

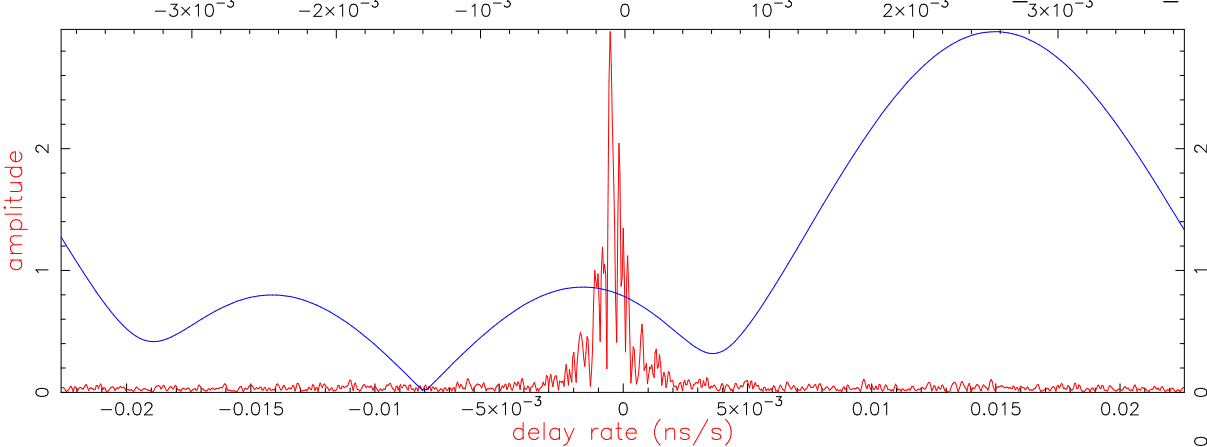
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, bc

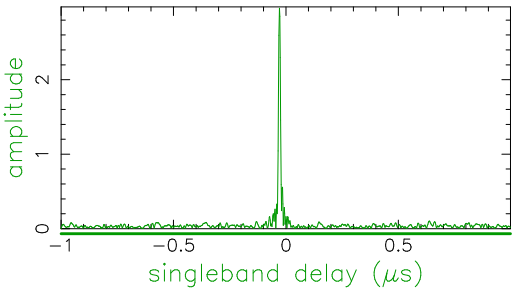
VLBA_BR - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)

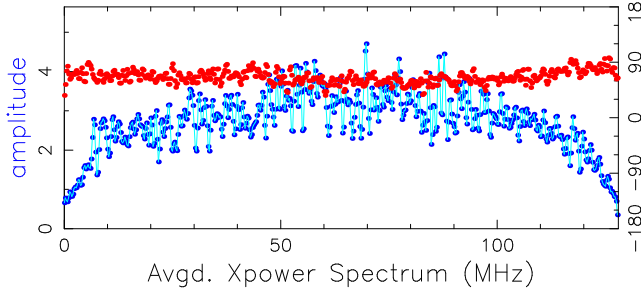


Fringe quality 4

SNR 109.2
Int time 179.981
Amp 2.978
Phase -342.4
PFD 0.0e+00
Delays (us)
SBD -0.028753
MBD 0.002593
Fringe rate (Hz)
-0.022115
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



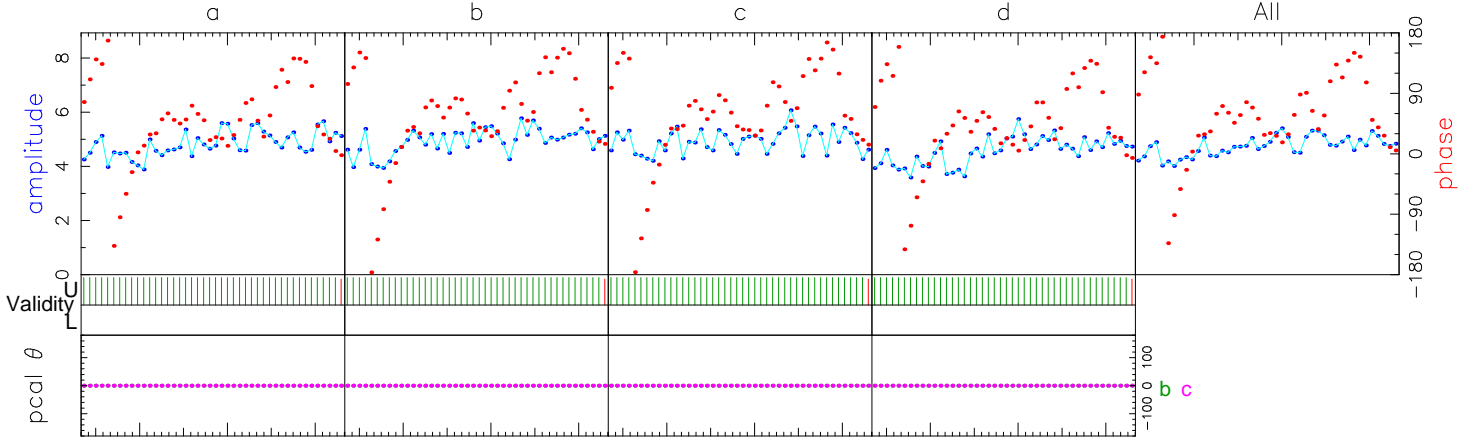
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
Exper # 1234
Yr:day 2024:113
Start 030520.00
Stop 030820.22
FRT 030650.00
Corr/FF/build
2025:048:123813
2025:049:103142
2024:113:095956
RA & Dec (J2000)
08h54m48.874931s
+20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	Phase	62.6
c	1000	1000	1000	1000	Ampl.	3.0
b:c	0:0	0:0	0:0	0:0	Sbd box	498.3
b:c	0:0	0:0	0:0	0:0	APs used	
b	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
b	Q00UL	Q01UL	Q02UL	Q03UL	PC phase	
c	Q00UL	Q01UL	Q02UL	Q03UL	ManI PC	
					PC amp	
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	6.65073334667E+03	Apriori delay (usec)	6.65076200387E+03	Resid mbdelay (usec)	2.59279E-03	+/-	1.0E-05
Sband delay (usec)	6.65073325050E+03	Apriori clock (usec)	9.8633194E-01	Resid sbdelay (usec)	-2.87534E-02	+/-	3.9E-05
Phase delay (usec)	6.65076200791E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	4.03253E-06	+/-	6.8E-08
Delay rate (us/s)	1.12516145480E+00	Apriori rate (us/s)	1.12516196744E+00	Resid rate (us/s)	-5.12642E-07	+/-	6.5E-10
Total phase (deg)		Apriori accel (us/s/s)	-1.83955828473E-05	Resid phase (deg)	-342.4	+/-	1.0

ph/seg (deg)	RMS 59.5	Theor. 3.5	Amplitude 2.978 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	60.6	6.1	Search (1024X16) 2.846	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	14.3	1.0	Interp. 0.000	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	3.4	1.8	Inc. seg. avg. 4.740	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00
			Inc. frq. avg. 3.005					

b: az 185.8 el 61.8 pa 4.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3447.093 1576.248 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/bc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/bc.Q.18.3N2DRU

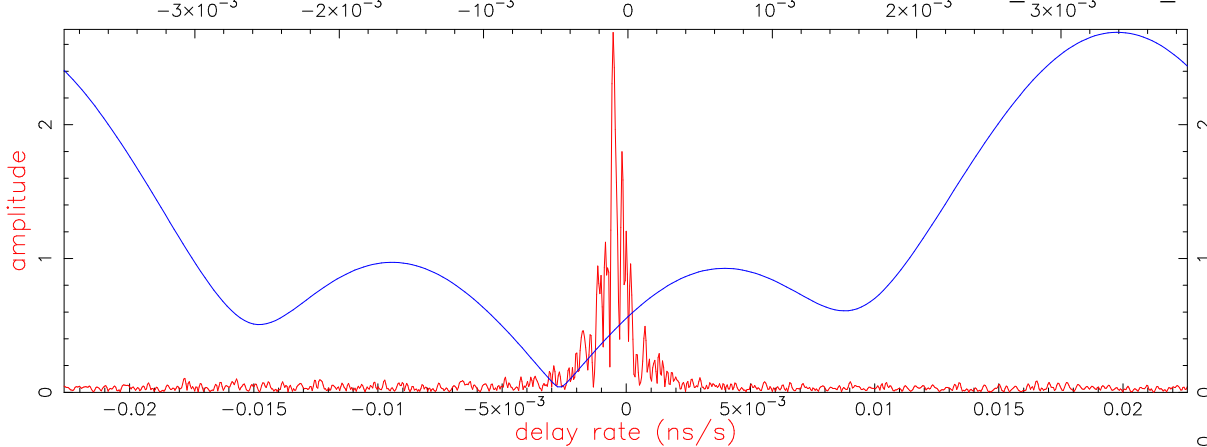
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, bc

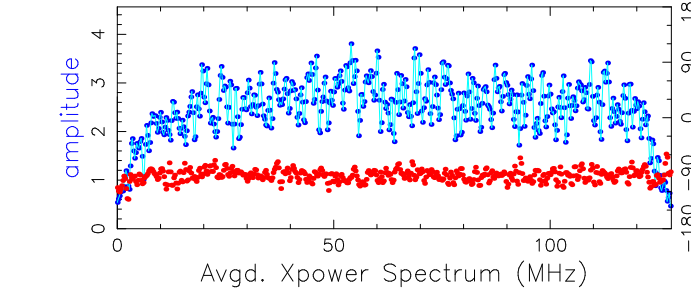
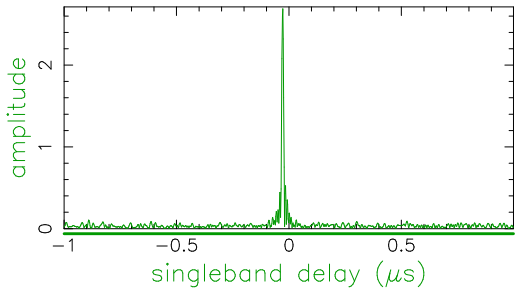
VLBA_BR - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



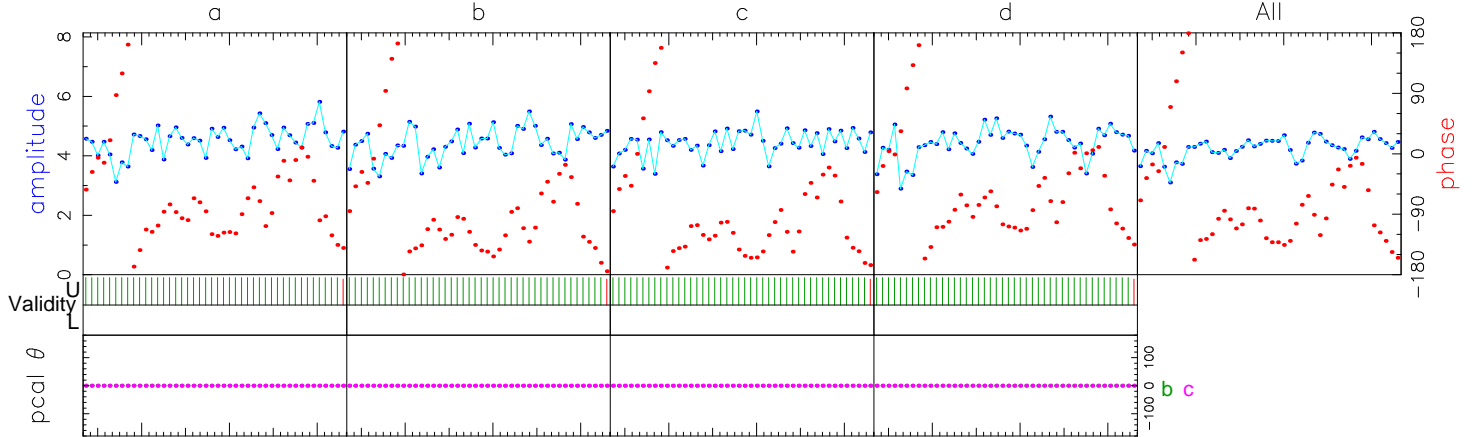
Fringe quality 3

SNR 99.5
 Int time 179.981
 Amp 2.713
 Phase -139.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.027940
 MBD 0.003354
 Fringe rate (Hz)
 -0.022169
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103143
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-81.9	-110.1	-113.3	-74.8	Phase	-94.8
	2.9	2.8	2.7	2.8	Ampl.	2.8
	498.4	498.6	499.0	499.2	Sbd box	498.7
U/L	352/0	352/0	352/0	352/0	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)	6.65073410748E+03	Apriori delay (usec)	6.65076200387E+03	Resid mbdelay (usec)	3.35360E-03	+/-	1.1E-05
Sband delay (usec)	6.65073406412E+03	Apriori clock (usec)	9.8633194E-01	Resid sbdelay (usec)	-2.79397E-02	+/-	4.3E-05
Phase delay (usec)	6.65076199777E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	-6.10550E-06	+/-	7.4E-08
Delay rate (us/s)	1.12516145356E+00	Apriori rate (us/s)	1.12516196744E+00	Resid rate (us/s)	-5.13875E-07	+/-	7.1E-10
Total phase (deg)	-194.8	Apriori accel (us/s/s)	-1.83955828473E-05	Resid phase (deg)	-139.8	+/-	1.2

ph/seg (deg)	59.2	RMS	59.2	Theor.	3.8	Amplitude	2.713 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	58.2	Search (1024X16)	2.623	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)	23.9	Inc. seg. avg.	4.245	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		Bits/sample: 2x2		nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00	
amp/frq (%)	4.2	Inc. frq. avg.	2.810	Data rate(Mb/s): 2048		Drift rate (us/s)							

b: az 185.8 el 61.8 pa 4.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3447.093 1576.248 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/bc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/bc.Q.24.3N2DRU

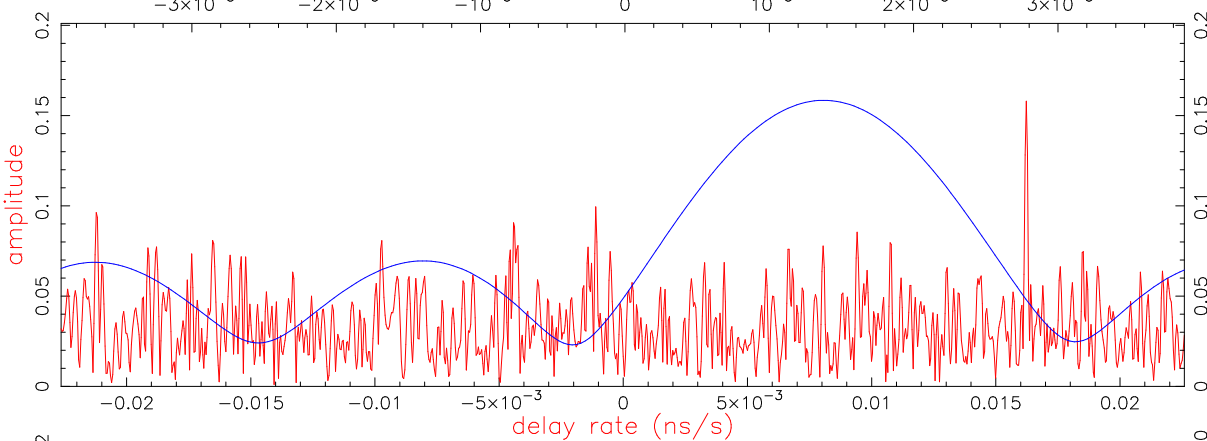
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, bc

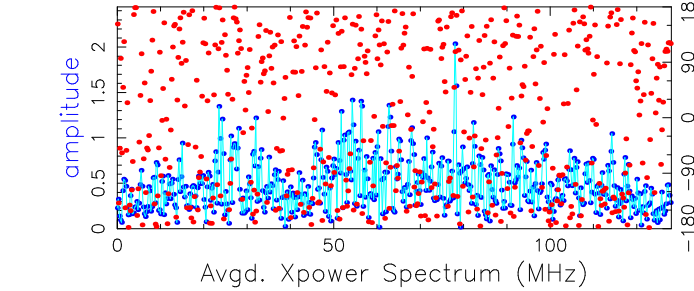
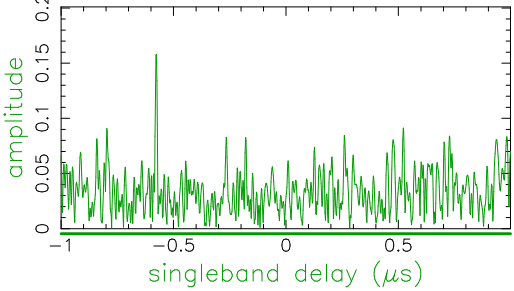
VLBA_BR - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



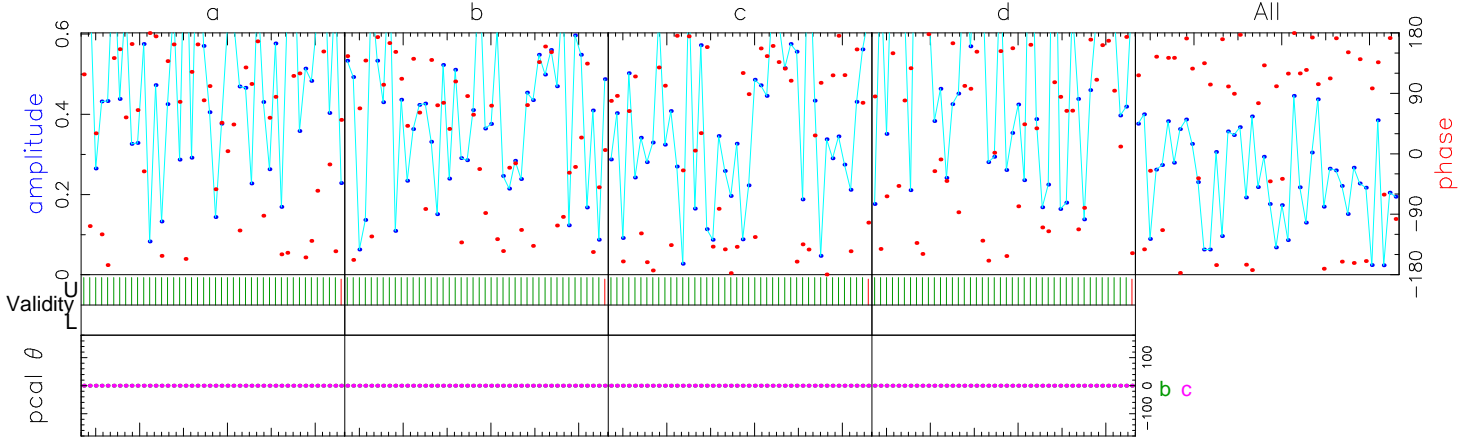
Fringe quality 0

SNR 5.9
 Int time 179.981
 Amp 0.201
 Phase -135.0
 PFD 3.8e-01
 Delays (us)
 SBD -0.577063
 MBD 0.001295
 Fringe rate (Hz)
 0.704391
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103145
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
151.9	152.6	158.9	162.8	Phase	157.5
0.2	0.1	0.2	0.2	Ampl.	0.2
479.1	743.6	217.5	217.6	Sbd box	217.5
U/L 352/0	352/0	352/0	352/0	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 Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	6.65018517404E+03	Apriori delay (usec)	6.65076200387E+03	Resid mbdelay (usec)	1.29517E-03	+/- 1.9E-04
Sband delay (usec)	6.65018494075E+03	Apriori clock (usec)	9.8633194E-01	Resid sbdelay (usec)	-5.77063E-01	+/- 7.3E-04
Phase delay (usec)	6.65076201402E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	1.01410E-05	+/- 1.3E-06
Delay rate (us/s)	1.12517829546E+00	Apriori rate (us/s)	1.12516196744E+00	Resid rate (us/s)	1.63280E-05	+/- 1.2E-08
Total phase (deg)	-190.0	Apriori accel (us/s/s)	-1.83955828473E-05	Resid phase (deg)	-135.0	+/- 19.4

ph/seg (deg)	RMS	Theor.	Amplitude	0.201 +/- 0.034	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	68.4	64.5	Search (1024X16)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	88.5	112.5	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.004 0.004
amp/frq (%)	6.6	19.4	Inc. seg. avg.	0.187	SampCntNorm: enabled	dr window (ns/s) -0.023 0.023
	32.5	33.9	Inc. frq. avg.	0.187	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	ion window (TEC) 0.00 0.00
					Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite

b: az 185.8 el 61.8 pa 4.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3447.093 1576.248 simultaneous interpolator

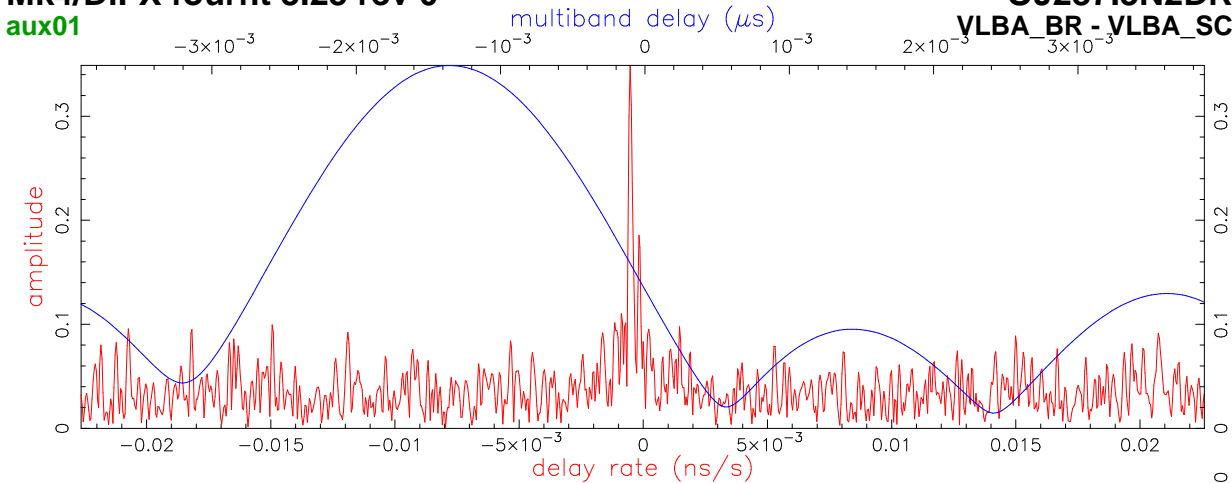
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/bc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/bc.Q.38.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

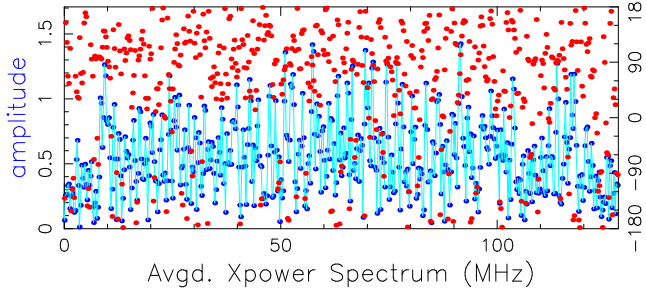
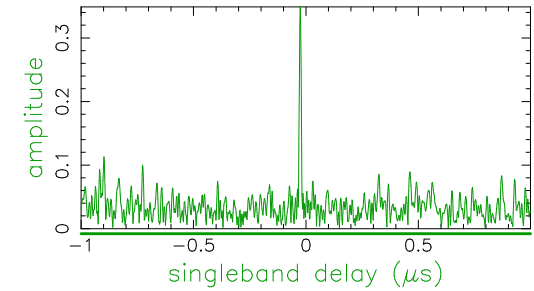
OJ287.3N2DRU, No0676, bc

VLBA_BR - VLBA_SC, fgroup Q, pol RL



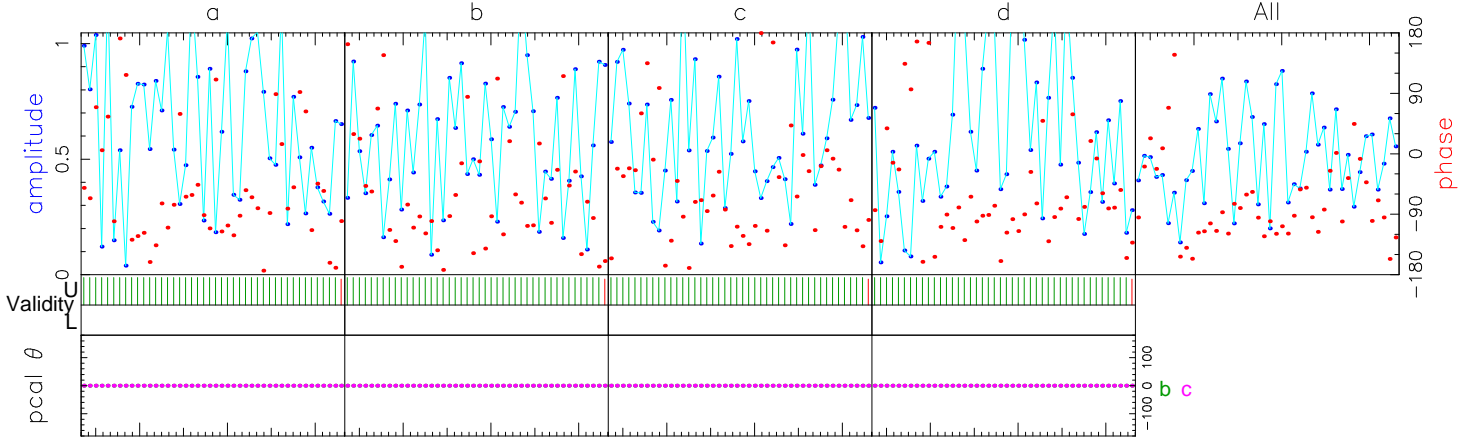
Fringe quality 9

SNR 12.8
 Int time 179.981
 Amp 0.349
 Phase -209.4
 PFD 4.6e-29
 Delays (us)
 SBD -0.025356
 MBD -0.001352
 Fringe rate (Hz)
 -0.022295
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103147
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-86.4	-89.0	-77.8	-89.4	Phase	-85.7
	0.3	0.3	0.4	0.4	Ampl.	0.3
	499.0	499.7	500.9	500.0	Sbd box	500.0
U/L	352/0	352/0	352/0	352/0	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)	6.65073721417E+03	Apriori delay (usec)	6.65076200387E+03	Resid mbdelay (usec)	-1.35221E-03	+/-	8.7E-05
Sband delay (usec)	6.65073664775E+03	Apriori clock (usec)	9.8633194E-01	Resid sbdelay (usec)	-2.53561E-02	+/-	3.4E-04
Phase delay (usec)	6.65076199836E+03	Apriori clockrate (us/s)	9.6971097E-07	Resid phdelay (usec)	-5.51749E-06	+/-	5.8E-07
Delay rate (us/s)	1.12516145064E+00	Apriori rate (us/s)	1.12516196744E+00	Resid rate (us/s)	-5.16795E-07	+/-	5.5E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.83955828473E-05	Resid phase (deg)	-209.4	+/-	9.0

ph/seg (deg)	RMS 56.6	Theor. 29.7	Amplitude Search (1024X16)	0.349 +/- 0.027	0.338	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	70.6	51.8	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)	6.6	9.0	Inc. seg. avg.	0.449	0.449	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	14.9	15.6	Inc. frq. avg.	0.346	0.346	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

b: az 185.8 el 61.8 pa 4.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3447.093 1576.248 simultaneous interpolator

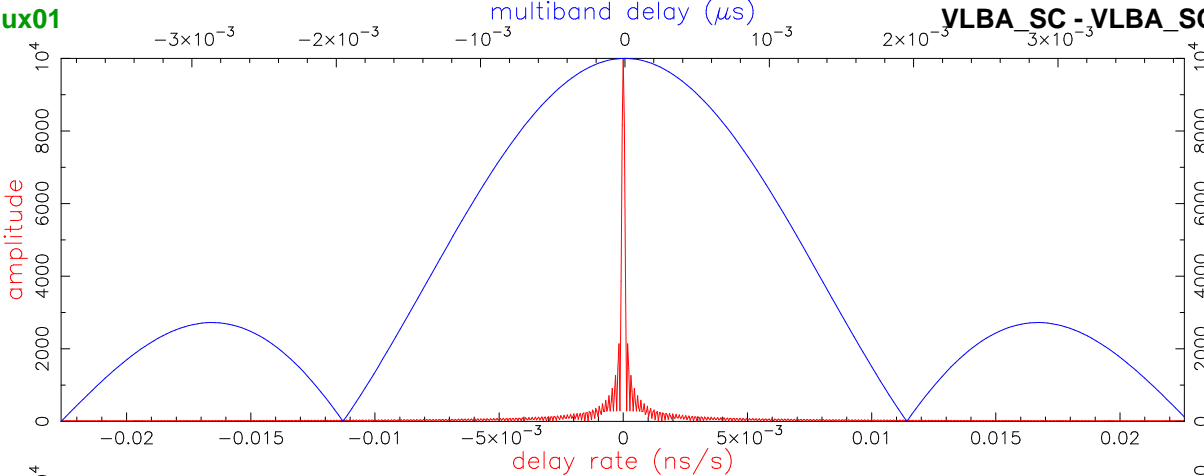
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/bc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/bc.Q.50.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

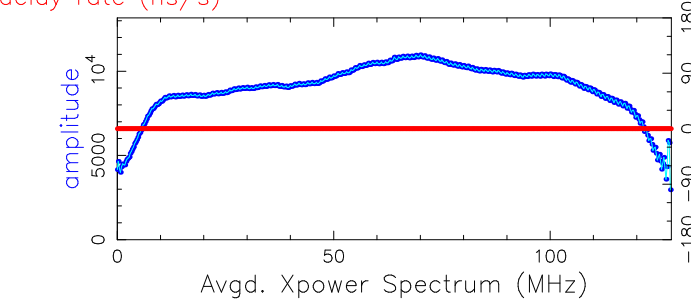
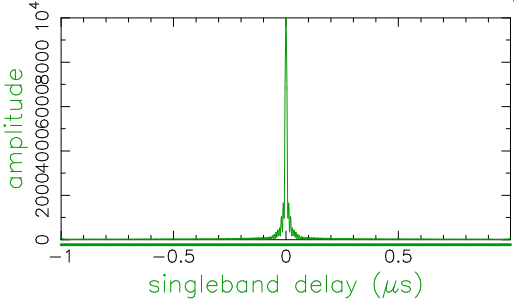
OJ287.3N2DRU, No0676, cc

VLBA_SC - VLBA_SC, fgroup Q, pol LL



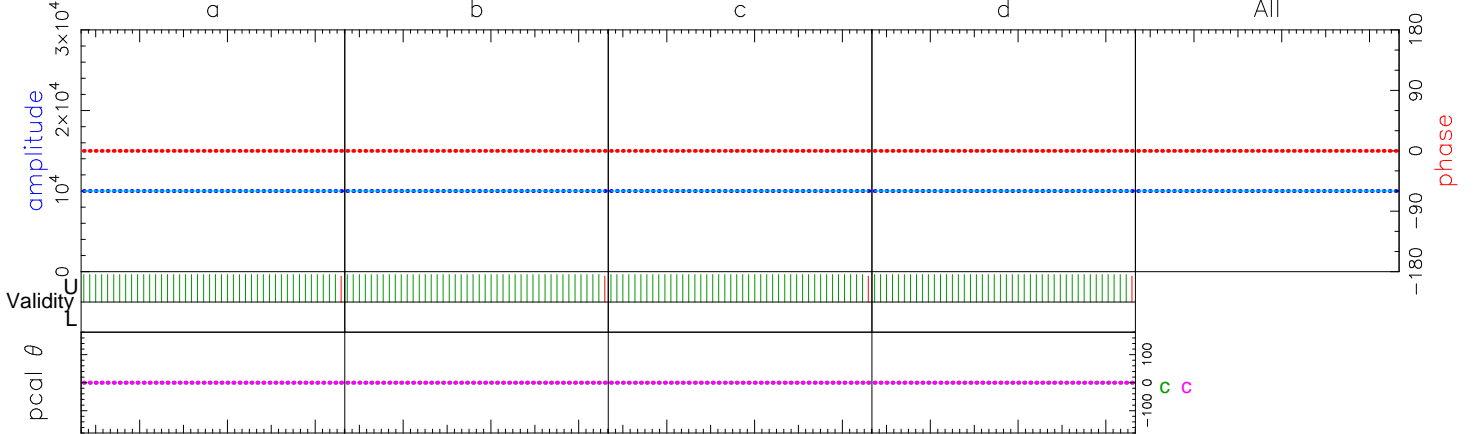
Fringe quality 9

SNR 366875.8
 Int time 179.988
 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 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103208
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
0.0	0.0	0.0	0.0	Phase	0.0
10000.0	10000.0	10000.0	10000.0	Ampl.	10000.0
513.0	513.0	513.0	513.0	Sbd box	513.0
U/L 352/0	352/0	352/0	352/0	APs used	
c 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
c:c 0:0	0:0	0:0	0:0	PC phase	
c:c 0:0	0:0	0:0	0:0	Manl PC	
c 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
c Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	0.00000000000E+00	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	3.0E-09
Sband delay (usec)	0.00000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.2E-08
Phase delay (usec)	0.00000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	2.0E-11
Delay rate (us/s)	0.00000000000E+00	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	1.9E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	0.0	+/-	0.0

