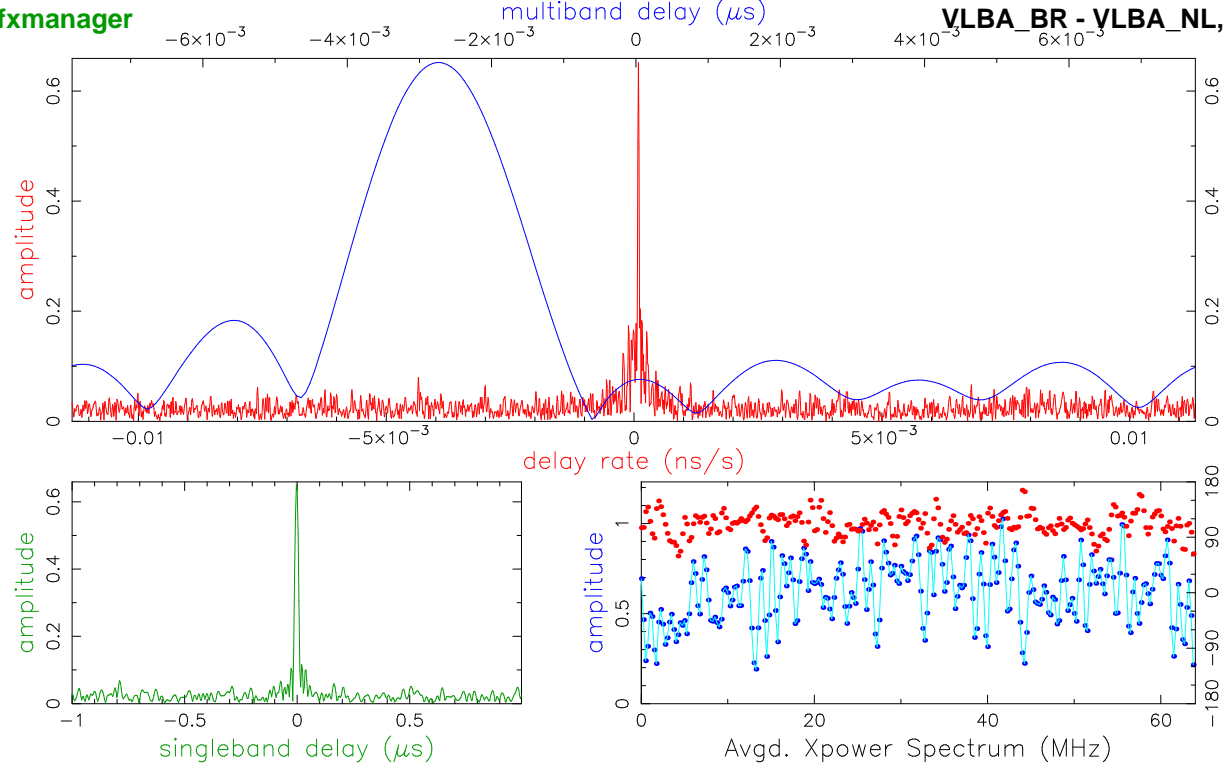


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

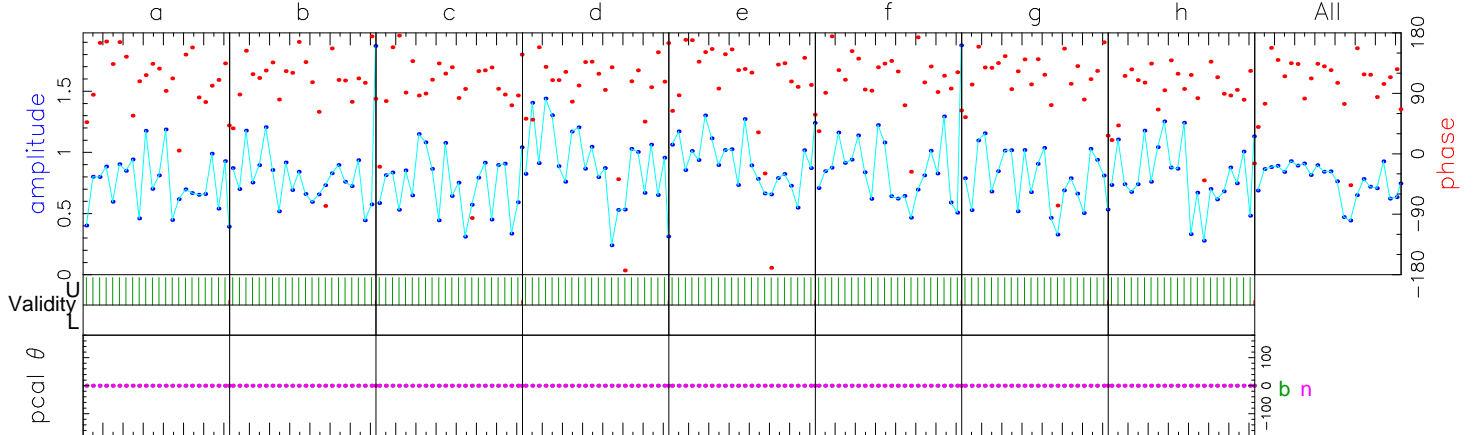
1741-038.1X0AZO, No0070, bn

VLBA_BR - VLBA_NL, fgroup W, pol RR



Fringe quality 8
 SNR 36.9
 Int time 419.484
 Amp 0.659
 Phase 114.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.002519
 MBD -0.002702
 Fringe rate (Hz) 0.007756
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120547
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 --3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
b	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	3.18782055650E+03		Apriori delay (usec)		3.18782325848E+03		Resid mbdelay (usec)		-2.70199E-03	+/- 2.9E-05
Sband delay (usec)	3.18782073923E+03		Apriori clock (usec)		-8.4565239E+00		Resid sbdelay (usec)		-2.51925E-03	+/- 2.3E-04
Phase delay (usec)	3.18782326217E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		3.69208E-06	+/- 1.0E-07
Delay rate (us/s)	4.88667680881E-01		Apriori rate (us/s)		4.88667590840E-01		Resid rate (us/s)		9.00407E-08	+/- 4.1E-10
Total phase (deg)	289.3		Apriori accel (us/s/s)		-1.75903159881E-05		Resid phase (deg)		114.5	+/- 3.1

ph/seg (deg) 44.2 7.4 Search (2048X32) 0.639 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 27.1 13.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.6 4.4 Inc. seg. avg. 0.767 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 8.2 7.7 Inc. frq. avg. 0.657 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 209.0 el 34.0 pa 19.0 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -2823.995 790.471 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/bn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/bn.W.29.1X0AZO

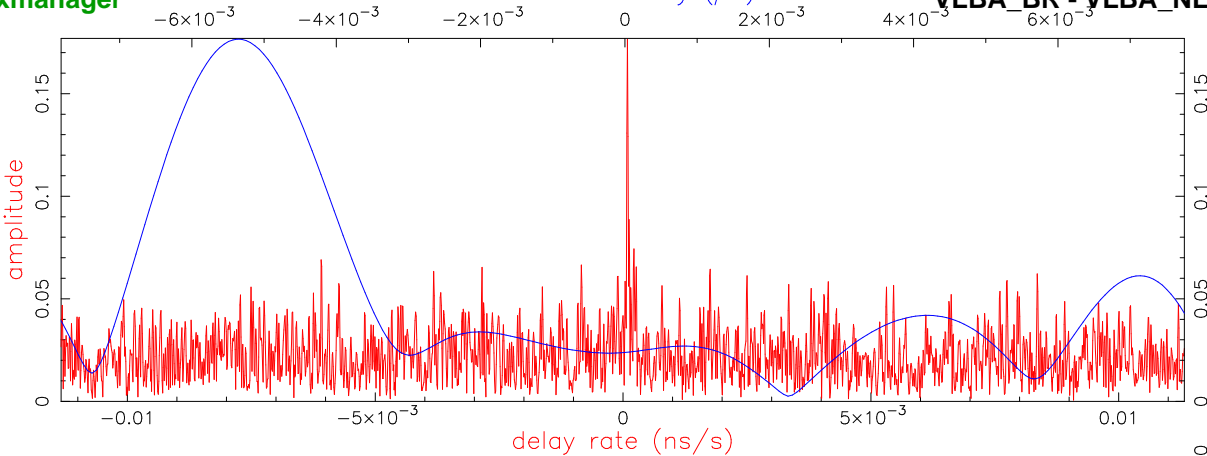
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, bn

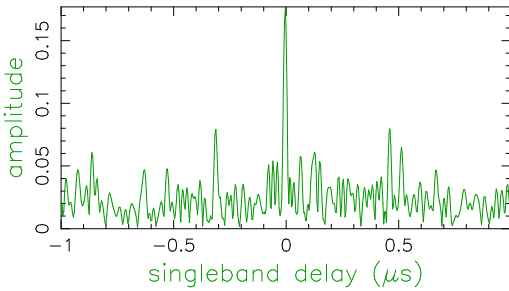
VLBA_BR - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

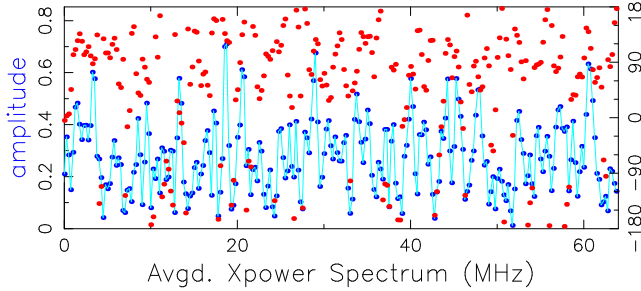


Fringe quality 9

SNR 9.9
Int time 419.484
Amp 0.177
Phase 108.6
PFD 1.6e-14
Delays (us)
SBD -0.004495
MBD -0.005382
Fringe rate (Hz) 0.007571
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

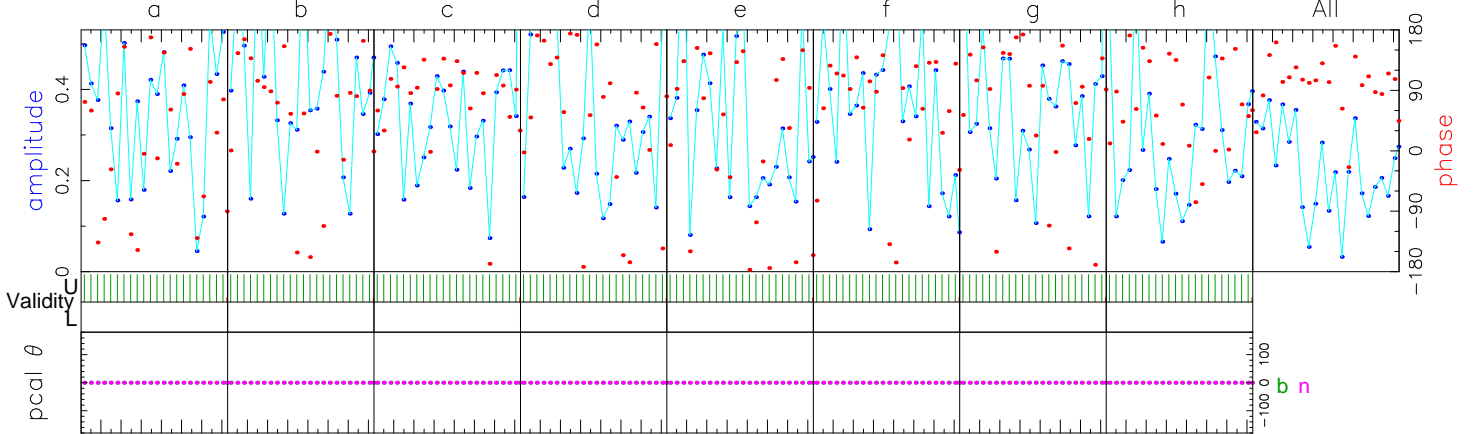


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build 2021:303:042052
2021:303:120551
2021:252:122852
RA & Dec (J2000) 17h43m58.856136s
--3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

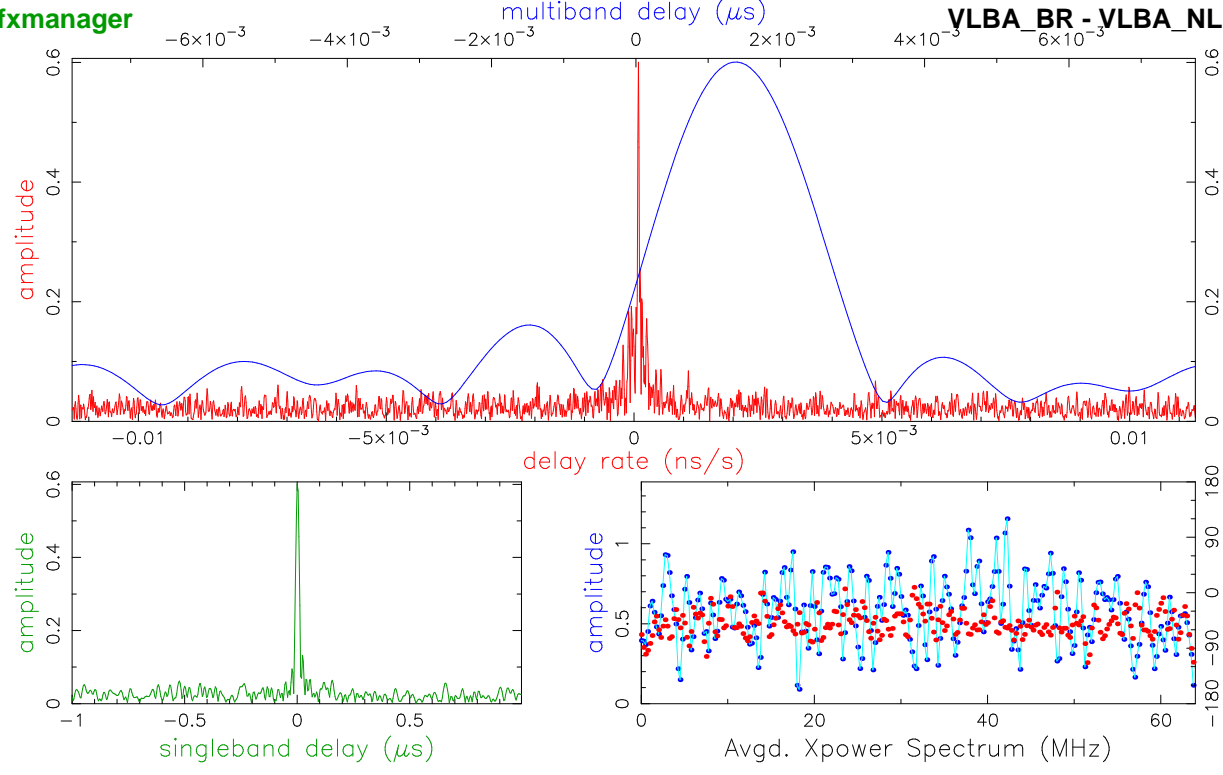


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	99.3	105.8	91.8	135.9	120.5	109.8	128.4	71.4	Phase	108.6
	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	155.1	256.3	255.6	281.5	256.3	237.0	255.2	248.4	Sbd box	255.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.18781787628E+03		Apriori delay (usec)		3.18782325848E+03		Resid mbdelay (usec)		-5.38220E-03	+/- 1.1E-04
Sband delay (usec)	3.18781876348E+03		Apriori clock (usec)		-8.4565239E+00		Resid sbdelay (usec)		-4.49500E-03	+/- 8.7E-04
Phase delay (usec)	3.18782326198E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		3.50060E-06	+/- 3.7E-07
Delay rate (us/s)	4.88667678730E-01		Apriori rate (us/s)		4.88667590840E-01		Resid rate (us/s)		8.78902E-08	+/- 1.5E-09
Total phase (deg)	283.4		Apriori accel (us/s/s)		-1.75903159881E-05		Resid phase (deg)		108.6	+/- 11.6

	RMS	Theor.	Amplitude	0.177 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	40.9	27.7	Search (2048X32)	0.176	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	60.6	48.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	22.5	16.4	Inc. seg. avg.	0.201	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	32.4	28.5	Inc. frq. avg.	0.179	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 209.0 el 34.0 pa 19.0 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -2823.995 790.471 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/bn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/bn.W.50.1X0AZO

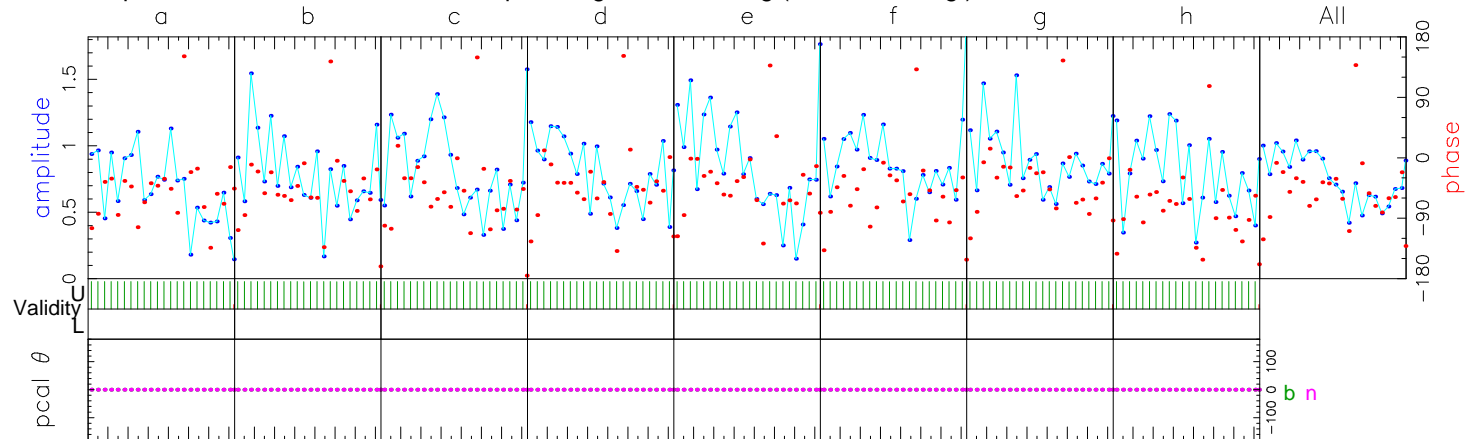


Fringe quality 7

SNR 34.0
Int time 419.484
Amp 0.607
Phase -52.1
PFD 0.0e+00
Delays (us)
SBD 0.001311
MBD 0.001419
Fringe rate (Hz) 0.007760
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120543
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-61.0	-43.7	-57.0	-47.9	-40.4	-54.7	-39.1	-77.5	Phase	-52.1
	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.6	Ampl.	0.6
	257.2	257.5	257.4	257.4	257.2	257.5	257.2	256.9	Sbd box	257.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.18782467762E+03		Apriori delay (usec)		3.18782325848E+03		Resid mbdelay (usec)		1.41914E-03	+/- 3.2E-05
Sband delay (usec)	3.18782456948E+03		Apriori clock (usec)		-8.4565239E+00		Resid sbdelay (usec)		1.31100E-03	+/- 2.5E-04
Phase delay (usec)	3.18782325680E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-1.67924E-06	+/- 1.1E-07
Delay rate (us/s)	4.88667680922E-01		Apriori rate (us/s)		4.88667590840E-01		Resid rate (us/s)		9.00818E-08	+/- 4.5E-10
Total phase (deg)	122.8		Apriori accel (us/s/s)		-1.75903159881E-05		Resid phase (deg)		-52.1	+/- 3.4

ph/seg (deg) 46.8 8.1 Search (2048X32) 0.594 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 39.7 14.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 13.8 4.8 Inc. seg. avg. 0.755 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 6.7 8.3 Inc. frq. avg. 0.611 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 209.0 el 34.0 pa 19.0 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -2823.995 790.471 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/bn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/bn.W.6.1X0AZO

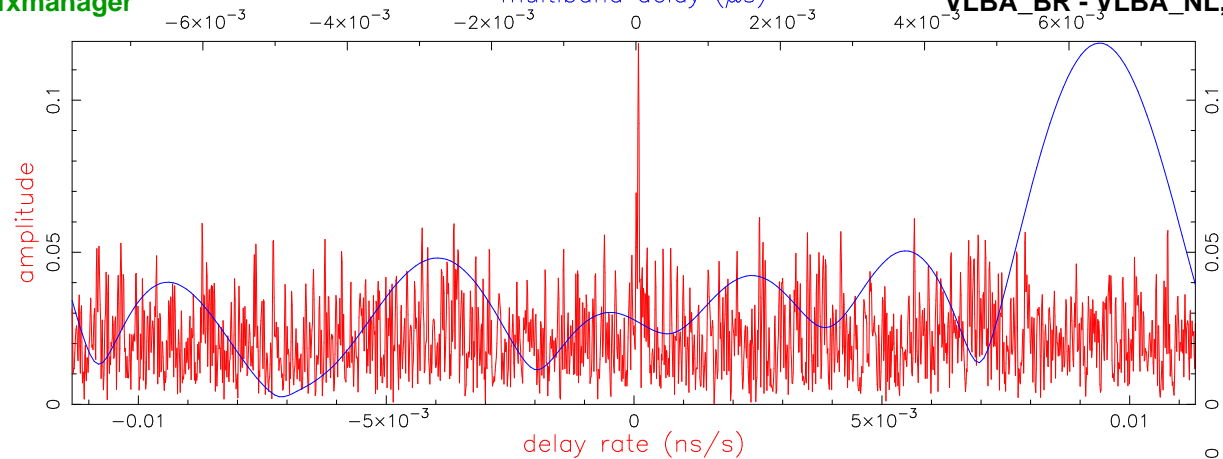
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, bn

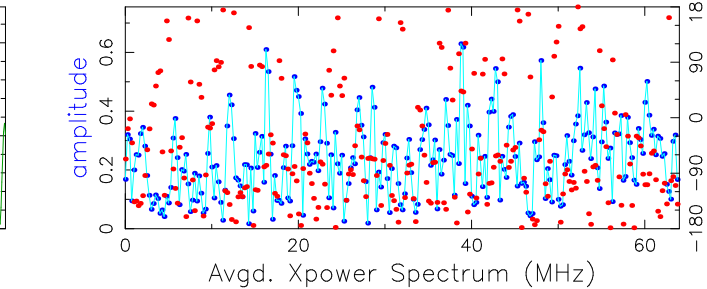
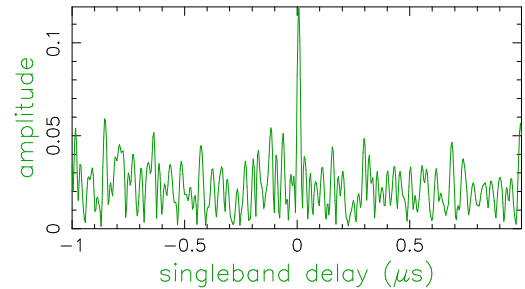
VLBA_BR - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



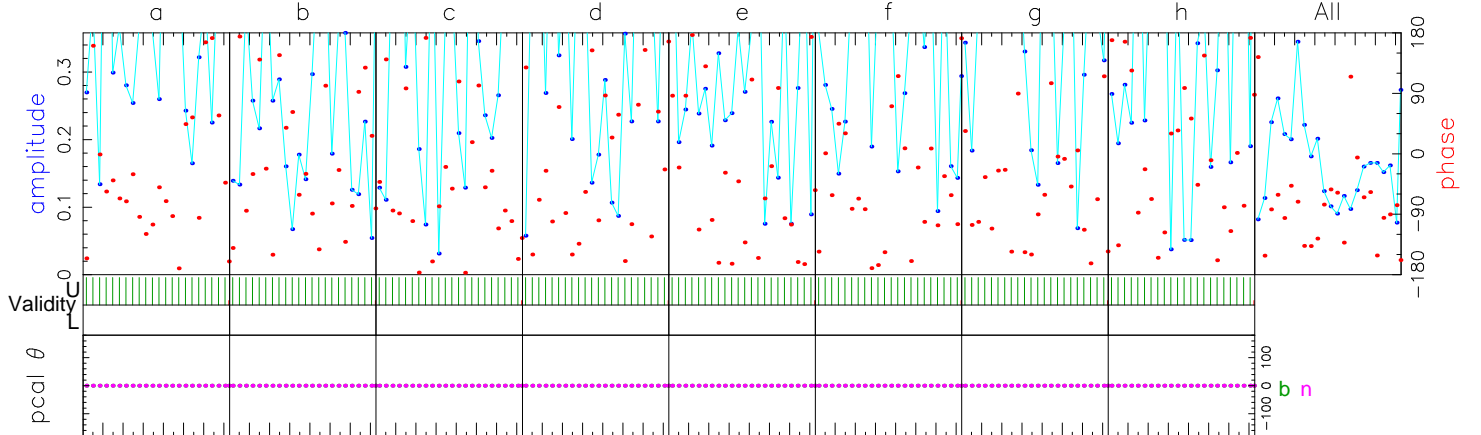
Fringe quality 0

SNR 6.7
 Int time 419.484
 Amp 0.119
 Phase -91.6
 PFD 6.7e-03
 Delays (us)
 SBD 0.006918
 MBD 0.006375
 Fringe rate (Hz) 0.007696
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build 2021:303:042052
 2021:303:120555
 2021:252:122852
 RA & Dec (J2000) 17h43m58.856136s
 --3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.1	-97.0	-90.9	-106.2	-156.9	-72.3	-67.4	-93.6	Phase	-91.6
	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	69.0	20.0	446.2	9.4	373.3	123.8	257.0	142.7	Sbd box	258.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
b	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.18782963393E+03		Apriori delay (usec)		3.18782325848E+03		Resid mbdelay (usec)		6.37545E-03	+/- 1.6E-04
Sband delay (usec)	3.18783017673E+03		Apriori clock (usec)		-8.4565239E+00		Resid sbdelay (usec)		6.91825E-03	+/- 1.3E-03
Phase delay (usec)	3.18782325553E+03		Apriori clockrate (us/s)		-3.9999999E-07		Resid phdelay (usec)		-2.95422E-06	+/- 5.5E-07
Delay rate (us/s)	4.88667680189E-01		Apriori rate (us/s)		4.88667590840E-01		Resid rate (us/s)		8.93484E-08	+/- 2.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.75903159881E-05		Resid phase (deg)		-91.6	+/- 17.1

	RMS	Theor.	Amplitude	0.119 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	56.1	41.1	Search (2048X32)	0.118	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	65.3	71.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	30.3	24.2	Inc. seg. avg.	0.130	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	33.4	42.3	Inc. frq. avg.	0.118	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

b: az 209.0 el 34.0 pa 19.0 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -2823.995 790.471 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/bn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/bn.W.68.1X0AZO

