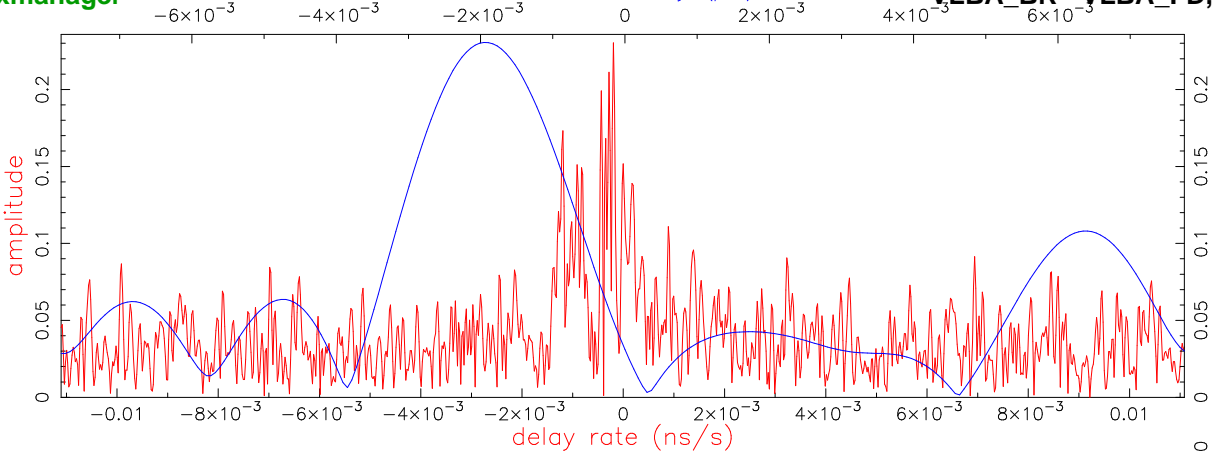
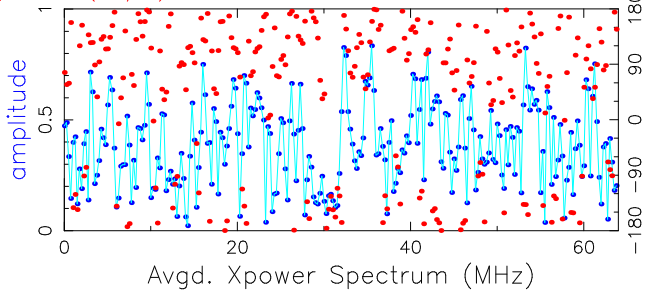
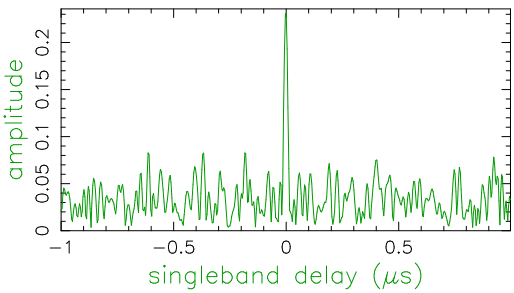


multiband delay (μ s)



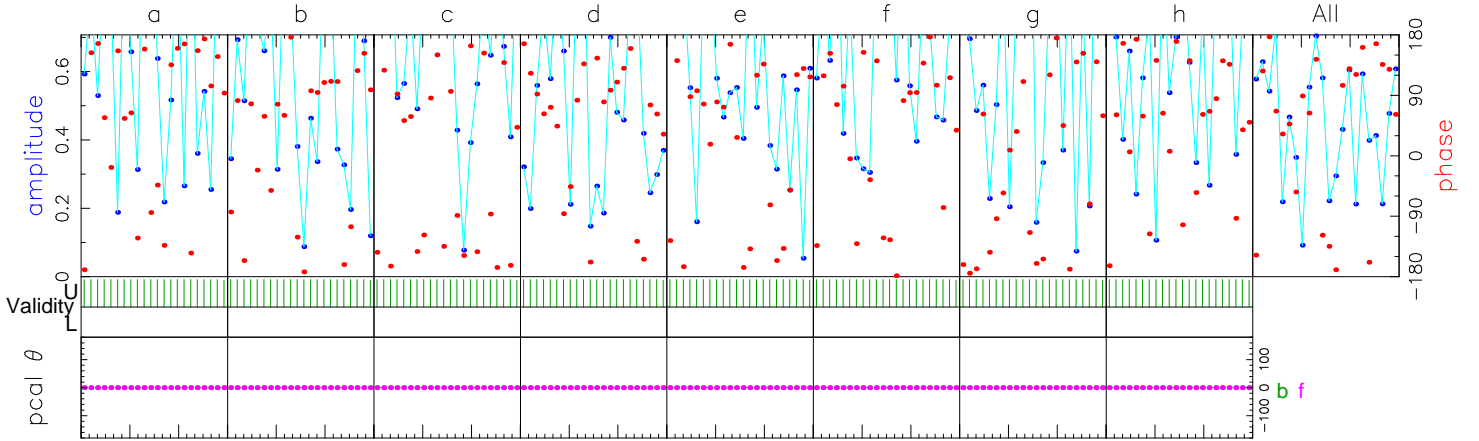
Fringe quality 9

SNR 8.6
 Int time 179.980
 Amp 0.236
 Phase 134.6
 PFD 9.5e-10
 Delays (us)
 SBD -0.001900
 MBD -0.001872
 Fringe rate (Hz)
 -0.017423
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060626
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-4.15424946037E+03	Apriori delay (usec)		-4.15424758882E+03	Resid mbdelay (usec)		-1.87155E-03	+/-	1.3E-04
Sband delay (usec)	-4.15424948832E+03	Apriori clock (usec)		-9.6388359E+00	Resid sbdelay (usec)		-1.89950E-03	+/-	1.0E-03
Phase delay (usec)	-4.15424758457E+03	Apriori clockrate (us/s)		-3.9999997E-07	Resid phdelay (usec)		4.25242E-06	+/-	4.2E-07
Delay rate (us/s)	-1.09123147181E-01	Apriori rate (us/s)		-1.09122949060E-01	Resid rate (us/s)		-1.98121E-07	+/-	4.0E-09
Total phase (deg)	-211.4	Apriori accel (us/s/s)		2.96602809353E-05	Resid phase (deg)		134.6	+/-	13.2

ph/seg (deg)	68.3	Theor.	31.1	Amplitude	0.236 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	117.8	68.3	31.1	Search (1024X32)	0.229	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	30.4	54.2	31.1	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	16.3	18.7	32.7	Inc. seg. avg.	0.393	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
		16.3	32.7	Inc. frq. avg.	0.243	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

b: az 92.6 el 25.0 pa -44.1 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 678.548 2749.504 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/bf..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/bf.W.28.1JFKZ

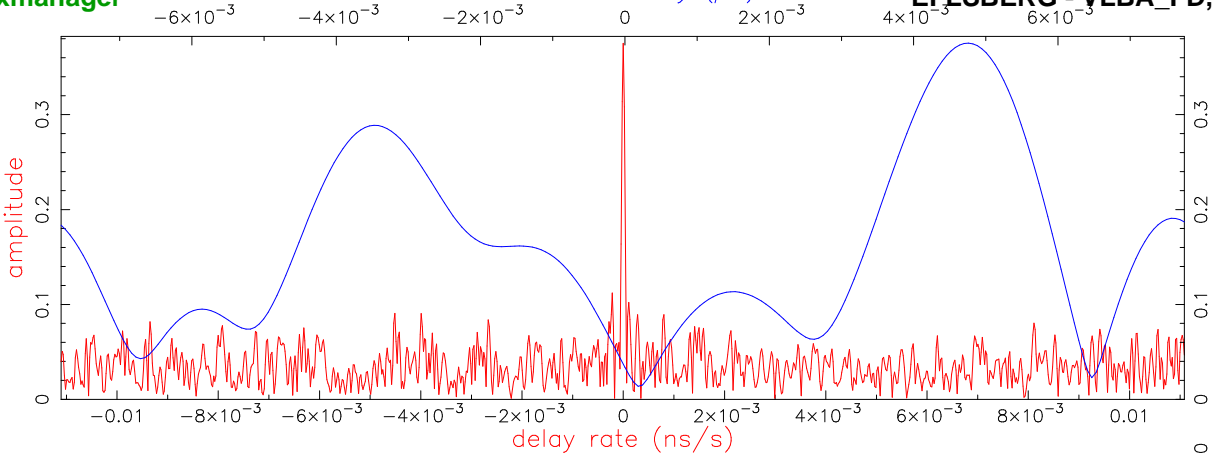
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, Bf

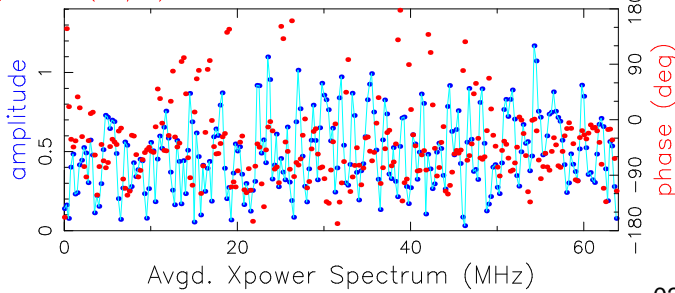
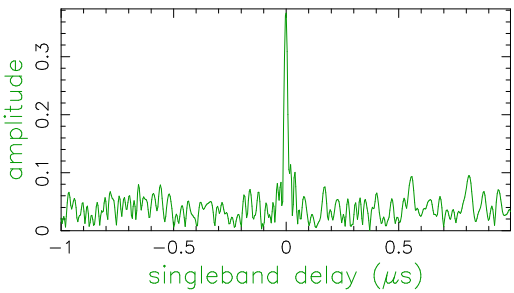
EFLSBERG - VLBA_FD, fgroup W, pol RR

multiband delay (μ s)



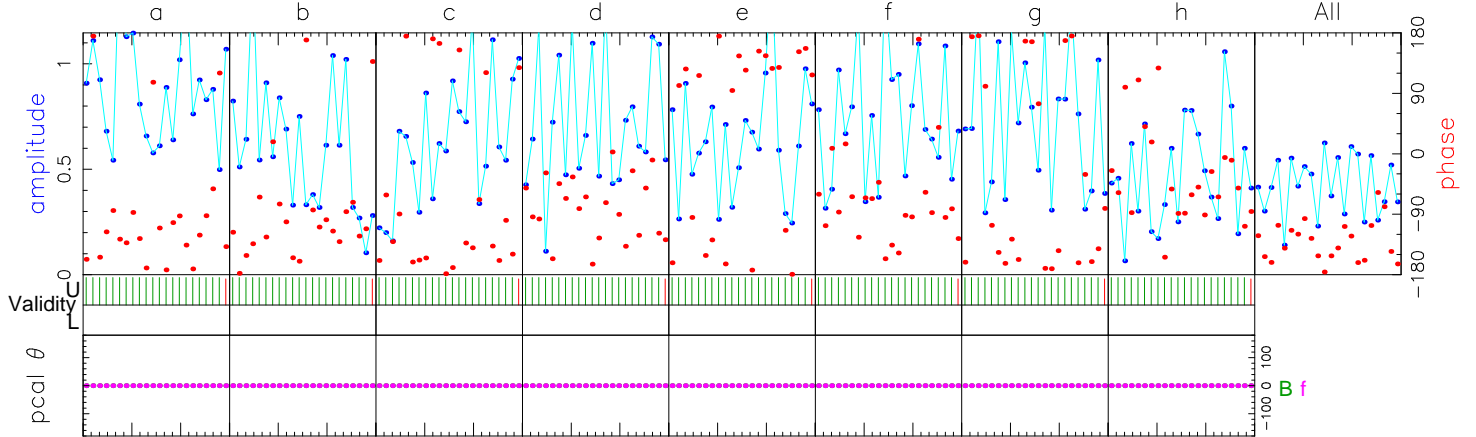
Fringe quality 9

SNR 14.0
 Int time 179.778
 Amp 0.382
 Phase -130.8
 PFD 3.3e-36
 Delays (us)
 SBD -0.001720
 MBD 0.004712
 Fringe rate (Hz)
 -0.000718
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060626
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-131.6	-116.9	-159.8	-80.9	156.3	-99.3	-166.1	-50.5	Phase	-130.8
	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.3	Ampl.	0.5
	256.7	257.2	257.3	256.9	257.8	256.7	257.4	89.7	Sbd box	256.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.25844694531E+03		Apriori delay (usec)		-1.25845165753E+03		Resid mbdelay (usec)		4.71222E-03	+/- 7.7E-05
Sband delay (usec)	-1.25845337728E+03		Apriori clock (usec)		2.1447461E+00		Resid sbdelay (usec)		-1.71975E-03	+/- 6.1E-04
Phase delay (usec)	-1.25845166166E+03		Apriori clockrate (us/s)		-5.9999998E-07		Resid phdelay (usec)		-4.13251E-06	+/- 2.6E-07
Delay rate (us/s)	-1.83100795280E+00		Apriori rate (us/s)		-1.83100794463E+00		Resid rate (us/s)		-8.16763E-09	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		1.52098943502E-05		Resid phase (deg)		-130.8	+/- 8.2

	RMS	Theor.	Amplitude	0.382 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	29.5	19.2	Search (1024X32)	0.360	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	37.3	33.4	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	54.0	11.6	Inc. seg. avg.	0.401	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	41.9	20.2	Inc. frq. avg.	0.496				

B: az 253.5 el 34.4 pa 39.5 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 11181.098 2632.532 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/Bf.1JFKZ Output file: /Exps/c202c/v1/1234/No0038/Bf.W.31.1JFKZ

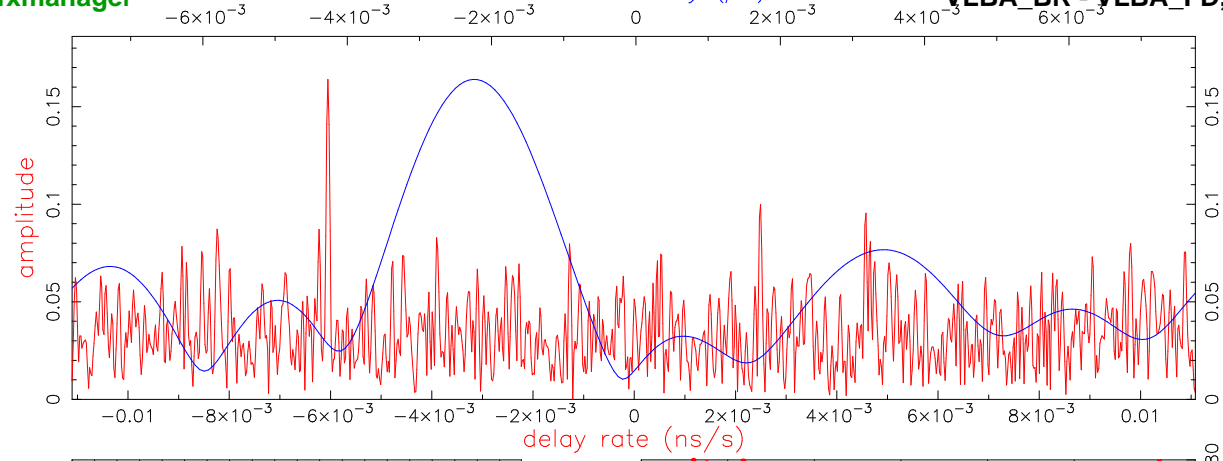
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, bf

VLBA_BR - VLBA_FD, fgroup W, pol LR

multiband delay (μ s)



Fringe quality 0

SNR 6.0

Int time 179.980

Amp 0.186

Phase 50.1

PFD 2.0e-01

Delays (us)

SBD -0.597358

MBD -0.002227

Fringe rate (Hz)

-0.532484

Ion TEC 0.000

Ref freq (MHz)

87940.0000

AP (sec) 0.512

Exp. c202c

Exper # 16383

Yr:day 2020:286

Start 043000.00

Stop 043300.22

FRT 043130.00

Corr/FF/build

2021:039:055416

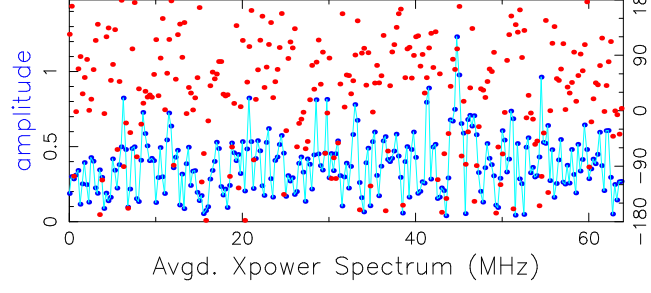
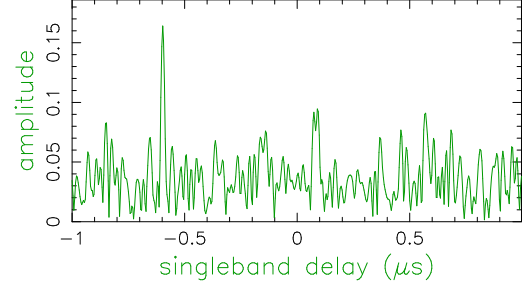
2021:039:060627

2020:247:085004

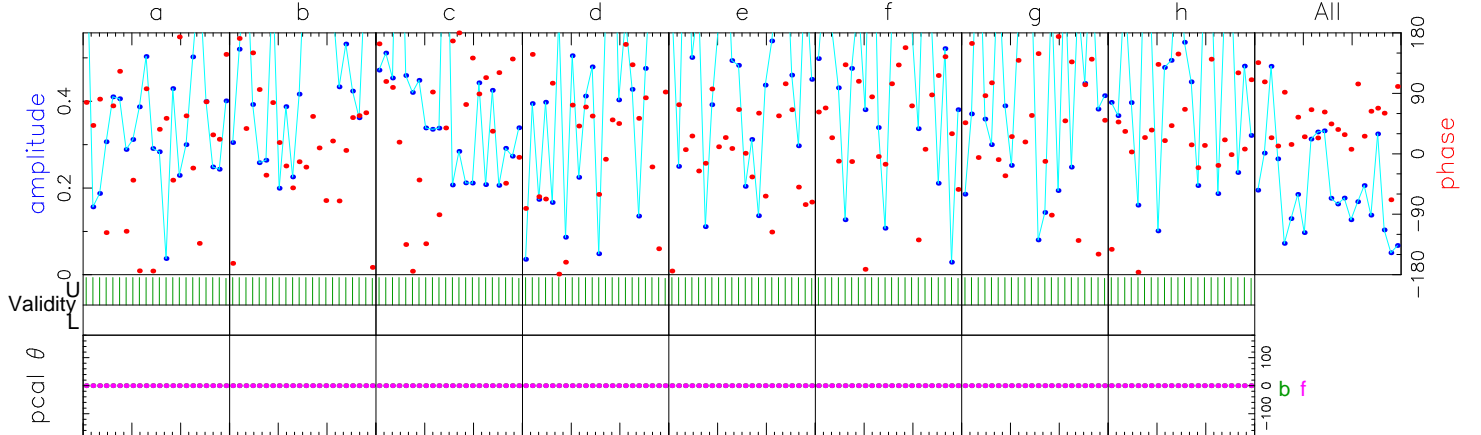
RA & Dec (J2000)

02h38m38.930107s

+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	83.3	21.2	77.7	74.0	12.6	81.2	53.7	39.3	Phase	50.1
	0.1	0.3	0.1	0.2	0.3	0.2	0.2	0.3	Ampl.	0.2
	279.4	244.4	126.0	276.4	293.2	229.6	504.8	416.2	Sbd box	104.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.15484356570E+03		Apriori delay (usec)		-4.15424758882E+03		Resid mbdelay (usec)		-2.22688E-03	+/- 1.8E-04
Sband delay (usec)	-4.15484494707E+03		Apriori clock (usec)		-9.6388359E+00		Resid sbdelay (usec)		-5.97358E-01	+/- 1.4E-03
Phase delay (usec)	-4.15424758724E+03		Apriori clockrate (us/s)		-3.9999997E-07		Resid phdelay (usec)		1.58188E-06	+/- 6.0E-07
Delay rate (us/s)	-1.09129004143E-01		Apriori rate (us/s)		-1.09122949060E-01		Resid rate (us/s)		-6.05508E-06	+/- 5.8E-09
Total phase (deg)			Apriori accel (us/s/s)		2.96602809353E-05		Resid phase (deg)		50.1	+/- 19.0

ph/seg (deg) 43.0 44.7 Search (1024X32) 0.159 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 67.9 77.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 31.0 26.9 Inc. seg. avg. 0.173 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 41.2 47.0 Inc. frq. avg. 0.187 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

b: az 92.6 el 25.0 pa -44.1 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 678.548 2749.504 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/bf..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/bf.W.44.1JFKZ

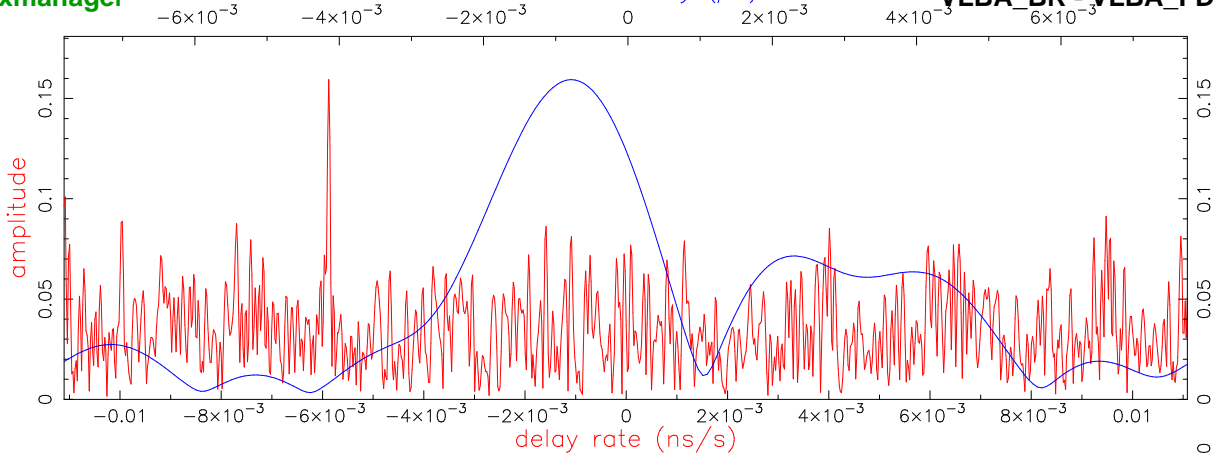
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, bf

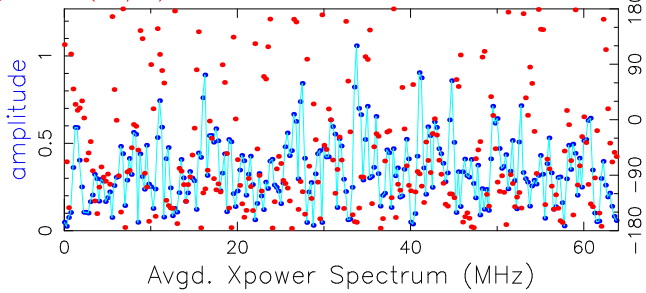
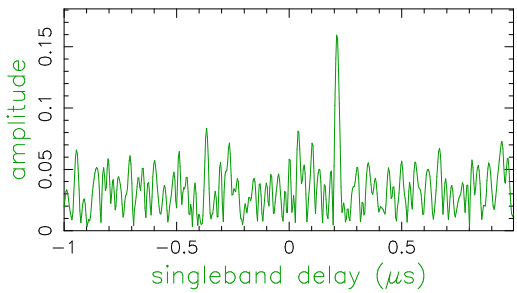
VLBA_BR - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)



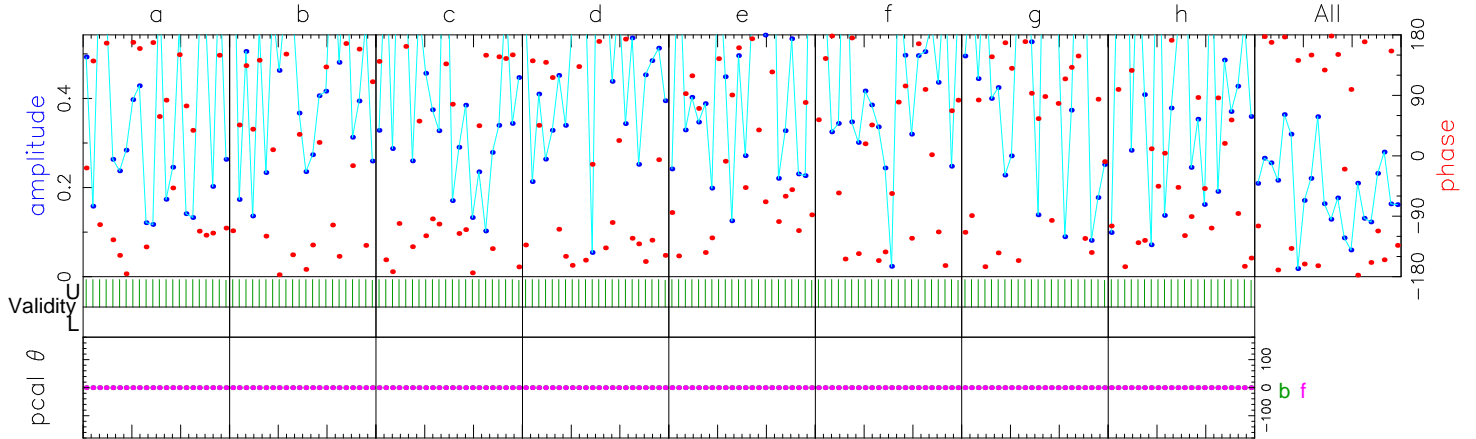
Fringe quality 0

SNR 5.9
 Int time 179.980
 Amp 0.181
 Phase -170.6
 PFD 3.7e-01
 Delays (us)
 SBD 0.212352
 MBD -0.000788
 Fringe rate (Hz)
 -0.517078
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060623
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-165.3	-170.0	-172.0	-162.8	-158.3	142.7	166.4	-124.0	Phase	-170.6
	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.2	Ampl.	0.2
	123.8	344.6	125.1	162.9	15.4	157.0	124.1	195.9	Sbd box	311.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.15402962716E+03		Apriori delay (usec)		-4.15424758882E+03		Resid mbdelay (usec)		-7.88339E-04	+/- 1.8E-04
Sband delay (usec)	-4.15403523657E+03		Apriori clock (usec)		-9.6388359E+00		Resid sbdelay (usec)		2.12352E-01	+/- 1.5E-03
Phase delay (usec)	-4.15424759421E+03		Apriori clockrate (us/s)		-3.9999997E-07		Resid phdelay (usec)		-5.39031E-06	+/- 6.1E-07
Delay rate (us/s)	-1.09128828955E-01		Apriori rate (us/s)		-1.09122949060E-01		Resid rate (us/s)		-5.87990E-06	+/- 5.9E-09
Total phase (deg)			Apriori accel (us/s/s)		2.96602809353E-05		Resid phase (deg)		-170.6	+/- 19.4

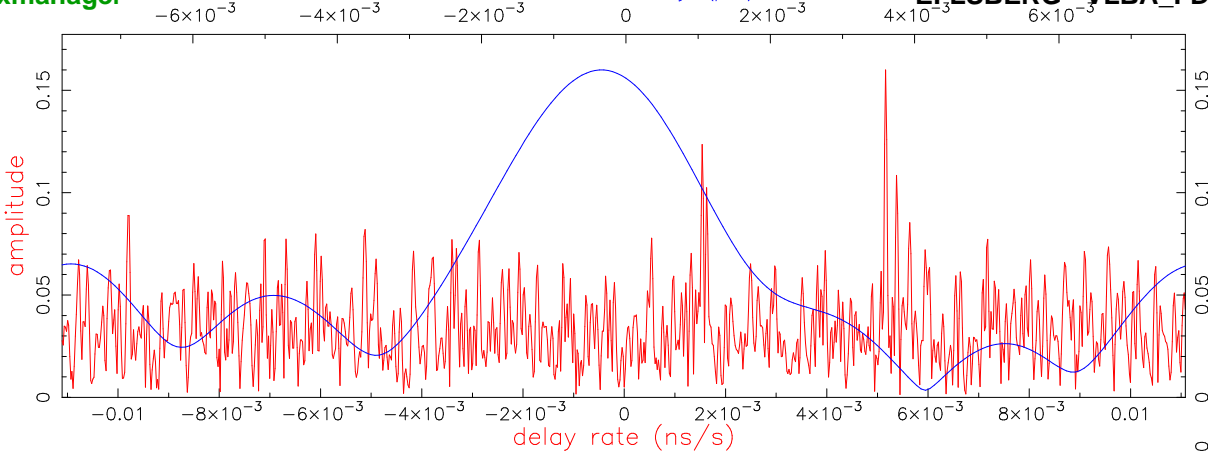
	RMS	Theor.	Amplitude	0.181 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	49.2	45.6	Search (1024X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/seg (%)	58.8	79.5	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	29.2	27.5	Inc. seg. avg.	0.168	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	33.2	47.9	Inc. frq. avg.	0.175					

b: az 92.6 el 25.0 pa -44.1 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 678.548 2749.504 simultaneous interpolator

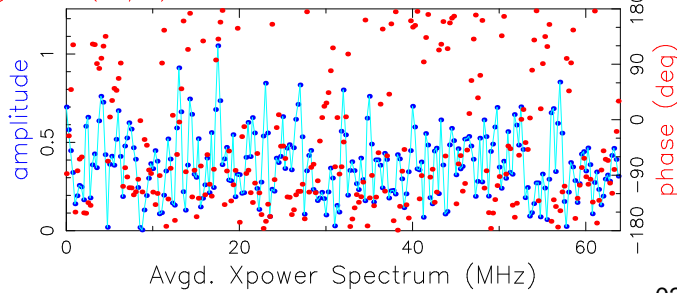
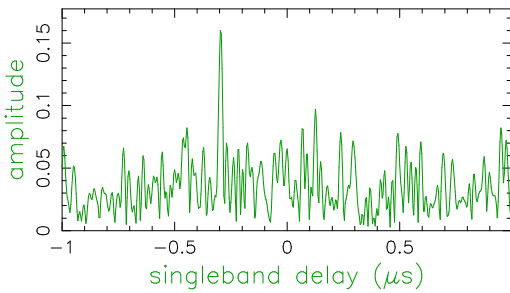
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/bf..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/bf.W.5.1JFKZ

multiband delay (μ s)

Fringe quality 0

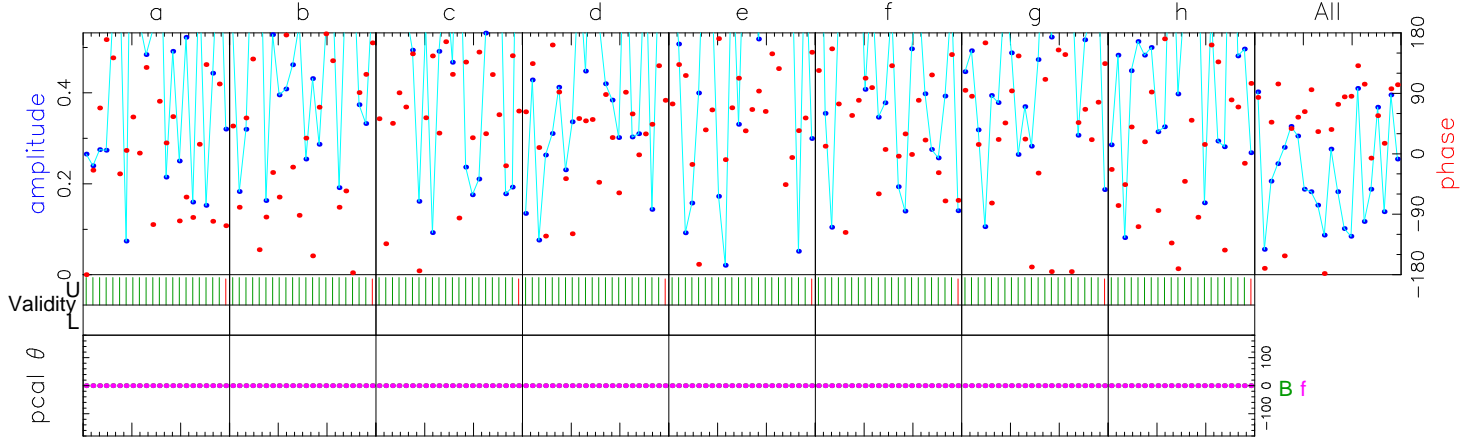


SNR 5.9
 Int time 179.778
 Amp 0.177
 Phase 77.1
 PFD 3.1e-01
 Delays (us)
 SBD -0.295310
 MBD -0.000374
 Fringe rate (Hz)
 0.454618
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060629
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.25874890680E+03									
Sband delay (usec)	-1.25874696753E+03									
Phase delay (usec)	-1.25845165510E+03									
Delay rate (us/s)	-1.83100277499E+00									
Total phase (deg)		-197.7								
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	54.2	45.3								
Theor.										
Amplitude										
Search (1024X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

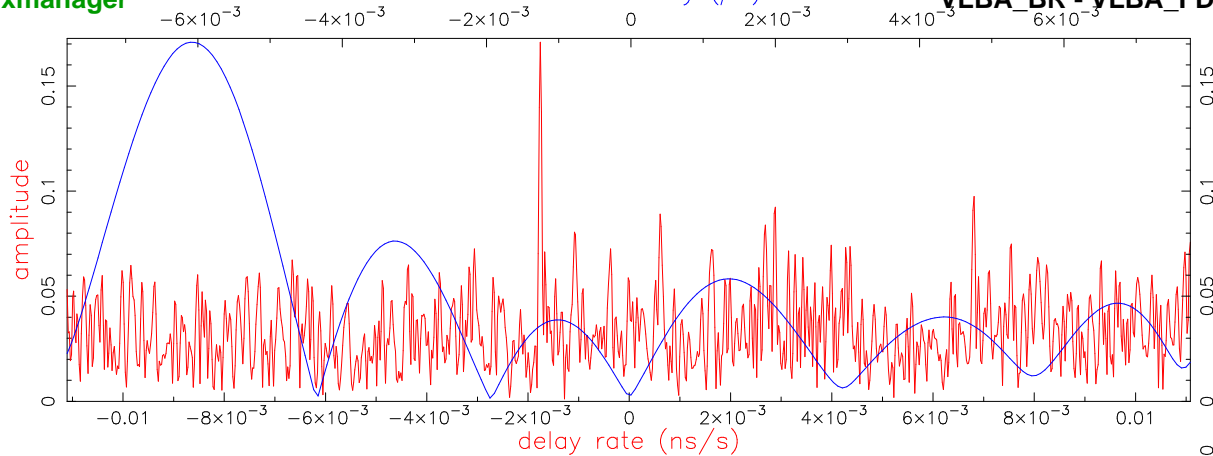
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, bf

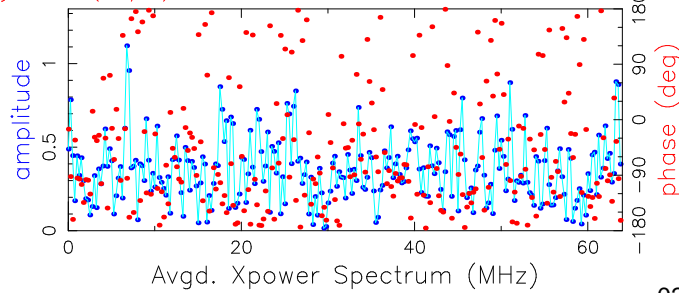
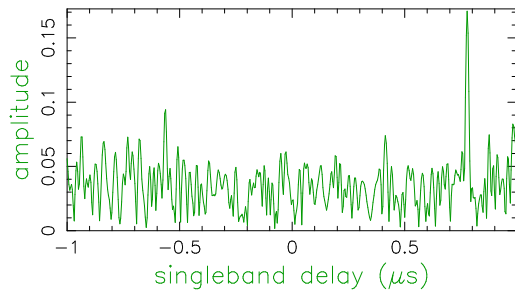
VLBA_BR - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)



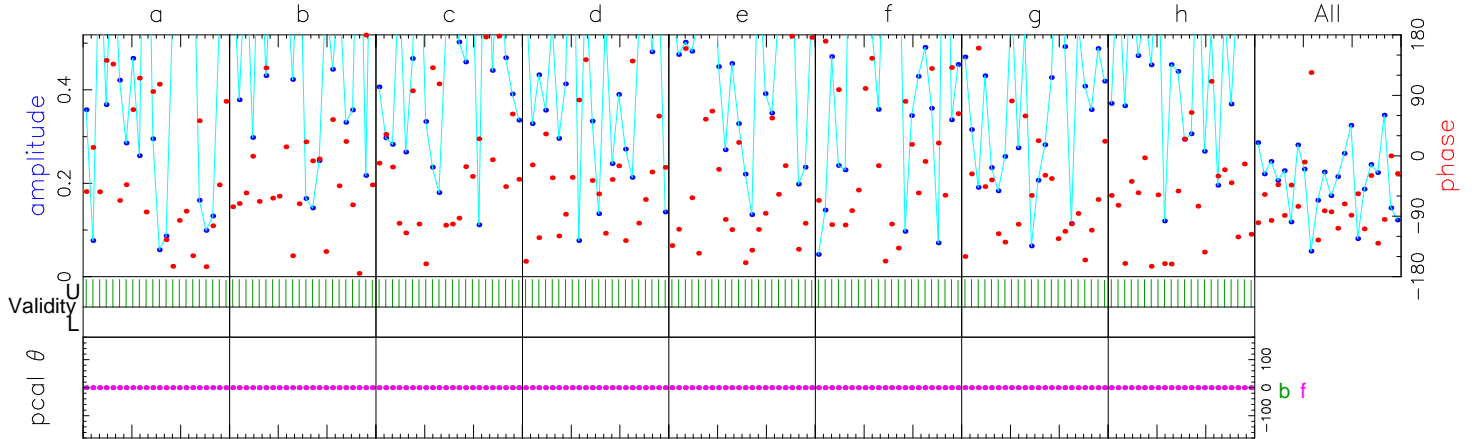
Fringe quality 0

SNR 6.3
 Int time 179.980
 Amp 0.173
 Phase -77.5
 PFD 4.8e-02
 Delays (us)
 SBD 0.777438
 MBD -0.006079
 Fringe rate (Hz)
 -0.154736
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060630
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-99.0	-61.9	-85.1	-60.7	-108.3	-88.7	-81.7	-68.5	Phase	-77.5
	0.1	0.3	0.2	0.2	0.1	0.1	0.2	0.3	Ampl.	0.2
	234.0	81.8	432.0	171.3	19.5	1.4	41.4	456.4	Sbd box	456.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-4.15347241780E+03		Apriori delay (usec)		-4.15424758882E+03		Resid mbdelay (usec)		-6.07898E-03	+/- 1.7E-04
Sband delay (usec)	-4.15347015057E+03		Apriori clock (usec)		-9.6388359E+00		Resid sbdelay (usec)		7.77438E-01	+/- 1.4E-03
Phase delay (usec)	-4.15424759127E+03		Apriori clockrate (us/s)		-3.9999997E-07		Resid phdelay (usec)		-2.44887E-06	+/- 5.8E-07
Delay rate (us/s)	-1.09124708628E-01		Apriori rate (us/s)		-1.09122949060E-01		Resid rate (us/s)		-1.75957E-06	+/- 5.5E-09
Total phase (deg)			Apriori accel (us/s/s)		2.96602809353E-05		Resid phase (deg)		-77.5	+/- 18.3

ph/seg (deg) 48.8 42.9 Search (1024X32) 0.169 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 47.5 74.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.2 25.9 Inc. seg. avg. 0.165 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.1 45.1 Inc. frq. avg. 0.163 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 92.6 el 25.0 pa -44.1 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 678.548 2749.504 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/bf..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/bf.W.67.1JFKZ

