

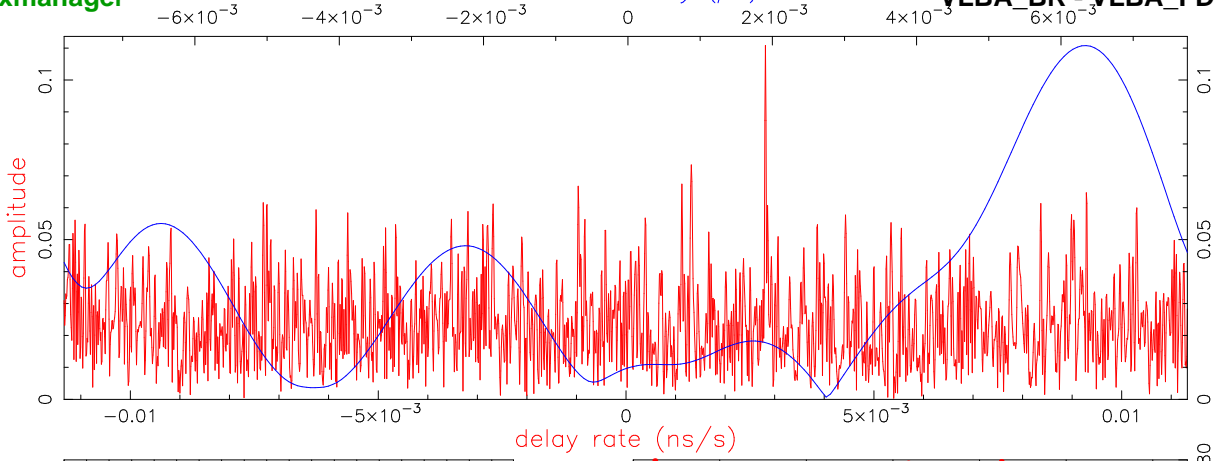
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bf

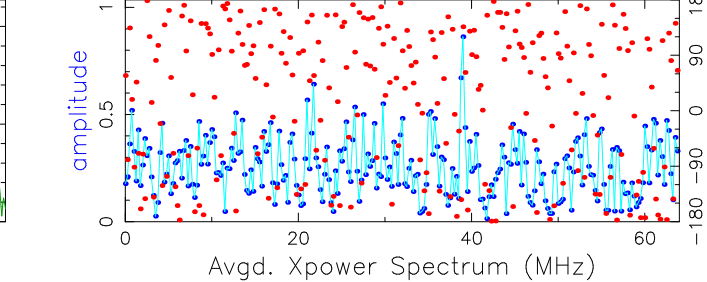
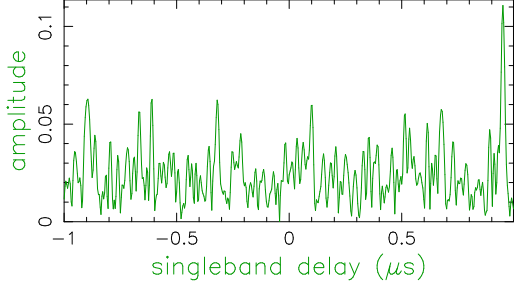
VLBA_BR - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)



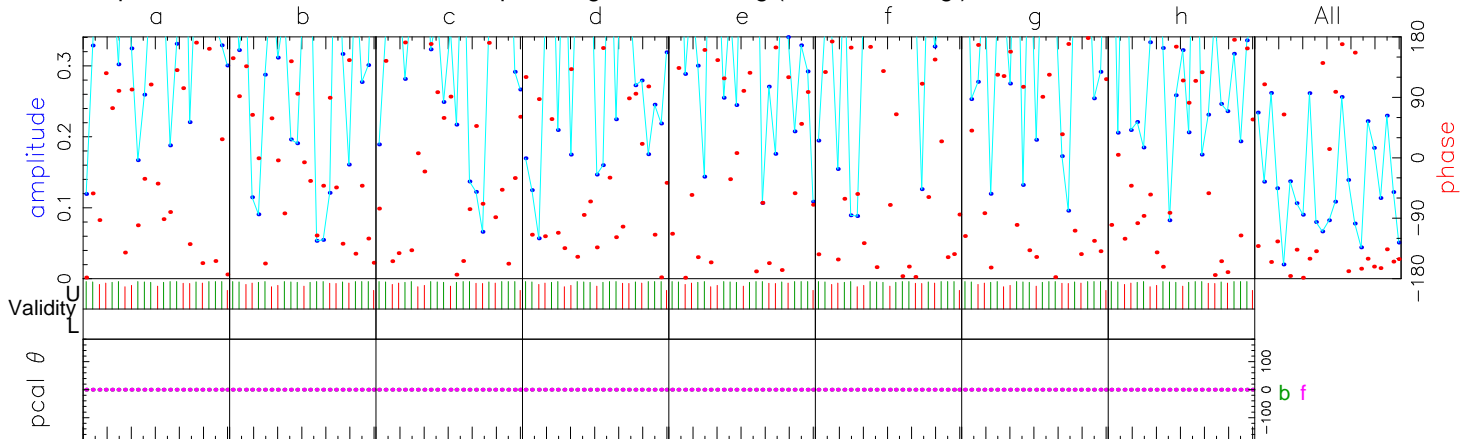
Fringe quality 0

SNR 5.6
 Int time 344.116
 Amp 0.114
 Phase -163.0
 PFD 9.9e-01
 Delays (us)
 SBD 0.949254
 MBD 0.006335
 Fringe rate (Hz)
 0.242427
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135415
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	689/0	689/0	689/0	689/0	689/0	689/0	689/0	689/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-6.96557009776E+02	Apriori delay (usec)	-6.97500844920E+02	Resid mbdelay (usec)	6.33514E-03	+/-	1.9E-04
Sband delay (usec)	-6.96551590920E+02	Apriori clock (usec)	-1.3205587E+01	Resid sbdelay (usec)	9.49254E-01	+/-	1.5E-03
Phase delay (usec)	-6.97500850175E+02	Apriori clockrate (us/s)	-1.6000000E-07	Resid phdelay (usec)	-5.25591E-06	+/-	6.6E-07
Delay rate (us/s)	1.36050346817E-01	Apriori rate (us/s)	1.36047532485E-01	Resid rate (us/s)	2.81433E-06	+/-	3.2E-09
Total phase (deg)	-84.3	Apriori accel (us/s/s)	2.15087720211E-05	Resid phase (deg)	-163.0	+/-	20.4

ph/seg (deg)	57.0	Theor.	48.4	Amplitude	0.114 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.6		84.5	Search (2048X32)	0.109	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	37.4		28.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	48.7		50.3	Inc. seg. avg.	0.105	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.112	Data rate(Mb/s):	2048	ion window (TEC)	0.00 0.00	

b: az 92.6 el 67.1 pa -64.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) -1010.286 3092.965 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bf.W.20.1W5ADF

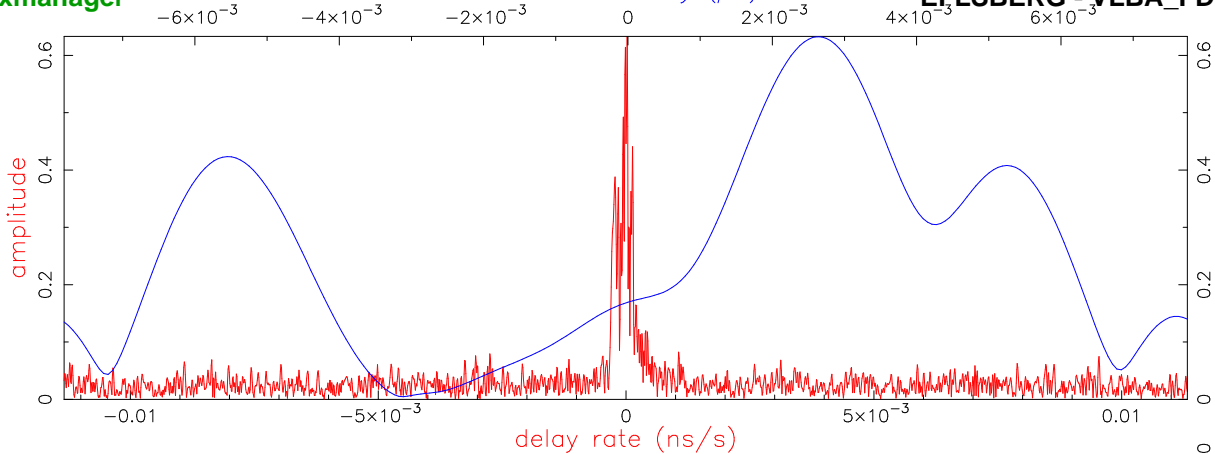
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, Bf

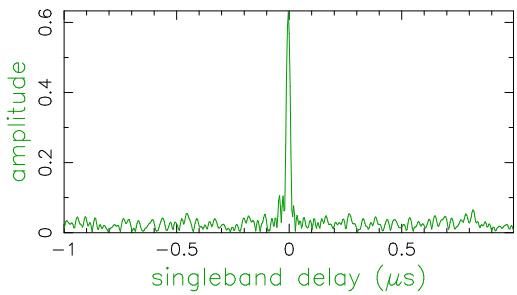
EFLSBERG - VLBA_FD, fgroup W, pol LL

multiband delay (μ s)

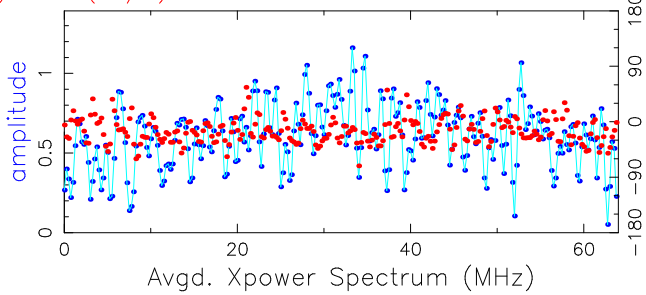


Fringe quality 3

SNR 32.6
 Int time 353.791
 Amp 0.633
 Phase -95.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004255
 MBD 0.002633
 Fringe rate (Hz)
 0.002014
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

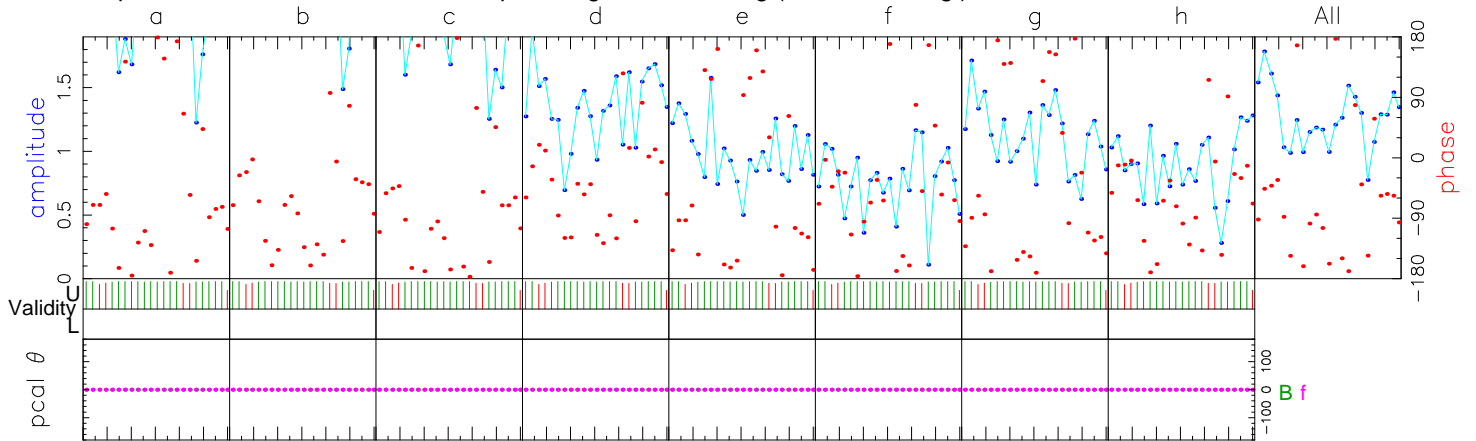


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135412
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

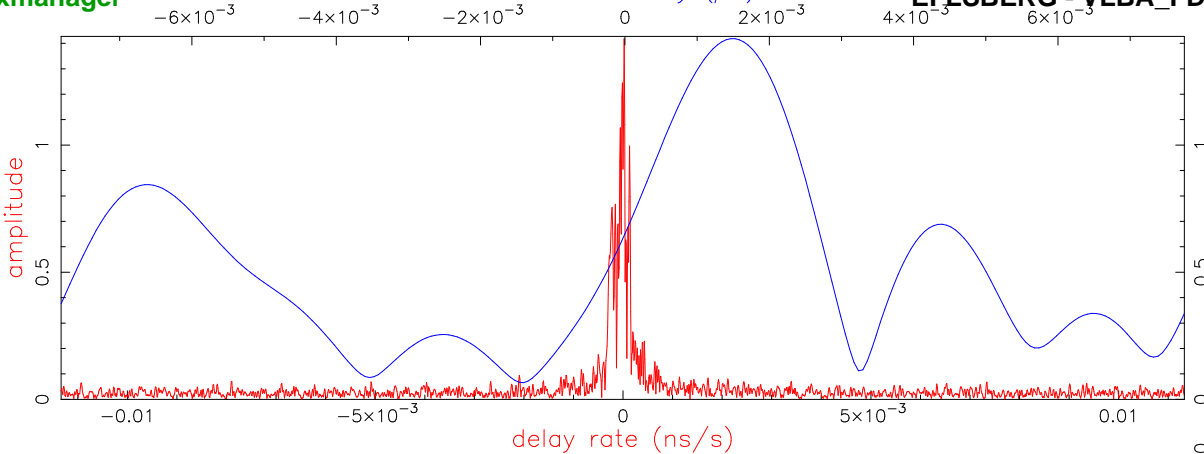
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-116.4	-73.2	-108.3	-38.8	-155.0	-58.8	-149.4	-60.6	Phase	-95.1
	1.2	1.3	1.1	0.7	0.5	0.3	0.6	0.5	Ampl.	0.8
	256.3	256.4	256.5	256.0	256.5	256.4	257.2	256.8	Sbd box	255.9
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03685259903E+04		Apriori delay (usec)		-1.03685286230E+04		Resid mbdelay (usec)		2.63270E-03	+/- 3.3E-05
Sband delay (usec)	-1.03685328780E+04		Apriori clock (usec)		-3.2293221E+01		Resid sbdelay (usec)		-4.25500E-03	+/- 2.6E-04
Phase delay (usec)	-1.03685286261E+04		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-3.06634E-06	+/- 1.1E-07
Delay rate (us/s)	-9.82420478053E-01		Apriori rate (us/s)		-9.82420501429E-01		Resid rate (us/s)		2.33760E-08	+/- 5.5E-10
Total phase (deg)			Apriori accel (us/s/s)		7.49080739571E-05		Resid phase (deg)		-95.1	+/- 3.5

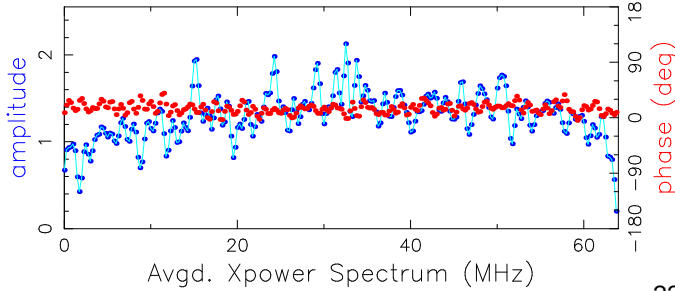
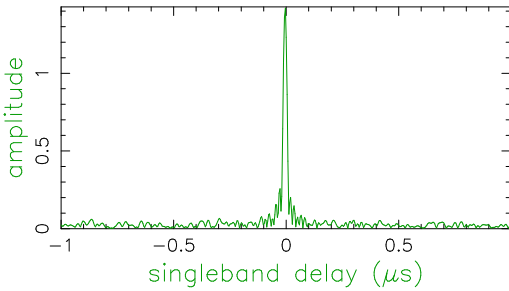
ph/seg (deg) 69.2 8.4 Search (2048X32) 0.622 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 105.9 14.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.1 5.0 Inc. seg. avg. 1.249 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 60.5 8.7 Inc. frq. avg. 0.776 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 302.9 el 28.7 pa 46.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 7763.056 6982.632 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.2.1W5ADF simultaneous interpolator

multiband delay (μ s)



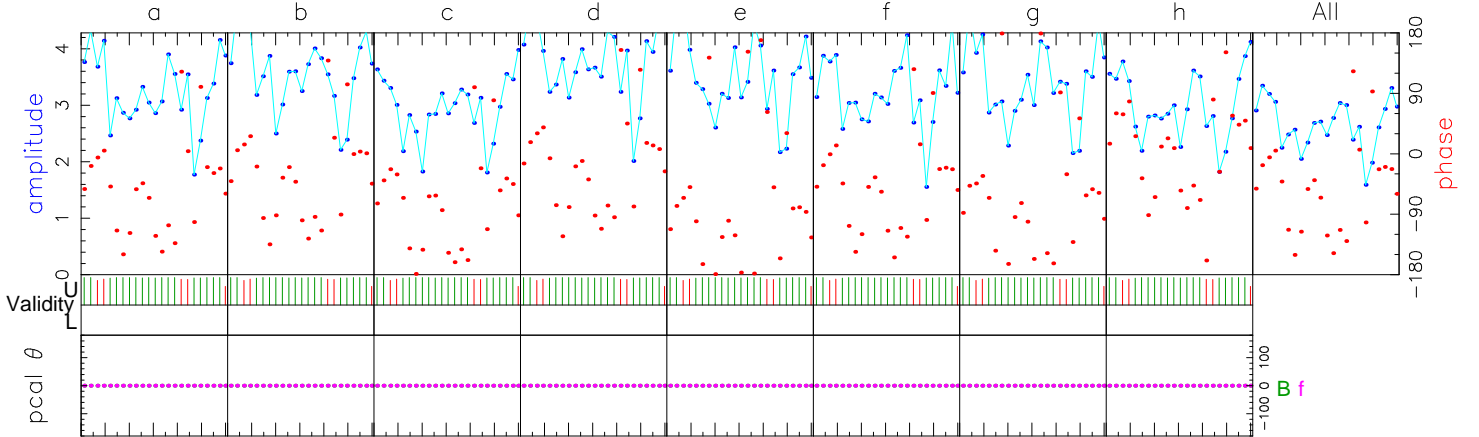
Fringe quality 2

SNR 73.4
 Int time 353.791
 Amp 1.427
 Phase -59.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.004936
 MBD 0.001470
 Fringe rate (Hz)
 0.001972
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135416
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-59.4	-39.1	-82.3	-25.2	-118.5	-56.6	-93.2	9.8	Phase	-59.3
	1.8	1.9	1.6	2.0	1.9	1.7	1.8	1.5	Ampl.	1.8
	255.6	255.9	256.2	256.0	256.3	256.2	256.6	256.2	Sbd box	255.7
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.03685271528E+04		Apriori delay (usec)		-1.03685286230E+04		Resid mbdelay (usec)		1.47023E-03	+/- 1.5E-05
Sband delay (usec)	-1.0368533595E+04		Apriori clock (usec)		-3.2293221E+01		Resid sbdelay (usec)		-4.93650E-03	+/- 1.2E-04
Phase delay (usec)	-1.03685286249E+04		Apriori clockrate (us/s)		-5.9999999E-08		Resid phdelay (usec)		-1.91280E-06	+/- 5.0E-08
Delay rate (us/s)	-9.82420478539E-01		Apriori rate (us/s)		-9.82420501429E-01		Resid rate (us/s)		2.28900E-08	+/- 2.4E-10
Total phase (deg)			Apriori accel (us/s/s)		7.49080739571E-05		Resid phase (deg)		-59.3	+/- 1.6

	RMS	Theor.	Amplitude	1.427 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	68.9	3.7	Search (2048X32)	1.416	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	91.5	6.5	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	43.9	2.2	Inc. seg. avg.	2.654	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	26.3	3.9	Inc. frq. avg.	1.769	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

B: az 302.9 el 28.7 pa 46.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 7763.056 6982.632 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.24.1W5ADF

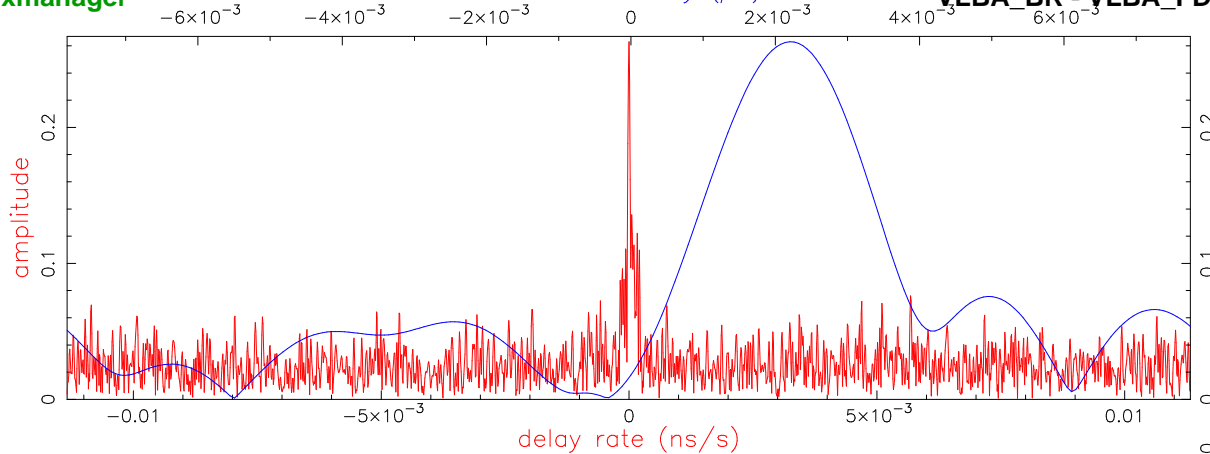
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bf

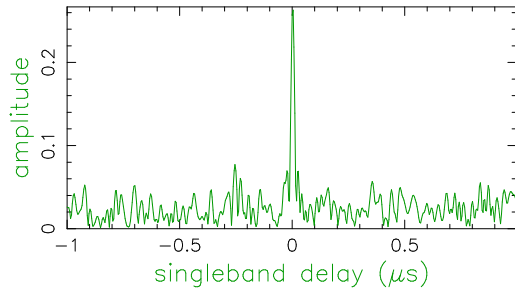
VLBA_BR - VLBA_FD, fgroup W, pol RR

multiband delay (μ s)

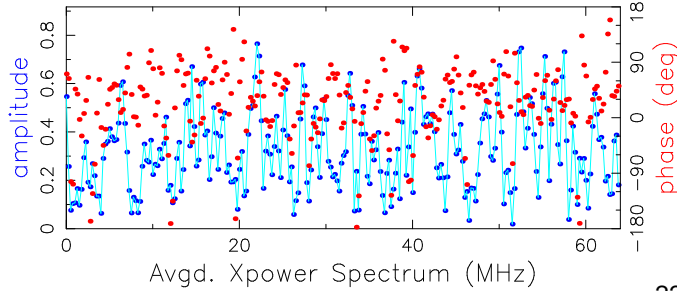


Fringe quality 9

SNR 13.5
 Int time 344.116
 Amp 0.267
 Phase 35.8
 PFD 5.1e-33
 Delays (us)
 SBD 0.002384
 MBD 0.002191
 Fringe rate (Hz) 0.000321
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

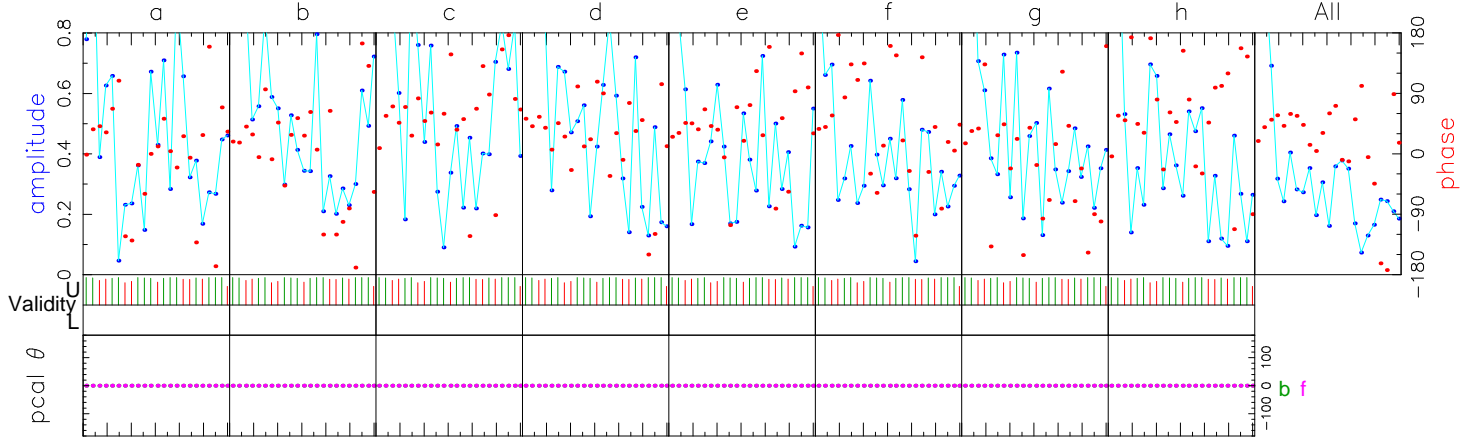


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135419
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	689/0	689/0	689/0	689/0	690/0	690/0	689/0	689/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-6.97498654388E+02				-6.97500844920E+02				Resid mbdelay (usec)	2.19053E-03 +/- 8.0E-05
Sband delay (usec)	-6.97498460920E+02				-1.3205587E+01				Resid sbdelay (usec)	2.38400E-03 +/- 6.4E-04
Phase delay (usec)	-6.97500843765E+02				-1.6000000E-07				Resid phdelay (usec)	1.15476E-06 +/- 2.7E-07
Delay rate (us/s)	1.36047536212E-01				1.36047532485E-01				Resid rate (us/s)	3.72701E-09 +/- 1.3E-09
Total phase (deg)			-245.5		2.15087720211E-05				Resid phase (deg)	35.8 +/- 8.5
	RMS	Theor.	Amplitude	0.267 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	58.1	20.1	Search (2048X32)	0.254					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	96.3	35.1	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	17.9	12.0	Inc. seg. avg.	0.323					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	24.3	20.9	Inc. frq. avg.	0.267					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
b: az 92.6 el 67.1 pa -64.3			f: az 43.1 el 72.6 pa -126.0						u,v (fr/asec) -1010.286 3092.965	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bf.W.42.1W5ADF

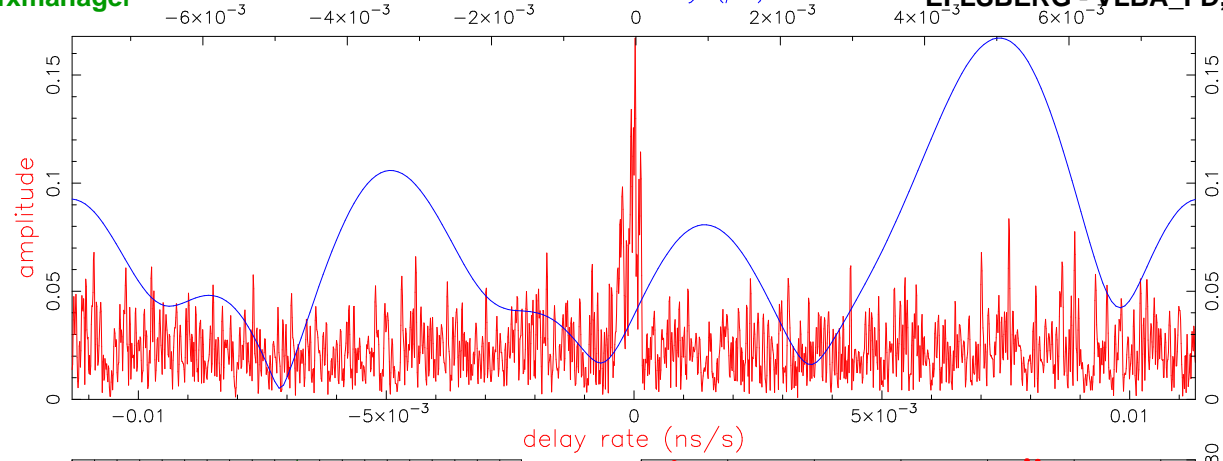
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

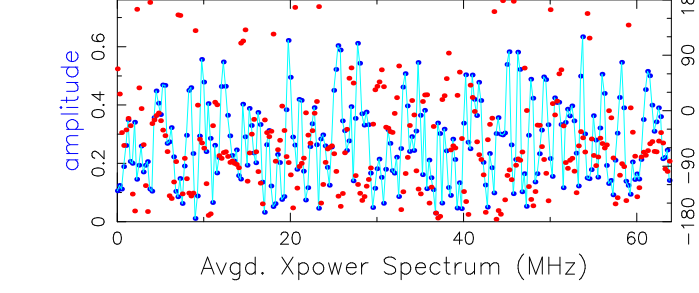
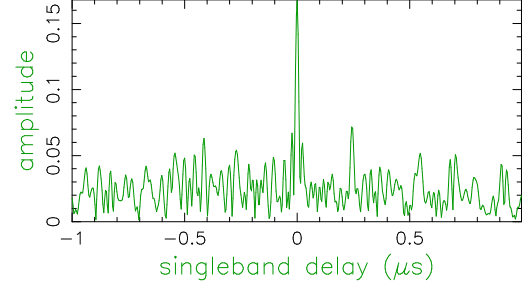
BLLAC.1W5ADF, No0245, Bf

EFLSBERG - VLBA_FD, fgroup W, pol LR

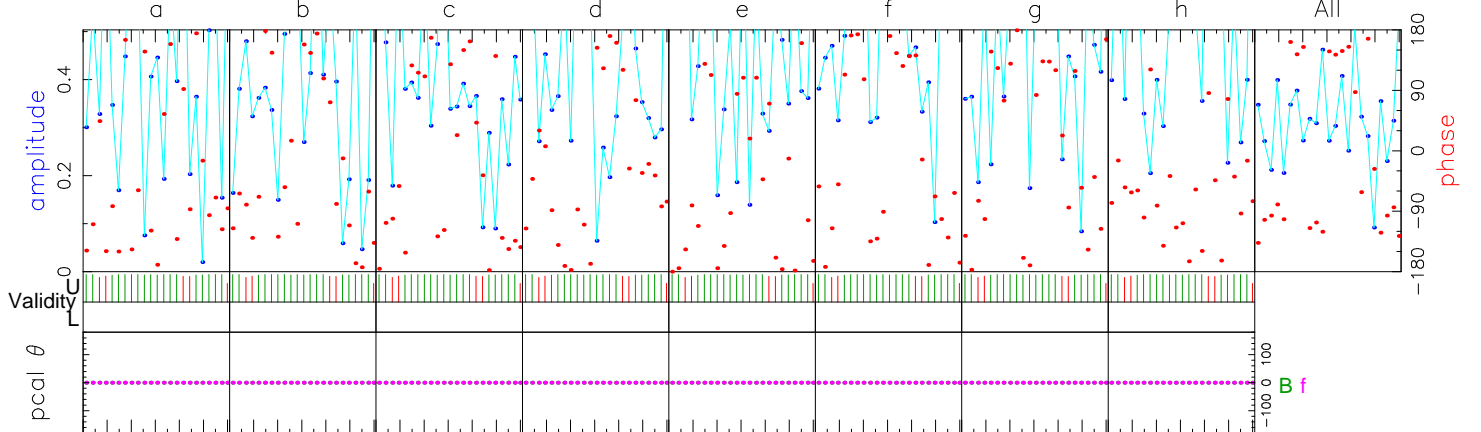
multiband delay (μ s)



Fringe quality 9
 SNR 8.6
 Int time 353.791
 Amp 0.168
 Phase -146.8
 PFD 2.2e-09
 Delays (us)
 SBD -0.000819
 MBD 0.004998
 Fringe rate (Hz) 0.001903
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135420
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.03685236252E+04				-1.03685286230E+04				4.99782E-03	+/- 1.3E-04
Sband delay (usec)	-1.03685294423E+04				-3.2293221E+01				-8.19250E-04	+/- 1.0E-03
Phase delay (usec)	-1.03685286278E+04				-5.9999999E-08				-4.73300E-06	+/- 4.3E-07
Delay rate (us/s)	-9.82420479340E-01				-9.82420501429E-01				2.20893E-08	+/- 2.1E-09
Total phase (deg)			-358.3		7.49080739571E-05				-146.8	+/- 13.3
pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
pcal rate:	0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled							
Bits/sample:	2x2		nlags: 256							
Sample rate (MSamp/s):	128		t_cohere infinite							
Data rate (Mb/s):	2048									
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) 62.4 31.7 Search (2048X32) 0.166 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 106.7 55.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.2 18.8 Inc. seg. avg. 0.277 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.3 32.8 Inc. frq. avg. 0.208 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 302.9 el 28.7 pa 46.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 7763.056 6982.632 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.45.1W5ADF

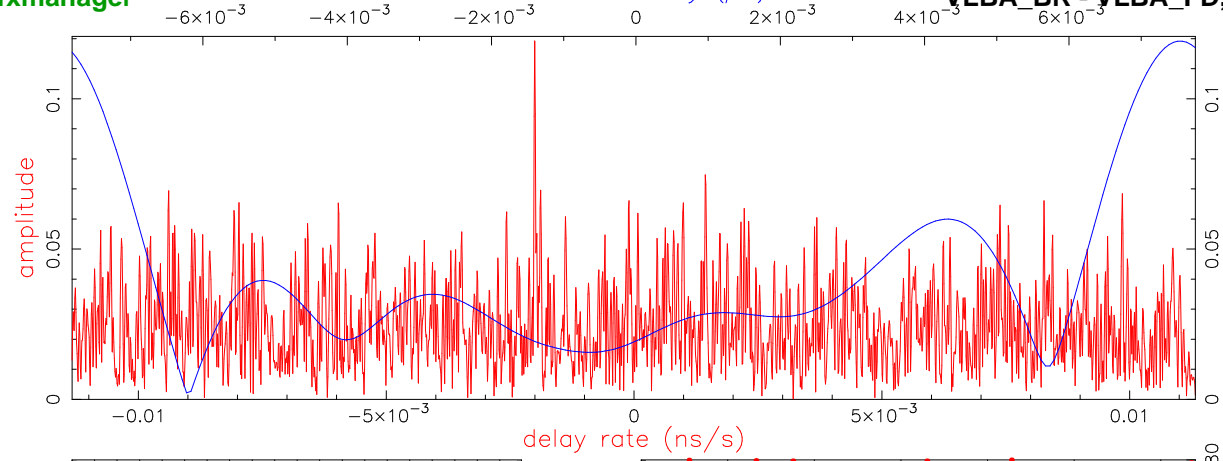
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

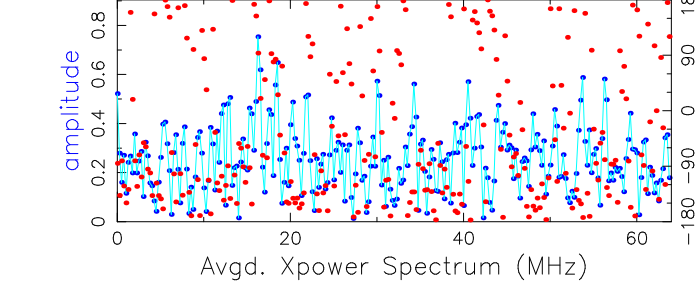
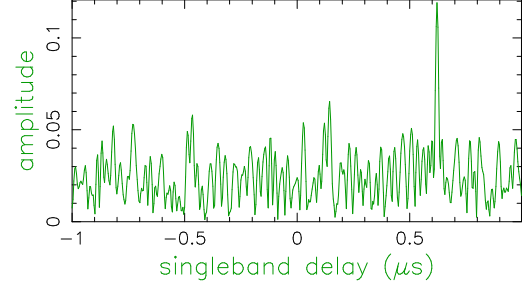
BLLAC.1W5ADF, No0245, bf

VLBA_BR - VLBA_FD, fgroup W, pol LR

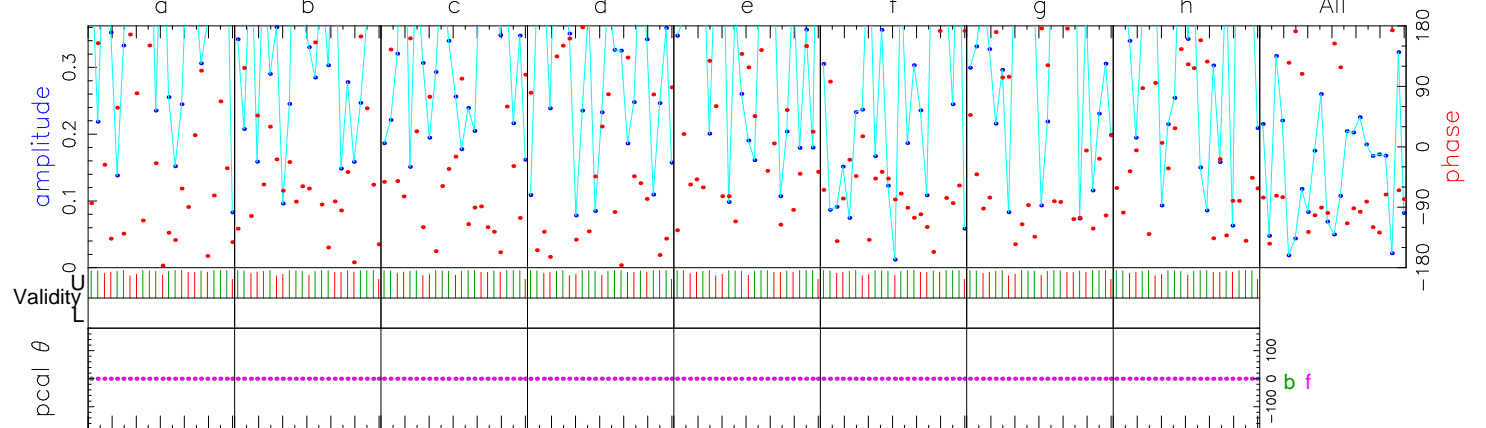
multiband delay (μ s)



Fringe quality 0
 SNR 6.0
 Int time 344.116
 Amp 0.121
 Phase -94.2
 PFD 3.2e-01
 Delays (us)
 SBD 0.621042
 MBD -0.008086
 Fringe rate (Hz)
 -0.172623
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135423
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



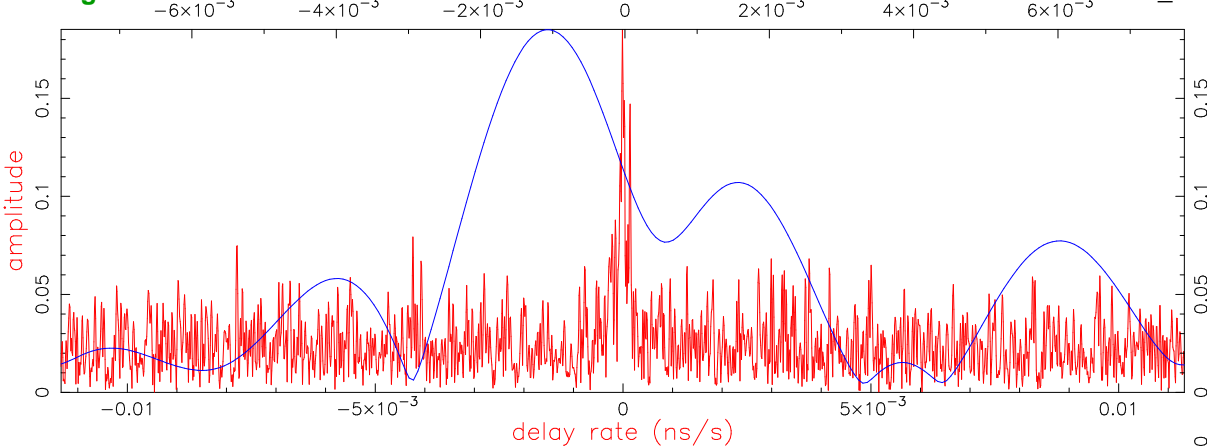
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-118.6	-79.0	-83.5	-160.7	-45.4	-88.8	-98.6	-105.5	Phase	-94.2
	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	Ampl.	0.1
	9.2	263.2	454.8	413.5	262.7	463.3	281.2	445.4	Sbd box	416.0
U/L	689/0	689/0	689/0	689/0	690/0	690/0	689/0	689/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-6.96883931326E+02		Apriori delay (usec)		-6.97500844920E+02		Resid mbdelay (usec)		-8.08641E-03	+/- 1.8E-04
Sband delay (usec)	-6.96879802670E+02		Apriori clock (usec)		-1.3205587E+01		Resid sbdelay (usec)		6.21042E-01	+/- 1.4E-03
Phase delay (usec)	-6.97500847958E+02		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		-3.03878E-06	+/- 6.1E-07
Delay rate (us/s)	1.36045528504E-01		Apriori rate (us/s)		1.36047532485E-01		Resid rate (us/s)		-2.00398E-06	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		2.15087720211E-05		Resid phase (deg)		-94.2	+/- 18.9

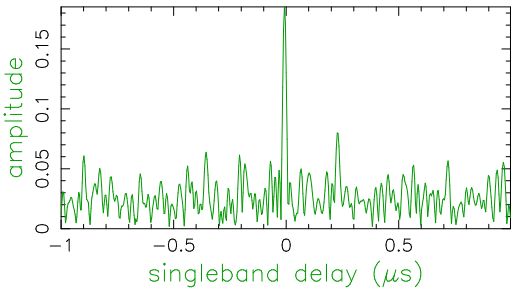
ph/seg (deg) 66.8 45.0 Search (2048X32) 0.118 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.0 78.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.3 26.8 Inc. seg. avg. 0.118 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.1 46.8 Inc. frq. avg. 0.124 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 92.6 el 67.1 pa -64.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) -1010.286 3092.965 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bf.W.61.1W5ADF simultaneous interpolator

multiband delay (μs)

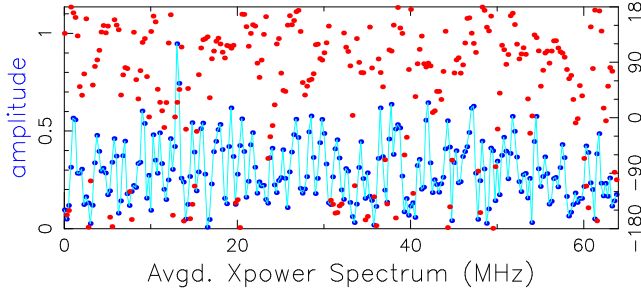


Fringe quality 9

SNR 9.5
 Int time 353.791
 Amp 0.185
 Phase 45.4
 PFD 6.6e-13
 Delays (us)
 SBD -0.007446
 MBD -0.001058
 Fringe rate (Hz)
 -0.001183
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

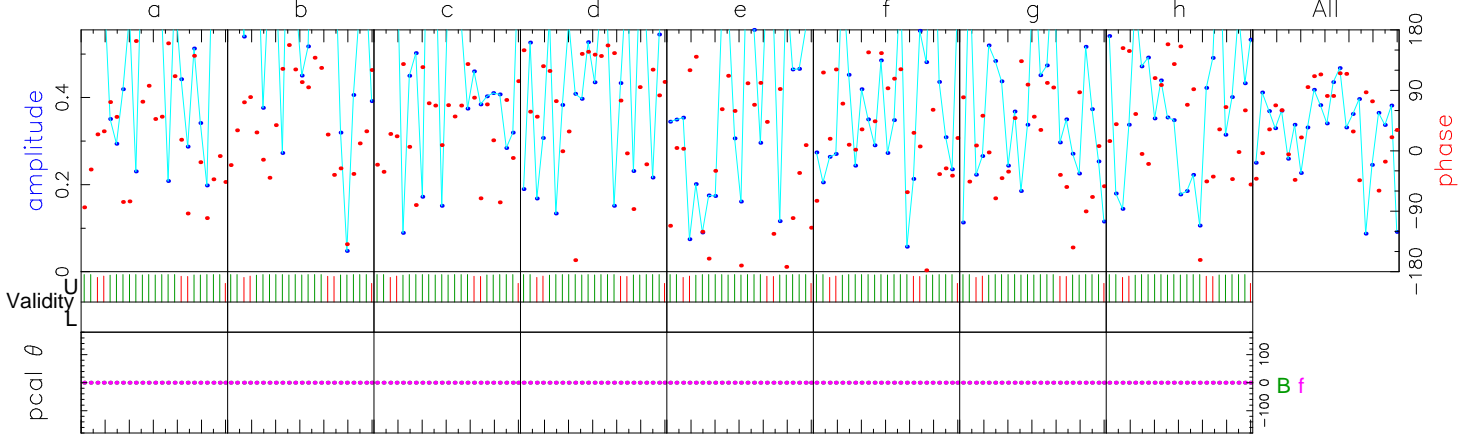


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135424
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-1.03685296809E+04			-1.03685286230E+04					
Sband delay (usec)		-1.03685360693E+04			-3.2293221E+01					
Phase delay (usec)		-1.03685286216E+04			-5.9999999E-08					
Delay rate (us/s)		-9.82420515162E-01			-9.82420501429E-01					
Total phase (deg)			-166.1		7.49080739571E-05				45.4	+/- 12.0
Apriori delay (usec)				0.185 +/- 0.019						
Apriori clock (usec)				0.182						
Apriori clockrate (us/s)				0.000						
Apriori rate (us/s)				0.293						
Apriori accel (us/s/s)				0.199						
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)									-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

B: az 302.9 el 28.7 pa 46.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 7763.056 6982.632 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/Bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/Bf.W.66.1W5ADF