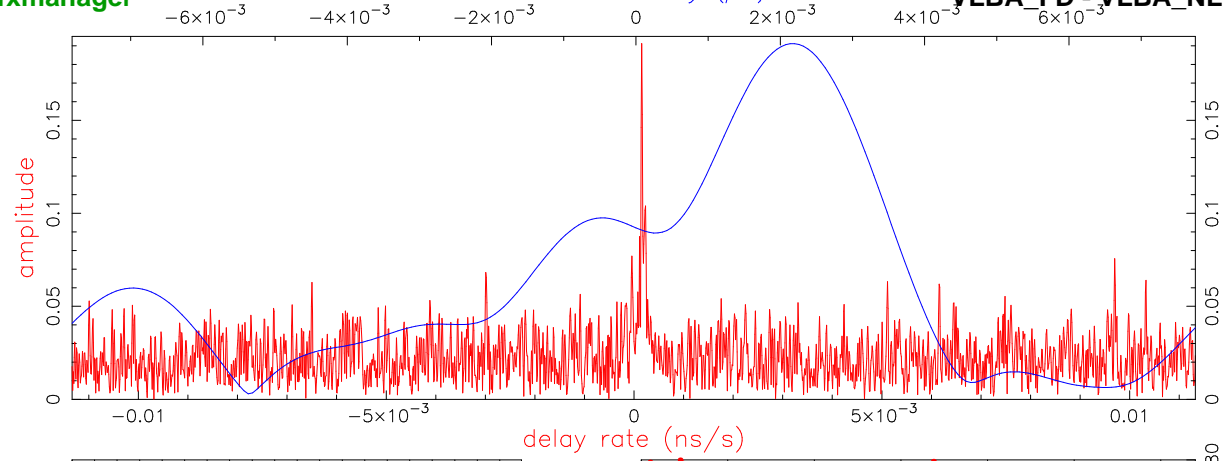
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, fn

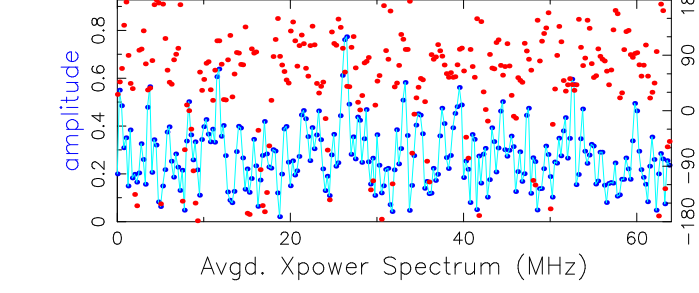
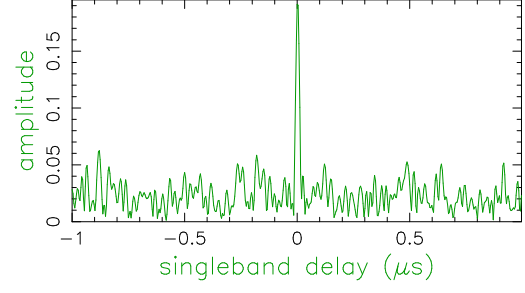
VLBA_FD - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)



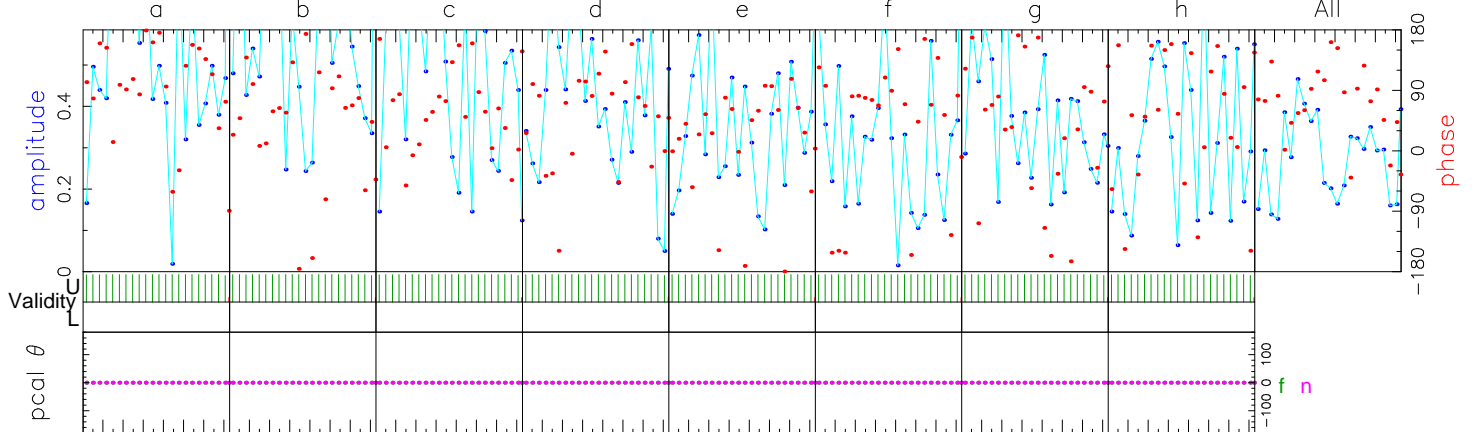
Fringe quality 9

SNR 10.9
 Int time 418.800
 Amp 0.195
 Phase 73.7
 PFD 4.4e-19
 Delays (us)
 SBD 0.001849
 MBD 0.002182
 Fringe rate (Hz)
 0.013182
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120545
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0		
f	0	0	0	0	0	0	0	0		
n	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: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)	4.55950567172E+03		Apriori delay (usec)		4.55950349021E+03		Resid mbdelay (usec)		2.18151E-03	+/- 9.9E-05
Sband delay (usec)	4.55950533921E+03		Apriori clock (usec)		4.7872868E+00		Resid sbdelay (usec)		1.84900E-03	+/- 7.9E-04
Phase delay (usec)	4.55950349259E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		2.37724E-06	+/- 3.4E-07
Delay rate (us/s)	5.63686706817E-02		Apriori rate (us/s)		5.63685176467E-02		Resid rate (us/s)		1.53035E-07	+/- 1.4E-09
Total phase (deg)	306.7		Apriori accel (us/s/s)		-2.30359812274E-05		Resid phase (deg)		73.7	+/- 10.5
RMS	50.7	25.2	Amplitude		0.195 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5	
amp/seg (%)	64.1	43.9	Search (2048X32)		0.188		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	26.8	14.8	Interp.		0.000		Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	46.8	25.9	Inc. seg. avg.		0.250		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
			Inc. frq. avg.		0.204		Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00
f: az 234.7 el 38.9 pa 45.2	n: az 239.6 el 24.5 pa 40.6		u,v (fr/asec)		-353.861 -1260.829		nlags: 256 t_cohere infinite		simultaneous interpolator	

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/fn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/fn.W.17.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

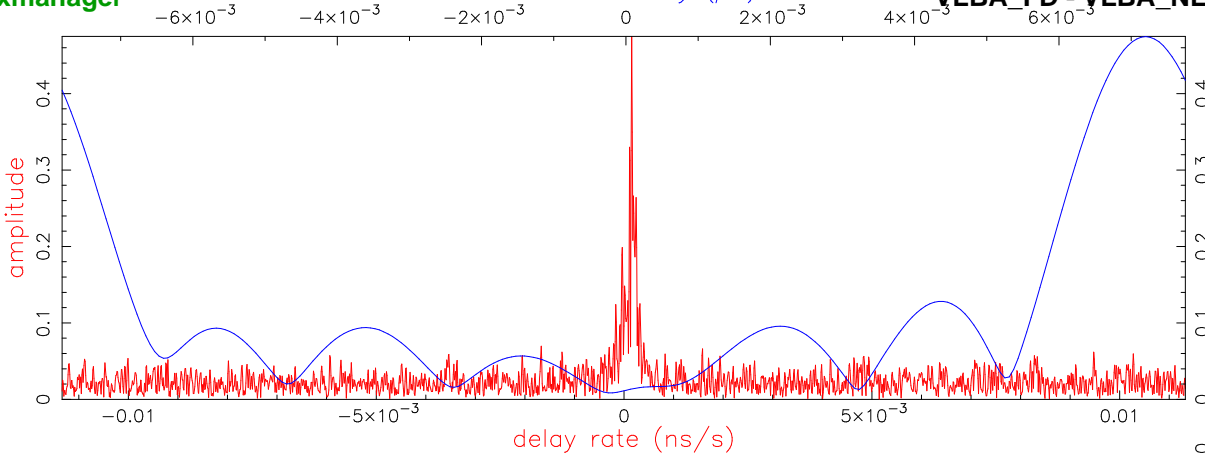
fxmanager

1741-038.1X0AZO, No0070, fn

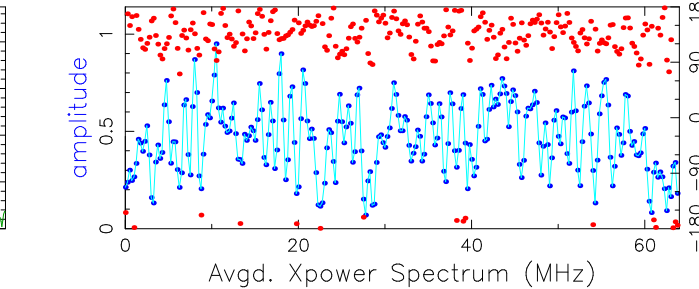
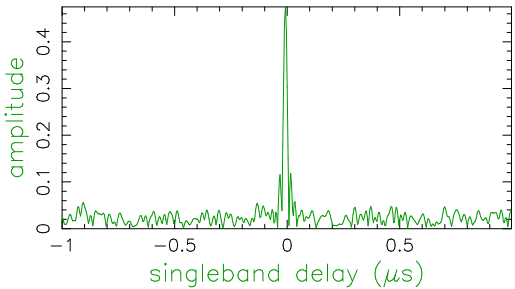
VLBA_FD - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 7

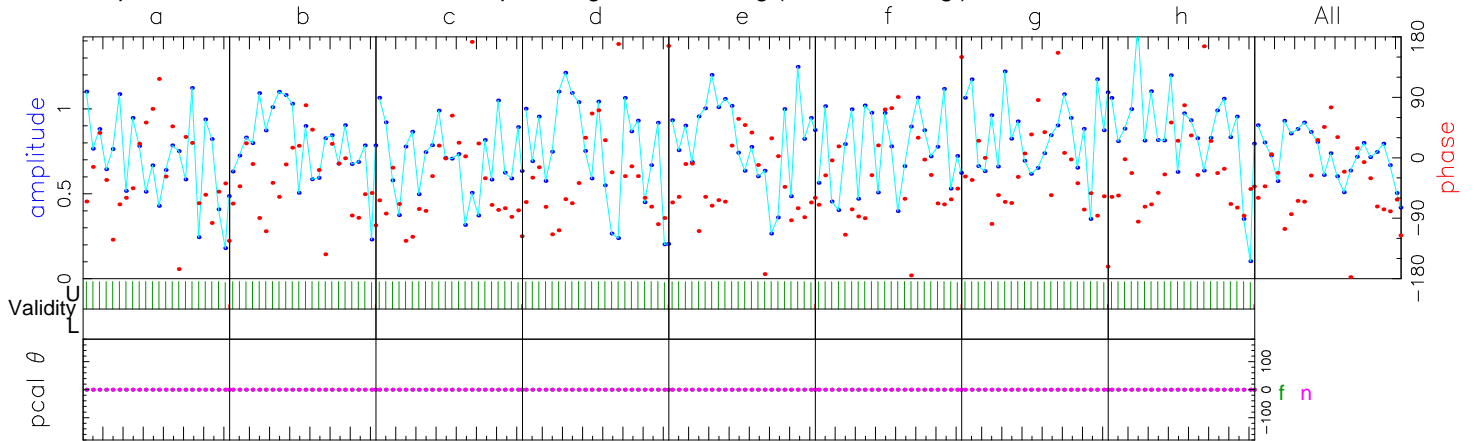


SNR 26.6
 Int time 418.799
 Amp 0.475
 Phase -38.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.008156
 MBD 0.007191
 Fringe rate (Hz)
 0.013149
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120548
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-26.3	-30.7	-54.8	-43.9	-46.8	-37.9	-34.8	-31.4	Phase	-38.5
	0.4	0.5	0.4	0.5	0.5	0.4	0.5	0.6	Ampl.	0.5
	255.9	254.5	254.8	254.7	254.8	255.0	255.3	254.7	Sbd box	254.9
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.55949505622E+03		Apriori delay (usec)		4.55950349021E+03		Resid mbdelay (usec)		7.19101E-03	+/- 4.1E-05
Sband delay (usec)	4.55949533396E+03		Apriori clock (usec)		4.7872868E+00		Resid sbdelay (usec)		-8.15625E-03	+/- 3.2E-04
Phase delay (usec)	4.55950348897E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-1.24067E-06	+/- 1.4E-07
Delay rate (us/s)	5.63686702913E-02		Apriori rate (us/s)		5.63685176467E-02		Resid rate (us/s)		1.52645E-07	+/- 5.7E-10
Total phase (deg)	194.5		Apriori accel (us/s/s)		-2.30359812274E-05		Resid phase (deg)		-38.5	+/- 4.3

ph/seg (deg) 55.9 10.3 Search (2048X32) 0.461 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 61.9 18.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.3 6.1 Inc. seg. avg. 0.728 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.0 10.6 Inc. frq. avg. 0.477 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 234.7 el 38.9 pa 45.2 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -353.861 -1260.829 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/fn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/fn.W.36.1X0AZO

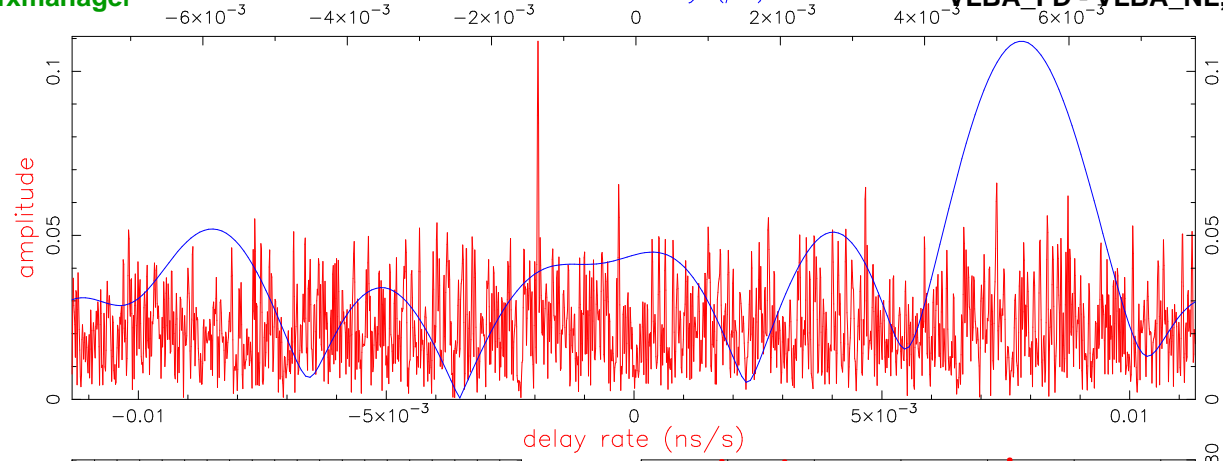
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

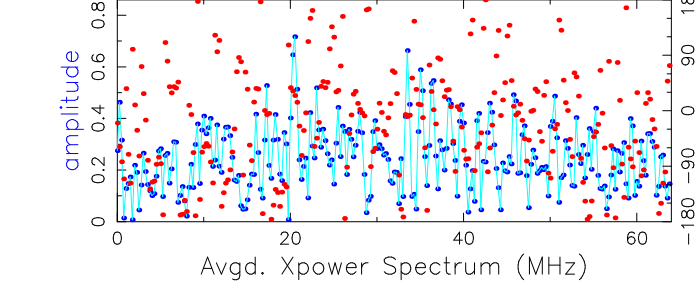
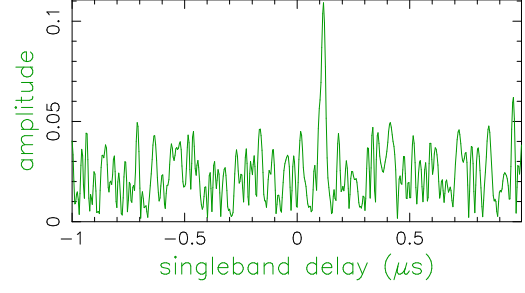
1741-038.1X0AZO, No0070, fn

VLBA_FD - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

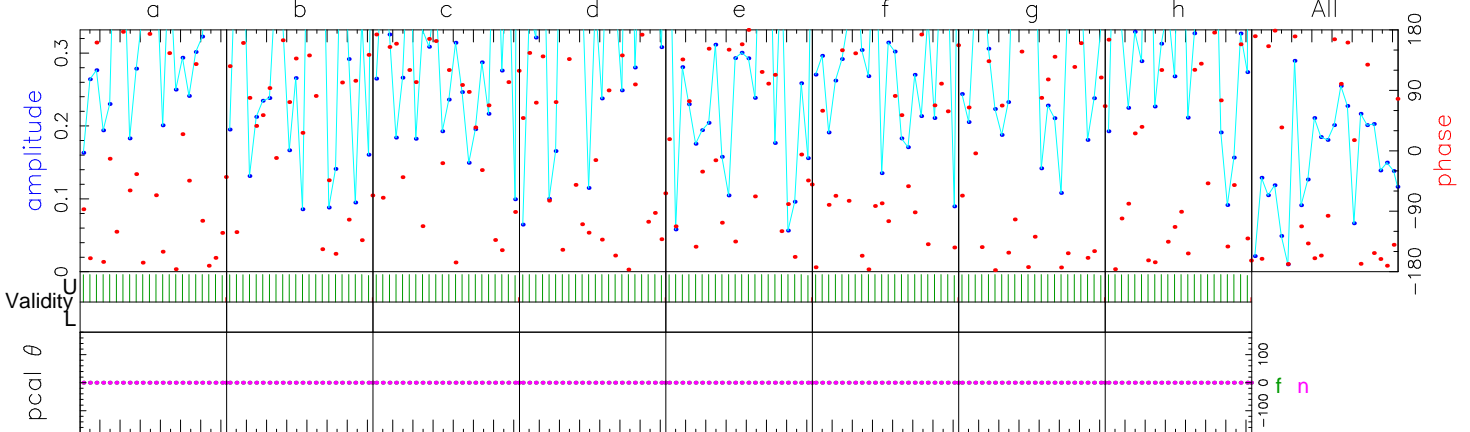


Fringe quality 0
 SNR 6.1
 Int time 418.800
 Amp 0.111
 Phase -176.7
 PFD 2.2e-01
 Delays (us)
 SBD 0.116641
 MBD 0.005342
 Fringe rate (Hz)
 -0.166714
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120553
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.9	141.2	161.0	-171.7	140.6	-161.1	169.6	-156.9	Phase	-176.7
	0.2	0.1	0.1	0.2	0.0	0.1	0.2	0.2	Ampl.	0.1
	74.3	303.8	284.1	493.5	270.8	17.5	287.7	342.9	Sbd box	286.9
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	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	Manl 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	
									Tracks	
Group delay (usec)(sbd)	4.55961820694E+03		Apriori delay (usec)		4.55950349021E+03		Resid mbdelay (usec)		5.34172E-03	+/- 1.8E-04
Sband delay (usec)	4.55962013096E+03		Apriori clock (usec)		4.7872868E+00		Resid sbdelay (usec)		1.16641E-01	+/- 1.4E-03
Phase delay (usec)	4.55950348452E+03		Apriori clockrate (us/s)		-2.4000000E-07		Resid phdelay (usec)		-5.69899E-06	+/- 6.0E-07
Delay rate (us/s)	5.63665822613E-02		Apriori rate (us/s)		5.63685176467E-02		Resid rate (us/s)		-1.93539E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.30359812274E-05		Resid phase (deg)		-176.7	+/- 18.7

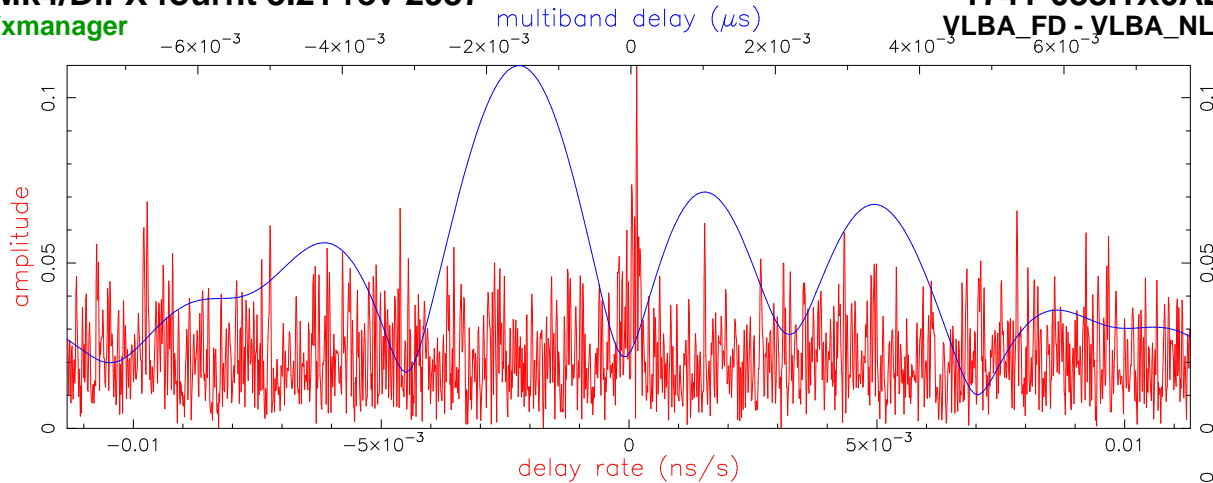
ph/seg (deg) 59.9 44.9 Search (2048X32) 0.106 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.2 78.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 31.3 26.5 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 46.9 46.2 Inc. frq. avg. 0.110 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 234.7 el 38.9 pa 45.2 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -353.861 -1260.829 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/fn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/fn.W.56.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

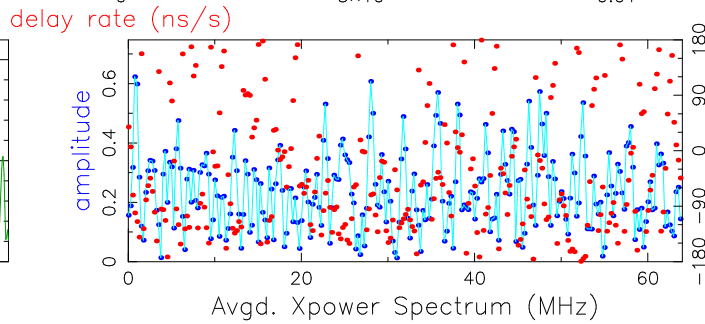
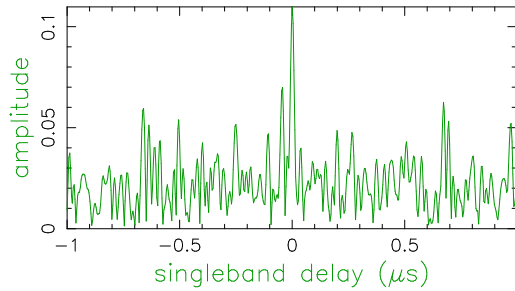
1741-038.1X0AZO, No0070, fn

VLBA_FD - VLBA_NL, fgroup W, pol RL



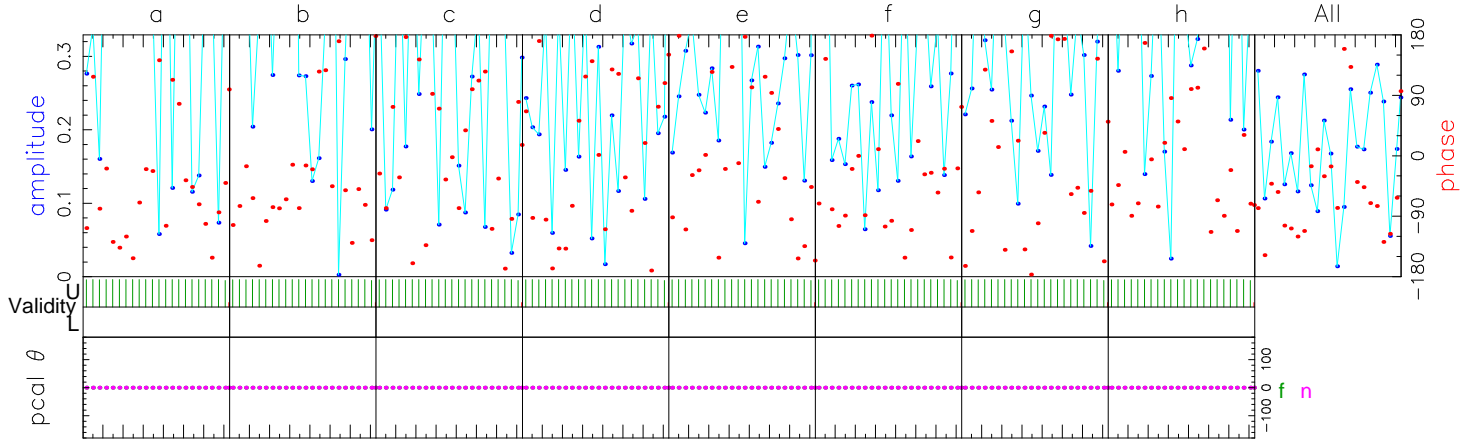
Fringe quality 0

SNR 6.1
 Int time 418.799
 Amp 0.110
 Phase -75.1
 PFD 1.9e-01
 Delays (us)
 SBD 0.000209
 MBD -0.001548
 Fringe rate (Hz)
 0.013471
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120556
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-85.2	-67.1	-58.1	-170.9	-46.9	-67.1	-143.6	-61.4	Phase	-75.1
	0.2	0.3	0.0	0.0	0.1	0.1	0.2	0.2	Ampl.	0.1
	257.0	257.0	41.9	427.8	309.5	307.9	266.0	257.2	Sbd box	257.1
U/L	819/0	819/0	819/0	819/0	819/0	819/0	819/0	819/0	APs used	
f	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.55950194254E+03	Apriori delay (usec)	4.55950349021E+03	Resid mbdelay (usec)	-1.54768E-03	+/-	1.8E-04
Sband delay (usec)	4.55950369921E+03	Apriori clock (usec)	4.7872868E+00	Resid sbdelay (usec)	2.09000E-04	+/-	1.4E-03
Phase delay (usec)	4.55950348779E+03	Apriori clockrate (us/s)	-2.4000000E-07	Resid phdelay (usec)	-2.42320E-06	+/-	6.0E-07
Delay rate (us/s)	5.63686740261E-02	Apriori rate (us/s)	5.63685176467E-02	Resid rate (us/s)	1.56379E-07	+/-	2.5E-09
Total phase (deg)	157.8	Apriori accel (us/s/s)	-2.30359812274E-05	Resid phase (deg)	-75.1	+/-	18.7

ph/seg (deg)	59.8	Theor.	44.7	Amplitude	0.110 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	89.9		78.0	Search (2048X32)	0.108	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	50.6		26.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	69.5		46.0	Inc. seg. avg.	0.133	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.112	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 234.7 el 38.9 pa 45.2 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -353.861 -1260.829 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/fn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/fn.W.75.1X0AZO

