980.0	34.5	Sbd box	388.7
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	PC freqs	
b:n	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
n	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-2.19594337122E+03	Apriori delay (usec)	-2.1957003190E+03	Resid mbdelay (usec)	-8.81813E-04	+/-	2.0E-04
Sband delay (usec)	-2.19594302978E+03	Apriori clock (usec)	4.9302464E+00	Resid sbdelay (usec)	-2.42728E-01	+/-	7.6E-04
Phase delay (usec)	-2.19570030969E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	-7.78899E-06	+/-	1.3E-06
Delay rate (us/s)	5.1588998555E-01	Apriori rate (us/s)	5.15870855902E-01	Resid rate (us/s)	1.91427E-05	+/-	9.4E-09
Total phase (deg)	-208.4	Apriori accel (us/s/s)	1.25371630621E-05	Resid phase (deg)	-199.7	+/-	20.3

	RMS	Theor.	Amplitude	0.182 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	69.1	66.6	Search (1024X16)	0.129	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000
amp/seg (%)	107.7	116.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
ph/frq (deg)	16.1	20.3	Inc. seg. avg.	0.185	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	19.0	35.4	Inc. frq. avg.	0.174	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 150.6 el 43.7 pa -19.0 n: az 192.0 el 53.1 pa 9.3 u,v (fr/asec) -1479.783 392.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bn..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bn.Q.26.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

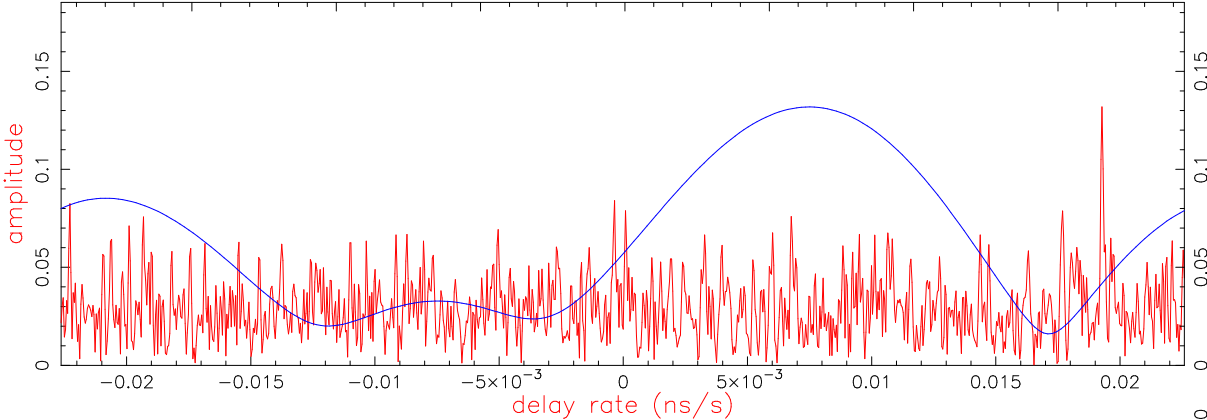
aux01

3C120.3N2DRC, No0552, bn

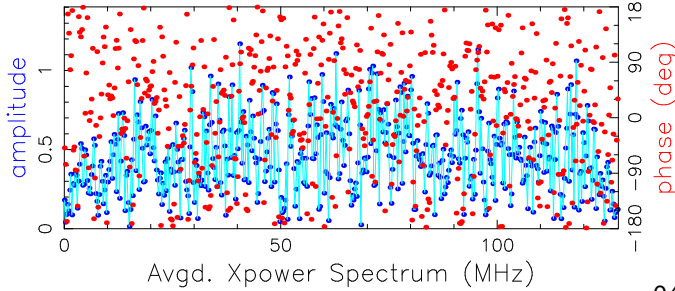
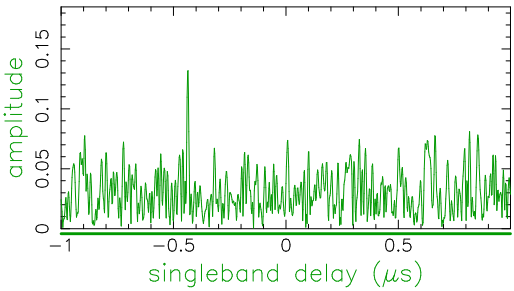
VLBA_BR - VLBA_NL, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 0

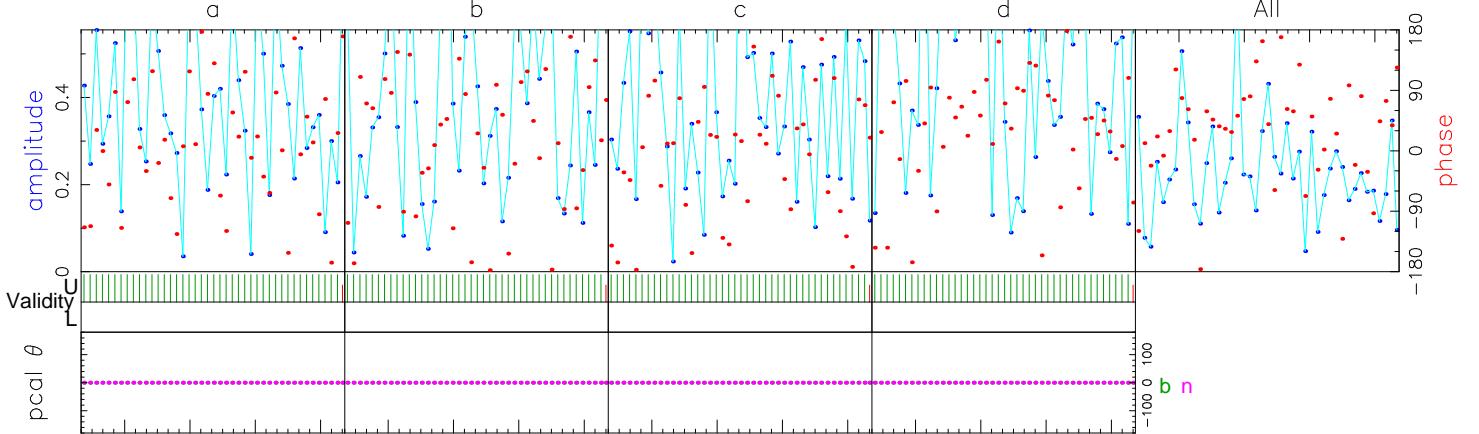


SNR 5.7
 Int time 239.972
 Amp 0.185
 Phase -216.7
 PFD 8.0e-01
 Delays (us)
 SBD -0.436479
 MBD 0.001281
 Fringe rate (Hz)
 0.836045
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102426
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
40.3	83.4	28.5	55.4	Phase	53.3
0.2	0.2	0.1	0.3	Ampl.	0.2
180.8	348.4	54.4	289.5	Sbd box	289.5
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	PC freqs	
b:n 0:0	0:0	0:0	0:0	PC phase	
b:n 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
n Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-2.19613652056E+03	Apriori delay (usec)	-2.19570030190E+03	Resid mbdelay (usec)	1.28135E-03	+/-	2.0E-04
Sband delay (usec)	-2.19613678128E+03	Apriori clock (usec)	4.9302464E+00	Resid sbdelay (usec)	-4.36479E-01	+/-	7.6E-04
Phase delay (usec)	-2.19570029847E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	3.43416E-06	+/-	1.3E-06
Delay rate (us/s)	5.15890235715E-01	Apriori rate (us/s)	5.15870855902E-01	Resid rate (us/s)	1.93798E-05	+/-	9.4E-09
Total phase (deg)	-225.4	Apriori accel (us/s/s)	1.25371630621E-05	Resid phase (deg)	-216.7	+/-	20.2

ph/seg (deg)	RMS 71.1	Theor. 66.1	Amplitude Search (1024X16)	0.185 +/- 0.033	0.127	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	115.0	115.4	Interp.	0.000	0.127	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	29.1	20.2	Inc. seg. avg.	0.195	0.127	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	32.3	35.2	Inc. frq. avg.	0.181	0.127	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 n: az 192.0 el 53.1 pa 9.3 u,v (fr/asec) -1479.783 392.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bn..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bn.Q.32.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