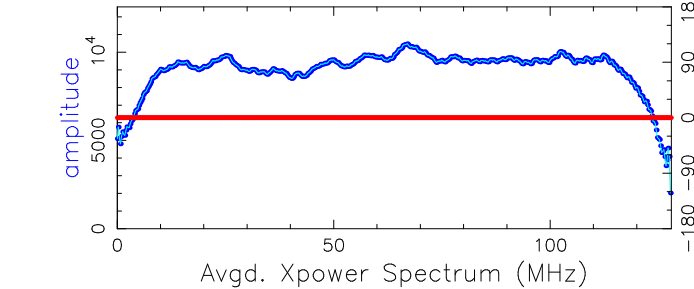
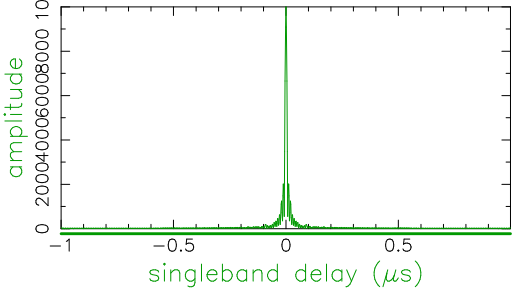
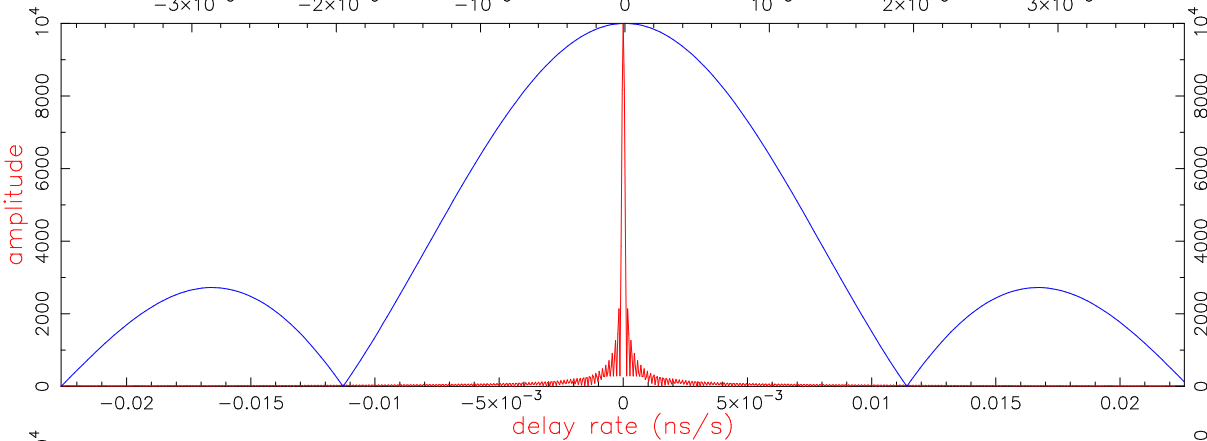
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (1024X16) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 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
 Inc. frq. avg. 10000.001 Data rate(Mb/s): 2048 nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/cc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/cc.Q.199.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

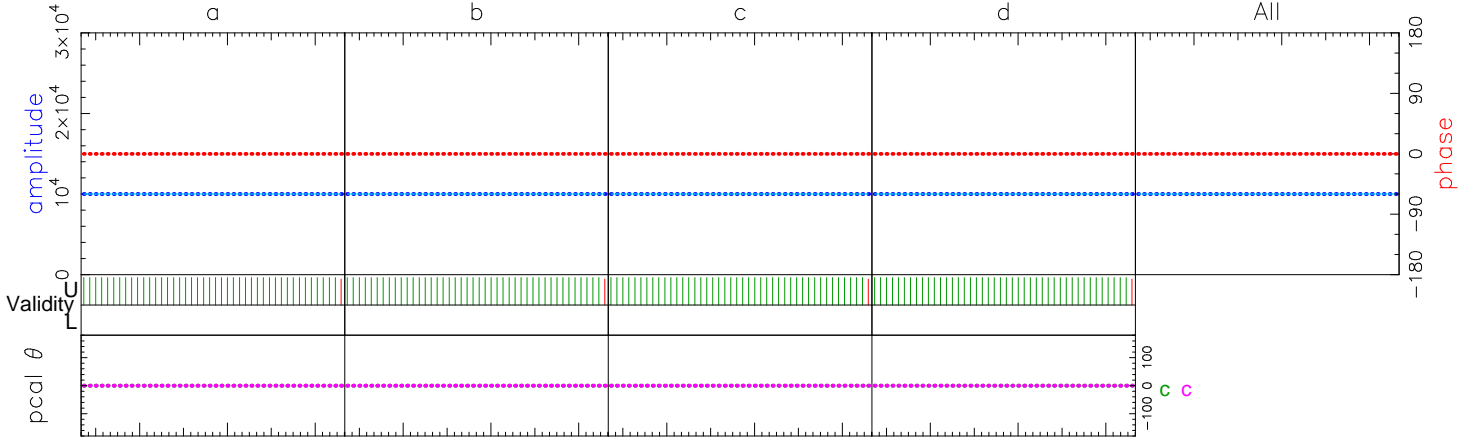
OJ287.3N2DRU, No0676, cc

VLBA_SC - VLBA_SC, fgroup Q, pol RR



Fringe quality 9
 SNR 366875.8
 Int time 179.988
 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 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103210
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
c	1000	1000	1000	1000		
c:c	0:0	0:0	0:0	0:0		
c:c	0:0	0:0	0:0	0:0		
c	1000	1000	1000	1000		
c	1000	1000	1000	1000		
c	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.2E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-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	Theor.	0.0	Amplitude	10000.000 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	Search (1024X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.004 0.004
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	SampCntNorm: enabled	dr window (ns/s)	-0.023 0.023
				Inc. frq. avg.	10000.001	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	ion window (TEC)	0.00 0.00

c: az 282.3 el 35.3 pa 82.0 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/cc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/cc.Q.212.3N2DRU

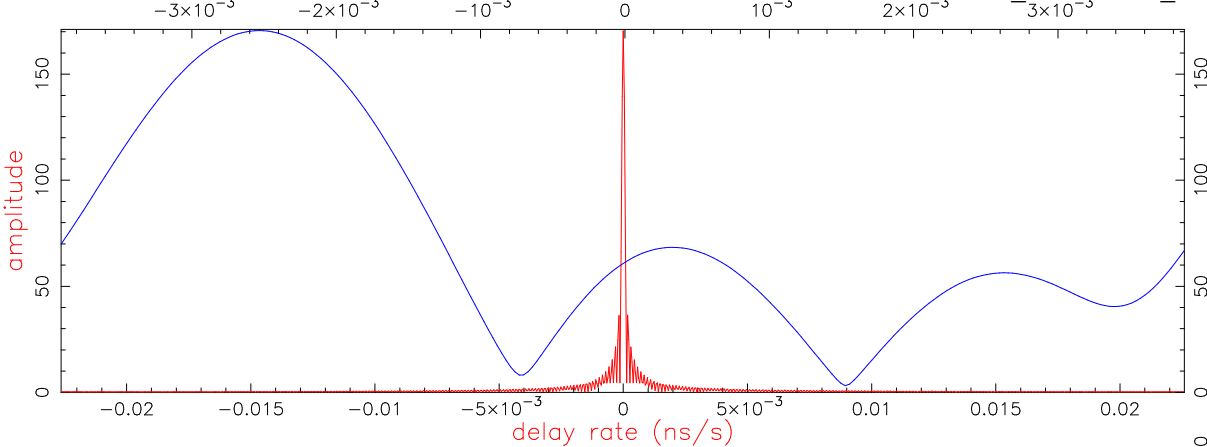
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, cc

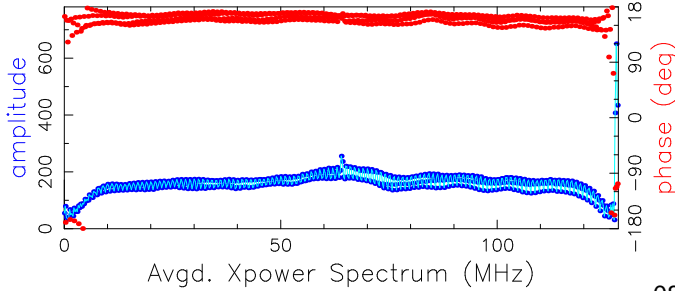
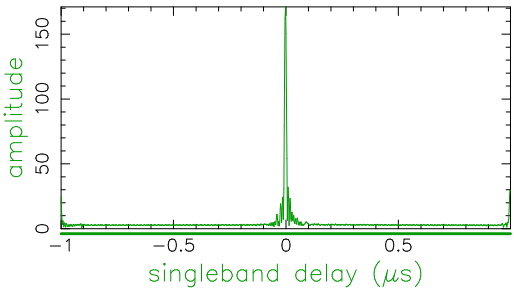
VLBA_SC - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



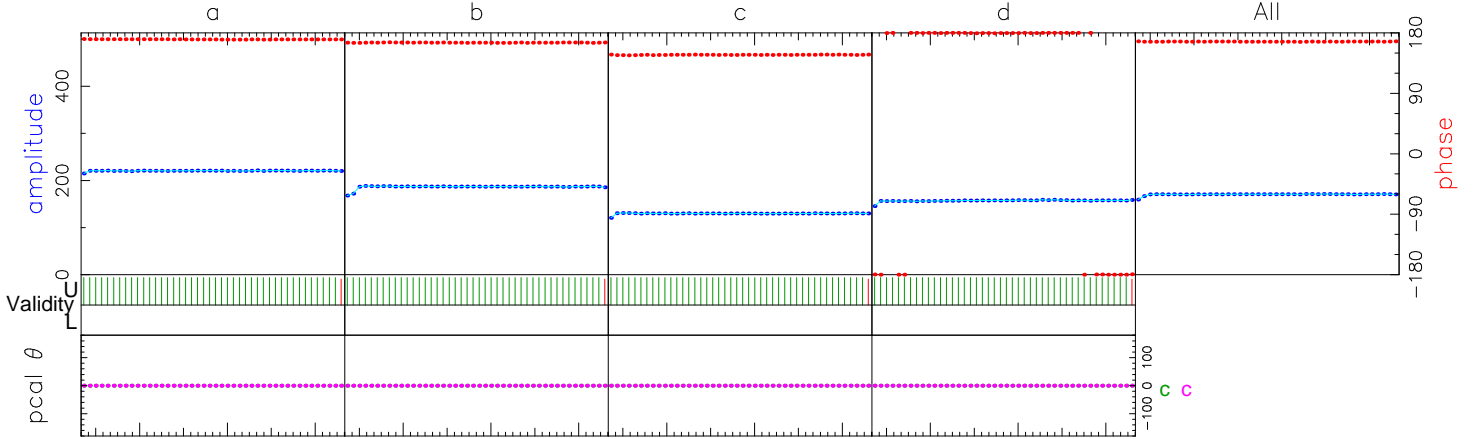
Fringe quality 8

SNR 6277.6
 Int time 179.988
 Amp 171.109
 Phase 166.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002347
 MBD -0.002554
 Fringe rate (Hz)
 -0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103212
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
c	1000	1000	1000	1000	APs used	
c:c	0:0	0:0	0:0	0:0	PC freqs	
c:c	0:0	0:0	0:0	0:0	PC phase	
c	1000	1000	1000	1000	ManI PC	
c	1000	1000	1000	1000	PC amp	
c	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec) (SBD)	-2.55409375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.55409E-03	+/-	1.8E-07
Sband delay (usec)	-2.34737500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.34738E-03	+/-	6.9E-07
Phase delay (usec)	1.07429593391E-05	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.07430E-05	+/-	1.2E-09
Delay rate (us/s)	-5.65926317580E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-5.65926E-11	+/-	1.1E-11
Total phase (deg)	166.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	166.8	+/-	0.0

ph/seg (deg)	0.2	0.1	Amplitude	171.109 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.1	0.1	Search (1024X16)	169.913	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	16.9	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004
amp/frq (%)	19.7	0.0	Inc. seg. avg.	170.507	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023 0.023	
			Inc. frq. avg.	173.527	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00 0.00

c: az 282.3 el 35.3 pa 82.0 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/cc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/cc.Q.217.3N2DRU

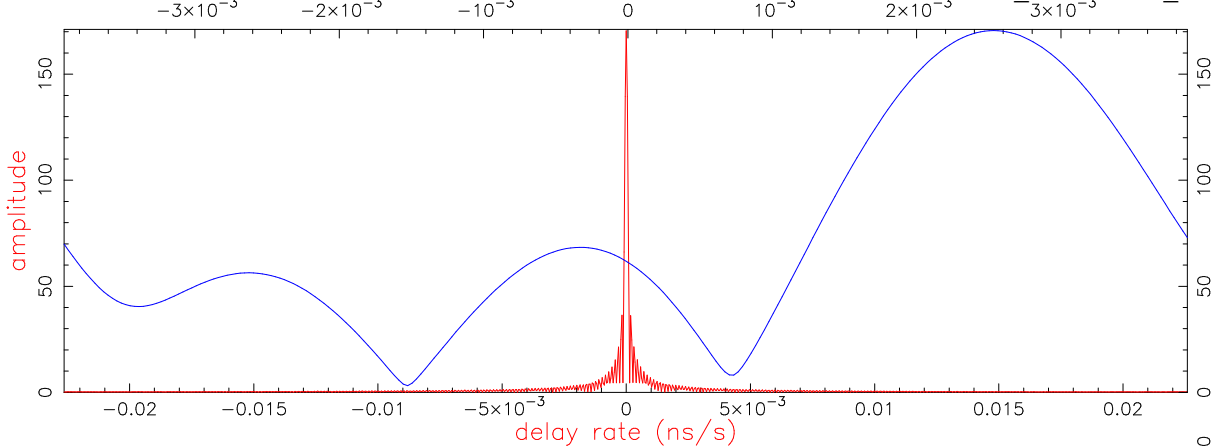
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, cc

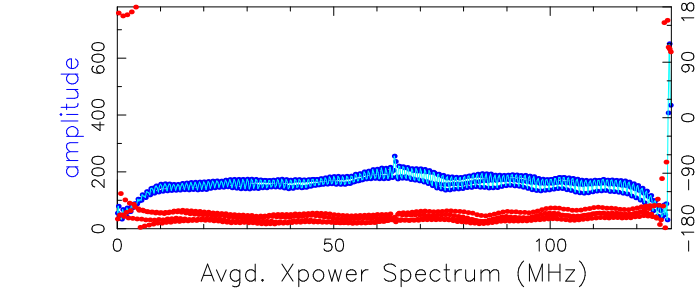
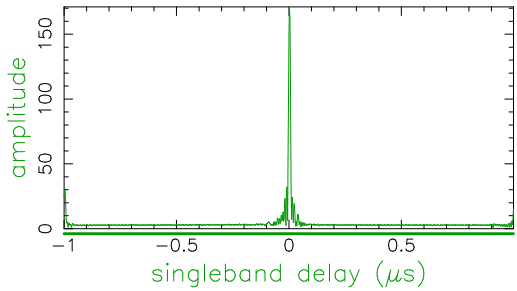
VLBA_SC - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



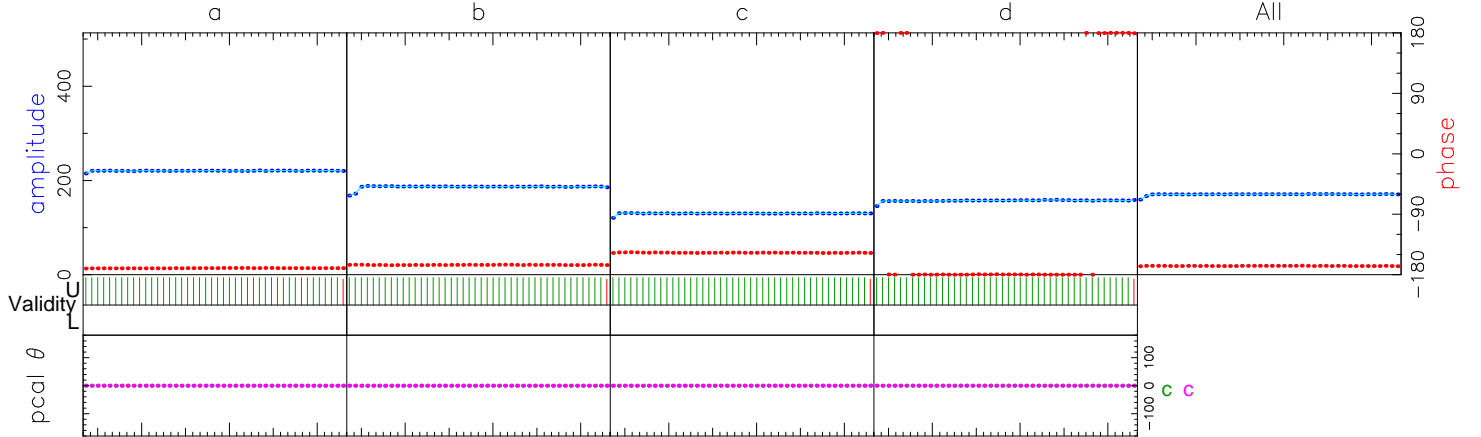
Fringe quality 8

SNR 6277.6
 Int time 179.988
 Amp 171.109
 Phase -166.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.002347
 MBD 0.002554
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103214
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-170.2	-165.4	-147.2	-179.9	Phase	-166.8
	220.5	186.5	129.9	157.2	Ampl.	173.5
	514.3	514.2	514.8	513.4	Sbd box	514.2
U/L	352/0	352/0	352/0	352/0	APs used	
c	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
c:c	0:0	0:0	0:0	0:0	PC phase	
c:c	0:0	0:0	0:0	0:0	Manl PC	
c	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
c	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	2.55409375000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.55409E-03	+/-	1.8E-07
Sband delay (usec)	2.34737500000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.34738E-03	+/-	6.9E-07
Phase delay (usec)	-1.07429593390E-05	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.07430E-05	+/-	1.2E-09
Delay rate (us/s)	5.65926317580E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	5.65926E-11	+/-	1.1E-11
Total phase (deg)	-166.8	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-166.8	+/-	0.0

ph/seg (deg)	0.2	0.1	Search (1024X16)	169.913	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	1.1	0.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	16.9	0.0	Inc. seg. avg.	170.507	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
amp/frq (%)	19.7	0.0	Inc. frq. avg.	173.527	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	nlags: 512 t_cohere infinite	dr window (ns/s)	-0.023	0.023
c: az 282.3 el 35.3 pa 82.0		c: az 282.3 el 35.3 pa 82.0		u,v (fr/asec) 0.000	0.000	ion window (TEC)	0.00	0.00	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/cc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/cc.Q.219.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

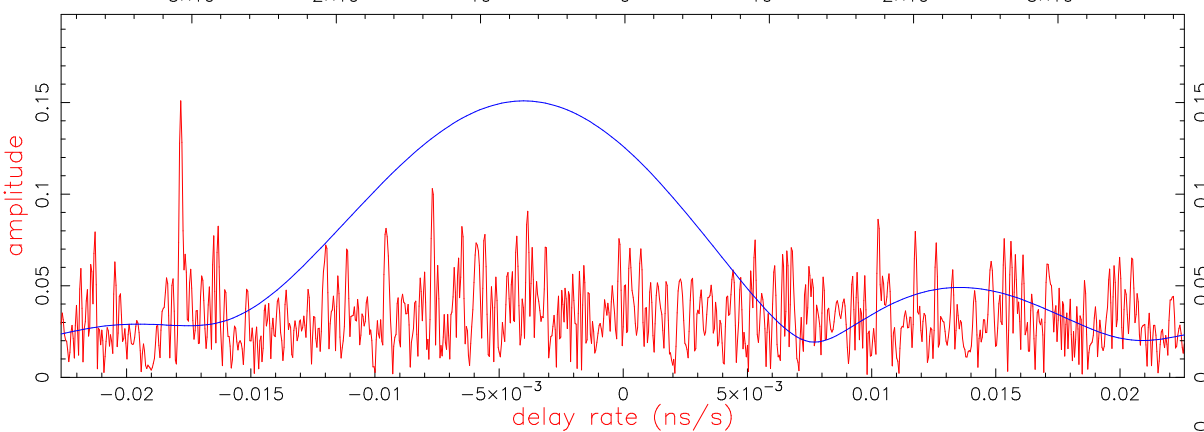
aux01

OJ287.3N2DRU, No0676, fc

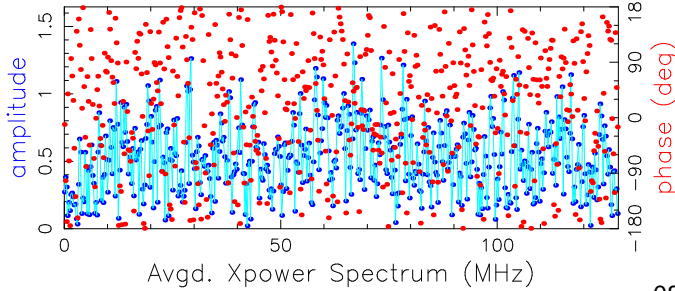
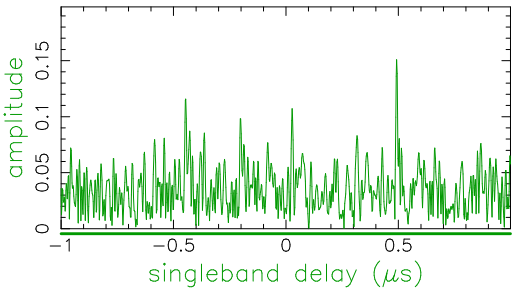
VLBA_FD - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)

Fringe quality 0

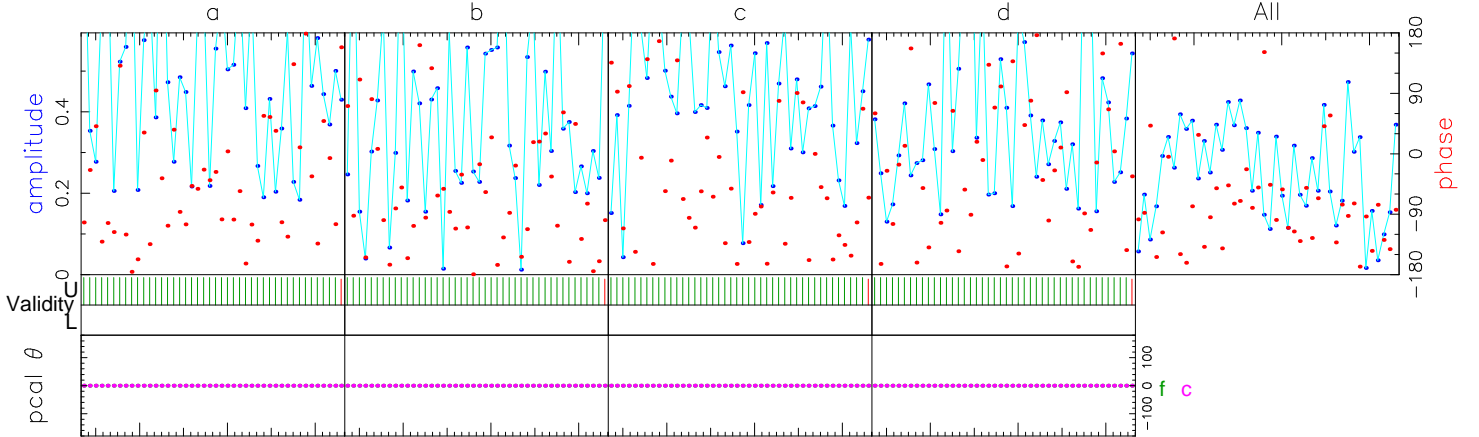


SNR 5.5
 Int time 179.980
 Amp 0.198
 Phase 348.0
 PFD 9.8e-01
 Delays (us)
 SBD 0.492280
 MBD -0.000694
 Fringe rate (Hz)
 -0.772537
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103154
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000		
c	1000	1000	1000	1000		
f:c	0:0	0:0	0:0	0:0		
f:c	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000		
c	1000	1000	1000	1000		
f	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

	7.84290043143E+03	Apriori delay (usec)	7.84240893791E+03	Resid mbdelay (usec)	-6.93980E-04	+/- 2.0E-04
Group delay (usec) (SBD)	7.84290121816E+03	Apriori clock (usec)	-3.6286240E+00	Resid sbdelay (usec)	4.92280E-01	+/- 7.8E-04
Sband delay (usec)	7.84240893206E+03	Apriori clockrate (us/s)	4.4348997E-07	Resid phdelay (usec)	-5.84138E-06	+/- 1.3E-06
Phase delay (usec)	7.70373609585E-01	Apriori rate (us/s)	7.70391517254E-01	Resid rate (us/s)	-1.79077E-05	+/- 1.3E-08
Delay rate (us/s)		Apriori accel (us/s/s)	-3.38327003288E-05	Resid phase (deg)	348.0	+/- 20.7
Total phase (deg)	197.3					

	RMS	Theor.	Amplitude	0.198 +/- 0.036	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.5	68.7	Search (1024X16)	0.150	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	102.4	119.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	11.1	20.7	Inc. seg. avg.	0.193	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	29.6	36.1	Inc. frq. avg.	0.187	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 242.1 el 70.1 pa 54.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2369.875 372.453 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/fc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/fc.Q.101.3N2DRU

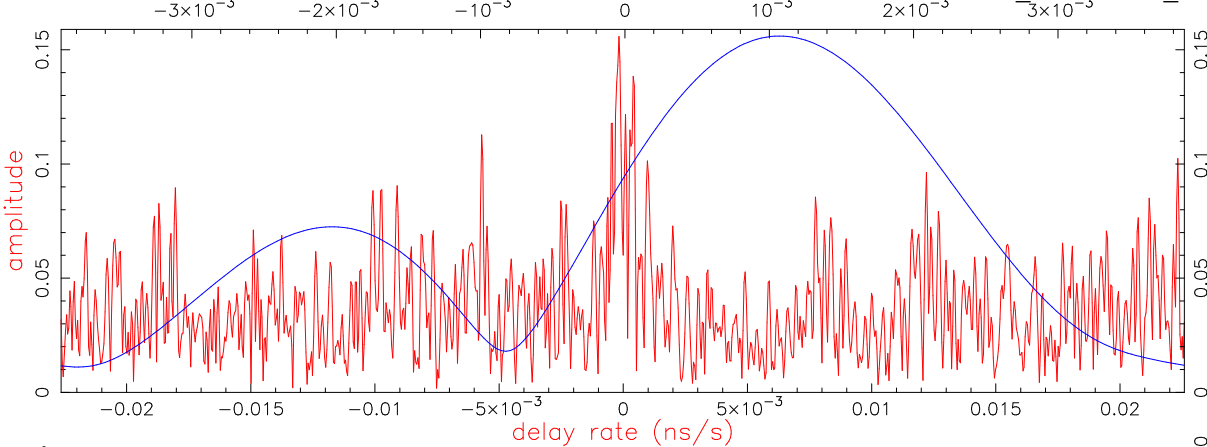
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, fc

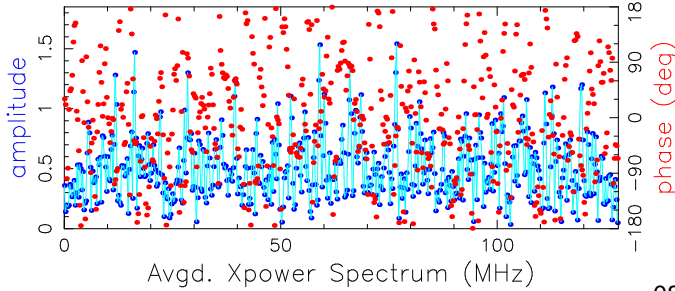
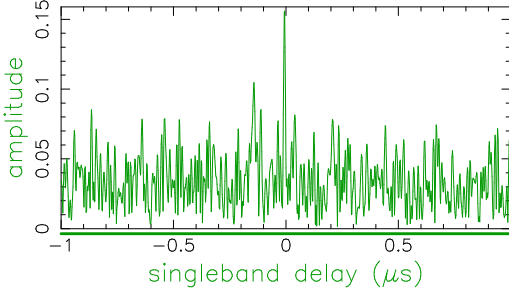
VLBA_FD - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



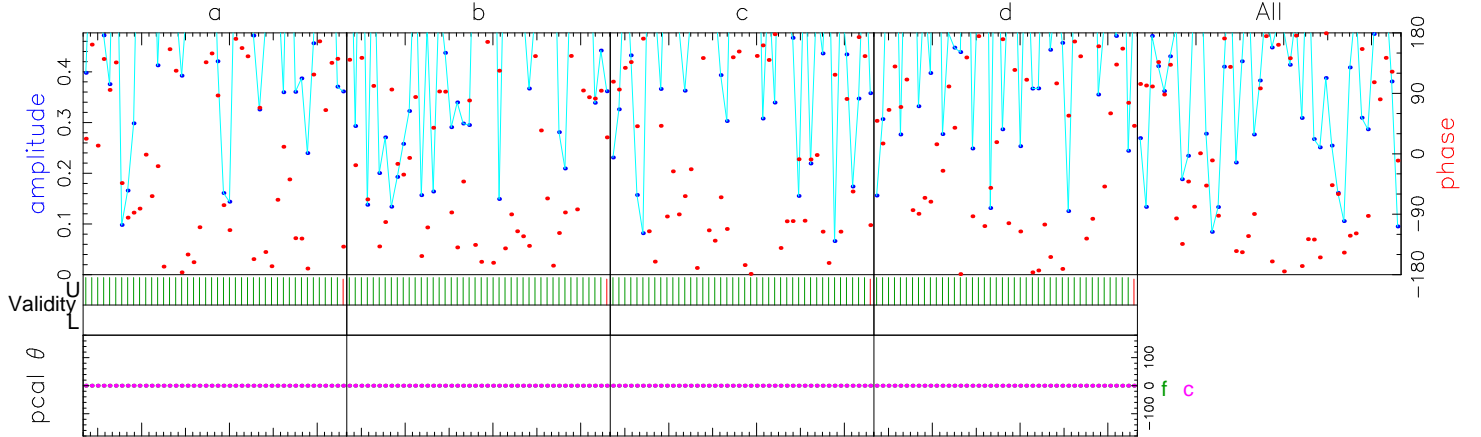
Fringe quality 0

SNR 5.8
 Int time 179.980
 Amp 0.159
 Phase -97.2
 PFD 5.0e-01
 Delays (us)
 SBD -0.006755
 MBD 0.001017
 Fringe rate (Hz)
 -0.008053
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103146
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
175.0	179.2	-154.2	162.6	Phase	-175.9
0.2	0.1	0.2	0.1	Ampl.	0.2
780.6	650.4	510.0	979.8	Sbd box	509.5
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
f:c 0:0	0:0	0:0	0:0	PC phase	
f:c 0:0	0:0	0:0	0:0	ManI PC	
f 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
f Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	7.84240214210E+03	Apriori delay (usec)	7.84240893791E+03	Resid mbdelay (usec)	1.01669E-03	+/-	1.9E-04
Sband delay (usec)	7.84240218266E+03	Apriori clock (usec)	-3.6286240E+00	Resid sbdelay (usec)	-6.75525E-03	+/-	7.4E-04
Phase delay (usec)	7.84240892658E+03	Apriori clockrate (us/s)	4.4348997E-07	Resid phdelay (usec)	-1.13288E-05	+/-	1.3E-06
Delay rate (us/s)	7.70391330586E-01	Apriori rate (us/s)	7.70391517254E-01	Resid rate (us/s)	-1.86668E-07	+/-	1.2E-08
Total phase (deg)	-247.9	Apriori accel (us/s/s)	-3.38327003288E-05	Resid phase (deg)	-97.2	+/-	19.7

ph/seg (deg)	RMS 79.3	Theor. 65.2	Amplitude Search (1024X16)	0.159 +/- 0.027	0.156	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	170.2	113.8	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)	22.8	19.7	Inc. seg. avg.	0.229	0.229	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	26.8	34.3	Inc. frq. avg.	0.153	0.153	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 242.1 el 70.1 pa 54.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2369.875 372.453 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/fc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/fc.Q.41.3N2DRU

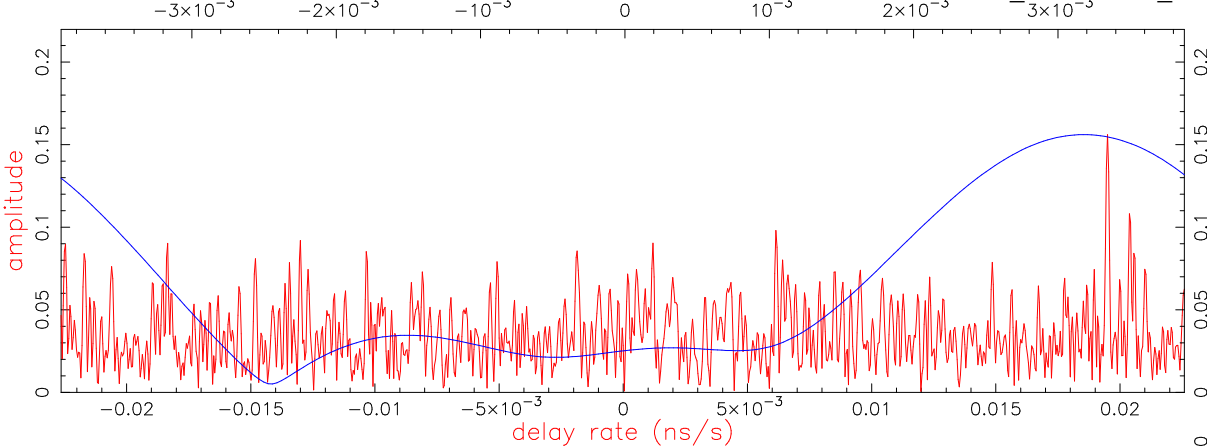
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, fc