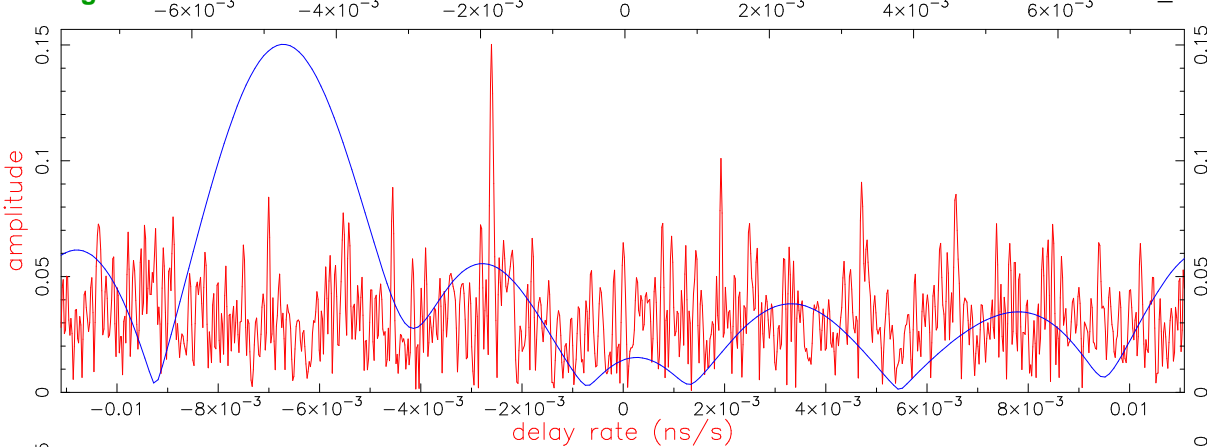
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, Bf

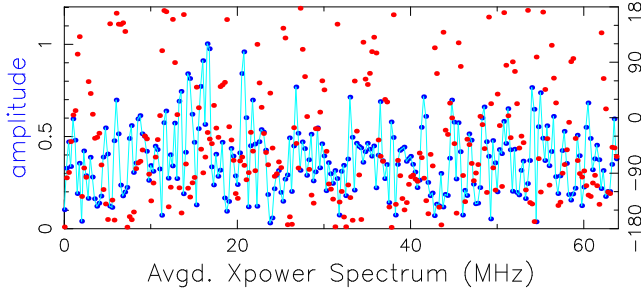
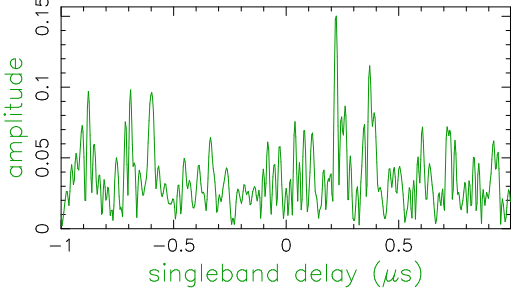
EFLSBERG - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)



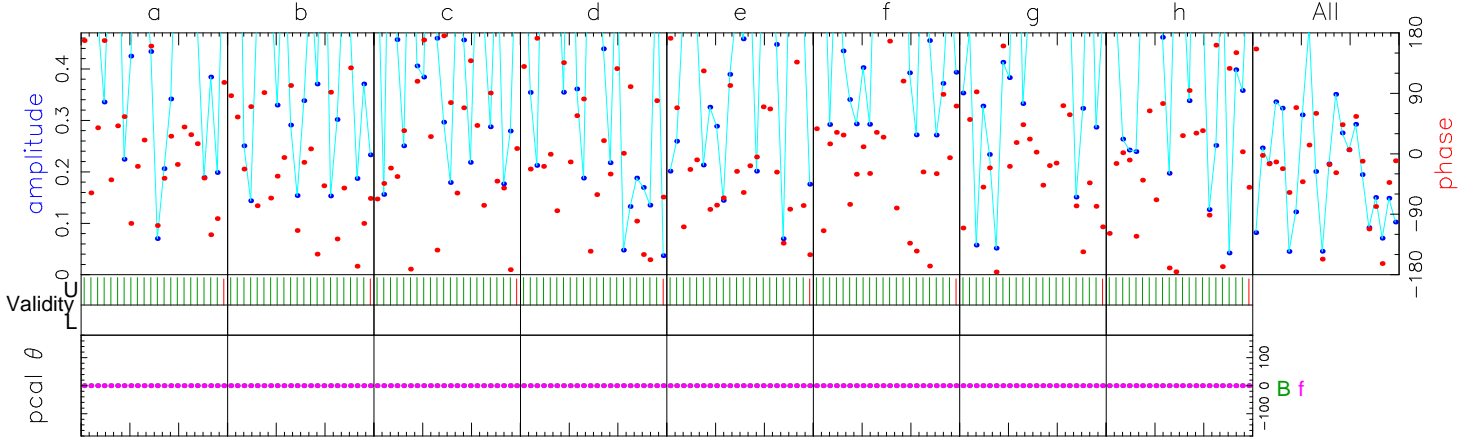
Fringe quality 0

SNR 5.6
 Int time 179.778
 Amp 0.157
 Phase -4.7
 PFD 9.1e-01
 Delays (us)
 SBD 0.220997
 MBD -0.004758
 Fringe rate (Hz)
 -0.229942
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060630
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-1.25823766512E+03									
Sband delay (usec)	-1.25823066078E+03									
Phase delay (usec)	-1.25845165768E+03									
Delay rate (us/s)	-1.83101055939E+00									
Total phase (deg)			-279.4							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

B: az 253.5 el 34.4 pa 39.5 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 11181.098 2632.532 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/Bf..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/Bf.W.74.1JFKZ

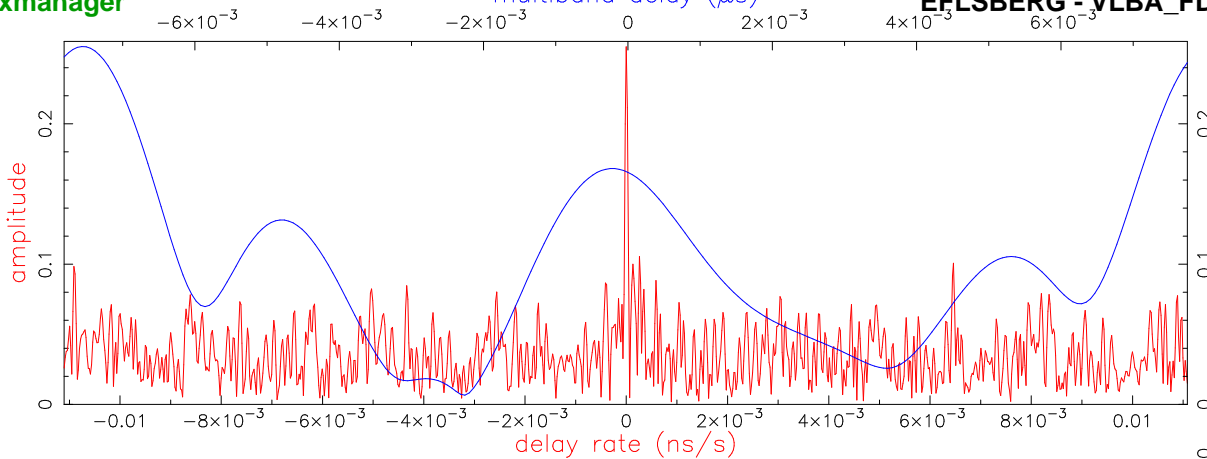
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, Bf

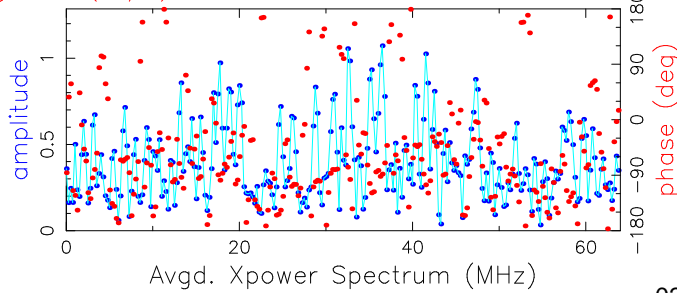
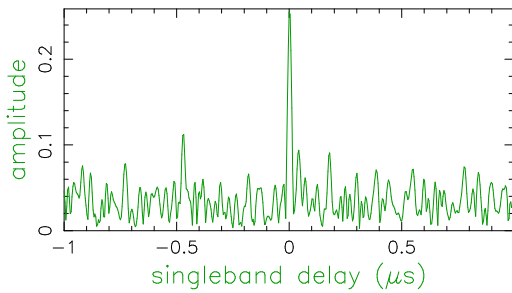
EFLSBERG - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)



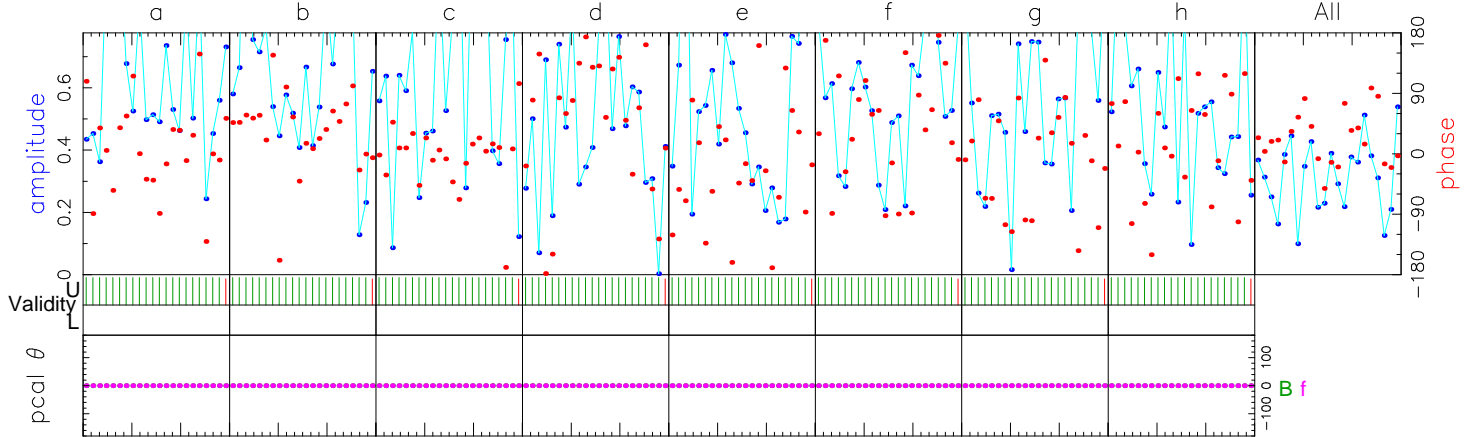
Fringe quality 9

SNR 9.5
 Int time 179.778
 Amp 0.259
 Phase 22.3
 PFD 4.7e-13
 Delays (us)
 SBD 0.001684
 MBD -0.007504
 Fringe rate (Hz)
 -0.000741
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060624
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.25844353619E+03	Apriori delay (usec)	-1.25845165753E+03	Resid mbdelay (usec)	-7.50366E-03	+/-	1.1E-04
Sband delay (usec)	-1.25844997353E+03	Apriori clock (usec)	2.1447461E+00	Resid sbdelay (usec)	1.68400E-03	+/-	9.1E-04
Phase delay (usec)	-1.25845165683E+03	Apriori clockrate (us/s)	-5.9999998E-07	Resid phdelay (usec)	7.02850E-07	+/-	3.8E-07
Delay rate (us/s)	-1.83100795306E+00	Apriori rate (us/s)	-1.83100794463E+00	Resid rate (us/s)	-8.42721E-09	+/-	3.7E-09
Total phase (deg)	-252.5	Apriori accel (us/s/s)	1.52098943502E-05	Resid phase (deg)	22.3	+/-	12.1

ph/seg (deg)	38.6	Theor.	28.3	Amplitude	0.259 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	49.6	Search (1024X32)	0.244	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	44.8	Inc. seg. avg.	0.282	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	50.5	Inc. frq. avg.	0.301	Sample rate (MSamp/s):	128	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 253.5 el 34.4 pa 39.5 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 11181.098 2632.532 simultaneous interpolator

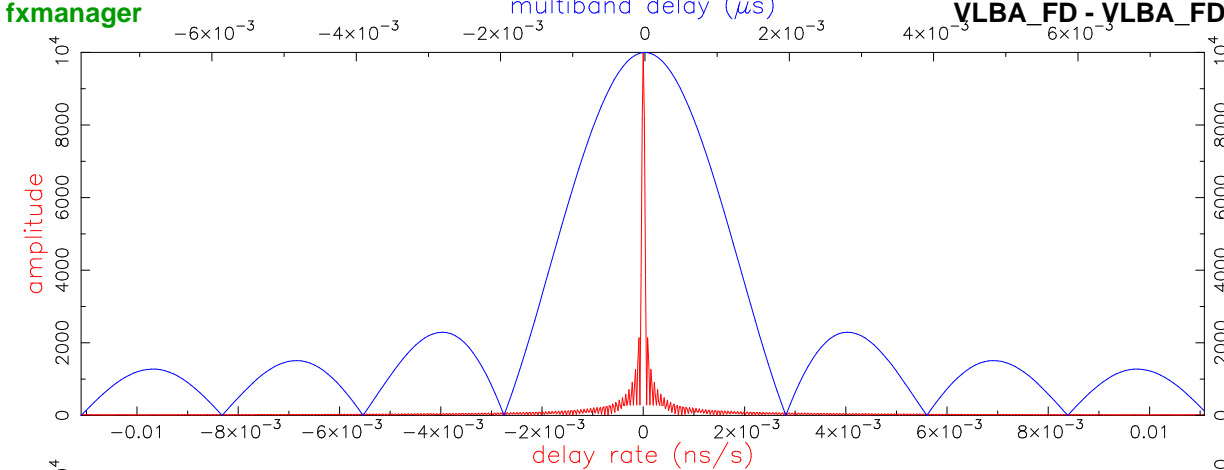
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/Bf.1JFKZ Output file: /Exps/c202c/v1/1234/No0038/Bf.W.8.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

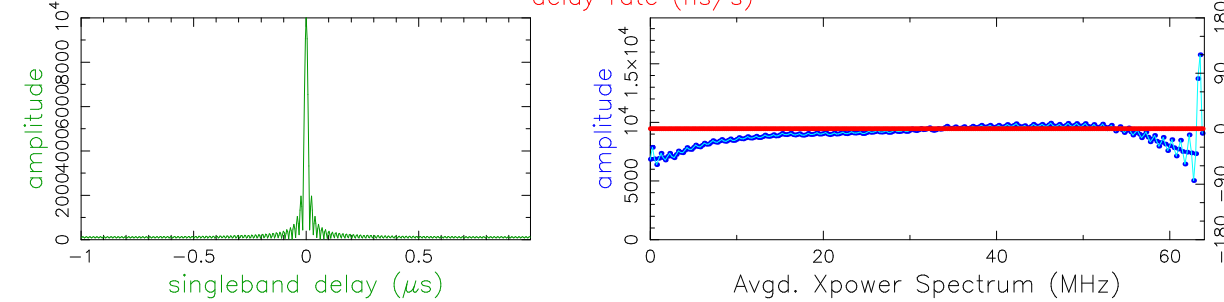
0235+164.1JFKZ, No0038, ff

VLBA_FD - VLBA_FD, fgroup W, pol RR



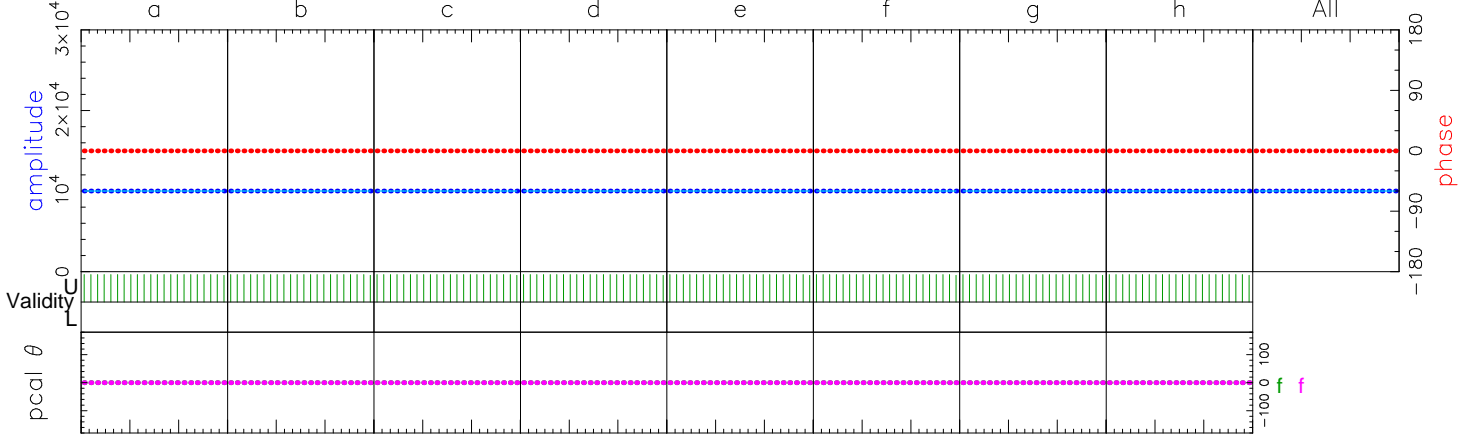
Fringe quality 9

SNR 366868.4
 Int time 179.980
 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)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Yr:day 16383
 Start 2020:286
 Stop 2020:286
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060635
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	Ampl.	10000.0
f	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
f	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	2.3E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	9.9E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	9.5E-14
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	RMS	Theor.	Amplitude	10000.000 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (1024X32)	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	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	10000.000	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 92.3 el 38.1 pa -63.8 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

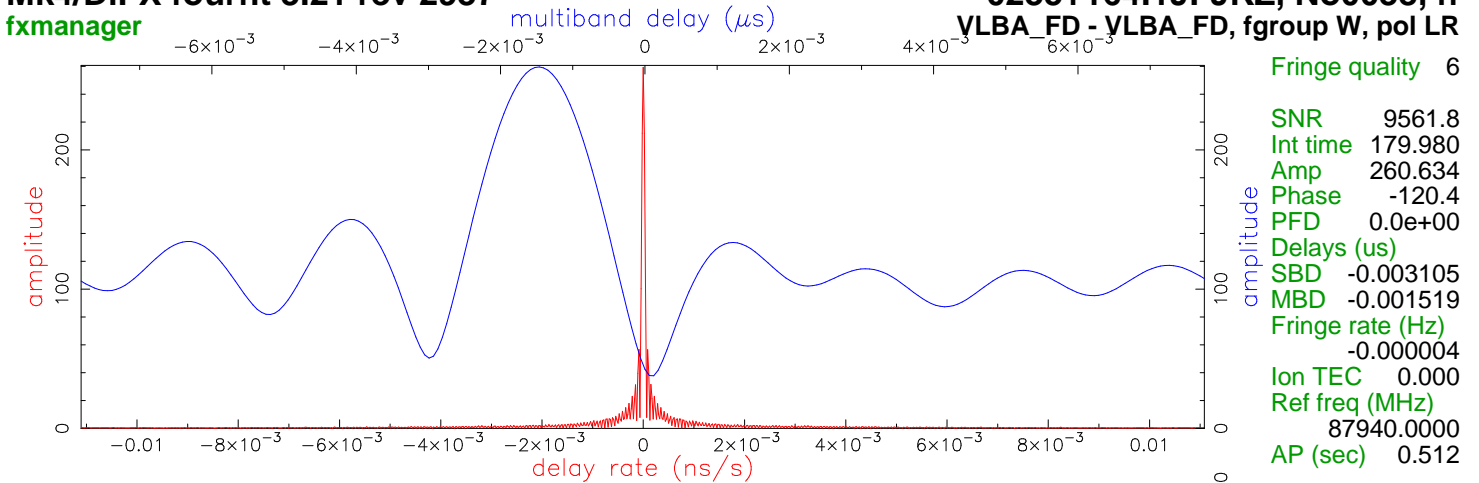
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/ff..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/ff.W.101.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

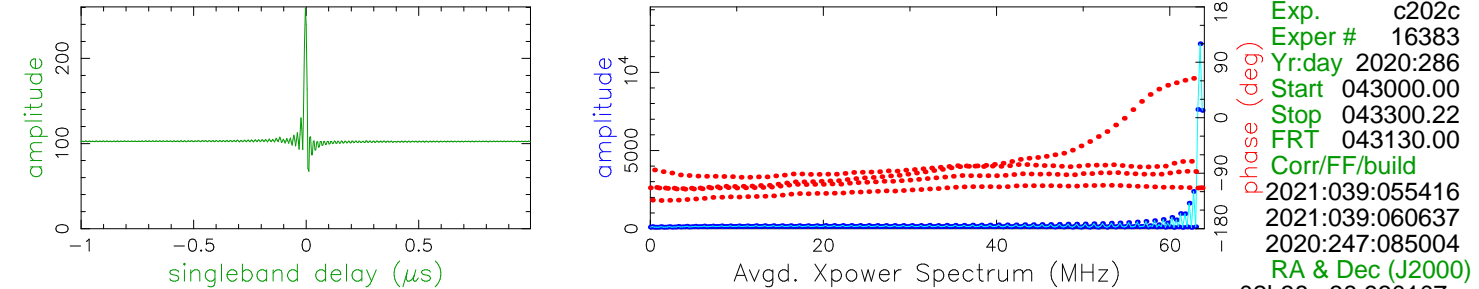
0235+164.1JFKZ, No0038, ff

VLBA_FD - VLBA_FD, fgroup W, pol LR



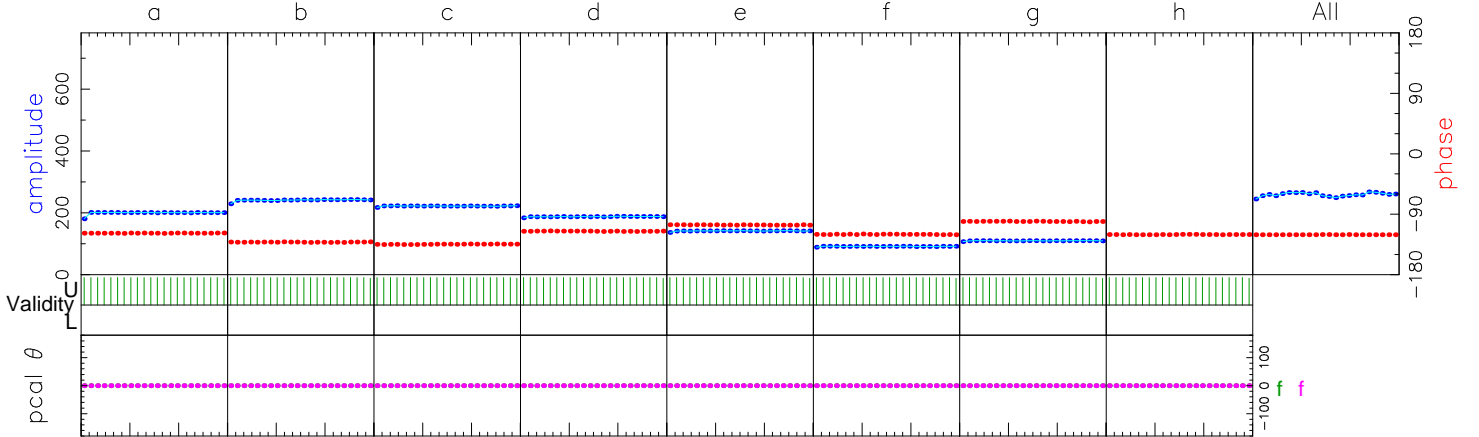
Fringe quality 6

SNR 9561.8
 Int time 179.980
 Amp 260.634
 Phase -120.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.003105
 MBD -0.001519
 Fringe rate (Hz)
 -0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060637
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
Validity	100	100	100	100	100	100	100	100		
pcal θ	-118.1	-131.5	-134.6	-115.2	-105.9	-119.9	-100.6	-120.2	Phase	-120.4
	200.0	241.0	222.0	187.7	141.5	91.6	109.7	903.5	Ampl.	262.1
	256.7	256.3	256.8	256.7	256.9	256.7	256.7	255.7	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.51906250000E-03								Resid mbdelay (usec)	-1.51906E-03 +/- 1.1E-07
Sband delay (usec)	-3.10475000000E-03								Resid sbdelay (usec)	-3.10475E-03 +/- 9.0E-07
Phase delay (usec)	-3.80260494896E-06								Resid phdelay (usec)	-3.80260E-06 +/- 3.8E-10
Delay rate (us/s)	-4.44194884519E-11								Resid rate (us/s)	-4.44195E-11 +/- 3.6E-12
Total phase (deg)			-120.4						Resid phase (deg)	-120.4 +/- 0.0
	RMS	Theor.	Amplitude	260.634 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	0.1	0.0	Search (1024X32)	259.565					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	2.3	0.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	12.6	0.0	Inc. seg. avg.	259.230					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	94.9	0.0	Inc. frq. avg.	262.131					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
f: az 92.3 el 38.1 pa -63.8			f: az 92.3 el 38.1 pa -63.8						u,v (fr/asec) 0.000 0.000	simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/ff..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/ff.W.124.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

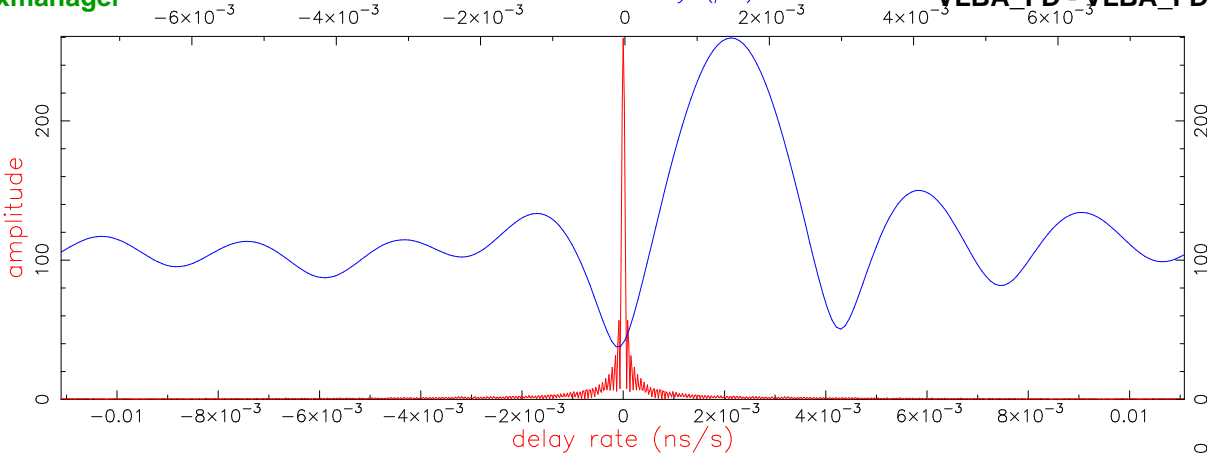
fxmanager

0235+164.1JFKZ, No0038, ff

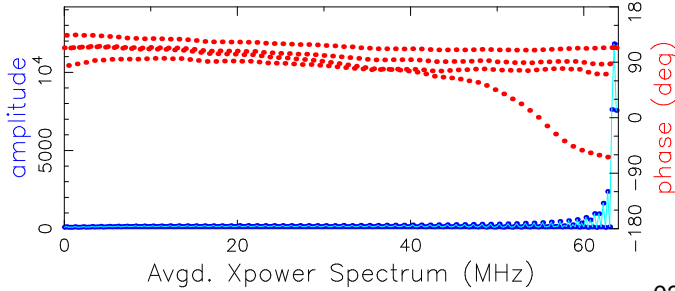
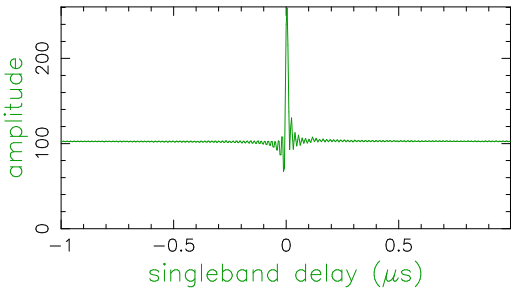
VLBA_FD - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 6

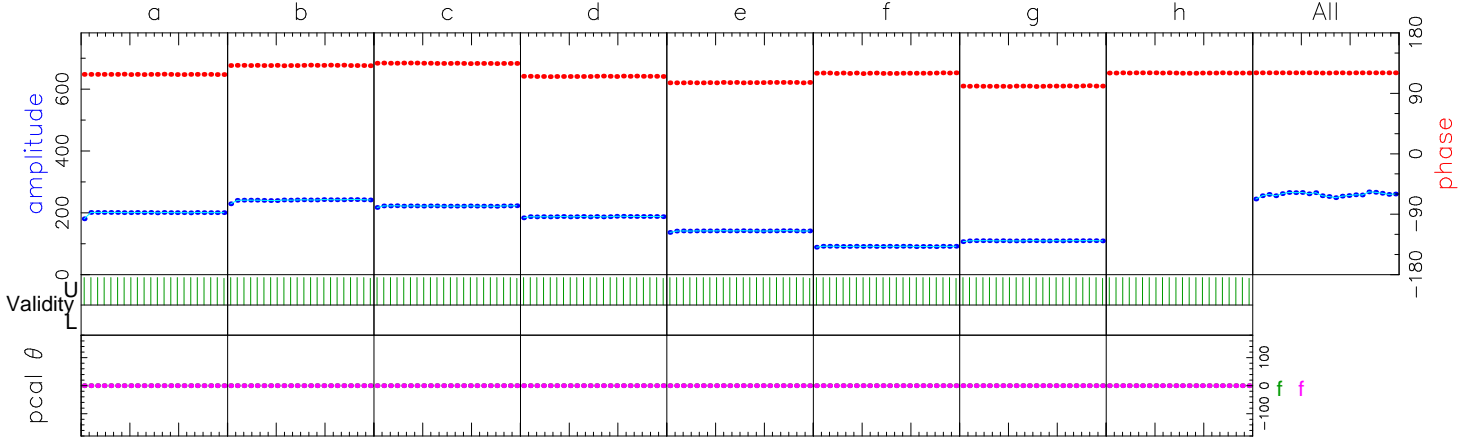


SNR 9561.8
 Int time 179.980
 Amp 260.634
 Phase 120.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.003105
 MBD 0.001519
 Fringe rate (Hz)
 0.000004
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060639
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	118.1	131.5	134.6	115.2	105.9	119.9	100.6	120.2	Phase	120.4
	200.0	241.0	222.0	187.7	141.5	91.6	109.7	903.5	Ampl.	262.1
	257.3	257.7	257.2	257.3	257.1	257.3	257.3	258.3	Sbd box	257.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.51906250000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.51906E-03 +/- 1.1E-07
 Sband delay (usec) 3.10475000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 3.10475E-03 +/- 9.0E-07
 Phase delay (usec) 3.80260494903E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 3.80260E-06 +/- 3.8E-10
 Delay rate (us/s) 4.44194884519E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 4.44195E-11 +/- 3.6E-12
 Total phase (deg) 120.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 120.4 +/- 0.0

RMS Theor. Amplitude 260.634 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (1024X32) 259.565 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 2.3 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.6 0.0 Inc. seg. avg. 259.230 Sample rate (MSamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 94.9 0.0 Inc. frq. avg. 262.131 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 92.3 el 38.1 pa -63.8 f: az 92.3 el 38.1 pa -63.8 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

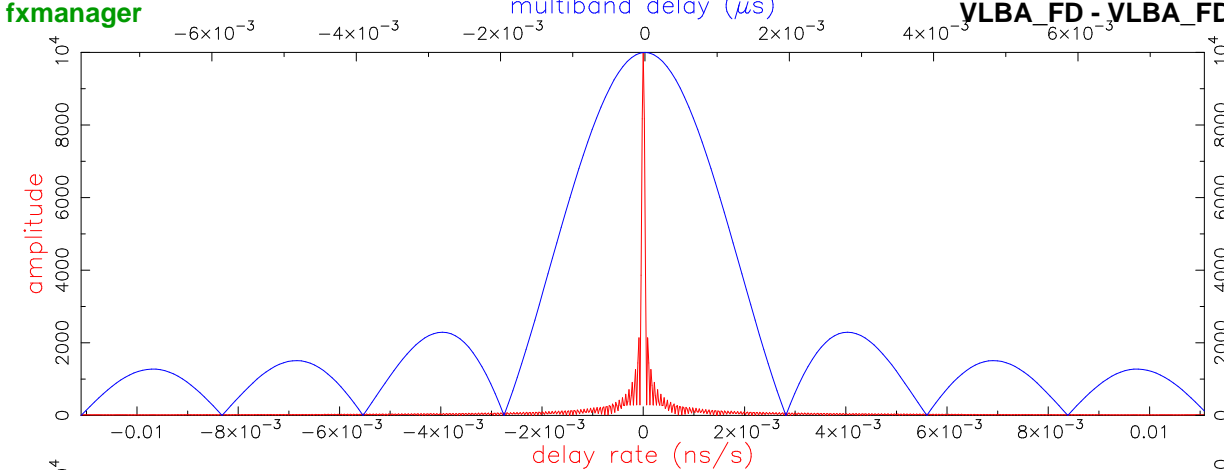
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/ff..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/ff.W.144.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

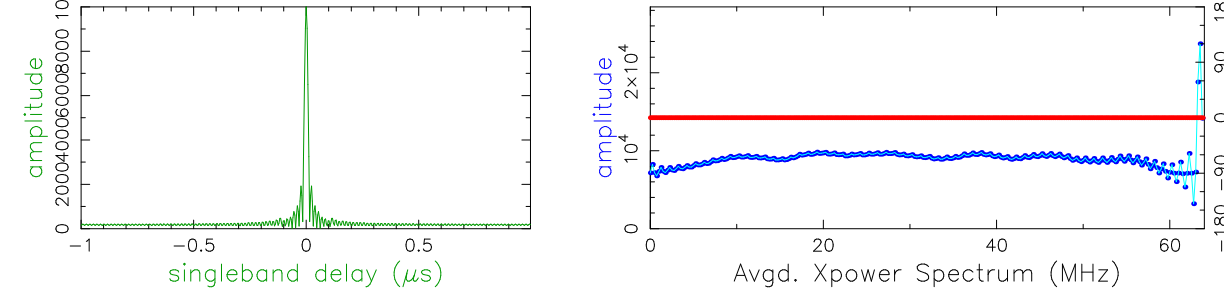
fxmanager

0235+164.1JFKZ, No0038, ff

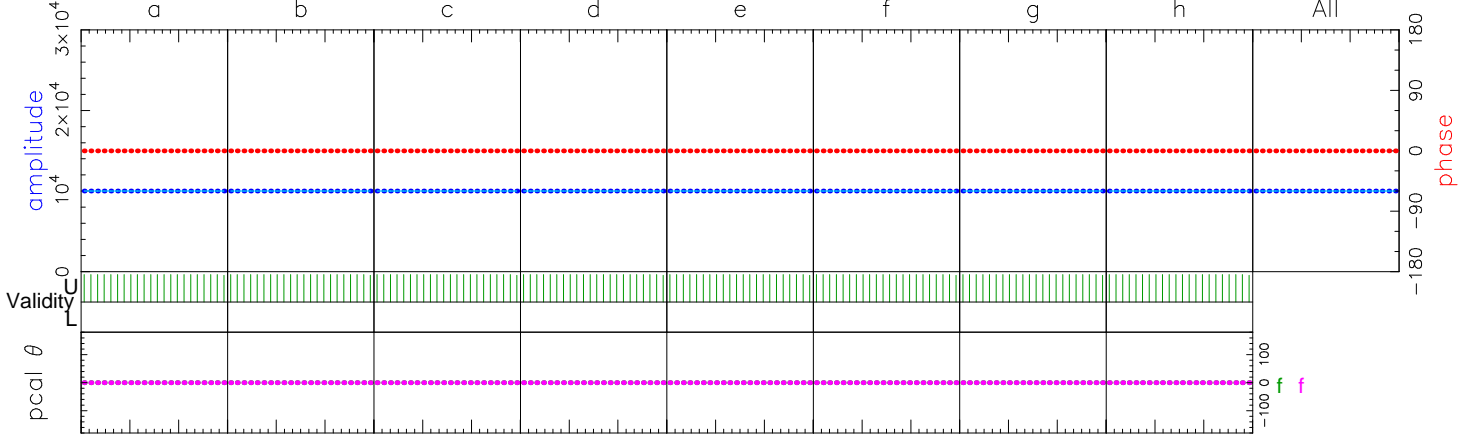
VLBA_FD - VLBA_FD, fgroup W, pol LL



Fringe quality 9
 SNR 366868.4
 Int time 179.980
 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)
 87940.0000
 AP (sec) 0.512
 Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060633
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	Ampl.	10000.0
f	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

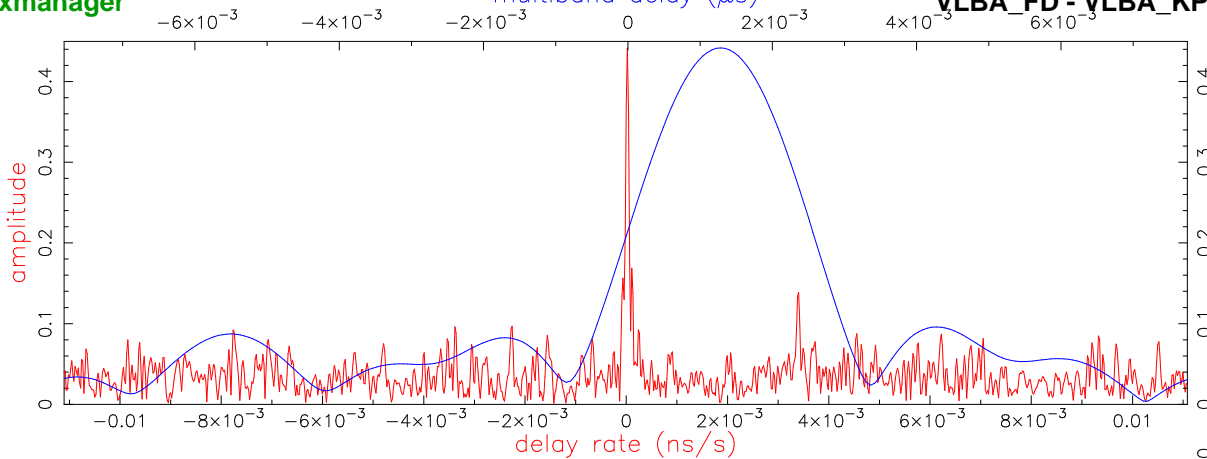
Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 3.0E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 9.9E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 9.5E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (1024X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 f: az 92.3 el 38.1 pa -63.8 f: az 92.3 el 38.1 pa -63.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

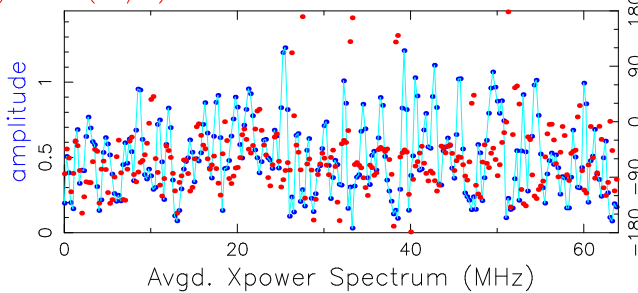
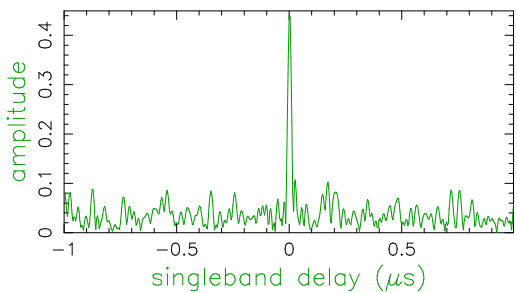
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/ff..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/ff.W.87.1JFKZ

multiband delay (μ s)