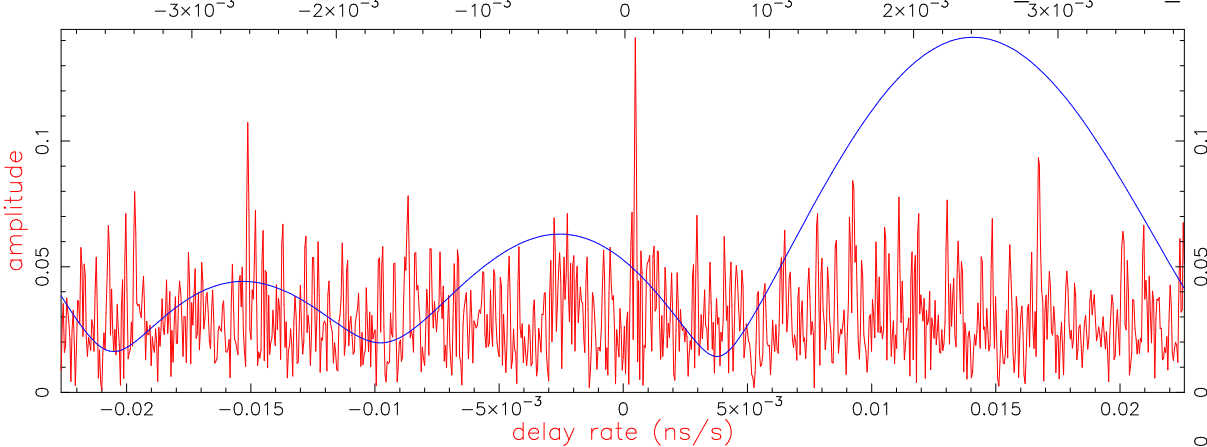
aux01

3C120.3N2DRC, No0552, bn

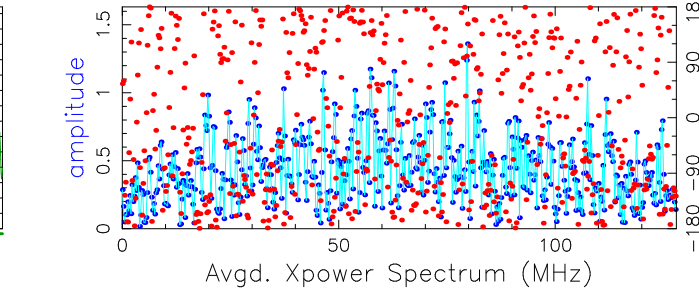
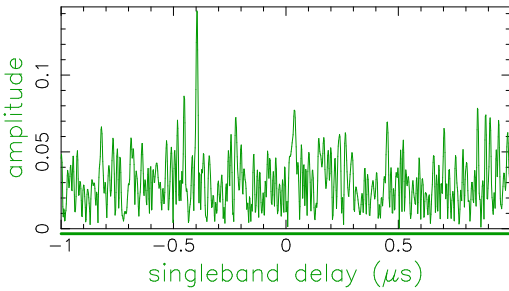
VLBA_BR - VLBA_NL, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 0

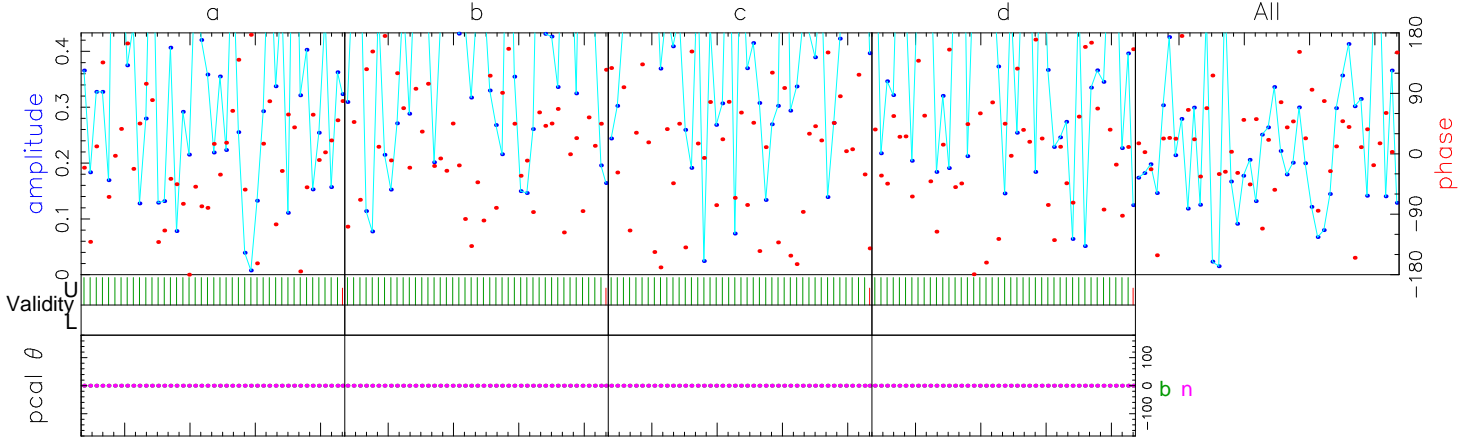


SNR 6.1
 Int time 239.972
 Amp 0.144
 Phase -285.6
 PFD 1.2e-01
 Delays (us)
 SBD -0.395551
 MBD 0.002351
 Fringe rate (Hz)
 0.021454
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102420
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b:n	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
n	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
n	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec) (SBD)	-2.19609638807E+03	Apriori delay (usec)	-2.19570030190E+03	Resid mbdelay (usec)	2.35133E-03	+/-	1.8E-04
Sband delay (usec)	-2.19609585278E+03	Apriori clock (usec)	4.9302464E+00	Resid sbdelay (usec)	-3.95551E-01	+/-	7.0E-04
Phase delay (usec)	-2.19570030073E+03	Apriori clockrate (us/s)	2.7918098E-07	Resid phdelay (usec)	1.16873E-06	+/-	1.2E-06
Delay rate (us/s)	5.15871353221E-01	Apriori rate (us/s)	5.15870855902E-01	Resid rate (us/s)	4.97319E-07	+/-	8.7E-09
Total phase (deg)	-294.3	Apriori accel (us/s/s)	1.25371630621E-05	Resid phase (deg)	-285.6	+/-	18.7

ph/seg (deg)	RMS 68.1	Theor. 61.4	Amplitude Search (1024X16)	0.135	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	108.7	107.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	20.2	18.7	Inc. seg. avg.	0.150	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.004 0.004
amp/frq (%)	13.5	32.7	Inc. frq. avg.	0.138	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023 0.023
					Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 n: az 192.0 el 53.1 pa 9.3 u,v (fr/asec) -1479.783 392.764 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bn..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bn.Q.9.3N2DRC

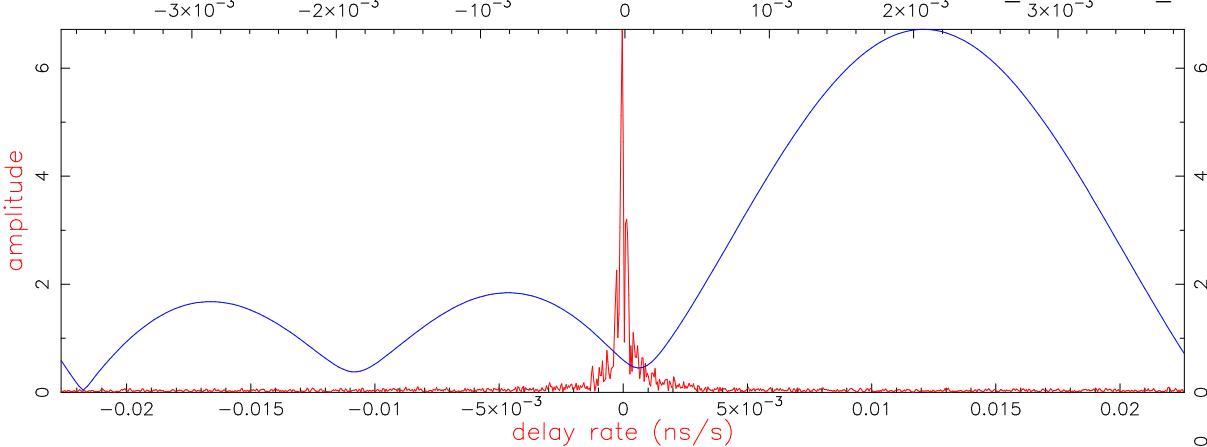
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bo

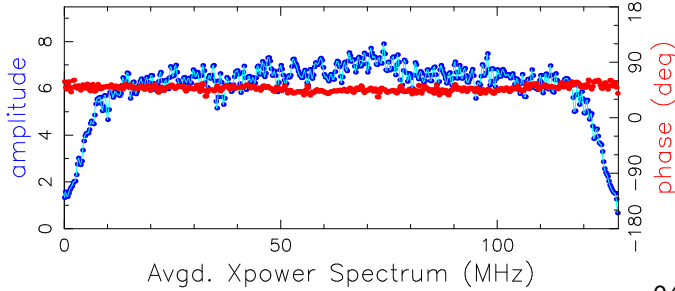
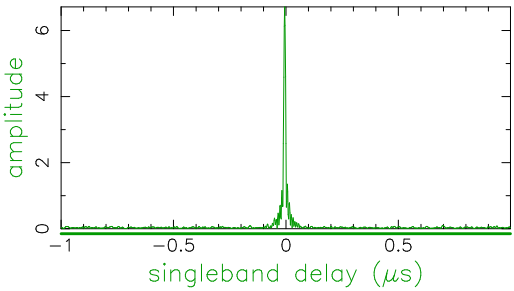
VLBA_BR - VLBA_OV, fgroup Q, pol RR

multiband delay (μ s)