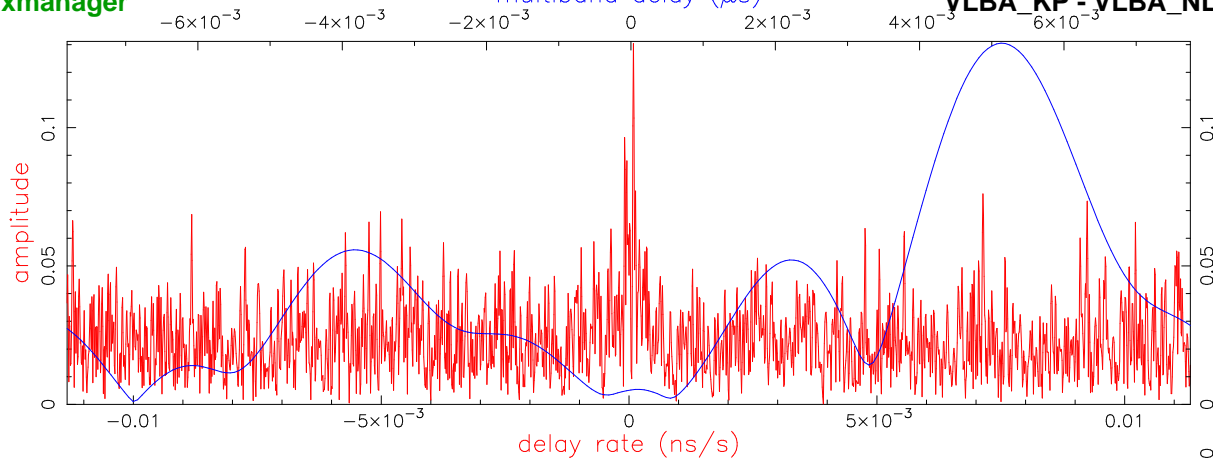
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, kn

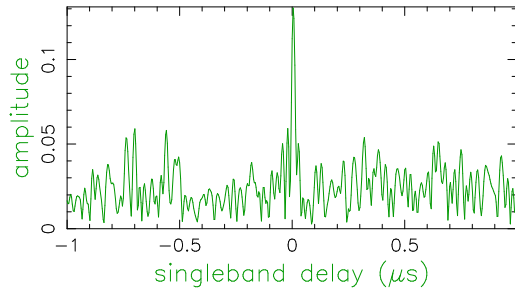
VLBA_KP - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

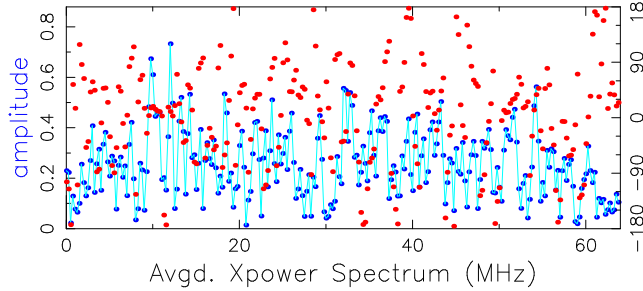


Fringe quality 9

SNR 7.3
 Int time 419.825
 Amp 0.131
 Phase 11.9
 PFD 6.3e-05
 Delays (us)
 SBD 0.004866
 MBD 0.005178
 Fringe rate (Hz)
 0.007811
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

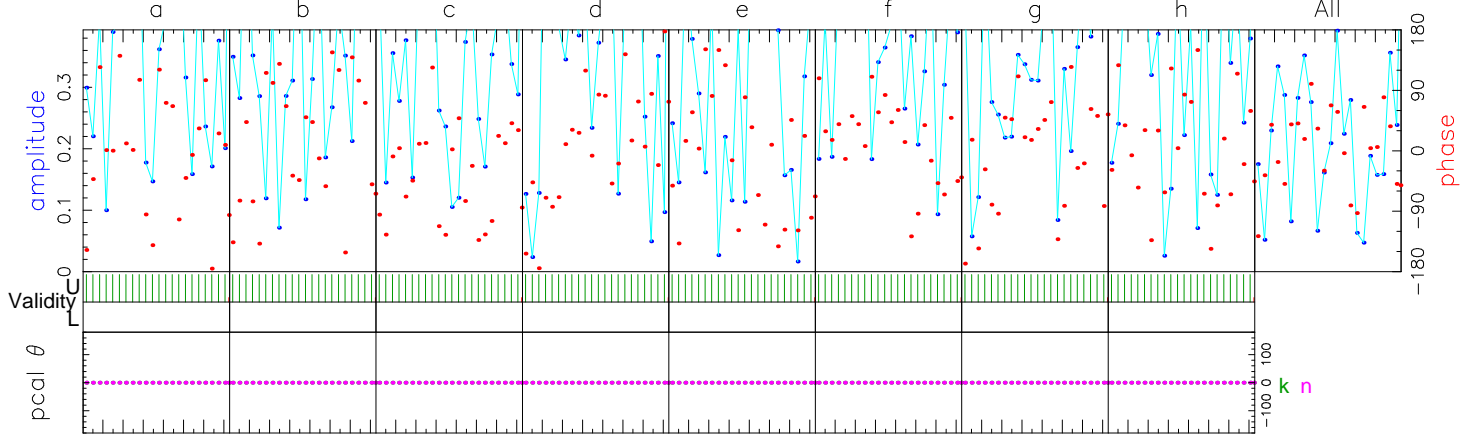


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120544
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	41.3	26.2	-25.8	14.3	-15.7	24.6	9.2	9.9	Phase	11.9
	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	Ampl.	0.1
	219.1	28.1	113.0	434.9	283.1	258.7	415.0	228.9	Sbd box	258.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.76615667662E+03		Apriori delay (usec)		5.76615149848E+03		Resid mbdelay (usec)		5.17814E-03	+/- 1.5E-04
Sband delay (usec)	5.76615636398E+03		Apriori clock (usec)		-5.1521435E+00		Resid sbdelay (usec)		4.86550E-03	+/- 1.2E-03
Phase delay (usec)	5.76615149886E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		3.82425E-07	+/- 5.0E-07
Delay rate (us/s)	2.09520660646E-01		Apriori rate (us/s)		2.09520569972E-01		Resid rate (us/s)		9.06748E-08	+/- 2.1E-09
Total phase (deg)	40.4		Apriori accel (us/s/s)		-2.96541932045E-05		Resid phase (deg)		11.9	+/- 15.6

	RMS	Theor.	Amplitude	0.131 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.5	37.4	Search (2048X32)	0.126	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	101.2	65.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	23.9	22.1	Inc. seg. avg.	0.175	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	42.1	38.5	Inc. frq. avg.	0.129	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

k: az 226.2 el 43.1 pa 38.5 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -1240.335 -1050.796 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/kn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/kn.W.16.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

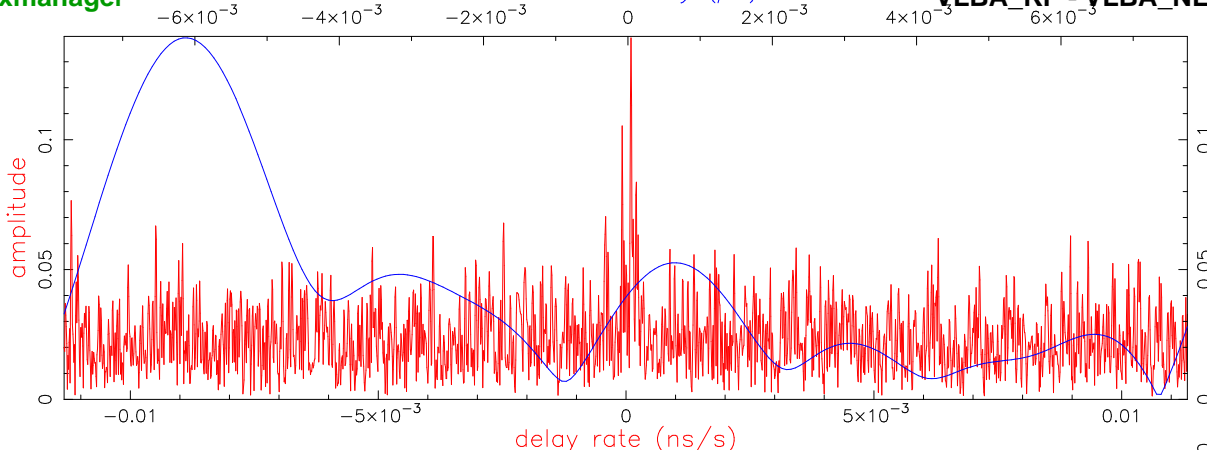
fxmanager

1741-038.1X0AZO, No0070, kn

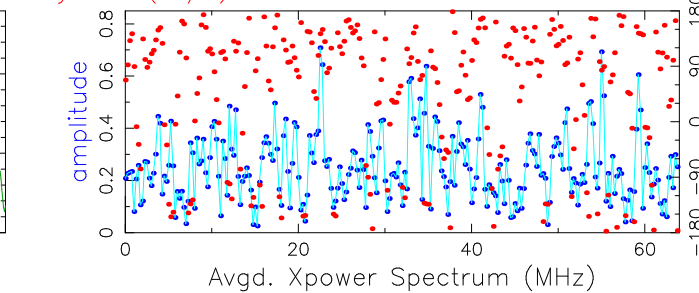
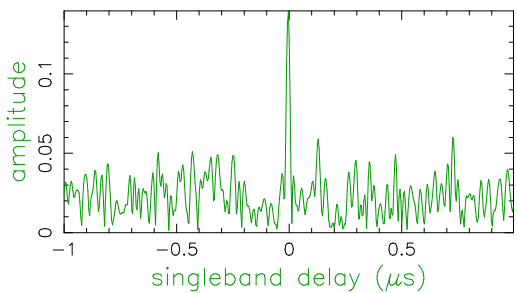
VLBA_KP - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 9

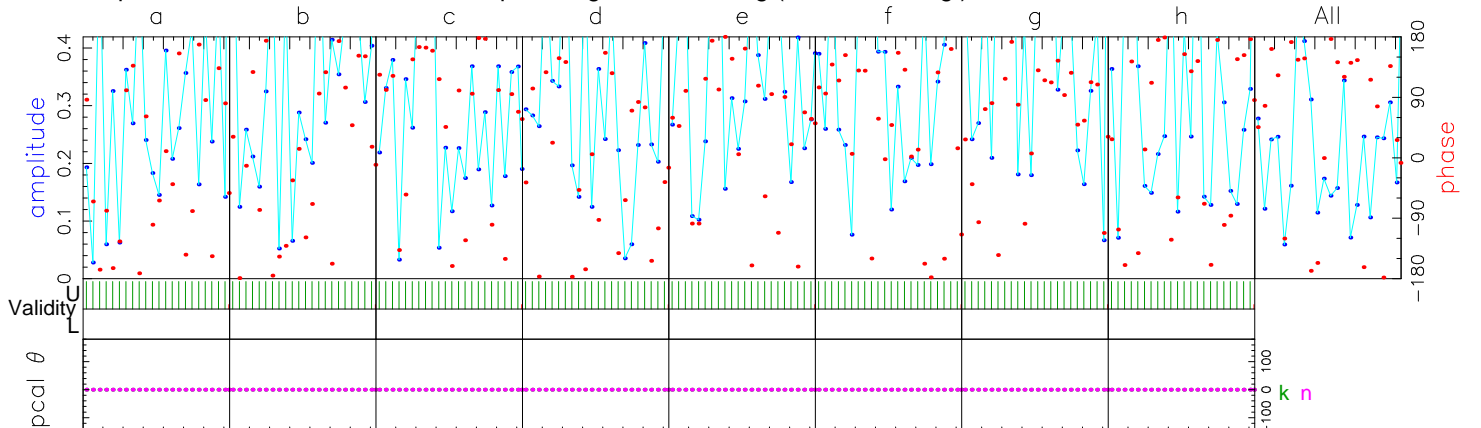


SNR 7.8
 Int time 419.825
 Amp 0.140
 Phase 140.0
 PFD 1.6e-06
 Delays (us)
 SBD -0.004718
 MBD -0.006142
 Fringe rate (Hz)
 0.008235
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120548
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		5.76614535622E+03			5.76615149848E+03				Resid mbdelay (usec)	-6.14226E-03 +/- 1.4E-04
Sband delay (usec)		5.76614678048E+03			-5.1521435E+00				Resid sbdelay (usec)	-4.71800E-03 +/- 1.1E-03
Phase delay (usec)		5.76615150300E+03			-2.9999999E-07				Resid phdelay (usec)	4.51477E-06 +/- 4.7E-07
Delay rate (us/s)		2.09520665571E-01			2.09520569972E-01				Resid rate (us/s)	9.55993E-08 +/- 1.9E-09
Total phase (deg)			168.5		-2.96541932045E-05				Resid phase (deg)	140.0 +/- 14.6

ph/seg (deg) 59.7 35.1 Search (2048X32) 0.134 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 94.4 61.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.5 20.7 Inc. seg. avg. 0.183 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.1 36.1 Inc. frq. avg. 0.140 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 226.2 el 43.1 pa 38.5 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -1240.335 -1050.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/kn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/kn.W.35.1X0AZO

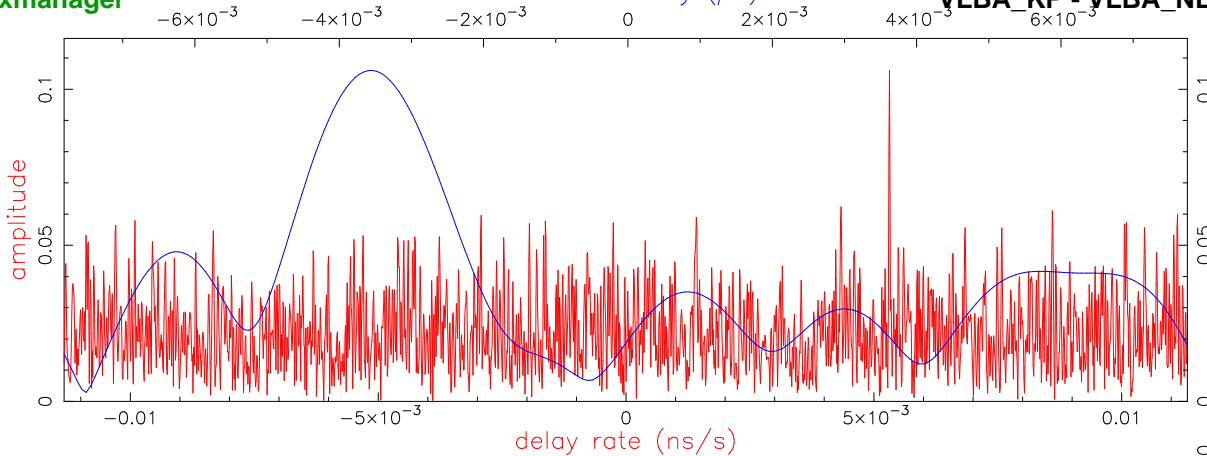
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, kn

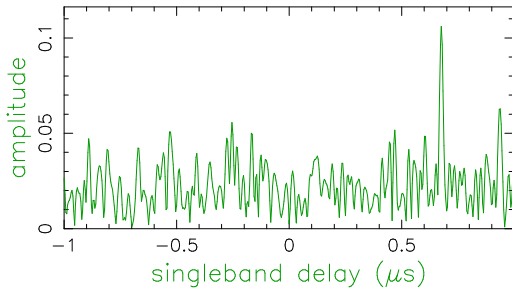
VLBA_KP - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

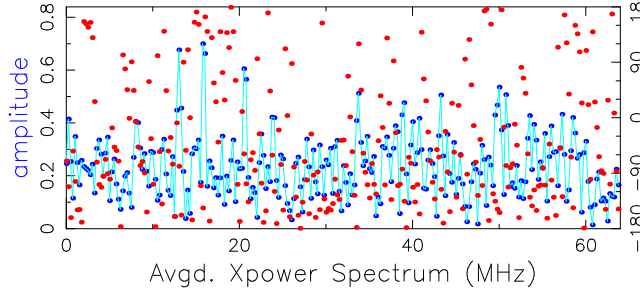


Fringe quality 0

SNR 5.9
 Int time 419.825
 Amp 0.116
 Phase 148.5
 PFD 5.2e-01
 Delays (us)
 SBD 0.675752
 MBD -0.003561
 Fringe rate (Hz)
 0.458508
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

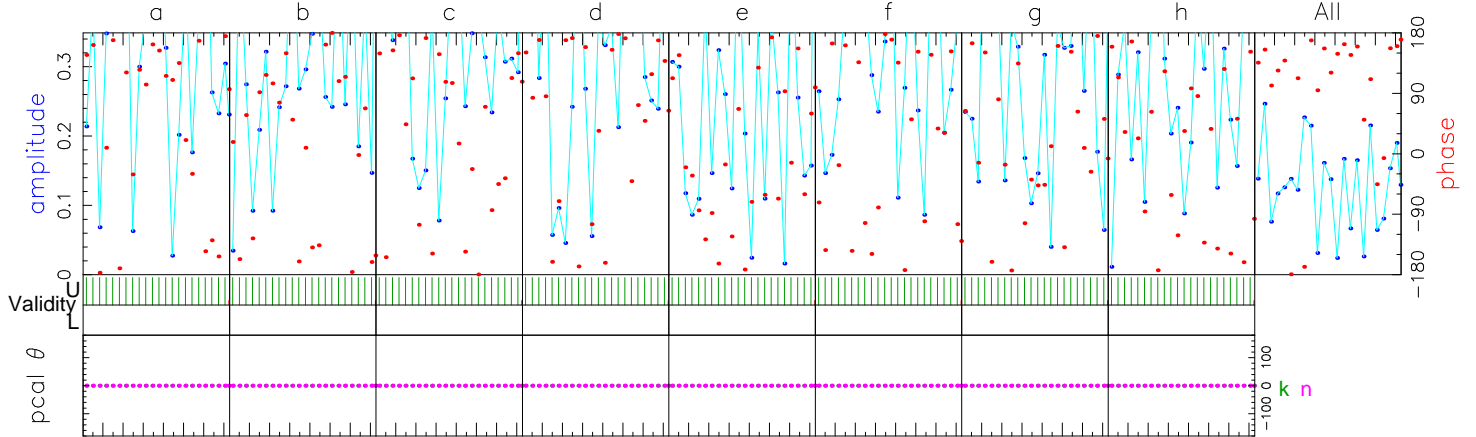


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120553
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
k	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	5.76681981202E+03		Apriori delay (usec)		5.76615149848E+03		Resid mbdelay (usec)		-3.56147E-03	+/- 1.8E-04
Sband delay (usec)	5.76682725023E+03		Apriori clock (usec)		-5.1521435E+00		Resid sbdelay (usec)		6.75752E-01	+/- 1.4E-03
Phase delay (usec)	5.76615150327E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		4.78859E-06	+/- 6.2E-07
Delay rate (us/s)	2.09525892797E-01		Apriori rate (us/s)		2.09520569972E-01		Resid rate (us/s)		5.32283E-06	+/- 2.6E-09
Total phase (deg)	177.0		Apriori accel (us/s/s)		-2.96541932045E-05		Resid phase (deg)		148.5	+/- 19.3

ph/seg (deg) 58.1 46.3 Amplitude 0.116 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 64.9 80.7 Search (2048X32) 0.102 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 21.5 27.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 54.0 47.6 Inc. seg. avg. 0.109 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 k: az 226.2 el 43.1 pa 38.5 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -1240.335 -1050.796 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/kn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/kn.W.59.1X0AZO simultaneous interpolator

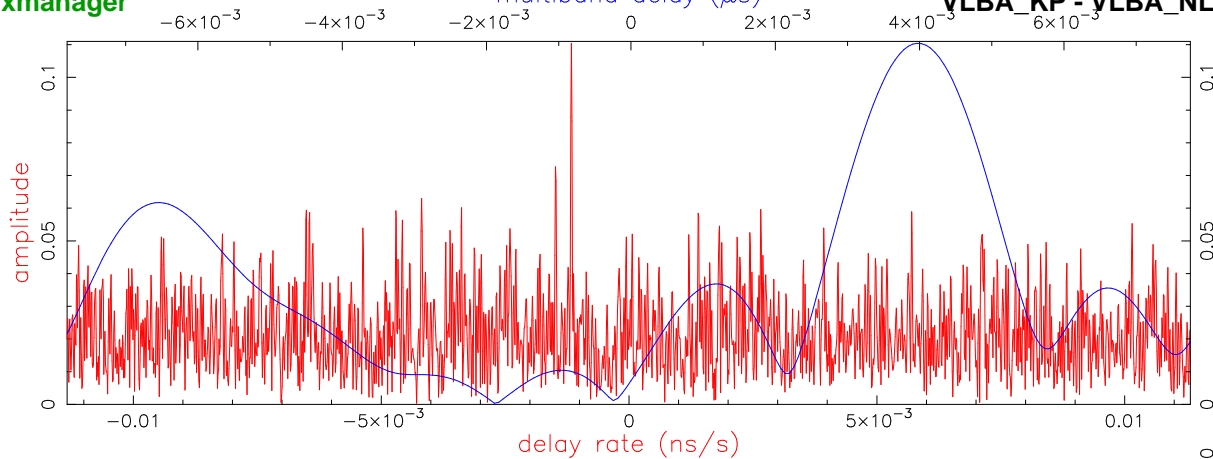
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, kn

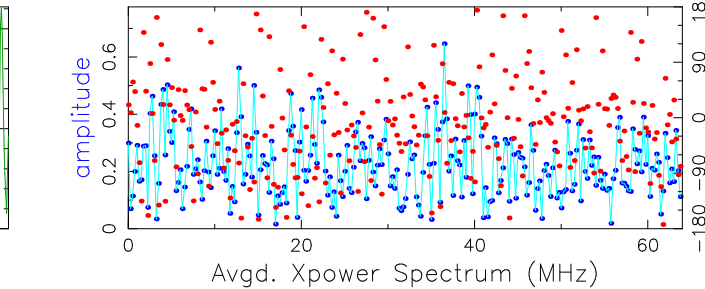
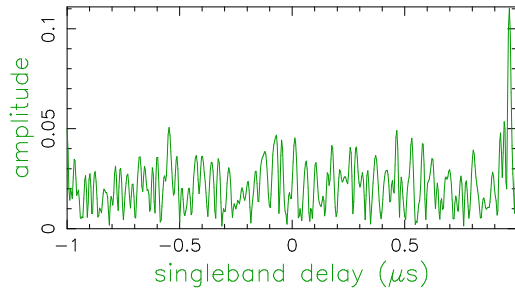
VLBA_KP - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



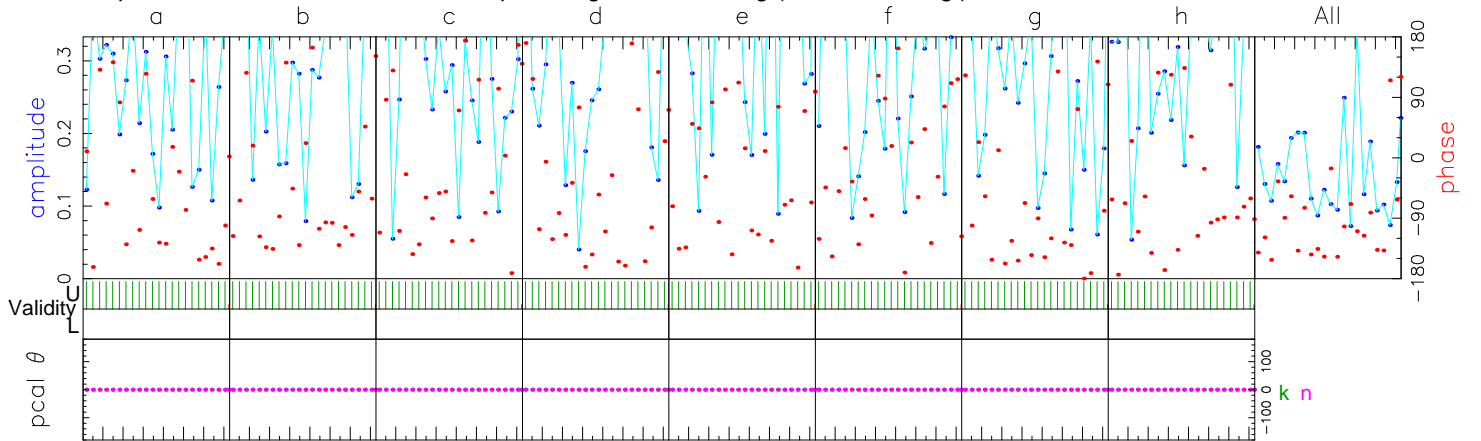
Fringe quality 0

SNR 6.2
 Int time 419.825
 Amp 0.111
 Phase -106.3
 PFD 1.5e-01
 Delays (us)
 SBD 0.964461
 MBD 0.003955
 Fringe rate (Hz)
 -0.100682
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120557
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-113.2	-106.0	-101.4	-128.8	-97.2	-31.6	-150.3	-95.6	Phase	-106.3
	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	2.3	505.7	277.2	223.1	352.3	364.8	496.7	115.2	Sbd box	503.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
k	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.76710857890E+03		Apriori delay (usec)		5.76615149848E+03		Resid mbdelay (usec)		3.95542E-03	+/- 1.8E-04
Sband delay (usec)	5.76711595948E+03		Apriori clock (usec)		-5.1521435E+00		Resid sbdelay (usec)		9.64461E-01	+/- 1.4E-03
Phase delay (usec)	5.76615149505E+03		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-3.42892E-06	+/- 6.0E-07
Delay rate (us/s)	2.09519401159E-01		Apriori rate (us/s)		2.09520569972E-01		Resid rate (us/s)		-1.16881E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.96541932045E-05		Resid phase (deg)		-106.3	+/- 18.5

ph/seg (deg) 49.9 44.4 Search (2048X32) 0.103 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 66.2 77.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 37.2 26.2 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.7 45.7 Inc. frq. avg. 0.113 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 226.2 el 43.1 pa 38.5 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -1240.335 -1050.796 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/kn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/kn.W.80.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