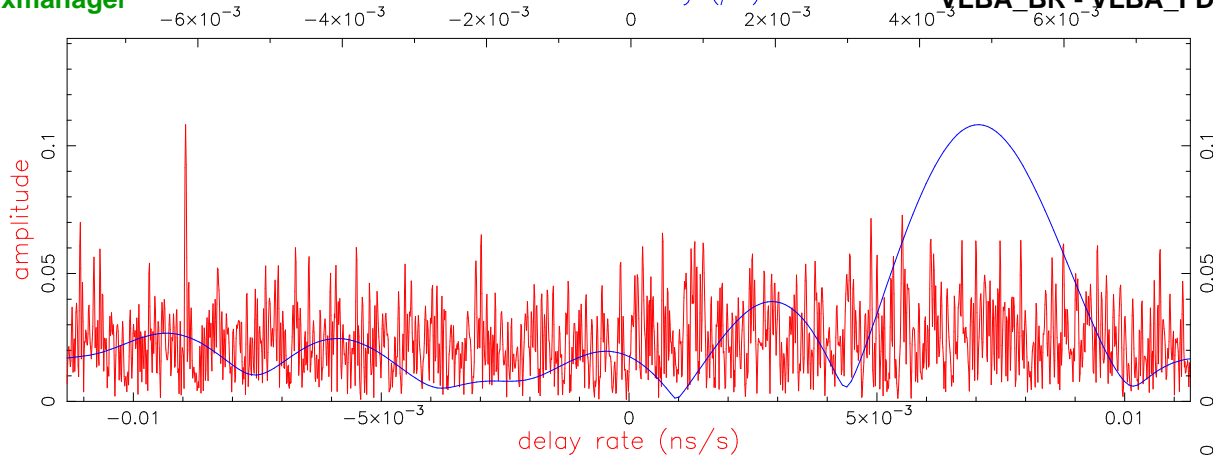
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, bf

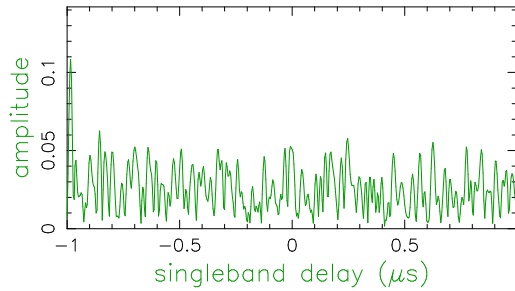
VLBA_BR - VLBA_FD, fgroup W, pol RL

multiband delay (μ s)

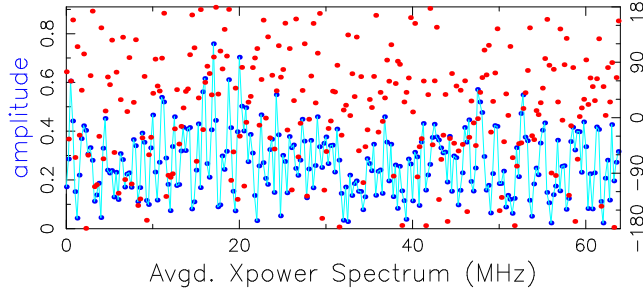


Fringe quality 0

SNR 5.5
 Int time 344.116
 Amp 0.142
 Phase 168.9
 PFD 1.0e+00
 Delays (us)
 SBD -0.984523
 MBD 0.004808
 Fringe rate (Hz)
 -0.771530
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

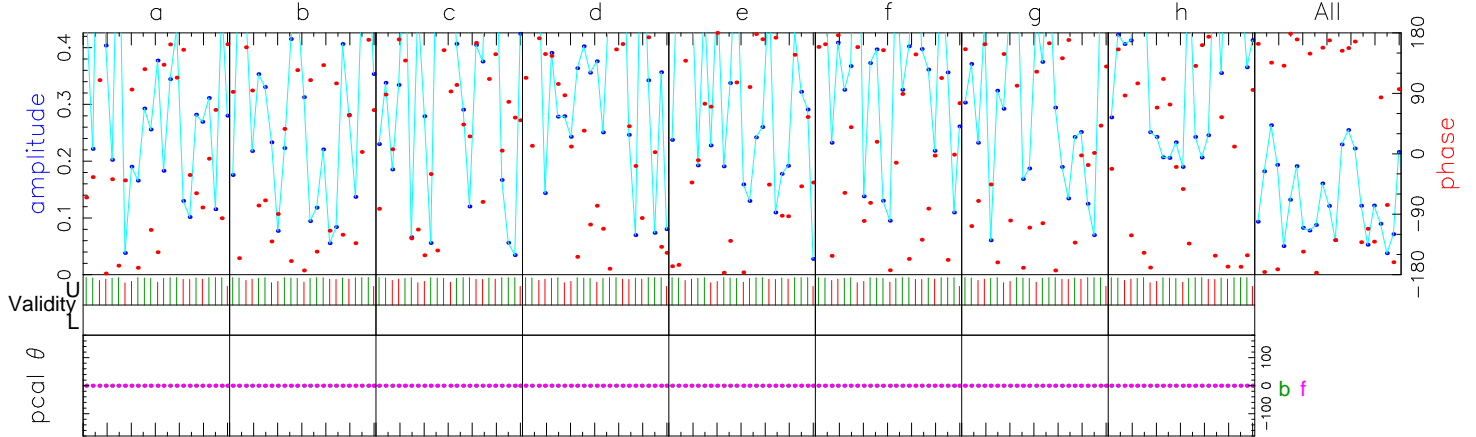


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135426
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-168.8	176.1	139.5	173.3	169.6	169.4	174.5	171.2	Phase	168.9
	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
	117.9	424.6	331.0	337.4	143.0	201.7	306.2	222.6	Sbd box	5.0
U/L	689/0	689/0	689/0	689/0	689/0	689/0	689/0	689/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.98480411910E+02		Apriori delay (usec)		-6.97500844920E+02		Resid mbdelay (usec)		4.80801E-03	+/- 2.0E-04
Sband delay (usec)	-6.98485368170E+02		Apriori clock (usec)		-1.3205587E+01		Resid sbdelay (usec)		-9.84523E-01	+/- 1.6E-03
Phase delay (usec)	-6.97500839472E+02		Apriori clockrate (us/s)		-1.6000000E-07		Resid phdelay (usec)		5.44743E-06	+/- 6.7E-07
Delay rate (us/s)	1.36038575786E-01		Apriori rate (us/s)		1.36047532485E-01		Resid rate (us/s)		-8.95670E-06	+/- 3.3E-09
Total phase (deg)			Apriori accel (us/s/s)		2.15087720211E-05		Resid phase (deg)		168.9	+/- 20.9

	RMS	Theor.	Amplitude	0.142 +/- 0.026	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000 1.000
ph/seg (deg)	46.8	49.5	Search (2048X32)	0.108	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008 0.008
amp/seg (%)	67.7	86.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011 0.011
ph/frq (deg)	15.7	29.5	Inc. seg. avg.	0.127	Sample rate(MISamp/s): 128		ion window (TEC)	0.00 0.00
amp/frq (%)	21.8	51.5	Inc. frq. avg.	0.129	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		

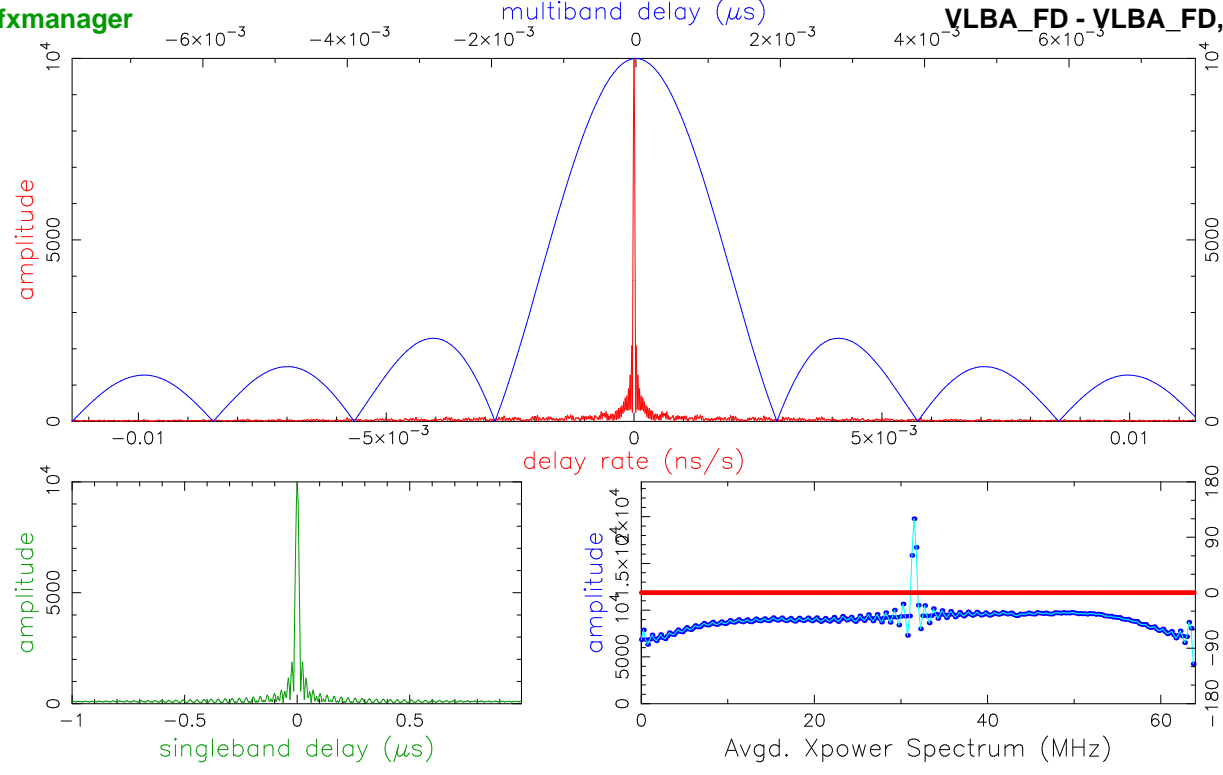
b: az 92.6 el 67.1 pa -64.3 f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) -1010.286 3092.965 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/bf..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/bf.W.79.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

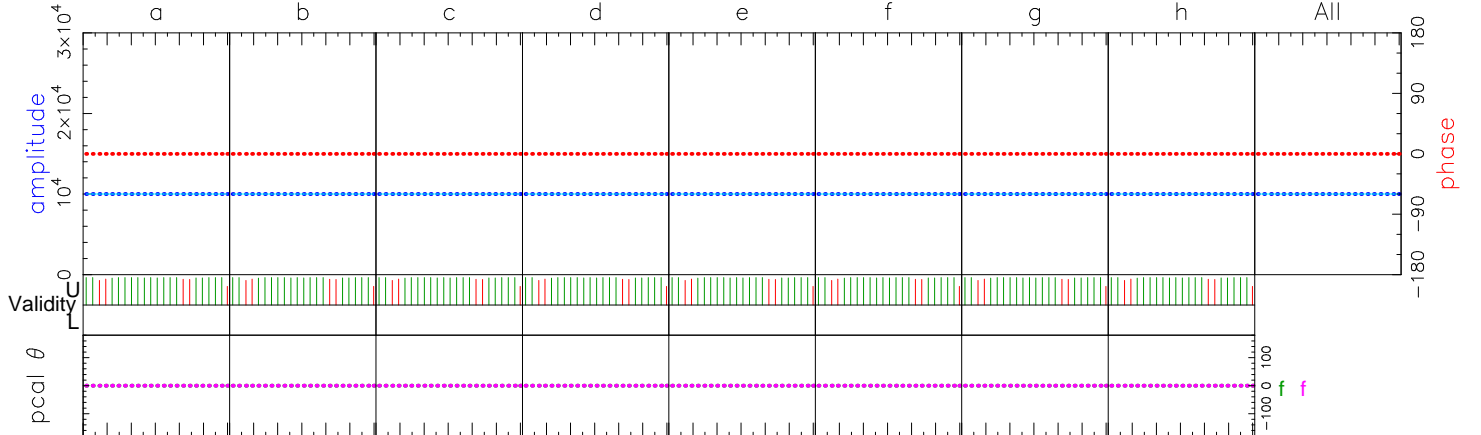
BLLAC.1W5ADF, No0245, ff

VLBA_FD - VLBA_FD, fgroup W, pol RR



Fringe quality 9
 SNR 514365.9
 Int time 353.793
 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. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135432
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f:f	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		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		+/- 2.1E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		+/- 1.7E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		+/- 7.2E-12
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00		+/- 3.5E-14
Total phase (deg)			0.0							+/- 0.0

ph/seg (deg) 0.0 0.0
 amp/seg (%) 0.0 0.0
 ph/frq (deg) 0.0 0.0
 amp/frq (%) 0.0 0.0
 f: az 43.1 el 72.6 pa -126.0
 Control file: cf_1234_gmva

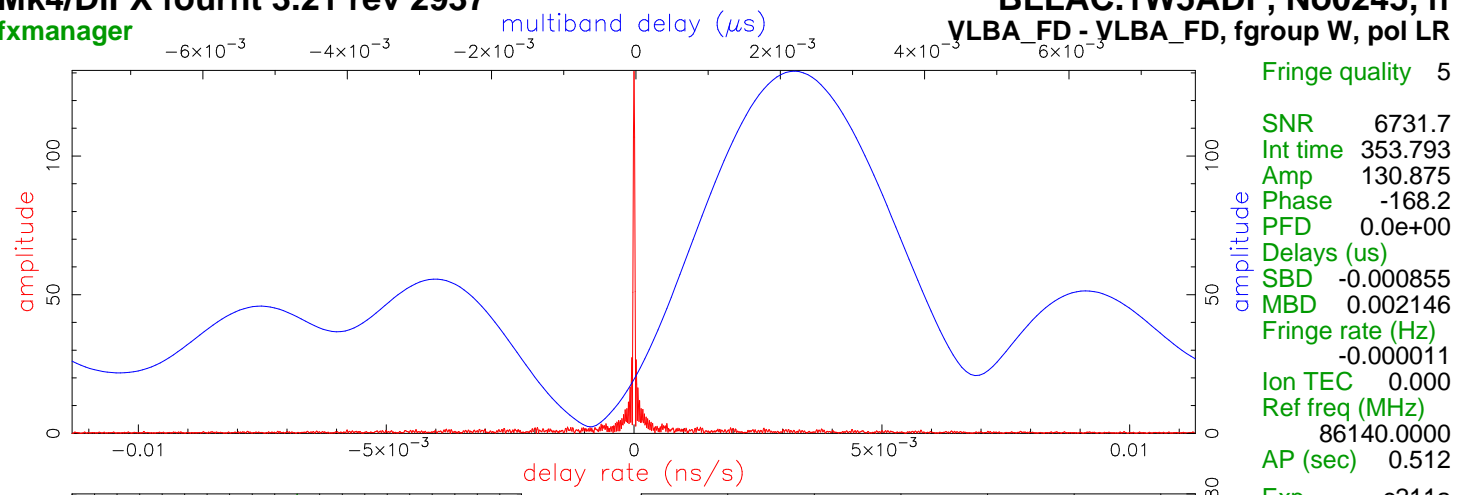
Amplitude 10000.001 +/- 0.019
 Search (2048X32) 10000.001
 Intp. 0.000
 Inc. seg. avg. 10000.000
 Inc. frq. avg. 10000.001
 f: az 43.1 el 72.6 pa -126.0
 u,v (fr/asec) 0.000 0.000

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
 PC rate: 0.000E+00, 0.000E+00 (us/s)
 SampCntNorm: enabled
 nlags: 256 t_cohere infinite

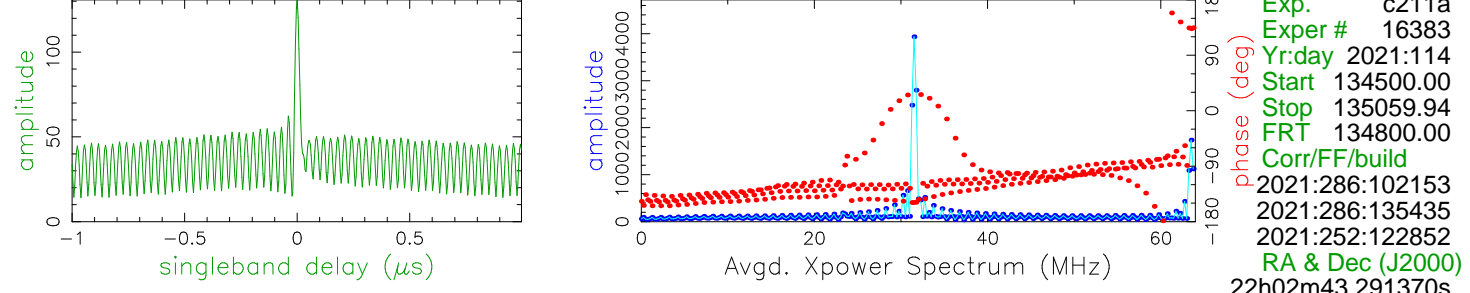
sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

simultaneous interpolator

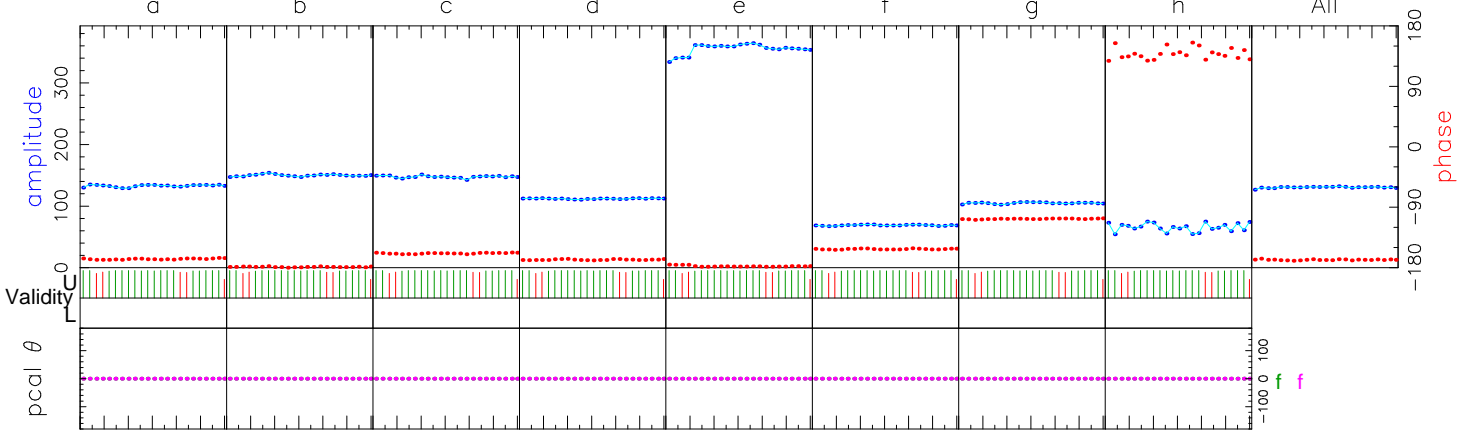
Output file: /Exps/c211a/v2/1234/No0245/ff..1W5ADF



Fringe quality 5
SNR 6731.7
Int time 353.793
Amp 130.875
Phase -168.2
PFD 0.0e+00
Delays (us)
SBD -0.000855
MBD 0.002146
Fringe rate (Hz)
-0.000011
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135435
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-167.0	-178.7	-158.5	-168.0	-177.6	-152.2	-107.3	138.0	Phase	-168.2
	132.9	150.0	147.6	112.1	355.3	69.0	104.9	64.9	Ampl.	142.1
	257.5	257.2	257.4	257.7	257.9	257.7	257.5	260.1	Sbd box	256.8
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.14606250000E-03					0.00000000000E+00			Resid mbdelay (usec)	2.14606E-03 +/- 1.6E-07
Sband delay (usec)	-8.55000000000E-04					0.0000000E+00			Resid sbdelay (usec)	-8.55000E-04 +/- 1.3E-06
Phase delay (usec)	-5.42292801982E-06					0.0000000E+00			Resid phdelay (usec)	-5.42293E-06 +/- 5.5E-10
Delay rate (us/s)	-1.24706141047E-10					0.00000000000E+00			Resid rate (us/s)	-1.24706E-10 +/- 2.7E-12
Total phase (deg)			-168.2			0.00000000000E+00			Resid phase (deg)	-168.2 +/- 0.0

ph/seg (deg) 0.7 0.0
amp/seg (%) 0.9 0.1
ph/frq (deg) 34.5 0.0
amp/frq (%) 66.3 0.0
f: az 43.1 el 72.6 pa -126.0
Control file: cf_1234_gmva

Amplitude 130.875 +/- 0.019
Search (2048X32) 128.491
Interp. 0.000
Inc. seg. avg. 130.517
Inc. frq. avg. 142.096
u,v (fr/asec) 0.000 0.000

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
SampCntNorm: enabled
nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
mb window (us) -0.008 0.008
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

simultaneous interpolator

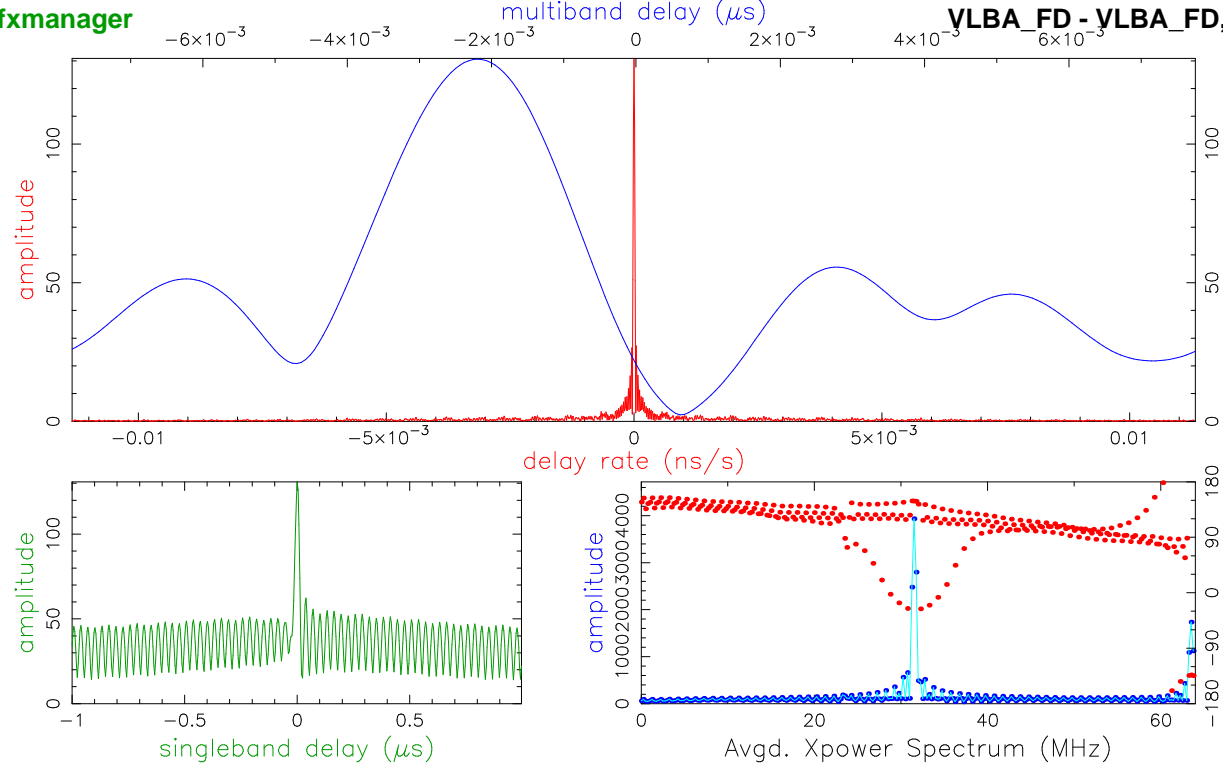
Input file: /Exps/c211a/v2/1234/No0245/ff..1W5ADF
Output file: /Exps/c211a/v2/1234/No0245/ff.W.117.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, ff

VLBA_FD - VLBA_FD, fgroup W, pol RL

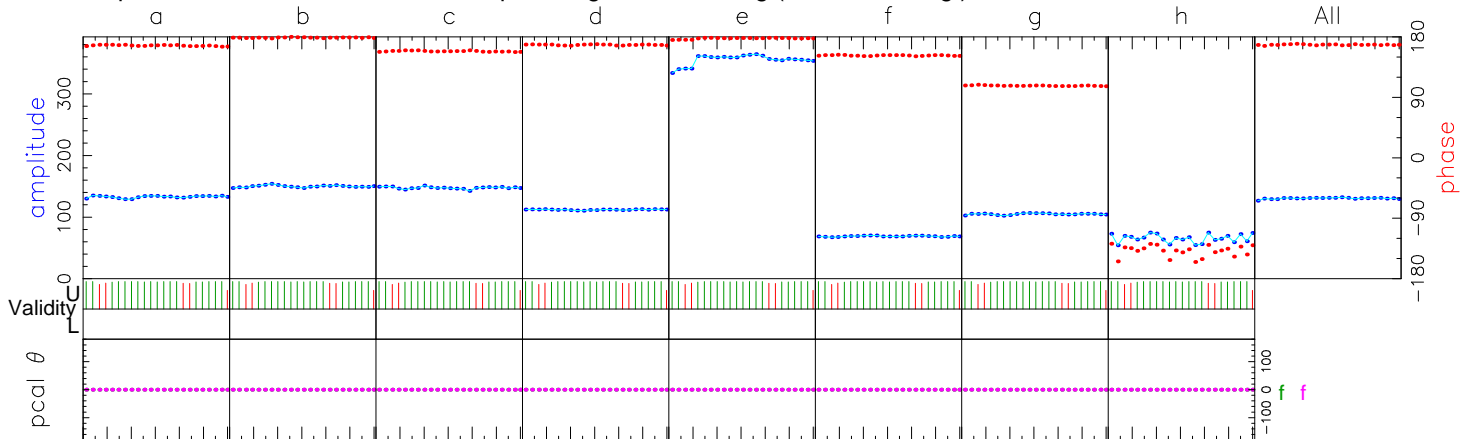


Fringe quality 5

SNR 6731.7
 Int time 353.793
 Amp 130.875
 Phase 168.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.000855
 MBD -0.002146
 Fringe rate (Hz)
 0.000011
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135438
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:f	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		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-2.14606250000E-03			0.00000000000E+00				-2.14606E-03	+/- 1.6E-07
Sband delay (usec)		8.55000000000E-04			0.0000000E+00				8.55000E-04	+/- 1.3E-06
Phase delay (usec)		5.42292801942E-06			0.0000000E+00				5.42293E-06	+/- 5.5E-10
Delay rate (us/s)		1.24706141047E-10			0.00000000000E+00				1.24706E-10	+/- 2.7E-12
Total phase (deg)			168.2		0.00000000000E+00				168.2	+/- 0.0
	RMS	Theor.	Amplitude	130.875 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.7	0.0	Search (2048X32)	128.491	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.9	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	34.5	0.0	Inc. seg. avg.	130.517	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	66.3	0.0	Inc. frq. avg.	142.095	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 43.1 el 72.6 pa -126.0			f: az 43.1 el 72.6 pa -126.0		u, v (fr/asec) 0.000 0.000					simultaneous interpolator

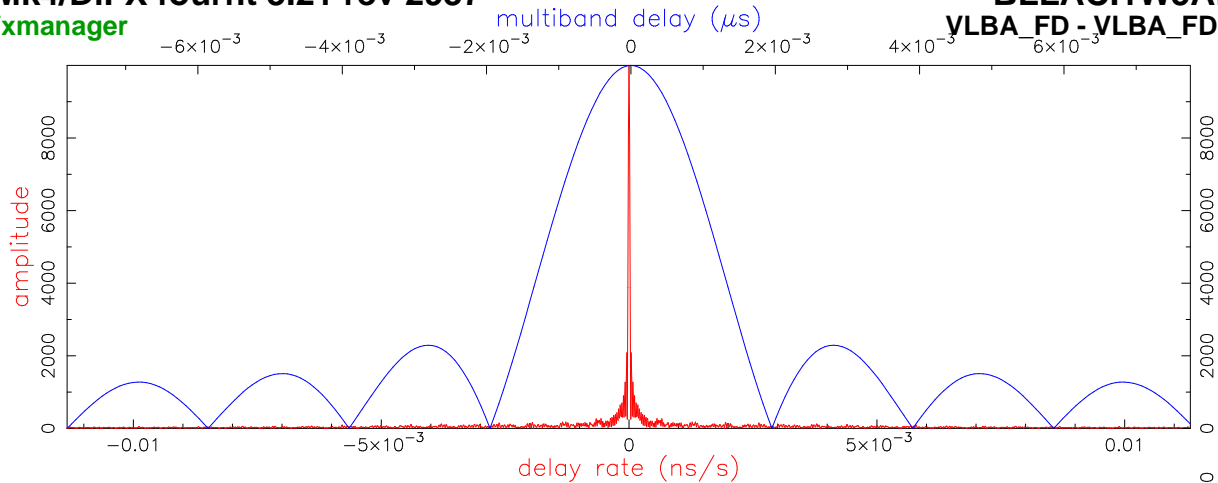
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/ff..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/ff.W.134.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

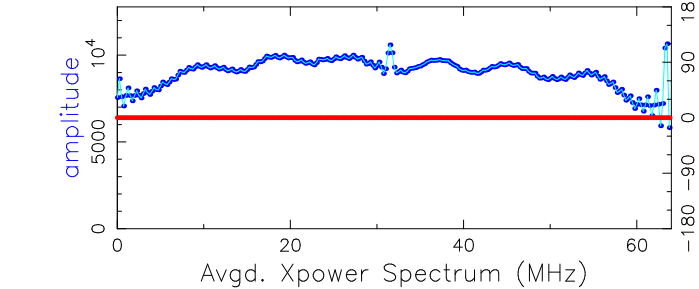
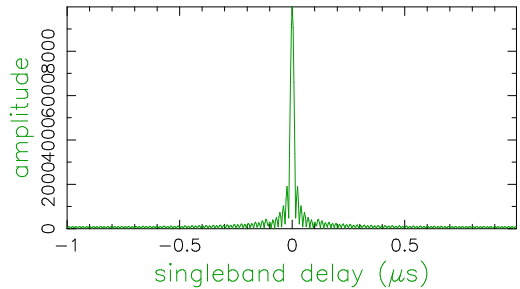
BLLAC.1W5ADF, No0245, ff

VLBA_FD - VLBA_FD, fgroup W, pol LL



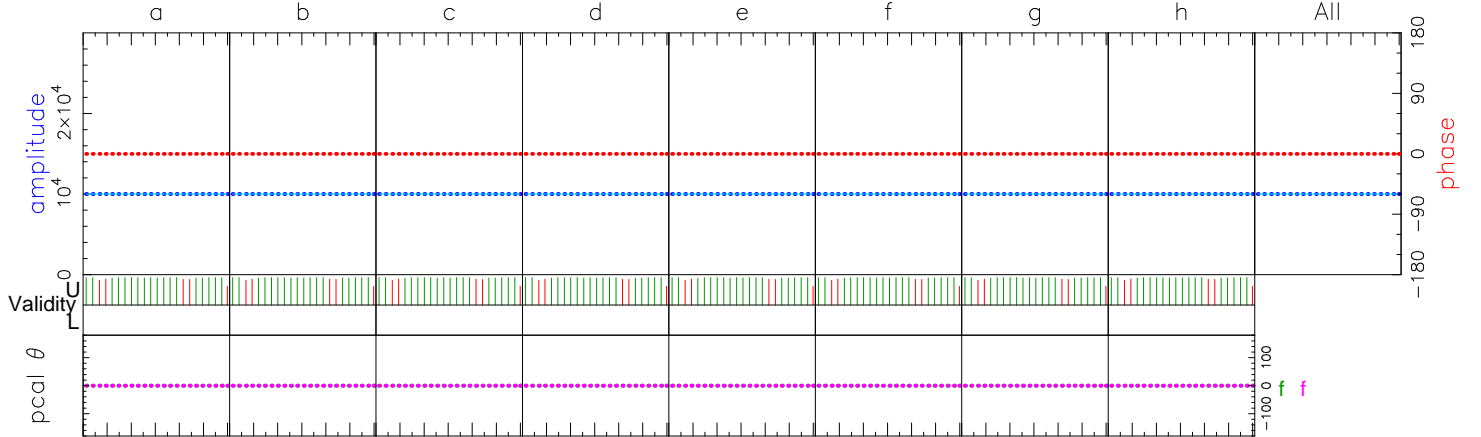
Fringe quality 9

SNR 514365.7
 Int time 353.793
 Amp 9999.997
 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. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135429
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:f	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		
f	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	2.1E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.7E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	7.2E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	3.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.997 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	9999.997	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	9999.997	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

f: az 43.1 el 72.6 pa -126.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/ff..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/ff.W.83.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

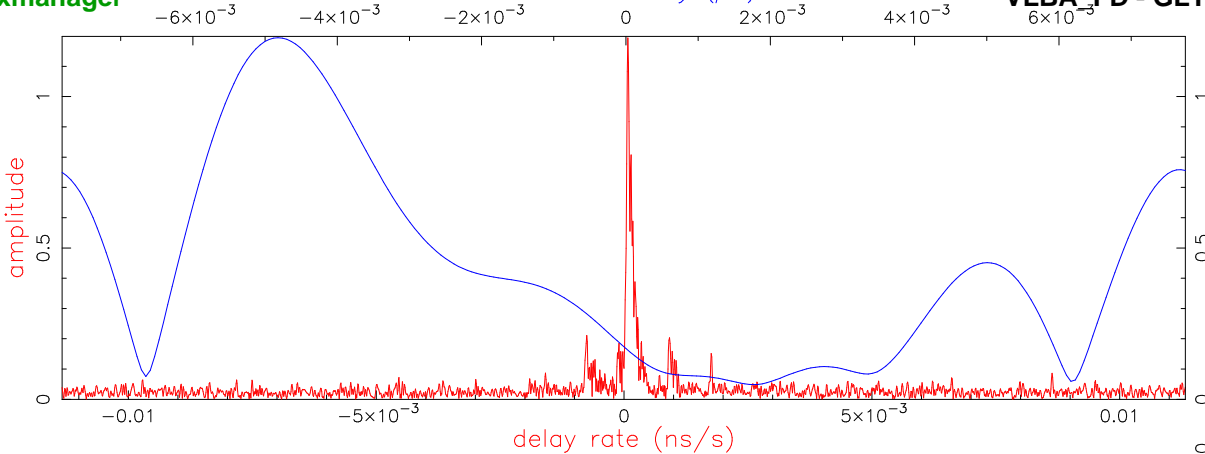
fxmanager

BLLAC.1W5ADF, No0245, fg

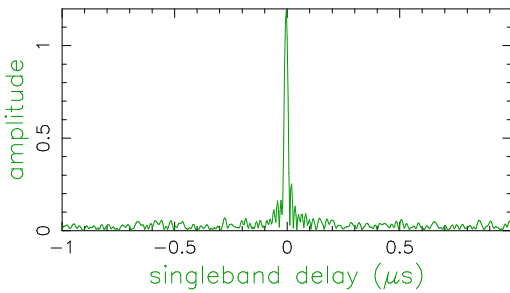
VLBA_FD - GLT, fgroup W, pol RR

multiband delay (μ s)

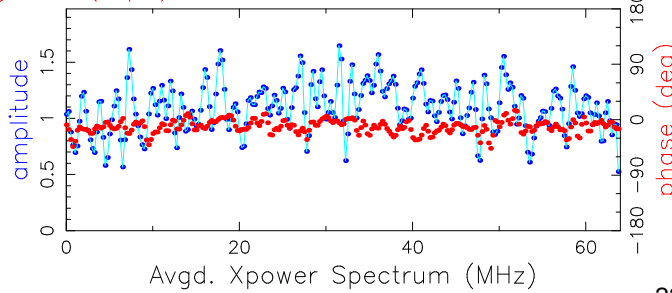
Fringe quality 2



SNR 61.7
Int time 353.793
Amp 1.199
Phase -9.5
PFD 0.0e+00
Delays (us)
SBD -0.004717
MBD -0.004864
Fringe rate (Hz)
0.006258
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

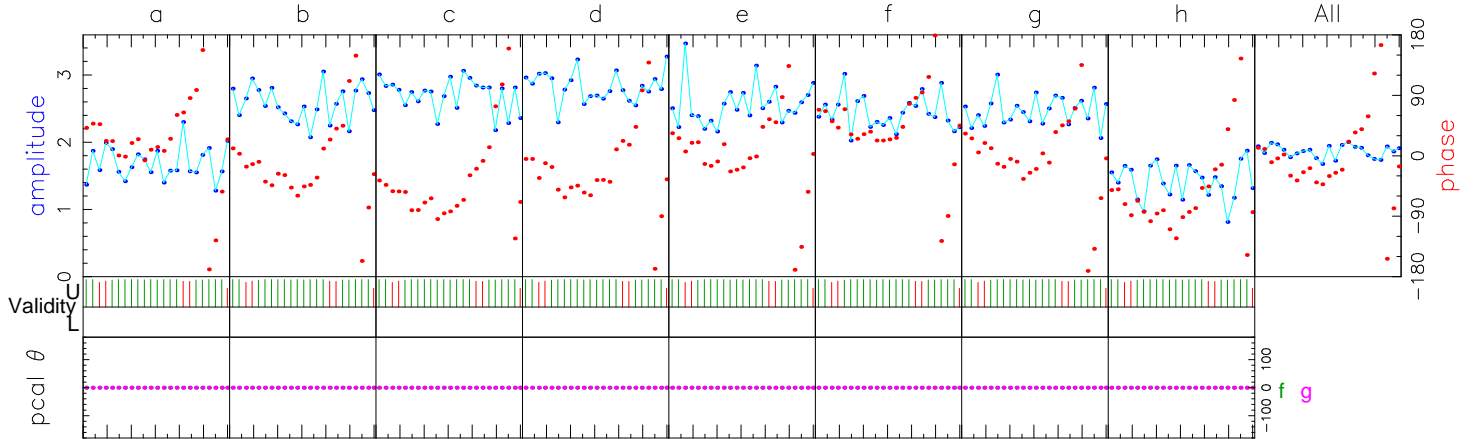


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135433
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
g	0	0	0	0	0	0	0	0			
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
fg	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			
g	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		3.01062116475E+03			3.01062602876E+03						
Sband delay (usec)		3.01062131151E+03			9.8010006E+00						
Phase delay (usec)		3.01062602846E+03			0.0000000E+00						
Delay rate (us/s)		3.48589255120E-01			3.48589182470E-01						
Total phase (deg)			32.8		-5.12105686973E-05						
				Apriori delay (usec)					Resid mbdelay (usec)	-4.86401E-03	+/- 1.8E-05
				Apriori clock (usec)	1.175				Resid sbdelay (usec)	-4.71725E-03	+/- 1.4E-04
				Apriori clockrate (us/s)	1.859				Resid phdelay (usec)	-3.04761E-07	+/- 6.0E-08
				Apriori rate (us/s)	1.495				Resid rate (us/s)	7.26498E-08	+/- 2.9E-10
				Apriori accel (us/s/s)					Resid phase (deg)	-9.5	+/- 1.9
ph/seg (deg)	62.7	4.4	Search (2048X32)	1.175	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000	1.000
amp/seg (%)	56.0	7.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled			mb window (us)	-0.008	0.008
ph/frq (deg)	46.5	2.6	Inc. seg. avg.	1.859	Bits/sample: 2x2	Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.2	4.6	Inc. frq. avg.	1.495	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		ion window (TEC)	0.00	0.00
f: az 43.1 el 72.6 pa -126.0			g: az 205.0 el 54.9 pa 7.2		u,v (fr/asec) -2806.047 -6667.522						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fg.W.107.1W5ADF

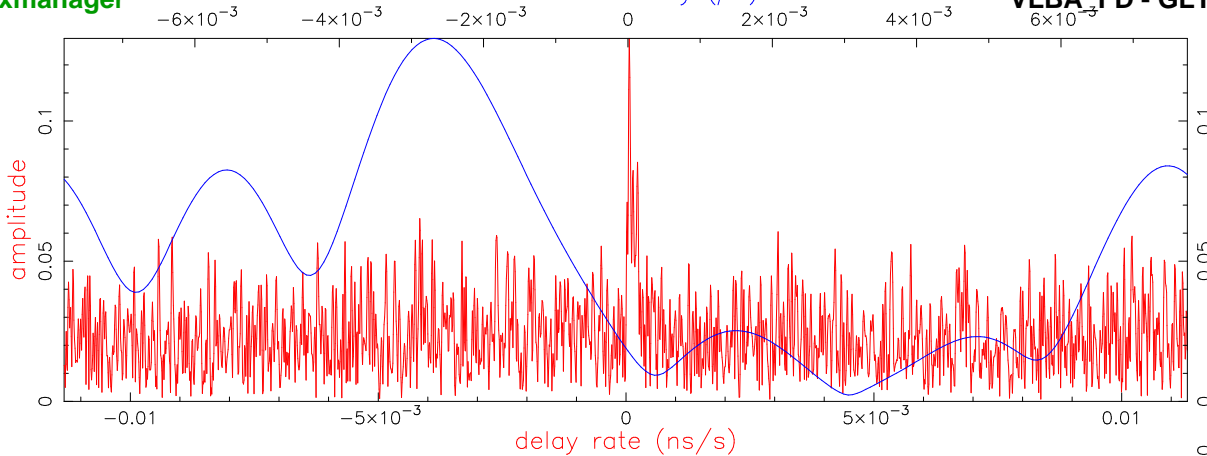
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fg

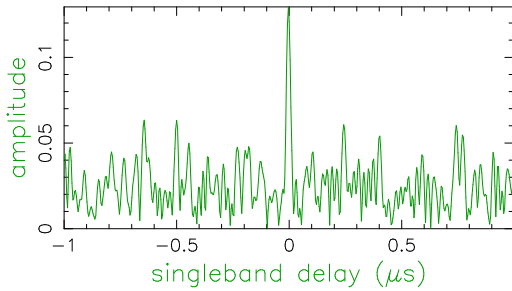
VLBA_FD - GLT, fgroup W, pol LR

multiband delay (μ s)

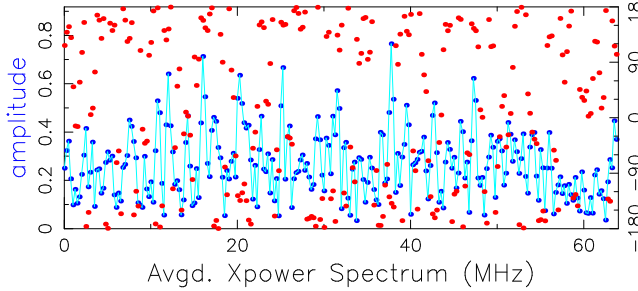


Fringe quality 0

SNR 6.7
 Int time 353.792
 Amp 0.129
 Phase 157.6
 PFD 7.9e-03
 Delays (us)
 SBD -0.003728
 MBD -0.002689
 Fringe rate (Hz)
 0.006163
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

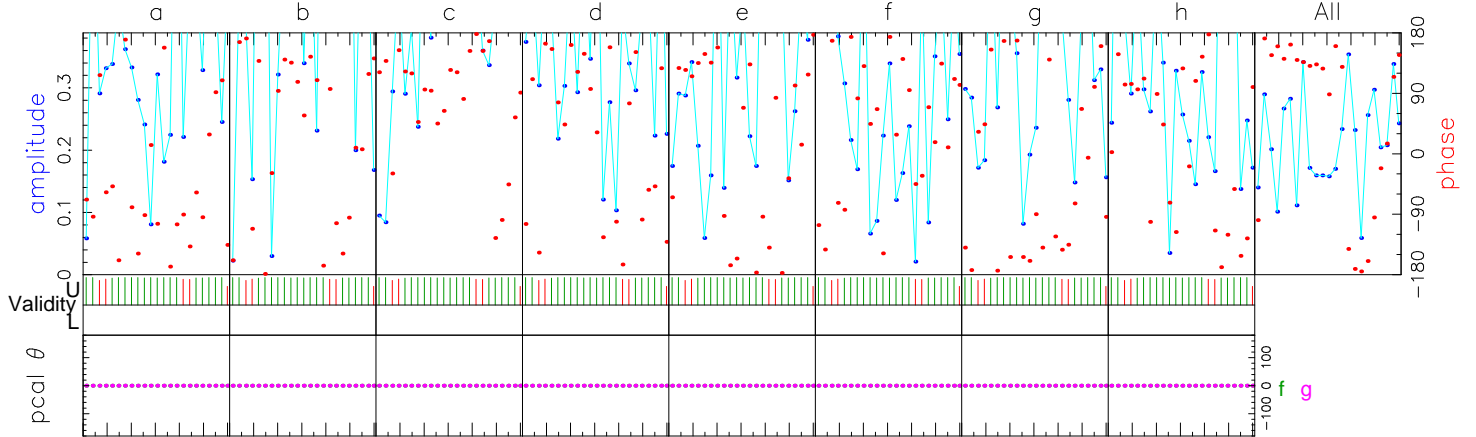


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135437
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-109.6	153.9	105.0	146.6	151.1	151.2	-170.0	158.1	Phase	157.6
	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.2
	172.6	256.4	255.9	407.2	257.0	499.6	257.3	182.9	Sbd box	256.0
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:g	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.01062334014E+03		Apriori delay (usec)		3.01062602876E+03		Resid mbdelay (usec)		-2.68862E-03	+/- 1.6E-04
Sband delay (usec)	3.01062230101E+03		Apriori clock (usec)		9.8010006E+00		Resid sbdelay (usec)		-3.72775E-03	+/- 1.3E-03
Phase delay (usec)	3.01062603384E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		5.08199E-06	+/- 5.5E-07
Delay rate (us/s)	3.48589254019E-01		Apriori rate (us/s)		3.48589182470E-01		Resid rate (us/s)		7.15494E-08	+/- 2.7E-09
Total phase (deg)	199.9		Apriori accel (us/s/s)		-5.12105686973E-05		Resid phase (deg)		157.6	+/- 17.2

	RMS	Theor.	Amplitude	0.129 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	64.4	41.1	Search (2048X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	90.7	71.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	45.9	24.3	Inc. seg. avg.	0.172	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	50.4	42.5	Inc. frq. avg.	0.152	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 g: az 205.0 el 54.9 pa 7.2 u,v (fr/asec) -2806.047 -6667.522 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fg..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fg.W.127.1W5ADF