Fringe quality 9

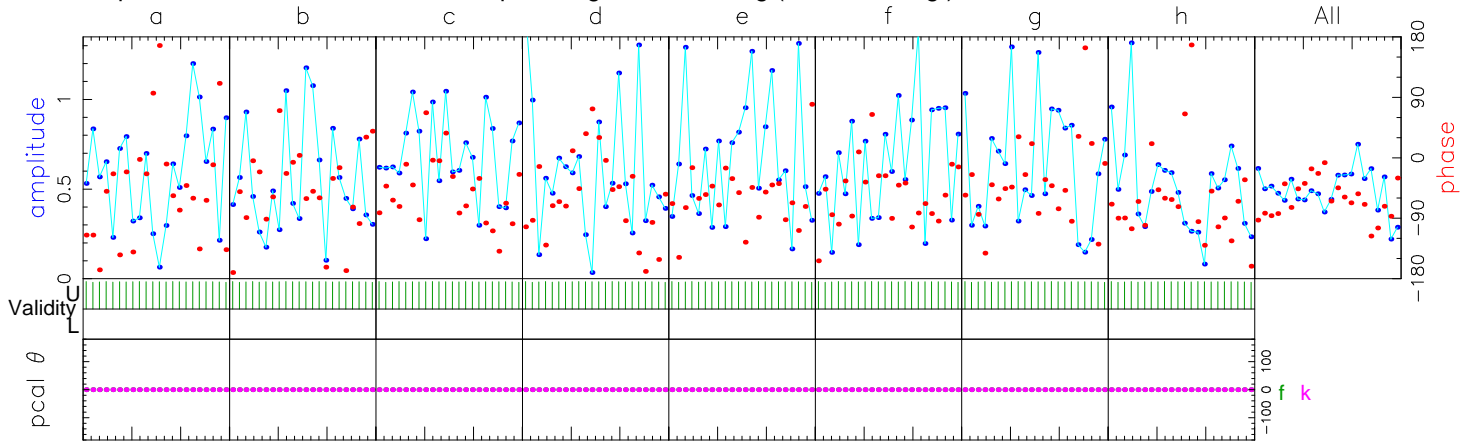


SNR 16.4
Int time 178.116
Amp 0.450
Phase -63.1
PFD 0.0e+00
Delays (us)
SBD 0.001755
MBD 0.001322
Fringe rate (Hz) 0.002771
Ion TEC 0.000
Ref freq (MHz) 87940.0000
AP (sec) 0.512



Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060636
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-75.4	-48.0	-52.7	-74.4	-65.8	-62.8	-52.5	-79.2	Phase	-63.1
	0.3	0.4	0.5	0.4	0.6	0.5	0.5	0.4	Ampl.	0.4
	257.2	257.6	257.6	257.5	257.8	257.0	257.2	257.5	Sbd box	257.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	2.00380000819E+03	Apriori delay (usec)	2.00379868659E+03	Resid mbdelay (usec)	1.32160E-03	+/-	6.6E-05
Sband delay (usec)	2.00380044134E+03	Apriori clock (usec)	7.5851278E+00	Resid sbdelay (usec)	1.75475E-03	+/-	5.2E-04
Phase delay (usec)	2.00379868460E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-1.99313E-06	+/-	2.2E-07
Delay rate (us/s)	-7.33956144449E-02	Apriori rate (us/s)	-7.33956459522E-02	Resid rate (us/s)	3.15073E-08	+/-	2.1E-09
Total phase (deg)	116.4	Apriori accel (us/s/s)	-1.12539077717E-05	Resid phase (deg)	-63.1	+/-	7.0

ph/seg (deg)	RMS 28.2	Theor. 16.4	Amplitude 0.450 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	27.3	28.6	Search (1024X32) 0.419	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	12.9	9.9	Inc. seg. avg. 0.476	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	16.3	17.2	Inc. frq. avg. 0.443	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s) -0.011 0.011
				Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 k: az 89.2 el 31.5 pa -62.3 u,v (fr/asec) 442.464 -441.838 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fk..1JFJKZ Output file: /Exps/c202c/v1/1234/No0038/fk.W.112.1JFJKZ

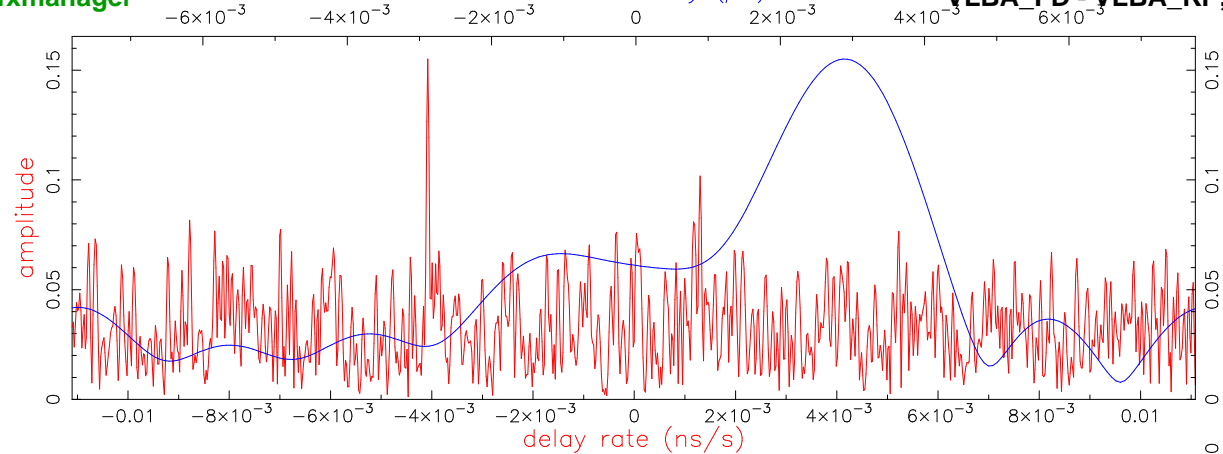
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fk

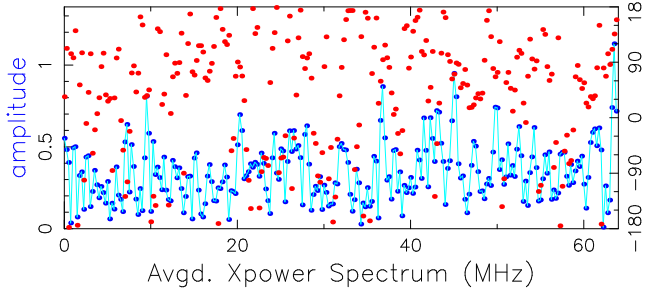
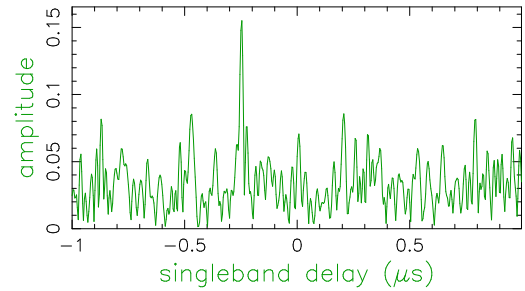
VLBA_FD - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)



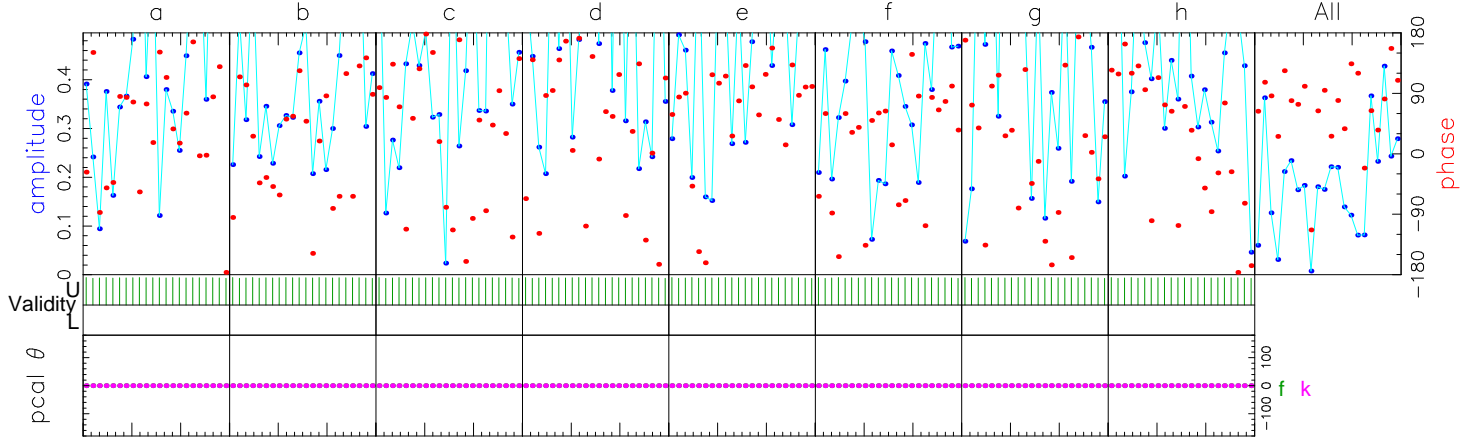
Fringe quality 0

SNR 5.7
Int time 178.116
Amp 0.165
Phase 83.7
PFD 7.6e-01
Delays (us)
SBD -0.247175
MBD 0.002869
Fringe rate (Hz)
-0.358716
Ion TEC 0.000
Ref freq (MHz)
87940.0000
AP (sec) 0.512



Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060638
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	2.00355155597E+03		Apriori delay (usec)		2.00379868659E+03		Resid mbdelay (usec)		2.86938E-03	+/- 1.9E-04
Sband delay (usec)	2.00355151134E+03		Apriori clock (usec)		7.5851278E+00		Resid sbdelay (usec)		-2.47175E-01	+/- 1.5E-03
Phase delay (usec)	2.00379868923E+03		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		2.64453E-06	+/- 6.3E-07
Delay rate (us/s)	-7.33997250507E-02		Apriori rate (us/s)		-7.33956459522E-02		Resid rate (us/s)		-4.07910E-06	+/- 6.1E-09
Total phase (deg)	263.3		Apriori accel (us/s/s)		-1.12539077717E-05		Resid phase (deg)		83.7	+/- 20.1

	RMS	Theor.	Amplitude	0.165 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	53.4	47.1	Search (1024X32)	0.152	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	70.7	82.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	29.4	28.4	Inc. seg. avg.	0.149	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	46.7	49.6	Inc. frq. avg.	0.161	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
f: az 92.3 el 38.1 pa -63.8	k: az 89.2 el 31.5 pa -62.3		u,v (fr/asec) 442.464 -441.838		ion window (TEC) 0.00 0.00		simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fk..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fk.W.128.1JFKZ

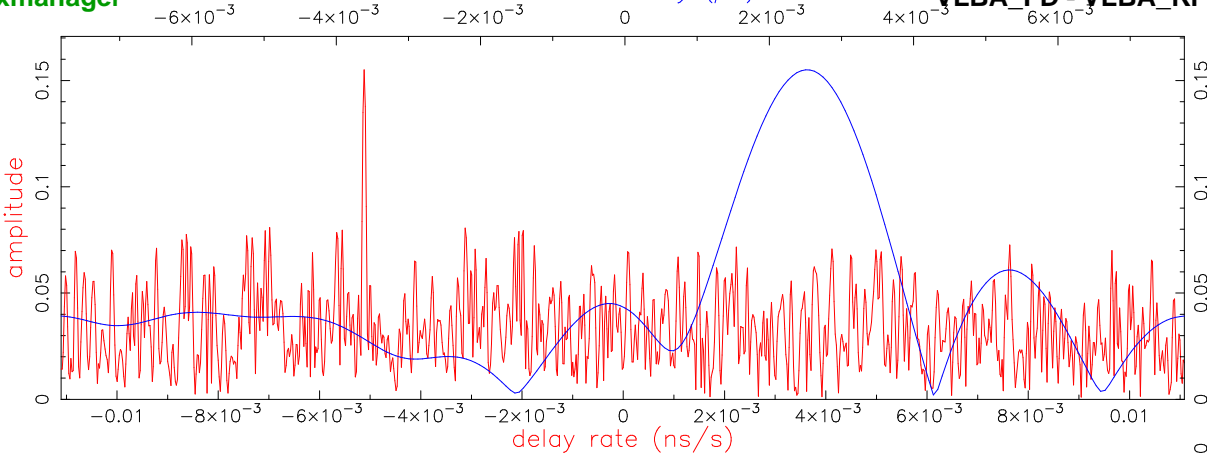
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fk

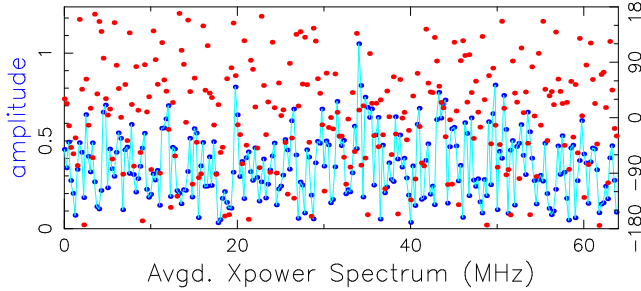
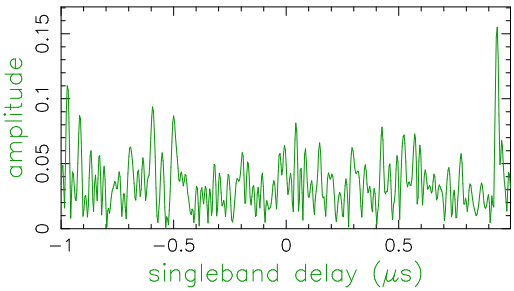
VLBA_FD - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)



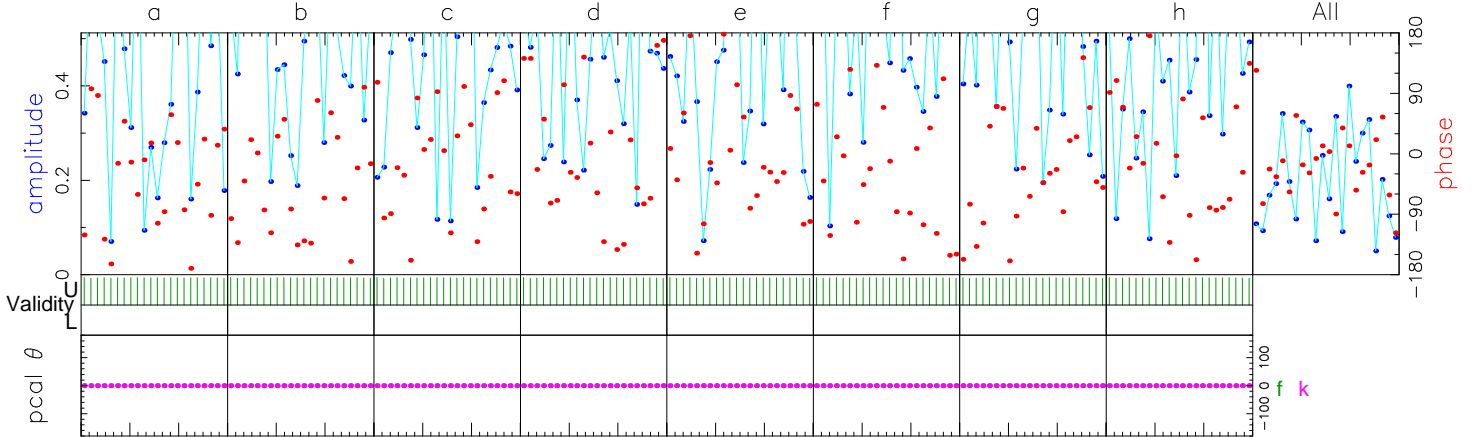
Fringe quality 0

SNR 5.7
 Int time 178.117
 Amp 0.171
 Phase -18.9
 PFD 7.8e-01
 Delays (us)
 SBD 0.936477
 MBD 0.002490
 Fringe rate (Hz)
 -0.451647
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060639
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-13.2	-31.7	4.0	-58.9	-8.3	-38.7	-22.7	6.9	Phase	-18.9
	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	Ampl.	0.2
	293.8	213.3	494.1	385.6	11.3	105.1	93.6	172.1	Sbd box	496.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.00473867674E+03		Apriori delay (usec)		2.00379868659E+03		Resid mbdelay (usec)		2.49015E-03	+/- 1.9E-04
Sband delay (usec)	2.00473516334E+03		Apriori clock (usec)		7.5851278E+00		Resid sbdelay (usec)		9.36477E-01	+/- 1.5E-03
Phase delay (usec)	2.00379868599E+03		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-5.96828E-07	+/- 6.4E-07
Delay rate (us/s)	-7.34007818112E-02		Apriori rate (us/s)		-7.33956459522E-02		Resid rate (us/s)		-5.13586E-06	+/- 6.1E-09
Total phase (deg)	160.7		Apriori accel (us/s/s)		-1.12539077717E-05		Resid phase (deg)		-18.9	+/- 20.1

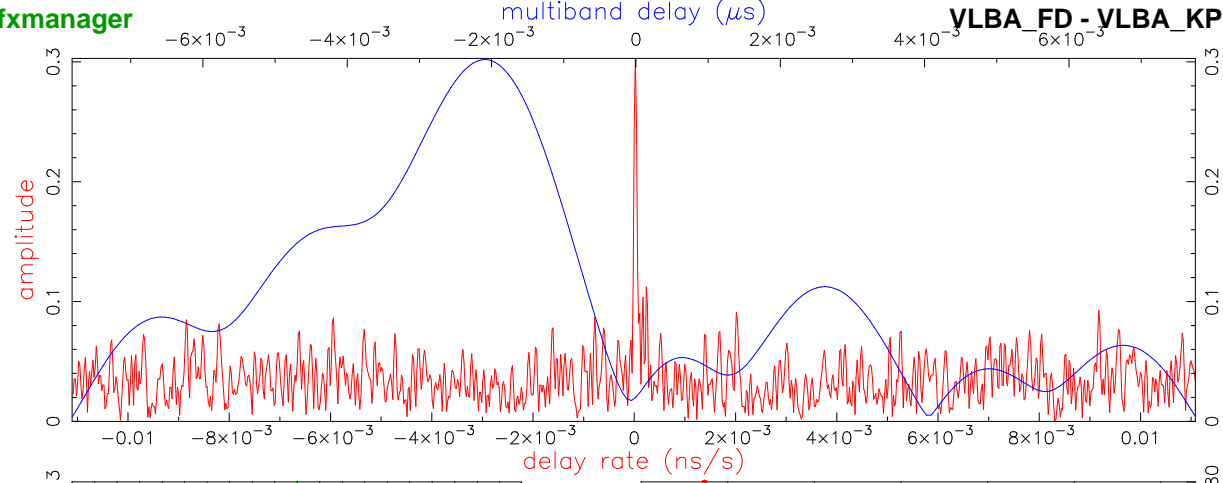
ph/seg (deg) 53.0 47.2 Search (1024X32) 0.152 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 73.0 82.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.2 28.4 Inc. seg. avg. 0.167 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 24.6 49.6 Inc. frq. avg. 0.160 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 92.3 el 38.1 pa -63.8 k: az 89.2 el 31.5 pa -62.3 u,v (fr/asec) 442.464 -441.838 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fk..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fk.W.146.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fk

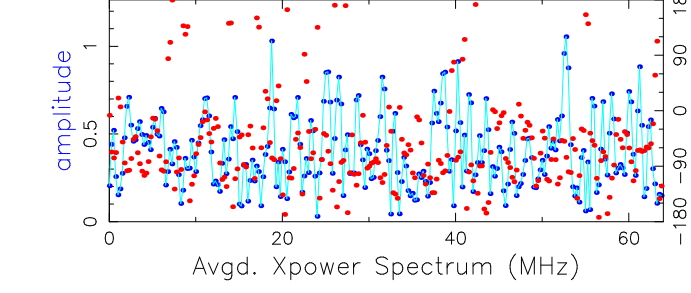
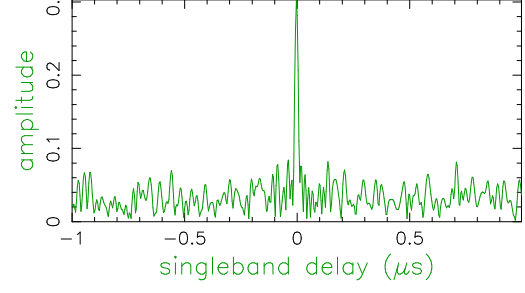
VLBA_FD - VLBA_KP, fgroup W, pol LL



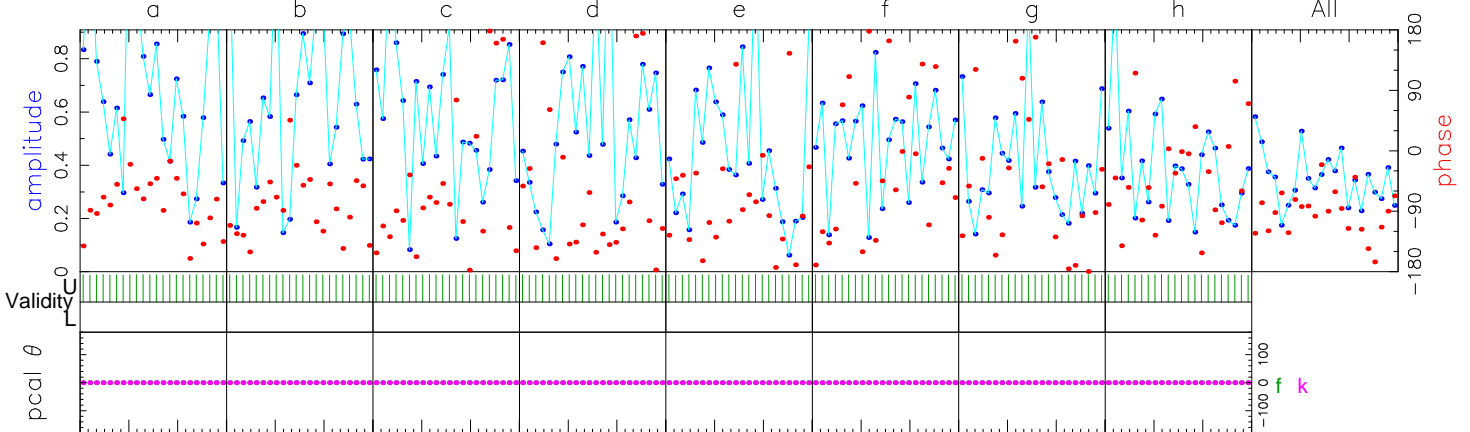
Fringe quality 9

SNR 11.1
 Int time 178.117
 Amp 0.303
 Phase -92.5
 PFD 4.8e-20
 Delays (us)
 SBD -0.003211
 MBD -0.002067
 Fringe rate (Hz) 0.002635
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512

Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060634
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-70.6	-86.9	-117.9	-129.0	-84.9	-101.4	-99.5	-61.4	Phase	-92.5
	0.6	0.5	0.4	0.4	0.3	0.1	0.1	0.2	Ampl.	0.3
	256.9	256.2	256.3	255.8	256.0	247.0	391.1	292.3	Sbd box	256.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.00379661994E+03	Apriori delay (usec)	2.00379868659E+03	Resid mbdelay (usec)	-2.06665E-03	+/-	9.8E-05
Sband delay (usec)	2.00379547584E+03	Apriori clock (usec)	7.5851278E+00	Resid sbdelay (usec)	-3.21075E-03	+/-	7.8E-04
Phase delay (usec)	2.00379868367E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-2.92052E-06	+/-	3.3E-07
Delay rate (us/s)	-7.33956159899E-02	Apriori rate (us/s)	-7.33956459522E-02	Resid rate (us/s)	2.99623E-08	+/-	3.1E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.12539077717E-05	Resid phase (deg)	-92.5	+/-	10.4

ph/seg (deg)	RMS 32.7	Theor. 24.3	Amplitude Search (1024X32)	0.303 +/- 0.027	0.290	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	36.6	42.4	Interp.	0.000	0.290	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.7	14.7	Inc. seg. avg.	0.323	0.290	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	52.0	25.6	Inc. frq. avg.	0.316	0.290	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
					0.290	Data rate(Mb/s): 2048	nlags: 256
					0.290		t_cohere infinite
					0.290		ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 k: az 89.2 el 31.5 pa -62.3 u,v (fr/asec) 442.464 -441.838 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fk..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fk.W.89.1JFKZ

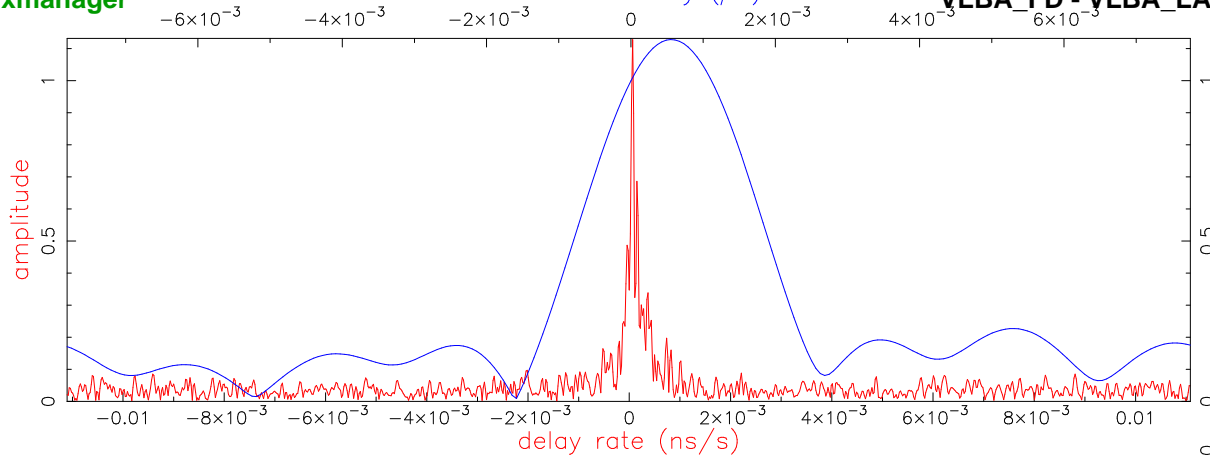
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fl

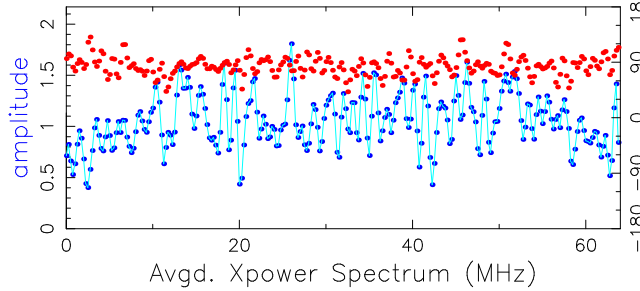
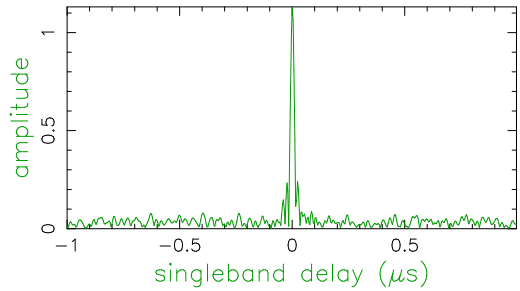
VLBA_FD - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)



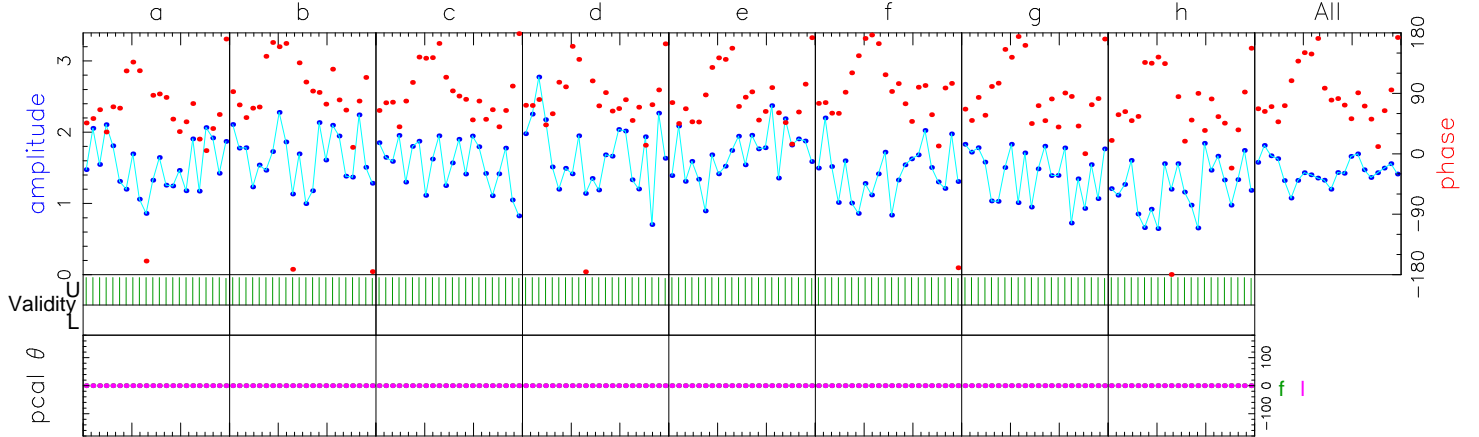
Fringe quality 7

SNR 41.5
 Int time 179.980
 Amp 1.132
 Phase 85.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.000719
 MBD 0.000576
 Fringe rate (Hz)
 0.006380
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060635
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	6.75952474269E+02		Apriori delay (usec)		6.75951898149E+02		Resid mbdelay (usec)		5.76121E-04	+/- 2.6E-05
Sband delay (usec)	6.75952616899E+02		Apriori clock (usec)		8.3485451E+00		Resid sbdelay (usec)		7.18750E-04	+/- 2.1E-04
Phase delay (usec)	6.75951900848E+02		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		2.69891E-06	+/- 8.7E-08
Delay rate (us/s)	3.22442442055E-02		Apriori rate (us/s)		3.22441716504E-02		Resid rate (us/s)		7.25551E-08	+/- 8.4E-10
Total phase (deg)			57.8		Apriori accel (us/s/s)		-5.98283653224E-06		85.4	+/- 2.8

	RMS	Theor.	Amplitude	1.132 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	41.6	6.5	Search (1024X32)	1.099	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	32.5	11.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	13.6	3.9	Inc. seg. avg.	1.449	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	13.4	6.8	Inc. frq. avg.	1.149	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 l: az 94.8 el 35.9 pa -57.5 u,v (fr/asec) -199.006 -793.790 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fl..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fl.W.106.1JFKZ

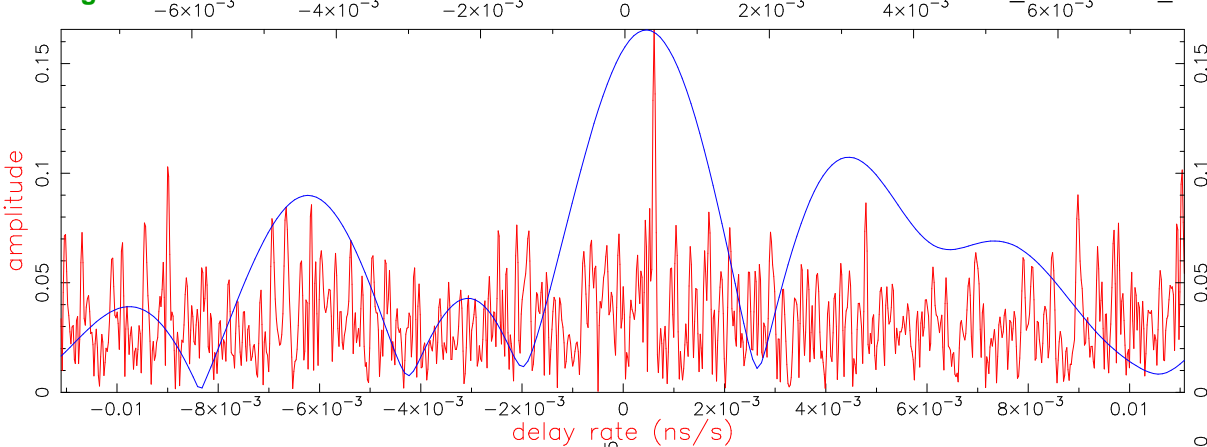
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fl

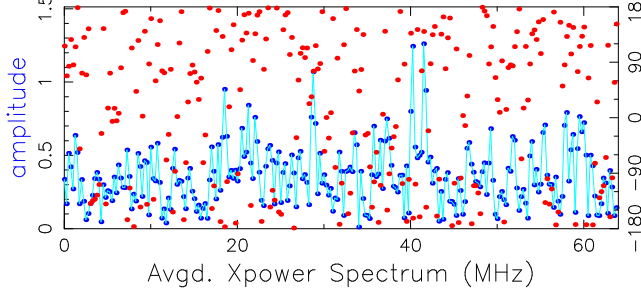
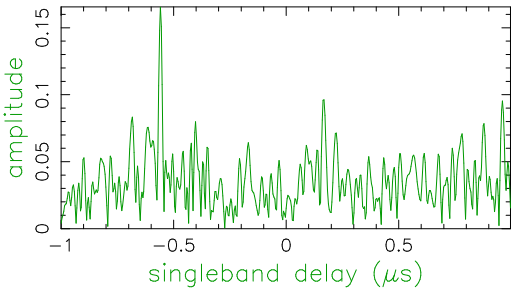
VLBA_FD - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)



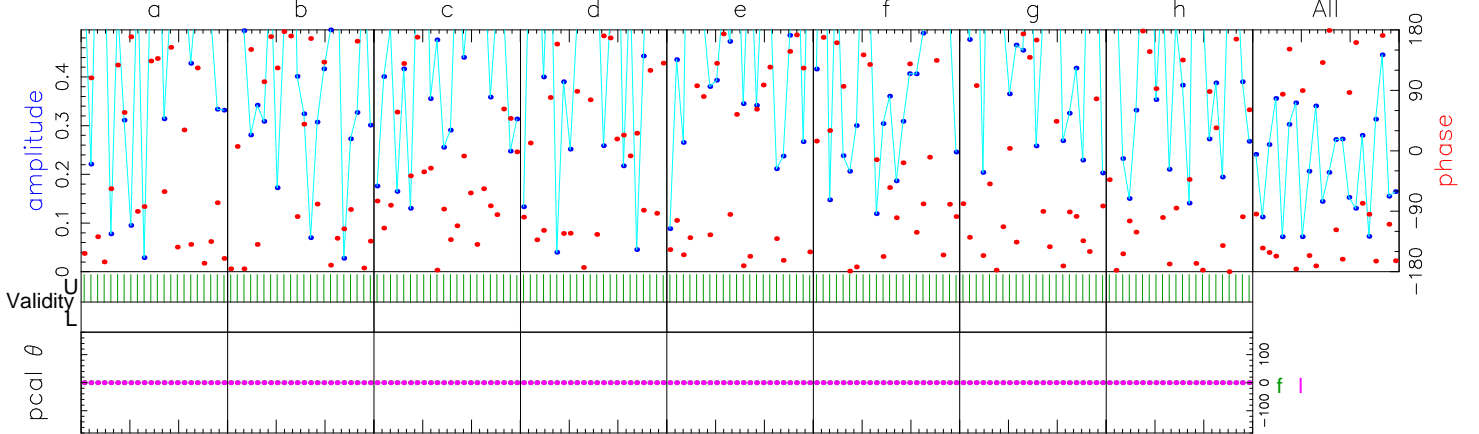
Fringe quality 0

SNR 6.1
 Int time 179.980
 Amp 0.166
 Phase -163.6
 PFD 1.6e-01
 Delays (us)
 SBD -0.558375
 MBD 0.000297
 Fringe rate (Hz)
 0.053816
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060638
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-172.9	-174.0	-77.8	-179.0	169.9	179.9	-144.1	-165.7	Phase	-163.6
	0.2	0.3	0.2	0.0	0.3	0.1	0.2	0.2	Ampl.	0.2
	106.5	114.1	156.8	213.7	113.9	81.6	32.2	344.0	Sbd box	114.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	6.75389695619E+02	Apriori delay (usec)	6.75951898149E+02	Resid mbdelay (usec)	2.97470E-04	+/-	1.8E-04
Sband delay (usec)	6.75393523149E+02	Apriori clock (usec)	8.3485451E+00	Resid sbdelay (usec)	-5.58375E-01	+/-	1.4E-03
Phase delay (usec)	6.75951892980E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-5.16881E-06	+/-	6.0E-07
Delay rate (us/s)	3.22447836163E-02	Apriori rate (us/s)	3.22441716504E-02	Resid rate (us/s)	6.11966E-07	+/-	5.7E-09
Total phase (deg)	168.7	Apriori accel (us/s/s)	-5.98283653224E-06	Resid phase (deg)	-163.6	+/-	18.9

ph/seg (deg)	55.4	Theor.	44.3	Amplitude	0.166 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	71.1		77.3	Search (1024X32)	0.157	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	39.0		26.7	Inc. seg. avg.	0.172	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	44.2		46.6	Inc. frq. avg.	0.175	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

f: az 92.3 el 38.1 pa -63.8 l: az 94.8 el 35.9 pa -57.5 u, v (fr/asec) -199.006 -793.790 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fl..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fl.W.132.1JFKZ

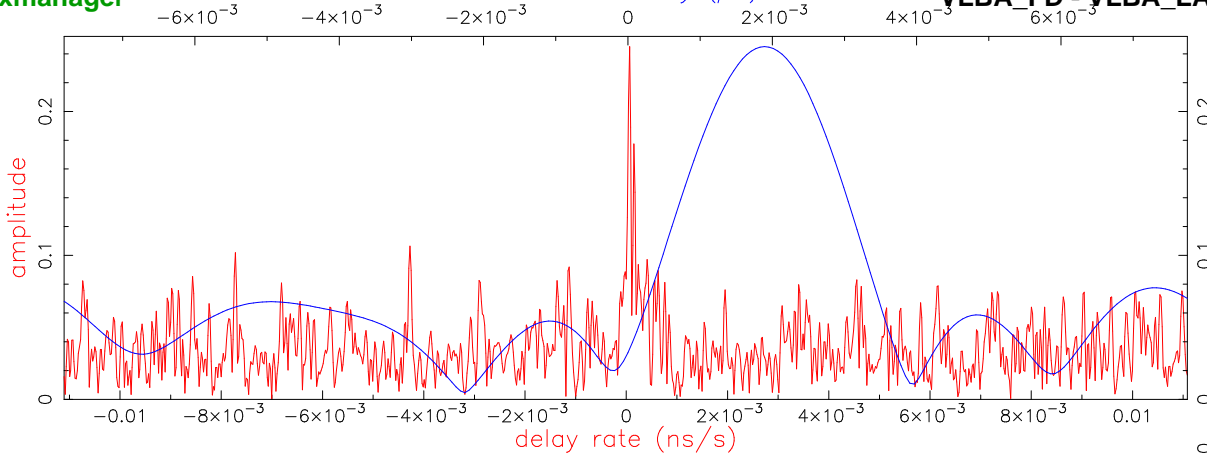
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fl

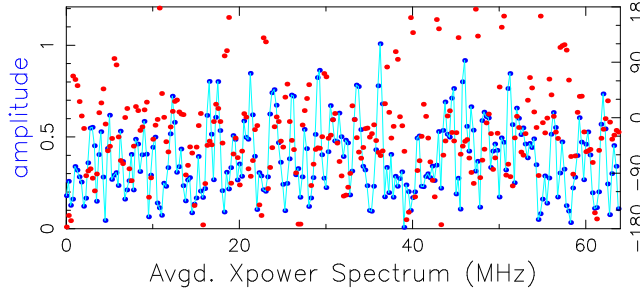
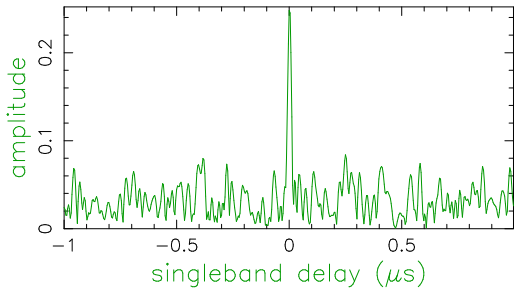
VLBA_FD - VLBA_LA, fgroup W, pol RL

multiband delay (μ s)