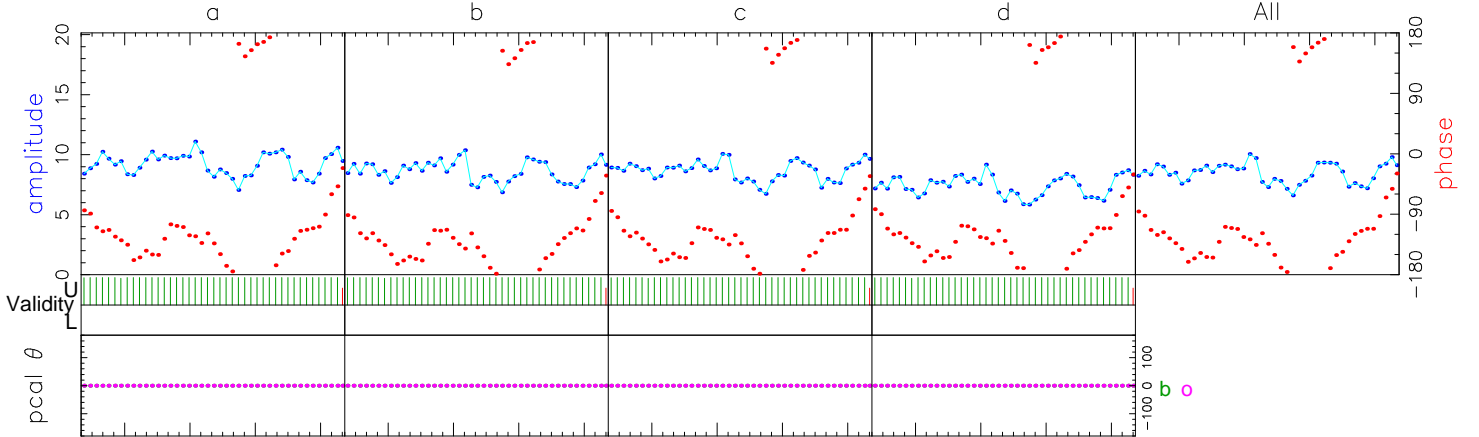
Fringe quality 6

SNR 284.4
 Int time 239.796
 Amp 6.717
 Phase -56.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.005835
 MBD 0.002070
 Fringe rate (Hz)
 -0.002534
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102420
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	a	b	c	d	All
42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-132.2	-138.9	-135.8	-132.9	Phase	-135.0
7.3	6.8	6.8	5.9	Ampl.	6.7
510.1	509.9	510.3	509.7	Sbd box	510.0
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
b:0 0:0	0:0	0:0	0:0	PC phase	
b:0 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-2.43811883269E+03	Apriori delay (usec)	-2.43811309052E+03	Resid mbdelay (usec)	2.07033E-03	+/-	3.9E-06
Sband delay (usec)	-2.43811892527E+03	Apriori clock (usec)	-2.0423668E+01	Resid sbdelay (usec)	-5.83475E-03	+/-	1.5E-05
Phase delay (usec)	-2.43811309921E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	-8.69028E-06	+/-	2.6E-08
Delay rate (us/s)	-3.95436937187E-02	Apriori rate (us/s)	-3.95436349841E-02	Resid rate (us/s)	-5.87347E-08	+/-	1.9E-10
Total phase (deg)	-317.3	Apriori accel (us/s/s)	1.43398345510E-05	Resid phase (deg)	-56.2	+/-	0.4

ph/seg (deg)	RMS 39.1	Theor. 1.3	Amplitude 6.717 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	28.7	2.3	Search (1024X16) 6.442	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	3.7	0.4	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	7.9	0.7	Inc. seg. avg. 8.463	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
			Inc. frq. avg. 6.724	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

b: az 150.6 el 43.7 pa -19.0 o: az 146.1 el 53.5 pa -26.2 u,v (fr/asec) 120.696 670.415 simultaneous interpolator

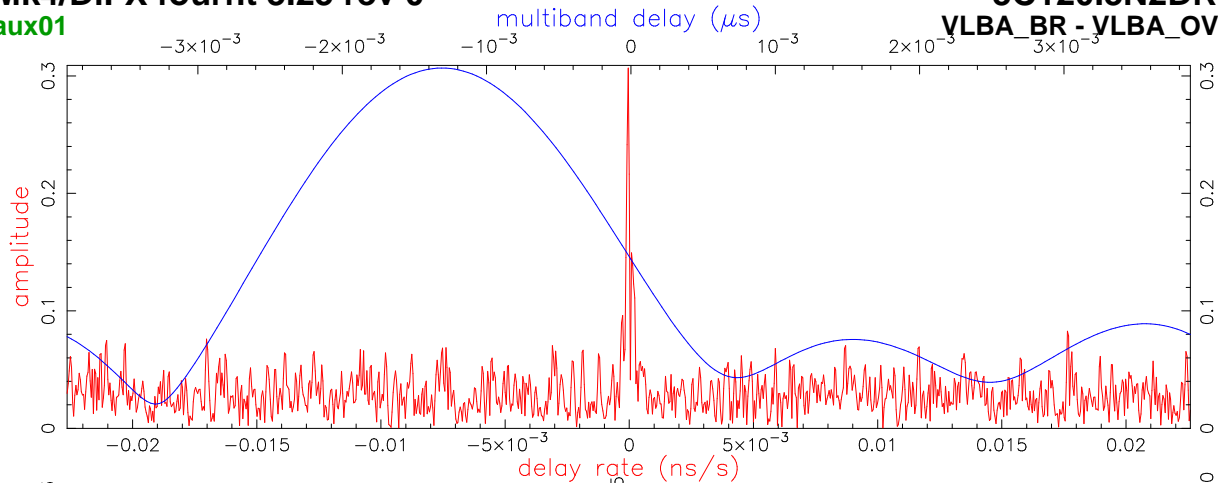
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bo..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bo.Q.11.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

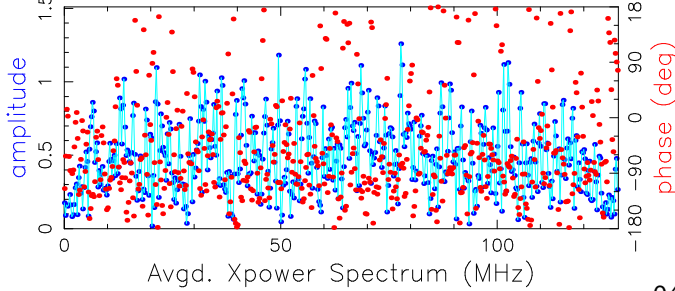
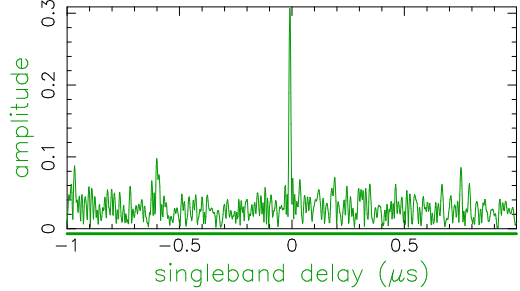
3C120.3N2DRC, No0552, bo