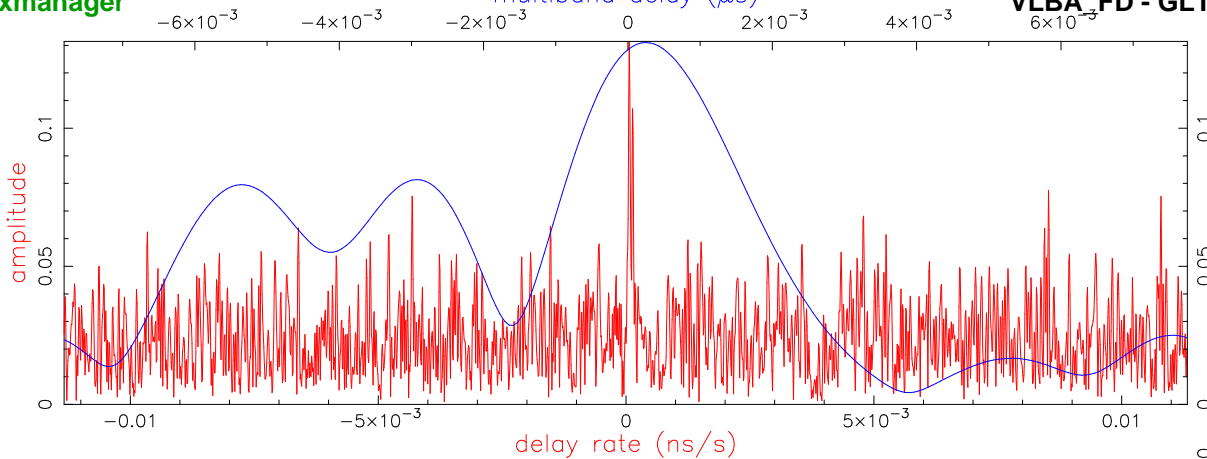
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fg

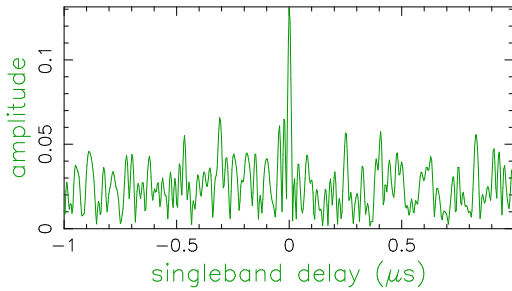
VLBA_FD - GLT, fgroup W, pol RL

multiband delay (μ s)

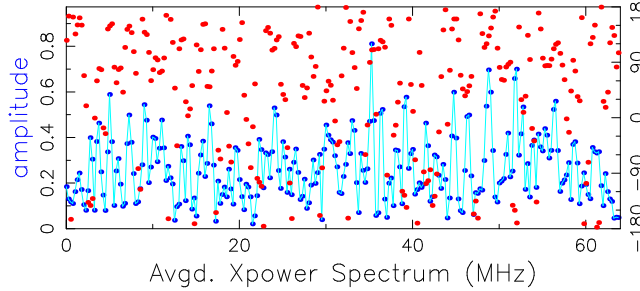


Fringe quality 0

SNR 6.8
 Int time 353.793
 Amp 0.131
 Phase 116.3
 PFD 4.0e-03
 Delays (us)
 SBD 0.000687
 MBD 0.000279
 Fringe rate (Hz)
 0.005465
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

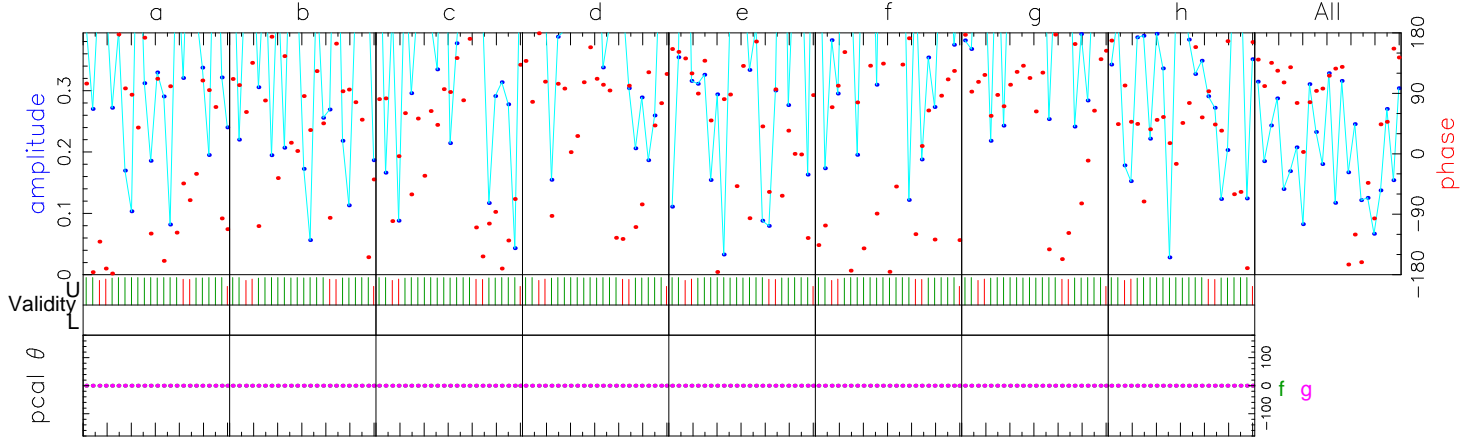


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135440
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	176.8	90.4	100.9	107.7	97.9	159.5	126.3	42.7	Phase	116.3
	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.1	Ampl.	0.1
	175.6	424.9	137.0	257.4	493.4	257.9	256.2	271.9	Sbd box	257.2
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
f:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fg	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	
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)		3.01062630736E+03				3.01062602876E+03			Resid mbdelay (usec)	2.78596E-04 +/- 1.6E-04
Sband delay (usec)		3.01062671601E+03				9.8010006E+00			Resid sbdelay (usec)	6.87250E-04 +/- 1.3E-03
Phase delay (usec)		3.01062603251E+03				0.0000000E+00			Resid phdelay (usec)	3.74911E-06 +/- 5.5E-07
Delay rate (us/s)		3.48589245917E-01				3.48589182470E-01			Resid rate (us/s)	6.34471E-08 +/- 2.6E-09
Total phase (deg)			158.6			-5.12105686973E-05			Resid phase (deg)	116.3 +/- 17.0
	RMS	Theor.	Amplitude	0.131 +/- 0.019					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	68.3	40.5	Search (2048X32)	0.128					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	81.4	70.7	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	45.4	24.0	Inc. seg. avg.	0.162					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	61.9	41.8	Inc. frq. avg.	0.146					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 43.1 el 72.6 pa -126.0			g: az 205.0 el 54.9 pa 7.2			u, v (fr/asec) -2806.047 -6667.522			nlags: 256	t_cohere infinite
Control file: cf_1234_gmva			Input file: /Exps/c211a/v2/1234/No0245/fg..1W5ADF			Output file: /Exps/c211a/v2/1234/No0245/fg.W.146.1W5ADF				simultaneous interpolator

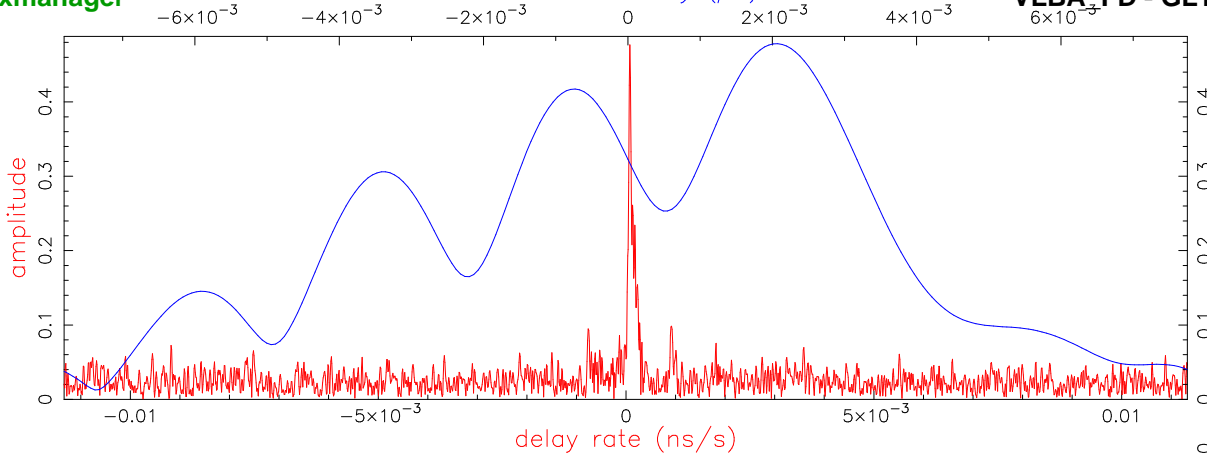
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fg

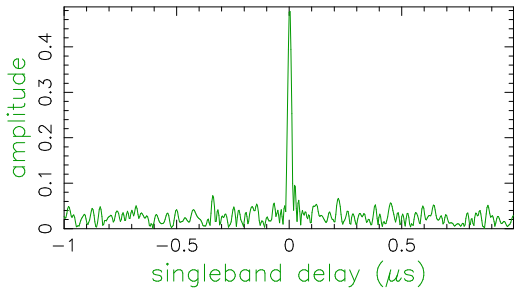
VLBA_FD - GLT, fgroup W, pol LL

multiband delay (μ s)

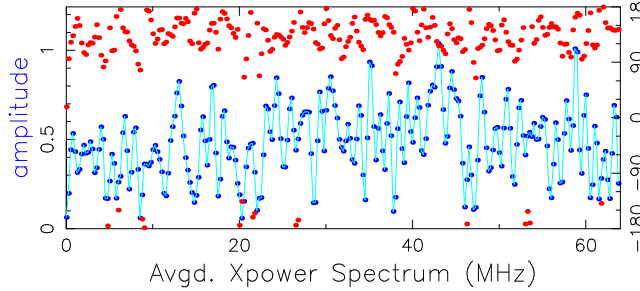


Fringe quality 5

SNR 25.1
 Int time 353.792
 Amp 0.488
 Phase 136.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.002002
 MBD 0.002157
 Fringe rate (Hz) 0.006238
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

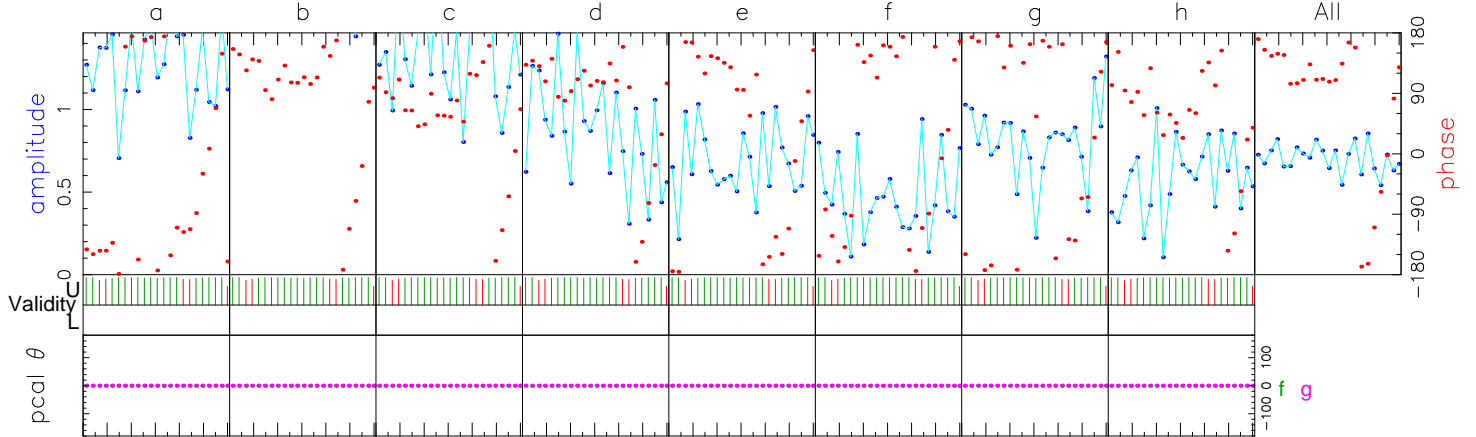


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135430
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		3.01062818616E+03			3.01062602876E+03				2.15740E-03	+/- 4.3E-05
Sband delay (usec)		3.01062803076E+03			9.8010006E+00				2.00200E-03	+/- 3.4E-04
Phase delay (usec)		3.01062603317E+03			0.0000000E+00				4.40377E-06	+/- 1.5E-07
Delay rate (us/s)		3.48589254891E-01			3.48589182470E-01				7.24210E-08	+/- 7.1E-10
Total phase (deg)			178.9		-5.12105686973E-05				136.6	+/- 4.6
ph/seg (deg)	59.1	10.9			0.468					
amp/seg (%)	47.8	19.0			0.000					
ph/frq (deg)	49.5	6.5			0.694					
amp/frq (%)	70.4	11.3			0.630					
f: az 43.1 el 72.6 pa -126.0										
g: az 205.0 el 54.9 pa 7.2										
u,v (fr/asec)					-2806.047					
Control file: cf_1234_gmva										
Input file: /Exps/c211a/v2/1234/No0245/fg..1W5ADF										
Output file: /Exps/c211a/v2/1234/No0245/fg.W.86.1W5ADF										

simultaneous interpolator

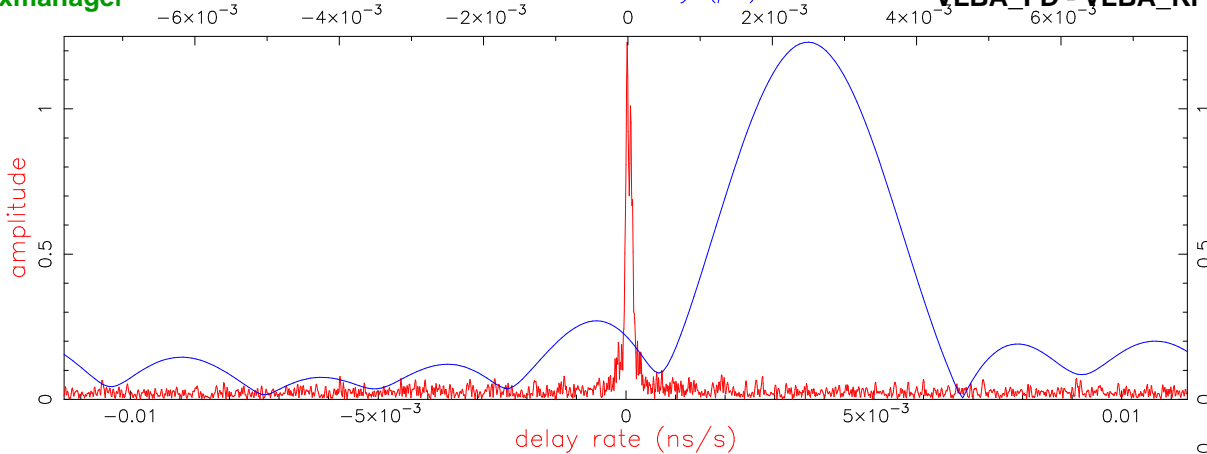
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fk

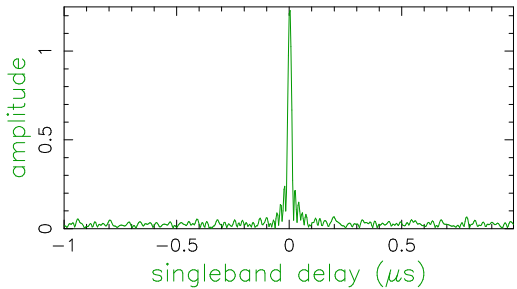
VLBA_FD - VLBA_KP, fgroup W, pol RR

multiband delay (μ s)

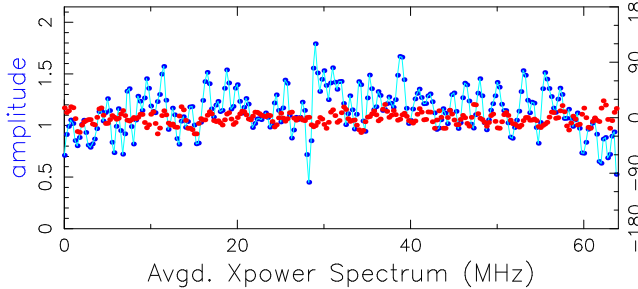


Fringe quality 5

SNR 64.3
 Int time 353.793
 Amp 1.250
 Phase -3.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.002275
 MBD 0.002452
 Fringe rate (Hz)
 0.002354
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

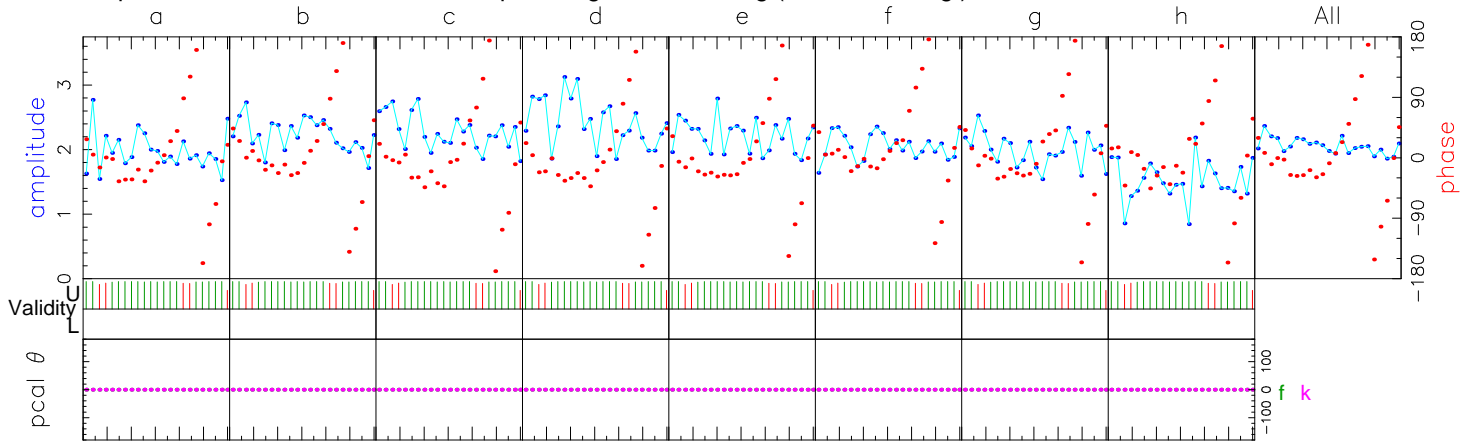


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135434
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-7.0	3.6	-9.8	-12.4	-7.2	7.7	-0.5	-0.9	Phase	-3.6
	1.2	1.3	1.3	1.5	1.3	1.2	1.1	0.9	Ampl.	1.2
	257.8	257.5	257.4	257.4	257.9	257.4	257.7	257.5	Sbd box	257.6
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.85898520373E+02		Apriori delay (usec)		4.85896068393E+02		Resid mbdelay (usec)		2.45198E-03	+/- 1.7E-05
Sband delay (usec)	4.85898343643E+02		Apriori clock (usec)		9.9112206E+00		Resid sbdelay (usec)		2.27525E-03	+/- 1.3E-04
Phase delay (usec)	4.85896068276E+02		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-1.17108E-07	+/- 5.7E-08
Delay rate (us/s)	-1.19669593785E-01		Apriori rate (us/s)		-1.19669621111E-01		Resid rate (us/s)		2.73255E-08	+/- 2.8E-10
Total phase (deg)	115.7		Apriori accel (us/s/s)		-4.02970963436E-06		Resid phase (deg)		-3.6	+/- 1.8

ph/seg (deg) 65.5 4.3 Search (2048X32) 1.196 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.4 7.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.5 2.5 Inc. seg. avg. 2.052 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 13.2 4.4 Inc. frq. avg. 1.236 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 43.1 el 72.6 pa -126.0 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 919.459 -429.919 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fk.W.108.1W5ADF

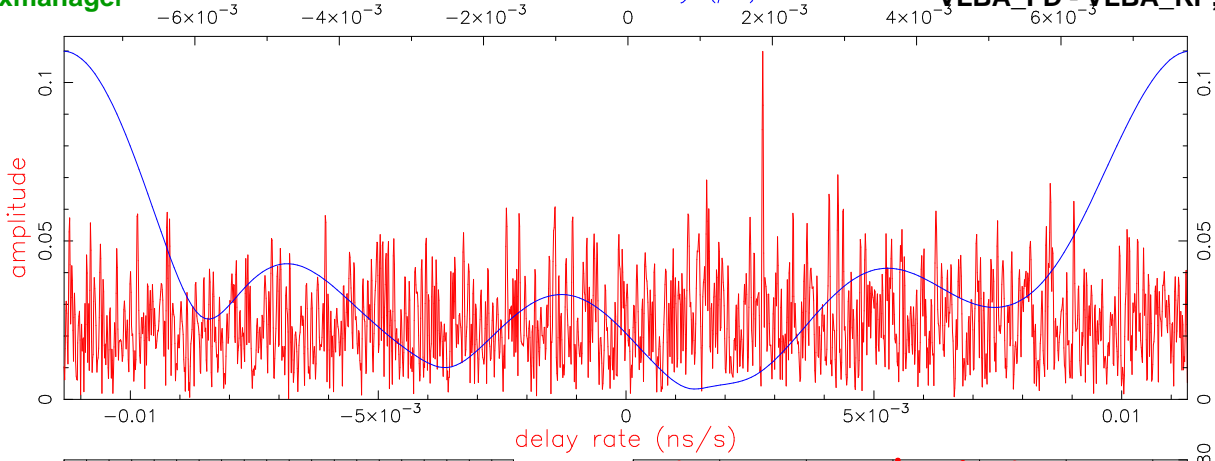
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

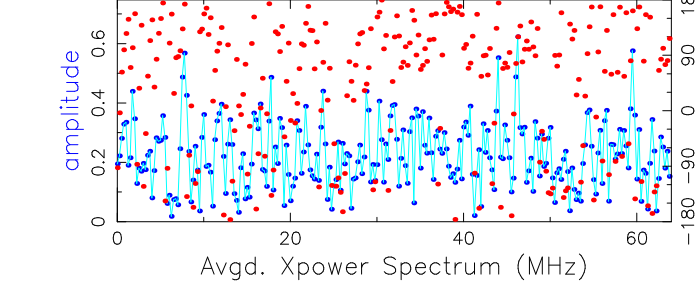
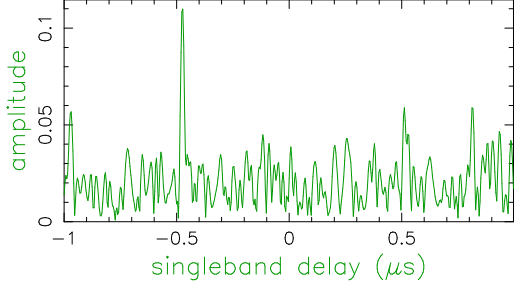
BLLAC.1W5ADF, No0245, fk

VLBA_FD - VLBA_KP, fgroup W, pol LR

multiband delay (μ s)

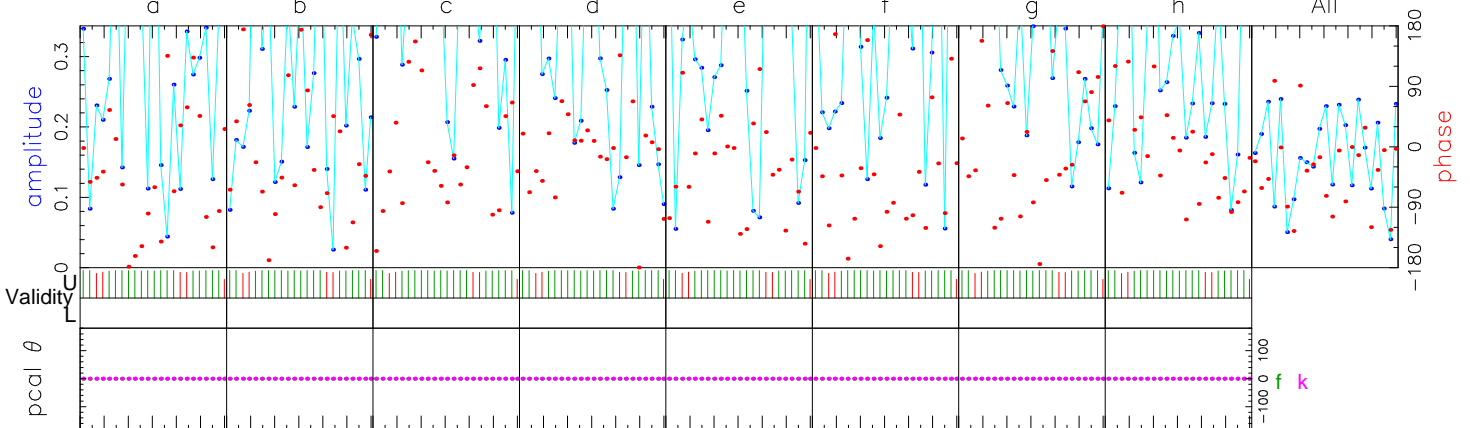


Fringe quality 0
 SNR 5.8
 Int time 353.793
 Amp 0.115
 Phase -31.2
 PFD 8.9e-01
 Delays (us)
 SBD -0.474333
 MBD 0.007733
 Fringe rate (Hz) 0.238035
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135437
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-62.5	-61.6	-32.6	6.9	-35.6	-58.3	-55.7	-19.0	Phase	-31.2
	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	Ampl.	0.1
	9.0	197.4	212.5	136.1	286.4	62.1	15.4	403.8	Sbd box	135.6
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.85419426737E+02		Apriori delay (usec)		4.85896068393E+02		Resid mbdelay (usec)		7.73334E-03	+/- 1.9E-04
Sband delay (usec)	4.85421735393E+02		Apriori clock (usec)		9.9112206E+00		Resid sbdelay (usec)		-4.74333E-01	+/- 1.5E-03
Phase delay (usec)	4.85896067388E+02		Apriori clockrate (us/s)		5.9999999E-08		Resid phdelay (usec)		-1.00490E-06	+/- 6.4E-07
Delay rate (us/s)	-1.19666857763E-01		Apriori rate (us/s)		-1.19666962111E-01		Resid rate (us/s)		2.76335E-06	+/- 3.1E-09
Total phase (deg)	88.1		Apriori accel (us/s/s)		-4.02970963436E-06		Resid phase (deg)		-31.2	+/- 19.9

ph/seg (deg) 59.0 47.6 Search (2048X32) 0.107 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.4 83.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.5 28.2 Inc. seg. avg. 0.121 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.9 49.2 Inc. frq. avg. 0.111 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 43.1 el 72.6 pa -126.0 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 919.459 -429.919 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fk.W.128.1W5ADF

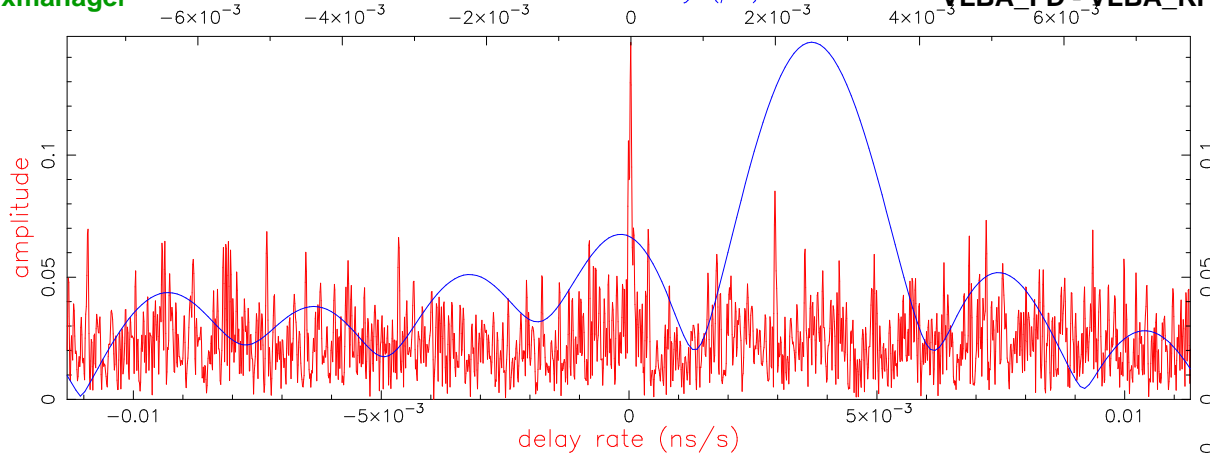
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fk

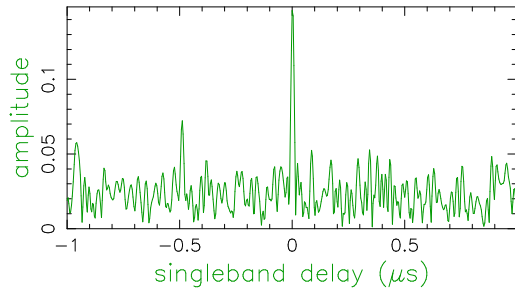
VLBA_FD - VLBA_KP, fgroup W, pol RL

multiband delay (μ s)

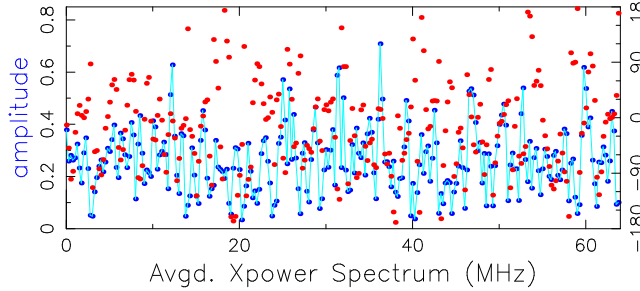


Fringe quality 9

SNR 7.6
 Int time 353.793
 Amp 0.149
 Phase -30.1
 PFD 7.0e-06
 Delays (us)
 SBD 0.001511
 MBD 0.002529
 Fringe rate (Hz)
 0.002955
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

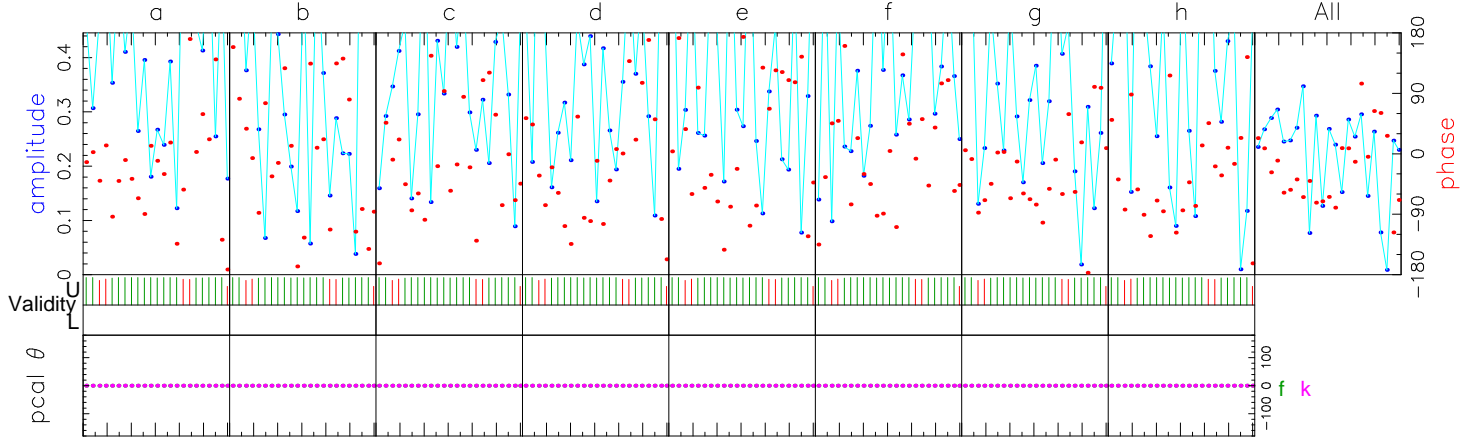


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135441
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



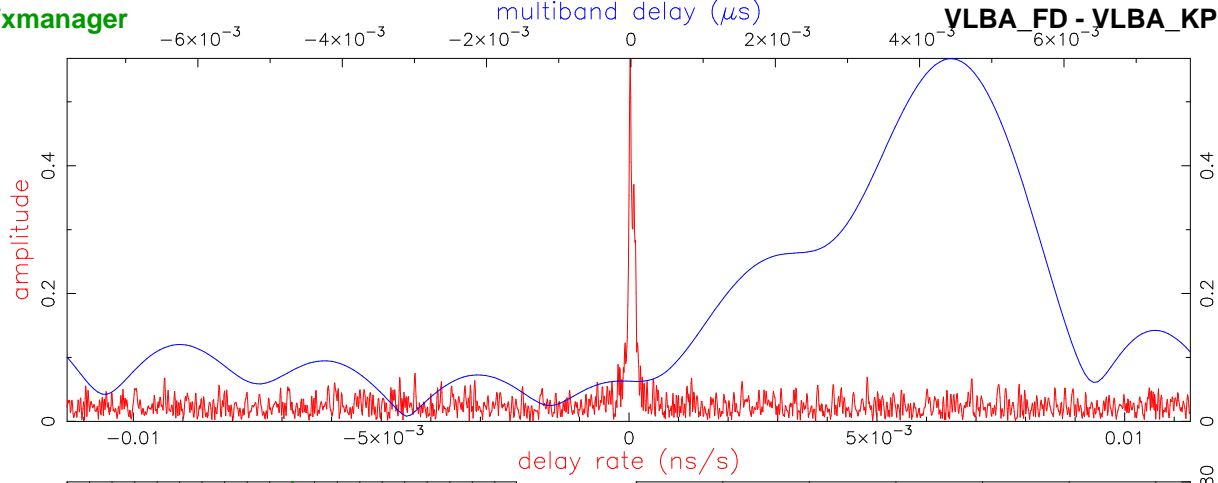
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-27.5	-30.2	-21.3	-51.7	-51.2	-6.2	-26.5	-40.7	Phase	-30.1
	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1
	344.8	62.9	352.4	199.8	228.2	44.3	257.2	461.0	Sbd box	257.4
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.85898597675E+02	Apriori delay (usec)	4.85896068393E+02	Resid mbdelay (usec)	2.52928E-03	+/-	1.4E-04
Sband delay (usec)	4.85897579393E+02	Apriori clock (usec)	9.9112206E+00	Resid sbdelay (usec)	1.51100E-03	+/-	1.1E-03
Phase delay (usec)	4.85896067423E+02	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	-9.69882E-07	+/-	4.8E-07
Delay rate (us/s)	-1.19669586806E-01	Apriori rate (us/s)	-1.19669621111E-01	Resid rate (us/s)	3.43041E-08	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-4.02970963436E-06	Resid phase (deg)	-30.1	+/-	15.0

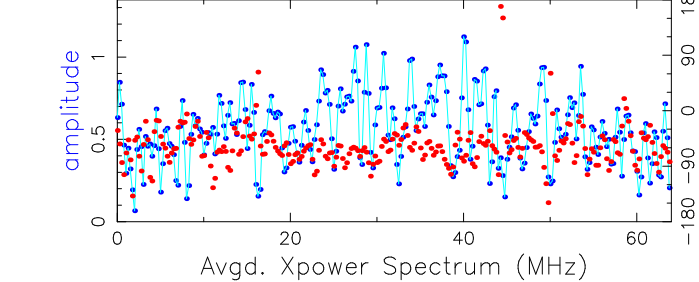
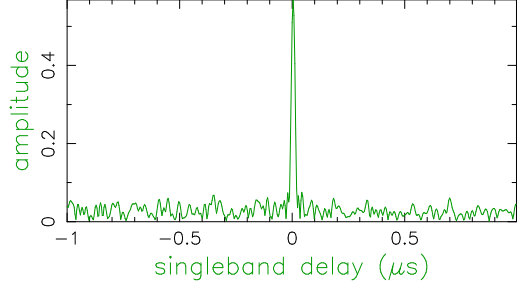
ph/seg (deg)	RMS 53.5	Theor. 35.8	Amplitude Search (2048X32)	0.149 +/- 0.019	0.146	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	76.2	62.6	Interp.	0.000	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	16.8	21.2	Inc. seg. avg.	0.187	0.187	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	40.6	37.0	Inc. frq. avg.	0.141	0.141	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

f: az 43.1 el 72.6 pa -126.0 k: az 54.2 el 68.5 pa -110.7 u,v (fr/asec) 919.459 -429.919 simultaneous interpolator

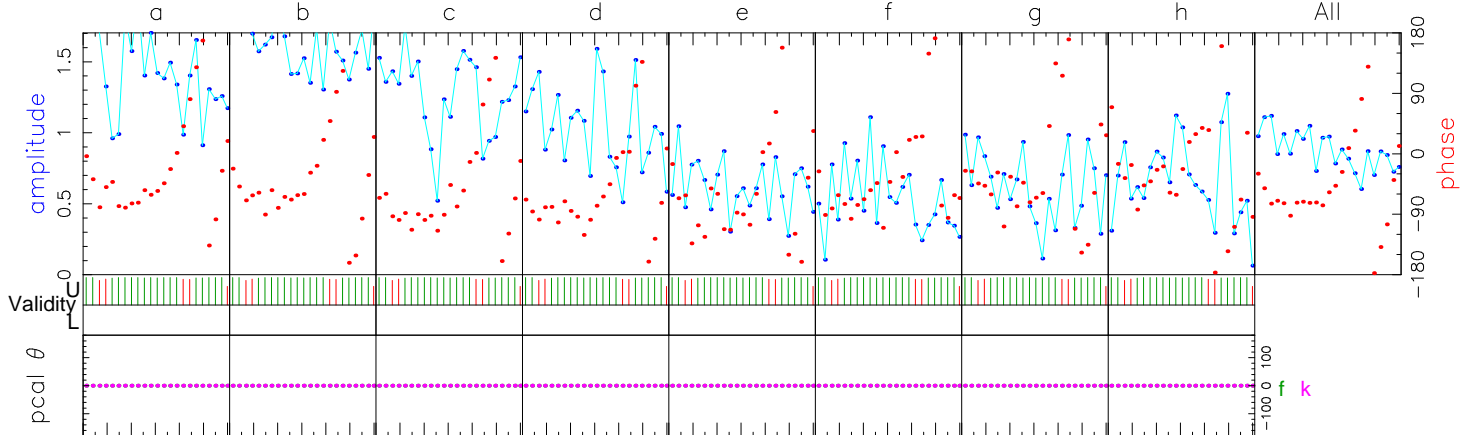
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fk..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fk.W.147.1W5ADF



Fringe quality 4
SNR 29.2
Int time 353.793
Amp 0.568
Phase -62.1
PFD 0.0e+00
Delays (us)
SBD 0.004268
MBD 0.004443
Fringe rate (Hz) 0.002060
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135430
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-49.6	-51.5	-77.6	-81.5	-83.1	-61.0	-59.0	-32.3	Phase	-62.1
	0.9	1.0	0.8	0.7	0.3	0.4	0.3	0.4	Ampl.	0.6
	258.4	257.8	258.2	258.2	258.1	258.5	257.9	257.9	Sbd box	258.1
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.85900511029E+02	Apriori delay (usec)	4.85896068393E+02	Resid mbdelay (usec)	4.44264E-03	+/-	3.7E-05
Sband delay (usec)	4.85900336143E+02	Apriori clock (usec)	9.9112206E+00	Resid sbdelay (usec)	4.26775E-03	+/-	2.9E-04
Phase delay (usec)	4.85896066391E+02	Apriori clockrate (us/s)	5.9999999E-08	Resid phdelay (usec)	-2.00207E-06	+/-	1.3E-07
Delay rate (us/s)	-1.19669597197E-01	Apriori rate (us/s)	-1.19669621111E-01	Resid rate (us/s)	2.39131E-08	+/-	6.1E-10
Total phase (deg)		Apriori accel (us/s/s)	-4.02970963436E-06	Resid phase (deg)	-62.1	+/-	3.9

ph/seg (deg)	63.7	Theor.	9.4	Amplitude	0.568 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	59.4	Search (2048X32)	0.565	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	19.3	Inc. seg. avg.	0.867	Inc. frq. avg.	0.587	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	44.8	Inc. frq. avg.	0.587			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
						Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

Mk4/DiFX fourfit 3.21 rev 2937

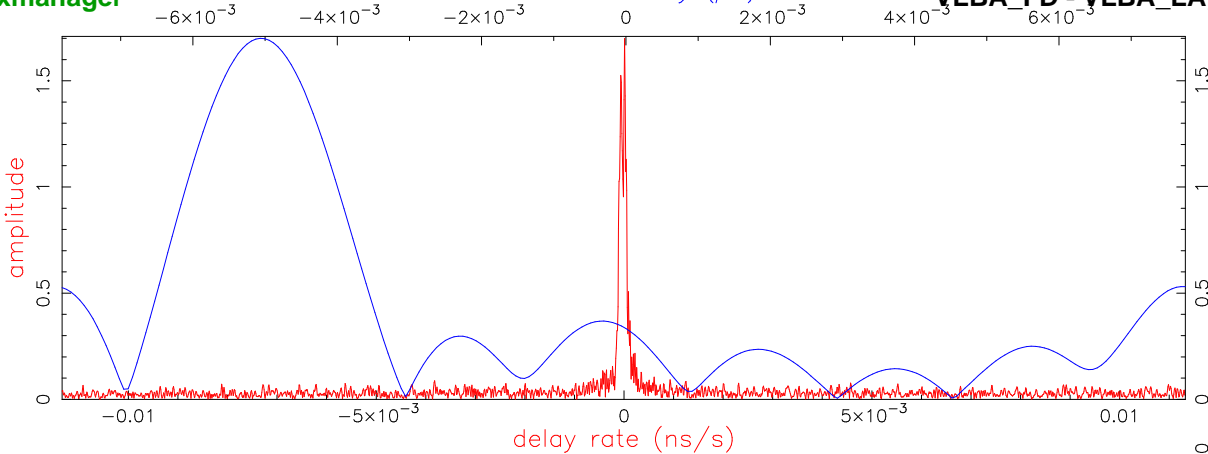
fxmanager

BLLAC.1W5ADF, No0245, fl

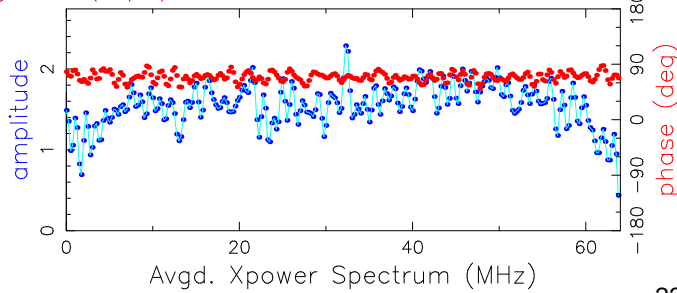
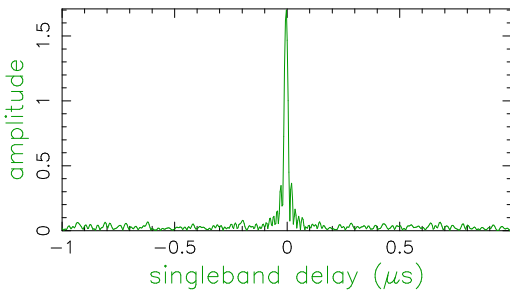
VLBA_FD - VLBA_LA, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 5

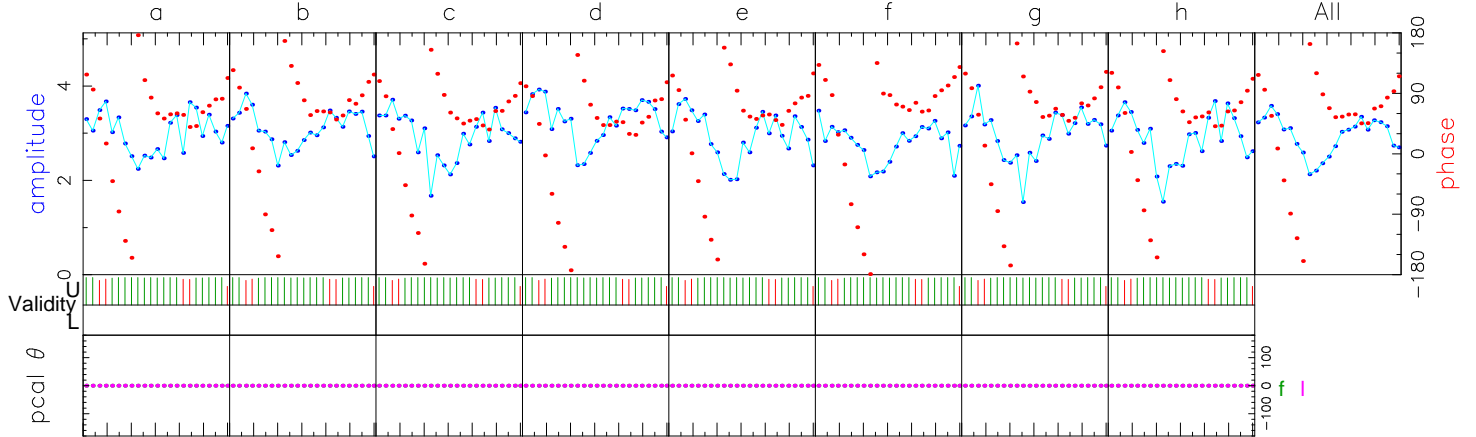


SNR 87.9
 Int time 353.793
 Amp 1.709
 Phase 71.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.004868
 MBD -0.005085
 Fringe rate (Hz)
 0.000791
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135436
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		255.8
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.74747599283E+02				-1.74742514773E+02					
Sband delay (usec)	-1.74747383023E+02				1.2828873E+01					
Phase delay (usec)	-1.74742512459E+02				3.4600000E-07					
Delay rate (us/s)	-2.13764663488E-02				-2.13764755296E-02					
Total phase (deg)			-8.3		-4.70676450098E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Chan ids										
Tracks										
Chan ids										
Tracks										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
simultaneous interpolator										