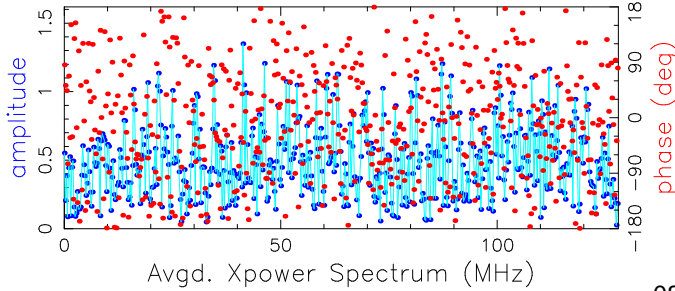
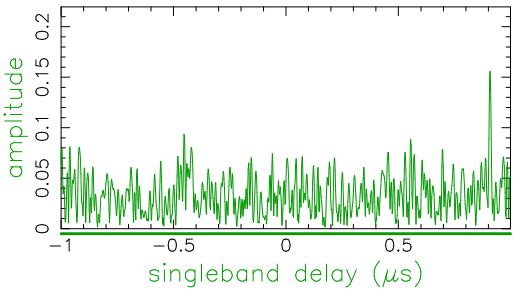
VLBA_FD - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



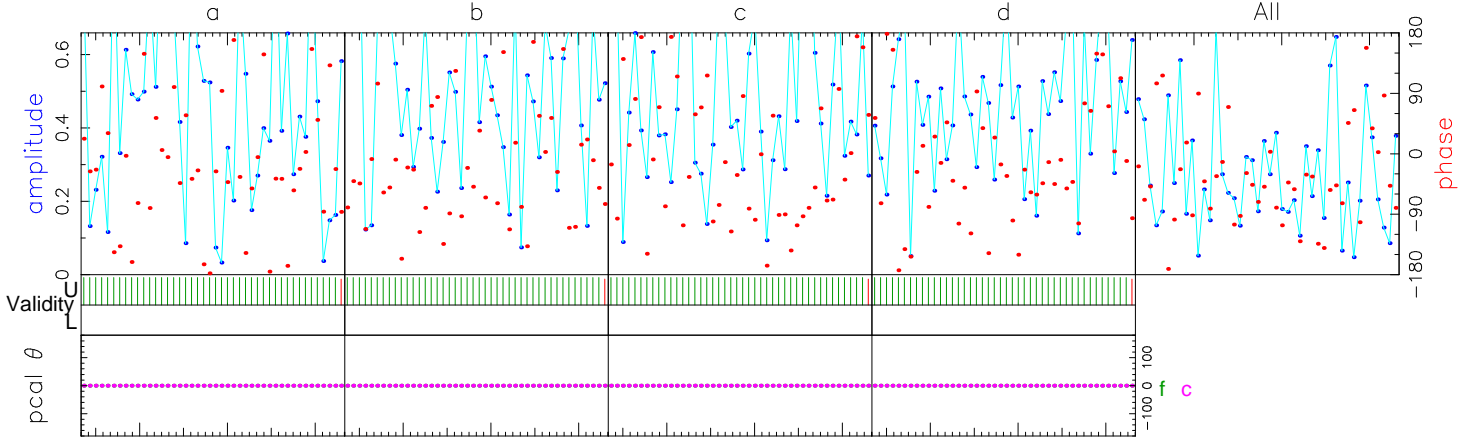
Fringe quality 0

SNR 5.8
 Int time 179.980
 Amp 0.220
 Phase 174.5
 PFD 5.7e-01
 Delays (us)
 SBD 0.907372
 MBD 0.003211
 Fringe rate (Hz)
 0.844934
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103149
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-43.3	-48.3	-66.2	-40.9	Phase	-50.5
0.2	0.3	0.2	0.2	Ampl.	0.2
784.1	978.6	304.5	432.1	Sbd box	977.6
U/L 352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
f:c 0:0	0:0	0:0	0:0	PC phase	
f:c 0:0	0:0	0:0	0:0	Manl PC	
f 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
f Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	7.84331839916E+03	Apriori delay (usec)	7.84240893791E+03	Resid mbdelay (usec)	3.21126E-03	+/-	1.9E-04
Sband delay (usec)	7.84331630941E+03	Apriori clock (usec)	-3.6286240E+00	Resid sbdelay (usec)	9.07372E-01	+/-	7.4E-04
Phase delay (usec)	7.84240893465E+03	Apriori clockrate (us/s)	4.4348997E-07	Resid phdelay (usec)	-3.25459E-06	+/-	1.3E-06
Delay rate (us/s)	7.70411103115E-01	Apriori rate (us/s)	7.70391517254E-01	Resid rate (us/s)	1.95859E-05	+/-	1.2E-08
Total phase (deg)	23.7	Apriori accel (us/s/s)	-3.38327003288E-05	Resid phase (deg)	174.5	+/-	19.8

ph/seg (deg)	RMS 72.0	Theor. 65.5	Amplitude Search (1024X16)	0.220 +/- 0.038	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	125.7	114.4	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)	14.1	19.8	Inc. seg. avg.	0.234	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	24.4	34.5	Inc. frq. avg.	0.208	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 242.1 el 70.1 pa 54.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2369.875 372.453 simultaneous interpolator

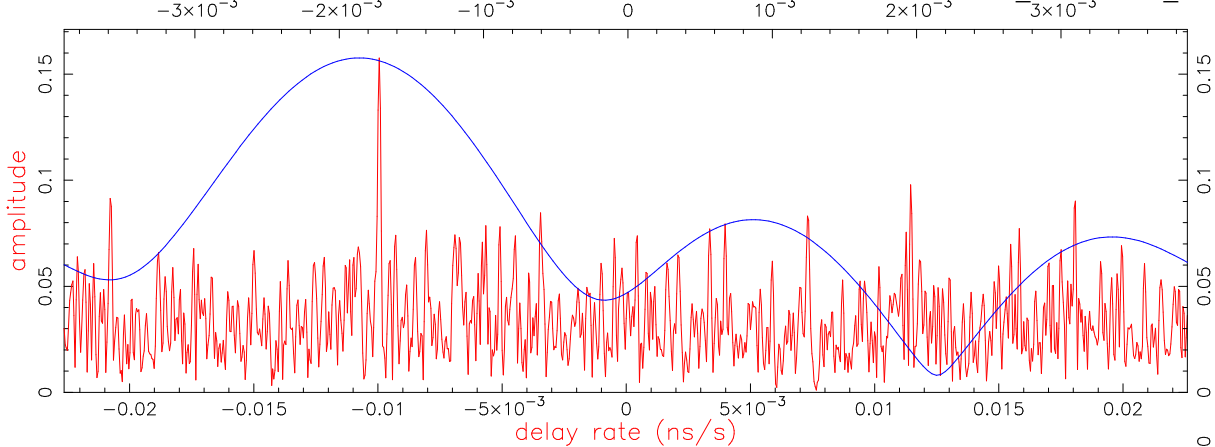
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/fc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/fc.Q.63.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

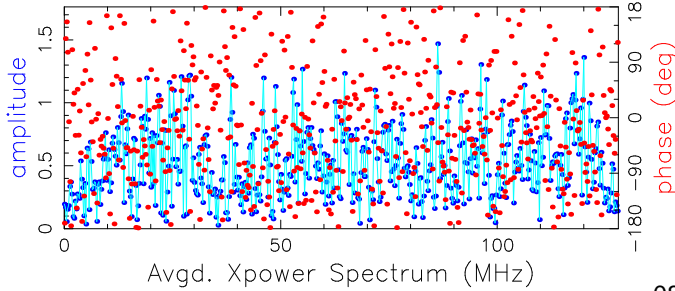
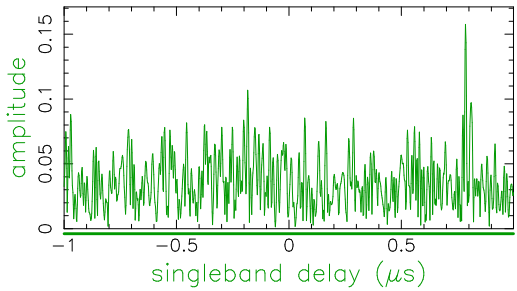
OJ287.3N2DRU, No0676, fc
VLBA_FD - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



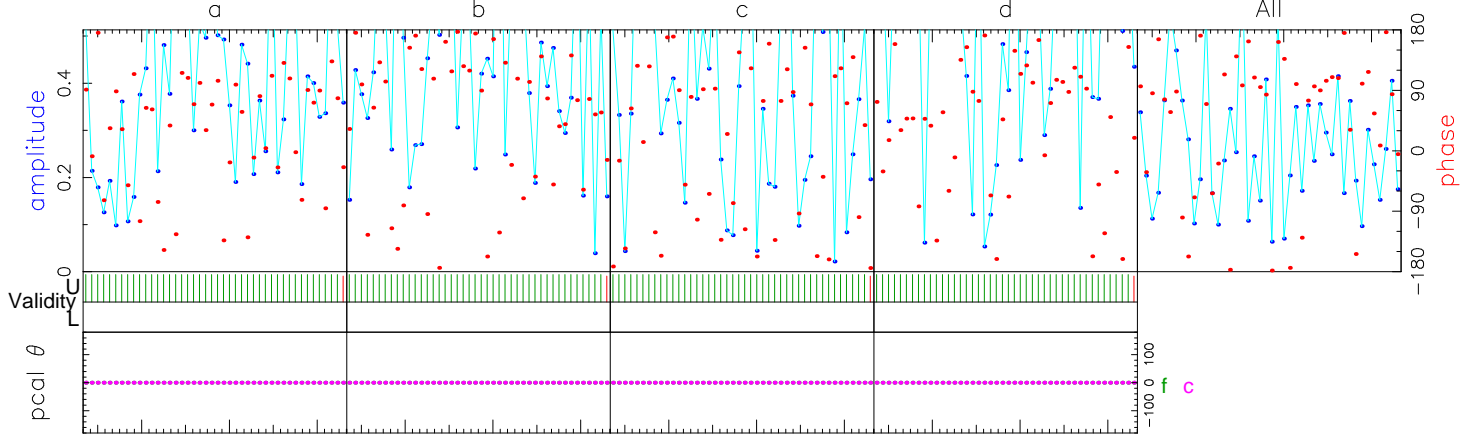
Fringe quality 0

SNR 5.8
Int time 179.980
Amp 0.171
Phase 71.2
PFD 5.9e-01
Delays (us)
SBD 0.785289
MBD -0.001846
Fringe rate (Hz)
-0.431272
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:113
Start 030520.00
Stop 030820.22
FRT 030650.00
Corr/FF/build
2025:048:123813
2025:049:103151
2024:113:095956
RA & Dec (J2000)
08h54m48.874931s
+20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	APs used	
c	1000	1000	1000	1000	PC freqs	
f:c	0:0	0:0	0:0	0:0	PC phase	
f:c	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
f	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	7.84319615473E+03	Apriori delay (usec)	7.84240893791E+03	Resid mbdelay (usec)	-1.84567E-03	+/-	1.9E-04
Sband delay (usec)	7.84319422653E+03	Apriori clock (usec)	-3.6286240E+00	Resid sbdelay (usec)	7.85289E-01	+/-	7.4E-04
Phase delay (usec)	7.84240894466E+03	Apriori clockrate (us/s)	4.4348997E-07	Resid phdelay (usec)	6.75884E-06	+/-	1.3E-06
Delay rate (us/s)	7.70381520219E-01	Apriori rate (us/s)	7.70391517254E-01	Resid rate (us/s)	-9.99703E-06	+/-	1.2E-08
Total phase (deg)	280.5	Apriori accel (us/s/s)	-3.38327003288E-05	Resid phase (deg)	71.2	+/-	19.8

ph/seg (deg)	RMS 73.1	Theor. 65.7	Amplitude Search (1024X16)	0.171 +/- 0.030	0.156	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	117.1	114.6	Interp.	0.000	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	36.5	19.8	Inc. seg. avg.	0.180	0.179	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	16.6	34.6	Inc. frq. avg.	0.179	0.179	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 242.1 el 70.1 pa 54.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2369.875 372.453 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/fc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/fc.Q.87..3N2DRU

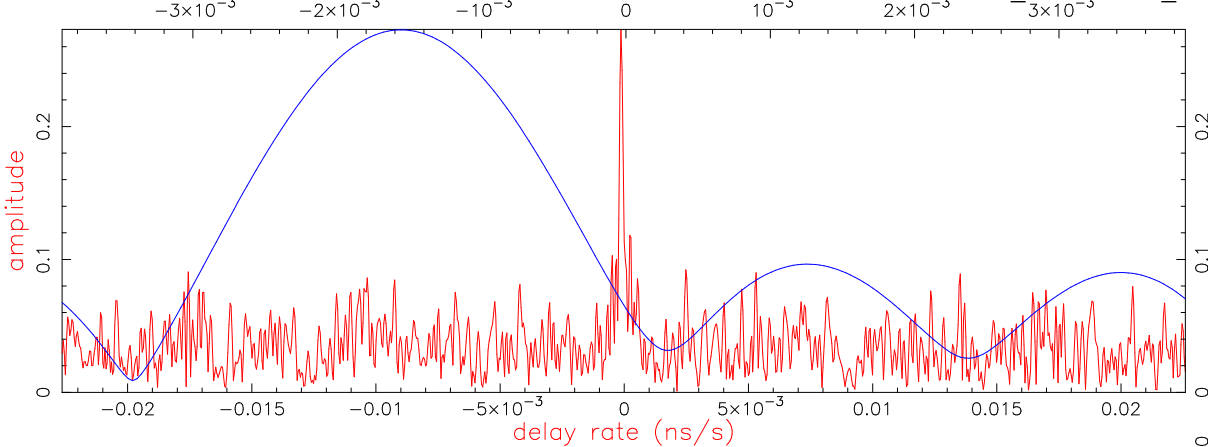
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, hc

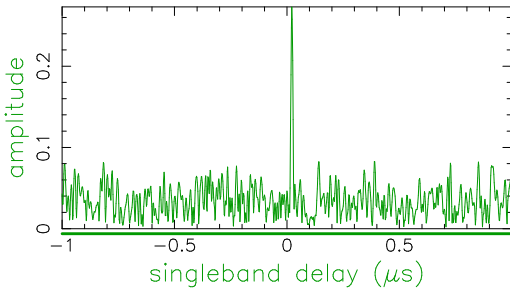
VLBA_HN - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)

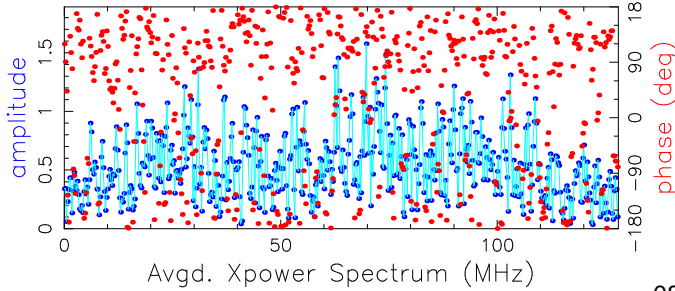


Fringe quality 9

SNR 10.0
 Int time 179.986
 Amp 0.273
 Phase 72.8
 PFD 2.7e-15
 Delays (us)
 SBD 0.021757
 MBD -0.001538
 Fringe rate (Hz)
 -0.005248
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



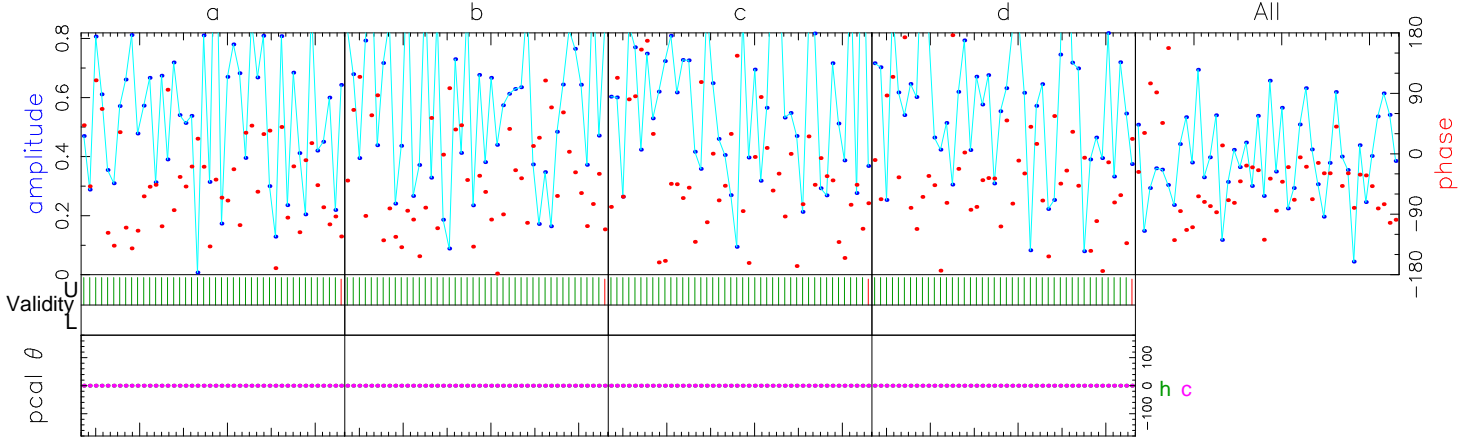
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103153
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-43.8	-54.5	-61.0	-46.5	Phase	-50.9
	0.3	0.3	0.2	0.3	Ampl.	0.3
	523.5	524.0	523.8	525.7	Sbd box	524.1
U/L	352/0	352/0	352/0	352/0	APs used	
h	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
h:c	0:0	0:0	0:0	0:0	PC phase	
h:c	0:0	0:0	0:0	0:0	Manl PC	
h	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
h	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	2.01347609725E+03	Apriori delay (usec)	2.01345419769E+03	Resid mbdelay (usec)	-1.53793E-03	+/-	1.1E-04
Sband delay (usec)	2.01347595456E+03	Apriori clock (usec)	8.7388840E+00	Resid sbdelay (usec)	2.17569E-02	+/-	4.3E-04
Phase delay (usec)	2.01345419441E+03	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	-3.28034E-06	+/-	7.4E-07
Delay rate (us/s)	3.52405434573E-01	Apriori rate (us/s)	3.52405556228E-01	Resid rate (us/s)	-1.21654E-07	+/-	7.1E-09
Total phase (deg)	104.6	Apriori accel (us/s/s)	3.84832340586E-06	Resid phase (deg)	72.8	+/-	11.4

ph/seg (deg)	56.4	Theor.	37.9	Amplitude	0.273 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	69.8	Search (1024X16)	0.269	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	9.6	Inc. seg. avg.	0.325	Inc. frq. avg.	0.269	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	13.4	Inc. frq. avg.	0.269			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

h: az 257.9 el 42.0 pa 49.7 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1076.761 1624.217 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/hc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/hc.Q.100.3N2DRU

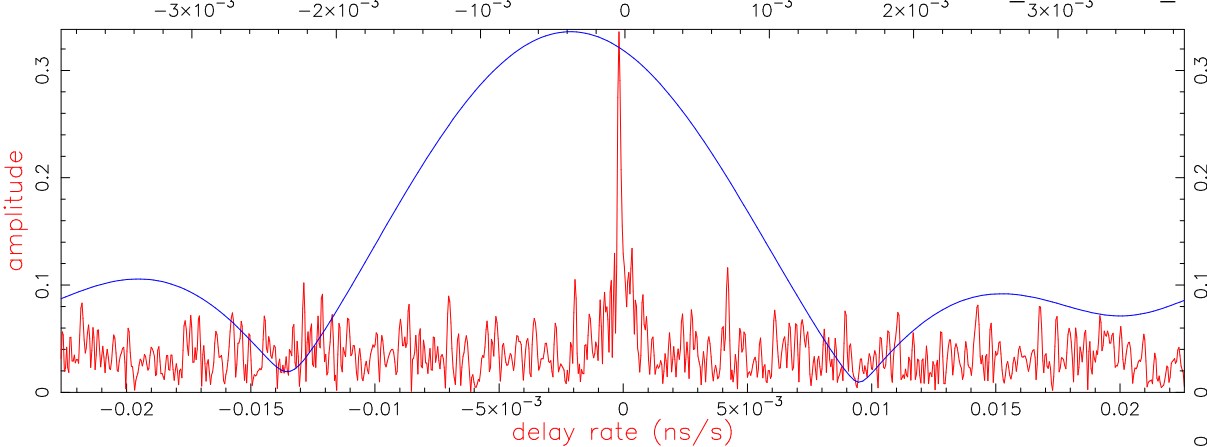
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, hc

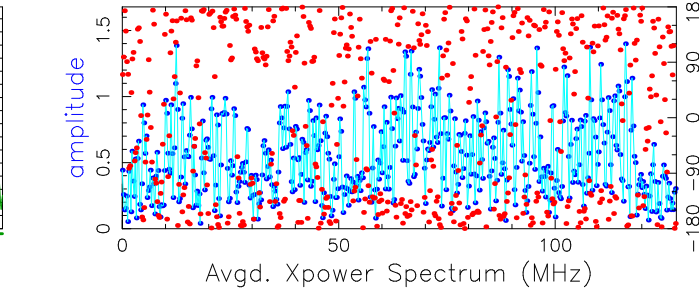
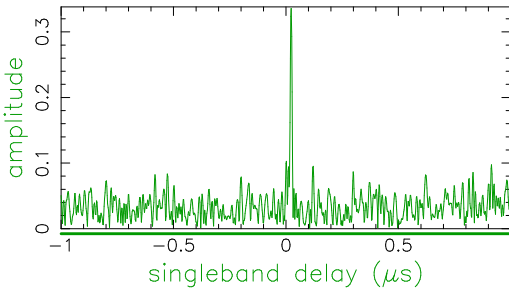
VLBA_HN - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



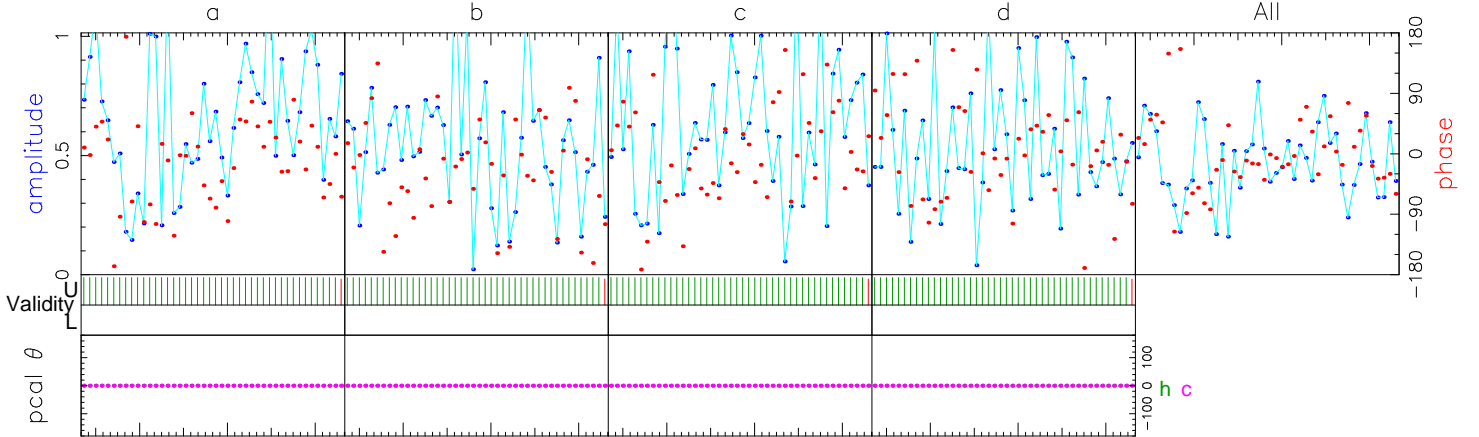
Fringe quality 9

SNR 12.4
 Int time 179.986
 Amp 0.338
 Phase 120.0
 PFD 6.1e-27
 Delays (us)
 SBD 0.022885
 MBD -0.000410
 Fringe rate (Hz)
 -0.006730
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103156
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-2.1	-13.3	-1.7	1.0	Phase	-3.8
0.4	0.3	0.4	0.3	Ampl.	0.3
524.5	524.7	525.0	524.8	Sbd box	524.7
U/L 352/0	352/0	352/0	352/0	APs used	
h 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
h:c 0:0	0:0	0:0	0:0	PC phase	
h:c 0:0	0:0	0:0	0:0	ManI PC	
h 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
h Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	2.01347722532E+03	Apriori delay (usec)	2.01345419769E+03	Resid mbdelay (usec)	-4.09872E-04	+/- 9.0E-05
Sband delay (usec)	2.01347708294E+03	Apriori clock (usec)	8.7388840E+00	Resid sbdelay (usec)	2.28852E-02	+/- 3.5E-04
Phase delay (usec)	2.01345419745E+03	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	-2.41559E-07	+/- 5.9E-07
Delay rate (us/s)	3.52405400230E-01	Apriori rate (us/s)	3.52405556228E-01	Resid rate (us/s)	-1.55998E-07	+/- 5.7E-09
Total phase (deg)	151.8	Apriori accel (us/s/s)	3.84832340586E-06	Resid phase (deg)	120.0	+/- 9.2

ph/seg (deg)	55.1	Theor.	30.6	Amplitude	0.338 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.1		53.5	Search (1024X16)	0.320	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	7.8		9.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	20.8		16.1	Inc. seg. avg.	0.416	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.333	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

h: az 257.9 el 42.0 pa 49.7 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1076.761 1624.217 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/hc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/hc.Q.111.3N2DRU

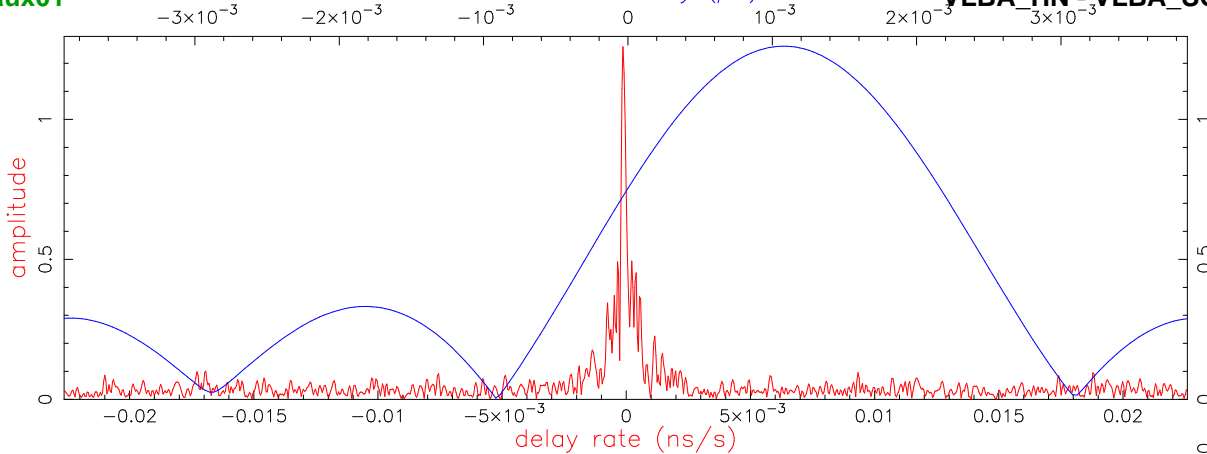
Mk4/DiFX fourfit 3.25 rev 0

aux01

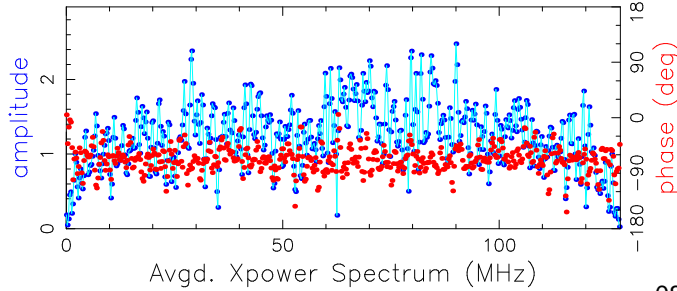
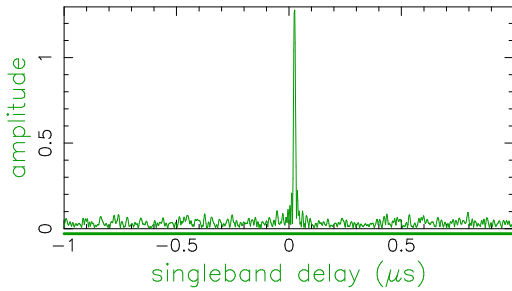
OJ287.3N2DRU, No0676, hc
VLBA_HN - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 7

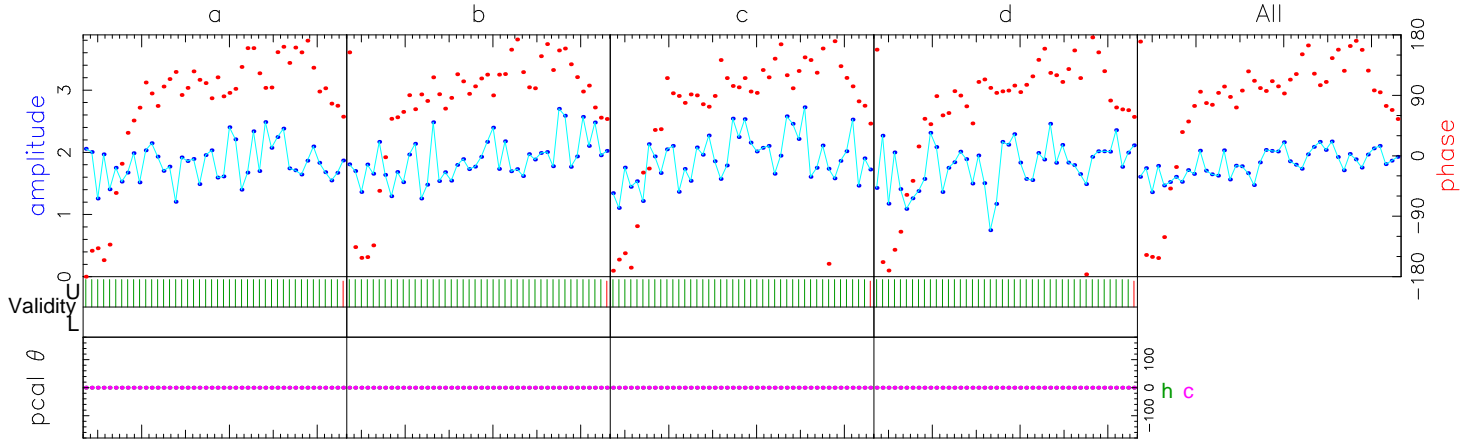


SNR 47.6
Int time 179.986
Amp 1.296
Phase 236.0
PFD 0.0e+00
Delays (us)
SBD 0.024570
MBD 0.001141
Fringe rate (Hz)
-0.005554
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:113
Start 030520.00
Stop 030820.22
FRT 030650.00
Corr/FF/build
2025:048:123813
2025:049:103148
2024:113:095956
RA & Dec (J2000)
08h54m48.874931s
+20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
116.7	112.3	112.9	106.9	Phase	112.3
1.2	1.3	1.3	1.2	Ampl.	1.3
525.5	525.8	525.7	525.3	Sbd box	525.6
U/L 352/0	352/0	352/0	352/0	APs used	
h 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
h:c 0:0	0:0	0:0	0:0	PC phase	
h:c 0:0	0:0	0:0	0:0	Manl PC	
h 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
h Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	2.01347877575E+03	Apriori delay (usec)	2.01345419769E+03	Resid mbdelay (usec)	1.14057E-03	+/-	2.3E-05
Sband delay (usec)	2.01347876731E+03	Apriori clock (usec)	8.7388840E+00	Resid sbdelay (usec)	2.45696E-02	+/-	9.1E-05
Phase delay (usec)	2.01345420492E+03	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	7.23008E-06	+/-	1.6E-07
Delay rate (us/s)	3.52405427485E-01	Apriori rate (us/s)	3.52405556228E-01	Resid rate (us/s)	-1.28743E-07	+/-	1.5E-09
Total phase (deg)	267.8	Apriori accel (us/s/s)	3.84832340586E-06	Resid phase (deg)	236.0	+/-	2.4

ph/seg (deg)	54.7	RMS	8.0	Theor.	54.7	Amplitude	1.296 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	43.6	Search (1024X16)	1.251	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	1.251	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	4.9	Inc. seg. avg.	1.805	Inc. frq. avg.	1.261	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	1.805	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	5.0	h: az 257.9 el 42.0 pa 49.7	4.2	c: az 282.3 el 35.3 pa 82.0	u, v (fr/asec) -1076.761 1624.217		4.2			ion window (TEC)	0.00	0.00

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/hc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/hc.Q.58.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

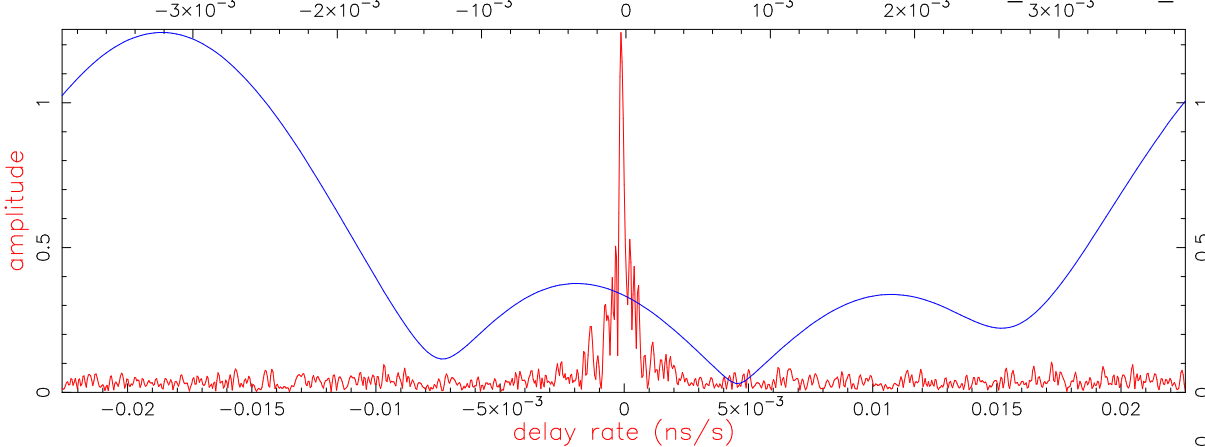
aux01

OJ287.3N2DRU, No0676, hc

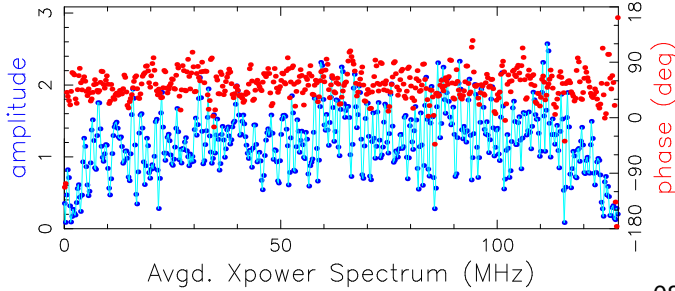
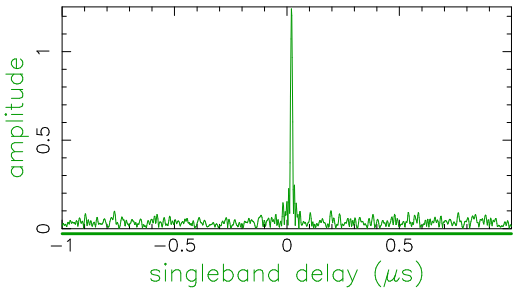
VLBA_HN - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)