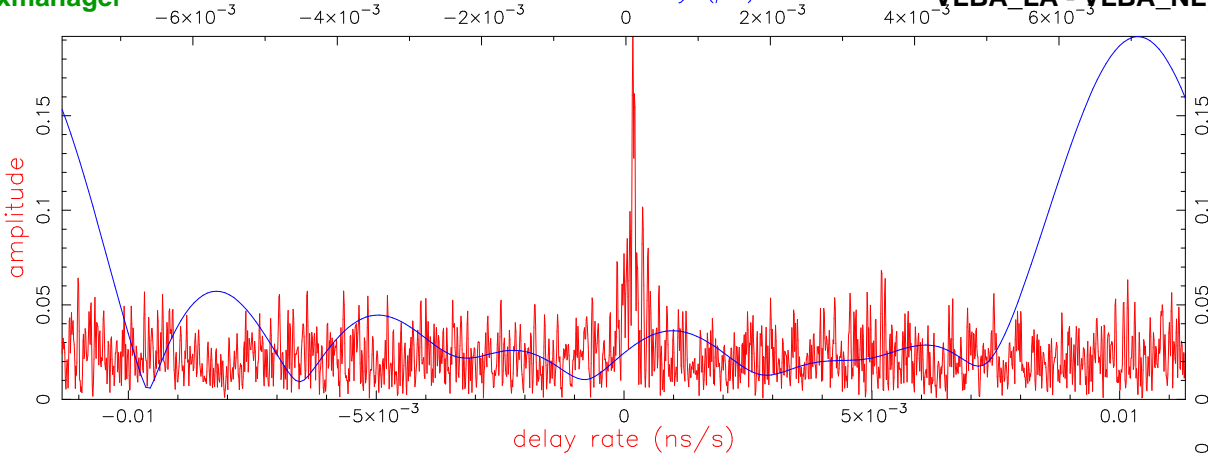
fxmanager

1741-038.1X0AZO, No0070, In

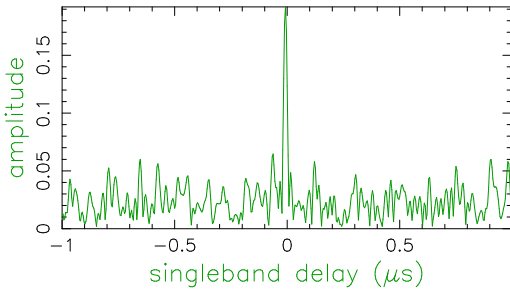
VLBA_LA - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

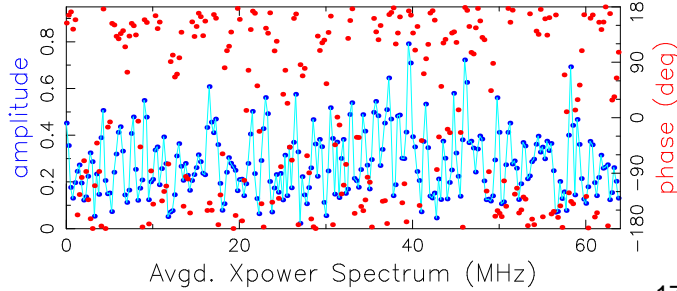
Fringe quality 9



SNR 10.8
 Int time 419.827
 Amp 0.192
 Phase -4.2
 PFD 2.6e-18
 Delays (us)
 SBD -0.008073
 MBD 0.007085
 Fringe rate (Hz)
 0.014873
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

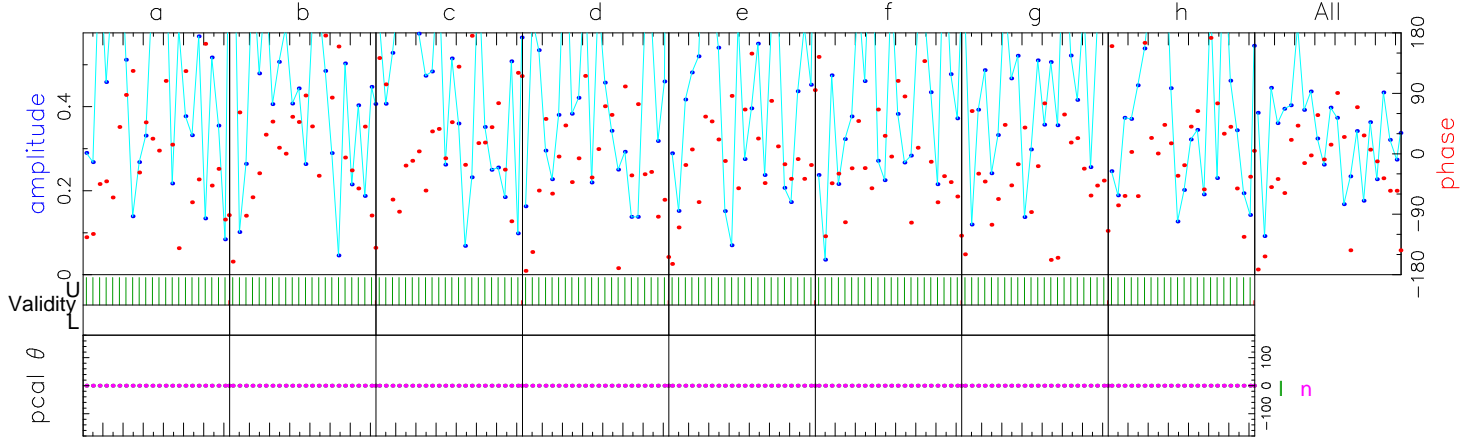


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120603
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

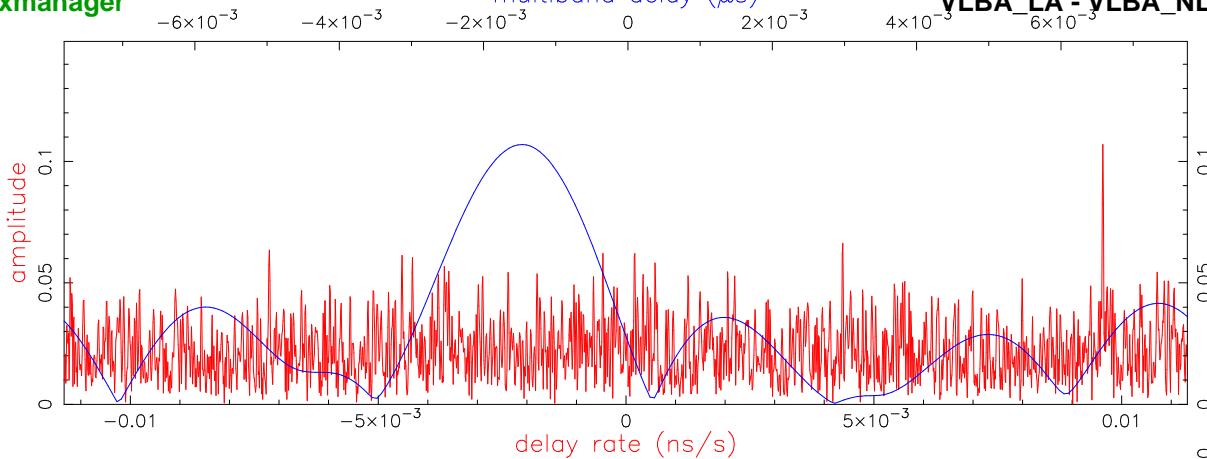


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-14.5	-3.8	7.0	-5.4	9.0	-17.5	-25.0	14.4	Phase	-4.2
	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	375.7	483.8	256.3	31.4	254.6	255.9	254.5	254.8	Sbd box	254.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
l	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.08774828218E+03		Apriori delay (usec)		4.08775682184E+03		Resid mbdelay (usec)		7.08534E-03	+/- 1.0E-04
Sband delay (usec)	4.08774874859E+03		Apriori clock (usec)		-8.0954514E+00		Resid sbdelay (usec)		-8.07325E-03	+/- 8.0E-04
Phase delay (usec)	4.08775682170E+03		Apriori clockrate (us/s)		-5.8600000E-07		Resid phdelay (usec)		-1.35008E-07	+/- 3.4E-07
Delay rate (us/s)	1.44536923239E-01		Apriori rate (us/s)		1.44536750582E-01		Resid rate (us/s)		1.72657E-07	+/- 1.4E-09
Total phase (deg)	223.8		Apriori accel (us/s/s)		-2.11634588389E-05		Resid phase (deg)		-4.2	+/- 10.7

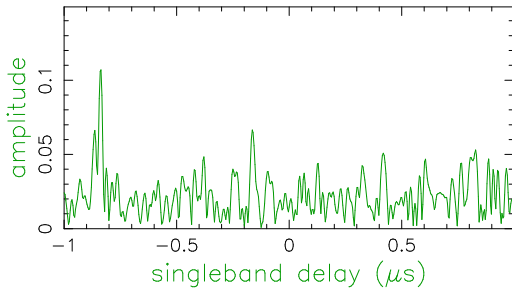
ph/seg (deg) 70.0 25.6 Search (2048X32) 0.183 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 94.3 44.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 15.1 15.1 Inc. seg. avg. 0.306 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 16.5 26.3 Inc. frq. avg. 0.191 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 229.3 el 37.3 pa 38.7 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -856.252 -607.043 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/In..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/In.W.101.1X0AZO

multiband delay (μs)

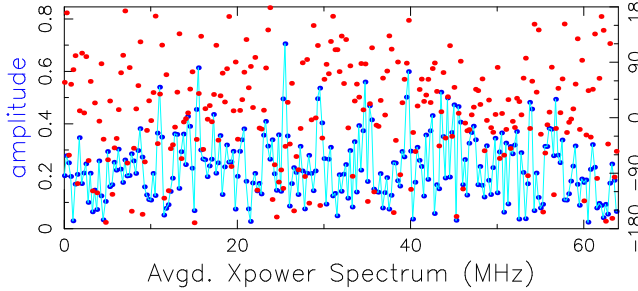
Fringe quality 0



SNR 6.1
Int time 419.827
Amp 0.149
Phase 110.4
PFD 2.5e-01
Delays (us)
SBD -0.837672
MBD -0.001499
Fringe rate (Hz)
0.830305
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

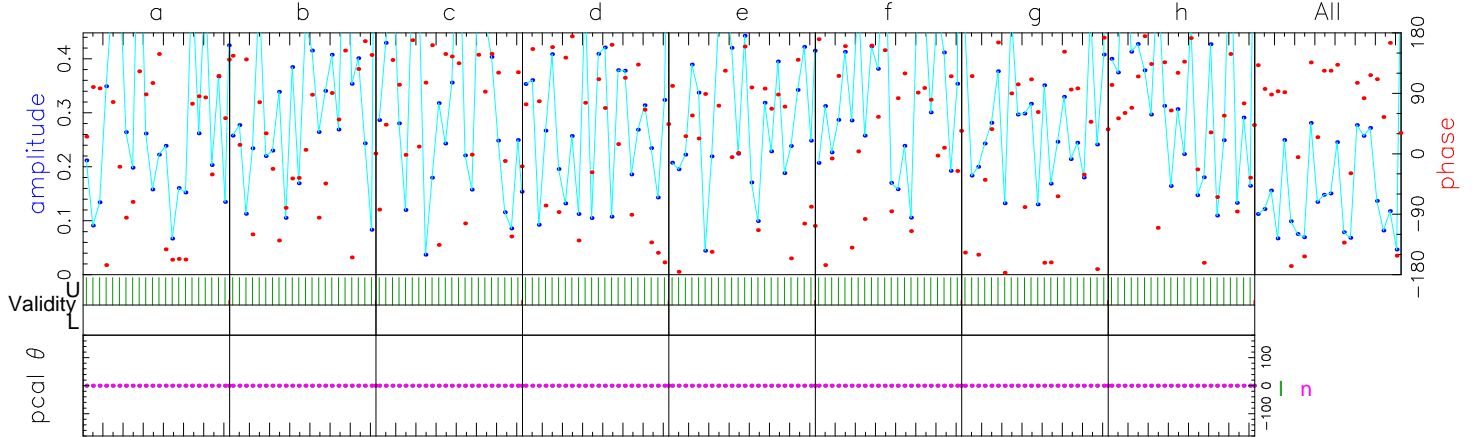


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120606
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°5'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.08691157234E+03		Apriori delay (usec)		4.08775682184E+03		Resid mbdelay (usec)		-1.49950E-03	+/- 1.8E-04
Sband delay (usec)	4.08691915009E+03		Apriori clock (usec)		-8.0954514E+00		Resid sbdelay (usec)		-8.37672E-01	+/- 1.4E-03
Phase delay (usec)	4.08775682540E+03		Apriori clockrate (us/s)		-5.8600000E-07		Resid phdelay (usec)		3.55897E-06	+/- 6.1E-07
Delay rate (us/s)	1.44546389605E-01		Apriori rate (us/s)		1.44536750582E-01		Resid rate (us/s)		9.63902E-06	+/- 2.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.11634588389E-05		Resid phase (deg)		110.4	+/- 18.8

	RMS	Theor.	Amplitude	0.149 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	64.1	45.1	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	86.4	78.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	21.0	26.6	Inc. seg. avg.	0.158	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	30.8	46.4	Inc. frq. avg.	0.139	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

l: az 229.3 el 37.3 pa 38.7 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -856.252 -607.043 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/In..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/In.W.116.1X0AZO

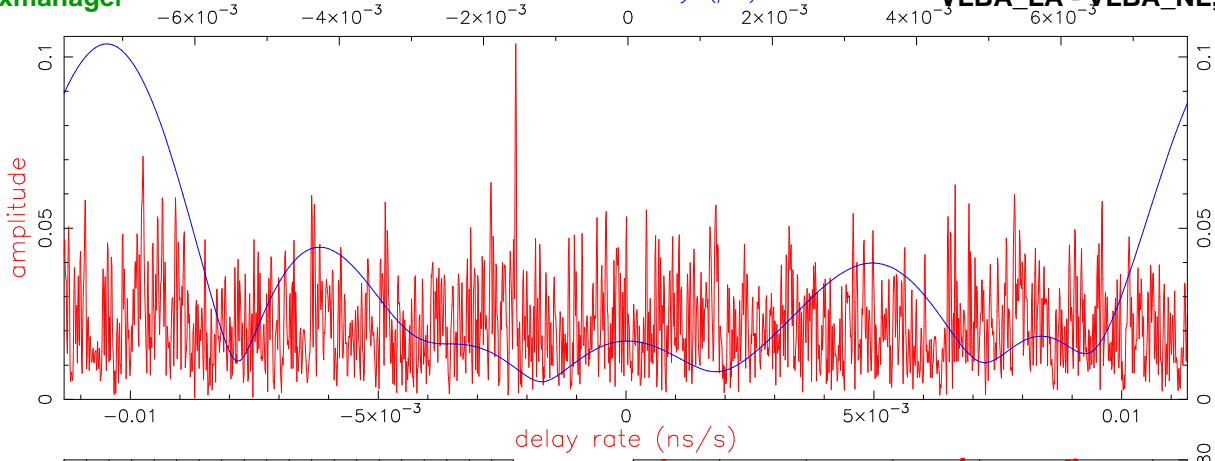
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

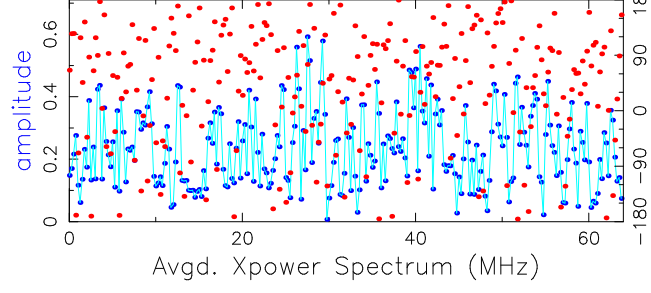
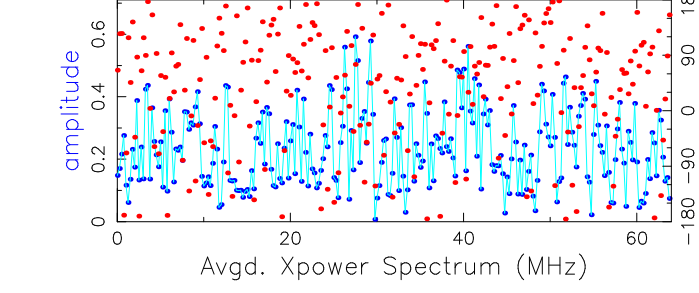
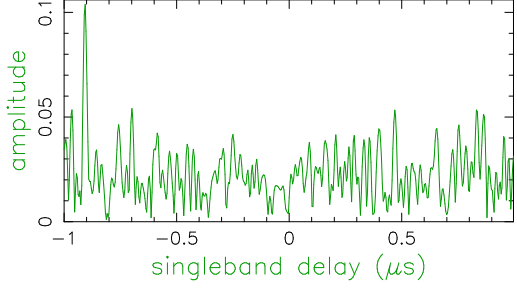
1741-038.1X0AZO, No0070, In

VLBA_LA - VLBA_NL, fgroup W, pol RL

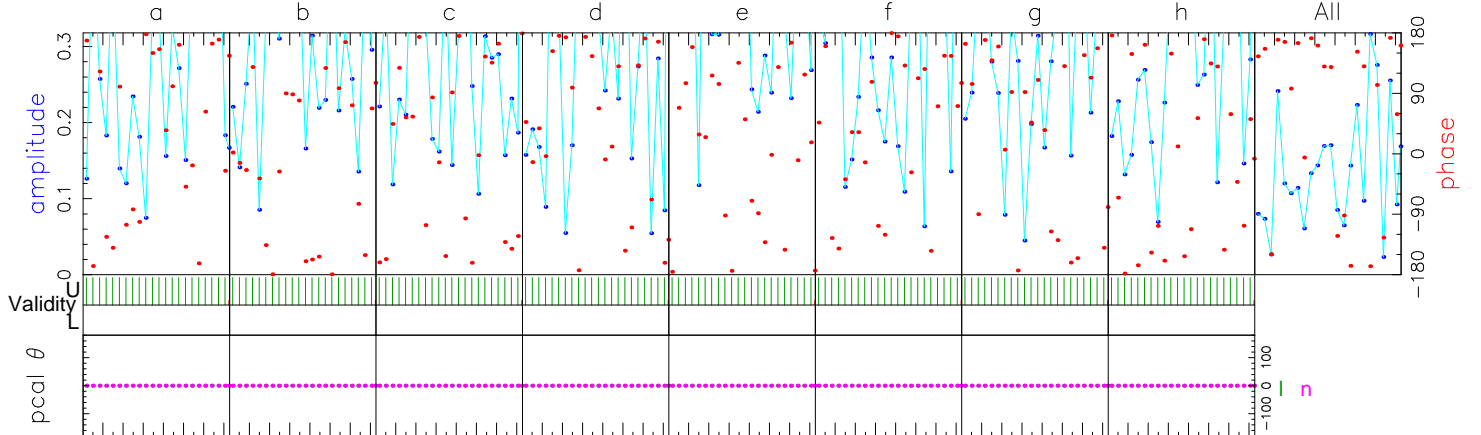
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 419.827
 Amp 0.106
 Phase 156.9
 PFD 7.2e-01
 Delays (us)
 SBD -0.907182
 MBD -0.007219
 Fringe rate (Hz)
 -0.191855
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120609
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	169.0	137.6	-175.0	158.6	113.7	133.3	162.7	-177.0	Phase	156.9	
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1	
	22.2	102.7	228.6	177.9	492.5	469.6	24.6	349.7	Sbd box	24.8	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
l	0	0	0	0	0	0	0	0	PC freqs		
n	0	0	0	0	0	0	0	0	PC freqs		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
n	1000	1000	1000	1000	1000	1000	1000	1000			
l	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)	4.08684335291E+03		Apriori delay (usec)		4.08775682184E+03		Resid mbdelay (usec)		-7.21893E-03	+/- 1.9E-04	
Sband delay (usec)	4.08684964009E+03		Apriori clock (usec)		-8.0954514E+00		Resid sbdelay (usec)		-9.07182E-01	+/- 1.5E-03	
Phase delay (usec)	4.08775682690E+03		Apriori clockrate (us/s)		-5.8600000E-07		Resid phdelay (usec)		5.05834E-06	+/- 6.3E-07	
Delay rate (us/s)	1.44534523339E-01		Apriori rate (us/s)		1.44536750582E-01		Resid rate (us/s)		-2.22724E-06	+/- 2.6E-09	
Total phase (deg)			Apriori accel (us/s/s)		-2.11634588389E-05		Resid phase (deg)		156.9	+/- 19.6	
	RMS	Theor.	Amplitude	0.106 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	58.7	47.0	Search (2048X32)	0.101		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	81.9	82.0	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	27.2	27.7	Inc. seg. avg.	0.105		Sample rate(MISamp/s): 128		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite
amp/frq (%)	27.8	48.4	Inc. frq. avg.	0.102		Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	

l: az 229.3 el 37.3 pa 38.7 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -856.252 -607.043 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/In..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/In.W.133.1X0AZO

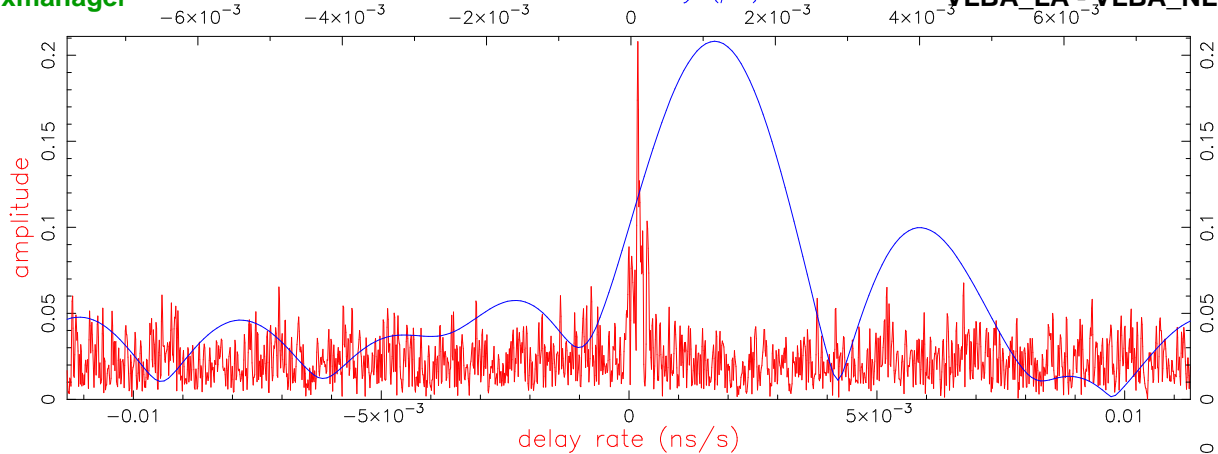
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, In

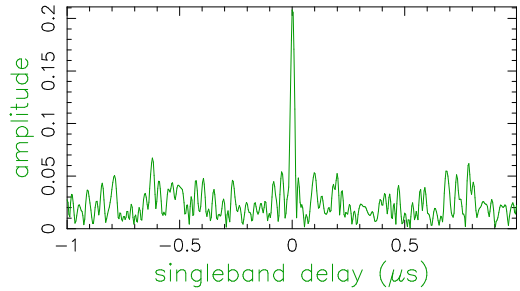
VLBA_LA - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

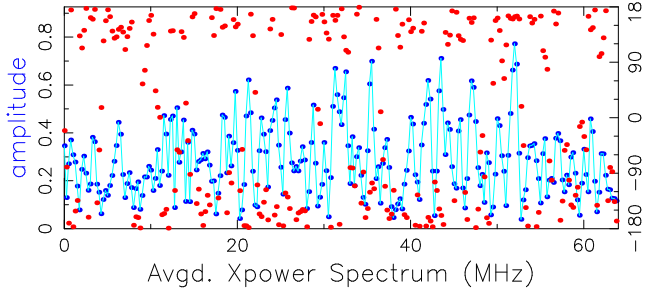


Fringe quality 9

SNR 11.8
 Int time 419.827
 Amp 0.211
 Phase -176.8
 PFD 1.5e-23
 Delays (us)
 SBD 0.001647
 MBD 0.001202
 Fringe rate (Hz) 0.015095
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

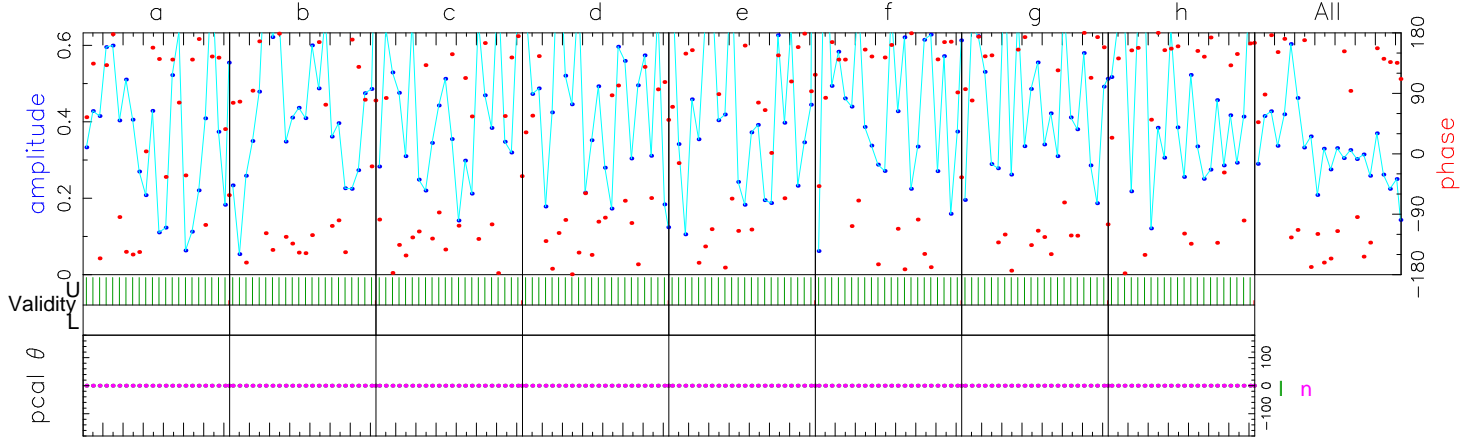


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120559
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
l	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.08775802384E+03	Apriori delay (usec)	4.08775682184E+03	Resid mbdelay (usec)	1.20200E-03	+/-	9.2E-05
Sband delay (usec)	4.08775846934E+03	Apriori clock (usec)	-8.0954514E+00	Resid sbdelay (usec)	1.64750E-03	+/-	7.3E-04
Phase delay (usec)	4.08775681614E+03	Apriori clockrate (us/s)	-5.8600000E-07	Resid phdelay (usec)	-5.70123E-06	+/-	3.1E-07
Delay rate (us/s)	1.44536925819E-01	Apriori rate (us/s)	1.44536750582E-01	Resid rate (us/s)	1.75237E-07	+/-	1.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-2.11634588389E-05	Resid phase (deg)	-176.8	+/-	9.7

ph/seg (deg)	56.1	Theor.	23.2	Amplitude	0.211 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	72.4	Search (2048X32)	0.204	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	18.2	Inc. seg. avg.	0.310	Inc. frq. avg.	0.209	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	29.5	Inc. frq. avg.	0.209			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

l: az 229.3 el 37.3 pa 38.7 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -856.252 -607.043 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/In..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/In.W.85.1X0AZO