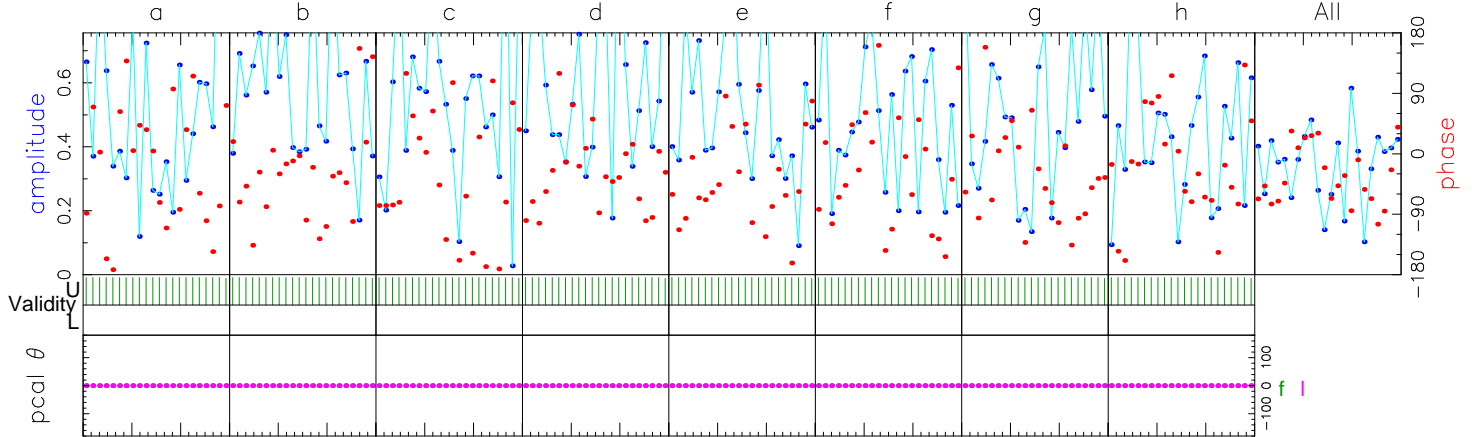
Fringe quality 9

SNR 9.2
 Int time 179.980
 Amp 0.252
 Phase -36.8
 PFD 4.4e-12
 Delays (us)
 SBD 0.001693
 MBD 0.001889
 Fringe rate (Hz) 0.006343
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060640
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	6.75953786863E+02	Apriori delay (usec)	6.75951898149E+02	Resid mbdelay (usec)	1.88871E-03	+/-	1.2E-04
Sband delay (usec)	6.75953591649E+02	Apriori clock (usec)	8.3485451E+00	Resid sbdelay (usec)	1.69350E-03	+/-	9.3E-04
Phase delay (usec)	6.75951896986E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-1.16258E-06	+/-	3.9E-07
Delay rate (us/s)	3.22442437751E-02	Apriori rate (us/s)	3.22441716504E-02	Resid rate (us/s)	7.21248E-08	+/-	3.8E-09
Total phase (deg)	295.5	Apriori accel (us/s/s)	-5.98283653224E-06	Resid phase (deg)	-36.8	+/-	12.4

ph/seg (deg)	43.3	Theor.	29.1	Amplitude	0.252 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	58.0	Search (1024X32)	0.241	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	10.6	Inc. seg. avg.	0.305	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	42.7	Inc. frq. avg.	0.237	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
f: az 92.3 el 38.1 pa -63.8		l: az 94.8 el 35.9 pa -57.5		Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fl..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fl.W.149.1JFKZ simultaneous interpolator

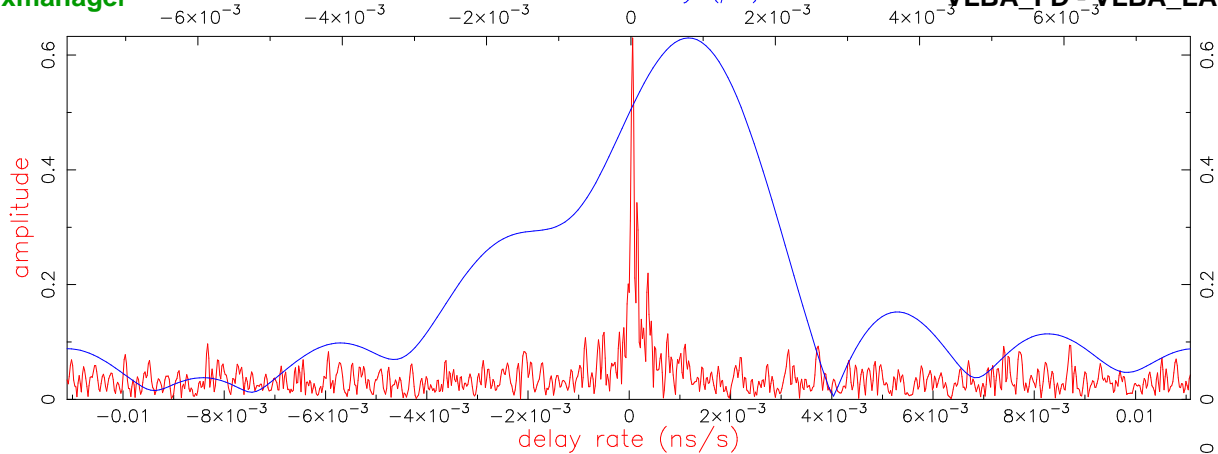
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fl

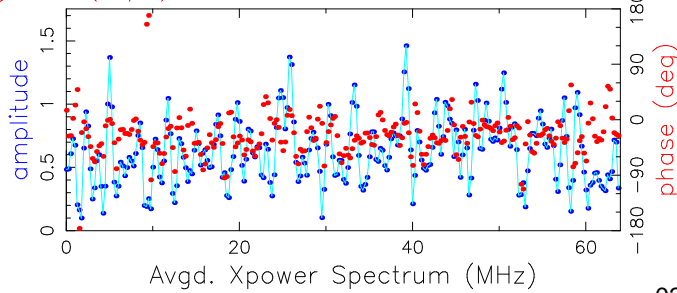
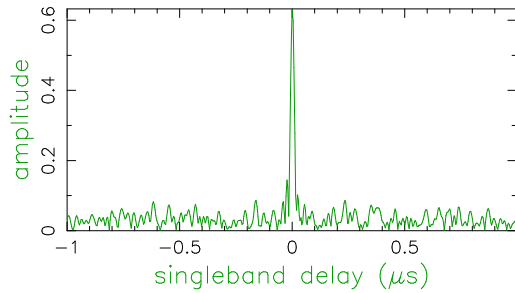
VLBA_FD - VLBA_LA, fgroup W, pol LL

multiband delay (μ s)



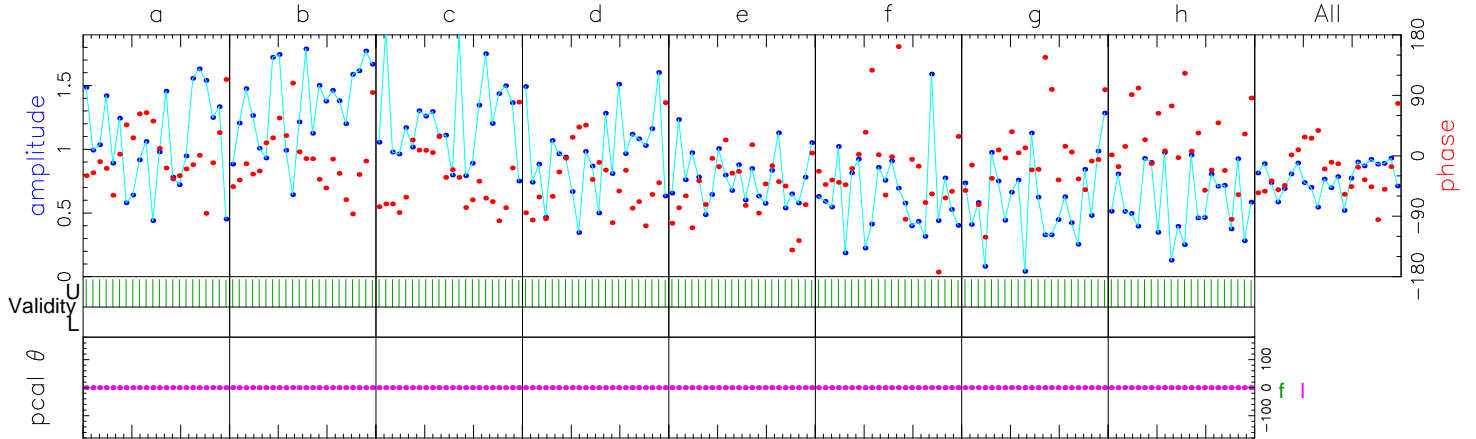
Fringe quality 8

SNR 23.2
 Int time 179.980
 Amp 0.633
 Phase -24.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.000833
 MBD 0.000811
 Fringe rate (Hz) 0.006163
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060634
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-6.2	-9.7	-42.4	-46.9	-46.6	-34.0	-7.5	8.1	Phase	-24.3
	0.8	1.0	0.9	0.7	0.6	0.4	0.4	0.4	Ampl.	0.7
	257.8	256.7	257.1	257.0	257.2	257.5	257.6	257.5	Sbd box	257.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.75952708926E+02	Apriori delay (usec)	6.75951898149E+02	Resid mbdelay (usec)	8.10777E-04	+/-	4.7E-05
Sband delay (usec)	6.75952731149E+02	Apriori clock (usec)	8.3485451E+00	Resid sbdelay (usec)	8.33000E-04	+/-	3.7E-04
Phase delay (usec)	6.75951897380E+02	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-7.68554E-07	+/-	1.6E-07
Delay rate (us/s)	3.22442417374E-02	Apriori rate (us/s)	3.22441716504E-02	Resid rate (us/s)	7.00870E-08	+/-	1.5E-09
Total phase (deg)	308.0	Apriori accel (us/s/s)	-5.98283653224E-06	Resid phase (deg)	-24.3	+/-	4.9

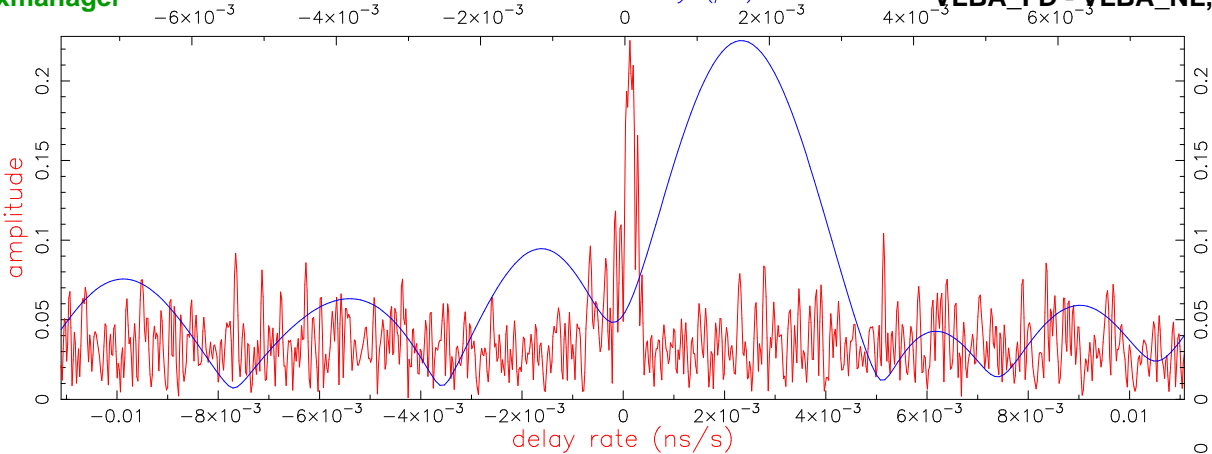
ph/seg (deg)	38.3	Theor.	11.6	Amplitude	0.633 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	29.2		20.2	Search (1024X32)	0.615	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	23.4		7.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.3		12.2	Inc. seg. avg.	0.760	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.664	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 92.3 el 38.1 pa -63.8 l: az 94.8 el 35.9 pa -57.5 u,v (fr/asec) -199.006 -793.790 simultaneous interpolator

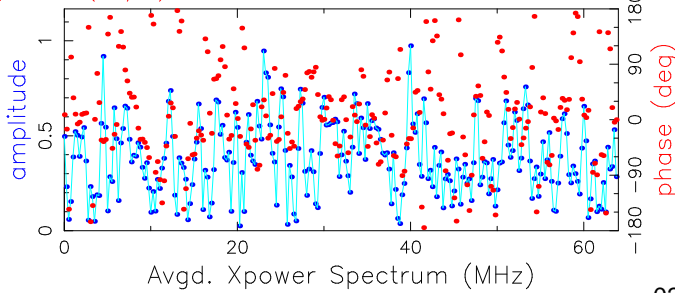
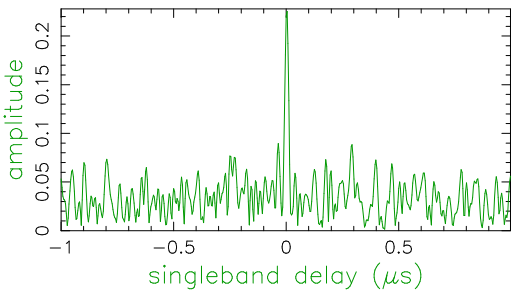
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fl..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fl.W.90.1JFKZ

multiband delay (μ s)

Fringe quality 9

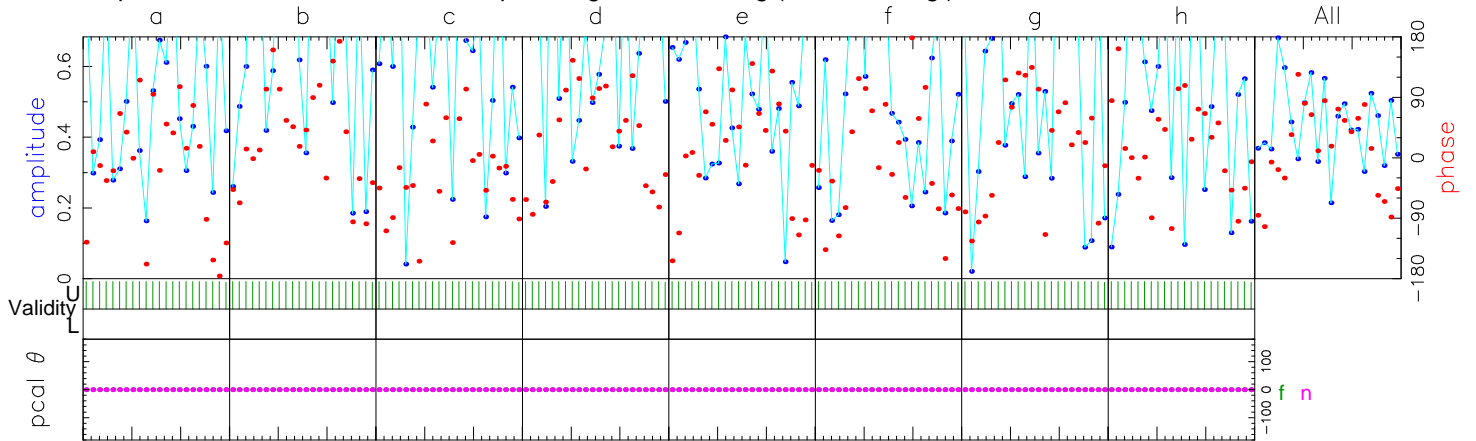


SNR 8.4
Int time 179.978
Amp 0.228
Phase 16.7
PFD 1.1e-08
Delays (us)
SBD 0.002453
MBD 0.001581
Fringe rate (Hz) 0.010814
Ion TEC 0.000
Ref freq (MHz) 87940.0000
AP (sec) 0.512

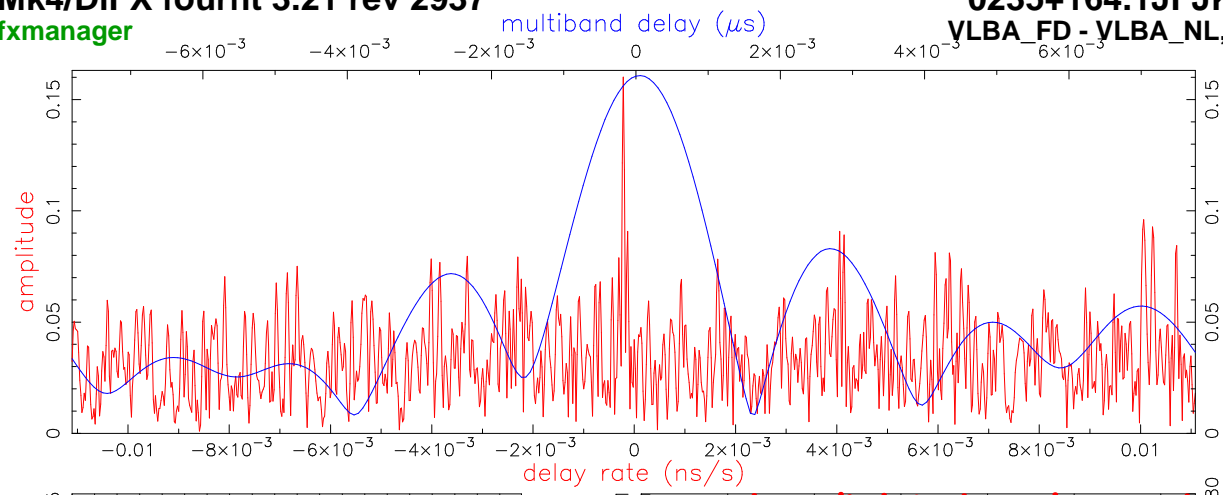


Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060636
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"

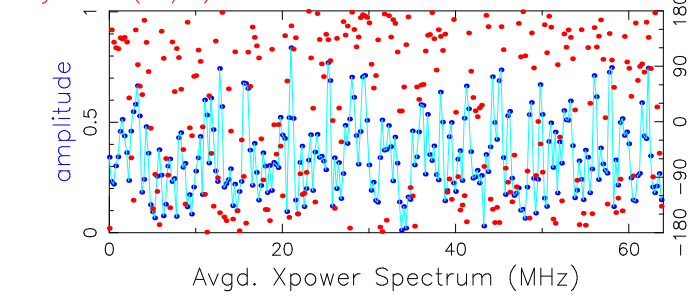
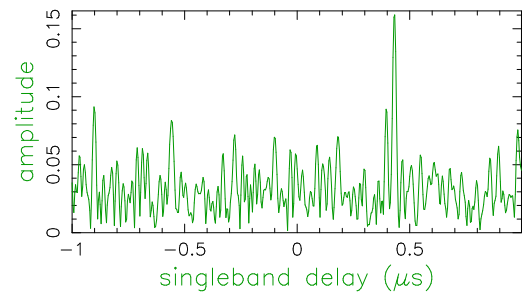
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



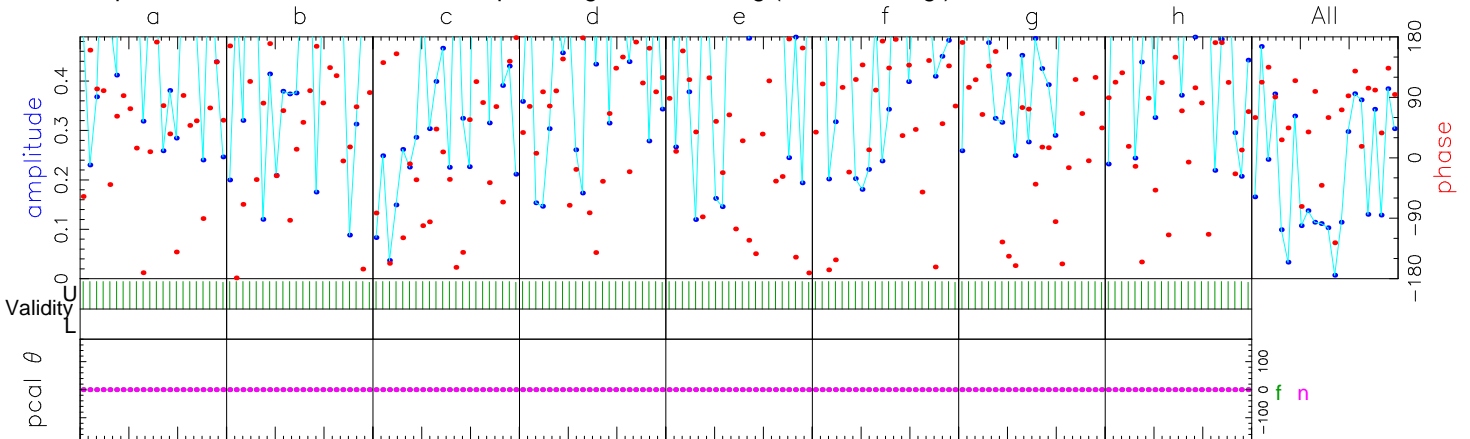
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-2.06335080211E+03									
Sband delay (usec)	-2.06334992957E+03									
Phase delay (usec)	-2.06335238255E+03									
Delay rate (us/s)	2.97079507470E-01									
Total phase (deg)			-187.6							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
Amplitude	0.228 +/- 0.027									
Search (1024X32)	0.221									
Interp.	0.000									
Inc. seg. avg.	0.378									
Inc. frq. avg.	0.224									
PCal mode: MANUAL, MANUAL										
PC period (AP's) 5, 5										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
f: az 92.3 el 38.1 pa -63.8										
n: az 111.3 el 45.7 pa -46.4										
u,v (fr/asec)	-1808.486	-1211.136								
Control file: cf_1234_88GHz_gmva										
Input file: /Exps/c202c/v1/1234/No0038/fn..1JFKZ										
Output file: /Exps/c202c/v1/1234/No0038/fn.W.116.1JFKZ										



Fringe quality 0
SNR 6.0
Int time 179.978
Amp 0.163
Phase 92.9
PFD 2.5e-01
Delays (us)
SBD 0.431857
MBD -0.000035
Fringe rate (Hz)
-0.018780
Ion TEC 0.000
Ref freq (MHz)
87940.0000
AP (sec) 0.512
Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060638
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.06291491835E+03		Apriori delay (usec)		-2.06335238307E+03		Resid mbdelay (usec)		-3.52773E-05	+/- 1.8E-04
Sband delay (usec)	-2.06292052557E+03		Apriori clock (usec)		7.6992912E+00		Resid sbdelay (usec)		4.31857E-01	+/- 1.4E-03
Phase delay (usec)	-2.06335238014E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		2.93568E-06	+/- 6.0E-07
Delay rate (us/s)	2.97079170941E-01		Apriori rate (us/s)		2.97079384499E-01		Resid rate (us/s)		-2.13558E-07	+/- 5.8E-09
Total phase (deg)			Apriori accel (us/s/s)		5.94014222363E-06		Resid phase (deg)		92.9	+/- 19.2

ph/seg (deg) 64.8 44.9 Search (1024X32) 0.159 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 86.5 78.4 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 27.1 Inc. seg. avg. 0.164 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 46.3 47.3 Inc. frq. avg. 0.148 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 92.3 el 38.1 pa -63.8 n: az 111.3 el 45.7 pa -46.4 u,v (fr/asec) -1808.486 -1211.136 simultaneous interpolator
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fn..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fn.W.136.1JFKZ

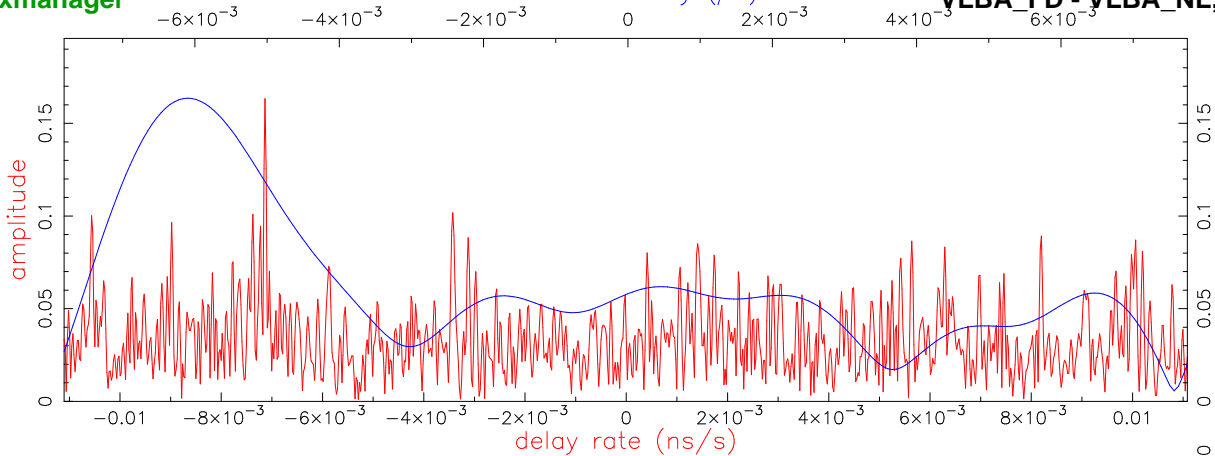
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fn

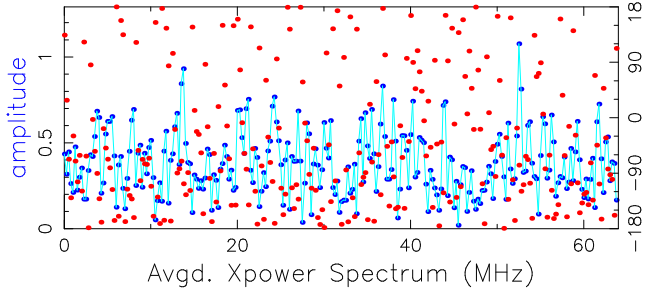
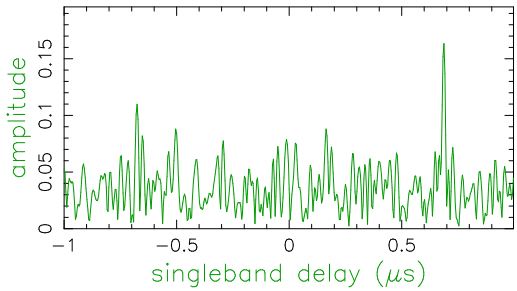
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



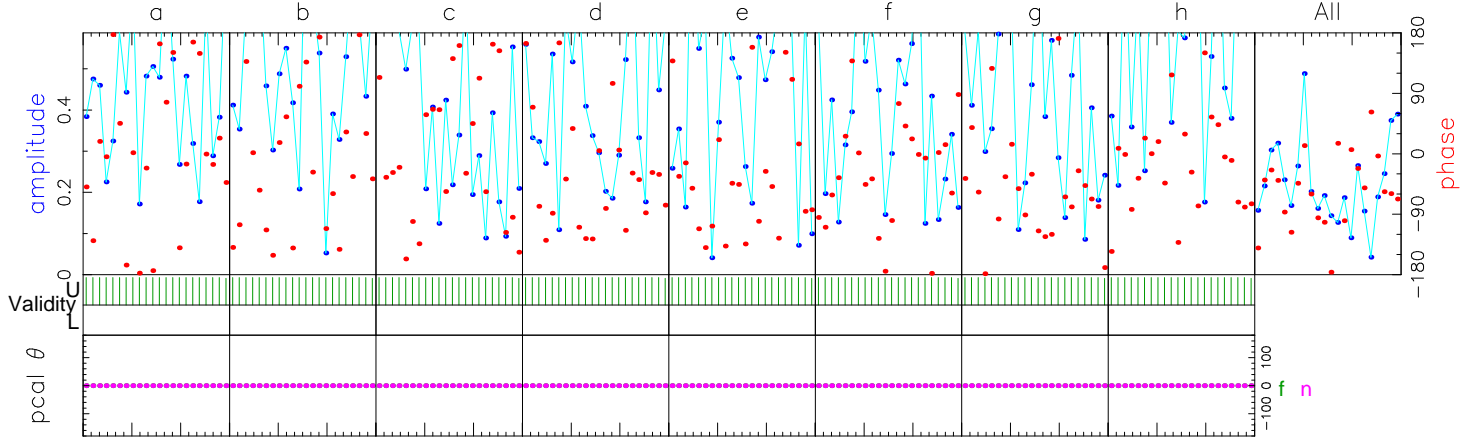
Fringe quality 0

SNR 6.0
 Int time 179.978
 Amp 0.196
 Phase -50.4
 PFD 2.0e-01
 Delays (us)
 SBD 0.686705
 MBD -0.006164
 Fringe rate (Hz)
 -0.628686
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060641
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



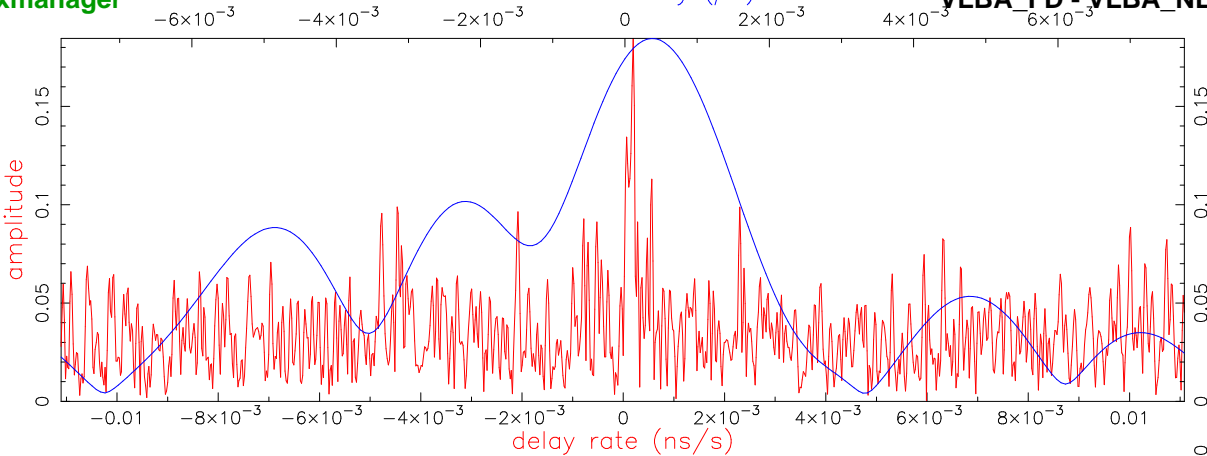
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
6.5	-49.9	-65.5	-62.3	-90.9	-20.8	-69.1	-30.9	-30.9	Phase	-50.4
0.1	0.1	0.1	0.3	0.2	0.2	0.3	0.5	0.5	Ampl.	0.2
504.0	83.3	411.2	173.1	305.5	378.9	433.5	433.2	433.2	Sbd box	432.8
U/L 352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n 1000	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.06267104725E+03		Apriori delay (usec)		-2.06335238307E+03		Resid mbdelay (usec)		-6.16418E-03	+/- 1.8E-04
Sband delay (usec)	-2.06266567782E+03		Apriori clock (usec)		7.6992912E+00		Resid sbdelay (usec)		6.86705E-01	+/- 1.4E-03
Phase delay (usec)	-2.06335238467E+03		Apriori clockrate (us/s)		-1.0000003E-07		Resid phdelay (usec)		-1.59231E-06	+/- 6.0E-07
Delay rate (us/s)	2.97072235461E-01		Apriori rate (us/s)		2.97079384499E-01		Resid rate (us/s)		-7.14904E-06	+/- 5.8E-09
Total phase (deg)			Apriori accel (us/s/s)		5.94014222363E-06		Resid phase (deg)		-50.4	+/- 19.0

	RMS	Theor.	Amplitude	0.196 +/- 0.033	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	54.5	44.6	Search (1024X32)	0.156	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.4	77.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	33.8	26.9	Inc. seg. avg.	0.204	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	60.0	47.0	Inc. frq. avg.	0.195	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

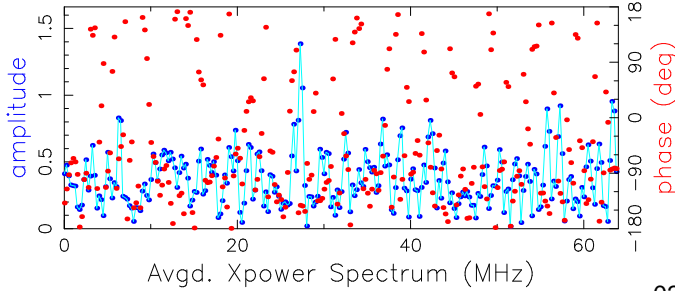
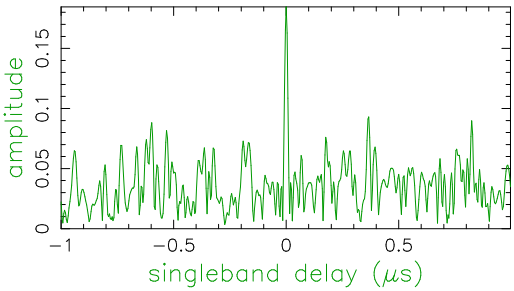
f: az 92.3 el 38.1 pa -63.8 n: az 111.3 el 45.7 pa -46.4 u,v (fr/asec) -1808.486 -1211.136 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fn..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fn.W.162.1JFKZ

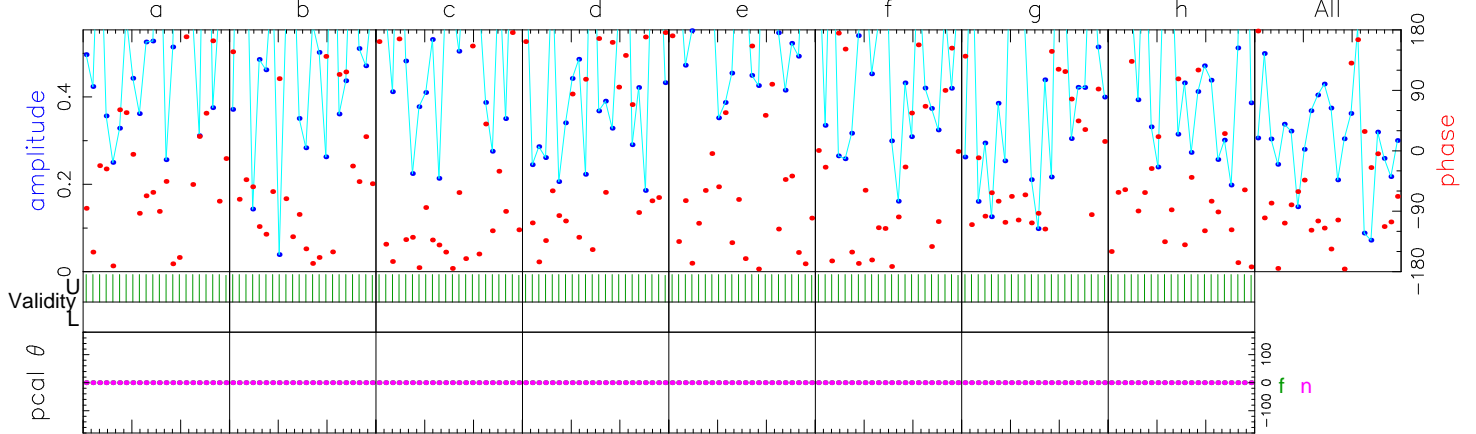
multiband delay (μ s)



Fringe quality 0
SNR 6.8
Int time 179.978
Amp 0.185
Phase -116.7
PFD 1.9e-03
Delays (us)
SBD -0.000119
MBD 0.000376
Fringe rate (Hz) 0.016575
Ion TEC 0.000
Ref freq (MHz) 87940.0000
AP (sec) 0.512
Exp. c202c
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060634
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-2.06335200740E+03				-2.06335238307E+03				3.75675E-04	+/- 1.6E-04
Sband delay (usec)	-2.06335250207E+03				7.6992912E+00				-1.19000E-04	+/- 1.3E-03
Phase delay (usec)	-2.06335238676E+03				-1.0000003E-07				-3.68755E-06	+/- 5.3E-07
Delay rate (us/s)	2.97079572982E-01				2.97079384499E-01				1.88483E-07	+/- 5.1E-09
Total phase (deg)			-321.0		5.94014222363E-06				-116.7	+/- 16.9
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
ph/seg (deg)	63.1	39.7			0.185 +/- 0.027					
amp/seg (%)	90.2	69.3			0.000					
ph/frq (deg)	34.4	23.9			0.246					
amp/frq (%)	46.4	41.8			0.194					
f: az 92.3 el 38.1 pa -63.8										
n: az 111.3 el 45.7 pa -46.4										
u,v (fr/asec)					-1808.486	-1211.136				
Control file: cf_1234_88GHz_gmva										
Input file: /Exps/c202c/v1/1234/No0038/fn..1JFKZ										
Output file: /Exps/c202c/v1/1234/No0038/fn.W.97.1JFKZ										

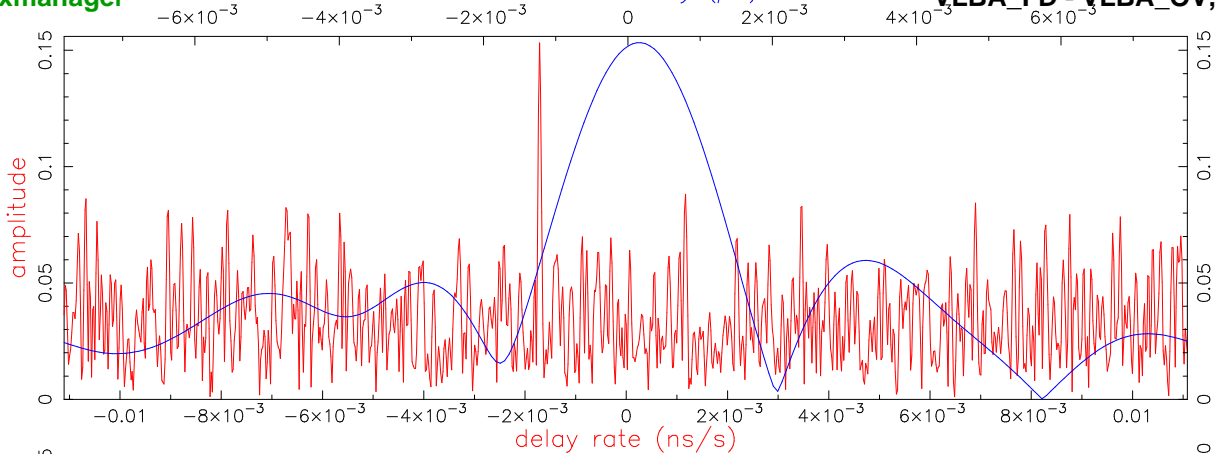
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fo

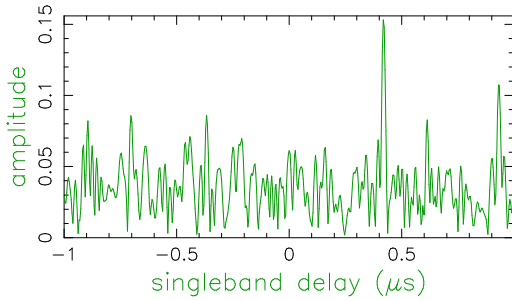
VLBA_FD - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

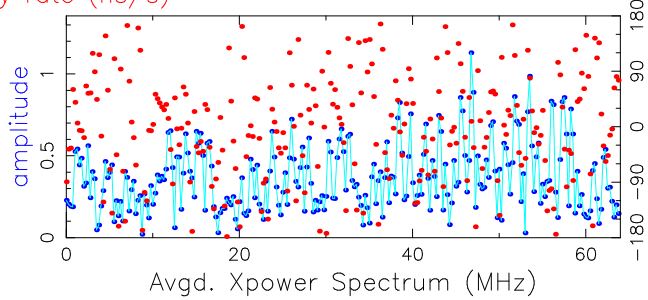


Fringe quality 0

SNR 5.7
 Int time 179.980
 Amp 0.156
 Phase 156.6
 PFD 8.3e-01
 Delays (us)
 SBD 0.419151
 MBD 0.000204
 Fringe rate (Hz)
 -0.150408
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



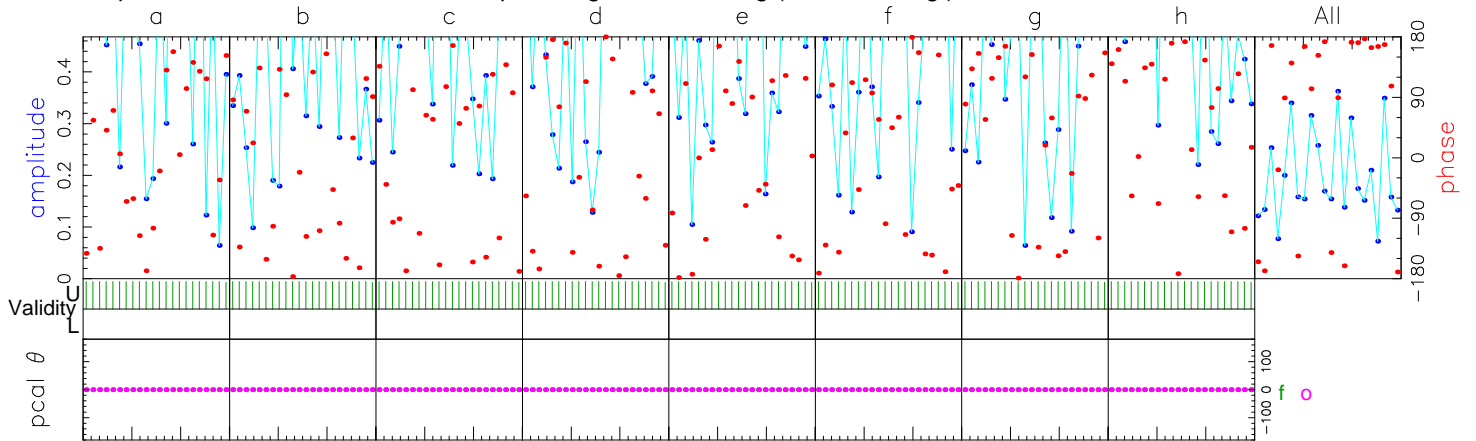
singleband delay (μ s)