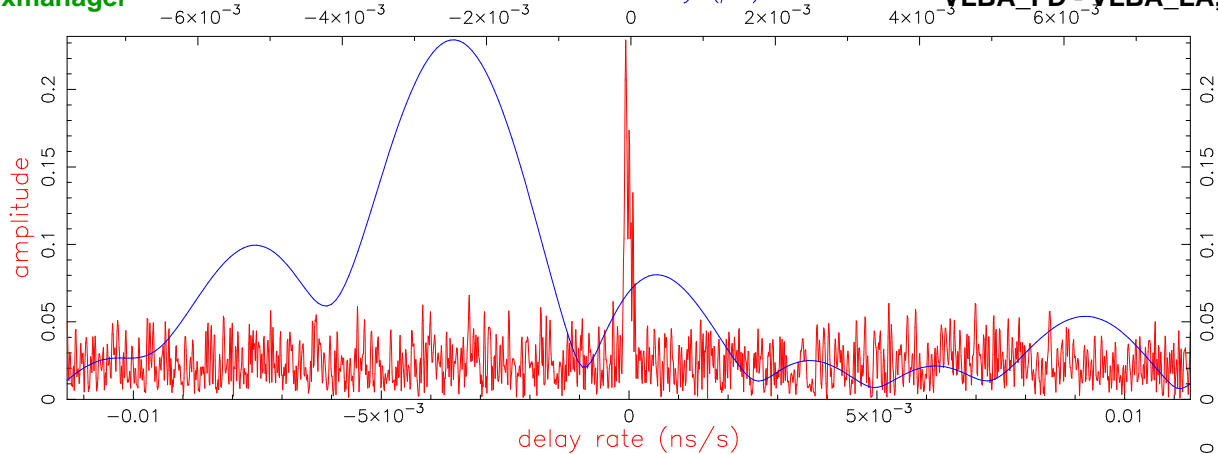
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fl

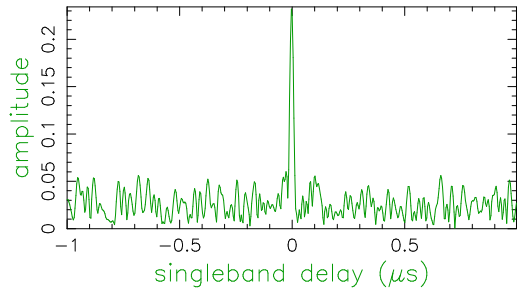
VLBA_FD - VLBA_LA, fgroup W, pol LR

multiband delay (μ s)

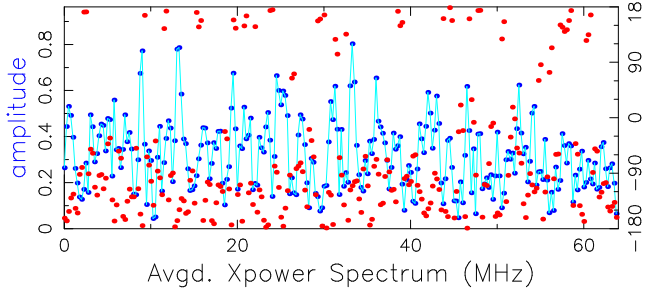


Fringe quality 9

SNR 12.0
 Int time 353.793
 Amp 0.234
 Phase -137.1
 PFD 1.0e-24
 Delays (us)
 SBD -0.002621
 MBD -0.002423
 Fringe rate (Hz)
 -0.005364
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

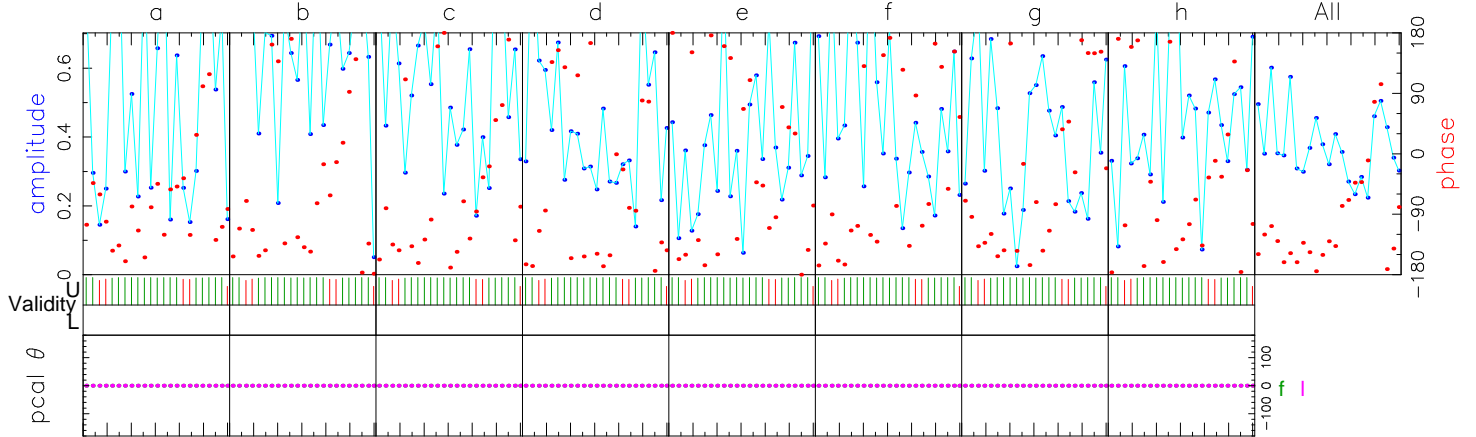


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135439
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-116.4	-129.8	-143.9	-175.3	-149.5	-144.1	-127.3	-124.1	Phase	-137.1
	0.3	0.3	0.3	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
	256.6	256.4	255.5	255.6	258.0	256.5	263.0	256.6	Sbd box	256.3
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.74744937588E+02		Apriori delay (usec)		-1.74742514773E+02		Resid mbdelay (usec)		-2.42281E-03	+/- 9.0E-05
Sband delay (usec)	-1.74745135523E+02		Apriori clock (usec)		1.2828873E+01		Resid sbdelay (usec)		-2.62075E-03	+/- 7.2E-04
Phase delay (usec)	-1.74742519195E+02		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-4.42199E-06	+/- 3.1E-07
Delay rate (us/s)	-2.13765377955E-02		Apriori rate (us/s)		-2.13764755296E-02		Resid rate (us/s)		-6.22659E-08	+/- 1.5E-09
Total phase (deg)			Apriori accel (us/s/s)		-4.70676450098E-06		Resid phase (deg)		-137.1	+/- 9.5

	RMS	Theor.	Amplitude	0.234 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	61.3	22.7	Search (2048X32)	0.229	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	74.2	39.7	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	20.2	13.5	Inc. seg. avg.	0.350	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	25.9	23.5	Inc. frq. avg.	0.236	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 l: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 155.803 -830.372 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fl..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fl.W.140.1W5ADF

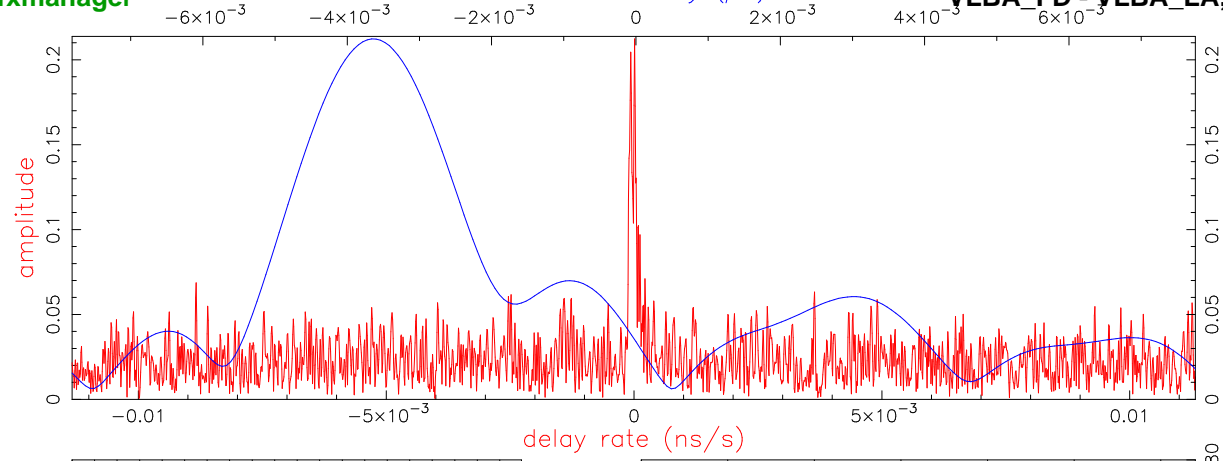
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

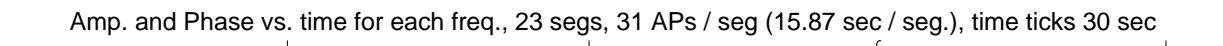
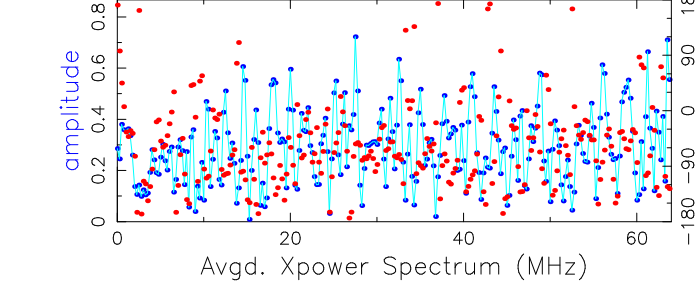
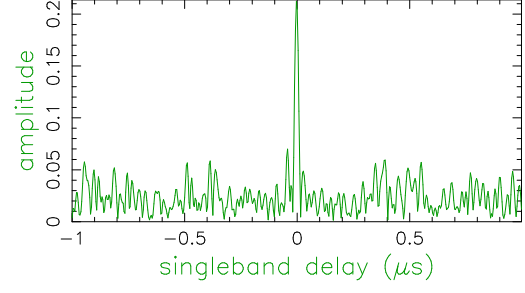
BLLAC.1W5ADF, No0245, fl

VLBA_FD - VLBA_LA, fgroup W, pol RL

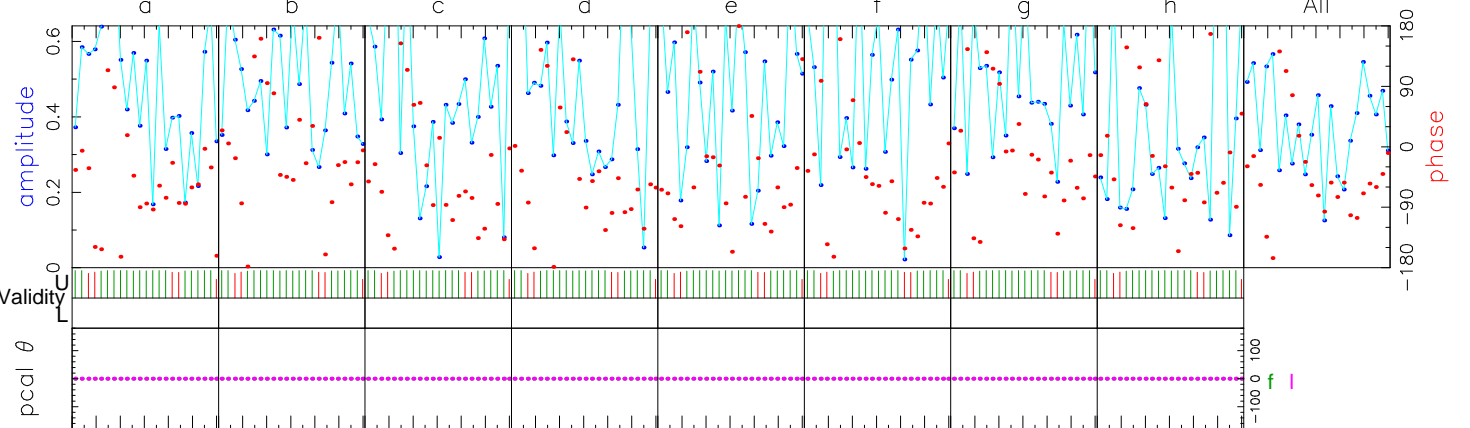
multiband delay (μ s)



Fringe quality 9
 SNR 11.0
 Int time 353.793
 Amp 0.214
 Phase -60.7
 PFD 1.8e-19
 Delays (us)
 SBD -0.002795
 MBD -0.003624
 Fringe rate (Hz) 0.000758
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135443
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-1.74746138689E+02			-1.74742514773E+02					
Sband delay (usec)		-1.74745310023E+02			1.2828873E+01					
Phase delay (usec)		-1.74742516730E+02			3.4600000E-07					
Delay rate (us/s)		-2.13764667314E-02			-2.13764755296E-02					
Total phase (deg)			-140.8		-4.70676450098E-06					
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:										
Pcal rate:										
Bits/sample:										
Sample rate (MSamp/s):										
Data rate (Mb/s):										
PC period (AP's)										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.214 +/- 0.019										
0.205										
0.000										
0.349										
0.221										
PCal mode: MANUAL, MANUAL										
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										
f: az 43.1 el 72.6 pa -126.0										
l: az 59.5 el 74.4 pa -109.7										
u,v (fr/asec) 155.803 -830.372										
Control file: cf_1234_gmva										
Input file: /Exps/c211a/v2/1234/No0245/fl.1W5ADF										
Output file: /Exps/c211a/v2/1234/No0245/fl.W.156.1W5ADF										

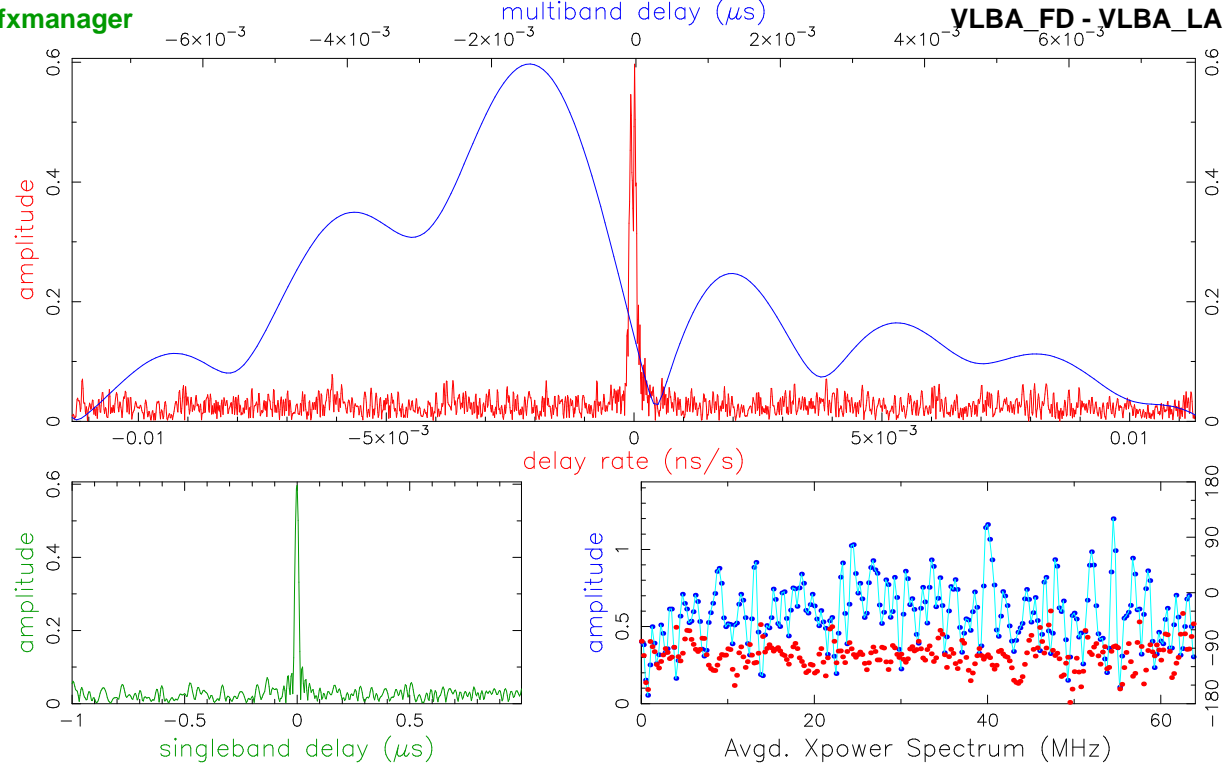
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

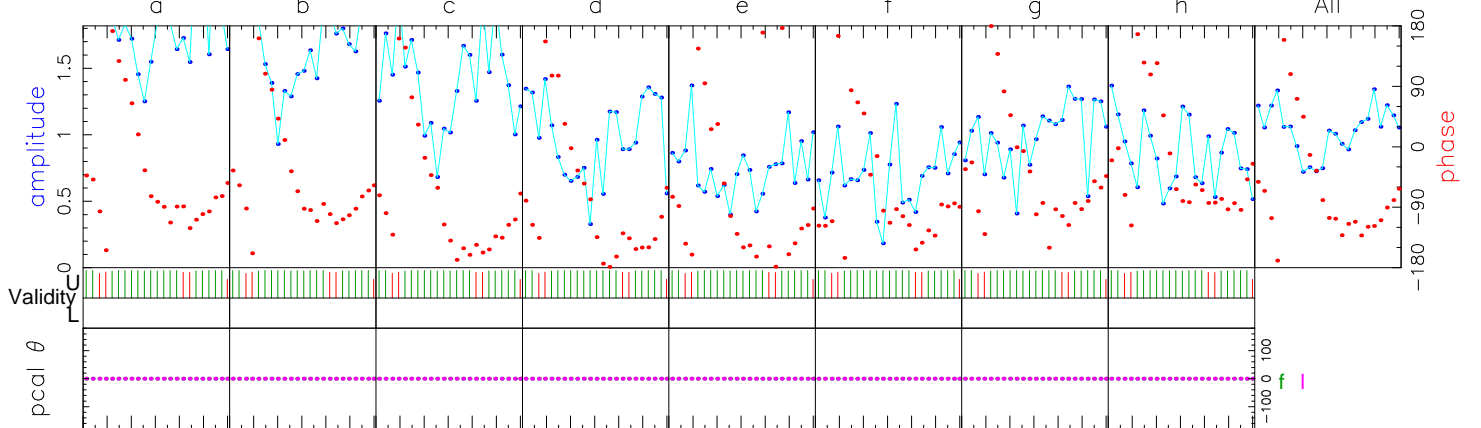
BLLAC.1W5ADF, No0245, fl

VLBA_FD - VLBA_LA, fgroup W, pol LL



Fringe quality 3
 SNR 31.2
 Int time 353.793
 Amp 0.607
 Phase -102.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.001627
 MBD -0.001503
 Fringe rate (Hz) 0.000821
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135432
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-88.1	-85.0	-135.5	-138.1	-140.9	-107.6	-79.0	-67.1	Phase	-102.8
	1.1	1.0	0.8	0.6	0.5	0.4	0.6	0.4	Ampl.	0.7
	257.0	256.1	256.4	256.5	257.3	257.0	256.7	257.3	Sbd box	256.6
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:l	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.74744017845E+02		Apriori delay (usec)		-1.74742514773E+02		Resid mbdelay (usec)		-1.50307E-03	+/- 3.5E-05
Sband delay (usec)	-1.74744141773E+02		Apriori clock (usec)		1.2828873E+01		Resid sbdelay (usec)		-1.62700E-03	+/- 2.8E-04
Phase delay (usec)	-1.74742518088E+02		Apriori clockrate (us/s)		3.4600000E-07		Resid phdelay (usec)		-3.31510E-06	+/- 1.2E-07
Delay rate (us/s)	-2.13764659988E-02		Apriori rate (us/s)		-2.13764755296E-02		Resid rate (us/s)		9.53081E-09	+/- 5.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-4.70676450098E-06		Resid phase (deg)		-102.8	+/- 3.7

ph/seg (deg) 70.0 8.8 Search (2048X32) 0.595 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.8 15.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 32.1 5.2 Inc. seg. avg. 1.019 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.0 9.1 Inc. frq. avg. 0.662 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 43.1 el 72.6 pa -126.0 l: az 59.5 el 74.4 pa -109.7 u,v (fr/asec) 155.803 -830.372 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fl.1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fl.W.99.1W5ADF simultaneous interpolator

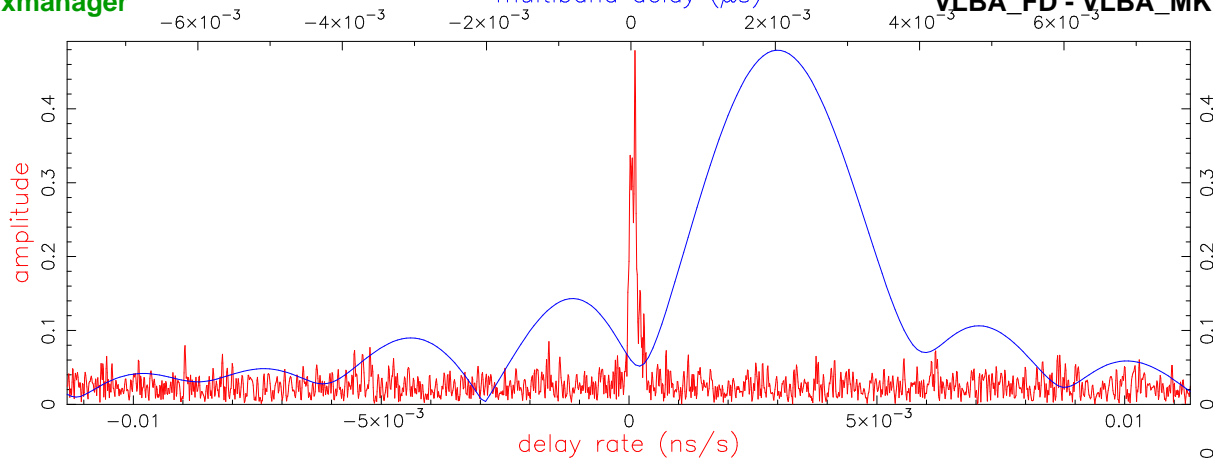
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fm

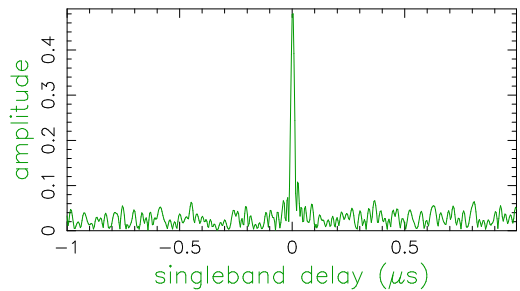
VLBA_FD - VLBA_MK, fgroup W, pol RR

multiband delay (μ s)

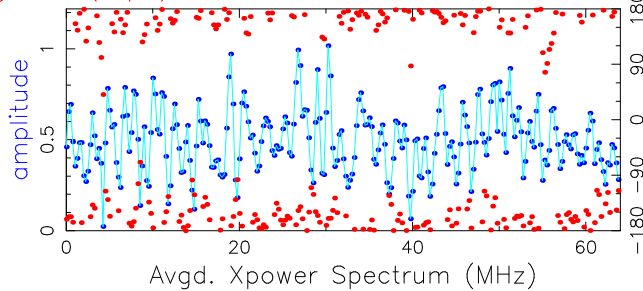


Fringe quality 7

SNR 25.3
 Int time 353.780
 Amp 0.491
 Phase -176.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.002015
 MBD 0.002083
 Fringe rate (Hz)
 0.010114
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

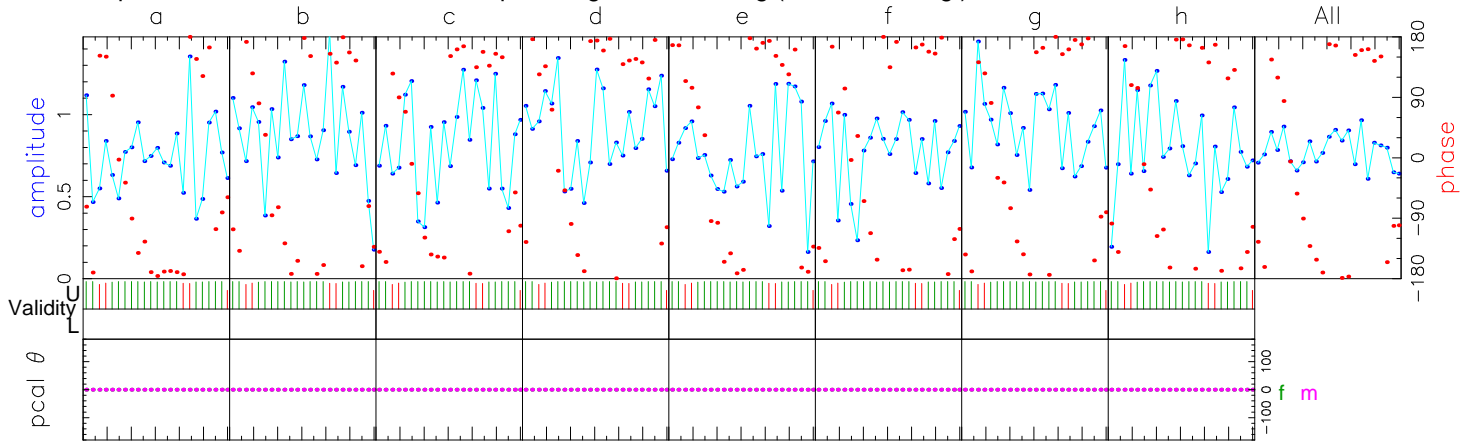


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135434
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-152.7	-170.9	175.6	170.5	164.9	-171.9	-170.3	-174.2	Phase	-176.5
	0.4	0.6	0.4	0.5	0.5	0.5	0.5	0.5	Ampl.	0.5
	257.1	257.2	258.1	257.5	257.4	257.6	257.8	257.5	Sbd box	257.5
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.61356025122E+03		Apriori delay (usec)		9.61355816805E+03		Resid mbdelay (usec)		2.08317E-03	+/- 4.3E-05
Sband delay (usec)	9.61356018330E+03		Apriori clock (usec)		-5.4327507E+00		Resid sbdelay (usec)		2.01525E-03	+/- 3.4E-04
Phase delay (usec)	9.61355816236E+03		Apriori clockrate (us/s)		-2.5800000E-07		Resid phdelay (usec)		-5.69119E-06	+/- 1.5E-07
Delay rate (us/s)	-7.34156720599E-01		Apriori rate (us/s)		-7.34156838010E-01		Resid rate (us/s)		1.17411E-07	+/- 7.1E-10
Total phase (deg)	38.1		Apriori accel (us/s/s)		-3.81940185048E-05		Resid phase (deg)		-176.5	+/- 4.5

ph/seg (deg) 62.4 10.8 Search (2048X32) 0.466 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.7 18.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.4 6.4 Inc. seg. avg. 0.770 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 11.1 11.2 Inc. frq. avg. 0.487 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 43.1 el 72.6 pa -126.0 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 5617.099 -1696.101 ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fm.W.109.1W5ADF

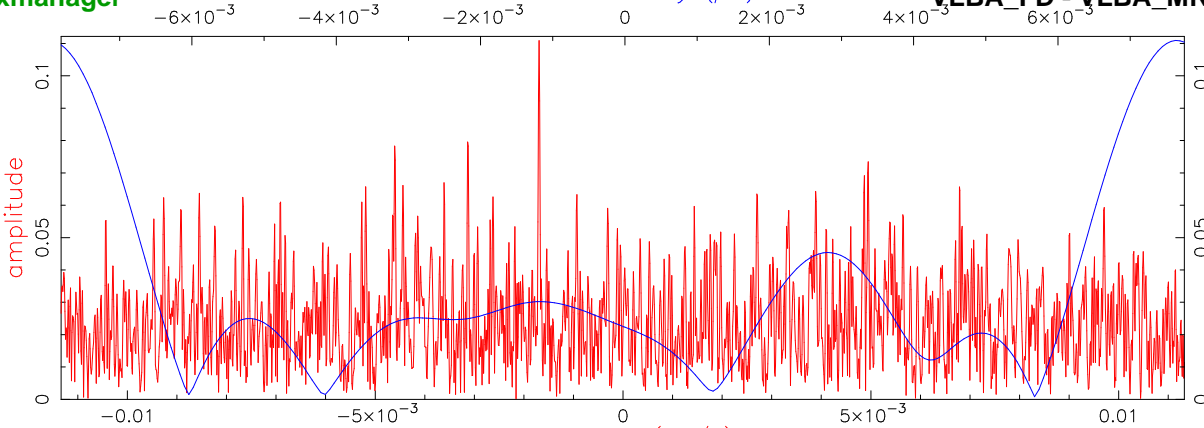
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fm

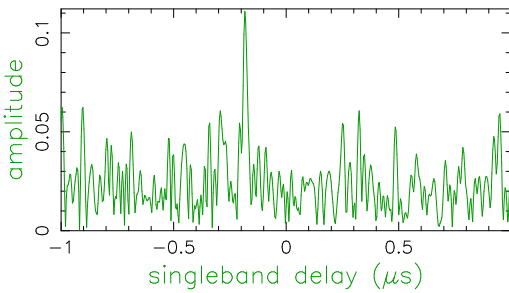
VLBA_FD - VLBA_MK, fgroup W, pol LR

multiband delay (μ s)

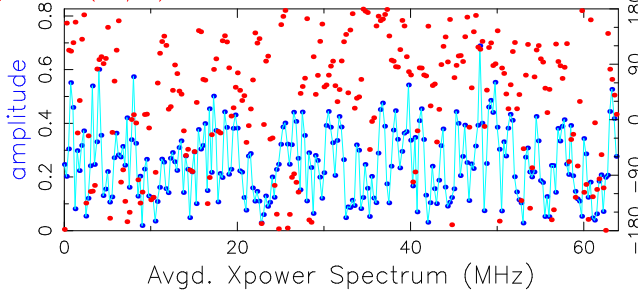


Fringe quality 0

SNR 5.7
 Int time 353.780
 Amp 0.112
 Phase -116.3
 PFD 9.3e-01
 Delays (us)
 SBD -0.182895
 MBD -0.007951
 Fringe rate (Hz)
 -0.145968
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

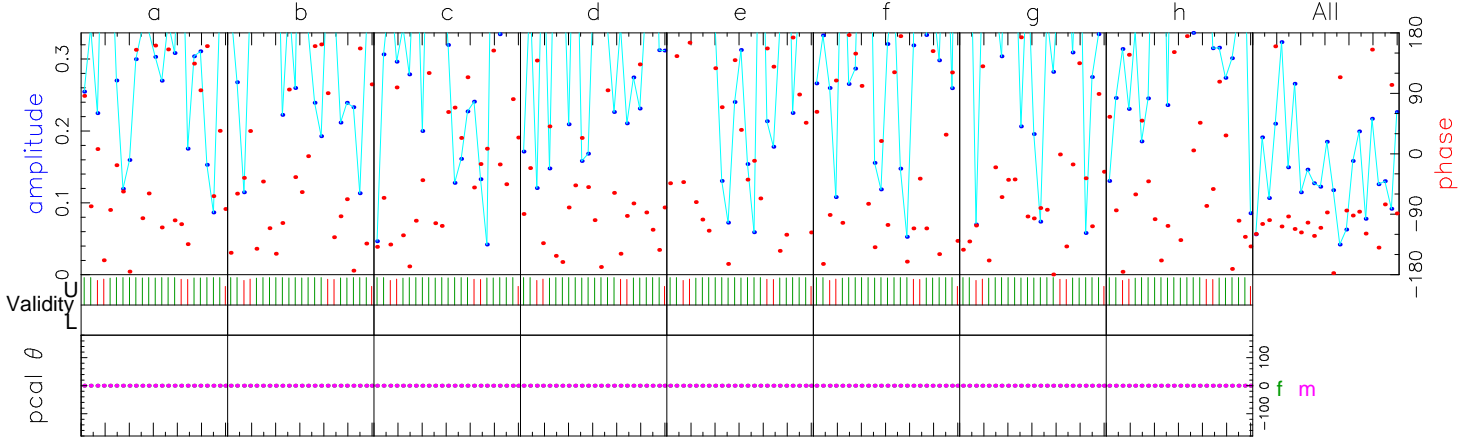


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135438
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-117.7	-112.5	-110.0	-111.6	-127.1	-137.9	-93.5	-128.4	Phase	-116.3
	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	Ampl.	0.1
	342.6	468.7	498.9	224.0	383.4	141.4	202.7	2.0	Sbd box	210.2
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.61337834196E+03		Apriori delay (usec)	9.61355816805E+03	Resid mbdelay (usec)	-7.95109E-03	+/-	1.9E-04		
Sband delay (usec)	9.61337527280E+03		Apriori clock (usec)	-5.4327507E+00	Resid sbdelay (usec)	-1.82895E-01	+/-	1.5E-03		
Phase delay (usec)	9.61355816430E+03		Apriori clockrate (us/s)	-2.5800000E-07	Resid phdelay (usec)	-3.75114E-06	+/-	6.5E-07		
Delay rate (us/s)	-7.34158532551E-01		Apriori rate (us/s)	-7.34156838010E-01	Resid rate (us/s)	-1.69454E-06	+/-	3.1E-09		
Total phase (deg)		98.3	Apriori accel (us/s/s)	-3.81940185048E-05	Resid phase (deg)	-116.3	+/-	20.0		

	RMS	Theor.	Amplitude	0.112 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	52.8	47.9	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	69.6	83.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	14.9	28.3	Inc. seg. avg.	0.111	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	36.7	49.5	Inc. frq. avg.	0.102	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			
f: az 43.1 el 72.6 pa -126.0			m: az 51.7 el 29.6 pa -89.2						
					u,v (fr/asec) 5617.099 -1696.101				

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fm.W.130.1W5ADF

simultaneous interpolator

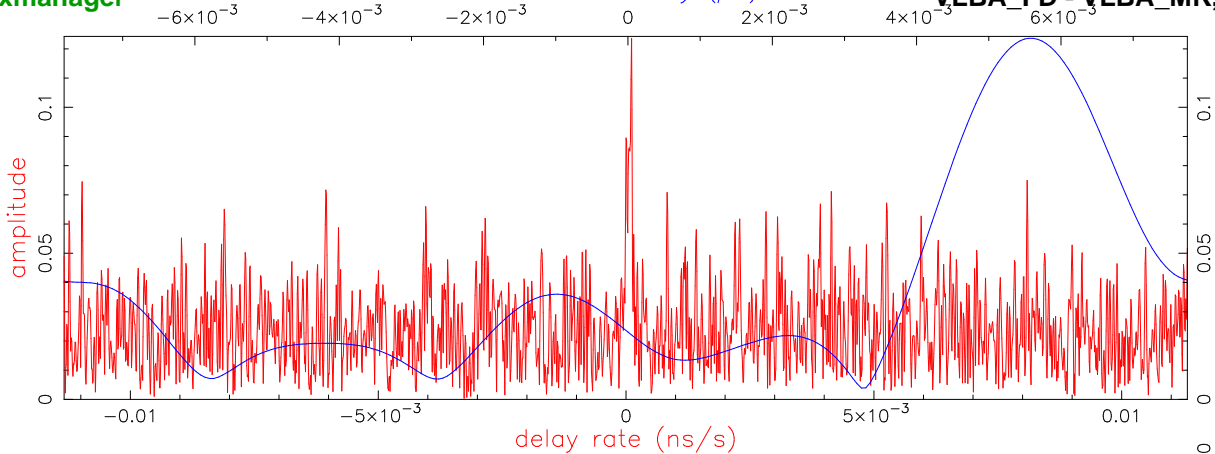
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fm

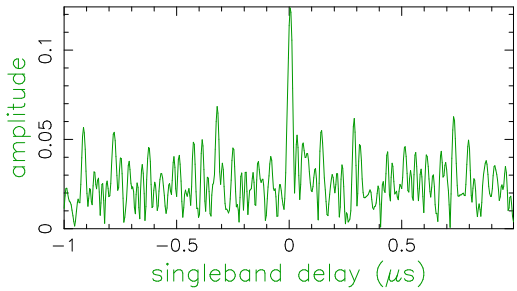
VLBA_FD - VLBA_MK, fgroup W, pol RL

multiband delay (μ s)

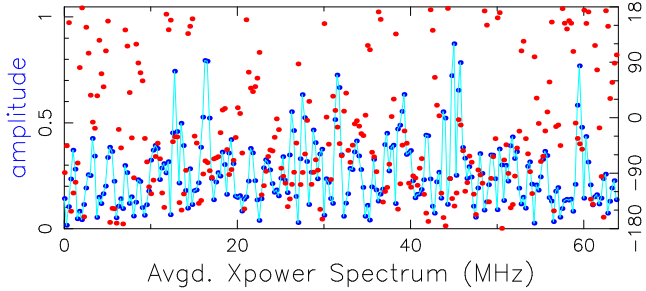


Fringe quality 0

SNR 6.4
 Int time 353.780
 Amp 0.124
 Phase -84.5
 PFD 4.4e-02
 Delays (us)
 SBD 0.005164
 MBD 0.005553
 Fringe rate (Hz)
 0.009924
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

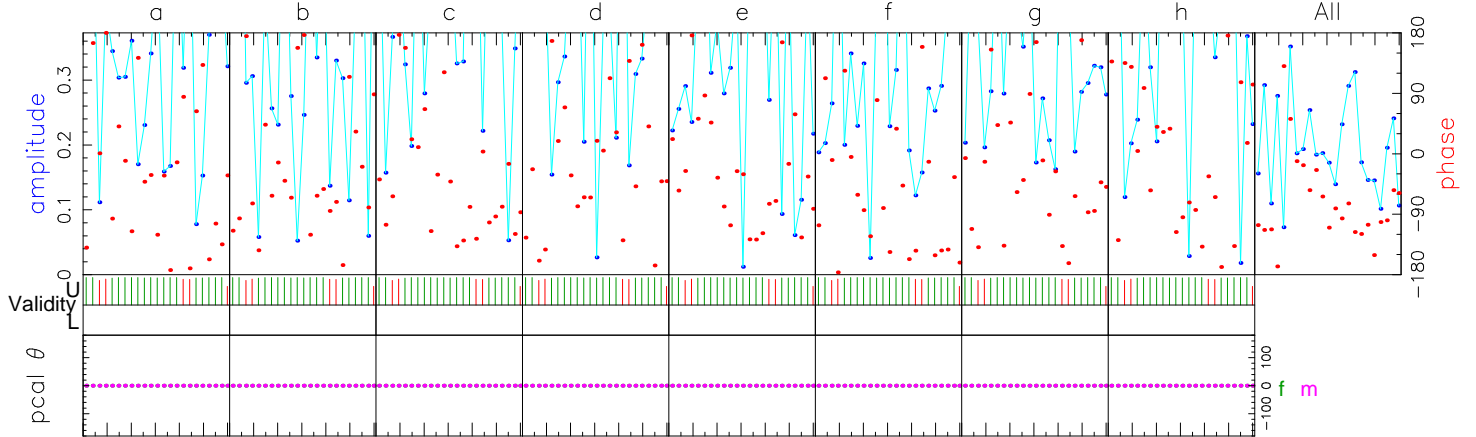


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135441
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-123.6	-67.4	-86.1	-75.7	-57.2	-99.2	-82.6	-112.7	Phase	-84.5
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	444.9	259.0	257.6	24.9	310.5	51.0	111.8	478.0	Sbd box	258.3
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	9.61356372136E+03	Apriori delay (usec)	9.61355816805E+03	Resid mbdelay (usec)	5.55331E-03	+/-	1.7E-04
Sband delay (usec)	9.61356333180E+03	Apriori clock (usec)	-5.4327507E+00	Resid sbdelay (usec)	5.16375E-03	+/-	1.3E-03
Phase delay (usec)	9.61355816533E+03	Apriori clockrate (us/s)	-2.5800000E-07	Resid phdelay (usec)	-2.72638E-06	+/-	5.8E-07
Delay rate (us/s)	-7.34156722800E-01	Apriori rate (us/s)	-7.34156838010E-01	Resid rate (us/s)	1.15209E-07	+/-	2.8E-09
Total phase (deg)	130.0	Apriori accel (us/s/s)	-3.81940185048E-05	Resid phase (deg)	-84.5	+/-	17.9

ph/seg (deg)	56.9	Theor.	42.8	Amplitude	0.124 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	82.8	Search (2048X32)	0.120	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.7	Inc. seg. avg.	0.155	Inc. frq. avg.	0.120	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	38.0	Inc. frq. avg.	0.120	u,v (fr/asec)	5617.099 -1696.101	Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
f: az 43.1 el 72.6 pa -126.0		m: az 51.7 el 29.6 pa -89.2				Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
						nlags: 256	t_cohere infinite
							ion window (TEC) 0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fm.W.149.1W5ADF simultaneous interpolator

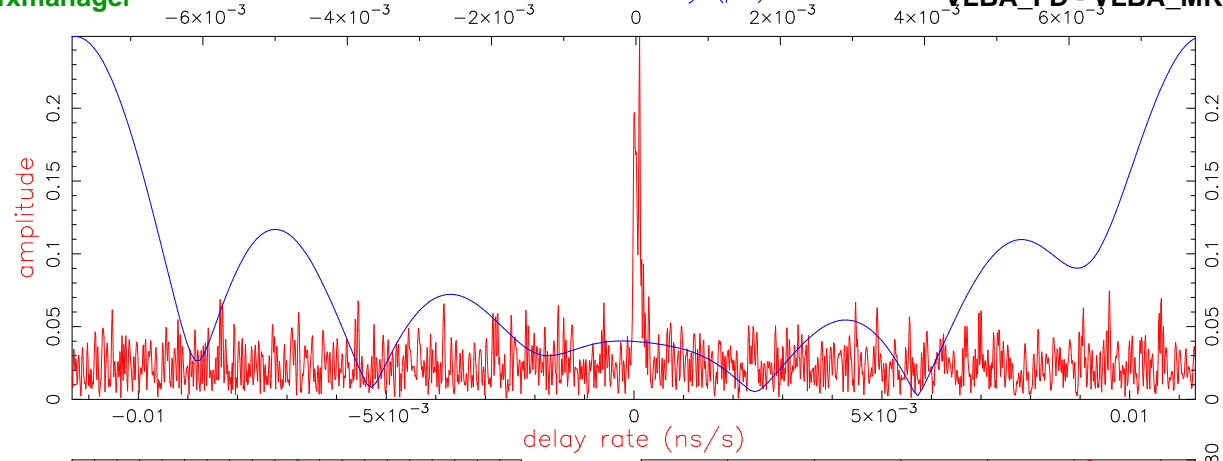
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fm

VLBA_FD - VLBA_MK, fgroup W, pol LL

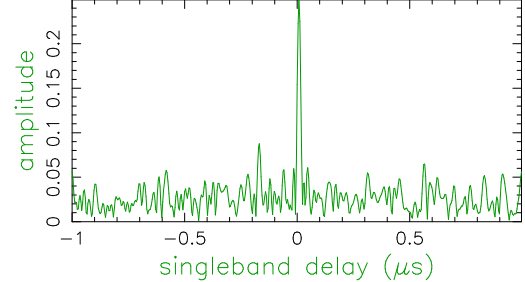
multiband delay (μ s)



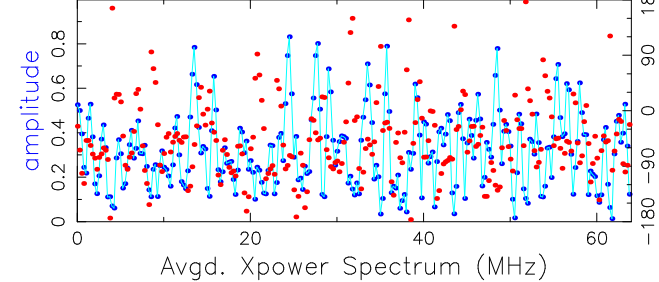
Fringe quality 9

SNR 12.8
 Int time 353.780
 Amp 0.249
 Phase 124.8
 PFD 6.3e-29
 Delays (us)
 SBD 0.007910
 MBD -0.007771
 Fringe rate (Hz)
 0.009909
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

delay rate (ns/s)

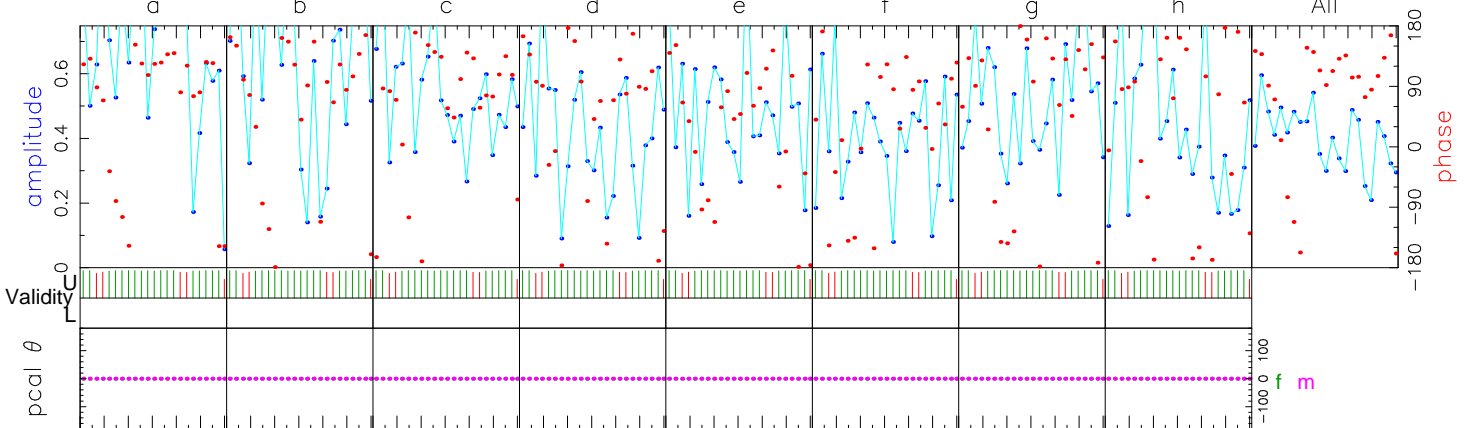


singleband delay (μ s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135430
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	127.7	139.4	113.8	115.7	89.6	92.1	137.7	143.8	Phase	124.8
	0.4	0.4	0.3	0.2	0.2	0.1	0.3	0.2	Ampl.	0.3
	259.4	259.1	258.6	258.5	409.3	165.9	258.4	150.5	Sbd box	259.0
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:m	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	
m	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.61356602248E+03		Apriori delay (usec)		9.61355816805E+03		Resid mbdelay (usec)		-7.77057E-03	+/- 8.5E-05
Sband delay (usec)	9.61356607780E+03		Apriori clock (usec)		-5.4327507E+00		Resid sbdelay (usec)		7.90975E-03	+/- 6.7E-04
Phase delay (usec)	9.61355817208E+03		Apriori clockrate (us/s)		-2.5800000E-07		Resid phdelay (usec)		4.02593E-06	+/- 2.9E-07
Delay rate (us/s)	-7.34156722978E-01		Apriori rate (us/s)		-7.34156838010E-01		Resid rate (us/s)		1.15031E-07	+/- 1.4E-09
Total phase (deg)	339.4		Apriori accel (us/s/s)		-3.81940185048E-05		Resid phase (deg)		124.8	+/- 8.9