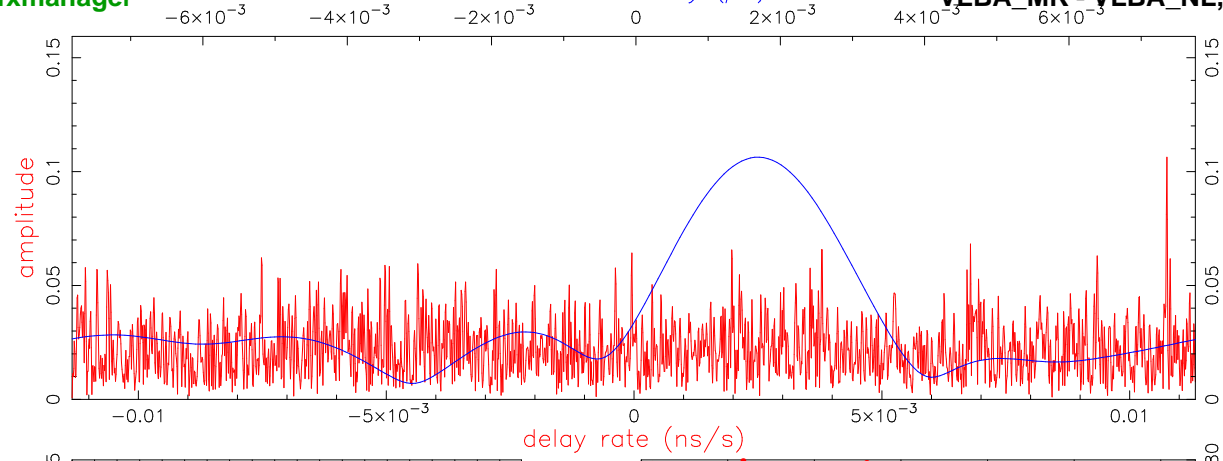
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

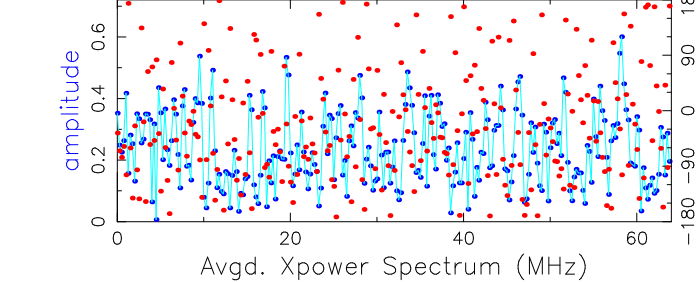
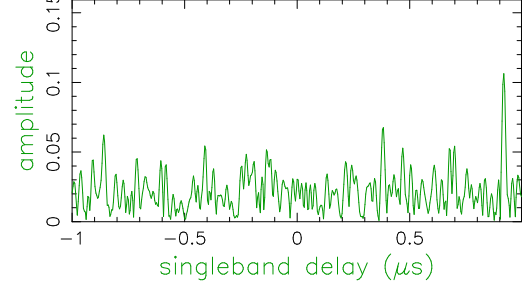
1741-038.1X0AZO, No0070, mn

VLBA_MK - VLBA_NL, fgroup W, pol RR

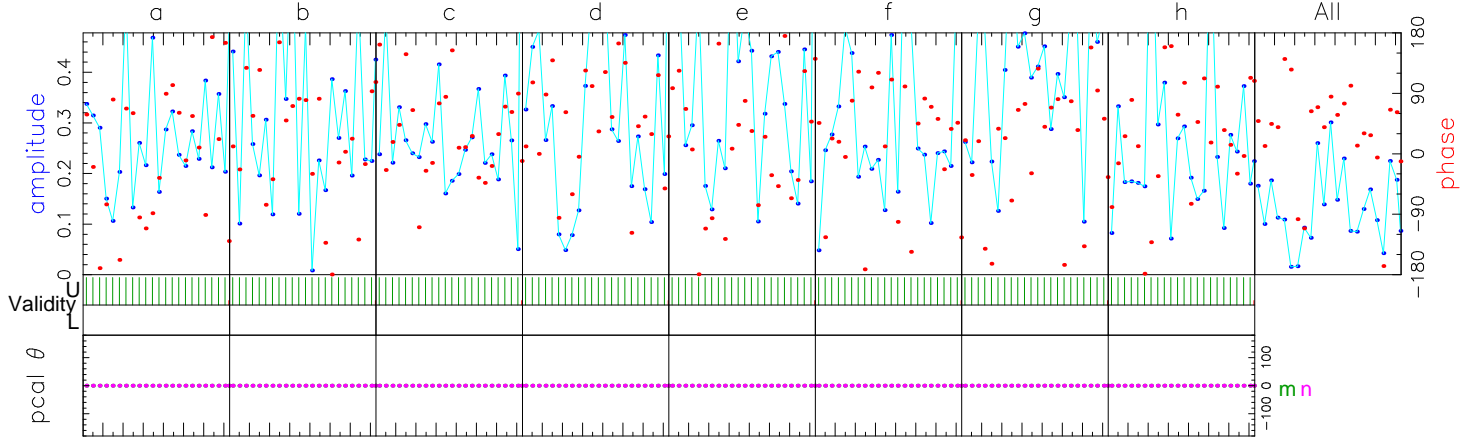
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 419.821
 Amp 0.159
 Phase 56.7
 PFD 4.6e-01
 Delays (us)
 SBD 0.917445
 MBD 0.001687
 Fringe rate (Hz) 0.926967
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build 2021:303:042052
 2021:303:120603
 2021:252:122852
 RA & Dec (J2000) 17h43m58.856136s
 --3°5'04.616734"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
m	0	0	0	0	0	0	0	0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	1.05026511053E+04		Apriori delay (usec)		1.05017275431E+04		Resid mbdelay (usec)		1.68723E-03	+/- 1.8E-04
Sband delay (usec)	1.05026449879E+04		Apriori clock (usec)		1.0230932E+01		Resid sbdelay (usec)		9.17445E-01	+/- 1.4E-03
Phase delay (usec)	1.05017275449E+04		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		1.82885E-06	+/- 6.2E-07
Delay rate (us/s)	1.20143250015E+00		Apriori rate (us/s)		1.20142173898E+00		Resid rate (us/s)		1.07612E-05	+/- 2.6E-09
Total phase (deg)	259.8		Apriori accel (us/s/s)		-5.33153985946E-05		Resid phase (deg)		56.7	+/- 19.2

	RMS	Theor.	Amplitude	0.159 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	66.0	46.0	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	74.1	80.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	26.7	27.2	Inc. seg. avg.	0.154	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	39.0	47.4	Inc. frq. avg.	0.154	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

m: az 152.2 el 63.6 pa -25.9 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -6964.408 -2600.536 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/mn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/mn.W.102.1X0AZO

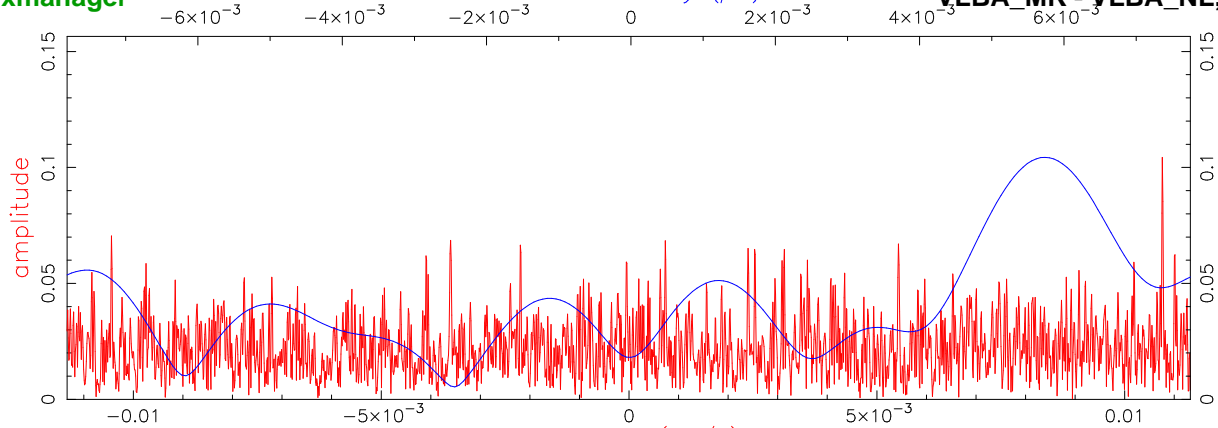
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, mn

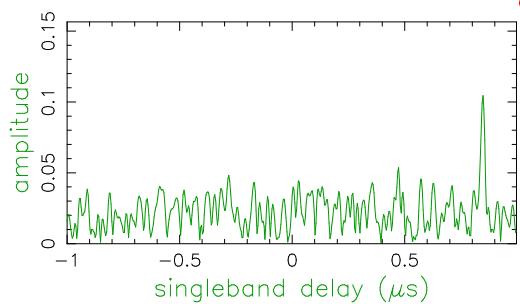
VLBA_MK - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

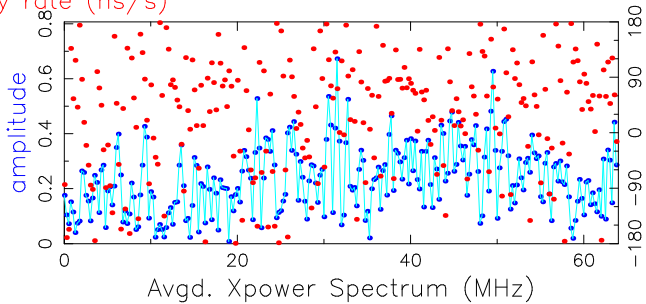


Fringe quality 0

SNR 5.9
 Int time 419.821
 Amp 0.157
 Phase 37.4
 PFD 7.0e-01
 Delays (us)
 SBD 0.847165
 MBD 0.005728
 Fringe rate (Hz) 0.928560
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

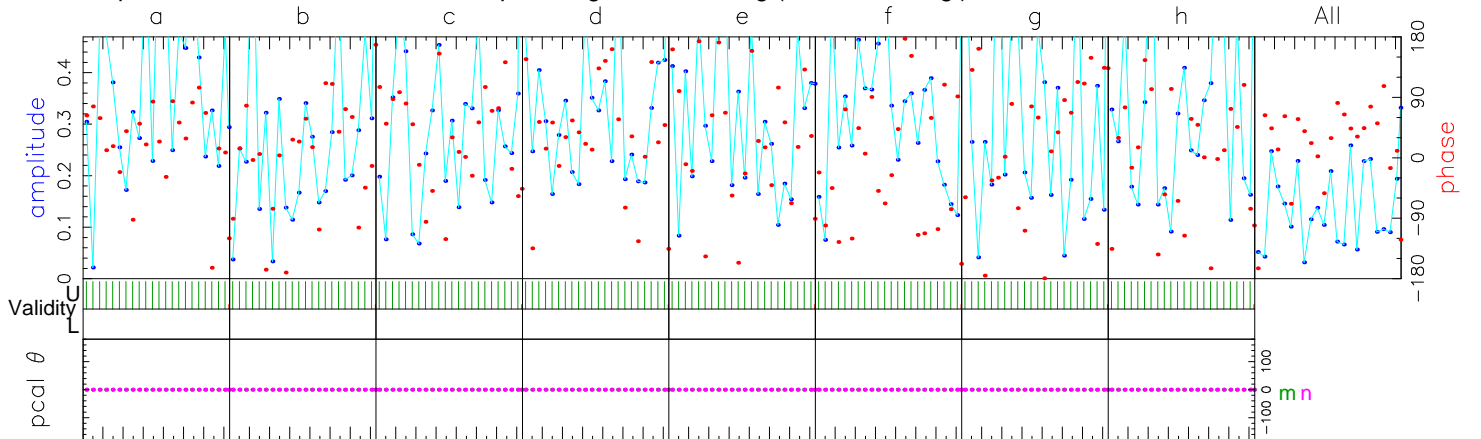


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build 2021:303:042052
 2021:303:120606
 2021:252:122852
 RA & Dec (J2000) 17h43m58.856136s
 --3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	35.6	19.5	47.8	54.0	89.6	-39.5	44.4	37.6	Phase	37.4
	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Ampl.	0.2
	474.6	180.5	48.7	473.9	69.1	286.4	24.5	40.3	Sbd box	473.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.05025770210E+04	Apriori delay (usec)	1.05017275431E+04	Resid mbdelay (usec)	5.72784E-03	+/-	1.9E-04
Sband delay (usec)	1.05025747081E+04	Apriori clock (usec)	1.0230932E+01	Resid sbdelay (usec)	8.47165E-01	+/-	1.5E-03
Phase delay (usec)	1.05017275443E+04	Apriori clockrate (us/s)	1.8000006E-08	Resid phdelay (usec)	1.20473E-06	+/-	6.3E-07
Delay rate (us/s)	1.20143251864E+00	Apriori rate (us/s)	1.20142173898E+00	Resid rate (us/s)	1.07797E-05	+/-	2.6E-09
Total phase (deg)	240.5	Apriori accel (us/s/s)	-5.33153985946E-05	Resid phase (deg)	37.4	+/-	19.6

ph/seg (deg)	54.2	Theor.	46.9	Amplitude	0.157 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	77.2	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
ph/frq (deg)	39.6	Interp.	0.000	Bits/sample: 2x2		mb window (us)	-0.008 0.008
amp/frq (%)	64.2	Inc. seg. avg.	0.154	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
		Inc. frq. avg.	0.155	Data rate(Mb/s): 2048		ion window (TEC)	0.00 0.00

m: az 152.2 el 63.6 pa -25.9 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -6964.408 -2600.536 simultaneous interpolator

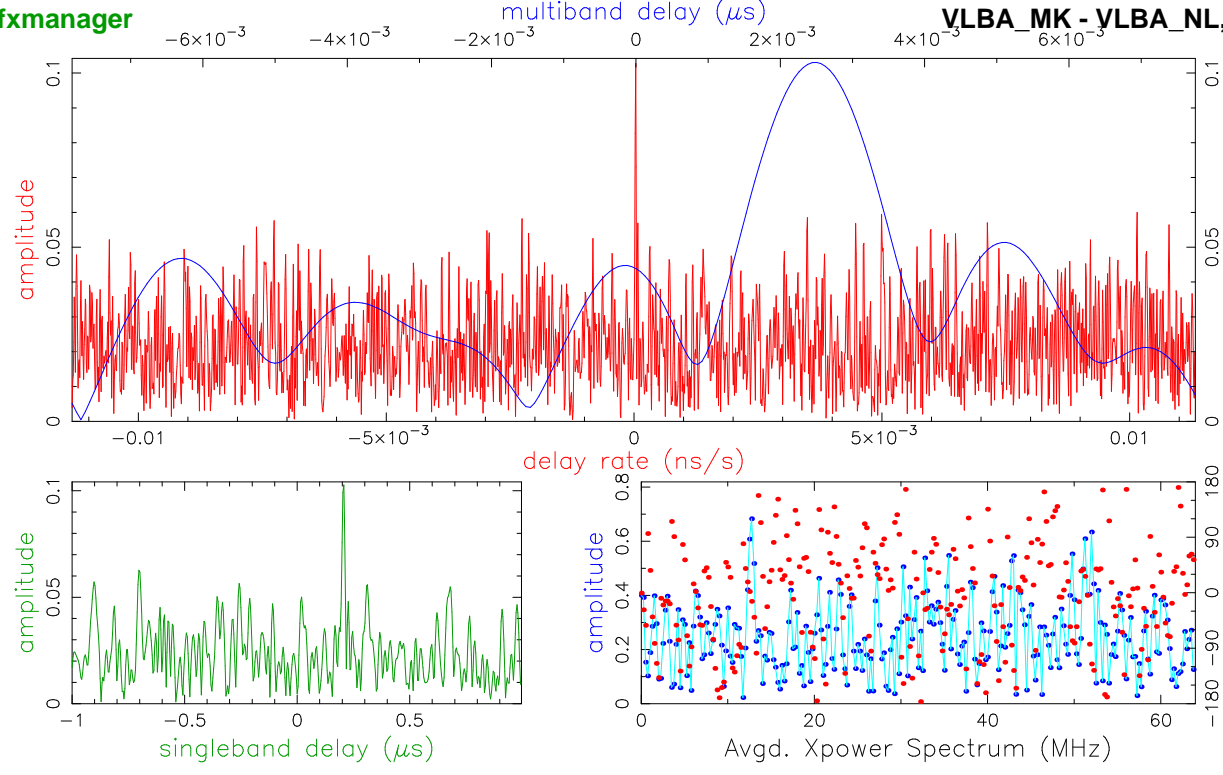
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/mn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/mn.W.118.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

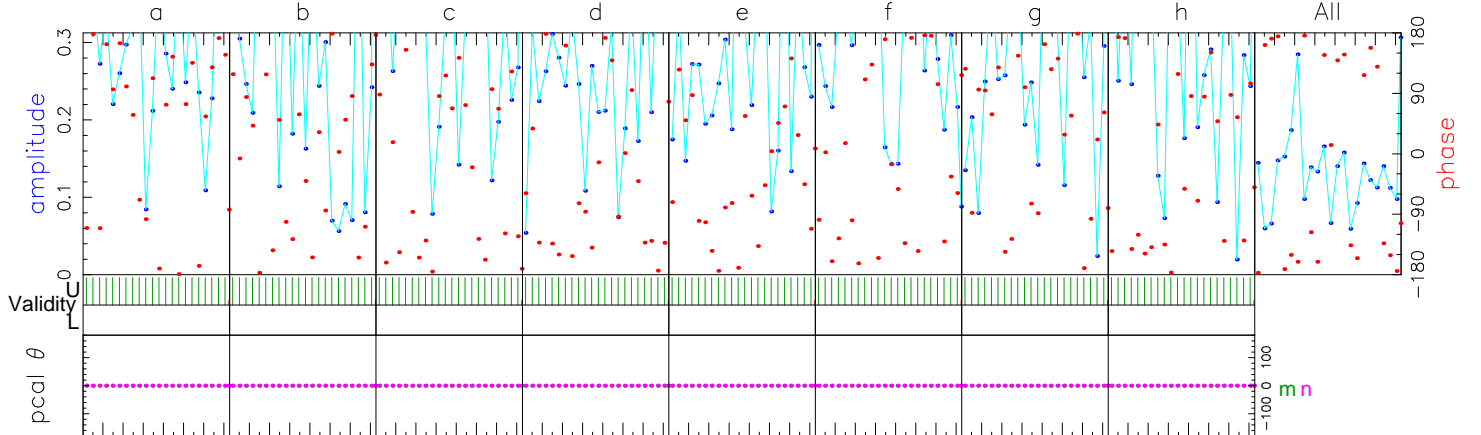
1741-038.1X0AZO, No0070, mn

VLBA_MK - VLBA_NL, fgroup W, pol RL



Fringe quality 0
 SNR 5.8
 Int time 419.821
 Amp 0.104
 Phase -177.9
 PFD 7.3e-01
 Delays (us)
 SBD 0.205691
 MBD 0.002407
 Fringe rate (Hz) 0.003084
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120609
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	164.1	160.0	-177.2	-149.1	-81.6	-151.8	146.1	-177.1	Phase	-177.9
	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.2	Ampl.	0.1
	21.5	487.4	132.1	157.0	77.0	438.1	155.2	362.9	Sbd box	309.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	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)	1.05019330756E+04		Apriori delay (usec)		1.05017275431E+04		Resid mbdelay (usec)		2.40744E-03	+/- 1.9E-04
Sband delay (usec)	1.05019332336E+04		Apriori clock (usec)		1.0230932E+01		Resid sbdelay (usec)		2.05691E-01	+/- 1.5E-03
Phase delay (usec)	1.05017275374E+04		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		-5.73520E-06	+/- 6.3E-07
Delay rate (us/s)	1.20142177479E+00		Apriori rate (us/s)		1.20142173898E+00		Resid rate (us/s)		3.58048E-08	+/- 2.6E-09
Total phase (deg)			Apriori accel (us/s/s)		-5.33153985946E-05		Resid phase (deg)		-177.9	+/- 19.6

ph/seg (deg) 48.5 47.1 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 54.8 82.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.3 27.8 Inc. seg. avg. 0.097 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.3 48.4 Inc. frq. avg. 0.103 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 m: az 152.2 el 63.6 pa -25.9 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -6964.408 -2600.536 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/mn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/mn.W.135.1X0AZO simultaneous interpolator

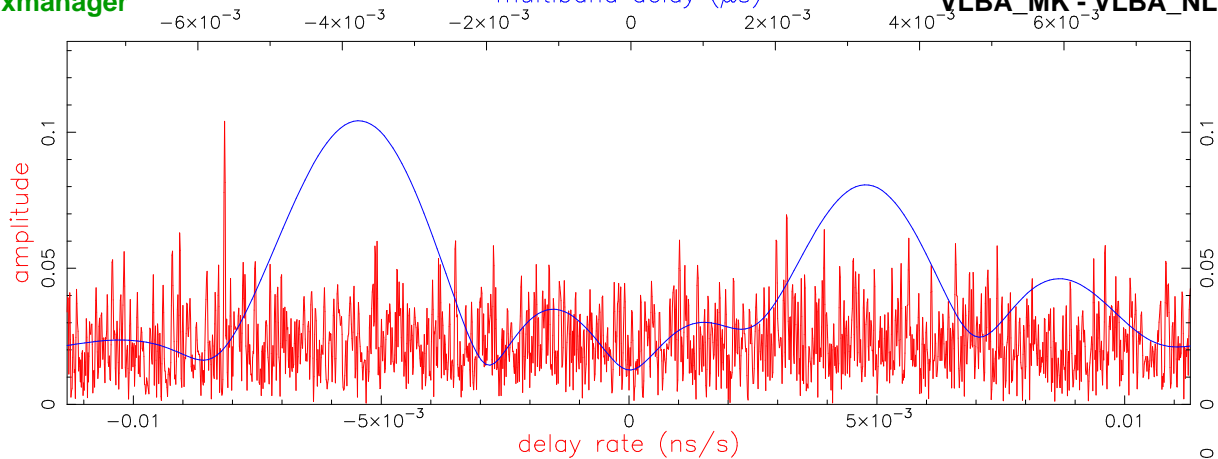
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, mn

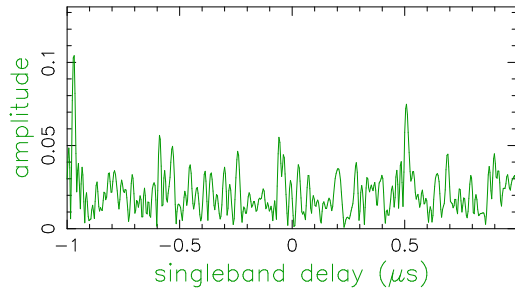
VLBA_MK - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

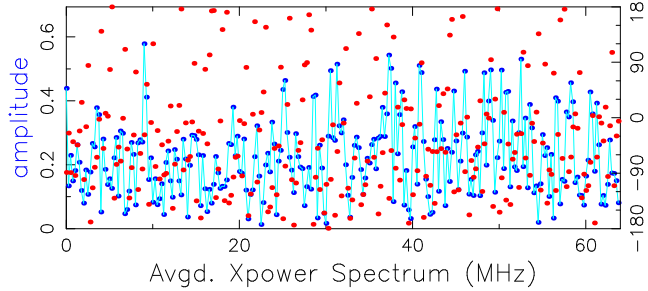


Fringe quality 0

SNR 6.0
 Int time 419.821
 Amp 0.133
 Phase -48.5
 PFD 4.5e-01
 Delays (us)
 SBD -0.970499
 MBD -0.003838
 Fringe rate (Hz)
 -0.704181
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

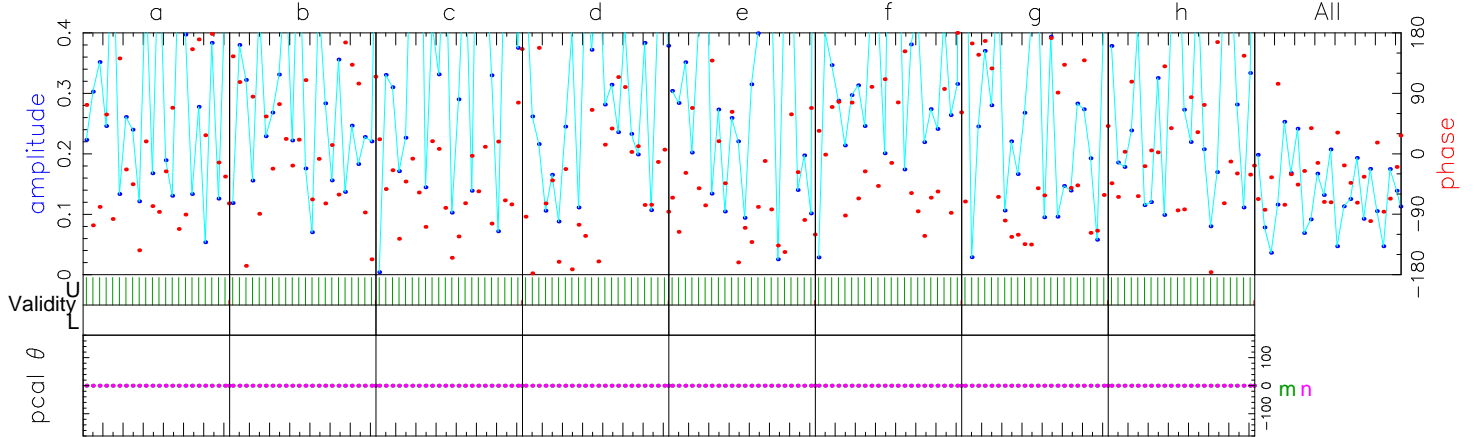


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120559
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-76.3	17.9	-48.8	-51.2	-63.3	0.8	-108.3	-22.8	Phase	-48.5
	0.2	0.1	0.3	0.1	0.2	0.1	0.1	0.2	Ampl.	0.1
	121.1	393.2	8.3	237.8	116.4	51.5	304.0	7.6	Sbd box	8.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
m	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.05007549556E+04		Apriori delay (usec)		1.05017275431E+04		Resid mbdelay (usec)		-3.83754E-03	+/- 1.8E-04
Sband delay (usec)	1.05007570441E+04		Apriori clock (usec)		1.0230932E+01		Resid sbdelay (usec)		-9.70499E-01	+/- 1.4E-03
Phase delay (usec)	1.05017275416E+04		Apriori clockrate (us/s)		1.8000006E-08		Resid phdelay (usec)		-1.56313E-06	+/- 6.2E-07
Delay rate (us/s)	1.20141356414E+00		Apriori rate (us/s)		1.20142173898E+00		Resid rate (us/s)		-8.17484E-06	+/- 2.6E-09
Total phase (deg)	154.6		Apriori accel (us/s/s)		-5.33153985946E-05		Resid phase (deg)		-48.5	+/- 19.2