VLBA_BR - VLBA_OV, fgroup Q, pol LR



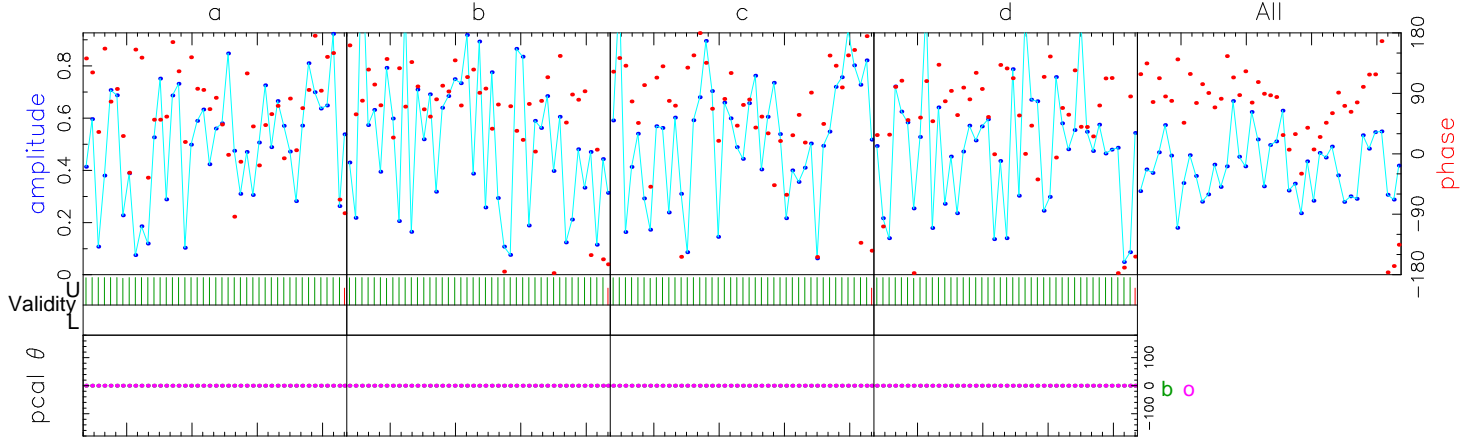
Fringe quality 9

SNR 13.1
 Int time 239.796
 Amp 0.309
 Phase -192.9
 PFD 1.1e-30
 Delays (us)
 SBD -0.009197
 MBD -0.001293
 Fringe rate (Hz)
 -0.002639
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102422
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	82.8	90.0	103.6	77.1	Phase	88.3
	0.3	0.4	0.3	0.3	Ampl.	0.3
	508.9	508.0	508.2	507.9	Sbd box	508.3
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
o	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-2.43812219597E+03	Apriori delay (usec)	-2.43811309052E+03	Resid mbdelay (usec)	-1.29295E-03	+/-	8.5E-05
Sband delay (usec)	-2.43812228765E+03	Apriori clock (usec)	-2.0423668E+01	Resid sbdelay (usec)	-9.19713E-03	+/-	3.3E-04
Phase delay (usec)	-2.43811308484E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	5.68610E-06	+/-	5.6E-07
Delay rate (us/s)	-3.95436961664E-02	Apriori rate (us/s)	-3.95436349841E-02	Resid rate (us/s)	-6.11823E-08	+/-	4.1E-09
Total phase (deg)		Apriori accel (us/s/s)	1.43398345510E-05	Resid phase (deg)	-192.9	+/-	8.8

ph/seg (deg)	48.4	Theor.	28.7	Amplitude	0.309 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	49.5		50.1	Search (1024X16)	0.290	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	14.0		8.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	12.6		15.3	Inc. seg. avg.	0.368	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.307	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

b: az 150.6 el 43.7 pa -19.0 o: az 146.1 el 53.5 pa -26.2 u,v (fr/asec) 120.696 670.415 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bo..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bo.Q.20.3N2DRC

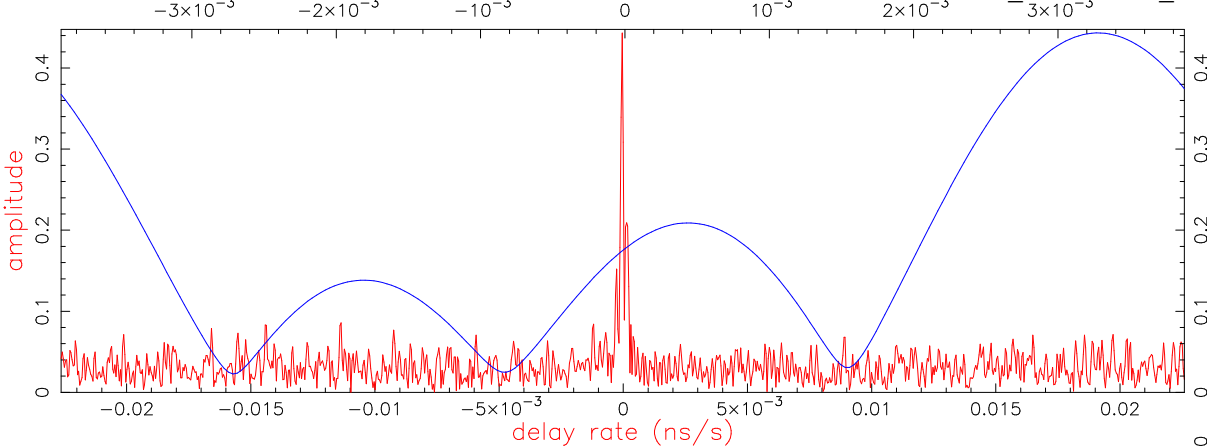
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bo

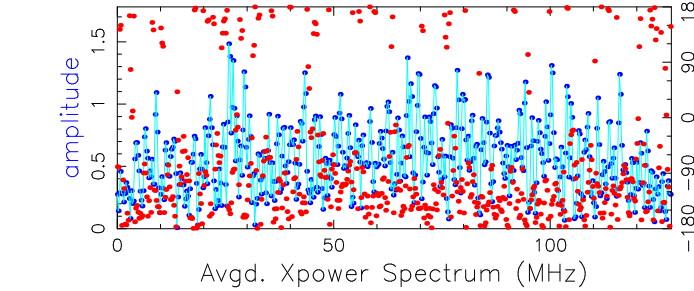
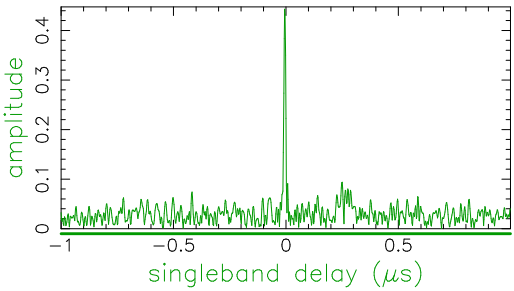
VLBA_BR - VLBA_OV, fgroup Q, pol RL

multiband delay (μ s)



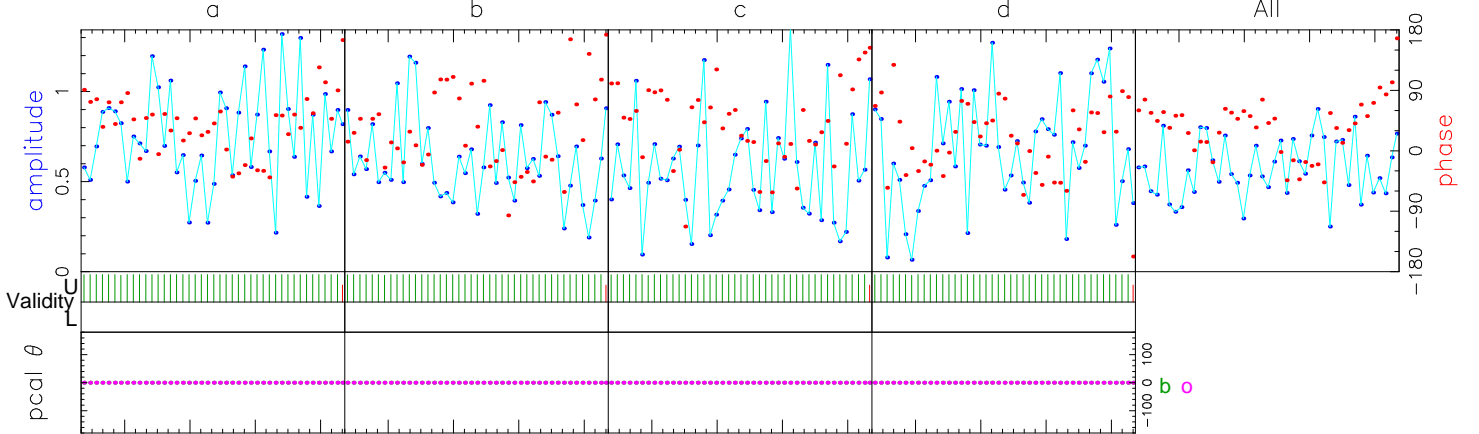
Fringe quality 9

SNR 19.0
 Int time 239.796
 Amp 0.448
 Phase -249.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.005180
 MBD 0.003310
 Fringe rate (Hz)
 -0.002681
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102425
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
36.9	20.8	41.7	27.1	Phase	31.9
0.6	0.4	0.4	0.5	Ampl.	0.4
510.1	510.7	510.9	509.8	Sbd box	510.3
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	PC freqs	
b:o 0:0	0:0	0:0	0:0	PC phase	
b:o 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000		
b Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
o Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-2.43811759338E+03	Apriori delay (usec)	-2.43811309052E+03	Resid mbdelay (usec)	3.30964E-03	+/- 5.9E-05
Sband delay (usec)	-2.43811827090E+03	Apriori clock (usec)	-2.0423668E+01	Resid sbdelay (usec)	-5.18038E-03	+/- 2.3E-04
Phase delay (usec)	-2.43811308847E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	2.05350E-06	+/- 3.9E-07
Delay rate (us/s)	-3.95436971228E-02	Apriori rate (us/s)	-3.95436349841E-02	Resid rate (us/s)	-6.21387E-08	+/- 2.8E-09
Total phase (deg)	-150.4	Apriori accel (us/s/s)	1.43398345510E-05	Resid phase (deg)	-249.4	+/- 6.0

ph/seg (deg)	RMS 40.6	Theor. 19.8	Amplitude Search (1024X16)	0.448 +/- 0.024	0.414	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	46.3	34.6	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	11.6	6.0	Inc. seg. avg.	0.545	0.545	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBbps	16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	18.5	10.6	Inc. frq. avg.	0.445	0.445	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 o: az 146.1 el 53.5 pa -26.2 u,v (fr/asec) 120.696 670.415 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bo..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bo.Q.28.3N2DRC