	RMS	Theor.	Amplitude	0.249 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	58.9	21.3	Search (2048X32)	0.241	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	72.7	37.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	23.3	12.6	Inc. seg. avg.	0.378	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	43.4	22.1	Inc. frq. avg.	0.254	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 m: az 51.7 el 29.6 pa -89.2 u,v (fr/asec) 5617.099 -1696.101 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fm..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fm.W.91.1W5ADF

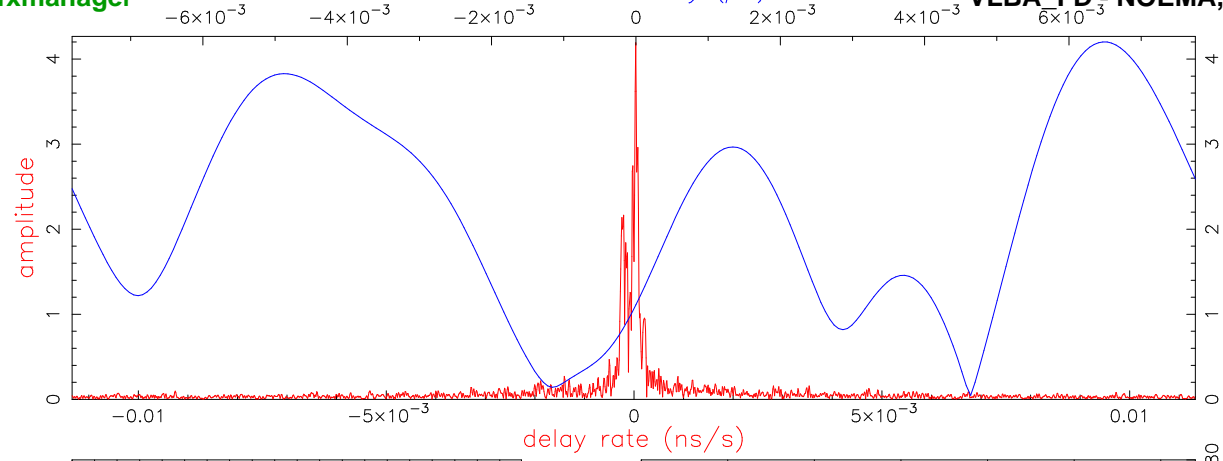
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fN

VLBA_FD - NOEMA, fgroup W, pol RR

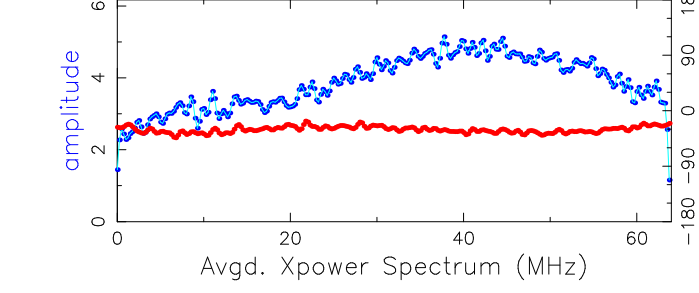
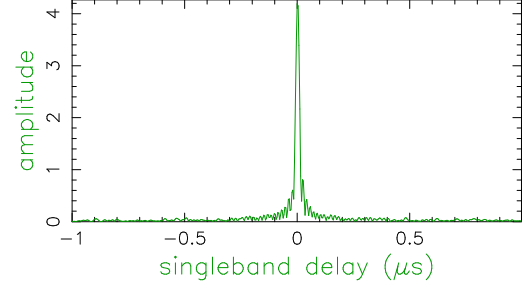
multiband delay (μ s)



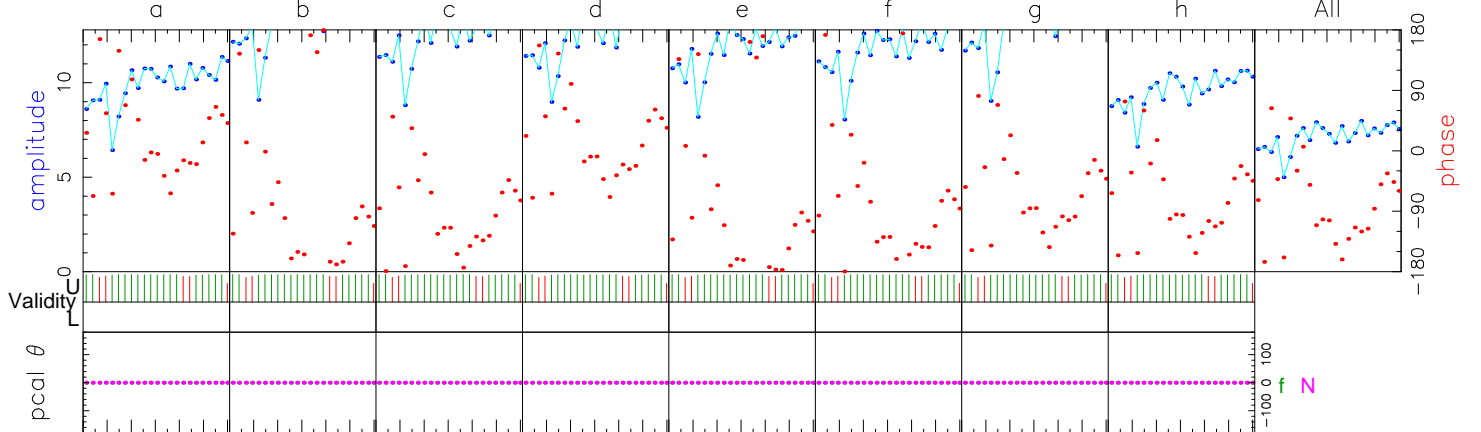
Fringe quality 1

SNR 219.5
Int time 353.793
Amp 4.267
Phase -85.2
PFD 0.0e+00
Delays (us)
SBD 0.001735
MBD 0.006576
Fringe rate (Hz) 0.002887
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135434
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.12795852082E+04			1.12795786318E+04				6.57638E-03	+/- 4.9E-06
Sband delay (usec)		1.12795803673E+04			2.3446766E+01				1.73550E-03	+/- 3.9E-05
Phase delay (usec)		1.12795786291E+04			-9.1940006E-06				-2.74785E-06	+/- 1.7E-08
Delay rate (us/s)		1.07039068696E+00			1.07039065344E+00				3.35112E-08	+/- 8.2E-11
Total phase (deg)			39.0		-7.45381819366E-05				-85.2	+/- 0.5
RMS	61.6	1.2								
ph/seg (deg)	61.6	1.2								
amp/seg (%)	69.2	2.2								
ph/frq (deg)	65.4	0.7								
amp/frq (%)	65.6	1.3								
f: az 43.1 el 72.6 pa -126.0										
N: az 304.9 el 26.0 pa 55.2										
u,v (fr/asec)										
Control file: cf_1234_gmva										
Input file: /Exps/c211a/v2/1234/No0245/fN..1W5ADF										
Output file: /Exps/c211a/v2/1234/No0245/fN.W.110.1W5ADF										

Group delay (usec)(sbd) 1.12795852082E+04 Apriori delay (usec) 1.12795786318E+04 Resid mbdelay (usec) 6.57638E-03 +/- 4.9E-06
 Sband delay (usec) 1.12795803673E+04 Apriori clock (usec) 2.3446766E+01 Resid sbdelay (usec) 1.73550E-03 +/- 3.9E-05
 Phase delay (usec) 1.12795786291E+04 Apriori clockrate (us/s) -9.1940006E-06 Resid phdelay (usec) -2.74785E-06 +/- 1.7E-08
 Delay rate (us/s) 1.07039068696E+00 Apriori rate (us/s) 1.07039065344E+00 Resid rate (us/s) 3.35112E-08 +/- 8.2E-11
 Total phase (deg) 39.0 Apriori accel (us/s/s) -7.45381819366E-05 Resid phase (deg) -85.2 +/- 0.5

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Sample rate(MISamp/s): 128
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

simultaneous interpolator

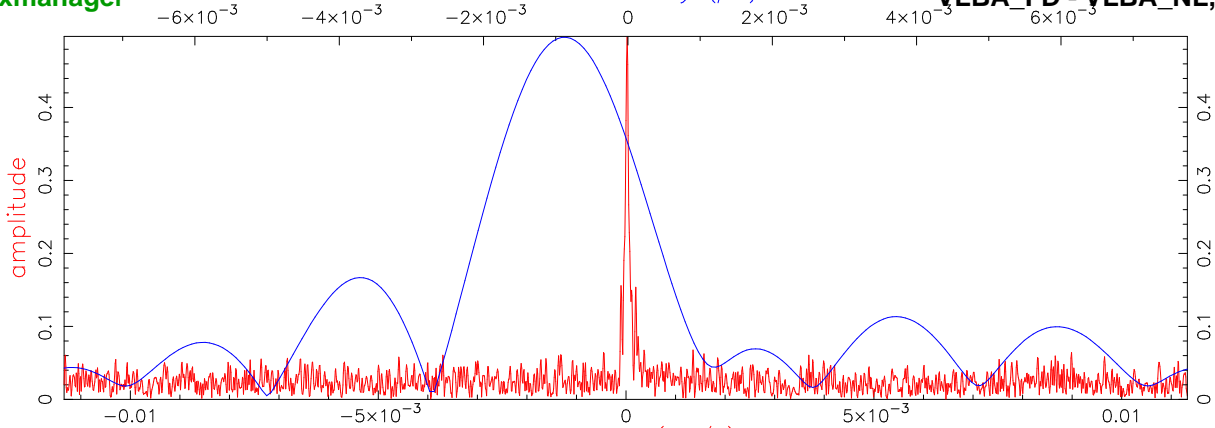
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fn

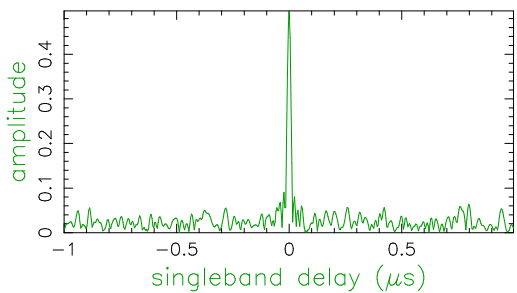
VLBA_FD - VLBA_NL, fgroup W, pol RR

multiband delay (μ s)

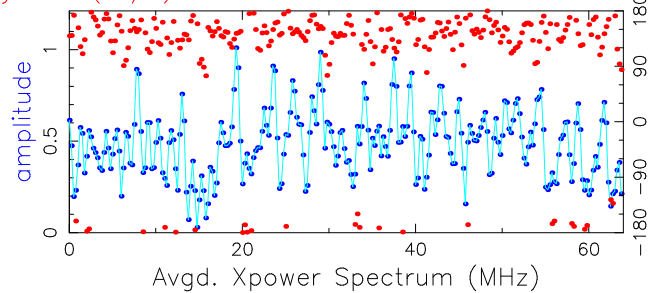


Fringe quality 7

SNR 25.6
 Int time 353.792
 Amp 0.498
 Phase 149.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000614
 MBD -0.000894
 Fringe rate (Hz)
 0.002180
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

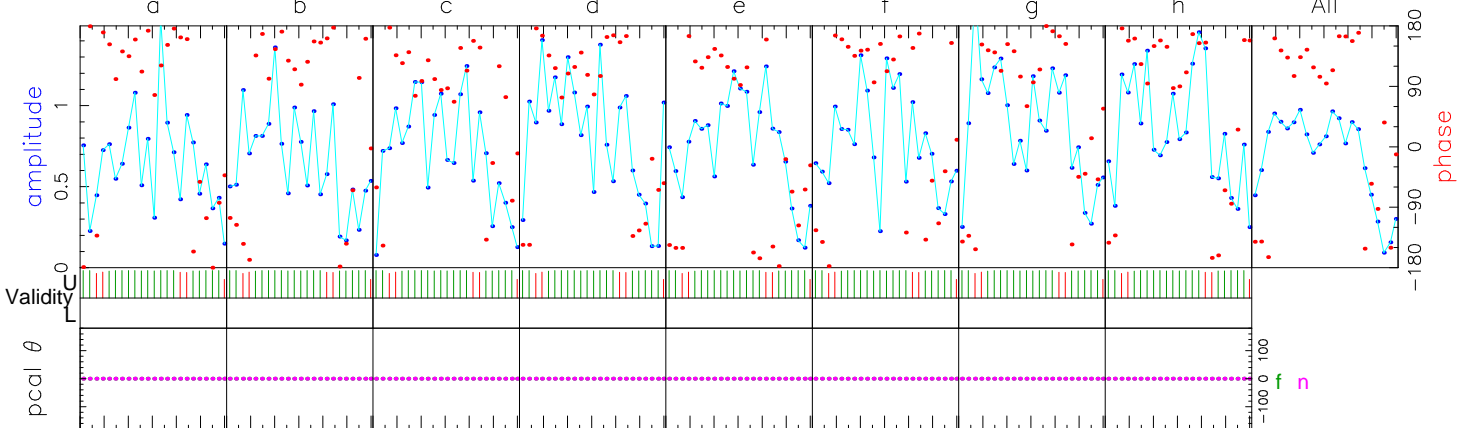


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135435
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.83481180356E+02				-8.83480286368E+02					
Sband delay (usec)	-8.83480900118E+02				4.8111172E+00					
Phase delay (usec)	-8.83480281541E+02				-2.4000000E-07					
Delay rate (us/s)	2.16299532310E-01				2.16299506997E-01					
Total phase (deg)			-162.7		-7.16980737378E-06					
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
ph/seg (deg)	66.1	10.7			0.498 +/- 0.019					
amp/seg (%)	66.1	18.7								
ph/frq (deg)	13.7	6.3			0.682					
amp/frq (%)	8.3	11.1			0.504					
f: az 43.1 el 72.6 pa -126.0										
n: az 76.3 el 87.2 pa -102.2										
u,v (fr/asec)					-1691.888 -1515.260					
Control file: cf_1234_gmva										
Input file: /Exps/c211a/v2/1234/No0245/fn..1W5ADF										
Output file: /Exps/c211a/v2/1234/No0245/fn.W.115.1W5ADF										

simultaneous interpolator

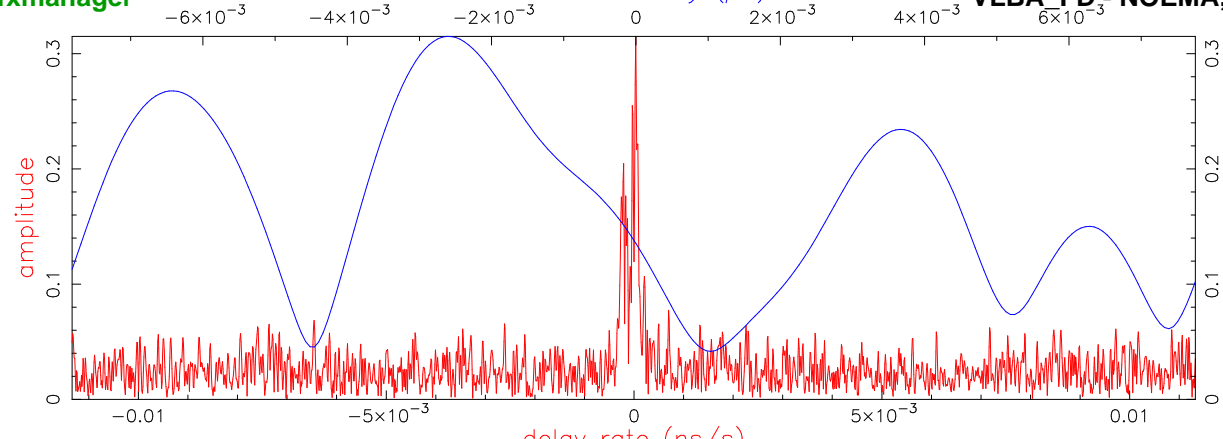
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fN

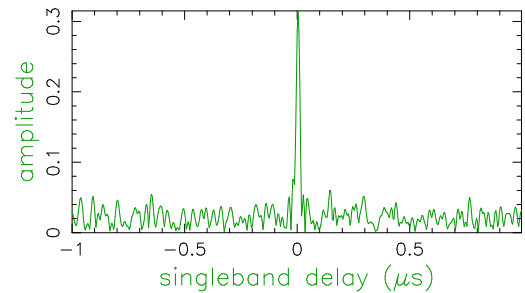
VLBA_FD- NOEMA, fgroup W, pol LR

multiband delay (μ s)

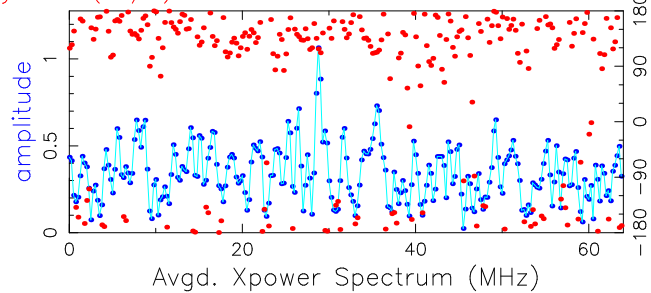


Fringe quality 7

SNR 16.2
 Int time 353.793
 Amp 0.315
 Phase -134.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.003890
 MBD -0.002601
 Fringe rate (Hz)
 0.003004
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

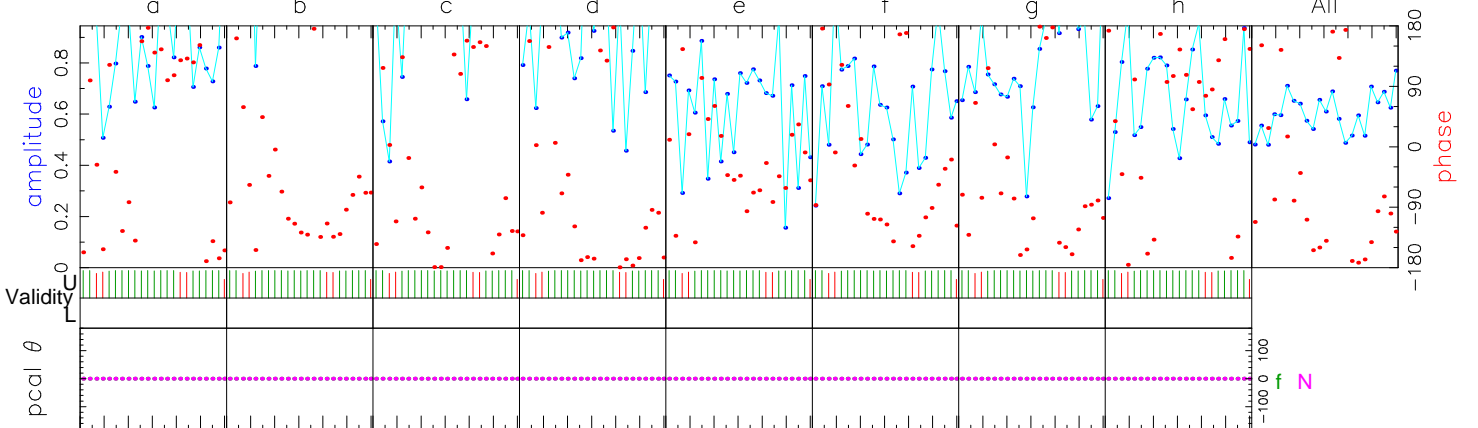


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135437
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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		
	163.4	-93.2	-156.2	-152.4	-30.1	-86.8	-125.3	140.6	Phase	-134.8		
	0.5	0.9	0.7	0.5	0.3	0.2	0.4	0.3	Ampl.	0.5		
	256.0	257.8	258.9	258.6	258.8	258.9	257.9	256.1	Sbd box	258.0		
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
N	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks			
									Tracks			
Group delay (usec)(sbd)	1.12795760311E+04		Apriori delay (usec)		1.12795786318E+04		Resid mbdelay (usec)		-2.60072E-03	+/- 6.7E-05		
Sband delay (usec)	1.12795825216E+04		Apriori clock (usec)		2.3446766E+01		Resid sbdelay (usec)		3.88975E-03	+/- 5.3E-04		
Phase delay (usec)	1.12795786275E+04		Apriori clockrate (us/s)		-9.1940006E-06		Resid phdelay (usec)		-4.34588E-06	+/- 2.3E-07		
Delay rate (us/s)	1.07039068831E+00		Apriori rate (us/s)		1.07039065344E+00		Resid rate (us/s)		3.48702E-08	+/- 1.1E-09		
Total phase (deg)			Apriori accel (us/s/s)		-7.45381819366E-05		Resid phase (deg)		-134.8	+/- 7.1		
	RMS	Theor.	Amplitude	0.315 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	66.8	16.9	Search (2048X32)	0.311		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	94.8	29.5	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	66.9	10.0	Inc. seg. avg.	0.578		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	81.1	17.5	Inc. frq. avg.	0.472		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 43.1 el 72.6 pa -126.0		N: az 304.9 el 26.0 pa 55.2		u,v (fr/asec) -8443.593 -6494.249						simultaneous interpolator		
Control file: cf_1234_gmva		Input file: /Exps/c211a/v2/1234/No0245/fN..1W5ADF		Output file: /Exps/c211a/v2/1234/No0245/fN.W.129.1W5ADF								

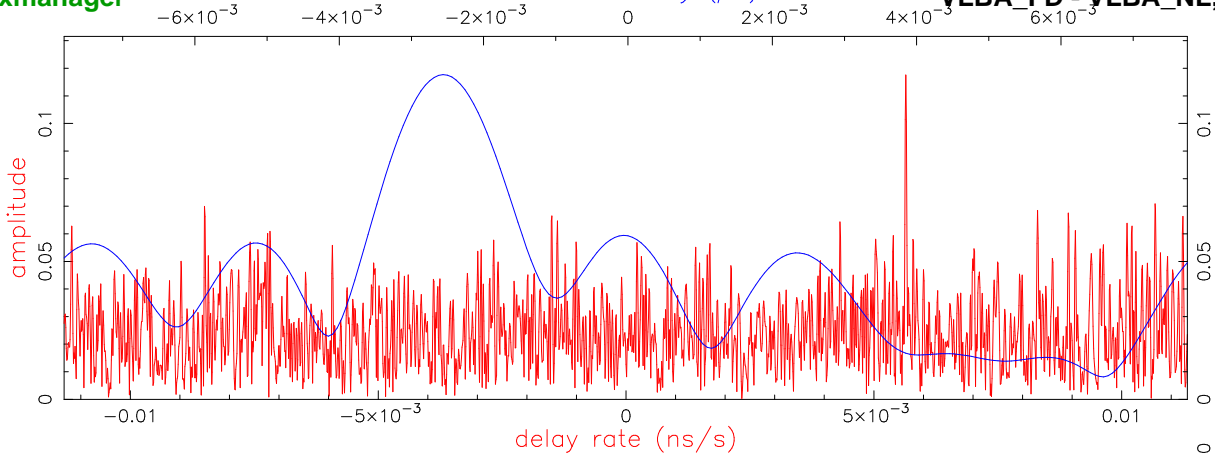
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fn

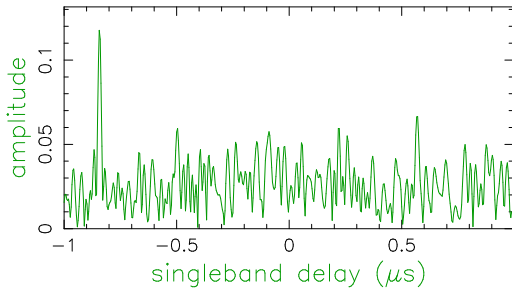
VLBA_FD - VLBA_NL, fgroup W, pol LR

multiband delay (μ s)

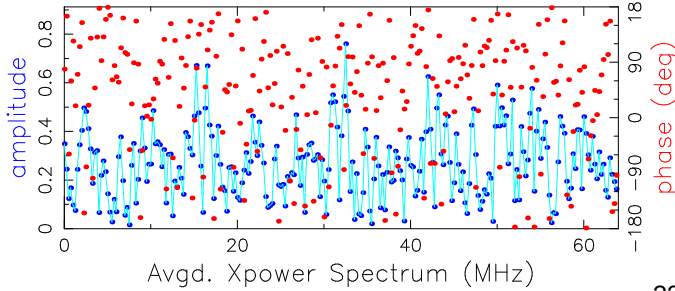


Fringe quality 0

SNR 6.1
 Int time 353.792
 Amp 0.132
 Phase 129.5
 PFD 2.5e-01
 Delays (us)
 SBD -0.842669
 MBD -0.002516
 Fringe rate (Hz)
 0.486943
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

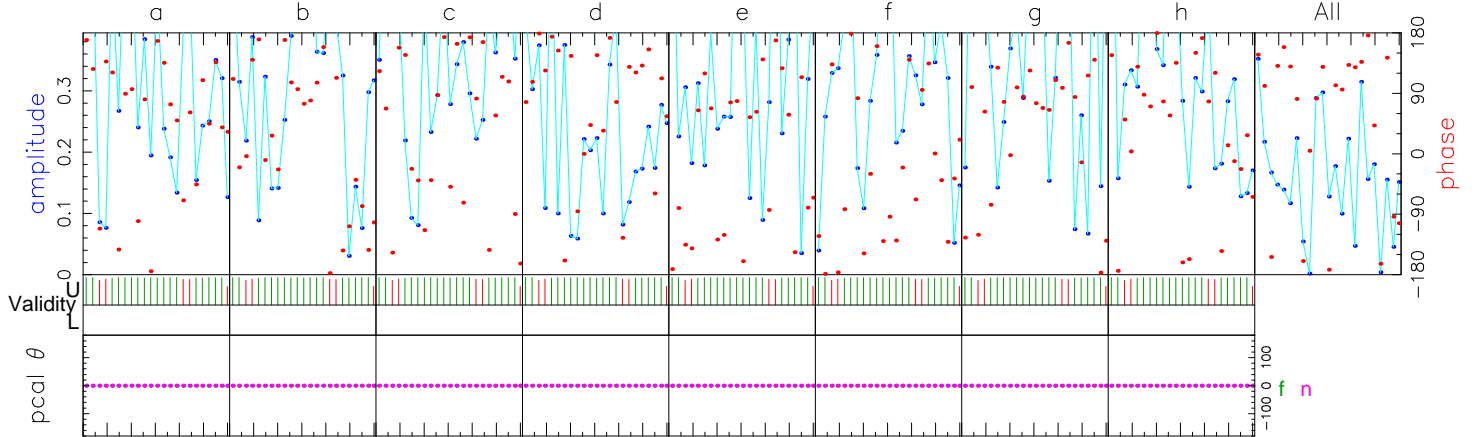


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135439
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.84326552236E+02									
Sband delay (usec)	-8.84322955618E+02									
Phase delay (usec)	-8.83480282193E+02									
Delay rate (us/s)	2.16305159920E-01									
Total phase (deg)			-182.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Chan ids										
Tracks										
Chan ids										
Tracks										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.132 +/- 0.022										
0.113										
0.000										
0.136										
0.141										
PCal mode: MANUAL, MANUAL										
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										
f: az 43.1 el 72.6 pa -126.0										
n: az 76.3 el 87.2 pa -102.2										
u,v (fr/asec) -1691.888 -1515.260										
simultaneous interpolator										

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fn..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fn.W.138.1W5ADF

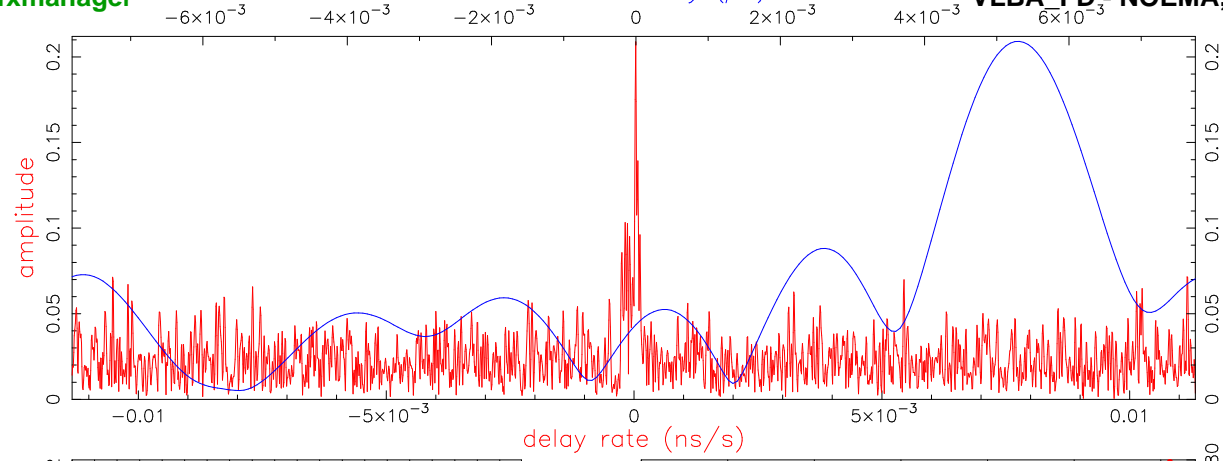
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

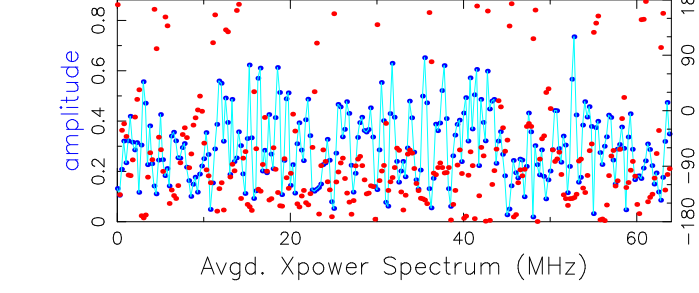
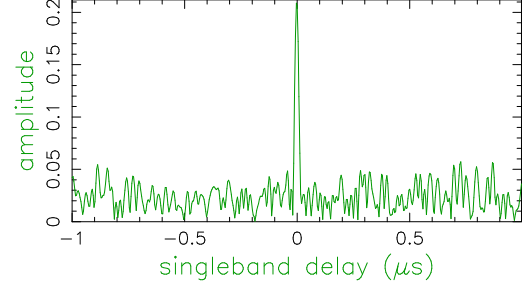
BLLAC.1W5ADF, No0245, fN

VLBA_FD- NOEMA, fgroup W, pol RL

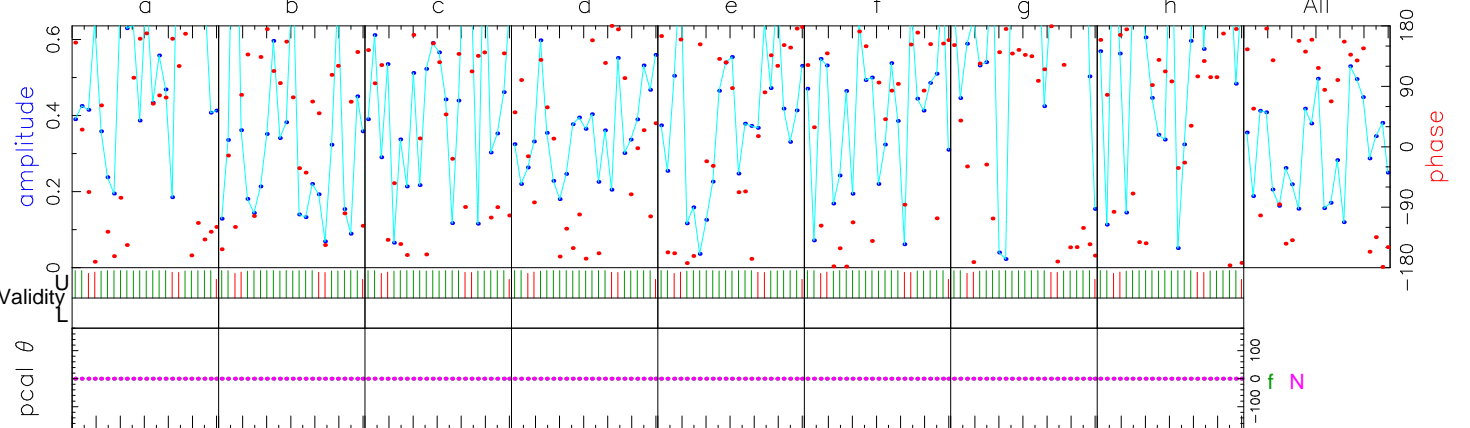
multiband delay (μ s)



Fringe quality 9
 SNR 10.9
 Int time 353.793
 Amp 0.212
 Phase 157.9
 PFD 5.1e-19
 Delays (us)
 SBD -0.002265
 MBD 0.005348
 Fringe rate (Hz) 0.002544
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135441
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
N	1000	1000	1000	1000	1000	1000	1000	1000			
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
f	1000	1000	1000	1000	1000	1000	1000	1000			
N	1000	1000	1000	1000	1000	1000	1000	1000			
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		1.12795839796E+04			1.12795786318E+04				5.34778E-03	+/- 1.0E-04	
Sband delay (usec)		1.12795763668E+04			2.3446766E+01				-2.26500E-03	+/- 7.9E-04	
Phase delay (usec)		1.12795786369E+04			-9.1940006E-06				5.09287E-06	+/- 3.4E-07	
Delay rate (us/s)		1.07039068297E+00			1.07039065344E+00				2.95284E-08	+/- 1.6E-09	
Total phase (deg)			282.1						157.9	+/- 10.5	
			Apriori delay (usec)								
			Apriori clock (usec)								
			Apriori clockrate (us/s)								
			Apriori rate (us/s)								
			Apriori accel (us/s/s)								
ph/seg (deg)	RMS 56.3	Theor. 25.1	Amplitude Search (2048X32)	0.212 +/- 0.019	0.204	0.000	0.282	0.207	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	74.1	43.8	Interp.	0.000	0.000	0.000	0.000	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	15.7	14.9	Inc. seg. avg.	0.282	0.282	0.282	0.282	0.282	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	40.7	25.9	Inc. frq. avg.	0.207	0.207	0.207	0.207	0.207	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048		ion window (TEC) 0.00 0.00
									nlags: 256	t_cohere infinite	
f: az 43.1 el 72.6 pa -126.0			N: az 304.9 el 26.0 pa 55.2								simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c211a/v2/1234/No0245/fN..1W5ADF								Output file: /Exps/c211a/v2/1234/No0245/fN.W.148.1W5ADF

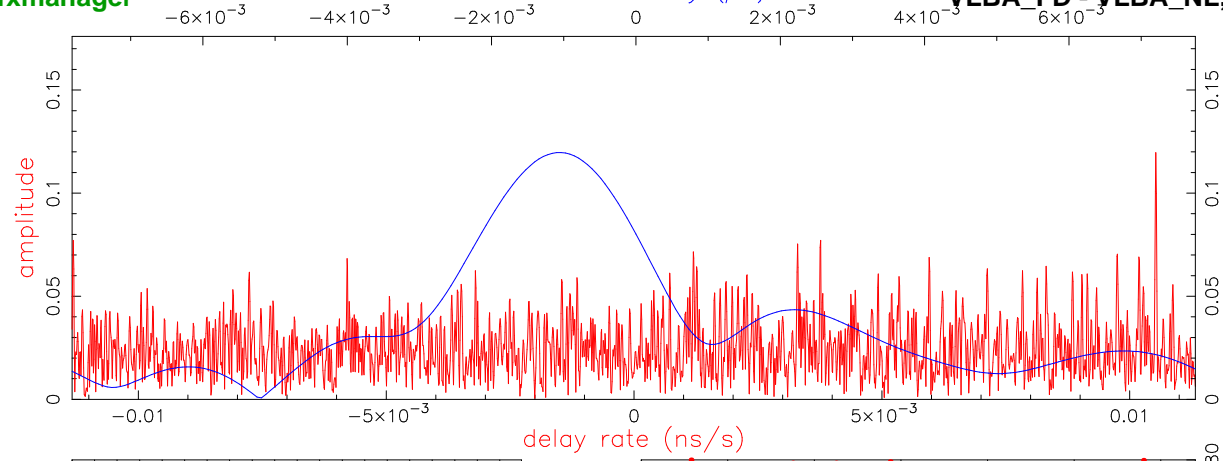
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fn

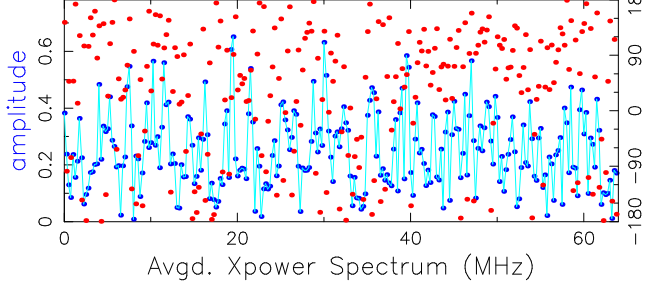
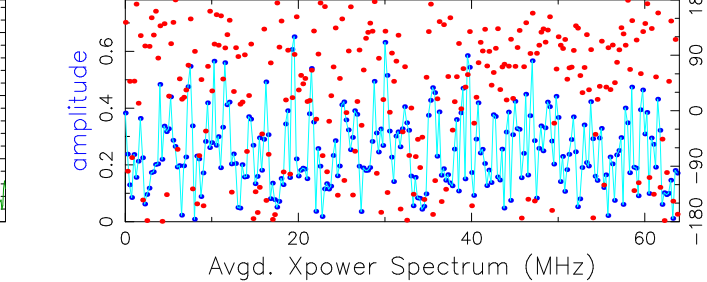
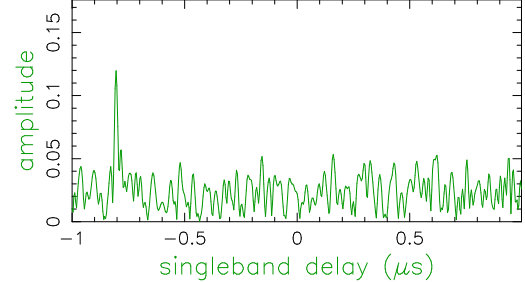
VLBA_FD - VLBA_NL, fgroup W, pol RL

multiband delay (μ s)



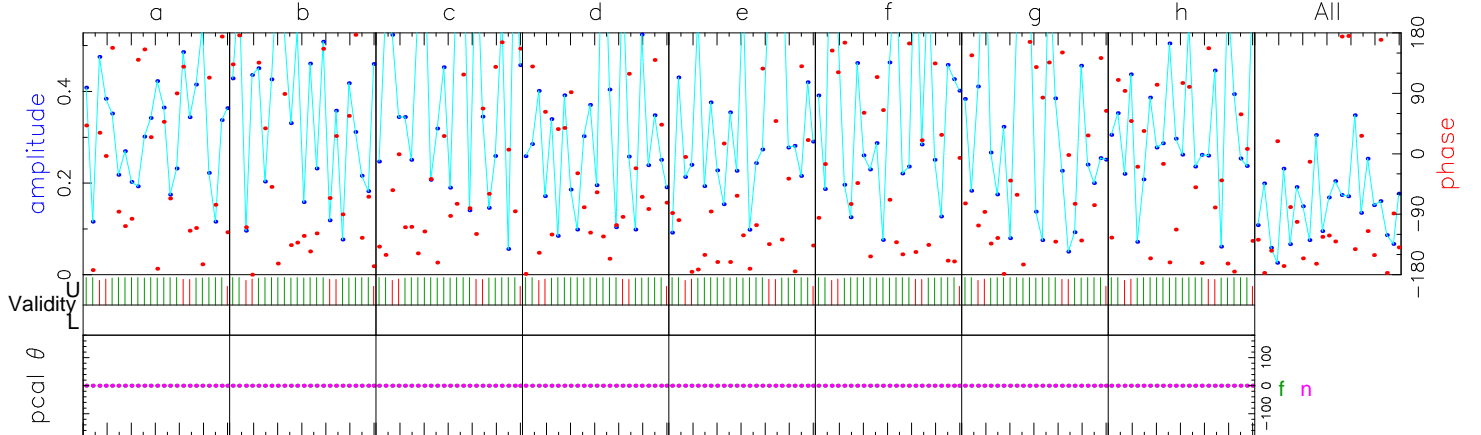
Fringe quality 0

SNR 6.2
 Int time 353.792
 Amp 0.176
 Phase -146.0
 PFD 1.8e-01
 Delays (us)
 SBD -0.804536
 MBD -0.001055
 Fringe rate (Hz)
 0.908603
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135442
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl 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	
									Tracks	
Group delay (usec)(sbd)	-8.84278216100E+02								Resid mbdelay (usec)	-1.05473E-03 +/- 1.8E-04
Sband delay (usec)	-8.84284822118E+02								Resid sbdelay (usec)	-8.04536E-01 +/- 1.4E-03
Phase delay (usec)	-8.83480291074E+02								Resid phdelay (usec)	-4.70654E-06 +/- 6.0E-07
Delay rate (us/s)	2.16310054973E-01								Resid rate (us/s)	1.05480E-05 +/- 2.9E-09
Total phase (deg)		-98.3							Resid phase (deg)	-146.0 +/- 18.6
	RMS	Theor.	Amplitude	0.176 +/- 0.029					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	64.0	44.5	Search (2048X32)	0.117					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	72.1	77.6	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	30.2	26.3	Inc. seg. avg.	0.177					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	34.4	45.9	Inc. frq. avg.	0.174					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 43.1 el 72.6 pa -126.0			n: az 76.3 el 87.2 pa -102.2						u,v (fr/asec) -1691.888 -1515.260	simultaneous interpolator

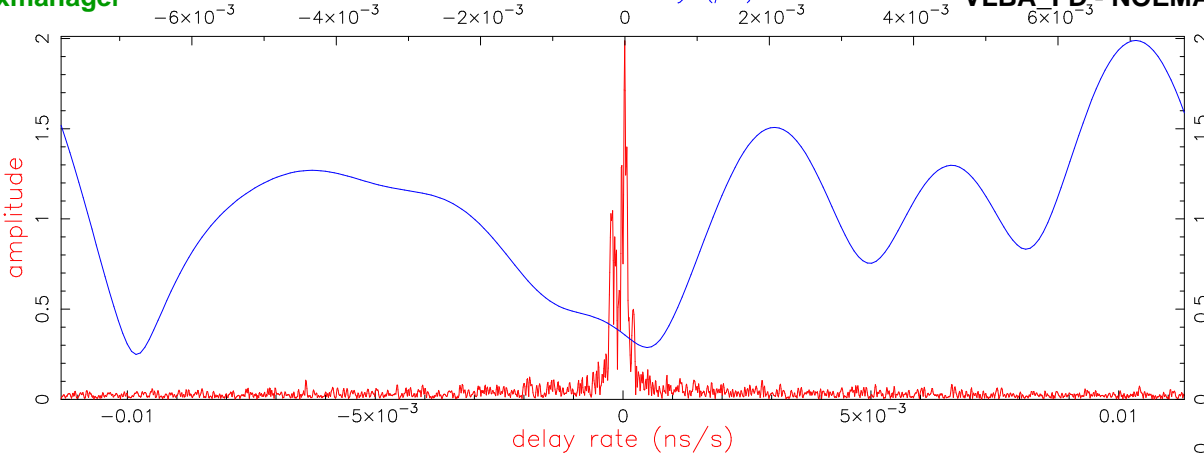
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fN

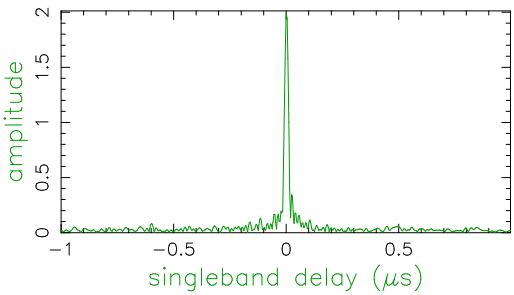
VLBA_FD- NOEMA, fgroup W, pol LL

multiband delay (μ s)

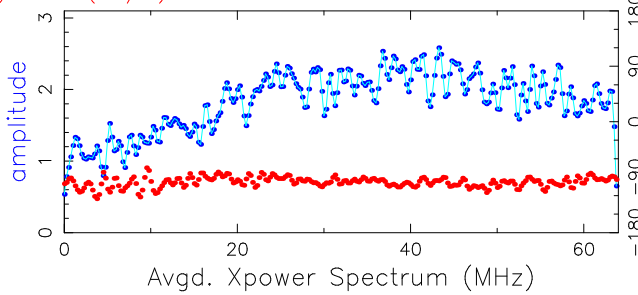


Fringe quality 1

SNR 103.5
 Int time 353.793
 Amp 2.012
 Phase -161.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.001457
 MBD 0.007116
 Fringe rate (Hz)
 0.002858
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