Avgd. Xpower Spectrum (MHz)

Exp. c202c
 Yr:day 16383
 Start 2020:286
 Stop 2020:286
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060636
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

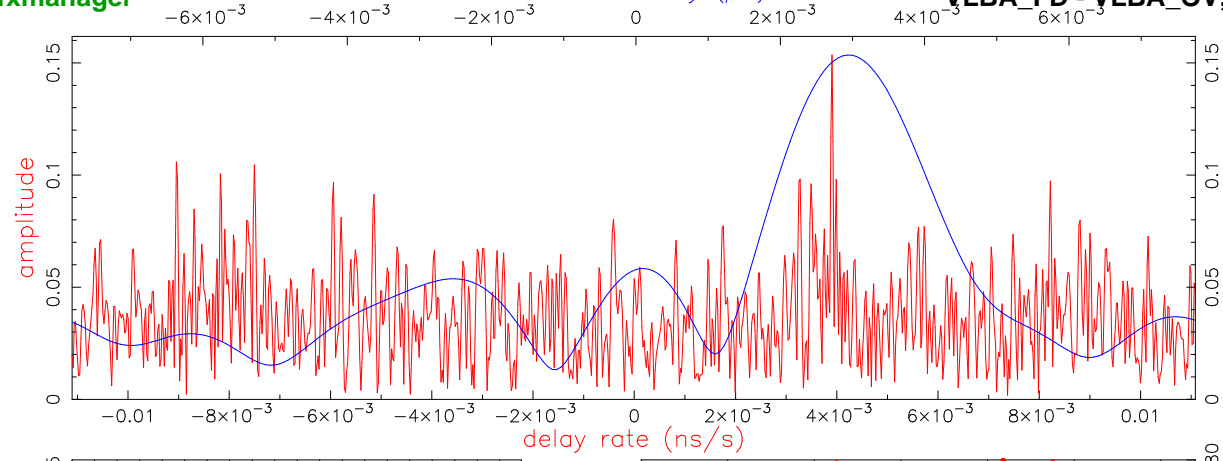
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
o	1000	1000	1000	1000	1000	1000	1000	1000			
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
o	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		3.73598913107E+03			3.73556705247E+03				2.03603E-04	+/- 1.9E-04	
Sband delay (usec)		3.73598620322E+03			-1.3457455E+01				4.19151E-01	+/- 1.5E-03	
Phase delay (usec)		3.73556705741E+03			5.0000000E-07				4.94539E-06	+/- 6.4E-07	
Delay rate (us/s)		-6.10797117700E-02			-6.10780014267E-02				-1.71034E-06	+/- 6.1E-09	
Total phase (deg)			10.4		-2.30281584618E-05				156.6	+/- 20.2	
pcal mode:					MANUAL, MANUAL				PC period (AP's) 5, 5		
pcal rate:					0.000E+00, 0.000E+00 (us/s)				sb window (us)	-1.000 1.000	
Bits/sample:					2x2				SampCntNorm: enabled	mb window (us)	-0.008 0.008
Sample rate (MSamp/s):					128				dr window (ns/s)	-0.011 0.011	
Data rate (Mb/s):					2048				nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

ph/seg (deg) 52.5 47.4 Search (1024X32) 0.149 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.9 82.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.0 28.6 Inc. seg. avg. 0.150 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.9 49.9 Inc. frq. avg. 0.143 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 92.3 el 38.1 pa -63.8 o: az 88.3 el 26.2 pa -56.2 u,v (fr/asec) 362.122 -1380.698 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fo..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fo.W.109.1JFKZ

multiband delay (μ s)



Fringe quality 0

SNR 5.6

Int time 179.980

Amp 0.162

Phase 1.3

PFD 8.8e-01

Delays (us)

SBD 0.918505

MBD 0.002957

Fringe rate (Hz)

0.343170

Ion TEC 0.000

Ref freq (MHz)

87940.0000

AP (sec) 0.512

Exp. c202c

Yr:day 16383

Start 2020:286

Stop 2020:286

FRT 043130.00

Corr/FF/build

2021:039:055416

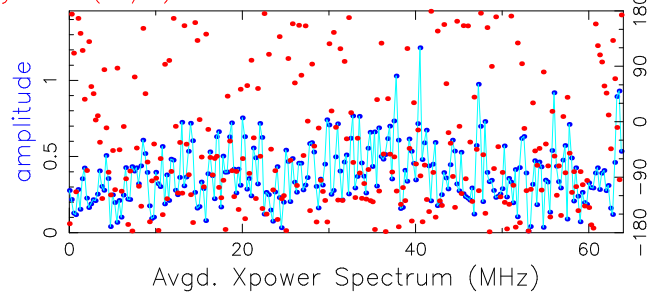
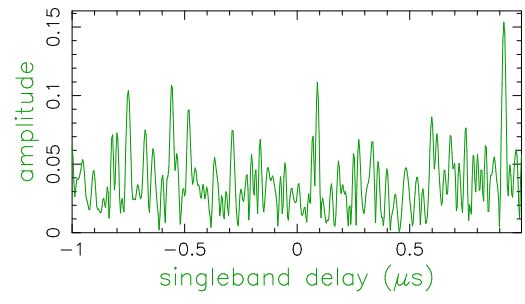
2021:039:060638

2020:247:085004

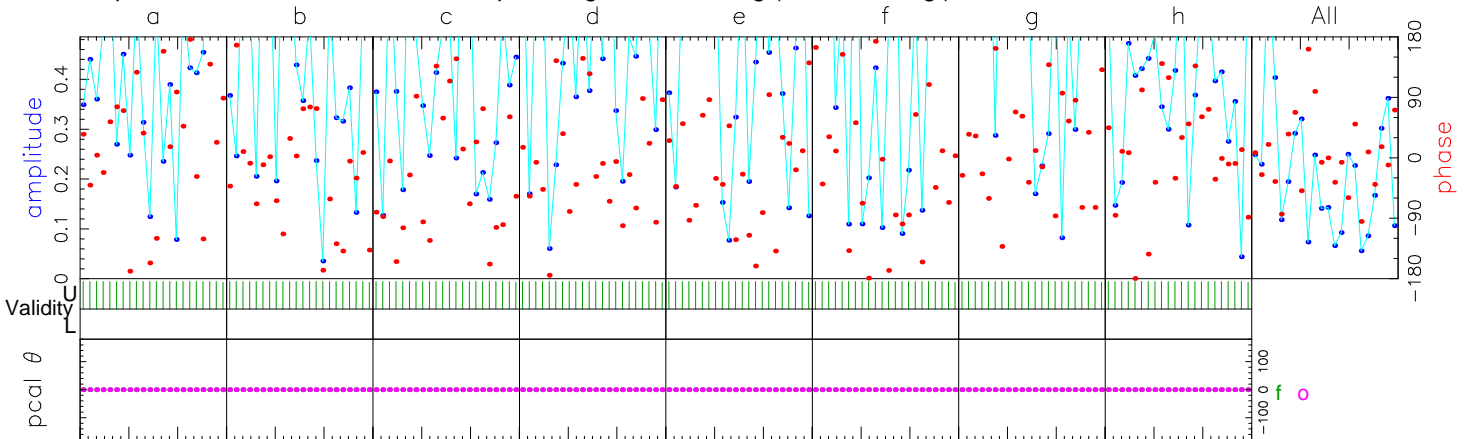
RA & Dec (J2000)

02h38m38.930107s

+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
59.0	-15.9	-29.9	-12.4	-11.0	2.7	1.6	24.5	24.5	Phase	1.3
0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
279.3	14.3	475.3	436.6	320.5	133.5	426.9	432.1	432.1	Sbd box	492.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.73649188440E+03		Apriori delay (usec)	3.73556705247E+03		Resid mbdelay (usec)	2.95693E-03	+/-	1.9E-04	
Sband delay (usec)	3.73648555747E+03		Apriori clock (usec)	-1.3457455E+01		Resid sbdelay (usec)	9.18505E-01	+/-	1.5E-03	
Phase delay (usec)	3.73556705251E+03		Apriori clockrate (us/s)	5.0000000E-07		Resid phdelay (usec)	3.95995E-08	+/-	6.4E-07	
Delay rate (us/s)	-6.10740991039E-02		Apriori rate (us/s)	-6.10780014267E-02		Resid rate (us/s)	3.90232E-06	+/-	6.2E-09	
Total phase (deg)		215.1	Apriori accel (us/s/s)	-2.30281584618E-05		Resid phase (deg)	1.3	+/-	20.3	

ph/seg (deg) 59.0 47.7 Search (1024X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 97.7 83.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

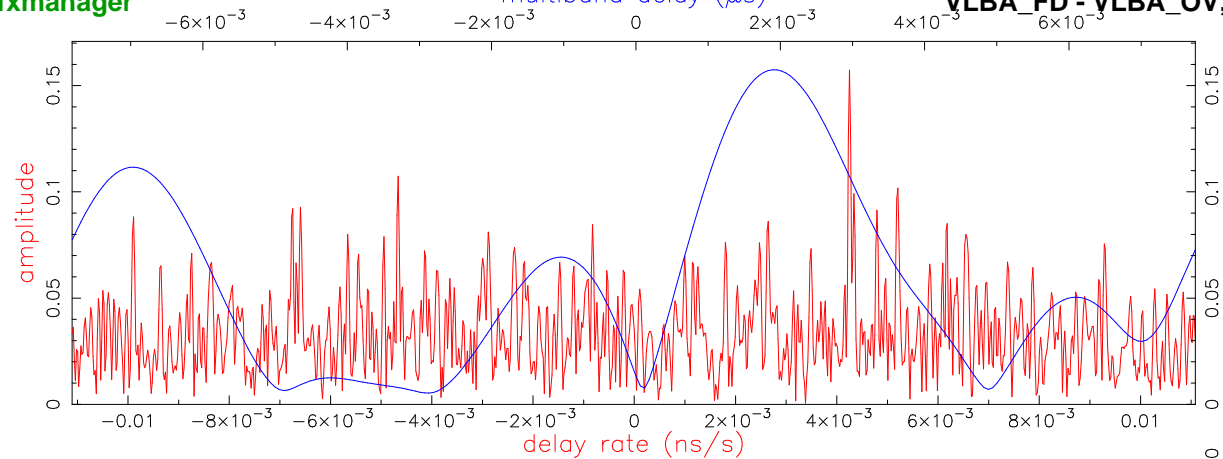
ph/frq (deg) 30.2 28.7 Inc. seg. avg. 0.170 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 32.5 50.2 Inc. frq. avg. 0.157 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

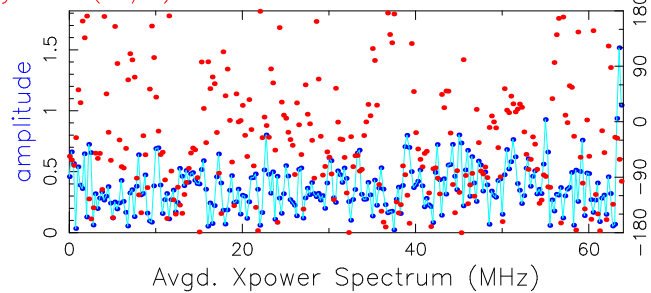
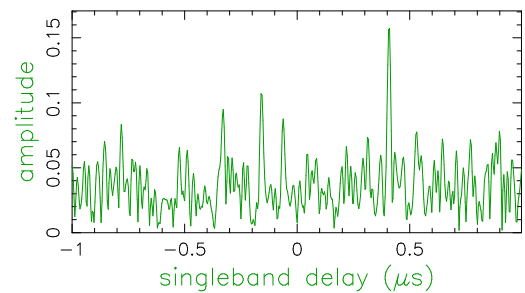
f: az 92.3 el 38.1 pa -63.8 o: az 88.3 el 26.2 pa -56.2 u,v (fr/asec) 362.122 -1380.698 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fo..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fo.W.129.1JFKZ

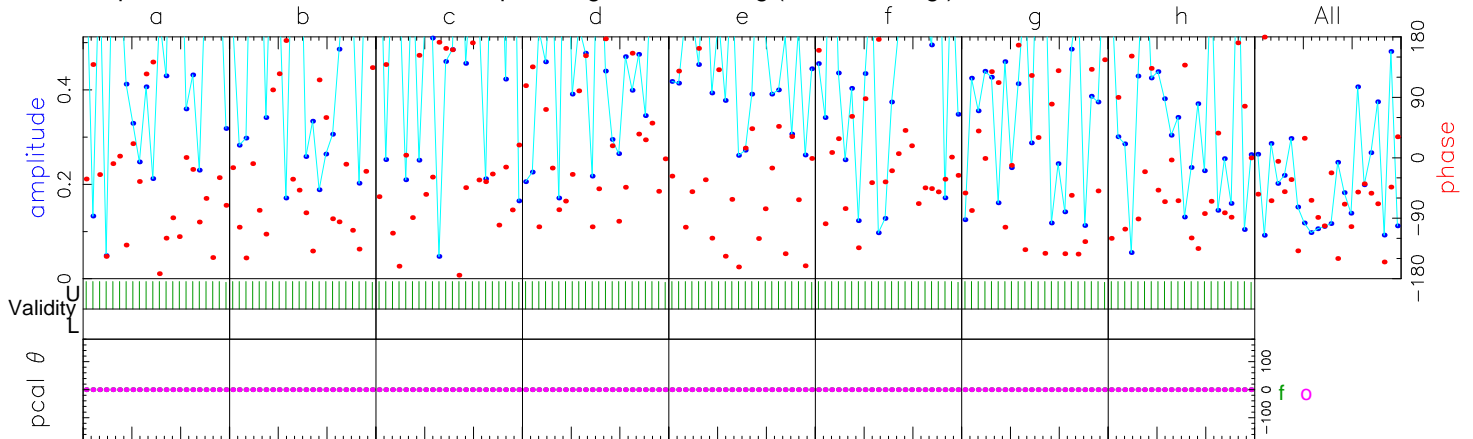
multiband delay (μ s)



Fringe quality 0
SNR 5.9
Int time 179.980
Amp 0.171
Phase -58.8
PFD 3.8e-01
Delays (us)
SBD 0.408316
MBD 0.001853
Fringe rate (Hz) 0.375128
Ion TEC 0.000
Ref freq (MHz) 87940.0000
AP (sec) 0.512
Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060640
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.73597515505E+03	Apriori delay (usec)	3.73556705247E+03	Resid mbdelay (usec)	1.85258E-03	+/-	1.8E-04
Sband delay (usec)	3.73597536897E+03	Apriori clock (usec)	-1.3457455E+01	Resid sbdelay (usec)	4.08316E-01	+/-	1.5E-03
Phase delay (usec)	3.73556705061E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-1.85683E-06	+/-	6.1E-07
Delay rate (us/s)	-6.10737357039E-02	Apriori rate (us/s)	-6.10780014267E-02	Resid rate (us/s)	4.26572E-06	+/-	5.9E-09
Total phase (deg)	155.0	Apriori accel (us/s/s)	-2.30281584618E-05	Resid phase (deg)	-58.8	+/-	19.4

ph/seg (deg)	54.3	Theor.	45.6	Amplitude	0.171 +/- 0.029	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	73.4		79.6	Search (1024X32)	0.153	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	48.7		27.5	Inc. seg. avg.	0.168	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	48.5		48.0	Inc. frq. avg.	0.180	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 92.3 el 38.1 pa -63.8 o: az 88.3 el 26.2 pa -56.2 u,v (fr/asec) 362.122 -1380.698 simultaneous interpolator
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fo..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fo.W.152.1JFKZ

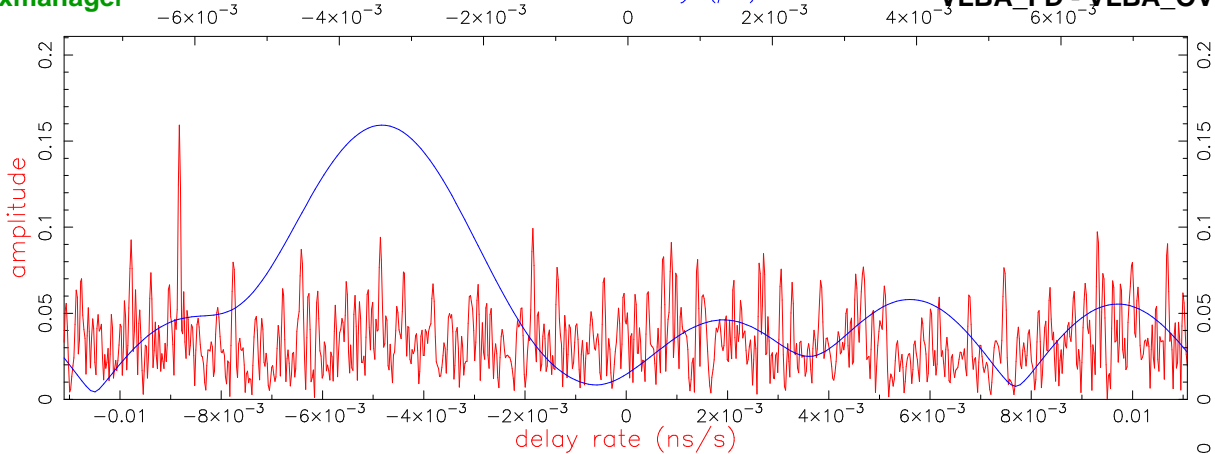
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fo

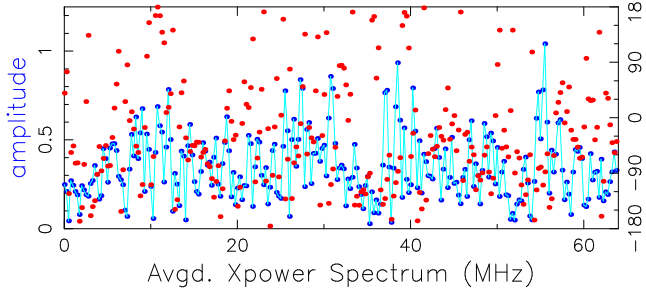
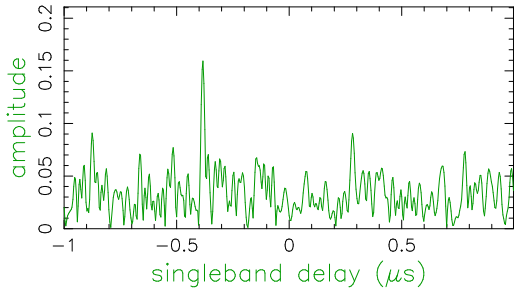
VLBA_FD - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)



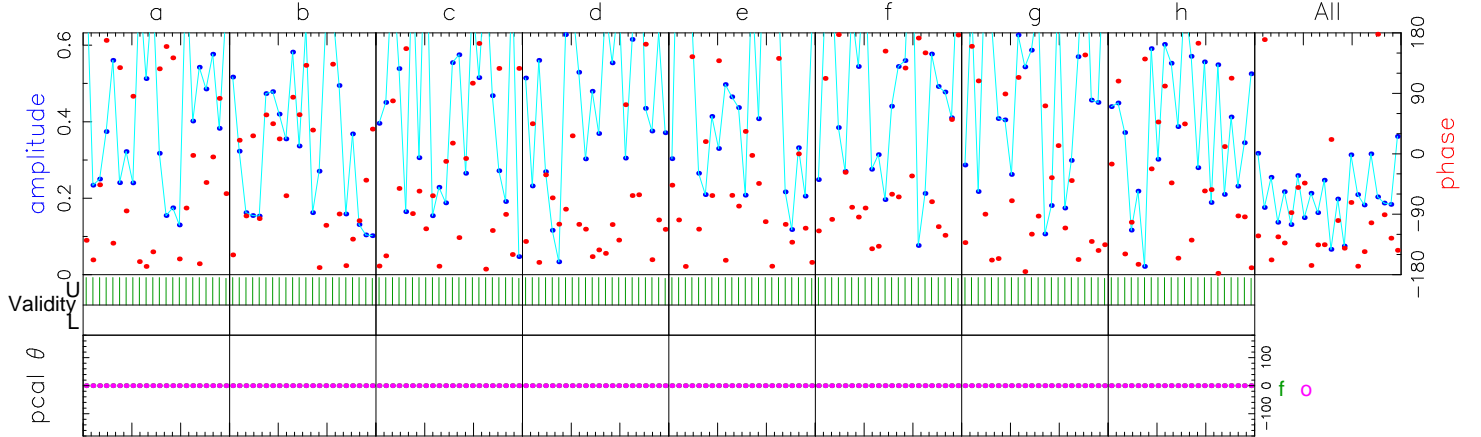
Fringe quality 0

SNR 5.9
 Int time 179.980
 Amp 0.211
 Phase -124.3
 PFD 4.2e-01
 Delays (us)
 SBD -0.383706
 MBD -0.003411
 Fringe rate (Hz)
 -0.776661
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060633
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-128.5	103.4	-137.1	-108.9	-122.6	-103.3	-149.4	-112.8	Phase	-124.3
	0.2	0.0	0.2	0.4	0.3	0.3	0.3	0.0	Ampl.	0.2
	23.2	236.4	339.7	131.1	361.9	331.5	223.2	327.2	Sbd box	158.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.73518864166E+03			Apriori delay (usec)	3.73556705247E+03			Resid mbdelay (usec)	-3.41081E-03	+/- 1.8E-04
Sband delay (usec)	3.73518334647E+03			Apriori clock (usec)	-1.3457455E+01			Resid sbdelay (usec)	-3.83706E-01	+/- 1.5E-03
Phase delay (usec)	3.73556704854E+03			Apriori clockrate (us/s)	5.0000000E-07			Resid phdelay (usec)	-3.92556E-06	+/- 6.2E-07
Delay rate (us/s)	-6.10868331426E-02			Apriori rate (us/s)	-6.10780014267E-02			Resid rate (us/s)	-8.83172E-06	+/- 5.9E-09
Total phase (deg)		89.5		Apriori accel (us/s/s)	-2.30281584618E-05			Resid phase (deg)	-124.3	+/- 19.5

ph/seg (deg) 49.2 45.8 Search (1024X32) 0.155 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 54.9 79.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.5 27.6 Inc. seg. avg. 0.207 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.0 48.2 Inc. frq. avg. 0.201 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 92.3 el 38.1 pa -63.8 o: az 88.3 el 26.2 pa -56.2 u,v (fr/asec) 362.122 -1380.698 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fo..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fo.W.88.1JFKZ

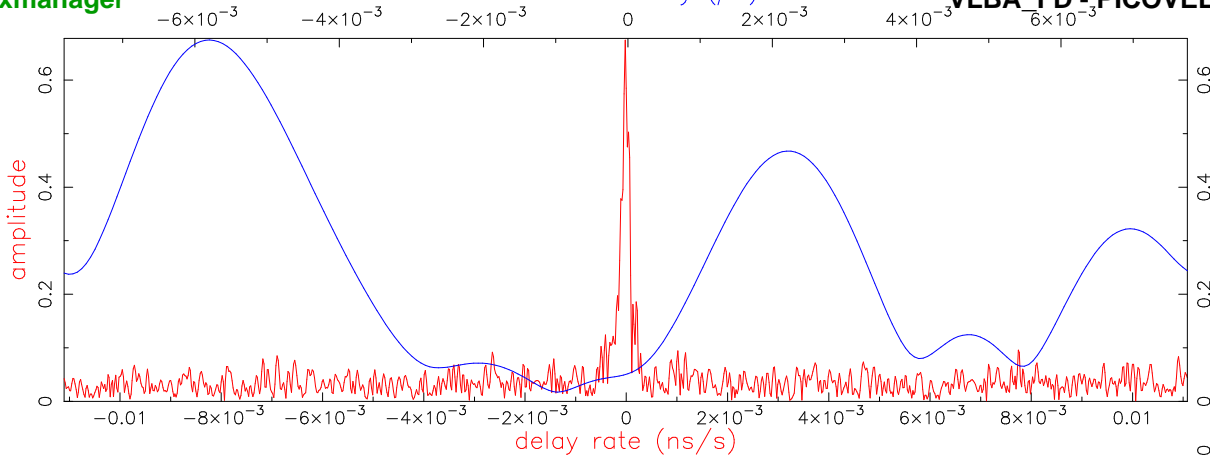
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fP

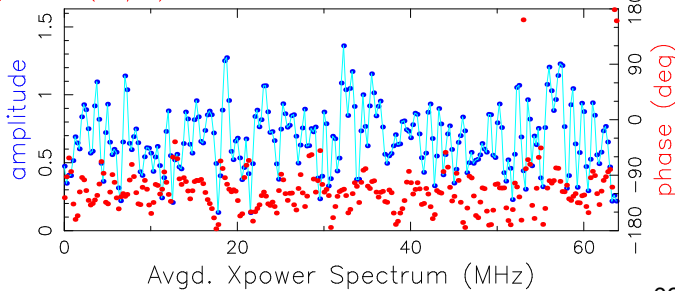
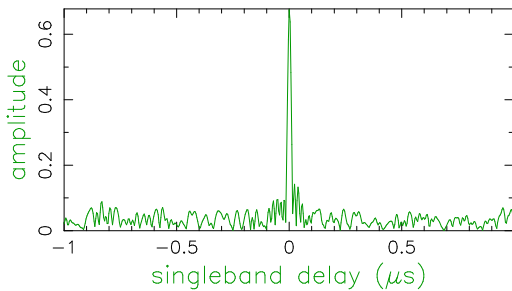
VLBA_FD - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



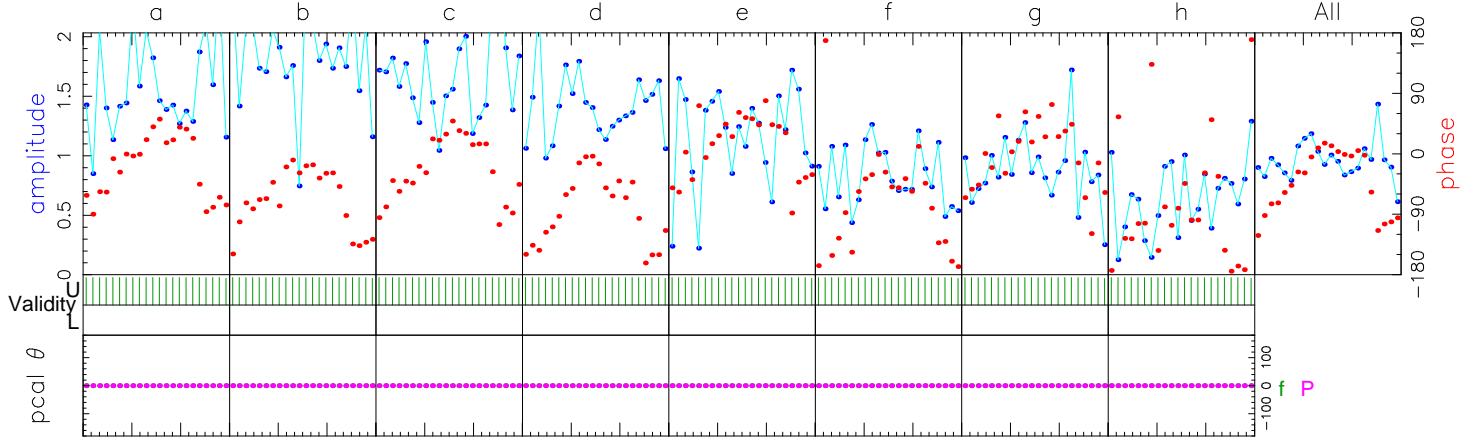
Fringe quality 5

SNR 24.9
 Int time 179.788
 Amp 0.678
 Phase -41.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.000848
 MBD -0.005770
 Fringe rate (Hz)
 -0.001865
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060635
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.81093204431E+03	Apriori delay (usec)	-1.81092627449E+03	Resid mbdelay (usec)	-5.76982E-03	+/-	4.4E-05
Sband delay (usec)	-1.81092542599E+03	Apriori clock (usec)	8.1809921E+00	Resid sbdelay (usec)	8.48500E-04	+/-	3.5E-04
Phase delay (usec)	-1.81092627579E+03	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-1.29870E-06	+/-	1.5E-07
Delay rate (us/s)	1.89667645785E+00	Apriori rate (us/s)	1.89667647906E+00	Resid rate (us/s)	-2.12048E-08	+/-	1.4E-09
Total phase (deg)	-249.5	Apriori accel (us/s/s)	6.64955258927E-06	Resid phase (deg)	-41.1	+/-	4.6

ph/seg (deg)	46.0	Theor.	10.8	Amplitude	0.678 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	48.1		18.9	Search (1024X32)	0.674	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	51.0		6.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	54.2		11.4	Inc. seg. avg.	0.946	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.842	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 92.3 el 38.1 pa -63.8 P: az 255.5 el 45.3 pa 53.6 u,v (fr/asec) -11572.703 -641.475 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fP..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fP.W.104.1JFKZ

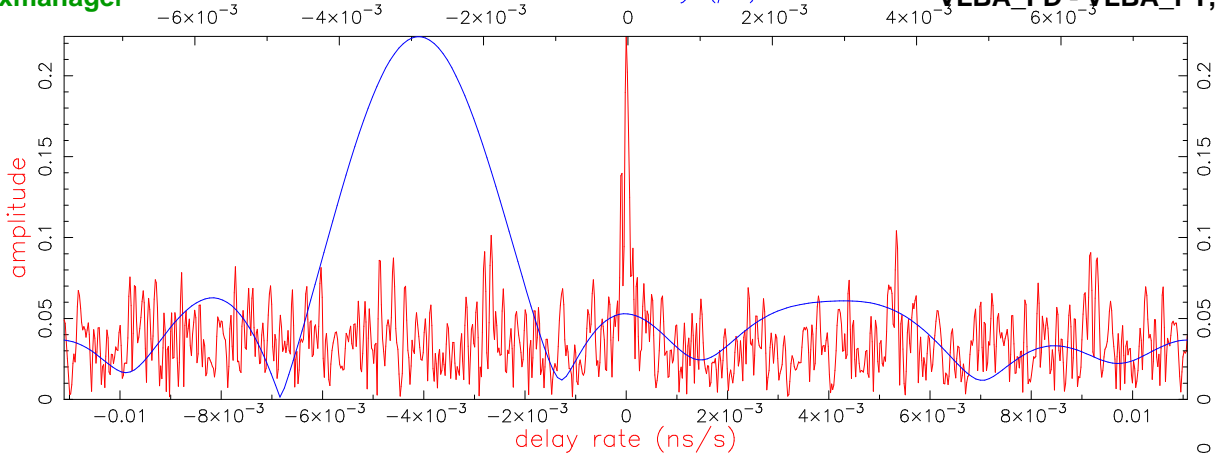
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fp

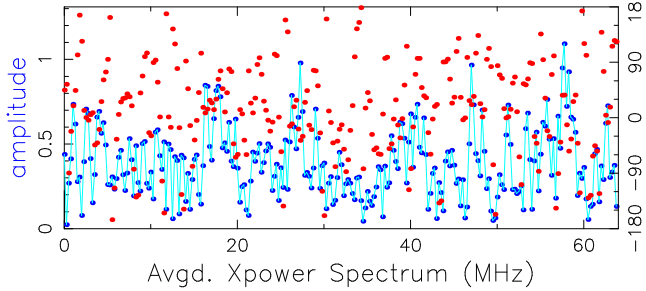
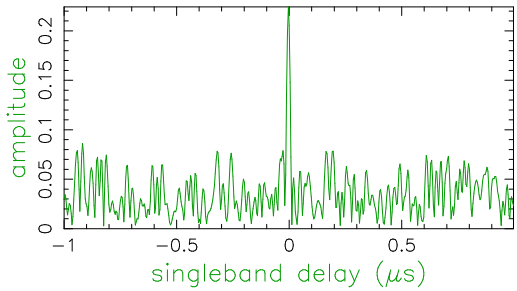
VLBA_FD - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)



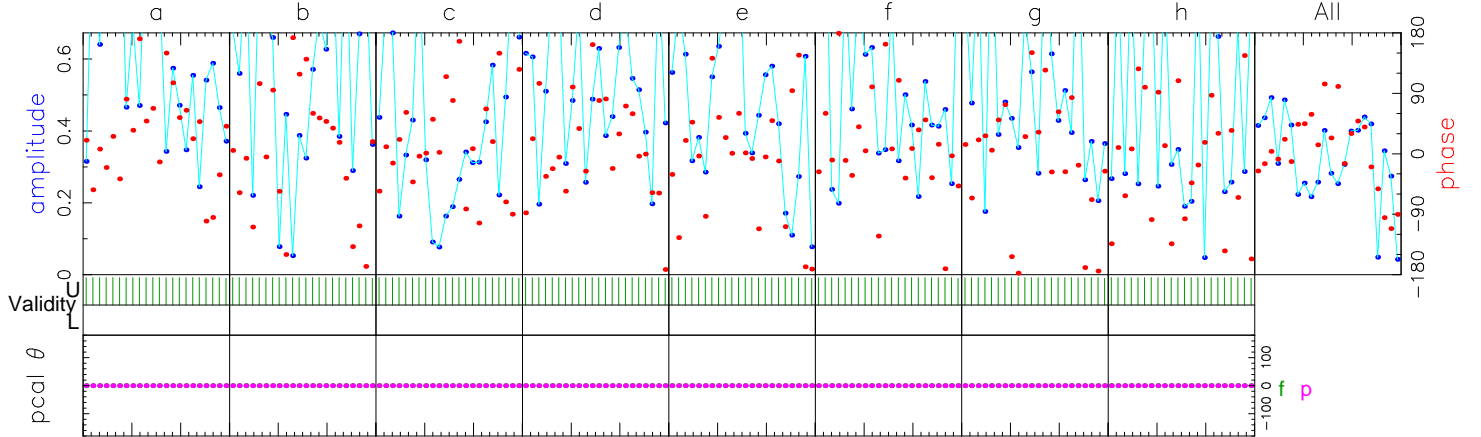
Fringe quality 9

SNR 8.2
 Int time 179.980
 Amp 0.224
 Phase 11.9
 PFD 3.3e-08
 Delays (us)
 SBD -0.003566
 MBD -0.002884
 Fringe rate (Hz) 0.000662
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512

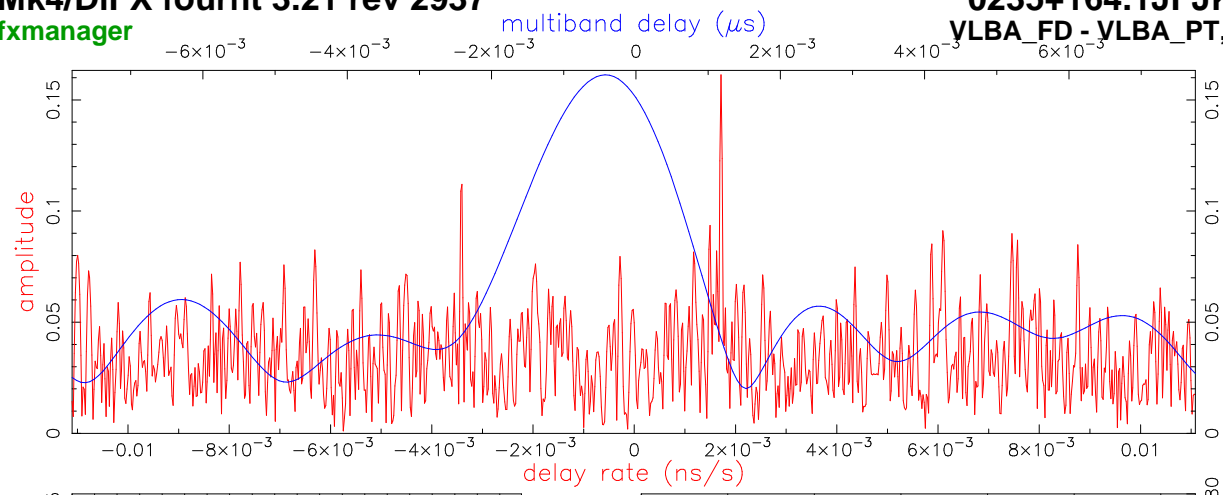


Exp. c202c
 Yr:day 16383
 Start 2021:039:055416
 Stop 2021:039:060635
 FRT 2020:247:085004
 Corr/FF/build RA & Dec (J2000) 02h38m38.930107s +16°36'59.274536"

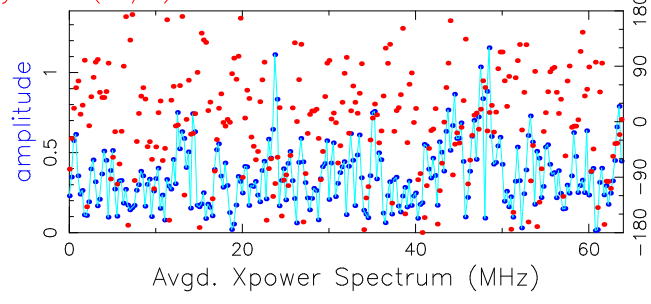
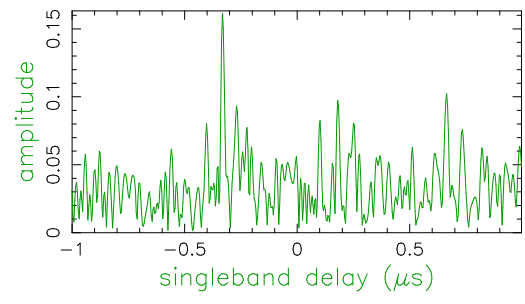
Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



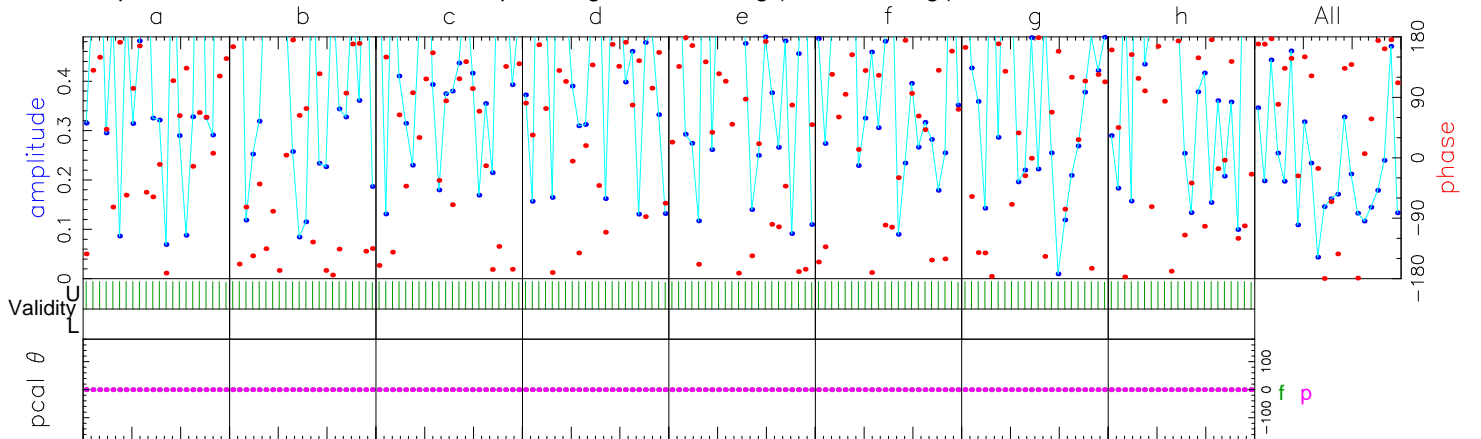
	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.10778354470E+03			1.10778642829E+03					
Sband delay (usec)		1.10778286229E+03			7.7900000E+00					
Phase delay (usec)		1.10778642867E+03			0.0000000E+00					
Delay rate (us/s)		-7.46734225755E-03			-7.46734978943E-03					
Total phase (deg)			193.3		-7.60031277833E-06					
				Apriori delay (usec)					Resid mbdelay (usec)	-2.88359E-03 +/- 1.3E-04
				Apriori clock (usec)					Resid sbdelay (usec)	-3.56600E-03 +/- 1.0E-03
				Apriori clockrate (us/s)					Resid phdelay (usec)	3.74637E-07 +/- 4.4E-07
				Apriori rate (us/s)					Resid rate (us/s)	7.53188E-09 +/- 4.2E-09
				Apriori accel (us/s/s)					Resid phase (deg)	11.9 +/- 13.9
ph/seg (deg)	RMS 56.0	Theor. 32.7	Amplitude 0.224 +/- 0.027						PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	69.7	57.0	Search (1024X32) 0.220						PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	11.6	19.7	Interp. 0.000						Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	29.1	34.4	Inc. seg. avg. 0.279						Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
			Inc. frq. avg. 0.214						Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00