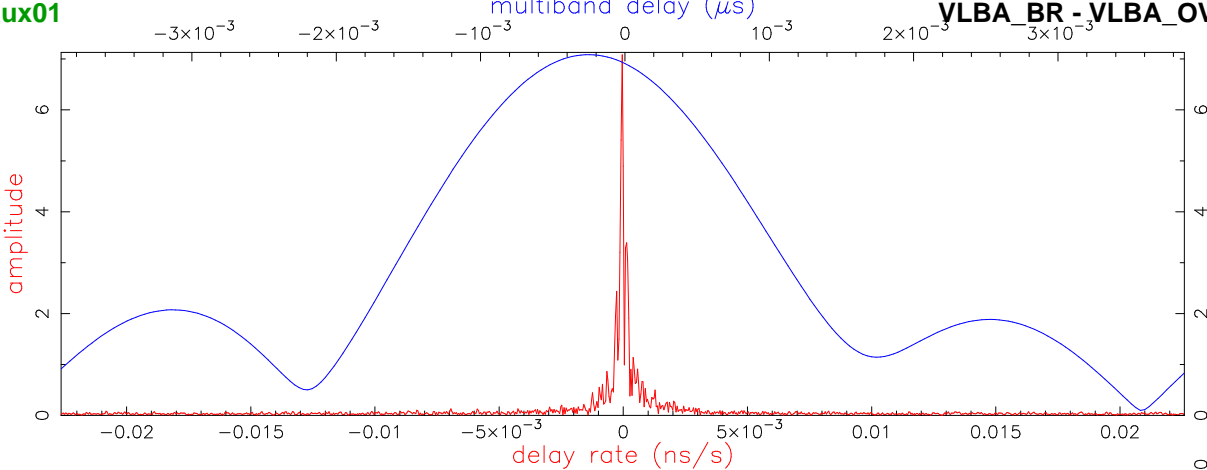
Mk4/DiFX fourfit 3.25 rev 0

aux01

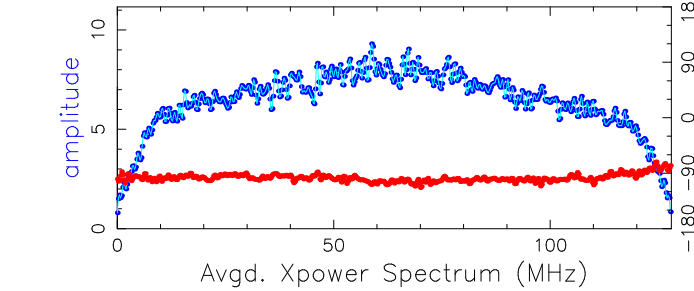
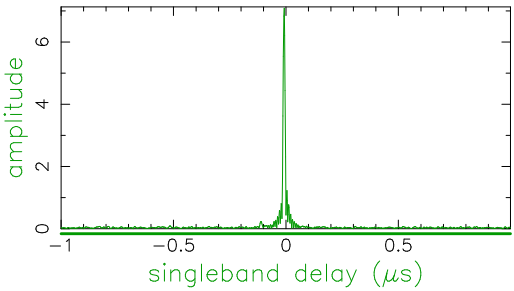
3C120.3N2DRC, No0552, bo

VLBA_BR - VLBA_OV, fgroup Q, pol LL

Fringe quality 5

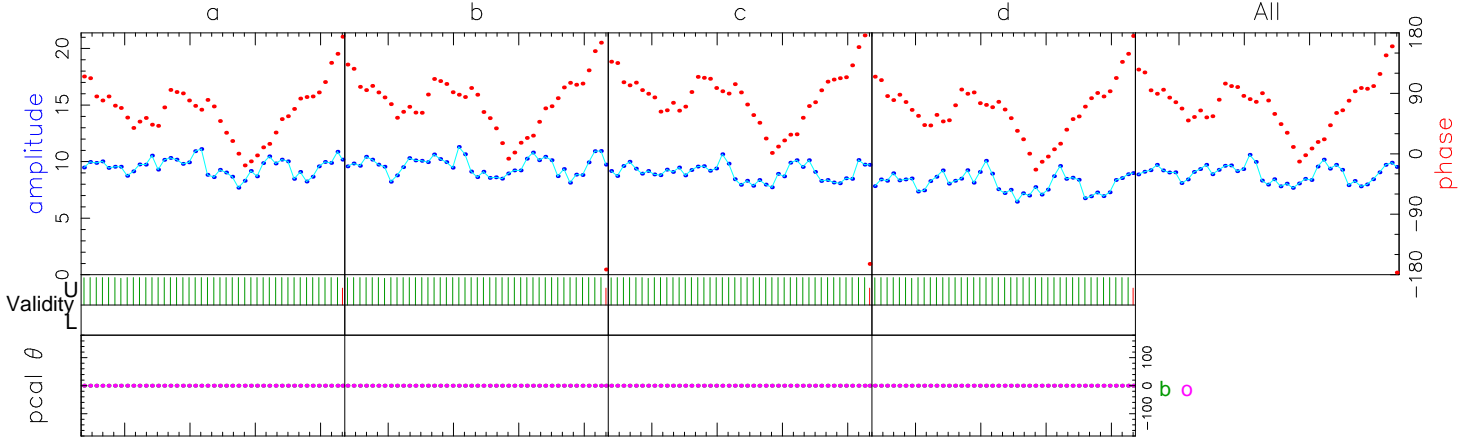


SNR 301.9
 Int time 239.796
 Amp 7.130
 Phase -205.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.008360
 MBD -0.000281
 Fringe rate (Hz)
 -0.002557
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102419
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000		
o	1000	1000	1000	1000		
b:o	0:0	0:0	0:0	0:0		
b:o	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000		
o	1000	1000	1000	1000		
b	Q00UL	Q01UL	Q02UL	Q03UL		
o	Q00UL	Q01UL	Q02UL	Q03UL		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-2.43812118375E+03	Apriori delay (usec)	-2.43811309052E+03	Resid mbdelay (usec)	-2.80732E-04	+/-	3.7E-06
Sband delay (usec)	-2.43812145027E+03	Apriori clock (usec)	-2.0423668E+01	Resid sbdelay (usec)	-8.35975E-03	+/-	1.4E-05
Phase delay (usec)	-2.43811308566E+03	Apriori clockrate (us/s)	9.5168881E-08	Resid phdelay (usec)	4.86267E-06	+/-	2.4E-08
Delay rate (us/s)	-3.95436942649E-02	Apriori rate (us/s)	-3.95436349841E-02	Resid rate (us/s)	-5.92808E-08	+/-	1.8E-10
Total phase (deg)	-106.8	Apriori accel (us/s/s)	1.43398345510E-05	Resid phase (deg)	-205.7	+/-	0.4

ph/seg (deg)	39.5	1.2	Search (1024X16)	6.663	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	27.6	2.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	13.6	0.4	Inc. seg. avg.	8.959	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	6.9	0.7	Inc. frq. avg.	7.184	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023 0.023	
					Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 150.6 el 43.7 pa -19.0 o: az 146.1 el 53.5 pa -26.2 u,v (fr/asec) 120.696 670.415 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bo..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bo.Q.3.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

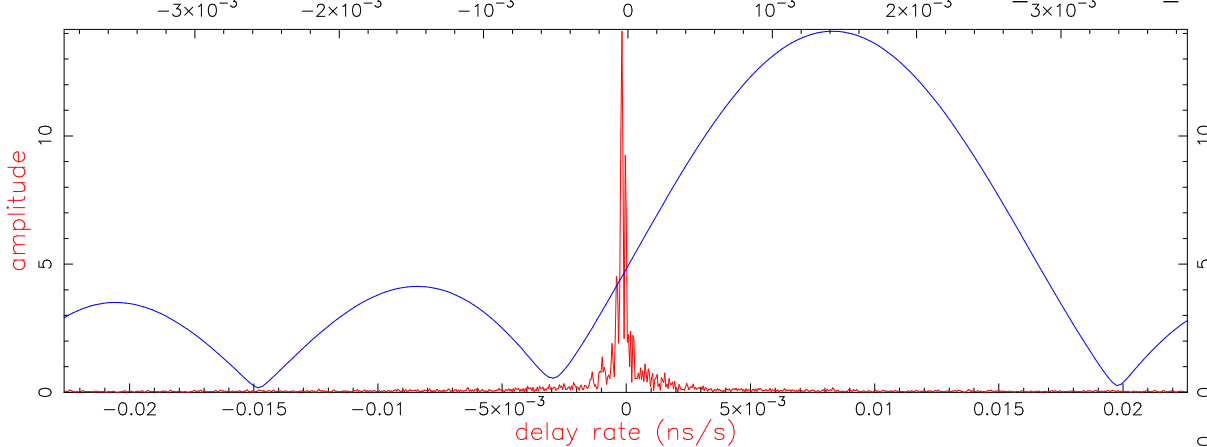
aux01

3C120.3N2DRC, No0552, bp

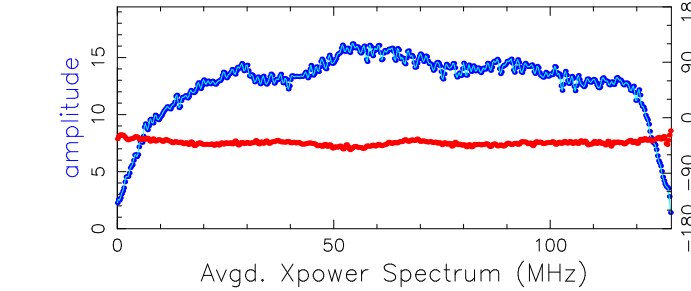
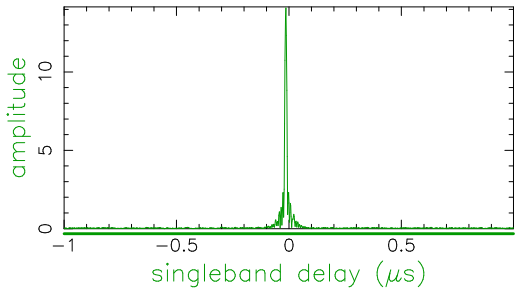
VLBA_BR - VLBA_PT, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 6