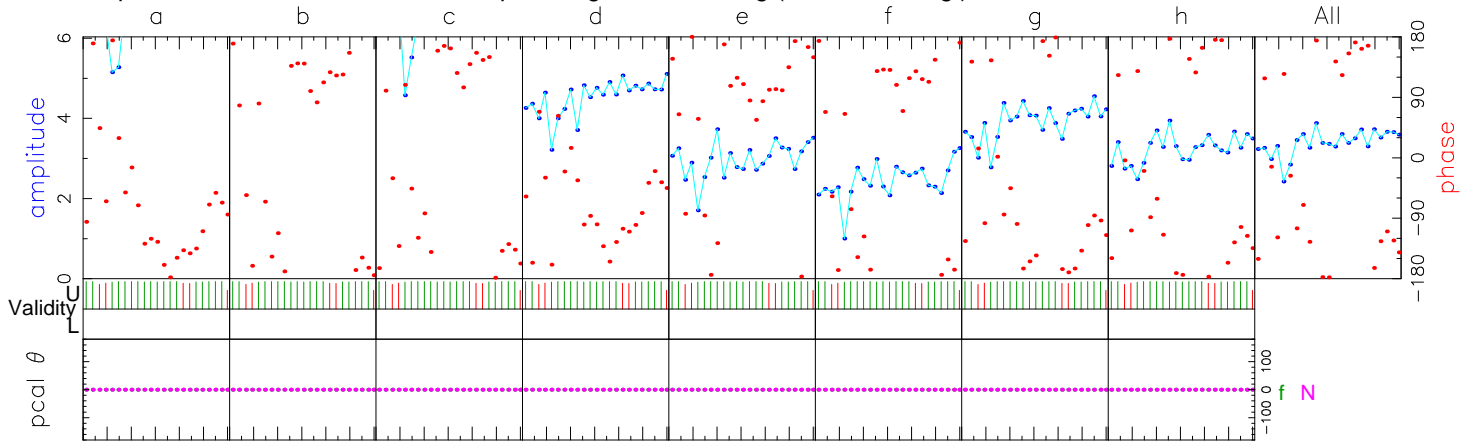


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135430
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-107.0	157.2	-177.1	-75.5	133.2	154.6	-135.4	-155.0	Phase	-161.6
	4.0	5.3	3.9	2.5	1.7	1.4	2.3	1.8	Ampl.	2.9
	255.7	257.1	258.0	258.0	258.1	258.1	257.2	255.7	Sbd box	257.4
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.12795857473E+04	Apriori delay (usec)	1.12795786318E+04	Resid mbdelay (usec)	7.11550E-03	+/-	1.0E-05
Sband delay (usec)	1.12795800886E+04	Apriori clock (usec)	2.3446766E+01	Resid sbdelay (usec)	1.45675E-03	+/-	8.3E-05
Phase delay (usec)	1.12795786266E+04	Apriori clockrate (us/s)	-9.1940006E-06	Resid phdelay (usec)	-5.21089E-06	+/-	3.6E-08
Delay rate (us/s)	1.07039068662E+00	Apriori rate (us/s)	1.07039065344E+00	Resid rate (us/s)	3.31740E-08	+/-	1.7E-10
Total phase (deg)	-37.4	Apriori accel (us/s/s)	-7.45381819366E-05	Resid phase (deg)	-161.6	+/-	1.1

ph/seg (deg)	61.8	RMS	2.6	Theor.	2.012 +/- 0.019	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	70.3	Search (2048X32)	1.935	Amplitude		PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	56.6	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	76.8	Inc. seg. avg.	3.388	Inc. seg. avg.		Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	2.883	Inc. frq. avg.		Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

f: az 43.1 el 72.6 pa -126.0 N: az 304.9 el 26.0 pa 55.2 u,v (fr/asec) -8443.593 -6494.249 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fN..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fN.W.89.1W5ADF

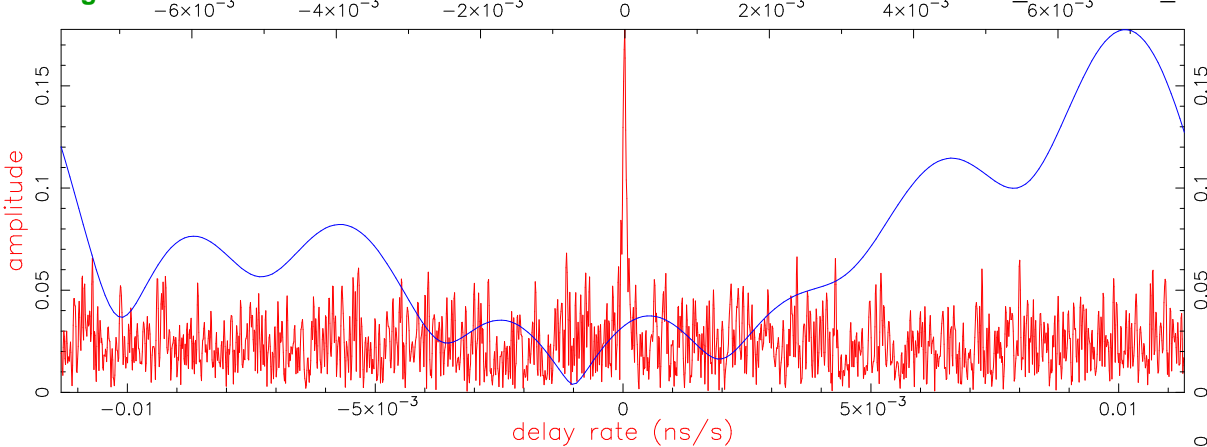
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fn

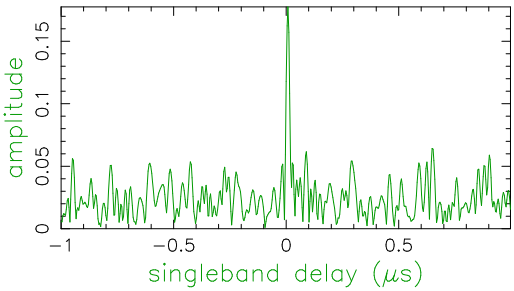
VLBA_FD - VLBA_NL, fgroup W, pol LL

multiband delay (μ s)

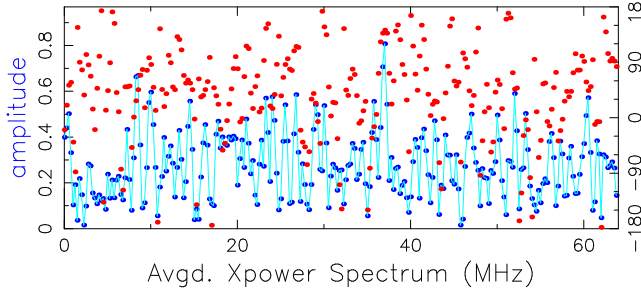


Fringe quality 9

SNR 9.1
 Int time 353.792
 Amp 0.178
 Phase 61.4
 PFD 2.5e-11
 Delays (us)
 SBD 0.007526
 MBD 0.006926
 Fringe rate (Hz) 0.002545
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

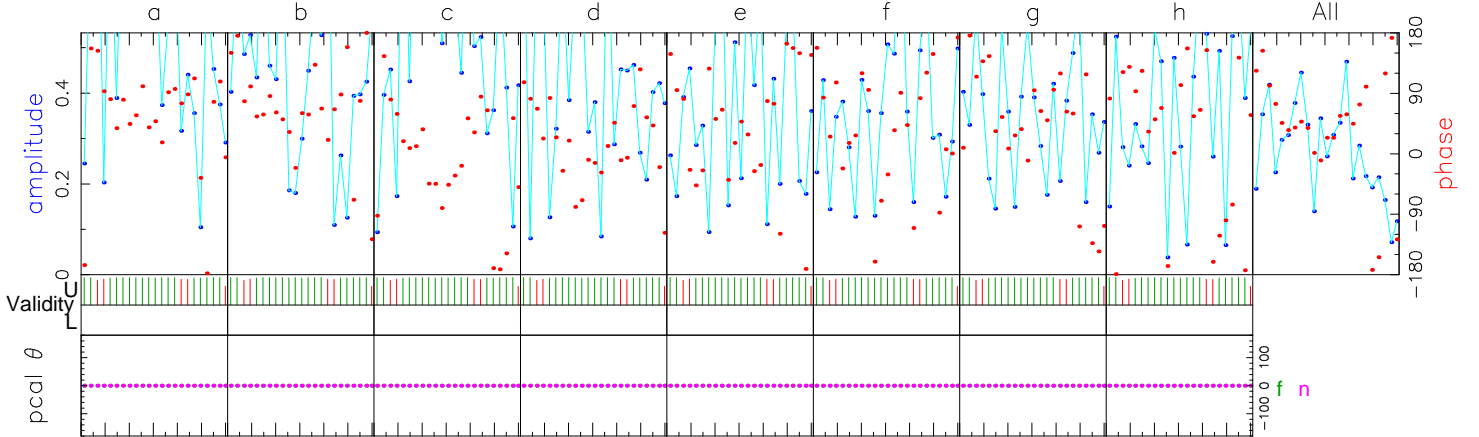


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135431
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
f:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fn	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) -8.83473360085E+02 Apriori delay (usec) -8.83480286368E+02 Resid mbdelay (usec) 6.92628E-03 +/- 1.2E-04
 Sband delay (usec) -8.83472760618E+02 Apriori clock (usec) 4.8111172E+00 Resid sbdelay (usec) 7.52575E-03 +/- 9.4E-04
 Phase delay (usec) -8.83480284388E+02 Apriori clockrate (us/s) -2.4000000E-07 Resid phdelay (usec) 1.97999E-06 +/- 4.0E-07
 Delay rate (us/s) 2.16299536540E-01 Apriori rate (us/s) 2.16299506997E-01 Resid rate (us/s) 2.95426E-08 +/- 2.0E-09
 Total phase (deg) -251.0 Apriori accel (us/s/s) -7.16980737378E-06 Resid phase (deg) 61.4 +/- 12.5

RMS Theor. Amplitude 0.178 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 67.4 30.0 Search (2048X32) 0.175 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 79.3 52.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 38.8 17.7 Inc. seg. avg. 0.242 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 53.1 31.0 Inc. frq. avg. 0.205 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

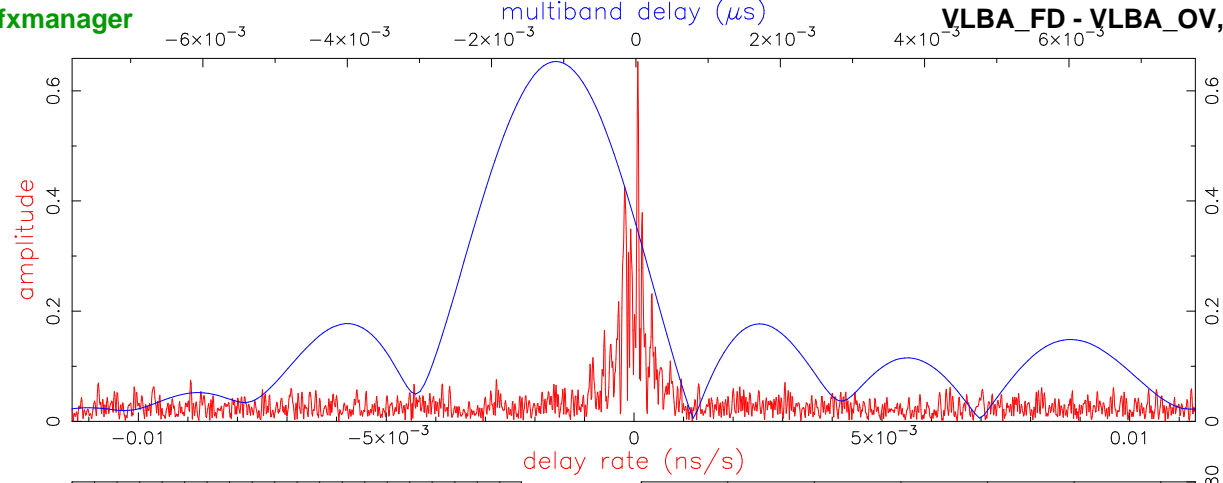
f: az 43.1 el 72.6 pa -126.0 n: az 76.3 el 87.2 pa -102.2 u,v (fr/asec) -1691.888 -1515.260 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fn..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fn.W.96.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fo

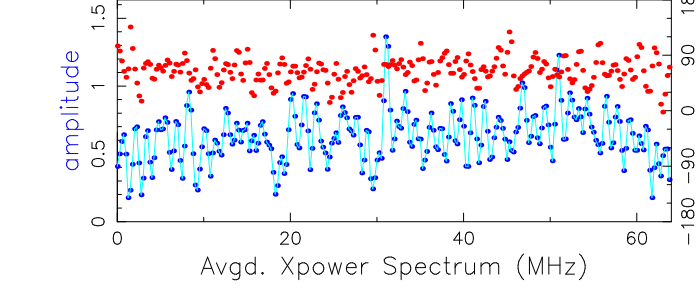
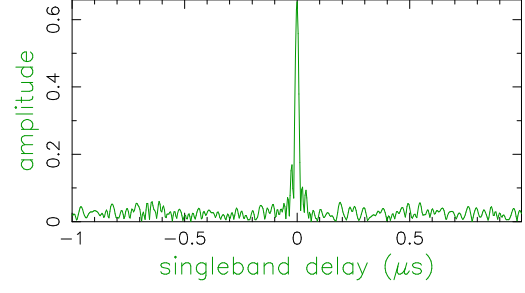
VLBA_FD - VLBA_OV, fgroup W, pol RR



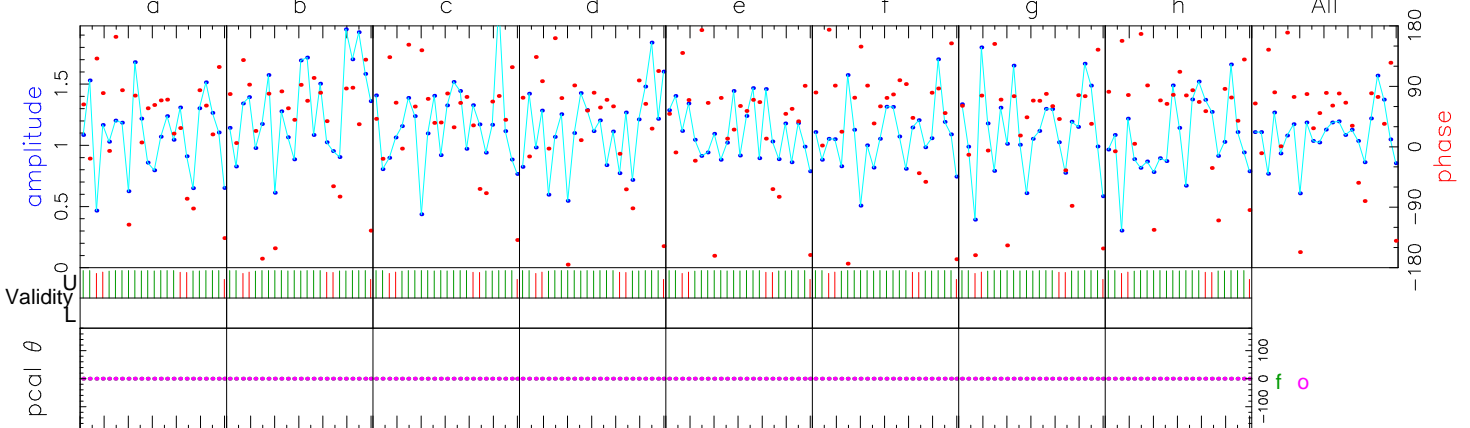
Fringe quality 6

SNR 33.9
 Int time 353.720
 Amp 0.659
 Phase 64.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001190
 MBD -0.001141
 Fringe rate (Hz) 0.006572
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135434
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		7.96470275747E+02			7.96471416942E+02					
Sband delay (usec)		7.96470227192E+02			6.5688953E+00					
Phase delay (usec)		7.96471419005E+02			-3.0000002E-07					
Delay rate (us/s)		-1.92053552348E-01			-1.92053628638E-01					
Total phase (deg)			11.9		-1.14524820087E-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)									64.0	+/- 3.4
Pcal mode:										
Pcal rate:										
Bits/sample:										
Sample rate (MSamp/s):										
Data rate (Mb/s):										
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) 68.4 8.1 Search (2048X32) 0.645 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.0 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) 12.7 4.8 Inc. seg. avg. 1.080 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 10.2 8.3 Inc. frq. avg. 0.663 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 43.1 el 72.6 pa -126.0 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 1465.284 -1464.322 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/c211a/v2/1234/No0245/fo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fo.W.113.1W5ADF simultaneous interpolator

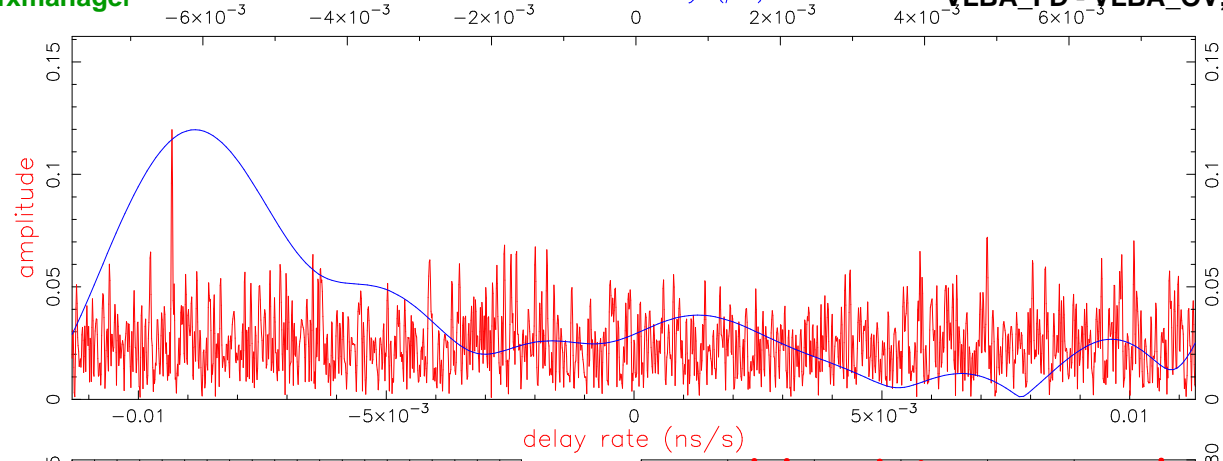
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

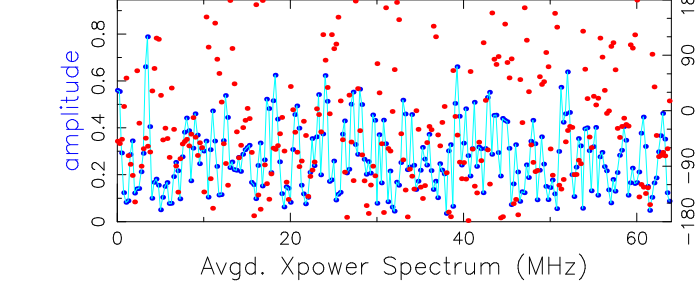
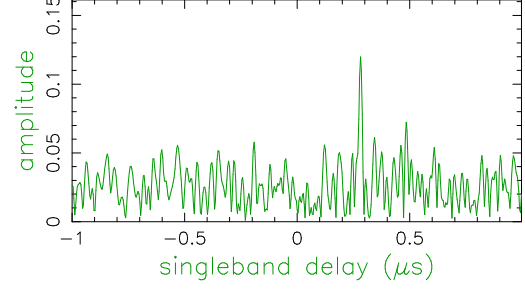
BLLAC.1W5ADF, No0245, fo

VLBA_FD - VLBA_OV, fgroup W, pol LR

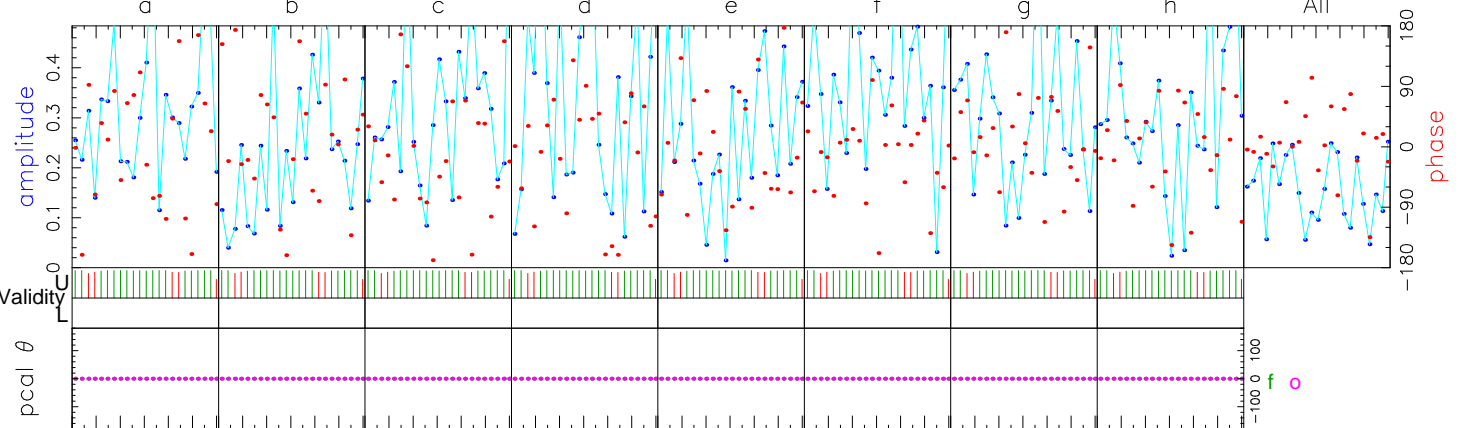
multiband delay (μ s)



Fringe quality 0
 SNR 6.2
 Int time 353.719
 Amp 0.161
 Phase 6.9
 PFD 1.6e-01
 Delays (us)
 SBD 0.281698
 MBD -0.006096
 Fringe rate (Hz)
 -0.803817
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135438
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	26.9	40.6	-29.2	13.4	-28.7	-3.3	14.1	19.9		
Sband delay (usec)	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.2		
Phase delay (usec)	497.5	101.2	100.4	451.0	64.1	328.8	505.9	422.2		
Delay rate (us/s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total phase (deg)			314.9							
Apriori delay (usec)					7.96471416942E+02					
Apriori clock (usec)					6.5688953E+00					
Apriori clockrate (us/s)					-3.0000002E-07					
Apriori rate (us/s)					-1.92053628638E-01					
Apriori accel (us/s/s)					-1.14524820087E-05					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										

ph/seg (deg) 50.0 44.4 Search (2048X32) 0.119 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.3 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) 27.3 26.3 Inc. seg. avg. 0.163 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 47.8 45.8 Inc. frq. avg. 0.155 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 43.1 el 72.6 pa -126.0 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 1465.284 -1464.322 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fo.W.133.1W5ADF simultaneous interpolator

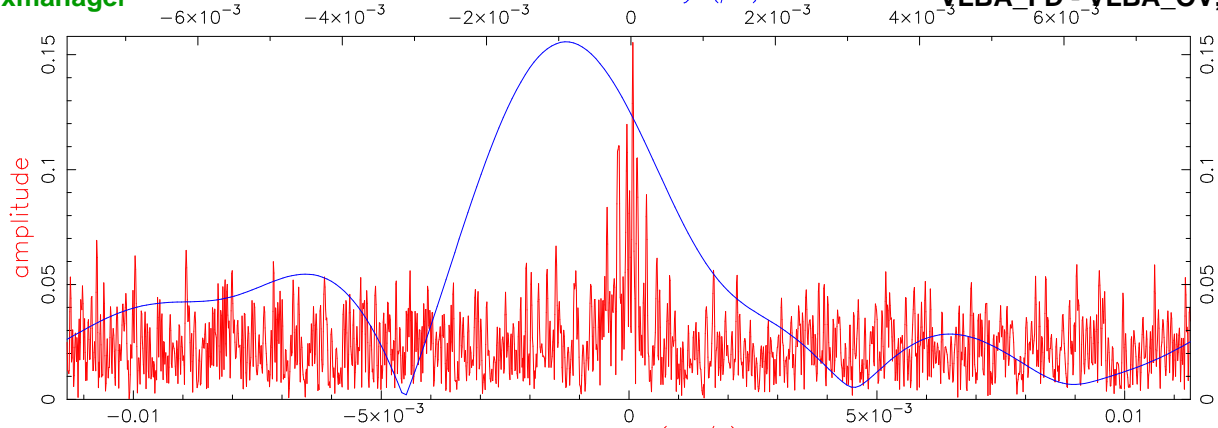
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fo

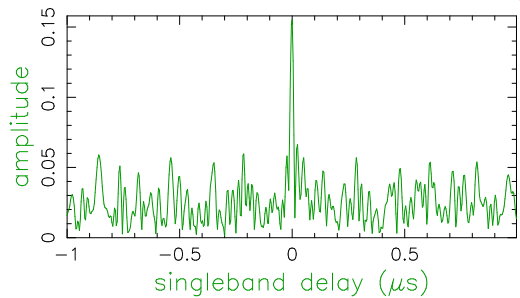
VLBA_FD - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



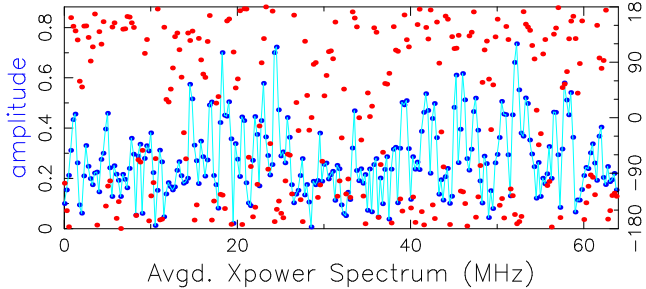
Fringe quality 9

SNR 8.1
 Int time 353.720
 Amp 0.158
 Phase 165.8
 PFD 1.5e-07
 Delays (us)
 SBD -0.001560
 MBD -0.000986
 Fringe rate (Hz)
 0.006758
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



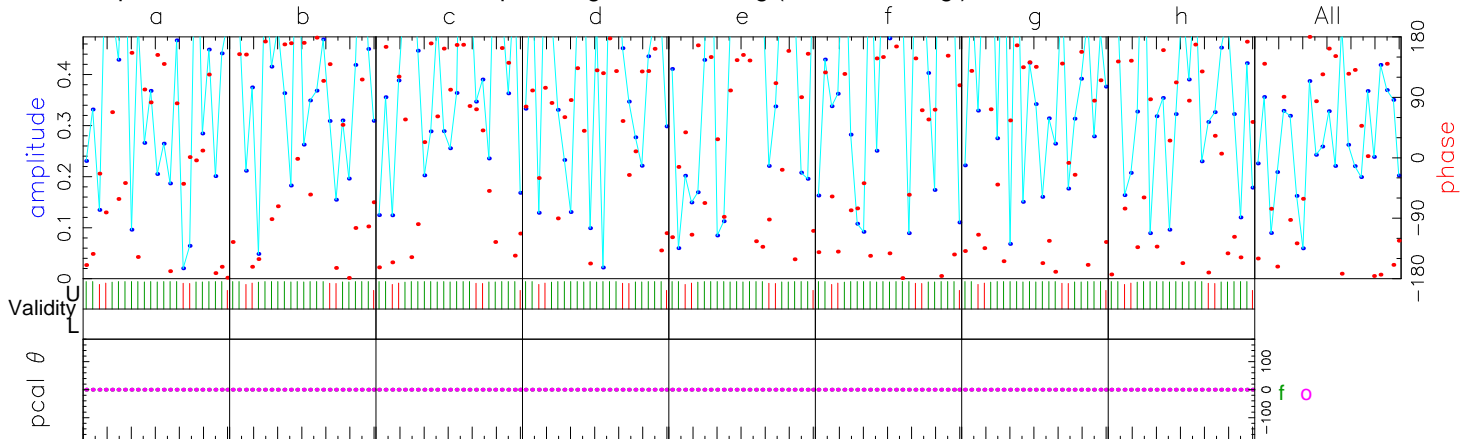
singleband delay (μ s)

delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135441
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

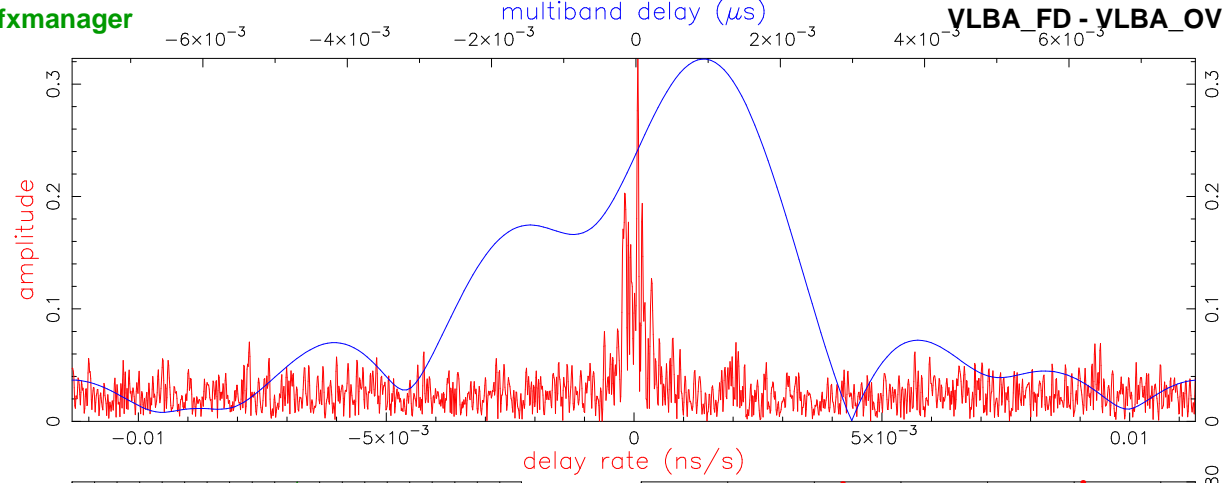
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-178.7	-164.6	158.4	113.6	179.7	167.8	168.3	-175.1	Phase	165.8
	0.0	0.1	0.2	0.2	0.2	0.3	0.2	0.1	Ampl.	0.2
	337.7	118.7	256.9	256.3	256.2	257.2	256.9	255.6	Sbd box	256.6
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.96470430560E+02		Apriori delay (usec)		7.96471416942E+02		Resid mbdelay (usec)		-9.86383E-04	+/- 1.3E-04
Sband delay (usec)	7.96469857192E+02		Apriori clock (usec)		6.5688953E+00		Resid sbdelay (usec)		-1.55975E-03	+/- 1.1E-03
Phase delay (usec)	7.96471422288E+02		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		5.34619E-06	+/- 4.5E-07
Delay rate (us/s)	-1.92053550187E-01		Apriori rate (us/s)		-1.92053628638E-01		Resid rate (us/s)		7.84508E-08	+/- 2.2E-09
Total phase (deg)	113.7		Apriori accel (us/s/s)		-1.14524820087E-05		Resid phase (deg)		165.8	+/- 14.1

	RMS	Theor.	Amplitude	0.158 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
ph/seg (deg)	70.8	33.7	Search (2048X32)	0.155	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
amp/seg (%)	99.2	58.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
ph/frq (deg)	27.3	19.9	Inc. seg. avg.	0.236	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011
amp/frq (%)	44.4	34.8	Inc. frq. avg.	0.160	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
f: az 43.1 el 72.6 pa -126.0	o: az 68.0 el 66.2 pa -91.8		u,v (fr/asec) 1465.284 -1464.322				ion window (TEC) 0.00 0.00

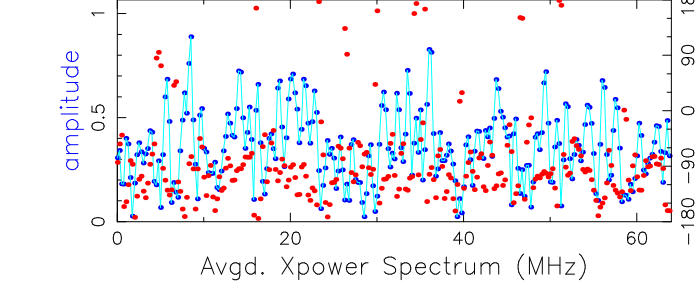
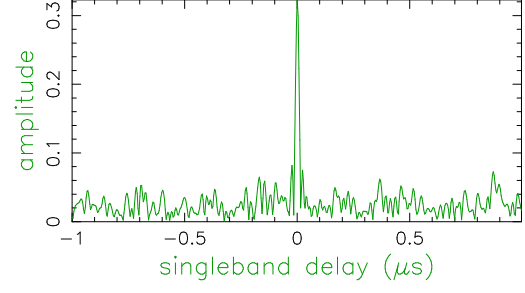
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fo.W.152.1W5ADF simultaneous interpolator



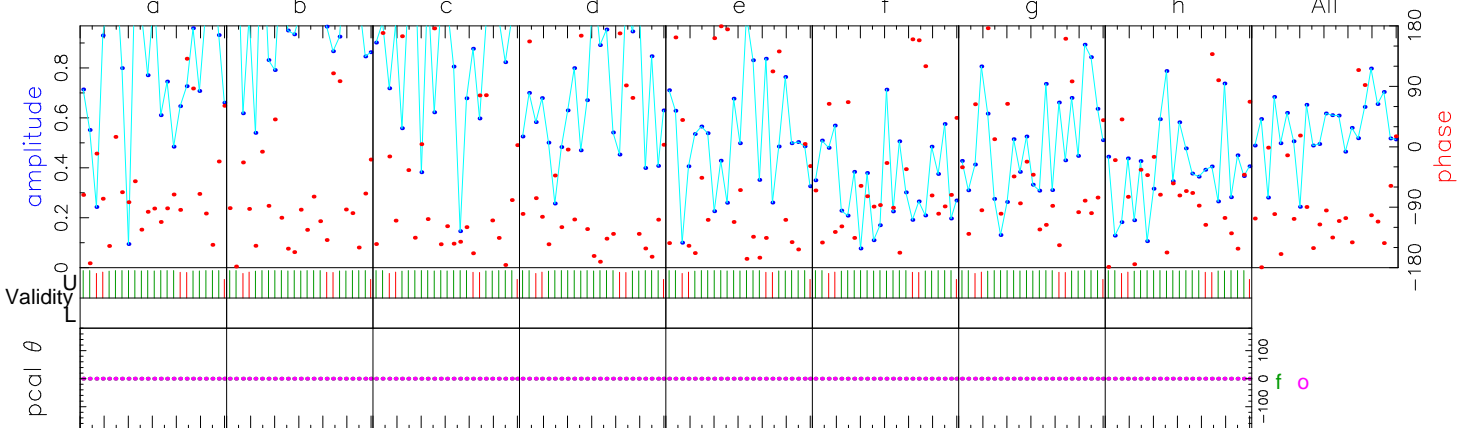
Fringe quality 7

SNR 16.6
Int time 353.719
Amp 0.323
Phase -112.9
PFD 0.0e+00
Delays (us)
SBD 0.000517
MBD 0.000950
Fringe rate (Hz) 0.006628
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135431
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-87.8	-106.6	-128.0	-143.5	-141.5	-94.9	-88.7	-92.7	Phase	-112.9
	0.4	0.6	0.5	0.4	0.3	0.2	0.2	0.2	Ampl.	0.3
	257.8	257.0	256.8	256.8	257.2	167.6	257.1	257.0	Sbd box	257.1
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	7.96472366935E+02		Apriori delay (usec)		7.96471416942E+02		Resid mbdelay (usec)		9.49992E-04	+/- 6.5E-05
Sband delay (usec)	7.96471933692E+02		Apriori clock (usec)		6.5688953E+00		Resid sbdelay (usec)		5.16750E-04	+/- 5.2E-04
Phase delay (usec)	7.96471413300E+02		Apriori clockrate (us/s)		-3.0000002E-07		Resid phdelay (usec)		-3.64184E-06	+/- 2.2E-07
Delay rate (us/s)	-1.92053551689E-01		Apriori rate (us/s)		-1.92053628638E-01		Resid rate (us/s)		7.69487E-08	+/- 1.1E-09
Total phase (deg)	195.0		Apriori accel (us/s/s)		-1.14524820087E-05		Resid phase (deg)		-112.9	+/- 6.9

ph/seg (deg) 68.2 16.5 Amplitude 0.323 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 81.7 28.8 Search (2048X32) 0.321 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 25.7 9.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 42.2 17.0 Inc. seg. avg. 0.534 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
f: az 43.1 el 72.6 pa -126.0 o: az 68.0 el 66.2 pa -91.8 u,v (fr/asec) 1465.284 -1464.322 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fo..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fo.W.93.1W5ADF simultaneous interpolator

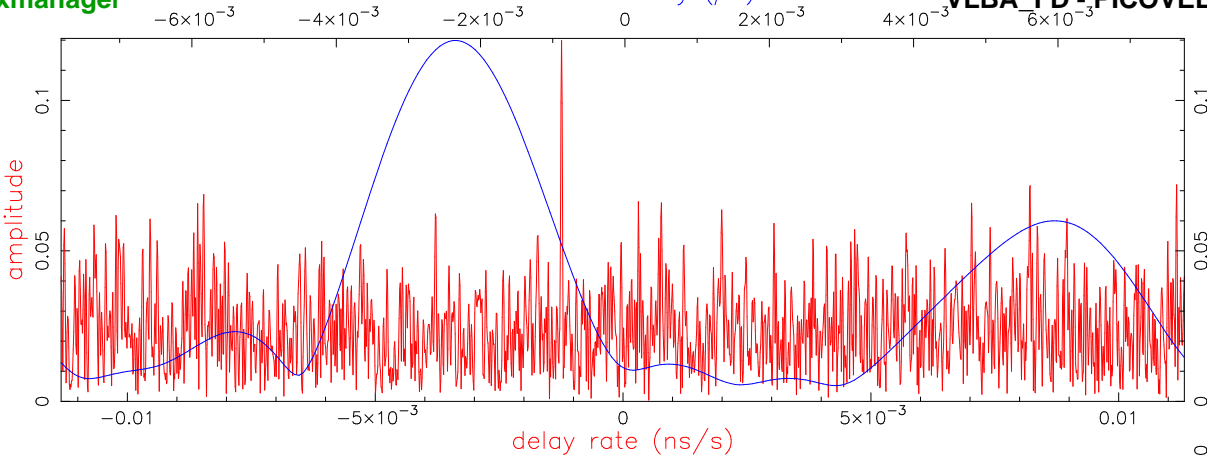
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fP

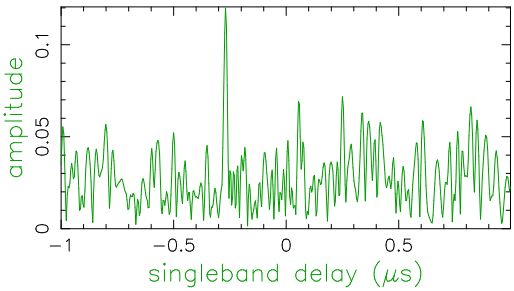
VLBA_FD - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

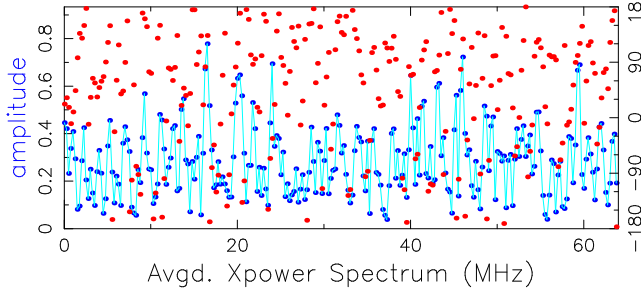


Fringe quality 0

SNR 6.2
Int time 353.793
Amp 0.121
Phase -93.9
PFD 1.6e-01
Delays (us)
SBD -0.269203
MBD -0.002335
Fringe rate (Hz)
-0.107182
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

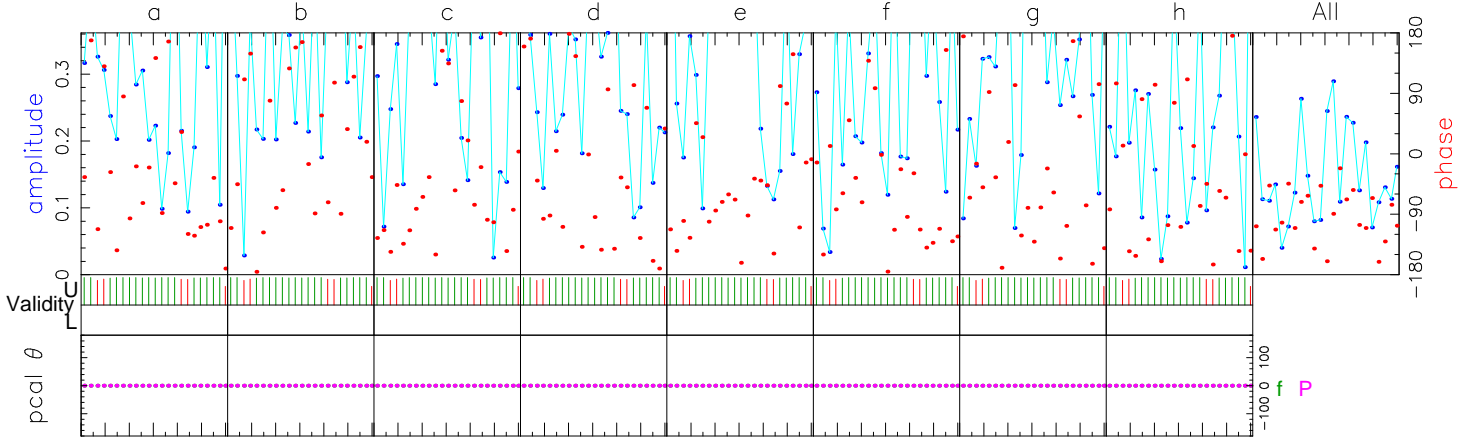


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135432
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-90.3	-104.4	-87.5	-142.8	-82.0	-96.4	-85.9	-111.6	Phase	-93.9
	0.1	0.0	0.2	0.1	0.2	0.1	0.2	0.1	Ampl.	0.1
	357.7	443.0	187.8	384.9	188.2	497.4	186.7	42.2	Sbd box	188.1
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	1.07724995447E+04	Apriori delay (usec)	1.07727675052E+04	Resid mbdelay (usec)	-2.33541E-03	+/-	1.8E-04
Sband delay (usec)	1.07724983024E+04	Apriori clock (usec)	1.1197428E+01	Resid sbdelay (usec)	-2.69203E-01	+/-	1.4E-03
Phase delay (usec)	1.07727675021E+04	Apriori clockrate (us/s)	6.6000000E-07	Resid phdelay (usec)	-3.02724E-06	+/-	6.0E-07
Delay rate (us/s)	1.16928328575E+00	Apriori rate (us/s)	1.16928453003E+00	Resid rate (us/s)	-1.24428E-06	+/-	2.9E-09
Total phase (deg)	228.1	Apriori accel (us/s/s)	-6.43137027610E-05	Resid phase (deg)	-93.9	+/-	18.6

ph/seg (deg)	RMS 39.1	Theor. 44.4	Amplitude Search (2048X32)	0.121 +/- 0.020	0.114	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	62.4	77.4	Interp.	0.000	0.114	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	22.7	26.3	Inc. seg. avg.	0.115	0.114	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	51.4	45.8	Inc. frq. avg.	0.114	0.114	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

f: az 43.1 el 72.6 pa -126.0 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -9189.117 -5097.955 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fP.W.102.1W5ADF

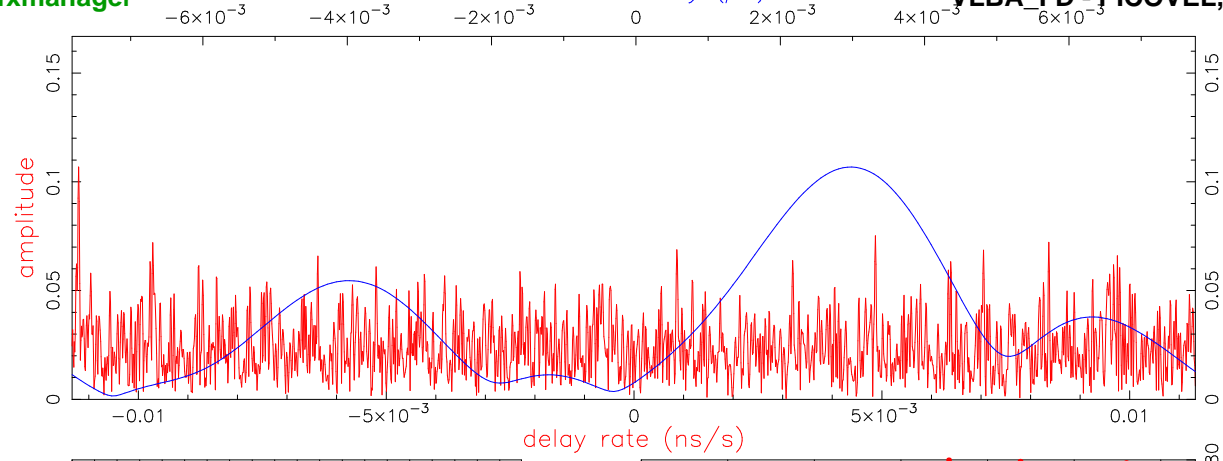
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

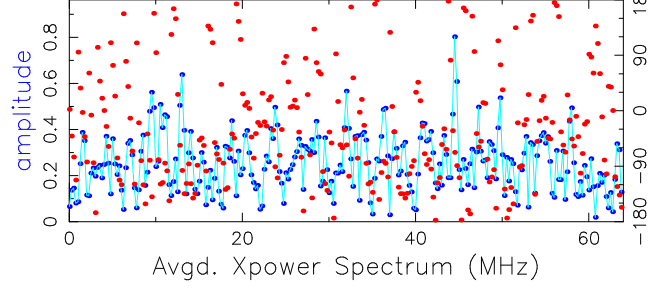
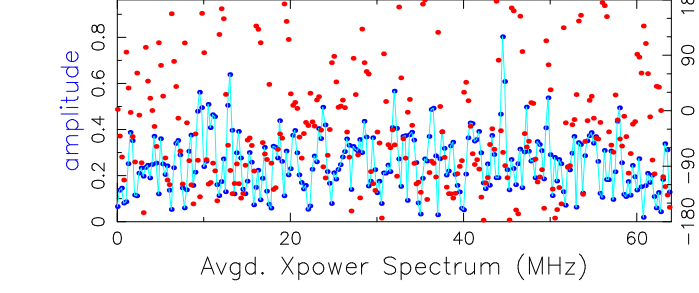
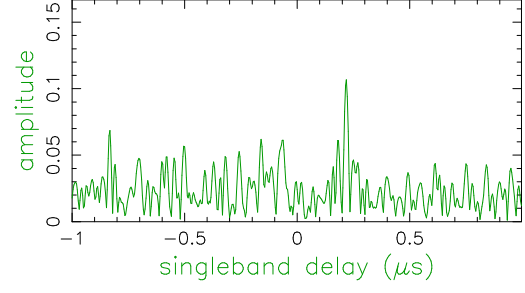
BLLAC.1W5ADF, No0245, fP