Fringe quality 6

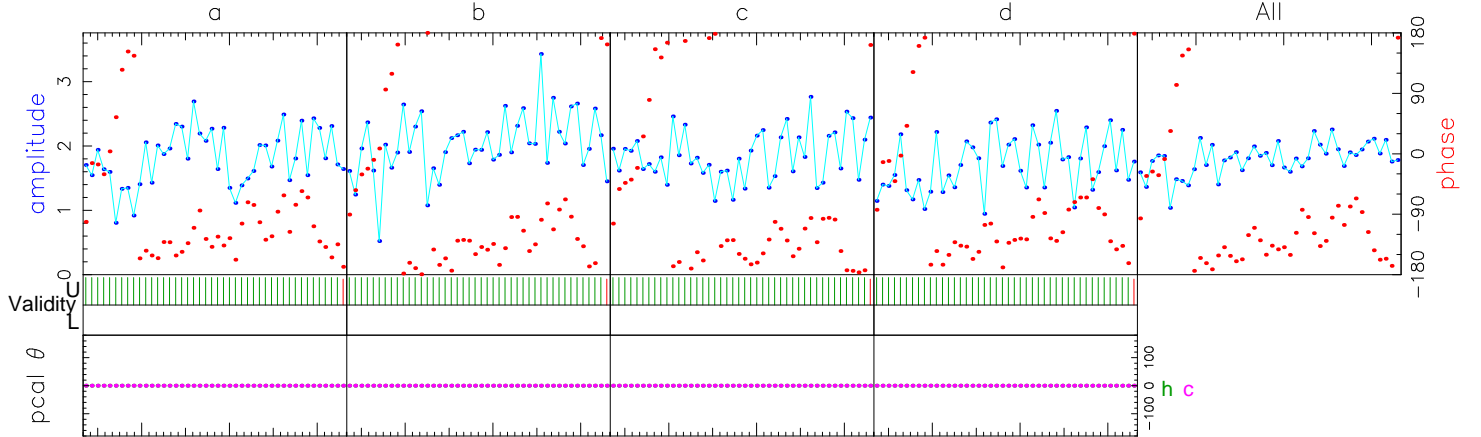


SNR 46.0
 Int time 179.986
 Amp 1.253
 Phase 355.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.020156
 MBD -0.003184
 Fringe rate (Hz)
 -0.005734
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103150
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-116.6	-134.2	-143.6	-117.6	Phase	-128.2
1.3	1.4	1.2	1.2	Ampl.	1.3
523.4	523.2	523.6	523.6	Sbd box	523.3
U/L 352/0	352/0	352/0	352/0	APs used	
h 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
h:c 0:0	0:0	0:0	0:0	PC phase	
h:c 0:0	0:0	0:0	0:0	Manl PC	
h 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
h Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	2.01347445069E+03	Apriori delay (usec)	2.01345419769E+03	Resid mbdelay (usec)	-3.18450E-03	+/- 2.4E-05
Sband delay (usec)	2.01347435344E+03	Apriori clock (usec)	8.7388840E+07	Resid sbdelay (usec)	2.01558E-02	+/- 9.4E-05
Phase delay (usec)	2.01345418943E+03	Apriori clockrate (us/s)	4.7220702E-07	Resid phdelay (usec)	-8.25395E-06	+/- 1.6E-07
Delay rate (us/s)	3.52405423311E-01	Apriori rate (us/s)	3.52405556228E-01	Resid rate (us/s)	-1.32916E-07	+/- 1.5E-09
Total phase (deg)	27.3	Apriori accel (us/s/s)	3.84832340586E-06	Resid phase (deg)	355.6	+/- 2.5

ph/seg (deg)	RMS 55.1	Theor. 8.3	Amplitude Search (1024X16)	1.253 +/- 0.027	1.218	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	47.7	14.4	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)	16.1	2.5	Inc. seg. avg.	1.781	1.781	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	5.9	4.3	Inc. frq. avg.	1.266	1.266	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

h: az 257.9 el 42.0 pa 49.7 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1076.761 1624.217 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/hc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/hc.Q.78.3N2DRU

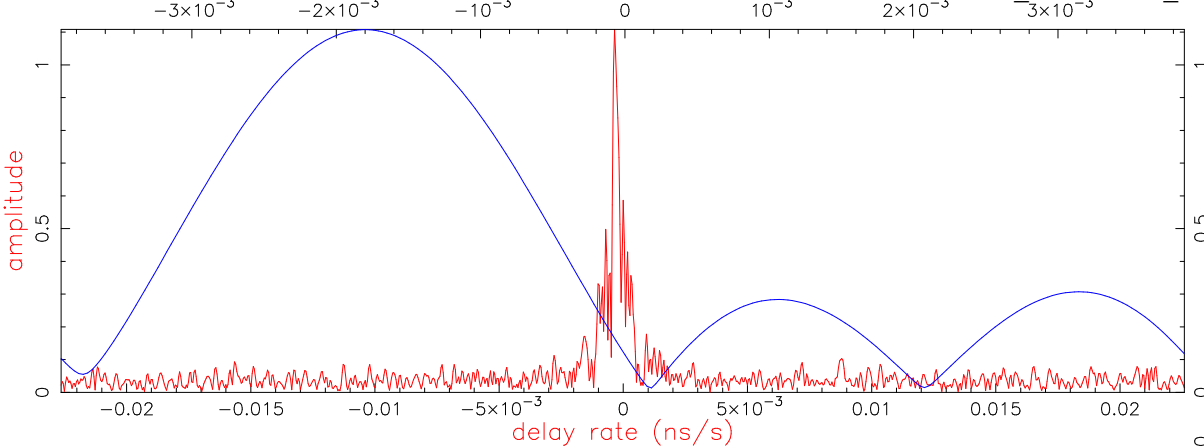
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, kc

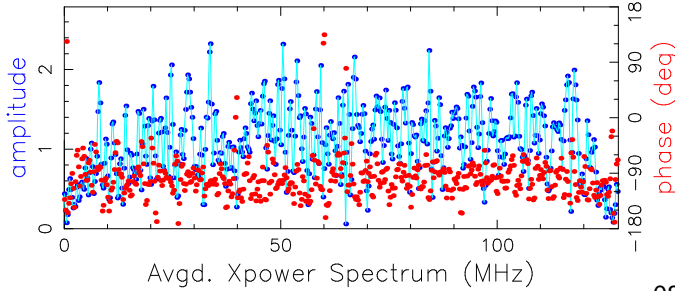
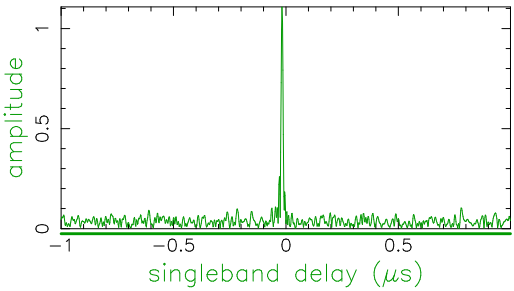
VLBA_KP - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



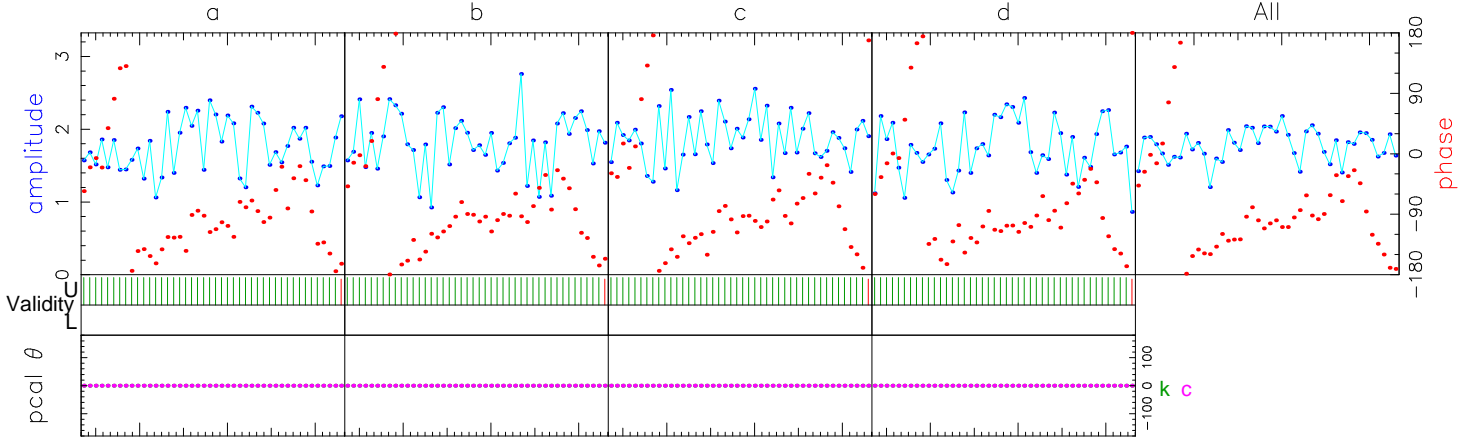
Fringe quality 7

SNR 40.7
 Int time 179.979
 Amp 1.108
 Phase -302.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.017403
 MBD -0.001788
 Fringe rate (Hz)
 -0.015204
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103157
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k:c	0:0	0:0	0:0	0:0		
k:c	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UL	Q01UL	Q02UL	Q03UL		

	8.37012396003E+03	Apriori delay (usec)	8.37014137324E+03	Resid mbdelay (usec)	-1.78821E-03	+/- 2.7E-05
Group delay (usec) (SBD)	8.37012397012E+03	Apriori clock (usec)	-3.5263767E+00	Resid sbdelay (usec)	-1.74031E-02	+/- 1.1E-04
Sband delay (usec)	8.37014136678E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	-6.46485E-06	+/- 1.8E-07
Phase delay (usec)	9.35677886268E-01	Apriori rate (us/s)	9.35678238698E-01	Resid rate (us/s)	-3.52431E-07	+/- 1.7E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-3.58771347997E-05	Resid phase (deg)	-302.9	+/- 2.8
Total phase (deg)						

	RMS	Theor.	Amplitude	1.108 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.9	9.3	Search (1024X16)	1.087	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	63.2	16.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.7	2.8	Inc. seg. avg.	1.754	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	3.2	4.9	Inc. frq. avg.	1.107	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 222.2 el 74.5 pa 38.1 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2875.588 426.545 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/kc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/kc.Q.122.3N2DRU

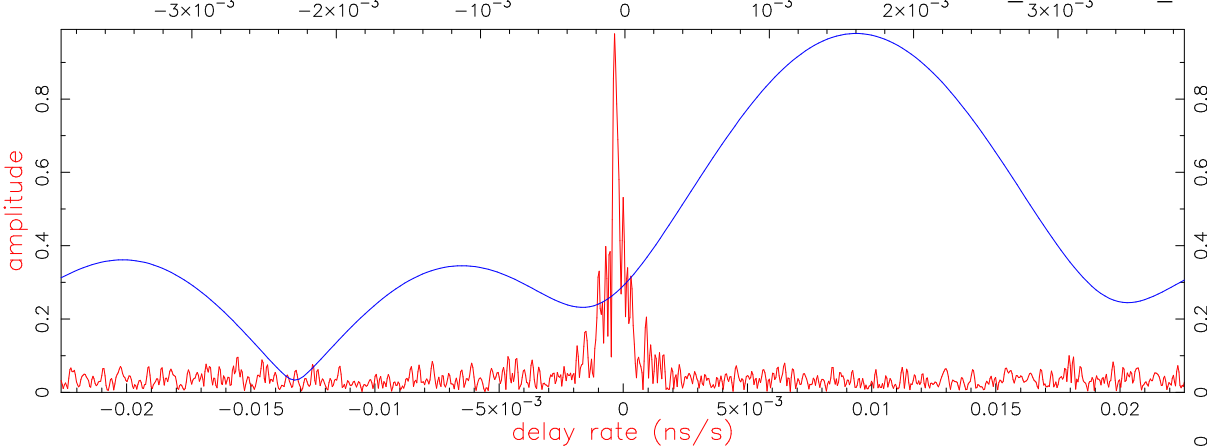
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, kc

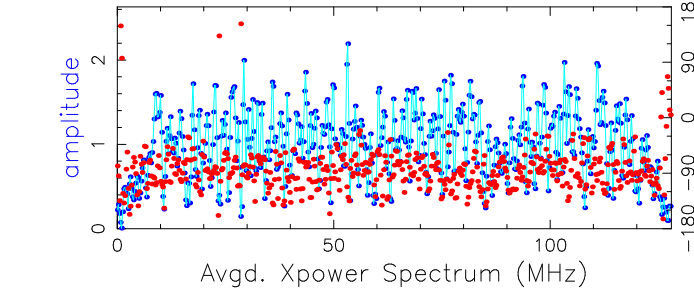
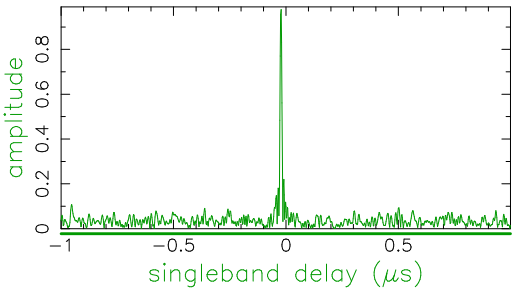
VLBA_KP - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



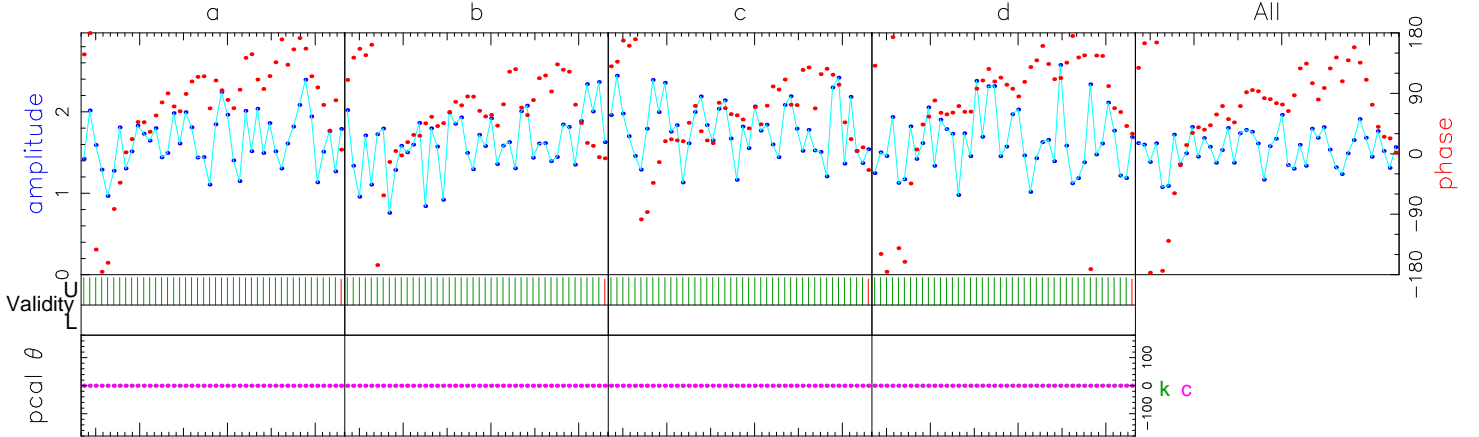
Fringe quality 5

SNR 36.3
 Int time 179.979
 Amp 0.990
 Phase -38.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.022198
 MBD 0.001557
 Fringe rate (Hz)
 -0.015106
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103159
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k:c	0:0	0:0	0:0	0:0		
k:c	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		

	8.37011949237E+03	Apriori delay (usec)	8.37014137324E+03	Resid mbdelay (usec)	1.55663E-03	+/- 3.1E-05
Group delay (usec) (SBD)	8.37011917562E+03	Apriori clock (usec)	-3.5263767E+00	Resid sbdelay (usec)	-2.21976E-02	+/- 1.2E-04
Sband delay (usec)	8.37014137871E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	5.47149E-06	+/- 2.0E-07
Phase delay (usec)	9.35677888531E-01	Apriori rate (us/s)	9.35678238698E-01	Resid rate (us/s)	-3.50167E-07	+/- 2.0E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-3.58771347997E-05	Resid phase (deg)	-38.8	+/- 3.2
Total phase (deg)	-95.8					

	RMS	Theor.	Amplitude	0.990 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	57.2	10.5	Search (1024X16)	0.963	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	60.2	18.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	27.3	3.2	Inc. seg. avg.	1.523	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	5.4	5.5	Inc. frq. avg.	1.035	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 222.2 el 74.5 pa 38.1 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2875.588 426.545 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/kc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/kc.Q.137.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

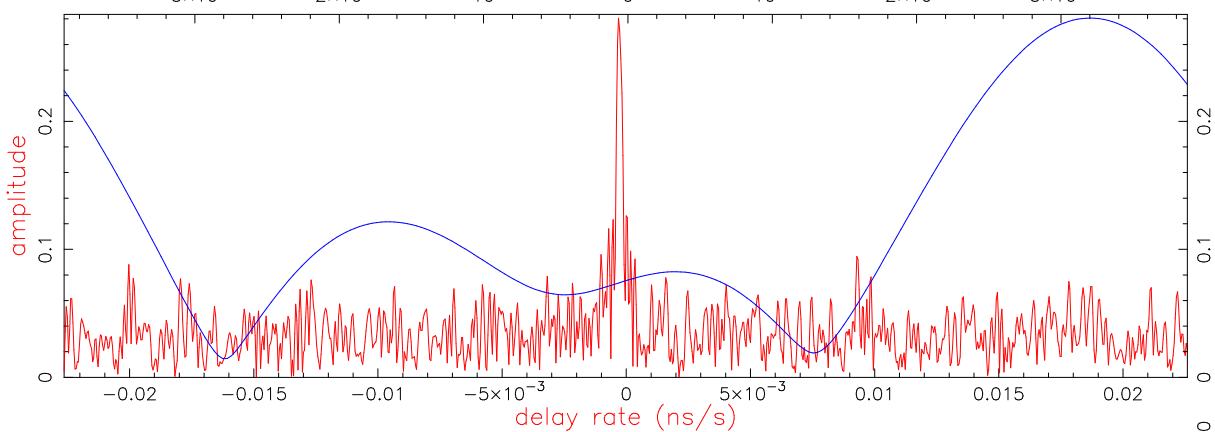
aux01

OJ287.3N2DRU, No0676, kc

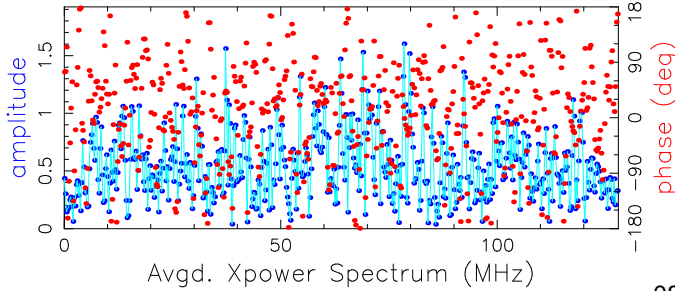
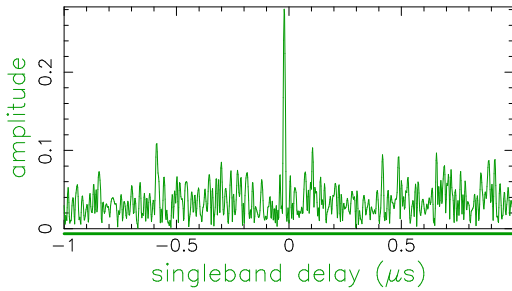
VLBA_KP - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)

Fringe quality 9

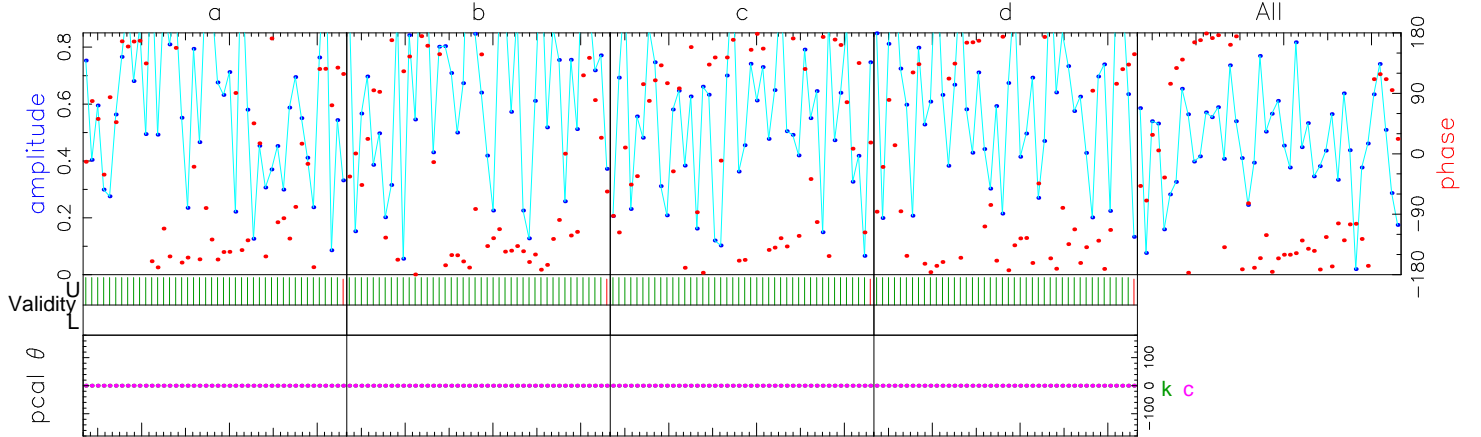


SNR 10.4
 Int time 179.979
 Amp 0.284
 Phase -292.8
 PFD 5.4e-17
 Delays (us)
 SBD -0.020792
 MBD 0.003245
 Fringe rate (Hz)
 -0.013339
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103201
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-165.1	-162.1	168.3	-165.3	Phase	-169.0
	0.2	0.3	0.2	0.4	Ampl.	0.3
	502.0	501.9	502.9	503.3	Sbd box	502.4
U/L	352/0	352/0	352/0	352/0	APs used	
k	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
k:c	0:0	0:0	0:0	0:0	PC phase	
k:c	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
k	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	8.37012118056E+03	Apriori delay (usec)	8.37014137324E+03	Resid mbdelay (usec)	3.24482E-03	+/- 1.1E-04
Group delay (usec) (SBD)	8.37012118056E+03	Apriori clock (usec)	-3.5263767E+00	Resid sbdelay (usec)	-2.07922E-02	+/- 4.1E-04
Sband delay (usec)	8.37012058099E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	-1.08843E-05	+/- 7.1E-07
Phase delay (usec)	8.37014136236E+03	Apriori rate (us/s)	9.35678238698E-01	Resid rate (us/s)	-3.09211E-07	+/- 6.8E-09
Delay rate (us/s)	9.35677929487E-01	Apriori accel (us/s/s)	-3.58771347997E-05	Resid phase (deg)	-292.8	+/- 11.0
Total phase (deg)	-349.8					

	RMS	Theor.	Amplitude	0.284 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	68.4	36.5	Search (1024X16)	0.276	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004 0.004
amp/seg (%)	88.2	63.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023 0.023
ph/frq (deg)	17.2	11.0	Inc. seg. avg.	0.386	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00 0.00
amp/frq (%)	21.5	19.2	Inc. frq. avg.	0.280	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite		

k: az 222.2 el 74.5 pa 38.1 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2875.588 426.545 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/kc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/kc.Q.146.3N2DRU

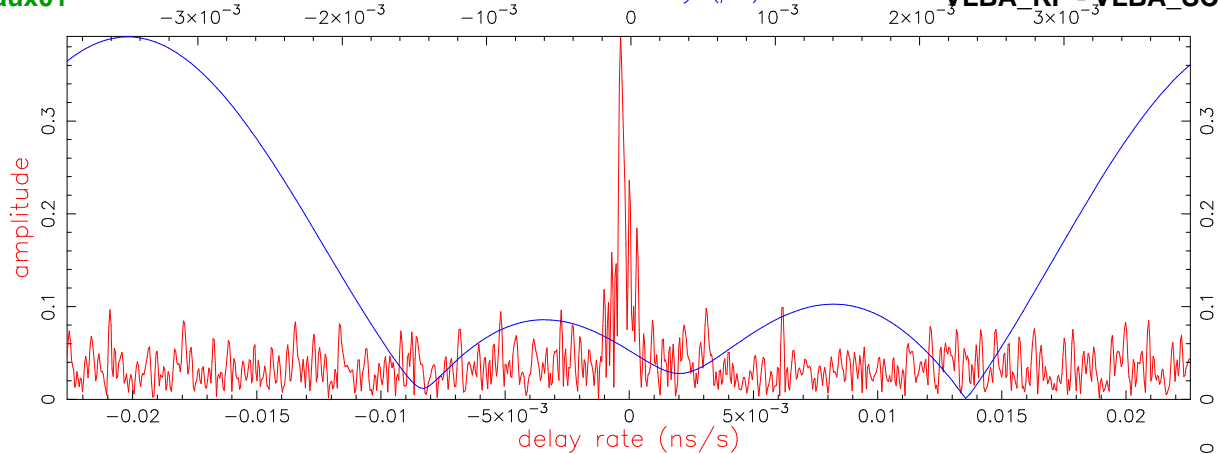
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, kc

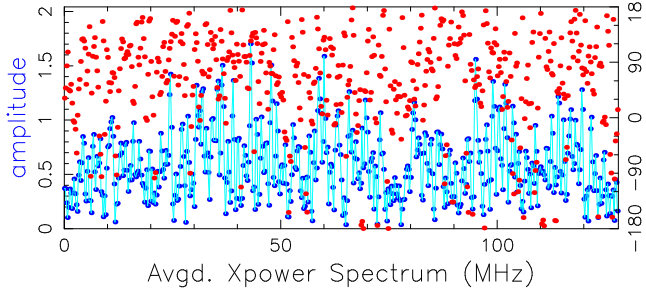
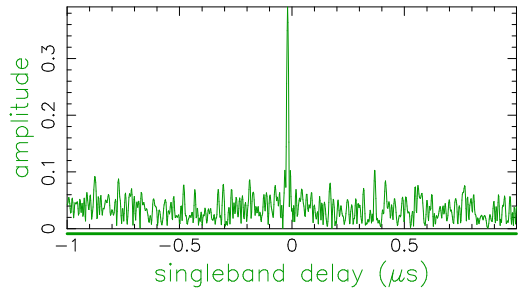
VLBA_KP - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



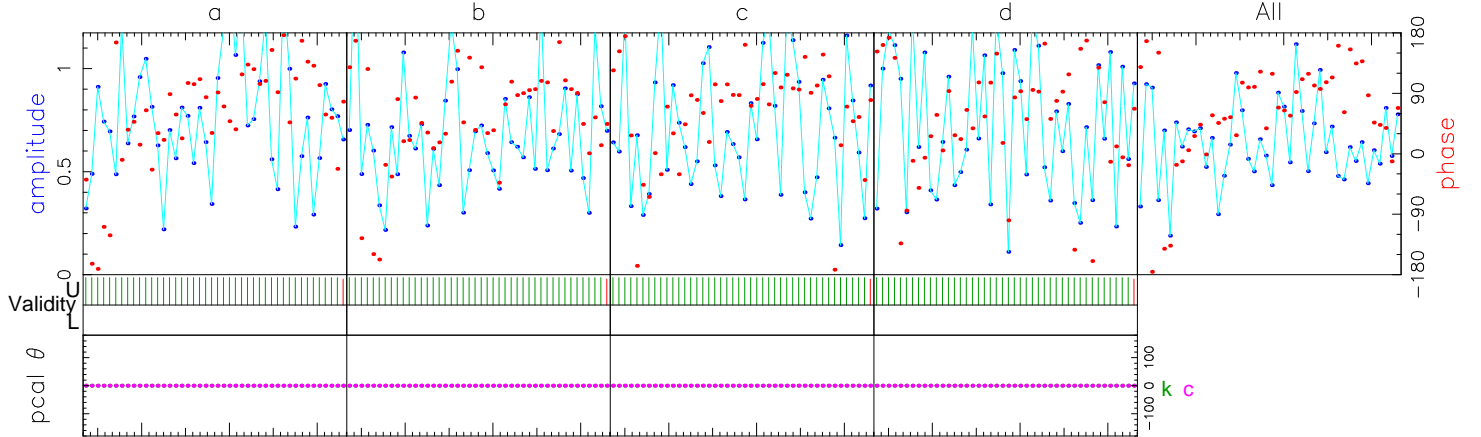
Fringe quality 9

SNR 14.4
 Int time 179.979
 Amp 0.391
 Phase -121.3
 PFD 3.2e-38
 Delays (us)
 SBD -0.019309
 MBD -0.003479
 Fringe rate (Hz)
 -0.015070
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103202
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k:c	0:0	0:0	0:0	0:0		
k:c	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000		
c	1000	1000	1000	1000		
k	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

	8.37012226956E+03	Apriori delay (usec)	8.37014137324E+03	Resid mbdelay (usec)	-3.47868E-03	+/- 7.7E-05
Group delay (usec) (SBD)	8.37012226956E+03	Apriori clock (usec)	-3.5263767E+00	Resid sbdelay (usec)	-1.93094E-02	+/- 3.0E-04
Sband delay (usec)	8.37012206387E+03	Apriori clockrate (us/s)	5.4547610E-07	Resid phdelay (usec)	5.23121E-06	+/- 5.1E-07
Phase delay (usec)	8.37014137847E+03	Apriori rate (us/s)	9.35678238698E-01	Resid rate (us/s)	-3.49329E-07	+/- 4.9E-09
Delay rate (us/s)	9.35677889369E-01	Apriori accel (us/s/s)	-3.58771347997E-05	Resid phase (deg)	-121.3	+/- 8.0
Total phase (deg)	-178.3					

	RMS	Theor.	Amplitude	0.391 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.2	26.5	Search (1024X16)	0.388	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	80.3	46.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.0	8.0	Inc. seg. avg.	0.579	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	9.3	13.9	Inc. frq. avg.	0.387	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 222.2 el 74.5 pa 38.1 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2875.588 426.545 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/kc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/kc.Q.160.3N2DRU

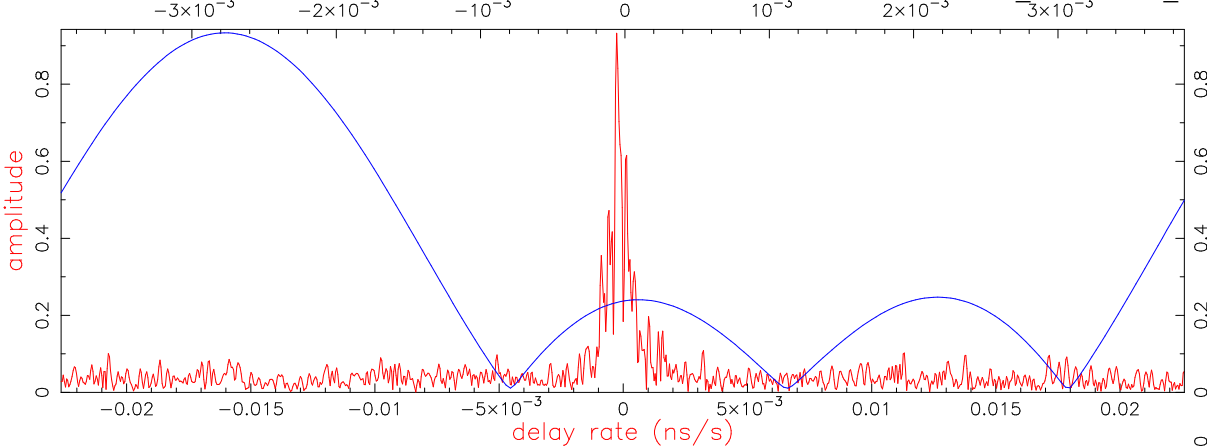
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, lc

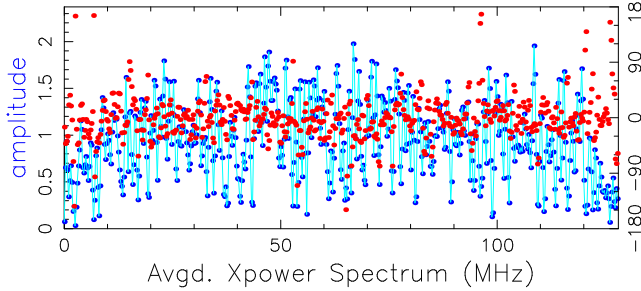
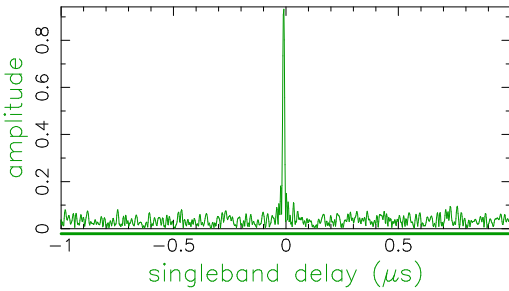
VLBA_LA - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