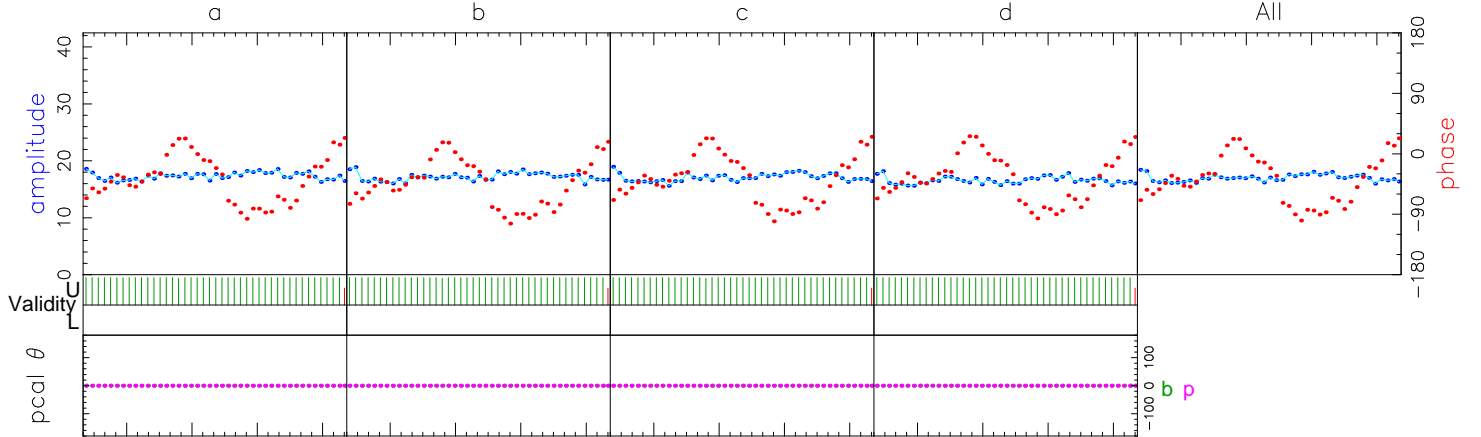


SNR 599.5
 Int time 239.831
 Amp 14.158
 Phase -242.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.014160
 MBD 0.001396
 Fringe rate (Hz)
 -0.008258
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102421
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-38.4	-45.3	-39.2	-36.9	Phase	-40.0
	14.4	14.3	14.1	13.7	Ampl.	14.1
	505.6	505.7	505.9	505.9	Sbd box	505.7
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
b:p	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec) (SBD)	-3.66411821244E+03		Apriori delay (usec)	-3.66410398317E+03	Resid mbdelay (usec)	1.39573E-03 +/- 1.9E-06
Sband delay (usec)	-3.66411814354E+03		Apriori clock (usec)	-1.0636177E+00	Resid sbdelay (usec)	-1.41604E-02 +/- 7.2E-06
Phase delay (usec)	-3.66410398574E+03		Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-2.57274E-06 +/- 1.2E-08
Delay rate (us/s)	1.65612402397E-01		Apriori rate (us/s)	1.65612593824E-01	Resid rate (us/s)	-1.91427E-07 +/- 8.9E-11
Total phase (deg)		-182.6	Apriori accel (us/s/s)	2.14016995146E-05	Resid phase (deg)	-242.5 +/- 0.2

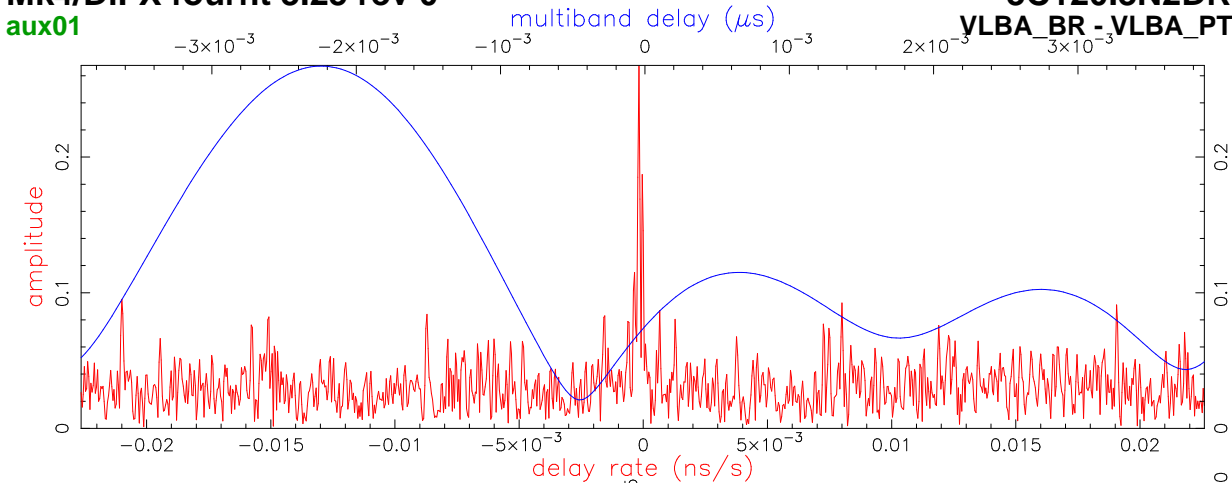
ph/seg (deg) RMS 34.6 Theor. 0.6 Amplitude 14.158 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 20.7 1.1 Search (1024X16) 13.475 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 4.5 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 2.0 0.3 Inc. seg. avg. 17.019 Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us dr window (ns/s) -0.023 0.023
 Inc. frq. avg. 14.103 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
 b: az 150.6 el 43.7 pa -19.0 p: az 161.3 el 59.8 pa -15.0 u,v (fr/asec) -466.719 879.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bp..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bp.Q.12.3N2DRC

Mk4/DiFX fourfit 3.25 rev 0

aux01

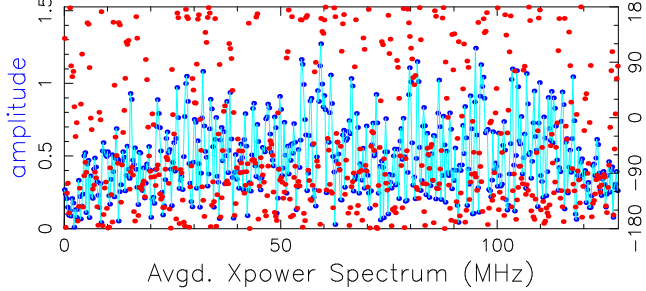
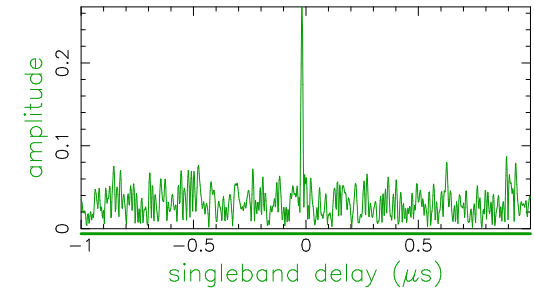
3C120.3N2DRC, No0552, bp