VLBA_FD - PICOVEL, fgroup W, pol RR

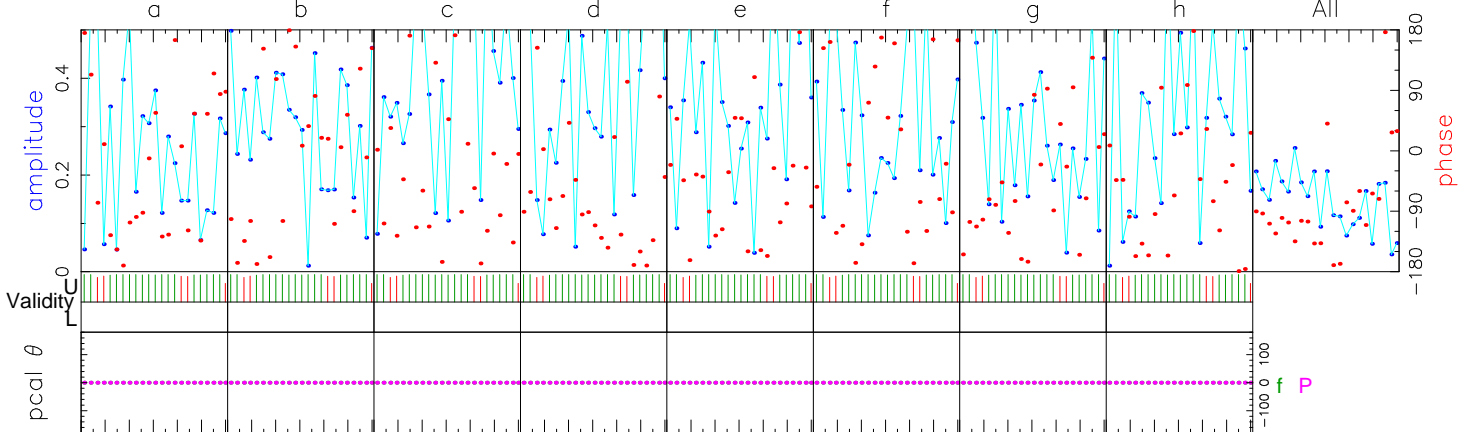
multiband delay (μ s)



Fringe quality 0
 SNR 5.5
 Int time 353.793
 Amp 0.167
 Phase -110.4
 PFD 1.0e+00
 Delays (us)
 SBD 0.217742
 MBD 0.002964
 Fringe rate (Hz)
 -0.966109
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135437
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-140.6	175.4	-88.5	-115.7	-69.5	-138.5	-109.5	-118.8	Phase	-110.4
	0.1	0.1	0.3	0.2	0.3	0.2	0.2	0.2	Ampl.	0.2
	60.8	323.1	312.6	77.1	179.3	413.8	260.2	303.2	Sbd box	312.7
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.07729892189E+04		Apriori delay (usec)		1.07727675052E+04		Resid mbdelay (usec)		2.96377E-03	+/- 2.0E-04
Sband delay (usec)	1.07729852472E+04		Apriori clock (usec)		1.1197428E+01		Resid sbdelay (usec)		2.17742E-01	+/- 1.6E-03
Phase delay (usec)	1.07727675016E+04		Apriori clockrate (us/s)		6.6000000E-07		Resid phdelay (usec)		-3.55957E-06	+/- 6.7E-07
Delay rate (us/s)	1.16927331447E+00		Apriori rate (us/s)		1.16928453003E+00		Resid rate (us/s)		-1.12156E-05	+/- 3.2E-09
Total phase (deg)	211.6		Apriori accel (us/s/s)		-6.43137027610E-05		Resid phase (deg)		-110.4	+/- 20.8

	RMS	Theor.	Amplitude	0.167 +/- 0.030	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.9	49.6	Search (2048X32)	0.106	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	66.9	86.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	39.7	29.4	Inc. seg. avg.	0.169	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	49.2	51.2	Inc. frq. avg.	0.169	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 43.1 el 72.6 pa -126.0 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -9189.117 -5097.955 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fP.W.126.1W5ADF

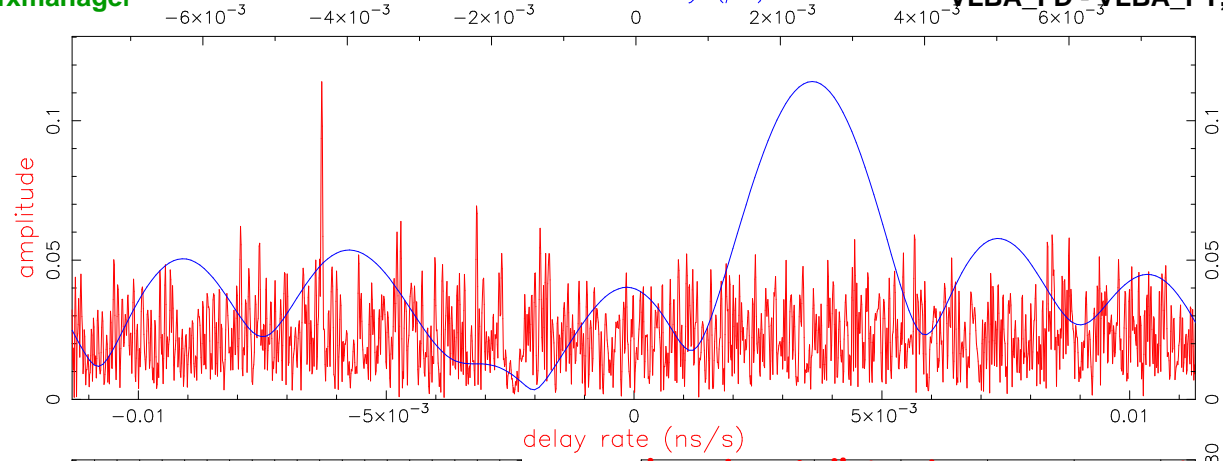
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

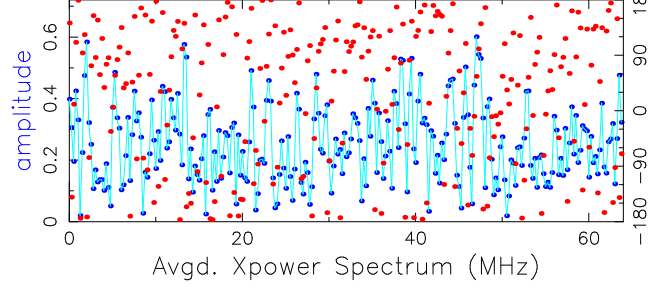
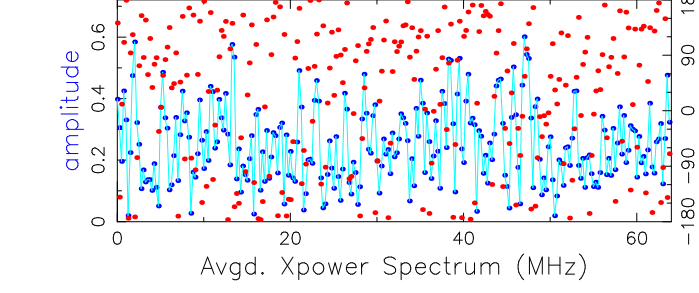
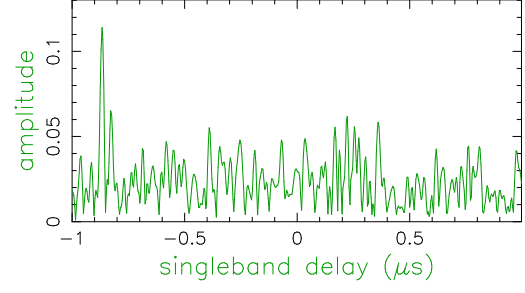
BLLAC.1W5ADF, No0245, fp

VLBA_FD - VLBA_PT, fgroup W, pol LR

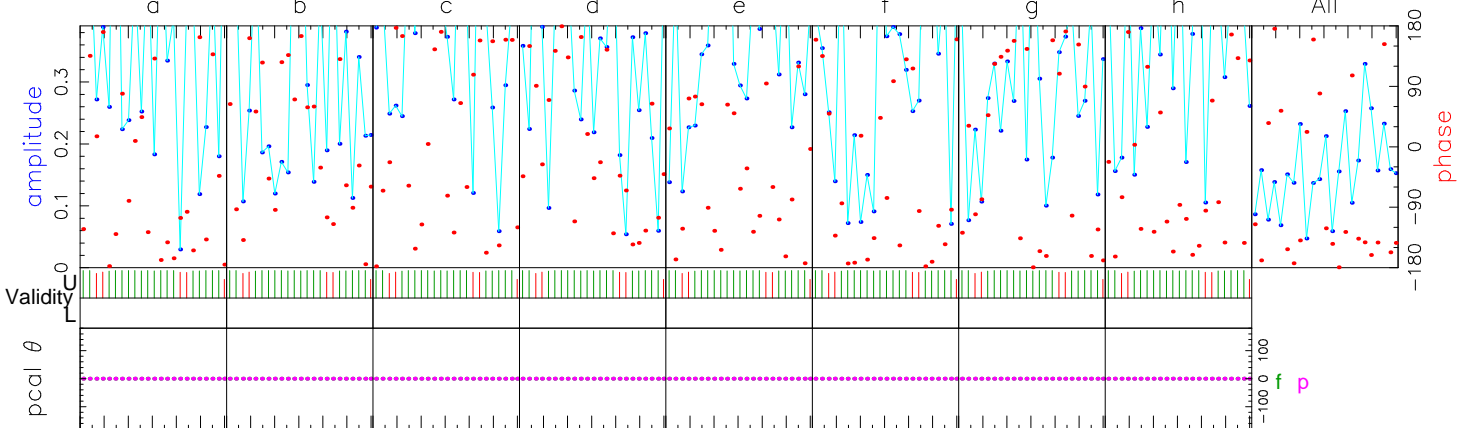
multiband delay (μ s)



Fringe quality 0
 SNR 5.9
 Int time 353.793
 Amp 0.130
 Phase -160.1
 PFD 6.5e-01
 Delays (us)
 SBD -0.866552
 MBD 0.002464
 Fringe rate (Hz)
 -0.543352
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135438
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-156.9	42.1	-156.8	-156.7	-132.5	-173.5	179.5	-143.7	Phase	-160.1
	0.2	0.0	0.2	0.1	0.1	0.2	0.2	0.2	Ampl.	0.1
	33.9	356.6	47.9	364.7	504.3	191.0	445.2	35.2	Sbd box	35.2
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.84133034217E+01				2.92858391501E+01				Resid mbdelay (usec)	2.46427E-03 +/- 1.8E-04
Sband delay (usec)	2.84192874001E+01				4.6956615E+00				Resid sbdelay (usec)	-8.66552E-01 +/- 1.5E-03
Phase delay (usec)	2.92858339868E+01				1.8000000E-07				Resid phdelay (usec)	-5.16330E-06 +/- 6.3E-07
Delay rate (us/s)	-5.58688966133E-02				-5.58625888300E-02				Resid rate (us/s)	-6.30778E-06 +/- 3.0E-09
Total phase (deg)			-93.7		-4.23648831387E-06				Resid phase (deg)	-160.1 +/- 19.5
	RMS	Theor.	Amplitude	0.130 +/- 0.022					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	70.7	46.6	Search (2048X32)	0.109					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	71.6	81.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	66.5	27.6	Inc. seg. avg.	0.135					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	58.8	48.1	Inc. frq. avg.	0.122					Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
f: az 43.1 el 72.6 pa -126.0			p: az 56.9 el 72.3 pa -111.3						u,v (fr/asec) 424.200 -662.618	simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fp.W.131.1W5ADF

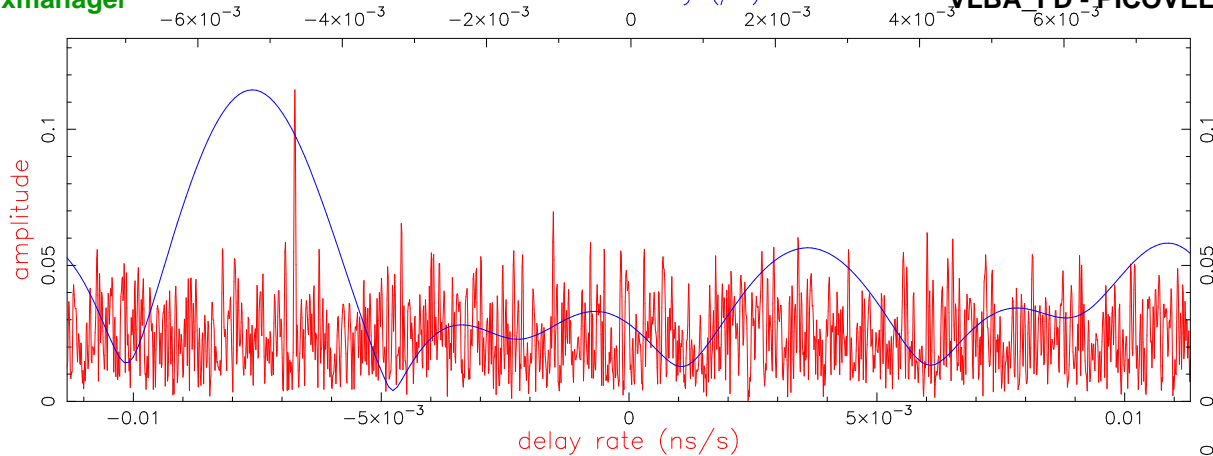
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fP

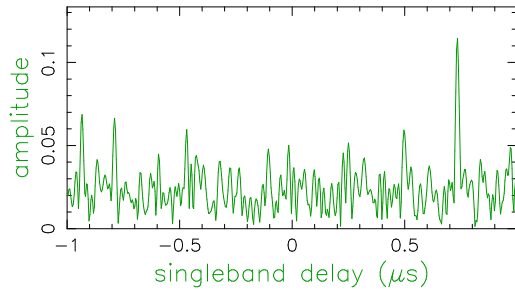
VLBA_FD - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

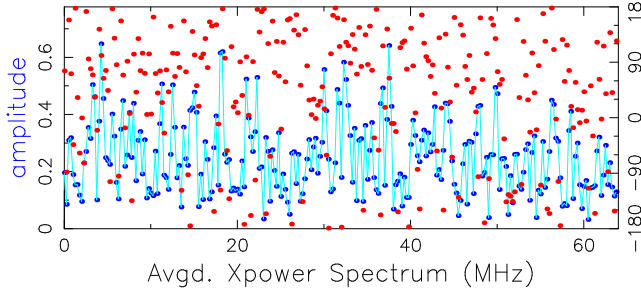


Fringe quality 0

SNR 5.9
Int time 353.793
Amp 0.133
Phase -23.6
PFD 5.9e-01
Delays (us)
SBD 0.733702
MBD -0.005278
Fringe rate (Hz)
-0.581895
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

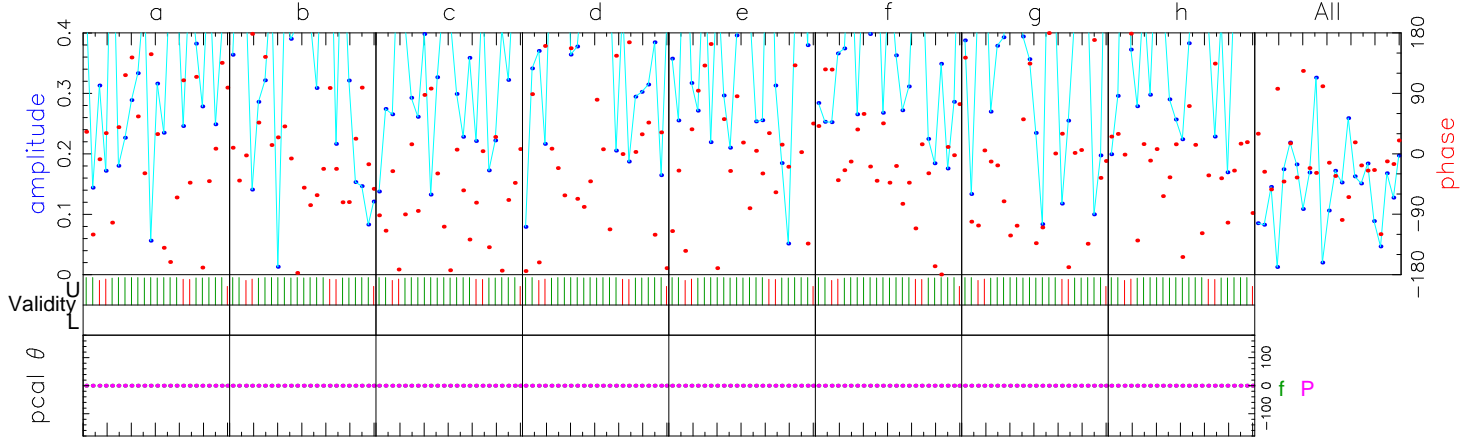


delay rate (ns/s)



Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build
2021:286:102153
2021:286:135440
2021:252:122852
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-3.2	-18.1	-73.0	-27.1	25.2	-8.6	-62.0	-19.4	Phase	-23.6
	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.3	Ampl.	0.1
	341.4	446.1	423.3	152.6	10.9	444.7	42.4	444.8	Sbd box	444.8
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.07734966026E+04		Apriori delay (usec)		1.07727675052E+04		Resid mbdelay (usec)		-5.27755E-03	+/- 1.8E-04
Sband delay (usec)	1.07735012069E+04		Apriori clock (usec)		1.1197428E+01		Resid sbdelay (usec)		7.33702E-01	+/- 1.5E-03
Phase delay (usec)	1.07727675044E+04		Apriori clockrate (us/s)		6.6000000E-07		Resid phdelay (usec)		-7.62113E-07	+/- 6.3E-07
Delay rate (us/s)	1.16927777481E+00		Apriori rate (us/s)		1.16928453003E+00		Resid rate (us/s)		-6.75522E-06	+/- 3.0E-09
Total phase (deg)	298.3		Apriori accel (us/s/s)		-6.43137027610E-05		Resid phase (deg)		-23.6	+/- 19.4

	RMS	Theor.	Amplitude	0.133 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	58.4	46.4	Search (2048X32)	0.112	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	67.5	80.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	34.1	27.4	Inc. seg. avg.	0.127	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	50.0	47.9	Inc. frq. avg.	0.133	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 43.1 el 72.6 pa -126.0 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -9189.117 -5097.955 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fP.W.145.1W5ADF

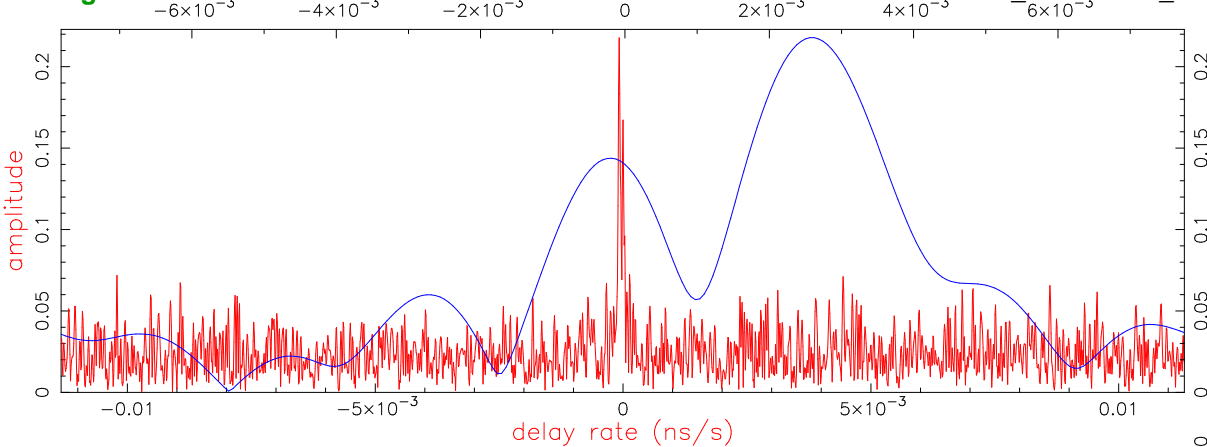
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fp

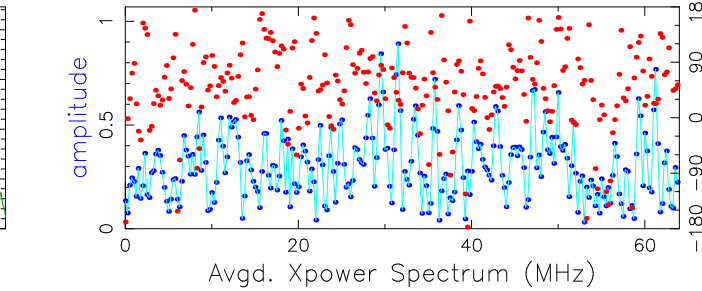
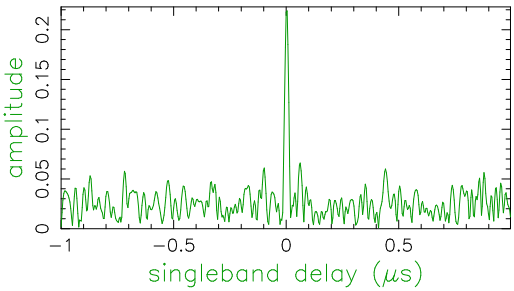
VLBA_FD - VLBA_PT, fgroup W, pol RL

multiband delay (μ s)



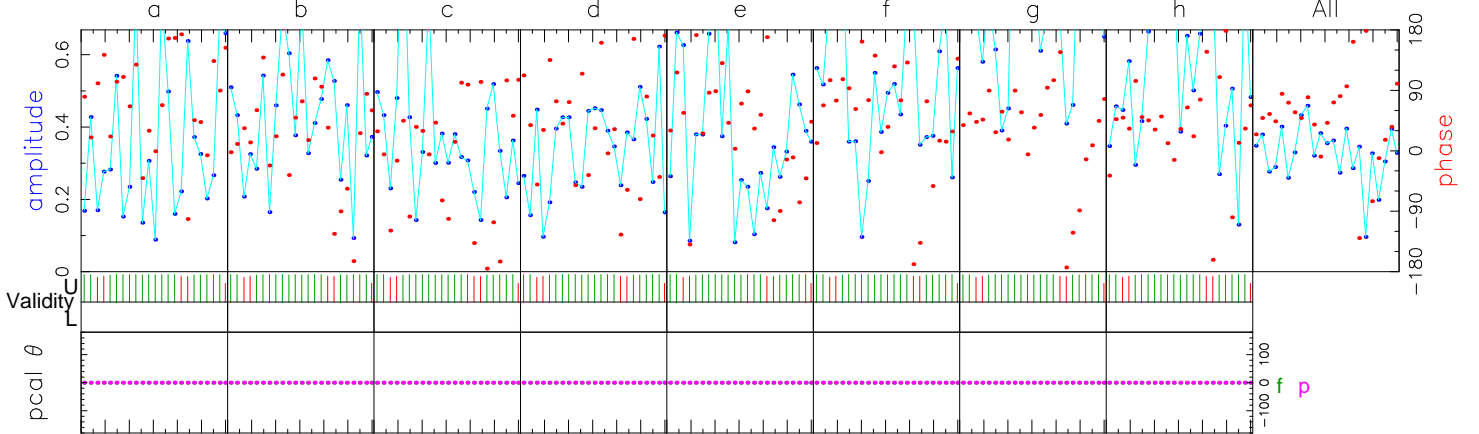
Fringe quality 9

SNR 11.5
 Int time 353.793
 Amp 0.223
 Phase 53.8
 PFD 9.4e-22
 Delays (us)
 SBD 0.002083
 MBD 0.002637
 Fringe rate (Hz)
 -0.007160
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135441
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	2.92884762302E+01				2.92858391501E+01				2.63708E-03	+/- 9.5E-05
Sband delay (usec)	2.92879226501E+01				4.6956615E+00				2.08350E-03	+/- 7.5E-04
Phase delay (usec)	2.92858408845E+01				1.8000000E-07				1.73436E-06	+/- 3.2E-07
Delay rate (us/s)	-5.58626719509E-02				-5.58625888300E-02				-8.31209E-08	+/- 1.6E-09
Total phase (deg)			120.2		-4.23648831387E-06				53.8	+/- 10.0
	RMS	Theor.	Amplitude	0.223 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	63.2	23.9	Search (2048X32)	0.209	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	58.8	41.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	29.7	14.1	Inc. seg. avg.	0.302	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	47.5	24.7	Inc. frq. avg.	0.227	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
f: az 43.1 el 72.6 pa -126.0		p: az 56.9 el 72.3 pa -111.3		u, v (fr/asec) 424.200 -662.618						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fp.W.150.1W5ADF

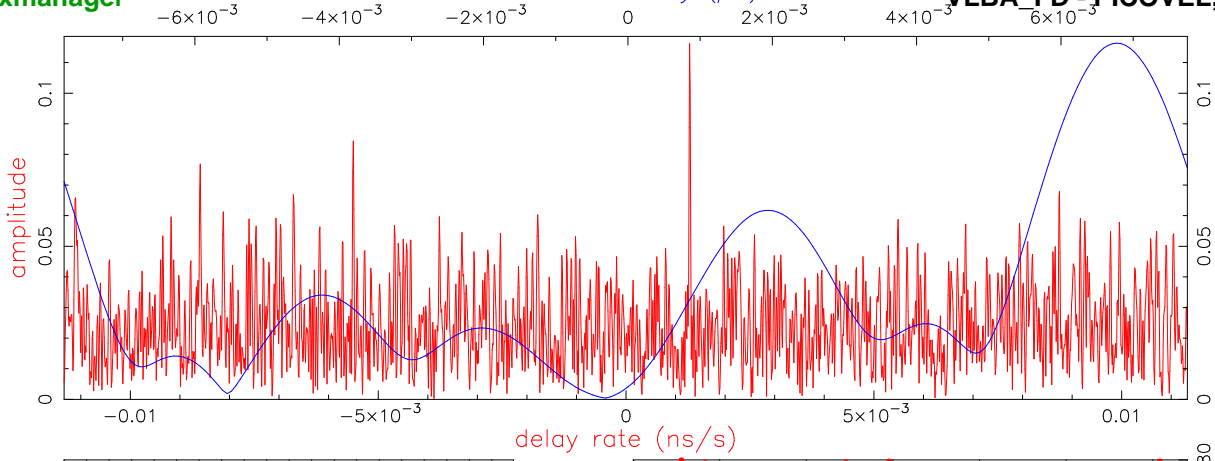
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fP

VLBA_FD - PICOVEL, fgroup W, pol RL

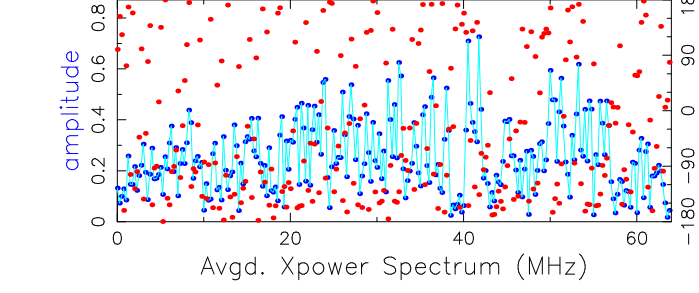
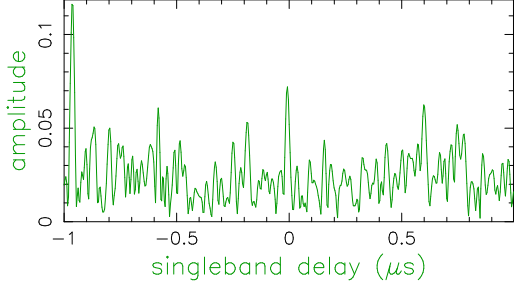
multiband delay (μ s)



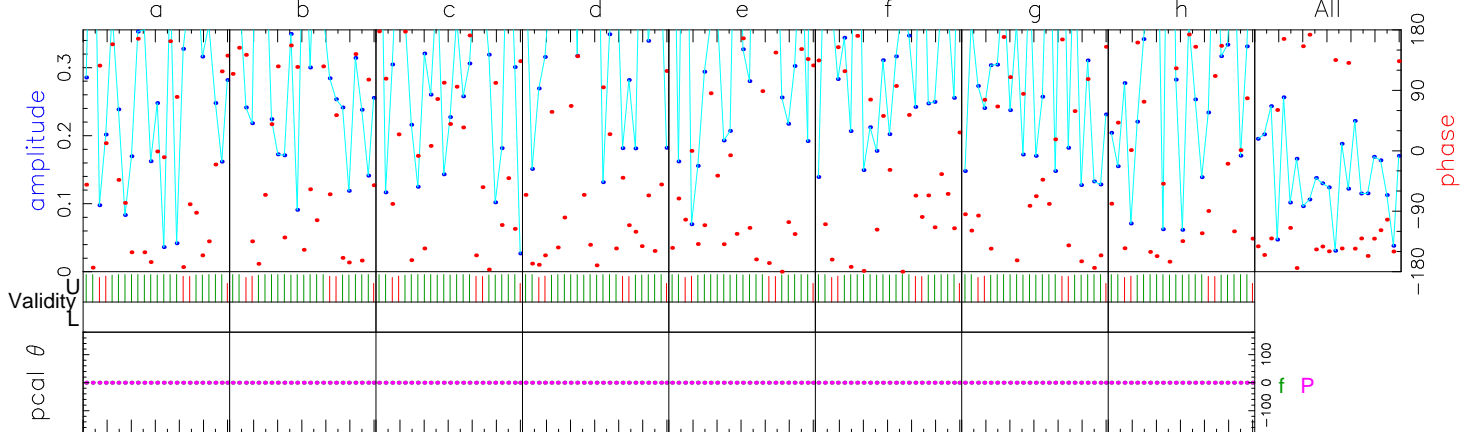
Fringe quality 0

SNR 6.1
 Int time 353.793
 Amp 0.119
 Phase -155.0
 PFD 2.9e-01
 Delays (us)
 SBD -0.963058
 MBD 0.006836
 Fringe rate (Hz) 0.111241
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135444
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-150.0	-168.3	-173.9	-124.1	-161.1	-138.9	-159.2	-171.5	Phase	-155.0
	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	Ampl.	0.1
	208.8	217.7	35.5	264.9	11.7	90.8	25.8	216.7	Sbd box	10.5
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.07718055911E+04		Apriori delay (usec)		1.07727675052E+04		Resid mbdelay (usec)		6.83598E-03	+/- 1.8E-04
Sband delay (usec)	1.07718044467E+04		Apriori clock (usec)		1.1197428E+01		Resid sbdelay (usec)		-9.63058E-01	+/- 1.4E-03
Phase delay (usec)	1.07727675002E+04		Apriori clockrate (us/s)		6.6000000E-07		Resid phdelay (usec)		-4.99709E-06	+/- 6.1E-07
Delay rate (us/s)	1.16928582142E+00		Apriori rate (us/s)		1.16928453003E+00		Resid rate (us/s)		1.29139E-06	+/- 3.0E-09
Total phase (deg)	167.0		Apriori accel (us/s/s)		-6.43137027610E-05		Resid phase (deg)		-155.0	+/- 18.9

ph/seg (deg) 45.9 45.2 Search (2048X32) 0.112 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 53.9 78.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 18.7 26.7 Inc. seg. avg. 0.108 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.6 46.6 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 43.1 el 72.6 pa -126.0 P: az 304.0 el 27.6 pa 64.2 u,v (fr/asec) -9189.117 -5097.955 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fP..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fP.W.159.1W5ADF simultaneous interpolator

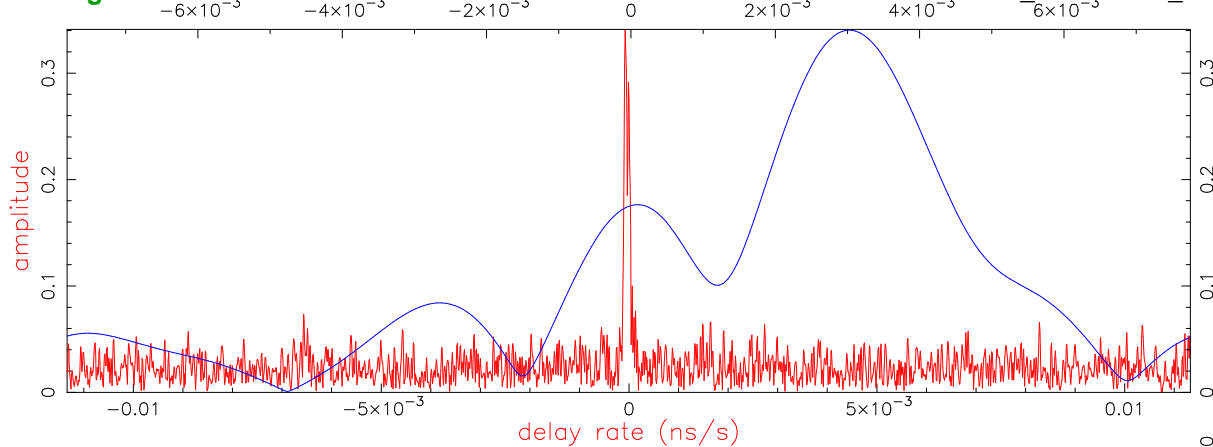
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fp

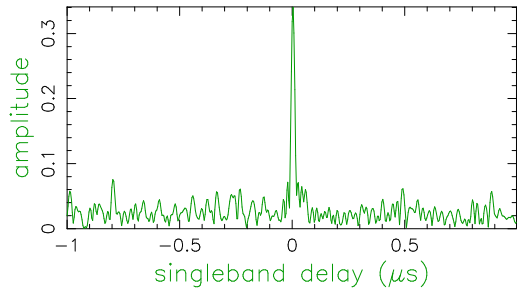
VLBA_FD - VLBA_PT, fgroup W, pol LL

multiband delay (μ s)

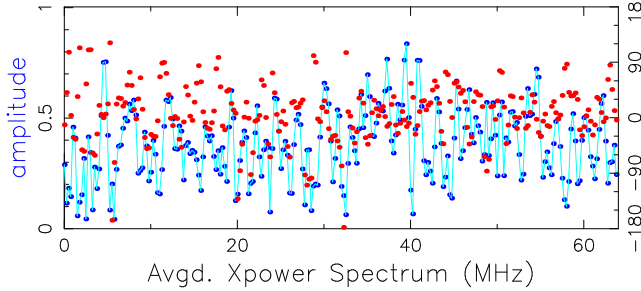


Fringe quality 8

SNR 17.5
 Int time 353.793
 Amp 0.341
 Phase 11.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.003338
 MBD 0.003007
 Fringe rate (Hz)
 -0.006607
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

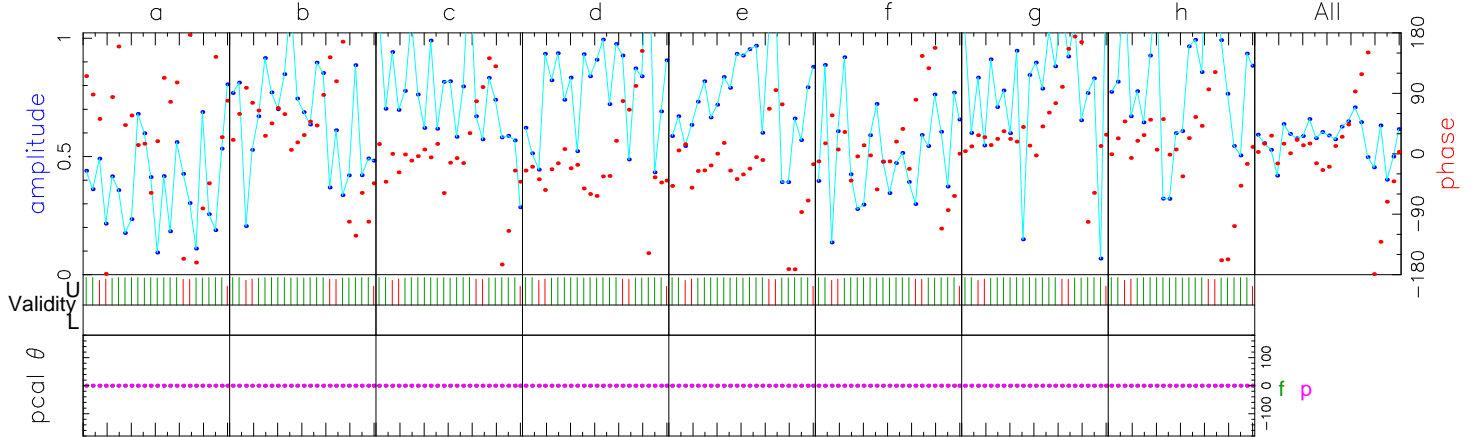


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135431
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	69.3	42.9	0.4	-27.5	-13.5	-1.9	33.6	29.4	Phase	11.2
	0.1	0.4	0.5	0.4	0.5	0.3	0.4	0.5	Ampl.	0.4
	55.6	257.3	257.4	257.7	258.7	257.3	257.9	258.1	Sbd box	257.9
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fp	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.92888458140E+01		Apriori delay (usec)		2.92858391501E+01		Resid mbdelay (usec)		3.00666E-03	+/- 6.2E-05
Sband delay (usec)	2.92891771501E+01		Apriori clock (usec)		4.6956615E+00		Resid sbdelay (usec)		3.33800E-03	+/- 4.9E-04
Phase delay (usec)	2.92858395119E+01		Apriori clockrate (us/s)		1.8000000E-07		Resid phdelay (usec)		3.61781E-07	+/- 2.1E-07
Delay rate (us/s)	-5.58626655293E-02		Apriori rate (us/s)		-5.58625888300E-02		Resid rate (us/s)		-7.66992E-08	+/- 1.0E-09
Total phase (deg)	77.6		Apriori accel (us/s/s)		-4.23648831387E-06		Resid phase (deg)		11.2	+/- 6.5

ph/seg (deg) 66.7 15.6 Search (2048X32) 0.339 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 71.9 27.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 35.6 9.2 Inc. seg. avg. 0.554 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.5 16.1 Inc. frq. avg. 0.377 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 43.1 el 72.6 pa -126.0 p: az 56.9 el 72.3 pa -111.3 u,v (fr/asec) 424.200 -662.618 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fp..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fp.W.95.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

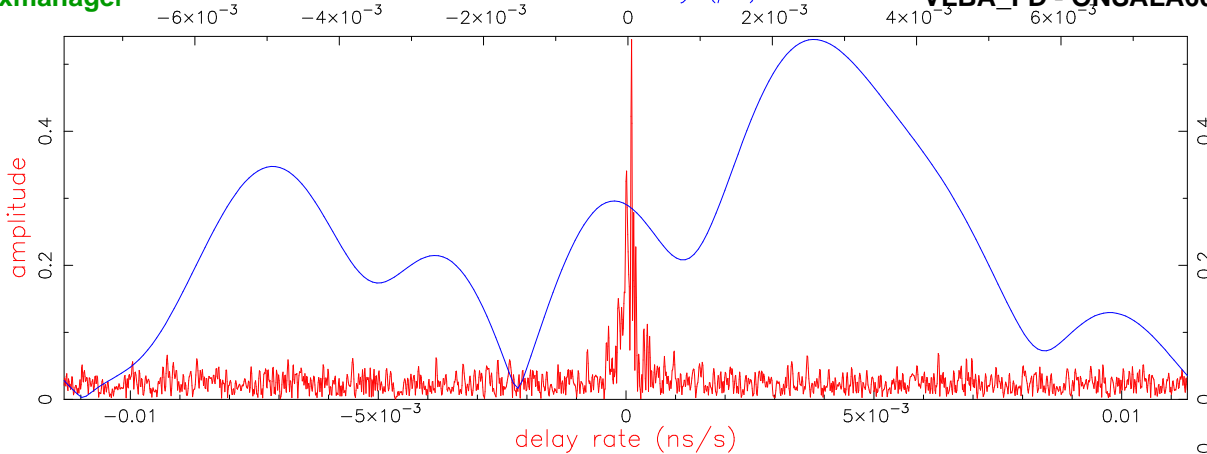
fxmanager

BLLAC.1W5ADF, No0245, fX

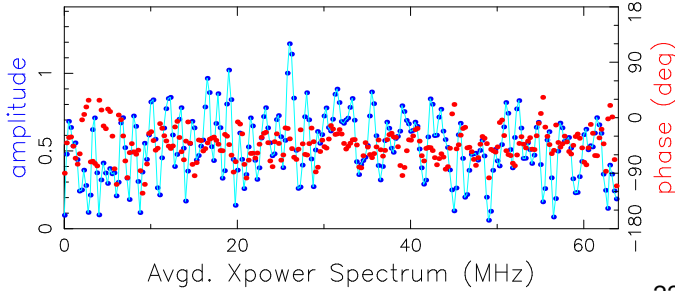
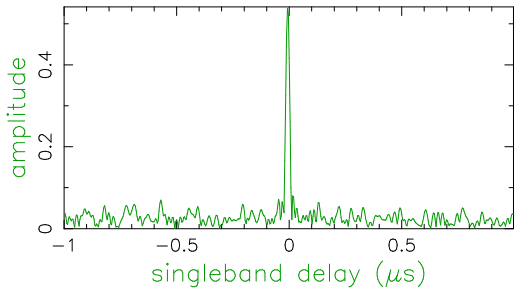
VLBA_FD - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

Fringe quality 5

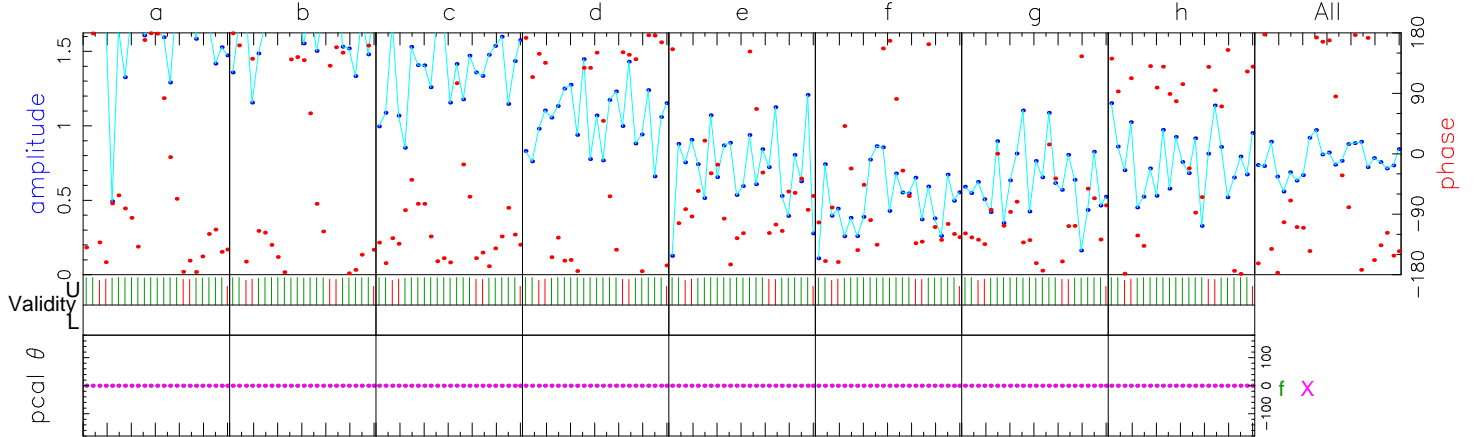


SNR 27.9
 Int time 353.774
 Amp 0.542
 Phase -150.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.006603
 MBD 0.002595
 Fringe rate (Hz)
 0.009839
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135432
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-141.6	-177.4	-123.8	171.7	-81.9	-127.4	-100.3	126.4	Phase	-150.9
	1.1	1.2	0.9	0.8	0.4	0.3	0.4	0.4	Ampl.	0.7
	255.4	254.8	254.9	255.1	255.5	254.9	253.8	253.6	Sbd box	255.3
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.86485697519E+03		Apriori delay (usec)	9.86487000470E+03	Resid mbdelay (usec)	2.59549E-03	+/-	3.9E-05		
Sband delay (usec)	9.86486340220E+03		Apriori clock (usec)	-4.6178520E+01	Resid sbdelay (usec)	-6.60250E-03	+/-	3.1E-04		
Phase delay (usec)	9.86486999983E+03		Apriori clockrate (us/s)	-4.6799999E-07	Resid phdelay (usec)	-4.86717E-06	+/-	1.3E-07		
Delay rate (us/s)	8.64008104303E-01		Apriori rate (us/s)	8.64007990085E-01	Resid rate (us/s)	1.14219E-07	+/-	6.4E-10		
Total phase (deg)		-77.3	Apriori accel (us/s/s)	-7.80195310949E-05	Resid phase (deg)	-150.9	+/-	4.1		

ph/seg (deg) 50.8 9.8 Search (2048X32) 0.522 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.4 17.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.2 5.8 Inc. seg. avg. 0.761 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 66.7 10.2 Inc. frq. avg. 0.688 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 43.1 el 72.6 pa -126.0 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) -6852.018 -7680.073 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fX.W.101.1W5ADF

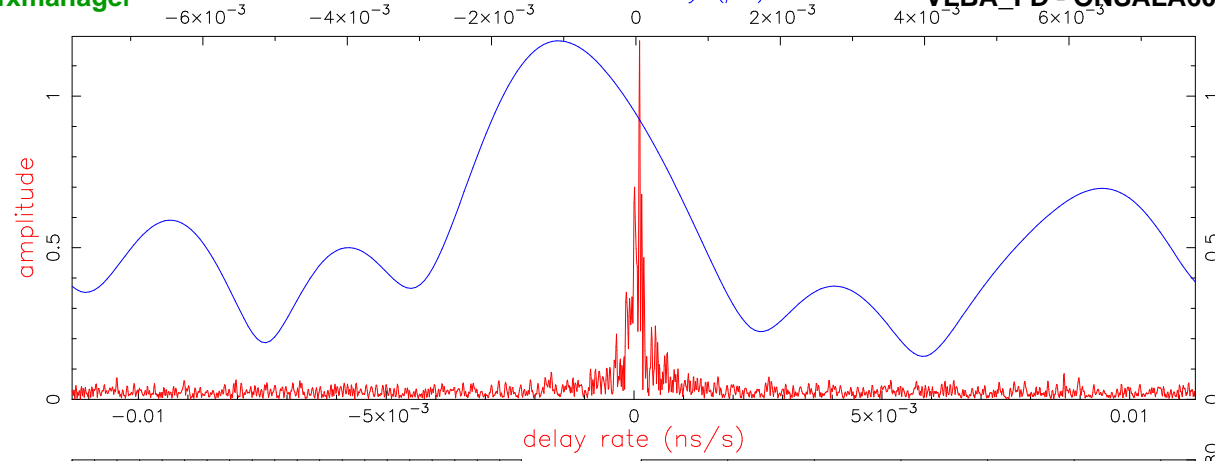
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fX