	RMS	Theor.	Amplitude	0.133 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	49.9	46.0	Search (2048X32)	0.100	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	62.8	80.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	44.8	27.1	Inc. seg. avg.	0.128	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	59.9	47.3	Inc. frq. avg.	0.140	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

m: az 152.2 el 63.6 pa -25.9 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) -6964.408 -2600.536 simultaneous interpolator

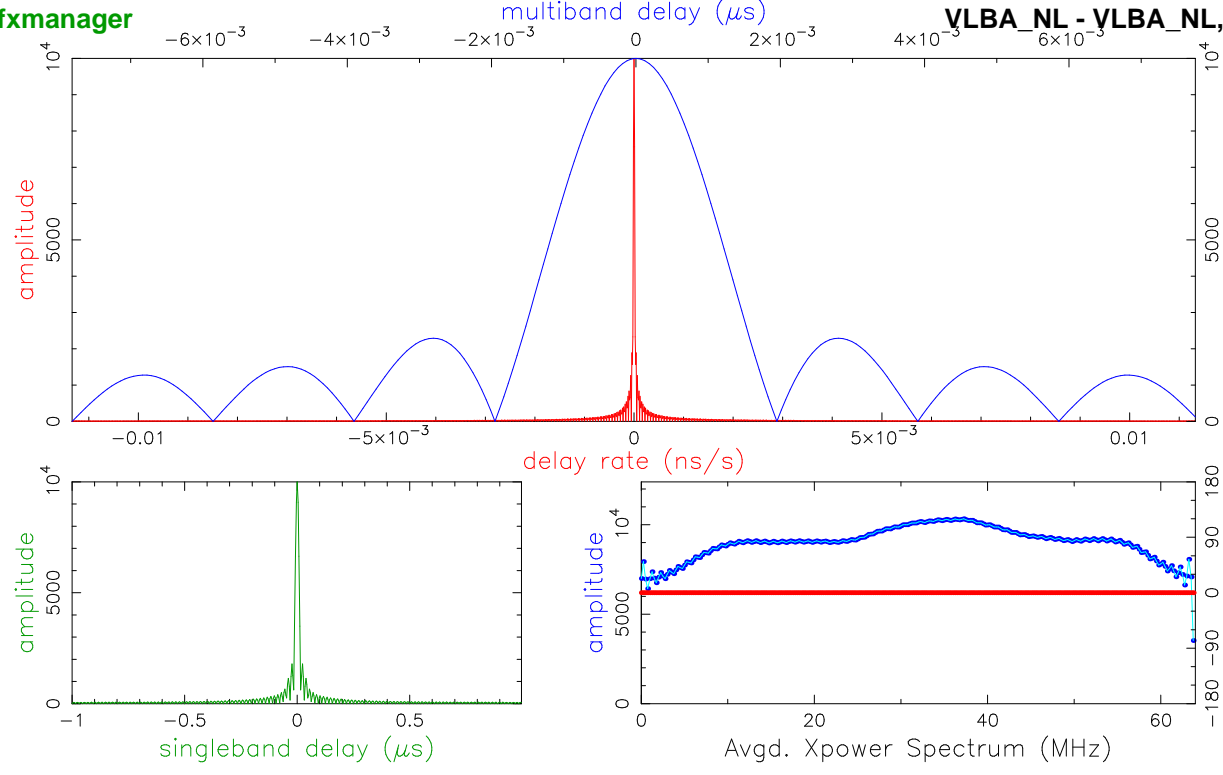
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/mn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/mn.W.87.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, nn

VLBA_NL - VLBA_NL, fgroup W, pol RR

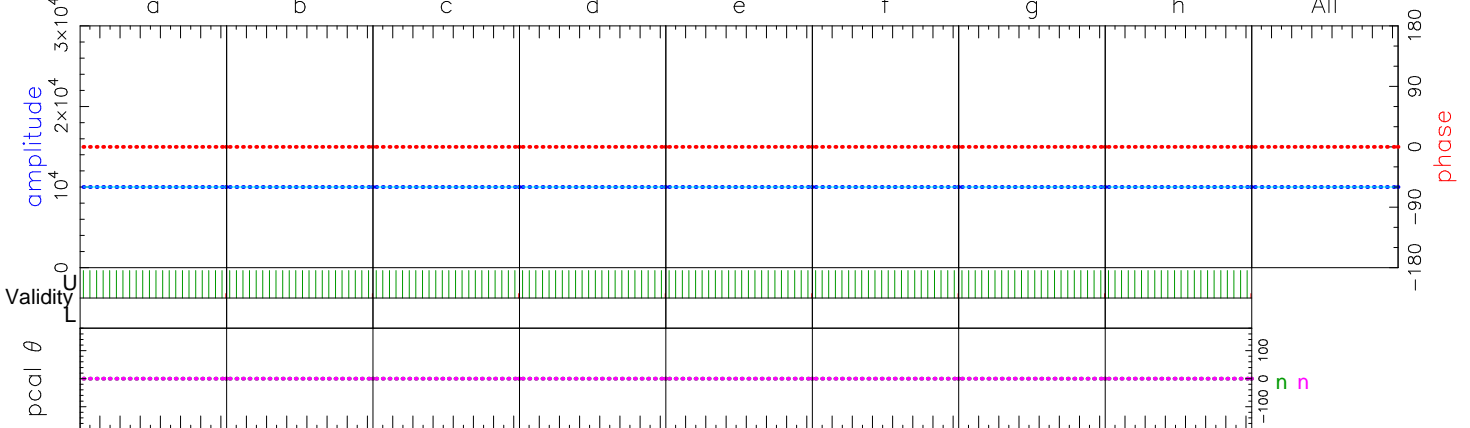


Fringe quality 9

SNR 560318.5
 Int time 419.831
 Amp 10000.001
 Phase 0.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.000000
 MBD 0.000000
 Fringe rate (Hz) 0.000000
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120603
 2021:252:122852
 RA & Dec (J2000) 17h43m58.856136s --3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	0	0	0	0	0	0	0	0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 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

n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/nn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/nn.W.103.1X0AZO

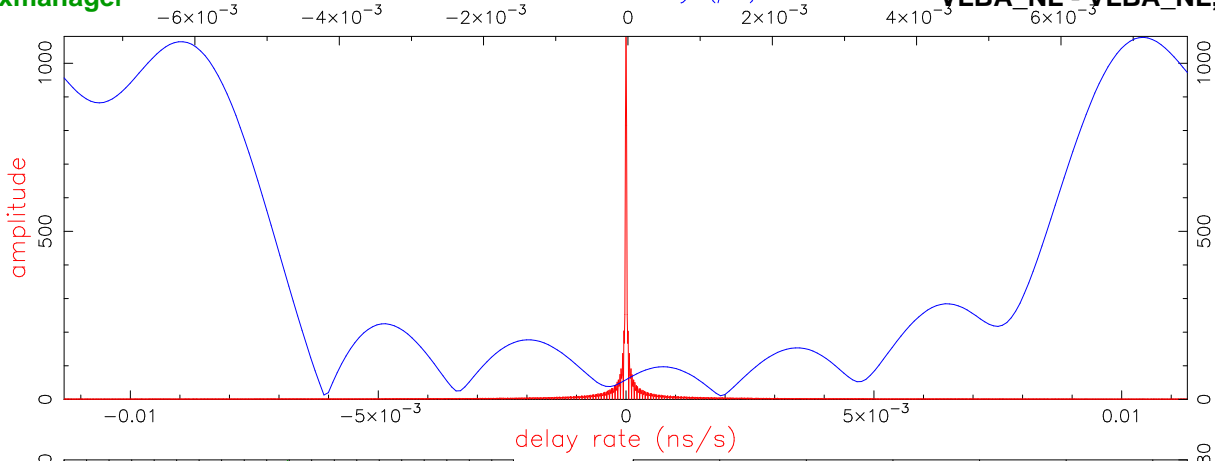
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

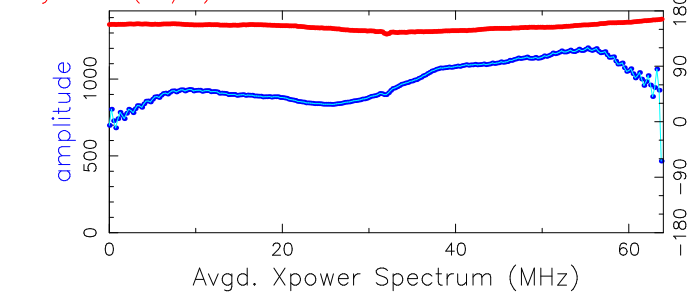
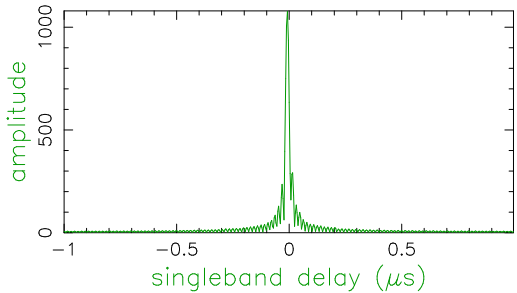
1741-038.1X0AZO, No0070, nn

VLBA_NL - VLBA_NL, fgroup W, pol LR

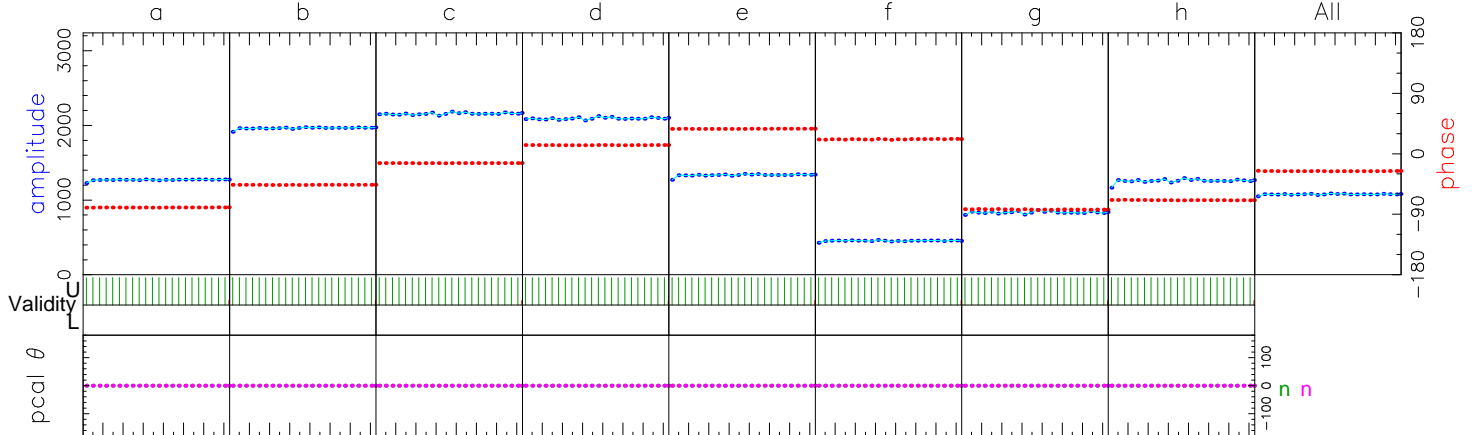
multiband delay (μ s)



Fringe quality 5
 SNR 60522.1
 Int time 419.831
 Amp 1080.138
 Phase -25.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.008472
 MBD 0.007110
 Fringe rate (Hz)
 -0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120606
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-79.9	-46.2	-13.9	12.9	37.1	21.6	-82.8	-69.0	Phase	-25.8
	1270.1	1963.9	2156.9	2093.0	1334.3	454.7	834.4	1257.9	Ampl.	1420.7
	255.6	255.1	255.0	255.0	255.4	254.0	254.9	254.9	Sbd box	254.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.51550000000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		7.10950E-03	+/- 1.8E-08
Sband delay (usec)	-8.47200000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-8.47200E-03	+/- 1.4E-07
Phase delay (usec)	-8.32138669592E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-8.32139E-07	+/- 6.1E-11
Delay rate (us/s)	-2.40909590659E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.40910E-11	+/- 2.5E-13
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-25.8	+/- 0.0

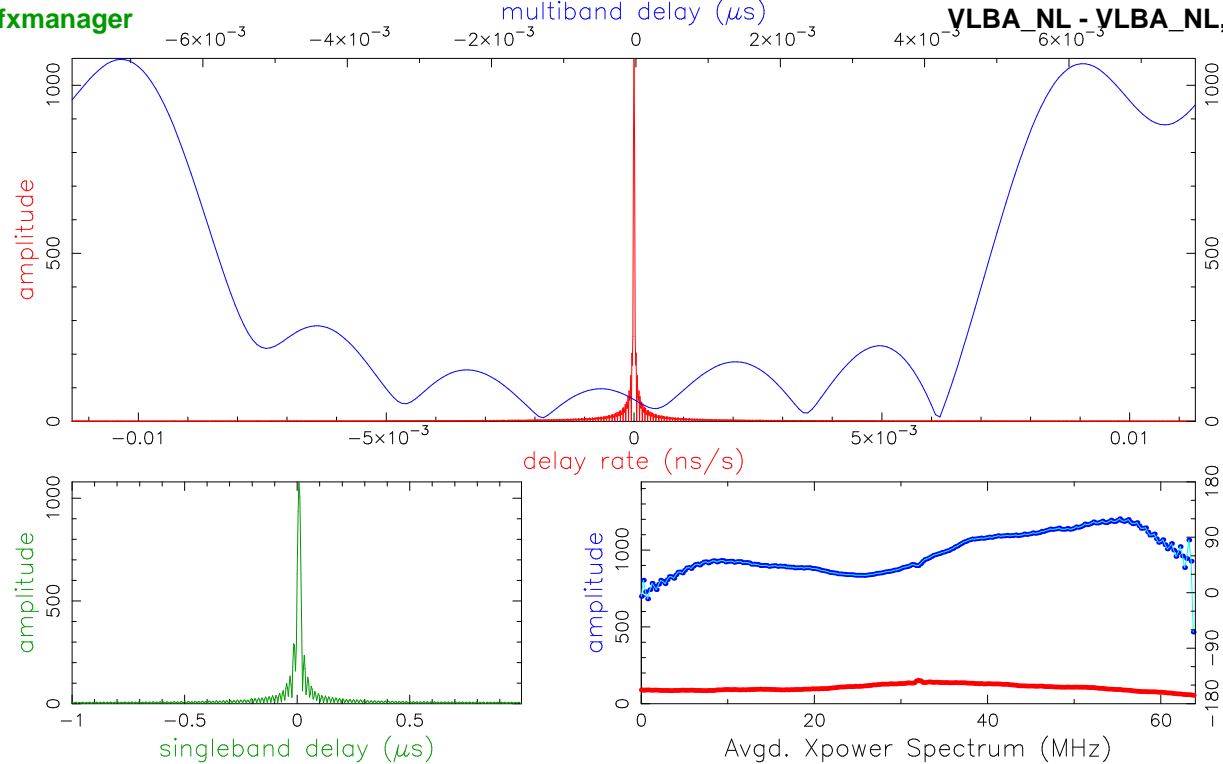
ph/seg (deg) 0.1 0.0 Theor. Amplitude 1080.138 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.7 0.0 Search (2048X32) 1064.532 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 61.7 0.0 Inc. seg. avg. 1077.029 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/nn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/nn.W.117.1X0AZO simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

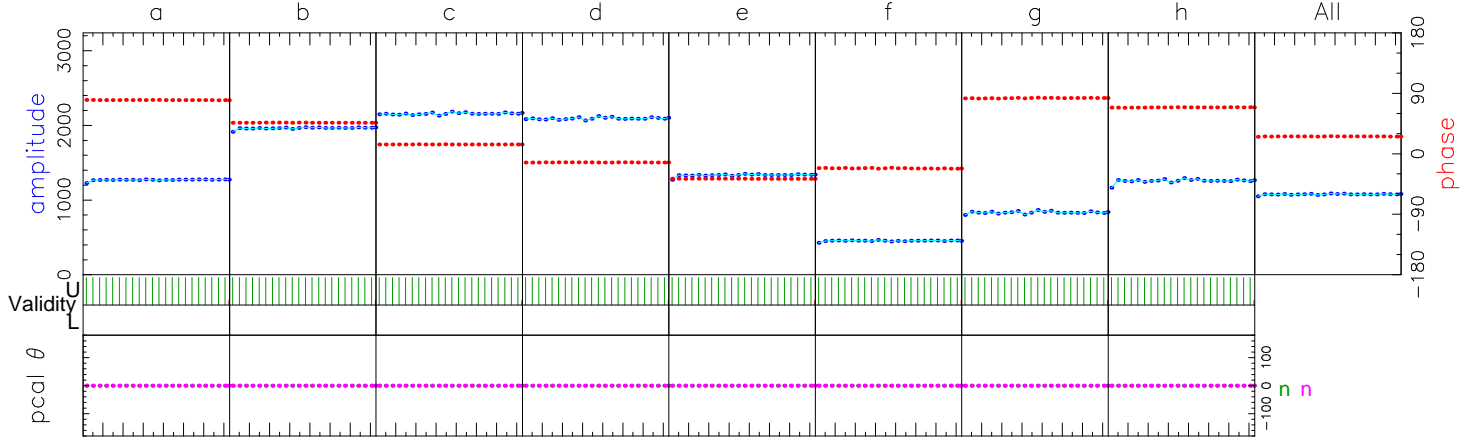
1741-038.1X0AZO, No0070, nn

VLBA_NL - VLBA_NL, fgroup W, pol RL



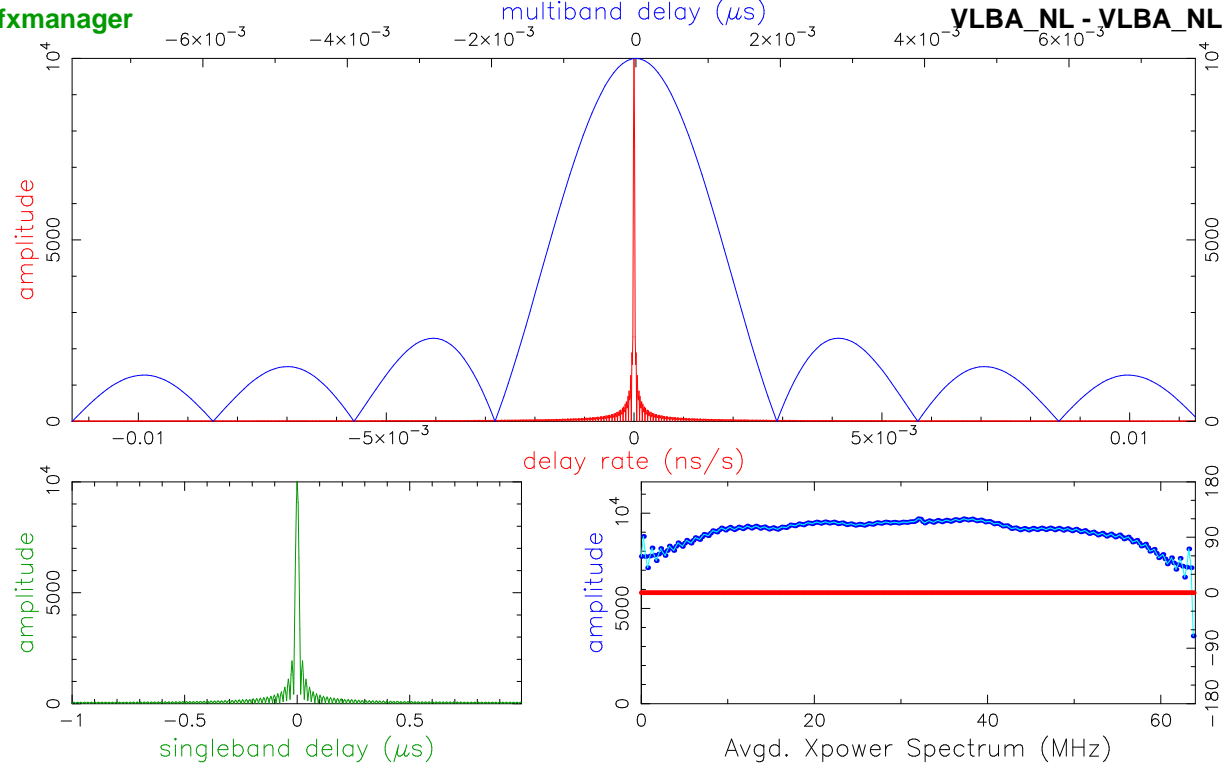
Fringe quality 5
 SNR 60522.1
 Int time 419.831
 Amp 1080.138
 Phase 25.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.008472
 MBD -0.007110
 Fringe rate (Hz)
 0.000002
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120609
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 --3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	79.9	46.2	13.9	-12.9	-37.1	-21.6	82.8	69.0	Phase	25.8
	1270.1	1963.9	2156.9	2093.0	1334.3	454.7	834.4	1257.9	Ampl.	1420.7
	258.4	258.9	259.0	259.0	258.6	260.0	259.1	259.1	Sbd box	259.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	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)	8.51550000000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-7.10950E-03	+/- 1.8E-08
Sband delay (usec)	8.47200000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		8.47200E-03	+/- 1.4E-07
Phase delay (usec)	8.32138669561E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		8.32139E-07	+/- 6.1E-11
Delay rate (us/s)	2.40909590659E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		2.40910E-11	+/- 2.5E-13
Total phase (deg)	25.8		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		25.8	+/- 0.0

ph/seg (deg) 0.1 0.0 Theor. Amplitude 1080.138 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.7 0.0 Search (2048X32) 1064.532 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 52.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 61.7 0.0 Inc. seg. avg. 1077.029 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 n: az 239.6 el 24.5 pa 40.6 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/nn..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/nn.W.132.1X0AZO simultaneous interpolator

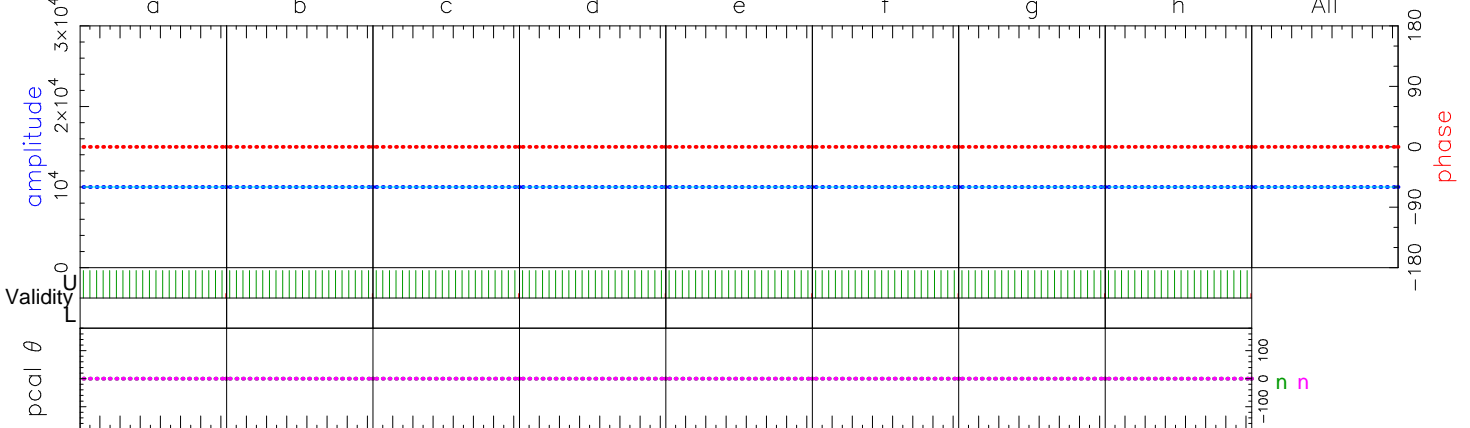


Fringe quality 9

SNR 560318.5
Int time 419.831
Amp 10000.001
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c211c
Yr:day 16383
Start 2021:116
Stop 2021:116
FRT 130001.00
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120600
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	0	0	0	0	0	0	0	0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.00000000000E+00 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.00000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.00000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12
 Delay rate (us/s) 0.00000000000E+00 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.001 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 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

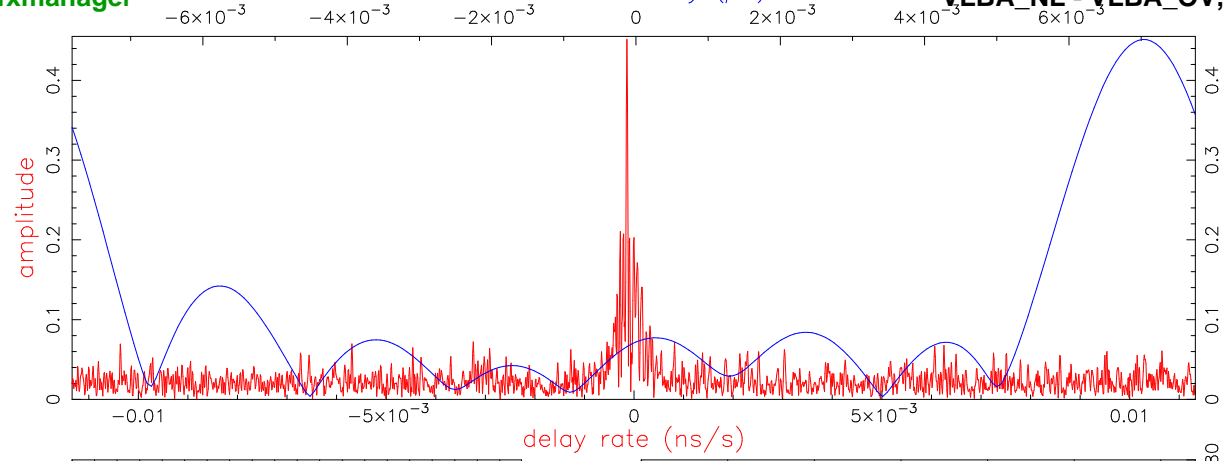
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