Fringe quality 0
SNR 5.9
Int time 179.980
Amp 0.163
Phase 153.7
PFD 3.2e-01
Delays (us)
SBD -0.331396
MBD -0.000401
Fringe rate (Hz)
0.150452
Ion TEC 0.000
Ref freq (MHz)
87940.0000
AP (sec) 0.512
Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060637
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
99.2	-154.1	145.6	131.6	143.4	135.5	165.1	169.5	169.5	Phase	153.7
0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
54.8	171.6	187.0	361.7	385.7	471.7	151.6	102.1	102.1	Sbd box	172.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.10745790238E+03		Apriori delay (usec)	1.10778642829E+03	Resid mbdelay (usec)	-4.00916E-04	+/-	1.8E-04		
Sband delay (usec)	1.10745503229E+03		Apriori clock (usec)	7.7900000E+00	Resid sbdelay (usec)	-3.31396E-01	+/-	1.5E-03		
Phase delay (usec)	1.10778643315E+03		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	4.85597E-06	+/-	6.1E-07		
Delay rate (us/s)	-7.46563894091E-03		Apriori rate (us/s)	-7.46734978943E-03	Resid rate (us/s)	1.71085E-06	+/-	5.9E-09		
Total phase (deg)		335.2	Apriori accel (us/s/s)	-7.60031277833E-06	Resid phase (deg)	153.7	+/-	19.3		

ph/seg (deg) 76.5 45.3 Search (1024X32) 0.159 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 83.1 79.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 34.3 27.3 Inc. seg. avg. 0.176 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 36.3 47.7 Inc. frq. avg. 0.170 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 92.3 el 38.1 pa -63.8 p: az 92.6 el 34.4 pa -59.4 u,v (fr/asec) 42.314 -650.728 simultaneous interpolator
Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fp..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fp.W.125.1JFKZ

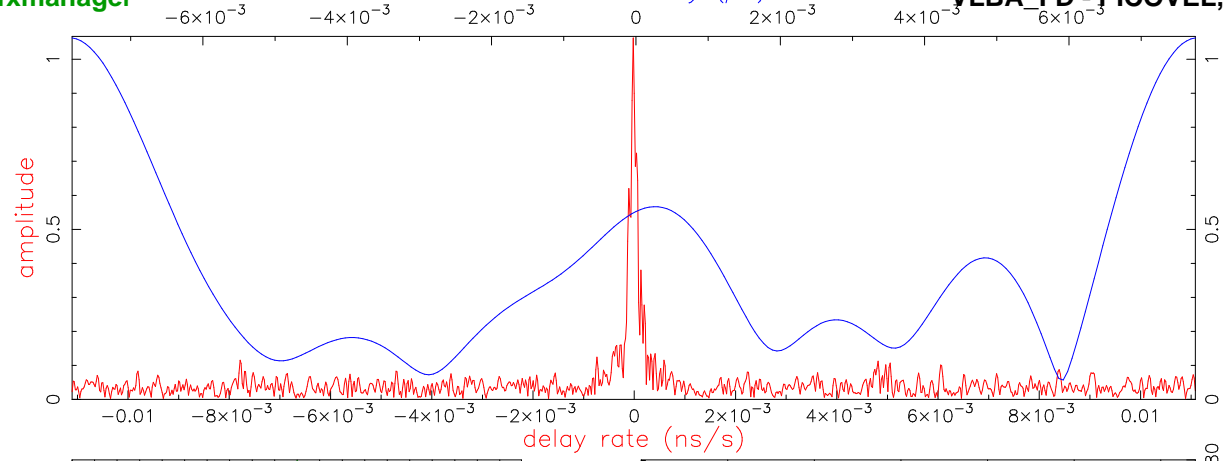
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fP

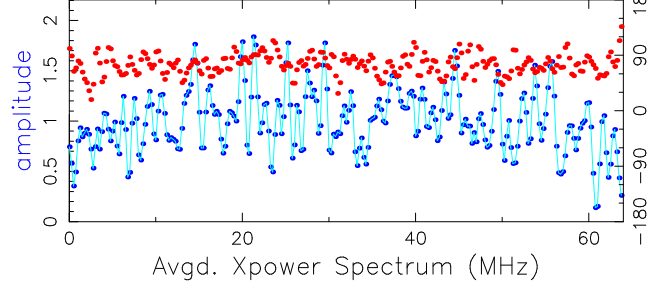
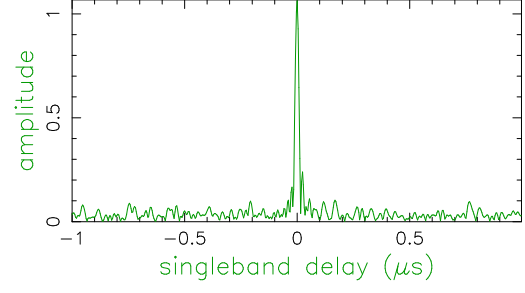
VLBA_FD - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



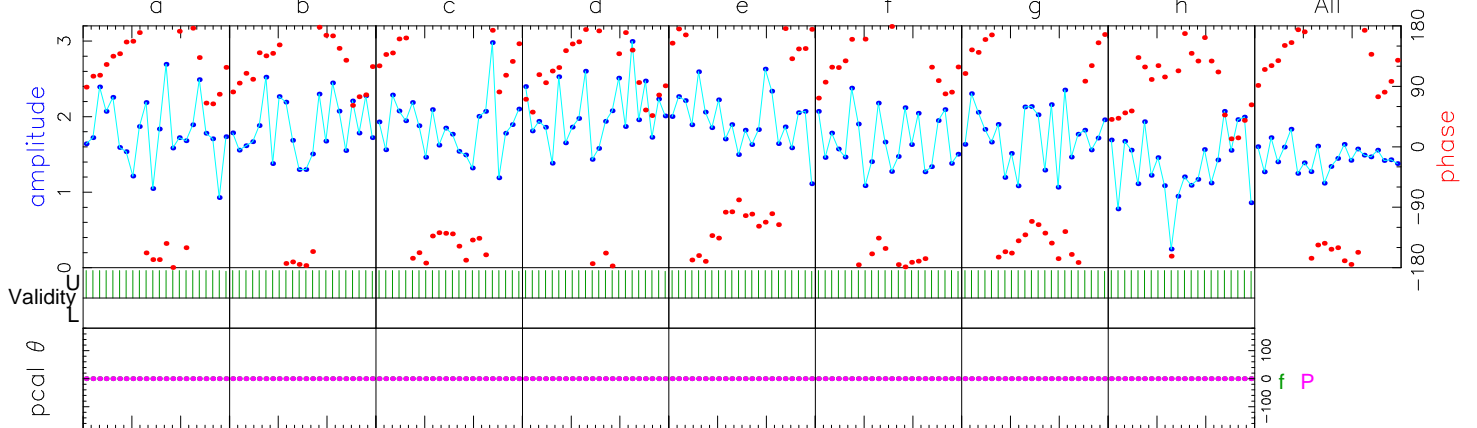
Fringe quality 4

SNR 39.1
 Int time 179.788
 Amp 1.067
 Phase 156.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.000852
 MBD -0.007869
 Fringe rate (Hz)
 -0.001665
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060637
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
Group delay (usec)(sbd)	-1.81093414312E+03				-1.81092627449E+03				Resid mbdelay (usec)	-7.86863E-03	+/- 2.8E-05
Sband delay (usec)	-1.81092712699E+03				8.1809921E+00				Resid sbdelay (usec)	-8.52500E-04	+/- 2.2E-04
Phase delay (usec)	-1.81092626957E+03				7.9999999E-07				Resid phdelay (usec)	4.92629E-06	+/- 9.2E-08
Delay rate (us/s)	1.89667646012E+00				1.89667647906E+00				Resid rate (us/s)	-1.89352E-08	+/- 8.9E-10
Total phase (deg)			-52.5		6.64955258927E-06				Resid phase (deg)	156.0	+/- 2.9
ph/seg (deg)	44.6	6.9			1.067 +/- 0.027				PCal mode: MANUAL, MANUAL		
amp/seg (%)	40.3	12.0			Search (1024X32)	1.059			PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	42.7	4.1			Interp.	0.000			Bits/sample: 2x2	mb window (us)	-0.008 0.008
amp/frq (%)	26.0	7.2			Inc. seg. avg.	1.455			Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
					Inc. frq. avg.	1.284			Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00
f: az 92.3 el 38.1 pa -63.8					u,v (fr/asec)	-11572.703 -641.475			nlags: 256	t_cohere infinite	
Control file: cf_1234_88GHz_gmva					P: az 255.5 el 45.3 pa 53.6						simultaneous interpolator
					Input file: /Exps/c202c/v1/1234/No0038/fP..1JFKZ						
					Output file: /Exps/c202c/v1/1234/No0038/fP.W.127.1JFKZ						

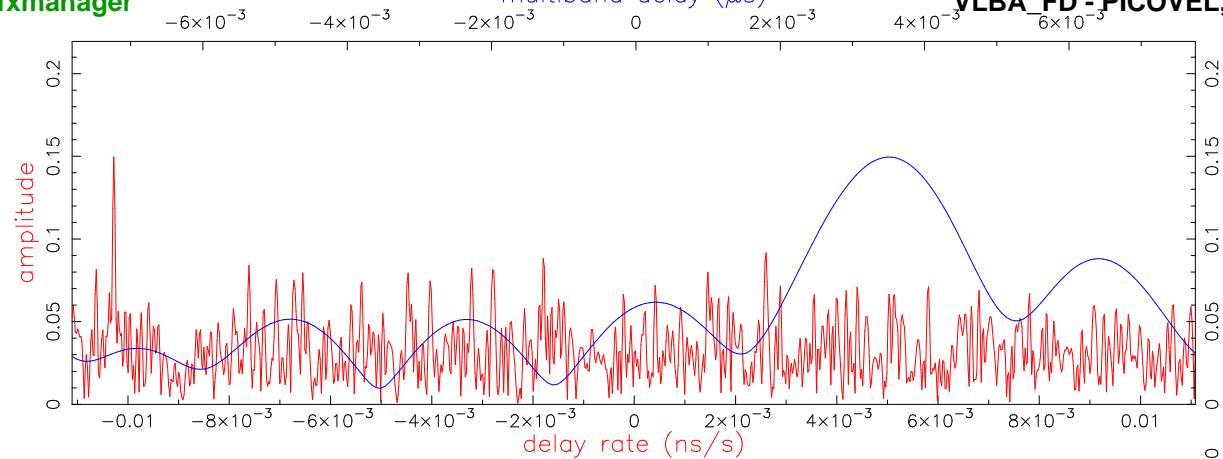
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fP

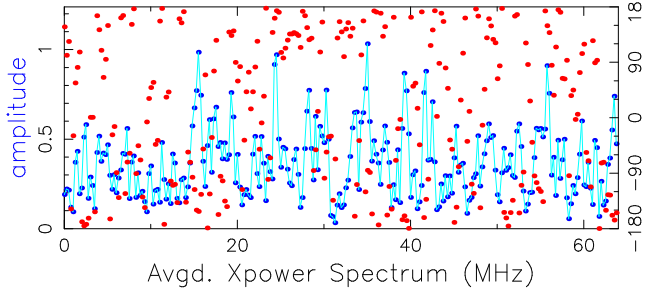
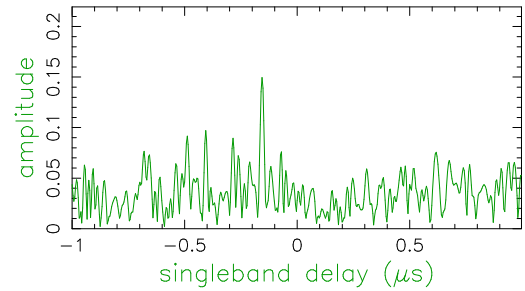
VLBA_FD - PICOVEL, fgroup W, pol LR

multiband delay (μ s)



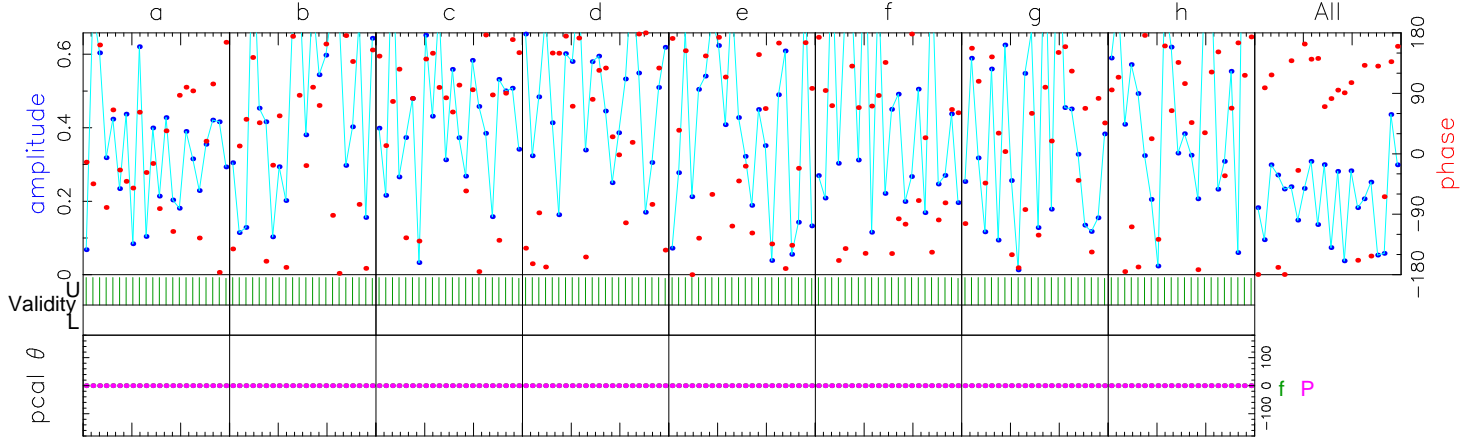
Fringe quality 0

SNR 5.5
 Int time 179.788
 Amp 0.219
 Phase 141.4
 PFD 9.9e-01
 Delays (us)
 SBD -0.155920
 MBD 0.003516
 Fringe rate (Hz)
 -0.906047
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060639
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	32.4	148.3	120.3	170.3	-175.8	176.3	116.2	123.3	Phase	141.4
	0.1	0.3	0.4	0.3	0.2	0.2	0.2	0.4	Ampl.	0.2
	473.5	319.7	251.2	51.6	1.9	363.5	240.1	217.8	Sbd box	217.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.81107900829E+03		Apriori delay (usec)		-1.81092627449E+03		Resid mbdelay (usec)		3.51621E-03	+/- 2.0E-04
Sband delay (usec)	-1.81108219399E+03		Apriori clock (usec)		8.1809921E+00		Resid sbdelay (usec)		-1.55920E-01	+/- 1.6E-03
Phase delay (usec)	-1.81092627003E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		4.46668E-06	+/- 6.6E-07
Delay rate (us/s)	1.89666617604E+00		Apriori rate (us/s)		1.89667647906E+00		Resid rate (us/s)		-1.03030E-05	+/- 6.3E-09
Total phase (deg)			Apriori accel (us/s/s)		6.64955258927E-06		Resid phase (deg)		141.4	+/- 20.9

	RMS	Theor.	Amplitude	0.219 +/- 0.040	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	61.5	49.0	Search (1024X32)	0.148	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/seg (%)	78.2	85.5	Interp.	0.000	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	53.6	29.5	Inc. seg. avg.	0.225	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	47.0	51.5	Inc. frq. avg.	0.230				

f: az 92.3 el 38.1 pa -63.8 P: az 255.5 el 45.3 pa 53.6 u,v (fr/asec) -11572.703 -641.475 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fP..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fP.W.143.1JFKZ

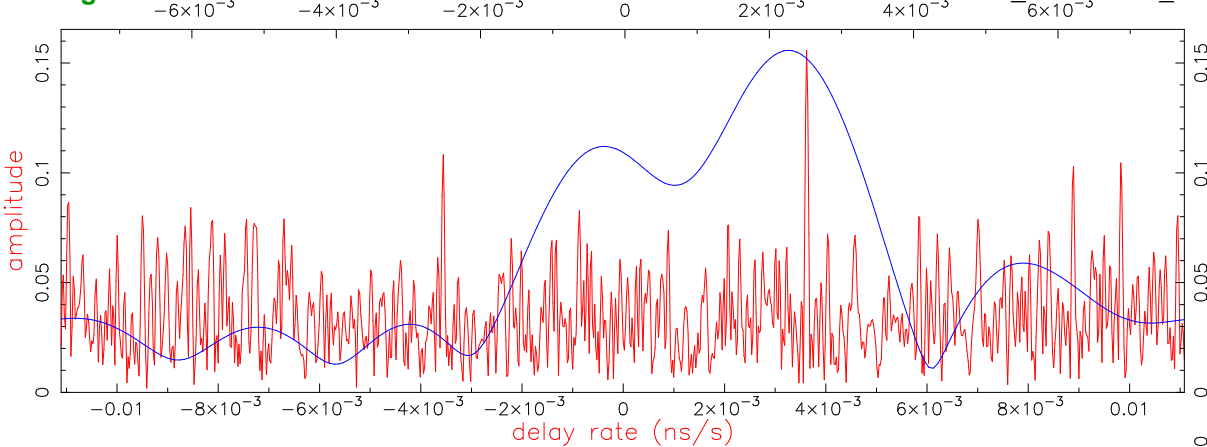
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fp

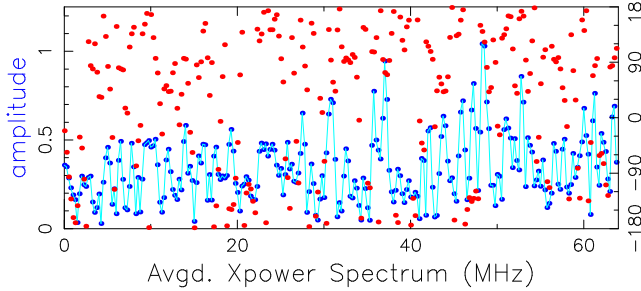
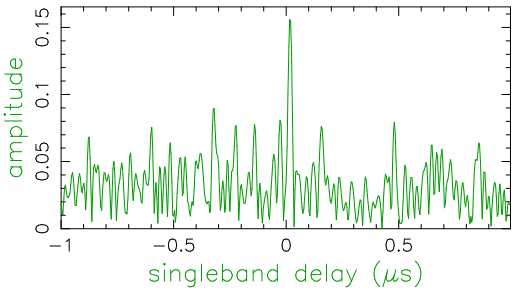
VLBA_FD - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)



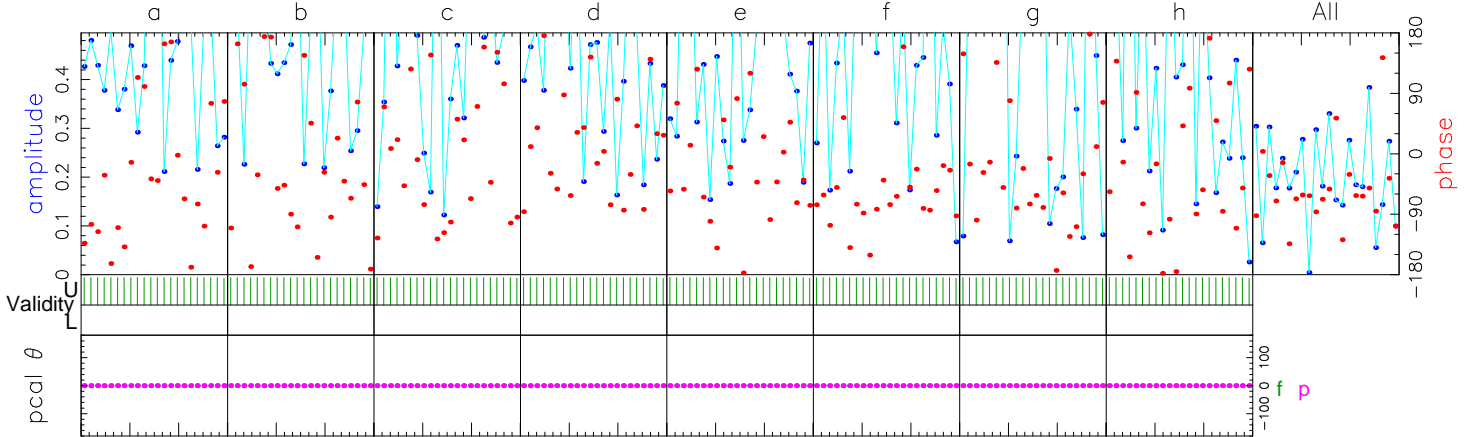
Fringe quality 0

SNR 5.8
 Int time 179.980
 Amp 0.165
 Phase -59.9
 PFD 5.6e-01
 Delays (us)
 SBD 0.017432
 MBD 0.002285
 Fringe rate (Hz) 0.318049
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060640
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-79.3	-109.8	-27.5	-3.4	-21.3	-71.0	-63.3	-113.5	Phase	-59.9
	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.1	Ampl.	0.2
	98.8	263.1	173.5	427.8	141.9	262.2	493.4	250.5	Sbd box	261.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.10780433807E+03		Apriori delay (usec)		1.10778642829E+03		Resid mbdelay (usec)		2.28478E-03	+/- 1.9E-04
Sband delay (usec)	1.10780386079E+03		Apriori clock (usec)		7.7900000E+00		Resid sbdelay (usec)		1.74325E-02	+/- 1.5E-03
Phase delay (usec)	1.10778642640E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.89086E-06	+/- 6.2E-07
Delay rate (us/s)	-7.46373313525E-03		Apriori rate (us/s)		-7.46734978943E-03		Resid rate (us/s)		3.61665E-06	+/- 6.0E-09
Total phase (deg)	121.6		Apriori accel (us/s/s)		-7.60031277833E-06		Resid phase (deg)		-59.9	+/- 19.7

RMS Theor. Amplitude 0.165 +/- 0.028
 ph/seg (deg) 52.7 46.3 Search (1024X32) 0.154
 amp/seg (%) 66.3 80.8 Interp. 0.000
 ph/frq (deg) 44.0 27.9 Inc. seg. avg. 0.160
 amp/frq (%) 50.6 48.7 Inc. frq. avg. 0.176

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 p: az 92.6 el 34.4 pa -59.4 u,v (fr/asec) 42.314 -650.728 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fp..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fp.W.148.1JFKZ

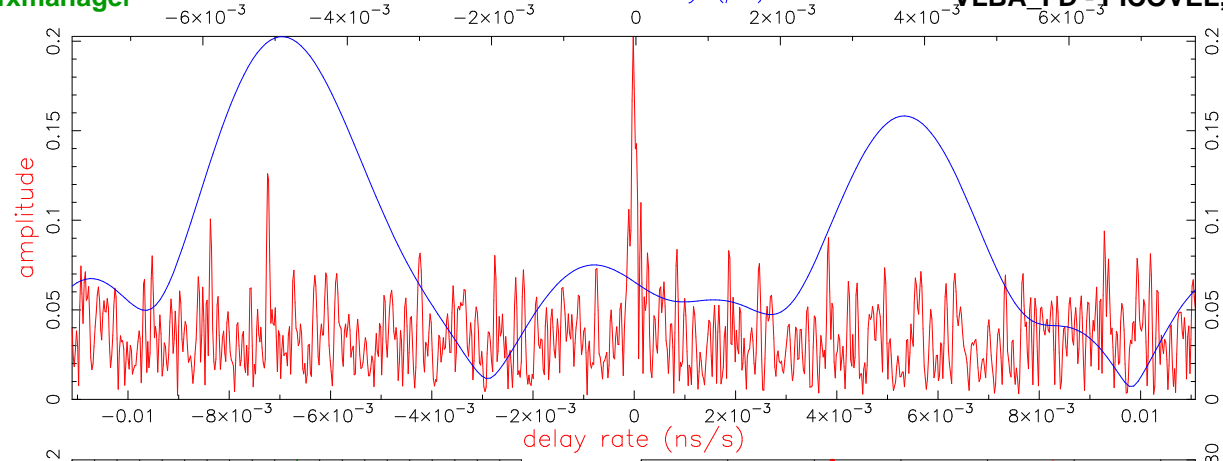
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fP

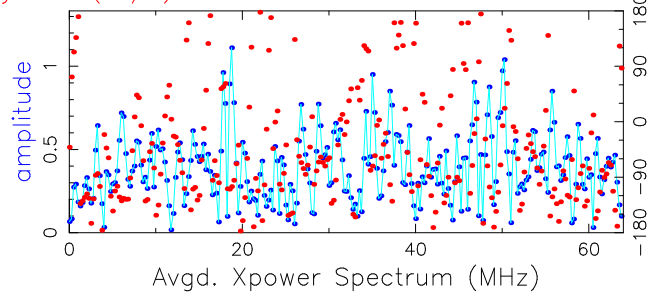
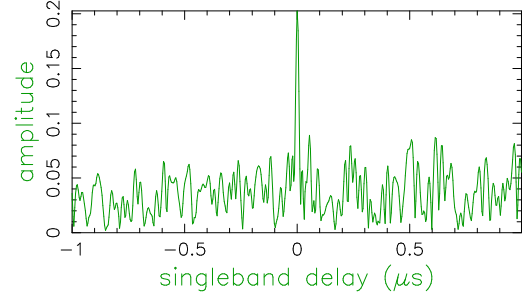
VLBA_FD - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



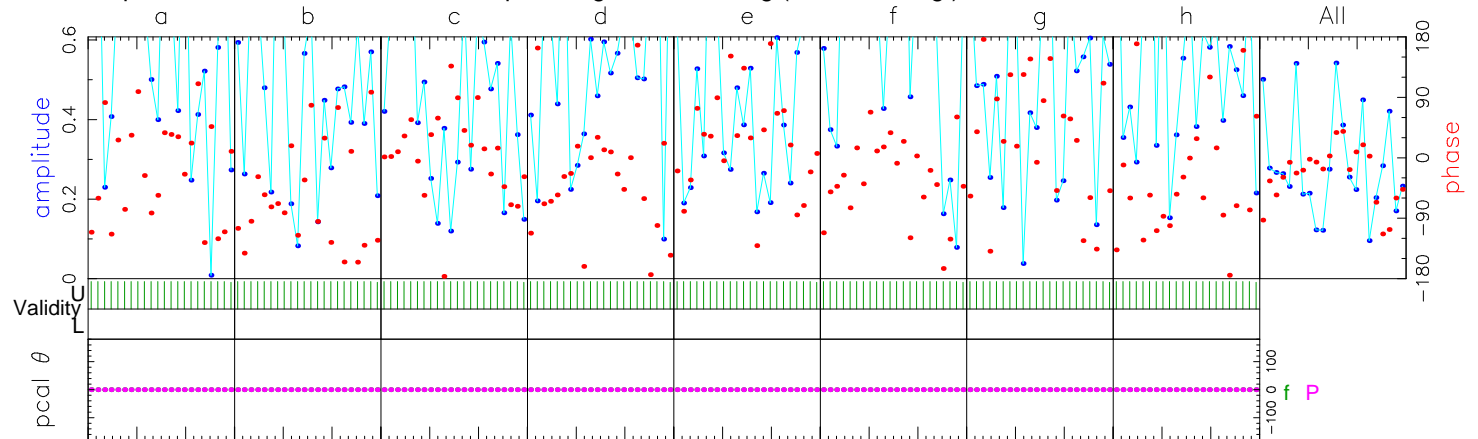
Fringe quality 9

SNR 7.4
 Int time 179.788
 Amp 0.203
 Phase -24.3
 PFD 1.7e-05
 Delays (us)
 SBD 0.000357
 MBD -0.004881
 Fringe rate (Hz)
 -0.000974
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060641
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-32.2	-73.8	14.3	-55.7	20.3	-19.6	68.3	-74.3	Phase	-24.3
	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	Ampl.	0.2
	460.6	474.2	256.4	316.9	256.6	256.7	385.4	254.3	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.81093115515E+03		Apriori delay (usec)		-1.81092627449E+03		Resid mbdelay (usec)		-4.88066E-03	+/- 1.5E-04
Sband delay (usec)	-1.81092591799E+03		Apriori clock (usec)		8.1809921E+00		Resid sbdelay (usec)		3.56500E-04	+/- 1.2E-03
Phase delay (usec)	-1.81092627526E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-7.67890E-07	+/- 4.9E-07
Delay rate (us/s)	1.89667646799E+00		Apriori rate (us/s)		1.89667647906E+00		Resid rate (us/s)		-1.10702E-08	+/- 4.7E-09
Total phase (deg)			Apriori accel (us/s/s)		6.64955258927E-06		Resid phase (deg)		-24.3	+/- 15.4

	RMS	Theor.	Amplitude	0.203 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	41.3	36.2	Search (1024X32)	0.194	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	75.7	63.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	54.9	21.8	Inc. seg. avg.	0.239	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	52.1	38.1	Inc. frq. avg.	0.243	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 92.3 el 38.1 pa -63.8 P: az 255.5 el 45.3 pa 53.6 u,v (fr/asec) -11572.703 -641.475 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fP..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fP.W.164.1JFKZ

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

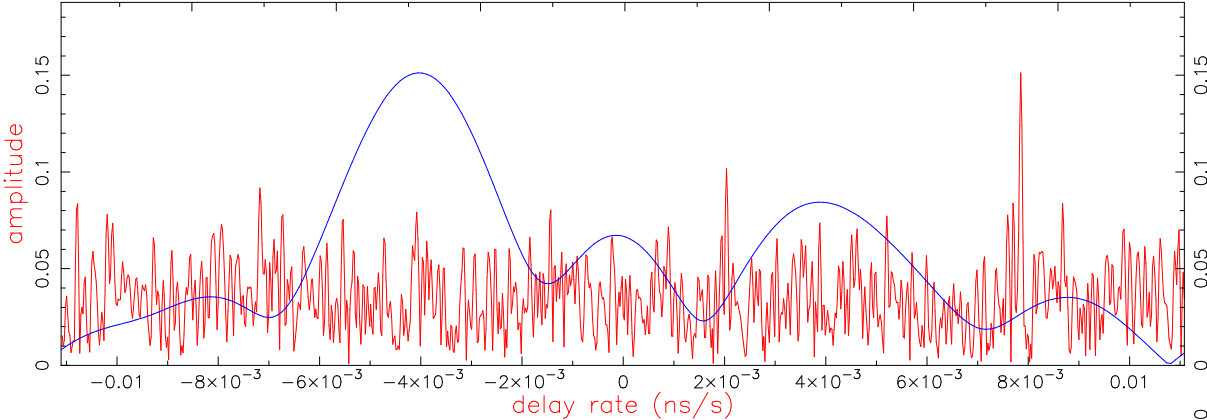
0235+164.1JFKZ, No0038, fp

VLBA_FD - VLBA_PT, fgroup W, pol LL

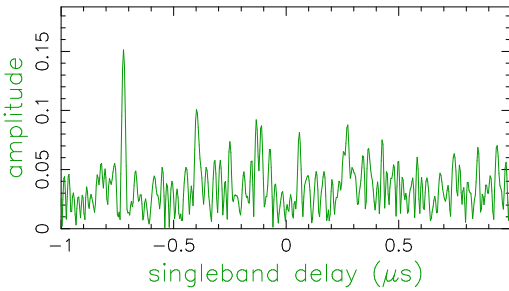
multiband delay (μ s)

-6×10^{-3} -4×10^{-3} -2×10^{-3} 0 2×10^{-3} 4×10^{-3} 6×10^{-3}

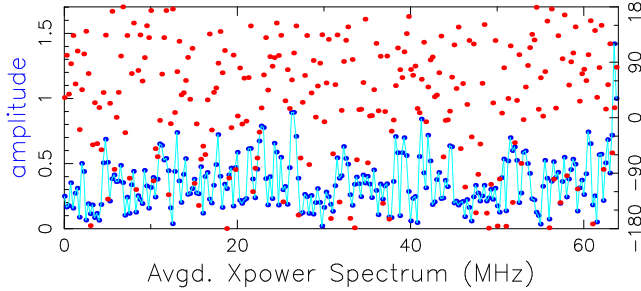
Fringe quality 0



SNR 5.5
Int time 179.980
Amp 0.188
Phase 64.3
PFD 9.7e-01
Delays (us)
SBD -0.722524
MBD -0.002853
Fringe rate (Hz)
0.692132
Ion TEC 0.000
Ref freq (MHz)
87940.0000
AP (sec) 0.512

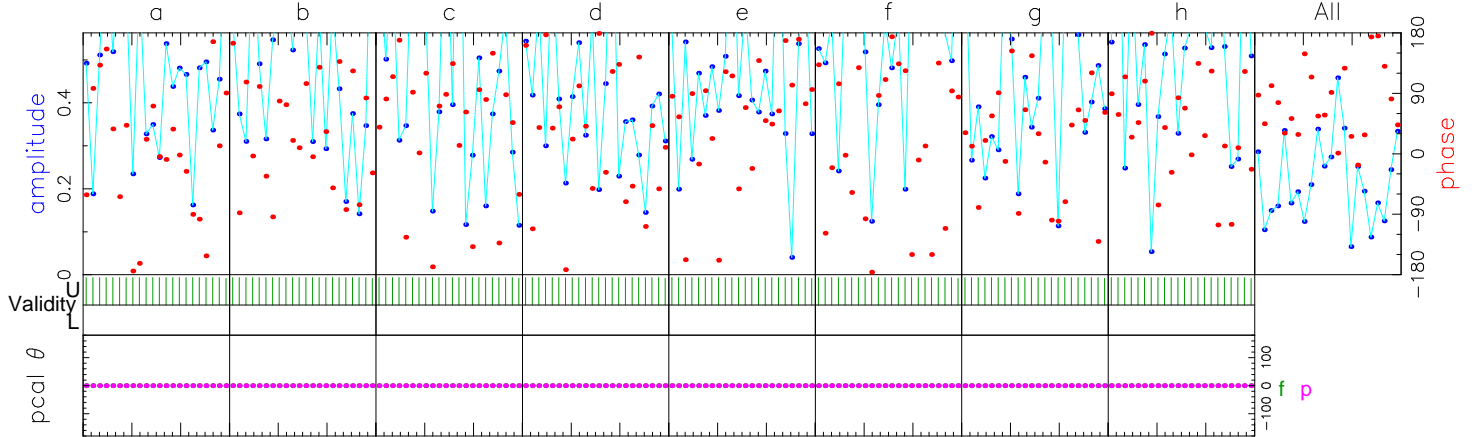


singleband delay (μ s)



Exp. c202c
Exper # 16383
Yr:day 2020:286
Start 043000.00
Stop 043300.22
FRT 043130.00
Corr/FF/build
2021:039:055416
2021:039:060634
2020:247:085004
RA & Dec (J2000)
02h38m38.930107s
+16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	27.8	40.3	85.0	49.4	85.9	124.5	24.3	55.1		
Sband delay (usec)	0.1	0.2	0.3	0.1	0.3	0.1	0.2	0.3		
Phase delay (usec)	155.2	506.3	158.9	104.8	71.2	152.3	156.7	70.8		
Delay rate (us/s)			-7.45947929183E-03							
Total phase (deg)			245.7							
Apriori delay (usec)						1.10778642829E+03				
Apriori clock (usec)						7.7900000E+00				
Apriori clockrate (us/s)						0.0000000E+00				
Apriori rate (us/s)						-7.46734978943E-03				
Apriori accel (us/s/s)						-7.60031277833E-06				
Resid mbdelay (usec)										-2.85268E-03
Resid sbdelay (usec)										-7.22524E-01
Resid phdelay (usec)										2.02994E-06
Resid rate (us/s)										7.87050E-06
Resid phase (deg)										64.3
Pcal mode:						MANUAL				MANUAL
Pcal rate:						0.000E+00				0.000E+00
Bits/sample:						2x2				2x2
Sample rate (MSamp/s):						128				128
Data rate (Mb/s):						2048				2048
PC period (AP's)						5				5
sb window (us)										-1.000 1.000
mb window (us)										-0.008 0.008
dr window (ns/s)										-0.011 0.011
ion window (TEC)										0.00 0.00
ph/seg (deg)	53.2	48.4								
amp/seg (%)	79.4	84.5								
ph/frq (deg)	37.2	29.2								
amp/frq (%)	46.6	51.0								
f: az 92.3 el 38.1 pa -63.8										
p: az 92.6 el 34.4 pa -59.4										
u,v (fr/asec)						42.314				-650.728
Control file:	cf_1234_88GHz_gmva									
Input file:	/Exps/c202c/v1/1234/No0038/fp..1JFKZ									
Output file:	/Exps/c202c/v1/1234/No0038/fp.W.92.1JFKZ									

simultaneous interpolator

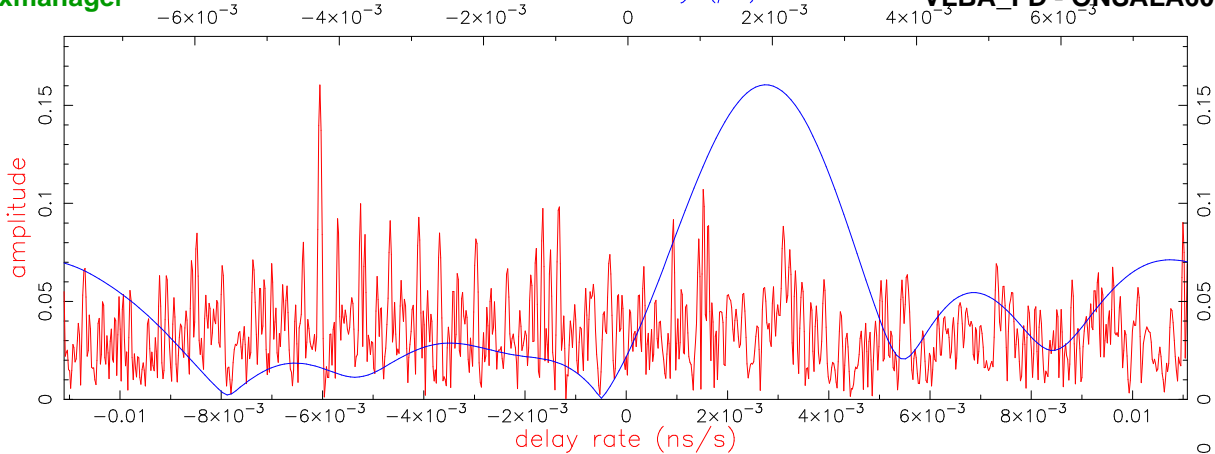
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fX

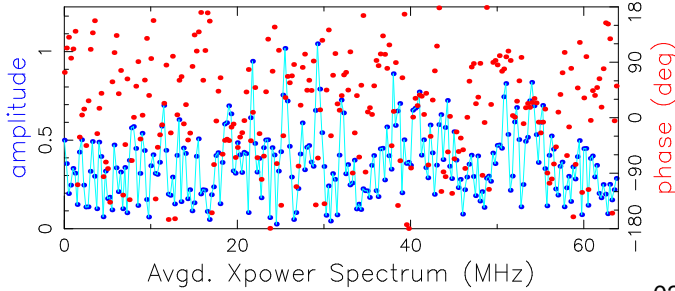
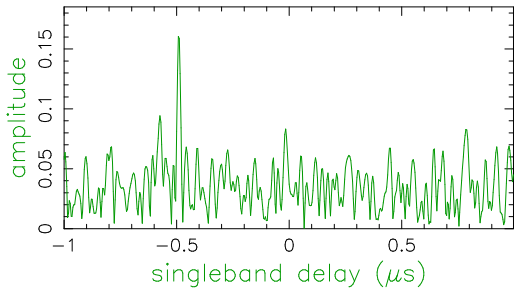
VLBA_FD - ONSALA60, fgroup W, pol LL

multiband delay (μ s)