VLBA_BR - VLBA_PT, fgroup Q, pol LR



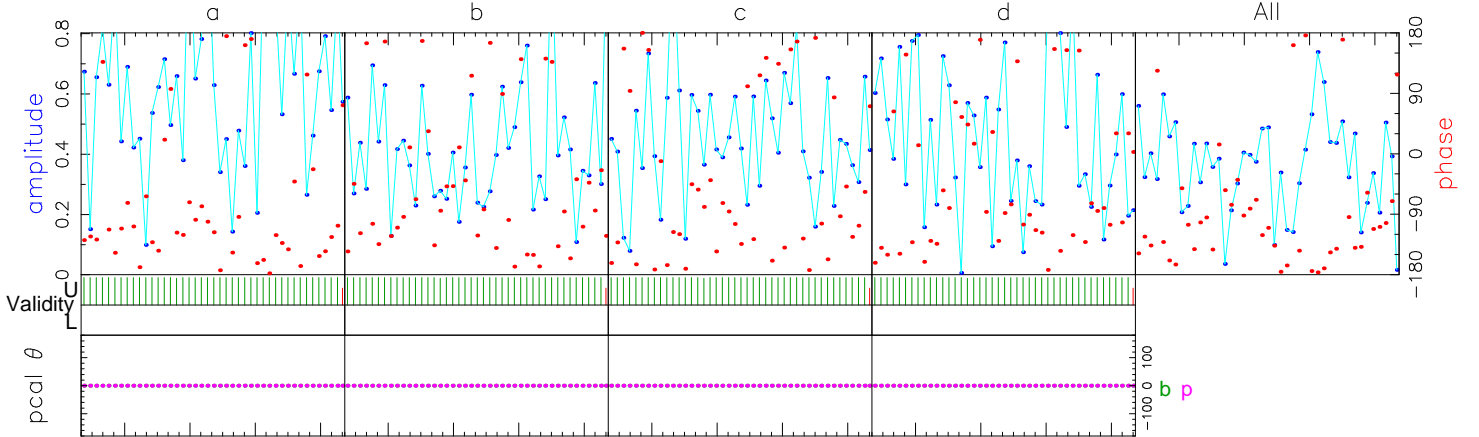
Fringe quality 9

SNR 11.3
 Int time 239.831
 Amp 0.268
 Phase -334.7
 PFD 2.2e-21
 Delays (us)
 SBD -0.017876
 MBD -0.002244
 Fringe rate (Hz)
 -0.008458
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102422
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-130.1	-135.8	-137.5	-126.8	Phase	-132.2
0.4	0.2	0.3	0.2	Ampl.	0.3
504.4	503.9	503.3	502.9	Sbd box	503.8
U/L 469/0	469/0	469/0	469/0	APs used	
b 1000	1000	1000	1000	PC freqs	
p 1000	1000	1000	1000	PC freqs	
b:p 0:0	0:0	0:0	0:0	PC phase	
b:p 0:0	0:0	0:0	0:0	Manl PC	
b 1000	1000	1000	1000	PC amp	
p 1000	1000	1000	1000		
b Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	-3.66412185228E+03	Apriori delay (usec)	-3.66410398317E+03	Resid mbdelay (usec)	-2.24411E-03	+/-	9.8E-05
Sband delay (usec)	-3.66412185904E+03	Apriori clock (usec)	-1.0636177E+00	Resid sbdelay (usec)	-1.78759E-02	+/-	3.8E-04
Phase delay (usec)	-3.66410399168E+03	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-8.51315E-06	+/-	6.5E-07
Delay rate (us/s)	1.65612397770E-01	Apriori rate (us/s)	1.65612593824E-01	Resid rate (us/s)	-1.96054E-07	+/-	4.7E-09
Total phase (deg)	-274.9	Apriori accel (us/s/s)	2.14016995146E-05	Resid phase (deg)	-334.7	+/-	10.1

ph/seg (deg)	50.9	Theor.	33.2	Amplitude	0.268 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	68.1	Search (1024X16)	0.241	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	6.1	Inc. seg. avg.	0.314	Inc. frq. avg.	0.264	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	33.1	Inc. frq. avg.	0.264			Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 150.6 el 43.7 pa -19.0 p: az 161.3 el 59.8 pa -15.0 u,v (fr/asec) -466.719 879.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bp..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bp.Q.21.3N2DRC

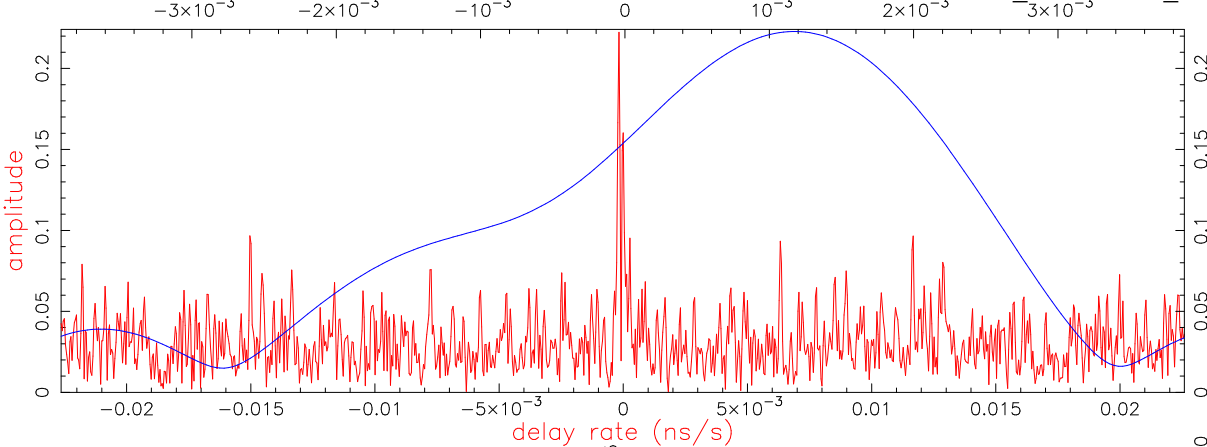
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bp

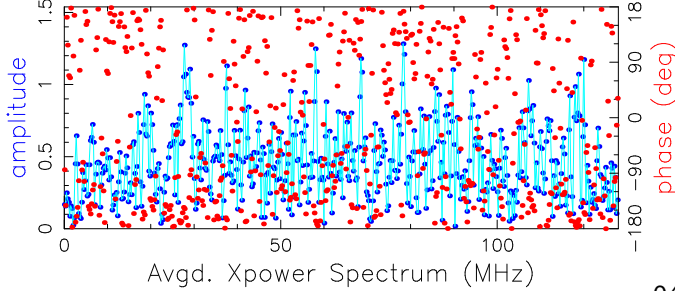
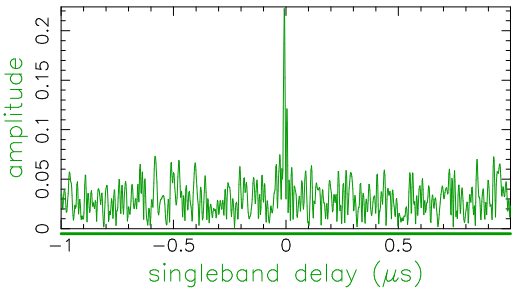
VLBA_BR - VLBA_PT, fgroup Q, pol RL

multiband delay (μ s)



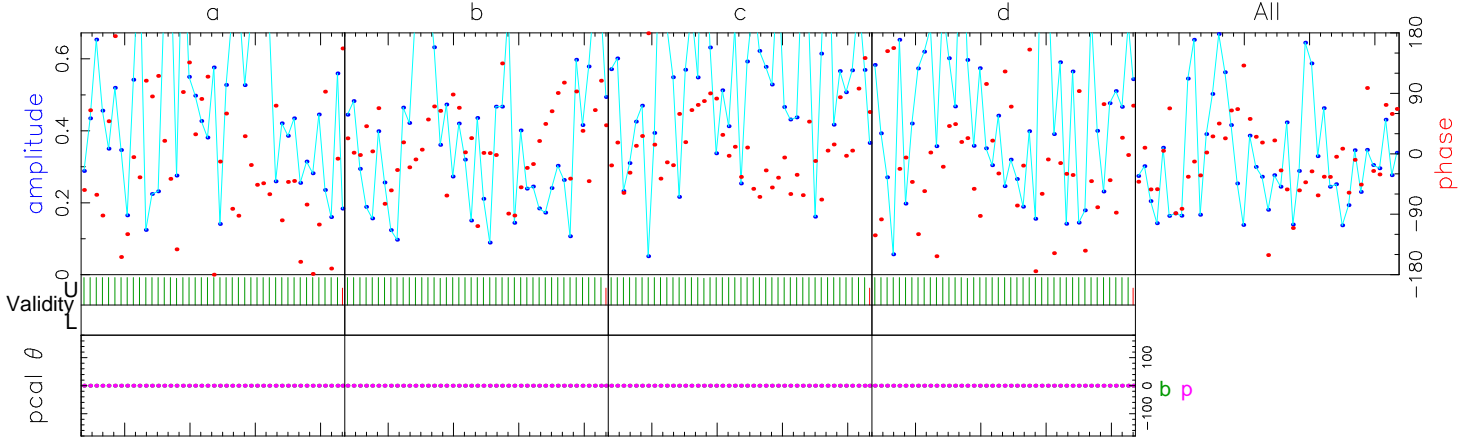
Fringe quality 9

SNR 9.5
 Int time 239.831
 Amp 0.224
 Phase -285.0
 PFD 4.6e-13
 Delays (us)
 SBD -0.007286
 MBD 0.001267
 Fringe rate (Hz)
 -0.008086
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102425
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-30.6	23.1	4.7	-26.6	Phase	-3.7
	0.1	0.2	0.4	0.2	Ampl.	0.2
	511.6	514.5	509.2	507.7	Sbd box	509.3
U/L	469/0	469/0	469/0	469/0	APs used	
b	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	PC freqs	
b:p	0:0	0:0	0:0	0:0	PC phase	
b:p	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000		
b	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	-3.66411052906E+03	Apriori delay (usec)	-3.66410398317E+03	Resid mbdelay (usec)	1.26660E-03	+/-	1.2E-04
Sband delay (usec)	-3.66411126942E+03	Apriori clock (usec)	-1.0636177E+00	Resid sbdelay (usec)	-7.28625E-03	+/-	4.5E-04
Phase delay (usec)	-3.66410398341E+03	Apriori clockrate (us/s)	1.9774395E-07	Resid phdelay (usec)	-2.40580E-07	+/-	7.8E-07
Delay rate (us/s)	1.65612406389E-01	Apriori rate (us/s)	1.65612593824E-01	Resid rate (us/s)	-1.87435E-07	+/-	5.6E-09
Total phase (deg)	-225.2	Apriori accel (us/s/s)	2.14016995146E-05	Resid phase (deg)	-285.0	+/-	12.1