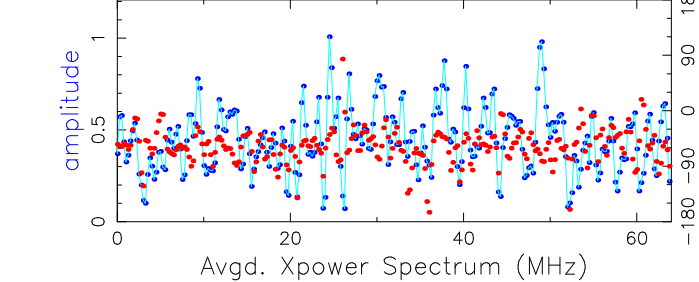
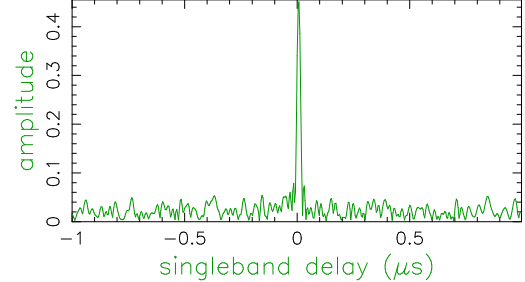
1741-038.1X0AZO, No0070, no

VLBA_NL - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

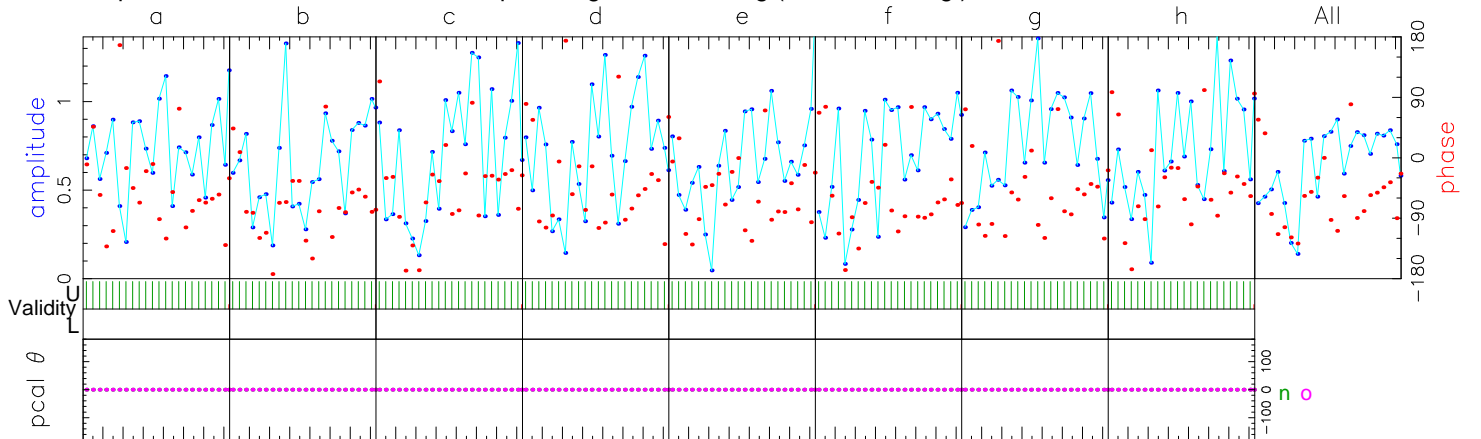


Fringe quality 7
 SNR 25.5
 Int time 419.819
 Amp 0.455
 Phase -61.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.006630
 MBD 0.007014
 Fringe rate (Hz)
 -0.012324
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120604
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



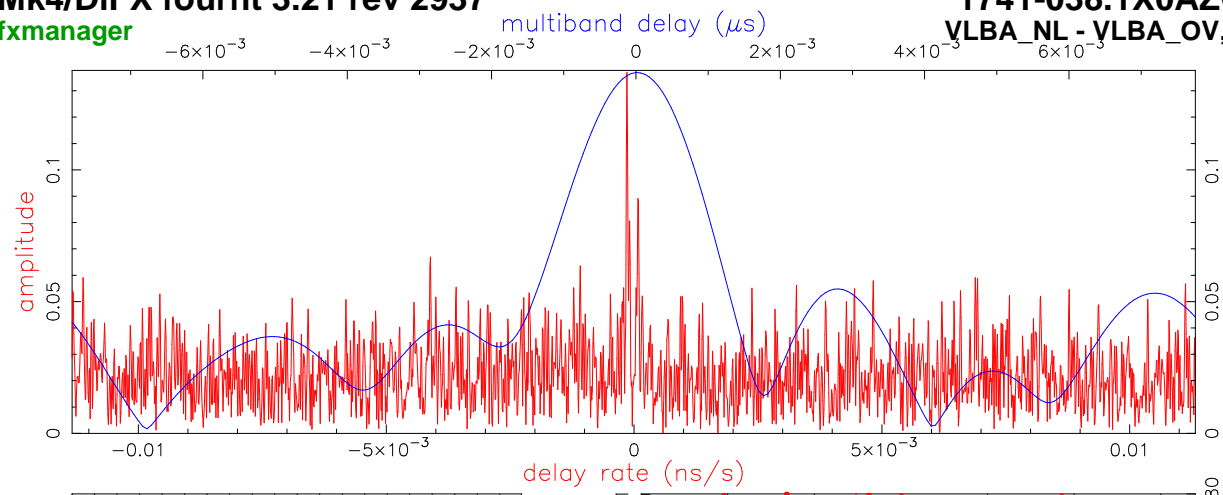
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

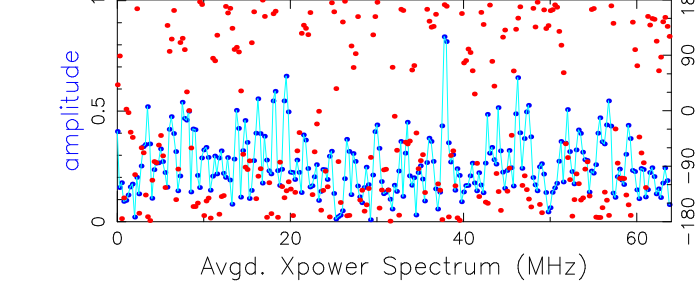
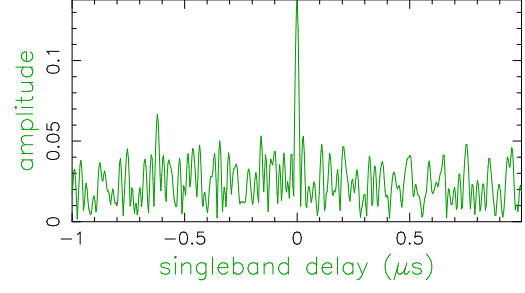


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-66.7	-68.2	-42.2	-60.9	-65.1	-68.4	-64.6	-51.8	Phase	-61.2
	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.5	Ampl.	0.5
	258.9	258.5	258.7	258.8	258.6	258.6	258.5	258.8	Sbd box	258.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.69641485046E+03		Apriori delay (usec)		-5.69642186446E+03		Resid mbdelay (usec)		7.01400E-03	+/- 4.3E-05
Sband delay (usec)	-5.69641523396E+03		Apriori clock (usec)		1.7315712E+08		Resid sbdelay (usec)		6.63050E-03	+/- 3.4E-04
Phase delay (usec)	-5.69642186643E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		-1.97393E-06	+/- 1.4E-07
Delay rate (us/s)	-3.78195765356E-01		Apriori rate (us/s)		-3.78195622290E-01		Resid rate (us/s)		-1.43066E-07	+/- 6.0E-10
Total phase (deg)			Apriori accel (us/s/s)		2.98375974504E-05		Resid phase (deg)		-61.2	+/- 4.5

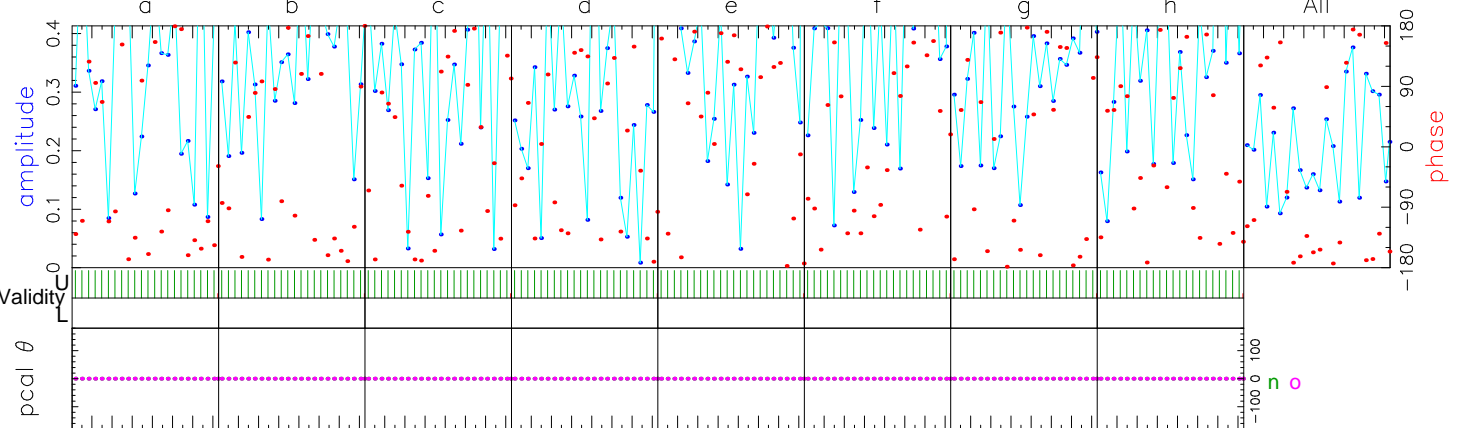
ph/seg (deg) 55.1 10.8 Search (2048X32) 0.437 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.6 18.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.1 6.4 Inc. seg. avg. 0.636 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 5.7 11.1 Inc. frq. avg. 0.453 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 o: az 215.3 el 42.7 pa 28.1 u,v (fr/asec) 2207.183 379.962 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/no..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/no.W.111.1X0AZO



Fringe quality 9
SNR 7.7
Int time 419.819
Amp 0.138
Phase -179.2
PFD 3.9e-06
Delays (us)
SBD -0.001041
MBD 0.000041
Fringe rate (Hz)
-0.012607
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120607
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°50'04.616734"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	0	0	0	0	0	0	0	0		
o	0	0	0	0	0	0	0	0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-5.69642182343E+03									
Sband delay (usec)	-5.69642290496E+03									
Phase delay (usec)	-5.69642187024E+03									
Delay rate (us/s)	-3.78195768648E-01									
Total phase (deg)			-324.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
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										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.138 +/- 0.018										
0.135										
0.000										
0.175										
0.135										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
-1.000 1.000										
-0.008 0.008										
-0.011 0.011										
0.00 0.00										

n: az 239.6 el 24.5 pa 40.6 o: az 215.3 el 42.7 pa 28.1 u,v (fr/asec) 2207.183 379.962 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/no..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/no.W.128.1X0AZO

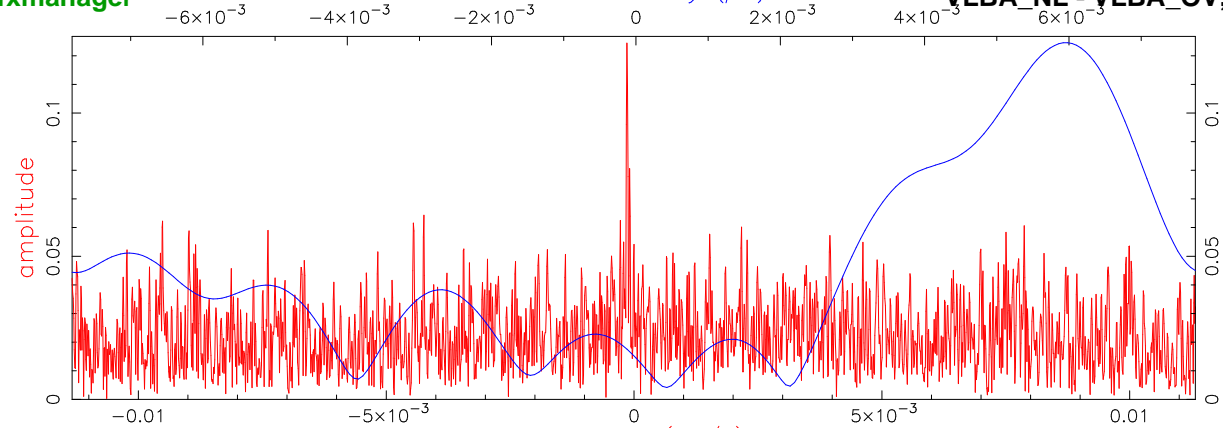
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

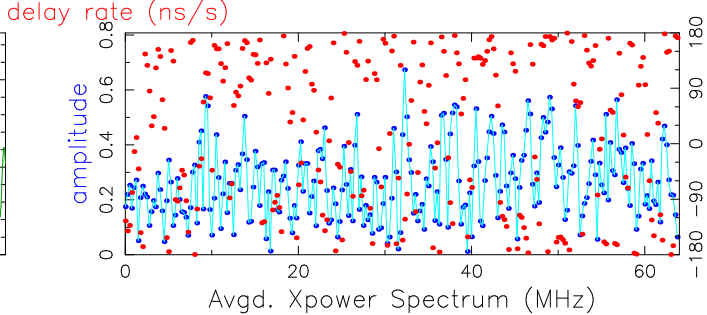
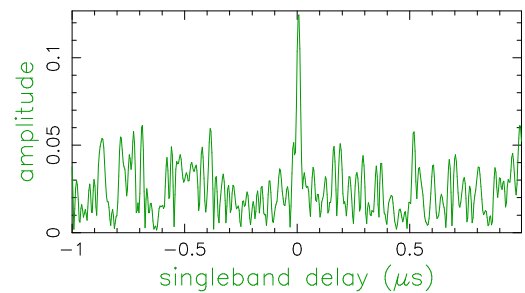
1741-038.1X0AZO, No0070, no

VLBA_NL - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

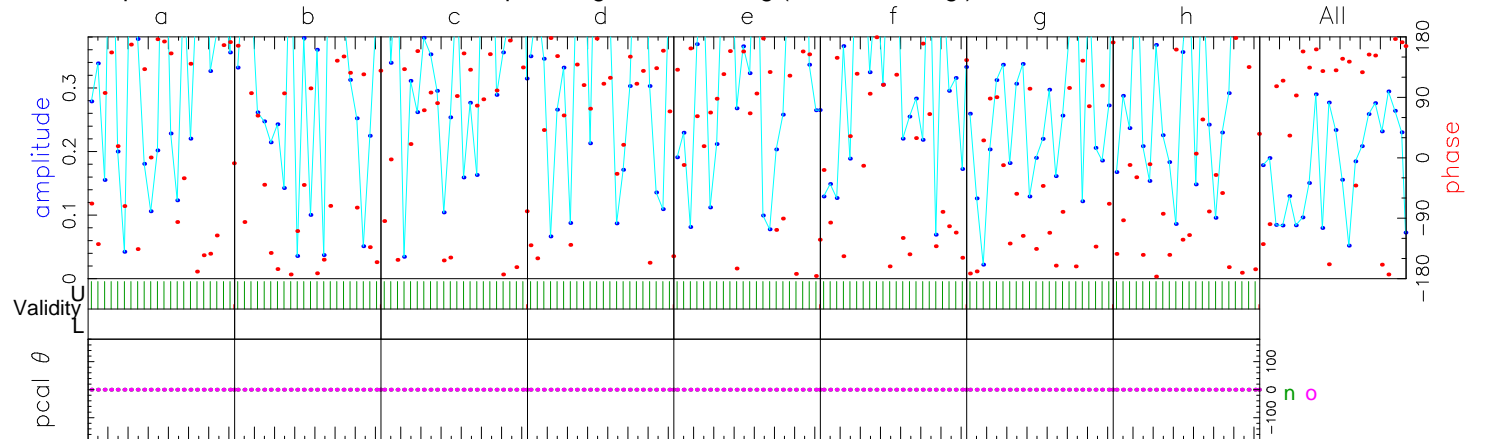


Fringe quality 0
 SNR 7.1
 Int time 419.819
 Amp 0.127
 Phase 165.3
 PFD 3.7e-04
 Delays (us)
 SBD 0.005952
 MBD 0.005891
 Fringe rate (Hz) -0.012764
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build 2021:303:042052
 2021:303:120611
 2021:252:122852
 RA & Dec (J2000) 17h43m58.856136s
 --3°50'04.616734"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-167.4	-164.2	141.6	129.6	137.4	173.9	-155.0	-133.9	Phase	165.3
	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	121.8	181.1	257.9	258.5	259.1	509.8	156.3	136.9	Sbd box	258.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.69641597380E+03		Apriori delay (usec)		-5.69642186446E+03		Resid mbdelay (usec)		5.89066E-03	+/- 1.5E-04
Sband delay (usec)	-5.69641591296E+03		Apriori clock (usec)		1.7315712E+08		Resid sbdelay (usec)		5.95150E-03	+/- 1.2E-03
Phase delay (usec)	-5.69642185913E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		5.33124E-06	+/- 5.2E-07
Delay rate (us/s)	-3.78195770471E-01		Apriori rate (us/s)		-3.78195622290E-01		Resid rate (us/s)		-1.48181E-07	+/- 2.1E-09
Total phase (deg)	19.7		Apriori accel (us/s/s)		2.98375974504E-05		Resid phase (deg)		165.3	+/- 16.1

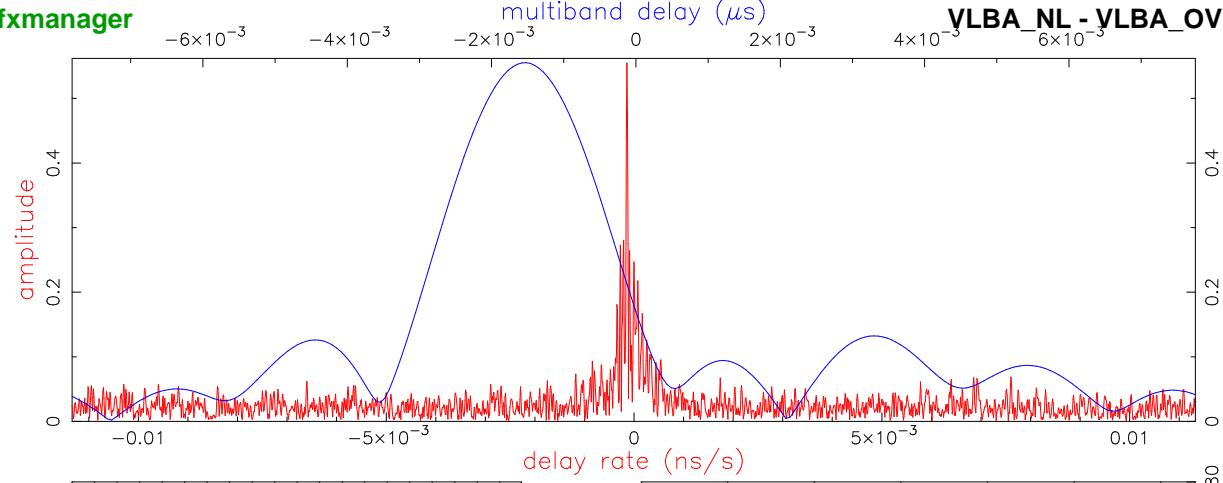
ph/seg (deg) 58.3 38.7 Search (2048X32) 0.121 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.3 67.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.1 22.8 Inc. seg. avg. 0.149 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.0 39.8 Inc. frq. avg. 0.138 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 o: az 215.3 el 42.7 pa 28.1 u,v (fr/asec) 2207.183 379.962 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/no..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/no.W.144.1X0AZO

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, no

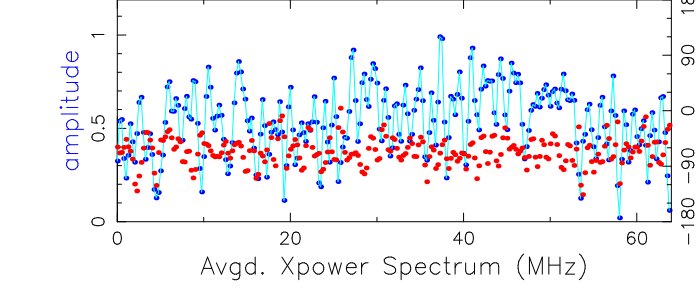
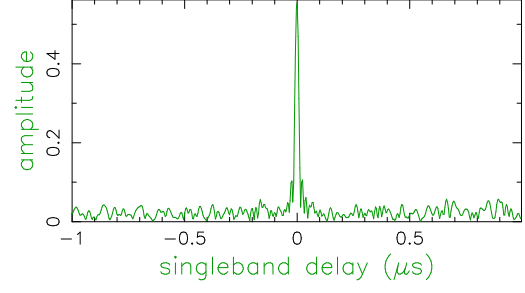
VLBA_NL - VLBA_OV, fgroup W, pol LL



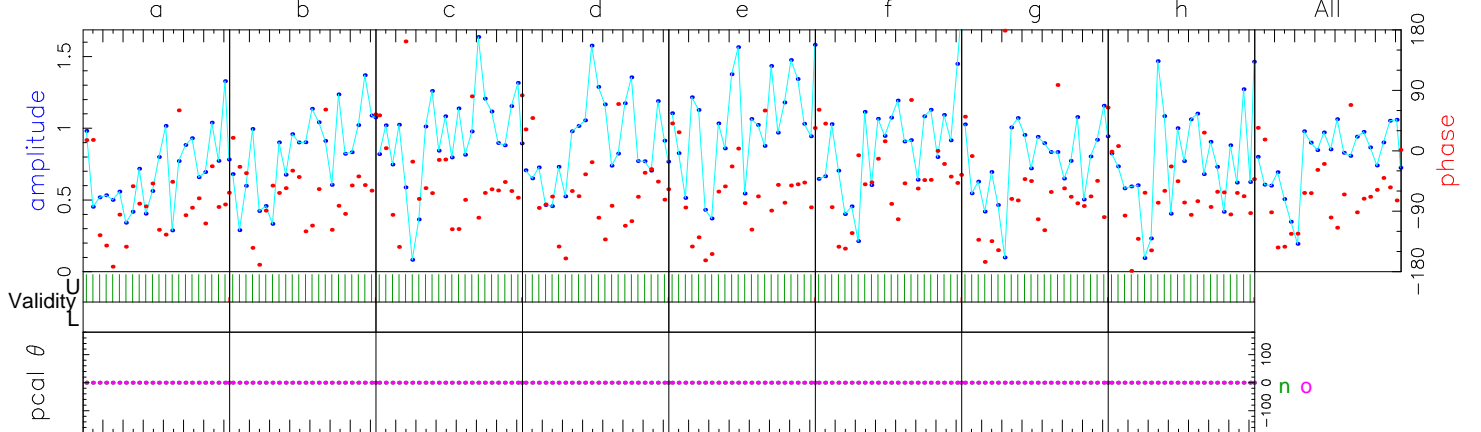
Fringe quality 6

SNR 31.5
 Int time 419.819
 Amp 0.562
 Phase -64.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.001453
 MBD -0.001585
 Fringe rate (Hz)
 -0.012514
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120601
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.6	-64.5	-64.0	-67.9	-59.3	-41.9	-75.8	-68.9	Phase	-64.7
	0.4	0.6	0.6	0.6	0.6	0.6	0.5	0.6	Ampl.	0.6
	256.9	256.5	256.7	257.0	257.0	256.4	256.4	256.4	Sbd box	256.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.69642344936E+03		Apriori delay (usec)		-5.69642186446E+03		Resid mbdelay (usec)		-1.58491E-03	+/- 3.4E-05
Sband delay (usec)	-5.69642331771E+03		Apriori clock (usec)		1.7315712E+00		Resid sbdelay (usec)		-1.45325E-03	+/- 2.7E-04
Phase delay (usec)	-5.69642186654E+03		Apriori clockrate (us/s)		-6.0000019E-08		Resid phdelay (usec)		-2.08559E-06	+/- 1.2E-07
Delay rate (us/s)	-3.78195767570E-01		Apriori rate (us/s)		-3.78195622290E-01		Resid rate (us/s)		-1.45280E-07	+/- 4.8E-10
Total phase (deg)			Apriori accel (us/s/s)		2.98375974504E-05		Resid phase (deg)		-64.7	+/- 3.6

ph/seg (deg) 53.4 8.7 Search (2048X32) 0.550 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 57.5 15.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.6 5.1 Inc. seg. avg. 0.788 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 10.3 9.0 Inc. frq. avg. 0.562 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 o: az 215.3 el 42.7 pa 28.1 u,v (fr/asec) 2207.183 379.962 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/no..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/no.W.96.1X0AZO