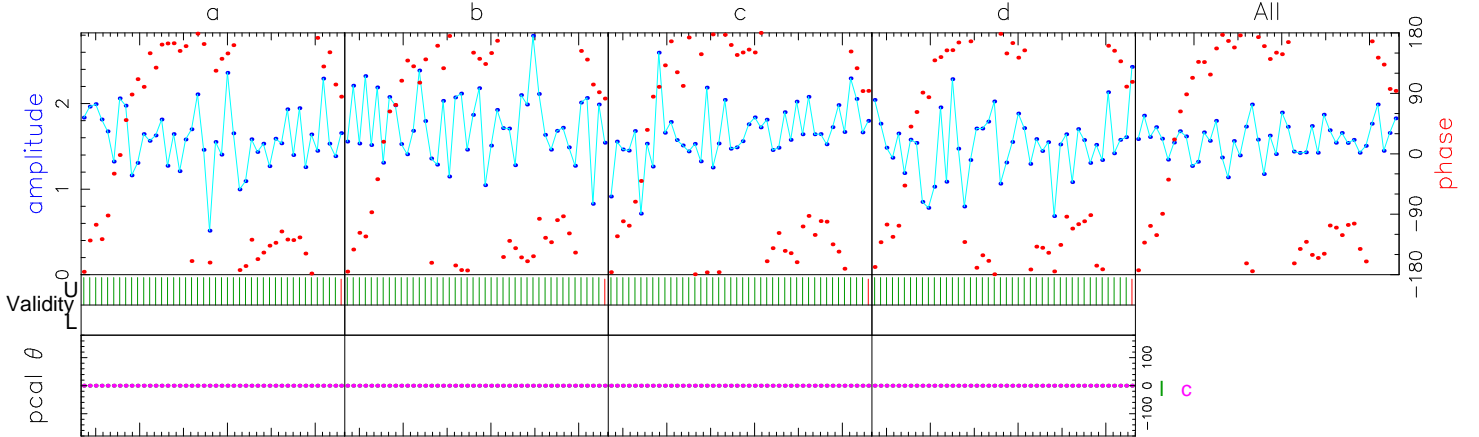
Fringe quality 7

SNR 34.6
 Int time 179.980
 Amp 0.942
 Phase -98.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.010440
 MBD -0.002817
 Fringe rate (Hz)
 -0.012388
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103157
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	179.4	-179.2	-176.3	-174.6	Phase	-177.6
	0.9	0.9	1.0	0.9	Ampl.	0.9
	507.5	507.8	507.7	507.6	Sbd box	507.7
U/L	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
l:c	0:0	0:0	0:0	0:0	PC phase	
l:c	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	

	7.66080336803E+03	Apriori delay (usec)	7.66081399787E+03	Resid mbdelay (usec)	-2.81734E-03	+/- 3.2E-05
Group delay (usec) (SBD)	7.66080336803E+03	Apriori clock (usec)	-1.2012737E+01	Resid sbdelay (usec)	-1.04401E-02	+/- 1.2E-04
Sband delay (usec)	7.66080355774E+03	Apriori clockrate (us/s)	1.5926897E-07	Resid phdelay (usec)	-1.14376E-05	+/- 2.1E-07
Phase delay (usec)	7.66081398643E+03	Apriori rate (us/s)	8.39217751602E-01	Resid rate (us/s)	-2.87148E-07	+/- 2.1E-09
Delay rate (us/s)	8.39217464454E-01	Apriori accel (us/s/s)	-3.00145558640E-05	Resid phase (deg)	-98.9	+/- 3.3
Total phase (deg)	-146.4					

	RMS	Theor.	Amplitude	0.942 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.6	11.0	Search (1024X16)	0.892	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.3	19.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	3.3	3.3	Inc. seg. avg.	1.556	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.7	5.8	Inc. frq. avg.	0.932	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 226.7 el 68.7 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2578.681 740.482 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/lc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/lc.Q.126.3N2DRU

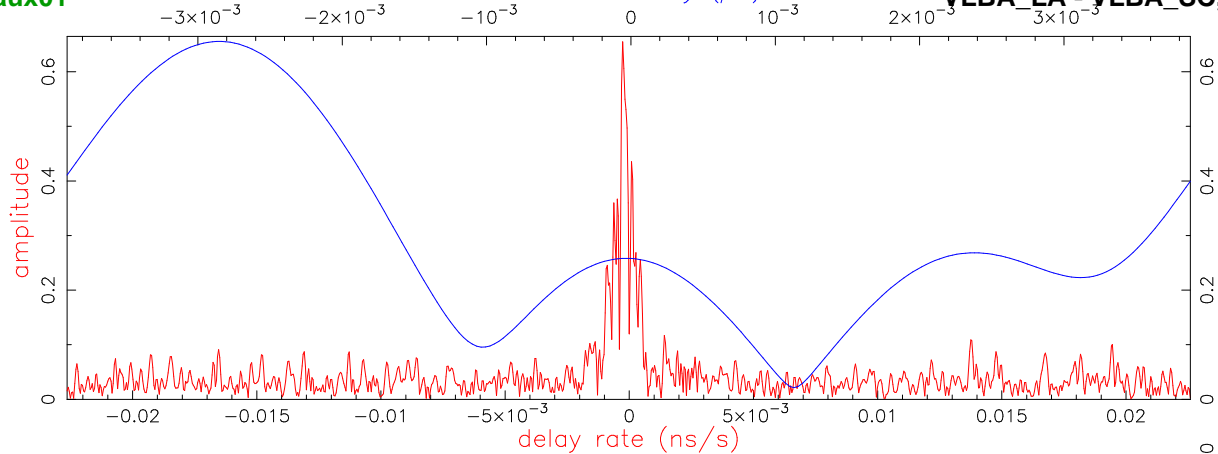
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, lc

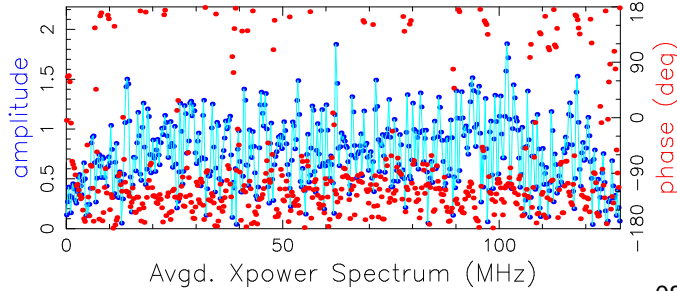
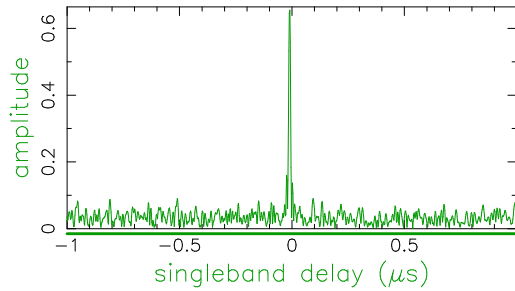
VLBA_LA - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



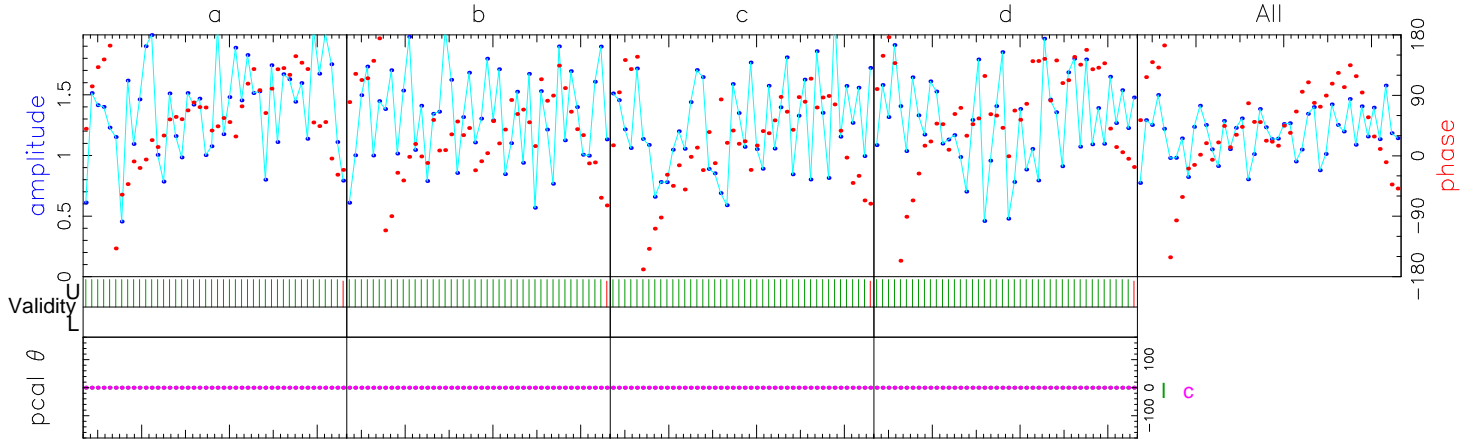
Fringe quality 7

SNR 24.4
 Int time 179.980
 Amp 0.665
 Phase -227.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.010589
 MBD -0.002903
 Fringe rate (Hz)
 -0.012031
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103201
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000		
c	1000	1000	1000	1000		
l:c	0:0	0:0	0:0	0:0		
l:c	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
c	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	7.66080328216E+03	Apriori delay (usec)	7.66081399787E+03	Resid mbdelay (usec)	-2.90321E-03	+/- 4.6E-05
Sband delay (usec)	7.66080340924E+03	Apriori clock (usec)	-1.2012737E+01	Resid sbdelay (usec)	-1.05886E-02	+/- 1.8E-04
Phase delay (usec)	7.66081400130E+03	Apriori clockrate (us/s)	1.5926897E-07	Resid phdelay (usec)	3.43346E-06	+/- 3.0E-07
Delay rate (us/s)	8.39217472728E-01	Apriori rate (us/s)	8.39217751602E-01	Resid rate (us/s)	-2.78874E-07	+/- 2.9E-09
Total phase (deg)	-275.4	Apriori accel (us/s/s)	-3.00145558640E-05	Resid phase (deg)	-227.9	+/- 4.7

ph/seg (deg)	62.2	Theor.	15.6	Amplitude	0.665 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	82.8		27.2	Search (1024X16)	0.644	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	29.3		4.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	14.1		8.2	Inc. seg. avg.	1.139	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.695	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

l: az 226.7 el 68.7 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2578.681 740.482 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/lc...3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/lc.Q.149.3N2DRU

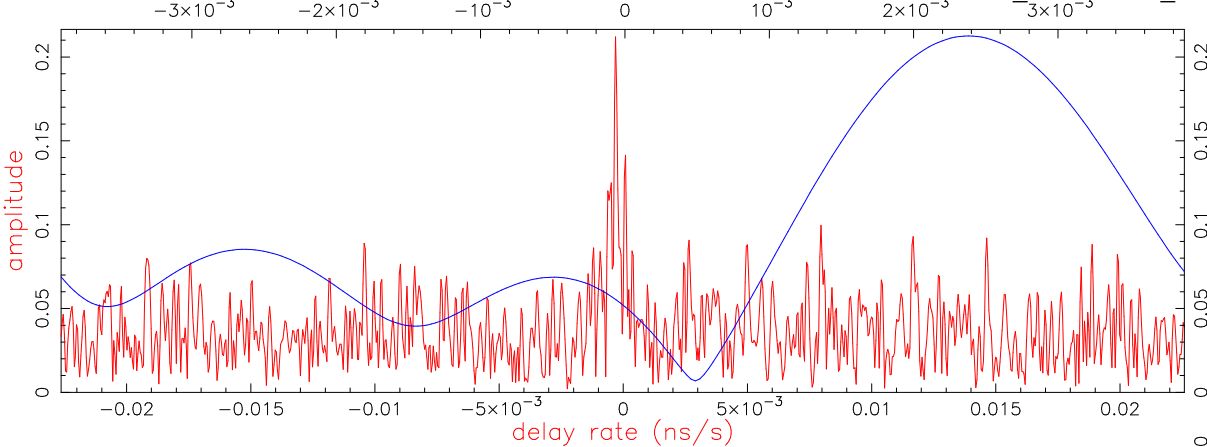
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, lc

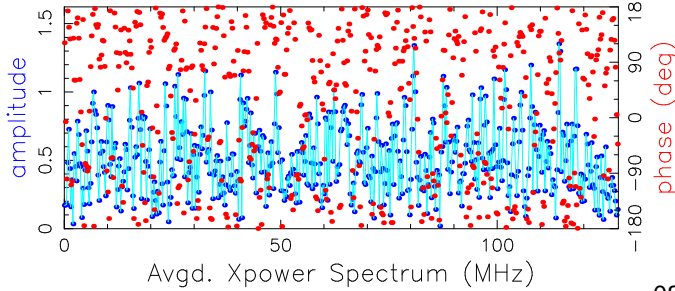
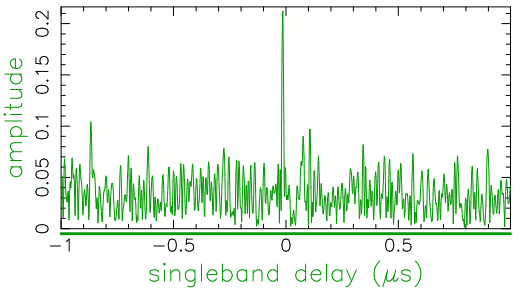
VLBA_LA - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



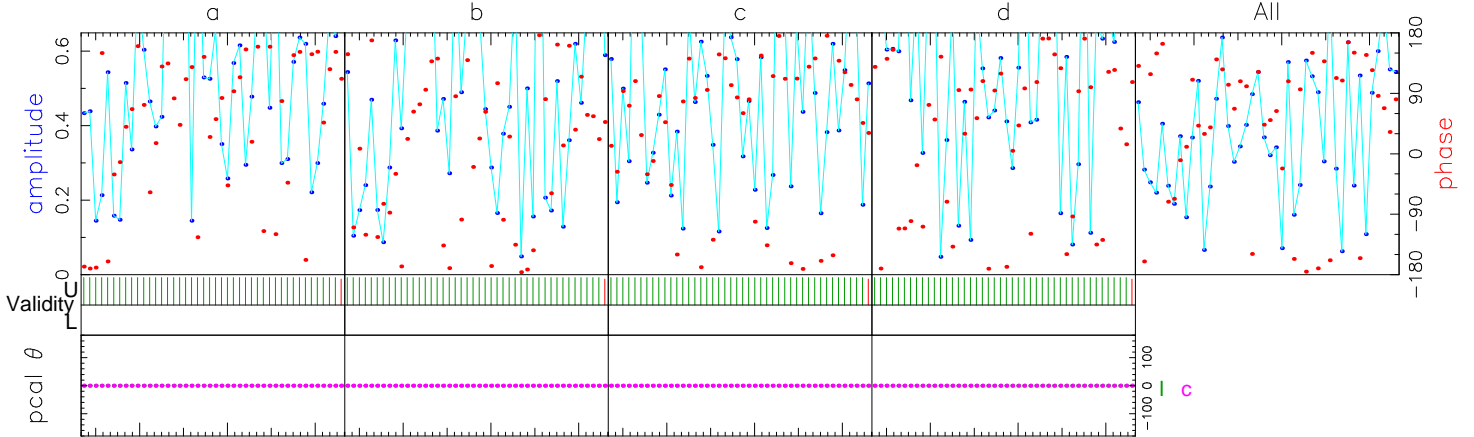
Fringe quality 9

SNR 7.9
 Int time 179.980
 Amp 0.216
 Phase -81.9
 PFD 3.4e-07
 Delays (us)
 SBD -0.014539
 MBD 0.002300
 Fringe rate (Hz)
 -0.012948
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103203
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	126.3	96.9	115.8	136.2	Phase	120.6
	0.2	0.1	0.3	0.2	Ampl.	0.2
	505.7	547.7	505.6	576.6	Sbd box	505.6
U/L	352/0	352/0	352/0	352/0	APs used	
l	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
l:c	0:0	0:0	0:0	0:0	PC phase	
l:c	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
l	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	7.66080067284E+03	Apriori delay (usec)	7.66081399787E+03	Resid mbdelay (usec)	2.29998E-03	+/-	1.4E-04
Sband delay (usec)	7.66079945874E+03	Apriori clock (usec)	-1.2012737E+01	Resid sbdelay (usec)	-1.45391E-02	+/-	5.4E-04
Phase delay (usec)	7.66081400564E+03	Apriori clockrate (us/s)	1.5926897E-07	Resid phdelay (usec)	7.76694E-06	+/-	9.3E-07
Delay rate (us/s)	8.39217451469E-01	Apriori rate (us/s)	8.39217751602E-01	Resid rate (us/s)	-3.00133E-07	+/-	8.9E-09
Total phase (deg)	-129.4	Apriori accel (us/s/s)	-3.00145558640E-05	Resid phase (deg)	-81.9	+/-	14.4

	RMS	Theor.	Amplitude	0.216 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	69.5	47.9	Search (1024X16)	0.210	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	112.8	83.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	20.8	14.4	Inc. seg. avg.	0.284	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
amp/frq (%)	22.5	25.2	Inc. frq. avg.	0.211	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite			

l: az 226.7 el 68.7 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2578.681 740.482 simultaneous interpolator

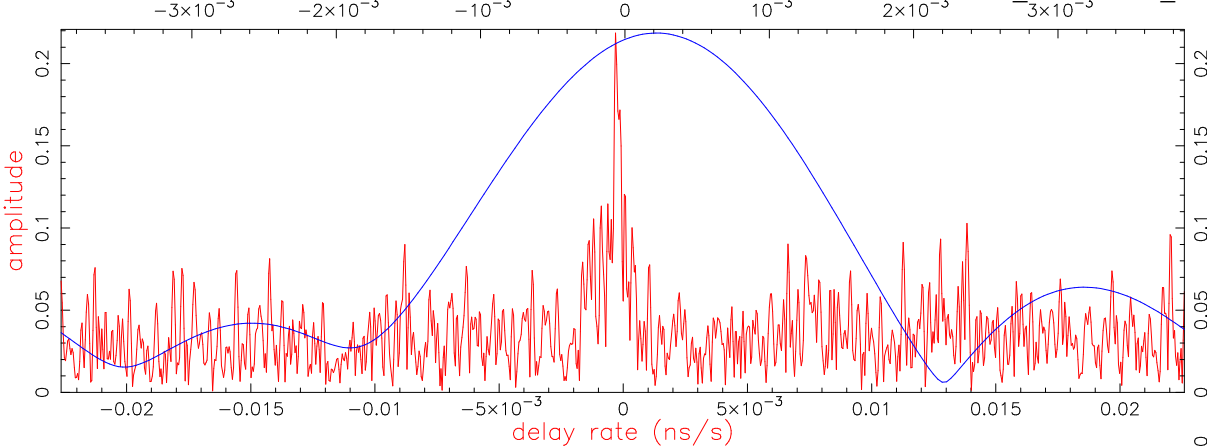
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/lc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/lc.Q.167.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

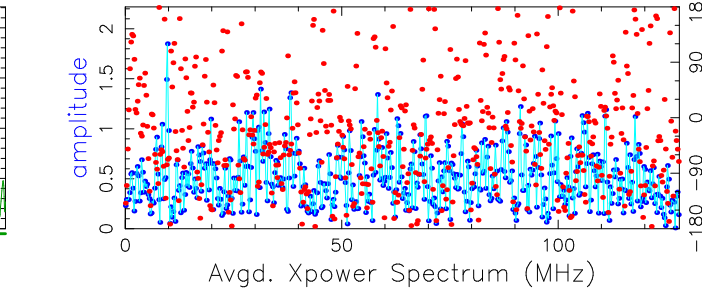
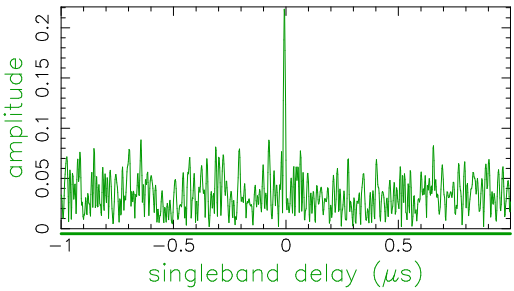
OJ287.3N2DRU, No0676, lc
VLBA_LA - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



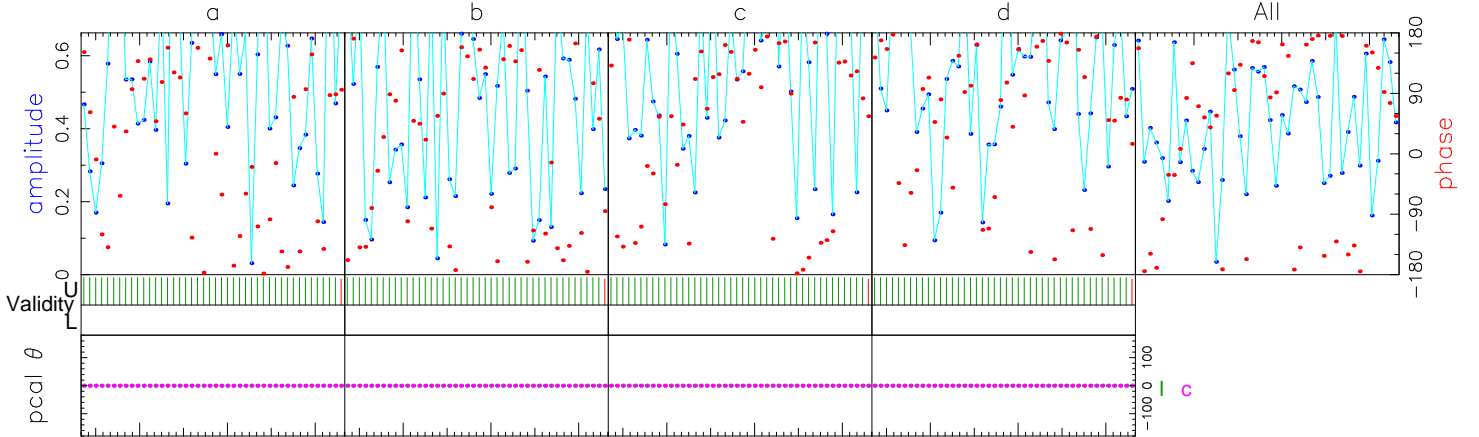
Fringe quality 9

SNR 8.1
Int time 179.980
Amp 0.221
Phase -129.7
PFD 9.4e-08
Delays (us)
SBD -0.007127
MBD 0.000243
Fringe rate (Hz)
-0.013220
Ion TEC 0.000
Ref freq (MHz)
43140.0000
AP (sec) 0.512



Exp. c241c
Exper # 1234
Yr:day 2024:113
Start 030520.00
Stop 030820.22
FRT 030650.00
Corr/FF/build
2025:048:123813
2025:049:103205
2024:113:095956
RA & Dec (J2000)
08h54m48.874931s
+20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
l	1000	1000	1000	1000		
c	1000	1000	1000	1000		
l:c	0:0	0:0	0:0	0:0		
l:c	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000		
c	1000	1000	1000	1000		
l	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec) (SBD)	7.66080642872E+03	Apriori delay (usec)	7.66081399787E+03	Resid mbdelay (usec)	2.43350E-04	+/-	1.4E-04
Sband delay (usec)	7.66080687049E+03	Apriori clock (usec)	-1.2012737E+01	Resid sbdelay (usec)	-7.12737E-03	+/-	5.3E-04
Phase delay (usec)	7.66081400763E+03	Apriori clockrate (us/s)	1.5926897E-07	Resid phdelay (usec)	9.75624E-06	+/-	9.1E-07
Delay rate (us/s)	8.39217445148E-01	Apriori rate (us/s)	8.39217751602E-01	Resid rate (us/s)	-3.06455E-07	+/-	8.8E-09
Total phase (deg)	-177.2	Apriori accel (us/s/s)	-3.00145558640E-05	Resid phase (deg)	-129.7	+/-	14.1

ph/seg (deg)	69.0	Theor.	46.9	Amplitude	0.221 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	112.5	Search (1024X16)	0.213	Search	0.213	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	10.3	Inc. seg. avg.	0.311	Inc. seg. avg.	0.311	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004 0.004	
amp/frq (%)	13.5	Inc. frq. avg.	0.214	Inc. frq. avg.	0.214	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

l: az 226.7 el 68.7 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2578.681 740.482 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/lc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/lc.Q.185.3N2DRU

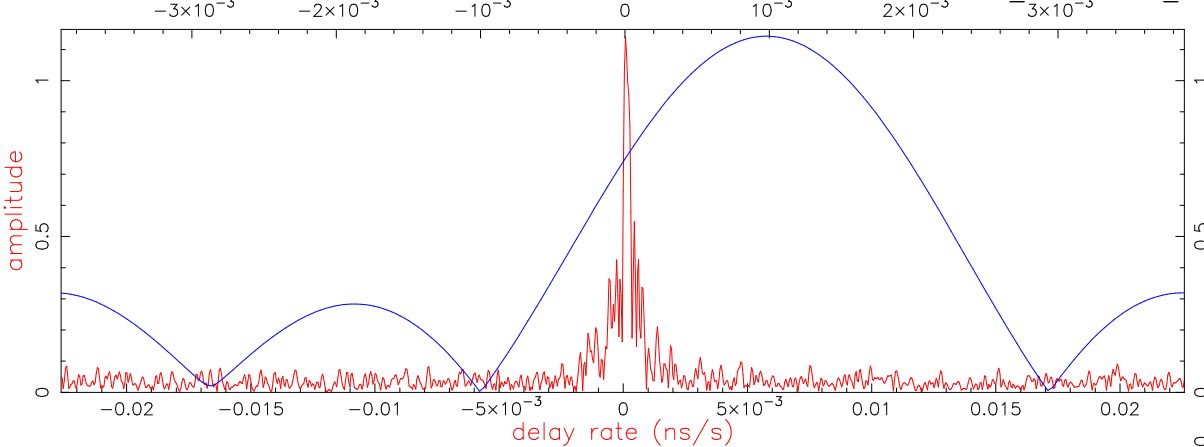
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, mc

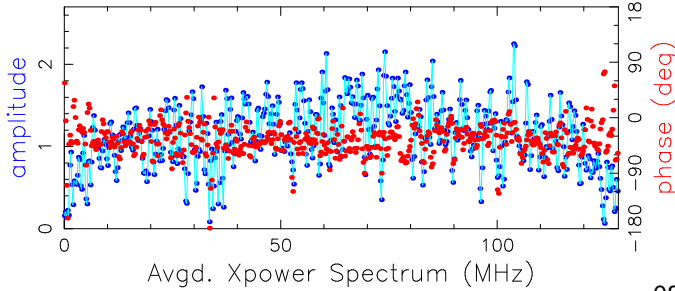
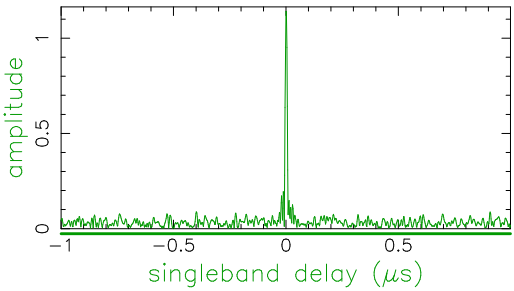
VLBA_MK - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



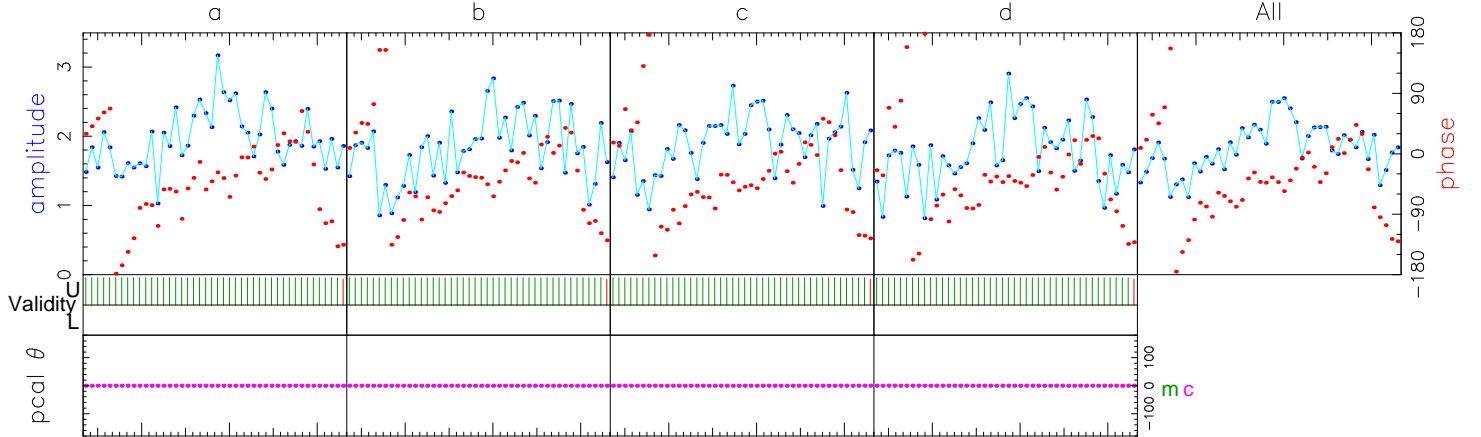
Fringe quality 7

SNR 42.7
 Int time 179.976
 Amp 1.164
 Phase -37.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.000954
 MBD 0.001043
 Fringe rate (Hz)
 0.003471
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103202
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-34.2	-34.7	-41.0	-41.6	Phase	-37.9
	1.2	1.1	1.2	1.1	Ampl.	1.1
	513.4	513.5	513.6	513.3	Sbd box	513.5
U/L	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
m:c	0:0	0:0	0:0	0:0	PC phase	
m:c	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	6.30595751893E+03	Apriori delay (usec)	6.30595647546E+03	Resid mbdelay (usec)	1.04347E-03	+/- 2.6E-05
Group delay (usec) (SBD)	6.30595742959E+03	Apriori clock (usec)	-3.1485119E+00	Resid sbdelay (usec)	9.54125E-04	+/- 1.0E-04
Sband delay (usec)	6.30595647303E+03	Apriori clockrate (us/s)	3.7877004E-07	Resid phdelay (usec)	-2.43780E-06	+/- 1.7E-07
Phase delay (usec)	1.91720406773E+00	Apriori rate (us/s)	1.91720398727E+00	Resid rate (us/s)	8.04521E-08	+/- 1.7E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-3.22392246856E-05	Resid phase (deg)	-37.9	+/- 2.7
Total phase (deg)	88.7					

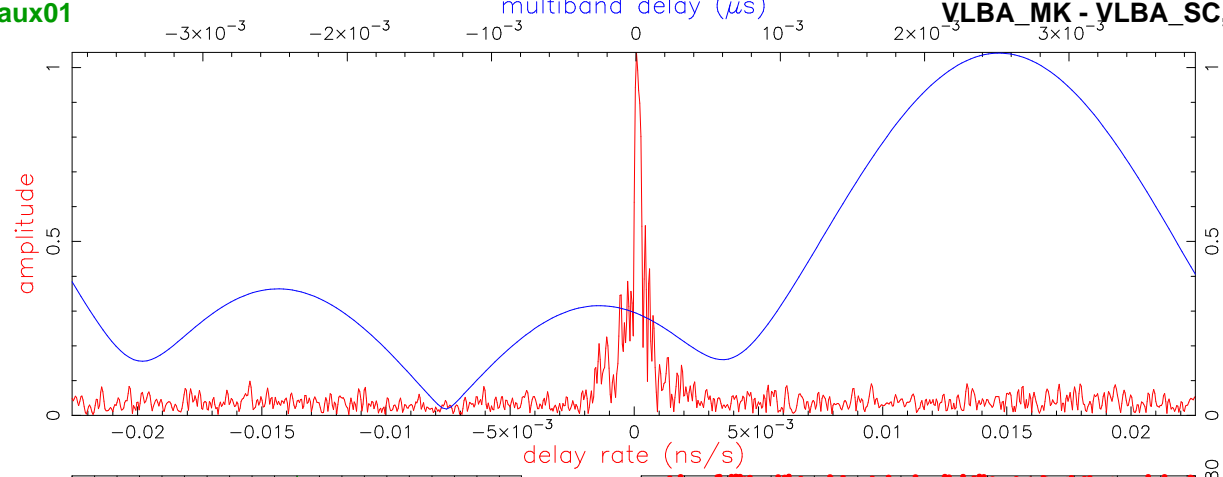
	RMS	Theor.	Amplitude	1.164 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	61.3	8.9	Search (1024X16)	1.138	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	64.2	15.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	4.9	2.7	Inc. seg. avg.	1.805	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.9	4.7	Inc. frq. avg.	1.142	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
m: az 83.9 el 59.2 pa -84.9		c: az 282.3 el 35.3 pa 82.0		u,v (fr/asec) -5868.579 -306.708		simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241c/v2/7mm/3001/No0676/mc..3N2DRU		Output file: /Exps/c241c/v2/7mm/3001/No0676/mc.Q.158.3N2DRU		

Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, mc

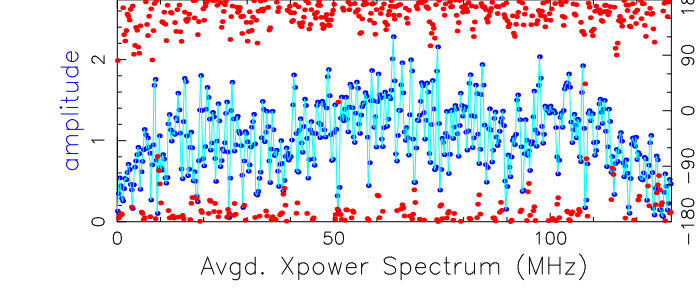
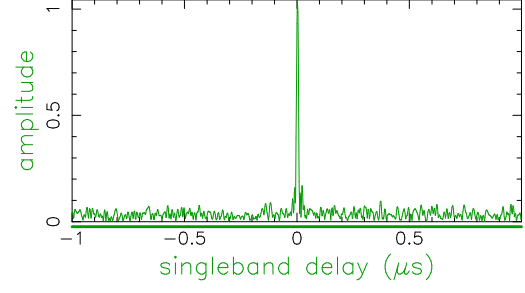
VLBA_MK - VLBA_SC, fgroup Q, pol RR



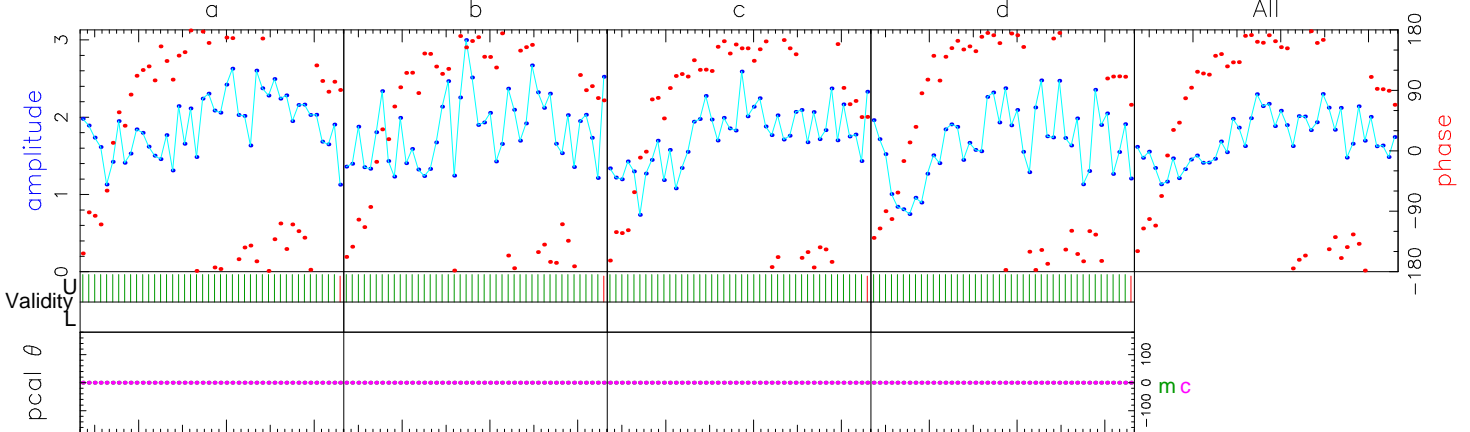
Fringe quality 6

SNR 38.3
 Int time 179.979
 Amp 1.044
 Phase 162.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.002271
 MBD 0.002531
 Fringe rate (Hz) 0.003575
 Ion TEC 0.000
 Ref freq (MHz) 43140.0000
 AP (sec) 0.512

Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103205
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"



Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec) (SBD)	6.30595900643E+03	Apriori delay (usec)	6.30595647546E+03	Resid mbdelay (usec)	2.53097E-03	+/-	2.9E-05
Sband delay (usec)	6.30595874634E+03	Apriori clock (usec)	-3.1485119E+00	Resid sbdelay (usec)	2.27088E-03	+/-	1.1E-04
Phase delay (usec)	6.30595648595E+03	Apriori clockrate (us/s)	3.7877004E-07	Resid phdelay (usec)	1.04831E-05	+/-	1.9E-07
Delay rate (us/s)	1.91720407014E+00	Apriori rate (us/s)	1.91720398727E+00	Resid rate (us/s)	8.28629E-08	+/-	1.9E-09
Total phase (deg)	289.4	Apriori accel (us/s/s)	-3.22392246856E-05	Resid phase (deg)	162.8	+/-	3.0

ph/seg (deg) 63.6 9.9 Search (1024X16) 1.037 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.7 17.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.7 3.0 Inc. seg. avg. 1.701 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.004 0.004
 amp/frq (%) 3.2 5.2 Inc. frq. avg. 1.066 Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us dr window (ns/s) -0.023 0.023
 m: az 83.9 el 59.2 pa -84.9 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -5868.579 -306.708 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/No0676/mc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/mc.Q.181.3N2DRU simultaneous interpolator

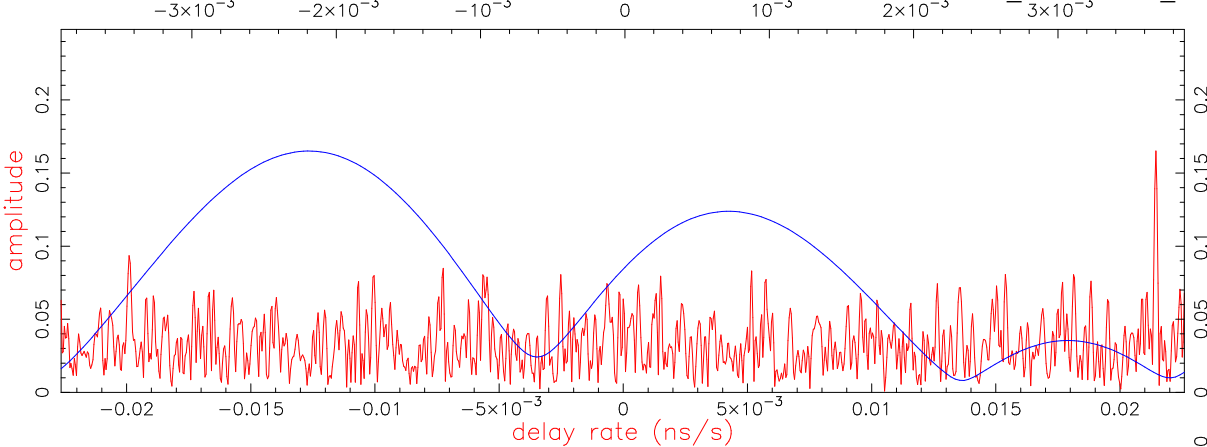
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, mc

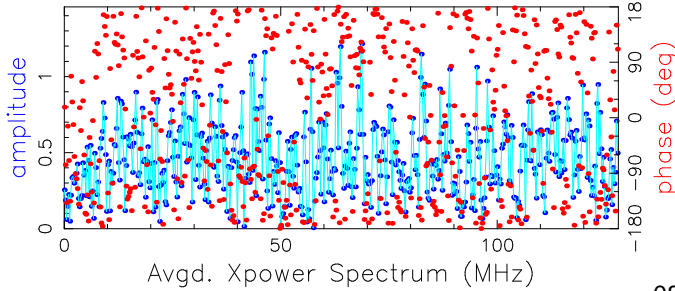
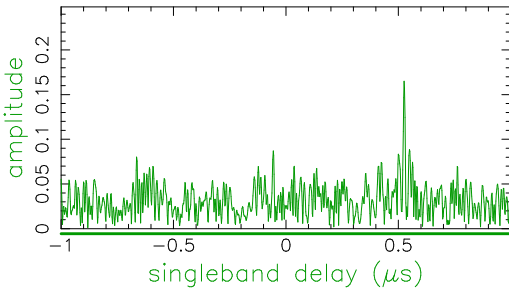
VLBA_MK - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



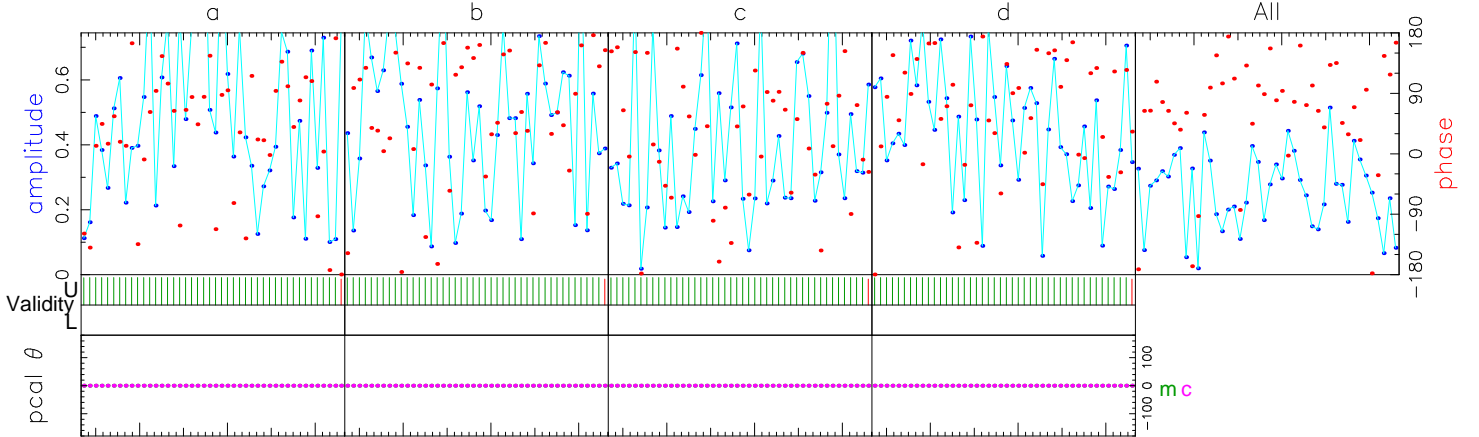
Fringe quality 0

SNR 6.1
 Int time 179.976
 Amp 0.248
 Phase 133.2
 PFD 1.5e-01
 Delays (us)
 SBD 0.525804
 MBD -0.002175
 Fringe rate (Hz)
 0.929036
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103206
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m:c	0:0	0:0	0:0	0:0		
m:c	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000		
c	1000	1000	1000	1000		
m	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

Group delay (usec) (SBD)	6.30648555031E+03	Apriori delay (usec)	6.30595647546E+03	Resid mbdelay (usec)	-2.17516E-03	+/- 1.8E-04
Sband delay (usec)	6.30648227984E+03	Apriori clock (usec)	-3.1485119E+00	Resid sbdelay (usec)	5.25804E-01	+/- 7.1E-04
Phase delay (usec)	6.30595648114E+03	Apriori clockrate (us/s)	3.7877004E-07	Resid phdelay (usec)	5.67616E-06	+/- 1.2E-06
Delay rate (us/s)	1.91722552265E+00	Apriori rate (us/s)	1.91720398727E+00	Resid rate (us/s)	2.15354E-05	+/- 1.2E-08
Total phase (deg)	259.7	Apriori accel (us/s/s)	-3.22392246856E-05	Resid phase (deg)	133.2	+/- 18.9

ph/seg (deg)	63.3	Theor.	62.5	Amplitude	0.248 +/- 0.041	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	89.3		109.1	Search (1024X16)	0.160	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	40.0		18.9	Inc. seg. avg.	0.244	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	26.5		32.9	Inc. frq. avg.	0.259	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

m: az 83.9 el 59.2 pa -84.9 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -5868.579 -306.708 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/mc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/mc.Q.191.3N2DRU

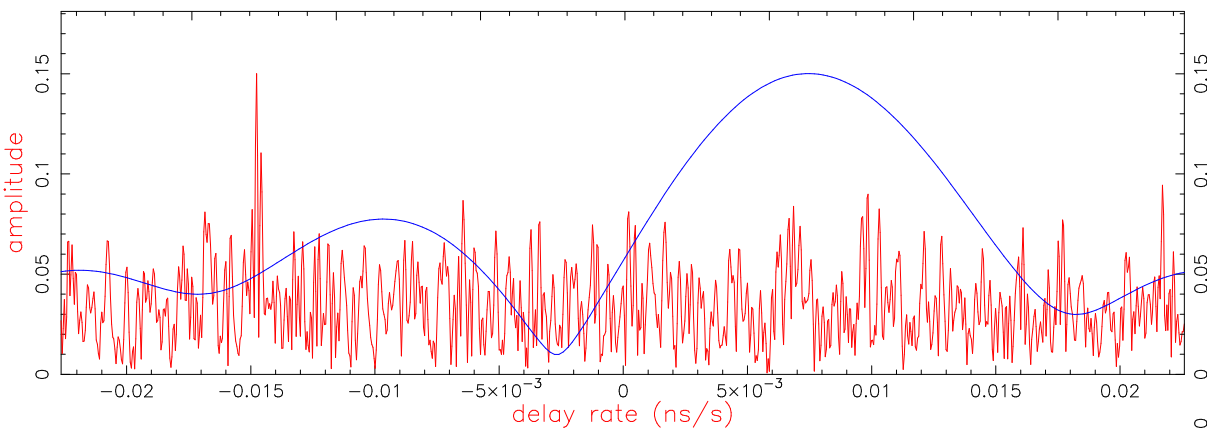
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, mc

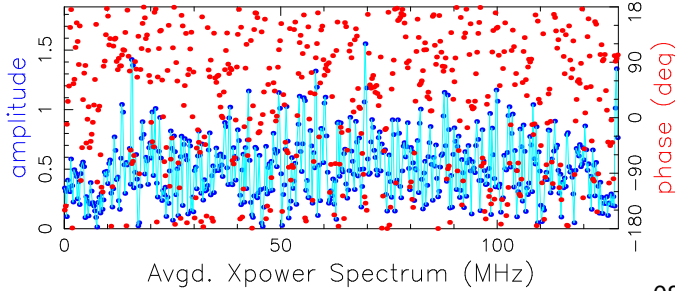
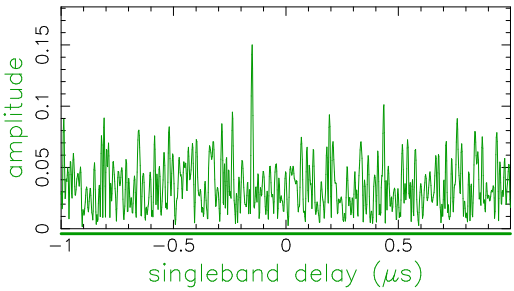
VLBA_MK - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



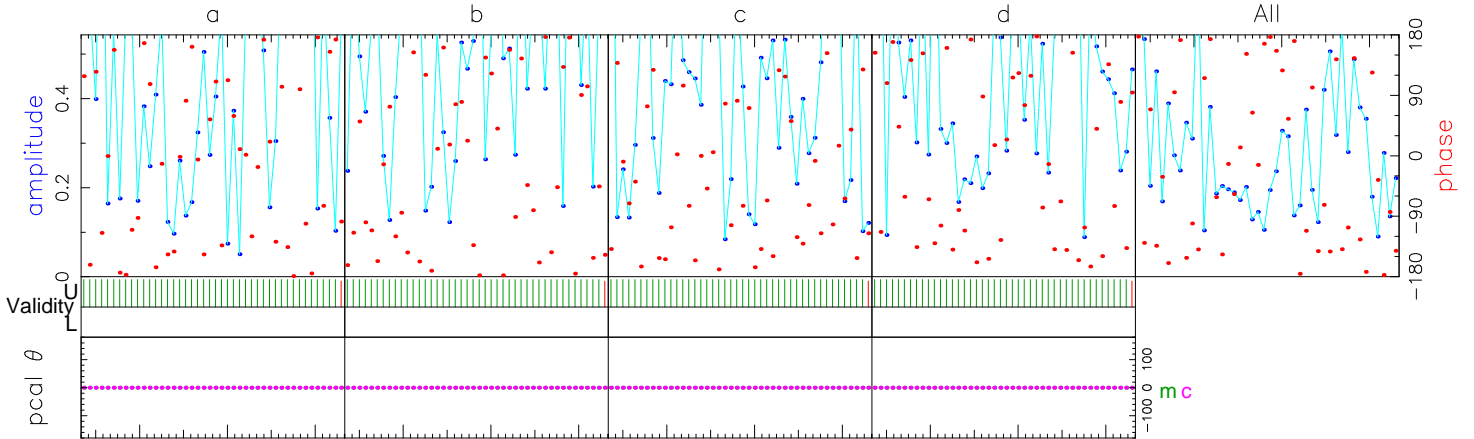
Fringe quality 0

SNR 5.5
 Int time 179.979
 Amp 0.181
 Phase -101.7
 PFD 9.8e-01
 Delays (us)
 SBD -0.150813
 MBD 0.001250
 Fringe rate (Hz)
 -0.640767
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103209
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-159.2	-166.3	-117.2	-165.5	Phase	-157.9
	0.2	0.2	0.1	0.2	Ampl.	0.2
	177.2	434.6	256.8	722.2	Sbd box	435.8
U/L	352/0	352/0	352/0	352/0	APs used	
m	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
m:c	0:0	0:0	0:0	0:0	PC phase	
m:c	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
m	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	
Group delay (usec) (SBD)	6.30580928827E+03		Apriori delay (usec)	6.30595647546E+03	Resid mbdelay (usec)	1.25030E-03 +/- 2.0E-04
Sband delay (usec)	6.30580566221E+03		Apriori clock (usec)	-3.1485119E+00	Resid sbdelay (usec)	-1.50813E-01 +/- 7.8E-04
Phase delay (usec)	6.30595646530E+03		Apriori clockrate (us/s)	3.7877004E-07	Resid phdelay (usec)	-1.01679E-05 +/- 1.3E-06
Delay rate (us/s)	1.91718913407E+00		Apriori rate (us/s)	1.91720398727E+00	Resid rate (us/s)	-1.48532E-05 +/- 1.3E-08
Total phase (deg)		-335.1	Apriori accel (us/s/s)	-3.22392246856E-05	Resid phase (deg)	-101.7 +/- 20.7
RMS	77.4	68.7	Amplitude	0.181 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	77.4	68.7	Search (1024X16)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	130.4	120.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	29.9	20.7	Inc. seg. avg.	0.198	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	28.7	36.2	Inc. frq. avg.	0.176	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00
m: az 83.9 el 59.2 pa -84.9	c: az 282.3 el 35.3 pa 82.0		u,v (fr/asec) -5868.579 -306.708		simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c241c/v2/7mm/3001/No0676/mc..3N2DRU		Output file: /Exps/c241c/v2/7mm/3001/No0676/mc.Q.204.3N2DRU			

Mk4/DiFX fourfit 3.25 rev 0

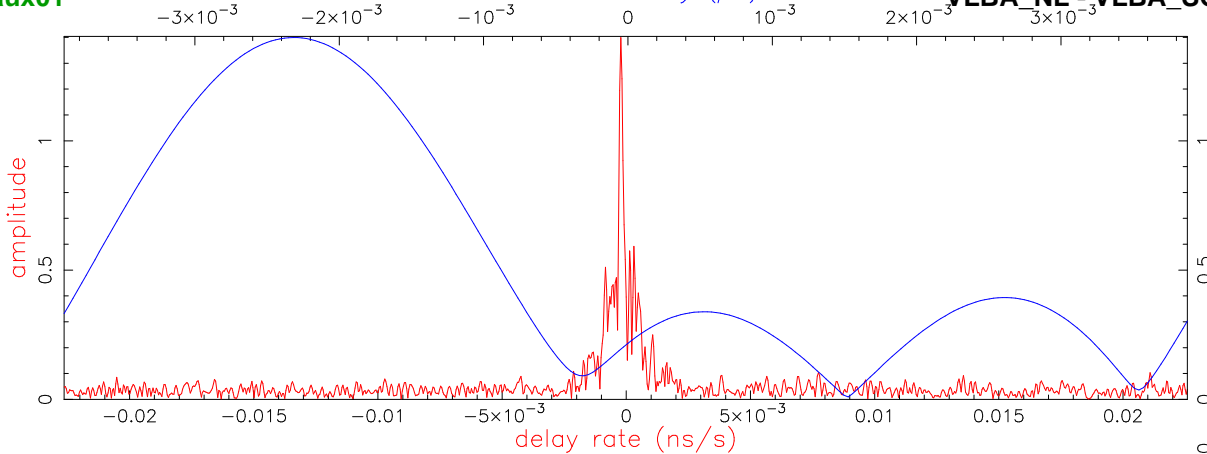
aux01

OJ287.3N2DRU, No0676, nc

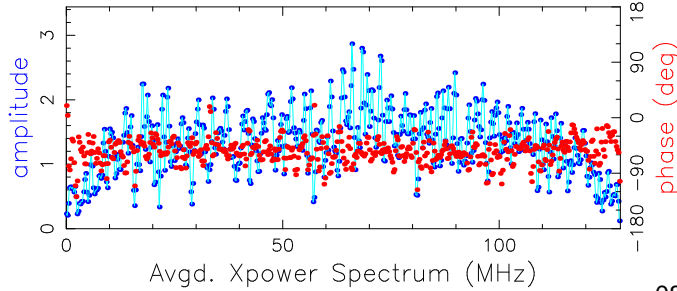
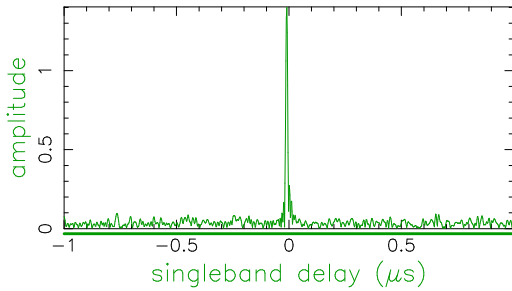
VLBA_NL - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)

Fringe quality 7

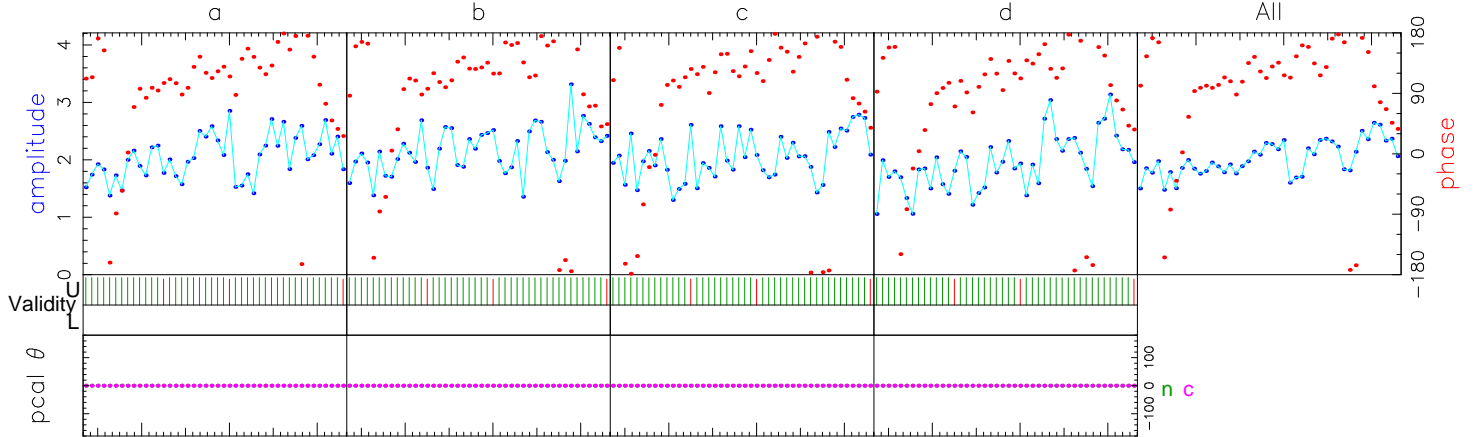


SNR 51.4
 Int time 179.297
 Amp 1.404
 Phase -156.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.010142
 MBD -0.002329
 Fringe rate (Hz)
 -0.008692
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103203
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
121.0	125.8	131.0	121.0	Phase	124.7
1.4	1.5	1.4	1.3	Ampl.	1.4
507.9	508.0	507.6	507.8	Sbd box	507.8
U/L 352/0	352/0	352/0	352/0	APs used	
n 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
n:c 0:0	0:0	0:0	0:0	PC phase	
n:c 0:0	0:0	0:0	0:0	Manl PC	
n 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
n Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	5.43110295569E+03	Apriori delay (usec)	5.43111309703E+03	Resid mbdelay (usec)	-2.32884E-03	+/-	2.2E-05
Sband delay (usec)	5.43110295541E+03	Apriori clock (usec)	-3.9498692E+00	Resid sbdelay (usec)	-1.01416E-02	+/-	8.4E-05
Phase delay (usec)	5.43111310507E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	8.03225E-06	+/-	1.4E-07
Delay rate (us/s)	6.14114158445E-01	Apriori rate (us/s)	6.14114359923E-01	Resid rate (us/s)	-2.01478E-07	+/-	1.4E-09
Total phase (deg)	-154.3	Apriori accel (us/s/s)	-1.49719978540E-05	Resid phase (deg)	-156.5	+/-	2.2

ph/seg (deg)	54.3	RMS	7.4	Theor.	54.3	Amplitude	1.404 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	48.6	Search (1024X16)	1.342	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	1.342	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.004	0.004	
ph/frq (deg)	5.8	Inc. seg. avg.	2.003	Inc. frq. avg.	1.402	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	2.003	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	3.5	Inc. frq. avg.	1.402										

n: az 239.9 el 55.9 pa 43.6 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1884.772 1293.823 simultaneous interpolator

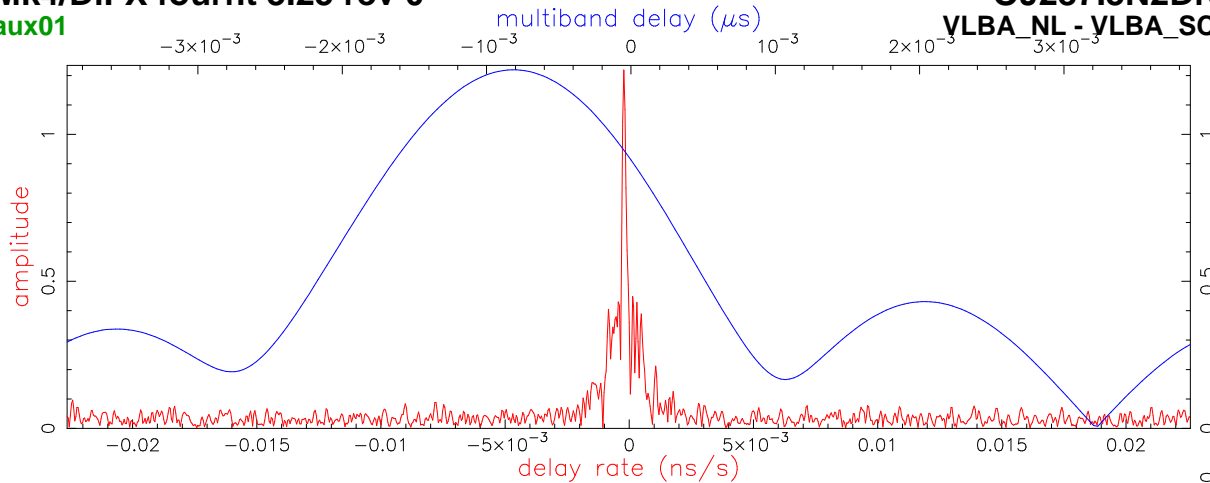
Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/nc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/nc.Q.165.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

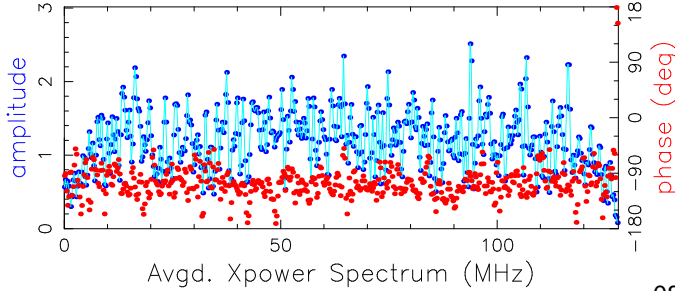
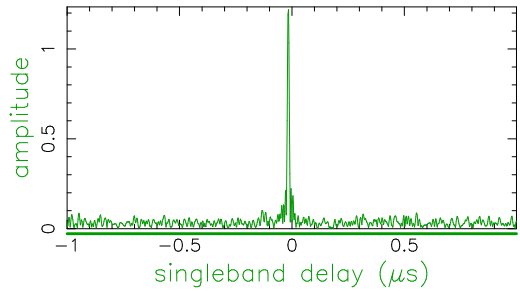
OJ287.3N2DRU, No0676, nc

VLBA_NL - VLBA_SC, fgroup Q, pol RR



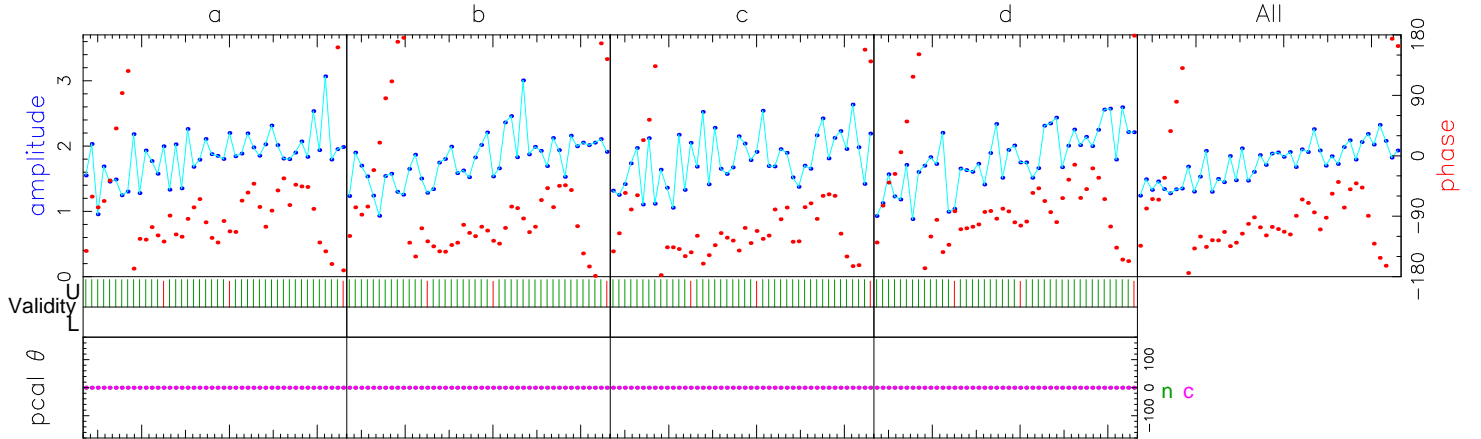
Fringe quality 6

SNR 45.2
 Int time 179.297
 Amp 1.234
 Phase -306.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.016354
 MBD -0.000846
 Fringe rate (Hz)
 -0.008743
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103207
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-96.6	-112.8	-119.7	-88.4	Phase	-104.4
1.3	1.2	1.3	1.2	Ampl.	1.2
504.8	504.6	504.8	504.8	Sbd box	504.6
U/L 352/0	352/0	352/0	352/0	APs used	
n 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
n:c 0:0	0:0	0:0	0:0	PC phase	
n:c 0:0	0:0	0:0	0:0	Manl PC	
n 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
n Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	5.43109662566E+03	Apriori delay (usec)	5.43111309703E+03	Resid mbdelay (usec)	-8.46371E-04	+/- 2.5E-05
Sband delay (usec)	5.43109674341E+03	Apriori clock (usec)	-3.9498692E+00	Resid sbdelay (usec)	-1.63536E-02	+/- 9.5E-05
Phase delay (usec)	5.43111309031E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	-6.71960E-06	+/- 1.6E-07
Delay rate (us/s)	6.14114157256E-01	Apriori rate (us/s)	6.14114359923E-01	Resid rate (us/s)	-2.02667E-07	+/- 1.6E-09
Total phase (deg)	-304.7	Apriori accel (us/s/s)	-1.49719978540E-05	Resid phase (deg)	-306.9	+/- 2.5

ph/seg (deg)	RMS 54.3	Theor. 8.4	Amplitude Search (1024X16)	1.234 +/- 0.027	1.168	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	46.7	14.7	Interp.	0.000	1.168	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.004	0.004
ph/frq (deg)	17.6	2.5	Inc. seg. avg.	1.716	1.168	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	3.1	4.4	Inc. frq. avg.	1.247	1.168	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 239.9 el 55.9 pa 43.6 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1884.772 1293.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/nc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/nc.Q.198.3N2DRU

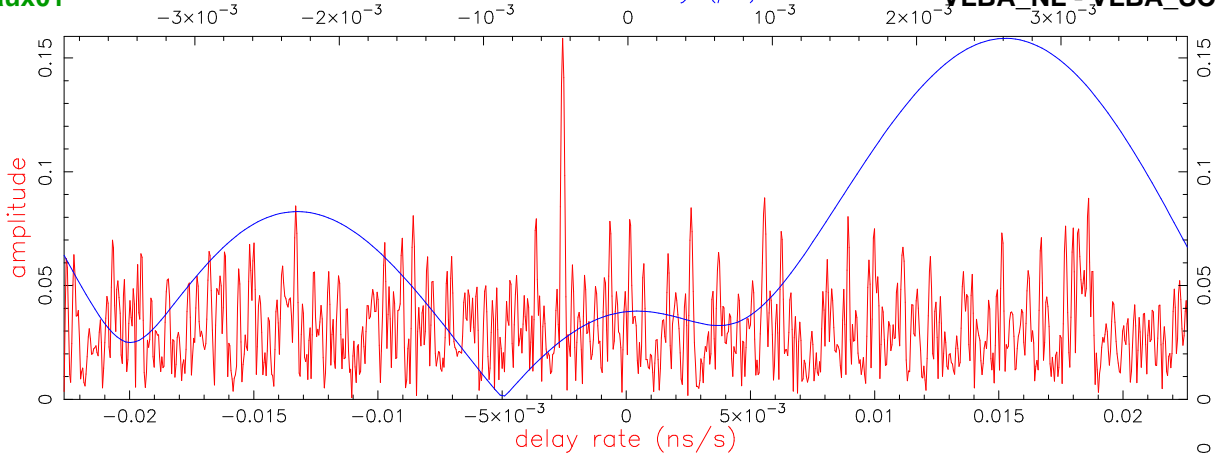
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, nc