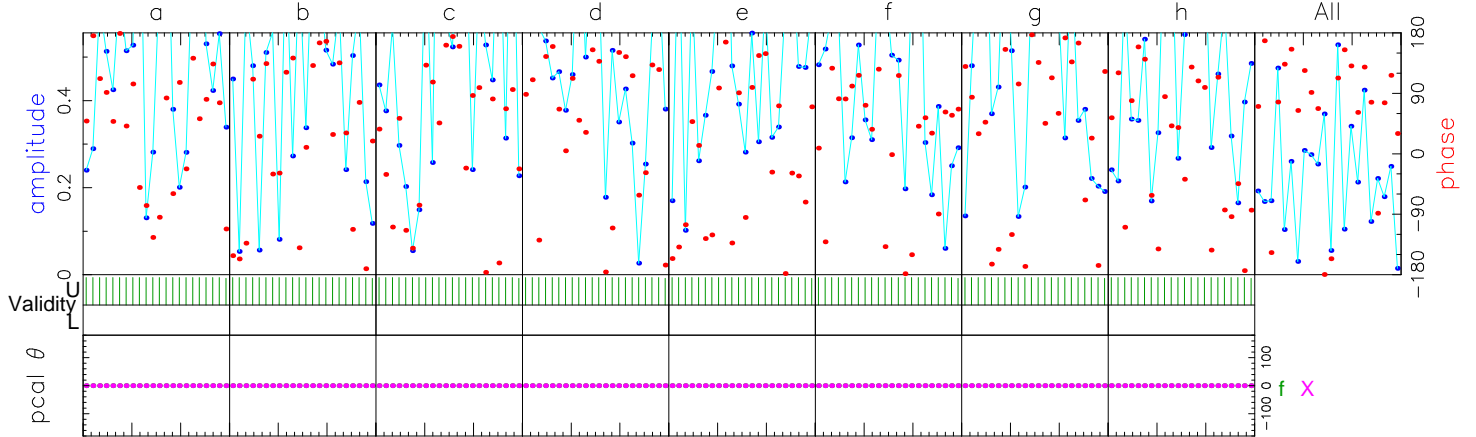
Fringe quality 0

SNR 6.0
 Int time 179.959
 Amp 0.185
 Phase 117.5
 PFD 2.3e-01
 Delays (us)
 SBD -0.490488
 MBD 0.001876
 Fringe rate (Hz)
 -0.532343
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060635
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	2.71873744321E+03		Apriori delay (usec)		2.71923556769E+03		Resid mbdelay (usec)		1.87553E-03	+/- 1.8E-04
Sband delay (usec)	2.71874507994E+03		Apriori clock (usec)		-4.0493816E+01		Resid sbdelay (usec)		-4.90488E-01	+/- 1.4E-03
Phase delay (usec)	2.71923557140E+03		Apriori clockrate (us/s)		-1.2800004E-07		Resid phdelay (usec)		3.71172E-06	+/- 6.0E-07
Delay rate (us/s)	1.74841254578E+00		Apriori rate (us/s)		1.74841859926E+00		Resid rate (us/s)		-6.05347E-06	+/- 5.8E-09
Total phase (deg)			53.5		Apriori accel (us/s/s)		-2.54728476789E-05		Resid phase (deg)	117.5 +/- 19.1

ph/seg (deg) 58.1 44.8 Search (1024X32) 0.159 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 91.5 78.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.7 27.0 Inc. seg. avg. 0.199 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.7 47.2 Inc. frq. avg. 0.176 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 92.3 el 38.1 pa -63.8 X: az 254.0 el 29.7 pa 32.7 u,v (fr/asec) -10681.417 -3491.896 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fX...1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fX.W.102.1JFKZ

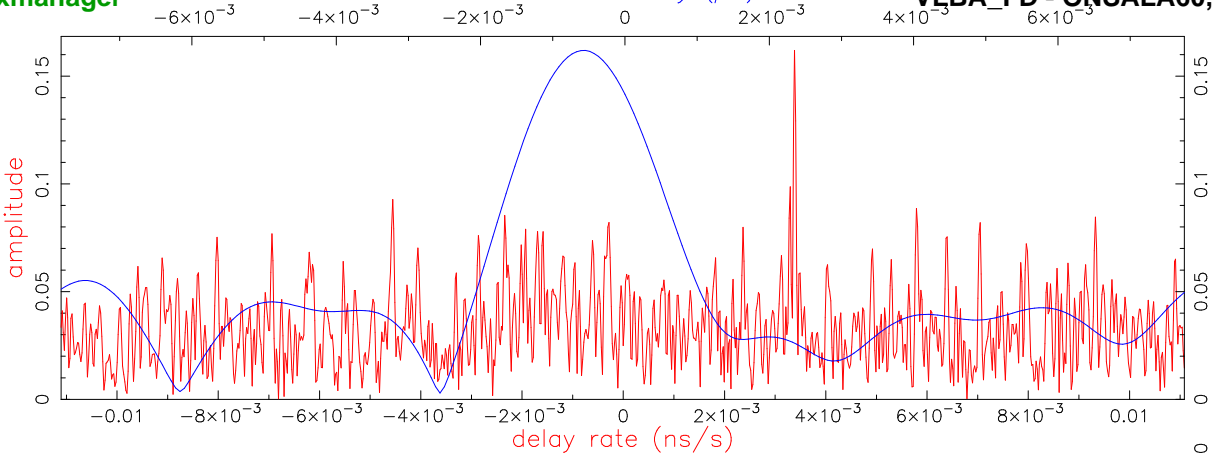
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fX

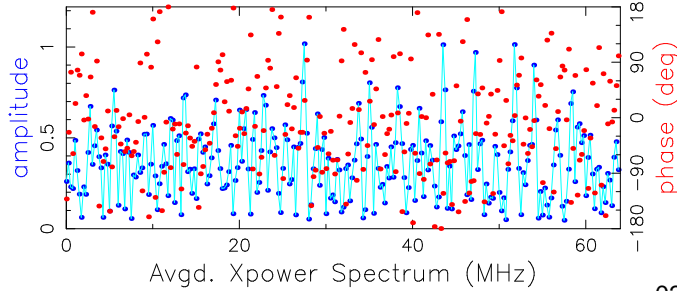
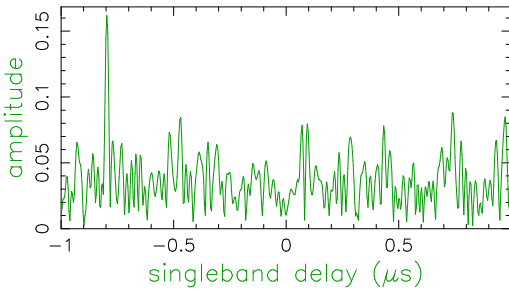
VLBA_FD - ONSALA60, fgroup W, pol RR

multiband delay (μ s)



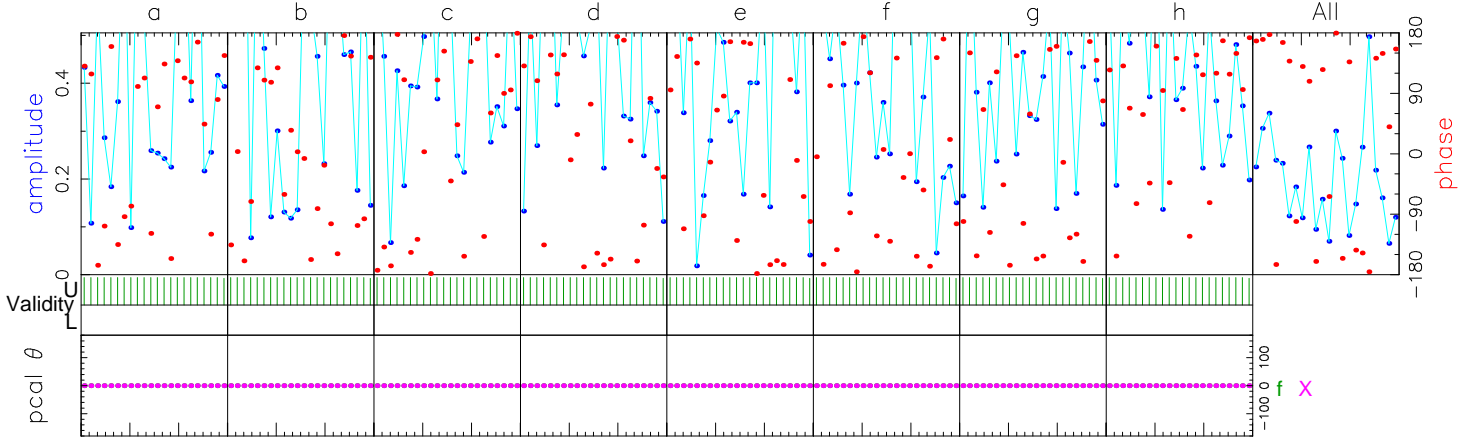
Fringe quality 0

SNR 5.9
 Int time 179.959
 Amp 0.168
 Phase 173.8
 PFD 3.0e-01
 Delays (us)
 SBD -0.796522
 MBD -0.000554
 Fringe rate (Hz)
 0.298752
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060636
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		2.71843813894E+03			2.71923556769E+03				Resid mbdelay (usec)	-5.53747E-04 +/- 1.8E-04
Sband delay (usec)		2.71843904569E+03			-4.0493816E+01				Resid sbdelay (usec)	-7.96522E-01 +/- 1.4E-03
Phase delay (usec)		2.71923557317E+03			-1.2800004E-07				Resid phdelay (usec)	5.48860E-06 +/- 6.1E-07
Delay rate (us/s)		1.74842199648E+00			1.74841859926E+00				Resid rate (us/s)	3.39722E-06 +/- 5.9E-09
Total phase (deg)		109.8			-2.54728476789E-05				Resid phase (deg)	173.8 +/- 19.3
ph/seg (deg)	RMS 51.8	Theor. 45.2	Amplitude 1024X32	0.168 +/- 0.028	Search (1024X32)	0.156	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
amp/seg (%)	67.6	78.9	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	27.5	27.3	Inc. seg. avg.	0.161	Bits/sample: 2x2		Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
amp/frq (%)	26.6	47.6	Inc. frq. avg.	0.164	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00	

f: az 92.3 el 38.1 pa -63.8 X: az 254.0 el 29.7 pa 32.7 u,v (fr/asec) -10681.417 -3491.896 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fX..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fX.W.118.1JFKZ

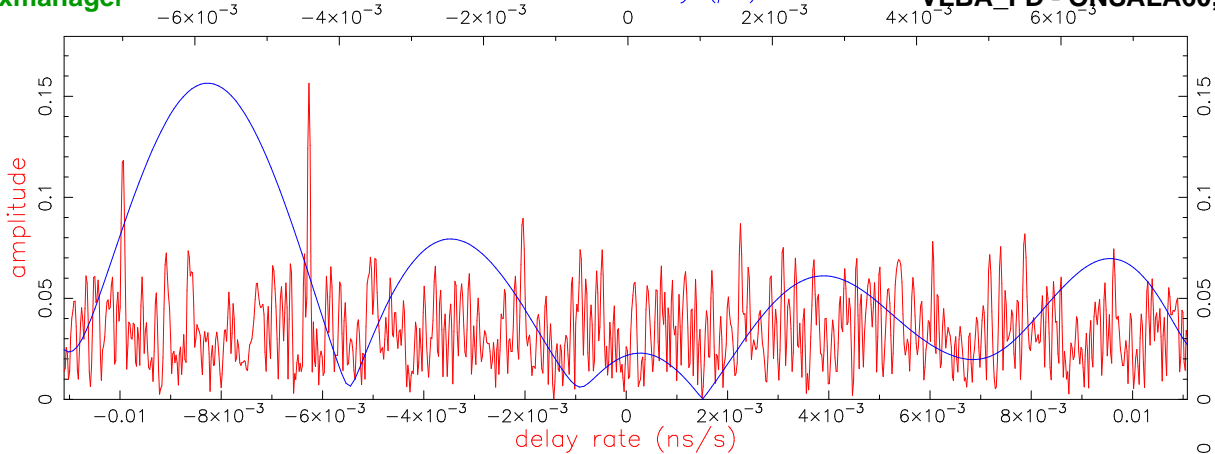
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fX

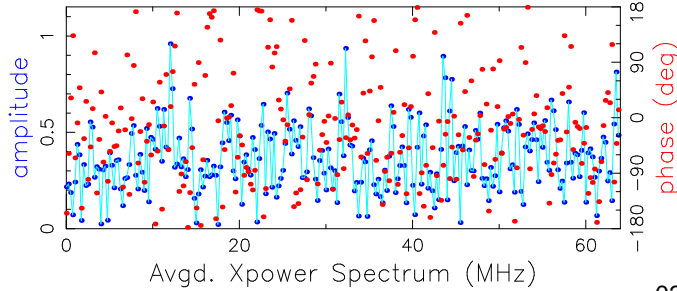
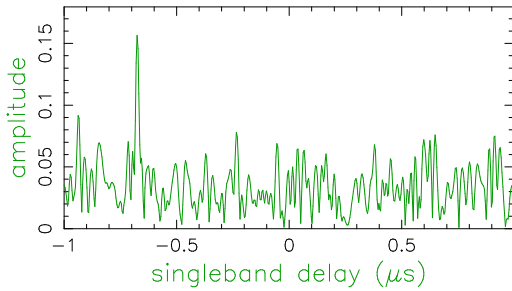
VLBA_FD - ONSALA60, fgroup W, pol LR

multiband delay (μ s)



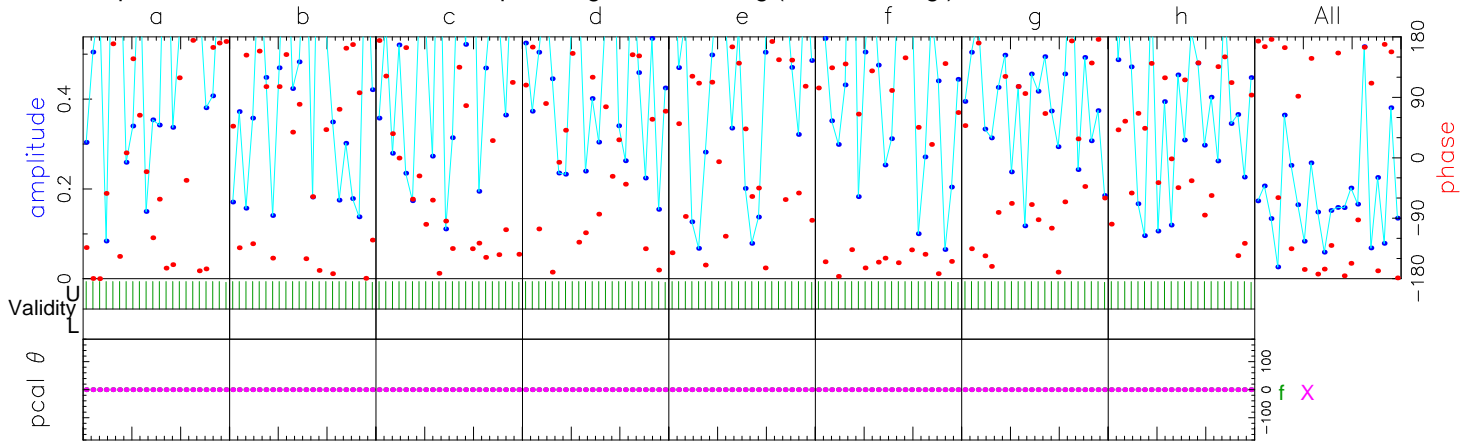
Fringe quality 0

SNR 5.8
 Int time 179.959
 Amp 0.180
 Phase 176.0
 PFD 6.5e-01
 Delays (us)
 SBD -0.675099
 MBD -0.005801
 Fringe rate (Hz)
 -0.551563
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060638
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-175.9	163.2	-160.8	126.8	-178.6	170.3	-148.8	111.4	Phase	176.0
	0.4	0.3	0.2	0.1	0.2	0.3	0.1	0.0	Ampl.	0.2
	84.5	34.5	422.9	423.9	398.1	424.8	112.0	482.7	Sbd box	84.2
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.71855789219E+03		Apriori delay (usec)		2.71923556769E+03		Resid mbdelay (usec)		-5.80050E-03	+/- 1.9E-04
Sband delay (usec)	2.71856046819E+03		Apriori clock (usec)		-4.0493816E+01		Resid sbdelay (usec)		-6.75099E-01	+/- 1.5E-03
Phase delay (usec)	2.71923557325E+03		Apriori clockrate (us/s)		-1.2800004E-07		Resid phdelay (usec)		5.55982E-06	+/- 6.3E-07
Delay rate (us/s)	1.74841232722E+00		Apriori rate (us/s)		1.74841859926E+00		Resid rate (us/s)		-6.27204E-06	+/- 6.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.54728476789E-05		Resid phase (deg)		176.0	+/- 19.9

	RMS	Theor.	Amplitude	0.180 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	44.9	46.7	Search (1024X32)	0.153	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	74.3	81.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	38.0	28.1	Inc. seg. avg.	0.161	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	56.8	49.1	Inc. frq. avg.	0.172	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 92.3 el 38.1 pa -63.8 X: az 254.0 el 29.7 pa 32.7 u,v (fr/asec) -10681.417 -3491.896 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fX...1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fX.W.137.1JFKZ

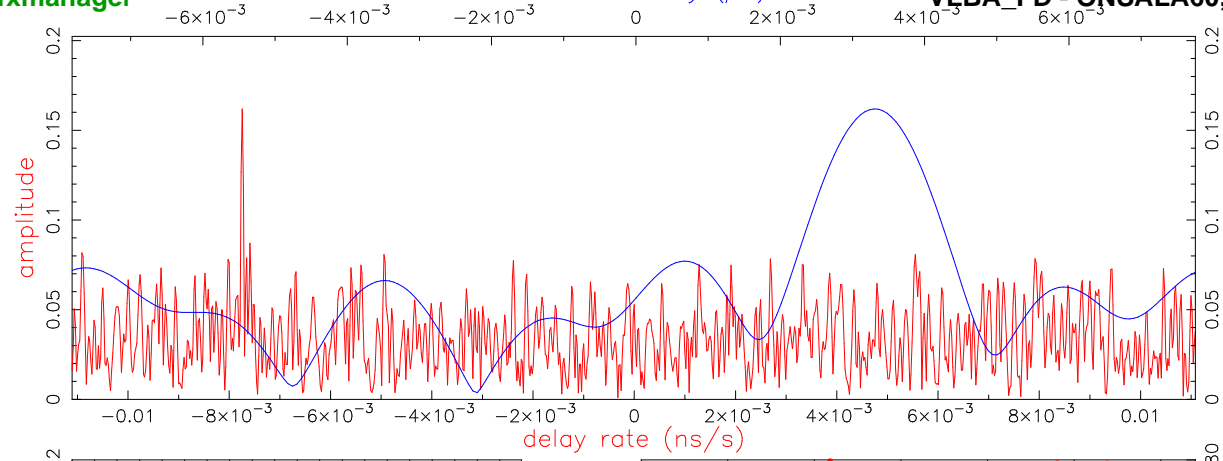
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFJKZ, No0038, fX

VLBA_FD - ONSALA60, fgroup W, pol RL

multiband delay (μ s)



Fringe quality 0

SNR 6.0

Int time 179.959

Amp 0.202

Phase 118.2

PFD 2.0e-01

Delays (us)

SBD 0.486939

MBD 0.003298

Fringe rate (Hz)

-0.681362

Ion TEC 0.000

Ref freq (MHz)

87940.0000

AP (sec) 0.512

Exp. c202c

Yr:day 16383

Start 2020:286

Stop 2020:286

FRT 043130.00

Corr/FF/build

2021:039:055416

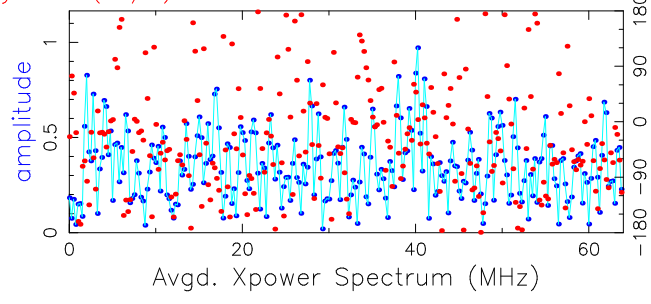
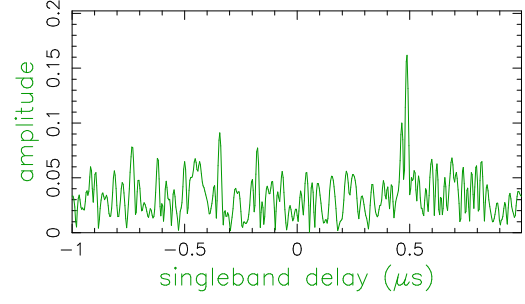
2021:039:060641

2020:247:085004

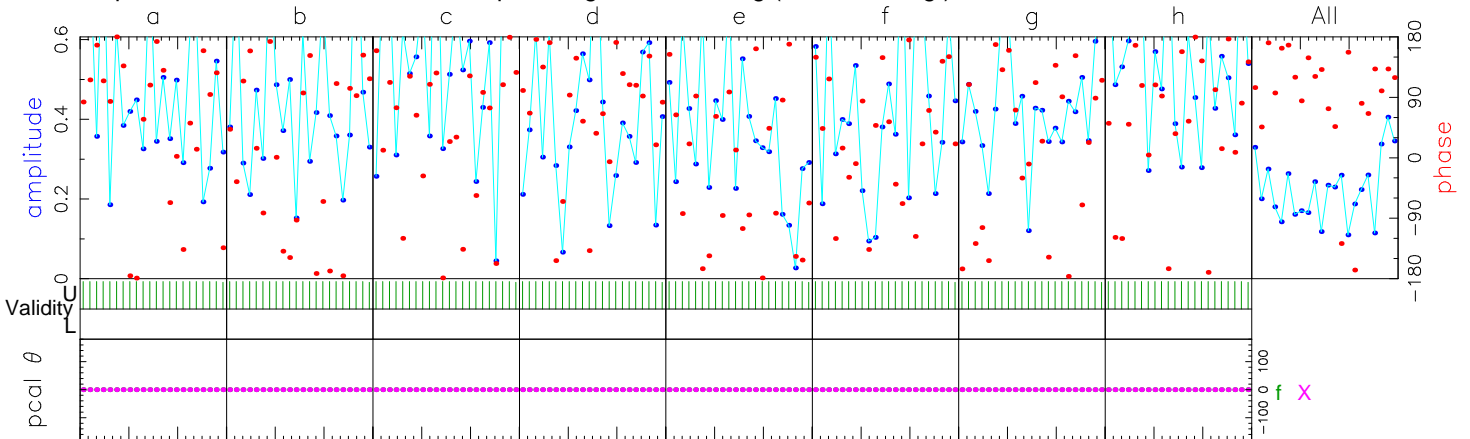
RA & Dec (J2000)

02h38m38.930107s

+16°36'59.274536"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	2.71972324039E+03		Apriori delay (usec)		2.71923556769E+03		Resid mbdelay (usec)		3.29770E-03	+/- 1.8E-04
Sband delay (usec)	2.71972250619E+03		Apriori clock (usec)		-4.0493816E+01		Resid sbdelay (usec)		4.86939E-01	+/- 1.4E-03
Phase delay (usec)	2.71923557142E+03		Apriori clockrate (us/s)		-1.2800004E-07		Resid phdelay (usec)		3.73345E-06	+/- 6.0E-07
Delay rate (us/s)	1.74841085123E+00		Apriori rate (us/s)		1.74841859926E+00		Resid rate (us/s)		-7.74803E-06	+/- 5.8E-09
Total phase (deg)	54.2		Apriori accel (us/s/s)		-2.54728476789E-05		Resid phase (deg)		118.2	+/- 19.0

ph/seg (deg) 46.5 44.6 Search (1024X32) 0.158 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 60.6 77.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 47.2 26.9 Inc. seg. avg. 0.213 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 50.6 47.0 Inc. frq. avg. 0.197 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

f: az 92.3 el 38.1 pa -63.8 X: az 254.0 el 29.7 pa 32.7 u,v (fr/asec) -10681.417 -3491.896 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fX..1JFJKZ Output file: /Exps/c202c/v1/1234/No0038/fX.W.160.1JFJKZ

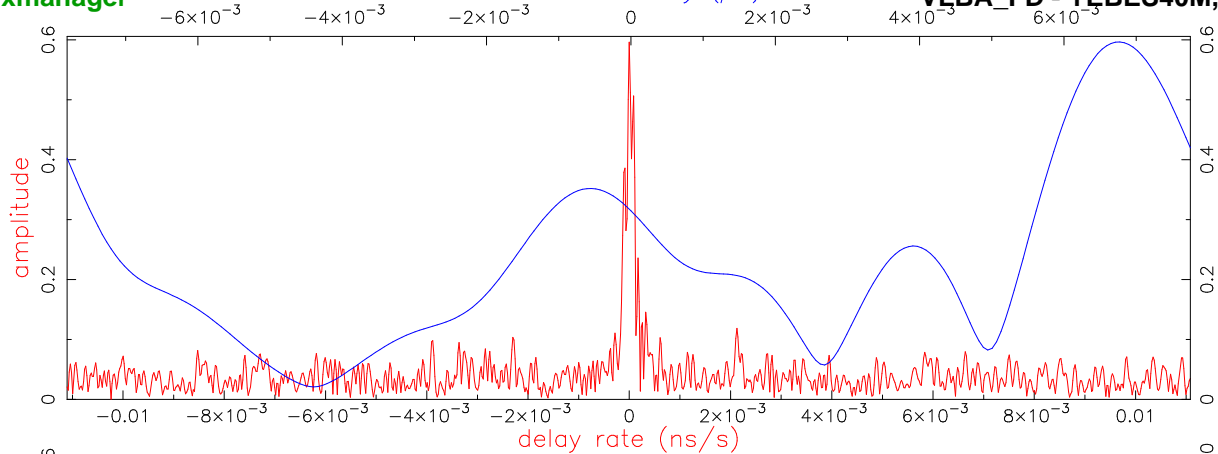
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fY

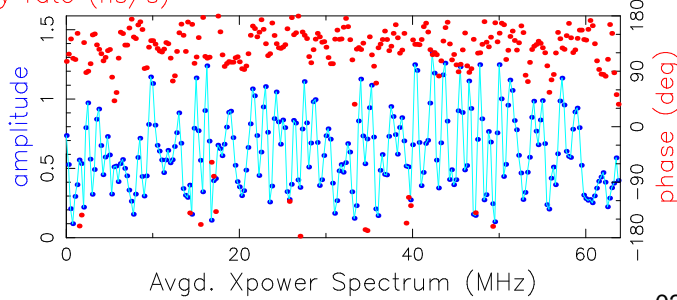
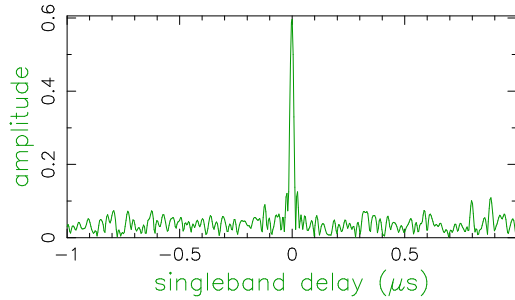
VLBA_FD - YEBES40M, fgroup W, pol RR

multiband delay (μ s)



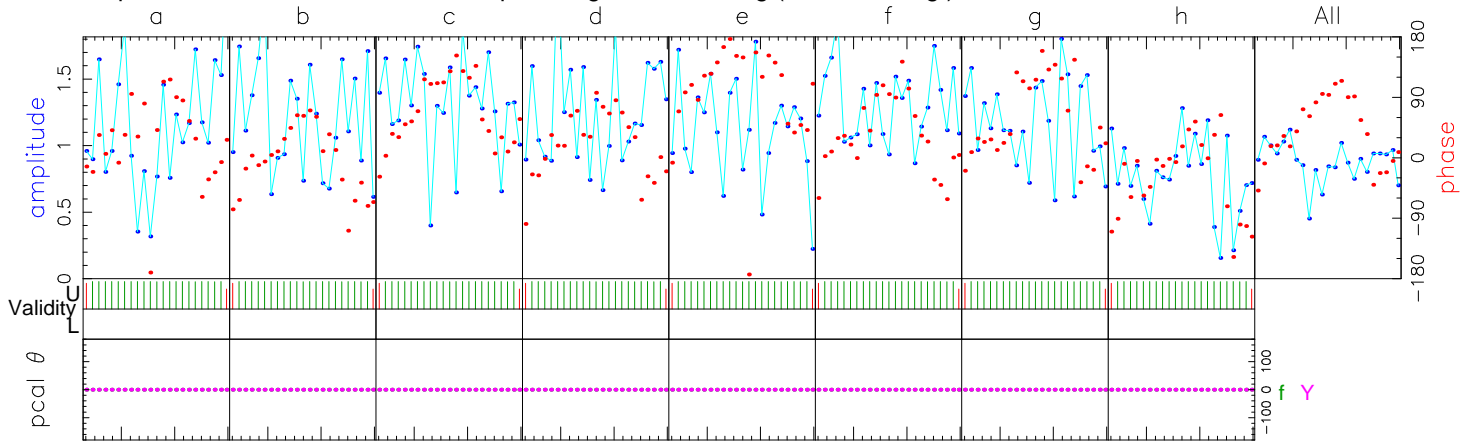
Fringe quality 8

SNR 21.1
 Int time 162.108
 Amp 0.606
 Phase 36.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001628
 MBD 0.006714
 Fringe rate (Hz)
 -0.000894
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043016.90
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060636
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.51147605041E+03				-1.51146713972E+03				6.71431E-03	+/- 5.1E-05
Sband delay (usec)	-1.51146876772E+03				-5.7745905E+00				-1.62800E-03	+/- 4.1E-04
Phase delay (usec)	-1.51146713858E+03				2.7999998E-07				1.14221E-06	+/- 1.7E-07
Delay rate (us/s)	1.86048123385E+00				1.86048124402E+00				-1.01679E-08	+/- 1.8E-09
Total phase (deg)			-60.1		3.46320346294E-06				36.2	+/- 5.4
	RMS	Theor.	Amplitude	0.606 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000 1.000
ph/seg (deg)	48.6	13.0	Search (1024X32)	0.576	Pcal rate: 0.000E+00, 0.000E+00 (us/s)				mb window (us)	-0.008 0.008
amp/seg (%)	51.3	22.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled			dr window (ns/s)	-0.011 0.011
ph/frq (deg)	46.5	7.7	Inc. seg. avg.	0.859	Sample rate(MISamp/s): 128				ion window (TEC)	0.00 0.00
amp/frq (%)	31.9	13.4	Inc. frq. avg.	0.746	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite				

f: az 92.3 el 38.1 pa -63.8 Y: az 252.5 el 44.1 pa 49.2 u,v (fr/asec) -11352.858 -1124.265 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fY..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fY.W.113.1JFKZ

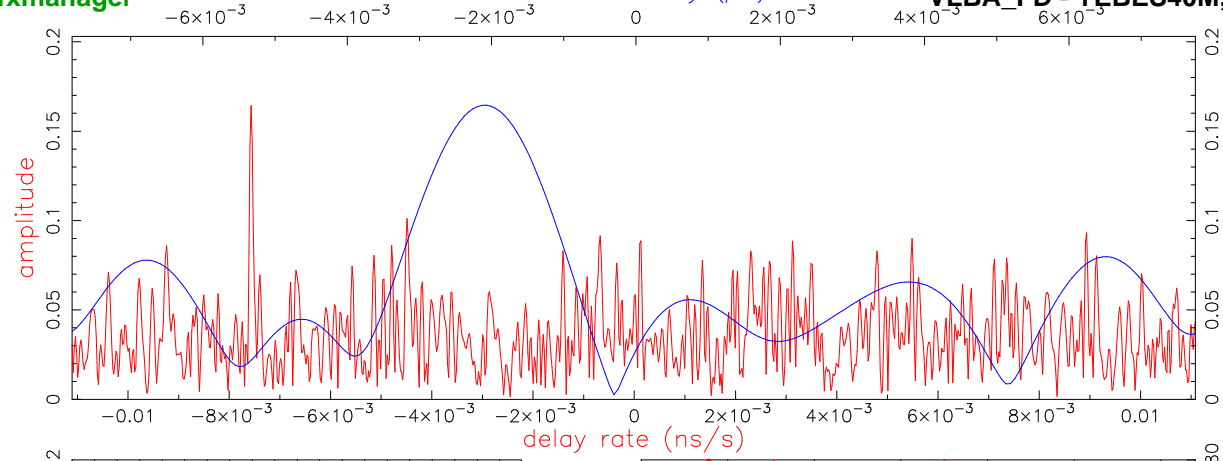
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fY

VLBA_FD - YEBES40M, fgroup W, pol LR

multiband delay (μ s)



Fringe quality 0

SNR 5.8

Int time 162.108

Amp 0.203

Phase 146.6

PFD 5.9e-01

Delays (us)

SBD -0.022019

MBD -0.002043

Fringe rate (Hz)

-0.667186

Ion TEC 0.000

Ref freq (MHz)

87940.0000

AP (sec) 0.512

Exp. c202c

Exper # 16383

Yr:day 2020:286

Start 043016.90

Stop 043300.22

FRT 043130.00

Corr/FF/build

2021:039:055416

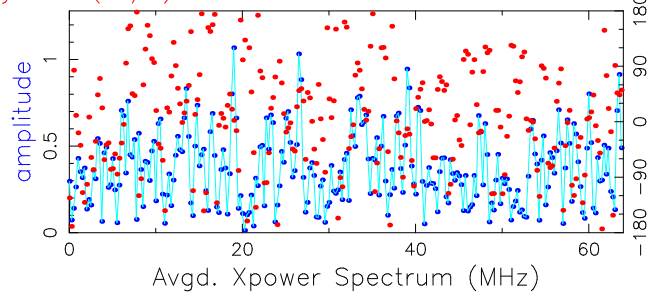
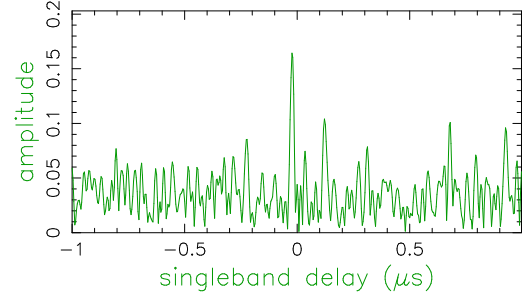
2021:039:060638

2020:247:085004

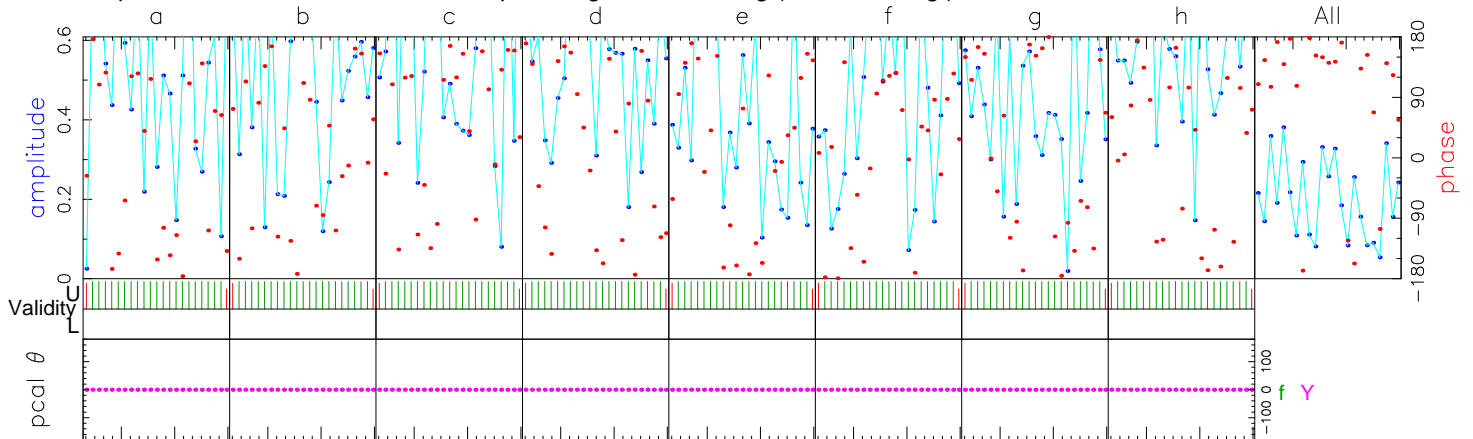
RA & Dec (J2000)

02h38m38.930107s

+16°36'59.274536"



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-1.51148480770E+03	Apriori delay (usec)	-1.51146713972E+03	Resid mbdelay (usec)	-2.04297E-03	+/-	1.9E-04
Sband delay (usec)	-1.51148915847E+03	Apriori clock (usec)	-5.7745905E+00	Resid sbdelay (usec)	-2.20187E-02	+/-	1.5E-03
Phase delay (usec)	-1.51146713509E+03	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	4.62956E-06	+/-	6.3E-07
Delay rate (us/s)	1.86047365720E+00	Apriori rate (us/s)	1.86048124402E+00	Resid rate (us/s)	-7.58683E-06	+/-	6.6E-09
Total phase (deg)	50.3	Apriori accel (us/s/s)	3.46320346294E-06	Resid phase (deg)	146.6	+/-	19.8

ph/seg (deg)	45.0	Theor.	47.5	Amplitude	0.203 +/- 0.035	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5			
amp/seg (%)	64.0	Search (1024X32)	0.163	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000			
ph/frq (deg)	34.8	Inc. seg. avg.	0.184	Inc. frq. avg.	0.210	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008		
amp/frq (%)	32.9	Inc. frq. avg.	0.210			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011			
						Data rate (Mb/s):	2048	nlags:	256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 92.3 el 38.1 pa -63.8 Y: az 252.5 el 44.1 pa 49.2 u,v (fr/asec) -11352.858 -1124.265 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fY..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fY.W.133.1JFKZ

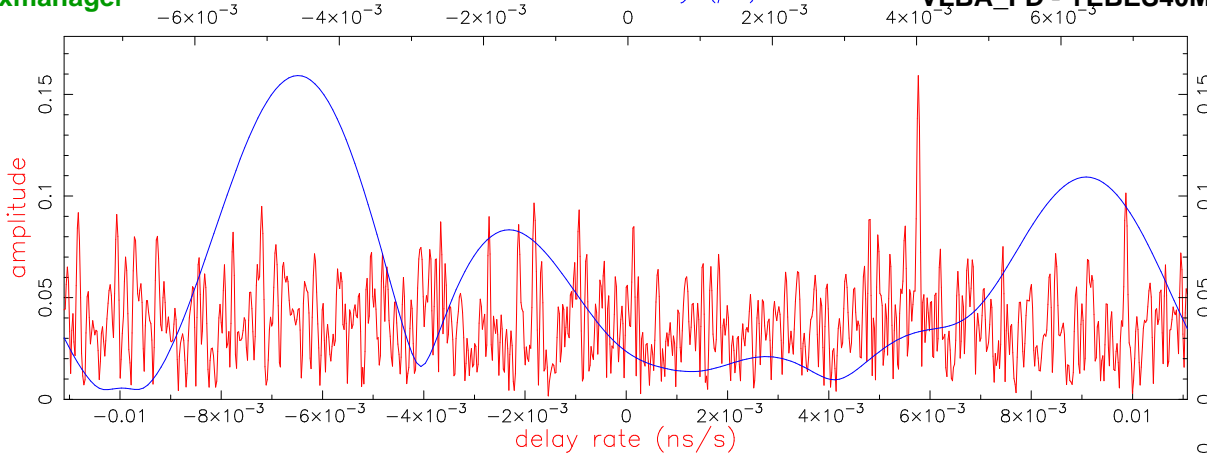
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fY

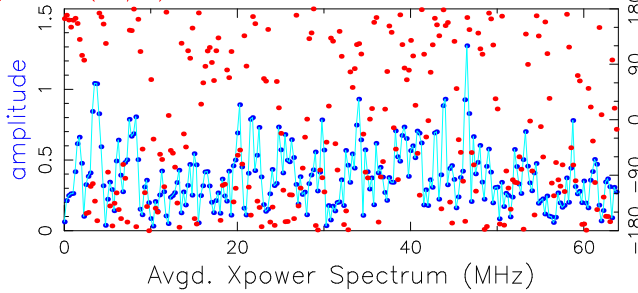
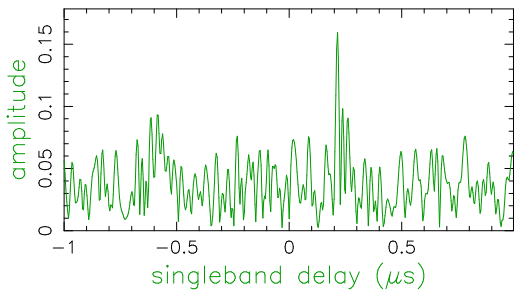
VLBA_FD - YEBES40M, fgroup W, pol RL

multiband delay (μ s)