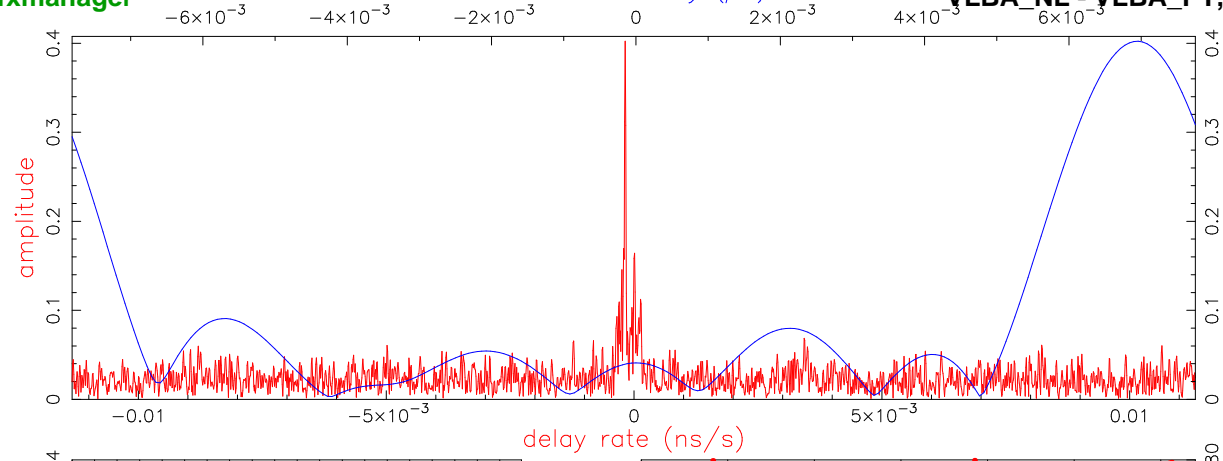
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

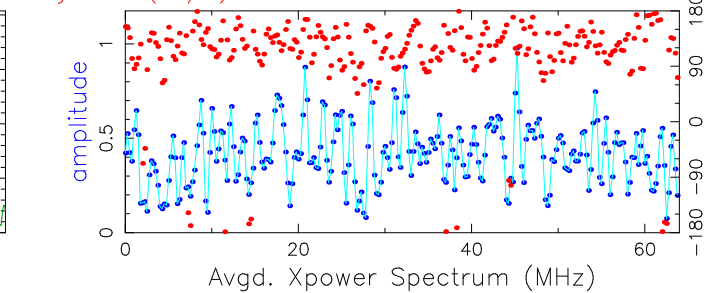
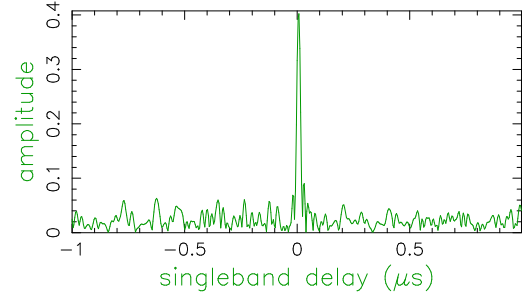
1741-038.1X0AZO, No0070, np

VLBA_NL - VLBA_PT, fgroup W, pol RR

multiband delay (μ s)

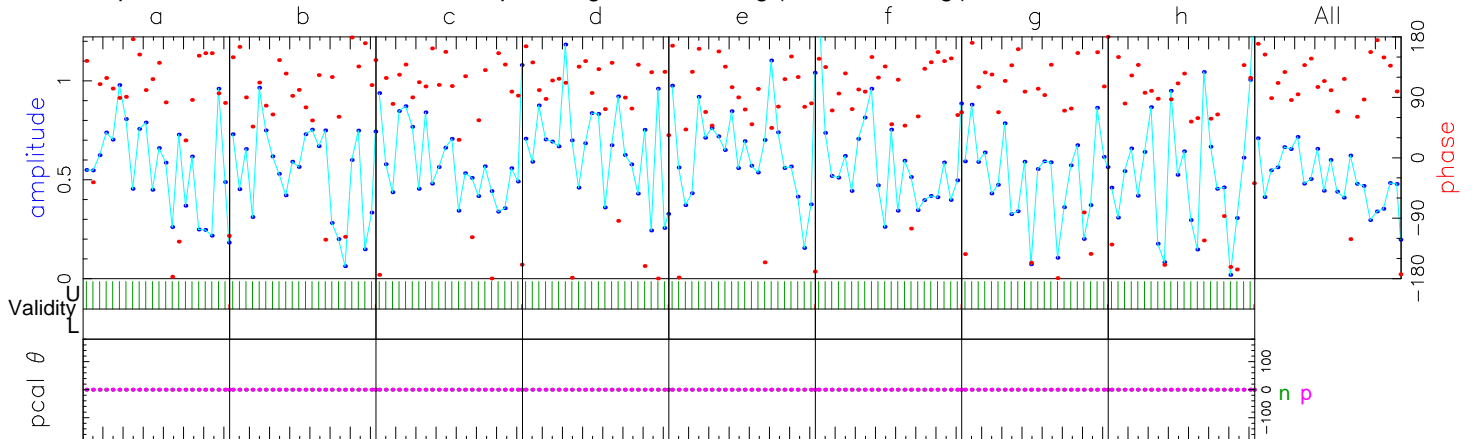


Fringe quality 9
 SNR 22.8
 Int time 419.826
 Amp 0.408
 Phase 119.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.006336
 MBD 0.006924
 Fringe rate (Hz) -0.014999
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120603
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"



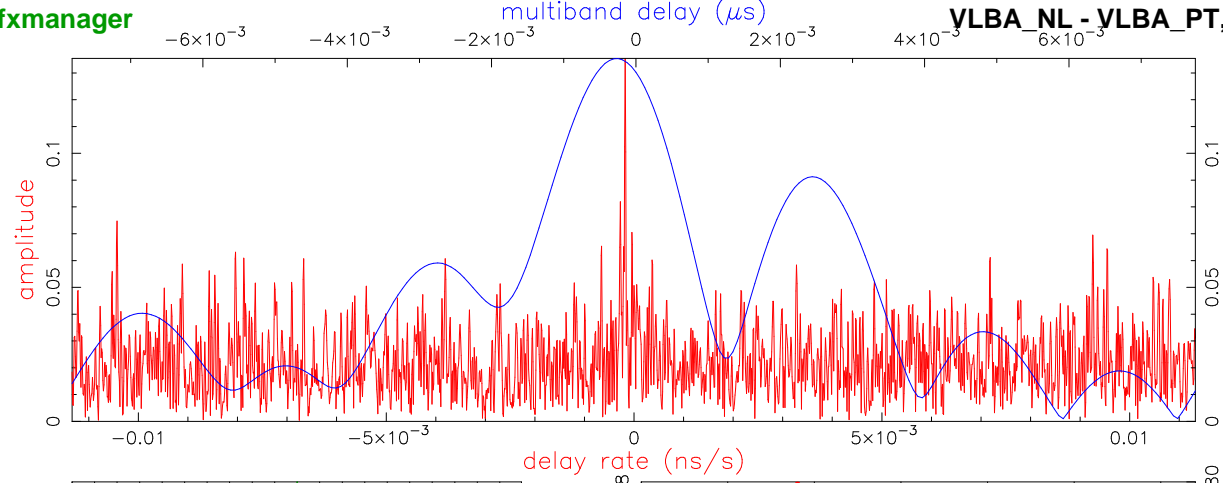
Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec

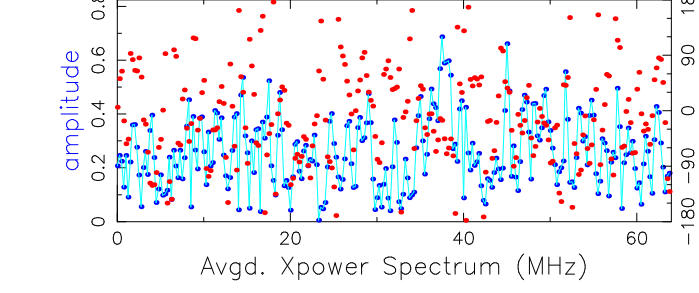
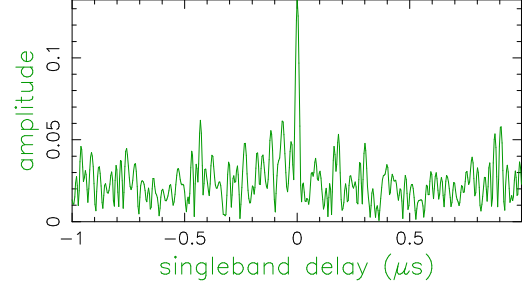


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	114.0	112.7	125.6	131.4	109.8	114.8	129.6	115.2	Phase	119.5
	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	Ampl.	0.4
	258.0	258.4	259.4	258.9	258.2	258.5	258.3	258.8	Sbd box	258.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.71957588712E+03		Apriori delay (usec)		-4.71958281109E+03		Resid mbdelay (usec)		6.92397E-03	+/- 4.8E-05
Sband delay (usec)	-4.71957647534E+03		Apriori clock (usec)		-6.5000534E-02		Resid sbdelay (usec)		6.33575E-03	+/- 3.8E-04
Phase delay (usec)	-4.71958280724E+03		Apriori clockrate (us/s)		4.199997E-07		Resid phdelay (usec)		3.85404E-06	+/- 1.6E-07
Delay rate (us/s)	-1.63786762353E-01		Apriori rate (us/s)		-1.63786588232E-01		Resid rate (us/s)		-1.74121E-07	+/- 6.7E-10
Total phase (deg)			Apriori accel (us/s/s)		2.43207343845E-05		Resid phase (deg)		119.5	+/- 5.0

ph/seg (deg) 40.5 12.0 Search (2048X32) 0.391 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 39.3 21.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.1 7.1 Inc. seg. avg. 0.502 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 13.2 12.4 Inc. frq. avg. 0.403 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 239.6 el 24.5 pa 40.6 p: az 228.3 el 39.4 pa 38.8 u,v (fr/asec) 970.878 776.107 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/np..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/np.W.107.1X0AZO

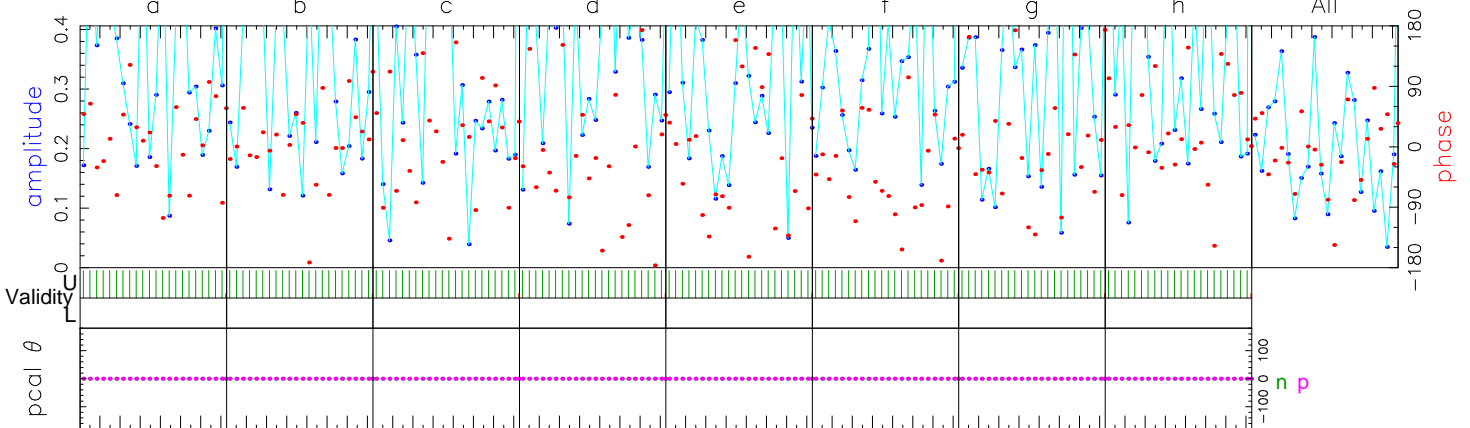


Fringe quality 9
SNR 7.6
Int time 419.826
Amp 0.135
Phase -5.5
PFD 1.1e-05
Delays (us)
SBD 0.000249
MBD -0.000263
Fringe rate (Hz)
-0.014960
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120607
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°50'04.616734"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.71958307419E+03				-4.71958281109E+03					
Sband delay (usec)	-4.71958256184E+03				-6.5000534E-02					
Phase delay (usec)	-4.71958281127E+03				4.1999997E-07					
Delay rate (us/s)	-1.63786761903E-01				-1.63786588232E-01					
Total phase (deg)			-130.6		2.43207343845E-05					
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										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.135 +/- 0.018										
0.128										
0.000										
0.170										
0.143										
0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
2.49250E-04 +/- 1.1E-03										
-1.76305E-07 +/- 4.9E-07										
-1.73672E-07 +/- 2.0E-09										
-5.5 +/- 15.1										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
-1.000 1.000										
-0.008 0.008										
-0.011 0.011										
0.00 0.00										

n: az 239.6 el 24.5 pa 40.6 p: az 228.3 el 39.4 pa 38.8 u,v (fr/asec) 970.878 776.107 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/np..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/np.W.123.1X0AZO

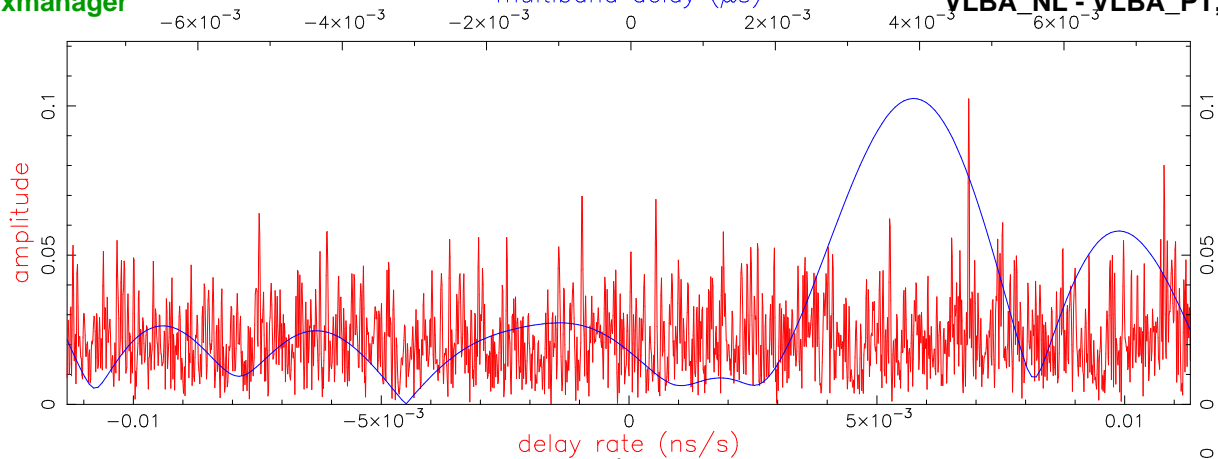
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, np

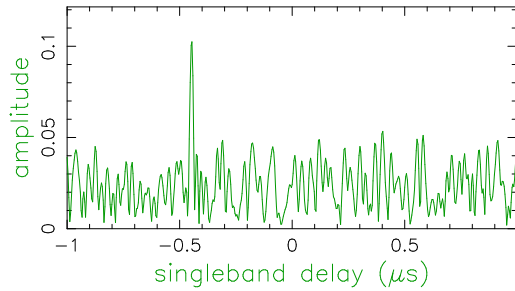
VLBA_NL - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)

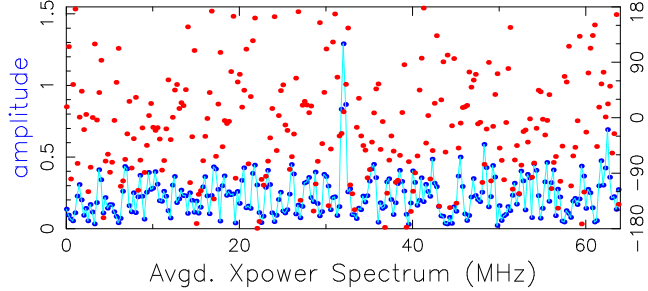


Fringe quality 0

SNR 5.8
Int time 419.826
Amp 0.122
Phase -173.5
PFD 7.5e-01
Delays (us)
SBD -0.446887
MBD 0.003863
Fringe rate (Hz)
0.591373
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

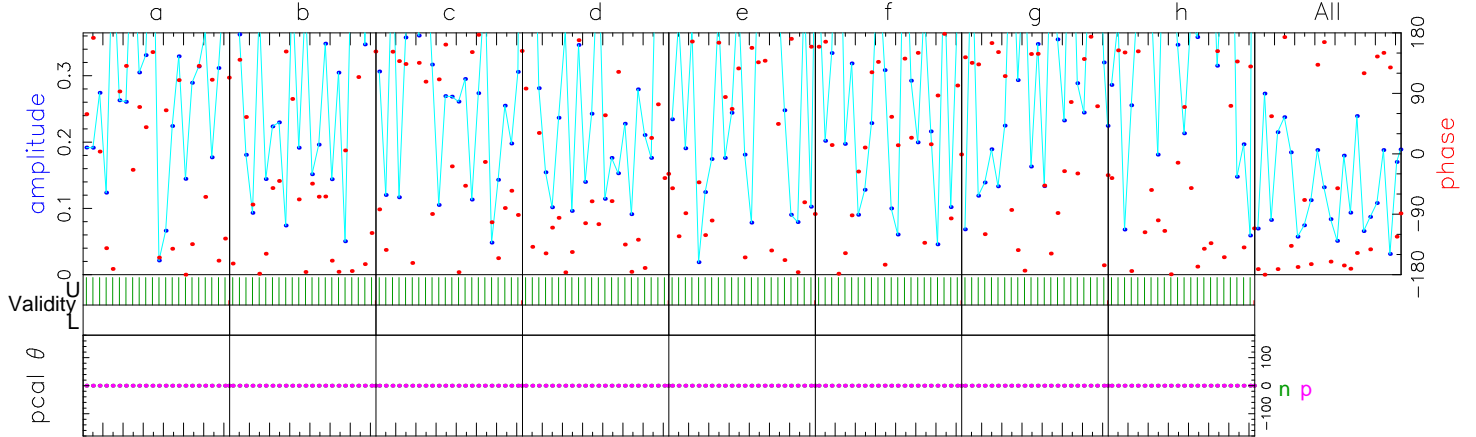


delay rate (ns/s)



Exp. c211c
Exper # 16383
Yr:day 2021:116
Start 130001.00
Stop 130700.84
FRT 130331.00
Corr/FF/build
2021:303:042052
2021:303:120610
2021:252:122852
RA & Dec (J2000)
17h43m58.856136s
--3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-4.72003207307E+03								3.86303E-03	+/- 1.9E-04
Sband delay (usec)	-4.72002969809E+03								-4.46887E-01	+/- 1.5E-03
Phase delay (usec)	-4.71958281669E+03								-5.59332E-06	+/- 6.3E-07
Delay rate (us/s)	-1.63779722977E-01								6.86525E-06	+/- 2.6E-09
Total phase (deg)			-298.6						-173.5	+/- 19.7
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										
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)	53.9	47.1								
amp/seg (%)	72.1	82.2								
ph/frq (deg)	29.2	27.8								
amp/frq (%)	26.4	48.5								
Search (2048X32)										
Inc. seg. avg.										
Inc. frq. avg.										
0.122 +/- 0.021										
0.101										
0.000										
0.116										
0.117										
PCal mode: MANUAL, MANUAL										
PCal rate: 0.000E+00, 0.000E+00 (us/s)										
SampCntNorm: enabled										
nlags: 256										
t_cohere infinite										
n: az 239.6 el 24.5 pa 40.6										
p: az 228.3 el 39.4 pa 38.8										
u,v (fr/asec) 970.878 776.107										
Control file: cf_1234_gmva										
Input file: /Exps/c211c/v1/1234/No0070/np..1X0AZO										
Output file: /Exps/c211c/v1/1234/No0070/np.W.140.1X0AZO										

simultaneous interpolator

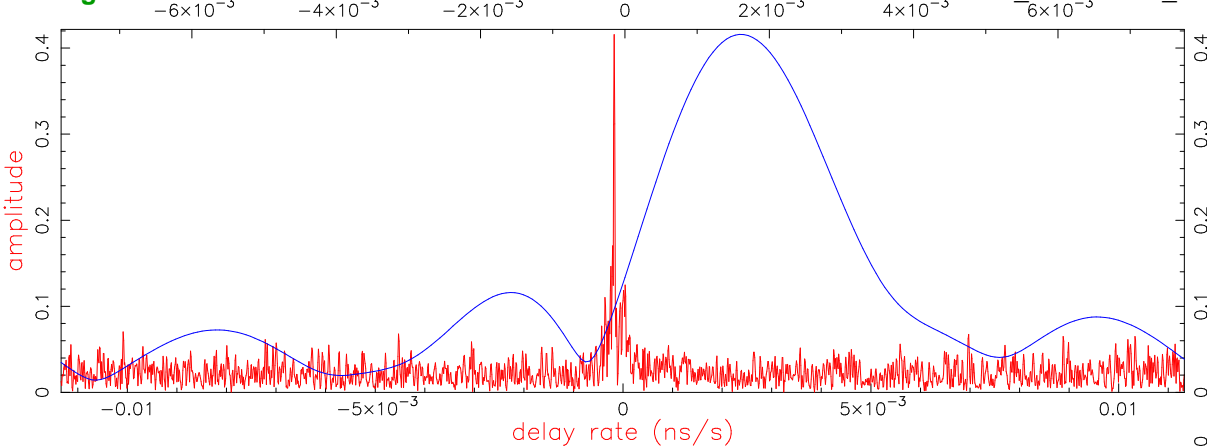
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

1741-038.1X0AZO, No0070, np

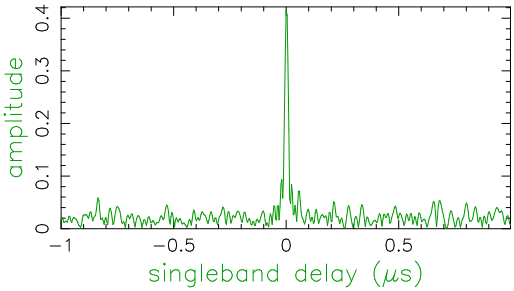
VLBA_NL - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

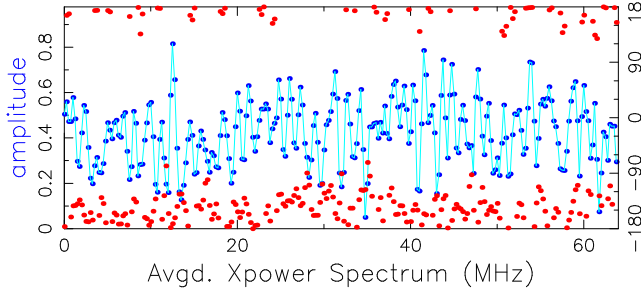


Fringe quality 9

SNR 23.6
 Int time 419.826
 Amp 0.422
 Phase -159.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.001471
 MBD 0.001643
 Fringe rate (Hz)
 -0.014966
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

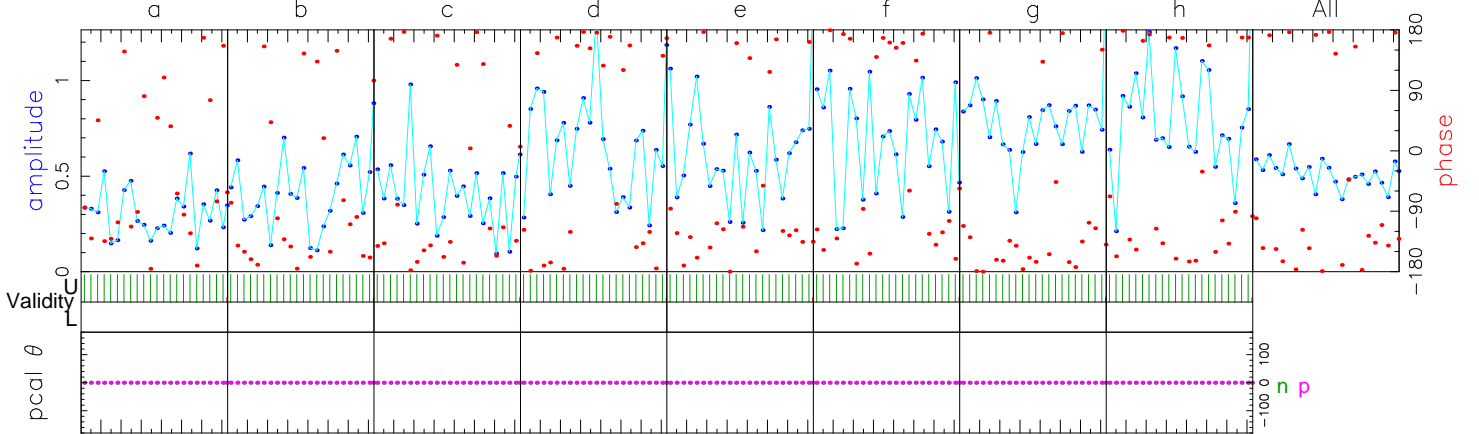


delay rate (ns/s)



Exp. c211c
 Exper # 16383
 Yr:day 2021:116
 Start 130001.00
 Stop 130700.84
 FRT 130331.00
 Corr/FF/build
 2021:303:042052
 2021:303:120600
 2021:252:122852
 RA & Dec (J2000)
 17h43m58.856136s
 -3°50'04.616734"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-128.5	-143.6	-156.2	177.4	-151.5	-162.1	-156.9	-157.6	Phase	-159.2
	0.1	0.3	0.3	0.6	0.4	0.5	0.6	0.6	Ampl.	0.4
	33.6	257.4	256.6	257.3	257.9	256.9	257.4	257.6	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
n	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-4.71958116812E+03	Apriori delay (usec)	-4.71958281109E+03	Resid mbdelay (usec)	1.64297E-03	+/-	4.6E-05
Sband delay (usec)	-4.71958134009E+03	Apriori clock (usec)	-6.5000534E-02	Resid sbdelay (usec)	1.47100E-03	+/-	3.6E-04
Phase delay (usec)	-4.71958281623E+03	Apriori clockrate (us/s)	4.199997E-07	Resid phdelay (usec)	-5.13391E-06	+/-	1.6E-07
Delay rate (us/s)	-1.63786761975E-01	Apriori rate (us/s)	-1.63786588232E-01	Resid rate (us/s)	-1.73743E-07	+/-	6.5E-10
Total phase (deg)	-284.4	Apriori accel (us/s/s)	2.43207343845E-05	Resid phase (deg)	-159.2	+/-	4.9

ph/seg (deg)	RMS 38.9	Theor. 11.6	Amplitude Search (2048X32)	0.422 +/- 0.018	0.398	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	27.5	20.3	Interp.	0.000	0.504	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	17.4	6.9	Inc. seg. avg.	0.504	0.422	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	39.8	12.0	Inc. frq. avg.	0.422		Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

n: az 239.6 el 24.5 pa 40.6 p: az 228.3 el 39.4 pa 38.8 u,v (fr/asec) 970.878 776.107 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211c/v1/1234/No0070/np..1X0AZO Output file: /Exps/c211c/v1/1234/No0070/np.W.91.1X0AZO