ph/seg (deg)	56.9	Theor.	39.6	Amplitude	0.224 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	79.9		69.1	Search (1024X16)	0.217	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	31.9		12.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	35.9		21.1	Inc. seg. avg.	0.263	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.232	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

b: az 150.6 el 43.7 pa -19.0 p: az 161.3 el 59.8 pa -15.0 u,v (fr/asec) -466.719 879.058 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bp..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bp.Q.29.3N2DRC

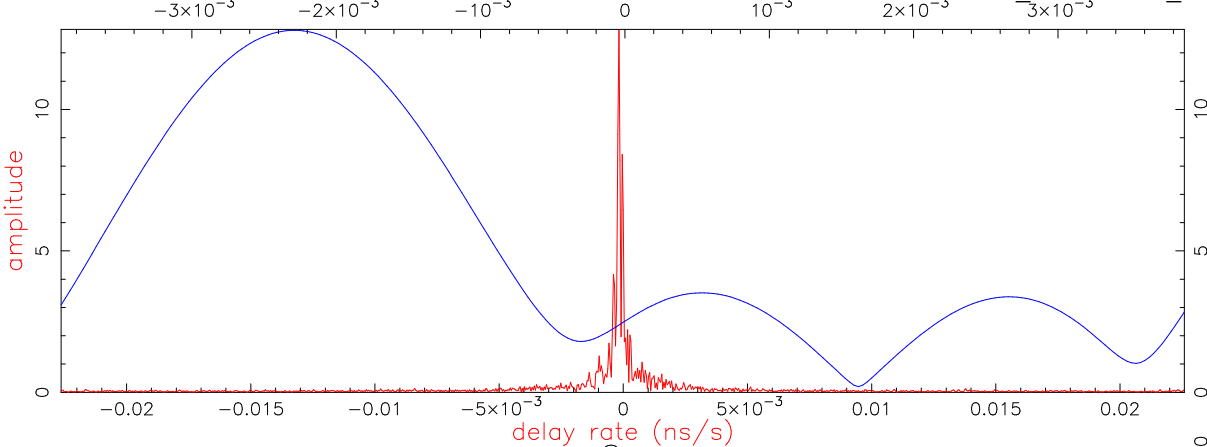
Mk4/DiFX fourfit 3.25 rev 0

aux01

3C120.3N2DRC, No0552, bp

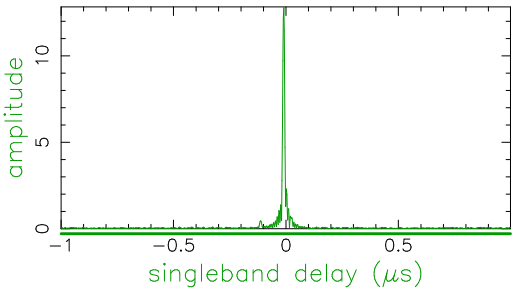
VLBA_BR - VLBA_PT, fgroup Q, pol LL

multiband delay (μ s)

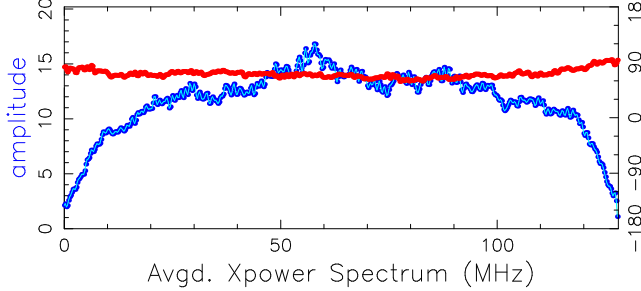


Fringe quality 5

SNR 543.4
 Int time 239.831
 Amp 12.831
 Phase -31.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.010114
 MBD -0.002308
 Fringe rate (Hz)
 -0.008284
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



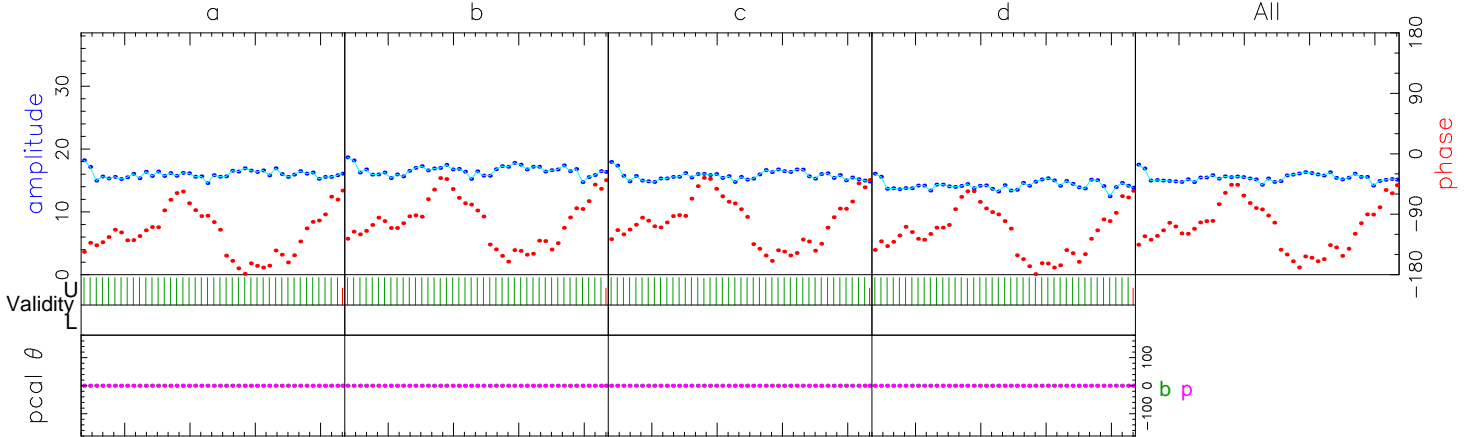
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:112
 Start 210920.00
 Stop 211320.12
 FRT 211120.00
 Corr/FF/build
 2025:048:110113
 2025:049:102419
 2024:113:095956
 RA & Dec (J2000)
 04h33m11.095531s
 +05°21'15.619266"

Amp. and Phase vs. time for each freq., 43 segs, 11 APs / seg (5.63 sec / seg.), time ticks 10 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	469/0	469/0	469/0	469/0		
b	1000	1000	1000	1000	APs used	1000
p	1000	1000	1000	1000	PC freqs	1000
b:p	0:0	0:0	0:0	0:0	PC phase	0:0
b:p	0:0	0:0	0:0	0:0	Manl PC	0:0
b	1000	1000	1000	1000	PC amp	1000
p	1000	1000	1000	1000		1000
b	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
Group delay (usec) (SBD)	-3.66411410416E+03	-3.66411409692E+03	-3.66410398317E+03	-3.66410398317E+03	-2.30849E-03	+/- 2.0E-06
Sband delay (usec)	-3.66411409692E+03	-3.66411409692E+03	-1.0636177E+07	-1.0636177E+07	-1.01137E-02	+/- 7.9E-06
Phase delay (usec)	-3.66410399024E+03	-3.66410399024E+03	1.9774395E-07	1.9774395E-07	-7.07255E-06	+/- 1.4E-08
Delay rate (us/s)	1.65612401797E-01	1.65612401797E-01	1.65612593824E-01	1.65612593824E-01	Resid rate (us/s)	-1.92027E-07 +/- 9.8E-11
Total phase (deg)		-331.3	2.14016995146E-05	2.14016995146E-05	Resid phase (deg)	-31.1 +/- 0.2

	RMS	Theor.	Amplitude	12.831 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	34.5	0.7	Search (1024X16)	12.065	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	21.0	1.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	12.4	0.2	Inc. seg. avg.	15.456	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.9	0.4	Inc. frq. avg.	12.950	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

b: az 150.6 el 43.7 pa -19.0 p: az 161.3 el 59.8 pa -15.0 u,v (fr/asec) -466.719 879.058 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0552/bp..3N2DRC Output file: /Exps/c241c/v2/7mm/3001/No0552/bp.Q.4.3N2DRC