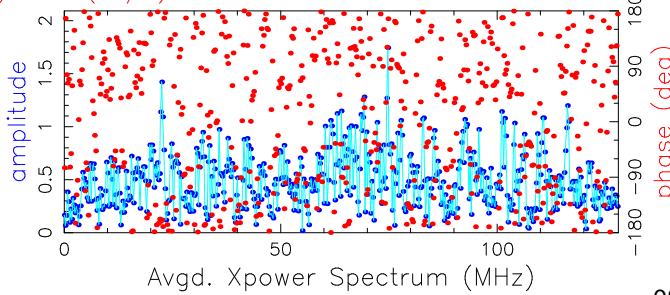
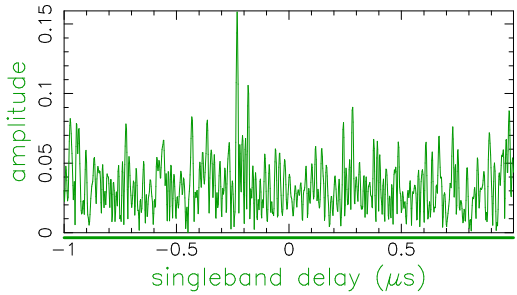
VLBA_NL - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



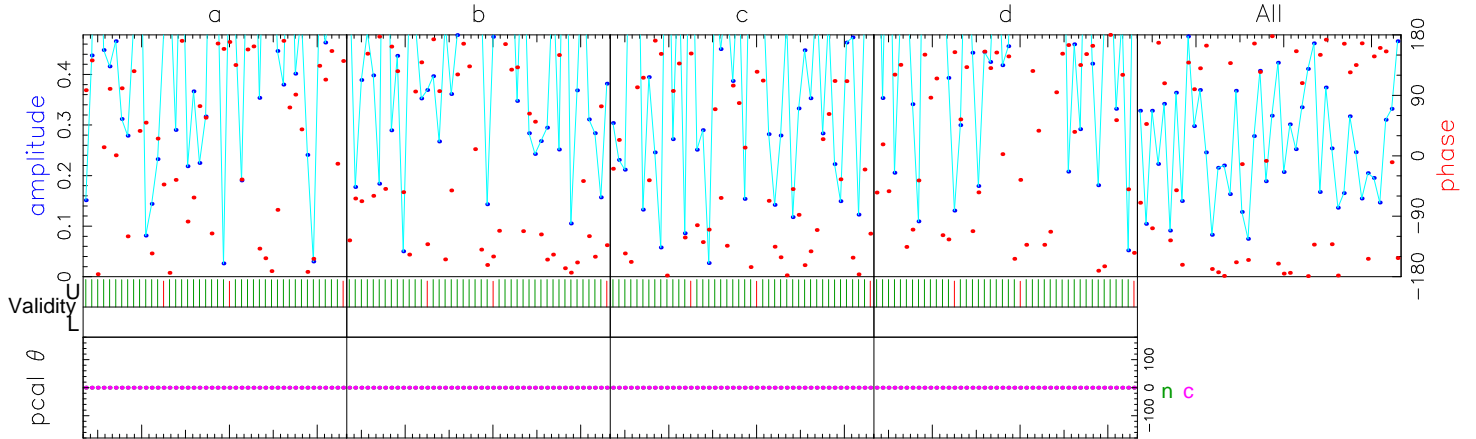
Fringe quality 0

SNR 5.8
 Int time 179.297
 Amp 0.159
 Phase -345.0
 PFD 5.5e-01
 Delays (us)
 SBD -0.230362
 MBD 0.002630
 Fringe rate (Hz)
 -0.110363
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103210
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n:c	0:0	0:0	0:0	0:0		
n:c	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000		
c	1000	1000	1000	1000		
n	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		
					Chan ids	
					Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	5.43088135246E+03	Apriori delay (usec)	5.43111309703E+03	Resid mbdelay (usec)	2.63043E-03	+/-	1.9E-04
Sband delay (usec)	5.43088273466E+03	Apriori clock (usec)	-3.9498692E+00	Resid sbdelay (usec)	-2.30362E-01	+/-	7.4E-04
Phase delay (usec)	5.43111310814E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	1.11094E-05	+/-	1.3E-06
Delay rate (us/s)	6.14111801679E-01	Apriori rate (us/s)	6.14114359923E-01	Resid rate (us/s)	-2.55824E-06	+/-	1.2E-08
Total phase (deg)	-342.8	Apriori accel (us/s/s)	-1.49719978540E-05	Resid phase (deg)	-345.0	+/-	19.7

ph/seg (deg)	66.1	Theor.	65.4	Amplitude	0.159 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	95.5		114.2	Search (1024X16)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	25.7		19.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	15.1		34.4	Inc. seg. avg.	0.161	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.159	Data rate(Mb/s): 2048	nlags: 512	t_cohere infinite		

n: az 239.9 el 55.9 pa 43.6 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1884.772 1293.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/nc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/nc.Q.206.3N2DRU

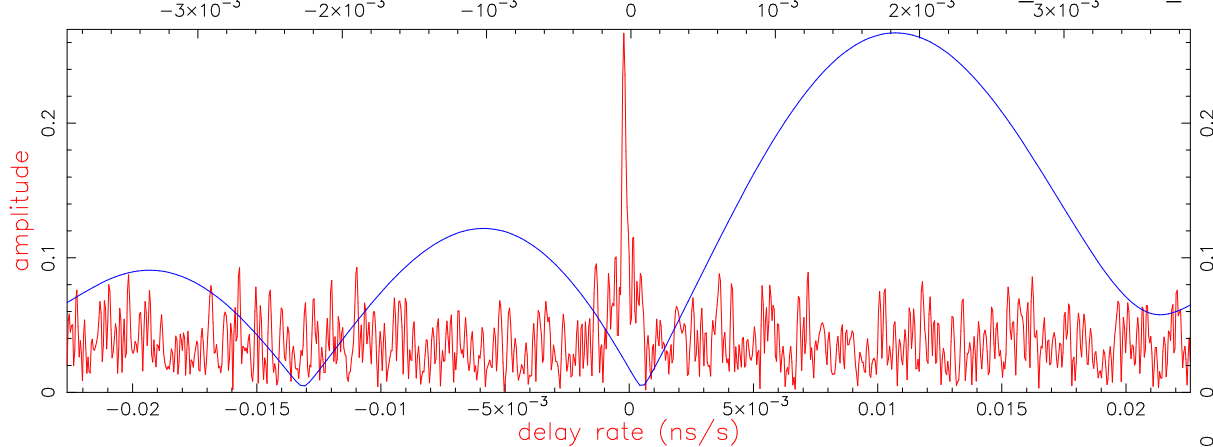
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, nc

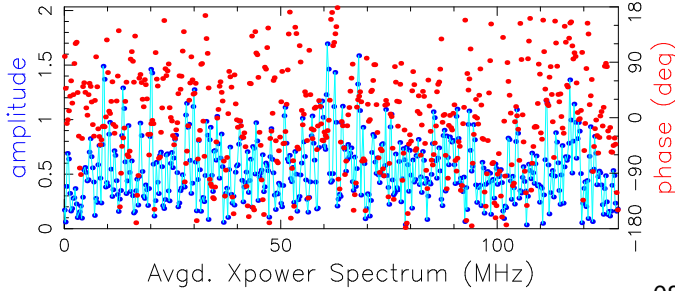
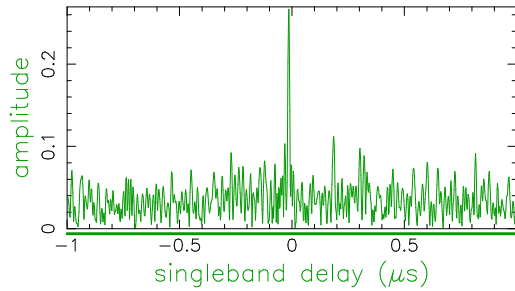
VLBA_NL - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



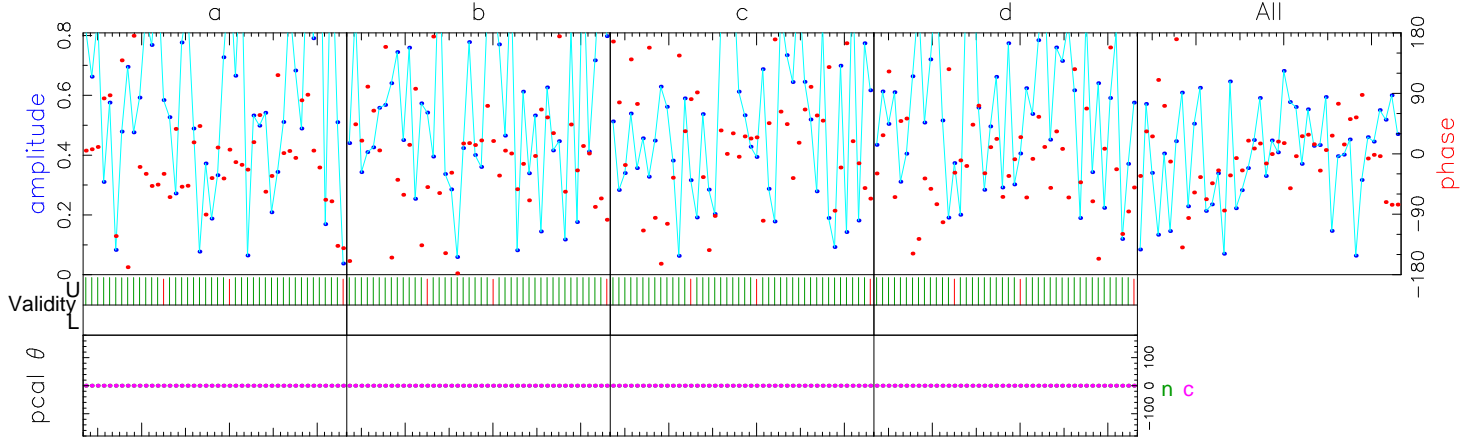
Fringe quality 9

SNR 9.9
 Int time 179.297
 Amp 0.270
 Phase -209.2
 PFD 1.1e-14
 Delays (us)
 SBD -0.014299
 MBD 0.001789
 Fringe rate (Hz)
 -0.008898
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103212
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
n	1000	1000	1000	1000	APs used	1000
c	1000	1000	1000	1000	PC freqs	1000
n:c	0:0	0:0	0:0	0:0	PC phase	0:0
n:c	0:0	0:0	0:0	0:0	Manl PC	0:0
n	1000	1000	1000	1000	PC amp	1000
c	1000	1000	1000	1000		
n	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	5.43109926129E+03	Apriori delay (usec)	5.43111309703E+03	Resid mbdelay (usec)	1.78925E-03	+/- 1.1E-04
Group delay (usec) (SBD)	5.43109879841E+03	Apriori clock (usec)	-3.9498692E+00	Resid sbdelay (usec)	-1.42986E-02	+/- 4.4E-04
Sband delay (usec)	5.43111309660E+03	Apriori clockrate (us/s)	6.9052999E-07	Resid phdelay (usec)	-4.29674E-07	+/- 7.5E-07
Phase delay (usec)	6.14114153660E-01	Apriori rate (us/s)	6.14114359923E-01	Resid rate (us/s)	-2.06263E-07	+/- 7.2E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-1.49719978540E-05	Resid phase (deg)	-209.2	+/- 11.6
Total phase (deg)	-207.0					

	RMS	Theor.	Amplitude	0.270 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.7	38.5	Search (1024X16)	0.262	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.7	67.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	18.3	11.6	Inc. seg. avg.	0.328	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	19.7	20.3	Inc. frq. avg.	0.267	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 239.9 el 55.9 pa 43.6 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -1884.772 1293.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/nc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/nc.Q.214.3N2DRU

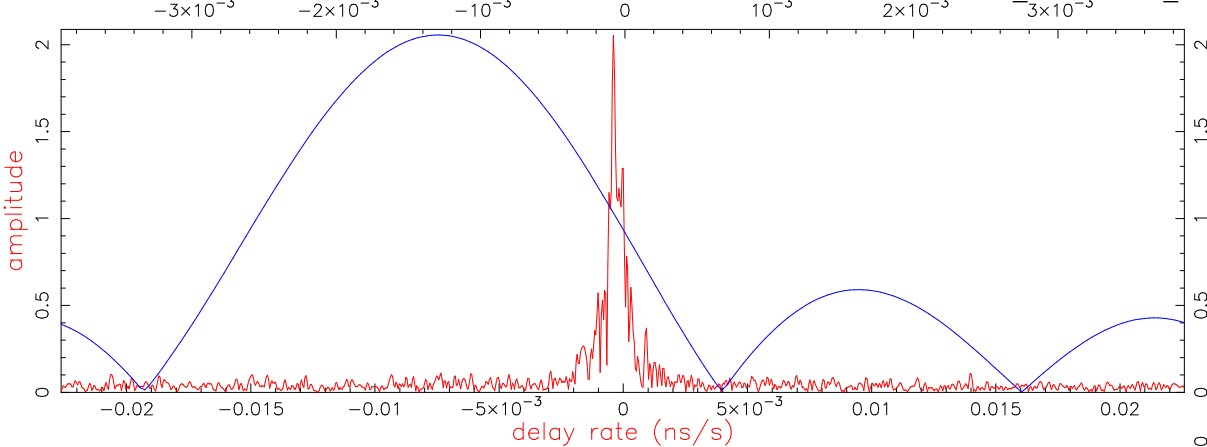
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, oc

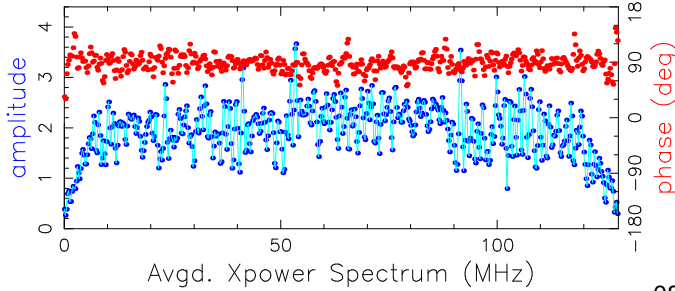
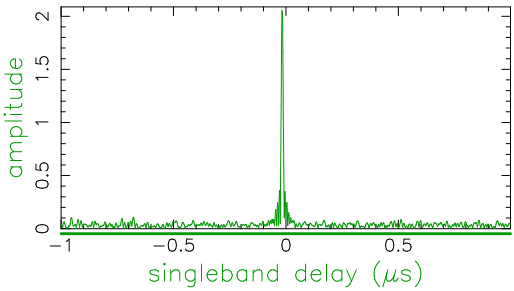
VLBA_OV - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



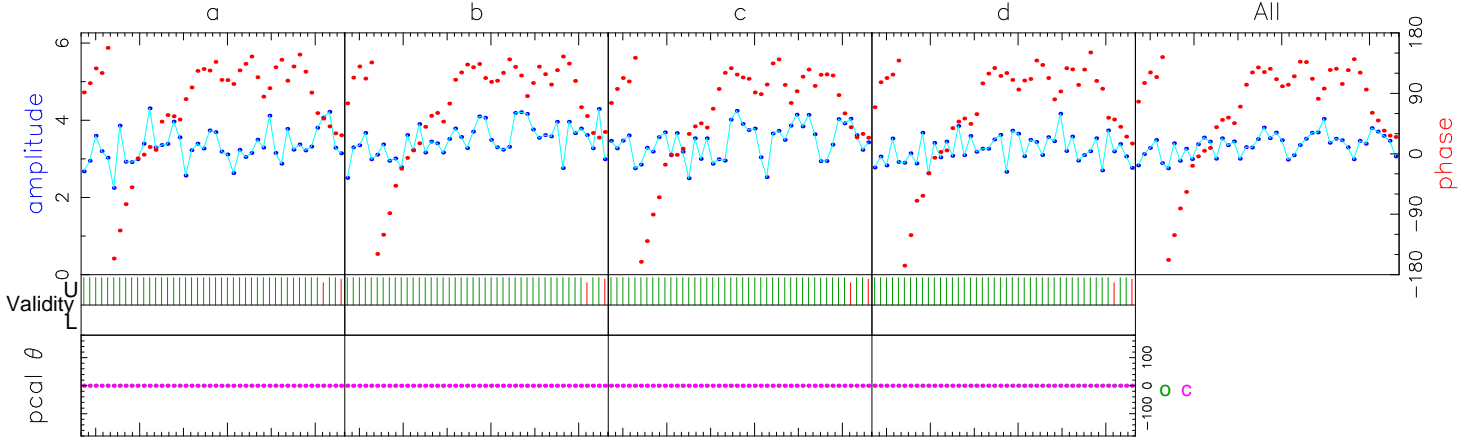
Fringe quality 5

SNR 76.4
 Int time 179.171
 Amp 2.088
 Phase -111.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.016736
 MBD -0.001246
 Fringe rate (Hz)
 -0.016941
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103203
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	93.3	96.8	86.0	89.5	Phase	91.4
	2.0	2.2	2.1	2.0	Ampl.	2.1
	504.3	504.4	504.5	504.6	Sbd box	504.4
U/L	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o:c	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	8.19343222950E+03	Apriori delay (usec)	8.19344910015E+03	Resid mbdelay (usec)	-1.24565E-03	+/-	1.5E-05
Sband delay (usec)	8.19343236377E+03	Apriori clock (usec)	2.1407970E+01	Resid sbdelay (usec)	-1.67364E-02	+/-	5.6E-05
Phase delay (usec)	8.19344910604E+03	Apriori clockrate (us/s)	8.7454208E-07	Resid phdelay (usec)	5.88814E-06	+/-	9.7E-08
Delay rate (us/s)	1.08479644245E+00	Apriori rate (us/s)	1.08479683515E+00	Resid rate (us/s)	-3.92693E-07	+/-	9.3E-10
Total phase (deg)		Apriori accel (us/s/s)	-3.18828112987E-05	Resid phase (deg)	-111.1	+/-	1.5

ph/seg (deg)	RMS 61.4	Theor. 5.0	Amplitude Search (1024X16)	2.088 +/- 0.027	2.007	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	62.4	8.7	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)	5.7	1.5	Inc. seg. avg.	3.348	3.348	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	4.1	2.6	Inc. frq. avg.	2.059	2.059	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 193.6 el 72.4 pa 12.2 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3329.413 800.393 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676//oc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676//oc.Q.169.3N2DRU

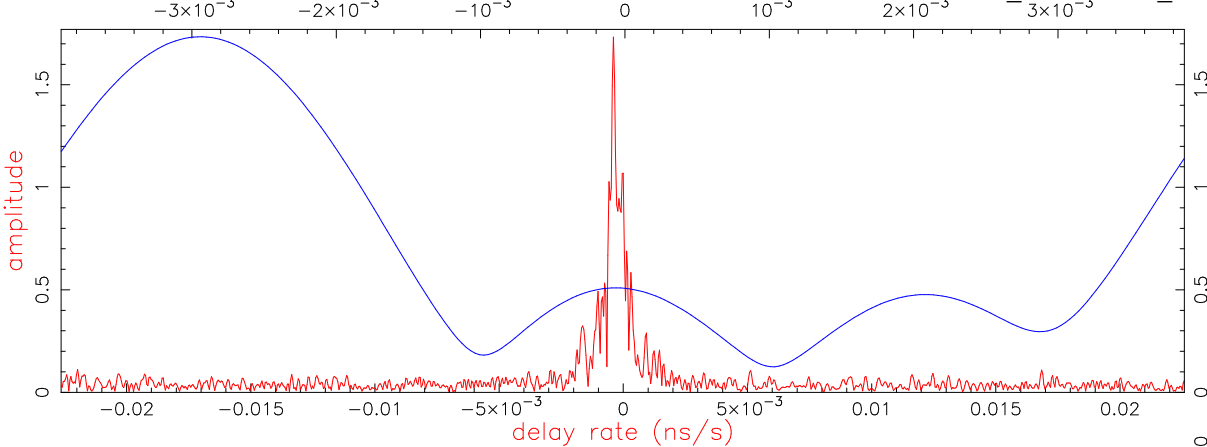
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, oc

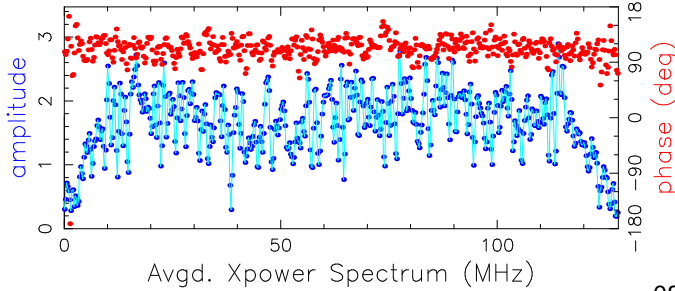
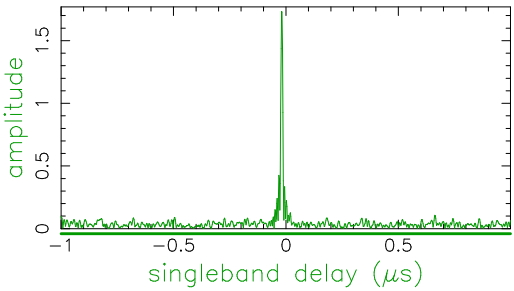
VLBA_OV - VLBA_SC, fgroup Q, pol RR

multiband delay (μ s)



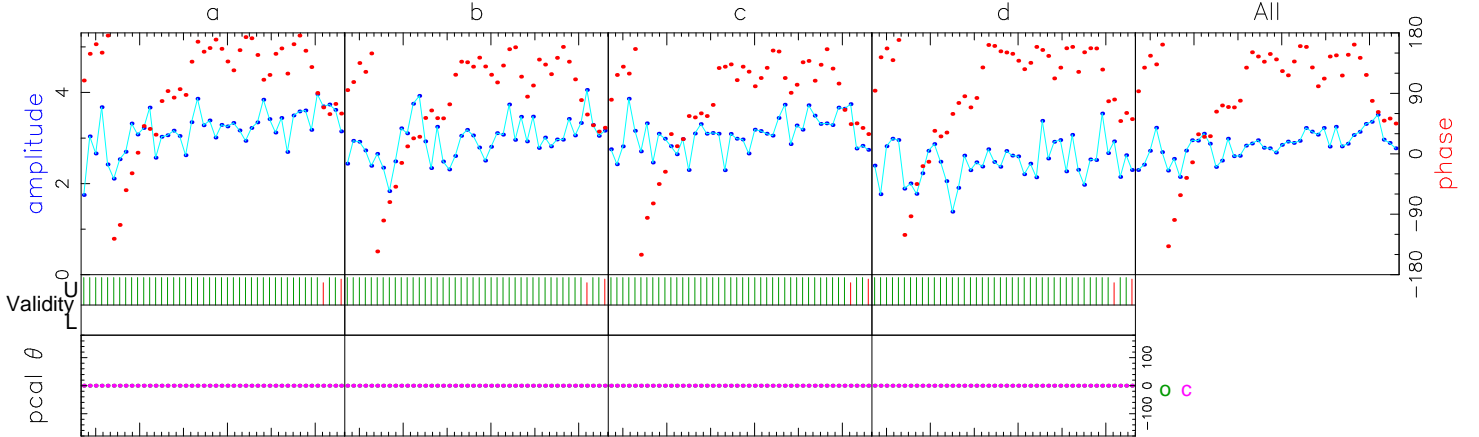
Fringe quality 6

SNR 64.8
 Int time 179.171
 Amp 1.770
 Phase -90.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.018582
 MBD -0.002889
 Fringe rate (Hz)
 -0.017001
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103205
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o:c	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	

Group delay (usec) (SBD)	8.19343058640E+03	Apriori delay (usec)	8.19344910015E+03	Resid mbdelay (usec)	-2.88874E-03	+/- 1.7E-05
Sband delay (usec)	8.19343051865E+03	Apriori clock (usec)	2.1407970E+01	Resid sbdelay (usec)	-1.85815E-02	+/- 6.6E-05
Phase delay (usec)	8.19344910734E+03	Apriori clockrate (us/s)	8.7454208E-07	Resid phdelay (usec)	7.18891E-06	+/- 1.1E-07
Delay rate (us/s)	1.08479644105E+00	Apriori rate (us/s)	1.08479683515E+00	Resid rate (us/s)	-3.94100E-07	+/- 1.1E-09
Total phase (deg)	-25.9	Apriori accel (us/s/s)	-3.18828112987E-05	Resid phase (deg)	-90.9	+/- 1.8

ph/seg (deg)	62.4	5.9	Search (1024X16)	1.723	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	63.8	10.2	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)	15.7	1.8	Inc. seg. avg.	2.845	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	9.2	3.1	Inc. frq. avg.	1.766	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 193.6 el 72.4 pa 12.2 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3329.413 800.393 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676//oc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676//oc.Q.184.3N2DRU

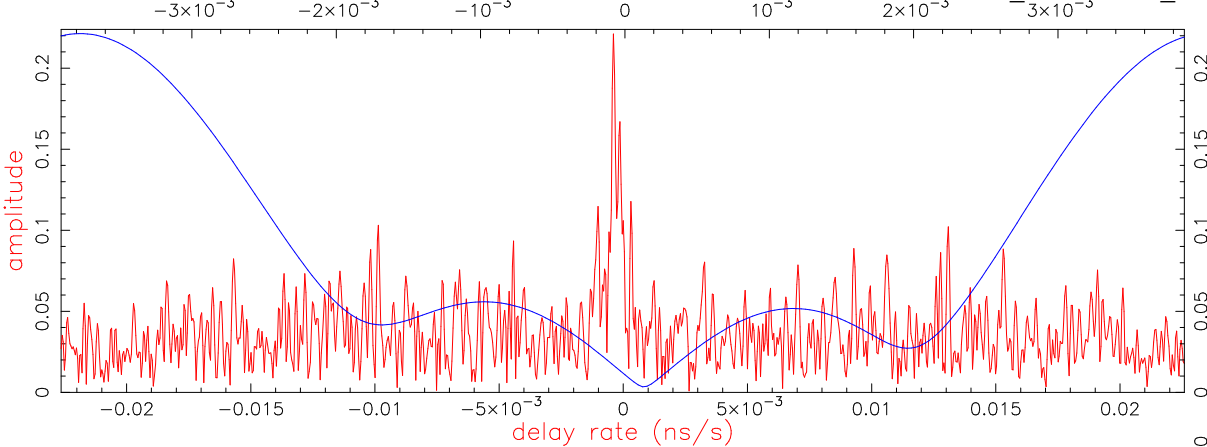
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, oc

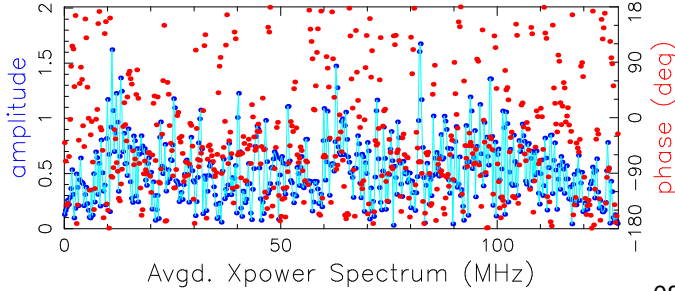
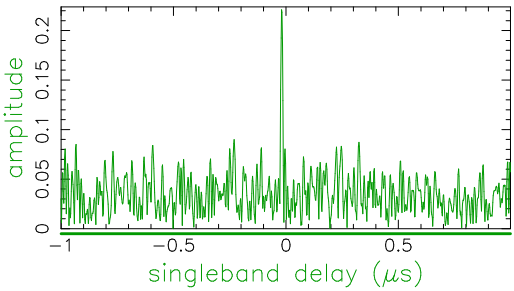
VLBA_OV - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



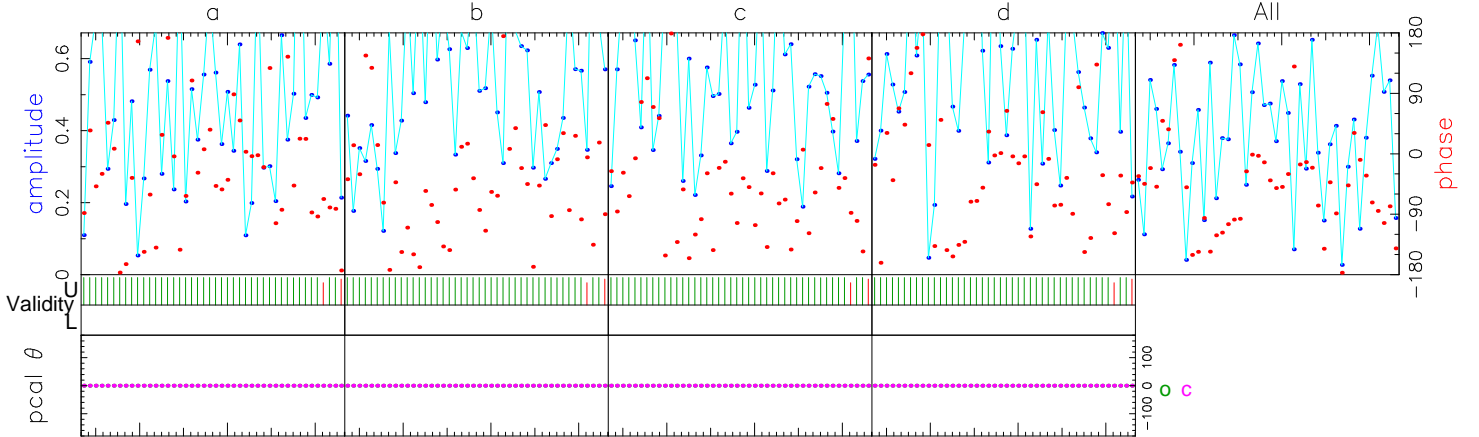
Fringe quality 9

SNR 8.2
 Int time 179.171
 Amp 0.224
 Phase -261.3
 PFD 4.4e-08
 Delays (us)
 SBD -0.018713
 MBD -0.003714
 Fringe rate (Hz)
 -0.016496
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103207
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	-40.4	-67.7	-70.9	-50.2	Phase	-58.8
	0.2	0.2	0.3	0.2	Ampl.	0.2
	384.1	503.1	503.8	504.0	Sbd box	503.4
U/L	352/0	352/0	352/0	352/0	APs used	
o	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
o:c	0:0	0:0	0:0	0:0	PC phase	
o:c	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
o	Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec) (SBD)	8.19342976118E+03	Apriori delay (usec)	8.19344910015E+03	Resid mbdelay (usec)	-3.71397E-03	+/- 1.4E-04
Sband delay (usec)	8.19343038752E+03	Apriori clock (usec)	2.1407970E+01	Resid sbdelay (usec)	-1.87126E-02	+/- 5.3E-04
Phase delay (usec)	8.19344909636E+03	Apriori clockrate (us/s)	8.7454208E-07	Resid phdelay (usec)	-3.78503E-06	+/- 9.0E-07
Delay rate (us/s)	1.08479645275E+00	Apriori rate (us/s)	1.08479683515E+00	Resid rate (us/s)	-3.82394E-07	+/- 8.7E-09
Total phase (deg)	-196.4	Apriori accel (us/s/s)	-3.18828112987E-05	Resid phase (deg)	-261.3	+/- 14.0

ph/seg (deg)	RMS 66.7	Theor. 46.4	Amplitude Search (1024X16)	0.224 +/- 0.027	0.213	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	106.0	80.9	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)	17.8	14.0	Inc. seg. avg.	0.290	0.290	Bits/sample: 2x2	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	12.0	24.4	Inc. frq. avg.	0.220	0.220	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite	ion window (TEC)	0.00	0.00

o: az 193.6 el 72.4 pa 12.2 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3329.413 800.393 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/oc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/oc.Q.196.3N2DRU

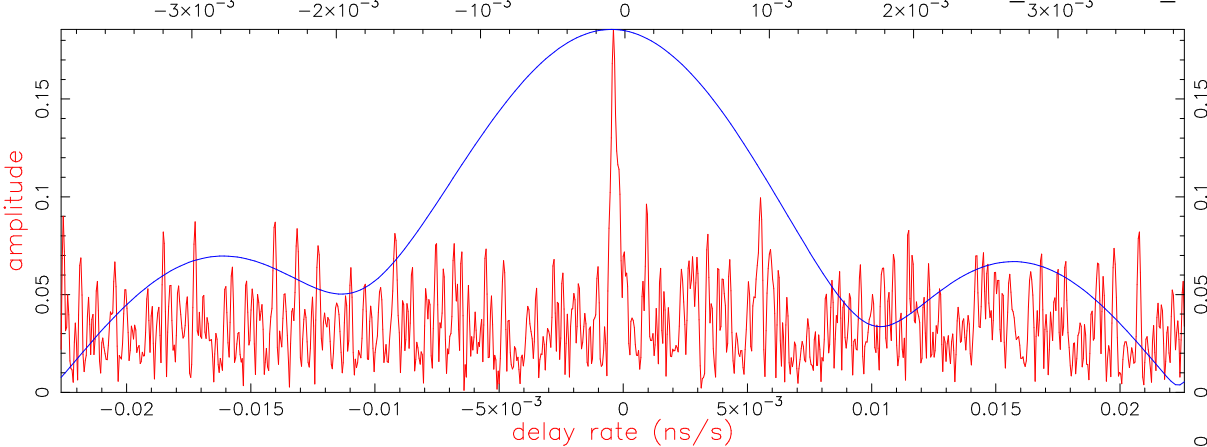
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, oc