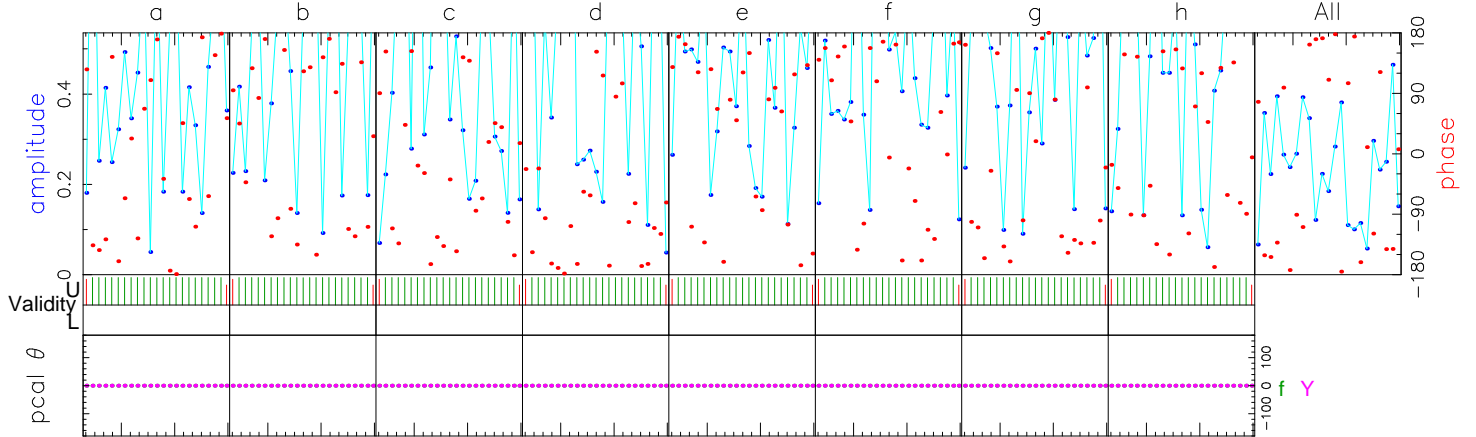
Fringe quality 0

SNR 5.5
 Int time 162.108
 Amp 0.179
 Phase -163.9
 PFD 9.7e-01
 Delays (us)
 SBD 0.214519
 MBD -0.004589
 Fringe rate (Hz)
 0.507156
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043016.90
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060640
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-160.0	157.8	-97.7	-132.6	141.5	164.2	-147.2	-151.2	Phase	-163.9
	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	107.7	436.7	382.5	401.0	446.9	246.3	41.3	346.9	Sbd box	311.9
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.51125297863E+03		Apriori delay (usec)		-1.51146713972E+03		Resid mbdelay (usec)		-4.58890E-03	+/- 2.0E-04
Sband delay (usec)	-1.51125262122E+03		Apriori clock (usec)		-5.7745905E+00		Resid sbdelay (usec)		2.14519E-01	+/- 1.6E-03
Phase delay (usec)	-1.51146714490E+03		Apriori clockrate (us/s)		2.7999998E-07		Resid phdelay (usec)		-5.17600E-06	+/- 6.5E-07
Delay rate (us/s)	1.86048701110E+00		Apriori rate (us/s)		1.86048124402E+00		Resid rate (us/s)		5.76707E-06	+/- 6.9E-09
Total phase (deg)	-260.1		Apriori accel (us/s/s)		3.46320346294E-06		Resid phase (deg)		-163.9	+/- 20.7

ph/seg (deg) RMS Theor. Amplitude 0.179 +/- 0.032 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.1 49.5 Search (1024X32) 0.157 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 87.5 86.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.4 29.2 Inc. seg. avg. 0.197 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 f: az 92.3 el 38.1 pa -63.8 Y: az 252.5 el 44.1 pa 49.2 u,v (fr/asec) -11352.858 -1124.265 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fY..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fY.W.150.1JFKZ simultaneous interpolator

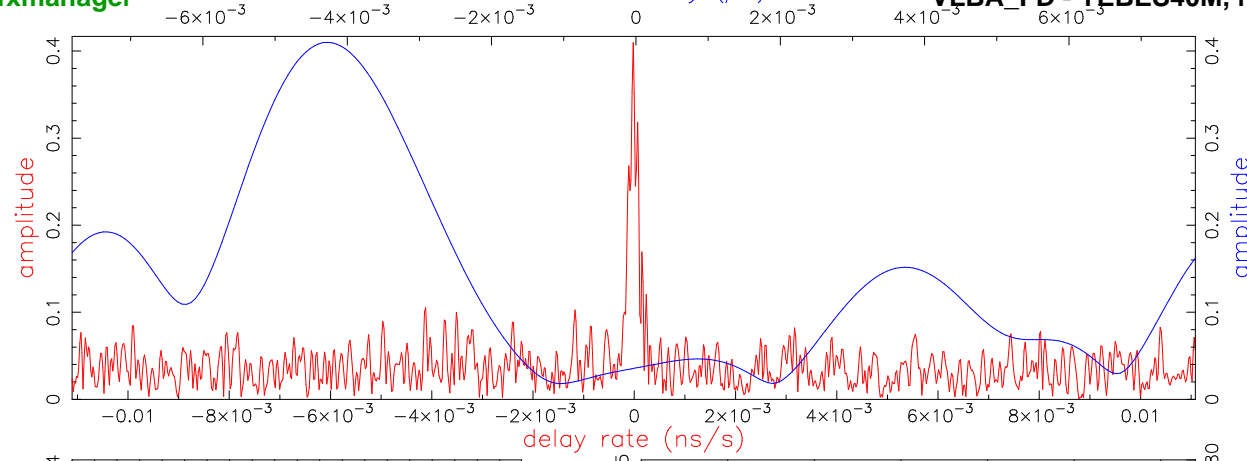
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFJKZ, No0038, fY

VLBA_FD - YEBES40M, fgroup W, pol LL

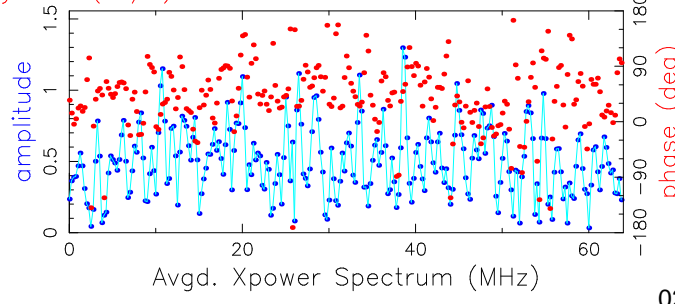
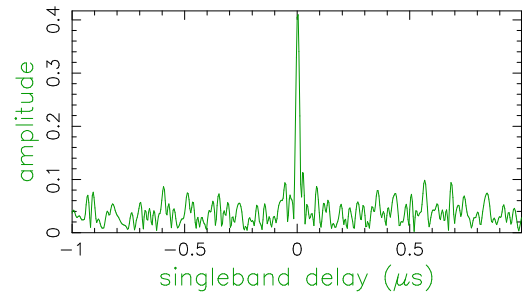
multiband delay (μ s)



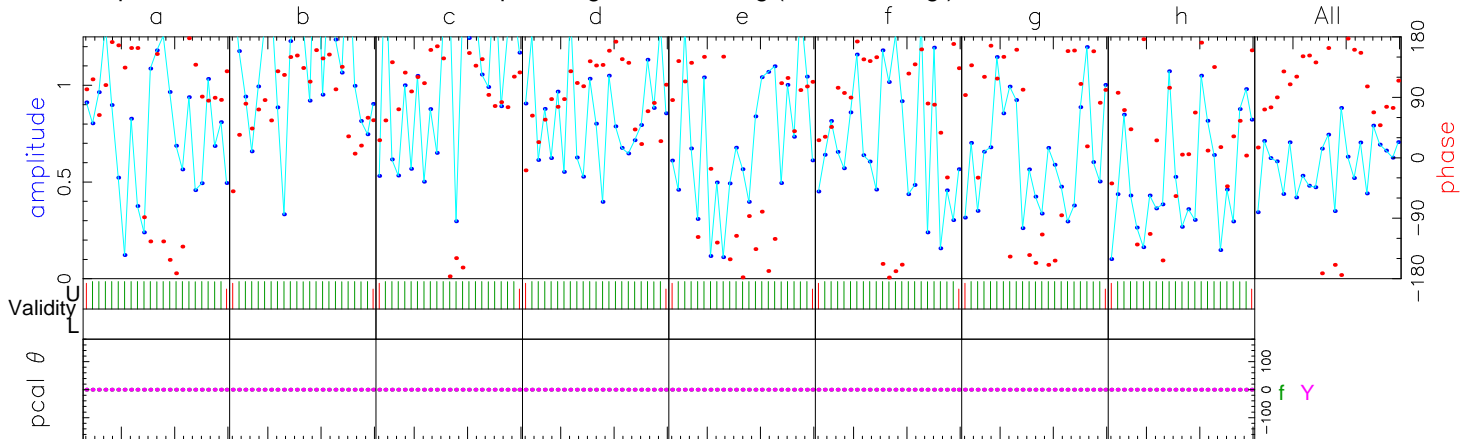
Fringe quality 7

SNR 14.5
 Int time 162.108
 Amp 0.417
 Phase 121.7
 PFD 3.0e-39
 Delays (us)
 SBD 0.002231
 MBD -0.004333
 Fringe rate (Hz) -0.001256
 Ion TEC 0.000
 Ref freq (MHz) 87940.0000
 AP (sec) 0.512

Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043016.90
 Stop 043300.22
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060634
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"



Amp. and Phase vs. time for each freq., 23 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All	
U/L	319/0	319/0	319/0	319/0	319/0	319/0	319/0	319/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
Y	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)	-1.51147147308E+03				-1.51146713972E+03				Resid mbdelay (usec)	-4.33336E-03	+/- 7.5E-05
Sband delay (usec)	-1.51146490872E+03				-5.7745905E+00				Resid sbdelay (usec)	2.23100E-03	+/- 5.9E-04
Phase delay (usec)	-1.51146713588E+03				2.7999998E-07				Resid phdelay (usec)	3.84414E-06	+/- 2.5E-07
Delay rate (us/s)	1.86048122974E+00				1.86048124402E+00				Resid rate (us/s)	-1.42836E-08	+/- 2.6E-09
Total phase (deg)		25.5			3.46320346294E-06				Resid phase (deg)	121.7	+/- 7.9
ph/seg (deg)	48.8	18.9			0.417 +/- 0.029				Pcal mode: MANUAL, MANUAL		
amp/seg (%)	55.0	33.0			0.401				Pcal rate: 0.000E+00, 0.000E+00 (us/s)		
ph/frq (deg)	37.3	11.2			0.000				Bits/sample: 2x2		
amp/frq (%)	43.8	19.5			0.567				Sample rate(MISamp/s): 128		
					0.451				Data rate(Mb/s): 2048		
f: az 92.3 el 38.1 pa -63.8					u,v (fr/asec) -11352.858 -1124.265				nlags: 256		
Control file: cf_1234_88GHz_gmva					Input file: /Exps/c202c/v1/1234/No0038/fY..1JFJKZ				PC period (AP's) 5, 5		
					Output file: /Exps/c202c/v1/1234/No0038/fY.W.95.1JFJKZ				sb window (us)	-1.000	1.000
									SampCntNorm: enabled		
									mb window (us)	-0.008	0.008
									dr window (ns/s)	-0.011	0.011
									ion window (TEC)	0.00	0.00
									simultaneous interpolator		

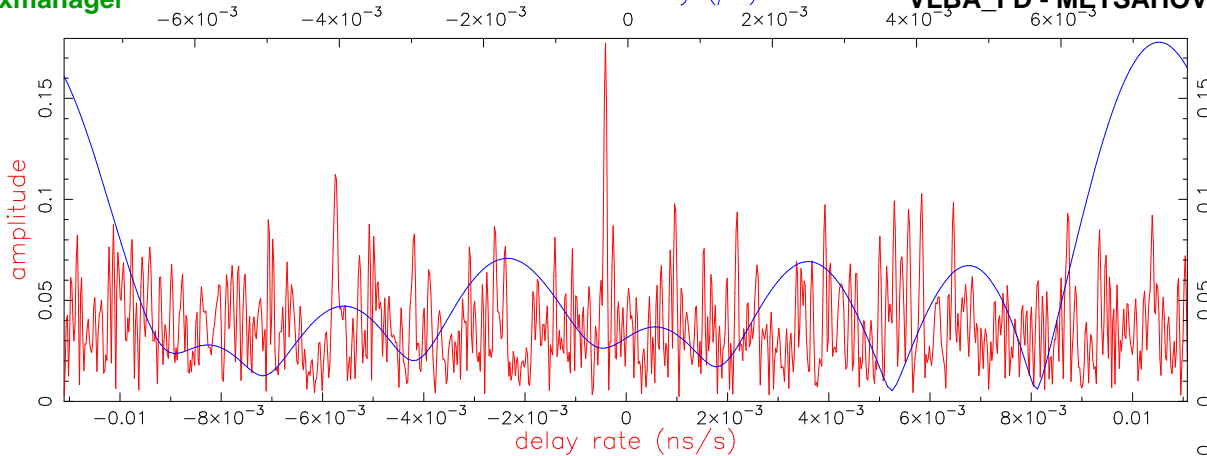
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fZ

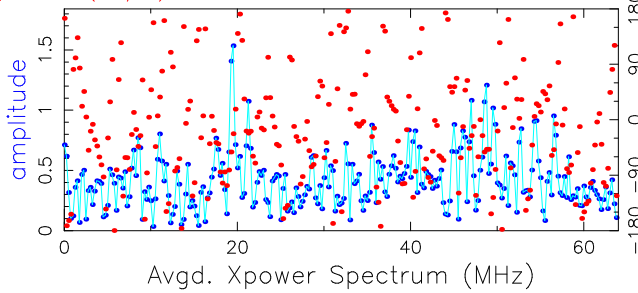
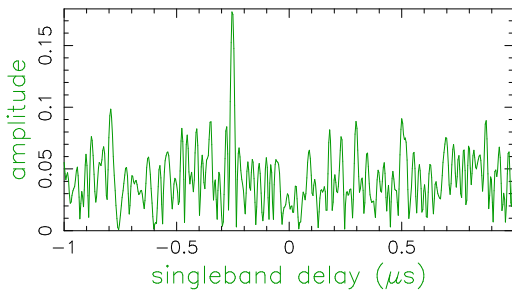
VLBA_FD - METSAHOV, fgroup W, pol RR

multiband delay (μ s)



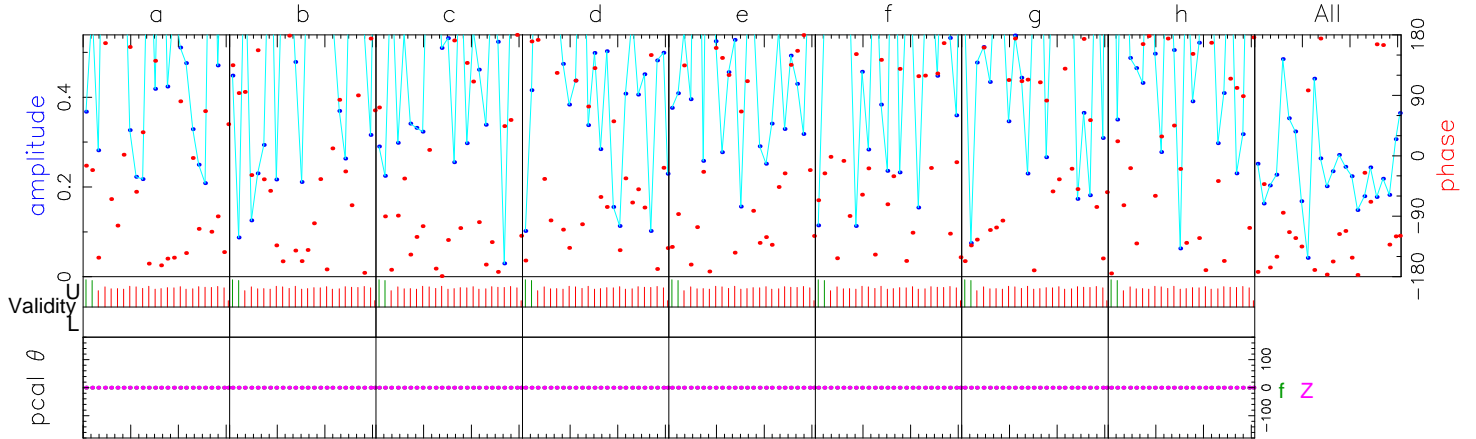
Fringe quality 0

SNR 5.6
 Int time 128.976
 Amp 0.180
 Phase -136.5
 PFD 9.5e-01
 Delays (us)
 SBD -0.252274
 MBD 0.007448
 Fringe rate (Hz)
 -0.036388
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043259.20
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060636
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-124.8	-150.8	-148.5	-113.0	-143.7	-89.6	-132.9	-162.6	Phase	-136.5
	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.3	Ampl.	0.2
	44.6	397.3	54.1	231.2	276.9	315.8	409.0	443.8	Sbd box	192.4
U/L	347/0	347/0	347/0	347/0	347/0	347/0	347/0	347/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	5.05956295965E+03	Apriori delay (usec)	5.05982113713E+03	Resid mbdelay (usec)	7.44752E-03	+/-	1.9E-04
Sband delay (usec)	5.05956886338E+03	Apriori clock (usec)	7.7861338E+00	Resid sbdelay (usec)	-2.52274E-01	+/-	1.5E-03
Phase delay (usec)	5.05982113282E+03	Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	-4.31303E-06	+/-	6.5E-07
Delay rate (us/s)	1.75562216523E+00	Apriori rate (us/s)	1.75562257901E+00	Resid rate (us/s)	-4.13781E-07	+/-	6.3E-09
Total phase (deg)	151.2	Apriori accel (us/s/s)	-3.84921243146E-05	Resid phase (deg)	-136.5	+/-	20.5

ph/seg (deg)	RMS 52.9	Theor. 50.1	Amplitude Search (1024X32)	0.176	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	61.6	87.4	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	25.8	29.1	Inc. seg. avg.	0.174	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	29.4	50.7	Inc. frq. avg.	0.168	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 92.3 el 38.1 pa -63.8 Z: az 263.9 el 22.8 pa 31.0 u,v (fr/asec) -10731.758 -4026.954 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fZ..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fZ.W.110.1JFKZ

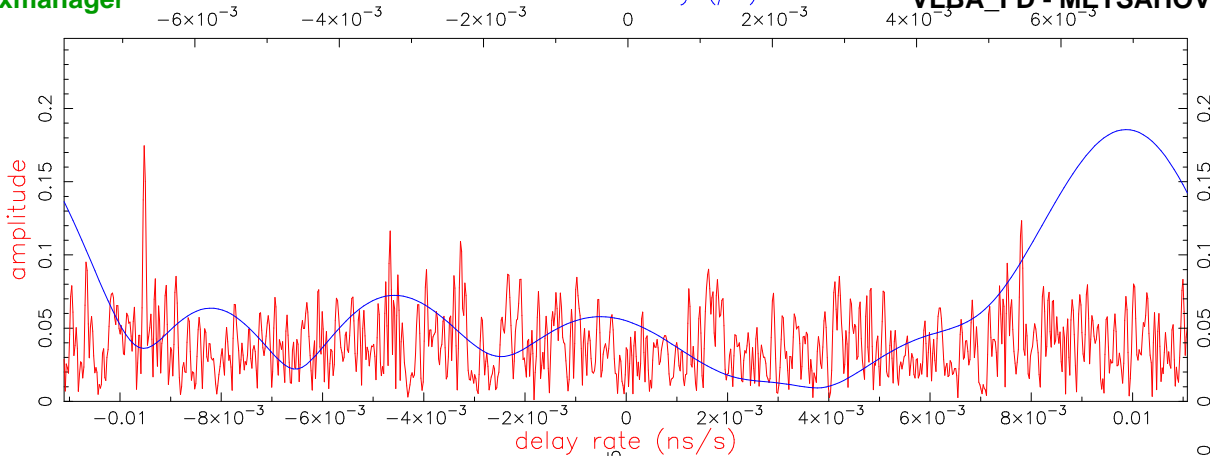
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fZ

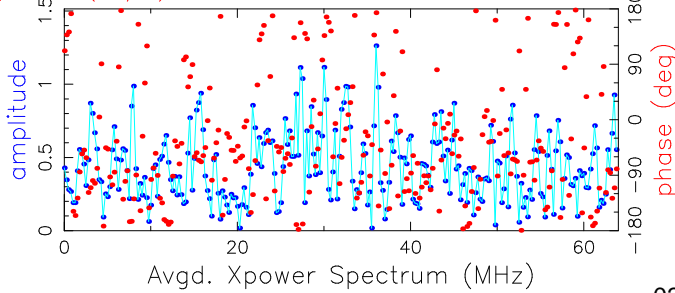
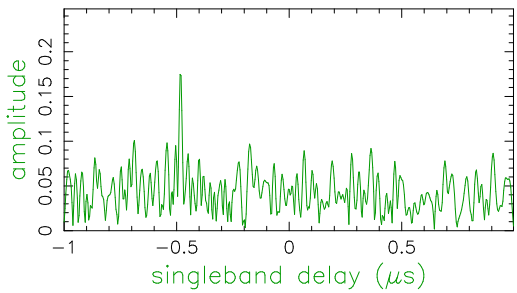
VLBA_FD - METSAHOV, fgroup W, pol LR

multiband delay (μ s)



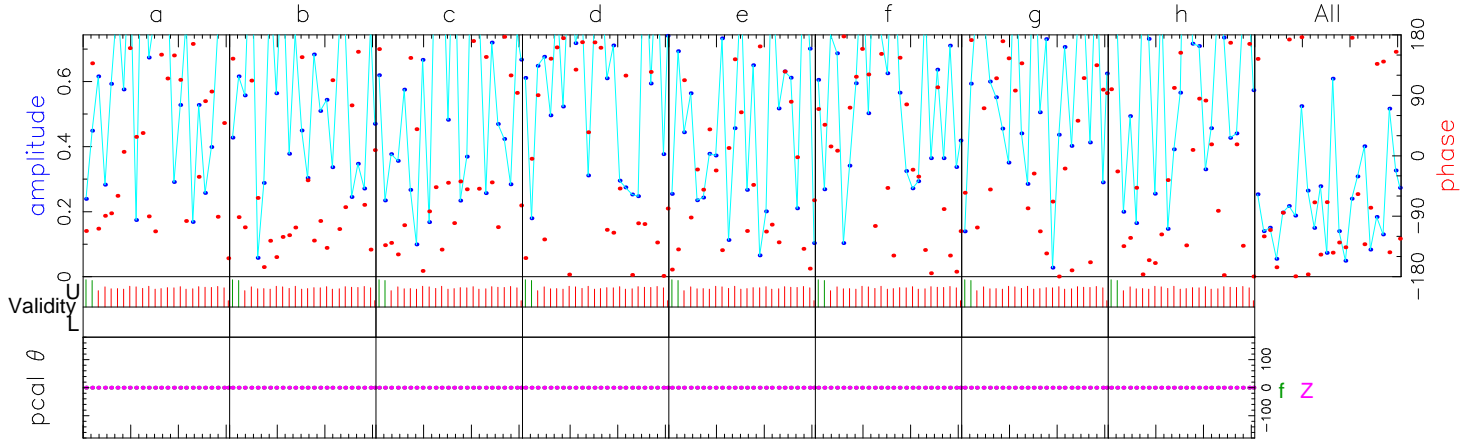
Fringe quality 0

SNR 5.6
 Int time 128.976
 Amp 0.248
 Phase -155.7
 PFD 9.6e-01
 Delays (us)
 SBD -0.482566
 MBD -0.008301
 Fringe rate (Hz)
 -0.839222
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043259.20
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060637
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-143.0	-130.9	-125.0	-168.2	-137.0	164.2	139.3	-161.2	Phase	-155.7
	0.1	0.4	0.3	0.5	0.2	0.2	0.2	0.2	Ampl.	0.2
	326.3	133.2	131.9	133.1	319.1	212.7	22.7	382.8	Sbd box	133.5
U/L	347/0	347/0	347/0	347/0	347/0	347/0	347/0	347/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.05934408635E+03		Apriori delay (usec)		5.05982113713E+03		Resid mbdelay (usec)		-8.30078E-03	+/- 2.0E-04
Sband delay (usec)	5.05933857088E+03		Apriori clock (usec)		7.7861338E+00		Resid sbdelay (usec)		-4.82566E-01	+/- 1.5E-03
Phase delay (usec)	5.05982113221E+03		Apriori clockrate (us/s)		3.8399996E-07		Resid phdelay (usec)		-4.91804E-06	+/- 6.5E-07
Delay rate (us/s)	1.75561303589E+00		Apriori rate (us/s)		1.75562257901E+00		Resid rate (us/s)		-9.54312E-06	+/- 6.3E-09
Total phase (deg)	132.0		Apriori accel (us/s/s)		-3.84921243146E-05		Resid phase (deg)		-155.7	+/- 20.6

	RMS	Theor.	Amplitude	0.248 +/- 0.045	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	50.2	50.2	Search (1024X32)	0.184	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	88.7	87.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	36.7	29.1	Inc. seg. avg.	0.238	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	53.3	50.8	Inc. frq. avg.	0.245	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 92.3 el 38.1 pa -63.8 Z: az 263.9 el 22.8 pa 31.0 u,v (fr/asec) -10731.758 -4026.954 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fZ..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fZ.W.126.1JFKZ

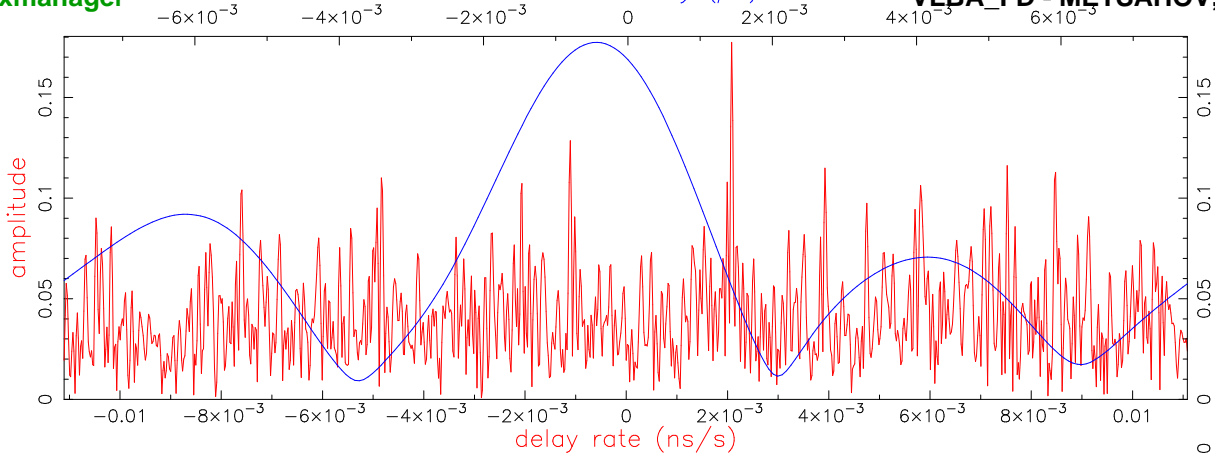
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fZ

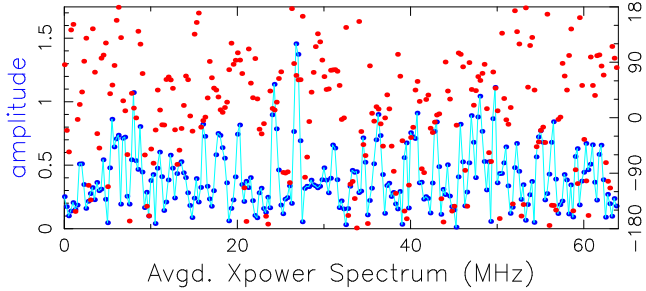
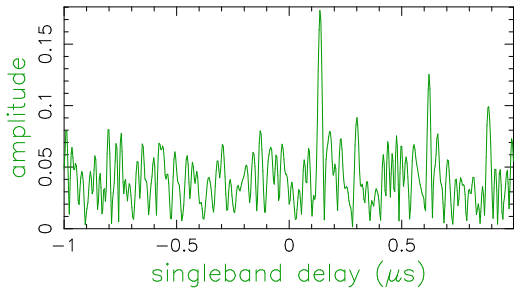
VLBA_FD - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



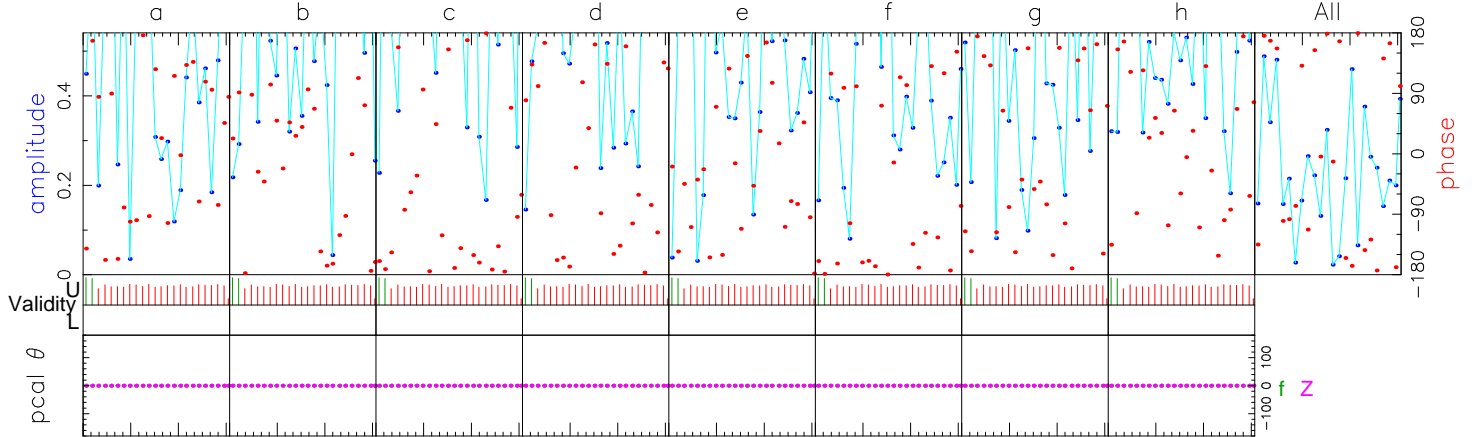
Fringe quality 0

SNR 5.5
 Int time 128.976
 Amp 0.180
 Phase -170.9
 PFD 9.8e-01
 Delays (us)
 SBD 0.137362
 MBD -0.000438
 Fringe rate (Hz)
 0.183162
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043259.20
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060639
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
	-175.1	68.6	-155.4	-174.6	-132.7	-179.6	-178.2	-159.6	Phase	-170.9
	0.1	0.1	0.4	0.3	0.1	0.4	0.2	0.0	Ampl.	0.2
	505.1	340.0	292.7	211.9	332.6	374.2	361.6	200.9	Sbd box	292.2
U/L	347/0	347/0	347/0	347/0	347/0	347/0	347/0	347/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 5.05996132446E+03 Apriori delay (usec) 5.05982113713E+03 Resid mbdelay (usec) -4.37670E-04 +/- 2.0E-04
 Sband delay (usec) 5.05995849888E+03 Apriori clock (usec) 7.7861338E+00 Resid sbdelay (usec) 1.37362E-01 +/- 1.6E-03
 Phase delay (usec) 5.05982113173E+03 Apriori clockrate (us/s) 3.8399996E-07 Resid phdelay (usec) -5.39951E-06 +/- 6.6E-07
 Delay rate (us/s) 1.75562466182E+00 Apriori rate (us/s) 1.75562257901E+00 Resid rate (us/s) 2.08280E-06 +/- 6.4E-09
 Total phase (deg) 116.8 Apriori accel (us/s/s) -3.84921243146E-05 Resid phase (deg) -170.9 +/- 20.8

RMS Theor. Amplitude 0.180 +/- 0.033 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 62.4 50.6 Search (1024X32) 0.176 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 82.2 88.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 52.4 29.4 Inc. seg. avg. 0.170 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 70.5 51.2 Inc. frq. avg. 0.181 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 Z: az 263.9 el 22.8 pa 31.0 u,v (fr/asec) -10731.758 -4026.954 simultaneous interpolator
 Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fZ..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fZ.W.141.1JFKZ

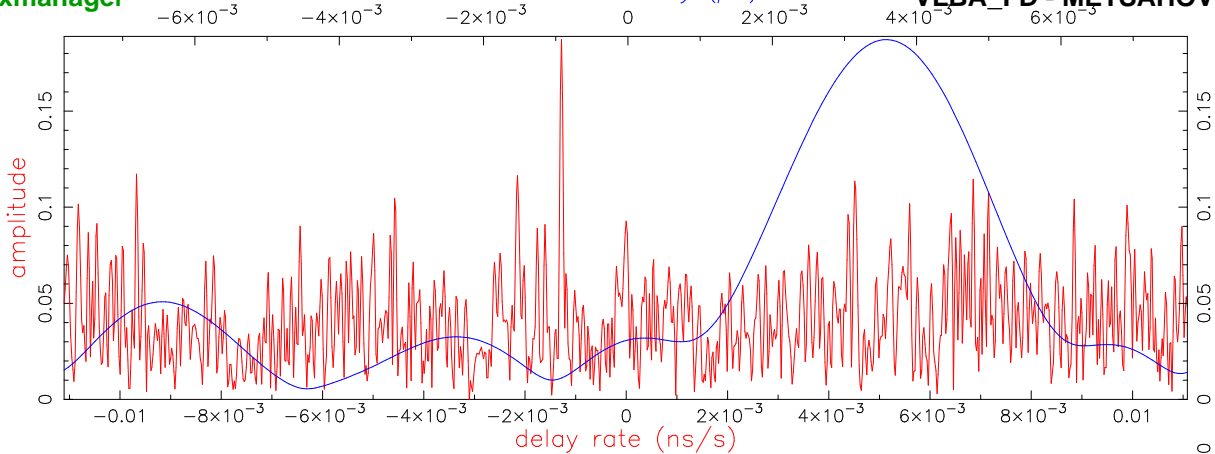
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0235+164.1JFKZ, No0038, fZ

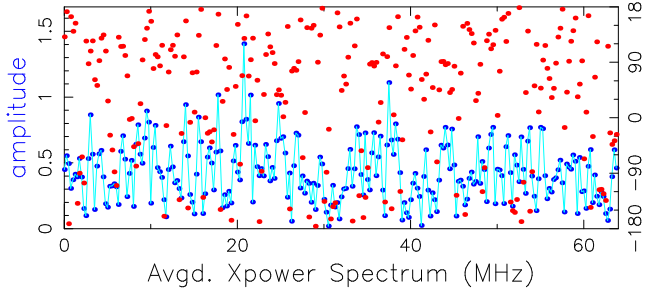
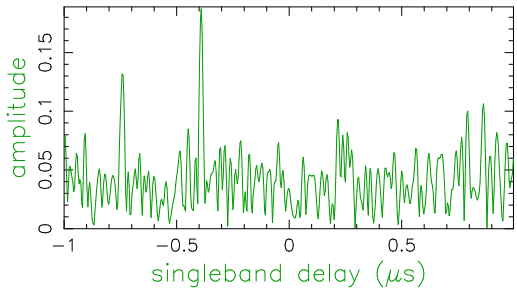
VLBA_FD - METSAHOV, fgroup W, pol LL

multiband delay (μ s)



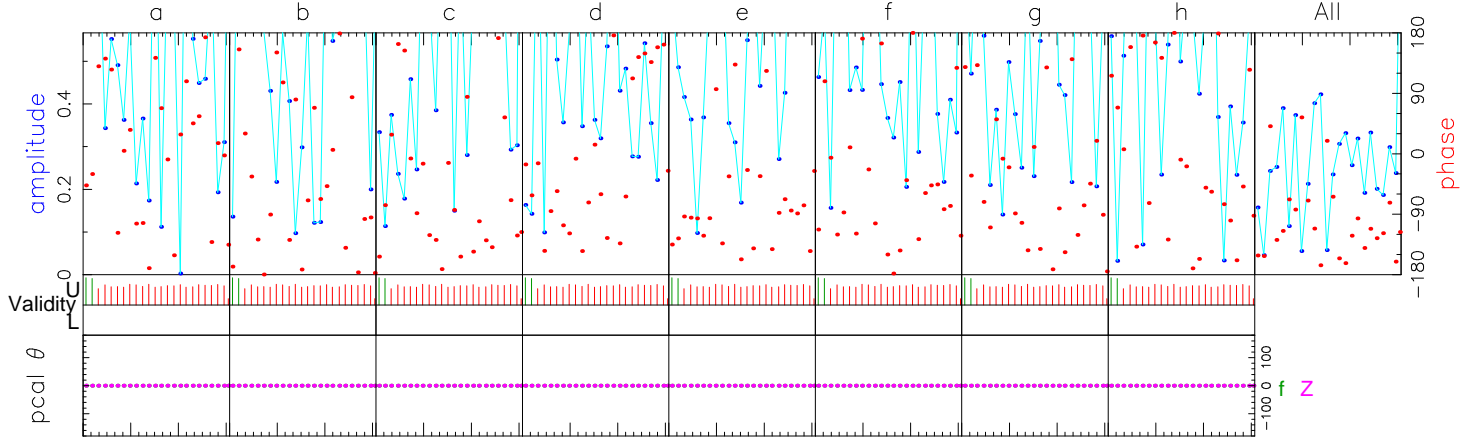
Fringe quality 0

SNR 5.8
 Int time 128.976
 Amp 0.189
 Phase -118.6
 PFD 4.9e-01
 Delays (us)
 SBD -0.391398
 MBD 0.003556
 Fringe rate (Hz)
 -0.113485
 Ion TEC 0.000
 Ref freq (MHz)
 87940.0000
 AP (sec) 0.512



Exp. c202c
 Exper # 16383
 Yr:day 2020:286
 Start 043000.00
 Stop 043259.20
 FRT 043130.00
 Corr/FF/build
 2021:039:055416
 2021:039:060634
 2020:247:085004
 RA & Dec (J2000)
 02h38m38.930107s
 +16°36'59.274536"

Amp. and Phase vs. time for each freq., 24 segs, 15 APs / seg (7.68 sec / seg.), time ticks 10 sec



	87812.00	87876.00	87940.00	88004.00	88068.00	88132.00	88196.00	88260.00	Freq (MHz)	All
U/L	347/0	347/0	347/0	347/0	347/0	347/0	347/0	347/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	5.05943406769E+03		Apriori delay (usec)		5.05982113713E+03		Resid mbdelay (usec)		3.55556E-03	+/- 1.9E-04
Sband delay (usec)	5.05942973863E+03		Apriori clock (usec)		7.7861338E+00		Resid sbdelay (usec)		-3.91398E-01	+/- 1.5E-03
Phase delay (usec)	5.05982113339E+03		Apriori clockrate (us/s)		3.8399996E-07		Resid phdelay (usec)		-3.74477E-06	+/- 6.2E-07
Delay rate (us/s)	1.75562128852E+00		Apriori rate (us/s)		1.75562257901E+00		Resid rate (us/s)		-1.29049E-06	+/- 6.0E-09
Total phase (deg)	169.2		Apriori accel (us/s/s)		-3.84921243146E-05		Resid phase (deg)		-118.6	+/- 19.6

	RMS	Theor.	Amplitude	0.189 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	62.7	47.9	Search (1024X32)	0.178	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	73.4	83.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	63.3	27.8	Inc. seg. avg.	0.184	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	48.1	48.5	Inc. frq. avg.	0.179	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 92.3 el 38.1 pa -63.8 Z: az 263.9 el 22.8 pa 31.0 u,v (fr/asec) -10731.758 -4026.954 simultaneous interpolator

Control file: cf_1234_88GHz_gmva Input file: /Exps/c202c/v1/1234/No0038/fZ..1JFKZ Output file: /Exps/c202c/v1/1234/No0038/fZ.W.94.1JFKZ