VLBA_FD - ONSALA60, fgroup W, pol RR

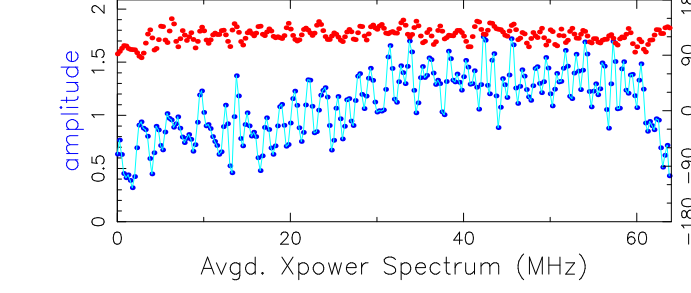
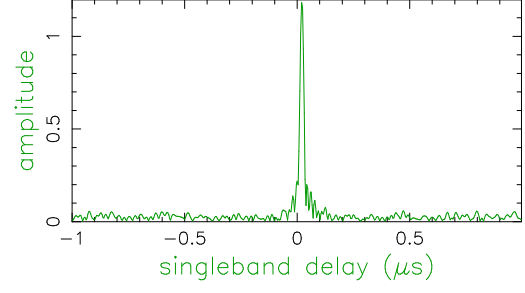
multiband delay (μ s)



Fringe quality 1

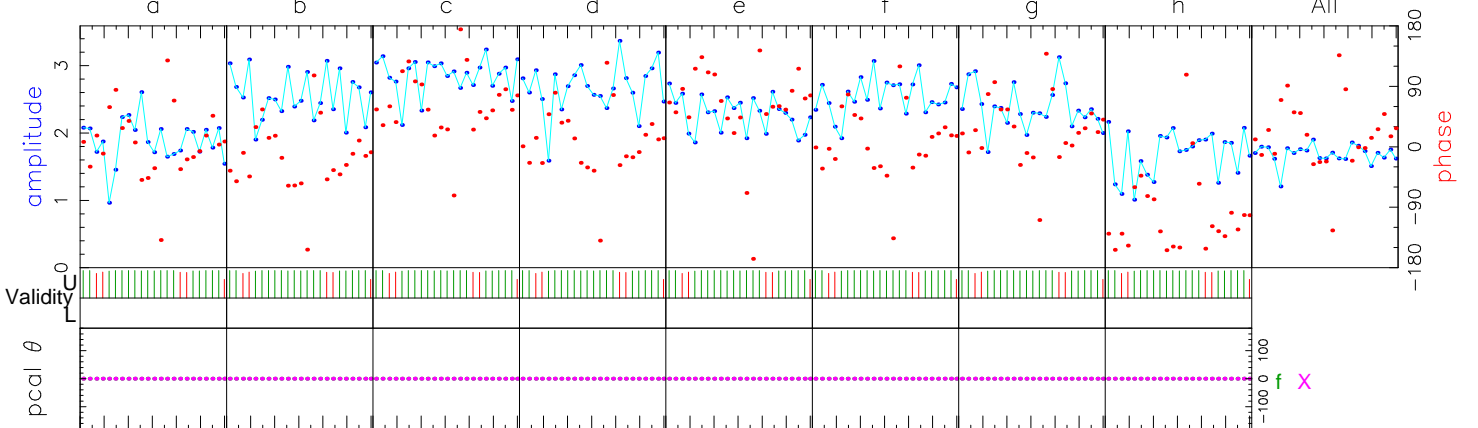
SNR 61.6
Int time 353.774
Amp 1.197
Phase 18.4
PFD 0.0e+00
Delays (us)
SBD 0.021001
MBD -0.001048
Fringe rate (Hz) 0.009803
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c211a
Exper # 16383
Yr:day 2021:114
Start 134500.00
Stop 135059.94
FRT 134800.00
Corr/FF/build 2021:286:102153
2021:286:135436
2021:252:122852
RA & Dec (J2000) 22h02m43.291370s
+42°16'39.979885"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	9.86488458125E+03									
Sband delay (usec)	9.86489100520E+03									
Phase delay (usec)	9.86487000529E+03									
Delay rate (us/s)	8.64008103883E-01									
Total phase (deg)			92.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)									18.4	+/- 1.9
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Sample rate (MSamp/s):	128									
Data rate (Mb/s):	2048									
nlags:	256									
t_cohere	infinite									
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

ph/seg (deg) 51.4 4.4 Search (2048X32) 1.154 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 42.6 7.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 65.5 2.6 Inc. seg. avg. 1.683 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 45.8 4.6 Inc. frq. avg. 1.669 Sample rate (MSamp/s): 128 Data rate (Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 43.1 el 72.6 pa -126.0 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) -6852.018 -7680.073 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/c211a/v2/1234/No0245/fX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fX.W.124.1W5ADF simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

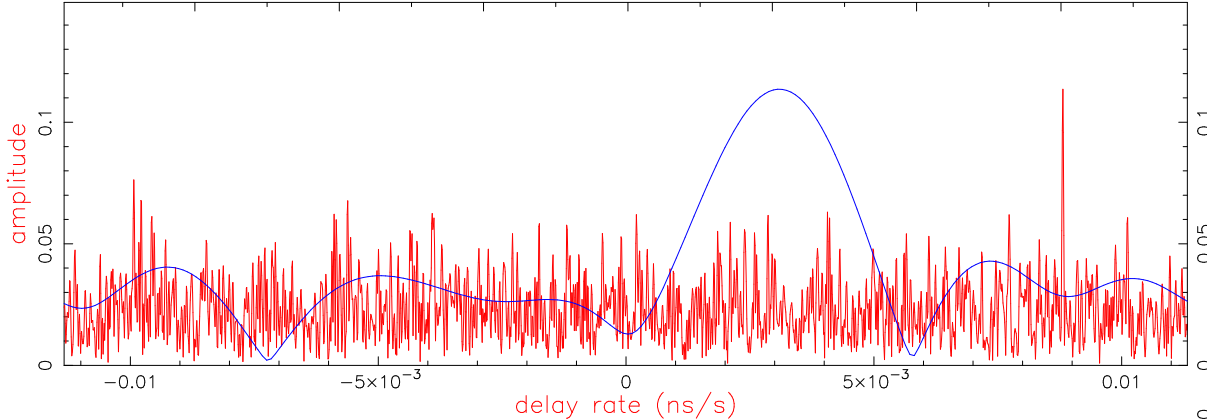
BLLAC.1W5ADF, No0245, fX

VLBA_FD - ONSALA60, fgroup W, pol LR

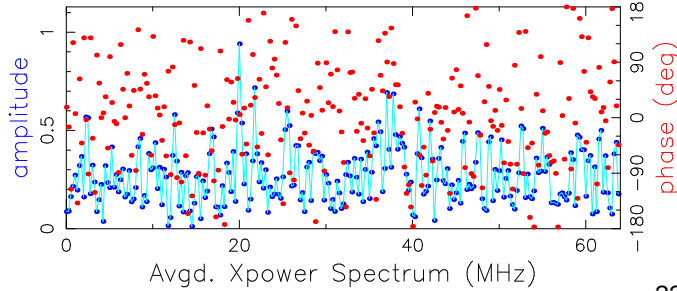
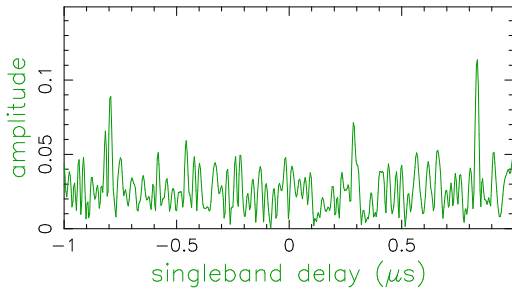
multiband delay (μ s)

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

Fringe quality 0

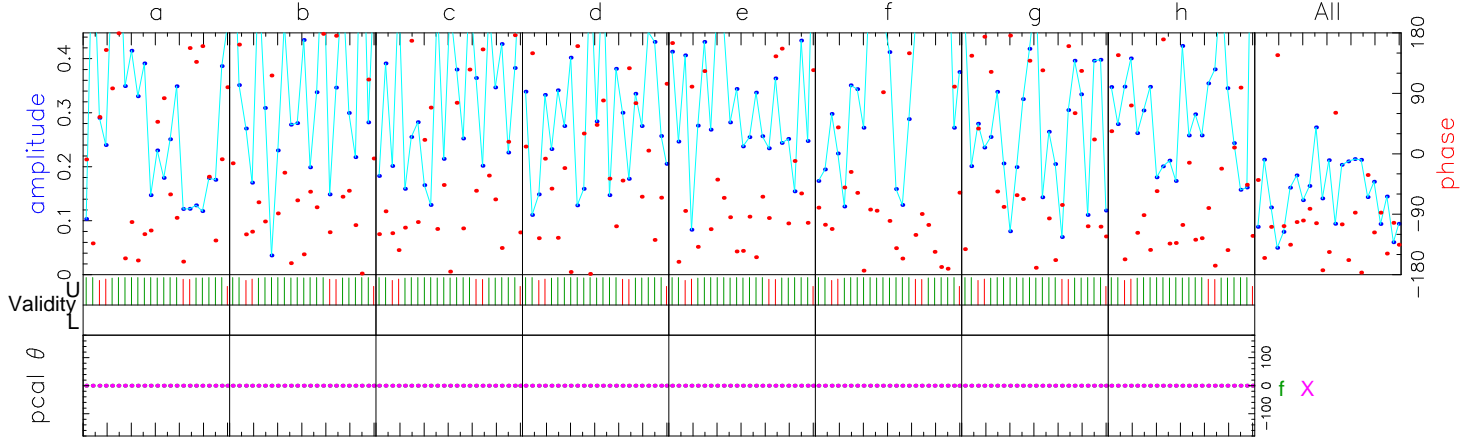


SNR 5.9
 Int time 353.774
 Amp 0.149
 Phase -120.2
 PFD 6.0e-01
 Delays (us)
 SBD 0.834654
 MBD 0.002087
 Fringe rate (Hz)
 0.760504
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135440
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	-155.6	-103.6	-122.3	-43.6	-122.7	-116.4	-160.4	-112.7	Phase	-120.2
	0.1	0.2	0.2	0.0	0.2	0.3	0.1	0.2	Ampl.	0.1
	2.1	172.5	47.4	91.6	386.9	472.0	281.7	61.4	Sbd box	470.7
U/L	698/0	698/0	698/0	698/0	698/0	698/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.86570021681E+03		Apriori delay (usec)		9.86487000470E+03		Resid mbdelay (usec)		2.08711E-03	+/- 1.8E-04
Sband delay (usec)	9.86570465895E+03		Apriori clock (usec)		-4.6178520E+01		Resid sbdelay (usec)		8.34654E-01	+/- 1.5E-03
Phase delay (usec)	9.86487000082E+03		Apriori clockrate (us/s)		-4.6799999E-07		Resid phdelay (usec)		-3.87567E-06	+/- 6.3E-07
Delay rate (us/s)	8.64016818783E-01		Apriori rate (us/s)		8.64007990085E-01		Resid rate (us/s)		8.82870E-06	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		-7.80195310949E-05		Resid phase (deg)		-120.2	+/- 19.4

	RMS	Theor.	Amplitude	0.149 +/- 0.025	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.1	46.4	Search (2048X32)	0.109	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	59.6	81.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	38.9	27.5	Inc. seg. avg.	0.148	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	43.1	47.9	Inc. frq. avg.	0.143	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) -6852.018 -7680.073 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fX.W.144.1W5ADF

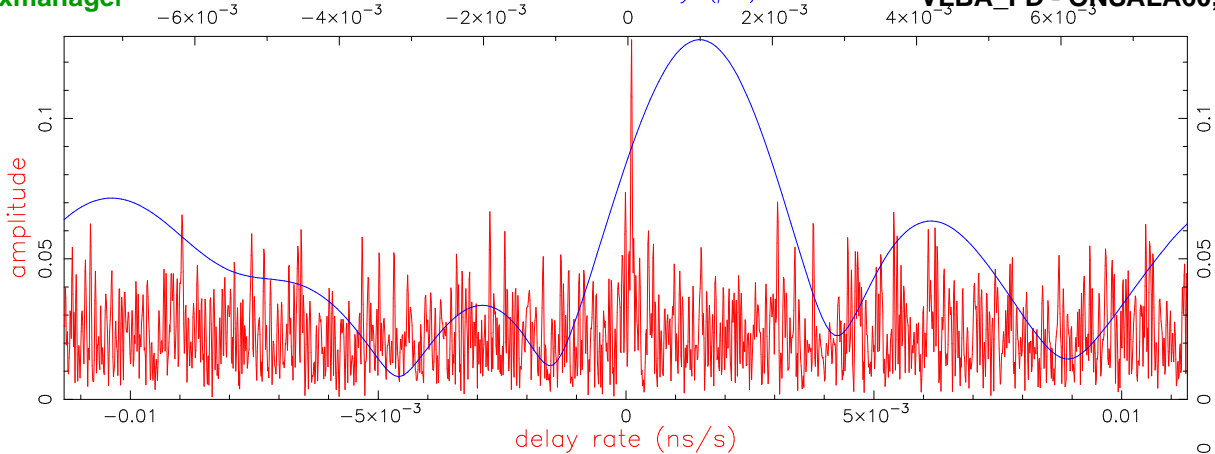
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fX

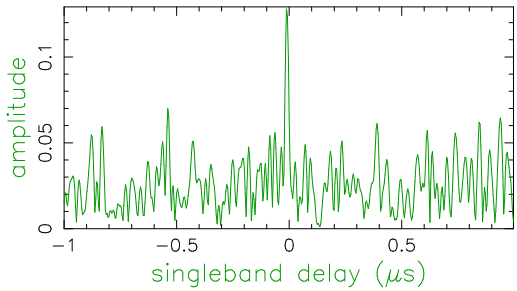
VLBA_FD - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

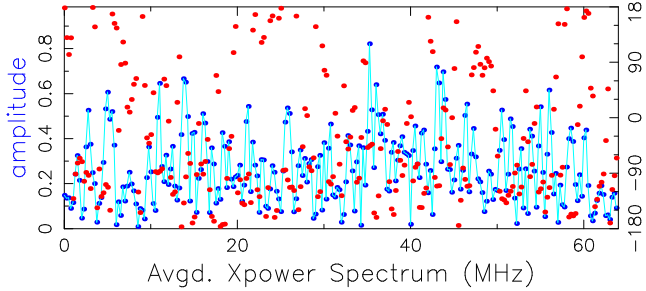


Fringe quality 0

SNR 6.6
 Int time 353.774
 Amp 0.129
 Phase 120.6
 PFD 8.7e-03
 Delays (us)
 SBD -0.010484
 MBD 0.001027
 Fringe rate (Hz)
 0.009475
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

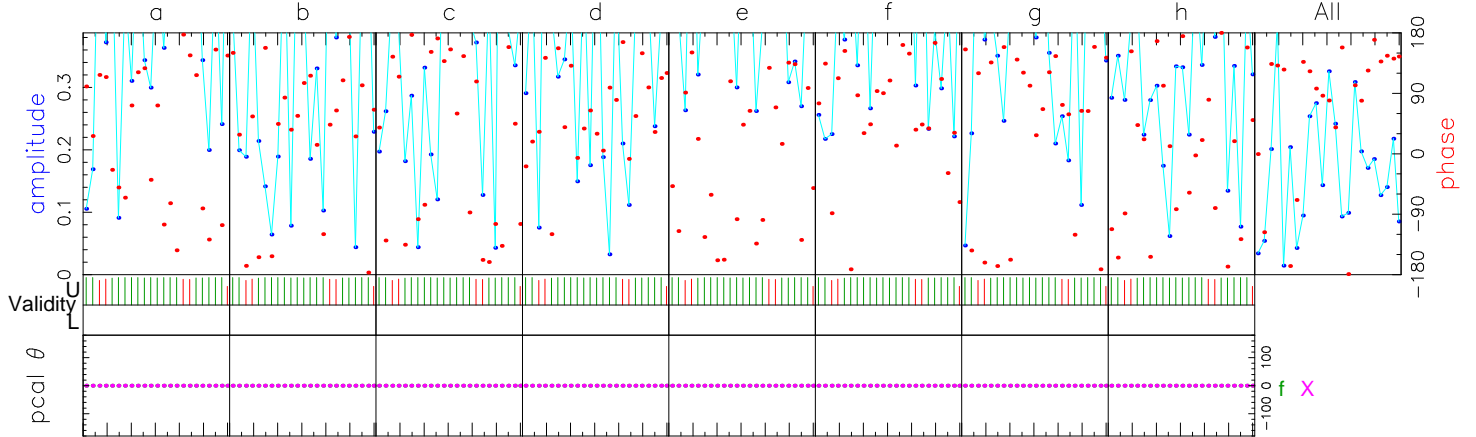


delay rate (ns/s)



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134500.00
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135443
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 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
	151.4	95.4	172.8	80.4	136.4	92.8	134.7	167.3	Phase	120.6
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.0	Ampl.	0.1
	119.0	253.6	255.5	254.0	154.7	253.9	254.0	356.9	Sbd box	254.3
U/L	698/0	698/0	698/0	698/0	699/0	699/0	698/0	698/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.86485540641E+03		Apriori delay (usec)		9.86487000470E+03		Resid mbdelay (usec)		1.02671E-03	+/- 1.6E-04
Sband delay (usec)	9.86485952095E+03		Apriori clock (usec)		-4.6178520E+01		Resid sbdelay (usec)		-1.04838E-02	+/- 1.3E-03
Phase delay (usec)	9.86487000859E+03		Apriori clockrate (us/s)		-4.6799999E-07		Resid phdelay (usec)		3.88972E-06	+/- 5.6E-07
Delay rate (us/s)	8.64008100080E-01		Apriori rate (us/s)		8.64007990085E-01		Resid rate (us/s)		1.09996E-07	+/- 2.7E-09
Total phase (deg)	194.3		Apriori accel (us/s/s)		-7.80195310949E-05		Resid phase (deg)		120.6	+/- 17.2

	RMS	Theor.	Amplitude	0.129 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	62.0	41.2	Search (2048X32)	0.128	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	82.9	71.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	39.4	24.4	Inc. seg. avg.	0.135	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	55.4	42.6	Inc. frq. avg.	0.139	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

f: az 43.1 el 72.6 pa -126.0 X: az 302.8 el 30.0 pa 37.6 u,v (fr/asec) -6852.018 -7680.073 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fX..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fX.W.158.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

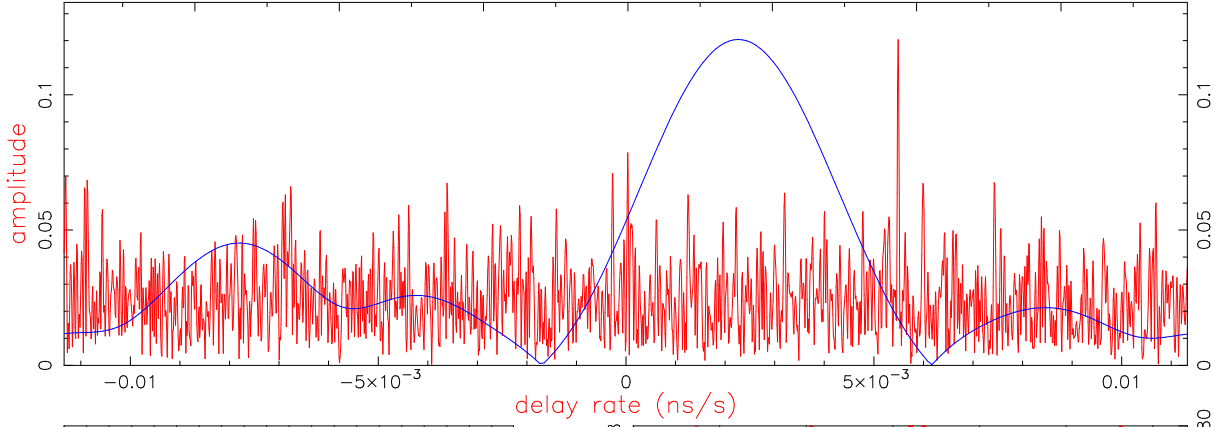
BLLAC.1W5ADF, No0245, fZ

VLBA_FD - METSAHOV, fgroup W, pol RR

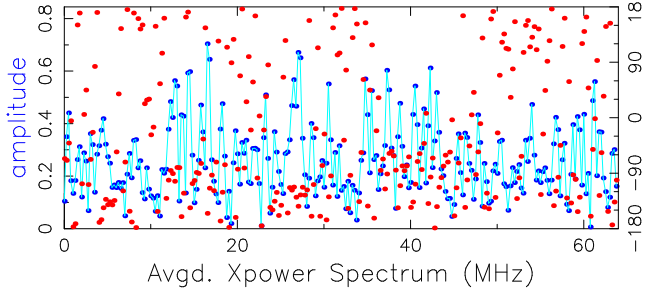
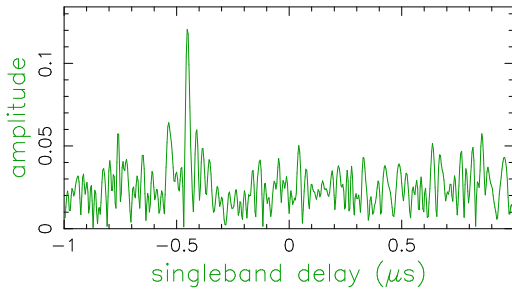
multiband delay (μ s)

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

Fringe quality 0

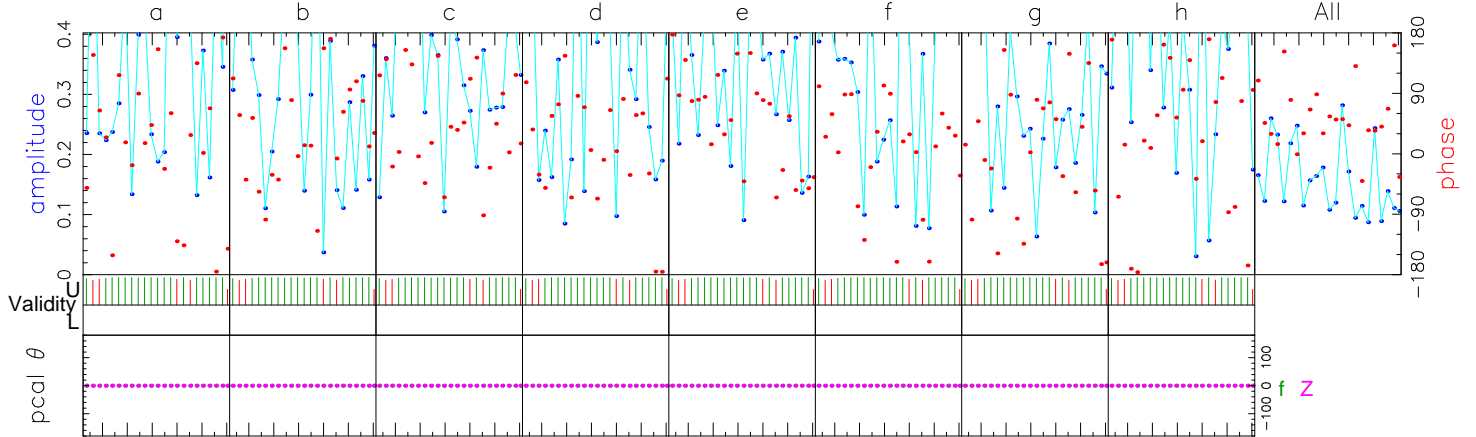


SNR 6.1
 Int time 339.673
 Amp 0.134
 Phase 49.3
 PFD 2.1e-01
 Delays (us)
 SBD -0.451764
 MBD 0.001581
 Fringe rate (Hz)
 0.474184
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134513.31
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135436
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 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	672/0	672/0	672/0	672/0	673/0	673/0	672/0	672/0		
f	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)		1.10556052126E+04				1.10560567569E+04			Resid mbdelay (usec)	1.58071E-03 +/- 1.8E-04
Sband delay (usec)		1.10556049929E+04				1.0945560E+01			Resid sbdelay (usec)	-4.51764E-01 +/- 1.4E-03
Phase delay (usec)		1.10560567585E+04				4.4000001E-08			Resid phdelay (usec)	1.58951E-06 +/- 6.0E-07
Delay rate (us/s)		7.80172849190E-01				7.80167344380E-01			Resid rate (us/s)	5.50481E-06 +/- 3.0E-09
Total phase (deg)			63.8			-8.59961917412E-05			Resid phase (deg)	49.3 +/- 18.7
	RMS	Theor.	Amplitude	0.134 +/- 0.022					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	48.9	44.7	Search (2048X32)	0.119					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	58.1	78.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	23.7	26.5	Inc. seg. avg.	0.135					Sample rate(MSamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	45.5	46.2	Inc. frq. avg.	0.126					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) -6218.014 -8427.604 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fz..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fz.W.121.1W5ADF

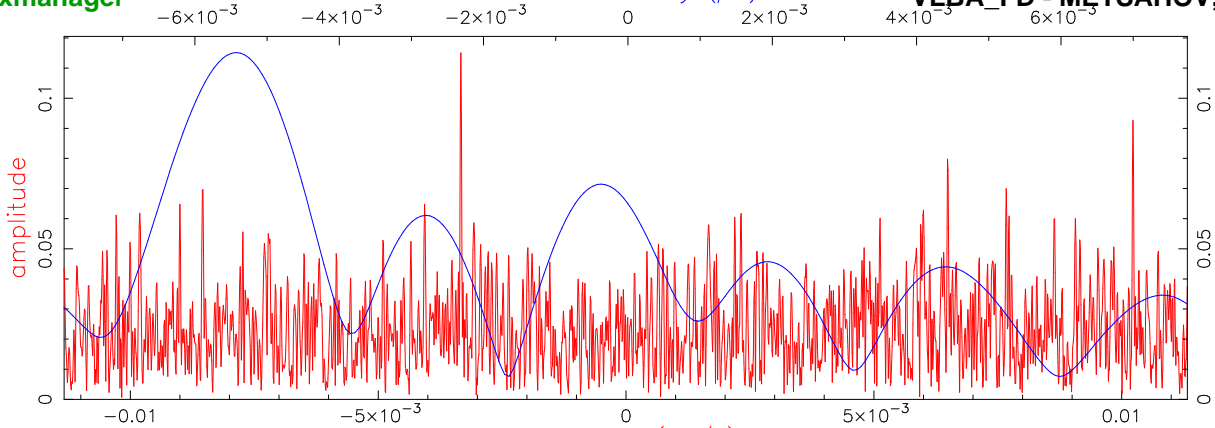
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fZ

VLBA_FD - METSAHOV, fgroup W, pol LR

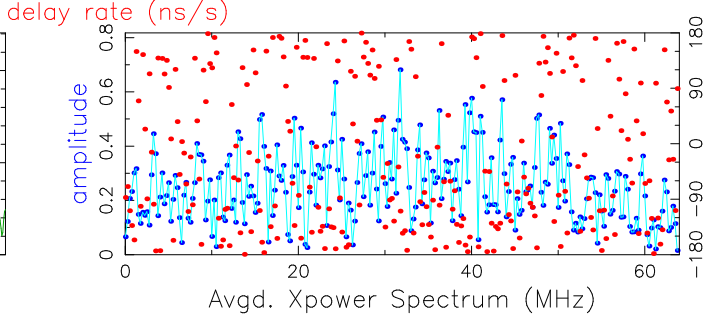
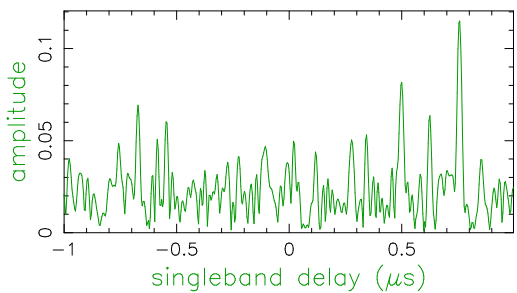
multiband delay (μ s)



Fringe quality 0

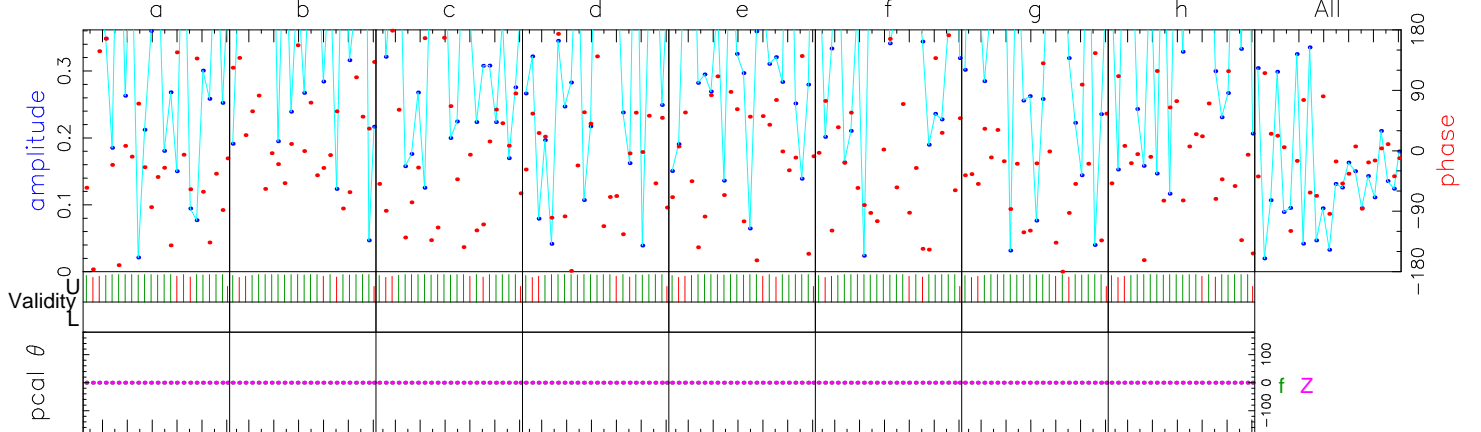
SNR 5.9
 Int time 339.673
 Amp 0.121
 Phase -18.7
 PFD 6.9e-01
 Delays (us)
 SBD 0.756126
 MBD -0.005475
 Fringe rate (Hz)
 -0.287124
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134513.31
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135440
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 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
	-69.1	21.1	-77.5	-26.3	12.9	-41.1	-31.8	-5.5	Phase	-18.7
	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	123.2	450.1	84.0	316.0	61.2	116.4	449.7	451.5	Sbd box	450.6
U/L	672/0	672/0	672/0	672/0	672/0	672/0	672/0	672/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)		1.10568169068E+04		Apriori delay (usec)	1.10560567569E+04		Resid mbdelay (usec)	-5.47516E-03	+/-	1.9E-04
Sband delay (usec)		1.10568128824E+04		Apriori clock (usec)	1.0945560E+01		Resid sbdelay (usec)	7.56126E-01	+/-	1.5E-03
Phase delay (usec)		1.10560567563E+04		Apriori clockrate (us/s)	4.4000001E-08		Resid phdelay (usec)	-6.03433E-07	+/-	6.3E-07
Delay rate (us/s)		7.80164011158E-01		Apriori rate (us/s)	7.80167344380E-01		Resid rate (us/s)	-3.33322E-06	+/-	3.2E-09
Total phase (deg)			-4.3	Apriori accel (us/s/s)	-8.59961917412E-05		Resid phase (deg)	-18.7	+/-	19.6

ph/seg (deg) 55.0 46.7 Search (2048X32) 0.114 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 82.0 81.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 39.8 27.7 Inc. seg. avg. 0.113 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 48.2 48.3 Inc. frq. avg. 0.125 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 43.1 el 72.6 pa -126.0 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) -6218.014 -8427.604 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fz..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fz.W.143.1W5ADF simultaneous interpolator

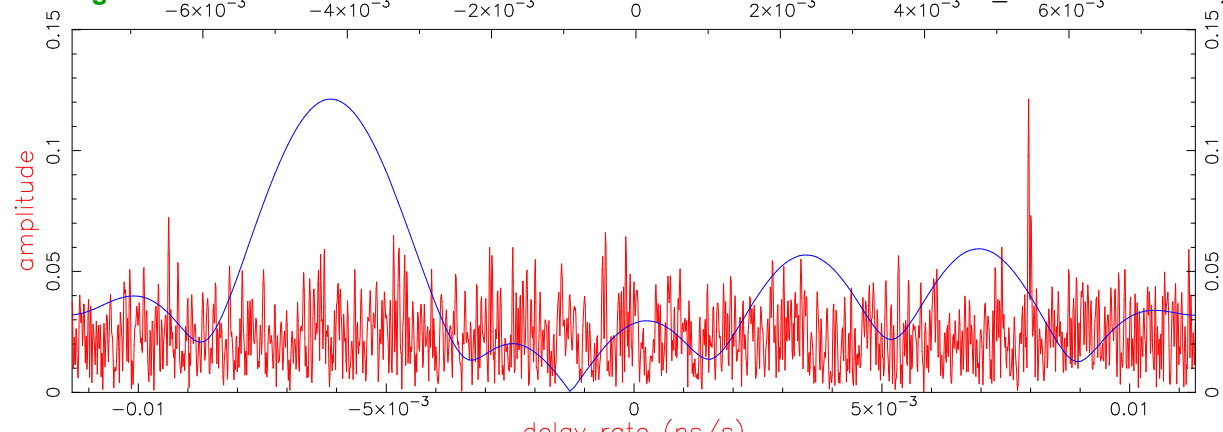
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

BLLAC.1W5ADF, No0245, fZ

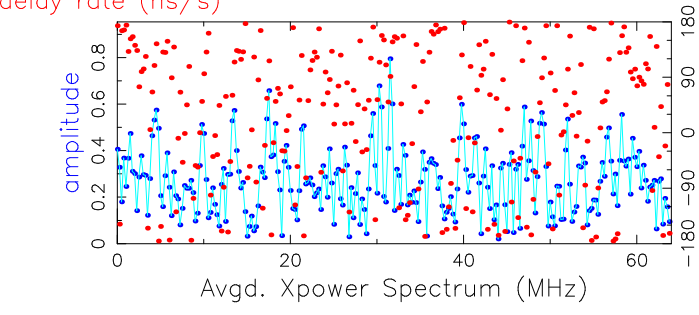
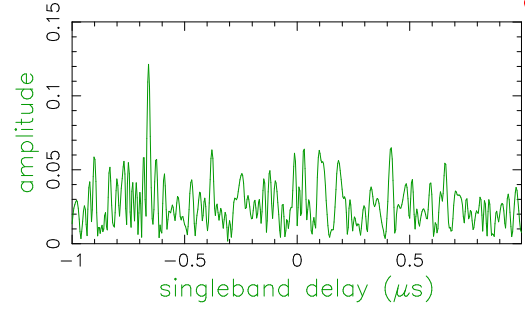
VLBA_FD - METSAHOV, fgroup W, pol RL

multiband delay (μ s)



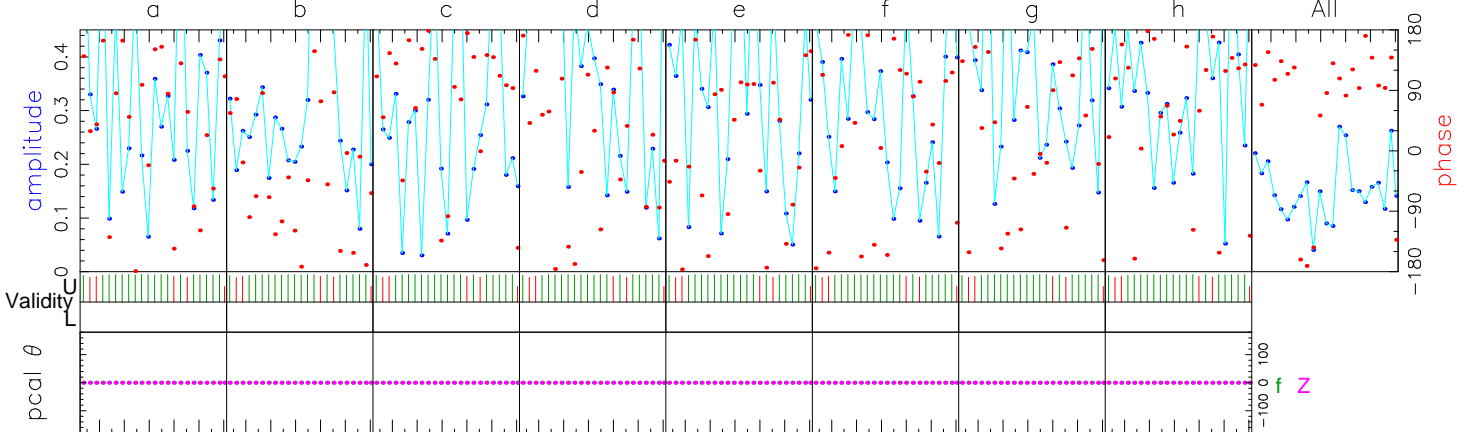
Fringe quality 0

SNR 6.1
 Int time 339.673
 Amp 0.150
 Phase 121.4
 PFD 2.2e-01
 Delays (us)
 SBD -0.660508
 MBD -0.004246
 Fringe rate (Hz)
 0.686417
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134513.31
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135443
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 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	672/0	672/0	672/0	672/0	673/0	673/0	672/0	672/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.10553962606E+04			1.10560567569E+04				Resid mbdelay (usec)	-4.24629E-03 +/- 1.8E-04
Sband delay (usec)		1.10553962494E+04			1.0945560E+01				Resid sbdelay (usec)	-6.60508E-01 +/- 1.4E-03
Phase delay (usec)		1.10560567608E+04			4.4000001E-08				Resid phdelay (usec)	3.91557E-06 +/- 6.0E-07
Delay rate (us/s)		7.80175312998E-01			7.80167344380E-01				Resid rate (us/s)	7.96862E-06 +/- 3.0E-09
Total phase (deg)			135.9		-8.59961917412E-05				Resid phase (deg)	121.4 +/- 18.7
ph/seg (deg)	RMS 43.6	Theor. 44.7	Amplitude 0.150 +/- 0.025	Search (2048X32) 0.117	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			sb window (us)	-1.000 1.000
amp/seg (%)	54.3	78.1	Interp. 0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled			mb window (us)	-0.008 0.008
ph/frq (deg)	49.8	26.5	Inc. seg. avg. 0.146		Bits/sample: 2x2	Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	48.2	46.2	Inc. frq. avg. 0.145		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			ion window (TEC)	0.00 0.00
f: az 43.1 el 72.6 pa -126.0		Z: az 310.2 el 26.5 pa 31.4		u,v (fr/asec) -6218.014 -8427.604						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fZ..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fZ.W.157.1W5ADF

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

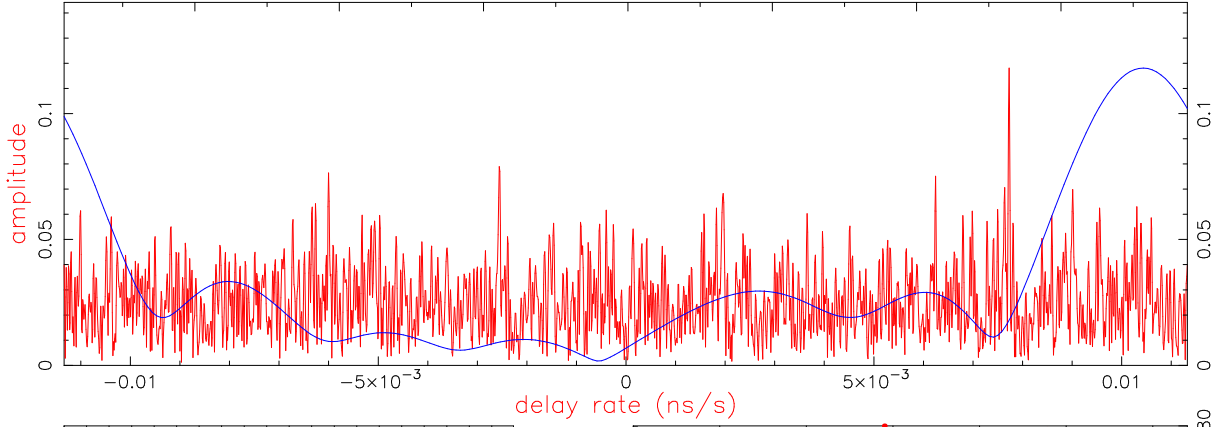
BLLAC.1W5ADF, No0245, fZ

VLBA_FD - METSAHOV, fgroup W, pol LL

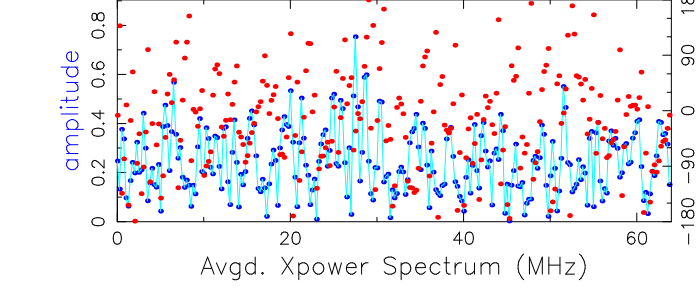
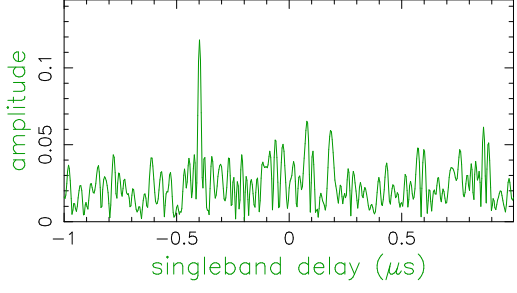
multiband delay (μ s)

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

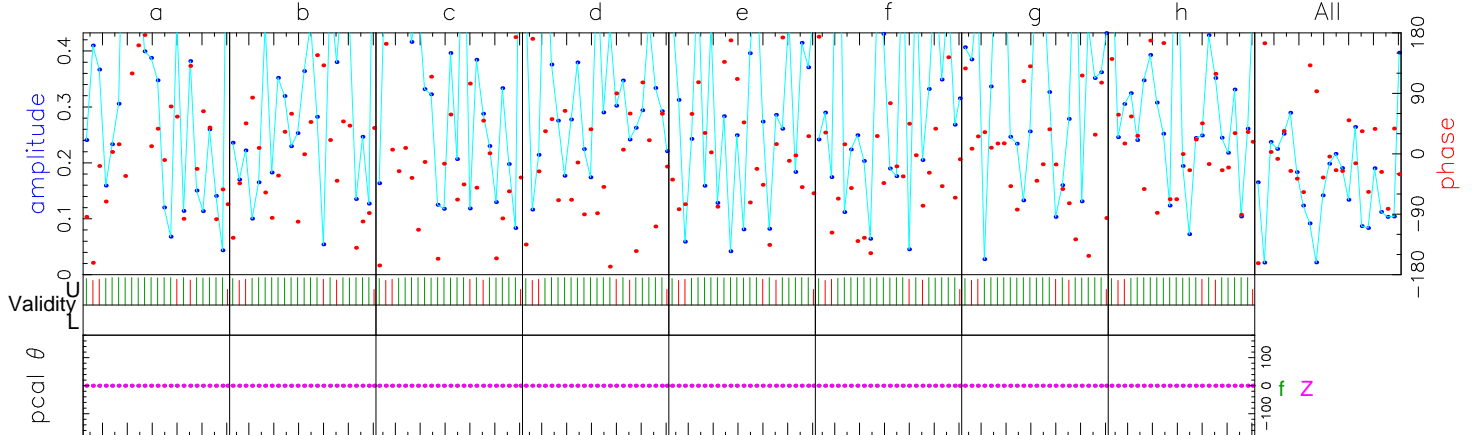
Fringe quality 0



SNR 6.0
 Int time 339.673
 Amp 0.144
 Phase -11.6
 PFD 4.9e-01
 Delays (us)
 SBD -0.398357
 MBD 0.007137
 Fringe rate (Hz) 0.666674
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c211a
 Exper # 16383
 Yr:day 2021:114
 Start 134513.31
 Stop 135059.94
 FRT 134800.00
 Corr/FF/build
 2021:286:102153
 2021:286:135431
 2021:252:122852
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979885"



Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 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	672/0	672/0	672/0	672/0	672/0	672/0	672/0	672/0				
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
f:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)		1.10556576444E+04				1.10560567569E+04			Resid mbdelay (usec)	7.13748E-03 +/- 1.8E-04		
Sband delay (usec)		1.10556583999E+04				1.0945560E+01			Resid sbdelay (usec)	-3.98357E-01 +/- 1.4E-03		
Phase delay (usec)		1.10560567565E+04				4.4000001E-08			Resid phdelay (usec)	-3.72725E-07 +/- 6.2E-07		
Delay rate (us/s)		7.80175083808E-01				7.80167344380E-01			Resid rate (us/s)	7.73943E-06 +/- 3.1E-09		
Total phase (deg)			2.9			-8.59961917412E-05			Resid phase (deg)	-11.6 +/- 19.3		
	RMS	Theor.	Amplitude	0.144 +/- 0.024					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	68.7	46.0	Search (2048X32)	0.117					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	78.8	80.3	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	16.7	27.2	Inc. seg. avg.	0.150					Sample rate(MSamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	27.1	47.5	Inc. frq. avg.	0.134					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

f: az 43.1 el 72.6 pa -126.0 Z: az 310.2 el 26.5 pa 31.4 u,v (fr/asec) -6218.014 -8427.604 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c211a/v2/1234/No0245/fz..1W5ADF Output file: /Exps/c211a/v2/1234/No0245/fZ.W.98.1W5ADF