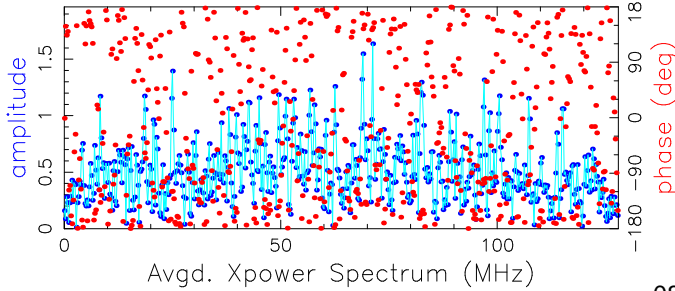
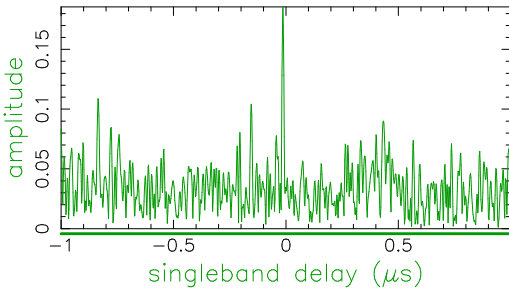
VLBA_OV - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



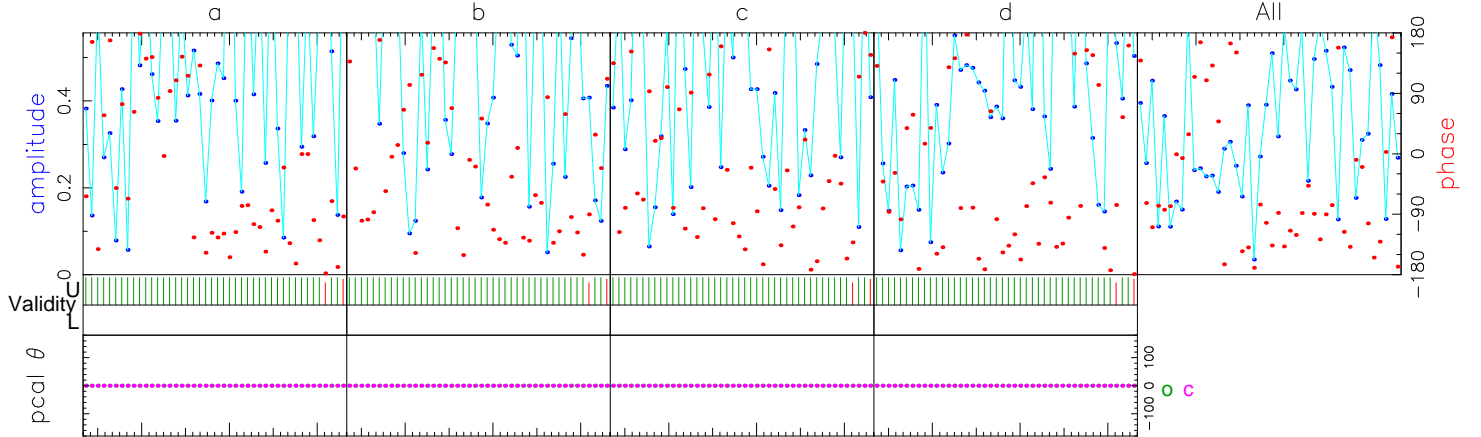
Fringe quality 0

SNR 6.8
 Int time 179.171
 Amp 0.186
 Phase -323.0
 PFD 1.6e-03
 Delays (us)
 SBD -0.013719
 MBD -0.000096
 Fringe rate (Hz)
 -0.017874
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103210
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
o	1000	1000	1000	1000		
c	1000	1000	1000	1000		
o:c	0:0	0:0	0:0	0:0		
o:c	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000		
c	1000	1000	1000	1000		
o	Q00UR	Q01UR	Q02UR	Q03UR		
c	Q00UL	Q01UL	Q02UL	Q03UL		

Group delay (usec) (SBD)	8.19343337865E+03	Apriori delay (usec)	8.19344910015E+03	Resid mbdelay (usec)	-9.64919E-05	+/- 1.6E-04
Sband delay (usec)	8.19343538127E+03	Apriori clock (usec)	2.1407970E+01	Resid sbdelay (usec)	-1.37189E-02	+/- 6.3E-04
Phase delay (usec)	8.19344909239E+03	Apriori clockrate (us/s)	8.7454208E-07	Resid phdelay (usec)	-7.75840E-06	+/- 1.1E-06
Delay rate (us/s)	1.08479642082E+00	Apriori rate (us/s)	1.08479683515E+00	Resid rate (us/s)	-4.14329E-07	+/- 1.0E-08
Total phase (deg)	-258.1	Apriori accel (us/s/s)	-3.18828112987E-05	Resid phase (deg)	-323.0	+/- 16.9

	RMS	Theor.	Amplitude	0.186 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	72.7	56.0	Search (1024X16)	0.182	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	117.2	97.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	25.8	16.9	Inc. seg. avg.	0.228	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	8.3	29.4	Inc. frq. avg.	0.187	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 193.6 el 72.4 pa 12.2 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -3329.413 800.393 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/oc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/oc.Q.205.3N2DRU

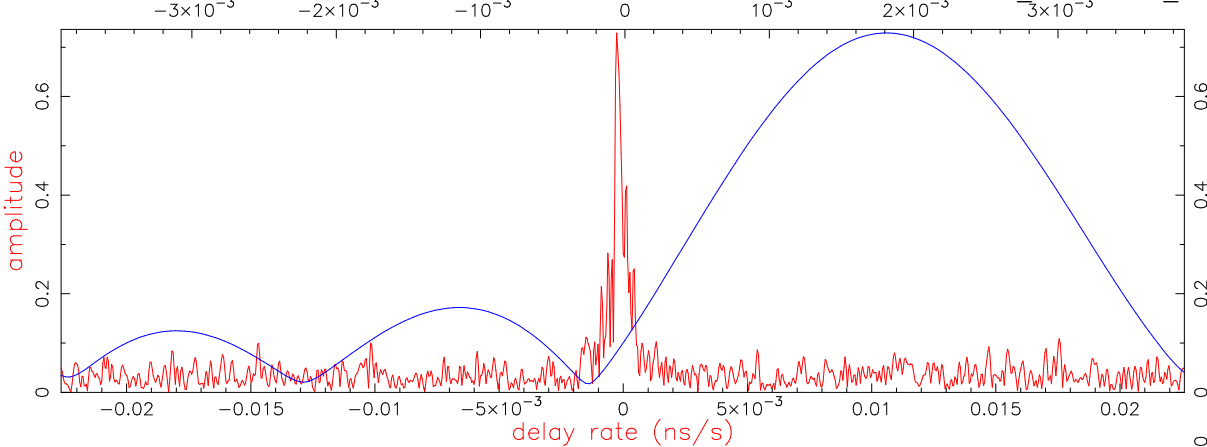
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, pc

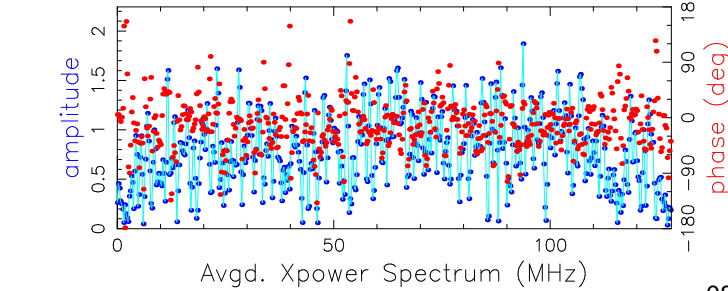
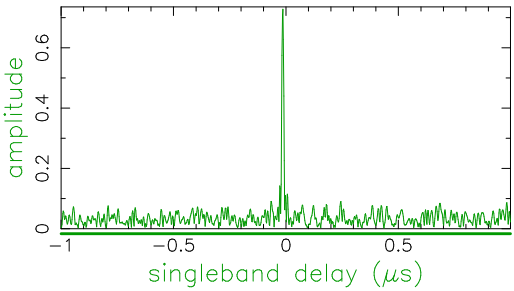
VLBA_PT - VLBA_SC, fgroup Q, pol LL

multiband delay (μ s)



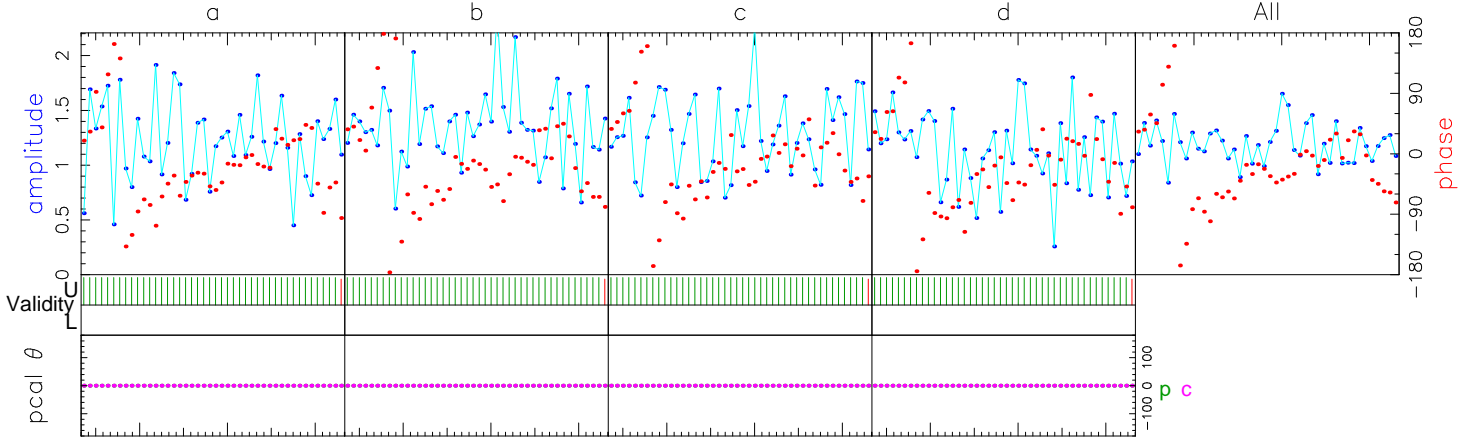
Fringe quality 9

SNR 27.0
 Int time 179.980
 Amp 0.736
 Phase -226.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.014346
 MBD 0.001775
 Fringe rate (Hz)
 -0.011291
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103204
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
-26.0	-27.0	-18.9	-23.7	Phase	-23.9
0.7	0.8	0.8	0.6	Ampl.	0.7
505.4	506.0	505.8	505.4	Sbd box	505.7
U/L 352/0	352/0	352/0	352/0	APs used	
p 1000	1000	1000	1000	PC freqs	
c 1000	1000	1000	1000	PC freqs	
p:c 0:0	0:0	0:0	0:0	PC phase	
p:c 0:0	0:0	0:0	0:0	Manl PC	
p 1000	1000	1000	1000	PC amp	
c 1000	1000	1000	1000		
p Q00UL	Q01UL	Q02UL	Q03UL	Chan ids	
c Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec) (SBD)	7.95492878915E+03	Apriori delay (usec)	7.95494263946E+03	Resid mbdelay (usec)	1.77469E-03	+/-	4.1E-05
Sband delay (usec)	7.95492829383E+03	Apriori clock (usec)	2.0457306E+00	Resid sbdelay (usec)	-1.43456E-02	+/-	1.6E-04
Phase delay (usec)	7.95494263792E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	-1.53627E-06	+/-	2.7E-07
Delay rate (us/s)	8.70766880542E-01	Apriori rate (us/s)	8.70767142263E-01	Resid rate (us/s)	-2.61721E-07	+/-	2.6E-09
Total phase (deg)	-58.6	Apriori accel (us/s/s)	-3.23156348611E-05	Resid phase (deg)	-226.4	+/-	4.2

ph/seg (deg)	RMS	Theor.	Amplitude	0.736 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	61.0	14.1	Search (1024X16)	0.722	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
ph/frq (deg)	66.6	24.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	4.4	4.2	Inc. seg. avg.	1.159	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
	12.0	7.4	Inc. frq. avg.	0.728	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite			

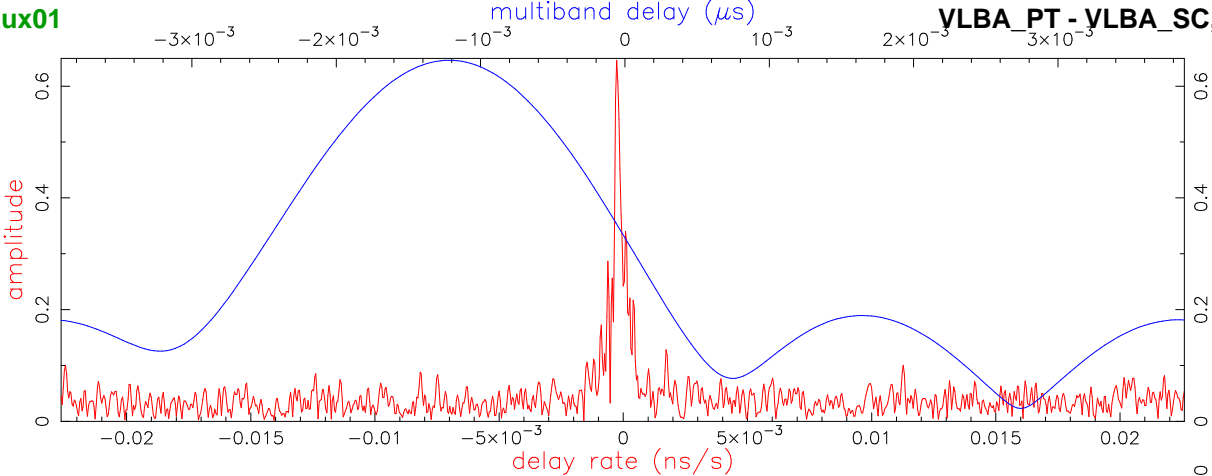
p: az 225.7 el 70.8 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2675.954 620.079 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/pc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/pc.Q.175.3N2DRU

Mk4/DiFX fourfit 3.25 rev 0

aux01

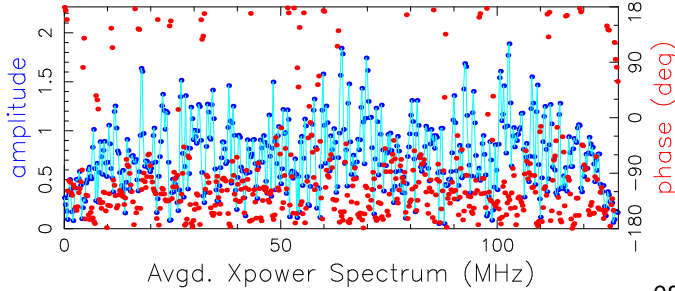
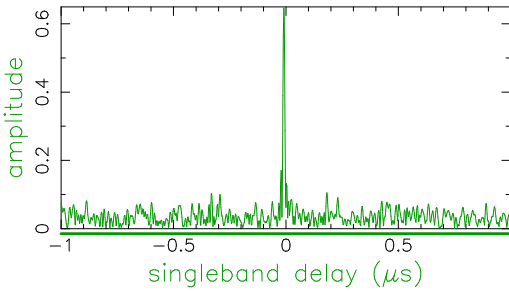
OJ287.3N2DRU, No0676, pc

VLBA_PT - VLBA_SC, fgroup Q, pol RR



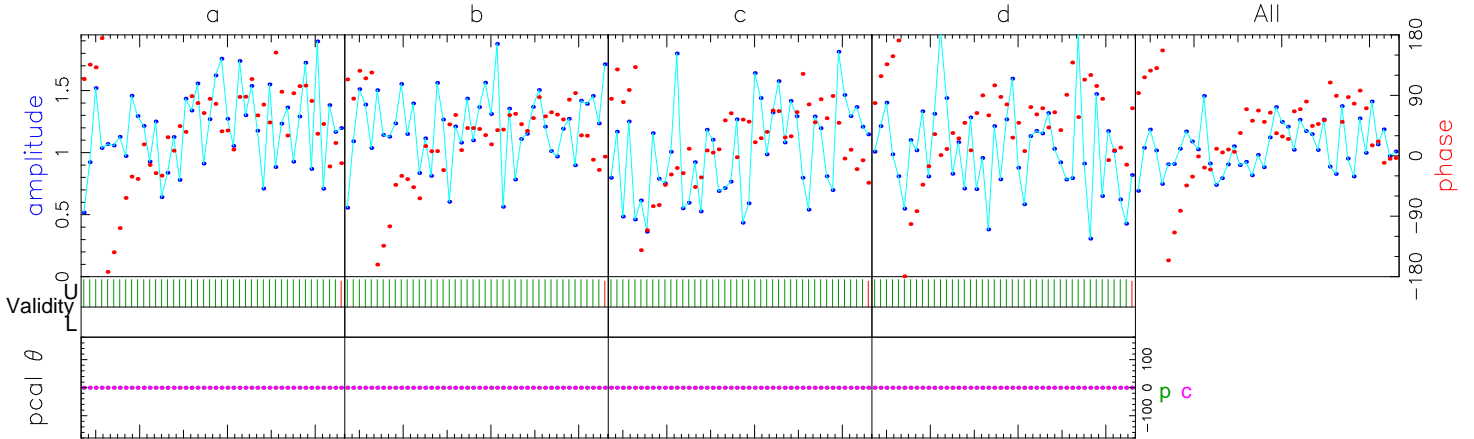
Fringe quality 8

SNR 23.8
 Int time 179.980
 Amp 0.650
 Phase -238.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.009297
 MBD -0.001192
 Fringe rate (Hz)
 -0.011216
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103207
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	55.6	34.5	26.2	54.8	Phase	42.4
	0.6	0.7	0.7	0.6	Ampl.	0.7
	508.1	508.2	508.4	508.7	Sbd box	508.2
U/L	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	PC phase	
p:c	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Tracks	
					Chan ids	
					Tracks	

	7.95493363484E+03	Apriori delay (usec)	7.95494263946E+03	Resid mbdelay (usec)	-1.19212E-03	+/-	4.7E-05
Group delay (usec) (SBD)	7.95493334296E+03	Apriori clock (usec)	2.0457306E+00	Resid sbdelay (usec)	-9.29650E-03	+/-	1.8E-04
Sband delay (usec)	7.95494264218E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	2.72802E-06	+/-	3.1E-07
Phase delay (usec)	8.70766882274E-01	Apriori rate (us/s)	8.70767142263E-01	Resid rate (us/s)	-2.59989E-07	+/-	3.0E-09
Delay rate (us/s)		Apriori accel (us/s/s)	-3.23156348611E-05	Resid phase (deg)	-238.9	+/-	4.8
Total phase (deg)	-71.1						

p: az 225.7 el 70.8 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2675.954 620.079 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/pc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/pc.Q.192.3N2DRU

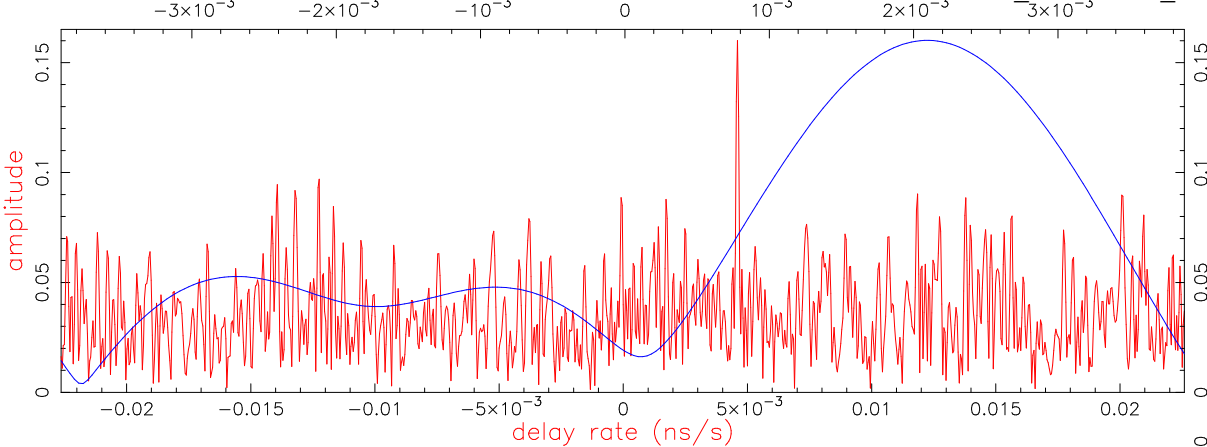
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, pc

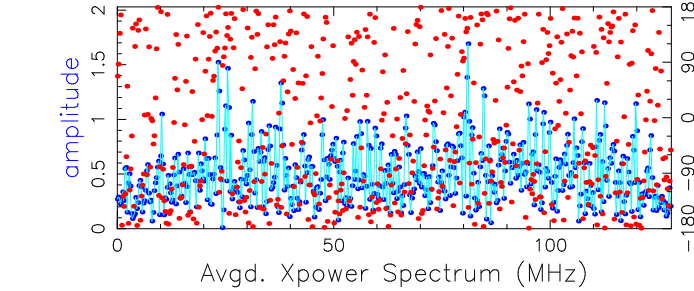
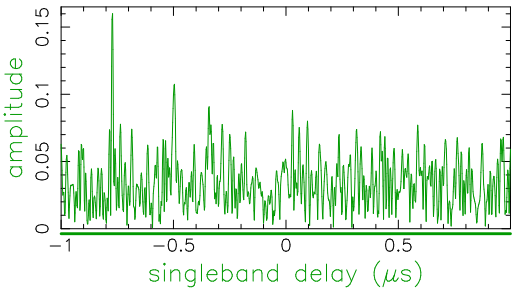
VLBA_PT - VLBA_SC, fgroup Q, pol LR

multiband delay (μ s)



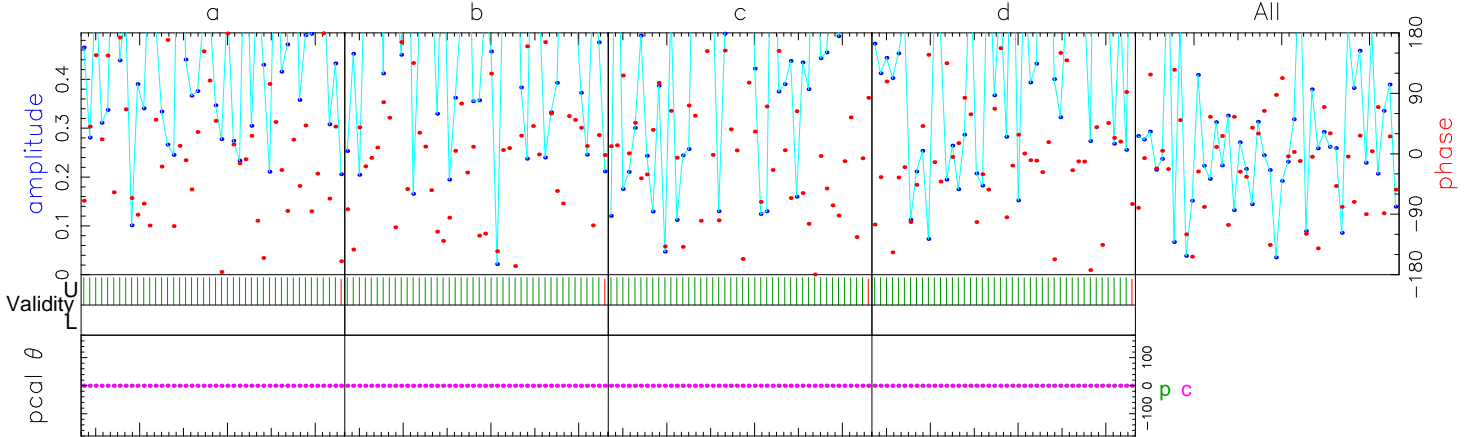
Fringe quality 0

SNR 6.0
 Int time 179.980
 Amp 0.165
 Phase -129.9
 PFD 2.9e-01
 Delays (us)
 SBD -0.772208
 MBD 0.002060
 Fringe rate (Hz)
 0.199857
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103210
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p:c	0:0	0:0	0:0	0:0		
p:c	0:0	0:0	0:0	0:0		
p	1000	1000	1000	1000		
c	1000	1000	1000	1000		
p	Q00UL	Q01UL	Q02UL	Q03UL		
c	Q00UR	Q01UR	Q02UR	Q03UR		

	7.95417126186E+03	Apriori delay (usec)	7.95494263946E+03	Resid mbdelay (usec)	2.05991E-03	+/- 1.9E-04
Group delay (usec) (SBD)	7.95417126186E+03	Apriori clock (usec)	2.0457306E+00	Resid sbdelay (usec)	-7.72208E-01	+/- 7.2E-04
Sband delay (usec)	7.95417043108E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	-3.95776E-07	+/- 1.2E-06
Phase delay (usec)	7.95494263906E+03	Apriori rate (us/s)	8.70767142263E-01	Resid rate (us/s)	4.63275E-06	+/- 1.2E-08
Delay rate (us/s)	8.70771775009E-01	Apriori accel (us/s/s)	-3.23156348611E-05	Resid phase (deg)	-129.9	+/- 19.2
Total phase (deg)	-322.1					

	RMS	Theor.	Amplitude	0.165 +/- 0.028	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	71.3	63.8	Search (1024X16)	0.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	113.9	111.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.004 0.004
ph/frq (deg)	9.2	19.2	Inc. seg. avg.	0.174	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	24.7	33.6	Inc. frq. avg.	0.155	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite ion window (TEC) 0.00 0.00

p: az 225.7 el 70.8 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2675.954 620.079 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/pc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/pc.Q.210.3N2DRU

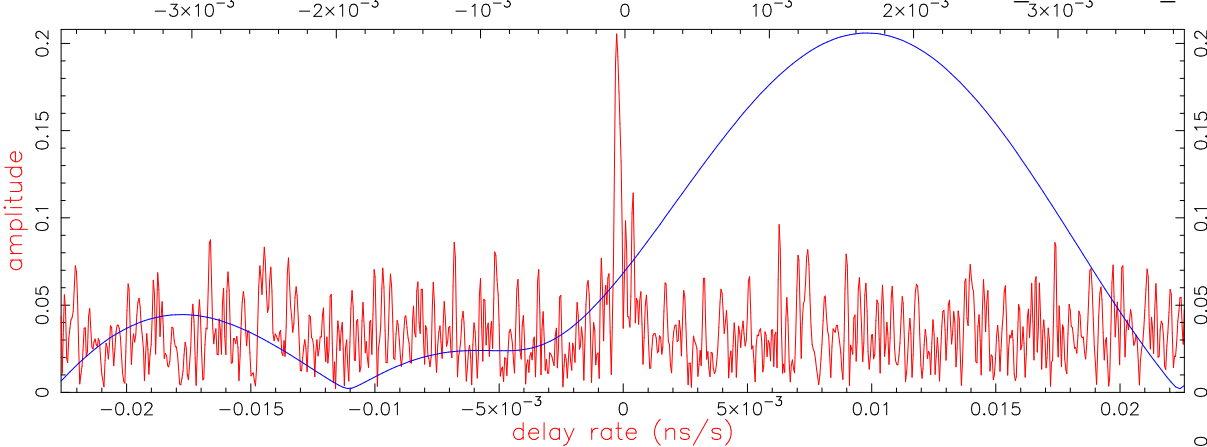
Mk4/DiFX fourfit 3.25 rev 0

aux01

OJ287.3N2DRU, No0676, pc

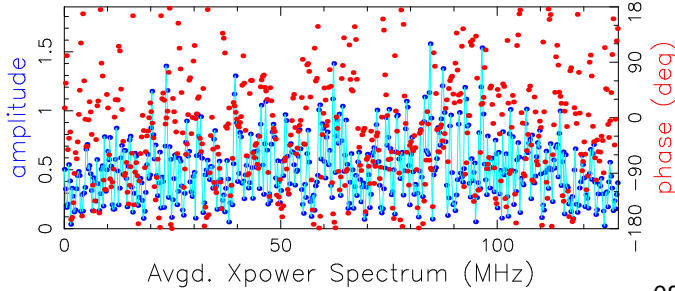
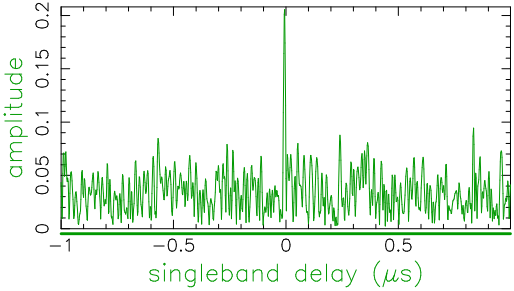
VLBA_PT - VLBA_SC, fgroup Q, pol RL

multiband delay (μ s)



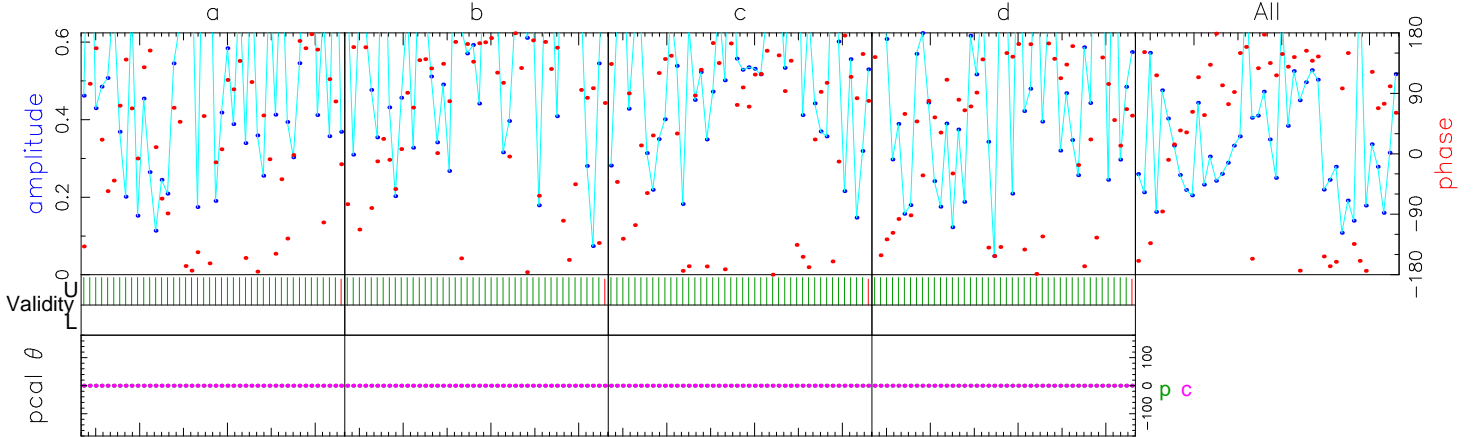
Fringe quality 9

SNR 7.6
 Int time 179.980
 Amp 0.208
 Phase -137.2
 PFD 3.7e-06
 Delays (us)
 SBD -0.006596
 MBD 0.001584
 Fringe rate (Hz)
 -0.010919
 Ion TEC 0.000
 Ref freq (MHz)
 43140.0000
 AP (sec) 0.512



Exp. c241c
 Exper # 1234
 Yr:day 2024:113
 Start 030520.00
 Stop 030820.22
 FRT 030650.00
 Corr/FF/build
 2025:048:123813
 2025:049:103213
 2024:113:095956
 RA & Dec (J2000)
 08h54m48.874931s
 +20°06'30.640823"

Amp. and Phase vs. time for each freq., 44 segs, 8 APs / seg (4.10 sec / seg.), time ticks 5 sec



	42912.00	43040.00	43168.00	43296.00	Freq (MHz)	All
	126.1	151.6	144.9	146.3	Phase	144.0
	0.1	0.2	0.3	0.2	Ampl.	0.2
	573.9	510.3	510.0	508.7	Sbd box	509.6
U/L	352/0	352/0	352/0	352/0	APs used	
p	1000	1000	1000	1000	PC freqs	
c	1000	1000	1000	1000	PC freqs	
p:c	0:0	0:0	0:0	0:0	PC phase	
p:c	0:0	0:0	0:0	0:0	Manl PC	
p	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000		
p	Q00UR	Q01UR	Q02UR	Q03UR	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Tracks	
					Chan ids	
					Tracks	

	7.95493641109E+03	Apriori delay (usec)	7.95494263946E+03	Resid mbdelay (usec)	1.58413E-03	+/-	1.5E-04
Group delay (usec) (SBD)	7.95493641109E+03	Apriori clock (usec)	2.0457306E+00	Resid sbdelay (usec)	-6.59637E-03	+/-	5.6E-04
Sband delay (usec)	7.95493604308E+03	Apriori clockrate (us/s)	7.7196702E-07	Resid phdelay (usec)	9.27322E-06	+/-	9.7E-07
Phase delay (usec)	7.95494264873E+03	Apriori rate (us/s)	8.70767142263E-01	Resid rate (us/s)	-2.53099E-07	+/-	9.3E-09
Delay rate (us/s)	8.70766889164E-01	Apriori accel (us/s/s)	-3.23156348611E-05	Resid phase (deg)	-137.2	+/-	15.0
Total phase (deg)	30.6						

	RMS	Theor.	Amplitude	0.208 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	62.1	49.8	Search (1024X16)	0.201	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.004	0.004
amp/seg (%)	103.9	86.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
ph/frq (deg)	13.9	15.0	Inc. seg. avg.	0.257	Data rate(MSamp/s): 256 MBpts 16 Amb 0.008 us		ion window (TEC)	0.00	0.00
amp/frq (%)	21.6	26.2	Inc. frq. avg.	0.201	Data rate(Mb/s): 2048	nlags: 512 t_cohere infinite			

p: az 225.7 el 70.8 pa 39.5 c: az 282.3 el 35.3 pa 82.0 u,v (fr/asec) -2675.954 620.079 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c241c/v2/7mm/3001/No0676/pc..3N2DRU Output file: /Exps/c241c/v2/7mm/3001/No0676/pc.Q.218.3N2DRU